
MATCH LINE TO SHEET 2
GEORGETOWN TWP
COTTON WOOD DR
ELMWOOD
TALLMADGE TWP GEORGETOWN TWP CORP. LIMIT
WELLER AIRFIELD
VILLAGE LANE
CARRIAGE LANE
BALDWIN STREET
PARKING
I-196
CORPORATE LIMITS
RM9
RM10
RM11
RM12
ALLENDALE TWP
TALLMADGE TWP
SHT 1
SHT 2
SHT 3
GEORGETOWN TWP
INDEX TO SHEETS
SCALE IN FEET
0' 400' 800'
CONT INT. 4'
ELEVATION REFERENCE MARKS
THE GRAND RIVER
TALLMADGE TOWNSHIP
AND
GEORGETOWN TOWNSHIP
OTTAWA COUNTY, MICHIGAN
SHEET 3 of 3
FLOODWAY
RECEIVED
FEB 5 1981
WATER MANAGEMENT

FLOODWAY DATA, GRAND RIVER
PROFILE NO. 2

STATION	------- FLOODWAY ------- WIDTH FT	SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
100.000	2085.	18083.	3.2	598.0	597.9	0.1
101.000	2085.	18077.	3.2	598.0	597.9	0.1
102.000	2086.	18094.	3.2	598.0	597.9	0.1
103.000	2086.	18102.	3.2	598.0	597.9	0.1
104.000	2211.	35908.	1.6	598.6	598.5	0.1
105.000	1716.	26865.	2.2	598.7	598.6	0.1
CS-1 10000.000	2427.	20670.	2.8	599.0	598.9	0.1
CS-2 20000.000	2680.	33010.	1.8	599.6	599.5	0.1
CS-3 30000.000	2396.	30267.	1.9	599.9	599.8	0.1
A 131560.000	2717.	37674.	1.5	600.3	600.2	0.1
B 133900.000	2249.	25055.	2.3	600.4	600.3	0.1
C 135980.000	582.	12256.	4.7	600.7	600.6	0.1
D 135981.000	582.	12449.	4.7	601.1	601.0	0.1
E 136880.000	2127.	27428.	2.1	601.4	601.3	0.1
F 137480.000	2268.	27874.	2.1	601.5	601.4	0.1
G 139330.000	2055.	27738.	2.1	601.7	601.6	0.1
H 141080.000	2040.	33461.	1.7	601.9	601.8	0.1
I 144160.000	2530.	36737.	1.6	602.1	602.0	0.1
J 146240.000	1940.	26927.	2.2	602.2	602.1	0.1
K 149640.000	2300.	26139.	2.2	602.6	602.6	0.0
L 152270.000	2247.	28334.	2.0	602.8	602.8	0.0
M 154620.000	1810.	25635.	2.3	603.1	603.1	0.0
N 155970.000	1850.	23251.	2.1	603.3	603.3	0.0
O 157500.000	1830.	27953.	2.1	603.4	603.4	0.0
P 160100.000	3135.	43112.	1.3	603.5	603.5	0.0
Q 161800.000	4349.	46579.	1.2	603.7	603.7	0.0
R 163230.000	4650.	42440.	1.3	603.8	603.8	0.0
S 164580.000	4070.	44240.	1.3	603.9	603.9	0.0
T 166180.000	4320.	45851.	1.2	603.9	603.9	0.0
U 167860.000	3450.	29983.	1.9	604.0	604.0	0.0
V 169660.000	2620.	31438.	1.8	604.2	604.2	0.0
W 172160.000	2520.	29926.	1.9	604.4	604.4	0.0
X 173660.000	2300.	31102.	1.8	604.6	604.6	0.0
Y 175060.000	3450.	39790.	1.4	604.7	604.7	0.0
Z 177200.000	2295.	33362.	1.7	604.8	604.8	0.0
AA 0.500	2050.	31810.	1.8	604.9	604.9	0.0
BB 1.000	550.	12411.	4.5	605.2	605.2	0.0
1.100	550.	11619.	4.8	605.2	605.2	0.0
1.200	550.	11627.	4.8	605.2	605.2	0.0
1.300	550.	12449.	4.5	605.3	605.3	0.0

ALLENDALE FRS
A B C D E F G

TALLMADGE
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

GEORGETOWN
A B C D E F G H I J K L M N O P Q R

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 HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
 ERROR CORR -  01,02,03
 MODIFICATION -  50,51,52,53
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(1) 100-year flood

Downstream reach in Allendale is an approximate study.

C
T1 GRAND RIVER, PROJECT NOS. 8548, 8549, 8567,NEWGRAN
T2 GRAND RIVER
T3 GRAND RIVER

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	4.	0.	0.	0.0	0.0	0.0	0.	597.900	0.0

at Eastmanville Gage.

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.0	-1.000	0.0	0.0	0.0	0.0	0.0	0.0	15.000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

110.000	200.000	150.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NC	0.060	0.060	0.030 ✓	0.100	0.300	0.0	0.0	0.0	0.0	0.0
QT	8.000	34700.000	50520.000 ✓	57920.000 ✓	77950.000	44700.000	57920.000	10800.000	57200.000	0.0
X1	100.000	45.000	1200.000	1760.000	0.0	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	590.000	603.000	0.0
GR	600.000	-600.000	590.000	750.000	590.000	880.000	595.000	950.000	596.000	1000.000
GR	599.500	1100.000	601.500	1200.000	595.000	1200.000	595.000	1210.000	579.000	1240.000
GR	574.000	1279.000	599.000	1279.000	599.000	1283.000	574.000	1283.000	573.500	1359.000
GR	600.000	1359.000	600.000	1363.000	573.500	1363.000	573.000	1439.000	601.000	1439.000
GR	601.000	1443.000	573.000	1443.000	573.000	1475.000	572.000	1519.000	601.000	1519.000
GR	601.000	1523.000	572.000	1523.000	571.000	1599.000	601.000	1599.000	601.000	1603.000
GR	570.500	1603.000	570.100	1670.000	571.000	1682.000	601.000	1682.000	601.000	1686.000
GR	571.500	1686.000	572.000	1690.000	574.000	1700.000	577.000	1715.000	598.000	1755.000
GR	599.000	1760.000	605.000	1760.000	604.000	1800.000	603.000	1900.000	604.000	2000.000

68Th Bridge Section neglect overflow stand and major weir which is below 597 South of overflow

New Road Grade appears to have been rais

Imp Section not at USGS datum

X1	101.000	0.0	0.0	0.0	1.000	1.000	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	590.000	603.000	0.0
BT	16.000	1200.000	601.500	601.500	1200.000	601.500	597.500	1279.000	603.000	599.000
BT	1283.000	603.000	599.000	1359.000	604.000	600.000	1363.000	604.000	600.000	1439.000
BT	605.000	601.000	1443.000	605.000	601.000	1519.000	605.000	601.000	1523.000	605.000
BT	601.000	1599.000	605.000	601.000	1603.000	605.000	601.000	1682.000	605.000	601.000
BT	1686.000	605.000	601.000	1760.000	605.000	601.000	1760.000	605.000	605.000	0.0
X1	102.000	0.0	0.0	0.0	37.000	37.000	37.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	0.0	0.0	0.0	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	590.000	603.000	0.0
X1	103.000	0.0	0.0	0.0	1.000	1.000	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	590.000	603.000	0.0
X1	104.000	13.000	1420.000	2000.000	4200.000	4900.000	4600.000	0.0	0.0	0.0
GR	600.000	0.0	590.000	120.000	578.500	1420.000	574.000	1458.000	573.000	1648.000
GR	573.000	1696.000	571.000	1840.000	571.000	1900.000	571.000	1936.000	572.000	1960.000
GR	578.000	2000.000	590.000	2100.000	600.000	2250.000	0.0	0.0	0.0	0.0

X1	105.000	13.000	400.000	880.000	3000.000	2900.000	3000.000	0.0	0.0	0.0
GR	600.000	0.0	590.000	230.000	578.500	400.000	574.000	432.000	573.000	590.000
GR	573.000	630.000	571.000	750.000	571.000	800.000	571.000	830.000	572.000	850.000
GR	578.000	880.000	590.000	1600.000	600.000	1770.000	0.0	0.0	0.0	0.0
NC	0.070	0.070	0.030	0.100	0.300	0.0	0.0	0.0	0.0	0.0

SECTION CS-2 TO SECTION CS-3 FROM

FLOOD PLAIN INFORMATION, GRAND RIVER, OTTAWA COUNTY,

CORPS OF ENGINEERS, DETROIT DISTRICT, 1974

SECTION CS-1

X1	10000.000	30.000	1002.100	1350.600	4800.000	4000.000	4600.000	0.0	0.0	0.0
X2	0.0	594.090	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	600.000	360.000	584.300	854.300	584.800	889.100	583.100	942.500	585.800	980.900
GR	586.300	1002.100	580.100	1010.600	576.600	1020.200	571.700	1030.200	575.100	1050.900
GR	575.500	1060.900	575.200	1070.600	575.400	1081.100	576.400	1091.500	576.700	1111.100
GR	572.300	1120.800	572.400	1160.800	572.200	1170.900	572.600	1190.600	572.800	1210.500
GR	572.600	1231.000	572.900	1240.800	572.600	1251.000	573.100	1280.600	573.000	1290.800
GR	579.200	1311.400	584.100	1318.700	590.900	1350.600	589.500	1365.500	600.100	3000.000

SECTION CS-2

X1	20000.000	43.000	1971.000	2470.900	3000.000	3250.000	3250.000	0.0	0.0	0.0
X2	0.0	594.400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	600.000	300.000	590.000	500.000	584.100	1831.000	586.600	1868.400	587.100	1924.300
GR	591.500	1948.400	590.600	1971.000	583.800	2001.800	580.500	2009.900	576.300	2029.900
GR	576.600	2040.200	575.000	2050.100	576.900	2059.800	576.500	2090.400	576.000	2099.900
GR	576.400	2150.300	573.500	2181.000	578.300	2200.600	576.600	2240.800	576.000	2250.800
GR	575.600	2261.500	576.100	2271.100	576.100	2291.000	575.400	2300.500	575.500	2320.000
GR	576.000	2330.100	575.900	2339.700	574.800	2360.300	574.900	2370.000	576.000	2389.300
GR	576.000	2409.800	576.400	2419.700	578.900	2429.600	580.800	2439.400	584.100	2443.700
GR	590.000	2452.300	591.700	2470.900	589.900	2499.800	589.600	2510.600	590.600	2547.700
GR	600.200	2599.300	588.900	2699.900	600.000	3000.000	0.0	0.0	0.0	0.0
NC	0.070	0.070	0.030	0.100	0.300	0.0	0.0	0.0	0.0	0.0

SECTION CS-3

X1	30000.000	54.000	1002.700	1501.100	3500.000	4250.000	4500.000	0.0	0.0	0.0
X2	0.0	595.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	0.0	0.0	2500.000	0.0	0.0	0.0	0.0
X4	4.000	592.100	727.300	590.000	600.000	590.000	2430.000	585.400	1759.600	0.0
GR	600.000	100.000	587.100	751.700	585.400	781.000	587.100	807.700	587.300	909.400
GR	589.500	978.200	584.000	1002.700	578.100	1011.300	576.700	1020.000	576.200	1030.300
GR	577.300	1041.000	580.400	1050.600	582.600	1060.900	583.500	1071.900	583.400	1081.000
GR	582.600	1090.900	573.900	1100.500	577.600	1111.000	576.500	1121.000	577.700	1140.200
GR	577.300	1151.000	577.200	1180.400	577.800	1190.500	577.500	1211.900	577.200	1220.800
GR	577.100	1240.900	576.300	1261.200	575.900	1271.100	576.300	1281.200	575.300	1310.900
GR	575.600	1321.300	576.600	1321.300	575.000	1340.800	575.600	1359.200	575.600	1421.000
GR	575.200	1430.800	575.100	1440.800	575.800	1451.100	578.600	1460.500	577.800	1481.100
GR	582.100	1491.300	584.100	1501.100	585.500	1513.000	591.000	1528.800	590.400	1562.000
GR	583.800	1569.000	587.400	1599.400	588.200	1612.600	586.500	1626.000	585.700	1677.400
GR	585.000	1698.800	585.300	1726.000	586.000	1734.300	600.000	2950.000	0.0	0.0
NC	0.070	0.070	0.030	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECTION A

X1	131560.000	44.000	2155.000	2471.000	4750.000	4500.000	4600.000	0.0	0.0	0.0
X2	0.0	595.430	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	0.0	0.0	3500.000	0.0	0.0	0.0	0.0
GR	609.200	700.000	599.500	790.000	590.500	895.000	584.800	997.000	583.900	1081.000
GR	584.000	1331.000	583.400	1621.000	585.100	1741.000	588.900	1831.000	588.500	2004.000

X1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
X2	0.0	595.430	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	0.0	0.0	3500.000	0.0	0.0	0.0	0.0
GR	609.200	700.000	599.500	790.000	590.500	895.000	584.800	997.000	583.900	1081.000
GR	584.000	1331.000	583.400	1621.000	585.100	1741.000	588.900	1831.000	588.500	2004.000
GR	593.500	2064.000	590.400	2089.000	582.100 LT.	2155.000	574.800	2171.000	574.600	2192.000
GR	573.800	2216.000	574.200	2242.000	573.300	2266.000	573.100	2294.000	572.900	2315.000
GR	571.800	2336.000	571.700	2361.000	575.000	2401.000	579.500	2437.000	580.500	2456.000
GR	581.800 RT	2471.000	586.700	2513.000	584.300	2524.000	586.700	2549.000	589.900	2573.000
GR	587.200	2693.000	588.500	2730.000	586.300	2781.000	587.900	2901.000	588.700	3201.000
GR	595.900	3310.000	595.300	3337.000	598.100	3367.000	598.300	3427.000	595.100	3457.000
GR	596.900	3517.000	596.000	3557.000	599.500	3586.000	610.000	5786.000	0.0	0.0
NC	0.056	0.030	0.032	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECTION B

1

X1	133900.000	51.000	1760.000	2230.000	1340.000	1340.000	1340.000	0.0	0.0	0.0
X2	0.0	595.610	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	1020.000	0.0	3350.000	0.0	0.0	0.0	0.0
GR	615.000	0.0	601.900	145.000	605.200	175.000	601.100	340.000	602.500	370.000
GR	601.800	390.000	602.100	750.000	603.000	1090.000	588.900	1150.000	590.000	1505.000
GR	592.900	1625.000	596.600	1720.000	589.500	1740.000	586.400 LT	1760.000	580.200	1771.000
GR	579.200	1780.000	576.000	1785.000	575.300	1815.000	575.300	1842.000	575.400	1863.000
GR	575.800	1891.000	575.900	1902.000	577.700	1940.000	579.100	1968.000	578.900	2017.000
GR	579.000	2056.000	579.200	2080.000	579.400	2110.000	579.500	2138.000	579.300	2171.000
GR	579.000	2200.000	579.300	2216.000	581.700	2224.000	586.400 RT	2230.000	589.200	2295.000
GR	587.200	2330.000	589.100	2360.000	586.400	2515.000	586.400	2560.000	588.000	2665.000
GR	593.600	2700.000	596.600	2755.000	595.000	2825.000	597.700	3225.000	595.300	3230.000
GR	597.800	3255.000	597.800	3270.000	596.500	3280.000	597.800	3295.000	601.200	4435.000
GR	604.300	4550.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.040	0.075	0.030	0.300	0.500	0.0	0.0	0.0	0.0	0.0

SECTION C M-45 BRIDGE, WIDTH 31 FT, LENGTH 584 FT

2

X1	135980.000	24.000	910.000	1492.000	3020.000	3040.000	3000.000	0.0	0.0	0.0
X2	0.0	596.020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	604.700	800.000	604.700	910.000	582.000	910.000	589.100	925.800	581.300	950.200
GR	577.200	964.500	577.400	998.300	577.400	1005.200	576.000	1031.600	576.400	1060.500
GR	577.100	1087.400	579.300	1127.000	580.200	1209.400	580.000	1216.600	579.900	1261.100
GR	579.600	1303.300	579.400	1310.200	579.000	1352.600	577.900	1397.200	577.900	1405.000
GR	580.800	1449.000	590.400	1492.000	604.700	1492.000	604.700	1600.000	0.0	0.0
SB	1.050	1.500	3.000	0.0	504.000	63.900	10820.000	1.980	577.200	577.200

SECTION D M-45 BRIDGE

3

X1	135981.000	0.0	0.0	0.0	31.000	31.000	31.000	0.0	0.0	0.0
X2	0.0	596.070	1.000	600.240	604.740	0.0	0.0	0.0	0.0	0.0
BT	2.000	800.000	604.740	0.0	1600.000	604.740	0.0	0.0	0.0	0.0
NC	0.060	0.035	0.035	0.0	0.0	0.0	0.0	0.0	0.0	0.0

why no BT Card, road appears to elev 4 to 5 ft ≈ 596

SECTION E USING SURVEYED SECTION F

X1	136880.000	45.000	575.000	1080.000	630.000	720.000	600.000	0.0	0.0	0.0
X2	0.0	596.150	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	50.000	0.0	2200.000	0.0	0.0	0.0	0.0
GR	615.000	0.0	591.600	125.000	587.400	405.000	592.600	540.000	592.300	560.000
GR	586.400	575.000	578.700	590.000	578.100	603.000	578.200	627.000	577.900	649.000
GR	578.300	673.000	578.100	692.000	578.200	712.000	577.900	730.000	577.900	737.000
GR	579.200	744.000	581.900	750.000	586.400	756.000	589.200	765.000	587.100	825.000
GR	586.400	845.000	580.300	852.000	578.700	858.000	576.400	879.000	576.200	892.000
GR	574.200	933.000	574.100	960.000	573.700	1005.000	575.800	1047.000	578.100	1063.000
GR	579.500	1058.000	581.800	1073.000	586.400	1080.000	591.600	1095.000	586.800	1270.000
GR	587.500	1490.000	589.400	1595.000	587.400	1610.000	596.800	1805.000	594.000	1955.000

GR	597.400	2045.000	601.900	2455.000	602.100	2755.000	603.800	2765.000	605.200	2790.000
NC	0.0	0.0	0.0	0.100	0.300	0.0	0.0	0.0	0.0	0.0
NH	4.000	0.085	575.000	0.032	1270.000	0.085	1605.000	0.040	2790.000	0.0

SECTION F

X1	137480.000	0.0	0.0	0.0	820.000	820.000	810.000	0.0	0.0	0.0
X2	0.0	596.260	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	50.000	0.0	2340.000	0.0	0.0	0.0	0.0
NC	0.110	0.110	0.034	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	4.000	0.100	250.000	0.034	740.000	0.090	1830.000	0.040	2585.000	0.0

SECTION G CHANNEL - MANUFACTURED FROM SECTION H

X1	139330.000	49.000	250.000	740.000	2120.000	2080.000	2110.000	0.0	0.0	0.0
X2	0.0	596.540	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	10.000	0.0	2100.000	0.0	0.0	0.0	0.0
GR	615.000	0.0	588.200	90.000	588.200	135.000	594.400	225.000	586.900	250.000
GR	580.900	260.000	577.700	257.000	576.000	276.000	575.800	298.000	574.600	317.000
GR	574.300	329.000	573.800	351.000	573.700	380.000	573.800	407.000	575.600	434.000
GR	576.000	463.000	574.800	490.000	575.100	525.000	575.900	554.000	579.600	567.000
GR	579.200	579.000	573.800	585.000	579.400	598.000	578.300	613.000	580.900	619.000
GR	586.900	630.000	583.500	660.000	586.900	705.000	586.900	740.000	592.600	765.000
GR	587.500	810.000	585.200	875.000	588.200	955.000	586.100	980.000	588.700	1010.000
GR	587.200	1055.000	583.800	1225.000	586.300	1240.000	586.300	1265.000	586.400	1410.000
GR	588.400	1530.000	600.100	1680.000	601.100	1725.000	593.400	1830.000	599.700	2170.000
GR	595.700	2300.000	596.700	2360.000	603.300	2425.000	612.000	2585.000	0.0	0.0
NH	4.000	0.100	90.000	0.030	475.000	0.085	1710.000	0.050	3170.000	0.0
ET	0.0	0.0	0.0	0.0	0.0	0.0	9.100	0.0	90.000	3000.000

SECTION H

X1	141060.000	46.000	90.000	475.000	1660.000	1580.000	1650.000	0.0	0.0	0.0
X2	0.0	596.760	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	40.000	0.0	2080.000	0.0	0.0	0.0	0.0
GR	615.000	0.0	598.000	50.000	586.200	90.000	580.900	95.000	577.700	102.000
GR	576.000	111.000	575.800	134.000	574.600	153.000	574.300	166.000	573.800	189.000
GR	573.700	219.000	573.800	247.000	575.600	275.000	576.000	305.000	574.800	333.000
GR	575.100	369.000	575.900	399.000	579.600	413.000	579.200	426.000	578.800	432.000
GR	579.400	446.000	578.300	462.000	580.900	468.000	590.500	475.000	591.400	500.000
GR	595.400	515.000	587.000	570.000	585.200	640.000	585.200	1475.000	586.500	1510.000
GR	587.000	1590.000	583.400	1710.000	586.800	1725.000	593.800	1810.000	594.400	1845.000
GR	590.500	1915.000	590.500	1965.000	594.300	2060.000	603.800	2130.000	606.400	2195.000
GR	612.800	2250.000	602.500	2280.000	595.700	2365.000	596.200	3000.000	594.100	3120.000
GR	614.300	3170.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.200	0.400	0.0	0.0	0.0	0.0	0.0
NH	4.000	0.100	655.000	0.030	1140.000	0.085	2820.000	0.050	4475.000	0.0

SECTION I

X1	144160.000	49.000	655.000	1140.000	3380.000	2640.000	3220.000	0.0	0.0	0.0
X2	0.0	597.190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	340.000	0.0	2370.000	0.0	0.0	0.0	0.0
GR	615.000	0.0	599.400	65.000	596.600	120.000	598.100	215.000	590.100	485.000
GR	592.500	535.000	593.000	590.000	591.000	645.000	587.800	655.000	582.500	660.000
GR	580.700	663.000	579.100	668.000	579.100	674.000	578.100	700.000	578.600	760.000
GR	579.000	833.000	579.000	894.000	578.700	940.000	579.000	991.000	578.800	1022.000
GR	579.400	1056.000	573.800	1083.000	581.900	1099.000	580.100	1113.000	579.200	1121.000
GR	579.200	1130.000	582.400	1136.000	587.800	1140.000	594.800	1165.000	591.000	1200.000
GR	597.900	1240.000	599.800	1275.000	590.300	1405.000	587.300	1545.000	588.500	2820.000
GR	596.200	2880.000	587.300	2895.000	587.300	3430.000	591.200	3445.000	592.800	3535.000
GR	616.700	3590.000	593.200	3760.000	594.500	3940.000	591.600	3860.000	592.700	4005.000

GR	587.800	4210.000	587.300	4220.000	587.300	4420.000	608.400	4475.000	0.0	0.0
NC	0.080	0.100	0.030	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECTION J CHANNEL - MANUFACTURED FROM SECTION J

X1	146240.000	35.000	415.000	790.000	2000.000	1750.000	1925.000	0.0	0.0	0.0
X2	0.0	597.450	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	240.000	0.0	2180.000	0.0	0.0	0.0	0.0
GR	615.000	0.0	607.400	50.000	599.000	205.000	591.100	300.000	588.500	405.000
GR	587.200	415.000	582.500	420.000	580.700	422.000	579.100	426.000	579.100	430.000
GR	578.100	449.000	578.600	494.000	579.000	548.000	579.000	593.000	578.700	627.000
GR	579.000	665.000	578.800	688.000	579.400	713.000	578.800	733.000	581.900	745.000
GR	580.100	755.000	579.200	761.000	579.700	768.000	582.400	773.000	587.200	790.000
GR	594.800	830.000	595.700	880.000	589.700	1015.000	585.800	1045.000	585.300	1395.000
GR	586.900	1830.000	598.400	1910.000	601.400	1975.000	601.600	3920.000	603.100	3935.000
NC	0.050	0.050	0.030	0.100	0.300	0.0	0.0	0.0	0.0	0.0

SECTION K

X1	149640.000	52.000	3250.000	3690.000	3850.000	3330.000	3635.000	0.0	0.0	0.0
X2	0.0	597.760	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	2100.000	0.0	4400.000	0.0	0.0	0.0	0.0
GR	613.200	200.000	611.000	215.000	612.300	245.000	604.400	930.000	605.200	990.000
GR	602.800	1055.000	602.300	1180.000	610.500	1220.000	602.000	1325.000	602.000	1840.000
GR	607.700	1900.000	603.900	1945.000	606.700	2000.000	596.800	2230.000	594.500	2570.000
GR	596.700	2685.000	596.400	2885.000	586.400	2950.000	587.800	3025.000	586.300	3115.000
GR	591.500	3160.000	592.300	3185.000	586.200	3250.000	582.300	3266.000	581.000	3270.000
GR	578.900	3275.000	573.600	3281.000	578.900	3292.000	579.100	3313.000	578.400	3331.000
GR	579.000	3353.000	578.800	3370.000	579.100	3394.000	579.200	3426.000	579.400	3461.000
GR	579.500	3488.000	578.300	3505.000	578.200	3535.000	578.100	3568.000	577.800	3580.000
GR	577.400	3601.000	577.200	3620.000	576.600	3638.000	577.800	3659.000	580.800	3674.000
GR	583.500	3682.000	586.200	3690.000	590.500	3720.000	594.300	4185.000	601.300	4305.000
GR	606.100	5560.000	605.400	5695.000	0.0	0.0	0.0	0.0	0.0	0.0
NH	5.000	0.060	1875.000	0.070	2940.000	0.032	3335.000	0.100	3955.000	0.054
NH	4300.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECTION L CHANNEL - MANUFACTURED FROM SECTION K

X1	152270.000	38.000	2940.000	3335.000	2760.000	2560.000	2630.000	0.0	0.0	0.0
X2	0.0	598.300	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	1000.000	0.0	4200.000	0.0	0.0	0.0	0.0
GR	611.500	0.0	608.500	1635.000	606.800	1875.000	599.700	2015.000	598.800	2345.000
GR	588.900	2745.000	589.800	2855.000	594.200	2915.000	586.200	2940.000	582.300	2945.000
GR	581.000	2949.000	578.900	2954.000	578.600	2960.000	578.900	2970.000	579.100	2990.000
GR	578.400	3007.000	579.000	3027.000	578.800	3043.000	579.100	3065.000	579.200	3094.000
GR	579.400	3126.000	579.500	3150.000	578.300	3165.000	578.200	3193.000	578.100	3223.000
GR	577.800	3233.000	577.400	3253.000	577.200	3281.000	576.600	3297.000	577.800	3317.000
GR	580.800	3330.000	586.200	3335.000	590.100	3435.000	586.000	3640.000	586.000	3915.000
GR	589.700	3955.000	600.400	4165.000	609.400	4300.000	0.0	0.0	0.0	0.0
NH	4.000	0.055	540.000	0.034	1050.000	0.100	2015.000	0.055	2255.000	0.0
ET	0.0	0.0	0.0	0.0	0.0	0.0	9.100	0.0	190.000	2000.000

SECTION M

X1	154620.000	41.000	540.000	1050.000	2320.000	2280.000	2310.000	0.0	0.0	0.0
X2	0.0	598.780	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	615.000	0.0	596.700	270.000	597.300	440.000	587.900 LT	540.000	583.200	550.000
GR	579.900	558.000	576.500	577.000	570.200	614.000	572.500	635.000	575.700	654.000
GR	577.400	691.000	578.500	711.000	579.900	726.000	580.900	738.000	583.200	749.000
GR	587.900	755.000	588.700	835.000	593.300	895.000	587.900	910.000	583.200	928.000
GR	580.500	936.000	577.900	953.000	576.900	958.000	575.500	976.000	575.400	980.000
GR	575.900	1003.000	575.700	1011.000	577.500	1024.000	578.500	1029.000	583.200	1035.000

GR	587.900	1050.000	593.900	1100.000	590.800	1155.000	592.000	1225.000	586.000	1440.000
GR	585.000	1635.000	597.400	1940.000	600.000	2015.000	604.000	2090.000	608.000	2180.000
GR	615.000	2255.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	4.000	0.050	1260.000	0.075	1895.000	0.033	2395.000	0.055	3490.000	0.0

SECTION N CHANNEL - MANUFACTURED FROM SECTION M

X1	155970.000	57.000	1895.000	2395.000	1530.000	1400.000	1500.000	0.0	0.0	0.0
X2	0.0	599.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	1350.000	0.0	3200.000	0.0	0.0	0.0	0.0
GR	615.000	0.0	598.000	25.000	598.000	75.000	604.400	90.000	605.100	125.000
GR	594.900	135.000	595.100	360.000	593.000	400.000	593.200	450.000	596.900	500.000
GR	592.700	550.000	594.200	600.000	591.900	655.000	595.300	710.000	592.000	765.000
GR	598.600	810.000	595.500	920.000	601.600	935.000	602.100	1130.000	591.900	1190.000
GR	591.800	1230.000	589.300	1260.000	589.300	1390.000	593.200	1400.000	592.900	1460.000
GR	590.600	1480.000	590.600	1605.000	591.700	1650.000	590.800	1730.000	590.800	1760.000
GR	593.500	1810.000	592.600	1870.000	587.900	1895.000	584.200	1900.000	580.000	1910.000
GR	574.600	1930.000	597.000	1942.000	584.000	1950.000	587.900	1960.000	590.900	2015.000
GR	587.900	2035.000	577.200	2068.000	575.900	2090.000	575.200	2120.000	575.000	2250.000
GR	575.000	2350.000	576.000	2370.000	577.500	2384.000	578.500	2390.000	587.900	2395.000
GR	593.900	2420.000	587.200	2490.000	586.900	2690.000	589.500	2785.000	590.500	2985.000
GR	596.800	3045.000	610.300	3490.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.075	0.075	0.030	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECTION O

X1	157500.000	41.000	2450.000	2860.000	1260.000	1370.000	1350.000	0.0	0.0	0.0
X2	0.0	599.190	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	1310.000	0.0	3140.000	0.0	0.0	0.0	0.0
GR	614.300	20.000	597.000	45.000	597.100	90.000	602.900	100.000	594.800	125.000
GR	594.900	275.000	607.900	320.000	604.000	380.000	598.800	390.000	598.900	415.000
GR	604.700	440.000	606.000	500.000	602.800	1240.000	595.100	1690.000	590.200	1755.000
GR	590.200	2315.000	593.300	2375.000	592.800	2420.000	587.900	2450.000	574.100	2462.000
GR	571.800	2471.000	570.100	2502.000	570.000	2531.000	571.000	2563.000	570.800	2596.000
GR	570.200	2617.000	569.900	2641.000	569.300	2691.000	569.300	2714.000	569.500	2747.000
GR	571.600	2791.000	570.300	2809.000	569.300	2834.000	574.100	2849.000	587.900	2860.000
GR	589.800	2920.000	589.800	2990.000	593.900	3060.000	600.800	3120.000	606.700	3230.000
GR	615.000	3310.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.090	0.090	0.032	0.200	0.400	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	0.0	9.100	0.0	1400.000	4535.000

SECTION P CHANNEL - MANUFACTURED FROM SECTION O

X1	160100.000	41.000	4175.000	4535.000	1660.000	2150.000	2110.000	0.0	0.0	0.0
X2	0.0	599.500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	612.600	920.000	591.300	1830.000	593.800	2120.000	589.500	2320.000	597.500	2380.000
GR	599.000	2495.000	594.400	2735.000	589.500	2770.000	589.000	2840.000	589.000	3230.000
GR	589.300	3295.000	593.800	3405.000	588.700	3670.000	588.700	3830.000	593.000	3935.000
GR	592.100	3975.000	593.400	4035.000	589.800	4075.000	594.500	4145.000	587.800	4175.000
GR	574.100	4180.000	571.800	4188.000	570.100	4216.000	570.000	4242.000	571.000	4271.000
GR	570.800	4301.000	570.200	4320.000	569.900	4342.000	569.300	4387.000	569.300	4408.000
GR	569.500	4438.000	571.600	4478.000	570.300	4494.000	569.800	4517.000	574.100	4531.000
GR	587.800	4535.000	589.700	4545.000	592.000	4595.000	596.500	4635.000	605.900	4650.000
GR	615.000	4680.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.070	0.035	0.035	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	0.0	9.100	0.0	1820.000	6070.000

SECTION Q

X1	161800.000	62.000	5555.000	5915.000	1600.000	2530.000	2420.000	0.0	0.0	0.0
X2	0.0	599.850	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	0.0	0.0	6070.000	0.0	0.0	0.0	0.0
GR	613.600	1230.000	603.700	1590.000	591.500	2045.000	593.900	2120.000	592.100	2550.000
GR	598.500	2595.000	603.500	2750.000	601.900	2860.000	595.400	2935.000	598.700	3010.000
GR	599.500	3190.000	594.700	3350.000	595.000	3405.000	602.900	3505.000	603.300	[illegible]

X3	0.0	0.0	0.0	0.0	0.0	6070.000	0.0	0.0	0.0	0.0
GR	613.500	1200.000	603.700	1590.000	591.300	2045.000	593.900	2120.000	592.100	2550.000
GR	598.500	2595.000	603.500	2750.000	601.500	2860.000	595.400	2935.000	598.700	3010.000
GR	599.500	3190.000	594.700	3350.000	595.000	3405.000	602.900	3505.000	603.300	3630.000
GR	591.700	3735.000	591.100	3930.000	593.400	4010.000	589.700	4070.000	589.700	4570.000
GR	590.600	4610.000	590.700	4685.000	592.600	4745.000	590.000	4905.000	590.000	4935.000
GR	593.000	5000.000	594.800	5285.000	591.900	5330.000	593.200	5385.000	596.200	5415.000
GR	587.800	5460.000	[illegible]	5480.000	587.800	5495.000	590.500	5530.000	587.800	5555.000
GR	583.900	5567.000	583.400	5574.000	577.700	5581.000	576.300	5586.000	574.500	5597.000
GR	576.000	5611.000	576.400	5633.000	578.000	5662.000	581.500	5688.000	582.800	5696.000
GR	581.600	5709.000	579.600	5717.000	576.300	5742.000	576.900	5762.000	575.900	5782.000
GR	574.800	5812.000	574.400	5837.000	572.500	5852.000	574.700	5859.000	577.400	5875.000
GR	578.000	5895.000	583.900	5904.000	587.300	5915.000	591.900	5935.000	590.700	5975.000
GR	608.700	6260.000	615.000	6280.000	0.0	0.0	0.0	0.0	0.0	0.0
QT	8.000	34200.000	49800.000	57000.000	76700.000	43700.000	57000.000	10190.000	56000.000	0.0
NC	0.0	0.0	0.0	0.100	0.300	0.0	0.0	0.0	0.0	0.0
NH	5.000	0.060	2243.000	0.050	4100.000	0.070	5220.000	0.032	5620.000	0.085
NH	[illegible]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECTION R CHANNEL - MANUFACTURED FROM SECTION S

X1	[illegible]	62.000	5220.000	5620.000	1200.000	1850.000	1730.000	0.0	0.0	0.0
X2	[illegible]	600.100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	[illegible]	0.0	0.0	1580.000	0.0	6230.000	0.0	0.0	0.0	0.0
GR	614.900	680.000	607.800	975.000	595.600	1040.000	593.400	1095.000	594.100	1150.000
GR	611.800	1175.000	612.700	1200.000	592.700	1230.000	592.700	1320.000	611.800	1370.000
GR	592.700	1420.000	592.700	1580.000	596.800	1590.000	592.500	1785.000	591.400	1830.000
GR	591.400	2140.000	601.600	2200.000	604.400	2245.000	601.200	2320.000	604.400	2495.000
GR	595.300	2885.000	596.600	2940.000	593.700	2950.000	593.500	2990.000	613.600	3040.000
GR	592.700	3060.000	600.400	3100.000	592.200	3150.000	593.300	3280.000	599.500	3315.000
GR	594.000	3345.000	607.800	3435.000	602.900	4100.000	593.900	4200.000	589.000	4240.000
GR	589.000	4975.000	593.000	5010.000	593.300	5040.000	585.700	5095.000	595.800	5175.000
GR	587.900	5220.000	585.100	5225.000	584.900	5235.000	579.300	5257.000	578.000	5289.000
GR	578.000	5294.000	573.300	5301.000	577.600	5389.000	578.000	5391.000	579.400	5426.000
GR	579.200	5474.000	579.700	5515.000	580.000	5552.000	582.000	5595.000	583.600	5604.000
GR	584.200	6230 5610.000	587.900	5620.000	593.700	5650.000	589.000	5705.000	590.400	5725.000
GR	611.700	6630.000	615.000	6555.000	0.0	0.0	0.0	0.0	0.0	0.0
NH	5.000	0.060	1865.000	0.040	3225.000	0.085	4620.000	0.030	4945.000	0.085
NH	5055.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECTION S

X1	164580.000	61.000	4520.000	4945.000	990.000	950.000	930.000	0.0	0.0	0.0
X2	0.0	600.230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	960.000	0.0	5030.000	0.0	0.0	0.0	0.0
GR	615.000	0.0	602.100	20.000	602.800	175.000	594.600	190.000	593.300	585.000
GR	606.100	625.000	593.400	655.000	593.400	915.000	599.600	935.000	596.700	975.000
GR	593.400	990.000	593.400	1100.000	595.000	1105.000	592.100	1430.000	595.500	1465.000
GR	595.500	1685.000	598.700	1765.000	595.500	1865.000	599.700	1915.000	601.600	2075.000
GR	605.100	2100.000	599.800	2120.000	600.900	2140.000	591.100	2165.000	591.100	2560.000
GR	593.500	2580.000	593.700	2740.000	590.500	2750.000	591.900	3045.000	600.600	3090.000
GR	602.200	3155.000	599.400	3225.000	589.500	3850.000	590.600	3890.000	589.200	3935.000
GR	592.500	4155.000	591.800	4275.000	591.000	4300.000	594.700	4360.000	596.600	4570.000
GR	587.400	4620.000	586.100	4625.000	584.900	4633.000	579.300	4651.000	578.000	4677.000
GR	578.000	4681.000	578.300	4687.000	577.600	4759.000	578.000	4761.000	579.400	4790.000
GR	579.200	4829.000	579.700	4863.000	580.000	4893.000	582.000	4928.000	583.600	4935.000
GR	584.200	4940.000	587.400	4945.000	591.900	4970.000	596.200	5005.000	602.700	5030.000
GR	615.000	5055.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NH	4.000	0.060	4190.000	0.085	5300.000	0.030	5690.000	0.085	5910.000	0.0

SECTION T CHANNEL - MANUFACTURED FROM SECTION S

X1	166180.000	69.000	5300.000	5690.000	760.000	2010.000	1830.000	0.0	0.0	0.0
X2	0.0	600.500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

X3	0.0	0.0	0.0	1540.000	0.0	5860.000	0.0	0.0	0.0	0.0
GR	605.800	1320.000	604.300	1470.000	604.700	1490.000	602.400	1525.000	596.600	1550.000
GR	599.000	1570.000	594.700	1580.000	596.100	1620.000	593.000	1780.000	600.500	1800.000
GR	592.600	1835.000	592.600	2125.000	597.100	2220.000	592.000	2240.000	592.000	2455.000
GR	593.500	2600.000	591.700	2580.000	594.500	2855.000	590.800	2870.000	594.000	2910.000
GR	592.900	2940.000	602.200	2960.000	600.500	3020.000	593.000	3075.000	593.800	3135.000
GR	596.400	3150.000	595.700	3195.000	604.100	3220.000	607.300	3280.000	611.200	3295.000
GR	604.600	3325.000	603.200	3505.000	597.300	3550.000	601.800	3635.000	601.200	3825.000
GR	595.600	4000.000	598.600	4030.000	599.000	4060.000	594.600	4190.000	589.600	4235.000
GR	589.400	4460.000	591.200	4505.000	589.000	4795.000	591.400	5070.000	596.800	5160.000
GR	590.900	5205.000	594.600	5260.000	587.000	5300.000	586.100	5305.000	584.900	5315.000
GR	579.300	5326.000	578.000	5357.000	578.000	5362.000	578.300	5369.000	577.600	5455.000
GR	578.000	5457.000	579.400	5481.000	579.200	5527.000	579.700	5567.000	580.000	5603.000
GR	582.000	5645.000	583.600	5653.000	584.200	5659.000	587.000	5690.000	589.000	5725.000
GR	591.500	5765.000	600.200	5845.000	606.200	5880.000	615.000	5910.000	0.0	0.0
NC	0.050	0.090	0.030	0.200	0.400	0.0	0.0	0.0	0.0	0.0

SECTION U

X1	167860.000	49.000	2830.000	3145.000	1850.000	2330.000	2210.000	0.0	0.0	0.0
X2	0.0	600.820	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	540.000	0.0	3750.000	0.0	0.0	0.0	0.0
X4	2.000	604.000	300.000	596.000	560.000	0.0	0.0	0.0	0.0	0.0
GR	610.000	0.0	600.000	550.000	591.700	750.000	599.600	765.000	597.200	780.000
GR	594.800	920.000	591.800	965.000	591.800	1085.000	594.600	1150.000	592.500	1265.000
GR	592.500	1435.000	595.000	1580.000	600.500	1630.000	597.200	1655.000	599.400	1670.000
GR	600.200	1720.000	597.300	1755.000	608.500	2415.000	601.600	2795.000	588.600	2830.000
GR	583.600	2850.000	582.500	2855.000	581.600	2861.000	579.600	2882.000	576.200	2926.000
GR	576.200	2959.000	576.500	2983.000	576.200	3006.000	576.200	3036.000	578.000	3050.000
GR	578.400	3073.000	579.200	3093.000	580.100	3109.000	580.400	3113.000	581.700	3117.000
GR	583.500	3125.000	588.600	3145.000	594.400	3175.000	593.800	3215.000	590.900	3270.000
GR	592.800	3300.000	588.300	3340.000	588.200	3360.000	588.200	3540.000	588.800	3635.000
GR	589.100	3710.000	607.900	3835.000	600.600	3900.000	615.000	3965.000	0.0	0.0
NC	0.044	0.075	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0

SECTION V CHANNEL - MANUFACTURED FROM SECTION U

X1	169660.000	40.000	1700.000	2210.000	1630.000	1090.000	1410.000	0.0	0.0	0.0
X2	0.0	601.030	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	510.000	0.0	3130.000	0.0	0.0	0.0	0.0
GR	611.800	55.000	603.200	90.000	607.100	340.000	600.300	665.000	596.100	755.000
GR	593.200	890.000	593.600	1075.000	594.300	1160.000	595.000	1565.000	596.600	1650.000
GR	588.600	1700.000	584.000	1730.000	579.200	1760.000	577.700	1770.000	576.200	1800.000
GR	576.000	1810.000	576.000	1860.000	576.800	1880.000	578.200	1900.000	588.800	1970.000
GR	593.000	1995.000	583.800	2055.000	583.200	2100.000	578.000	2150.000	577.800	2160.000
GR	578.500	2170.000	583.800	2210.000	596.700	2245.000	589.900	2305.000	588.400	2390.000
GR	588.400	2480.000	592.900	2505.000	595.600	2560.000	595.000	2615.000	589.900	2795.000
GR	589.900	2795.000	592.500	2890.000	603.700	3185.000	607.400	3210.000	611.700	3310.000
NC	0.055	0.075	0.032	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECTION W

X1	172160.000	47.000	925.000	1215.000	2880.000	2540.000	2730.000	0.0	0.0	0.0
X2	0.0	601.430	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	500.000	0.0	3020.000	0.0	0.0	0.0	0.0
GR	615.000	0.0	611.600	170.000	611.900	255.000	605.800	475.000	593.700	610.000
GR	589.200	700.000	583.800	740.000	594.600	860.000	593.500	900.000	588.000	925.000
GR	583.900	930.000	581.600	938.000	580.000	942.000	579.100	948.000	577.800	973.000
GR	576.800	998.000	577.300	1026.000	577.100	1073.000	576.900	1106.000	577.200	1133.000
GR	576.900	1158.000	577.400	1181.000	579.100	1192.000	580.300	1200.000	583.900	1209.000
GR	588.000	1215.000	591.400	1225.000	589.600	1245.000	589.700	1290.000	588.000	1330.000
GR	588.000	1365.000	595.100	1410.000	589.600	1455.000	595.200	1490.000	591.800	1560.000
GR	593.600	1590.000	583.500	1740.000	583.500	1955.000	600.100	2025.000	595.200	2040.000
GR	602.800	2130.000	595.100	2480.000	597.900	3075.000	600.500	3125.000	599.400	3190.000
GR	602.000	3370.000	607.300	3470.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.047	0.060	0.030	0.200	0.400	0.0	0.0	0.0	0.0	0.0

GR	588.000	1365.000	595.100	1410.000	589.600	1455.000	595.200	1490.000	591.800	1560.000
GR	593.600	1590.000	583.500	1740.000	598.500	1955.000	600.100	2025.000	595.200	2040.000
GR	602.800	2130.000	593.100	2480.000	597.900	3075.000	600.500	3125.000	599.400	3190.000
GR	602.000	3370.000	607.300	3470.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.047	0.060	0.030	0.200	0.400	0.0	0.0	0.0	0.0	0.0

SECTION X CHANNEL - MANUFACTURED FROM SECTION Y

X1	173660.000	46.000	4335.000	4655.000	1150.000	1060.000	1110.000	0.0	0.0	0.0
X2	0.0	601.530	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	3840.000	0.0	6640.000	0.0	0.0	0.0	0.0
GR	612.000	3200.000	605.900	3545.000	605.300	3590.000	607.500	3690.000	598.300	3965.000
GR	591.100	4105.000	591.100	4210.000	593.900	4300.000	588.000	4335.000	583.900	4340.000
GR	581.100	4349.000	580.100	4359.000	580.700	4380.000	577.200	4434.000	579.900	4503.000
GR	579.300	4564.000	579.200	4618.000	579.500	4628.000	581.000	4644.000	583.900	4650.000
GR	583.000	4655.000	589.300	4695.000	593.400	4715.000	591.800	4740.000	594.200	4765.000
GR	590.000	4810.000	590.000	4860.000	593.100	4890.000	588.200	4945.000	589.200	4980.000
GR	591.600	5015.000	591.400	5070.000	588.700	5115.000	588.700	5365.000	605.400	5410.000
GR	604.000	5725.000	603.900	5850.000	602.700	5920.000	594.700	6060.000	592.800	6130.000
GR	592.200	6195.000	592.200	6485.000	594.700	6560.000	601.600	6615.000	608.400	6730.000
GR	610.400	6815.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.060	0.050	0.030	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECTION Y

X1	175060.000	49.000	5010.000	5440.000	1510.000	1460.000	1470.000	0.0	0.0	0.0
X2	0.0	601.770	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	4130.000	0.0	7580.000	0.0	0.0	0.0	0.0
GR	603.900	4020.000	592.100	4250.000	597.100	4505.000	588.800	4730.000	588.800	4965.000
GR	590.100	4980.000	589.900	4995.000	588.300	5010.000	583.900	5033.000	581.100	5044.000
GR	580.100	5055.000	580.700	5081.000	577.200	5148.000	579.900	5233.000	579.300	5308.000
GR	579.200	5375.000	579.500	5387.000	581.000	5407.000	583.900	5415.000	588.800	5440.000
GR	596.400	5490.000	594.600	5510.000	595.300	5585.000	590.800	5655.000	592.800	5755.000
GR	589.200	5825.000	589.100	5925.000	590.000	6005.000	600.900	6135.000	597.300	6170.000
GR	599.400	6190.000	603.300	6215.000	597.600	6225.000	598.800	6315.000	603.600	6350.000
GR	596.500	6375.000	597.000	6440.000	598.700	6505.000	603.200	6525.000	597.600	6670.000
GR	600.100	6705.000	594.200	6790.000	595.100	6845.000	591.800	6905.000	592.300	7125.000
GR	598.400	7155.000	601.900	7370.000	598.800	7435.000	609.500	7720.000	0.0	0.0
NC	0.070	0.050	0.030	0.100	0.300	0.0	0.0	0.0	0.0	0.0
QT	8.000	33500.000	48700.000	55800.000	75100.000	42600.000	55800.000	9510.000	54500.000	0.0

SECTION Z

X1	177200.000	55.000	3605.000	3925.000	2300.000	1780.000	2120.000	0.0	0.0	0.0
X2	0.0	602.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	2200.000	0.0	4500.000	0.0	0.0	0.0	0.0
GR	600.100	2205.000	597.900	2265.000	593.600	2615.000	588.900	2805.000	588.900	2850.000
GR	593.800	2920.000	591.600	3225.000	589.200	3270.000	593.200	3440.000	588.400	3465.000
GR	588.100	3520.000	590.900	3560.000	588.000	3605.000	583.800	3640.000	582.500	3648.000
GR	580.600	3656.000	576.700	3678.000	576.200	3700.000	575.100	3717.000	574.700	3727.000
GR	574.900	3749.000	578.900	3777.000	574.900	3736.000	575.200	3813.000	574.800	3830.000
GR	575.400	3854.000	573.700	3874.000	580.300	3884.000	583.300	3888.000	583.700	3889.000
GR	588.000	3925.000	592.400	3945.000	587.800	4030.000	591.100	4065.000	592.300	4140.000
GR	590.000	4130.000	593.600	4305.000	590.100	4450.000	593.400	4545.000	591.900	4630.000
GR	588.000	4660.000	588.000	4680.000	600.800	4710.000	597.000	4790.000	607.600	4825.000
GR	602.700	4925.000	605.800	5040.000	604.100	5085.000	589.300	5130.000	589.300	5170.000
GR	605.200	5180.000	592.000	5215.000	593.000	5265.000	608.400	5635.000	610.500	5795.000
NC	0.110	0.074	0.033	0.200	0.400	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	0.0	9.100	0.0	130.000	2180.000

SECTION 0.5 TO SECTION 1.3 COURTESY OF GILBERT/COMMONWEALTH

SECTION AA

X1	0.500	39.000	500.000	630.000	1500.000	1400.000	1500.000	0.0	0.0	0.0
X2	0.0	602.270	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	607.000	120.000	589.500	160.000	587.800	200.000	590.000	270.000	591.500	350.000
GR	591.100	400.000	588.000	420.000	588.500	450.000	591.500	475.000	590.800	500.000
GR	583.000	520.000	578.000	530.000	577.000	540.000	576.800	560.000	577.000	570.000
GR	576.400	580.000	576.800	630.000	577.800	650.000	578.000	680.000	578.200	700.000
GR	579.000	730.000	579.800	780.000	584.000	782.000	588.000	810.000	594.500	830.000
GR	591.500	850.000	595.200	875.000	593.000	900.000	594.500	1000.000	594.000	1020.000
GR	589.000	1030.000	588.000	1050.000	587.000	1100.000	586.500	1150.000	586.700	1200.000
GR	586.000	1300.000	585.500	1400.000	600.000	2180.000	610.000	2190.000	0.0	0.0
NC	0.090	0.100	0.033	0.300	0.500	0.0	0.0	0.0	0.0	0.0

SECTION 88

X1	1.000	65.000	370.000	920.000	4000.000	2300.000	3000.000	0.0	0.0	0.0
X2	0.0	602.650	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	610.300	610.300	0.0
GR	610.000	100.000	611.000	250.000	612.100	370.000	593.500	370.000	593.400	390.000
GR	593.100	410.000	590.900	415.000	586.800	420.000	587.000	425.000	587.000	430.000
GR	586.900	460.000	587.400	474.000	585.000	495.000	584.500	500.000	580.700	530.000
GR	580.900	545.000	578.900	564.000	579.300	570.000	579.700	575.000	579.700	579.000
GR	579.900	590.600	580.400	618.000	581.800	624.000	580.900	634.000	581.000	645.000
GR	581.000	650.000	580.900	660.000	578.900	708.000	576.000	720.000	575.000	725.000
GR	574.600	738.000	576.300	775.000	575.900	785.000	576.200	795.000	576.000	800.000
GR	574.500	815.000	575.900	820.000	576.300	839.000	581.300	855.000	592.100	864.000
GR	592.000	870.000	592.000	875.000	590.900	885.000	593.900	920.000	612.100	920.000
GR	612.100	950.000	610.300	975.000	611.000	1000.000	610.800	1050.000	610.500	1100.000
GR	610.000	1200.000	609.900	1300.000	608.900	1500.000	608.000	1700.000	606.800	1704.000
GR	605.000	1750.000	597.800	1800.000	596.800	1850.000	593.000	1900.000	591.900	1950.000
GR	591.600	2000.000	589.400	2050.000	590.000	2100.000	590.400	2150.000	605.000	2248.000

M-11 BRIDGE, WIDTH 56 FT, LENGTH 515 FT

X1	1.100	53.000	370.000	920.000	10.000	10.000	10.000	0.0	0.0	0.0
X2	0.0	602.650	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BT	9.000	100.000	610.000	610.000	370.000	612.100	612.100	370.000	612.100	610.300
BT	920.000	612.100	610.300	920.000	612.100	612.100	950.000	612.100	612.100	975.000
BT	610.500	610.500	1000.000	611.000	611.000	1100.000	610.500	610.500	0.0	0.0
GR	610.000	100.000	612.100	370.000	593.500	370.000	593.000	410.000	590.500	415.000
GR	586.500	420.000	610.300	420.000	610.300	425.000	586.500	425.000	587.500	480.000
GR	585.500	495.000	610.300	495.000	610.300	500.000	584.000	500.000	581.000	530.000
GR	581.000	545.000	579.000	565.000	579.500	570.000	610.300	570.000	610.300	575.000
GR	579.800	575.000	580.500	615.000	581.800	625.000	581.000	635.000	581.000	645.000
GR	610.300	645.000	610.300	650.000	581.000	650.000	579.000	705.000	576.000	720.000
GR	610.300	720.000	610.300	725.000	575.500	725.000	575.000	735.000	576.200	795.000
GR	610.300	795.000	610.300	800.000	576.500	800.000	574.600	810.000	576.200	840.000
GR	581.000	855.000	592.000	965.000	592.000	870.000	610.300	870.000	610.300	875.000
GR	592.000	875.000	591.000	890.000	594.000	920.000	612.100	920.000	612.100	950.000
GR	610.500	975.000	611.000	1000.000	610.500	1100.000	0.0	0.0	0.0	0.0

U/S FACE OF M-11 BRIDGE - HIGH WATER MARKS

YEAR	Q	Q-AT GRAND RAPID GAGE	HIGH WATER ELEV AT BRIDGE
1948	42600	42200	602.70
1947	38950	38600	601.46
1960	32100	31800	600.40
1950.	27400	27200	599.00
1904	54500	54000	605.4

X1	1.200	0.0	0.0	0.0	56.000	56.000	56.000	0.0	0.0	0.0
X2	0.0	602.700	0.0	0.0	0.0	0.0	1.000	0.0	0.0	0.0

X1	1.200	0.0	0.0	0.0	56.000	56.000	56.000	0.0	0.0	0.0
X2	0.0	602.700	0.0	0.0	0.0	0.0	1.000	0.0	0.0	0.0
X1	1.300	65.000	370.000	920.000	10.000	10.000	10.000	0.0	0.0	0.0
X2	0.0	602.750	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	612.100	612.100	0.0
GR	610.000	100.000	611.000	250.000	612.100	370.000	593.500	370.000	593.400	390.000
GR	593.100	410.000	590.900	415.000	586.800	420.000	587.000	425.000	587.000	430.000
GR	586.900	460.000	587.400	474.000	585.000	495.000	584.500	500.000	580.700	530.000
GR	580.900	545.000	573.900	564.000	579.300	570.000	579.700	575.000	579.700	579.000
GR	579.900	590.600	580.400	618.000	581.800	624.000	580.900	634.000	581.000	645.000
GR	581.000	650.000	580.900	660.000	578.900	708.000	576.000	720.000	575.000	725.000
GR	574.600	738.000	576.300	775.000	575.900	785.000	576.500	795.000	576.000	800.000
GR	574.500	815.000	575.900	820.000	576.300	839.000	581.300	855.000	592.100	864.000
GR	592.000	870.000	592.000	875.000	590.900	885.000	593.900	920.000	612.100	920.000
GR	612.100	950.000	610.300	975.000	611.000	1000.000	610.800	1050.000	610.500	1100.000
GR	610.000	1200.000	609.900	1300.000	608.900	1500.000	608.000	1700.000	606.800	1704.000
GR	605.000	1750.000	597.800	1800.000	596.800	1850.000	593.000	1900.000	591.900	1950.000
GR	591.600	2000.000	589.400	2050.000	590.000	2100.000	590.400	2150.000	605.000	2248.000
EJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
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NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

GRAND RIVER

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	100.000	0.0	0.0	0.0	570.10	34700.00	592.28	0.0	592.50	2.03	3.74	9867.96	24374.09
	100.000	0.0	0.0	0.0	570.10	50520.00	596.38	0.0	596.63	2.16	4.16	15192.98	34355.65
	100.000	0.0	0.0	0.0	570.10	57920.00	597.90	0.0	598.16	2.18	4.30	17892.23	39203.83
	100.000	0.0	0.0	0.0	570.10	77950.00	599.90	0.0	600.24	2.81	5.03	22035.22	46480.89
	101.000	1.00	601.50	605.00	570.10	34700.00	592.28	0.0	592.50	2.03	3.74	9867.96	24374.09
	101.000	1.00	601.50	605.00	570.10	50520.00	596.38	0.0	596.63	2.16	4.16	15192.98	34355.65
	101.000	1.00	601.50	605.00	570.10	57920.00	597.90	0.0	598.16	2.25	4.30	17888.02	38623.36
	101.000	1.00	601.50	605.00	570.10	77950.00	599.91	0.0	600.24	3.44	5.00	21871.00	42023.62
	102.000	37.00	601.50	605.00	570.10	34700.00	592.29	0.0	592.50	2.02	3.74	9874.87	24388.82
	102.000	37.00	601.50	605.00	570.10	50520.00	596.39	0.0	596.64	2.16	4.16	15205.46	34378.30
	102.000	37.00	601.50	605.00	570.10	57920.00	597.91	0.0	598.17	2.25	4.29	17905.48	38640.99
	102.000	37.00	601.50	605.00	570.10	77950.00	599.92	0.0	600.25	3.44	4.99	21914.52	42055.32
	103.000	1.00	0.0	0.0	570.10	34700.00	592.29	0.0	592.50	2.02	3.74	9875.11	24389.32
	103.000	1.00	0.0	0.0	570.10	50520.00	596.39	0.0	596.64	2.16	4.16	15205.87	34379.05
	103.000	1.00	0.0	0.0	570.10	57920.00	597.91	0.0	598.17	2.18	4.30	17911.28	39237.82
	103.000	1.00	0.0	0.0	570.10	77950.00	599.92	0.0	600.25	2.80	5.02	22088.47	46578.27
	104.000	4600.00	0.0	0.0	571.00	34700.00	592.80	0.0	592.87	0.40	2.32	23665.74	54535.21
	104.000	4600.00	0.0	0.0	571.00	50520.00	596.93	0.0	597.00	0.38	2.55	32367.70	81839.75
	104.000	4600.00	0.0	0.0	571.00	57920.00	598.45	0.0	598.53	0.39	2.67	35709.49	93307.50
	104.000	4600.00	0.0	0.0	571.00	77950.00	600.61	0.0	600.72	0.50	3.19	40529.02	110745.50
	105.000	3000.00	0.0	0.0	571.00	34700.00	592.92	0.0	593.03	0.63	2.91	17701.10	43618.74
	105.000	3000.00	0.0	0.0	571.00	50520.00	597.03	0.0	597.16	0.62	3.25	24146.87	64357.62
	105.000	3000.00	0.0	0.0	571.00	57920.00	598.56	0.0	598.69	0.63	3.41	26711.85	73112.62
	105.000	3000.00	0.0	0.0	571.00	77950.00	600.74	0.0	600.93	0.81	4.09	30533.82	86713.37
	10000.000	4600.00	0.0	0.0	571.70	34700.00	593.25	0.0	593.60	2.31	5.05	9862.85	22807.16
	10000.000	4600.00	0.0	0.0	571.70	50520.00	597.32	0.0	597.69	2.00	5.39	16993.91	35744.71
CS-1	10000.000	4600.00	0.0	0.0	571.70	57920.00	598.85	0.0	599.22	1.91	5.51	20465.22	41892.27
	10000.000	4600.00	0.0	0.0	571.70	77950.00	601.13	0.0	601.57	2.16	6.24	26326.42	53022.59
	20000.000	3250.00	0.0	0.0	574.80	34700.00	594.00	0.0	594.12	1.11	3.27	19045.80	32987.09
CS-2	20000.000	3250.00	0.0	0.0	574.80	50520.00	598.00	0.0	598.12	0.86	3.35	28854.71	54500.23
	20000.000	3250.00	0.0	0.0	574.80	57920.00	599.51	0.0	599.63	0.82	3.43	32810.48	64048.62
	20000.000	3250.00	0.0	0.0	574.80	77950.00	601.88	0.0	602.03	0.93	3.92	39193.38	80826.31

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
✓	30000.000	4500.00	0.0	0.0	575.00	34700.00	594.45	0.0	594.58	1.01	3.26	17922.14	34610.38
CS-3	30000.000	4500.00	0.0	0.0	575.00	50520.00	598.35	0.0	598.49	0.86	3.46	26587.87	54610.51
	30000.000	4500.00	0.0	0.0	575.00	57920.00	599.84	0.0	599.99	0.83	3.57	30101.39	63518.70
	30000.000	4500.00	0.0	0.0	575.00	77950.00	602.26	0.0	602.43	0.96	4.10	35888.59	79579.00
	131560.000	4600.00	0.0	0.0	571.70	34700.00	594.90	0.0	595.00	0.81	3.27	23538.55	38577.31
A	131560.000	4600.00	0.0	0.0	571.70	50520.00	598.75	0.0	598.85	0.71	3.45	33486.12	59924.43
	131560.000	4600.00	0.0	0.0	571.70	57920.00	600.23	0.0	600.34	0.70	3.55	37487.42	69436.06
	131560.000	4600.00	0.0	0.0	571.70	77950.00	602.71	0.0	602.84	0.80	4.06	44275.46	87024.62
	133900.000	1340.00	0.0	0.0	575.30	34700.00	594.99	0.0	595.17	1.50	3.70	13996.97	28341.71
B	133900.000	1340.00	0.0	0.0	575.30	50520.00	598.82	0.0	599.00	1.29	3.93	21587.95	44556.17
	133900.000	1340.00	0.0	0.0	575.30	57920.00	600.30	0.0	600.49	1.23	4.03	24914.31	52190.59
	133900.000	1340.00	0.0	0.0	575.30	77950.00	602.78	0.0	603.01	1.37	4.57	30510.21	66476.31
	135980.000	3000.00	0.0	0.0	576.00	34700.00	595.42	0.0	595.65	1.55	3.78	9180.92	27875.17
C	135980.000	3000.00	0.0	0.0	576.00	50520.00	599.19	0.0	599.50	1.64	4.44	11372.88	39501.33
	135980.000	3000.00	0.0	0.0	576.00	57920.00	600.65	0.0	601.00	1.70	4.74	12222.15	44398.21
	135980.000	3000.00	0.0	0.0	576.00	77950.00	603.15	0.0	603.66	2.14	5.70	13679.55	53279.64
MAS	135981.000	31.00	604.74	600.24	576.00	34700.00	595.46	0.0	595.68	1.54	3.77	9199.89	27969.21
D	135981.000	31.00	604.74	600.24	576.00	50520.00	599.23	0.0	599.54	1.62	4.43	11399.02	39648.91
	135981.000	31.00	604.74	600.24	575.00	57920.00	600.98	0.0	601.32	1.62	4.67	12413.63	45531.12
	135981.000	31.00	604.74	600.24	576.00	77950.00	603.89	0.0	604.36	1.94	5.53	14106.86	55993.93
	136880.000	600.00	0.0	0.0	573.70	34700.00	595.65	0.0	595.79	1.54	3.38	15836.36	28003.37
E	136880.000	600.00	0.0	0.0	573.70	50520.00	599.52	0.0	599.67	1.30	3.58	23514.15	44246.76
	136880.000	600.00	0.0	0.0	573.70	57920.00	601.31	0.0	601.46	1.19	3.62	27302.37	53141.08
	136880.000	600.00	0.0	0.0	573.70	77950.00	604.37	0.0	604.55	1.23	4.01	33840.01	70265.31
	137480.000	810.00	0.0	0.0	573.70	34700.00	595.76	0.0	595.90	1.23	3.33	16064.11	31264.72
F	137480.000	810.00	0.0	0.0	573.70	50520.00	599.63	0.0	599.77	1.04	3.51	23761.57	49608.27
	137480.000	810.00	0.0	0.0	573.70	57920.00	601.41	0.0	601.54	0.93	3.52	27743.08	59959.57
	137480.000	810.00	0.0	0.0	573.70	77950.00	604.48	0.0	604.63	0.94	3.84	34715.18	80544.31
	139330.000	2110.00	0.0	0.0	573.70	34700.00	596.03	0.0	596.17	1.33	3.35	16857.11	30058.33
G	139330.000	2110.00	0.0	0.0	573.70	50520.00	599.85	0.0	600.01	1.22	3.67	24067.12	45668.27
	139330.000	2110.00	0.0	0.0	573.70	57920.00	601.61	0.0	601.77	1.14	3.74	27623.98	54240.01
	139330.000	2110.00	0.0	0.0	573.70	77950.00	604.68	0.0	604.87	1.20	4.17	33949.36	71118.87
	141080.000	1650.00	0.0	0.0	573.70	34700.00	596.23	0.0	596.34	0.75	3.13	22080.70	40049.07
	141080.000	1650.00	0.0	0.0	573.70	50520.00	600.04	0.0	600.17	0.73	3.48	29792.29	58996.18
H	141080.000	1650.00	0.0	0.0	573.70	57920.00	601.79	0.0	601.91	0.71	3.58	33351.58	68877.00
	141080.000	1650.00	0.0	0.0	573.70	77950.00	604.87	0.0	605.03	0.79	4.06	39631.20	87961.37
	144160.000	3220.00	0.0	0.0	578.10	34700.00	596.48	0.0	596.58	0.86	3.04	22761.94	37479.80
I	144160.000	3220.00	0.0	0.0	578.10	50520.00	600.28	0.0	600.40	0.77	3.29	32218.43	57690.70
	144160.000	3220.00	0.0	0.0	578.10	57920.00	602.02	0.0	602.13	0.72	3.36	36607.62	68282.12
	144160.000	3220.00	0.0	0.0	578.10	77950.00	605.12	0.0	605.26	0.76	3.76	44466.93	89191.56
	146240.000	1925.00	0.0	0.0	578.10	34700.00	596.64	0.0	596.82	1.47	3.98	17339.55	28622.44
J	146240.000	1925.00	0.0	0.0	578.10	50520.00	600.41	0.0	600.63	1.40	4.43	23698.77	42727.78
	146240.000	1925.00	0.0	0.0	578.10	57920.00	602.13	0.0	602.35	1.34	4.57	26829.45	50032.40
	146240.000	1925.00	0.0	0.0	578.10	77950.00	605.23	0.0	605.51	1.45	5.18	32826.33	64633.10

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
149640.000	3535.00	0.0	0.0	576.60	34700.00	597.11	0.0	597.27	1.07	3.53	14335.79	33502.56

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	149640.000	3635.00	0.0	0.0	576.60	34700.00	597.11	0.0	597.27	1.07	3.53	14335.79	33502.56
	149640.000	3635.00	0.0	0.0	576.60	50520.00	600.88	0.0	601.03	0.91	3.69	22187.70	52883.22
K	149640.000	3635.00	0.0	0.0	576.60	57920.00	602.59	0.0	602.74	0.83	3.70	26031.54	63643.12
	149640.000	3635.00	0.0	0.0	576.60	77950.00	605.74	0.0	605.90	0.81	3.97	33289.20	86655.37
	152270.000	2630.00	0.0	0.0	576.60	34700.00	597.42	0.0	597.58	1.26	3.65	17216.64	30882.75
	152270.000	2630.00	0.0	0.0	576.60	50520.00	601.13	0.0	601.32	1.21	4.03	24500.68	45945.59
L	152270.000	2630.00	0.0	0.0	576.60	57920.00	602.82	0.0	603.00	1.14	4.11	28234.63	54233.41
	152270.000	2630.00	0.0	0.0	576.60	77950.00	605.96	0.0	606.17	1.18	4.53	35400.18	71840.19
	154620.000	2310.00	0.0	0.0	570.20	34700.00	597.75	0.0	597.90	1.56	3.45	16049.70	27823.77
M	154620.000	2310.00	0.0	0.0	570.20	50520.00	601.45	0.0	601.62	1.44	3.81	22602.92	42148.35
	154620.000	2310.00	0.0	0.0	570.20	57920.00	603.11	0.0	603.29	1.36	3.91	25709.14	49640.92
	154620.000	2310.00	0.0	0.0	570.20	77950.00	606.26	0.0	606.47	1.41	4.35	31861.17	65645.69
	155970.000	1500.00	0.0	0.0	574.60	34700.00	597.98	0.0	598.08	0.85	2.83	18467.89	37653.60
N	155970.000	1500.00	0.0	0.0	574.60	50520.00	601.67	0.0	601.79	0.82	3.14	25113.48	55667.42
	155970.000	1500.00	0.0	0.0	574.60	57920.00	603.33	0.0	603.44	0.80	3.23	28175.74	64899.80
	155970.000	1500.00	0.0	0.0	574.60	77950.00	606.49	0.0	606.64	0.85	3.63	34034.66	84391.62
	157500.000	1350.00	0.0	0.0	569.30	34700.00	598.05	0.0	598.16	0.41	2.80	18585.87	54133.09
O	157500.000	1350.00	0.0	0.0	569.30	50520.00	601.73	0.0	601.88	0.50	3.37	24859.42	71392.87
	157500.000	1350.00	0.0	0.0	569.30	57920.00	603.38	0.0	603.54	0.52	3.56	27879.02	80229.19
	157500.000	1350.00	0.0	0.0	569.30	77950.00	606.54	0.0	606.75	0.62	4.14	33668.80	98801.06
	160100.000	2110.00	0.0	0.0	569.30	34700.00	598.15	0.0	598.25	0.46	2.77	26989.80	51107.50
P	160100.000	2110.00	0.0	0.0	569.30	50520.00	601.88	0.0	601.99	0.50	3.14	38749.68	71510.94
	160100.000	2110.00	0.0	0.0	569.30	57920.00	603.55	0.0	603.66	0.50	3.24	44278.02	82182.87
	160100.000	2110.00	0.0	0.0	569.30	77950.00	606.76	0.0	606.89	0.55	3.63	55236.54	105078.56
	161800.000	2420.00	0.0	0.0	572.50	34700.00	598.30	0.0	598.39	0.92	3.01	25209.52	36234.52
Q	161800.000	2420.00	0.0	0.0	572.50	50520.00	602.05	0.0	602.12	0.72	2.98	39411.85	59505.98
	161800.000	2420.00	0.0	0.0	572.50	57920.00	603.71	0.0	603.78	0.64	2.94	46383.04	72216.56
	161800.000	2420.00	0.0	0.0	572.50	77950.00	606.95	0.0	607.01	0.59	3.06	60586.72	101210.00
	163230.000	1730.00	0.0	0.0	577.60	34200.00	598.43	0.0	598.52	0.82	2.95	23833.81	37664.95
R	163230.000	1730.00	0.0	0.0	577.60	49800.00	602.15	0.0	602.23	0.67	3.01	36035.07	60755.29
	163230.000	1730.00	0.0	0.0	577.60	57000.00	603.80	0.0	603.87	0.60	2.98	42255.89	73533.25
	163230.000	1730.00	0.0	0.0	577.60	76700.00	607.02	0.0	607.10	0.55	3.10	56059.00	103587.81
	164580.000	930.00	0.0	0.0	577.60	34200.00	598.51	0.0	598.61	0.90	3.30	23306.23	36066.02
S	164580.000	930.00	0.0	0.0	577.60	49800.00	602.21	0.0	602.29	0.63	3.12	37402.97	62681.67
	164580.000	930.00	0.0	0.0	577.60	57000.00	603.86	0.0	603.93	0.54	3.03	44064.61	77440.50
	164580.000	930.00	0.0	0.0	577.60	76700.00	607.08	0.0	607.15	0.48	3.09	57163.46	110938.87
	166180.000	1830.00	0.0	0.0	577.60	34200.00	598.63	0.0	598.73	0.80	3.10	25432.38	38184.57
T	166180.000	1830.00	0.0	0.0	577.60	49800.00	602.29	0.0	602.38	0.63	3.10	39054.49	62612.21
	166180.000	1830.00	0.0	0.0	577.60	57000.00	603.93	0.0	604.00	0.56	3.07	45675.98	76019.87
	166180.000	1830.00	0.0	0.0	577.60	76700.00	607.14	0.0	607.21	0.52	3.20	59277.67	106643.25
	167860.000	2210.00	0.0	0.0	576.20	34200.00	598.79	0.0	598.97	1.19	3.93	17176.54	31353.66
U	167860.000	2210.00	0.0	0.0	576.20	49800.00	602.41	0.0	602.57	1.03	4.08	25651.52	49166.68
	167860.000	2210.00	0.0	0.0	576.20	57000.00	604.03	0.0	604.18	0.94	4.08	29872.39	58872.49
	167860.000	2210.00	0.0	0.0	576.20	76700.00	607.22	0.0	607.38	0.89	4.31	39091.39	81391.06

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	169660.000	1410.00	0.0	0.0	576.00	34200.00	599.04	0.0	599.14	1.22	3.01	18298.11	31005.77
V	169660.000	1410.00	0.0	0.0	576.00	49800.00	602.62	0.0	602.72	0.96	3.04	27161.30	50844.86
	169660.000	1410.00	0.0	0.0	576.00	57000.00	604.22	0.0	604.32	0.86	3.03	31335.88	61529.98
	169660.000	1410.00	0.0	0.0	576.00	76700.00	607.41	0.0	607.51	0.80	3.21	39680.73	85847.94
	172160.000	2730.00	0.0	0.0	576.80	34200.00	599.32	0.0	599.49	1.22	3.89	17448.86	30984.53
W	172160.000	2730.00	0.0	0.0	576.80	49800.00	602.85	0.0	603.03	1.15	4.18	25861.49	46513.68
	172160.000	2730.00	0.0	0.0	576.80	57000.00	604.43	0.0	604.60	1.08	4.23	29832.50	54862.09
	172160.000	2730.00	0.0	0.0	576.80	76700.00	607.60	0.0	607.78	1.08	4.56	37823.18	73891.00
	173660.000	1110.00	0.0	0.0	577.20	34200.00	599.50	0.0	599.62	0.87	3.36	19500.22	36691.24
X	173660.000	1110.00	0.0	0.0	577.20	49800.00	603.02	0.0	603.14	0.80	3.59	27220.64	55689.84
	173660.000	1110.00	0.0	0.0	577.20	57000.00	604.59	0.0	604.71	0.75	3.64	31008.04	65630.31
	173660.000	1110.00	0.0	0.0	577.20	76700.00	607.76	0.0	607.89	0.74	3.91	39819.46	89050.00
	175060.000	1470.00	0.0	0.0	577.20	34200.00	599.65	0.0	599.73	0.58	2.71	22973.89	45006.77
Y	175060.000	1470.00	0.0	0.0	577.20	49800.00	603.17	0.0	603.24	0.50	2.83	34309.46	70223.94
	175060.000	1470.00	0.0	0.0	577.20	57000.00	604.73	0.0	604.80	0.46	2.83	39668.34	83871.12
	175060.000	1470.00	0.0	0.0	577.20	76700.00	607.91	0.0	607.98	0.44	2.99	50614.68	115756.62
	177200.000	2120.00	0.0	0.0	574.70	33500.00	599.76	0.0	599.87	0.71	3.15	21688.41	39765.47
Z	177200.000	2120.00	0.0	0.0	574.70	48700.00	603.26	0.0	603.37	0.68	3.42	29720.46	59118.81
	177200.000	2120.00	0.0	0.0	574.70	55800.00	604.82	0.0	604.93	0.66	3.50	33281.75	68866.12
	177200.000	2120.00	0.0	0.0	574.70	75100.00	607.98	0.0	608.11	0.68	3.86	40549.99	90815.62
	0.500	1500.00	0.0	0.0	576.40	33500.00	599.88	0.0	599.99	0.99	3.25	21420.06	33745.34
AA	0.500	1500.00	0.0	0.0	576.40	48700.00	603.37	0.0	603.50	0.98	3.61	28576.88	49102.06
	0.500	1500.00	0.0	0.0	576.40	55800.00	604.92	0.0	605.05	0.97	3.73	31758.27	56762.03
	0.500	1500.00	0.0	0.0	576.40	75100.00	608.09	0.0	608.24	1.03	4.17	38298.93	73991.56
	1.000	3000.00	0.0	0.0	574.50	33500.00	600.18	0.0	600.37	1.38	3.47	9642.93	28535.54
BB	1.000	3000.00	0.0	0.0	574.50	48700.00	603.66	0.0	603.94	1.62	4.21	11556.36	38274.57
	1.000	3000.00	0.0	0.0	574.50	55800.00	605.19	0.0	605.51	1.70	4.50	12393.45	42856.14
	1.000	3000.00	0.0	0.0	574.50	75100.00	608.35	0.0	608.79	2.01	5.31	14137.97	52991.18
	1.100	10.00	610.00	612.10	574.60	33500.00	600.17	0.0	600.38	2.62	3.71	9029.37	20680.74
	1.100	10.00	610.00	612.10	574.60	48700.00	603.64	0.0	603.96	3.32	4.50	10819.36	26712.36
	1.100	10.00	610.00	612.10	574.60	55800.00	605.17	0.0	605.53	3.59	4.81	11602.10	29446.65
	1.100	10.00	610.00	612.10	574.60	75100.00	608.32	0.0	608.82	4.53	5.68	13224.69	35271.62
	1.200	56.00	610.00	612.10	574.60	33500.00	600.19	0.0	600.40	2.62	3.71	9031.77	20638.58
	1.200	56.00	610.00	612.10	574.60	48700.00	603.66	0.0	603.98	3.32	4.50	10821.56	26719.94
	1.200	56.00	610.00	612.10	574.60	55800.00	605.19	0.0	605.55	3.58	4.81	11609.67	29473.30
	1.200	56.00	610.00	612.10	574.60	75100.00	608.35	0.0	608.85	4.52	5.67	13234.13	35305.97
	1.300	10.00	0.0	0.0	574.50	33500.00	600.22	0.0	600.41	1.37	3.47	9663.12	28631.33
	1.300	10.00	0.0	0.0	574.50	48700.00	603.72	0.0	603.99	1.61	4.20	11584.62	38424.31
	1.300	10.00	0.0	0.0	574.50	55800.00	605.25	0.0	605.57	1.68	4.49	12431.13	43064.67
	1.300	10.00	0.0	0.0	574.50	75100.00	608.44	0.0	608.87	1.99	5.30	14180.69	53246.39

GRAND RIVER

SUMMARY PRINTOUT TABLE 150

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: ALLENDALE TWP

3) WATERCOURSE: OTTAWA CREEK

4) DOCUMENT TYPE: 100 YR NATURAL

00BREAK00

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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
*************************************************


C
T1       ALLENDALE TOWNSHIP PROJECT NO. 8548,OTTAWA
T2       OTTAWA CREEK
T3       OTTAWA CREEK

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        4.        0.        0.   0.003260     0.0       0.0       0.     596.000     0.0

J2  NPROF     IPLOT     PREVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    1.000     0.0     -1.000      0.0       0.0       0.0       0.0      0.0       0.0      15.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

  110.000   200.000   150.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0

QT      5.000   425.000   605.000   685.000   890.000   685.000     0.0       0.0       0.0       0.0
NC      0.070     0.050     0.035     0.100     0.300     0.0       0.0       0.0       0.0       0.0

                3437
       SECTION A  2750 FT FROM MOUTH

X1   2750.000    10.000  1465.000  1560.000  1540.000  1501.000  3437.000     0.0       0.0       0.0
X3      0.0       0.0       0.0    1380.000     0.0    1556.000     0.0       0.0       0.0       0.0
GR    601.300  1180.000   597.400  1235.000   596.700  1285.000   592.200  1370.000   595.100  1395.000
GR    594.200  1465.000   591.500  1480.000   591.500  1540.000   594.400  1560.000   603.900  1580.000

       SECTION B

X1   3600.000    12.000   202.000   228.000   390.000   540.000   875.000     0.0       0.0       0.0
X3     10.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0
GR    603.100    45.000   596.700    85.000   597.600   115.000   597.300   165.000   595.800   202.000
GR    592.100   208.000   591.600   215.000   592.100   222.000   594.500   228.000   594.400   230.000
GR    596.200   300.000   610.000   360.000     0.0       0.0       0.0       0.0       0.0       0.0

       SECTION C  MANUFACTURED FROM TOPOMAP

X1   3610.000    13.000   600.000   625.000   280.000   240.000   473.000     0.0       0.0       0.0
GR    614.000   395.000   610.000   470.000   604.000   500.000   604.000   545.000   602.000   585.000
GR    598.000   595.000   594.000   600.000   593.200   615.000   594.000   625.000   598.000   690.000
GR    602.000   699.000   606.000   805.000   610.000   813.000     0.0       0.0       0.0       0.0
NC      0.070     0.045     0.035     0.300     0.500     0.0       0.0       0.0       0.0       0.0

       SECTION D  90 TH AVE., CMP,W 100 FT,D 12 FT,TR 611.6, LC 603.6

X1   3611.000    14.000   145.000   155.000   120.000   120.000   120.000     0.0       0.0       0.0
X3     10.000     0.0       0.0       0.0       0.0       0.0       0.0     611.000   611.000     0.0
GR    612.000     0.0     611.200    50.000   611.000   100.000   611.600   125.000   598.600   145.000
GR    595.600   146.000   594.100   148.000   593.600   150.000   594.100   152.000   595.600   154.000
GR    598.600   155.000   611.600   175.000   613.600   200.000   614.900   225.000     0.0       0.0
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X1	3612.000	0.0	0.0	0.0	1.000	1.000	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	611.600	611.600	0.0
BT	14.000	0.0	612.000	612.000	50.000	611.200	611.200	100.000	611.000	611.000
BT	125.000	611.600	611.600	145.000	611.600	598.600	146.000	611.600	601.600	148.000
BT	611.600	603.100	150.000	611.500	603.600	152.000	611.600	603.100	154.000	611.600
BT	601.600	155.000	611.600	598.600	175.000	611.600	611.600	200.000	614.900	614.900
BT	225.000	614.900	614.900	0.0	0.0	0.0	0.0	0.0	0.0	0.0

X1	3613.000	0.0	0.0	0.0	100.000	100.000	100.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	0.0	0.0	0.0	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	611.600	611.600	0.0

X1	3614.000	0.0	0.0	0.0	1.000	1.000	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	611.600	611.600	0.0

SECTION E MANUFACTURED FROM TOPOMAP

X1	3615.000	13.000	730.000	755.000	150.000	130.000	165.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	635.000	0.0	772.500	0.0	0.0	0.0	0.0
GR	618.000	550.000	614.000	560.000	610.000	562.000	606.000	575.000	602.000	620.000
GR	598.000	730.000	594.000	742.000	598.000	755.000	602.000	765.000	606.000	770.000
GR	610.000	780.000	614.000	790.000	620.000	805.000	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.300	0.500	0.0	0.0	0.0	0.0	0.0

SECTION F

X1	5100.000	13.000	381.500	401.500	347.000	550.000	574.000	0.0	0.0	0.0
GR	628.400	160.000	604.300	260.000	604.200	280.000	599.500	315.000	598.900	380.000
GR	598.800	381.500	595.600	386.500	595.200	392.500	595.500	398.500	599.100	401.500
GR	601.700	415.000	599.700	440.000	614.500	525.000	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.100	0.300	0.0	0.0	0.0	0.0	0.0

SECTION G MANUFACTURED FROM TOPOMAP

X1	6100.000	15.000	439.000	456.000	776.000	800.000	876.000	0.0	0.0	0.0
GR	620.000	200.000	616.000	212.000	612.000	230.000	608.000	260.000	604.000	336.000
GR	599.500	370.000	593.800	439.000	598.700	444.000	598.300	450.000	598.700	456.000
GR	599.100	460.000	604.000	470.000	608.000	480.000	612.000	490.000	616.000	500.000

SECTION H

X1	7350.000	11.000	364.000	324.000	915.000	851.000	1050.000	0.0	0.0	0.0
GR	625.400	90.000	609.600	170.000	606.400	210.000	605.800	295.000	605.700	304.000
GR	602.500	309.000	602.100	315.000	602.400	321.000	606.000	324.000	606.700	330.000
GR	620.000	360.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.055	0.045	0.035	0.100	0.300	0.0	0.0	0.0	0.0	0.0

SECTION I

X1	7850.000	16.000	275.000	296.500	542.000	598.000	711.000	0.0	0.0	0.0
GR	630.000	125.000	626.000	135.000	622.000	145.000	618.000	155.000	614.000	170.000
GR	610.000	190.000	608.900	200.000	607.500	245.000	607.700	275.000	604.500	281.500
GR	604.100	287.500	604.400	293.500	606.800	296.500	610.000	305.000	620.000	345.000
GR	630.000	365.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.200	0.400	0.0	0.0	0.0	0.0	0.0

SECTION J

X1	9350.000	10.000	136.500	156.500	995.000	1031.000	1057.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	130.000	0.0	0.0	0.0	0.0	0.0	0.0
GR	645.000	0.0	612.500	70.000	612.000	110.000	613.100	125.000	611.000	136.500
GR	607.800	141.500	607.400	147.500	607.800	153.500	611.300	156.500	626.100	200.000
NC	0.055	0.055	0.035	0.0	0.0	0.0	0.0	0.0	0.0	0.0
QT	5.000	315.000	470.000	520.000	670.000	520.000	0.0	0.0	0.0	0.0

SECTION K

X1	10850.000	9.000	260.000	285.000	1271.000	1312.000	1329.000	0.0	0.0	0.0
GR	627.000	145.000	622.000	180.000	618.000	260.000	616.000	265.000	615.500	272.000
GR	616.000	280.000	618.000	285.000	622.000	300.000	626.000	310.000	0.0	0.0
NC	0.0	0.0	0.0	0.100	0.300	0.0	0.0	0.0	0.0	0.0

SECTION L MANUFACTURED FROM TOPOMAP

X1	10859.000	12.000	277.000	293.000	747.000	742.000	746.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	120.000	0.0	335.000	0.0	0.0	0.0	0.0
GR	635.000	48.000	631.000	70.000	627.000	71.000	625.100	277.000	623.800	280.000
GR	622.900	285.000	623.700	290.000	624.700	290.000	625.500	293.000	627.000	300.000
GR	631.000	305.000	635.000	310.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.300	0.500	0.0	0.0	0.0	0.0	0.0

SECTION M 48 TH AVE,BOX CULVERT, W 23.4 FT,L 11.7 FT,TR 632.4, LC 627.4

X1	10869.000	10.000	395.000	405.000	197.000	230.000	214.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	630.000	630.000	0.0
GR	633.800	300.000	632.500	350.000	632.400	395.000	623.100	395.000	622.400	400.000
GR	622.700	405.000	632.400	405.000	632.800	425.000	633.700	450.000	636.100	500.000
SB	0.0	1.670	2.500	0.0	10.000	0.0	48.000	0.0	622.600	622.600

X1	10870.000	0.0	0.0	0.0	28.400	28.400	28.400	0.0	0.0	0.0
X2	0.0	0.0	1.000	627.400	632.400	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	632.400	632.400	0.0
BT	4.000	350.000	632.500	632.500	395.000	632.400	632.400	405.000	632.400	632.400
BT	425.000	632.800	632.800	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECTION N MANUFACTURED FROM TOPOMAP

X1	10880.000	15.000	243.000	257.000	116.000	100.000	81.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	220.000	0.0	280.000	0.0	0.0	0.0	0.0
GR	646.000	130.000	642.000	150.000	638.000	165.000	634.000	190.000	630.000	230.000
GR	625.500	243.000	623.400	245.000	622.400	250.000	623.000	255.000	625.400	257.000
GR	630.000	325.000	634.000	330.000	638.000	350.000	642.000	360.000	646.000	380.000

SECTION O

X1	12350.000	11.000	105.000	125.000	225.000	229.000	286.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	636.800	75.000	627.500	105.000	624.300	110.000	623.900	116.000	624.200	122.000
GR	627.500	125.000	628.300	150.000	628.200	185.000	627.200	225.000	628.200	260.000
GR	643.100	290.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECTION P

X1	12356.000	14.000	2043.000	2056.000	385.000	313.000	390.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	2025.000	0.0	2075.000	0.0	0.0	0.0	0.0
GR	644.800	1935.000	639.700	1970.000	631.400	1990.000	632.000	2030.000	631.200	2043.000
GR	628.800	2045.000	628.300	2050.000	628.900	2055.000	631.300	2056.000	632.300	2060.000

GR	633.500	2090.000	635.200	2140.000	633.300	2165.000	643.100	2200.000	0.0	0.0

SECTION Q M-45,BOX CULVERT,W 82.9 FT,L 10.4 FT,TR 642.5, LC 632.9

X1	12366.000	19.000	1995.000	2005.000	50.000	50.000	41.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	640.000	640.000	0.0
GR	646.800	1300.000	644.100	1400.000	641.000	1500.000	638.000	1600.000	636.800	1700.000
GR	636.200	1750.000	636.500	1800.000	637.000	1850.000	638.400	1900.000	640.400	1950.000
GR	642.500	1995.000	629.000	1995.000	627.700	2000.000	626.900	2005.000	642.500	2005.000
GR	645.000	2052.000	646.600	2075.000	647.300	2100.000	651.600	2200.000	0.0	0.0
SB	0.0	2.240	2.500	10.000	10.000	0.0	50.750	0.0	627.800	627.800

X1	12367.000	0.0	0.0	0.0	83.000	83.000	83.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	632.900	642.500	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	642.500	642.500	0.0
NC	0.0	0.0	0.0	0.100	0.300	0.0	0.0	0.0	0.0	0.0

SECTION R 2-5 FT CMP,TR 637.8, LC 635.0

X1	12400.000	15.000	247.500	262.500	226.000	226.000	226.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	247.500	0.0	262.500	0.0	0.0	0.0	0.0
GR	642.000	50.000	638.100	240.000	637.800	247.500	632.500	247.500	630.000	248.200
GR	630.000	250.000	630.700	251.800	632.500	252.500	632.500	257.500	630.700	258.200
GR	630.000	260.000	630.700	261.800	632.500	262.500	637.800	262.500	640.000	340.000
SB	5.000	2.850	2.500	0.0	14.000	5.000	39.270	0.0	630.700	630.700

X1	12401.000	0.0	0.0	0.0	50.000	50.000	50.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	635.000	637.800	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	247.500	0.0	262.500	0.0	0.0	0.0	0.0
BT	10.000	247.500	637.800	632.500	248.200	637.800	634.300	250.000	637.800	635.000
BT	251.800	637.800	634.300	252.500	637.800	632.500	257.500	637.500	632.500	258.200
BT	637.500	634.300	260.000	637.500	635.000	261.800	637.500	634.300	262.500	637.500
BT	632.500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.300	0.500	0.0	0.0	0.0	0.0	0.0

SECTION S MANUFACTURED FROM TOPOMAP

X1	12404.000	8.000	247.500	262.500	130.000	114.000	90.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	225.000	0.0	285.000	0.0	0.0	0.0	0.0
GR	639.000	180.000	635.000	215.000	632.500	247.500	630.000	248.200	630.000	261.800
GR	632.500	262.500	635.000	275.000	642.000	300.000	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.100	0.300	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	917.000	1020.000

SECTION T

X1	14600.000	11.000	925.000	930.000	1278.000	1227.000	1458.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GR	654.300	875.000	645.400	885.000	646.300	910.000	640.000	925.000	639.700	927.500
GR	640.000	930.000	644.700	975.000	642.700	1015.000	648.000	1050.000	649.500	1085.000
GR	653.900	1125.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	370.000	450.000

SECTION U

X1	15850.000	10.000	415.000	432.500	1382.000	1335.000	1869.000	0.0	0.0	0.0
GR	657.900	335.000	653.700	375.000	653.800	405.000	652.400	415.000	651.700	417.500
GR	650.200	425.000	651.700	432.500	653.900	440.000	655.400	485.000	657.400	545.000

SECTION V

X1	15851.000	12.000	335.000	352.500	225.000	246.000	264.000	0.0	0.0	0.0
GR	660.000	0.0	657.500	125.000	653.000	290.000	657.200	320.000	652.400	335.000
GR	651.700	337.500	651.200	345.000	651.700	352.500	653.400	360.000	653.600	380.000
GR	658.800	390.000	660.000	430.000	0.0	0.0	0.0	0.0	0.0	0.0

SECTION W FOOT BRIDGE,BOX CULVERT,W 13.6 FT,L 10.8 FT,TR 654.2, LC 653.6

X1	15852.000	12.000	357.100	362.900	60.000	96.000	96.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	390.000	0.0	653.600	653.600	0.0
GR	660.000	0.0	658.800	80.000	657.600	195.000	657.900	230.000	656.200	330.000
GR	654.200	347.000	649.900	357.100	649.700	360.000	650.100	362.900	654.200	373.000
GR	654.800	410.000	657.300	460.000	0.0	0.0	0.0	0.0	0.0	0.0
SB	0.0	1.500	2.500	0.0	5.800	0.0	21.750	0.0	649.900	649.900

X1	15853.000	0.0	0.0	0.0	12.000	12.000	12.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	653.600	654.200	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	390.000	0.0	654.200	654.200	0.0
BT	11.000	80.000	658.800	658.800	195.000	657.600	657.600	230.000	657.900	657.900
BT	330.000	656.200	656.200	347.000	654.200	654.200	357.100	654.200	653.600	360.000
BT	654.200	653.600	362.900	654.200	653.600	373.000	654.200	654.200	410.000	654.800
BT	654.800	460.000	657.300	657.300	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	235.000	390.000

SECTION X

X1	15854.000	13.000	257.500	284.000	82.000	81.000	88.000	0.0	0.0	0.0
GR	660.000	0.0	657.200	70.000	656.900	150.000	657.400	225.000	652.800	257.500
GR	651.600	262.500	650.500	270.000	651.300	277.500	653.500	284.000	655.500	290.000
GR	657.500	325.000	658.400	365.000	660.000	410.000	0.0	0.0	0.0	0.0
NC	0.030	0.030	0.030	0.100	0.300	0.0	0.0	0.0	0.0	0.0

SECTION Y

X1	16600.000	14.000	366.500	388.500	507.000	493.000	498.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	325.000	0.0	427.000	0.0	0.0	0.0	0.0
GR	660.000	0.0	657.000	50.000	656.500	130.000	657.900	215.000	657.400	305.000
GR	655.900	360.000	654.800	366.500	652.400	372.500	652.100	377.500	652.500	382.500
GR	655.200	388.500	655.200	395.000	657.800	450.000	660.000	490.000	0.0	0.0
EJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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*PROF 1

CCHV     0.100 CEHV     0.300
*SECNO 2750.000

3265 DIVIDED FLOW

     SECNO      DEPTH     CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS     BANK ELEV
     Q          QLOB      QCH        QROB       ALOB       ACH        AROB       VOL        TWA     LEFT/RIGHT
     TIME       VLOB      VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
     SLOPE      XLOBL     XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


3470 ENCROACHMENT STATIONS      1380.0      1556.0  TYPE        1  TARGET       176.000

          SECTION A  2750 FT FROM MOUTH

    2750.00      2.39    593.89      0.0     596.00    594.11      0.23       0.0       0.0     594.20
       685.        1.      684.        0.        1.      179.        0.        0.        0.  100000.00
       0.0       0.46      3.83      0.0      0.070     0.035     0.050       0.0     591.50   1380.00
   0.003256     1540.     3437.     1501.         0         0         4     -0.00      93.78   1556.00

FLOW DISTRIBUTION FOR SECNO     2750.00           CWSEL      593.89

STA      1380.      1385.      1560.
  PER Q          0.1      99.9
   AREA          1.2     178.5
    VEL          0.5       3.8

*SECNO 3600.000

          SECTION B

    3600.00      4.82    596.42      0.0       0.0     596.80      0.37      2.64      0.04     595.80
       685.        3.      532.      150.        5.       98.       83.        3.        2.     594.50
       0.05      0.54      5.45      1.81     0.070     0.035     0.050     0.037    591.60     186.61
   0.003054      390.      875.      540.         3         0         0     -0.01    114.37     300.97

FLOW DISTRIBUTION FOR SECNO     3600.00           CWSEL      596.42

STA       187.      202.      228.      230.      300.      301.
  PER Q          0.4      77.7       1.5      20.4       0.0
   AREA          4.8      97.6       3.9      78.7       0.1
    VEL          0.5       5.5       2.6       1.8       0.4

*SECNO 3610.000

          SECTION C  MANUFACTURED FROM TOPOMAP

    3610.00      4.36    597.56      0.0       0.0     597.82      0.26      1.02     -0.01     594.00
       685.        9.      473.      202.        8.       99.      103.        5.        2.     594.00
       0.08      1.19      4.79      1.97     0.070     0.035     0.050     0.038    593.20     595.55
   0.002036      280.      473.      240.         2         0         0     -0.01      87.25     682.80

FLOW DISTRIBUTION FOR SECNO     3610.00           CWSEL      597.56

STA       596.      600.      625.      683.
  PER Q          1.4      69.1      29.5
   AREA          7.9      98.9     102.8
    VEL          1.2       4.8       2.0
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CCHV      0.300 CEHV      0.500
*SECNO 3611.000

3301 HV CHANGED MORE THAN HVINS

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      611.00 ELREA      611.00

        SECTION D  90 TH AVE., CMP,W 100 FT,D 12 FT,TR 611.6, LC 603.6

   3611.00      6.53    600.13    600.13      0.0     602.79      2.66      0.55      1.20    598.60
      685.        0.      685.        0.        0.       52.        0.        5.        3.    598.60
      0.08       0.0     13.09       0.0     0.070     0.035     0.045     0.037    593.60    145.00
  0.018668      120.      120.      120.       20        14         0      0.00     10.00    155.00

FLOW DISTRIBUTION FOR SECNO     3611.00          CWSEL     600.13

STA        145.      155.
   PER Q       100.0
     AREA       52.3
      VEL       13.1

*SECNO 3612.000
     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3370 NORMAL BRIDGE,NRD  14 MIN ELTRD   611.00 MAX ELLC   614.90

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      611.60 ELREA      611.60

   3612.00      6.50    600.10    600.04      0.0     602.87      2.78      0.02      0.06    598.60
      685.        0.      685.        0.        0.       51.        0.        5.        3.    598.60
      0.08       0.0     13.37       0.0     0.070     0.035     0.045     0.037    593.60    145.00
  0.025697        1.        1.        1.        4        16         0     -2.47     10.00    155.00

FLOW DISTRIBUTION FOR SECNO     3612.00          CWSEL     600.10

STA        145.      155.
   PER Q       100.0
     AREA       51.2
      VEL       13.4

*SECNO 3613.000

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD  14 MIN ELTRD   611.00 MAX ELLC   614.90
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3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       611.60 ELREA       611.60

  3613.00     10.29    603.89      0.0       0.0     605.22      1.33      1.92      0.43    598.60
     685.        0.      685.        0.        0.       74.        0.        5.        3.    598.60
     0.08       0.0      9.26       0.0     0.070     0.035     0.045     0.037    593.60    145.00
 0.014832      100.      100.      100.         4         0         0    -37.47     10.00    155.00

FLOW DISTRIBUTION FOR SECNO    3613.00           CWSEL      603.89

STA        145.      155.
 PER Q     100.0
  AREA      74.0
   VEL       9.3

*SECNO 3614.000

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       611.60 ELREA       611.60

  3614.00     11.03    604.63      0.0       0.0     605.40      0.77      0.00      0.17    598.60
     685.        0.      685.        0.        0.       97.        0.        5.        3.    598.60
     0.09       0.0      7.04       0.0     0.070     0.035     0.045     0.037    593.60    145.00
 0.002367        1.        1.        1.         3         0         0     -0.00    -10.00    155.00

FLOW DISTRIBUTION FOR SECNO    3614.00           CWSEL      604.63

STA        145.      155.
 PER Q     100.0
  AREA      97.2
   VEL       7.0

*SECNO 3615.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS       635.0     772.5  TYPE      1  TARGET      137.500

        SECTION E  MANUFACTURED FROM TOPOMAP

  3615.00     11.63    605.63      0.0       0.0     605.65      0.02      0.03      0.23    598.00
     685.      292.      347.       46.      561.      241.       65.        7.        3.    598.00
     0.13      0.52      1.44      0.71     0.070     0.035     0.045     0.037    594.00    635.00
 0.000060      150.      165.      130.         2         0         0     -0.01    134.54    769.54

FLOW DISTRIBUTION FOR SECNO    3615.00           CWSEL      605.63

STA        635.      730.      755.      765.      770.
 PER Q      42.7      50.6       6.3       0.4
  AREA     560.9     240.8      56.3       8.2
   VEL       0.5       1.4       0.8       0.3

CCHV    0.300 CEHV     0.500
*SECNO 5100.000

        SECTION F

  5100.00     10.47    605.67      0.0       0.0     605.68      0.01      0.03      0.00    598.80
     685.      273.      233.      179.      596.      191.      298.       17.        5.    599.10
[illegible]
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  0.000048      347.      574.      550.         2         0         0     -0.01    219.94    474.27

 FLOW DISTRIBUTION FOR SECNO     5100.00          CWSEL      605.67

 STA       254.      260.      280.      315.      380.      382.      402.      415.      440.      474.
   PER Q        0.1       0.8       7.0      31.3       0.8      34.0       7.1      12.0       7.0
    AREA        3.9      28.3     133.6     420.4      10.2     190.9      71.1     124.2     102.2
     VEL        0.1       0.2       0.4       0.5       0.5       1.2       0.7       0.7       0.5

 CCHV     0.100 CEHV     0.300
 *SECNO 6100.000
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


         SECTION G  MANUFACTURED FROM TOPOMAP

   6100.00      7.42    605.72       0.0       0.0    605.74      0.02      0.06      0.00    598.80
      685.      422.      195.       68.      615.      121.       73.       34.        8.    598.70
      0.54      0.69      1.61      0.93     0.070     0.035     0.045     0.038    598.30    303.49
  0.000104      776.      876.      800.         0         0         0     -0.01    170.79    474.28


 FLOW DISTRIBUTION FOR SECNO     6100.00          CWSEL      605.72

 STA       303.      336.      370.      439.      456.      460.      470.      474.
   PER Q        0.8      10.6      50.2      28.5       4.8       4.9       0.2
    AREA       27.8     134.7     452.7     121.3      27.2      41.6       3.7
     VEL        0.2       0.5       0.8       1.6       1.2       0.8       0.3

 *SECNO 7350.000

 3301 HV CHANGED MORE THAN HVINS

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

         SECTION H

   7350.00      4.71    606.81    606.81       0.0    607.59      0.78      0.32      0.23    605.70
      685.      100.      581.        4.       71.       76.        3.       45.       11.    606.00
      0.58      1.41      7.66      1.57     0.070     0.035     0.045     0.038    602.10    204.87
  0.006498      915.     1050.      851.        20        15         0     -0.01    125.38    330.25


 FLOW DISTRIBUTION FOR SECNO     7350.00          CWSEL      606.81

 STA       205.      210.      295.      304.      324.      330.
   PER Q        0.1      12.0       2.5      84.8       0.6
    AREA        1.1      60.4       9.5      75.8       2.8
     VEL        0.6       1.4       1.8       7.7       1.6

 CCHV     0.100 CEHV     0.300
 *SECNO 7850.000
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3301 HV CHANGED MORE THAN HVINS

SECTION I

7850.00	5.44	609.54	0.0	0.0	609.81	0.27	2.17	0.05	607.70
685.	195.	473.	17.	121.	97.	10.	47.	13.	606.80
0.63	1.62	4.85	1.71	0.055	0.035	0.045	0.038	604.10	194.16
0.001919	542.	711.	593.	3	0	0	-0.01	109.62	303.78

FLOW DISTRIBUTION FOR SECNO 7850.00 CWSEL 609.54

STA	194.	200.	245.	275.	297.	304.
PER Q	0.2	12.7	15.7	69.0	2.5	
AREA	1.9	60.4	58.3	97.4	10.0	
VEL	0.6	1.4	1.8	4.9	1.7	

CCHV 0.200 CEHV 0.400
*SECNO 9350.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS 130.0 200.0 TYPE 1 TARGET -130.000

SECTION J

9350.00	5.07	612.47	0.0	0.0	613.47	1.00	3.37	0.30	611.00
685.	11.	670.	4.	6.	83.	2.	51.	14.	611.30
0.66	1.92	8.12	1.79	0.055	0.035	0.045	0.037	607.40	130.00
0.006490	995.	1057.	1031.	3	0	0	-0.00	29.94	159.94

FLOW DISTRIBUTION FOR SECNO 9350.00 CWSEL 612.47

STA	130.	137.	157.	160.
PER Q	1.6	97.9	0.5	
AREA	5.7	82.6	2.0	
VEL	1.9	8.1	1.8	

*SECNO 10850.000

3301 HV CHANGED MORE THAN HVINS

SECTION K

10850.00	4.14	619.64	0.0	0.0	620.09	0.45	6.50	0.11	618.00
520.	38.	475.	7.	27.	85.	5.	54.	16.	618.00
0.73	1.41	5.60	1.38	0.055	0.035	0.055	0.037	615.50	227.20
0.003569	1271.	1329.	1312.	4	0	0	-0.00	63.95	291.15

FLOW DISTRIBUTION FOR SECNO 10850.00 CWSEL 619.64

STA	227.	260.	285.	291.
PER Q	7.3	91.3	1.3	
AREA	26.9	84.8	5.0	
VEL	1.4	5.6	1.4	

CCHV 0.100 CEHV 0.300
*SECNO 10859.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT

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  SLOPE    XLOBL    XLCH     XLOBR    ITRIAL    IDC      ICONT    CORAR    TOPWID    ENDST

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS       120.0      335.0   TYPE       1   TARGET       215.000

        SECTION L  MANUFACTURED FROM TOPOMAP

 10859.00     3.67    626.57    626.57      0.0    626.99      0.42      3.73      0.00    625.10
    520.      226.     290.        4.      117.       43.        3.       57.       18.    625.50
    0.78      1.92     6.71      1.52     0.055     0.035     0.055     0.037    622.90    120.00
 0.007482     747.     746.      742.       20        12         0      -0.02    178.00    298.00

FLOW DISTRIBUTION FOR SECNO    10859.00             CWSEL      626.57

STA        120.      277.      293.      298.
  PER Q        43.4      55.8       0.8
   AREA       117.3      43.2       2.7
    VEL         1.9       6.7       1.5

CCHV    0.300 CEHV     0.500
*SECNO 10869.000

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       630.00 ELREA        630.00

        SECTION M 48 TH AVE,BOX CULVERT, W 28.4 FT,L 11.7 FT,TR 632.4, LC 627.4

 10869.00     5.74    628.14      0.0       0.0    629.54      1.39      2.06      0.49    632.40
    520.        0.     520.        0.        0.       55.        0.       57.       18.    632.40
    0.78       0.0     9.46       0.0     0.055     0.035     0.055     0.037    622.40    395.00
 0.013382     197.     214.      230.        2         0         0      -0.00     10.00    405.00

FLOW DISTRIBUTION FOR SECNO    10869.00             CWSEL      628.14

STA        395.      405.
  PER Q       100.0
   AREA        54.9
    VEL         9.5

SPECIAL BRIDGE
SB  XK        XKOR      COFQ      RDLEN      BWC       BWP      BAREA       SS       ELCHU     ELCHD
     0.0      1.67      2.50       0.0      10.00       0.0     48.00       0.0     622.60    622.60

*SECNO 10870.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

  EGPRS      EGLWC      H3      QWEIR      QPR      BAREA    TRAPEZOID      ELLC      ELTRD
                                                                AREA
  631.19     629.64     0.0        0.      520.       48.        48.       627.40    632.40
```

632.19
628.14
3.05

```
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       632.40 ELREA        632.40

 10870.00      8.11   630.51      0.0       0.0    631.19      0.68      1.65      0.0     632.40
      520.       0.      520.       0.        0.       79.        0.       57.       18.     632.40
      0.79      0.0      6.61      0.0     0.055     0.035     0.055     0.037    622.40    395.00
 0.005338       28.       28.      28.         2         0         0     -0.00     10.00    405.00

FLOW DISTRIBUTION FOR SECNO   10870.00          CWSEL      630.51

STA        395.      405.
  PER Q       100.0
   AREA        78.7
    VEL         6.6

*SECNO 10880.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS        220.0      280.0  TYPE     1  TARGET        60.000

                SECTION N  MANUFACTURED FROM TOPOMAP

 10880.00      8.96   631.36      0.0       0.0    631.44      0.08      0.07      0.18    625.50
      520.       54.      314.     152.       55.      114.      119.       57.       18.    625.40
     0.80      0.98      2.76     1.27     0.055     0.035     0.055     0.037    622.40    220.00
 0.000314      116.       81.     100.         2         0         0     -0.00     60.00    280.00

FLOW DISTRIBUTION FOR SECNO   10880.00          CWSEL      631.36

STA        220.      230.      243.      257.      280.
  PER Q         0.7       9.8      60.4      29.2
   AREA         8.6      46.9     113.7     119.1
    VEL         0.4       1.1       2.8       1.3

*SECNO 12350.000

                SECTION O

 12350.00      7.58   631.48      0.0       0.0    631.50      0.02      0.04      0.02    627.50
      520.       11.      190.     319.       26.      134.      497.       60.       19.    627.50
     0.87      0.42      1.42     0.64     0.055     0.035     0.055     0.037    623.90     92.15
 0.000104      225.      286.     229.         2         0         0     -0.01    174.46    266.61

FLOW DISTRIBUTION FOR SECNO   12350.00          CWSEL      631.48

STA         92.      105.      125.      150.      185.      225.      260.      267.
  PER Q         2.1      36.6      11.1      13.1      19.4      17.0       0.7
   AREA        25.6     133.7      89.6     113.2     151.3     132.4      10.9
    VEL         0.4       1.4       0.6       0.6       0.7       0.7       0.4

*SECNO 12356.000

3301 HV CHANGED MORE THAN HVINS

     SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS  BANK ELEV
         Q      QLOB       QCH      QROB      ALOB       ACH      AROB       VOL       TWA  LEFT/RIGHT
      TIME      VLOB       VCH      VROB       XNL      XNCH       XNR       WTN     ELMIN      SSTA
     SLOPE     XLOBL      XLCH     XLOBR    ITRIAL       IDC     ICONT     CORAR    TOPWID     ENDST

3495 20 TRIALS ATTEMPTED WSEL,CWSEL
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3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS      2025.0     2075.0  TYPE       1  TARGET        50.000

        SECTION P

  12356.00       4.80   632.80   632.80      0.0     633.85     1.04      0.12      0.51    631.20
     520.          53.     454.      13.      20.        52.       7.        63.       20.    631.30
      0.89       2.66     8.71     1.82    0.055      0.035    0.055     0.037    628.00   2025.00
  0.008633       385.     390.     313.       20         18        0     -0.00     47.60   2072.60

 FLOW DISTRIBUTION FOR SECNO   12356.00            CWSEL       632.80

 STA      2025.     2030.     2043.     2056.     2060.     2073.
   PER Q        1.6       8.5      87.3       1.9       0.6
    AREA        4.2      15.7      52.1       4.0       3.2
     VEL        2.0       2.8       8.7       2.5       1.0

 *SECNO 12366.000

 3301 HV CHANGED MORE THAN HVINS

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       640.00 ELREA       640.00

        SECTION Q M-45,BOX CULVERT,W 82.9 FT,L 10.4 FT,TR 642.5, LC 632.9

  12366.00       6.12   633.02      0.0      0.0     634.58     1.55      0.48      0.26    642.50
     520.          0.     520.       0.       0.        52.       0.       63.       20.    642.50
      0.89        0.0    10.00      0.0    0.055      0.035    0.055     0.037    626.90   1995.00
  0.015912        50.      41.      50.        2          0        0     -0.00     10.00   2005.00

 FLOW DISTRIBUTION FOR SECNO   12366.00            CWSEL       633.02

 STA      1995.     2005.
   PER Q     100.0
    AREA      52.0
     VEL      10.0

 SPECIAL BRIDGE

 SB  XK         XKOR      COFQ      RDLEN       BWC       BWP       BAREA       SS      ELCHU      ELCHD
       0.0        2.24      2.50     10.00     10.00       0.0      50.75       0.0     627.80     627.80

 *SECNO 12367.000

 3301 HV CHANGED MORE THAN HVINS

 PRESSURE FLOW

   EGPRS      EGLWC        H3        QWEIR        QPR        BAREA    TRAPEZOID       ELLC       ELTRD
                                                                        AREA
    636.68     635.05       0.0         0.         520.         51.        51.      632.90     642.50

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA           642.50 ELREA       642.50

  12367.00       9.16   636.06      0.0      0.0     636.68     0.62      2.10       0.0    642.50
     520.          0.     520.       0.       0.        82.       0.       63.       20.    642.50
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     0.89      0.0      6.31      0.0      0.055     0.035     0.055     0.037    626.90   1995.00
 0.004862      83.      83.       83.        2         0         0      -0.00     10.00   2005.00

FLOW DISTRIBUTION FOR SECNO   12367.00          CWSEL      636.06

STA      1995.     2005.
  PER Q       100.0
    AREA       82.4
     VEL        6.3

CCHV=     0.100 CEHV=      0.300
*SECNO 12400.000

3470 ENCROACHMENT STATIONS        247.5      262.5  TYPE        1  TARGET        15.000

         SECTION R  2-5 FT CMP,TR 637.8, LC 635.0

 12400.00     7.21    637.21      0.0       0.0     637.73      0.52      1.05      0.01    637.80
     520.       0.      520.       0.        0.        90.        0.       64.       20. 100000.00
     0.90      0.0      5.81      0.0      0.055     0.035     0.055     0.037    630.00    247.50
 0.004433     226.      226.      226.       2         0         0      -0.00     15.00    262.50

FLOW DISTRIBUTION FOR SECNO   12400.00          CWSEL      637.21

STA      248.      263.
  PER Q       100.0
    AREA       89.5
     VEL        5.8

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS     632.87 ,NOT    637.21 HYDRAULIC JUMP OCCURS DOWNSTREAM  IF LOW FLOW CONTROLS

SB   XK       XKOR      COFQ      RDLEN      BWC       BWP       BAREA       SS       ELCHU      ELCHD
    5.00      2.85      2.50      0.0      14.00      5.00      39.27      0.0      630.70     630.70

*SECNO 12401.000
3280 CROSS SECTION  12401.00 EXTENDED      0.28 FEET

PRESSURE AND WEIR FLOW

  EGPRS      EGLWC       H3       QWEIR      QPR       BAREA   TRAPEZOID     ELLC     ELTRD
                                                                  AREA
   644.97    638.61      0.0       181.      339.       39.       39.     635.00    637.80

3470 ENCROACHMENT STATIONS        247.5      262.5  TYPE        1  TARGET        15.000
 12401.00    10.28    640.28      0.0       0.0     640.51      0.23      2.77      0.0     637.80
     520.       0.      520.       0.        0.       136.        0.       64.       20. 100000.00
     0.91      0.0      3.84      0.0      0.055     0.035     0.055     0.037    630.00    247.50
 0.001421      50.       50.       50.       2         0         3      -0.00     15.00    262.50

FLOW DISTRIBUTION FOR SECNO   12401.00          CWSEL      640.28

STA      247.      263.
  PER Q       100.0
    AREA      135.6
     VEL        3.8
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 CCHV     0.300 CEHV       0.500
 *SECNO 12404.000
    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


 3470 ENCROACHMENT STATIONS        225.0       285.0  TYPE      1  TARGET        60.000

          SECTION S  MANUFACTURED FROM TOPOMAP

   12404.00     10.56    640.56       0.0        0.0     640.59      0.03       0.02       0.06    632.50
        520.     139.      275.      106.       162.      157.       127.        64.        20.    632.50
        0.93     0.86      1.75      0.84      0.055     0.035     0.055      0.037     630.00    225.00
   0.000101      130.       90.      114.          2         0         0      -0.00      60.00    285.00

 FLOW DISTRIBUTION FOR SECNO   12404.00            CWSEL      640.56

 STA        225.     248.     263.      275.     285.
   PER Q        26.7      52.9      15.8       4.7
    AREA       161.9     156.7      85.1      41.6
     VEL         0.9       1.8       1.0       0.6

 CCHV     0.100 CEHV       0.300
 *SECNO 14600.000

 3265 DIVIDED FLOW

 3301 HV CHANGED MORE THAN HVINS
    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

          SECTION T

   14600.00      3.84    643.54    643.54        0.0     644.35      0.81       0.45       0.23    640.00
        520.      59.      196.      265.        15.       18.        69.        73.        22.    640.00
        0.98     3.95     10.64      3.81      0.055     0.035     0.055      0.037     639.70    916.57
   0.011122     1278.     1458.     1227.         20        22         0      -0.00      69.73   1020.56

 FLOW DISTRIBUTION FOR SECNO   14600.00            CWSEL      643.54

 STA        917.     925.     930.      964.     1015.     1021.
   PER Q        11.3      37.8      48.0       2.2       0.7
    AREA        14.9      18.5      60.0       7.1       2.3
     VEL         4.0      10.6       4.2       1.6       1.6

 *SECNO 15850.000

          SECTION U

   15850.00      4.44    654.64       0.0        0.0     655.13      0.49      10.75       0.03    652.40
        520.      84.      393.       43.        46.       62.        22.        77.        25.    651.70
        1.07     1.82      6.36      1.36      0.055     0.035     0.055      0.037     650.20    366.07
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  0.004297    1382.     1869.     1335.        7         0         0     -0.00     96.07    462.14

 FLOW DISTRIBUTION FOR SECNO    15850.00          CWSEL       654.64

 STA      366.      375.      405.      415.      433.      440.      462.
   PER Q       0.9       8.4       6.9      75.5       6.9       1.4
    AREA       4.2      26.6      15.4      61.8      13.8       8.2
     VEL       1.1       1.6       2.3       6.4       2.6       0.9

 *SECNO 15851.000

        SECTION V

  15851.00      4.41    655.61       0.0       0.0    655.88      0.27      0.73      0.02    652.40
      520.       26.      347.      147.       16.       71.       69.       78.       25.    651.70
      1.09      1.62      4.86      2.13     0.055     0.035     0.055     0.037    651.20    324.96
  0.002031      225.      264.      246.         3         0         0     -0.00     58.91    383.87

 FLOW DISTRIBUTION FOR SECNO    15851.00          CWSEL       655.61

 STA      325.      335.      353.      360.      380.      384.
   PER Q       5.0      66.7      11.2      16.3       0.8
    AREA      16.1      71.4      23.0      42.3       3.9
     VEL       1.6       4.9       2.5       2.0       1.1

 *SECNO 15852.000

 3470 ENCROACHMENT STATIONS        0.0     390.0  TYPE       1  TARGET      389.999

        SECTION W FOOT BRIDGE,BOX CULVERT,W 13.6 FT,L 10.8 FT,TR 654.2, LC 653.6

  15852.00      6.01    655.71       0.0       0.0    656.14      0.42      0.21      0.05    649.90
      520.      128.      242.      150.       47.       34.       59.       78.       25.    650.10
      1.09      2.73      7.11      2.53     0.055     0.035     0.055     0.037    649.70    334.12
  0.002675       60.       96.       96.         2         0         0     -0.01     55.88    390.00

 FLOW DISTRIBUTION FOR SECNO    15852.00          CWSEL       655.71

 STA      334.      347.      357.      363.      373.      390.
   PER Q       2.2      22.4      46.5      21.5       7.4
    AREA       9.8      37.0      34.0      36.0      23.4
     VEL       1.2       3.1       7.1       3.1       1.7

 SPECIAL BRIDGE

 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
       0.0      1.50      2.50       0.0      5.80       0.0     21.75       0.0    649.90    649.90

 *SECNO 15853.000
     SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS  BANK ELEV
         Q      QLOB       QCH      QROB      ALOB       ACH      AROB       VOL       TWA LEFT/RIGHT
      TIME      VLOB       VCH      VROB       XNL      XNCH       XNR       WTN     ELMIN      SSTA
     SLOPE     XLOBL      XLCH     XLOBR    ITRIAL       IDC     ICONT     CORAR    TOPWID     ENDST

 PRESSURE AND WEIR FLOW

     EGPRS     EGLWC        H3     QWEIR       QPR     BAREA TRAPEZOID      ELLC      ELTRD
                                                                 AREA
    669.03    656.34       0.0      424.       97.       22.       21.    653.60    654.20
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 3470 ENCROACHMENT STATIONS         0.0       390.0  TYPE        1  TARGET        389.999
  15853.00      6.07    655.77      0.0       0.0     656.17      0.41      0.04      0.C      649.90
       520.     128.     240.      152.       48.       34.       51.       78.       25.      650.10
       1.10     2.67     6.99      2.49     0.055     0.035     0.055     0.037    649.70    333.67
  0.002549       12.       12.       12.         3         0         7     -0.01     56.33    390.00

 FLOW DISTRIBUTION FOR SECNO   15853.00          CWSEL      655.77

 STA         334.      347.      357.      363.      373.      390.
   PER Q         2.3      22.4      46.1      21.5       7.7
    AREA        10.5      37.6      34.3      36.5      24.3
     VEL         1.2       3.1       7.0       3.1       1.6

 *SECNO 15854.000

          SECTION X

  15854.00      5.63    656.13      0.0      -0.0     656.33      0.20      0.14      0.02    652.80
       520.      49.      458.       13.       39.      121.       13.       78.       25.    653.50
       1.10     1.24      3.78      0.98     0.055     0.035     0.055     0.037    650.50    233.96
  0.001077       82.       88.       81.         2         0         0     -0.00     67.09    301.05

 FLOW DISTRIBUTION FOR SECNO   15854.00          CWSEL      656.13

 STA         234.      258.      284.      290.      301.
   PER Q         9.3      88.2       2.2       0.3
    AREA        39.2     121.3       9.8       3.5
     VEL         1.2       3.8       1.2       0.4

 CCHV    0.100 CEHV     0.300
 *SECNO 16600.000
 3470 ENCROACHMENT STATIONS       325.0       427.0  TYPE        1  TARGET        102.000

          SECTION Y

  16600.00      4.65    656.75      0.0       0.0     657.06      0.31      0.70      0.03    654.80
       520.      41.      404.       76.       22.       81.       36.       80.       26.    655.20
       1.13     1.81      4.98      2.14     0.030     0.030     0.030     0.037    652.10    328.78
  0.001889      507.      498.      493.         2         0         0     -0.00     98.22    427.00

 FLOW DISTRIBUTION FOR SECNO   16600.00          CWSEL      656.75

 STA         329.      360.      367.      389.      395.      427.
   PER Q         3.1       4.7      77.6       5.6       9.0
    AREA        13.3       9.1      81.1      10.1      25.4
     VEL         1.2       2.7       5.0       2.9       1.8
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HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
ERROR CORR - 01,02,03
MODIFICATION - 50,51,52,53
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NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

OTTAWA CREEK

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	2750.000	593.89	-2.11	594.11	93.78	0.55	684.45	0.0	176.00	1380.00	1465.00	1560.00	1556.00
	2750.000	593.89	-2.11	594.11	93.78	0.55	684.45	0.0	176.00	1380.00	1465.00	1560.00	1556.00
	3600.000	596.42	0.0	596.80	114.37	2.59	532.46	149.95	0.0	0.0	202.00	228.00	0.0
	3600.000	596.42	0.0	596.80	114.37	2.59	532.46	149.95	0.0	0.0	202.00	228.00	0.0
	3610.000	597.56	0.0	597.82	87.25	9.43	473.46	202.11	0.0	0.0	600.00	625.00	0.0
	3610.000	597.56	0.0	597.82	87.25	9.43	473.46	202.11	0.0	0.0	600.00	625.00	0.0
*	3611.000	600.13	0.0	602.79	10.00	0.0	685.00	0.0	0.0	0.0	145.00	155.00	0.0
*	3611.000	600.13	0.0	602.79	10.00	0.0	685.00	0.0	0.0	0.0	145.00	155.00	0.0
	3612.000	600.10	0.0	602.87	10.00	0.0	685.00	0.0	0.0	0.0	145.00	155.00	0.0
	3612.000	600.10	0.0	602.87	10.00	0.0	685.00	0.0	0.0	0.0	145.00	155.00	0.0
	3613.000	603.39	0.0	605.22	10.00	0.0	685.00	0.0	0.0	0.0	145.00	155.00	0.0
	3613.000	603.39	0.0	605.22	10.00	0.0	685.00	0.0	0.0	0.0	145.00	155.00	0.0
	3614.000	604.63	0.0	605.40	10.00	0.0	685.00	0.0	0.0	0.0	145.00	155.00	0.0
	3614.000	604.63	0.0	605.40	10.00	0.0	685.00	0.0	0.0	0.0	145.00	155.00	0.0
	3615.000	605.63	0.0	605.65	134.54	292.35	346.64	46.01	137.50	635.00	730.00	755.00	772.50
	3615.000	605.63	0.0	605.65	134.54	292.35	346.64	46.01	137.50	635.00	730.00	755.00	772.50
	5100.000	605.67	0.0	605.68	219.94	273.29	232.60	179.11	0.0	0.0	381.50	401.50	0.0
	5100.000	605.67	0.0	605.68	219.94	273.29	232.60	179.11	0.0	0.0	381.50	401.50	0.0
	6100.000	605.72	0.0	605.74	170.79	422.29	194.93	67.79	0.0	0.0	439.00	456.00	0.0
	6100.000	605.72	0.0	605.74	170.79	422.29	194.93	67.79	0.0	0.0	439.00	456.00	0.0
*	7350.000	606.81	0.0	607.59	125.38	99.91	580.72	4.37	0.0	0.0	304.00	324.00	0.0
*	7350.000	606.81	0.0	607.59	125.38	99.91	580.72	4.37	0.0	0.0	304.00	324.00	0.0
	7850.000	609.54	0.0	609.81	109.62	195.27	472.67	17.05	0.0	0.0	275.00	296.50	0.0
	7850.000	609.54	0.0	609.81	109.62	195.27	472.67	17.05	0.0	0.0	275.00	296.50	0.0
	9350.000	612.47	0.0	613.47	29.94	10.94	670.44	3.62	-130.00	130.00	136.50	156.50	200.00
	9350.000	612.47	0.0	613.47	29.94	10.94	670.44	3.62	-130.00	130.00	136.50	156.50	200.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	10850.000	619.64	0.0	620.09	63.95	38.02	475.01	6.97	0.0	0.0	260.00	285.00	0.0
	10850.000	619.64	0.0	620.09	63.95	38.02	475.01	6.97	0.0	0.0	260.00	285.00	0.0
*	10859.000	626.57	0.0	626.99	178.00	225.84	290.09	4.07	215.00	120.00	277.00	293.00	335.00
*	10859.000	626.57	0.0	626.99	178.00	225.84	290.09	4.07	215.00	120.00	277.00	293.00	335.00
	10869.000	628.14	0.0	629.54	10.00	0.0	520.00	0.0	0.0	0.0	395.00	405.00	0.0
	10869.000	628.14	0.0	629.54	10.00	0.0	520.00	0.0	0.0	0.0	395.00	405.00	0.0
	10870.000	630.51	0.0	631.19	10.00	0.0	520.00	0.0	0.0	0.0	395.00	405.00	0.0
	10870.000	630.51	0.0	631.19	10.00	0.0	520.00	0.0	0.0	0.0	395.00	405.00	0.0
	10880.000	631.36	0.0	631.44	60.00	54.41	313.96	151.63	60.00	220.00	243.00	257.00	280.00
	10880.000	631.36	0.0	631.44	60.00	54.41	313.96	151.63	60.00	220.00	243.00	257.00	280.00
	12350.000	631.48	0.0	631.50	174.46	10.81	190.11	319.08	0.0	0.0	105.00	125.00	0.0
	12350.000	631.48	0.0	631.50	174.46	10.81	190.11	319.08	0.0	0.0	105.00	125.00	0.0
*	12356.000	632.80	0.0	633.85	47.60	52.86	454.06	13.08	50.00	2025.00	2043.00	2056.00	2075.00
*	12356.000	632.80	0.0	633.85	47.60	52.86	454.06	13.08	50.00	2025.00	2043.00	2056.00	2075.00
	12366.000	633.02	0.0	634.58	10.00	0.0	520.00	0.0	0.0	0.0	1995.00	2005.00	0.0
	12366.000	633.02	0.0	634.58	10.00	0.0	520.00	0.0	0.0	0.0	1995.00	2005.00	0.0
	12367.000	636.06	0.0	636.68	10.00	0.0	520.00	0.0	0.0	0.0	1995.00	2005.00	0.0
	12367.000	636.06	0.0	636.68	10.00	0.0	520.00	0.0	0.0	0.0	1995.00	2005.00	0.0
	12400.000	637.21	0.0	637.73	15.00	0.0	520.00	0.0	15.00	247.50	247.50	262.50	262.50
	12400.000	637.21	0.0	637.73	15.00	0.0	520.00	0.0	15.00	247.50	247.50	262.50	262.50
*	12401.000	640.28	0.0	640.51	15.00	0.0	520.00	0.0	15.00	247.50	247.50	262.50	262.50
*	12401.000	640.28	0.0	640.51	15.00	0.0	520.00	0.0	15.00	247.50	247.50	262.50	262.50
	12404.000	640.56	0.0	640.59	60.00	138.72	274.91	106.37	60.00	225.00	247.50	262.50	285.00
	12404.000	640.56	0.0	640.59	60.00	138.72	274.91	106.37	60.00	225.00	247.50	262.50	285.00
*	14600.000	643.54	0.0	644.35	69.73	58.99	196.47	264.54	0.0	0.0	925.00	930.00	0.0
*	14600.000	643.54	0.00	644.34	68.79	59.87	195.94	264.19	103.00	917.00	925.00	930.00	1020.00
	15850.000	654.64	0.0	655.13	96.07	84.08	392.85	43.07	0.0	0.0	415.00	432.50	0.0
	15850.000	654.64	-0.00	655.13	80.00	83.97	393.59	42.44	80.00	370.00	415.00	432.50	450.00
	15851.000	655.61	0.0	655.88	58.91	26.09	346.76	147.16	0.0	0.0	335.00	352.50	0.0
	15851.000	655.62	0.00	655.88	58.38	26.18	346.57	147.25	59.00	325.00	335.00	352.50	384.00
	15852.000	655.71	0.0	656.14	55.88	127.66	242.04	150.30	390.00	0.00	357.10	362.90	390.00
	15852.000	655.72	0.00	656.14	55.90	127.69	241.94	150.37	390.00	0.00	357.10	362.90	390.00
	15853.000	655.77	0.0	656.17	56.33	128.40	239.82	151.78	390.00	0.00	357.10	362.90	390.00
	15853.000	655.77	0.00	656.17	56.35	128.43	239.74	151.83	390.00	0.00	357.10	362.90	390.00
	15854.000	656.13	0.0	656.33	67.09	48.53	458.43	13.05	0.0	0.0	257.50	284.00	0.0
	15854.000	656.13	0.00	656.33	66.09	49.58	457.37	13.05	155.00	235.00	257.50	284.00	390.00
	16600.000	656.75	-0.0	657.06	98.22	40.50	403.51	75.99	102.00	325.00	366.50	388.50	427.00
	16600.000	656.75	-0.00	657.06	98.18	40.46	403.62	75.92	102.00	325.00	366.50	388.50	427.00

OTTAWA CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	2750.000	3437.00	0.0	0.0	591.50	685.00	593.89	0.0	594.11	32.56	3.83	179.73	120.04
	3600.000	875.00	0.0	0.0	591.60	685.00	596.42	0.0	596.80	30.54	5.45	185.18	123.95
	3610.000	473.00	0.0	0.0	593.20	685.00	597.56	0.0	597.82	20.36	4.79	209.63	151.81
*	3611.000	120.00	0.0	0.0	593.60	685.00	600.13	600.13	602.79	186.68	13.09	52.34	50.14
	3612.000	1.00	611.00	614.90	593.60	685.00	600.10	600.04	602.87	256.97	13.37	51.23	42.73
	3613.000	100.00	611.00	614.90	593.60	685.00	603.89	0.0	605.22	148.32	9.26	74.00	56.25
	3614.000	1.00	0.0	0.0	593.60	685.00	604.63	0.0	605.40	23.67	7.04	97.25	140.78
	3615.000	165.00	0.0	0.0	594.00	685.00	605.63	0.0	605.65	0.60	1.44	866.27	885.32
	5100.000	574.00	0.0	0.0	595.20	685.00	605.67	0.0	605.68	0.48	1.22	1084.86	989.14
	6100.000	876.00	0.0	0.0	598.30	685.00	605.72	0.0	605.74	1.04	1.61	809.07	670.45
*	7350.000	1050.00	0.0	0.0	602.10	685.00	606.81	606.81	607.59	64.98	7.66	149.59	84.97
	7850.000	711.00	0.0	0.0	604.10	685.00	609.54	0.0	609.81	19.19	4.85	227.91	156.39
	9350.000	1057.00	0.0	0.0	607.40	685.00	612.47	0.0	613.47	64.90	8.12	90.28	85.03
	10850.000	1329.00	0.0	0.0	615.50	520.00	619.64	0.0	620.09	35.69	5.60	116.70	87.04
*	10859.000	746.00	0.0	0.0	622.90	520.00	626.57	626.57	626.99	74.82	6.71	163.27	60.12
	10869.000	214.00	0.0	0.0	622.40	520.00	628.14	0.0	629.54	133.82	9.46	54.95	44.95
	10870.000	28.40	632.40	627.40	622.40	520.00	630.51	0.0	631.19	53.38	6.61	78.67	71.17
	10880.000	81.00	0.0	0.0	622.40	520.00	631.36	0.0	631.44	3.14	2.76	288.24	293.57

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
12350.000	286.00	0.0	0.0	623.90	520.00	631.48	0.0	631.50	1.04	1.42	656.67	510.78
12350.000	286.00	0.0	0.0	623.90	520.00	631.48	0.0	631.50	1.04	1.42	656.67	510.78
* 12356.000	390.00	0.0	0.0	628.00	520.00	632.80	632.80	633.85	86.33	8.71	79.15	55.97
* 12356.000	390.00	0.0	0.0	628.00	520.00	632.80	632.80	633.85	86.33	8.71	79.15	55.97
12366.000	41.00	0.0	0.0	626.90	520.00	633.02	0.0	634.58	159.12	10.00	52.00	41.22
12366.000	41.00	0.0	0.0	626.90	520.00	633.02	0.0	634.58	159.12	10.00	52.00	41.22
12367.000	83.00	642.50	632.90	626.90	520.00	636.06	0.0	636.68	48.62	6.31	82.37	74.57
12367.000	83.00	642.50	632.90	626.90	520.00	636.06	0.0	636.68	48.62	6.31	82.37	74.57
12400.000	226.00	0.0	0.0	630.00	520.00	637.21	0.0	637.73	44.33	5.81	89.53	78.10
12400.000	226.00	0.0	0.0	630.00	520.00	637.21	0.0	637.73	44.33	5.81	89.53	78.10
* 12401.000	50.00	637.80	635.00	630.00	520.00	640.28	0.0	640.51	14.21	3.84	135.56	137.94
* 12401.000	50.00	637.80	635.00	630.00	520.00	640.28	0.0	640.51	14.21	3.84	135.56	137.94
12404.000	90.00	0.0	0.0	630.00	520.00	640.56	0.0	640.59	1.01	1.75	445.33	517.33
12404.000	90.00	0.0	0.0	630.00	520.00	640.56	0.0	640.59	1.01	1.75	445.33	517.33
* 14600.000	1458.00	0.0	0.0	639.70	520.00	643.54	643.54	644.35	111.22	10.64	102.85	49.31
* 14600.000	1458.00	0.0	0.0	639.70	520.00	643.54	643.54	644.34	110.45	10.61	102.91	49.48
15850.000	1869.00	0.0	0.0	650.20	520.00	654.64	0.0	655.13	42.97	6.36	129.94	79.33
15850.000	1869.00	0.0	0.0	650.20	520.00	654.64	0.0	655.13	43.19	6.37	126.54	79.12
15851.000	264.00	0.0	0.0	651.20	520.00	655.61	0.0	655.88	20.31	4.86	156.62	115.39
15851.000	264.00	0.0	0.0	651.20	520.00	655.62	0.0	655.88	20.22	4.85	156.85	115.63
15852.000	96.00	0.0	0.0	649.70	520.00	655.71	0.0	656.14	26.75	7.11	140.24	100.53
15852.000	96.00	0.0	0.0	649.70	520.00	655.72	0.0	656.14	26.69	7.11	140.37	100.64
15853.000	12.00	654.20	653.60	649.70	520.00	655.77	0.0	656.17	25.49	6.99	143.20	102.99
15853.000	12.00	654.20	653.60	649.70	520.00	655.77	0.0	656.17	25.45	6.98	143.30	103.08
15854.000	88.00	0.0	0.0	650.50	520.00	656.13	0.0	656.33	10.77	3.78	173.75	158.48
15854.000	88.00	0.0	0.0	650.50	520.00	656.13	0.0	656.33	10.70	3.77	173.82	158.97
16600.000	498.00	0.0	0.0	652.10	520.00	656.75	0.0	657.06	18.89	4.98	138.98	119.64
16600.000	498.00	0.0	0.0	652.10	520.00	656.75	0.0	657.06	18.92	4.98	138.89	119.56

OTTAWA CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2750.000	685.00	593.89	0.0	0.0	-2.11	93.78	3437.00
	2750.000	685.00	593.89	0.0	0.0	-2.11	93.78	3437.00
	3600.000	685.00	596.42	0.0	2.54	0.0	114.37	875.00
	3600.000	685.00	596.42	0.0	2.54	0.0	114.37	875.00
	3610.000	685.00	597.56	0.0	1.13	0.0	87.25	473.00
	3610.000	685.00	597.56	0.0	1.13	0.0	87.25	473.00
*	3611.000	685.00	600.13	0.0	2.58	0.0	10.00	120.00
*	3611.000	685.00	600.13	0.0	2.58	0.0	10.00	120.00
	3612.000	685.00	600.10	0.0	-0.04	0.0	10.00	1.00
	3612.000	685.00	600.10	0.0	-0.04	0.0	10.00	1.00
	3613.000	685.00	603.89	0.0	3.79	0.0	10.00	100.00
	3613.000	685.00	603.89	0.0	3.79	0.0	10.00	100.00
	3614.000	685.00	604.63	0.0	0.73	0.0	10.00	1.00
	3614.000	685.00	604.63	0.0	0.73	0.0	10.00	1.00
	3615.000	685.00	605.63	0.0	1.01	0.0	134.54	165.00
	3615.000	685.00	605.63	0.0	1.01	0.0	134.54	165.00
	5100.000	685.00	605.67	0.0	0.04	0.0	219.94	574.00
	5100.000	685.00	605.67	0.0	0.04	0.0	219.94	574.00
	6100.000	685.00	605.72	0.0	0.05	0.0	170.79	876.00
	6100.000	685.00	605.72	0.0	0.05	0.0	170.79	876.00
*	7350.000	685.00	606.81	0.0	1.09	0.0	125.38	1050.00
*	7350.000	685.00	606.81	0.0	1.09	0.0	125.38	1050.00
	7850.000	685.00	609.54	0.0	2.73	0.0	109.62	711.00
	7850.000	685.00	609.54	0.0	2.73	0.0	109.62	711.00
	9350.000	685.00	612.47	0.0	2.93	0.0	29.94	1057.00
	9350.000	685.00	612.47	0.0	2.93	0.0	29.94	1057.00
X	10850.000	520.00	619.64	0.0	7.17	0.0	63.95	1329.00
	10850.000	520.00	619.64	0.0	7.17	0.0	63.95	1329.00
*	10859.000	520.00	626.57	0.0	6.93	0.0	178.00	746.00
*	10859.000	520.00	626.57	0.0	6.93	0.0	178.00	746.00
	10869.000	520.00	628.14	0.0	1.57	0.0	10.00	214.00
	10869.000	520.00	628.14	0.0	1.57	0.0	10.00	214.00
	10870.000	520.00	630.51	0.0	2.36	0.0	10.00	28.40
	10870.000	520.00	630.51	0.0	2.36	0.0	10.00	28.40
	10880.000	520.00	631.36	0.0	0.85	0.0	60.00	81.00
	10880.000	520.00	631.36	0.0	0.85	0.0	60.00	81.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	12350.000	520.00	631.48	0.0	0.13	0.0	174.46	285.00
	12350.000	520.00	631.48	0.0	0.13	0.0	174.46	285.00
*	12356.000	520.00	632.80	0.0	1.32	0.0	47.60	390.00
*	12356.000	520.00	632.80	0.0	1.32	0.0	47.60	390.00
	12366.000	520.00	633.02	0.0	0.22	0.0	10.00	41.00
	12366.000	520.00	633.02	0.0	0.22	0.0	10.00	41.00
	12367.000	520.00	636.06	0.0	3.03	0.0	10.00	83.00
	12367.000	520.00	636.06	0.0	3.03	0.0	10.00	83.00
	12400.000	520.00	637.21	0.0	1.15	0.0	15.00	226.00
	12400.000	520.00	637.21	0.0	1.15	0.0	15.00	226.00
*	12401.000	520.00	640.28	0.0	3.07	0.0	15.00	50.00
*	12401.000	520.00	640.28	0.0	3.07	0.0	15.00	50.00
	12404.000	520.00	640.56	0.0	0.28	0.0	60.00	90.00
	12404.000	520.00	640.56	0.0	0.28	0.0	60.00	90.00
*	14600.000	520.00	643.54	0.0	2.98	0.0	69.73	1458.00
*	14600.000	520.00	643.54	0.00	2.98	0.00	68.79	1458.00
	15850.000	520.00	654.64	0.0	11.10	0.0	96.07	1869.00
	15850.000	520.00	654.64	-0.00	11.09	-0.00	80.00	1869.00
	15851.000	520.00	655.61	0.0	0.97	0.0	58.91	264.00
	15851.000	520.00	655.62	0.00	0.98	0.00	58.88	264.00
	15852.000	520.00	655.71	0.0	0.10	0.0	55.88	96.00
	15852.000	520.00	655.72	0.00	0.10	0.00	55.90	96.00
	15853.000	520.00	655.77	0.0	0.05	0.0	56.33	12.00
	15853.000	520.00	655.77	0.00	0.05	0.00	56.35	12.00
	15854.000	520.00	656.13	0.0	0.36	0.0	67.09	88.00
	15854.000	520.00	656.13	0.00	0.36	0.00	66.09	88.00
	16600.000	520.00	656.75	0.0	0.62	0.0	98.22	498.00
	16600.000	520.00	656.75	-0.00	0.61	-0.00	98.18	498.00

SUMMARY OF ERRORS

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CAUTION   SECNO   3611.000   PROFILE  1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO   3611.000   PROFILE  1   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO   3611.000   PROFILE  1   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO   3611.000   PROFILE  2   CRITICAL DEPTH ASSUMED
CAUTION   SECNO   3611.000   PROFILE  2   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO   3611.000   PROFILE  2   20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION   SECNO   7350.000   PROFILE  1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO   7350.000   PROFILE  1   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO   7350.000   PROFILE  1   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO   7350.000   PROFILE  2   CRITICAL DEPTH ASSUMED
CAUTION   SECNO   7350.000   PROFILE  2   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO   7350.000   PROFILE  2   20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION   SECNO  10859.000   PROFILE  1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO  10859.000   PROFILE  1   PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION   SECNO 10859.000   PROFILE  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO 10859.000   PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION   SECNO 10859.000   PROFILE  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO 10859.000   PROFILE  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION   SECNO 12356.000   PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION   SECNO 12356.000   PROFILE  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO 12356.000   PROFILE  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO 12356.000   PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION   SECNO 12356.000   PROFILE  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO 12356.000   PROFILE  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION   SECNO 12401.000   PROFILE  1  HYDRAULIC JUMP D.S.
CAUTION   SECNO 12401.000   PROFILE  2  HYDRAULIC JUMP D.S.

CAUTION   SECNO 14600.000   PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION   SECNO 14600.000   PROFILE  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO 14600.000   PROFILE  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO 14600.000   PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION   SECNO 14600.000   PROFILE  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO 14600.000   PROFILE  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
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FLOODWAY DATA, OTTAWA CREEK
PROFILE NO. 2

STATION	FLOODWAY WIDTH FT	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	WATER SURFACE ELEVATION DIFFERENCE
2750.000	176.	180.	3.8	593.9	593.9	0.0
3600.000	114.	185.	3.7	596.4	596.4	0.0
3610.000	87.	210.	3.3	597.6	597.6	0.0
3611.000	10.	52.	13.1	600.1	600.1	0.0
3612.000	10.	51.	13.4	600.1	600.1	0.0
3613.000	10.	74.	9.3	603.9	603.9	0.0
3614.000	10.	97.	7.0	604.6	604.6	0.0
3615.000	135.	866.	0.8	605.6	605.6	0.0
5100.000	220.	1085.	0.6	605.7	605.7	0.0
6100.000	171.	809.	0.8	605.7	605.7	0.0
7350.000	125.	150.	4.6	606.8	606.8	0.0
7850.000	110.	228.	3.0	609.5	609.5	0.0
9350.000	30.	90.	7.6	612.5	612.5	0.0
10850.000	64.	117.	4.5	619.6	619.6	0.0
10859.000	178.	163.	3.2	626.6	626.6	0.0
10869.000	10.	55.	9.5	628.1	628.1	0.0
10870.000	10.	79.	6.6	630.5	630.5	0.0
10880.000	60.	288.	1.8	631.4	631.4	0.0
12350.000	174.	657.	0.8	631.5	631.5	0.0
12356.000	48.	79.	6.6	632.8	632.8	0.0
12366.000	10.	52.	10.0	633.0	633.0	0.0
12367.000	10.	82.	6.3	636.1	636.1	0.0
12400.000	15.	90.	5.8	637.2	637.2	0.0
12401.000	15.	136.	3.8	640.3	640.3	0.0
12404.000	60.	445.	1.2	640.6	640.6	0.0
14600.000	103.	103.	5.1	643.5	643.5	0.0
15850.000	80.	127.	4.1	654.6	654.6	0.0
15851.000	59.	157.	3.3	655.6	655.6	0.0
15852.000	56.	140.	3.7	655.7	655.7	0.0
15853.000	56.	143.	3.6	655.8	655.8	0.0
15854.000	66.	174.	3.0	656.1	656.1	0.0
16600.000	98.	139.	3.7	656.7	656.7	0.0

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	12400.000	315.00	635.26	0.0	1.30	0.0	15.00	226.00
	12400.000	470.00	636.50	1.24	1.24	0.0	15.00	226.00
	12400.000	520.00	637.21	0.71	1.15	0.0	15.00	226.00
	12400.000	670.00	639.58	2.37	0.95	0.0	15.00	226.00
*	12401.000	315.00	637.79	0.0	2.53	0.0	15.00	50.00
*	12401.000	470.00	639.70	1.91	3.20	0.0	15.00	50.00
*	12401.000	520.00	640.28	0.58	3.07	0.0	15.00	50.00
	12401.000	670.00	642.02	1.74	2.44	0.0	15.00	50.00
	12404.000	315.00	637.99	0.0	0.20	0.0	60.00	90.00
	12404.000	470.00	639.97	1.97	0.26	0.0	60.00	90.00
	12404.000	520.00	640.56	0.59	0.28	0.0	60.00	90.00
	12404.000	670.00	642.35	1.78	0.33	0.0	60.00	90.00
*	14600.000	315.00	642.77	0.0	4.78	0.0	40.03	1458.00
*	14600.000	470.00	643.39	0.62	3.42	0.0	63.76	1458.00
*	14600.000	520.00	643.54	0.15	2.98	0.0	69.73	1458.00
*	14600.000	670.00	643.92	0.38	1.57	0.0	84.33	1458.00
	15850.000	315.00	654.05	0.0	11.28	0.0	73.02	1869.00
	15850.000	470.00	654.52	0.46	11.13	0.0	91.14	1869.00
	15850.000	520.00	654.64	0.12	11.10	0.0	96.07	1869.00
	15850.000	670.00	654.97	0.34	11.05	0.0	109.35	1869.00
	15851.000	315.00	654.91	0.0	0.85	0.0	55.36	264.00
	15851.000	470.00	655.47	0.56	0.95	0.0	58.20	264.00
	15851.000	520.00	655.61	0.14	0.97	0.0	58.91	264.00
	15851.000	670.00	655.99	0.37	1.01	0.0	60.76	264.00
	15852.000	315.00	654.99	0.0	0.09	0.0	49.77	96.00
	15852.000	470.00	655.57	0.57	0.10	0.0	54.62	96.00
	15852.000	520.00	655.71	0.15	0.10	0.0	55.88	96.00
	15852.000	670.00	656.11	0.39	0.12	0.0	59.22	96.00
	15853.000	315.00	655.32	0.0	0.32	0.0	52.50	12.00
	15853.000	470.00	655.68	0.37	0.11	0.0	55.66	12.00
	15853.000	520.00	655.77	0.09	0.05	0.0	56.33	12.00
	15853.000	670.00	656.11	0.34	0.00	0.0	59.22	12.00
	15854.000	315.00	655.52	0.0	0.20	0.0	52.03	88.00
	15854.000	470.00	656.00	0.48	0.32	0.0	63.80	88.00
	15854.000	520.00	656.13	0.13	0.36	0.0	67.09	88.00
	15854.000	670.00	656.56	0.43	0.45	0.0	77.58	88.00
	16600.000	315.00	655.95	0.0	0.43	0.0	52.49	498.00
	16600.000	470.00	656.57	0.63	0.58	0.0	88.96	498.00
	16600.000	520.00	656.75	0.17	0.62	0.0	93.22	498.00
	16600.000	670.00	657.23	0.49	0.68	0.0	102.00	498.00

SUMMARY OF ERRORS

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CAUTION  SECNO  3611.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  3611.000  PROFILE  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  3611.000  PROFILE  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO  3611.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  3611.000  PROFILE  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  3611.000  PROFILE  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO  3611.000  PROFILE  3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  3611.000  PROFILE  3  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO  3611.000  PROFILE  3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO  3611.000  PROFILE  4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  3611.000  PROFILE  4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  3611.000  PROFILE  4  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO  3612.000  PROFILE  4  CRITICAL DEPTH ASSUMED

CAUTION  SECNO  7350.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  7350.000  PROFILE  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  7350.000  PROFILE  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO  7350.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  7350.000  PROFILE  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  7350.000  PROFILE  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO  7350.000  PROFILE  3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  7350.000  PROFILE  3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  7350.000  PROFILE  3  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO 10859.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 10859.000  PROFILE  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 10859.000  PROFILE  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO 10859.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 10859.000  PROFILE  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 10859.000  PROFILE  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO 10859.000  PROFILE  3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 10859.000  PROFILE  3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 10859.000  PROFILE  3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO 10859.000  PROFILE  4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 10859.000  PROFILE  4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 10859.000  PROFILE  4  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO 12356.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 12356.000  PROFILE  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 12356.000  PROFILE  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO 12356.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 12356.000  PROFILE  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 12356.000  PROFILE  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO 12356.000  PROFILE  3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 12356.000  PROFILE  3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 12356.000  PROFILE  3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO 12356.000  PROFILE  4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 12356.000  PROFILE  4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 12356.000  PROFILE  4  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO 12401.000  PROFILE  1  HYDRAULIC JUMP D.S.
CAUTION  SECNO 12401.000  PROFILE  2  HYDRAULIC JUMP D.S.
CAUTION  SECNO 12401.000  PROFILE  3  HYDRAULIC JUMP D.S.

CAUTION  SECNO 14600.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 14600.000  PROFILE  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 14600.000  PROFILE  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO 14600.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 14600.000  PROFILE  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 14600.000  PROFILE  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO 14600.000  PROFILE  3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 14600.000  PROFILE  3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 14600.000  PROFILE  3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO 14600.000  PROFILE  4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 14600.000  PROFILE  4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 14600.000  PROFILE  4  20 TRIALS ATTEMPTED TO BALANCE WSEL
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OTTAWA CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2750.000	425.00	593.32	0.0	0.0	-2.68	82.72	3437.00
	2750.000	605.00	593.74	0.41	0.0	-2.26	91.10	3437.00
	2750.000	685.00	593.89	0.15	0.0	-2.11	93.78	3437.00
	2750.000	890.00	594.25	0.36	0.0	-1.75	102.21	3437.00
	3600.000	425.00	595.79	0.0	2.47	0.0	82.20	875.00
	3600.000	605.00	596.25	0.46	2.52	0.0	109.44	875.00
	3600.000	685.00	596.42	0.17	2.54	0.0	114.37	875.00
	3600.000	890.00	596.80	0.37	2.55	0.0	129.07	875.00
	3610.000	425.00	596.85	0.0	1.05	0.0	74.80	473.00
	3610.000	605.00	597.37	0.53	1.12	0.0	84.05	473.00
	3610.000	685.00	597.56	0.18	1.13	0.0	87.25	473.00
	3610.000	890.00	597.96	0.41	1.17	0.0	94.37	473.00
*	3611.000	425.00	598.72	0.0	1.87	0.0	10.00	120.00
*	3611.000	605.00	599.75	1.03	2.37	0.0	10.00	120.00
*	3611.000	685.00	600.13	0.39	2.58	0.0	10.00	120.00
*	3611.000	890.00	601.13	0.99	3.16	0.0	10.00	120.00
	3612.000	425.00	599.49	0.0	0.77	0.0	10.00	1.00
	3612.000	605.00	599.75	0.27	0.00	0.0	10.00	1.00
	3612.000	685.00	600.10	0.35	-0.04	0.0	10.00	1.00
*	3612.000	890.00	601.00	0.90	-0.13	0.0	10.00	1.00
	3613.000	425.00	601.15	0.0	1.66	0.0	10.00	100.00
	3613.000	605.00	603.00	1.86	3.25	0.0	10.00	100.00
	3613.000	685.00	603.89	0.89	3.79	0.0	10.00	100.00
	3613.000	890.00	605.43	1.53	4.43	0.0	10.00	100.00
	3614.000	425.00	601.25	0.0	0.10	0.0	10.00	1.00
	3614.000	605.00	603.38	2.13	0.38	0.0	10.00	1.00
	3614.000	685.00	604.63	1.24	0.73	0.0	10.00	1.00
	3614.000	890.00	607.31	2.69	1.89	0.0	10.00	1.00
	3615.000	425.00	602.18	0.0	0.93	0.0	130.23	165.00
	3615.000	605.00	604.42	2.23	1.04	0.0	133.02	165.00
	3615.000	685.00	605.63	1.21	1.01	0.0	134.54	165.00
	3615.000	890.00	608.35	2.72	1.04	0.0	137.50	165.00
	5100.000	425.00	602.29	0.0	0.10	0.0	160.62	574.00
	5100.000	605.00	604.47	2.18	0.05	0.0	208.07	574.00
	5100.000	685.00	605.67	1.20	0.04	0.0	219.94	574.00
	5100.000	890.00	608.37	2.70	0.02	0.0	246.70	574.00
	6100.000	425.00	602.51	0.0	0.23	0.0	119.75	876.00
	6100.000	605.00	604.55	2.04	0.08	0.0	145.64	876.00
	6100.000	685.00	605.72	1.17	0.05	0.0	170.79	876.00
	6100.000	890.00	608.39	2.68	0.02	0.0	223.95	876.00
*	7350.000	425.00	605.37	0.0	2.85	0.0	18.95	1050.00
*	7350.000	605.00	606.65	1.28	2.10	0.0	122.72	1050.00
*	7350.000	685.00	606.31	0.16	1.09	0.0	125.38	1050.00
	7350.000	890.00	608.38	1.57	-0.02	0.0	148.49	1050.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	7850.000	425.00	608.97	0.0	3.60	0.0	102.86	711.00
	7850.000	605.00	609.35	0.38	2.70	0.0	107.34	711.00
	7850.000	685.00	609.54	0.19	2.73	0.0	109.62	711.00
	7850.000	890.00	609.63	0.09	1.25	0.0	110.65	711.00
	9350.000	425.00	611.51	0.0	2.54	0.0	23.47	1057.00
	9350.000	605.00	612.24	0.73	2.90	0.0	29.27	1057.00
	9350.000	685.00	612.47	0.23	2.93	0.0	29.94	1057.00
	9350.000	890.00	613.33	0.86	3.70	0.0	32.47	1057.00
	10850.000	315.00	618.76	0.0	7.25	0.0	43.05	1329.00
	10850.000	470.00	619.40	0.64	7.16	0.0	58.25	1329.00
	10850.000	520.00	619.64	0.24	7.17	0.0	63.95	1329.00
	10850.000	670.00	620.06	0.42	6.73	0.0	73.92	1329.00
*	10859.000	315.00	626.12	0.0	7.36	0.0	130.01	746.00
*	10859.000	470.00	626.49	0.37	7.09	0.0	171.73	746.00
*	10859.000	520.00	626.57	0.08	6.93	0.0	178.00	746.00
*	10859.000	670.00	626.69	0.12	6.63	0.0	178.56	746.00
	10869.000	315.00	627.57	0.0	1.45	0.0	10.00	214.00
	10869.000	470.00	628.03	0.45	1.53	0.0	10.00	214.00
	10869.000	520.00	628.14	0.12	1.57	0.0	10.00	214.00
	10869.000	670.00	628.58	0.44	1.89	0.0	10.00	214.00
	10870.000	315.00	628.19	0.0	0.62	0.0	10.00	28.40
	10870.000	470.00	629.85	1.66	1.83	0.0	10.00	28.40
	10870.000	520.00	630.51	0.66	2.36	0.0	10.00	28.40
	10870.000	670.00	632.13	1.62	3.55	0.0	10.00	28.40
	10880.000	315.00	628.82	0.0	0.63	0.0	46.58	81.00
	10880.000	470.00	630.68	1.86	0.82	0.0	56.86	81.00
	10880.000	520.00	631.36	0.68	0.85	0.0	60.00	81.00
	10880.000	670.00	633.10	1.74	0.97	0.0	60.00	81.00
	12350.000	315.00	629.02	0.0	0.21	0.0	161.58	286.00
	12350.000	470.00	630.82	1.80	0.15	0.0	171.00	286.00
	12350.000	520.00	631.48	0.66	0.13	0.0	174.46	286.00
	12350.000	670.00	633.20	1.72	0.10	0.0	183.47	286.00
*	12356.000	315.00	631.48	0.0	2.46	0.0	18.33	390.00
*	12356.000	470.00	632.56	1.08	1.74	0.0	41.61	390.00
*	12356.000	520.00	632.80	0.24	1.32	0.0	47.60	390.00
*	12356.000	670.00	633.26	0.46	0.06	0.0	50.00	390.00
	12366.000	315.00	632.68	0.0	1.19	0.0	10.00	41.00
	12366.000	470.00	632.90	0.22	0.34	0.0	10.00	41.00
	12366.000	520.00	633.02	0.12	0.22	0.0	10.00	41.00
	12366.000	670.00	633.16	0.14	-0.10	0.0	10.00	41.00
	12367.000	315.00	633.46	0.0	0.78	0.0	10.00	83.00
	12367.000	470.00	635.26	1.80	2.36	0.0	10.00	83.00
	12367.000	520.00	636.06	0.79	3.03	0.0	10.00	83.00
	12367.000	670.00	638.63	2.57	5.47	0.0	10.00	83.00

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*********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR - 01,02,03
  MODIFICATION - 50,51,52,53
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NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

OTTAWA CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	2750.000	3437.00	0.0	0.0	591.50	425.00	593.32	0.0	593.49	32.43	3.26	130.20	74.62
	2750.000	3437.00	0.0	0.0	591.50	605.00	593.74	0.0	593.94	32.10	3.66	165.97	106.73
	2750.000	3437.00	0.0	0.0	591.50	685.00	593.89	0.0	594.11	32.56	3.83	179.73	120.04
	2750.000	3437.00	0.0	0.0	591.50	890.00	594.25	0.0	594.52	32.36	4.21	214.54	156.47
	3600.000	875.00	0.0	0.0	591.60	425.00	595.79	0.0	596.09	27.70	4.60	121.72	80.76
	3600.000	875.00	0.0	0.0	591.60	605.00	596.25	0.0	596.61	30.13	5.25	166.16	110.21
	3600.000	875.00	0.0	0.0	591.60	685.00	596.42	0.0	596.80	30.54	5.45	185.18	123.95
	3600.000	875.00	0.0	0.0	591.60	890.00	596.80	0.0	597.21	31.79	5.93	230.12	157.84
	3610.000	473.00	0.0	0.0	593.20	425.00	596.85	0.0	597.03	17.61	3.90	152.02	101.29
	3610.000	473.00	0.0	0.0	593.20	605.00	597.37	0.0	597.61	19.29	4.51	194.01	137.74
	3610.000	473.00	0.0	0.0	593.20	685.00	597.56	0.0	597.82	20.36	4.79	209.63	151.81
	3610.000	473.00	0.0	0.0	593.20	890.00	597.96	0.0	598.29	22.86	5.41	246.61	186.14
*	3611.000	120.00	0.0	0.0	593.60	425.00	598.72	598.72	600.64	206.01	11.14	38.16	29.61
*	3611.000	120.00	0.0	0.0	593.60	605.00	599.75	599.75	602.17	188.05	12.48	48.48	44.12
*	3611.000	120.00	0.0	0.0	593.60	685.00	600.13	600.13	602.79	186.68	13.09	52.34	50.14
*	3611.000	120.00	0.0	0.0	593.60	890.00	601.13	601.13	604.30	176.43	14.29	62.29	67.00
	3612.000	1.00	611.00	614.90	593.60	425.00	599.49	0.0	600.83	132.07	9.31	45.66	36.98
	3612.000	1.00	611.00	614.90	593.60	605.00	599.75	599.64	602.20	233.86	12.56	43.16	39.56
	3612.000	1.00	611.00	614.90	593.60	685.00	600.10	600.04	602.87	256.97	13.37	51.23	42.73
*	3612.000	1.00	611.00	614.90	593.60	890.00	601.00	601.00	604.52	307.02	15.06	59.09	50.79
	3613.000	100.00	611.00	614.90	593.60	425.00	601.15	0.0	601.92	66.75	7.05	60.29	52.02
	3613.000	100.00	611.00	614.90	593.60	505.00	603.00	0.0	604.08	100.24	8.34	72.58	50.43
	3613.000	100.00	611.00	614.90	593.60	685.00	603.39	0.0	605.22	148.32	9.26	74.00	56.25
	3613.000	100.00	611.00	614.90	593.60	890.00	605.43	0.0	607.67	250.38	12.03	74.00	56.25
	3614.000	1.00	0.0	0.0	593.60	425.00	601.25	0.0	601.94	37.76	6.69	63.49	69.16
	3614.000	1.00	0.0	0.0	593.60	605.00	603.38	0.0	604.17	29.10	7.13	84.85	112.16
	3614.000	1.00	0.0	0.0	593.60	685.00	604.63	0.0	605.40	23.67	7.04	97.25	140.78
	3614.000	1.00	0.0	0.0	593.60	890.00	607.31	0.0	608.11	17.73	7.17	124.10	211.36
	3615.000	165.00	0.0	0.0	594.00	425.00	602.18	0.0	602.22	1.82	1.87	409.62	315.12
	3615.000	165.00	0.0	0.0	594.00	605.00	604.42	0.0	604.44	0.85	1.57	703.75	655.88
	3615.000	165.00	0.0	0.0	594.00	685.00	605.63	0.0	605.65	0.60	1.44	866.27	885.32
	3615.000	165.00	0.0	0.0	594.00	890.00	608.35	0.0	608.36	0.35	1.30	1237.60	1501.21

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
5100.000	574.00	0.0	0.0	595.20	425.00	602.29	0.0	602.32	2.00	1.86	442.59	300.60
5100.000	574.00	0.0	0.0	595.20	605.00	604.47	0.0	604.48	0.77	1.41	828.01	690.01
5100.000	574.00	0.0	0.0	595.20	685.00	605.67	0.0	605.68	0.48	1.22	1084.86	989.14
5100.000	574.00	0.0	0.0	595.20	890.00	608.37	0.0	608.38	0.23	0.99	1716.02	1875.67
6100.000	876.00	0.0	0.0	598.30	425.00	602.51	0.0	602.55	4.19	2.17	359.87	207.54
6100.000	876.00	0.0	0.0	598.30	605.00	604.55	0.0	604.57	1.68	1.81	624.01	467.04
6100.000	876.00	0.0	0.0	598.30	685.00	605.72	0.0	605.74	1.04	1.61	809.07	670.45
6100.000	876.00	0.0	0.0	598.30	890.00	608.39	0.0	608.40	0.47	1.33	1344.04	1304.49
* 7350.000	1050.00	0.0	0.0	602.10	425.00	605.37	605.37	606.63	154.97	9.01	47.17	34.14
* 7350.000	1050.00	0.0	0.0	602.10	605.00	606.65	606.65	607.40	63.97	7.39	129.76	75.64
* 7350.000	1050.00	0.0	0.0	602.10	685.00	606.81	606.81	607.59	64.98	7.66	149.59	84.97
7350.000	1050.00	0.0	0.0	602.10	890.00	608.38	0.0	608.60	16.18	4.81	364.05	221.26
7850.000	711.00	0.0	0.0	604.10	425.00	608.97	0.0	609.16	15.04	3.92	166.79	109.58
7850.000	711.00	0.0	0.0	604.10	605.00	609.35	0.0	609.60	18.82	4.67	206.85	139.46
7850.000	711.00	0.0	0.0	604.10	685.00	609.54	0.0	609.81	19.19	4.85	227.91	156.39
7850.000	711.00	0.0	0.0	604.10	890.00	609.63	0.0	610.04	29.31	6.08	237.55	164.40
9350.000	1057.00	0.0	0.0	607.40	425.00	611.51	0.0	612.20	62.39	6.68	64.30	53.81
9350.000	1057.00	0.0	0.0	607.40	605.00	612.24	0.0	613.14	62.02	7.64	83.56	76.83
9350.000	1057.00	0.0	0.0	607.40	685.00	612.47	0.0	613.47	64.90	8.12	90.28	85.03
9350.000	1057.00	0.0	0.0	607.40	890.00	613.33	0.0	614.40	54.97	8.48	117.18	120.04
10850.000	1329.00	0.0	0.0	615.50	315.00	618.76	0.0	619.13	41.08	4.92	69.61	49.15
10850.000	1329.00	0.0	0.0	615.50	470.00	619.40	0.0	619.85	38.97	5.58	102.02	75.28
10850.000	1329.00	0.0	0.0	615.50	520.00	619.64	0.0	620.09	35.69	5.60	116.70	87.04
10850.000	1329.00	0.0	0.0	615.50	670.00	620.06	0.0	620.58	36.83	6.15	145.63	110.41
* 10859.000	746.00	0.0	0.0	622.90	315.00	626.12	626.12	626.57	82.06	6.23	93.93	34.77
* 10859.000	746.00	0.0	0.0	622.90	470.00	626.49	626.49	626.90	73.88	6.54	149.58	54.68
* 10859.000	746.00	0.0	0.0	622.90	520.00	626.57	626.57	626.99	74.82	6.71	163.27	60.12
* 10859.000	746.00	0.0	0.0	622.90	670.00	626.69	626.69	627.20	91.37	7.63	184.60	70.09
10869.000	214.00	0.0	0.0	622.40	315.00	627.57	0.0	628.21	65.62	6.40	49.23	38.89
10869.000	214.00	0.0	0.0	622.40	470.00	628.03	0.0	629.21	115.70	8.74	53.78	43.69
10869.000	214.00	0.0	0.0	622.40	520.00	628.14	0.0	629.54	133.82	9.46	54.95	44.95
10869.000	214.00	0.0	0.0	622.40	670.00	628.58	0.0	630.56	131.90	11.29	59.33	49.68
10870.000	28.40	632.40	627.40	622.40	315.00	628.19	0.0	628.69	47.92	5.68	55.46	45.50
10870.000	28.40	632.40	627.40	622.40	470.00	629.85	0.0	630.51	54.28	6.52	72.12	63.79
10870.000	28.40	632.40	627.40	622.40	520.00	630.51	0.0	631.19	53.38	6.61	78.67	71.17
10870.000	28.40	632.40	627.40	622.40	670.00	632.13	0.0	632.91	55.82	7.07	94.82	89.68
10880.000	81.00	0.0	0.0	622.40	315.00	628.82	0.0	628.92	5.84	2.93	154.67	130.29
10880.000	81.00	0.0	0.0	622.40	470.00	630.68	0.0	630.76	3.73	2.84	248.50	243.27
10880.000	81.00	0.0	0.0	622.40	520.00	631.36	0.0	631.44	3.14	2.76	288.24	293.57
10880.000	81.00	0.0	0.0	622.40	670.00	633.10	0.0	633.17	2.26	2.67	392.89	445.45
12350.000	286.00	0.0	0.0	623.90	315.00	629.02	0.0	629.08	5.47	2.41	243.58	134.66
12350.000	286.00	0.0	0.0	623.90	470.00	630.82	0.0	630.84	1.48	1.58	542.47	386.73
12350.000	286.00	0.0	0.0	623.90	520.00	631.48	0.0	631.50	1.04	1.42	656.67	510.78
12350.000	286.00	0.0	0.0	623.90	670.00	633.20	0.0	633.21	0.55	1.20	964.45	905.32

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
* 12356.000	390.00	0.0	0.0	628.00	315.00	631.48	631.48	632.74	156.93	9.00	35.65	25.15
* 12356.000	390.00	0.0	0.0	628.00	470.00	632.56	632.56	633.64	93.23	8.69	68.47	48.68
* 12356.000	390.00	0.0	0.0	628.00	520.00	632.80	632.80	633.85	86.33	8.71	79.15	55.97
* 12356.000	390.00	0.0	0.0	628.00	670.00	633.26	633.26	634.38	85.60	9.32	101.84	72.41
12366.000	41.00	0.0	0.0	626.90	315.00	632.68	0.0	633.33	70.19	6.49	48.53	37.60
12366.000	41.00	0.0	0.0	626.90	470.00	632.90	0.0	634.23	138.60	9.26	50.76	39.92
12366.000	41.00	0.0	0.0	626.90	520.00	633.02	0.0	634.58	159.12	10.00	52.00	41.22
12366.000	41.00	0.0	0.0	626.90	670.00	633.16	0.0	635.61	246.28	12.55	53.39	42.69
12367.000	83.00	642.50	632.90	626.90	315.00	633.46	0.0	634.06	106.64	6.21	50.75	30.50
12367.000	83.00	642.50	632.90	626.90	470.00	635.26	0.0	635.88	51.23	6.31	74.46	65.67
12367.000	83.00	642.50	632.90	626.90	520.00	636.06	0.0	636.68	48.62	6.31	82.37	74.57
12367.000	83.00	642.50	632.90	626.90	670.00	638.63	0.0	639.23	41.37	6.20	108.06	104.16
12400.000	226.00	0.0	0.0	630.00	315.00	635.26	0.0	635.68	50.77	5.23	60.23	44.21
12400.000	226.00	0.0	0.0	630.00	470.00	636.50	0.0	637.05	51.75	5.96	78.92	65.33
12400.000	226.00	0.0	0.0	630.00	520.00	637.21	0.0	637.73	44.33	5.81	89.53	78.10
12400.000	226.00	0.0	0.0	630.00	670.00	639.58	0.0	640.02	29.31	5.36	125.05	123.75
* 12401.000	50.00	637.80	635.00	630.00	315.00	637.79	0.0	637.95	12.54	3.21	98.26	88.94
* 12401.000	50.00	637.80	635.00	630.00	470.00	639.70	0.0	639.92	13.86	3.70	126.93	126.27
* 12401.000	50.00	637.80	635.00	630.00	520.00	640.28	0.0	640.51	14.21	3.84	135.56	137.94
12401.000	50.00	637.80	635.00	630.00	670.00	642.02	0.0	642.29	14.82	4.14	161.65	174.07
12404.000	90.00	0.0	0.0	630.00	315.00	637.99	0.0	638.02	1.23	1.60	291.21	283.93
12404.000	90.00	0.0	0.0	630.00	470.00	639.97	0.0	640.00	1.05	1.72	409.69	458.70
12404.000	90.00	0.0	0.0	630.00	520.00	640.56	0.0	640.59	1.01	1.75	445.33	517.33
12404.000	90.00	0.0	0.0	630.00	670.00	642.35	0.0	642.38	0.90	1.83	552.39	708.16
* 14600.000	1458.00	0.0	0.0	639.70	315.00	642.77	642.77	643.56	128.18	9.78	60.58	27.82
* 14600.000	1458.00	0.0	0.0	639.70	470.00	643.39	643.39	644.19	113.37	10.44	92.52	44.14
* 14600.000	1458.00	0.0	0.0	639.70	520.00	643.54	643.54	644.35	111.22	10.64	102.85	49.31
* 14600.000	1458.00	0.0	0.0	639.70	670.00	643.92	643.92	644.75	109.20	11.26	132.02	64.12
15850.000	1869.00	0.0	0.0	650.20	315.00	654.05	0.0	654.44	38.28	5.32	80.64	50.91
15850.000	1869.00	0.0	0.0	650.20	470.00	654.52	0.0	654.99	42.16	6.15	118.27	72.38
15850.000	1869.00	0.0	0.0	650.20	520.00	654.64	0.0	655.13	42.97	6.36	129.94	79.33
15850.000	1869.00	0.0	0.0	650.20	670.00	654.97	0.0	655.50	44.39	6.87	164.46	100.56
15851.000	264.00	0.0	0.0	651.20	315.00	654.91	0.0	655.09	16.58	3.87	116.45	77.36
15851.000	264.00	0.0	0.0	651.20	470.00	655.47	0.0	655.71	19.25	4.62	148.31	107.11
15851.000	264.00	0.0	0.0	651.20	520.00	655.61	0.0	655.88	20.31	4.86	156.62	115.39
15851.000	264.00	0.0	0.0	651.20	670.00	655.99	0.0	656.33	23.51	5.54	178.57	138.17
15852.000	96.00	0.0	0.0	649.70	315.00	654.99	0.0	655.29	19.84	5.62	102.24	70.72
15852.000	96.00	0.0	0.0	649.70	470.00	655.57	0.0	655.96	25.09	6.77	132.04	93.82
15852.000	96.00	0.0	0.0	649.70	520.00	655.71	0.0	656.14	26.75	7.11	140.24	100.53
15852.000	96.00	0.0	0.0	649.70	670.00	656.11	0.0	656.62	31.33	8.04	162.83	119.70
15853.000	12.00	654.20	653.60	649.70	315.00	655.32	0.0	655.53	14.34	4.97	118.68	83.19
15853.000	12.00	654.20	653.60	649.70	470.00	655.68	0.0	656.03	22.39	6.49	138.78	99.33
15853.000	12.00	654.20	653.60	649.70	520.00	655.77	0.0	656.17	25.49	6.99	143.20	102.99
15853.000	12.00	654.20	653.60	649.70	670.00	656.11	0.0	656.62	31.31	8.04	162.87	119.74

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
15854.000	88.00	0.0	0.0	650.50	315.00	655.52	0.0	655.63	6.88	2.74	137.23	120.13
15854.000	88.00	0.0	0.0	650.50	470.00	656.00	0.0	656.17	9.88	3.55	164.98	149.51
15854.000	88.00	0.0	0.0	650.50	520.00	656.13	0.0	656.33	10.77	3.78	173.75	158.48
15854.000	88.00	0.0	0.0	650.50	670.00	656.56	0.0	656.81	12.51	4.32	204.64	189.46
16600.000	498.00	0.0	0.0	652.10	315.00	655.95	0.0	656.25	22.50	4.61	78.03	66.41
16600.000	498.00	0.0	0.0	652.10	470.00	656.57	0.0	656.89	19.89	4.95	122.63	105.38
16600.000	498.00	0.0	0.0	652.10	520.00	656.75	0.0	657.06	18.89	4.98	138.98	119.64
16600.000	498.00	0.0	0.0	652.10	670.00	657.23	0.0	657.51	15.53	4.90	187.59	170.02

00BREAK00

1) COUNTY: ~~OSCEOLA~~ OTTAWA

2) STUDY NAME: ALLENDALE TWP

3) WATERCOURSE: OTTAWA CREEK

4) DOCUMENT TYPE: REPORT

00BREAK00

HYDRAULIC ANALYSIS

OTTAWA CREEK

IN

ALLENDALE TOWNSHIP, MICHIGAN

Gove Associates Inc.
ARCHITECTS / ENGINEERS / PLANNERS / SURVEYORS
ENVIRONMENTAL SCIENTISTS

1601 PORTAGE STREET
KALAMAZOO, MICHIGAN 49001
(616) 385-0011

May 26, 1981

Daniel H. Morgan, P.E.
Flood Insurance Unit
Flood Plain Management Section
Water Management Division
Michigan Department of Natural Resources
P. O. Box 30028
Lansing, Michigan 48909

Re: Allendale Township Flood Insurance Study
Ottawa Creek - Hydraulics

Dear Mr. Morgan:

Enclosed for your review is our Hydraulic Analysis of Ottawa Creek in Allendale Township, Michigan. The following information is included:

1. HEC-2 run
2. 100-year flood profile
3. Topographic Map
4. Hydraulic Analysis Report

If you have any questions, please feel free to contact our office.

Sincerely yours,

GOVE ASSOCIATES INC.

Garth Greenan

Garth Greenan
Project Engineer

GG/tk

Enclosure: as listed above

HYDRAULIC ANALYSIS

1. INTRODUCTION

The stream being studied is Ottawa Creek with a small drainage basin of 3.92 square miles located in Allendale Township, Ottawa County, Michigan. The flows from the upstream limit of the study to the Grand River were determined by averaging the flows from the Brater and the UD-21 Methods. The UD-21 Method was used for the upstream analysis. A summary of the flows which have been approved by the Michigan Department of Natural Resources is presented in Table 1.

TABLE 1

PRORATED FLOWS

		Peak Flows (cfs)			
Station	DA	10-year	50-year	100-year	500-year
Mouth	3.92	425	605	685	890
1.850	2.11	315	470	520	670

The project managers for the Flood Insurance Studies are William McDonough and Duane Ellis.

2. METHOD OF ANALYSIS

Water surface profiles for 10-, 50-, 100-, and 500-year were computed through the HEC-2 computer program, developed by U.S. Army, Corps of Engineers (Ref. 1).

2.1 Cross Sections

Cross sections used in the model were obtained by aerial photographic survey which was made in 1979. The culvert and bridge sections and the channel portions were obtained by ground survey which was made in March of 1979. The channel portions are generally very narrow. The locations of the cross sections are shown in Table 2.

2.2 Roughness Coefficients

The roughness coefficients were determined from field description. A field trip was made in April of 1979. Aerial photograph taken in 1979 was also used. Through comparison with the materials and photographs shown in page 101 to page 123 in Chow's Open Channel Hydraulics (Ref. 2), the roughness coefficients are in the range of 0.03 to 0.035 and 0.07 to 0.03 for channel and flood plain, respectively.

2.3 Starting Point and Starting Elevation

The starting point of this study is 2437 feet upstream from the mouth of Ottawa Creek. The slope-area method was used for the starting.

3. DISCUSSION

Due to the steep channel slope, several critical depths for 100-year water surface profile were observed in the computer output. Since the locations for critical depth are not in sequence, the subcritical flow assumption in the modeling is valid.

The enclosed topographic map shows the 100-year flood delineation. It is clearly revealed that the 100-year flood is well within a 200 foot wide flood plain with steep side slopes.

REFERENCE

1. HEC-2 Water Surface Profiles, Users Manual, Hydrologic Engineering Center, U. S. Army, Corps of Engineers, August 1979.
2. Open Channel Hydraulics, V. T. Chow, McGraw-Hill, New York 1959.

TABLE 2

LOCATIONS OF CROSS SECTIONS

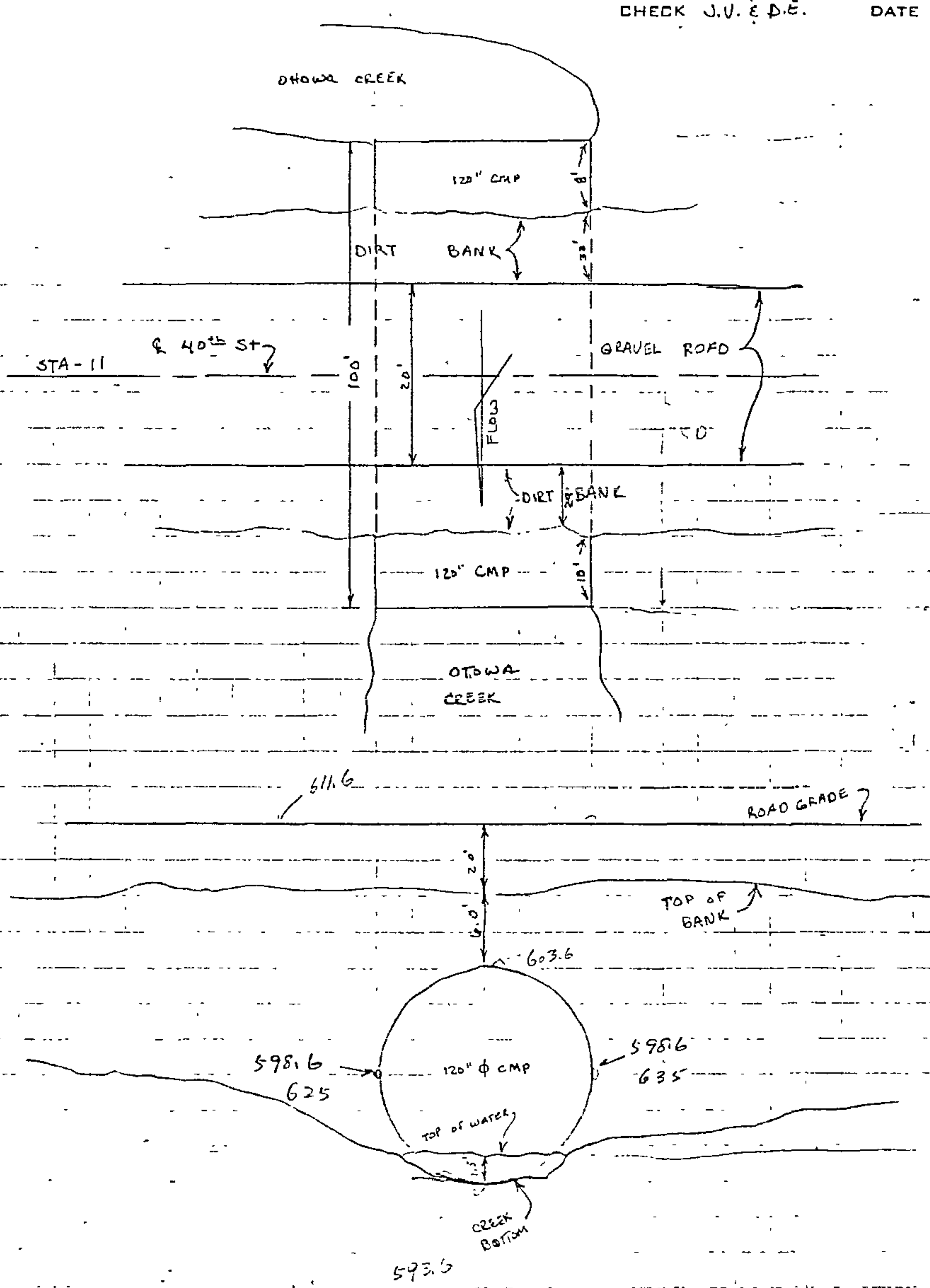
SECTION	SECNO	LOCATION AND DESCRIPTION
A	2750	3437' U/S from mouth
B	3600	875' U/S from A
C	3610	473' U/S from B Manufactured from Topographic Map
D	3611 3612 3613 3614	90th Avenue CMP diameter = 12', Length 100'
E	3615	165' U/S from U/S face of 90th Avenue Culvert Manufactured from Topographic Map
F	5100	574' U/S from Section E
G	6100	876' U/S from Section F Manufactured from Topographic Map
H	7350	1050' U/S from Section G
I	7850	711' U/S from Section H
J	9350	1057' U/S from Section I
K	10850	1329' U/S from Section J
L	10859	746' U/S from Section K Manufactured from Topographic Map
M	10869 10870 10871 10872	48th Avenue Box Culvert, Width = 28.4', Length = 11.7'
N	10880	81' U/S from U/S face of 48th Avenue Culvert
O	12350	286' U/S from Section N
P	12356	390' U/S from Section O

SECTION	SECNO	LOCATION AND DESCRIPTION
Q	12366 12367 12368 12369	M-45 Highway, Box Culvert, Width = 82.9', Length = 10.4'
R	12400 12401 12402 12403	Two CMP Diameter = 40", Length = 50'
S	12404	90' U/S from Section 12403
T	14600	1458' U/S from Section S
U	15850	1869' U/S from Section T
V	15851	264' U/S from Section U
W	15852 15853	Foot Bridge, Box Culvert, Width = 13.6', Length = 10.8'
X	15854	88' U/S from Section 15853
Y	16600	498' U/S from Section X

BRIDGE DATA

SUBJECT Bridge Section @ STA- 11
Section D 90th Ave

PROJ. NO. 8548
SH. NO.
DESIGN
DATE 3-27-79
CHECK J.U. & D.E.
DATE

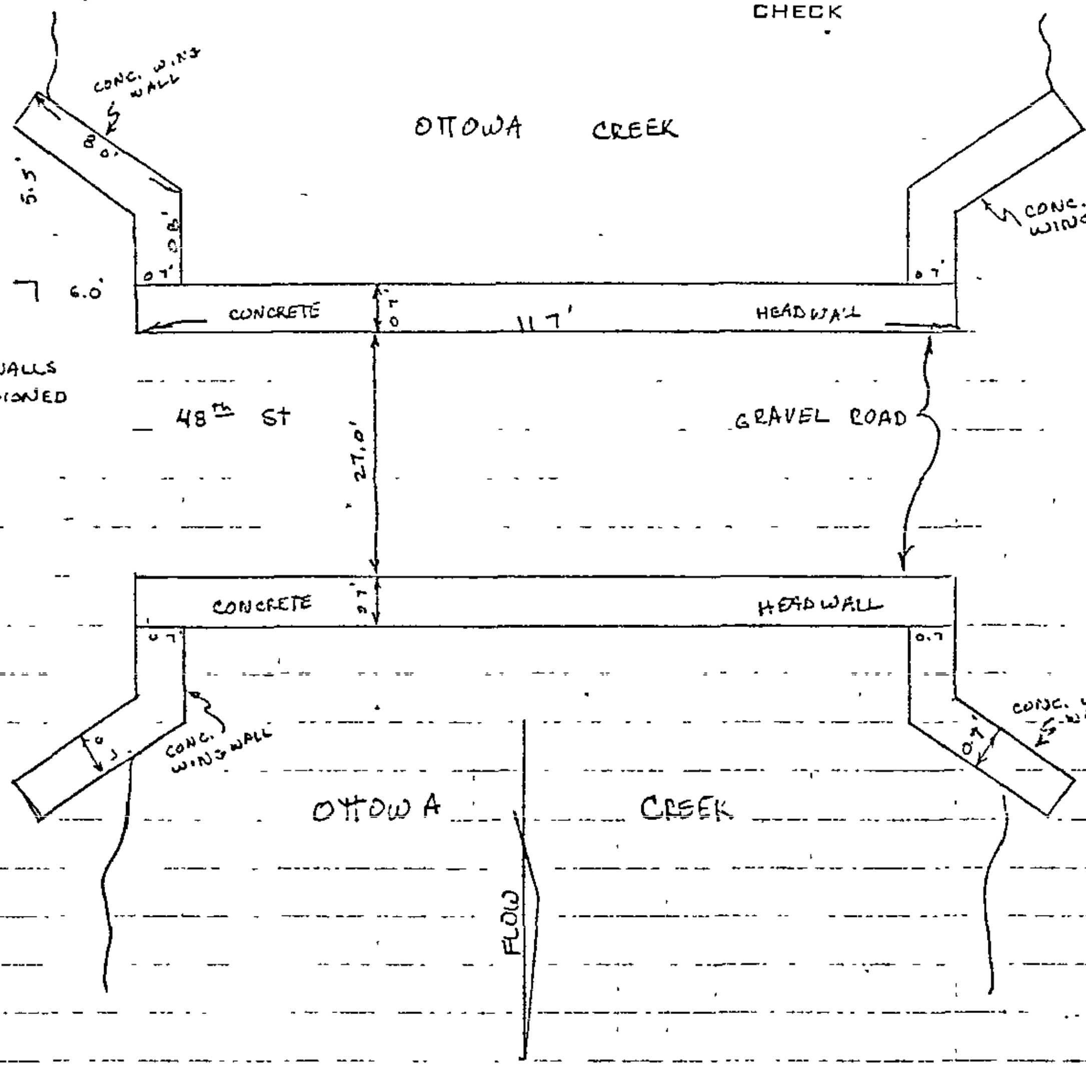


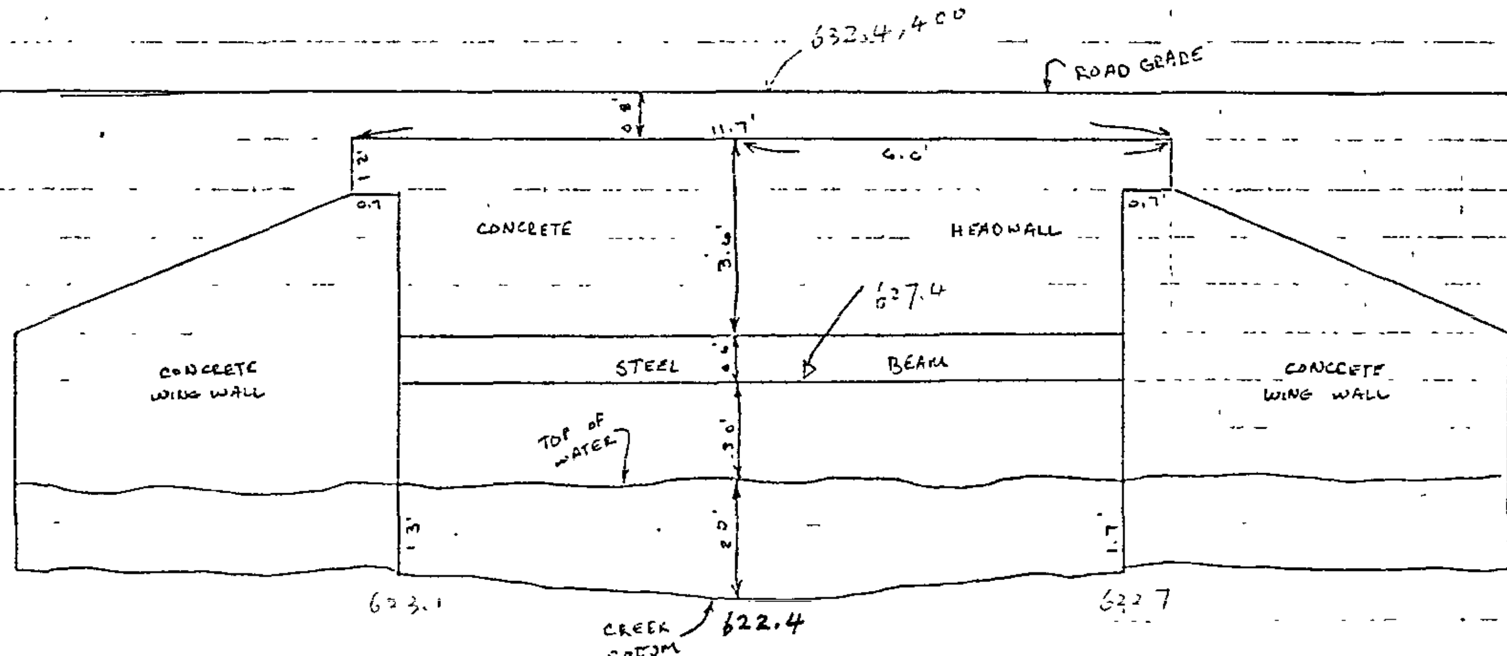
SUBJECT Bridge Section @ STA 8 — SECTION A1 48th Ave

PROJ. NO. 8548 — SH. NO.

DESIGN — DATE

CHECK — DATE 3-28-79





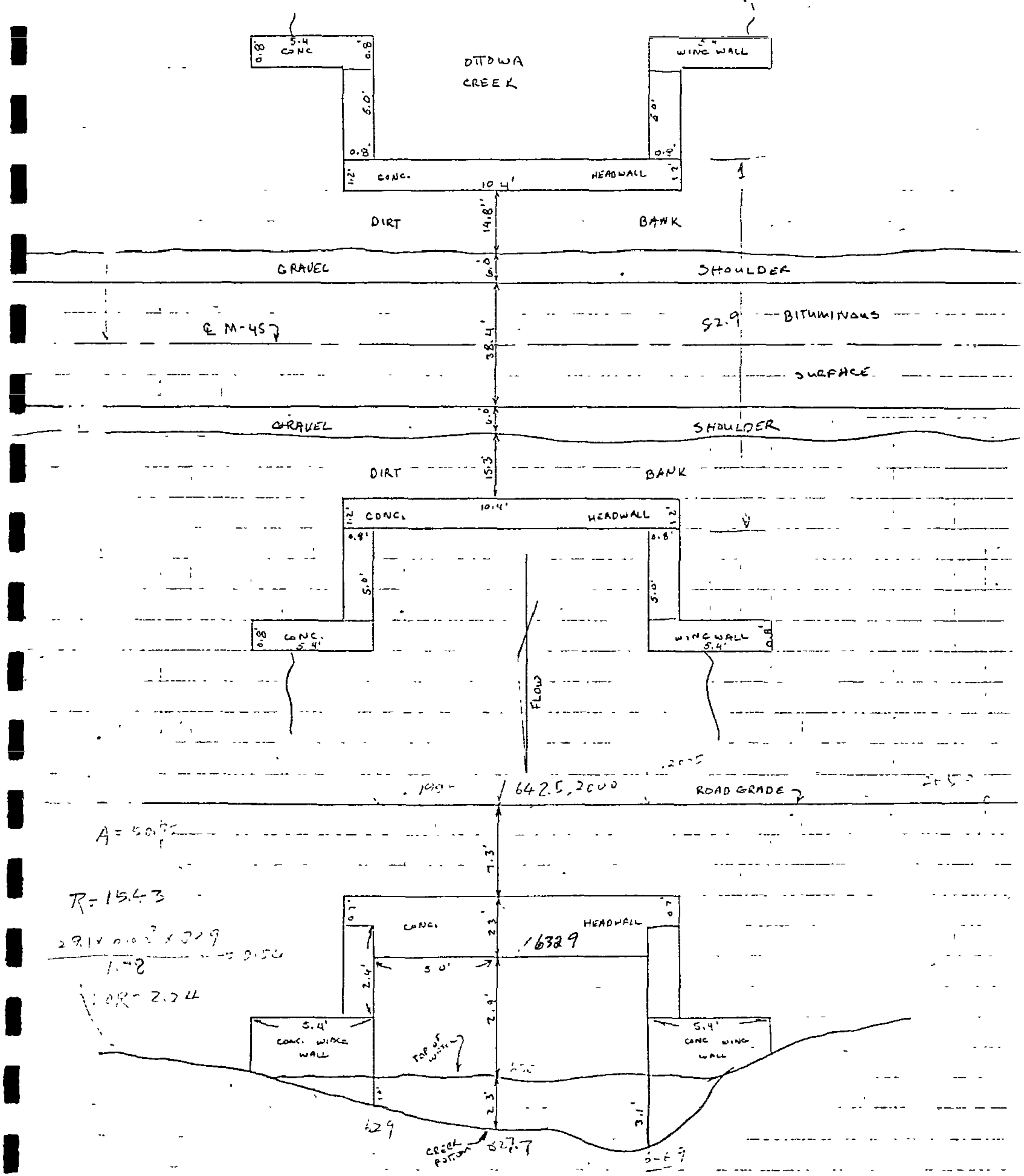
R = 1.62

X = 1.67

SUBJECT Bridge Section @ STA 5
Section G M-45 Highway

PROJ. NO. 3548
DESIGN
CHECK J.V. & D.E.

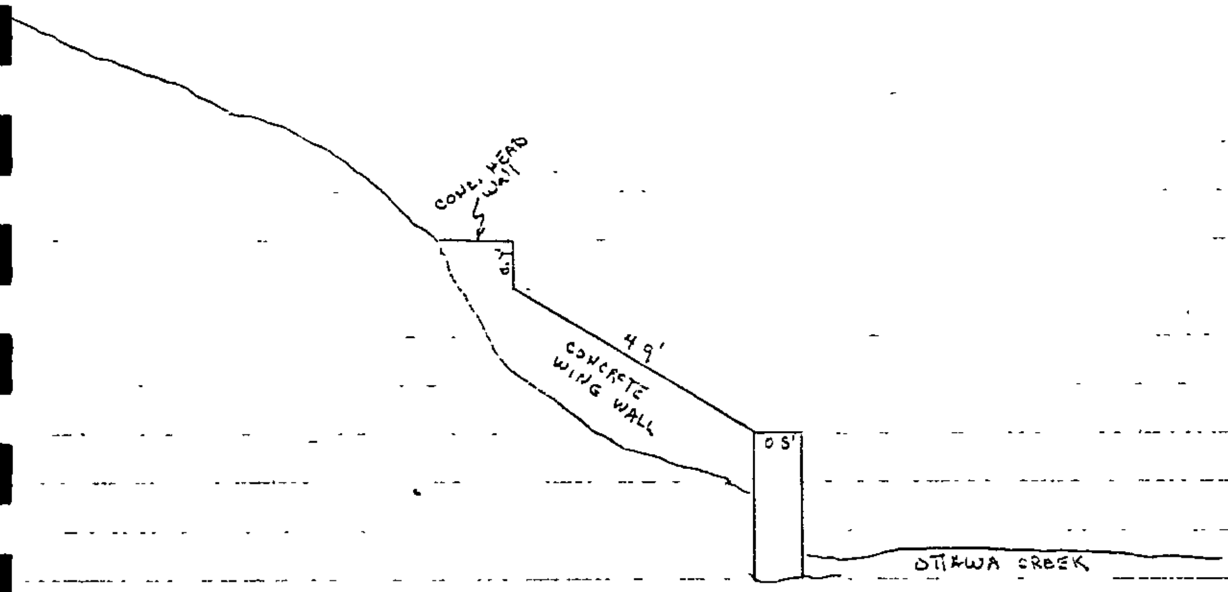
SH. NO.
DATE 3-28-79
DATE



SUBJECT Bridge Section @ STA 5
(SIDE VIEW)

PROJ. NO. 8548
DESIGN
CHECK J.V. & D.E.

SH. NO.
DATE
DATE 3-29-79

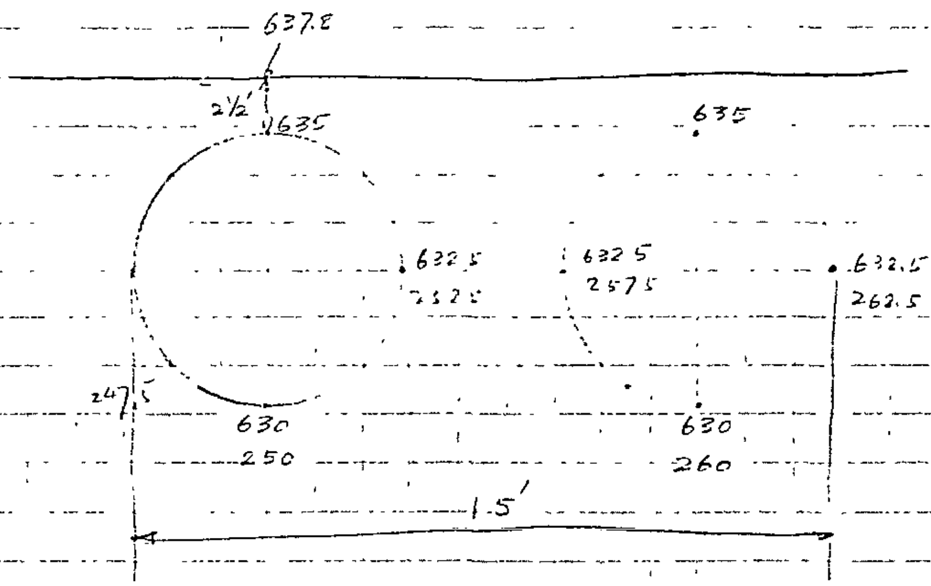


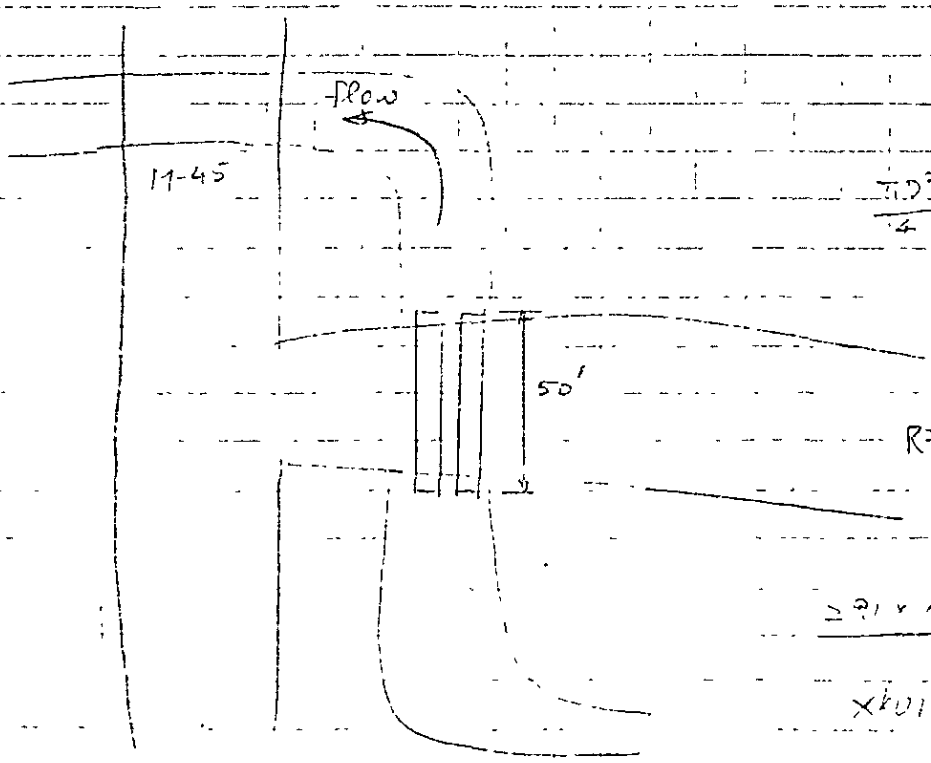
GOVE ASSOCIATES
1601 PORTAGE STREET
KALAMAZOO, MICHIGAN 49001

PROJ. NO 8548 | SH NO
DESIGN pnw | DATE 031880
CHECK | DATE

SUBJECT Ottawa Creek

SECTION R . Two CMP





$$\frac{\pi D^2}{4} = \frac{\pi \times 5^2}{4} = 39.27$$

$$R = \frac{\pi r^2}{2\pi r} = \frac{r}{2} = 1.25$$

$$\frac{29.1 \times n^2 \times 25 \times 50}{R^{4/3}} = 0.65$$

$XKUR = 1.9 + 0.65 = 2.55$

SUBJECT Bridge Section @ STA 2

Section IV Foot Bridge

PROJ. NO. ES46

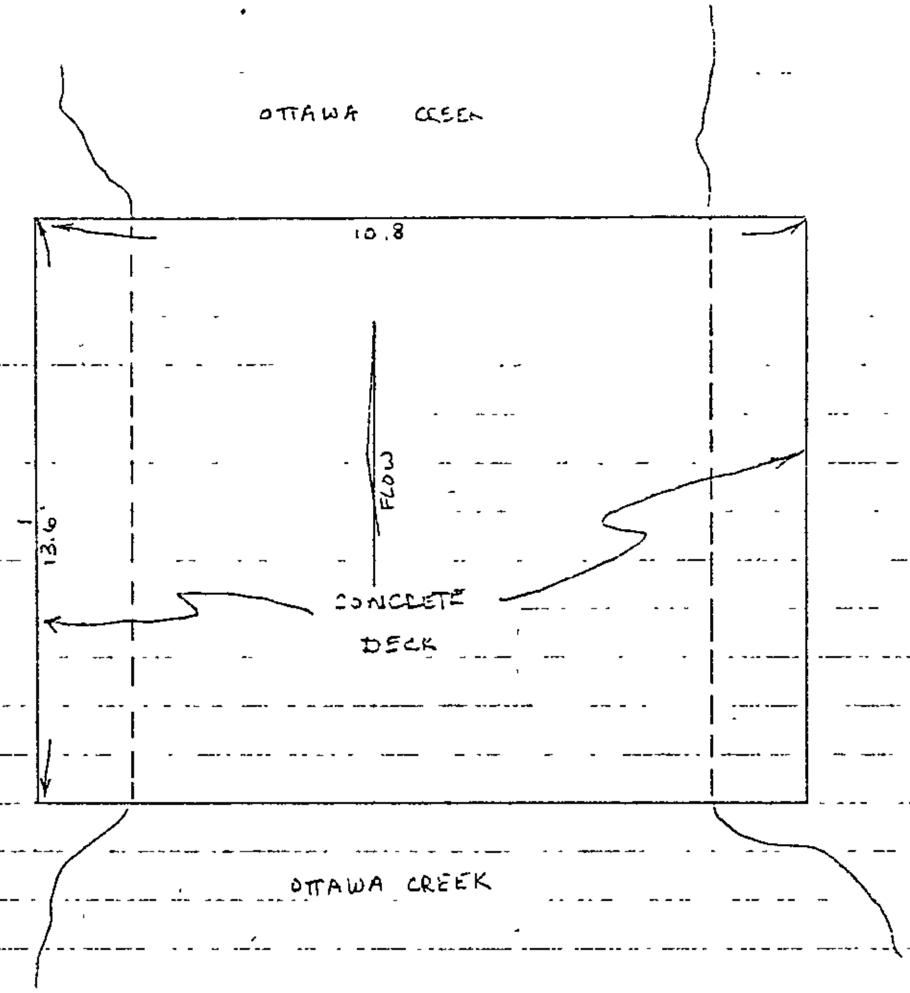
DESIGN

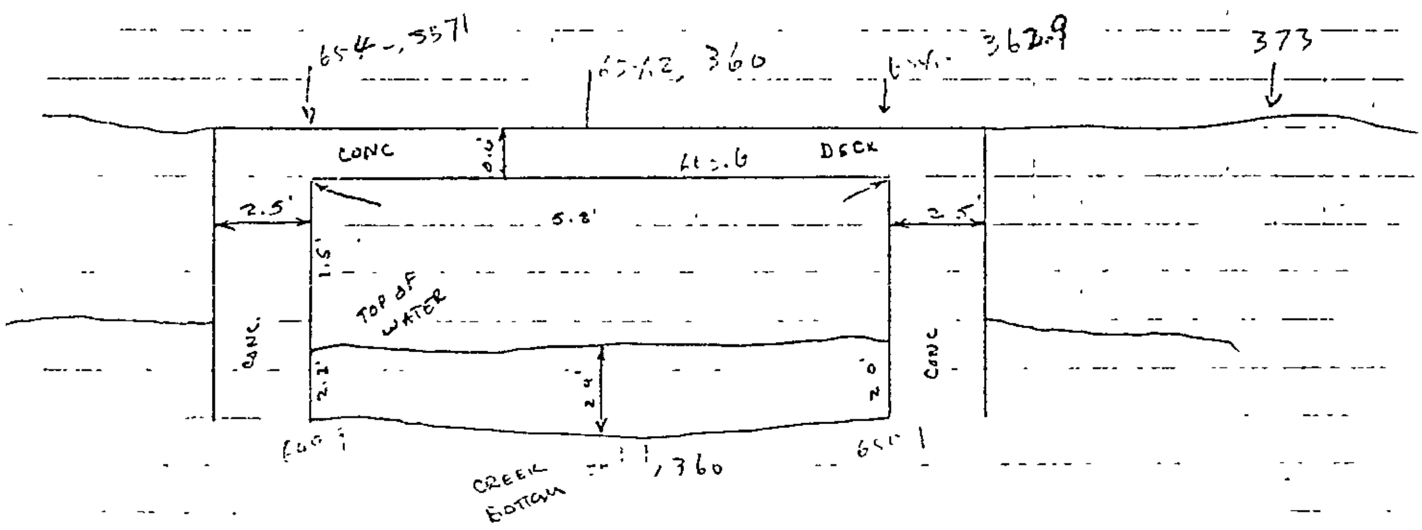
CHECK J.V. & DE

SH. NO.

DATE

DATE 3-29-79





11.02+

K+E 10 X 10 TO THE INCH KEUFFEL & ESSER CO. PRINTED IN U.S.A. 751001


OTTAWA CREEK
GRAND RIVER
N
ALLENDALE TOWNSHIP
OTTAWA CREEK
0 200 400 800 1200
SCALE 1" = 400'
CONTOUR INTERVAL - 4'

5/21/81

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: CITY OF COOPERSVILLE

3) WATERCOURSE: DEER CREEK

4) DOCUMENT TYPE: 100 YR NATURAL

00BREAK00

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 *********************************************
 HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
 ERROR CORR - 01,02,03
 MODIFICATION - 50,51,52,53
 *********************************************

C
T1      CITY OF COOPERSVILLE, PROJECT NO. 3550, COOPER
T2      DEER CREEK
T3      DEER CREEK

J1  ICHECK   INQ      NINV     IDIR     STRT      METRIC   HVINS    Q        WSEL     FQ

     10.      4.       0.       0.   0.001473     0.0      0.0      0.     613.500   0.0

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH     FN       ALLDC    IBW      CHNIM    ITRACE

    1.000    0.0     -1.000    0.0      0.0      0.0      0.0      0.0      0.0      0.0

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

  110.000  200.000  150.000    0.0      0.0      0.0      0.0      0.0      0.0      0.0

*PROF 1

CCHV=    0.100 CEHV=    0.300
*SECNO 30340.000
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA     LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN    SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID   ENDST


3470 ENCROACHMENT STATIONS=    180.0    400.0 TYPE=    1  TARGET=     220.000
  30340.00     8.90   613.50     0.0    613.50   613.69     0.19     0.0      0.0    610.90
     2000.     129.    1244.     628.      95.     304.     259.       0.       0.    608.70
      0.0      1.36     4.09     2.42    0.059    0.056    0.059     0.0    604.60   202.14
  0.001473       0.       0.       0.       0        0        0     -0.00   197.86   400.00

*SECNO 30541.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     639.10 ELREA=     639.10

          A  BRIDGE SECTION I-96   WIDTH 47, LENGTH 149.8,

               LC 635.6, TR 639.1

  30541.00     7.21   613.71     0.0      0.0    614.32     0.61     0.51     0.13   634.50
     2000.       0.    2000.       0.       0.     318.       0.       2.       1.   631.60
      0.01      0.0     6.29     0.0     0.050    0.050    0.050    0.050   606.50   269.52
  0.005324     200.     200.     200.       2        0        0     -0.01    61.45   330.96

*SECNO 30542.000

3265 DIVIDED FLOW
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 3370 NORMAL BRIDGE,NRD    0 MIN ELTRD   639.10 MAX ELLC    635.60

   30542.00     7.23    613.73      0.0       0.0    614.40     0.65      0.06      0.01    639.90
     2000.        0.     2000.       0.        0.      306.       0.        2.        1.     639.90
      0.01      0.0       6.54      0.0     0.050     0.050    0.050     0.050    606.50    269.45
   0.006733      10.       10.      10.         0         0        0     -0.01     56.60    331.04

 *SECNO 30543.000

 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD    0 MIN ELTRD   639.10 MAX ELLC    635.60

   30543.00     7.62    614.12      0.0       0.0    614.70     0.58      0.29      0.01    639.90
     2000.        0.     2000.       0.        0.      327.       0.        3.        1.     639.90
      0.01      0.0       6.11      0.0     0.050     0.050    0.050     0.049    606.50    268.62
   0.005714      47.       47.      47.         2         0        0     -0.01     58.30    331.93

 *SECNO 30544.000

 3265 DIVIDED FLOW

      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

 3370 NORMAL BRIDGE,NRD    0 MIN ELTRD   639.10 MAX ELLC    635.60

   30544.00     7.96    614.46      0.0       0.0    614.97     0.52      0.27      0.01    639.90
     2000.        0.     2000.       0.        0.      347.       0.        3.        1.     639.90
      0.01      0.0       5.76      0.0     0.050     0.050    0.050     0.049    606.50    267.89
   0.004955      50.       50.      50.         2         0        0     -0.01     59.83    332.72

 *SECNO 30545.000

 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD    0 MIN ELTRD   639.10 MAX ELLC    635.60

   30545.00     8.22    614.72      0.0       0.0    615.20     0.47      0.22      0.00    639.90
     2000.        0.     2000.       0.        0.      363.       0.        3.        1.     639.90
      0.02      0.0       5.51      0.0     0.050     0.050    0.050     0.049    606.50    267.32
   0.004454      47.       47.      47.         1         0        0     -0.01     61.01    333.33

 *SECNO 30546.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       639.10 ELREA       639.10

   30546.00     8.33    614.83      0.0       0.0    615.24     0.41      0.04      0.01    634.50
     2000.        0.     2000.       0.        0.      389.       0.        4.        1.     631.60
      0.02      0.0       5.14      0.0     0.080     0.050    0.080     0.049    606.50    267.07
   0.003023      10.       10.      10.         2         0        0     -0.01     66.52    333.60

 CCHV     0.200 CEHV     0.400
 *SECNO 30590.000
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3470 ENCROACHMENT STATIONS        180.0      400.0  TYPE        1  TARGET        220.000

         B   VALLEY SECTION

  30590.00     10.71    615.31      0.0       0.0     615.40      0.09      0.09      0.06    610.90
    2000.       264.     1125.      611.      258.      302.      407.        5.        1.    608.70
      0.03      1.02      2.95      1.50     0.060     0.045     0.060     0.048    604.60    180.00
  0.000457      100.      100.      100.         2         0         0     -0.00    220.00    400.00

CCHV     0.100 CEHV     0.300
*SECNO 31250.000
3280 CROSS SECTION  31250.00 EXTENDED       5.54 FEET

         C   VALLEY SECTION

  31250.00      9.84    615.54      0.0       0.0     615.56      0.02      0.16      0.01    609.40
    2000.      1004.      463.      533.     1186.      249.      433.       24.        5.    608.50
      0.17      0.85      1.36      1.16     0.080     0.045     0.060    -0.046    605.70      0.6
  0.000186      570.      560.      565.         2         0         0     -0.03    302.50    302.50

*SECNO 32450.000
     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

         D   VALLEY SECTION

  32450.00     10.90    615.70      0.0       0.0     615.74      0.03      0.17      0.00    610.30
    2000.        31.      490.     1479.       55.      238.     1229.       55.       10.    610.50
      0.33      0.56      2.06      1.20     0.080     0.045     0.060     0.054    604.80     68.70
  0.000250      705.     1140.      720.         2         0         0     -0.03    279.45    343.15

CCHV     0.100 CEHV     0.300
*SECNO 34030.000

         E   VALLEY SECTION

  34030.00     11.31    616.11      0.0       0.0     616.23      0.11      0.47      0.02    607.20
    2000.      1024.      815.      160.      965.      201.      137.       94.       16.    607.10
      0.48      1.06      4.05      1.17     0.120     0.046     0.080    -0.052    604.00     83.24
  0.000580     1220.     1580.     1085.         2         0         0     -0.02    207.62    290.36

CCHV     0.300 CEHV     0.500
*SECNO 34320.000

3265 DIVIDED FLOW

         F   BRIDGE SECTION - RANDALL ST. BRIDGE - WIDTH 33.3,LENGTH 83.5

             LC 621.9, TR 623.0

  34320.00      8.59    616.29      0.0       0.0     616.56      0.21      0.22      0.65    621.40
    2000.         0.     2000.        0.        0.      547.        0.      100.       17.    622.20
      0.50       0.0      3.66       0.0     0.080     0.045     0.080     0.051    607.70    460.00
[illegible]
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 *SECNO 34321.000

 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    621.40 MAX ELLC    619.50

  34321.00      8.60    616.30      0.0       0.0     616.51      0.21      0.01      0.00    621.40
     2000.        0.     2000.        0.        0.      548.        0.      100.       17.    622.20
      0.50       0.0      3.65      0.0     0.020     0.035     0.020     0.051    607.70    460.00
  0.000810       10.       10.       10.         0         0         0     -0.01     80.00    543.50

 *SECNO 34322.000

 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    621.40 MAX ELLC    619.50

  34322.00      8.63    616.33      0.0       0.0     616.54      0.20      0.03      0.00    621.40
     2000.        0.     2000.        0.        0.      551.        0.      100.       17.    622.20
      0.51       0.0      3.63      0.0     0.020     0.035     0.020     0.051    607.70    460.00
  0.000797       33.       33.       33.         0         0         0     -0.01     80.00    543.50

 *SECNO 34323.000

 3265 DIVIDED FLOW

     SECNO     DEPTH     CWSEL     CRIWS     WSELK       EG        HV        HL      OLOSS   BANK ELEV
       Q       QLOB       QCH      QROB      ALOB       ACH      AROB       VOL       TWA   LEFT/RIGHT
     TIME      VLOB       VCH      VROB       XNL      XNCH       XNR       WTN     ELMIN      SSTA
     SLOPE     XLOBL      XLCH     XLOBR    ITRIAL      IDC      ICONT     CORAR    TOPWID     ENDST

  34323.00      8.64    616.34      0.0       0.0     616.54      0.20      0.01      0.00    621.40
     2000.        0.     2000.        0.        0.      551.        0.      100.       17.    622.20
      0.51       0.0      3.63      0.0     0.100     0.040     0.100     0.051    607.70    460.00
  0.001040       10.       10.       10.         0         0         0     -0.01     80.00    543.50

 *SECNO 34370.000

 3470 ENCROACHMENT STATIONS     150.0      450.0  TYPE     1  TARGET      300.000

         G VALLEY SECTION

  34370.00     11.82    616.52      0.0       0.0     616.67      0.15      0.11      0.02    612.30
     2000.      443.     1018.      539.      439.      239.      503.      103.       18.    612.60
      0.52      1.01      4.27      1.07     0.100     0.040     0.100     0.051    604.70    150.00
  0.000942      135.      105.      115.         2         0         0     -0.02    300.00    450.00

 CCHV=    0.100  CEHV=    0.300
 *SECNO 34465.000

         H VALLEY SECTION

  34465.00      9.00    617.00      0.0       0.0     617.13      0.13      0.46      0.00    612.00
     2000.      306.     1096.       18.     1322.      282.       35.      121.       22.    612.00
      0.59      0.67      3.89      0.52     0.120     0.035     0.120     0.049    608.00     92.51
  0.000559      515.      730.      600.         2         0         0     -0.00    436.64    529.15
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CCHV     0.300 CEHV      0.500
*SECNO 34515.000

      I  BRIDGE SECTION - GRAND WESTERN R.R. BRIDGE WIDTH 10.5, LENGTH 74


           LC 629.35  TR 638.8

  34515.00      8.53    617.03       0.0       0.0    617.56      0.52      0.23      0.19    639.00
     2000.        0.     2000.        0.        0.      345.        0.      126.       24.    638.80
      0.60       0.0      5.79       0.0     0.120     0.035     0.120     0.048    608.50    163.00
  0.002637      200.      230.      200.         2         0         0     -0.00     74.00    237.00

*SECNO 34516.000

3370 NORMAL BRIDGE,NRD     6 MIN ELTRD    638.80 MAX ELLC    638.80

  34516.00      8.57    617.07       0.0       0.0    617.58      0.52      0.03      0.00    639.00
     2000.        0.     2000.        0.        0.      347.        0.      126.       24.    638.80
      0.60       0.0      5.76       0.0     0.040     0.035     0.040     0.048    608.50    163.00
  0.002596       10.       10.       10.         1         0         0     -0.00     74.00    237.00

*SECNO 34517.000
    SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS   BANK ELEV
      Q        QLOB       QCH      QROB      ALOB       ACH      AROB       VOL       TWA   LEFT/RIGHT
    TIME       VLOB       VCH      VROB       XNL      XNCH       XNR       WTN     ELMIN      SSTA
    SLOPE     XLOBL      XLCH     XLOBR    ITRIAL       IDC     ICONT     CORAR    TOPWID     ENDST


3370 NORMAL BRIDGE,NRD     6 MIN ELTRD    638.80 MAX ELLC    638.80

  34517.00      8.60    617.10       0.0       0.0    617.61      0.51      0.03      0.00    639.00
     2000.        0.     2000.        0.        0.      350.        0.      126.       24.    638.80
      0.60       0.0      5.72       0.0     0.040     0.035     0.040     0.048    608.50    163.00
  0.002532       11.       11.       11.         0         0         0     -0.00     74.00    237.00

*SECNO 34518.000
  34518.00      8.64    617.14       0.0       0.0    617.64      0.50      0.03      0.00    639.00
     2000.        0.     2000.        0.        0.      352.        0.      126.       24.    638.80
      0.60       0.0      5.68       0.0     0.040     0.035     0.040     0.048    608.50    163.00
  0.002473       10.       10.       10.         0         0         0     -0.00     74.00    237.00

*SECNO 34915.000

3265 DIVIDED FLOW


      J  BRIDGE SECTION - MAIN STREET BRIDGE - WIDTH 36, LENGTH 60.0,


           LC 620.89,  TR 624.89

  34915.00      7.58    617.88       0.0       0.0    618.26      0.38      0.58      0.04    622.80
     2000.        0.     2000.        0.        0.      407.        0.      129.       24.    622.80
      0.62       0.0      4.92       0.0     0.030     0.032     0.030     0.047    610.30    252.00
  0.001381      325.      320.      320.         2         0         0     -0.01     58.00    312.00

*SECNO 34916.000
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3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD   622.80 MAX ELLC   621.90

  34916.00      7.60    617.90      0.0       0.0     618.27      0.37      0.01      0.00    622.80
    2000.         0.    2000.         0.        0.      403.        0.      129.       24.    622.80
     0.62       0.0      4.90       0.0     0.030     0.032     0.030     0.047    610.30    252.00
  0.001370       10.       10.       10.        0         0         0     -0.01     58.00    312.00

*SECNO 34917.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD   622.80 MAX ELLC   621.90

  34917.00      7.65    617.95      0.0       0.0     618.32      0.37      0.05      0.00    622.80
    2000.         0.    2000.         0.        0.      411.        0.      129.       24.    622.80
     0.62       0.0      4.87       0.0     0.030     0.032     0.030     0.047    610.30    252.00
  0.001345       36.       36.       36.        0         0         0     -0.01     58.00    312.00

*SECNO 34918.000

3265 DIVIDED FLOW

     SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS  BANK ELEV
         Q      QLOB       QCH      QROB      ALOB       ACH      AROB       VOL      TWA  LEFT/RIGHT
      TIME      VLOB       VCH      VROB       XNL      XNCH       XNR       WTN     ELMIN      SSTA
     SLOPE     XLOBL      XLCH     XLOBR    ITRIAL       IDC     ICONT     CORAR    TOPWID     ENDST

  34918.00      7.67    617.97      0.0       0.0     618.33      0.37      0.01      0.00    622.80
    2000.         0.    2000.         0.        0.      412.        0.      129.       24.    622.80
     0.62       0.0      4.86       0.0     0.030     0.032     0.030     0.047    610.30    252.00
  0.001334       10.       10.       10.        0         0         0     -0.01     58.00    312.00

CCHV    0.300 CEHV     0.500
*SECNO 34965.000

         K   VALLEY SECTION

  34965.00      8.60    618.19      0.0       0.0     618.57      0.47      0.18      0.05    611.60
    2000.       181.    1152.      667.      108.      161.      515.      131.       24.    611.70
     0.63       1.67      7.13      1.30     0.100     0.040     0.120     0.047    609.50    188.98
  0.002434      100.      105.       95.        0         0         0     -0.01    251.02    440.00

CCHV    0.100 CEHV     0.300
*SECNO 36650.000

         L

  36650.00      3.58    619.38      0.0       0.0     619.44      0.05      0.83      0.04    614.00
    2000.       429.    1246.      325.      607.      552.      506.      162.       31.    612.00
     0.84       0.71      2.26      0.64     0.100     0.045     0.120     0.048    610.80     61.85
  0.000300     1015.     1480.      880.        3         0         0     -0.02    310.84    372.69

CCHV    0.300 CEHV     0.500
*SECNO 36715.000

         M   BRIDGE SECTION - GROVE STREET BRIDGE - WIDTH 31. LENGTH 57.3
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LC 520.9, TR 624.9

  36715.00     8.28   619.38     0.0      0.0    619.74     0.37     0.15     0.16   624.90
     2000.       0.    2030.       0.       0.     412.       0.     168.      32.    624.90
     0.86      0.0     4.86      0.0    0.100    0.035    0.120    0.048   611.10   320.00
  0.001222     220.     300.     185.        2        0        0    -0.01    57.30   377.30

*SECNO 36716.000

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    624.90 MAX ELLC    620.90

  36716.00     8.29   619.39     0.0      0.0    619.76     0.37     0.01     0.00   624.90
     2000.       0.    2000.       0.       0.     412.       0.     168.      32.    624.90
     0.86      0.0     4.85      0.0    0.020    0.035    0.020    0.047   611.10   320.00
  0.001219      10.      10.      10.        0        0        0    -0.01    57.30   377.30

*SECNO 36717.000
   SECNO     DEPTH    CWSEL    CRIWS    WSELK     EG       HV       HL      OLOSS   BANK ELEV
   Q         QLOB     QCH      QROB     ALOB      ACH      AROB     VOL     TWA    LEFT/RIGHT
   TIME      VLOB     VCH      VROB     XNL       XNCH     XNR      WTN     ELMIN     SSTA
   SLOPE     XLOBL    XLCH     XLOBR    ITRIAL    IDC      ICONT    CORAR   TOPWID     ENDST

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    624.90 MAX ELLC    620.90

  36717.00     8.33   619.43     0.0      0.0    619.80     0.36     0.04     0.00   624.90
     2000.       0.    2000.       0.       0.     414.       0.     168.      32.    624.90
     0.86      0.0     4.83      0.0    0.020    0.035    0.020    0.047   611.10   320.00
  0.001197      31.      31.      31.        0        0        0    -0.01    57.30   377.30

*SECNO 36718.000
  36718.00     8.35   619.45     0.0      0.0    619.81     0.36     0.01     0.00   624.90
     2000.       0.    2000.       0.       0.     415.       0.     168.      32.    624.90
     0.86      0.0     4.81      0.0    0.100    0.040    0.100    0.047   611.10   320.00
  0.001552      10.      10.      10.        0        0        0    -0.01    57.30   377.30

*SECNO 36765.000

        N  VALLEY SECTION

  36765.00    11.52   619.72     0.0      0.0    619.98     0.26     0.14     0.03   614.80
     2000.      34.    1273.     692.      38.     255.     571.     169.      32.    615.20
     0.87     0.91     5.00     1.21    0.100    0.040    0.100    0.047   608.20   157.08
  0.001216     100.     100.     100.        2        0        0    -0.01   227.24   384.32

CCHV     0.100 CEHV     0.300
*SECNO 37515.000

        O  VALLEY SECTION - MANUFACTURED

  37515.00    12.25   620.45     0.0      0.0    620.57     0.11     0.58     0.01   616.00
     2000.      24.    1086.     890.      37.     302.    1155.     186.      37.    616.00
     0.95     0.65     3.60     0.77    0.100    0.040    0.100    0.047   608.20   269.32
  0.000613     665.     770.     565.        2        0        0    -0.00   446.36   715.68

CCHV     0.100 CEHV     0.300
```

*SECNO 38175.000

P VALLEY SECTION

38175.00	10.23	620.83	0.0	0.0	621.00	0.18	0.42	0.02	617.50
2000.	13.	1264.	723.	21.	300.	1036.	205.	42.	617.40
1.01	0.60	4.21	0.76	0.100	0.034	0.120	0.046	610.60	314.59
0.000655	530.	760.	510.	2	0	0	-0.02	372.80	687.48

*SECNO 39175.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

Q VALLEY SECTION MANUFACTURED

39175.00	10.85	621.45	0.0	0.0	621.59	0.14	0.56	0.00	618.00
2000.	660.	1308.	32.	958.	353.	66.	229.	48.	618.00
1.12	0.69	3.70	0.47	0.100	0.034	0.120	0.046	610.60	77.83
0.000490	585.	1250.	690.	2	0	0	-0.03	404.40	482.23

*SECNO 40275.000

R VALLEY SECTION

40275.00	8.56	621.86	0.0	0.0	622.04	0.18	0.44	0.01	617.50
2000.	906.	1017.	77.	953.	214.	85.	248.	54.	614.70
1.19	0.95	4.74	0.91	0.100	0.034	0.120	0.045	613.30	53.03
0.000818	550.	820.	605.	2	0	0	-0.00	390.69	443.72

CCHV 0.300 CEHV 0.500
*SECNO 40325.000

3301 HV CHANGED MORE THAN HVINS

S BRIDGE SECTION - CENTER ST. BRIDGE,LENGTH 52.8, WIDTH 27.7

LC 622.2,TR 625.1, SKEW FACTOR 0.74

40325.00	7.99	621.79	0.0	0.0	622.66	0.87	0.27	0.34	624.70
2000.	0.	2000.	0.	0.	268.	0.	252.	55.	626.80
1.20	0.0	7.47	0.0	0.035	0.030	0.035	0.045	613.80	481.15
0.002477	250.	195.	170.	2	0	0	-0.00	39.07	520.22

*SECNO 40326.000

3370 NORMAL BRIDGE,NRD 7 MIN ELTRD 622.90 MAX ELLC 628.70

40326.00	8.02	621.82	0.0	0.0	622.68	0.86	0.02	0.00	624.70
2000.	0.	2000.	0.	0.	269.	0.	252.	55.	626.80
1.20	0.0	7.44	0.0	0.035	0.030	0.035	0.045	613.80	481.15
0.002453	10.	10.	10.	1	0	0	-0.00	39.07	520.22

*SECNO 40327.000

3370 NORMAL BRIDGE,NRD 7 MIN ELTRD 622.90 MAX ELLC 628.70

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  40327.00     8.12    621.92      0.0       0.0     622.76      0.83      0.07      0.01    624.70
    2000.        0.     2000.        0.        0.      273.        0.      252.       55.    626.80
     1.20       0.0      7.32       0.0     0.035     0.030     0.035     0.045    613.80    481.15
  0.002340      28.       28.       28.         2         0         0     -0.00     39.07    520.22

 *SECNO 40328.000
    SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
      Q       QLOB       QCH      QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB       VCH      VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL      XLCH     XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

  40328.00     8.15    621.95      0.0       0.0     622.78      0.83      0.02      0.00    624.70
    2000.        0.     2000.        0.        0.      274.        0.      252.       55.    626.80
     1.20       0.0      7.30       0.0     0.035     0.030     0.035     0.045    613.80    481.15
  0.002317      10.       10.       10.         0         0         0     -0.00     39.07    520.22

 *SECNO 40475.000

 3265 DIVIDED FLOW

 3301 HV CHANGED MORE THAN HVINS

          T  DRIVEWAY BRIDGE,TR 623.5,LC 622.1, WIDTH 13 & 22.6, LENGTH 18.3 &11.5

  40475.00     7.91    622.21      0.0       0.0     623.86      1.65      0.66      0.41    623.50
    2000.        0.     2000.        0.        0.      194.        0.      253.       55.    623.50
     1.20       0.0     10.31       0.0     0.035     0.030     0.035     0.045    614.30    100.00
  0.007938     115.      170.      115.         2         0         0     -0.00     29.80    199.80

 *SECNO 40476.000

 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD    6 MIN ELTRD    623.50 MAX ELLC    623.50

  40476.00     7.90    622.20      0.0       0.0     623.88      1.68      0.01      0.02    623.50
    2000.        0.     2000.        0.        0.      192.        0.      253.       55.    623.50
     1.20       0.0     10.41       0.0     0.035     0.030     0.035     0.045    614.30    100.00
  0.012043       1.        1.        1.         1         0         0     -1.94     29.80    199.80

 *SECNO 40477.000

 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD    6 MIN ELTRD    623.50 MAX ELLC    623.50

  40477.00     8.14    622.44      0.0       0.0     624.07      1.64      0.18      0.01    623.50
    2000.        0.     2000.        0.        0.      195.        0.      253.       55.    623.50
     1.20       0.0     10.27       0.0     0.035     0.030     0.035     0.045    614.30    100.00
  0.011605      15.       15.       15.         2         0         0     -6.14     29.80    199.80

 *SECNO 40478.000

 3265 DIVIDED FLOW
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[illegible]

2000.	0.	2000.	0.	0.	210.	0.	253.	55.	623.50
1.20	0.0	9.53	0.0	0.035	0.030	0.035	0.045	614.30	100.00
0.006424	1.	1.	1.	3	0	0	-0.00	29.80	199.80

*SECNO 40615.000
3280 CROSS SECTION 40615.00 EXTENDED 4.58 FEET

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

U MANUFACTURED

40615.00	10.78	624.58	0.0	0.0	624.60	0.02	0.03	0.42	618.30
2000.	840.	202.	958.	838.	136.	817.	257.	55.	615.00
1.24	0.95	1.49	1.17	0.035	0.030	0.035	0.044	613.80	85.00
0.000054	170.	170.	120.	2	0	0	-0.00	290.00	375.00

CCHV 0.100 CEHV 0.300
*SECNO 41275.000

V VALLEY SECTION

41275.00	11.20	624.60	0.0	0.0	624.64	0.04	0.04	0.01	620.40
2000.	34.	667.	1299.	45.	295.	1124.	275.	59.	618.00
1.33	0.76	2.26	1.15	0.035	0.030	0.035	0.044	613.40	37.55
0.000121	510.	610.	440.	2	0	0	-0.02	353.42	390.97

*SECNO 42875.000

W VALLEY SECTION

42875.00	9.82	624.82	0.0	0.0	625.01	0.19	0.32	0.04	617.30
1780.	347.	726.	707.	362.	137.	749.	308.	67.	617.30
1.45	0.96	5.30	0.94	0.150	0.045	0.150	0.045	615.00	553.09
0.001496	1005.	1500.	980.	2	0	0	-0.00	331.02	884.11

CCHV 0.300 CEHV 0.500
*SECNO 42925.000

3301 HV CHANGED MORE THAN HVINS

X BRIDGE SECTION - CLEVELAND STREET BRIDGE - WIDTH 43, LENGTH 36.3

TR 627.5, LC 625.8

42925.00	7.92	625.02	0.0	0.0	625.90	0.88	0.54	0.35	627.50
1780.	0.	1780.	0.	0.	237.	0.	312.	68.	627.50
1.46	0.0	7.52	0.0	0.150	0.045	0.150	0.045	617.10	100.32
0.005418	170.	210.	235.	2	0	0	-0.00	36.57	136.38

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3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    627.50 MAX ELLC    625.80

  42926.00       7.95    625.05      0.0       0.0     625.93      0.87      0.03      0.00    627.50
     1780.         0.     1780.        0.        0.      238.        0.      312.       68.     627.50
      1.46        0.0      7.49      0.0     0.020     0.030     0.020     0.045    617.10    100.31
  0.002379         3.        8.        3.        0         0         0     -0.00     36.59    136.89

*SECNO 42927.000
     SECNO      DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
       Q        QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN      ELMIN      SSTA
     SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR    TOPWID     ENDST

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    627.50 MAX ELLC    625.80

  42927.00       8.11    625.21      0.0       0.0     626.04      0.83      0.10      0.01    627.50
     1780.         0.     1780.        0.        0.      244.        0.      312.       68.     627.50
      1.46        0.0      7.29      0.0     0.020     0.030     0.020     0.045    617.10    100.24
  0.002205        43.       43.       43.        1         0         0     -0.00     36.73    136.96

*SECNO 42928.000
  42928.00       8.13    625.23      0.0       0.0     626.06      0.82      0.02      0.00    627.50
     1780.         0.     1780.        0.        0.      244.        0.      312.       68.     627.50
      1.45        0.0      7.28      0.0     0.020     0.030     0.020     0.045    617.10    100.23
  0.002194         3.        8.        8.        0         0         0     -0.00     36.74    136.97

*SECNO 42975.000
3280 CROSS SECTION  42975.00 EXTENDED      2.35 FEET

3301 HV CHANGED MORE THAN HVINS

        Y  VALLEY SECTION

  42975.00      10.95    626.35      0.0       0.0     625.37      0.02      0.07      0.24    620.50
     1780.       842.      257.      681.     1108.      129.      712.      315.       69.     619.10
      1.50       0.76      2.00      0.96     0.100     0.045     0.360     0.045    615.40    401.54
  0.000244       115.      130.      135.        2         0         0     -0.00    398.46    800.00

CCHV    0.100 CEHV    0.300
*SECNO 44775.000

3470 ENCROACHMENT STATIONS        0.0      440.0  TYPE      1  TARGET      439.999

        Z  VALLEY SECTION

  44775.00       7.76    626.88      0.0       0.0     627.17      0.29      0.72      0.03    622.70
     1780.       418.      736.      626.      178.      116.      443.      347.       77.     624.70
      1.59       2.35      6.34      1.41     0.080     0.040     0.080     0.047    619.10     16.23
  0.003207       960.     1875.      925.        3         0         0     -0.00    376.21    392.43
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*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
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T1
T2
T3

J1  ICHECK    INQ     NINV    IDIR    STRT      METRIC    HVINS    Q      WSEL      FQ
      0.        4.      0.      0.   0.001475    0.0       0.0      0.    513.500    0.0

J2  NPROF     IPLOT   PREVS   XSECV   XSECH     FN        ALLDC    IBW    CHNIM     ITRACE
    15.000    0.0     1.000   0.0     0.0       0.0       0.0      0.0    0.0       0.0
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*PROF 2

CCHV    0.100 CEHV    0.300
*SECNO 30340.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS          18C.0       400.0  TYPE        1  TARGET       220.000
 30340.00      8.90    613.50      0.0     613.50    613.69      0.19      0.0       0.0      610.90
   2000.      129.     1244.      628.       95.      304.      259.        0.        0.      606.70
    0.0       1.36      4.09      2.42     0.050     0.050     0.050      0.0     604.60    202.14
 0.001473       0.        0.        0.        0         0         0      -0.00    197.86    400.00

*SECNO 30541.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       639.10 ELREA       639.10

                A  BRIDGE SECTION I-96 - WIDTH 47, LENGTH 149.3,

                   LC 635.6, TR 639.1

 30541.00      7.21    613.71      0.0       0.0     614.32      0.61      0.51      0.13     634.50
    2000.        0.     2000.        0.        0.      318.        0.        2.        1.     631.60
    0.01       0.0      6.29      0.0      0.050     0.050     0.050     0.050    606.50    269.52
 0.005324      200.      200.      200.        2         0         0      -0.01     61.45    330.96

*SECNO 30542.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    639.10 MAX ELLC    635.60

 30542.00      7.23    613.73      0.0       0.0     614.40      0.66      0.06      0.01     639.90
    2000.        0.     2000.        0.        0.      306.        0.        2.        1.     639.90
    0.01       0.0      6.54      0.0      0.050     0.050     0.050     0.050    606.50    269.45
 0.006733       10.       10.       10.        0         0         0      -0.01     56.60    331.04

*SECNO 30543.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    639.10 MAX ELLC    635.60

 30543.00      7.62    614.12      0.0       0.0     614.70      0.58      0.29      0.01     639.90
    2000.        0.     2000.        0.        0.      327.        0.        3.        1.     639.90
    0.01       0.0      6.11      0.0      0.050     0.050     0.050     0.049    606.50    268.62
 0.005714       47.       47.       47.        2         0         0      -0.01     58.30    331.93

*SECNO 30544.000

3265 DIVIDED FLOW
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    Q         QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA      LEFT/RIGHT
    TIME      VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
    SLOPE     XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST


 3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    639.10 MAX ELLC    635.60

   30544.00      7.96    614.46      0.0       0.0     614.77      0.52      0.27      0.01    639.90
     2000.         0.     2000.        0.        0.      347.        0.        3.        1.    639.90
      0.01        0.0      5.76      0.0     0.050     0.050     0.050     0.049    606.50    267.39
   0.004955       50.       50.       50.         2         0         0     -0.01     59.83    332.72


 *SECNO 30545.000

 3265 DIVIDED FLOW


 3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    639.10 MAX ELLC    635.60

   30545.00      8.22    614.72      0.0       0.0     615.20      0.47      0.22      0.00    639.90
     2000.         0.     2000.        0.        0.      363.        0.        3.        1.    639.90
      0.02        0.0      5.51      0.0     0.050     0.050     0.050     0.049    606.50    267.32
   0.004454       47.       47.       47.         1         0         0     -0.01     61.01    333.33


 *SECNO 30546.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA     639.10 ELREA     639.10

   30546.00      8.33    614.83      0.0       0.0     615.24      0.41      0.04      0.01    634.50
     2000.         0.     2000.        0.        0.      389.        0.        4.        1.    631.60
      0.02        0.0      5.14      0.0     0.080     0.050     0.080     0.049    606.50    267.60
   0.003023       10.       10.       10.         2         0         0     -0.01     66.52    333.60


 CCHV     0.200 CEHV     0.400
 *SECNO 30590.000

 3470 ENCROACHMENT STATIONS     180.0     400.0  TYPE=     1  TARGET       220.000

         6  VALLEY SECTION

   30590.00     10.71    615.31      0.0       0.0     615.40      0.09      0.09      0.06    610.90
     2000.       264.     1125.      611.      258.      382.      407.        5.        1.    608.70
      0.03       1.02      2.95      1.50     0.060     0.045     0.060     0.048    604.60    180.00
   0.000457      100.      100.      100.         2         0         0     -0.00    220.00    400.00


 CCHV     0.100 CEHV     0.300
 *SECNO 31250.000
 3280 CROSS SECTION  31250.00 EXTENDED       5.54 FEET


         C  VALLEY SECTION

   31250.00      9.84    615.54      0.0       0.0     615.56      0.02      0.16      0.01    609.40
     2000.      1004.      463.      533.     1186.      249.      483.       24.        5.    608.50
      0.17       0.85      1.86      1.10     0.080     0.045     0.060     0.046    605.70       0.0
   0.000186      570.      560.      565.         2         0         0     -0.03    302.50    302.50


 *SECNO 32450.000
    SECNO     DEPTH      CWSEL     CRIWS      WSELK      EG         HV         HL        OLOSS    BANK ELEV
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Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

D VALLEY SECTION

32450.00	10.90	615.79	0.0	0.0	615.74	0.03	0.17	0.06	610.30
2000.	31.	490.	1479.	55.	238.	1229.	55.	10.	610.50
0.33	0.56	2.06	1.20	0.080	0.045	0.060	0.054	604.80	68.70
0.000250	705.	1140.	720.	2	0	0	-0.03	279.45	348.15

CCHV 0.100 CEHV 0.300
*SECNO 34030.000

E VALLEY SECTION

34030.00	11.31	616.11	0.0	0.0	616.23	0.11	0.47	0.02	607.20
2000.	1024.	815.	160.	965.	201.	137.	94.	16.	607.10
0.48	1.06	4.05	1.17	0.120	0.040	0.080	0.052	604.80	83.24
0.000580	1220.	1580.	1085.	2	0	0	-0.02	207.62	290.86

CCHV 0.300 CEHV 0.500
*SECNO 34320.000

3265 DIVIDED FLOW

F BRIDGE SECTION - RANDALL ST. BRIDGE - WIDTH 33.3,LENGTH 83.5

LC 621.9, TR 623.0

34320.00	8.59	616.29	0.0	0.0	616.50	0.21	0.22	0.05	621.40
2000.	0.	2000.	0.	0.	547.	0.	100.	17.	622.20
0.50	0.0	3.65	0.0	0.080	0.045	0.080	0.051	607.70	460.00
0.001345	240.	270.	290.	2	0	0	-0.01	30.00	543.50

*SECNO 34321.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD 0 MIN ELTRD 621.40 MAX ELLC 619.50

34321.00	8.60	616.30	0.0	0.0	615.51	0.21	0.01	0.00	621.40
2000.	0.	2000.	0.	0.	548.	0.	100.	17.	622.20
0.50	0.0	3.65	0.0	0.020	0.035	0.020	0.051	607.70	460.00
0.000810	10.	10.	10.	0	0	0	-0.01	80.00	543.50

*SECNO 34322.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD 0 MIN ELTRD 621.40 MAX ELLC 619.50

34322.00	8.63	616.33	0.0	0.0	616.54	0.20	0.03	0.00	621.40
2000.	0.	2000.	0.	0.	551.	0.	100.	17.	622.20
0.51	0.0	3.63	0.0	0.020	0.035	0.020	0.051	607.70	460.00

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*SECNO 34323.000

3265 DIVIDED FLOW

  SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
  Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
  TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
  SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 34323.00      8.54    616.34      0.0       0.0    616.54      0.20      0.01      0.00    621.40
   2000.        0.     2000.        0.        0.      551.        0.      100.       17.    622.20
   0.51         0.0      3.63      0.0     0.100     0.040     0.100     0.051    607.70    460.00
 0.001040       10.       10.       10.        0         0         0     -0.01     80.00    543.50

*SECNO 34370.000

3470 ENCROACHMENT STATIONS     150.0     450.0  TYPE      1   TARGET      300.000

        G VALLEY SECTION

 34370.00     11.82    616.52      0.0       0.0    616.67      0.15      0.11      0.02    612.30
   2000.       443.     1018.      539.      439.      239.      503.      103.       18.    612.60
   0.52        1.01      4.27      1.07     0.100     0.040     0.100     0.051    604.70    150.00
-0.000942      135.      135.      115.        2         0         0     -0.02    300.00    450.00

CCHV     0.100 CEHV     0.300
*SECNO 34465.000

        H VALLEY SECTION

 34465.00      9.00    617.00      0.0       0.0    617.13      0.13      0.46      0.00    612.00
   2000.       886.     1096.       18.     1322.      282.       35.      121.       22.    612.00
   0.59        0.67      3.89      0.52     0.120     0.035     0.120     0.049    608.00     92.51
 0.000559      515.      730.      600.        2         0         0     -0.00    436.64    529.15

CCHV     0.300 CEHV     0.500
*SECNO 34515.000

    I  BRIDGE SECTION   GRAND WESTERN R.R. BRIDGE WIDTH 10.5  LENGTH 74

         LC 629.35 TR 633.8

 34515.00      3.53    617.03      0.0       0.0    617.56      0.52      0.23      0.19    639.00
   2000.         0.     2000.        0.        0.      345.        0.      126.       24.    638.80
   0.60         0.0      5.79      0.0     0.120     0.035     0.120     0.048    608.50    163.00
 0.002637      200.      230.      200.        2         0         0     -0.00     74.00    237.00

*SECNO 34516.000

3370 NORMAL BRIDGE,NRD=   6 MIN ELTRD    638.80 MAX ELLC    638.80

 34516.00      8.57    617.07      0.0       0.0    617.58      0.52      0.03      0.00    639.00
   2000.         0.     2000.        0.        0.      347.        0.      126.       24.    638.80
   0.60         0.0      5.76      0.0     0.040     0.035     0.040     0.048    608.50    163.00
 0.002596       10.       10.       10.        1         0         0     -0.00     74.00    237.00

*SECNO 34517.000
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 SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS     BANK ELEV
 Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA     LEFT/RIGHT
 TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
 SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


3370 NORMAL BRIDGE,NRD   6 MIN ELTRD   638.80 MAX ELLC   638.80

  34517.00       8.60    617.10       0.0       0.0    617.61      0.51      0.03      0.00    639.00
     2000.         0.     2000.         0.        0.     350.         0.      126.       24.    638.80
     0.60        0.0      5.72       0.0     0.040     0.035     0.040     0.048    608.50    163.00
  0.002532        11.       11.       11.         0         0         0     -0.00     74.00    237.00

 *SECNO 34518.000
  34518.00       8.64    617.14       0.0       0.0    617.64      0.50      0.03      0.00    639.00
     2000.         0.     2000.         0.        0.     352.         0.      126.       24.    638.80
     0.60        0.0      5.68       0.0     0.040     0.035     0.040     0.048    608.50    163.00
  0.002473        10.       10.       10.         0         0         0     -0.00     74.00    237.00

 *SECNO 34915.000

 3265 DIVIDED FLOW

          J   BRIDGE SECTION - MAIN STREET BRIDGE - WIDTH 36, LENGTH 60.0,

          LC 620.89,  TR 624.89

  34915.00       7.58    617.88       0.0       0.0    618.26      0.38      0.58      0.04    622.80
     2000.         0.     2000.         0.        0.     407.         0.      129.       24.    622.80
     0.62        0.0      4.92       0.0     0.030     0.032     0.030     0.047    610.30    252.00
  0.001381       325.      320.      320.         2         0         0     -0.01     58.00    312.00

 *SECNO 34916.000

 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD   0 MIN ELTRD   622.80 MAX ELLC   621.90

  34916.00       7.60    617.90       0.0       0.0    618.27      0.37      0.01      0.00    622.80
     2000.         0.     2000.         0.        0.     408.         0.      129.       24.    622.80
     0.62        0.0      4.90       0.0     0.030     0.032     0.030     0.047    610.30    252.00
  0.001370        10.       10.       10.         0         0         0     -0.01     58.00    312.00

 *SECNO 34917.000

 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD   0 MIN ELTRD   622.80 MAX ELLC   621.90

  34917.00       7.65    617.95       0.0       0.0    618.32      0.37      0.05      0.00    622.80
     2000.         0.     2000.         0.        0.     411.         0.      129.       24.    622.80
     0.62        0.0      4.87       0.0     0.030     0.032     0.030     0.047    610.30    252.00
  0.001345        36.       36.       36.         0         0         0     -0.01     58.00    312.00

 *SECNO 34918.000
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3265 DIVIDED FLOW

    SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

  34918.00      7.67    617.97      0.0       0.0    618.33      0.37      0.01      0.00    622.60
    2000.         0.     2000.        0.        0.     412.        0.      129.       24.    622.80
     0.62        0.0      4.85       0.0     0.030     0.032     0.030     0.047    610.30    252.00
  0.001334       10.       10.       10.         0         0         0     -0.01     58.00    312.00

CCHV     0.300 CEHV     0.500
*SECNO 34965.000

       K  VALLEY SECTION

  34965.00      8.60    618.10      0.0       0.0    618.57      0.47      0.18      0.05    611.60
    2000.       181.     1152.      667.      108.      161.      515.      131.       24.    611.70
     0.63       1.67      7.13      1.30     0.100     0.040     0.120     0.047    609.50    188.98
  0.002434      100.      105.       95.         0         0         0     -0.01    251.02    440.00

CCHV     0.100 CEHV     0.300
*SECNO 36650.000

        L

  36650.00      8.58    619.38      0.0       0.0    619.44      0.05      0.33      0.04    614.00
    2000.       429.     1246.      325.      607.      552.      506.      162.       31.    612.00
     0.84       0.71      2.25      0.64     0.109     0.045     0.120     0.048    610.80     61.85
  0.000300     1015.     1430.      880.         3         0         0     -0.02    310.84    372.69

CCHV     0.300 CEHV     0.500
*SECNO 36715.000

        M  BRIDGE SECTION - GROVE STREET BRIDGE - WIDTH 31, LENGTH 57.3

           LC 620.9, TR 624.9

  36715.00      8.28    619.33      0.0       0.0    619.74      0.37      0.15      0.16    624.90
    2000.         0.     2000.        0.        0.     412.        0.      168.       32.    624.90
     0.86        0.0      4.86       0.0     0.100     0.035     0.120     0.048    611.10    320.00
  0.001222      220.      300.      185.         2         0         0     -0.01     57.30    377.30

*SECNO 36716.000

 3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    624.90 MAX ELLC    620.90

  36716.00      8.29    619.39      0.0       0.0    619.76      0.37      0.01      0.00    624.90
    2000.         0.     2000.        0.        0.     412.        0.      168.       32.    624.90
     0.86        0.0      4.85       0.0     0.020     0.035     0.020     0.047    611.10    320.00
  0.001219       10.       10.       10.         0         0         0     -0.01     57.30    377.30

*SECNO 36717.000
    SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST
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 3370 NORMAL BRIDGE,NRD    0 MIN ELTRD   624.90 MAX ELLC    620.90

  36717.00       8.33   619.43      0.0       0.0    619.80      0.36      0.04      0.00    624.90
     2000.         0.    2000.        0.        0.      414.        0.      163.       32.     624.90
      0.86        0.0     4.83      0.0     0.020     0.035     0.020     0.047    611.10    320.00
  0.001197        31.      31.      31.         0         0         0     -0.01     57.30    377.30

 *SECNO 36718.000
  36718.00       8.35   619.45      0.0       0.0    619.81      0.36      0.01      0.00    624.90
     2000.         0.    2000.        0.        0.      415.        0.      168.       32.     624.90
      0.86        0.0     4.81      0.0     0.100     0.040     0.100     0.047    611.10    320.00
  0.001552        10.      10.      10.         0         0         0     -0.01     57.30    377.30

 *SECNO 36765.000

          N  VALLEY SECTION

  36765.00      11.52   619.72      0.0       0.0    619.98      0.26      0.14      0.03    614.80
     2000.        34.    1273.      692.       33.      255.      571.      169.       32.     615.20
      0.87       0.91     5.00     1.21     0.100     0.040     0.100     0.047    608.20    157.08
  0.001215       100.     100.     100.         2         0         0     -0.01    227.24    384.32

 CCHV     0.100 CEHV     0.300
 *SECNO 37515.000

          O  VALLEY SECTION - MANUFACTURED

  37515.00      12.25   620.45      0.0       0.0    620.57      0.11      0.58      0.01    616.00
     2000.        24.    1086.      890.       37.      302.     1155.      186.       37.     616.00
      0.95       0.65     3.60     0.77     0.100     0.040     0.100     0.047    608.20    269.32
  0.000613       665.     770.     565.         2         0         0      0.00    446.36    715.68

 CCHV     0.100 CEHV     0.300
 *SECNO 38175.000

          P  VALLEY SECTION

  38175.00      10.23   620.83      0.0       0.0    621.00      0.18      0.42      0.02    617.50
     2000.        13.    1264.      723.       21.      300.     1036.      205.       42.     617.40
      1.01       0.60     4.21     0.70     0.100     0.034     0.120     0.046    610.60    314.68
  0.000655       530.     760.     510.         2         0         0     -0.02    372.80    687.48

 *SECNO 39175.000
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

          Q  VALLEY SECTION - MANUFACTURED

  39175.00      10.85   621.45      0.0       0.0    621.59      0.14      0.58      0.00    618.00
     2000.       660.    1308.       32.      958.      353.       66.      229.       48.     618.00
      1.12       0.69     3.70     0.47     0.100     0.034     0.120     0.046    610.60     77.83
  0.000490       585.    1250.     690.         2         0         0     -0.03    404.40    482.23
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        R  VALLEY SECTION

  40275.00     8.56   621.86      0.0      0.0    622.04     0.18     0.44     0.01   617.50
    2000.      905.   1017.       77.     953.     214.      85.     248.      54.    614.70
    1.19       0.95     4.74     0.91    0.100    0.034    0.120   -0.045   613.30    53.03
  0.000818     550.    820.      605.        2        0        0    -0.00   390.69   443.72

 CCHV    0.300 CEHV    0.500
 *SECNO 40325.000

 3301 HV CHANGED MORE THAN HVINS

        S  BRIDGE SECTION - CENTER ST. BRIDGE,LENGTH 52.8, WIDTH 27.7

           LC-622.2,TR-625.1, SKEW FACTOR 0.74

  40325.00     7.99   621.79      0.0      0.0    622.66     0.87     0.27     0.34   624.70
    2000.       0.    2000.        0.       0.     263.       0.     252.      55.    626.80
    1.20       0.0     7.47      0.0    0.035    0.030    0.035    0.045   613.80   481.15
  0.002477     250.    175.      170.        2        0        0    -0.00    39.07   520.22

 *SECNO 40326.000

 3370 NORMAL BRIDGE,NRD   7 MIN ELTRD   622.90 MAX ELLC   628.70

  40326.00     3.02   621.82      0.0      0.0    622.68     0.86     0.02     0.00   624.70
    2000.       0.    2000.        0.       0.     269.       0.     252.      55.    626.80
    1.20       0.0     7.44      0.0    0.035    0.030    0.035    0.045   613.80   481.15
  0.002453     10.      10.       10.        1        0        0    -0.00    39.07   520.22

 *SECNO 40327.000

 3370 NORMAL BRIDGE,NRD   7 MIN ELTRD   622.90 MAX ELLC   628.70

  40327.00     3.12   621.92      0.0      0.0    622.76     0.83     0.07     0.01   624.70
    2000.       0.    2000.        0.       0.     273.       0.     252.      55.    626.80
    1.20       0.0     7.32      0.0    0.035    0.030    0.035    0.045   613.80   481.15
  0.002340     28.      28.       28.        2        0        0    -0.00    39.07   520.22

 *SECNO 40328.000
   SECNO     DEPTH    CWSEL    CRIWS    WSELK      EG       HV       HL     OLOSS   BANK ELEV
     Q       QLOB      QCH     QROB     ALOB      ACH     AROB      VOL      TWA   LEFT/RIGHT
   TIME      VLOB      VCH     VROB      XNL     XNCH      XNR      WTN    ELMIN      SSTA
   SLOPE     XLOBL    XLCH    XLOBR   ITRIAL     IDC    ICONT    CORAR   TOPWID     ENDST

  40328.00     3.15   621.95      0.0      0.0    622.78     0.83     0.02     0.00   624.70
    2000.       0.    2000.        0.       0.     274.       0.     252.      55.    626.80
    1.20       0.0     7.30      0.0    0.035    0.030    0.035    0.045   613.80   481.15
  0.002317     10.      10.       10.        0        0        0    -0.00    39.07   520.22

 *SECNO 40475.000

 3265 DIVIDED FLOW

 3301 HV CHANGED MORE THAN HVINS
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      T  DRIVEWAY BRIDGE,TR 623.5,LC 622.1, WIDTH 13 & 22.6, LENGTH 18.3 &11.5

   40475.00      7.91    622.21      0.0       0.0     623.86      1.65      0.66      0.41    623.50
      2000.        0.     2000.        0.        0.      194.        0.      253.       55.    623.50
       1.20       0.0     10.31       0.0     0.035     0.030     0.035     0.045    614.30    100.00
   0.007938      115.      170.      115.         2         0         0     -0.00     29.80    199.80

 *SECNO 40476.000

 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD    6 MIN ELTRD    623.50 MAX ELLC    623.50

   40476.00      7.90    622.20      0.0       0.0     623.88      1.68      0.01      0.02    623.50
      2000.        0.     2000.        0.        0.      192.        0.      253.       55.    623.50
       1.20       0.0     10.41       0.0     0.035     0.030     0.035     0.045    614.30    100.00
   0.012043        1.        1.        1.         1         0         0     -1.94     29.80    199.80

 *SECNO 40477.000

 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD    6 MIN ELTRD    623.50 MAX ELLC    623.50

   40477.00      8.14    622.44      0.0       0.0     624.07      1.64      0.18      0.01    623.50
      2000.        0.     2000.        0.        0.      195.        0.      253.       55.    623.50
       1.20       0.0     10.27       0.0     0.035     0.030     0.035     0.045    614.30    100.00
   0.011605       15.       15.       15.         2         0         0     -6.14     29.80    199.80

 *SECNO 40478.000

 3265 DIVIDED FLOW

   40478.00      8.44    622.74      0.0       0.0     624.15      1.41      0.01      0.07    623.50
      2000.        0.     2000.        0.        0.      210.        0.      253.       55.    623.50
       1.20       0.0      9.53       0.0     0.035     0.030     0.035     0.045    614.30    100.00
   0.006424        1.        1.        1.         3         0         0     -0.00     29.80    199.80

 *SECNO 40615.000
 3280 CROSS SECTION   40615.00 EXTENDED       4.58 FEET

 3301 HV CHANGED MORE THAN HVINS

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

      U    MANUFACTURED

   40615.00     10.78    624.58      0.0       0.0     624.60      0.02      0.03      0.42    618.00
      2000.      840.      232.      958.      888.      136.      817.      257.       55.    615.60
       1.24      0.95      1.49      1.17     0.035     0.030     0.035     0.044    613.80     85.00
   0.000054      170.      170.      120.         2         0         0     -0.00    290.00    375.00
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CCHV     0.100 CEHV     0.300
*SECNO 41275.000

         V   VALLEY SECTION

  41275.00     11.20   624.60      0.0       0.0    624.64     0.04      0.04      0.01    620.40
     2000.       34.     667.     1299.      45.      295.     1124.      275.       59.    618.80
     1.33      0.76     2.20      1.15    0.035     0.030    0.035     0.044    613.40     37.55
  0.000121      510.     610.      440.        2         0        0     -0.02    353.42    390.97

*SECNO 42875.000

         W   VALLEY SECTION

  42875.00      9.82   624.82      0.0       0.0    625.01     0.19      0.32      0.04    617.30
     1780.      347.     726.      707.     362.      137.      749.      308.       67.    617.30
     1.45      0.96     5.30      0.94    0.150     0.045    0.150     0.045    615.00    553.09
  0.001496     1005.    1500.      980.        2         0        0     -0.00    331.02    884.11

CCHV     0.300 CEHV     0.500
*SECNO 42925.000

3301 HV CHANGED MORE THAN HVINS

         X   BRIDGE SECTION - CLEVELAND STREET BRIDGE - WIDTH 43, LENGTH 36.3

             TR 627.5, LC 625.8

  42925.00      7.92   625.02      0.0       0.0    625.90     0.88      0.54      0.35    627.50
     1780.        0.    1780.       0.        0.      237.       0.      312.       68.    627.50
     1.46      0.0      7.52      0.0     0.150     0.045    0.150     0.045    617.10    100.32
  0.005418      170.     210.      235.        2         0        0     -0.00     36.57    135.88

*SECNO 42926.000

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD   627.50 MAX ELLC   625.80

  42926.00      7.95   625.05      0.0       0.0    625.93     0.87      0.03      0.00    627.50
     1780.        0.    1780.       0.        0.      238.       0.      312.       68.    627.50
     1.46      0.0      7.49      0.0     0.020     0.030    0.020     0.045    617.10    100.31
  0.002379        8.       8.        8.        0         0        0     -0.00     36.59    136.89

*SECNO 42927.000
     SECNO     DEPTH    CWSEL     CRIWS    WSELK       EG        HV        HL     OLOSS  BANK ELEV
     Q         QLOB      QCH      QROB     ALOB      ACH      AROB       VOL     TWA  LEFT/RIGHT
     TIME      VLOB      VCH      VROB     XNL       XNCH     XNR        WTN    ELMIN     SSTA
     SLOPE     XLOBL     XLCH     XLOBR    ITRIAL    IDC      ICONT     CORAR   TOPWID    ENDST

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD   627.50 MAX ELLC   625.80

  42927.00      0.11   625.21      0.0       0.0    626.04     0.83      0.10      0.01    627.50
     1780.        0.    1780.       0.        0.      244.       0.      312.       68.    627.50
     1.46      0.0      7.29      0.0     0.020     0.030    0.020     0.045    617.10    100.24
  0.002205       43.      43.       43.        1         0        0     -0.00     36.73    136.96

*SECNO 42928.000
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  42928.00     6.13   625.23     0.0      0.0    625.06     0.82     0.02     0.00   627.50
     1780.       0.    1780.      0.       0.     244.       0.     312.      68.   627.50
      1.46      0.0     7.29      0.0    0.020    0.030    0.020    0.045   617.10   100.23
  0.002194       8.       8.       8.        0        0        0    -0.00    36.74   136.97

 *SECNO 42975.000
 3280 CROSS SECTION  42975.00 EXTENDED      2.35 FEET

 3301 HV CHANGED MORE THAN HVINS

         Y  VALLEY SECTION

  42975.00    10.95   626.35      0.0      0.0   626.37     0.02     0.07     0.24   620.50
     1780.     842.     257.     681.    1108.     129.     712.     315.      69.   619.10
      1.50     0.76     2.00     0.96    0.100    0.045    0.060    0.045   615.40   401.54
  0.000244     115.     130.     135.        2        0        0    -0.00   398.46   800.00

 CCHV    0.100 CEHV    0.300
 *SECNO 44775.000

 3470 ENCROACHMENT STATIONS         0.0      440.0  TYPE      1  TARGET      439.999

         Z  VALLEY SECTION

  44775.00     7.78   626.88      0.0      0.0   627.17     0.29     0.72     0.68   622.70
     1780.     413.     736.     626.     178.     116.     443.     347.      77.   624.70
      1.59     2.35     6.34     1.41    0.080    0.040    0.080    0.047   619.10    15.23
  0.003207     960.    1875.     925.        3        0        0    -0.00   376.21   392.43
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**************************************************
HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
ERROR CORR - 01,02,03
MODIFICATION - 50,51,52,53
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NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

DEER CREEK

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
30340.000	613.50	0.0	613.69	197.86	128.66	1243.76	627.58	220.00	180.00	275.00	318.00	400.00
30340.000	613.50	0.0	613.69	197.86	128.66	1243.76	627.58	220.00	180.00	275.00	318.00	400.00
30541.000	613.71	0.0	614.32	61.45	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30541.000	613.71	0.0	614.32	61.45	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30542.000	613.73	0.0	614.40	56.60	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30542.000	613.73	0.0	614.40	56.60	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30543.000	614.12	0.0	614.70	58.30	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30543.000	614.12	0.0	614.70	58.30	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30544.000	614.46	0.0	614.97	59.83	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30544.000	614.46	0.0	614.97	59.83	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30545.000	614.72	0.0	615.20	61.01	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30545.000	614.72	0.0	615.20	61.01	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30546.000	614.83	0.0	615.24	66.52	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30546.000	614.83	0.0	615.24	66.52	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30590.000	615.31	0.0	615.40	220.00	263.62	1125.39	611.00	220.00	180.00	275.00	318.00	400.00
30590.000	615.31	0.0	615.40	220.00	263.62	1125.39	611.00	220.00	180.00	275.00	318.00	400.00
31250.000	615.54	0.0	615.56	302.50	1003.56	463.43	533.01	0.0	0.0	189.00	217.00	0.0
31250.000	615.54	0.0	615.56	302.50	1003.56	463.43	533.01	0.0	0.0	189.00	217.00	0.0
32450.000	615.70	0.0	615.74	279.45	30.54	490.08	1479.37	0.0	0.0	89.00	116.00	0.0
32450.000	615.70	0.0	615.74	279.45	30.54	490.08	1479.37	0.0	0.0	89.00	116.00	0.0
34030.000	616.11	0.0	616.23	207.62	1024.46	815.37	160.17	0.0	0.0	230.00	250.00	0.0
34030.000	616.11	0.0	616.23	207.62	1024.46	815.37	160.17	0.0	0.0	230.00	250.00	0.0
34320.000	616.29	0.0	616.50	80.00	0.0	2000.00	0.0	0.0	0.0	460.00	543.50	0.0
34320.000	616.29	0.0	616.50	80.00	0.0	2000.00	0.0	0.0	0.0	460.00	543.50	0.0
34321.000	616.30	0.0	616.51	80.00	0.0	2000.00	0.0	0.0	0.0	460.00	543.50	0.0
34321.000	616.30	0.0	616.51	80.00	0.0	2000.00	0.0	0.0	0.0	460.00	543.50	0.0

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
34322.000	616.33	0.0	616.54	80.00	0.0	2000.00	0.0	0.0	0.0	460.00	543.50	0.0
34322.000	616.33	0.0	616.54	80.00	0.0	2000.00	0.0	0.0	0.0	460.00	543.50	0.0
34323.000	616.34	0.0	616.54	80.00	0.0	2000.00	0.0	0.0	0.0	460.00	543.50	0.0
34323.000	616.34	0.0	616.54	80.00	0.0	2000.00	0.0	0.0	0.0	460.00	543.50	0.0
34370.000	616.52	0.0	616.67	300.00	443.12	1017.87	539.02	300.00	150.00	286.00	314.00	450.00
34370.000	616.52	0.0	616.67	300.00	443.12	1017.87	539.02	300.00	150.00	286.00	314.00	450.00
34465.000	617.00	0.0	617.13	436.64	886.04	1095.63	18.33	0.0	0.0	480.00	515.00	0.0
34465.000	617.00	0.0	617.13	436.64	886.04	1095.63	18.33	0.0	0.0	480.00	515.00	0.0
34515.000	617.03	0.0	617.56	74.00	0.0	2000.00	0.0	0.0	0.0	163.00	237.00	0.0
34515.000	617.03	0.0	617.56	74.00	0.0	2000.00	0.0	0.0	0.0	163.00	237.00	0.0
34516.000	617.07	0.0	617.58	74.00	0.0	2000.00	0.0	0.0	0.0	163.00	237.00	0.0
34516.000	617.07	0.0	617.58	74.00	0.0	2000.00	0.0	0.0	0.0	163.00	237.00	0.0
34517.000	617.10	0.0	617.61	74.00	0.0	2000.00	0.0	0.0	0.0	163.00	237.00	0.0
34517.000	617.10	0.0	617.61	74.00	0.0	2000.00	0.0	0.0	0.0	163.00	237.00	0.0
34518.000	617.14	0.0	617.64	74.00	0.0	2000.00	0.0	0.0	0.0	163.00	237.00	0.0
34518.000	617.14	0.0	617.64	74.00	0.0	2000.00	0.0	0.0	0.0	163.00	237.00	0.0
34915.000	617.88	0.0	618.26	58.00	0.0	2000.00	0.0	0.0	0.0	252.00	312.00	0.0
34915.000	617.88	0.0	618.26	58.00	0.0	2000.00	0.0	0.0	0.0	252.00	312.00	0.0
34916.000	617.90	0.0	618.27	58.00	0.0	2000.00	0.0	0.0	0.0	252.00	312.00	0.0
34916.000	617.90	0.0	618.27	58.00	0.0	2000.00	0.0	0.0	0.0	252.00	312.00	0.0
34917.000	617.95	0.0	618.32	58.00	0.0	2000.00	0.0	0.0	0.0	252.00	312.00	0.0
34917.000	617.95	0.0	618.32	58.00	0.0	2000.00	0.0	0.0	0.0	252.00	312.00	0.0
34918.000	617.97	0.0	618.33	58.00	0.0	2000.00	0.0	0.0	0.0	252.00	312.00	0.0
34918.000	617.97	0.0	618.33	58.00	0.0	2000.00	0.0	0.0	0.0	252.00	312.00	0.0
34965.000	618.10	0.0	618.57	251.02	180.92	1151.98	667.10	0.0	0.0	230.00	250.00	0.0
34965.000	618.10	0.0	618.57	251.02	180.92	1151.98	667.10	0.0	0.0	230.00	250.00	0.0
36650.000	619.38	0.0	619.44	310.34	429.00	1245.67	325.33	0.0	0.0	200.00	270.00	0.0
36650.000	619.38	0.0	619.44	310.34	429.00	1245.67	325.33	0.0	0.0	200.00	270.00	0.0
36715.000	619.38	0.0	619.74	57.30	0.0	2000.00	0.0	0.0	0.0	320.00	377.30	0.0
36715.000	619.38	0.0	619.74	57.30	0.0	2000.00	0.0	0.0	0.0	320.00	377.30	0.0
36716.000	619.39	0.0	619.76	57.30	0.0	2000.00	0.0	0.0	0.0	320.00	377.30	0.0
36716.000	619.39	0.0	619.76	57.30	0.0	2000.00	0.0	0.0	0.0	320.00	377.30	0.0
36717.000	619.43	0.0	619.80	57.30	0.0	2000.00	0.0	0.0	0.0	320.00	377.30	0.0
36717.000	619.43	0.0	619.80	57.30	0.0	2000.00	0.0	0.0	0.0	320.00	377.30	0.0
36718.000	619.45	0.0	619.81	57.30	0.0	2000.00	0.0	0.0	0.0	320.00	377.30	0.0
36718.000	619.45	0.0	619.81	57.30	0.0	2000.00	0.0	0.0	0.0	320.00	377.30	0.0
36765.000	619.72	0.0	619.98	227.24	34.37	1273.22	692.42	0.0	0.0	178.00	208.00	0.0
36765.000	619.72	0.0	619.98	227.24	34.37	1273.22	692.42	0.0	0.0	178.00	208.00	0.0

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
37515.000	620.45	0.0	620.57	446.36	24.10	1085.91	889.98	0.0	0.0	285.00	320.00	0.0
37515.000	620.45	0.0	620.57	446.36	24.10	1085.91	889.98	0.0	0.0	285.00	320.00	0.0
38175.000	620.83	0.0	621.00	372.30	12.70	1264.36	722.94	0.0	0.0	326.00	363.00	0.0
38175.000	620.83	0.0	621.00	372.30	12.70	1264.36	722.94	0.0	0.0	326.00	363.00	0.0
39175.000	621.45	0.0	621.59	404.40	660.36	1308.10	31.54	0.0	0.0	406.00	450.00	0.0
39175.000	621.45	0.0	621.59	404.40	660.36	1308.10	31.54	0.0	0.0	406.00	450.00	0.0
40275.000	621.86	0.0	622.04	390.69	905.61	1017.02	77.37	0.0	0.0	395.00	422.00	0.0
40275.000	621.86	0.0	622.04	390.69	905.61	1017.02	77.37	0.0	0.0	395.00	422.00	0.0
40325.000	621.79	0.0	622.66	39.07	0.0	2000.00	0.0	0.0	0.0	481.15	520.22	0.0
40325.000	621.79	0.0	622.66	39.07	0.0	2000.00	0.0	0.0	0.0	481.15	520.22	0.0
40326.000	621.82	0.0	622.68	39.07	0.0	2000.00	0.0	0.0	0.0	481.15	520.22	0.0
40326.000	621.82	0.0	622.68	39.07	0.0	2000.00	0.0	0.0	0.0	481.15	520.22	0.0
40327.000	621.92	0.0	622.76	39.07	0.0	2000.00	0.0	0.0	0.0	481.15	520.22	0.0
40327.000	621.92	0.0	622.76	39.07	0.0	2000.00	0.0	0.0	0.0	481.15	520.22	0.0
40328.000	621.95	0.0	622.78	39.07	0.0	2000.00	0.0	0.0	0.0	481.15	520.22	0.0
40328.000	621.95	0.0	622.78	39.07	0.0	2000.00	0.0	0.0	0.0	481.15	520.22	0.0
40475.000	622.21	0.0	623.86	29.80	0.0	2000.00	0.0	0.0	0.0	100.00	199.80	0.0
40475.000	622.21	0.0	623.86	29.80	0.0	2000.00	0.0	0.0	0.0	100.00	199.80	0.0
40476.000	622.20	0.0	623.88	29.80	0.0	2000.00	0.0	0.0	0.0	100.00	199.80	0.0
40476.000	622.20	0.0	623.88	29.80	0.0	2000.00	0.0	0.0	0.0	100.00	199.80	0.0
40477.000	622.44	0.0	624.07	29.80	0.0	2000.00	0.0	0.0	0.0	100.00	199.80	0.0
40477.000	622.44	0.0	624.07	29.80	0.0	2000.00	0.0	0.0	0.0	100.00	199.80	0.0
40478.000	622.74	0.0	624.15	29.80	0.0	2000.00	0.0	0.0	0.0	100.00	199.80	0.0
40478.000	622.74	0.0	624.15	29.80	0.0	2000.00	0.0	0.0	0.0	100.00	199.80	0.0
40615.000	624.58	0.0	624.60	290.00	840.37	202.07	957.56	0.0	0.0	250.00	263.00	0.0
40615.000	624.58	0.0	624.60	290.00	840.37	202.07	957.56	0.0	0.0	250.00	263.00	0.0
41275.000	624.60	0.0	624.64	353.42	34.05	667.36	1298.60	0.0	0.0	57.00	90.00	0.0
41275.000	624.60	0.0	624.64	353.42	34.05	667.36	1298.60	0.0	0.0	57.00	90.00	0.0
42875.000	624.82	0.0	625.01	331.02	347.11	725.55	707.34	0.0	0.0	665.00	680.00	0.0
42875.000	624.82	0.0	625.01	331.02	347.11	725.55	707.34	0.0	0.0	665.00	680.00	0.0
42925.000	625.02	0.0	625.90	36.57	0.0	1780.00	0.0	0.0	0.0	100.00	137.20	0.0
42925.000	625.02	0.0	625.90	36.57	0.0	1780.00	0.0	0.0	0.0	100.00	137.20	0.0
42926.000	625.05	0.0	625.93	36.59	0.0	1780.00	0.0	0.0	0.0	100.00	137.20	0.0
42926.000	625.05	0.0	625.93	36.59	0.0	1780.00	0.0	0.0	0.0	100.00	137.20	0.0
42927.000	625.21	0.0	626.04	36.73	0.0	1780.00	0.0	0.0	0.0	100.00	137.20	0.0
42927.000	625.21	0.0	626.04	36.73	0.0	1780.00	0.0	0.0	0.0	100.00	137.20	0.0
42928.000	625.23	0.0	626.06	36.74	0.0	1780.00	0.0	0.0	0.0	100.00	137.20	0.0
42928.000	625.23	0.0	626.06	36.74	0.0	1780.00	0.0	0.0	0.0	100.00	137.20	0.0

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
42975.000	625.35	0.0	626.37	393.46	342.02	256.99	680.99	0.0	0.0	593.00	607.00	0.0
42975.000	626.35	0.0	626.37	398.46	942.02	256.99	680.99	0.0	0.0	593.00	607.00	0.0
44775.000	625.88	0.0	627.17	375.21	417.93	735.71	625.36	440.00	0.00	71.00	91.00	440.00
44775.000	626.89	0.0	627.17	376.21	417.93	735.71	626.36	440.00	0.00	71.00	91.00	440.00

DEER CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
30340.000	0.0	0.0	0.0	604.60	2000.00	613.50	0.0	613.69	14.73	4.09	657.66	521.06
30340.000	0.0	0.0	0.0	604.60	2000.00	613.50	0.0	613.69	14.73	4.09	657.66	521.06
30541.000	200.00	0.0	0.0	606.50	2000.00	613.71	0.0	614.32	53.24	6.29	317.90	274.10
30541.000	200.00	0.0	0.0	606.50	2000.00	613.71	0.0	614.32	53.24	6.29	317.90	274.10
30542.000	10.00	639.10	635.60	606.50	2000.00	613.73	0.0	614.40	67.33	6.54	305.74	243.75
30542.000	10.00	639.10	635.60	606.50	2000.00	613.73	0.0	614.40	67.33	6.54	305.74	243.75
30543.000	47.00	639.10	635.60	606.50	2000.00	614.12	0.0	614.70	57.14	6.11	327.29	264.58
30543.000	47.00	639.10	635.60	606.50	2000.00	614.12	0.0	614.70	57.14	6.11	327.29	264.58
30544.000	50.00	639.10	635.60	606.50	2000.00	614.46	0.0	614.97	49.55	5.76	347.17	284.13
30544.000	50.00	639.10	635.60	606.50	2000.00	614.46	0.0	614.97	49.55	5.76	347.17	284.13
30545.000	47.00	639.10	635.60	606.50	2000.00	614.72	0.0	615.20	44.54	5.51	362.78	299.68
30545.000	47.00	639.10	635.60	606.50	2000.00	614.72	0.0	615.20	44.54	5.51	362.78	299.68
30546.000	10.00	0.0	0.0	606.50	2000.00	614.83	0.0	615.24	30.23	5.14	389.42	363.78
30546.000	10.00	0.0	0.0	606.50	2000.00	614.83	0.0	615.24	30.23	5.14	389.42	363.78
30590.000	100.00	0.0	0.0	604.60	2000.00	615.31	0.0	615.40	4.57	2.95	1046.76	935.23
30590.000	100.00	0.0	0.0	604.60	2000.00	615.31	0.0	615.40	4.57	2.95	1046.76	935.23
31250.000	560.00	0.0	0.0	605.70	2000.00	615.54	0.0	615.56	1.86	1.86	1918.36	1467.80
31250.000	560.00	0.0	0.0	605.70	2000.00	615.54	0.0	615.56	1.86	1.86	1918.36	1467.80
32450.000	1140.00	0.0	0.0	604.80	2000.00	615.70	0.0	615.74	2.50	2.06	1522.07	1265.17
32450.000	1140.00	0.0	0.0	604.80	2000.00	615.70	0.0	615.74	2.50	2.06	1522.07	1265.17
34030.000	1580.00	0.0	0.0	604.80	2000.00	616.11	0.0	616.23	5.80	4.05	1303.24	830.75
34030.000	1580.00	0.0	0.0	604.80	2000.00	616.11	0.0	616.23	5.80	4.05	1303.24	830.75
34320.000	270.00	0.0	0.0	607.70	2000.00	616.29	0.0	616.50	13.45	3.66	547.04	545.40
34320.000	270.00	0.0	0.0	607.70	2000.00	616.29	0.0	616.50	13.45	3.66	547.04	545.40
34321.000	10.00	621.40	619.50	607.70	2000.00	616.30	0.0	616.51	8.10	3.65	547.80	702.69
34321.000	10.00	621.40	619.50	607.70	2000.00	616.30	0.0	616.51	8.10	3.65	547.80	702.69
34322.000	33.30	621.40	619.50	607.70	2000.00	616.33	0.0	616.54	7.97	3.63	550.77	708.38
34322.000	33.30	621.40	619.50	607.70	2000.00	616.33	0.0	616.54	7.97	3.63	550.77	708.38
34323.000	10.00	0.0	0.0	607.70	2000.00	616.34	0.0	616.54	10.40	3.63	550.91	620.06
34323.000	10.00	0.0	0.0	607.70	2000.00	616.34	0.0	616.54	10.40	3.63	550.91	620.06
34370.000	105.00	0.0	0.0	604.70	2000.00	616.52	0.0	616.67	9.42	4.27	1180.70	651.72
34370.000	105.00	0.0	0.0	604.70	2000.00	616.52	0.0	616.67	9.42	4.27	1180.70	651.72
34465.000	730.00	0.0	0.0	608.00	2000.00	617.00	0.0	617.13	5.59	3.89	1639.09	845.64
34465.000	730.00	0.0	0.0	608.00	2000.00	617.00	0.0	617.13	5.59	3.89	1639.09	845.64
34515.000	230.00	0.0	0.0	608.50	2000.00	617.03	0.0	617.56	26.37	5.79	345.27	389.45
34515.000	230.00	0.0	0.0	608.50	2000.00	617.03	0.0	617.56	26.37	5.79	345.27	389.45

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
34516.000	10.00	638.80	638.80	608.50	2000.00	617.07	0.0	617.58	25.96	5.76	346.99	392.54
34516.000	10.00	638.80	638.80	608.50	2000.00	617.07	0.0	617.58	25.96	5.76	346.99	392.54
34517.000	10.50	638.80	638.80	608.50	2000.00	617.10	0.0	617.61	25.32	5.72	349.72	397.46
34517.000	10.50	638.80	638.80	608.50	2000.00	617.10	0.0	617.61	25.32	5.72	349.72	397.46
34518.000	10.00	0.0	0.0	608.50	2000.00	617.14	0.0	617.64	24.73	5.68	352.34	402.20
34518.000	10.00	0.0	0.0	608.50	2000.00	617.14	0.0	617.64	24.73	5.68	352.34	402.20
34915.000	320.00	0.0	0.0	610.30	2000.00	617.88	0.0	618.26	13.31	4.92	406.79	538.17
34915.000	320.00	0.0	0.0	610.30	2000.00	617.88	0.0	618.26	13.31	4.92	406.79	538.17
34916.000	10.00	622.80	621.90	610.30	2000.00	617.90	0.0	618.27	13.70	4.90	407.89	540.28
34916.000	10.00	622.80	621.90	610.30	2000.00	617.90	0.0	618.27	13.70	4.90	407.89	540.28
34917.000	36.00	622.80	621.90	610.30	2000.00	617.95	0.0	618.32	13.45	4.87	410.59	545.44
34917.000	36.00	622.80	621.90	610.30	2000.00	617.95	0.0	618.32	13.45	4.87	410.59	545.44
34918.000	10.00	0.0	0.0	610.30	2000.00	617.97	0.0	618.33	13.34	4.86	411.70	547.58
34918.000	10.00	0.0	0.0	610.30	2000.00	617.97	0.0	618.33	13.34	4.86	411.70	547.58
34965.000	105.00	0.0	0.0	609.50	2000.00	618.10	0.0	618.57	24.34	7.13	784.51	405.43
34965.000	105.00	0.0	0.0	609.50	2000.00	618.10	0.0	618.57	24.34	7.13	784.51	405.43
36650.000	1480.00	0.0	0.0	610.80	2000.00	619.38	0.0	619.44	3.00	2.26	1664.84	1155.24
36650.000	1480.00	0.0	0.0	610.80	2000.00	619.38	0.0	619.44	3.00	2.26	1664.84	1155.24
36715.000	300.00	0.0	0.0	611.10	2000.00	619.38	0.0	619.74	12.22	4.86	411.53	572.02
36715.000	300.00	0.0	0.0	611.10	2000.00	619.38	0.0	619.74	12.22	4.86	411.53	572.02
36716.000	10.00	624.90	620.90	611.10	2000.00	619.39	0.0	619.76	12.19	4.85	411.95	572.91
36716.000	10.00	624.90	620.90	611.10	2000.00	619.39	0.0	619.76	12.19	4.85	411.95	572.91
36717.000	31.00	624.90	620.90	611.10	2000.00	619.43	0.0	619.80	11.97	4.83	414.42	578.15
36717.000	31.00	624.90	620.90	611.10	2000.00	619.43	0.0	619.80	11.97	4.83	414.42	578.15
36718.000	10.00	0.0	0.0	611.10	2000.00	619.45	0.0	619.81	15.52	4.81	415.41	507.73
36718.000	10.00	0.0	0.0	611.10	2000.00	619.45	0.0	619.81	15.52	4.81	415.41	507.73
36765.000	100.00	0.0	0.0	608.20	2000.00	619.72	0.0	619.98	12.16	5.00	863.74	573.65
36765.000	100.00	0.0	0.0	608.20	2000.00	619.72	0.0	619.98	12.16	5.00	863.74	573.65
37515.000	770.00	0.0	0.0	608.20	2000.00	620.45	0.0	620.57	5.13	3.60	1493.67	807.80
37515.000	770.00	0.0	0.0	608.20	2000.00	620.45	0.0	620.57	5.13	3.60	1493.67	807.80
38175.000	760.00	0.0	0.0	610.60	2000.00	620.83	0.0	621.00	6.55	4.21	1357.31	731.28
38175.000	760.00	0.0	0.0	610.60	2000.00	620.83	0.0	621.00	6.55	4.21	1357.31	731.28
39175.000	1250.00	0.0	0.0	610.60	2000.00	621.45	0.0	621.59	4.90	3.70	1377.28	903.06
39175.000	1250.00	0.0	0.0	610.60	2000.00	621.45	0.0	621.59	4.90	3.70	1377.28	903.06
40275.000	820.00	0.0	0.0	613.30	2000.00	621.86	0.0	622.04	8.18	4.74	1251.58	699.41
40275.000	820.00	0.0	0.0	613.30	2000.00	621.86	0.0	622.04	8.18	4.74	1251.58	699.41
40325.000	195.00	0.0	0.0	613.80	2000.00	621.79	0.0	622.66	24.77	7.47	267.91	401.85
40325.000	195.00	0.0	0.0	613.80	2000.00	621.79	0.0	622.66	24.77	7.47	267.91	401.85

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
40326.000	10.00	622.90	628.70	613.80	2000.00	621.62	0.0	622.58	24.53	7.44	269.79	403.81
40326.000	10.00	622.90	623.70	613.80	2000.00	621.82	0.0	622.58	24.53	7.44	268.79	403.81
40327.000	27.70	622.90	628.70	613.80	2000.00	621.92	0.0	622.76	23.40	7.32	273.08	413.42
40327.000	27.70	622.90	628.70	613.80	2000.00	621.92	0.0	622.76	23.40	7.32	273.08	413.42
40328.000	10.00	0.0	0.0	613.80	2000.00	621.95	0.0	622.79	23.17	7.30	274.01	415.53
40328.000	10.00	0.0	0.0	613.80	2000.00	621.95	0.0	622.78	23.17	7.30	274.01	415.53
40475.000	170.00	0.0	0.0	614.30	2000.00	622.21	0.0	623.85	79.38	10.31	194.00	224.47
40475.000	170.00	0.0	0.0	614.30	2000.00	622.21	0.0	623.86	79.38	10.31	194.00	224.47
40476.000	1.00	623.50	623.50	614.30	2000.00	622.20	0.0	623.88	120.43	10.41	192.05	182.25
40476.000	1.00	623.50	623.50	614.30	2000.00	622.20	0.0	623.88	120.43	10.41	192.05	182.25
40477.000	15.00	623.50	623.50	614.30	2000.00	622.44	0.0	624.07	116.05	10.27	194.69	185.66
40477.000	15.00	623.50	623.50	614.30	2000.00	622.44	0.0	624.07	116.05	10.27	194.69	185.66
40478.000	1.00	0.0	0.0	614.30	2000.00	622.74	0.0	624.15	64.24	9.53	209.94	249.54
40478.000	1.00	0.0	0.0	614.30	2000.00	622.74	0.0	624.15	64.24	9.53	209.94	249.54
40615.000	170.00	0.0	0.0	613.80	2000.00	624.58	0.0	624.60	0.54	1.49	1840.71	2720.25
40615.000	170.00	0.0	0.0	613.80	2000.00	624.58	0.0	624.60	0.54	1.49	1840.71	2720.25
41275.000	610.00	0.0	0.0	613.40	2000.00	624.60	0.0	624.64	1.21	2.26	1464.76	1821.05
41275.000	610.00	0.0	0.0	613.40	2000.00	624.60	0.0	624.64	1.21	2.26	1464.76	1821.05
42875.000	1500.00	0.0	0.0	615.00	1780.00	624.82	0.0	625.01	14.96	5.30	1243.80	460.17
42875.000	1500.00	0.0	0.0	615.00	1780.00	624.82	0.0	625.01	14.96	5.30	1248.80	460.17
42925.000	210.00	0.0	0.0	617.10	1780.00	625.02	0.0	625.90	54.18	7.52	236.75	241.82
42925.000	210.00	0.0	0.0	617.10	1780.00	625.02	0.0	625.90	54.18	7.52	236.75	241.82
42926.000	8.00	627.50	625.80	617.10	1780.00	625.05	0.0	625.93	23.79	7.49	237.75	354.94
42926.000	8.00	627.50	625.80	617.10	1780.00	625.05	0.0	625.93	23.79	7.49	237.75	364.94
42927.000	43.00	627.50	625.80	617.10	1780.00	625.21	0.0	626.04	22.05	7.29	244.04	379.05
42927.000	43.00	627.50	625.80	617.10	1780.00	625.21	0.0	626.04	22.05	7.29	244.04	379.05
42928.000	8.00	0.0	0.0	617.10	1780.00	625.23	0.0	626.06	21.94	7.28	244.48	380.03
42928.000	8.00	0.0	0.0	617.10	1780.00	625.23	0.0	626.06	21.94	7.28	244.48	380.03
42975.000	130.00	0.0	0.0	615.40	1780.00	626.35	0.0	626.37	2.44	2.00	1949.59	1138.96
42975.000	130.00	0.0	0.0	615.40	1780.00	626.35	0.0	626.37	2.44	2.00	1949.59	1138.96
44775.000	1875.00	0.0	0.0	619.10	1760.00	626.88	0.0	627.17	32.07	6.34	737.40	314.33
44775.000	1375.00	0.0	0.0	519.10	1780.00	626.88	0.0	527.17	32.07	6.34	737.40	314.33

DEER CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
30340.000	2000.00	613.50	0.0	0.0	0.0	197.86	0.0
30541.000	2000.00	613.71	0.0	0.21	0.0	61.45	200.00
30542.000	2000.00	613.73	0.0	0.02	0.0	56.60	10.00
30543.000	2000.00	614.12	0.0	0.38	0.0	58.30	47.00
30544.000	2000.00	614.46	0.0	0.34	0.0	59.83	50.00
30545.000	2000.00	614.72	0.0	0.27	0.0	61.01	47.00
30546.000	2000.00	614.83	0.0	0.10	0.0	66.52	10.00
30590.000	2000.00	615.31	0.0	0.48	0.0	220.00	100.00
31250.000	2000.00	615.54	0.0	0.23	0.0	302.50	560.00
32450.000	2000.00	615.70	0.0	0.17	0.0	279.45	1140.00
34030.000	2000.00	616.11	0.0	0.41	0.0	207.62	1580.00
34320.000	2000.00	616.29	0.0	0.18	0.0	80.00	270.00
34321.000	2000.00	616.30	0.0	0.01	0.0	80.00	10.00
34322.000	2000.00	616.33	0.0	0.03	0.0	80.00	33.30
34323.000	2000.00	616.34	0.0	0.01	0.0	80.00	10.00
34370.000	2000.00	616.52	0.0	0.18	0.0	300.00	105.00
34465.000	2000.00	617.00	0.0	0.48	0.0	436.64	730.00
34515.000	2000.00	617.03	0.0	0.04	0.0	74.00	230.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
34516.000	2000.00	617.07	0.0	0.03	0.0	74.00	10.00
34516.000	2000.00	617.07	0.0	0.03	0.0	74.00	10.00
34517.000	2000.00	617.10	0.0	0.04	0.0	74.00	10.50
34517.000	2000.00	617.10	0.0	0.04	0.0	74.00	10.50
34518.000	2000.00	617.14	0.0	0.03	0.0	74.00	10.00
34518.000	2000.00	617.14	0.0	0.03	0.0	74.00	10.00
34915.000	2000.00	617.88	0.0	0.74	0.0	58.00	320.00
34915.000	2000.00	617.88	0.0	0.74	0.0	58.00	320.00
34916.000	2000.00	617.90	0.0	0.02	0.0	58.00	10.00
34916.000	2000.00	617.90	0.0	0.02	0.0	58.00	10.00
34917.000	2000.00	617.95	0.0	0.06	0.0	58.00	36.00
34917.000	2000.00	617.95	0.0	0.06	0.0	58.00	36.00
34918.000	2000.00	617.97	0.0	0.02	0.0	58.00	10.00
34918.000	2000.00	617.97	0.0	0.02	0.0	58.00	10.00
34965.000	2000.00	618.10	0.0	0.13	0.0	251.02	105.00
34965.000	2000.00	618.10	0.0	0.13	0.0	251.02	105.00
36650.000	2000.00	619.38	0.0	1.28	0.0	310.84	1480.00
36650.000	2000.00	619.38	0.0	1.28	0.0	310.84	1480.00
36715.000	2000.00	619.38	0.0	-0.01	0.0	57.30	300.00
36715.000	2000.00	619.38	0.0	-0.01	0.0	57.30	300.00
36716.000	2000.00	619.39	0.0	0.01	0.0	57.30	10.00
36716.000	2000.00	619.39	0.0	0.01	0.0	57.30	10.00
36717.000	2000.00	619.43	0.0	0.04	0.0	57.30	31.00
36717.000	2000.00	619.43	0.0	0.04	0.0	57.30	31.00
36718.000	2000.00	619.45	0.0	0.02	0.0	57.30	10.00
36718.000	2000.00	619.45	0.0	0.02	0.0	57.30	10.00
36765.000	2000.00	619.72	0.0	0.27	0.0	227.24	100.00
36765.000	2000.00	619.72	0.0	0.27	0.0	227.24	100.00
37515.000	2000.00	620.45	0.0	0.73	0.0	446.36	770.00
37515.000	2000.00	620.45	0.0	0.73	0.0	446.36	770.00
38175.000	2000.00	620.83	0.0	0.37	0.0	372.80	760.00
38175.000	2000.00	620.83	0.0	0.37	0.0	372.80	760.00
39175.000	2000.00	621.45	0.0	0.62	0.0	404.40	1250.00
39175.000	2000.00	621.45	0.0	0.62	0.0	404.40	1250.00
40275.000	2000.00	621.86	0.0	0.41	0.0	390.69	820.00
40275.000	2000.00	621.86	0.0	0.41	0.0	390.69	820.00
40325.000	2000.00	621.79	0.0	-0.07	0.0	39.07	195.00
40325.000	2000.00	621.79	0.0	-0.07	0.0	39.07	195.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
40326.000	2000.00	621.82	0.0	0.03	0.0	39.07	10.00
40326.000	2000.00	621.82	0.0	0.03	0.0	39.07	10.00
40327.000	2000.00	621.92	0.0	0.10	0.0	39.07	27.70
40327.000	2000.00	621.92	0.0	0.10	0.0	39.07	27.70
40328.000	2000.00	621.95	0.0	0.03	0.0	39.07	10.00
40328.000	2000.00	621.95	0.0	0.03	0.0	39.07	10.00
40475.000	2000.00	622.21	0.0	0.25	0.0	29.80	170.00
40475.000	2000.00	622.21	0.0	0.25	0.0	29.80	170.00
40476.000	2000.00	622.20	0.0	-0.01	0.0	29.80	1.00
40476.000	2000.00	622.20	0.0	-0.01	0.0	29.80	1.00
40477.000	2000.00	622.44	0.0	0.24	0.0	29.80	15.00
40477.000	2000.00	622.44	0.0	0.24	0.0	29.80	15.00
40478.000	2000.00	622.74	0.0	0.31	0.0	29.80	1.00
40478.000	2000.00	622.74	0.0	0.31	0.0	29.80	1.00
40615.000	2000.00	624.58	0.0	1.84	0.0	290.00	170.00
40615.000	2000.00	624.58	0.0	1.84	0.0	290.00	170.00
41275.000	2000.00	624.60	0.0	0.02	0.0	353.42	610.00
41275.000	2000.00	624.60	0.0	0.02	0.0	353.42	610.00
42875.000	1780.00	624.82	0.0	0.22	0.0	331.02	1500.00
42875.000	1780.00	624.82	0.0	0.22	0.0	331.02	1500.00
42925.000	1780.00	625.02	0.0	0.20	0.0	36.57	210.00
42925.000	1780.00	625.02	0.0	0.20	0.0	36.57	210.00
42926.000	1780.00	625.05	0.0	0.04	0.0	36.59	3.00
42926.000	1780.00	625.05	0.0	0.04	0.0	36.59	3.00
42927.000	1780.00	625.21	0.0	0.16	0.0	36.73	43.00
42927.000	1780.00	625.21	0.0	0.16	0.0	36.73	43.00
42928.000	1780.00	625.23	0.0	0.02	0.0	36.74	8.00
42928.000	1780.00	625.23	0.0	0.02	0.0	36.74	8.00
42975.000	1780.00	626.35	0.0	1.12	0.0	398.46	130.00
42975.000	1780.00	626.35	0.0	1.12	0.0	398.46	130.00
44775.000	1780.00	626.88	0.0	0.53	0.0	376.21	1875.00
44775.000	1780.00	626.88	0.0	0.53	0.0	376.21	1875.00

SUMMARY OF ERRORS

FLOODWAY DATA, DEER CREEK
PROFILE NO. 2

	FLOODWAY			WATER SURFACE ELEVATION		
STATION	WIDTH FT	SECTION AREA	MEAN VELOCITY	WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
30340.000	198.	658.	3.0	613.5	613.5	0.0
30541.000	61.	318.	6.3	613.7	613.7	0.0
30542.000	62.	306.	6.5	613.7	613.7	0.0
30543.000	63.	327.	6.1	614.1	614.1	0.0
30544.000	65.	347.	5.8	614.5	614.5	0.0
30545.000	66.	363.	5.5	614.7	614.7	0.0
30546.000	67.	389.	5.1	614.8	614.8	0.0
30590.000	220.	1047.	1.9	615.3	615.3	0.0
31250.000	302.	1918.	1.0	615.5	615.5	0.0
32450.000	279.	1522.	1.3	615.7	615.7	0.0
34030.000	208.	1303.	1.5	616.1	616.1	0.0
34320.000	84.	547.	3.7	616.3	616.3	0.0
34321.000	84.	548.	3.7	616.3	616.3	0.0
34322.000	84.	551.	3.6	616.3	616.3	0.0
34323.000	84.	551.	3.6	616.3	616.3	0.0
34370.000	300.	1161.	1.7	616.5	616.5	0.0
34465.000	437.	1639.	1.2	617.0	617.0	0.0
34515.000	74.	345.	5.8	617.0	617.0	0.0
34516.000	74.	347.	5.8	617.1	617.1	0.0
34517.000	74.	350.	5.7	617.1	617.1	0.0
34518.000	74.	352.	5.7	617.1	617.1	0.0
34915.000	60.	407.	4.9	617.9	617.9	0.0
34916.000	60.	408.	4.9	617.9	617.9	0.0
34917.000	60.	411.	4.9	618.0	618.0	0.0
34918.000	60.	412.	4.9	618.0	618.0	0.0
34965.000	251.	785.	2.5	618.1	618.1	0.0
36650.000	311.	1665.	1.2	619.4	619.4	0.0
36715.000	57.	412.	4.9	619.4	619.4	0.0
36716.000	57.	412.	4.9	619.4	619.4	0.0
36717.000	57.	414.	4.8	619.4	619.4	0.0
36718.000	57.	415.	4.8	619.4	619.4	0.0
36765.000	227.	864.	2.3	619.7	619.7	0.0
37515.000	446.	1494.	1.3	620.5	620.5	0.0
38175.000	373.	1357.	1.5	620.8	620.8	0.0
39175.000	404.	1377.	1.5	621.4	621.4	0.0
40275.000	391.	1252.	1.6	621.9	621.9	0.0
40325.000	39.	268.	7.5	621.8	621.8	0.0
40326.000	39.	269.	7.4	621.8	621.8	0.0
40327.000	39.	273.	7.3	621.9	621.9	0.0
40328.000	39.	274.	7.3	622.0	622.0	0.0
40475.000	100.	194.	10.3	622.2	622.2	0.0
40476.000	100.	192.	10.4	622.2	622.2	0.0
40477.000	100.	195.	10.3	622.4	622.4	0.0
40478.000	100.	210.	9.5	622.7	622.7	0.0
40615.000	290.	1841.	1.1	624.6	624.6	0.0
41275.000	353.	1455.	1.4	624.6	624.6	0.0
42875.000	331.	1249.	1.4	624.8	624.8	0.0
42925.000	37.	237.	7.5	625.0	625.0	0.0
42926.000	37.	238.	7.5	625.1	625.1	0.0
42927.000	37.	244.	7.3	625.2	625.2	0.0

FLOODWAY DATA, DEER CREEK
PROFILE NO. 2

	FLOODWAY			WATER SURFACE ELEVATION		
STATION	WIDTH FT	SECTION AREA	MEAN VELOCITY	WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
42928.000	37.	244.	7.3	625.2	625.2	0.0
~~42975.000~~	~~393.~~	~~1950.~~	~~0.9~~	~~626.3~~	~~626.3~~	~~0.0~~
44775.000	376.	737.	2.4	626.9	626.9	0.0

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HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
ERROR CORR - 01,02,03
MODIFICATION - 50,51,52,53

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NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

DEER CREEK

SUMMARY PRINTOUT TABLE 110.

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
30340.000	612.26	-1.24	612.42	163.05	22.77	901.64	275.59	220.00	180.00	275.00	318.00	400.00
30340.000	613.25	-0.25	613.43	190.77	97.09	1160.47	542.44	220.00	180.00	275.00	318.00	400.00
30340.000	613.50	0.0	613.69	197.86	128.66	1243.76	627.58	220.00	180.00	275.00	318.00	400.00
30340.000	614.33	0.33	614.55	220.00	272.50	1503.39	924.11	220.00	180.00	275.00	318.00	400.00
30541.000	612.57	0.0	612.92	56.22	0.0	1200.00	0.0	0.0	0.0	227.30	373.10	0.0
30541.000	613.48	0.0	614.02	60.39	0.0	1800.00	0.0	0.0	0.0	227.30	373.10	0.0
30541.000	613.71	0.0	614.32	61.45	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30541.000	614.43	0.0	615.29	64.72	0.0	2700.00	0.0	0.0	0.0	227.30	373.10	0.0
30542.000	612.59	0.0	612.97	51.37	0.0	1200.00	0.0	0.0	0.0	227.30	373.10	0.0
30542.000	613.50	0.0	614.09	55.54	0.0	1800.00	0.0	0.0	0.0	227.30	373.10	0.0
30542.000	613.73	0.0	614.40	56.60	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30542.000	614.45	0.0	615.39	59.80	0.0	2700.00	0.0	0.0	0.0	227.30	373.10	0.0
30543.000	612.81	0.0	613.16	52.37	0.0	1200.00	0.0	0.0	0.0	227.30	373.10	0.0
30543.000	613.64	0.0	614.36	57.05	0.0	1800.00	0.0	0.0	0.0	227.30	373.10	0.0
30543.000	614.12	0.0	614.70	53.30	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30543.000	615.00	0.0	615.78	62.33	0.0	2700.00	0.0	0.0	0.0	227.30	373.10	0.0
30544.000	613.02	0.0	613.34	53.27	0.0	1200.00	0.0	0.0	0.0	227.30	373.10	0.0
30544.000	614.15	0.0	614.61	58.42	0.0	1800.00	0.0	0.0	0.0	227.30	373.10	0.0
30544.000	614.46	0.0	614.97	59.83	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30544.000	615.45	0.0	616.12	64.34	0.0	2700.00	0.0	0.0	0.0	227.30	373.10	0.0
30545.000	613.20	0.0	613.49	54.08	0.0	1200.00	0.0	0.0	0.0	227.30	373.10	0.0
30545.000	614.39	0.0	614.82	59.50	0.0	1800.00	0.0	0.0	0.0	227.30	373.10	0.0
30545.000	614.72	0.0	615.20	61.01	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30545.000	615.79	0.0	616.40	65.89	0.0	2700.00	0.0	0.0	0.0	227.30	373.10	0.0
30546.000	613.26	0.0	613.52	59.40	0.0	1200.00	0.0	0.0	0.0	227.30	373.10	0.0
30546.000	614.48	0.0	614.86	64.97	0.0	1800.00	0.0	0.0	0.0	227.30	373.10	0.0
30546.000	614.83	0.0	615.24	66.52	0.0	2000.00	0.0	0.0	0.0	227.30	373.10	0.0
30546.000	615.93	0.0	616.45	71.51	0.0	2700.00	0.0	0.0	0.0	227.30	373.10	0.0
30590.000	613.57	0.0	613.66	199.95	67.17	817.11	315.72	220.00	180.00	275.00	318.00	400.00
30590.000	614.92	0.0	615.01	220.00	206.47	1053.54	539.98	220.00	180.00	275.00	318.00	400.00
30590.000	615.31	0.0	615.40	220.00	263.62	1125.39	611.00	220.00	180.00	275.00	318.00	400.00
30590.000	616.53	0.0	616.63	220.00	476.44	1367.39	356.16	220.00	180.00	275.00	318.00	400.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
31250.000	613.80	0.0	613.82	297.64	580.65	318.39	300.96	0.0	0.0	189.00	217.00	0.0
31250.000	615.15	0.0	615.17	301.42	898.05	427.57	474.38	0.0	0.0	189.00	217.00	0.0
31250.000	615.54	0.0	615.56	302.50	1003.56	463.43	533.01	0.0	0.0	189.00	217.00	0.0
31250.000	616.76	0.0	616.79	305.94	1372.38	585.94	741.68	0.0	0.0	189.00	217.00	0.0
32450.000	613.98	0.0	614.01	266.23	11.54	358.67	829.79	0.0	0.0	89.00	116.00	0.0
32450.000	615.32	0.0	615.35	276.50	25.23	457.54	1317.23	0.0	0.0	89.00	116.00	0.0
32450.000	615.70	0.0	615.74	279.45	30.54	490.08	1479.37	0.0	0.0	89.00	116.00	0.0
32450.000	616.93	0.0	616.97	283.88	51.76	600.27	2347.76	0.0	0.0	89.00	116.00	0.0
34030.000	614.41	0.0	614.49	193.43	560.89	543.52	70.60	0.0	0.0	230.00	250.00	0.0
34030.000	615.73	0.0	615.84	204.43	913.52	750.86	135.62	0.0	0.0	230.00	250.00	0.0
34030.000	616.11	0.0	616.23	207.62	1024.46	815.37	160.17	0.0	0.0	230.00	250.00	0.0
34030.000	617.33	0.0	617.47	217.77	1411.30	1031.36	256.84	0.0	0.0	230.00	250.00	0.0
34320.000	614.57	0.0	614.71	80.00	0.0	1200.00	0.0	0.0	0.0	460.00	543.50	0.0
34320.000	615.90	0.0	616.09	80.00	0.0	1800.00	0.0	0.0	0.0	460.00	543.50	0.0
34320.000	616.29	0.0	616.50	80.00	0.0	2000.00	0.0	0.0	0.0	460.00	543.50	0.0
34320.000	617.51	0.0	617.78	80.00	0.0	2700.00	0.0	0.0	0.0	460.00	543.50	0.0
34321.000	614.58	0.0	614.72	80.00	0.0	1200.00	0.0	0.0	0.0	460.00	543.50	0.0
34321.000	615.92	0.0	616.10	80.00	0.0	1800.00	0.0	0.0	0.0	460.00	543.50	0.0
34321.000	616.30	0.0	616.51	80.00	0.0	2000.00	0.0	0.0	0.0	460.00	543.50	0.0
34321.000	617.52	0.0	617.80	80.00	0.0	2700.00	0.0	0.0	0.0	460.00	543.50	0.0
34322.000	614.61	0.0	614.74	80.00	0.0	1200.00	0.0	0.0	0.0	460.00	543.50	0.0
34322.000	615.94	0.0	616.13	80.00	0.0	1800.00	0.0	0.0	0.0	460.00	543.50	0.0
34322.000	616.33	0.0	616.54	80.00	0.0	2000.00	0.0	0.0	0.0	460.00	543.50	0.0
34322.000	617.56	0.0	617.83	80.00	0.0	2700.00	0.0	0.0	0.0	460.00	543.50	0.0
34323.000	614.62	0.0	614.75	80.00	0.0	1200.00	0.0	0.0	0.0	460.00	543.50	0.0
34323.000	615.95	0.0	616.14	80.00	0.0	1800.00	0.0	0.0	0.0	460.00	543.50	0.0
34323.000	616.34	0.0	616.54	80.00	0.0	2000.00	0.0	0.0	0.0	460.00	543.50	0.0
34323.000	617.57	0.0	617.84	80.00	0.0	2700.00	0.0	0.0	0.0	460.00	543.50	0.0
34370.000	614.69	0.0	614.91	293.50	146.71	837.01	216.23	300.00	150.00	286.00	314.00	450.00
34370.000	616.09	0.0	616.26	300.00	367.08	973.58	459.34	300.00	150.00	286.00	314.00	450.00
34370.000	616.52	0.0	616.67	300.00	443.12	1017.87	539.02	300.00	150.00	286.00	314.00	450.00
34370.000	617.84	0.0	617.98	300.00	708.79	1178.55	812.56	300.00	150.00	286.00	314.00	450.00
34465.000	615.41	0.0	615.56	428.14	353.64	339.08	7.27	0.0	0.0	480.00	515.00	0.0
34465.000	616.61	0.0	616.75	434.61	748.47	1036.32	15.21	0.0	0.0	480.00	515.00	0.0
34465.000	617.00	0.0	617.13	435.64	385.04	1095.63	18.33	0.0	0.0	480.00	515.00	0.0
34465.000	618.24	0.0	618.36	442.59	1374.74	1293.99	31.27	0.0	0.0	480.00	515.00	0.0
34515.000	615.54	0.0	615.91	57.17	0.0	1200.00	0.0	0.0	0.0	163.00	237.00	0.0
34515.000	616.68	0.0	617.18	74.00	0.0	1800.00	0.0	0.0	0.0	163.00	237.00	0.0
34515.000	617.03	0.0	617.56	74.00	0.0	2000.00	0.0	0.0	0.0	163.00	237.00	0.0
34515.000	618.20	0.0	618.81	74.00	0.0	2700.00	0.0	0.0	0.0	163.00	237.00	0.0
34516.000	615.57	0.0	615.93	57.21	0.0	1200.00	0.0	0.0	0.0	163.00	237.00	0.0
34516.000	616.72	0.0	617.20	74.00	0.0	1800.00	0.0	0.0	0.0	163.00	237.00	0.0
34516.000	617.07	0.0	617.58	74.00	0.0	2000.00	0.0	0.0	0.0	163.00	237.00	0.0
34516.000	618.23	0.0	618.83	74.00	0.0	2700.00	0.0	0.0	0.0	163.00	237.00	0.0

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
34517.000	615.59	0.0	615.95	57.28	0.0	1200.00	0.0	0.0	0.0	163.00	237.00	0.0
34517.000	616.75	0.0	617.23	74.00	0.0	1800.00	0.0	0.0	0.0	163.00	237.00	0.0
34517.000	617.10	0.0	617.61	74.00	0.0	2000.00	0.0	0.0	0.0	163.00	237.00	0.0
34517.000	618.26	0.0	618.86	74.00	0.0	2700.00	0.0	0.0	0.0	163.00	237.00	0.0
34518.000	615.62	0.0	615.97	57.34	0.0	1200.00	0.0	0.0	0.0	163.00	237.00	0.0
34518.000	616.79	0.0	617.26	74.00	0.0	1800.00	0.0	0.0	0.0	163.00	237.00	0.0
34518.000	617.14	0.0	617.54	74.00	0.0	2000.00	0.0	0.0	0.0	163.00	237.00	0.0
34518.000	618.29	0.0	618.88	74.00	0.0	2700.00	0.0	0.0	0.0	163.00	237.00	0.0
34915.000	616.23	0.0	616.46	58.00	0.0	1200.00	0.0	0.0	0.0	252.00	312.00	0.0
34915.000	617.53	0.0	617.87	58.00	0.0	1800.00	0.0	0.0	0.0	252.00	312.00	0.0
34915.000	617.88	0.0	618.26	58.00	0.0	2000.00	0.0	0.0	0.0	252.00	312.00	0.0
34915.000	619.01	0.0	619.52	58.00	0.0	2700.00	0.0	0.0	0.0	252.00	312.00	0.0
34916.000	615.24	0.0	616.47	58.00	0.0	1200.00	0.0	0.0	0.0	252.00	312.00	0.0
34916.000	617.55	0.0	617.88	58.00	0.0	1800.00	0.0	0.0	0.0	252.00	312.00	0.0
34916.000	617.90	0.0	618.27	58.00	0.0	2000.00	0.0	0.0	0.0	252.00	312.00	0.0
34916.000	619.03	0.0	619.54	58.00	0.0	2700.00	0.0	0.0	0.0	252.00	312.00	0.0
34917.000	616.29	0.0	616.51	58.00	0.0	1200.00	0.0	0.0	0.0	252.00	312.00	0.0
34917.000	617.60	0.0	617.93	58.00	0.0	1800.00	0.0	0.0	0.0	252.00	312.00	0.0
34917.000	617.95	0.0	618.32	58.00	0.0	2000.00	0.0	0.0	0.0	252.00	312.00	0.0
34917.000	619.10	0.0	619.60	58.00	0.0	2700.00	0.0	0.0	0.0	252.00	312.00	0.0
34918.000	616.30	0.0	616.52	58.00	0.0	1200.00	0.0	0.0	0.0	252.00	312.00	0.0
34918.000	617.61	0.0	617.94	58.00	0.0	1800.00	0.0	0.0	0.0	252.00	312.00	0.0
34918.000	617.97	0.0	618.33	58.00	0.0	2000.00	0.0	0.0	0.0	252.00	312.00	0.0
34918.000	619.12	0.0	619.61	58.00	0.0	2700.00	0.0	0.0	0.0	252.00	312.00	0.0
34965.000	616.28	0.0	616.91	211.32	79.49	910.41	210.11	0.0	0.0	230.00	250.00	0.0
34965.000	617.71	0.0	618.20	243.51	154.74	1095.65	549.62	0.0	0.0	230.00	250.00	0.0
34965.000	618.10	0.0	618.57	251.02	180.92	1151.98	667.10	0.0	0.0	230.00	250.00	0.0
34965.000	619.43	0.0	619.82	264.34	283.42	1319.01	1097.57	0.0	0.0	230.00	250.00	0.0
36650.000	617.82	0.0	617.86	300.30	205.06	821.97	172.98	0.0	0.0	200.00	270.00	0.0
36650.000	619.03	0.0	619.08	308.49	371.51	1141.82	285.67	0.0	0.0	200.00	270.00	0.0
36650.000	619.38	0.0	619.44	310.84	429.00	1245.67	325.33	0.0	0.0	200.00	270.00	0.0
36650.000	620.56	0.0	620.63	320.93	540.43	1594.12	465.45	0.0	0.0	200.00	270.00	0.0
36715.000	617.86	0.0	618.08	57.30	0.0	1200.00	0.0	0.0	0.0	320.00	377.30	0.0
36715.000	619.04	0.0	619.37	57.30	0.0	1800.00	0.0	0.0	0.0	320.00	377.30	0.0
36715.000	619.38	0.0	619.74	57.30	0.0	2000.00	0.0	0.0	0.0	320.00	377.30	0.0
36715.000	620.51	0.0	621.01	57.30	0.0	2700.00	0.0	0.0	0.0	320.00	377.30	0.0
36716.000	617.87	0.0	618.08	57.30	0.0	1200.00	0.0	0.0	0.0	320.00	377.30	0.0
36716.000	619.05	0.0	619.38	57.30	0.0	1800.00	0.0	0.0	0.0	320.00	377.30	0.0
36716.000	619.39	0.0	619.76	57.30	0.0	2000.00	0.0	0.0	0.0	320.00	377.30	0.0
36716.000	620.52	0.0	621.02	57.30	0.0	2700.00	0.0	0.0	0.0	320.00	377.30	0.0
36717.000	617.90	0.0	618.11	57.30	0.0	1200.00	0.0	0.0	0.0	320.00	377.30	0.0
36717.000	619.09	0.0	619.42	57.30	0.0	1800.00	0.0	0.0	0.0	320.00	377.30	0.0
36717.000	619.43	0.0	619.80	57.30	0.0	2000.00	0.0	0.0	0.0	320.00	377.30	0.0
36717.000	620.57	0.0	621.07	57.30	0.0	2700.00	0.0	0.0	0.0	320.00	377.30	0.0

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
36718.000	617.92	0.0	618.12	57.30	0.0	1200.00	0.0	0.0	0.0	320.00	377.30	0.0
36718.000	619.11	0.0	619.43	57.30	0.0	1800.00	0.0	0.0	0.0	320.00	377.30	0.0
36718.000	619.45	0.0	619.81	57.30	0.0	2000.00	0.0	0.0	0.0	320.00	377.30	0.0
36718.000	620.59	0.0	621.08	57.30	0.0	2700.00	0.0	0.0	0.0	320.00	377.30	0.0
36765.000	618.02	0.0	618.26	179.59	9.12	908.66	282.22	0.0	0.0	173.00	208.00	0.0
36765.000	619.33	0.0	619.58	216.29	25.56	1189.09	584.35	0.0	0.0	173.00	208.00	0.0
36765.000	619.72	0.0	619.98	227.24	34.37	1273.22	692.42	0.0	0.0	173.00	208.00	0.0
36765.000	621.05	0.0	621.29	243.14	71.80	1516.55	1111.55	0.0	0.0	173.00	208.00	0.0
37515.000	618.35	0.0	619.01	421.25	8.00	891.69	300.11	0.0	0.0	285.00	320.00	0.0
37515.000	620.08	0.0	620.20	441.18	18.94	1041.91	739.15	0.0	0.0	285.00	320.00	0.0
37515.000	620.45	0.0	620.57	446.36	24.10	1085.91	889.98	0.0	0.0	285.00	320.00	0.0
37515.000	621.69	0.0	621.78	463.58	43.45	1226.72	1429.83	0.0	0.0	285.00	320.00	0.0
38175.000	619.36	0.0	619.53	361.56	2.50	922.21	275.29	0.0	0.0	326.00	363.00	0.0
38175.000	620.43	0.0	620.66	371.22	9.42	1185.29	605.30	0.0	0.0	326.00	363.00	0.0
38175.000	620.83	0.0	621.00	372.80	12.70	1264.36	722.94	0.0	0.0	326.00	363.00	0.0
38175.000	621.98	0.0	622.16	378.11	26.34	1518.66	1155.00	0.0	0.0	326.00	363.00	0.0
39175.000	620.04	0.0	620.18	395.28	238.51	954.11	7.37	0.0	0.0	406.00	450.00	0.0
39175.000	621.12	0.0	621.26	402.28	543.55	1226.80	24.65	0.0	0.0	406.00	450.00	0.0
39175.000	621.45	0.0	621.59	404.40	660.36	1308.10	31.54	0.0	0.0	406.00	450.00	0.0
39175.000	622.54	0.0	622.68	411.49	1073.03	1567.57	59.40	0.0	0.0	406.00	450.00	0.0
40275.000	620.48	0.0	620.67	385.74	398.41	758.94	42.65	0.0	0.0	395.00	422.00	0.0
40275.000	621.54	0.0	621.73	389.55	771.47	959.66	68.88	0.0	0.0	395.00	422.00	0.0
40275.000	621.86	0.0	622.04	390.69	905.61	1017.02	77.37	0.0	0.0	395.00	422.00	0.0
40275.000	622.91	0.0	623.09	394.48	1395.94	1197.11	106.95	0.0	0.0	395.00	422.00	0.0
40325.000	620.58	0.0	621.04	39.07	0.0	1200.00	0.0	0.0	0.0	481.15	520.22	0.0
40325.000	621.52	0.0	622.28	39.07	0.0	1800.00	0.0	0.0	0.0	481.15	520.22	0.0
40325.000	621.79	0.0	622.66	39.07	0.0	2000.00	0.0	0.0	0.0	481.15	520.22	0.0
40325.000	622.66	0.0	623.90	39.07	0.0	2700.00	0.0	0.0	0.0	481.15	520.22	0.0
40326.000	620.30	0.0	621.05	39.07	0.0	1200.00	0.0	0.0	0.0	481.15	520.22	0.0
40326.000	621.55	0.0	622.30	39.07	0.0	1800.00	0.0	0.0	0.0	481.15	520.22	0.0
40326.000	621.82	0.0	622.68	39.07	0.0	2000.00	0.0	0.0	0.0	481.15	520.22	0.0
40326.000	622.53	0.0	624.03	39.07	0.0	2700.00	0.0	0.0	0.0	481.15	520.22	0.0
40327.000	620.65	0.0	621.10	39.07	0.0	1200.00	0.0	0.0	0.0	431.15	520.22	0.0
40327.000	621.64	0.0	622.37	39.07	0.0	1800.00	0.0	0.0	0.0	481.15	520.22	0.0
40327.000	621.92	0.0	622.76	39.07	0.0	2000.00	0.0	0.0	0.0	481.15	520.22	0.0
40327.000	622.85	0.0	624.26	39.07	0.0	2700.00	0.0	0.0	0.0	481.15	520.22	0.0
40328.000	620.67	0.0	621.12	39.07	0.0	1200.00	0.0	0.0	0.0	481.15	520.22	0.0
40328.000	621.67	0.0	622.39	39.07	0.0	1800.00	0.0	0.0	0.0	481.15	520.22	0.0
40328.000	621.95	0.0	622.78	39.07	0.0	2000.00	0.0	0.0	0.0	481.15	520.22	0.0
40328.000	623.37	0.0	624.41	55.11	3.02	2696.98	0.0	0.0	0.0	481.15	520.22	0.0
40475.000	620.86	0.0	621.80	29.80	0.0	1200.00	0.0	0.0	0.0	100.00	199.80	0.0
40475.000	621.90	0.0	623.37	29.80	0.0	1800.00	0.0	0.0	0.0	100.00	199.80	0.0
40475.000	622.21	0.0	623.86	29.80	0.0	2000.00	0.0	0.0	0.0	100.00	199.80	0.0
40475.000	623.99	0.0	625.42	99.30	0.0	2700.00	0.0	0.0	0.0	100.00	199.80	0.0

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
40476.000	620.87	0.0	621.81	29.80	0.0	1200.00	0.0	0.0	0.0	100.00	199.80	0.0
40476.000	621.91	0.0	623.38	29.80	0.0	1800.00	0.0	0.0	0.0	100.00	199.80	0.0
40476.000	622.20	0.0	623.88	29.80	0.0	2000.00	0.0	0.0	0.0	100.00	199.80	0.0
40476.000	623.26	0.0	626.19	29.80	0.0	2700.00	0.0	0.0	0.0	100.00	199.80	0.0
40477.000	621.01	0.0	621.90	29.80	0.0	1200.00	0.0	0.0	0.0	100.00	199.80	0.0
40477.000	622.17	0.0	623.54	29.80	0.0	1800.00	0.0	0.0	0.0	100.00	199.80	0.0
40477.000	622.44	0.0	624.07	29.80	0.0	2000.00	0.0	0.0	0.0	100.00	199.80	0.0
40477.000	625.59	0.0	627.04	99.80	0.0	2700.00	0.0	0.0	0.0	100.00	199.80	0.0
40478.000	621.02	0.0	621.91	29.80	0.0	1200.00	0.0	0.0	0.0	100.00	199.80	0.0
40478.000	622.23	0.0	623.56	29.80	0.0	1800.00	0.0	0.0	0.0	100.00	199.80	0.0
40478.000	622.74	0.0	624.15	29.80	0.0	2000.00	0.0	0.0	0.0	100.00	199.80	0.0
40478.000	626.69	0.0	627.06	99.80	0.0	2700.00	0.0	0.0	0.0	100.00	199.80	0.0
40615.000	622.19	0.0	622.21	290.00	401.94	163.75	634.32	0.0	0.0	250.00	263.00	0.0
40615.000	623.96	0.0	623.98	290.00	728.16	193.08	873.76	0.0	0.0	250.00	263.00	0.0
40615.000	624.58	0.0	624.60	290.00	840.37	202.07	957.56	0.0	0.0	250.00	263.00	0.0
40615.000	627.16	0.0	627.18	290.00	1250.27	228.60	1221.13	0.0	0.0	250.00	263.00	0.0
41275.000	622.21	0.0	622.31	328.50	6.20	707.73	485.07	0.0	0.0	59.00	90.00	0.0
41275.000	623.99	0.0	624.04	347.06	25.23	672.95	1101.81	0.0	0.0	59.00	90.00	0.0
41275.000	624.60	0.0	624.64	353.42	34.05	667.36	1298.60	0.0	0.0	59.00	90.00	0.0
41275.000	627.18	0.0	627.20	380.29	76.91	643.79	1977.30	0.0	0.0	59.00	90.00	0.0
42875.000	622.98	0.0	623.26	289.49	163.28	612.59	304.13	0.0	0.0	665.00	680.00	0.0
42875.000	624.28	0.0	624.48	320.40	284.56	588.29	577.06	0.0	0.0	665.00	680.00	0.0
42875.000	624.32	0.0	625.01	331.02	347.11	725.55	707.34	0.0	0.0	665.00	680.00	0.0
42875.000	627.26	0.0	627.35	357.79	538.98	702.42	1058.59	0.0	0.0	665.00	680.00	0.0
42925.000	623.49	0.0	624.04	35.33	0.0	1080.00	0.0	0.0	0.0	100.00	137.20	0.0
42925.000	624.56	0.0	625.33	36.19	0.0	1550.00	0.0	0.0	0.0	100.00	137.20	0.0
42925.000	625.02	0.0	625.90	36.57	0.0	1780.00	0.0	0.0	0.0	100.00	137.20	0.0
42925.000	627.17	0.0	627.99	37.20	0.0	2300.00	0.0	0.0	0.0	100.00	137.20	0.0
42926.000	623.52	0.0	624.06	35.35	0.0	1080.00	0.0	0.0	0.0	100.00	137.20	0.0
42926.000	624.59	0.0	625.36	36.21	0.0	1550.00	0.0	0.0	0.0	100.00	137.20	0.0
42926.000	625.05	0.0	625.93	36.59	0.0	1780.00	0.0	0.0	0.0	100.00	137.20	0.0
42926.000	627.04	0.0	628.20	37.20	0.0	2300.00	0.0	0.0	0.0	100.00	137.20	0.0
42927.000	623.62	0.0	624.15	35.44	0.0	1080.00	0.0	0.0	0.0	100.00	137.20	0.0
42927.000	624.73	0.0	625.46	36.34	0.0	1550.00	0.0	0.0	0.0	100.00	137.20	0.0
42927.000	625.21	0.0	626.04	36.73	0.0	1780.00	0.0	0.0	0.0	100.00	137.20	0.0
42927.000	627.31	0.0	628.48	37.20	0.0	2300.00	0.0	0.0	0.0	100.00	137.20	0.0
42928.000	623.64	0.0	624.16	35.45	0.0	1080.00	0.0	0.0	0.0	100.00	137.20	0.0
42928.000	624.75	0.0	625.48	36.35	0.0	1550.00	0.0	0.0	0.0	100.00	137.20	0.0
42928.000	625.23	0.0	626.06	36.74	0.0	1780.00	0.0	0.0	0.0	100.00	137.20	0.0
42928.000	627.95	0.0	628.64	37.20	0.0	2300.00	0.0	0.0	0.0	100.00	137.20	0.0
42975.000	624.38	0.0	624.40	392.25	569.14	224.96	285.90	0.0	0.0	593.00	607.00	0.0
42975.000	625.75	0.0	625.76	396.56	754.05	245.27	550.67	0.0	0.0	593.00	607.00	0.0
42975.000	626.35	0.0	626.37	398.46	842.02	256.99	680.99	0.0	0.0	593.00	607.00	0.0
42975.000	628.86	0.0	628.88	406.41	1006.50	254.99	1038.51	0.0	0.0	593.00	607.00	0.0

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	44775.000	625.47	0.0	626.25	242.04	273.22	738.87	67.91	440.00	0.00	71.00	91.00	440.00
	44775.000	626.35	0.0	625.80	373.40	388.06	772.70	389.24	440.00	0.00	71.00	91.00	440.00
	44775.000	625.89	0.0	627.17	376.21	417.93	735.71	626.36	440.00	0.00	71.00	91.00	440.00
	44775.000	629.07	0.0	629.14	387.90	446.20	576.55	1277.25	440.00	0.00	71.00	91.00	440.00

DEER CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
30340.000	0.0	0.0	0.0	604.60	1200.00	612.26	0.0	612.42	14.74	3.60	433.52	312.55
30340.000	0.0	0.0	0.0	604.60	1800.00	613.25	0.0	613.43	14.48	3.96	608.50	472.99
30340.000	0.0	0.0	0.0	604.60	2000.00	613.50	0.0	613.69	14.73	4.09	657.66	521.06
30340.000	0.0	0.0	0.0	604.60	2700.00	614.33	0.0	614.55	14.87	4.43	831.45	700.15
30541.000	200.00	0.0	0.0	606.50	1200.00	612.57	0.0	612.92	37.61	4.80	250.21	195.67
30541.000	200.00	0.0	0.0	606.50	1800.00	613.48	0.0	614.02	48.99	5.93	303.76	257.17
30541.000	200.00	0.0	0.0	606.50	2000.00	613.71	0.0	614.32	53.24	6.29	317.90	274.10
30541.000	200.00	0.0	0.0	606.50	2700.00	614.43	0.0	615.29	66.81	7.43	363.34	330.33
30542.000	10.00	639.10	635.60	606.50	1200.00	612.59	0.0	612.97	41.72	4.93	243.63	185.78
30542.000	10.00	639.10	635.60	606.50	1800.00	613.50	0.0	614.09	60.59	6.15	292.64	231.25
30542.000	10.00	639.10	635.60	606.50	2000.00	613.73	0.0	614.40	67.33	6.54	305.74	243.75
30542.000	10.00	639.10	635.60	606.50	2700.00	614.45	0.0	615.39	90.60	7.79	346.70	283.67
30543.000	47.00	639.10	635.60	606.50	1200.00	612.81	0.0	613.16	37.40	4.70	255.09	196.23
30543.000	47.00	639.10	635.60	606.50	1800.00	613.84	0.0	614.36	52.19	5.78	311.38	249.16
30543.000	47.00	639.10	635.60	606.50	2000.00	614.12	0.0	614.70	57.14	6.11	327.29	264.58
30543.000	47.00	639.10	635.60	606.50	2700.00	615.00	0.0	615.78	72.20	7.09	380.70	317.75
30544.000	50.00	639.10	635.60	606.50	1200.00	613.02	0.0	613.34	33.98	4.52	265.56	205.87
30544.000	50.00	639.10	635.60	606.50	1800.00	614.15	0.0	614.61	45.75	5.47	328.86	266.12
30544.000	50.00	639.10	635.60	606.50	2000.00	614.46	0.0	614.97	49.55	5.76	347.17	284.13
30544.000	50.00	639.10	635.60	606.50	2700.00	615.45	0.0	616.12	60.71	6.60	408.80	346.52
30545.000	47.00	639.10	635.60	606.50	1200.00	613.20	0.0	613.49	31.24	4.36	275.06	214.71
30545.000	47.00	639.10	635.60	606.50	1800.00	614.39	0.0	614.82	41.37	5.25	342.84	279.85
30545.000	47.00	639.10	635.60	606.50	2000.00	614.72	0.0	615.20	44.54	5.51	362.78	299.68
30545.000	47.00	639.10	635.60	606.50	2700.00	615.79	0.0	616.40	53.35	6.26	431.03	369.67
30546.000	10.00	0.0	0.0	606.50	1200.00	613.26	0.0	613.52	24.64	4.13	290.70	241.77
30546.000	10.00	0.0	0.0	606.50	1800.00	614.48	0.0	614.86	28.90	4.91	366.88	334.82
30546.000	10.00	0.0	0.0	606.50	2000.00	614.83	0.0	615.24	30.23	5.14	389.42	363.78
30546.000	10.00	0.0	0.0	606.50	2700.00	615.93	0.0	616.45	33.66	5.80	465.20	465.37
30590.000	100.00	0.0	0.0	604.60	1200.00	613.57	0.0	613.66	4.97	2.66	672.47	538.06
30590.000	100.00	0.0	0.0	604.60	1800.00	614.92	0.0	615.01	4.65	2.88	962.11	835.11
30590.000	100.00	0.0	0.0	604.60	2000.00	615.31	0.0	615.40	4.57	2.95	1046.76	935.23
30590.000	100.00	0.0	0.0	604.60	2700.00	616.53	0.0	616.63	4.39	3.15	1316.23	1288.84
31250.000	560.00	0.0	0.0	605.70	1200.00	613.80	0.0	613.82	1.80	1.59	1398.22	893.52
31250.000	560.00	0.0	0.0	605.70	1800.00	615.15	0.0	615.17	1.83	1.79	1802.01	1330.02
31250.000	560.00	0.0	0.0	605.70	2000.00	615.54	0.0	615.56	1.86	1.86	1918.36	1467.80
31250.000	560.00	0.0	0.0	605.70	2700.00	616.76	0.0	616.79	1.93	2.07	2292.16	1944.05
32450.000	1140.00	0.0	0.0	604.30	1200.00	613.98	0.0	614.01	2.76	1.87	1051.99	721.90
32450.000	1140.00	0.0	0.0	604.30	1800.00	615.32	0.0	615.35	2.53	2.01	1415.17	1132.27
32450.000	1140.00	0.0	0.0	604.80	2000.00	615.70	0.0	615.74	2.50	2.06	1522.07	1265.17
32450.000	1140.00	0.0	0.0	604.80	2700.00	616.93	0.0	616.97	2.43	2.21	1870.91	1732.87
34030.000	1580.00	0.0	0.0	604.80	1200.00	614.41	0.0	614.49	4.86	3.28	961.80	544.15
34030.000	1580.00	0.0	0.0	604.80	1800.00	615.73	0.0	615.84	5.59	3.88	1224.39	751.15
34030.000	1580.00	0.0	0.0	604.80	2000.00	616.11	0.0	616.23	5.80	4.05	1303.24	830.75
34030.000	1580.00	0.0	0.0	604.80	2700.00	617.33	0.0	617.47	6.34	4.57	1562.38	1072.55

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
34320.000	270.00	0.0	0.0	607.70	1200.00	614.57	0.0	614.71	11.58	2.93	409.80	352.65
34320.000	270.00	0.0	0.0	607.70	1800.00	615.90	0.0	616.09	12.95	3.49	516.26	500.15
34320.000	270.00	0.0	0.0	607.70	2000.00	616.29	0.0	616.50	13.45	3.66	547.04	545.40
34320.000	270.00	0.0	0.0	607.70	2700.00	617.51	0.0	617.78	15.06	4.19	644.77	695.73
34321.000	10.00	621.40	619.50	607.70	1200.00	614.58	0.0	614.72	6.97	2.92	410.46	454.52
34321.000	10.00	621.40	619.50	607.70	1800.00	615.92	0.0	616.10	7.80	3.48	516.96	644.37
34321.000	10.00	621.40	619.50	607.70	2000.00	616.30	0.0	616.51	8.10	3.65	547.80	702.69
34321.000	10.00	621.40	619.50	607.70	2700.00	617.52	0.0	617.80	9.08	4.18	645.59	896.19
34322.000	33.30	621.40	619.50	607.70	1200.00	614.61	0.0	614.74	6.84	2.91	413.02	458.85
34322.000	33.30	621.40	619.50	607.70	1800.00	615.94	0.0	616.13	7.67	3.46	519.83	649.74
34322.000	33.30	621.40	619.50	607.70	2000.00	616.33	0.0	616.54	7.97	3.63	550.77	708.38
34322.000	33.30	621.40	619.50	607.70	2700.00	617.56	0.0	617.83	8.94	4.16	648.93	903.01
34323.000	10.00	0.0	0.0	607.70	1200.00	614.62	0.0	614.75	8.93	2.90	413.11	401.64
34323.000	10.00	0.0	0.0	607.70	1800.00	615.95	0.0	616.14	10.02	3.46	519.97	568.75
34323.000	10.00	0.0	0.0	607.70	2000.00	616.34	0.0	616.54	10.40	3.63	550.91	620.06
34323.000	10.00	0.0	0.0	607.70	2700.00	617.57	0.0	617.84	11.67	4.16	649.13	790.48
34370.000	105.00	0.0	0.0	604.70	1200.00	614.69	0.0	614.91	14.15	4.45	640.43	319.04
34370.000	105.00	0.0	0.0	604.70	1800.00	616.09	0.0	616.26	10.21	4.29	1054.00	563.43
34370.000	105.00	0.0	0.0	604.70	2000.00	616.52	0.0	616.67	9.42	4.27	1180.70	651.72
34370.000	105.00	0.0	0.0	604.70	2700.00	617.84	0.0	617.98	7.79	4.27	1579.30	967.39
34465.000	730.00	0.0	0.0	608.00	1200.00	615.41	0.0	615.56	5.84	3.71	949.96	458.75
34465.000	730.00	0.0	0.0	608.00	1800.00	616.61	0.0	616.75	5.88	3.86	1473.29	742.27
34465.000	730.00	0.0	0.0	608.00	2000.00	617.00	0.0	617.13	5.59	3.89	1639.09	845.64
34465.000	730.00	0.0	0.0	608.00	2700.00	618.24	0.0	618.36	4.84	3.98	2185.69	1227.77
34515.000	230.00	0.0	0.0	608.50	1200.00	615.54	0.0	615.91	20.06	4.86	247.08	267.92
34515.000	230.00	0.0	0.0	608.50	1800.00	616.68	0.0	617.18	27.46	5.64	319.06	343.48
34515.000	230.00	0.0	0.0	608.50	2000.00	617.03	0.0	617.56	26.37	5.79	345.27	389.45
34515.000	230.00	0.0	0.0	608.50	2700.00	618.20	0.0	618.81	23.76	6.26	431.48	553.94
34516.000	10.00	638.80	638.80	608.50	1200.00	615.57	0.0	615.93	19.89	4.84	247.80	269.10
34516.000	10.00	638.80	638.80	608.50	1800.00	616.72	0.0	617.20	26.70	5.59	321.90	348.36
34516.000	10.00	638.80	638.80	608.50	2000.00	617.07	0.0	617.58	25.96	5.76	346.99	392.54
34516.000	10.00	638.80	638.80	608.50	2700.00	618.23	0.0	618.83	23.51	6.24	432.95	556.90
34517.000	10.50	638.80	638.80	608.50	1200.00	615.59	0.0	615.95	19.48	4.81	249.52	271.89
34517.000	10.50	638.80	638.80	608.50	1800.00	616.75	0.0	617.23	26.15	5.56	324.00	351.98
34517.000	10.50	638.80	638.80	608.50	2000.00	617.10	0.0	617.61	25.32	5.72	349.72	397.46
34517.000	10.50	638.80	638.80	608.50	2700.00	618.26	0.0	618.86	23.10	6.20	435.38	561.81
34518.000	10.00	0.0	0.0	608.50	1200.00	615.62	0.0	615.97	19.14	4.78	251.01	274.31
34518.000	10.00	0.0	0.0	608.50	1800.00	616.79	0.0	617.26	25.52	5.51	326.49	356.31
34518.000	10.00	0.0	0.0	608.50	2000.00	617.14	0.0	617.64	24.73	5.68	352.34	402.20
34518.000	10.00	0.0	0.0	608.50	2700.00	618.29	0.0	618.88	22.71	6.17	437.71	566.55
34915.000	320.00	0.0	0.0	610.30	1200.00	616.23	0.0	616.46	10.35	3.85	311.53	364.26
34915.000	320.00	0.0	0.0	610.30	1800.00	617.53	0.0	617.87	12.97	4.66	386.51	499.73
34915.000	320.00	0.0	0.0	610.30	2000.00	617.88	0.0	618.26	13.81	4.92	406.79	538.17
34915.000	320.00	0.0	0.0	610.30	2700.00	619.01	0.0	619.52	16.34	5.71	472.94	667.99

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
34916.000	10.00	622.80	621.90	610.30	1200.00	616.24	0.0	616.47	10.31	3.85	312.09	365.05
34916.000	10.00	622.80	621.90	610.30	1800.00	617.55	0.0	617.88	12.37	4.64	387.63	501.83
34916.000	10.00	622.80	621.90	610.30	2000.00	617.90	0.0	618.27	13.70	4.90	407.89	540.23
34916.000	10.00	622.80	621.90	610.30	2700.00	619.03	0.0	619.54	16.27	5.70	473.64	669.40
34917.000	36.00	622.80	621.90	610.30	1200.00	616.29	0.0	616.51	10.50	3.32	314.15	368.64
34917.000	36.00	622.80	621.90	610.30	1800.00	617.60	0.0	617.93	12.63	4.61	390.11	506.49
34917.000	36.00	622.80	621.90	610.30	2000.00	617.95	0.0	618.32	13.45	4.87	410.59	545.44
34917.000	36.00	622.80	621.90	610.30	2700.00	619.10	0.0	619.60	15.95	5.66	476.97	676.10
34918.000	10.00	0.0	0.0	610.30	1200.00	616.30	0.0	616.52	10.51	3.81	314.98	370.07
34918.000	10.00	0.0	0.0	610.30	1800.00	617.61	0.0	617.94	12.53	4.60	391.13	508.41
34918.000	10.00	0.0	0.0	610.30	2000.00	617.97	0.0	618.33	13.34	4.86	411.70	547.58
34918.000	10.00	0.0	0.0	610.30	2700.00	619.12	0.0	619.61	15.82	5.64	478.37	678.92
34965.000	105.00	0.0	0.0	609.50	1200.00	616.28	0.0	616.91	35.63	7.28	362.39	201.03
34965.000	105.00	0.0	0.0	609.50	1800.00	617.71	0.0	618.20	25.97	7.13	687.76	353.22
34965.000	105.00	0.0	0.0	609.50	2000.00	618.10	0.0	618.57	24.34	7.13	784.51	405.43
34965.000	105.00	0.0	0.0	609.50	2700.00	619.43	0.0	619.82	19.17	7.01	1127.85	616.60
36650.000	1480.00	0.0	0.0	610.80	1200.00	617.82	0.0	617.86	2.73	1.36	1187.54	726.90
36650.000	1480.00	0.0	0.0	610.80	1800.00	619.03	0.0	619.08	2.93	2.17	1556.69	1051.75
36650.000	1480.00	0.0	0.0	610.80	2000.00	619.38	0.0	619.44	3.00	2.26	1664.84	1155.24
36650.000	1480.00	0.0	0.0	610.80	2700.00	620.56	0.0	620.63	3.08	2.51	2037.10	1537.91
36715.000	300.00	0.0	0.0	611.10	1200.00	617.86	0.0	618.08	9.13	3.69	324.77	397.12
36715.000	300.00	0.0	0.0	611.10	1800.00	619.04	0.0	619.37	11.47	4.59	392.23	531.45
36715.000	300.00	0.0	0.0	611.10	2000.00	619.38	0.0	619.74	12.22	4.66	411.53	572.02
36715.000	300.00	0.0	0.0	611.10	2700.00	620.51	0.0	621.01	14.29	5.67	476.27	714.30
36716.000	10.00	624.90	620.90	611.10	1200.00	617.87	0.0	618.08	9.10	3.69	325.08	397.71
36716.000	10.00	624.90	620.90	611.10	1800.00	619.05	0.0	619.38	11.44	4.58	392.62	532.25
36716.000	10.00	624.90	620.90	611.10	2000.00	619.39	0.0	619.76	12.19	4.85	411.95	572.91
36716.000	10.00	624.90	620.90	611.10	2700.00	620.52	0.0	621.02	14.25	5.66	476.71	715.31
36717.000	31.00	624.90	620.90	611.10	1200.00	617.90	0.0	618.11	8.95	3.67	326.90	401.17
36717.000	31.00	624.90	620.90	611.10	1800.00	619.09	0.0	619.42	11.23	4.56	394.94	537.09
36717.000	31.00	624.90	620.90	611.10	2000.00	619.43	0.0	619.80	11.97	4.83	414.42	578.15
36717.000	31.00	624.90	620.90	611.10	2700.00	620.57	0.0	621.07	13.99	5.63	479.63	721.95
36718.000	10.00	0.0	0.0	611.10	1200.00	617.92	0.0	618.12	11.61	3.66	327.57	352.14
36718.000	10.00	0.0	0.0	611.10	1800.00	619.11	0.0	619.43	14.57	4.55	395.84	471.58
36718.000	10.00	0.0	0.0	611.10	2000.00	619.45	0.0	619.81	15.52	4.81	415.41	507.73
36718.000	10.00	0.0	0.0	611.10	2700.00	620.59	0.0	621.08	18.13	5.62	480.85	634.13
36765.000	100.00	0.0	0.0	608.20	1200.00	618.02	0.0	618.26	13.07	4.47	517.00	331.88
36765.000	100.00	0.0	0.0	608.20	1800.00	619.33	0.0	619.58	12.41	4.90	776.86	510.93
36765.000	100.00	0.0	0.0	608.20	2000.00	619.72	0.0	619.98	12.16	5.00	863.74	573.65
36765.000	100.00	0.0	0.0	608.20	2700.00	621.05	0.0	621.29	10.62	5.15	1181.79	828.49
37515.000	770.00	0.0	0.0	608.20	1200.00	618.85	0.0	619.01	8.22	3.63	795.44	418.47
37515.000	770.00	0.0	0.0	608.20	1800.00	620.08	0.0	620.20	6.53	3.60	1329.60	704.40
37515.000	770.00	0.0	0.0	608.20	2000.00	620.45	0.0	620.57	5.13	3.60	1493.67	807.80
37515.000	770.00	0.0	0.0	608.20	2700.00	621.69	0.0	621.78	5.02	3.55	2053.40	1205.46

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
38175.000	760.00	0.0	0.0	610.60	1200.00	619.36	0.0	619.53	6.77	3.75	817.58	461.27
38175.000	760.00	0.0	0.0	610.60	1800.00	620.48	0.0	620.66	6.65	4.12	1229.37	698.05
38175.000	760.00	0.0	0.0	610.60	2000.00	620.83	0.0	621.00	6.55	4.21	1357.31	731.28
38175.000	760.00	0.0	0.0	610.60	2700.00	621.98	0.0	622.16	6.07	4.43	1790.34	1095.78
39175.000	1250.00	0.0	0.0	610.60	1200.00	620.04	0.0	620.18	4.95	3.27	816.02	539.27
39175.000	1250.00	0.0	0.0	610.60	1800.00	621.12	0.0	621.26	4.95	3.62	1245.73	808.74
39175.000	1250.00	0.0	0.0	610.60	2000.00	621.45	0.0	621.59	4.90	3.70	1377.28	903.06
39175.000	1250.00	0.0	0.0	610.60	2700.00	622.54	0.0	622.68	4.61	3.91	1822.07	1257.88
40275.000	820.00	0.0	0.0	613.30	1200.00	620.48	0.0	620.67	8.58	4.28	717.85	409.65
40275.000	820.00	0.0	0.0	613.30	1800.00	621.54	0.0	621.73	8.34	4.66	1127.61	623.21
40275.000	820.00	0.0	0.0	613.30	2000.00	621.86	0.0	622.04	8.18	4.74	1251.58	699.41
40275.000	820.00	0.0	0.0	613.30	2700.00	622.91	0.0	623.09	7.48	4.93	1664.96	987.15
40325.000	195.00	0.0	0.0	613.80	1200.00	620.58	0.0	621.04	15.99	5.44	220.51	300.11
40325.000	195.00	0.0	0.0	613.80	1800.00	621.52	0.0	622.28	22.62	6.99	257.33	378.45
40325.000	195.00	0.0	0.0	613.80	2000.00	621.79	0.0	622.66	24.77	7.47	267.91	401.85
40325.000	195.00	0.0	0.0	613.80	2700.00	622.56	0.0	623.90	31.66	8.94	302.04	479.82
40326.000	10.00	622.90	628.70	613.80	1200.00	620.50	0.0	621.05	15.88	5.43	221.00	301.11
40326.000	10.00	622.90	626.70	613.80	1300.00	621.55	0.0	622.30	22.41	6.97	258.16	380.26
40326.000	10.00	622.90	628.70	613.80	2000.00	621.82	0.0	622.68	24.53	7.44	268.79	403.81
40326.000	10.00	622.90	628.70	613.80	2700.00	622.63	0.0	624.03	81.08	9.51	283.38	299.86
40327.000	27.70	622.90	628.70	613.80	1200.00	620.65	0.0	621.10	15.46	5.38	222.95	305.15
40327.000	27.70	622.90	623.70	613.30	1300.00	621.64	0.0	622.37	21.47	5.87	261.29	388.43
40327.000	27.70	622.90	628.70	613.30	2000.00	621.92	0.0	622.76	23.40	7.32	273.08	413.42
40327.000	27.70	622.90	628.70	613.80	2700.00	622.85	0.0	624.26	81.34	9.51	283.08	299.37
40328.000	10.00	0.0	0.0	613.80	1200.00	620.67	0.0	621.12	15.26	5.36	223.94	307.20
40328.000	10.00	0.0	0.0	613.80	1800.00	621.67	0.0	622.39	21.26	6.85	262.76	390.41
40328.000	10.00	0.0	0.0	613.30	2000.00	621.95	0.0	622.78	23.17	7.30	274.01	415.53
40328.000	10.00	0.0	0.0	613.30	2700.00	623.37	0.0	624.41	24.41	8.18	333.68	546.50
40475.000	170.00	0.0	0.0	614.30	1200.00	620.86	0.0	621.80	53.54	7.78	154.18	154.00
40475.000	170.00	0.0	0.0	614.30	1800.00	621.90	0.0	623.37	73.11	9.73	185.00	210.52
40475.000	170.00	0.0	0.0	614.30	2000.00	622.21	0.0	623.86	79.38	10.31	194.00	224.47
40475.000	170.00	0.0	0.0	614.30	2700.00	623.99	623.97	625.42	134.03	9.58	281.91	233.22
40476.000	1.00	623.50	623.50	614.30	1200.00	620.87	0.0	621.81	53.61	7.79	154.11	163.90
40476.000	1.00	623.50	623.50	614.30	1800.00	621.91	0.0	623.38	72.95	9.72	185.15	210.74
40476.000	1.00	623.50	623.50	614.30	2300.00	622.20	0.0	623.88	120.43	10.41	192.05	182.25
40476.000	1.00	623.50	623.50	614.30	2700.00	623.26	0.0	626.19	252.33	13.73	196.59	169.81
40477.000	15.00	623.50	623.50	614.30	1200.00	621.01	0.0	621.90	49.70	7.58	158.39	170.22
40477.000	15.00	623.50	623.50	614.30	1800.00	622.17	0.0	623.54	98.08	9.39	191.67	191.75
40477.000	15.00	623.50	623.50	614.30	2000.00	622.44	0.0	624.07	116.05	10.27	194.69	185.65
40477.000	15.00	623.50	623.50	614.30	2700.00	626.59	0.0	627.04	31.27	5.34	505.21	482.84
40478.000	1.00	0.0	0.0	614.30	1200.00	621.02	0.0	621.91	49.56	7.57	158.55	170.46
40478.000	1.00	0.0	0.0	614.30	1800.00	622.23	0.0	623.56	63.57	9.24	194.83	225.76
40478.000	1.00	0.0	0.0	614.30	2000.00	622.74	0.0	624.15	64.24	9.53	209.94	249.54
40478.000	1.00	0.0	0.0	614.30	2700.00	626.69	0.0	627.06	15.19	4.91	550.44	692.86

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
40615.000	170.00	0.0	0.0	613.80	1200.00	622.19	0.0	622.21	0.84	1.56	1148.66	1307.76
40615.000	170.00	0.0	0.0	613.30	1300.00	623.96	0.0	623.98	0.60	1.51	1662.37	2315.94
40615.000	170.00	0.0	0.0	613.30	2000.00	624.58	0.0	624.60	0.54	1.49	1840.71	2720.25
40615.000	170.00	0.0	0.0	613.30	2700.00	627.16	0.0	627.18	0.33	1.35	2591.05	4693.01
41275.000	610.00	0.0	0.0	613.40	1200.00	622.21	0.0	622.31	3.55	3.20	649.61	636.51
41275.000	610.00	0.0	0.0	613.40	1300.00	623.99	0.0	624.04	1.53	2.43	1251.00	1455.49
41275.000	610.00	0.0	0.0	613.40	2000.00	624.60	0.0	624.64	1.21	2.26	1464.76	1821.05
41275.000	610.00	0.0	0.0	613.40	2700.00	627.18	0.0	627.20	0.51	1.72	2410.56	3798.73
42875.000	1500.00	0.0	0.0	615.00	1080.00	622.98	0.0	623.26	22.60	5.60	675.01	227.20
42875.000	1500.00	0.0	0.0	615.00	1550.00	624.28	0.0	624.48	16.53	5.34	1071.36	331.26
42875.000	1500.00	0.0	0.0	615.00	1780.00	624.82	0.0	625.01	14.96	5.30	1248.80	460.17
42875.000	1500.00	0.0	0.0	615.00	2300.00	627.26	0.0	627.35	6.37	4.05	2102.10	911.54
42925.000	210.00	0.0	0.0	617.10	1080.00	623.49	0.0	624.04	43.35	5.94	181.74	164.03
42925.000	210.00	0.0	0.0	617.10	1550.00	624.56	0.0	625.33	50.86	7.04	220.03	217.35
42925.000	210.00	0.0	0.0	617.10	1780.00	625.02	0.0	625.90	54.18	7.52	236.75	241.82
42925.000	210.00	0.0	0.0	617.10	2300.00	627.17	0.0	627.99	39.10	7.27	316.51	367.81
42926.000	8.00	627.50	625.80	617.10	1080.00	623.52	0.0	624.06	13.98	5.91	182.66	247.90
42926.000	8.00	627.50	625.80	617.10	1550.00	624.59	0.0	625.36	22.32	7.01	220.99	328.10
42926.000	8.00	627.50	625.80	617.10	1780.00	625.05	0.0	625.93	23.79	7.49	237.75	364.94
42926.000	8.00	627.50	625.80	617.10	2300.00	627.04	0.0	628.20	64.21	8.66	265.59	287.03
42927.000	43.00	627.50	625.80	617.10	1080.00	623.62	0.0	624.15	17.83	5.79	186.56	255.78
42927.000	43.00	627.50	625.80	617.10	1550.00	624.73	0.0	625.46	20.71	6.84	226.74	340.62
42927.000	43.00	627.50	625.80	617.10	1780.00	625.21	0.0	626.04	22.05	7.29	244.04	379.05
42927.000	43.00	627.50	625.80	617.10	2300.00	627.31	0.0	628.48	64.21	8.56	265.59	287.03
42928.000	8.00	0.0	0.0	617.10	1080.00	623.64	0.0	624.16	17.68	5.77	187.10	256.87
42928.000	8.00	0.0	0.0	617.10	1550.00	624.75	0.0	625.48	20.63	6.83	227.04	341.29
42928.000	8.00	0.0	0.0	617.10	1780.00	625.23	0.0	626.06	21.94	7.28	244.48	380.03
42928.000	8.00	0.0	0.0	617.10	2300.00	627.95	0.0	628.54	13.49	6.65	346.01	626.30
42975.000	130.00	0.0	0.0	615.40	1080.00	624.38	0.0	624.40	4.17	2.22	1172.28	528.60
42975.000	130.00	0.0	0.0	615.40	1550.00	625.75	0.0	625.76	2.79	2.04	1710.29	928.25
42975.000	130.00	0.0	0.0	615.40	1780.00	626.35	0.0	626.37	2.44	2.00	1949.59	1138.96
42975.000	130.00	0.0	0.0	615.40	2300.00	628.86	0.0	628.88	1.07	1.56	2962.86	2220.53
* 44775.000	1875.00	0.0	0.0	619.10	1080.00	625.47	625.47	626.25	81.68	9.40	258.95	119.50
44775.000	1875.00	0.0	0.0	619.10	1550.00	626.35	0.0	626.80	48.50	7.32	540.94	222.57
44775.000	1875.00	0.0	0.0	619.10	1780.00	626.88	0.0	627.17	32.07	6.34	737.40	314.33
44775.000	1875.00	0.0	0.0	619.10	2300.00	629.07	0.0	629.14	6.78	3.61	1572.72	833.03

DEER CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
30340.000	1200.00	612.26	0.0	0.0	-1.24	163.05	0.0
30340.000	1800.00	613.25	0.99	0.0	-0.25	190.77	0.0
30340.000	2000.00	613.50	0.25	0.0	0.0	197.86	0.0
30340.000	2700.00	614.33	0.83	0.0	0.83	220.00	0.0
30541.000	1200.00	612.57	0.0	0.31	0.0	56.22	200.00
30541.000	1800.00	613.48	0.91	0.23	0.0	60.39	200.00
30541.000	2000.00	613.71	0.23	0.21	0.0	61.45	200.00
30541.000	2700.00	614.43	0.72	0.10	0.0	64.72	200.00
30542.000	1200.00	612.59	0.0	0.03	0.0	51.37	10.00
30542.000	1800.00	613.50	0.91	0.02	0.0	55.54	10.00
30542.000	2000.00	613.73	0.23	0.02	0.0	56.60	10.00
30542.000	2700.00	614.45	0.71	0.02	0.0	59.80	10.00
30543.000	1200.00	612.61	0.0	0.22	0.0	52.37	47.00
30543.000	1800.00	613.84	1.23	0.34	0.0	57.05	47.00
30543.000	2000.00	614.12	0.28	0.38	0.0	58.30	47.00
30543.000	2700.00	615.00	0.88	0.56	0.0	62.33	47.00
30544.000	1200.00	613.02	0.0	0.21	0.0	53.27	50.00
30544.000	1800.00	614.15	1.12	0.30	0.0	58.42	50.00
30544.000	2000.00	614.46	0.31	0.34	0.0	59.83	50.00
30544.000	2700.00	615.45	0.99	0.44	0.0	64.34	50.00
30545.000	1200.00	613.20	0.0	0.18	0.0	54.08	47.00
30545.000	1800.00	614.39	1.19	0.25	0.0	59.50	47.00
30545.000	2000.00	614.72	0.33	0.27	0.0	61.01	47.00
30545.000	2700.00	615.79	1.07	0.34	0.0	65.89	47.00
30546.000	1200.00	613.26	0.0	0.06	0.0	59.40	10.00
30546.000	1800.00	614.48	1.22	0.09	0.0	64.97	10.00
30546.000	2000.00	614.83	0.34	0.10	0.0	66.52	10.00
30546.000	2700.00	615.93	1.10	0.14	0.0	71.51	10.00
30590.000	1200.00	613.57	0.0	0.31	0.0	199.95	100.00
30590.000	1800.00	614.92	1.35	0.44	0.0	220.00	100.00
30590.000	2000.00	615.31	0.38	0.48	0.0	220.00	100.00
30590.000	2700.00	616.53	1.22	0.61	0.0	220.00	100.00
31250.000	1200.00	613.80	0.0	0.23	0.0	297.64	560.00
31250.000	1800.00	615.15	1.35	0.23	0.0	301.42	560.00
31250.000	2000.00	615.54	0.39	0.23	0.0	302.50	560.00
31250.000	2700.00	616.76	1.23	0.23	0.0	305.94	560.00
32450.000	1200.00	613.98	0.0	0.18	0.0	266.23	1140.00
32450.000	1800.00	615.32	1.34	0.17	0.0	276.50	1140.00
32450.000	2000.00	615.70	0.38	0.17	0.0	279.45	1140.00
32450.000	2700.00	616.93	1.23	0.17	0.0	288.88	1140.00
34030.000	1200.00	614.41	0.0	0.43	0.0	193.43	1580.00
34030.000	1800.00	615.73	1.32	0.41	0.0	204.43	1580.00
34030.000	2000.00	616.11	0.38	0.41	0.0	207.62	1580.00
34030.000	2700.00	617.33	1.22	0.40	0.0	217.77	1580.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
34320.000	1200.00	614.57	0.0	0.16	0.0	80.00	270.00
34320.000	1800.00	615.90	1.33	0.17	0.0	80.00	270.00
34320.000	2000.00	616.29	0.39	0.18	0.0	80.00	270.00
34320.000	2700.00	617.51	1.22	0.18	0.0	80.00	270.00
34321.000	1200.00	614.58	0.0	0.01	0.0	80.00	10.00
34321.000	1800.00	615.92	1.33	0.01	0.0	80.00	10.00
34321.000	2000.00	616.30	0.39	0.01	0.0	80.00	10.00
34321.000	2700.00	617.52	1.22	0.01	0.0	80.00	10.00
34322.000	1200.00	614.61	0.0	0.03	0.0	80.00	33.30
34322.000	1800.00	615.94	1.33	0.03	0.0	80.00	33.30
34322.000	2000.00	616.33	0.39	0.03	0.0	80.00	33.30
34322.000	2700.00	617.56	1.23	0.03	0.0	80.00	33.30
34323.000	1200.00	614.62	0.0	0.01	0.0	80.00	10.00
34323.000	1800.00	615.95	1.34	0.01	0.0	80.00	10.00
34323.000	2000.00	616.34	0.39	0.01	0.0	80.00	10.00
34323.000	2700.00	617.57	1.23	0.01	0.0	80.00	10.00
34370.000	1200.00	614.69	0.0	0.08	0.0	293.50	105.00
34370.000	1800.00	616.09	1.40	0.14	0.0	300.00	105.00
34370.000	2000.00	616.52	0.42	0.18	0.0	300.00	105.00
34370.000	2700.00	617.84	1.33	0.28	0.0	300.00	105.00
34465.000	1200.00	615.41	0.0	0.71	0.0	428.14	730.00
34465.000	1800.00	616.61	1.21	0.52	0.0	434.61	730.00
34465.000	2000.00	617.00	0.38	0.48	0.0	436.64	730.00
34465.000	2700.00	618.24	1.24	0.39	0.0	442.59	730.00
34515.000	1200.00	615.54	0.0	0.14	0.0	57.17	230.00
34515.000	1800.00	616.68	1.14	0.07	0.0	74.00	230.00
34515.000	2000.00	617.03	0.35	0.04	0.0	74.00	230.00
34515.000	2700.00	618.20	1.16	-0.04	0.0	74.00	230.00
34516.000	1200.00	615.57	0.0	0.02	0.0	57.21	10.00
34516.000	1800.00	616.72	1.15	0.04	0.0	74.00	10.00
34516.000	2000.00	617.07	0.35	0.03	0.0	74.00	10.00
34516.000	2700.00	616.23	1.16	0.03	0.0	74.00	10.00
34517.000	1200.00	615.59	0.0	0.03	0.0	57.28	10.50
34517.000	1800.00	616.75	1.16	0.04	0.0	74.00	10.50
34517.000	2000.00	617.10	0.35	0.04	0.0	74.00	10.50
34517.000	2700.00	618.26	1.16	0.03	0.0	74.00	10.50
34518.000	1200.00	615.62	0.0	0.02	0.0	57.34	10.00
34518.000	1800.00	616.79	1.17	0.04	0.0	74.00	10.00
34518.000	2000.00	617.14	0.35	0.03	0.0	74.00	10.00
34518.000	2700.00	618.29	1.15	0.03	0.0	74.00	10.00
34915.000	1200.00	616.23	0.0	0.61	0.0	58.00	320.00
34915.000	1800.00	617.53	1.30	0.74	0.0	58.00	320.00
34915.000	2000.00	617.88	0.35	0.74	0.0	58.00	320.00
34915.000	2700.00	619.01	1.13	0.72	0.0	58.00	320.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
34916.000	1200.00	616.24	0.0	0.01	0.0	53.00	10.00
34916.000	1300.00	617.55	1.30	0.02	0.0	58.00	10.00
34916.000	2000.00	617.90	0.35	0.02	0.0	53.00	10.00
34916.000	2700.00	619.03	1.14	0.02	0.0	58.00	10.00
34917.000	1200.00	616.29	0.0	0.04	0.0	58.00	36.00
34917.000	1800.00	617.60	1.31	0.05	0.0	58.00	36.00
34917.000	2000.00	617.95	0.35	0.06	0.0	58.00	36.00
34917.000	2700.00	619.10	1.15	0.07	0.0	58.00	36.00
34918.000	1200.00	616.30	0.0	0.01	0.0	58.00	10.00
34918.000	1800.00	617.61	1.31	0.01	0.0	58.00	10.00
34918.000	2000.00	617.97	0.35	0.02	0.0	56.00	10.00
34918.000	2700.00	619.12	1.15	0.02	0.0	58.00	10.00
34965.000	1200.00	616.28	0.0	-0.02	0.0	211.32	105.00
34965.000	1300.00	617.71	1.43	0.10	0.0	243.51	105.00
34965.000	2000.00	618.10	0.39	0.13	0.0	251.02	105.00
34965.000	2700.00	619.43	1.33	0.31	0.0	264.34	105.00
36650.000	1200.00	617.82	0.0	1.54	0.0	300.30	1480.00
36650.000	1300.00	619.03	1.21	1.32	0.0	303.49	1480.00
36650.000	2000.00	619.33	0.35	1.20	0.0	310.84	1480.00
36650.000	2700.00	620.56	1.18	1.13	0.0	320.93	1430.00
36715.000	1200.00	617.35	0.0	0.04	0.0	57.30	300.00
36715.000	1800.00	619.04	1.13	0.01	0.0	57.30	300.00
36715.000	2000.00	619.38	0.34	-0.01	0.0	57.30	300.00
36715.000	2700.00	620.51	1.13	-0.06	0.0	57.30	300.00
36716.000	1200.00	617.87	0.0	0.01	0.0	57.30	10.00
36716.000	1800.00	619.05	1.18	0.01	0.0	57.30	10.00
36716.000	2000.00	619.39	0.34	0.01	0.0	57.30	10.00
36716.000	2700.00	620.52	1.13	0.02	0.0	57.30	10.00
36717.000	1200.00	617.90	0.0	0.03	0.0	57.30	31.00
36717.000	1800.00	619.09	1.19	0.04	0.0	57.30	31.00
36717.000	2000.00	619.43	0.34	0.04	0.0	57.30	31.00
36717.000	2700.00	620.57	1.14	0.05	0.0	57.30	31.00
36718.000	1200.00	617.92	0.0	0.01	0.0	57.30	10.00
36718.000	1800.00	619.11	1.19	0.01	0.0	57.30	10.00
36718.000	2000.00	619.45	0.34	0.02	0.0	57.30	10.00
36718.000	2700.00	620.59	1.14	0.02	0.0	57.30	10.00
36765.000	1200.00	618.02	0.0	0.11	0.0	179.59	100.00
36765.000	1800.00	619.33	1.31	0.22	0.0	215.29	100.00
36765.000	2000.00	619.72	0.39	0.27	0.0	227.24	100.00
36765.000	2700.00	621.05	1.33	0.46	0.0	248.14	100.00
37515.000	1200.00	618.65	0.0	0.83	0.0	421.25	770.00
37515.000	1300.00	620.08	1.23	0.75	0.0	441.18	770.00
37515.000	2000.00	620.45	0.37	0.73	0.0	446.36	770.00
37515.000	2700.00	621.59	1.23	0.64	0.0	463.58	770.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
38175.000	1200.00	619.36	0.0	0.51	0.0	361.66	760.00
38175.000	1800.00	620.48	1.12	0.40	0.0	371.22	760.00
38175.000	2000.00	620.83	0.34	0.37	0.0	372.80	760.00
38175.000	2700.00	621.98	1.15	0.29	0.0	378.11	760.00
39175.000	1200.00	620.04	0.0	0.68	0.0	395.28	1250.00
39175.000	1800.00	621.12	1.08	0.64	0.0	402.28	1250.00
39175.000	2000.00	621.45	0.33	0.62	0.0	404.40	1250.00
39175.000	2700.00	622.54	1.09	0.56	0.0	411.49	1250.00
40275.000	1200.00	620.48	0.0	0.44	0.0	385.74	320.00
40275.000	1800.00	621.54	1.06	0.42	0.0	389.55	320.00
40275.000	2000.00	621.86	0.32	0.41	0.0	390.69	320.00
40275.000	2700.00	622.91	1.05	0.37	0.0	394.48	320.00
40325.000	1200.00	620.56	0.0	0.09	0.0	39.07	195.00
40325.000	1800.00	621.52	0.94	-0.02	0.0	39.07	195.00
40325.000	2000.00	621.79	0.27	-0.07	0.0	39.07	195.00
40325.000	2700.00	622.66	0.87	-0.25	0.0	39.07	195.00
40326.000	1200.00	620.60	0.0	0.02	0.0	39.07	10.00
40326.000	1800.00	621.55	0.95	0.03	0.0	39.07	10.00
40326.000	2000.00	621.82	0.27	0.03	0.0	39.07	10.00
40326.000	2700.00	622.63	0.81	-0.03	0.0	39.07	10.00
40327.000	1200.00	620.65	0.0	0.05	0.0	39.07	27.70
40327.000	1800.00	621.64	0.99	0.09	0.0	39.07	27.70
40327.000	2000.00	621.92	0.29	0.10	0.0	39.07	27.70
40327.000	2700.00	622.85	0.93	0.22	0.0	39.07	27.70
40328.000	1200.00	620.57	0.0	0.02	0.0	39.07	10.00
40328.000	1800.00	621.57	0.99	0.03	0.0	39.07	10.00
40328.000	2000.00	621.95	0.29	0.03	0.0	39.07	10.00
40328.000	2700.00	623.37	1.42	0.52	0.0	55.11	10.00
40475.000	1200.00	620.36	0.0	0.19	0.0	29.80	170.00
40475.000	1800.00	621.90	1.04	0.24	0.0	29.80	170.00
40475.000	2000.00	622.21	0.30	0.25	0.0	29.80	170.00
40475.000	2700.00	623.99	1.79	0.62	0.0	99.80	170.00
40476.000	1200.00	620.87	0.0	0.00	0.0	29.80	1.00
40476.000	1800.00	621.91	1.05	0.01	0.0	29.80	1.00
40476.000	2000.00	622.20	0.28	-0.01	0.0	29.80	1.00
40476.000	2700.00	623.26	1.06	-0.73	0.0	29.80	1.00
40477.000	1200.00	621.01	0.0	0.14	0.0	29.80	15.00
40477.000	1800.00	622.17	1.16	0.25	0.0	29.80	15.00
40477.000	2000.00	622.44	0.27	0.24	0.0	29.80	15.00
40477.000	2700.00	626.59	4.16	3.33	0.0	99.80	15.00
40478.000	1200.00	621.02	0.0	0.01	0.0	29.80	1.00
40478.000	1800.00	622.23	1.22	0.07	0.0	29.80	1.00
40478.000	2000.00	622.74	0.51	0.31	0.0	29.80	1.00
40478.000	2700.00	626.69	3.94	0.09	0.0	99.80	1.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	40615.000	1200.00	622.19	0.0	1.17	0.0	290.00	170.00
	40615.000	1800.00	623.96	1.77	1.73	0.0	290.00	170.00
	40615.000	2000.00	624.53	0.61	1.84	0.0	290.00	170.00
	40615.000	2700.00	627.15	2.59	0.48	0.0	290.00	170.00
	41275.000	1200.00	622.21	0.0	0.02	0.0	328.50	610.00
	41275.000	1800.00	623.99	1.78	0.03	0.0	347.06	610.00
	41275.000	2000.00	624.60	0.61	0.02	0.0	353.42	610.00
	41275.000	2700.00	627.18	2.58	0.02	0.0	380.29	610.00
	42875.000	1080.00	622.99	0.0	0.77	0.0	289.49	1500.00
	42875.000	1550.00	624.28	1.30	0.29	0.0	320.40	1500.00
	42875.000	1780.00	624.82	0.55	0.22	0.0	331.02	1500.00
	42875.000	2300.00	627.26	2.44	0.08	0.0	357.79	1500.00
	42925.000	1080.00	623.49	0.0	0.51	0.0	35.33	210.00
	42925.000	1550.00	624.56	1.07	0.28	0.0	36.19	210.00
	42925.000	1780.00	625.02	0.46	0.20	0.0	36.57	210.00
	42925.000	2300.00	627.17	2.15	-0.09	0.0	37.20	210.00
	42926.000	1080.00	623.52	0.0	0.03	0.0	35.35	8.00
	42926.000	1550.00	624.59	1.08	0.03	0.0	36.21	8.00
	42926.000	1780.00	625.05	0.46	0.04	0.0	36.59	8.00
	42926.000	2300.00	627.04	1.98	-0.13	0.0	37.20	8.00
	42927.000	1080.00	623.62	0.0	0.11	0.0	35.44	43.00
	42927.000	1550.00	624.73	1.11	0.14	0.0	36.34	43.00
	42927.000	1780.00	625.21	0.48	0.16	0.0	36.73	43.00
	42927.000	2300.00	627.31	2.10	0.28	0.0	37.20	43.00
	42928.000	1080.00	623.64	0.0	0.02	0.0	35.45	8.00
	42928.000	1550.00	624.75	1.11	0.02	0.0	36.35	8.00
	42928.000	1780.00	625.23	0.48	0.02	0.0	36.74	8.00
	42928.000	2300.00	627.95	2.72	0.64	0.0	37.20	8.00
	42975.000	1080.00	624.38	0.0	0.74	0.0	392.25	130.00
	42975.000	1550.00	625.75	1.37	0.99	0.0	396.56	130.00
	42975.000	1780.00	626.35	0.60	1.12	0.0	398.46	130.00
	42975.000	2300.00	626.05	2.52	0.91	0.0	406.41	130.00
*	44775.000	1080.00	625.47	0.0	1.09	0.0	242.04	1875.00
	44775.000	1550.00	626.35	0.88	0.51	0.0	373.40	1875.00
	44775.000	1780.00	626.88	0.53	0.53	0.0	376.21	1875.00
	44775.000	2300.00	629.07	2.19	0.20	0.0	387.90	1875.00

SUMMARY OF ERRORS

CAUTION SECNO 44775.000 PROFILE 1 CRITICAL DEPTH ASSUMED

FLOODWAY DATA, DEER CREEK
PROFILE NO. 2

STATION	------- FLOODWAY ------- WIDTH FT	SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
30340.000	191.	608.	3.0	613.3	612.3	1.0
30541.000	60.	304.	5.9	613.5	612.6	0.9
30542.000	61.	293.	6.2	613.5	612.6	0.9
30543.000	62.	311.	5.3	613.8	612.8	1.0
30544.000	63.	329.	5.5	614.1	613.0	1.1
30545.000	65.	343.	5.3	614.4	613.2	1.2
30546.000	65.	357.	4.9	614.5	613.3	1.2
30590.000	220.	952.	1.9	614.9	613.6	1.3
31250.000	301.	1802.	1.0	615.1	613.8	1.3
32450.000	277.	1415.	1.3	615.3	614.0	1.3
34030.000	204.	1224.	1.5	615.7	614.4	1.3
34320.000	84.	516.	3.5	615.9	614.6	1.3
34321.000	84.	517.	3.5	615.9	614.6	1.3
34322.000	84.	520.	3.5	615.9	614.6	1.3
34323.000	84.	520.	3.5	615.9	614.6	1.3
34370.000	300.	1054.	1.7	616.1	614.7	1.4
34465.000	435.	1473.	1.2	616.6	615.4	1.2
34515.000	74.	319.	5.6	616.6	615.5	1.1
34516.000	74.	322.	5.6	616.8	615.6	1.2
34517.000	74.	324.	5.6	616.8	615.6	1.2
34518.000	74.	326.	5.5	616.8	615.6	1.2
34915.000	60.	397.	4.7	617.5	616.2	1.3
34916.000	60.	388.	4.6	617.5	616.2	1.3
34917.000	60.	390.	4.5	617.6	616.3	1.3
34918.000	60.	391.	4.6	617.6	616.3	1.3
34965.000	244.	638.	2.6	617.7	616.3	1.4
36650.000	308.	1557.	1.2	619.0	617.8	1.2
36715.000	57.	392.	4.6	619.1	617.9	1.2
36716.000	57.	393.	4.6	619.1	617.9	1.2
36717.000	57.	395.	4.6	619.1	617.9	1.2
36718.000	57.	396.	4.5	619.1	617.9	1.2
36765.000	216.	777.	2.3	619.3	618.0	1.3
37515.000	441.	1330.	1.4	620.1	618.9	1.2
38175.000	371.	1230.	1.5	620.5	619.4	1.1
39175.000	402.	1246.	1.4	621.1	620.0	1.1
40275.000	390.	1128.	1.6	621.6	620.5	1.1
40325.000	39.	257.	7.0	621.5	620.6	0.9
40326.000	39.	258.	7.0	621.6	620.6	1.0
40327.000	39.	262.	6.9	621.7	620.7	1.0
40328.000	39.	263.	6.9	621.7	620.7	1.0
40475.000	100.	185.	9.7	621.9	620.9	1.0
40476.000	100.	185.	9.7	621.9	620.9	1.0
40477.000	100.	192.	9.4	622.2	621.0	1.2
40478.000	100.	195.	9.2	622.2	621.0	1.2
40615.000	290.	1662.	1.1	624.0	622.2	1.8
41275.000	347.	1251.	1.4	624.0	622.2	1.8
42875.000	320.	1071.	1.4	624.3	623.0	1.3
42925.000	36.	220.	7.0	624.6	623.5	1.1
42926.000	36.	221.	7.0	624.6	623.5	1.1
42927.000	36.	227.	6.8	624.7	623.6	1.1

FLOODWAY DATA, DEER CREEK
PROFILE NO. 2

STATION	FLOODWAY WIDTH FT	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	WATER SURFACE ELEVATION DIFFERENCE
42928.000	35.	227.	6.0	624.7	623.6	1.1
42975.000	397.	1710.	0.9	625.8	624.4	1.4
44775.000	373.	541.	2.9	626.4	625.5	0.9

FLOODWAY DATA, DEER CREEK
PROFILE NO. 3

STATION	------- FLOODWAY ------- WIDTH FT	SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
30340.000	193.	658.	3.0	613.5	612.3	1.2
30541.000	61.	318.	6.3	613.7	612.6	1.1
30542.000	62.	306.	6.5	613.7	612.6	1.1
30543.000	63.	327.	6.1	614.1	612.8	1.3
30544.000	65.	347.	5.8	614.4	613.0	1.4
30545.000	66.	353.	5.5	614.7	613.2	1.5
30546.000	67.	369.	5.1	614.9	613.3	1.6
30590.000	220.	1047.	1.9	615.3	613.6	1.7
31250.000	302.	1918.	1.0	615.5	613.8	1.7
32450.000	279.	1522.	1.3	615.7	614.0	1.7
34030.000	203.	1303.	1.5	616.1	614.4	1.7
34320.000	84.	547.	3.7	616.3	614.6	1.7
34321.000	84.	548.	3.7	616.3	614.6	1.7
34322.000	84.	551.	3.6	616.3	614.6	1.7
34323.000	84.	551.	3.6	616.3	614.6	1.7
34370.000	300.	1181.	1.7	616.5	614.7	1.8
34465.000	437.	1639.	1.2	617.0	615.4	1.6
34515.000	74.	345.	5.8	617.0	615.5	1.5
34516.000	74.	347.	5.8	617.1	615.6	1.5
34517.000	74.	350.	5.7	617.1	615.6	1.5
34518.000	74.	352.	5.7	617.1	615.6	1.5
34915.000	60.	407.	4.9	617.8	616.2	1.6
34916.000	60.	408.	4.9	617.9	616.2	1.7
34917.000	60.	411.	4.9	618.0	616.3	1.7
34918.000	60.	412.	4.9	618.0	616.3	1.7
34965.000	251.	735.	2.5	618.1	616.3	1.8
36650.000	311.	1665.	1.2	619.4	617.8	1.6
36715.000	57.	412.	4.9	619.4	617.9	1.5
36716.000	57.	412.	4.9	619.4	617.9	1.5
36717.000	57.	414.	4.8	619.4	617.9	1.5
36718.000	57.	415.	4.8	619.4	617.9	1.5
36765.000	227.	804.	2.3	619.7	618.0	1.7
37515.000	446.	1494.	1.3	620.5	618.9	1.6
38175.000	373.	1357.	1.5	620.9	619.4	1.5
39175.000	404.	1377.	1.5	621.4	620.0	1.4
40275.000	391.	1252.	1.6	621.9	620.5	1.4
40325.000	39.	268.	7.5	621.8	620.6	1.2
40326.000	39.	269.	7.4	621.8	620.6	1.2
40327.000	39.	273.	7.3	622.0	620.7	1.3
40328.000	39.	274.	7.3	622.0	620.7	1.3
40475.000	100.	194.	10.3	622.2	620.9	1.3
40476.000	100.	192.	10.4	622.2	620.9	1.3
40477.000	100.	195.	10.3	622.4	621.0	1.4
40478.000	100.	210.	9.5	622.7	621.0	1.7
40615.000	290.	1841.	1.1	624.6	622.2	2.4
41275.000	353.	1465.	1.4	624.6	622.2	2.4
42875.000	331.	1249.	1.4	624.8	623.0	1.8
42925.000	37.	237.	7.5	625.0	623.5	1.5
42926.000	37.	238.	7.5	625.0	623.5	1.5
42927.000	37.	244.	7.3	625.2	623.6	1.6

FLOODWAY DATA, DEER CREEK
PROFILE NO. 3

	------- FLOODWAY -------			WATER SURFACE ELEVATION		
STATION	WIDTH FT	SECTION AREA	MEAN VELOCITY	WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
42928.000	37.	244.	7.3	625.2	623.6	1.6
42975.000	398.	1950.	0.9	626.4	624.4	2.0
44775.000	376.	737.	2.4	626.9	625.5	1.4

FLOODWAY DATA, DEER CREEK
PROFILE NO. 4

STATION	FLOODWAY WIDTH FT	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	WATER SURFACE ELEVATION DIFFERENCE
30340.000	220.	831.	3.2	614.4	612.3	2.1
30541.000	65.	363.	7.4	614.5	612.6	1.9
30542.000	65.	347.	7.8	614.5	612.6	1.9
30543.000	67.	381.	7.1	615.0	612.8	2.2
30544.000	69.	409.	5.6	615.4	613.0	2.4
30545.000	71.	431.	6.3	615.8	613.2	2.6
30546.000	72.	465.	5.8	616.0	613.3	2.7
30590.000	220.	1316.	2.1	616.6	613.6	3.0
31250.000	306.	2292.	1.2	616.8	613.8	3.0
32450.000	289.	1571.	1.4	617.0	614.0	3.0
34030.000	216.	1562.	1.7	617.3	614.4	2.9
34320.000	84.	645.	4.2	617.5	614.6	2.9
34321.000	84.	646.	4.2	617.5	614.6	2.9
34322.000	84.	649.	4.2	617.5	614.6	2.9
34323.000	84.	649.	4.2	617.6	614.6	3.0
34370.000	300.	1579.	1.7	617.9	614.7	3.2
34465.000	443.	2126.	1.2	618.2	615.4	2.8
34515.000	74.	431.	6.3	618.2	615.5	2.7
34516.000	74.	433.	6.2	618.3	615.6	2.7
34517.000	74.	435.	6.2	618.3	615.6	2.7
34518.000	74.	433.	6.2	618.3	615.6	2.7
34915.000	60.	473.	5.7	619.0	616.2	2.8
34916.000	60.	474.	5.7	619.0	616.2	2.8
34917.000	60.	477.	5.7	619.1	616.3	2.8
34918.000	60.	478.	5.6	619.1	616.3	2.8
34965.000	264.	1128.	2.4	619.5	616.3	3.2
36650.000	321.	2037.	1.3	620.5	617.8	2.7
36715.000	57.	476.	5.7	620.5	617.9	2.6
36716.000	57.	477.	5.7	620.5	617.9	2.6
36717.000	57.	480.	5.6	620.6	617.9	2.7
36718.000	57.	481.	5.6	620.6	617.9	2.7
36765.000	243.	1102.	2.3	621.0	618.0	3.0
37515.000	464.	2053.	1.3	621.7	618.9	2.8
38175.000	378.	1790.	1.5	622.0	619.4	2.6
39175.000	411.	1822.	1.5	622.5	620.0	2.5
40275.000	394.	1665.	1.6	622.9	620.5	2.4
40325.000	39.	302.	8.9	622.7	620.6	2.1
40326.000	39.	284.	9.5	622.6	620.6	2.0
40327.000	39.	284.	9.5	622.9	620.7	2.2
40328.000	93.	334.	8.1	623.4	620.7	2.7
40475.000	100.	282.	9.6	624.0	620.9	3.1
40476.000	100.	197.	13.7	623.3	620.9	2.4
40477.000	100.	505.	5.3	626.6	621.0	5.6
40478.000	100.	550.	4.9	626.7	621.0	5.7
40615.000	290.	2591.	1.0	627.2	622.2	5.0
41275.000	380.	2411.	1.1	627.2	622.2	5.0
42875.000	358.	2102.	1.1	627.3	623.0	4.3
42925.000	37.	317.	7.3	627.2	623.5	3.7
42926.000	37.	266.	3.7	627.0	623.5	3.5
42927.000	37.	266.	8.7	627.3	623.6	3.7

FLOODWAY DATA, DEER CREEK
PROFILE NO. 4

STATION	FLOODWAY WIDTH FT	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
42928.000	37.	346.	6.6	627.9	623.6	4.3
42975.000	405.	2963.	0.8	628.9	624.4	4.5
44775.000	388.	1573.	1.5	629.1	625.5	3.6

1) COUNTY: OTTAWA

2) STUDY NAME: CITY OF COOPERSVILLE

3) WATERCOURSE: DEER CREEK

4) DOCUMENT TYPE: REPORT

FLOOD INSURANCE STUDY

HYDRAULIC ANALYSIS OF DEER CREEK

THROUGH THE CITY OF COOPERSVILLE, MICHIGAN

Gove Associates Inc.
ARCHITECTS/ENGINEERS/PLANNERS/SURVEYORS

1601 PORTAGE STREET
KALAMAZOO, MICHIGAN 49001
(616) 385-0011

October 20, 1980

Mr. Daniel H. Morgan, P.E.
Flood Insurance Unit
Flood Plain Management Section
Water Management Division
Michigan Department of Natural Resources
P. O. Box 30028
Lansing, Michigan 48909

Re: City of Coopersville Flood Insurance Study

Dear Mr. Morgan:

Enclosed for your review is our Hydraulic Analysis of Deer Creek through the City of Coopersville, Michigan.

The following information is included:

1. HEC-2 run for 100-year flood
2. Summary tables for 10-, 50-, 100- and 500-year floods
3. IPLOT for 100-year
4. Topographic map
5. Hydraulic Analysis Report

If you have any questions on this information, please call me.

Very truly yours,

GOVE ASSOCIATES INC.

William J. McDonough

William J. McDonough, P.E.
Associate

WJM/tk

Enclosure: as listed above

HYDRAULIC ANALYSIS

1. INTRODUCTION

The stream being studied is the Deer Creek in the City of Coopersville, Michigan. The drainage area at the south town boundary is 20.5 square miles. A summary of flows which have been approved by the Michigan Department of Natural Resources is presented below:

Location	Drainage Area (Mi^2)	Peak Flows (cfs) 10-year	50-year	100-year	500-year
South Town Boundary	20.5	1200	1800	2000	2700
U/S Unnamed Tributary	18.7	1080	1550	1780	2300

The project managers for the Flood Insurance Studies are William McDonough and Duane Ellis.

2. METHOD OF ANALYSIS

Water surface profiles for 10-, 50-, 100-, and 500-year floods were computed through the HEC-2 computer program, developed by Hydrologic Engineering Center, U. S. Army Corps of Engineers (Ref. 1).

2.1 Cross Sections

Cross sections were obtained from the ground field survey which was made in April of 1979. The driveway bridge upstream of the Centre Street Bridge, and the Cleveland Street Bridge, which had been rebuilt after the first survey, were measured in August of 1980. The locations of the cross sections including eight (8) bridges are shown in Table 1.

2.2 Roughness Coefficients

The roughness coefficients were determined from field descriptions which were made in August of 1980. Through comparison with the materials and photographs shown in page 101 to page 123 in Chow's Open Channel Hydraulics (Ref. 2), the roughness coefficients were obtained. The roughness coefficients for channel and flood-plain were determined in the range of 0.03 to 0.05 and 0.03 to 0.15, respectively.

2.3 Starting Point and Starting Elevation

The starting point for this study is the westbound I-96 Bridge. A convergence test has been conducted to determine the starting elevation. It is found that the convergence takes place at 150 feet upstream of westbound I-96 as shown in Figure 1. Therefore, the critical depths were used as the starting elevations.

OH why is is 615 run .7 ft high 3000 ft up stream as shown on Fig 1?

'No

The profile shows a 3 ft drawdown as a result of this start appears low if we are going to consider this an the contradict at least start at the d/s end of I-96 crossing! This would produce an additional loss between 1 and 1.7 ft

2.4 Floodway Delineation

Deer Creek has a well-defined floodplain in the study limits. The floodway was delineated to fulfill the 0.1 foot criteria.

Reference

1. HEC-2 Water Surface Profiles, Users Manual, Hydrogeological Engineering Center, Corps of Engineers, U. S. Army, August 1979.

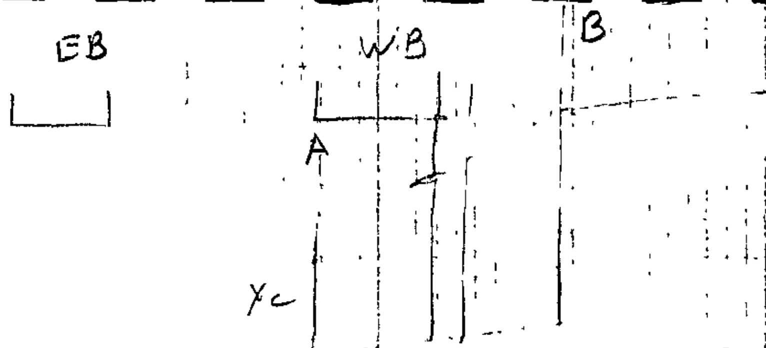
2. Open-Channel Hydraulics, Ven Te Chow, McGraw-Hill, 1959.

TABLE 1

LOCATIONS OF CROSS SECTIONS

SECTION	SECNO	LOCATION
A	30540 30541 30542	Westbound I-96 Bridge, LC= 635.6, TR = 639.1 Normal Bridge Routine Starting Elevations are critical depths
B	30590	100' U/S from I-96
C	31250	520' U/S from B
D	32450	1020' U/S from C
E	34030	1495' U/S from D
F	34320 34321 34322 34323	Randall St. Bridge, LC = 619.5, TR = 621.4 Normal Bridge Routine
G	34370	105' U/S from U/S face of Randall St. Bridge
H	34465	680' U/S from G
I	34515 34516 34517 34518	Grand Western R.R. Bridge, LC = 629.4, TR = 638.8 Normal Bridge Routine
J	34915 34916 34917 34918	Main St. Bridge, LC = 620.9, TR = 624.9 Normal Bridge Routine
K	34965	105' U/S from U/S face of Main St. Bridge
L	36650	1440' U/S from K
M	36715 36716 36717 36718	Grove St. Bridge, LC = 629.9, TR = 624.9 Normal Bridge Routine
N	36765	100' U/S from U/S face of Grove St. Bridge
O	37515	750' U/S from N
P	38175	730' U/S from O

SECTION	SECNO	LOCATION
Q	39175	1160' U/S from P
R	40275	720' U/S from Q
S	40325 40326 40327 40328	Centre St. Bridge, LC = 622.2, TR = 625.1 Skew factor = 0.74 Normal Bridge Routine
T	40475 40476 40477 40478	Driveway Bridge, LC = 622.1, TR = 623.5 Multiple openings Normal Bridge Routine
U	40615	130' U/S from U/S face of Driveway Manufactured
V	41275	610' U/S from U
W	42875	1315' U/S from V
X	42925 42926 42927 42928	Cleveland St. Bridge, LC = 625.8, TR = 627.5 New Bridge Normal Bridge Routine
Y	42975	130' U/S from U/S face of Cleveland St. Bridge
Z	44775	1760' U/S from Y



Deer Creek - Coopersville 091980

Top of road 1/2 mile d/s is about ~~elev~~ 609

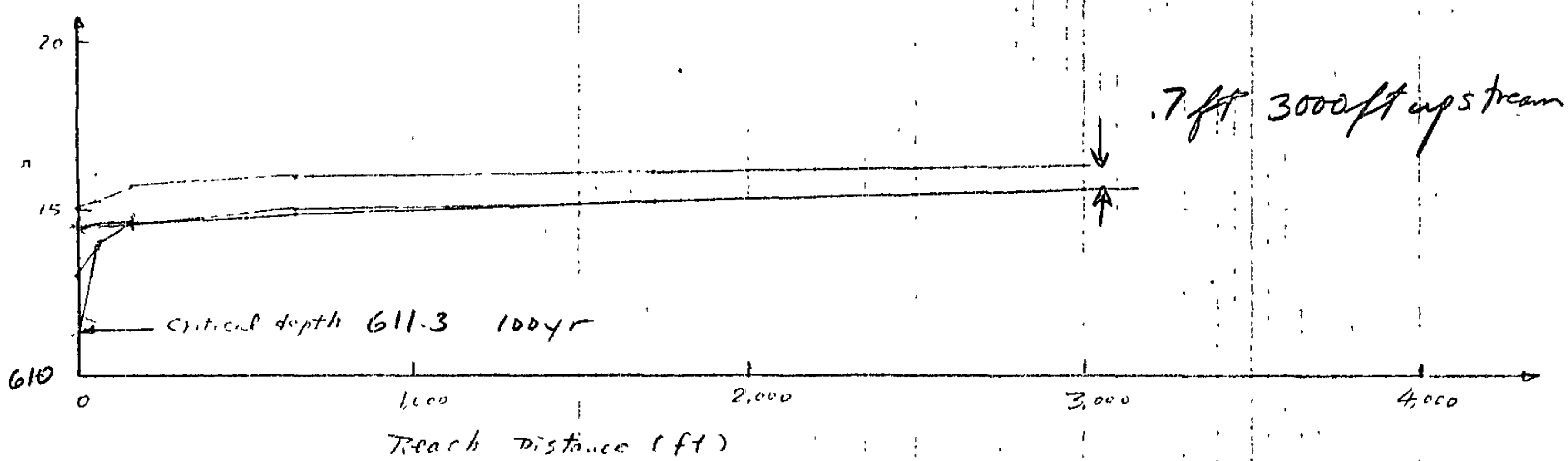


Fig 1 Convergence Test
100yr

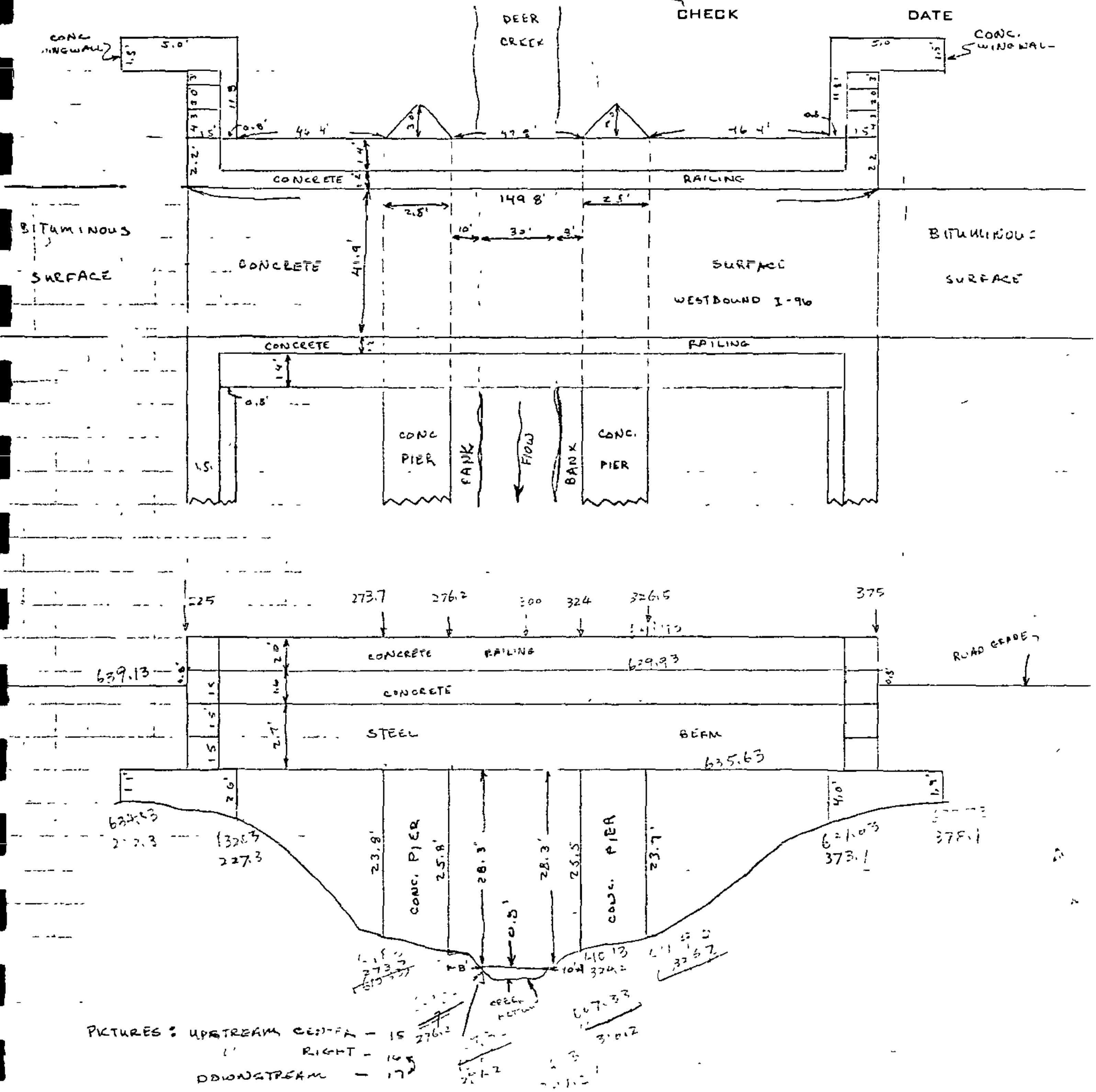
A

BRIDGE DATA

SUBJECT Bridge Section @ STA 305 + 40 PROJ. No. 8550 SH. No.

WESTBOUND LANE I-96 DESIGN J.V.&L.E. DATE 4-18-79

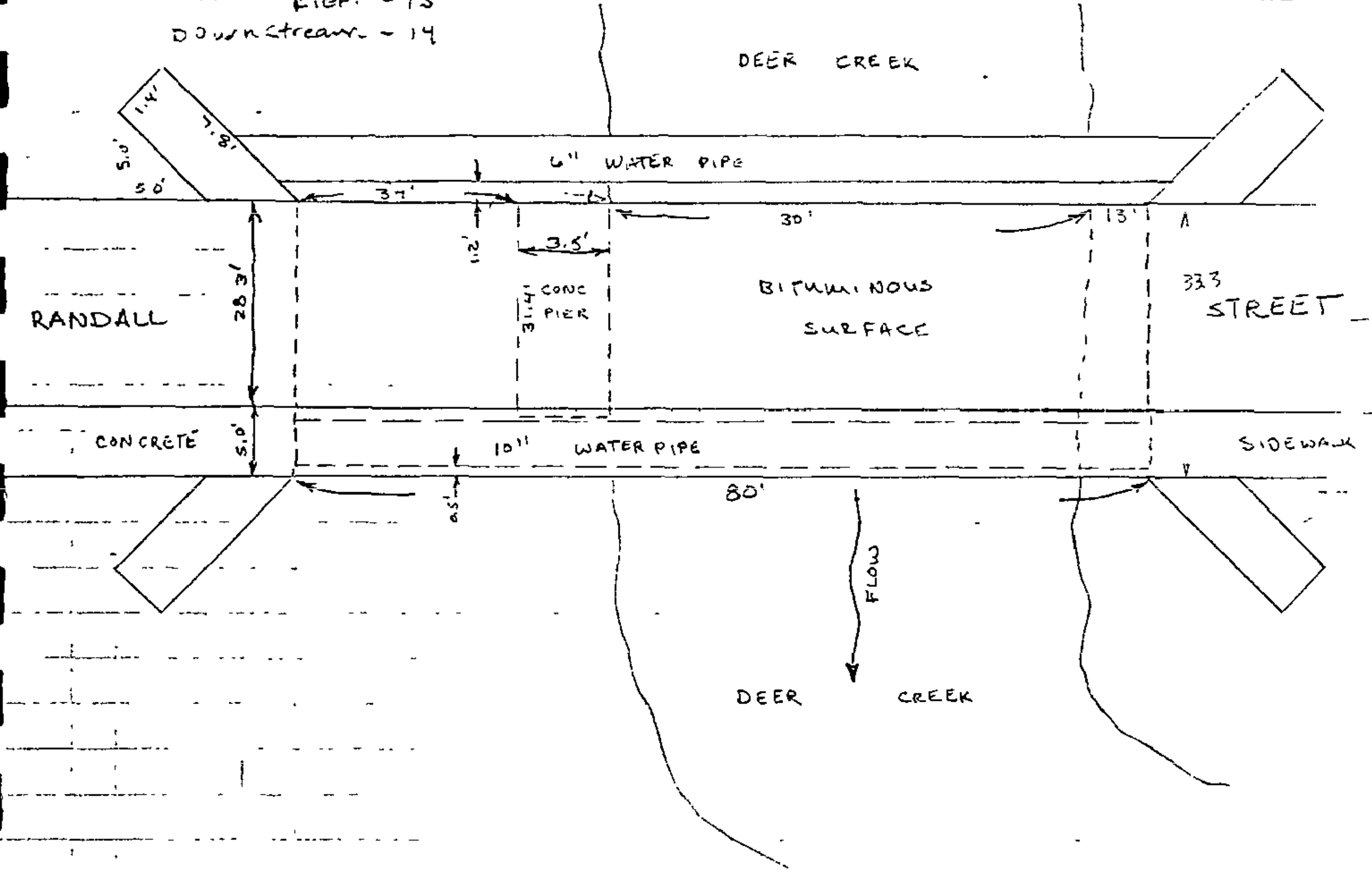
CHECK DATE

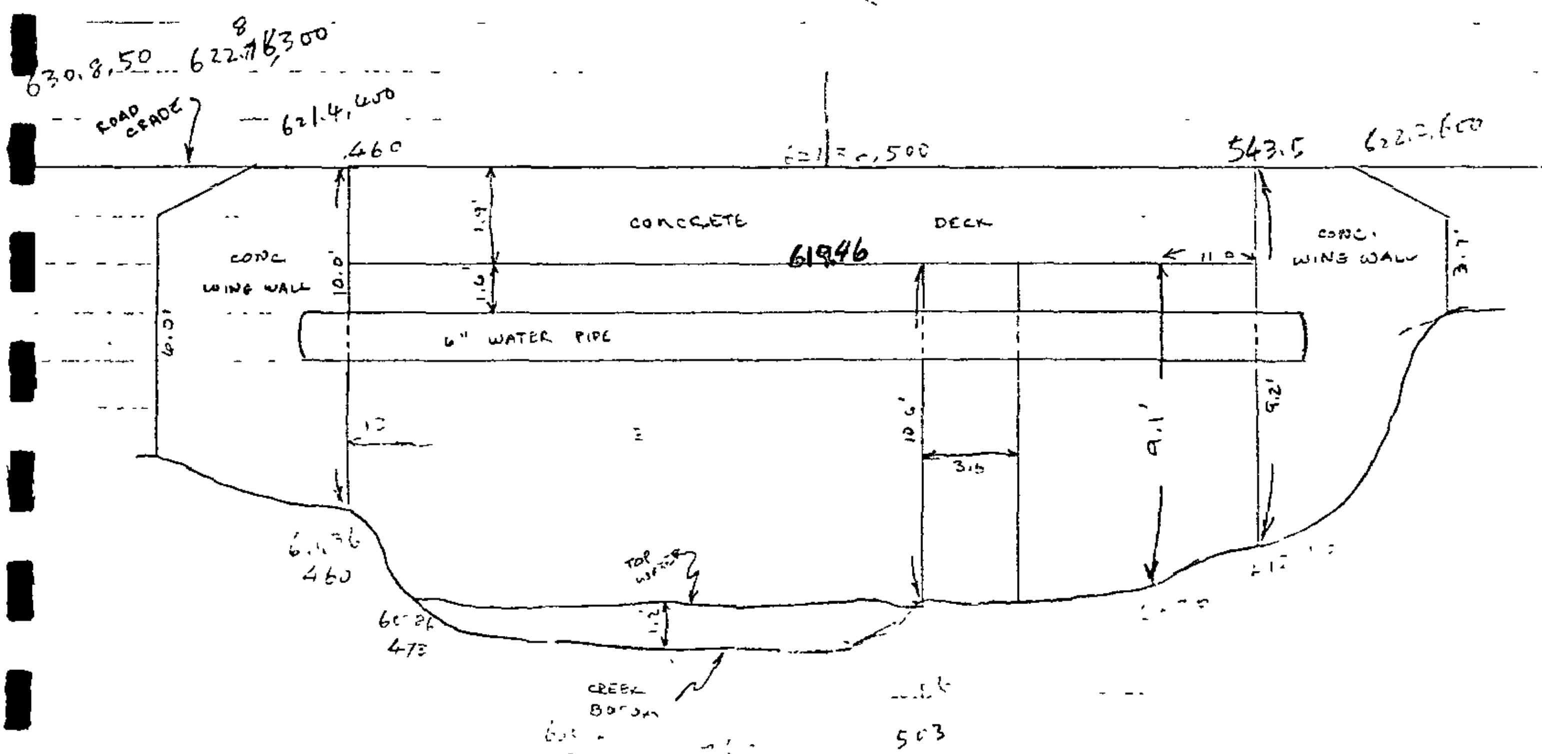


PICTURES: UPSTREAM CENTER - 15
" RIGHT - 16
DOWNSTREAM - 17

SUBJECT BRIDGE SECTION @ STA 343+20	PROJ. NO. 8550	SH. NO.
Randall St Bridge	DESIGN J.V. & D.E.	DATE 4-18-79
	CHECK	DATE

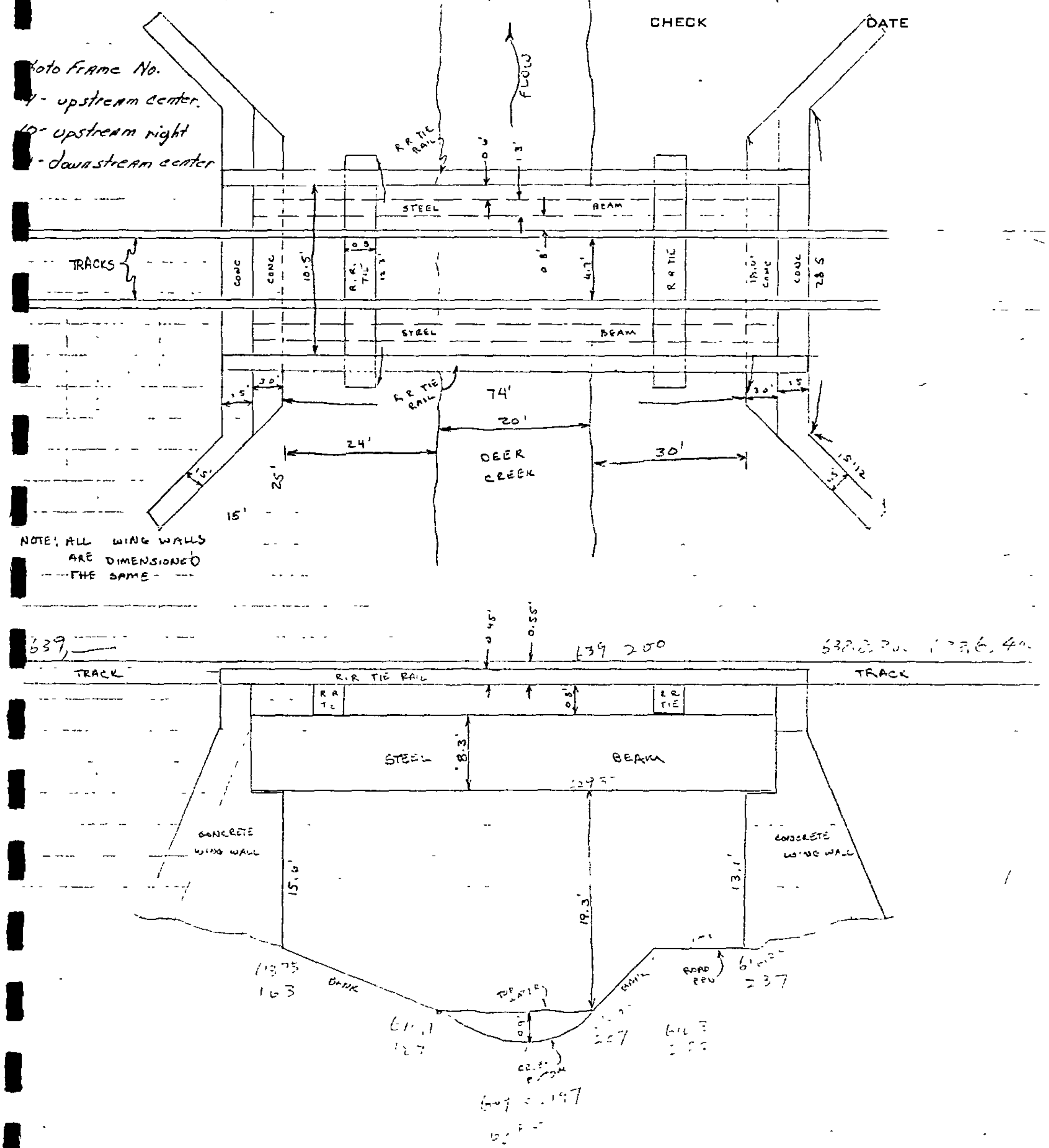
Pictures: upstream ~~right~~ center - 12
" right - 13
downstream - 14





SUBJECT BRIDGE SECTION @ STA 345+15
Grand Western R.R Bridge

PROJ. NO. 8550 SH. NO.
DESIGN J. & D.E. DATE 4-19-79
CHECK DATE



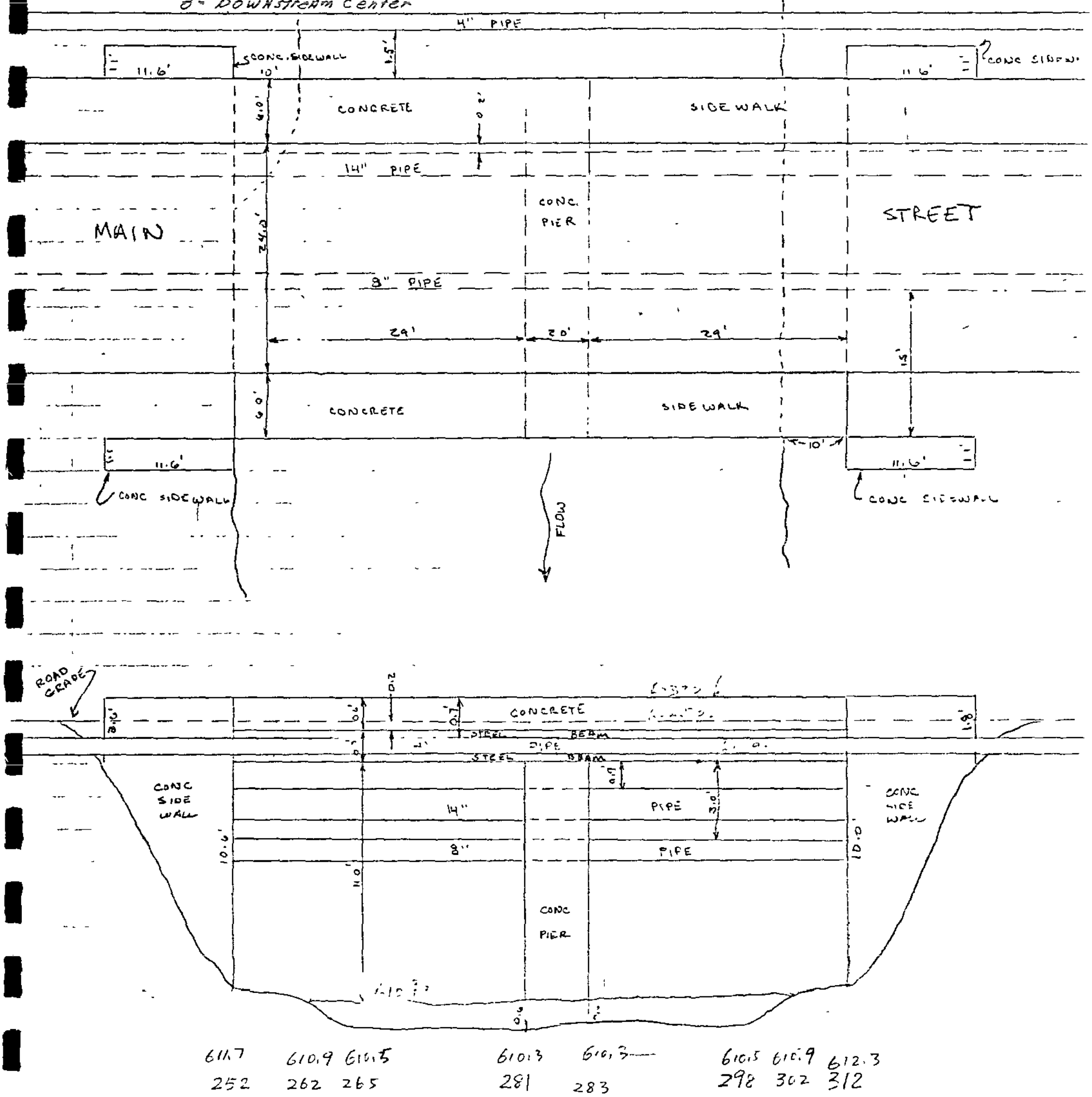
SUBJECT BRIDGE SECTION @ STA 349+15
Main St. Bridge

PROJ. No. 8550
DESIGN J V. & D E.
CHECK

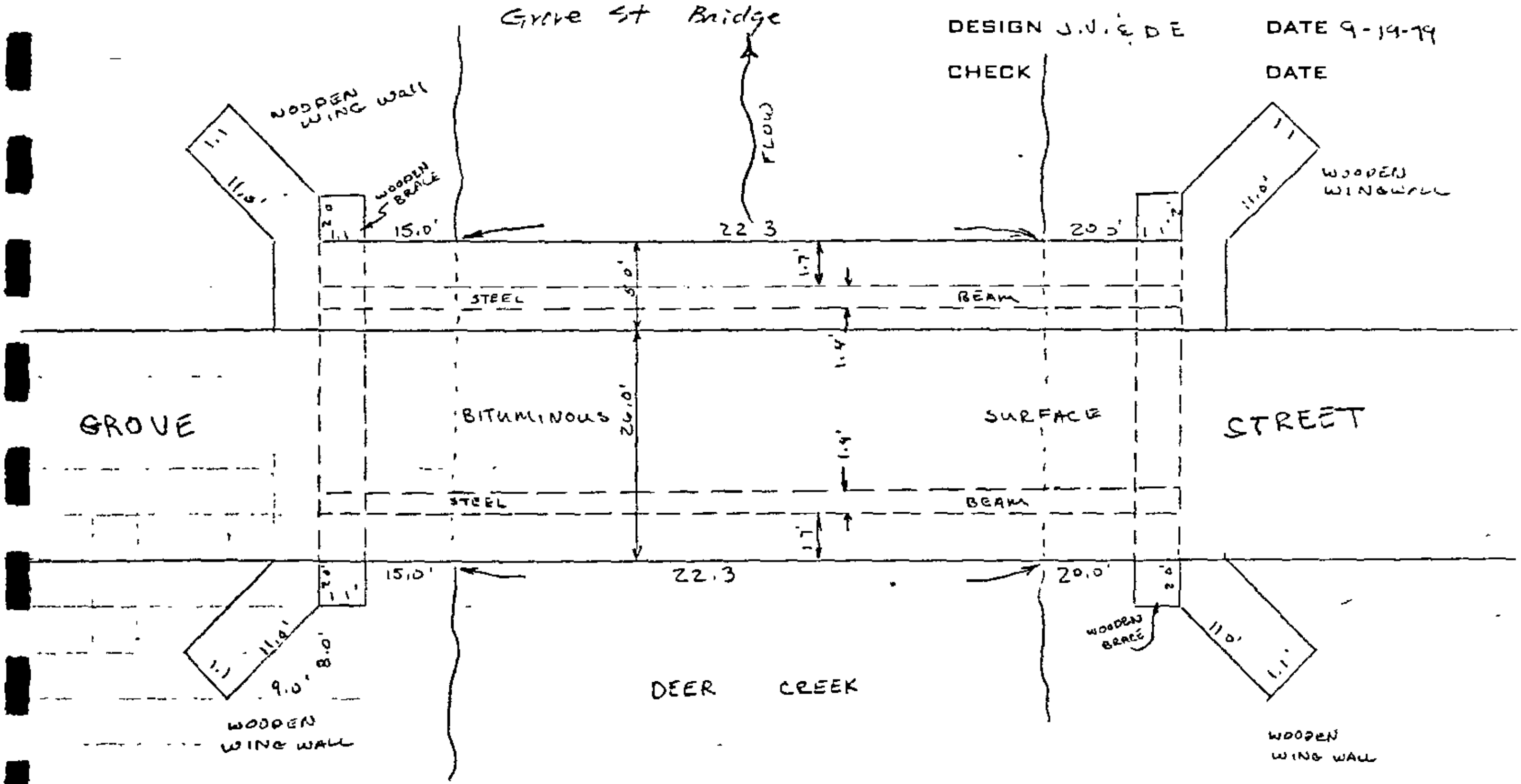
SH. No.
DATE 4-19-79
DATE

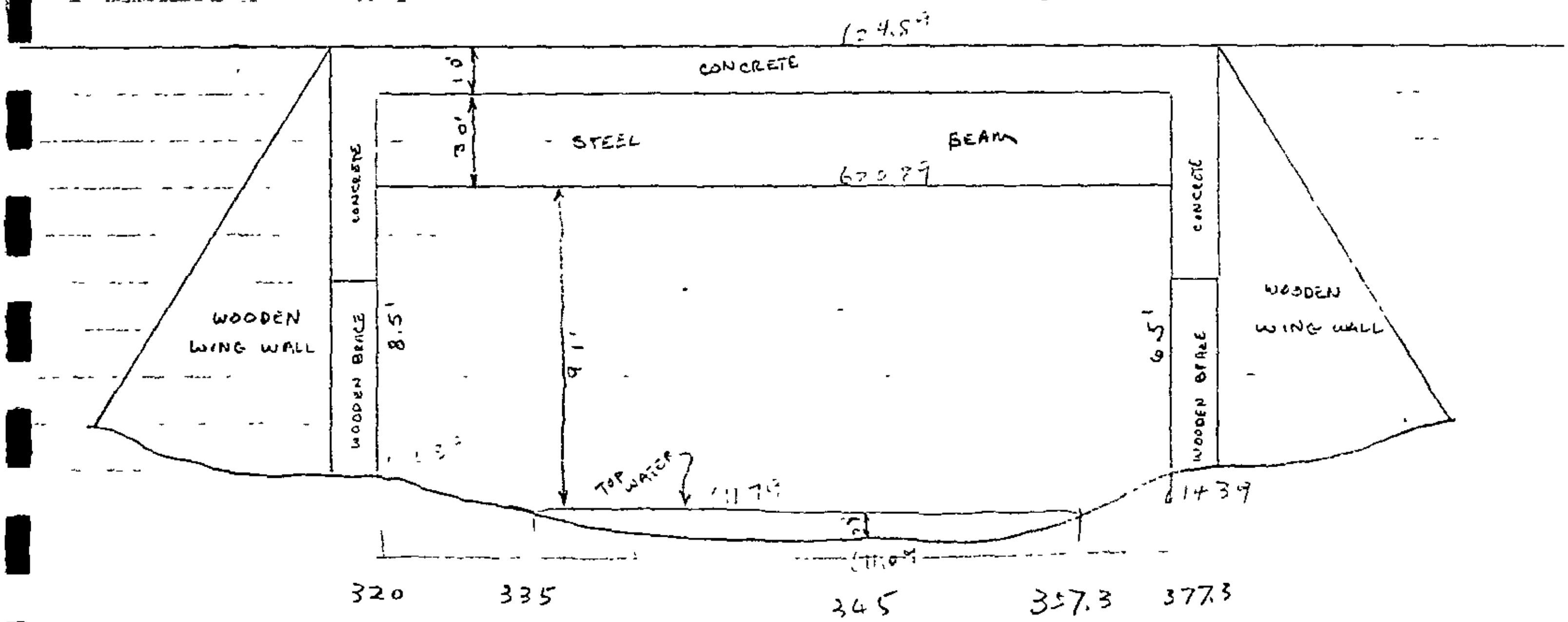
Photo Frames Nos.
6 - up stream center
7 - up stream right
8 - downstream center

DEER CREEK



SUBJECT BRIDGE SECTION @ STA 367+15 Grove St Bridge | PROJ. No. 8550 | SH. No.
DESIGN J.V. & D.E. | DATE 9-19-79
CHECK | DATE





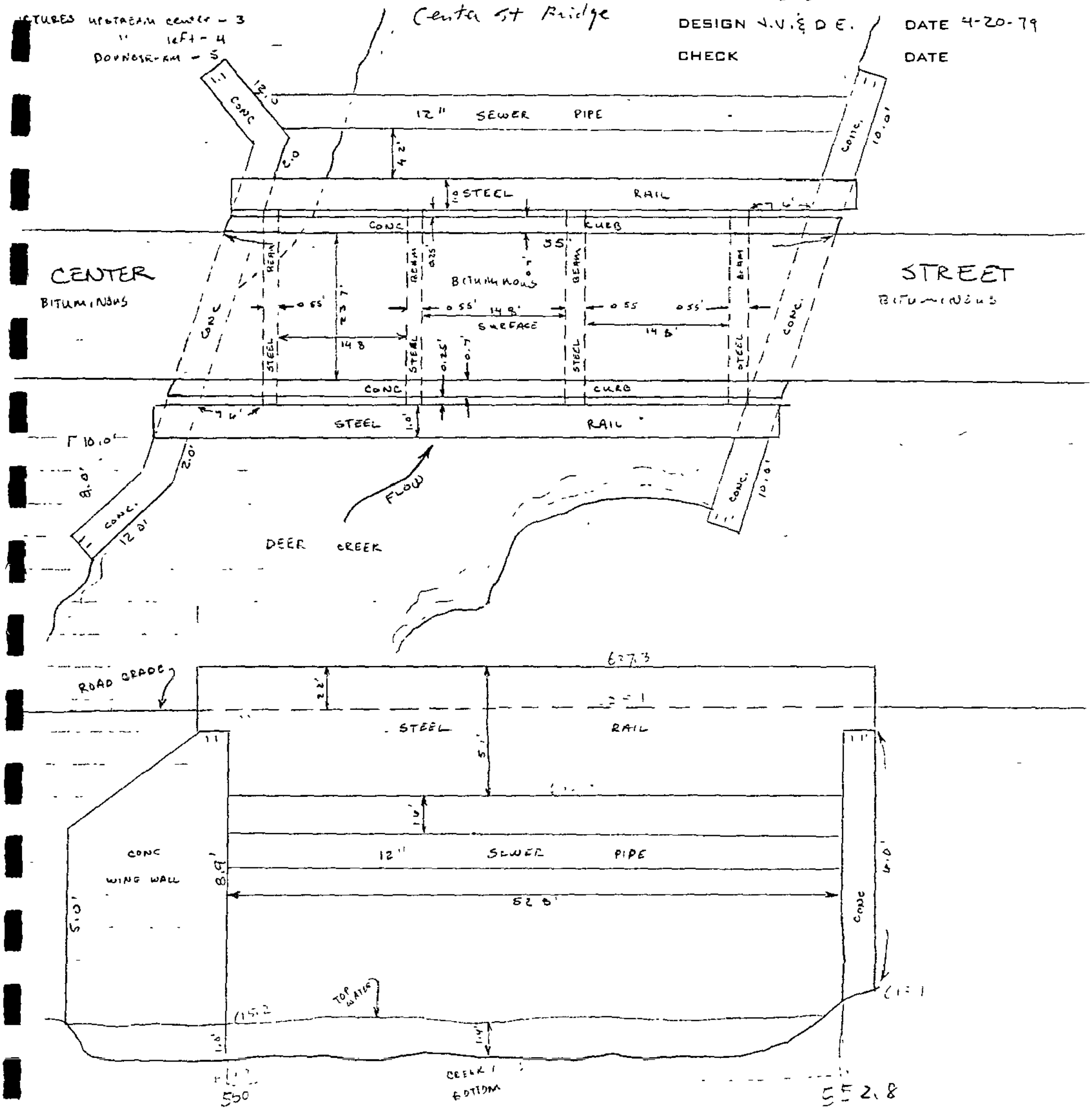
UPSTREAM CENTER - 18
" RIGHT - 19
DOWNSTREAM - 20

SUBJECT BRIDGE SECTION ⑨ STA 403 + 25 Center St Bridge

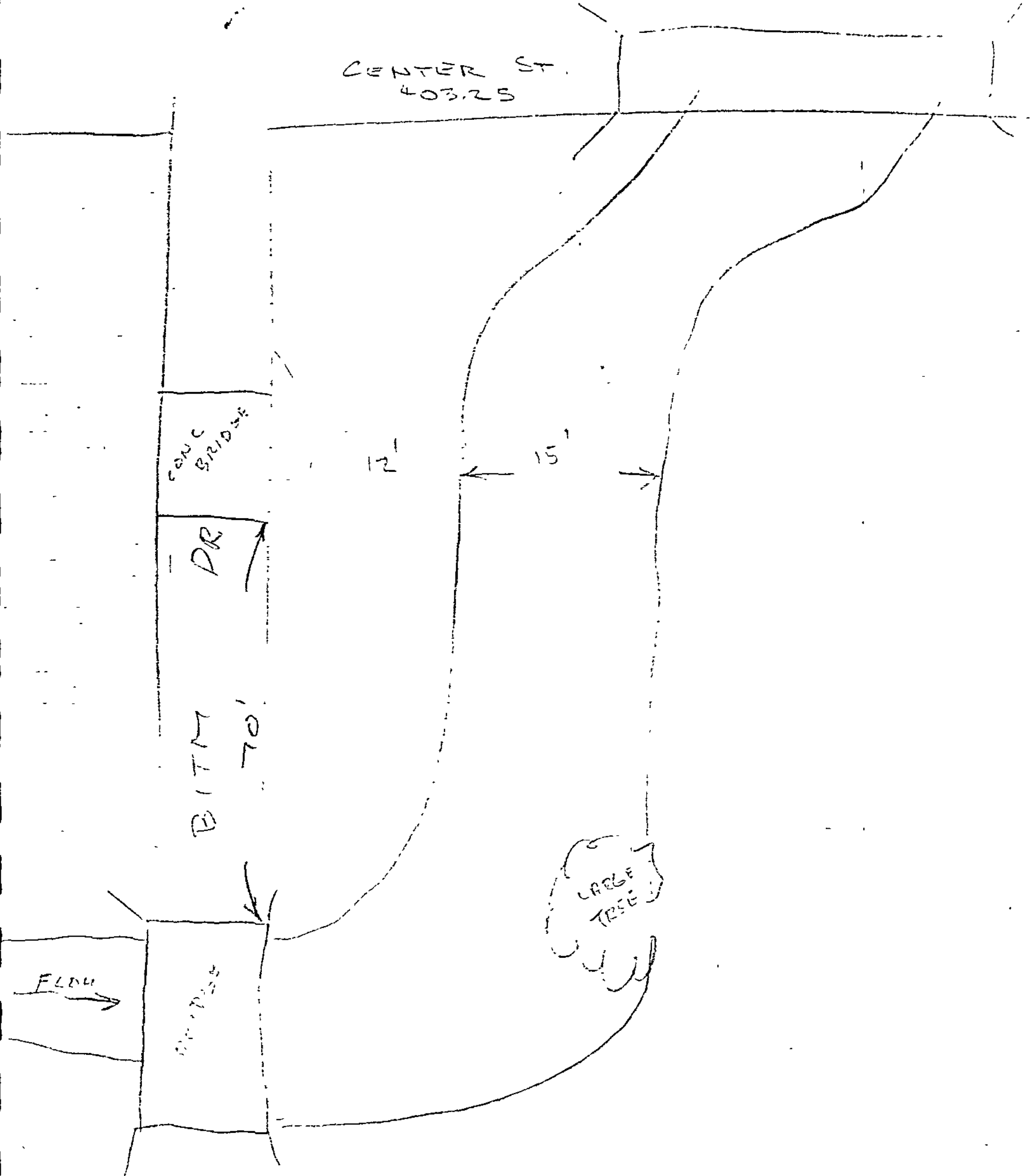
PROJ. No. 3550 SH. No.

DESIGN V.V. & D E. DATE 4-20-79

CHECK DATE

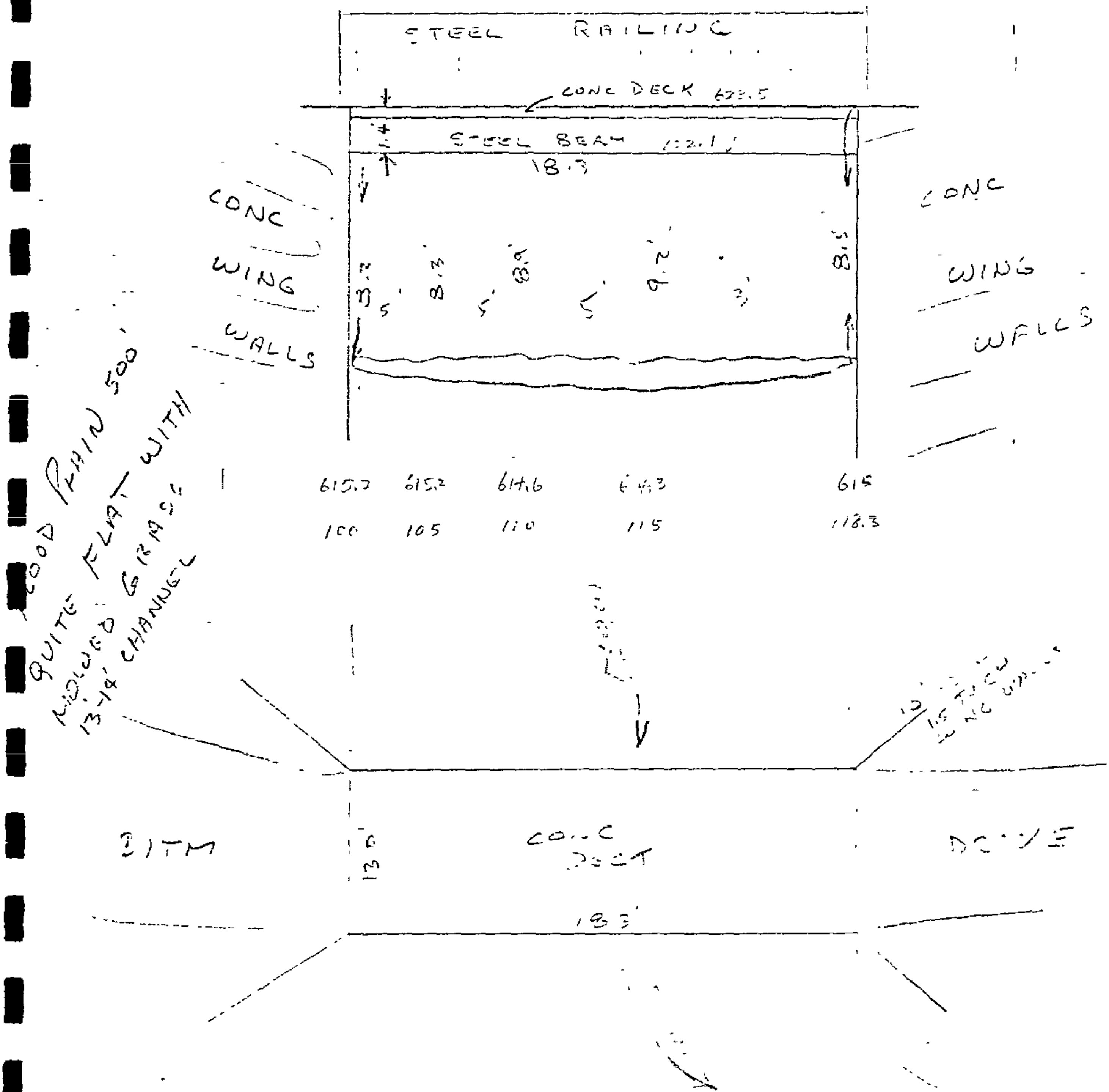


40325 & 40475



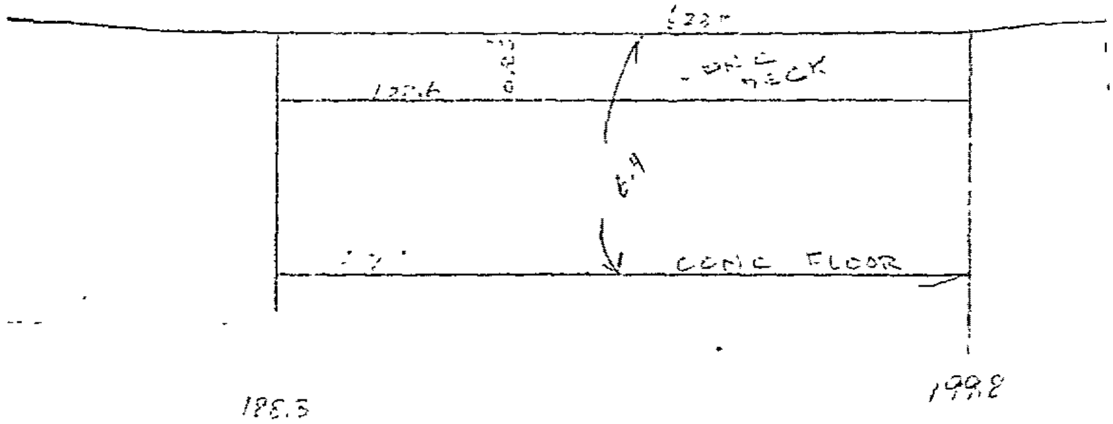
404+75

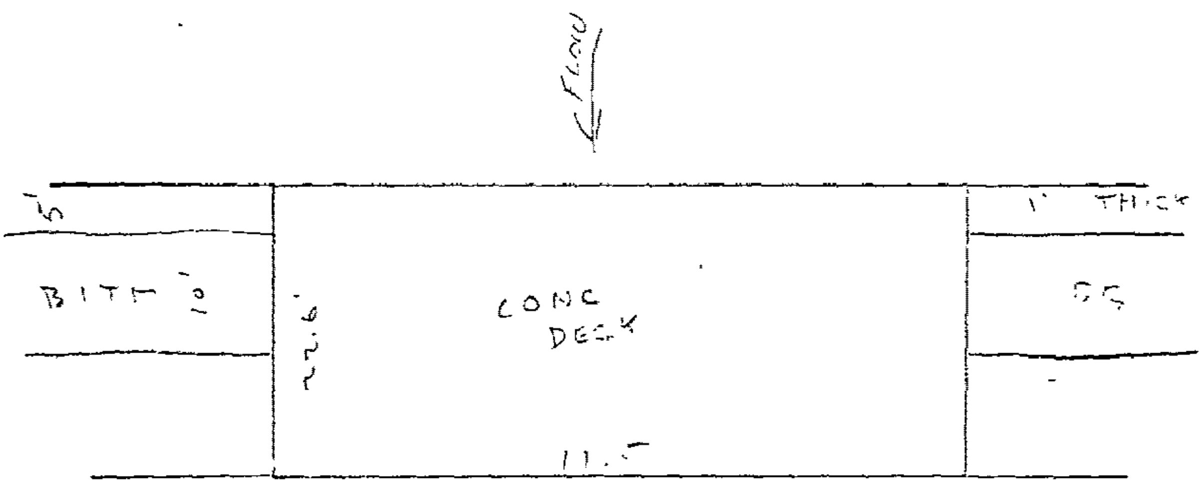
DRIVEWAY BRIDGE



404+75

UNUSED RR/COUNTY BRIDGE
NEAR CENTER ST.

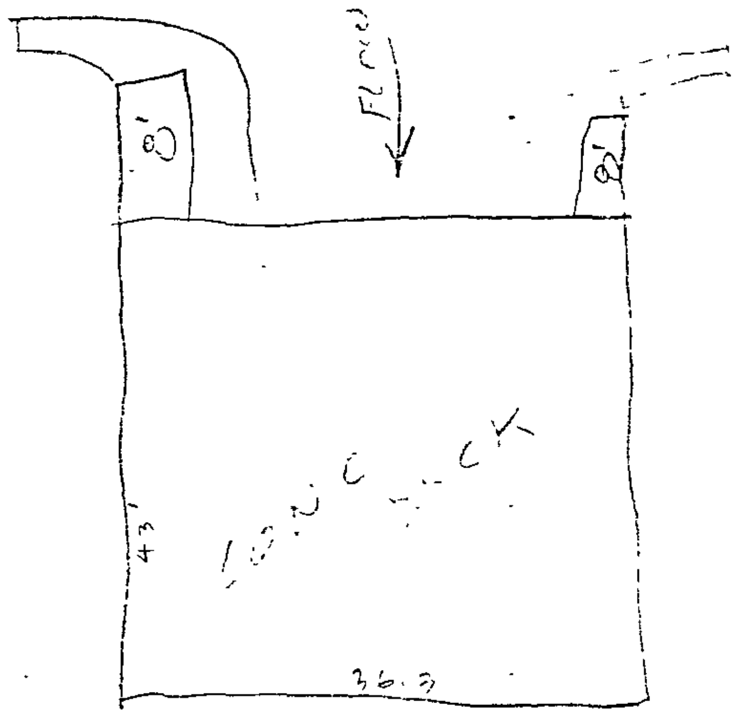


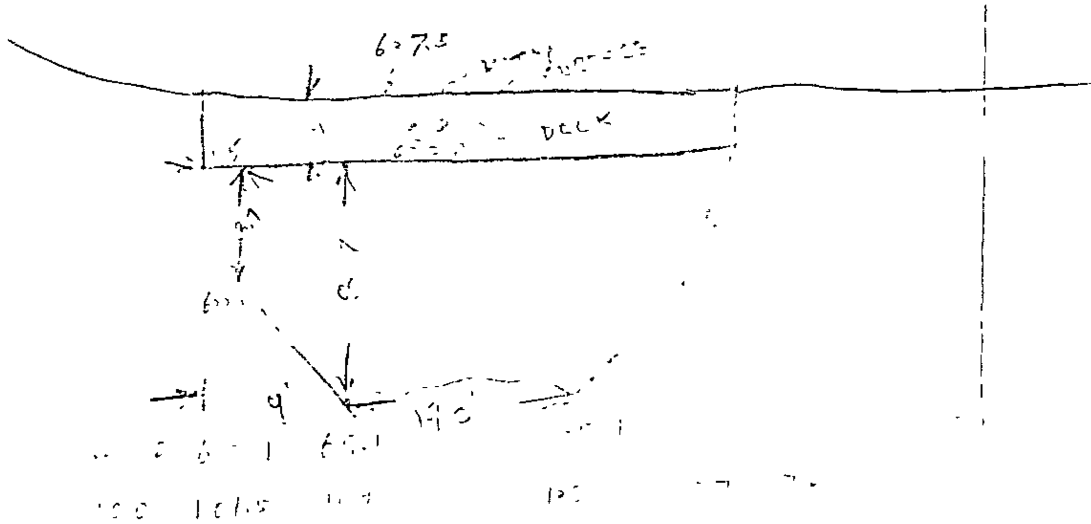


429+25 Cleveland St Bridge New

429+25

CLEVELAND ST. BRIDGE
MIGHT BE NEW BRIDGE
ALL CONC CONSTRUCTION





```
C
C     39
C      0         MOUTH OF GRAND RIVER AT LAKE MICHIGAN
C  0.191         VALLEY SECTION NO. 1
C  0.377         VALLEY SECTION NO. 2
C  0.752         VALLEY SECTION NO. 3
C  0.977         VALLEY SECTION NO. 4
C  1.155         VALLEY SECTION NO. 24
C  1.572         VALLEY SECTION NO. 5
C  2.125         VALLEY SECTION NO. 6
C  2.466         C @ O RAILROAD BRIDGE - SECTION NO. 8 - DOWNSTREAM FACE
C  2.470         C @ O RAILROAD BRIDGE - SECTION NO. 8 - UPSTREAM FACE
C  2.513         VALLEY SECTION NO. 7
C  2.551         U.S. 31 BRIDGE - SECTION NO. 9 - DOWNSTREAM FACE
C  2.570         U.S. 31 BRIDGE - SECTION NO. 9 - UPSTREAM FACE
C  2.638         VALLEY SECTION NO. 10
C  2.911         VALLEY SECTION NO. 11
C  3.280         VALLEY SECTION NO. 12
C  4.002         VALLEY SECTION NO. 13
C  4.384         VALLEY SECTION NO. 14
C  4.754         VALLEY SECTION NO. 15
C  5.169         VALLEY SECTION NO. 16
C  5.527         VALLEY SECTION NO. 17
C  6.206         VALLEY SECTION NO. 18
C  6.451         VALLEY SECTION NO. 19
C  6.972         VALLEY SECTION NO. 20
C  7.379         VALLEY SECTION NO. 21
C  7.939         VALLEY SECTION NO. 22
C -1.155         VALLEY SECTION NO. 24
C  0.188         VALLEY SECTION NO. 25
C  0.299         VALLEY SECTION NO. 26
C  0.400         THIRD STREET BRIDGE - SECTION NO. 27 - DOWNSTREAM FACE
C  0.403         THIRD STREET BRIDGE - SECTION NO. 27 - UPSTREAM FACE
C  0.463         VALLEY SECTION NO. 28
C  0.552         C @ O RAILROAD BRIDGE - EXTENSION OF GRAND RIVER SECTION NO. 8
C  0.554         C @ O RAILROAD BRIDGE - UPSTREAM FACE
C  0.676         EXTENSION OF GRAND RIVER SECTION NO. 7
C  0.779         U.S. 31 BRIDGE - EXTENSION OF GRAND RIVER SECTION NO. 9
C  0.797         U.S. 31 BRIDGE - UPSTREAM FACE
C  0.824         EXTENSION OF GRAND RIVER SECTION NO. 10
C  0.992         EXTENSION OF GRAND RIVER SECTION NO. 11
T1      THE GRAND RIVER, OTTAWA COUNTY MICHIGAN - JOB NOS. 5555-19,26,67,68-01
T2      10-YEAR FLOOD = 36500 CFS
T3      FERRYSBURG, GRAND HAVEN, SPRING LAKE TOWNSHIP AND SPRING LAKE VILLAGE
J1    -10       2                                                       580.9
J2                     -1
J3      1       2       3       4      10      11      12
NC    .05     .05    .026      .1      .3
QT      4   36500   53000   61000   82000
X1      0      60    1200    1583
GR 590.9        0   590.2     100   589.4     200   588.2     300   587.4     400
GR 587.2      500   586.8     600   586.3     700   588.0     800   588.7     900
GR 589.0     1000   587.6    1100   586.9    1145   584.0    1200   564.9    1201
GR 561.2     1210   561.2    1220   559.1    1230   559.1    1240   558.2    1250
GR 555.7     1260   554.2    1270   554.1    1280   553.2    1290   551.2    1310
GR 551.0     1320   552.2    1330   553.0    1340   553.0    1350   553.2    1360
GR 553.2     1370   553.3    1380   553.3    1390   553.1    1410   552.9    1420
GR 552.3     1440   552.2    1450   551.7    1460   551.4    1470   551.8    1480
GR 552.1     1490   552.7    1520   553.7    1530   555.2    1540   564.2    1570
GR 566.6     1580   566.6    1582   584.9    1583   585.2    1600   584.6    1700
GR 586.1     1800   586.0    1900   585.8    2000   585.8    2100   586.0    2300
GR 585.8     2400   586.1    2500   587.1    2600   588.5    2700   590.9    2800
X1 0.191       60    1200    1583    1010    1010    1010
GR 590.9        0   590.2     100   589.4     200   588.2     300   587.4     400
```

GR	587.2	500	566.8	600	586.3	700	588.0	800	588.7	900
GR	589.0	1000	587.6	1100	586.9	1145	584.0	1200	564.9	1201
GR	561.2	1210	561.2	1220	559.1	1230	559.1	1240	558.2	1250
GR	555.7	1260	554.2	1270	554.1	1280	553.2	1290	551.2	1310
GR	551.0	1320	552.2	1330	553.0	1340	553.0	1350	553.2	1360
GR	553.2	1370	553.3	1380	553.3	1390	553.1	1410	552.9	1420
GR	552.3	1440	552.2	1450	551.7	1460	551.4	1470	551.8	1480
GR	552.1	1490	552.7	1520	553.7	1530	555.2	1540	564.2	1570
GR	566.6	1580	566.6	1582	584.9	1583	585.2	1600	584.6	1700
GR	586.1	1800	586.0	1900	585.8	2000	585.8	2100	586.0	2300
GR	585.8	2400	586.1	2500	587.1	2600	588.5	2700	590.9	2800
NC	.06	.06	.026							
X1	0.377	51	244	661	1040	960	980			
GR	593.0	0	591.4	45	590.9	145	590.4	203	582.8	225
GR	585.1	244	568.1	245	561.8	255	559.2	265	551.4	275
GR	551.1	285	550.3	295	549.8	325	549.9	335	548.8	345
GR	550.0	355	550.9	365	550.4	385	552.2	395	550.2	405
GR	551.1	435	549.0	445	550.6	455	549.8	465	549.3	475
GR	549.8	485	549.0	495	547.6	505	546.8	515	548.3	525
GR	549.3	535	549.2	545	551.6	555	552.0	565	558.8	595
GR	560.1	605	561.2	615	562.7	625	565.8	635	567.0	645
GR	566.2	660	584.0	661	586.7	745	587.6	845	588.2	945
GR	588.1	1045	588.2	1145	589.2	1245	589.4	1345	590.2	1445
GR	594.9	1525								
X1	0.752	47	140	741	2060	1940	1980			
GR	600.9	0	588.7	21	588.2	41	584.5	140	570.2	141
GR	566.0	151	565.0	161	562.8	171	558.4	181	554.9	191
GR	552.6	201	551.9	241	550.4	251	549.9	291	548.6	321
GR	548.2	351	548.1	361	548.2	371	548.4	381	549.5	391
GR	548.8	401	549.8	441	550.3	451	550.5	461	550.7	471
GR	552.6	481	554.0	491	555.2	501	557.2	511	558.7	521
GR	560.1	531	565.1	581	565.3	591	565.9	651	566.3	661
GR	567.2	671	567.6	681	575.0	691	575.8	701	576.9	711
GR	580.6	724	582.3	741	583.1	841	586.3	941	585.7	1041
GR	583.0	1141	592.5	1241						
NC	.035	.055	.026							
X1	0.977	65	400	1070	1150	1100	1190			
GR	591.5	0	591.2	100	590.3	200	587.5	300	580.6	400
GR	576.1	410	571.6	420	569.8	450	569.5	460	568.2	470
GR	568.0	480	567.9	490	565.8	500	562.0	510	558.0	520
GR	557.9	530	555.0	540	555.2	550	555.1	560	553.9	570
GR	554.5	580	553.7	590	552.8	600	554.7	610	555.4	620
GR	555.2	630	555.6	640	554.9	650	555.4	660	554.9	670
GR	554.0	680	554.2	690	554.9	700	555.1	710	554.7	720
GR	554.3	730	554.2	740	554.2	750	554.3	760	554.2	770
GR	553.7	800	553.9	810	553.3	820	552.8	830	553.1	840
GR	552.3	850	552.9	860	553.3	870	552.9	880	553.5	890
GR	553.0	900	554.0	910	555.2	920	555.6	930	557.4	940
GR	558.9	950	560.2	960	563.0	970	565.2	980	568.5	990
GR	571.2	1000	574.6	1030	580.6	1043	583.6	1060	592.8	1070
NC	.04	.04	.035	.1	.3					
QT	4	34000	48800	56000	74250					
X1	1.155	32	233	720	1060	850	940			
GR	585.8	0	585.5	100	586.0	200	584.8	233	561.4	235
GR	561.9	245	560.9	265	559.9	285	557.6	305	556.4	325
GR	555.5	335	553.8	355	553.1	375	553.1	395	552.4	415
GR	553.2	435	551.2	455	552.2	475	551.4	495	550.3	515
GR	550.0	535	550.9	555	553.4	575	552.7	595	557.4	615
GR	560.2	635	565.0	655	572.5	675	576.4	685	579.7	695
GR	581.3	705	590.4	720						
NH	4	.055	137	.09	2440	.035	3062	.05	3102	
X1	1.572	57	137	3102	2180	2190	2200			
X3				2336						
GR	589.7	0	582.7	22	582.8	137	581.1	145	578.5	262
GR	578.5	502	579.0	1426	579.4	1672	579.0	1814	578.5	1903
GR	578.4	2336	576.9	2442	573.0	2512	567.2	2542	567.2	2552

GR	567.0	2562	565.7	2572	560.2	2582	556.3	2592	555.4	2602
GR	555.2	2612	557.7	2622	555.1	2632	552.2	2642	551.2	2652
GR	550.2	2662	551.2	2672	553.1	2682	553.1	2692	554.2	2702
GR	554.2	2712	553.8	2722	553.7	2732	553.3	2742	553.2	2752
GR	553.2	2792	552.2	2802	551.3	2812	551.4	2822	552.2	2832
GR	551.7	2842	551.2	2852	552.7	2862	554.2	2872	553.2	2882
GR	554.2	2892	555.3	2902	556.2	2912	557.7	2922	559.2	2932
GR	559.4	2942	567.3	2953	572.9	2983	577.9	3010	580.9	3062
GR	583.1	3072	594.1	3102						
NC	.09	.05	.035							
X1	2.125	63	1530	2140	2150	3440	2920			
GR	589.7	0	584.1	1483	583.8 Lt	1530	581.0	1560	578.8	1570
GR	576.5	1580	576.1	1590	575.1	1600	574.6	1610	573.9	1620
GR	573.2	1630	572.9	1640	572.1	1650	571.0	1660	569.9	1670
GR	568.0	1680	565.2	1690	563.1	1700	562.1	1710	559.0	1720
GR	558.2	1730	554.0	1770	554.2	1780	552.5	1790	552.6	1800
GR	552.3	1810	551.2	1820	551.0	1830	551.2	1840	552.9	1850
GR	553.9	1860	554.3	1870	554.7	1880	554.8	1890	555.1	1900
GR	555.0	1910	555.1	1980	555.9	1990	556.7	2000	557.6	2010
GR	557.9	2020	557.7	2030	558.2	2040	560.2	2050	568.1	2110
GR	576.1	2120	580.9	2132	584.7 Rt	2140	584.8	2160	585.8	2260
GR	585.6	2360	585.4	2460	585.6	2560	588.5	2660	586.8	2760
GR	586.4	2860	586.2	2960	586.8	3060	587.7	3160	587.2	3260
GR	588.0	3360	588.2	3460	588.8	3560				
X1	2.456				1590	1900	1750		.9	
X3				1635		2140				
NC	.09	.055	.035							
X1	2.465	59	500	1005	49	49	49			
X3	10			500		1005				
GR	589.0	0	589.2	100	589.7	200	590.2	300	591.3	400
GR	592.6	500	580.4	500	570.8	520	563.2	540	561.2	555
GR	560.3	561	560.2	562	555.8	580	558.7	600	559.9	602
GR	563.7	608	566.8	613	570.5	619	573.6	624	563.4	630
GR	558.3	640	559.4	660	558.3	664	555.2	676	554.1	680
GR	553.0	700	552.0	730	562.0	745	565.8	751	565.8	751
GR	576.6	771	560.8	785	553.1	800	552.8	820	560.8	840
GR	562.8	847	566.1	859	569.2	870	558.8	880	561.7	900
GR	561.1	914	560.8	920	560.4	930	561.6	940	567.8	960
GR	570.8	970	572.0	974	573.8	980	576.7	990	579.4	1000
GR	579.9	1003	583.4	1005	592.0	1005	592.0	1010	591.1	1100
GR	589.9	1200	588.9	1300	588.3	1400	587.8	1500		
NC	.03	.03	.035							
X1	2.466				1	1	1			
X3	10									
BT	35	500.0	592.6	580.4	500.0	592.6	588.4	555.0	592.5	588.4
BT	555.0	592.5	561.2	561.0	592.5	560.3	561.0	592.5	586.1	602.0
BT	592.5	586.1	602.0	592.5	559.9	608.0	592.5	563.7	608.0	592.5
BT	586.1	613.0	592.5	586.1	613.0	592.5	566.8	619.0	592.5	570.5
BT	619.0	592.5	586.1	664.0	592.4	586.1	664.0	592.4	558.3	676.0
BT	592.4	555.2	676.0	592.4	588.4	751.0	592.3	588.4	751.0	592.3
BT	565.8	771.0	592.3	576.6	771.0	592.3	588.4	847.0	592.2	588.4
BT	847.0	592.2	562.8	859.0	592.2	566.1	859.0	592.2	586.1	914.0
BT	592.1	586.1	914.0	592.1	561.1	920.0	592.1	560.8	920.0	592.1
BT	586.1	974.0	592.0	586.1	974.0	592.0	572.0	980.0	592.0	573.8
BT	980.0	592.0	588.4	1005.0	592.0	588.4				
X1	2.470				20	20	20			
X2							1			
X3	10									
NC	.09	.055	.035							
X1	2.471				1	1	1			
X3	10			500		1005				
X1	2.479	44	500	1005	49	49	49		1.0	
X3				500		1005				
GR	589.0	0	589.2	100	589.7	200	590.2	300	591.3	400
GR	592.6	500	580.4	500	570.8	520	563.2	540	561.2	555
GR	560.3	561	560.2	562	555.8	580	558.7	600	558.3	640
[illegible]										

GR	559.4	660	558.3	664	555.2	676	554.1	680	553.0	700
GR	552.0	730	553.1	800	552.8	820	558.8	880	561.7	900
GR	561.1	914	560.8	920	560.4	930	561.6	940	567.8	960
GR	570.8	970	572.0	974	573.8	980	576.7	990	579.4	1000
GR	579.9	1003	583.4	1005	592.0	1005	592.0	1010	591.1	1100
GR	589.9	1200	588.9	1300	588.3	1400	587.8	1500		
X1	2.513	67	1540	2012	180	180	180			
X3				1482		2012				
GR	580.0	0	579.9	100	580.0	300	580.0	500	580.2	700
GR	580.3	900	580.1	1100	580.4	1300	580.4	1400	578.3	1540
GR	577.1	1550	574.3	1560	571.2	1570	567.3	1580	565.1	1590
GR	561.4	1600	560.3	1610	559.3	1620	557.6	1630	556.9	1640
GR	556.4	1650	557.6	1660	558.5	1670	559.0	1680	559.4	1690
GR	560.2	1720	559.7	1730	558.3	1740	558.4	1750	559.1	1760
GR	559.4	1770	559.5	1780	559.3	1790	558.3	1800	558.3	1810
GR	558.3	1820	558.1	1830	557.9	1840	558.3	1850	558.8	1860
GR	560.1	1870	559.9	1880	559.3	1890	559.3	1900	564.3	1910
GR	564.6	1920	565.1	1930	566.1	1940	567.3	1950	581.0	2000
GR	586.3	2012	583.5	2100	583.1	2200	584.9	2240	586.7	2500
GR	583.9	2600	587.9	2700	586.9	2800	588.2	2900	588.3	3000
GR	589.0	3100	588.7	3200	589.1	3300	589.6	3400	589.6	3500
GR	590.2	3600	591.1	3700						
X1	2.542				150	150	150		-4.6	
X3				1482		2012				
X1	2.550	55	500	1188	49	49	49			
X3	10									
GR	594.2	0	596.3	100	598.5	200	601.2	300	604.2	400
GR	608.0	500	608.7	500	600.9	500	585.7	543	586.4	569
GR	584.1	574	582.7	578	581.3	582	580.0	592	572.9	610
GR	571.3	620	569.3	630	567.7	640	567.8	644	568.0	650
GR	561.3	670	557.3	690	551.0	710	550.8	720	551.6	760
GR	552.0	770	550.3	790	553.5	810	555.3	830	554.95	844
GR	554.8	850	554.8	870	552.3	890	552.2	910	551.9	928
GR	561.9	968	562.3	970	564.9	990	566.8	1010	569.1	1030
GR	570.6	1044	571.1	1048	571.3	1050	578.6	1070	580.8	1090
GR	581.3	1094	589.1	1110	590.0	1114	590.5	1116	590.2	1150
GR	589.3	1188	609.8	1188	608.9	1188	608.9	1200	610.2	1300
NC	.015	.015	.035							
X1	2.551				1	1	1			
X3	10									
BT	29	500.0	608.7	600.9	500.0	608.7	605.3	574.0	609.3	605.3
BT	574.0	609.3	584.1	578.0	609.3	582.7	578.0	609.3	605.3	640.0
BT	609.5	605.3	640.0	609.5	567.7	644.0	609.6	567.8	644.0	609.6
BT	600.0	720.0	609.7	600.0	720.0	609.7	550.8	760.0	609.6	551.6
BT	760.0	609.6	596.9	844.0	610.1	603.5	928.0	609.6	596.9	928.0
BT	609.6	551.9	968.0	609.7	561.9	968.0	609.7	600.0	1044.0	609.8
BT	600.0	1044.0	609.8	570.6	1048.0	609.8	571.1	1048.0	609.8	605.3
BT	1110.0	609.8	605.3	1110.0	609.8	589.1	1114.0	609.8	590.0	1114.0
BT	609.8	605.3	1188.0	609.8	605.3	1188.0	609.8	589.3		
X1	2.570				100	100	100			
X2							1			
X3	10									
NC	.09	.055	.035							
X1	2.571				1	1	1			
X3	10									
X1	2.580				49	49	49		.8	
X3	10									
X1	2.638	67	1931	2900	480	180	310			
X3				2000		2900				
GR	584.7	837	582.2	900	583.0	1000	582.4	1200	583.8	1320
GR	581.0	1335	580.5	1340	580.3	1400	580.6	1600	581.0	1683
GR	582.9	1700	584.1	1931	581.0	2000	580.0	2020	579.7	2030
GR	578.9	2040	577.3	2050	573.4	2220	573.8	2230	573.9	2240
GR	573.6	2250	573.5	2260	573.9	2300	573.3	2310	572.7	2320
GR	572.8	2330	573.2	2340	573.2	2380	569.4	2470	569.3	2480
GR	568.8	2490	567.7	2500	566.2	2510	565.6	2520	565.3	2530

GR	565.1	2540	564.7	2550	564.1	2560	563.4	2570	563.0	2580
GR	560.1	2590	561.0	2600	559.5	2610	559.3	2620	559.2	2630
GR	559.0	2640	558.2	2650	557.5	2660	556.4	2690	556.8	2700
GR	557.9	2710	558.3	2720	558.7	2730	558.9	2740	559.0	2750
GR	559.0	2760	559.1	2770	559.2	2780	559.7	2790	559.9	2800
GR	559.9	2810	561.8	2820	581.0	2882	591.4	2900	589.2	3000
GR	590.1	3057	598.0	3186						
NH	5	.09	3315	.035	3690	.09	4050	.035	4800	.06
NH	5670									
X1	2.911	64	3315	4801	1280	1600	1440			
X3				3198		5300				
GR	585.7	3198	585.7	3198	585.7	3198	583.2	3300	583.0	3314
GR	575.3	3315	572.9	3320	572.5	3330	570.5	3340	568.8	3350
GR	568.9	3360	566.5	3380	568.1	3400	571.5	3470	575.2	3560
GR	577.2	3650	577.8	3660	576.7	3670	578.2	3680	578.9	3690
GR	579.1	3710	578.7	3940	579.0	3950	578.3	4050	577.2	4060
GR	576.5	4130	573.2	4190	575.1	4200	573.8	4210	574.7	4250
GR	572.6	4270	572.5	4310	573.1	4340	569.4	4410	570.1	4440
GR	567.8	4470	567.9	4500	566.7	4510	566.8	4520	564.0	4570
GR	563.8	4580	562.4	4590	562.8	4600	559.4	4610	560.6	4620
GR	562.1	4680	564.4	4690	566.8	4710	569.9	4720	578.5	4790
GR	578.9	4800	581.0	4800	583.5	4801	582.8	4900	582.5	5000
GR	585.8	5100	591.9	5200	594.5	5300	594.3	5335	583.5	5365
GR	582.9	5400	583.6	5500	583.7	5600	587.5	5670		
NH	6	.06	620	.065	975	.035	1600	.045	3075	.035
NH	3650	.06	5350							
QT	4	36500	53000	61000	82000					
X1	3.280	87	975	3650	1920	1950	1950			
X3				600		3650				
GR	590.6	0	588.8	200	586.4	400	584.9	600	584.2	620
GR	581.5	630	581.5	800	578.1	975	573.5	985	571.1	1015
GR	569.9	1025	569.1	1055	568.9	1085	569.1	1095	568.7	1105
GR	568.9	1115	568.9	1125	568.7	1135	568.7	1145	568.9	1155
GR	568.9	1165	568.4	1185	568.1	1235	567.7	1245	567.8	1255
GR	568.1	1265	567.9	1285	568.7	1315	569.2	1325	569.4	1345
GR	569.3	1355	569.0	1365	569.1	1375	568.2	1415	568.4	1445
GR	568.1	1465	570.0	1505	571.1	1515	572.5	1525	574.2	1535
GR	576.4	1545	576.6	1555	577.3	1565	577.1	1575	578.9	1600
GR	579.9	1700	579.2	1800	579.0	1900	578.1	2000	576.9	2100
GR	576.0	2200	577.1	2400	577.3	2500	577.8	2600	578.8	2700
GR	578.7	2800	579.0	2900	579.1	3075	577.4	3100	575.4	3125
GR	572.5	3150	572.3	3175	572.9	3200	571.8	3300	571.1	3325
GR	570.3	3350	568.4	3400	568.8	3425	569.8	3450	569.4	3480
GR	570.1	3495	570.4	3510	572.6	3525	576.2	3540	577.1	3550
GR	578.5	3575	579.1	3590	580.6	3600	582.5	3650	584.2	3750
GR	585.8	3950	587.0	4150	588.7	4350	589.9	4750	589.5	4950
End. GR	590.3	5150	591.6	5350						
NH	10	.06	200	.045	555	.06	900	.05	1450	.04
NH	1800	.05	2300	.04	3100	.05	3350	.035	3650	.06
NH	5600									
X1	4.002	83	1450	3650	3920	4560	3810			
X3				200		4100				
GR	592.3	0	586.1	100	583.8	150	582.9	200	580.5	210
GR	580.0	225	577.5	250	577.5	275	578.0	300	574.5	400
GR	580.5	555	580.5	580	580.2	600	579.7	700	579.3	900
GR	572.7	1450	570.4	1475	569.5	1500	570.2	1510	568.8	1540
GR	567.9	1550	568.3	1560	566.6	1620	564.6	1660	562.4	1690
GR	562.3	1710	562.5	1720	563.6	1730	565.6	1740	566.4	1750
GR	568.8	1760	573.0	1770	574.3	1780	575.1	1790	576.5	1800
GR	579.3	1900	579.8	2000	580.0	2100	580.5	2150	580.2	2200
GR	579.5	2250	577.9	2300	577.4	2350	577.5	2400	577.3	2450
GR	576.8	2500	576.1	2550	574.9	2600	573.3	2650	571.9	2700
GR	571.5	2800	573.2	2850	576.5	2900	578.1	3000	579.4	3100
GR	578.0	3200	579.9	3350	575.2	3365	570.1	3375	565.7	3400
GR	565.5	3500	565.8	3600	570.1	3625	573.1	3635	579.0	3650
GR	580.5	3700	582.7	3730	583.6	3800	584.1	3900	584.2	4000

GR	583.9	4100	583.6	4300	583.0	4400	582.7	4500	582.6	4600
GR	583.2	4700	585.5	4900	586.0	5000	587.4	5100	587.9	5300
GR	588.6	5400	590.6	5500	591.3	5600				
NH	6	.05	147	.04	600	.05	2250	.035	3125	.045
NH	4375	.05	4850							
X1	4.384	69	147	3125	1560	2480	2020			
X3				225		4150				
GR	594.4	0	592.2	50	583.6	120	582.9	147	580.9	150
GR	578.1	160	575.1	175	575.2	200	576.9	225	576.8	250
GR	574.8	350	575.5	400	575.9	450	576.9	500	578.1	550
GR	580.9	600	580.9	792	576.8	850	579.3	950	579.4	1050
GR	578.1	1150	577.4	1250	577.8	1350	578.5	1400	578.9	1450
GR	579.1	1550	579.1	1650	579.6	1850	579.3	1950	579.4	2150
GR	578.9	2200	577.9	2225	577.6	2250	571.4	2275	569.5	2300
GR	568.6	2325	567.2	2350	567.8	2400	568.2	2450	569.6	2500
GR	570.7	2550	571.6	2600	573.9	2750	574.5	2850	575.2	2900
GR	575.5	2950	576.3	2975	577.2	3000	577.3	3050	576.9	3075
GR	577.5	3100	579.4	3125	579.4	3150	580.4	3250	579.6	3350
GR	579.6	3550	579.9	3850	579.9	3950	580.4	4150	580.9	4250
GR	581.8	4260	582.0	4350	582.3	4360	587.0	4375	585.1	4450
GR	586.6	4550	587.0	4650	588.5	4750	591.8	4850		
NH	5	.1	145	.045	845	.05	1800	.035	2800	.05
NH	3365									
X1	4.754	61	145	2800	2240	1600	1950			
X3						2624				
GR	591.0	0	590.1	50	589.3	100	587.6	145	582.2	180
GR	580.7	200	579.7	225	575.5	275	574.7	300	576.3	325
GR	576.5	350	576.4	400	575.6	450	575.1	500	575.8	550
GR	576.7	650	577.0	700	577.7	725	579.2	800	580.7	830
GR	581.2	845	581.2	975	580.7	1000	580.0	1200	580.0	1300
GR	580.3	1400	580.0	1500	579.9	1600	580.4	1700	580.7	1737
GR	582.2	1800	580.7	1850	579.4	1860	578.4	1875	576.7	1900
GR	574.7	1925	572.0	1950	569.9	2000	568.7	2050	568.4	2100
GR	567.1	2150	566.2	2200	566.2	2250	565.6	2300	566.1	2350
GR	568.1	2400	571.1	2450	572.7	2500	576.7	2525	578.3	2550
GR	580.2	2575	580.7	2600	582.8	2624	585.2	2700	586.8	2800
GR	586.0	2900	586.2	3000	587.1	3100	588.3	3200	589.6	3300
GR	591.6	3365								
NH	7	.07	300	.06	800	.045	1300	.05	2900	.035
NH	3750	.06	4170	.07	4400					
X1	5.169	65	800	4190	2740	1660	2190			
X3				600						
GR	591.6	0	589.6	100	583.9	300	582.0	500	580.6	585
GR	580.4	600	580.1	700	579.3	800	578.1	825	576.6	850
GR	576.1	900	575.4	950	573.6	1000	573.1	1025	572.3	1050
GR	572.3	1100	573.4	1125	575.1	1150	576.1	1200	576.4	1225
GR	578.1	1250	579.8	1300	579.6	1400	579.1	1500	579.1	1900
GR	577.6	2000	577.8	2100	578.1	2150	578.8	2200	576.4	2300
GR	578.6	2400	579.3	2500	579.6	2600	580.5	2615	580.6	2900
GR	579.3	2925	578.6	2950	577.6	2975	577.1	3000	575.8	3025
GR	574.2	3050	572.8	3100	571.8	3150	571.4	3300	571.6	3350
GR	570.3	3375	569.2	3400	569.6	3500	570.4	3550	569.1	3575
GR	567.6	3600	568.7	3625	570.0	3650	573.4	3700	574.8	3725
GR	576.4	3750	577.9	3800	579.6	3900	580.3	3950	580.6	4000
GR	582.4	4100	582.7	4170	587.0	4190	590.2	4300	591.7	4400
NH	4	.06	400	.05	2600	.035	3320	.05	3485	
X1	5.527	56	2600	3320	1950	2350	1890			
X3				400		3320				
GR	592.1	0	587.6	200	583.8	400	582.5	600	580.6	650
GR	580.1	700	579.8	750	579.3	850	578.6	900	577.5	950
GR	576.6	1000	576.2	1100	576.5	1150	576.6	1200	578.3	1250
GR	579.1	1300	578.4	1350	577.2	1400	577.3	1500	578.5	1600
GR	579.1	1700	580.6	1783	580.9	1800	580.9	1900	580.6	1958
GR	580.0	1960	579.1	2000	579.0	2300	578.6	2500	579.8	2550
GR	580.1	2575	580.6	2585	581.4	2600	580.6	2615	576.6	2625
GR	576.0	2650	574.2	2675	572.0	2700	570.1	2750	567.6	2800

GR	567.1	2950	567.0	3000	567.2	3050	567.5	3100	568.6	3150
GR	569.8	3175	570.6	3200	574.4	3225	576.8	3235	578.4	3250
GR	578.6	3275	580.6	3300	585.0	3320	584.6	3400	585.8	3438
GR	591.7	3485								
NH	8	.055	944	.06	1157	.045	2094	.035	2644	.045
NH	2844	.035	3244	.05	3867	.055	4244			
"F" X1	6.206	83	2094	3244	2940	4250	3590			
X3				1144		3244				
GR	592.1	0	589.2	144	587.1	344	586.6	944	582.4	1144
GR	581.0	1157	580.2	1244	578.8	1344	577.7	1394	577.0	1444
GR	575.8	1494	575.0	1544	577.3	1644	579.7	1669	580.5	1694
GR	577.5	1719	577.3	1744	577.0	1844	577.8	1869	578.8	1894
GR	579.2	1914	580.7	1944	581.0	1957	583.1	2009	583.5 Lt.	2094
GR	581.0	2099	580.5	2104	577.0	2124	576.0	2134	575.3	2144
GR	575.0	2169	574.0	2219	574.0	2244	572.3	2269	574.0	2269
GR	573.2	2294	571.2	2344	569.7	2369	569.0	2394	568.9	2419
GR	568.6	2444	568.9	2469	569.0	2494	570.9	2519	572.6	2544
GR	573.7	2569	575.2	2594	576.5	2619	577.1	2644	577.0	2694
GR	576.3	2744	575.8	2794	575.8	2844	573.4	2869	569.4	2894
GR	567.0	2919	564.8	2944	563.6	2994	564.0	3044	565.3	3079
GR	568.5	3144	569.3	3169	569.7	3194	571.0	3219	575.9 Rt	3244
GR	576.7	3269	578.3	3344	579.1	3444	578.8	3494	578.0	3544
GR	579.0	3594	579.5	3644	579.5	3684	580.3	3714	581.0	3744
GR	581.0	3744	582.5	3844	583.2	3867	586.2	3909	587.3	3944
GR	588.5	4044	590.3	4144	591.6	4244				
NH	6	.07	285	.035	870	.05	2000	.04	2600	.05
NH	3200	.055	3900							
X1	6.451	60	285	2600	1160	1840	1290			
X3						3200				
GR	590.7	0	588.3	200	585.2	285	580.9	300	580.4	315
GR	578.6	325	576.9	335	573.9	350	570.0	365	569.4	375
GR	569.0	400	569.2	425	569.1	450	569.4	500	569.5	550
GR	569.3	600	571.8	625	572.2	650	574.4	675	576.3	700
GR	576.9	750	577.1	825	579.1	850	580.9	870	581.2	900
GR	581.2	1100	580.9	1160	580.5	1170	579.9	1200	579.5	1400
GR	579.1	1500	578.7	1700	578.1	1800	578.3	1900	579.6	2000
GR	578.4	2100	577.0	2200	575.3	2225	572.2	2250	572.2	2300
GR	572.9	2350	573.3	2400	574.1	2450	574.7	2500	574.9	2550
GR	577.4	2575	579.4	2600	579.4	2800	579.2	2900	579.6	3000
GR	580.1	3100	580.9	3150	582.4	3200	582.6	3300	585.6	3400
GR	585.7	3500	585.7	3600	587.1	3700	591.1	3800	593.6	3900
NH	7	.06	50	.035	235	.04	695	.05	1560	.04
NH	1935	.05	3185	.055	4525					
X1	6.972	93	50	1935	3140	2580	2750			
X3						3185				
GR	592.8	0	585.2	10	584.0	50	581.4	52	580.8	55
GR	577.8	65	575.2	75	573.1	85	570.9	95	568.6	110
GR	567.7	160	569.3	185	573.3	210	576.1	235	576.8	285
GR	576.2	335	576.8	360	578.0	385	578.8	410	579.3	435
GR	579.4	460	579.3	485	577.6	510	576.2	535	575.8	560
GR	575.5	585	575.4	610	575.1	635	575.3	645	576.6	655
GR	578.0	665	580.7	675	580.5	685	584.3	695	583.8	735
GR	581.2	835	580.5	935	580.0	1035	579.0	1135	579.1	1235
GR	578.8	1335	579.3	1435	579.5	1535	579.5	1560	575.3	1585
GR	573.0	1610	572.6	1635	573.4	1685	573.8	1735	573.6	1785
GR	574.2	1835	574.8	1860	575.6	1885	576.3	1910	579.6	1925
GR	580.7	1935	580.6	1985	579.8	2010	579.5	2035	578.8	2060
GR	577.9	2085	577.2	2110	576.8	2135	577.2	2185	578.0	2210
GR	579.5	2235	579.8	2285	579.7	2335	579.5	2385	579.3	2435
GR	579.3	2485	579.0	2535	579.4	2585	579.6	2635	580.0	2685
GR	580.2	2710	580.6	2735	580.1	2835	579.9	2860	578.9	2885
GR	579.0	2935	579.6	3035	580.1	3085	580.8	3135	582.3	3185
GR	582.9	3335	584.2	3535	586.3	3735	585.8	3935	588.4	4135
GR	587.8	4335	588.8	4505	591.6	4525				
NH	6	.05	57	.035	375	.05	2235	.035	2565	.05
NH	2939	.06	3535							

X1	7.379	61	57	2565	2380	2160	2150			
X3						3335				
GR	594.4	0	583.7	21	581.9	35	581.0	57	578.5	75
GR	576.9	85	571.2	110	568.6	135	568.2	185	568.3	235
GR	569.9	260	571.8	285	574.1	310	577.0	335	579.0	360
GR	580.9	375	581.8	435	580.9	535	581.3	575	580.9	615
GR	581.0	656	583.8	678	578.3	735	582.2	785	581.1	835
GR	581.0	837	579.1	855	578.8	935	578.6	1135	578.5	1535
GR	578.8	1635	580.2	1685	580.5	1710	581.3	1735	581.2	2135
GR	581.3	2185	582.6	2235	581.0	2265	577.1	2265	571.3	2275
GR	568.1	2285	568.0	2310	567.3	2335	569.9	2360	571.9	2385
GR	574.2	2410	575.6	2435	577.0	2510	577.7	2535	580.0	2560
GR	582.0	2565	581.8	2635	581.0	2655	580.3	2685	580.0	2735
GR	580.0	2835	581.0	2935	582.3	2939	582.8	3135	584.7	3335
GR	583.0	3535								
NH	5	.05	360	.04	700	.05	2425	.035	3105	.06
NH	3300									
X1	7.939	61	360	3105	5240	750	2960			
X3				360		3105				
GR	592.4	0	590.5	100	587.0	300	583.2	360	581.1	364
GR	579.7	380	578.1	390	575.1	400	573.6	425	576.7	450
GR	573.9	475	572.5	500	574.4	550	577.4	600	579.0	650
GR	580.3	700	579.4	800	578.7	1000	580.3	1100	580.6	1200
GR	579.4	1300	577.2	1400	578.4	1600	578.7	1700	578.3	1800
GR	579.0	1850	580.3	1900	580.8	1950	581.4	2000	581.9	2100
GR	583.4	2200	582.9	2300	582.1	2400	581.1	2425	577.0	2450
GR	575.1	2475	574.5	2500	574.1	2550	573.9	2600	574.1	2625
GR	574.2	2650	570.9	2675	568.5	2700	569.7	2725	570.1	2750
GR	570.9	2775	571.8	2800	573.1	2850	573.5	2900	573.2	2925
GR	573.3	2950	573.0	2975	573.2	3000	573.1	3025	572.8	3050
GR	573.8	3075	573.7	3090	574.6	3095	581.1	3100	585.3	3105
GR	583.1	3300								
NC	.04	.06	.04	.1	.3					
QT	4	2500	4200	5000	7750					
X1	-1.155	26	266	491						
GR	587.0	0	586.8	66	583.7	166	583.3	264	581.5	265
GR	581.3	266	579.8	271	578.7	276	574.0	286	562.8	296
GR	563.0	306	562.6	326	564.6	346	565.4	366	565.8	386
GR	565.8	406	566.0	426	566.3	436	566.9	446	567.7	456
GR	568.8	466	574.1	476	578.4	486	581.3	491	585.4	498
GR	585.8	566								
X1	0.062				330	330	330		2.5	
X1	0.125				330	330	330		2.6	
NC	.05	.05	.04							
X1	0.188	28	310	490	330	330	330			
X3				310		500				
GR	586.7	0	583.5	100	582.5	175	582.8	300	583.0	310
GR	582.7	320	581.3	330	581.0	335	580.1	340	575.2	350
GR	574.9	360	574.1	370	573.9	380	572.4	390	571.7	400
GR	570.9	410	570.3	420	570.7	430	570.8	440	571.8	450
GR	572.5	460	574.3	470	577.3	480	581.3	485	583.5	490
GR	584.0	500	582.6	600	584.0	700				
NC	.035	.06	.04							
X1	0.299	26	500	670	590	590	590			
X3				500		670				
GR	585.6	0	583.9	200	583.4	400	583.1	499	576.1	500
GR	576.1	510	576.0	520	575.1	530	573.8	540	573.3	550
GR	572.3	560	572.1	570	571.4	580	571.4	590	571.3	600
GR	571.7	610	572.1	620	573.3	630	574.1	640	574.9	645
GR	577.2	655	578.2	660	581.5	670	584.8	675	584.5	700
GR	583.4	800								
X1	0.390				460	480	480		-0.3	
X3				505		665				
X1	0.399	50	500	650	49	49	49			
X3	10									
GR	585.3	0	584.9	100	585.1	200	585.1	300	585.9	400

GR	586.8	500	587.3	500	579.8	500	577.3	510	576.9	511.5
GR	576.6	512.5	574.4	520	573.6	523.7	573.5	524.2	572.2	530
GR	571.9	535.5	571.8	536.5	571.6	540.0	571.5	549.7	571.5	550
GR	571.5	550.2	571.0	560.0	571.1	561.5	571.2	562.5	571.6	570
GR	571.6	573.7	571.6	574.2	571.7	580.0	571.9	587.5	572.0	588.5
GR	572.0	590.0	572.5	600	572.6	601.7	572.6	602.2	572.8	610
GR	573.1	613.5	573.2	614.5	573.7	620	575.2	625.7	575.3	626.2
GR	576.3	630	577.1	637.5	577.1	638.5	577.3	640	578.3	650
GR	587.3	650	586.9	650	586.1	710	589.5	720	583.1	732
NC	.02	.02	.04							
X1	0.400				1	1	1			
X3	10									
BT	46	500.0	587.3	584.3	511.5	587.3	584.3	511.5	587.3	576.9
BT	512.5	587.3	576.6	512.5	587.3	584.3	523.7	587.3	584.3	523.7
BT	587.3	573.6	524.2	587.3	573.5	524.2	587.3	584.3	535.5	587.3
BT	584.3	535.5	587.3	571.9	536.5	587.3	571.8	536.5	587.3	584.3
BT	549.7	587.3	584.3	549.7	587.3	571.5	550.2	587.3	571.5	550.2
BT	587.3	584.3	561.5	587.3	584.3	561.5	587.3	571.1	562.5	587.3
BT	571.2	562.5	587.3	584.3	573.7	587.3	584.3	573.7	587.3	571.6
BT	574.2	587.3	571.6	574.2	587.3	584.3	587.5	587.3	584.3	587.5
BT	587.3	571.9	588.5	587.3	572.0	588.5	587.3	584.3	601.7	587.3
BT	584.3	601.7	587.3	572.6	602.2	587.3	572.6	602.2	587.3	584.3
BT	613.5	587.3	584.3	613.5	587.3	573.1	614.5	587.3	573.2	614.5
BT	587.3	584.3	625.7	587.3	584.3	625.7	587.3	575.2	625.7	587.3
BT	575.3	626.2	587.3	584.3	637.5	587.3	584.3	637.5	587.3	577.1
BT	638.5	587.3	577.1	638.5	587.3	584.3	650	587.3	584.3	
X1	0.403				20	20	20			
X2							1			
X3	10									
NC	.05	.05	.04							
X1	0.404				1	1	1			
X3	10									
X1	0.413				49	49	49		-0.4	
X3	10									
NH	5	.055	42	.07	335	.04	560	.07	792	.06
NH	850									
X1	0.463	48	22	792	265	265	265			
X3				335		560				
GR	588.0	0	587.4	22	582.1	42	581.2	45	581.2	90
GR	580.9	140	580.7	190	580.3	240	580.1	290	580.2	335
GR	579.9	340	579.4	360	578.7	370	577.2	380	576.9	390
GR	575.7	400	575.7	410	575.7	420	575.7	430	575.1	440
GR	574.9	450	573.9	460	574.0	470	573.2	480	571.2	490
GR	569.0	500	569.0	510	569.0	520	573.7	530	578.4	560
GR	578.7	600	578.6	620	579.1	640	579.2	660	578.6	680
GR	578.9	700	578.7	710	578.7	720	579.0	730	579.0	740
GR	579.0	750	578.9	760	579.0	770	579.6	780	579.9	785
GR	581.2	790	583.3	792	583.7	850				
X1	0.543				335	535	420		1.8	
X3				335		560				
X1	0.551	61	508	774	48	48	48			
X3	10									
GR	588.0	0	588.3	100	588.5	200	588.8	300	589.3	400
GR	589.7	508	581.2	508	580.9	510	580.6	512.5	580.3	515.5
GR	579.8	520	580.3	530	579.1	535.5	578.5	538.5	578.2	540
GR	577.8	550	577.8	556.5	577.8	559.5	577.8	560	576.3	580
GR	576.3	582.5	576.2	585.5	575.9	600	575.9	604.5	575.9	607.5
GR	575.9	620	575.4	626.5	575.1	629.5	574.3	640	573.8	650.5
GR	573.6	653.5	573.3	660	573.5	674.5	573.5	677.5	573.5	680
GR	572.3	694.5	572.0	697.5	571.8	700	571.2	710	571.0	718.5
GR	571.0	720	571.2	721.5	572.5	730	573.0	740	573.6	742.5
GR	574.3	745.5	575.3	750	576.5	760	577.7	765.5	578.3	768.5
GR	578.6	770	579.8	774	589.6	774	589.2	800	588.0	900
GR	588.0	1100	588.1	1300	588.3	1500	588.6	1700	588.9	1900
GR	589.0	2100								
NC	.04	.04	.04							
X1	0.55[illegible]									

X1	0.552				1	1	1			
X3	10									
BT	50	508.0	589.7	587.4	512.5	589.7	587.4	512.5	589.7	580.6
BT	515.5	589.7	580.3	515.5	589.7	587.4	535.5	589.7	587.4	535.5
BT	589.7	579.1	538.5	589.7	578.5	538.5	589.7	587.4	556.5	589.7
BT	587.4	556.5	589.7	577.8	559.5	589.7	577.8	559.5	589.7	587.4
BT	582.5	589.7	587.4	582.5	589.7	576.3	585.5	589.7	576.2	585.5
BT	589.7	587.4	604.5	589.7	587.4	604.5	589.7	575.9	607.5	589.7
BT	575.9	607.5	589.7	587.4	626.5	589.7	587.4	626.5	589.7	575.4
BT	629.5	589.7	575.1	629.5	589.7	587.4	650.5	589.7	587.4	650.5
BT	589.7	573.8	653.5	589.7	573.6	653.5	589.7	587.4	674.5	589.7
BT	587.4	674.5	589.7	573.5	677.5	589.7	573.5	677.5	589.7	587.4
BT	694.5	589.7	587.4	694.5	589.7	572.3	697.5	589.7	572.0	697.5
BT	589.7	587.4	718.5	589.7	587.4	718.5	589.7	571.0	721.5	589.7
BT	571.2	721.5	589.7	587.4	742.5	589.6	587.3	742.5	589.6	573.6
BT	745.5	589.6	574.3	745.5	589.6	587.3	765.5	589.6	587.3	765.5
BT	589.6	577.7	768.5	589.6	578.3	768.5	589.6	587.3	774.0	589.6
BT	587.3									
X1	0.554				12	12	12			
X2							1			
X3	10									
NC	.07	.09	.04							
X1	0.555				1	1	1			
X3	10									
X1	0.563				48	48	48		.1	
X3	10									
X1	0.676	37	696	979	620	535	595			
X3				696		979				
GR	585.1	0	584.5	100	583.9	200	583.7	300	584.0	400
GR	584.2	500	584.3	600	583.0	696	581.2	699	578.2	705
GR	576.7	715	576.2	720	575.0	730	573.8	740	573.0	750
GR	572.4	760	572.8	780	573.6	790	573.9	800	574.1	810
GR	574.7	820	575.9	840	577.0	860	578.0	880	578.4	900
GR	578.4	920	578.4	940	579.1	960	581.0	970	581.7	975
GR	584.1	979	584.6	1000	585.4	1040	585.1	1080	581.7	1095
GR	580.9	1100	580.4	1200						
X1	0.769				490	510	490		1.1	
X3				696		896				
X1	0.778	33	454	650	50	50	50			
X3	10									
GR	585.3	0	586.5	100	589.4	300	590.0	454	581.1	454
GR	581.1	460	578.9	470	577.0	480	575.8	490	575.4	500
GR	574.8	510	575.6	520	576.1	530	575.6	540	576.1	550
GR	575.1	560	574.1	570	573.7	580	573.8	590	574.1	600
GR	574.4	610	577.1	620	577.7	630	580.0	640	581.3	645
GR	581.6	648	590.1	650	589.4	700	587.5	900	587.4	1100
GR	588.9	1300	592.3	1500	594.2	1700				
NC	.02	.02	.04							
X1	0.779	55	454	650	1	1	1			
X3	10									
BT	4	454.0	590.0	586.6	501.0	590.0	586.6	601.0	590.0	586.6
BT	650.0	590.1	586.6							
GR	585.3	0	586.5	100	589.4	300	590.0	454	586.6	454
GR	581.1	460	578.9	470	577.0	480	575.8	490	575.4	499.25
GR	584.0	499.25	584.0	501	586.6	501	586.6	505	584.0	505
GR	584.0	506.75	575.0	506.75	574.8	510	575.6	520	576.1	530
GR	575.6	540	576.1	549.25	584.0	549.25	584.0	551	586.6	551
GR	586.6	555	584.0	555	584.0	556.75	575.4	556.75	575.1	560
GR	574.1	570	573.7	580	573.8	590	574.1	599.25	584.0	599.25
GR	584.0	601	586.6	601	586.6	605	584.0	605	584.0	606.75
GR	574.3	606.75	574.4	610	577.1	620	577.7	630	580.0	640
GR	581.3	645	581.6	648	586.6	650	590.1	650	589.4	700
GR	587.5	900	587.4	1100	588.9	1300	592.3	1500	594.2	1700
X1	0.797				98	98	98			
X2							1			
X3	10									

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NC   .06     .09     .04
X1 0.798      33     454     650       1       1       1
X3    10
GR 585.3       0   586.5     100   589.4     300   590.0     454   581.1     454
GR 581.1     460   578.9     470   577.0     480   575.8     490   575.4     500
GR 574.8     510   575.6     520   576.1     530   575.6     540   576.1     550
GR 575.1     560   574.1     570   573.7     580   573.8     590   574.1     600
GR 574.4     610   577.1     620   577.7     630   580.0     640   581.3     645
GR 581.6     648   590.1     650   589.4     700   587.5     900   587.4    1100
GR 588.9    1300   592.3    1500   594.2    1700
X1 0.807                               50      50      50
X3    10
NC   .05     .09     .04
X1 0.824      25     568     837      60     100      90
GR 587.2       0   586.4     100   586.9     200   588.7     300   589.9     400
GR 585.7     500   584.2     568   580.0     570   577.4     580   576.7     590
GR 575.6     600   576.0     610   576.6     620   577.0     630   577.4     640
GR 577.8     650   577.4     680   575.8     690   575.9     700   575.7     710
GR 574.8     740   575.4     780   576.8     790   579.0     800   584.7     837
X1 0.992      33    2010    3198    1025    1000     890
X3                          2010
GR 592.8       0   589.1     400   587.4     800   584.1    1400   584.4    1455
GR 584.3    1600   583.8    1800   582.7    2000   585.1    2010   582.3    2014
GR 581.1    2015   580.3    2020   579.7    2030   578.3    2100   578.2    2240
GR 577.9    2270   577.9    2290   578.3    2320   578.8    2350   578.6    2370
GR 575.2    2420   578.3    2430   575.5    2500   575.4    2510   574.8    2520
GR 576.9    2530   578.1    2540   578.6    2550   579.0    2740   578.6    2770
GR 578.9    2790   581.1    3197   585.7    3198
EJ
T1        THE GRAND RIVER, OTTAWA COUNTY MICHIGAN - JOB NOS. 5555-19,26,67,68-01
T2        50-YEAR FLOOD = 53000 CFS
T3        FERRYSBURG, GRAND HAVEN, SPRING LAKE TOWNSHIP AND SPRING LAKE VILLAGE
J1   -10       3                                                   580.9
J2     2              -1
T1        THE GRAND RIVER, OTTAWA COUNTY MICHIGAN - JOB NOS. 5555-19,26,67,68-01
T2        100-YEAR FLOOD = 61,000 CFS
T3        FERRYSBURG, GRAND HAVEN, SPRING LAKE TOWNSHIP AND SPRING LAKE VILLAGE
J1   -10       4                                                   580.9
J2     3              -1
T1        THE GRAND RIVER, OTTAWA COUNTY MICHIGAN - JOB NOS. 5555-19,26,67,68-01
T2        500 YEAR FLOOD = 82000 CFS
T3        FERRYSBURG, GRAND HAVEN, SPRING LAKE TOWNSHIP AND SPRING LAKE VILLAGE
J1   -10       5                                                   580.9
J2    15              -1


ER
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SUMMARY PRINTOUT FOR MULTIPLE PROFILES

(A) 6-21-76

FERRYSBURG, GRAND HAVEN,

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	HV	HL	OLOSS
0.00	0.00	0.00	0.00	551.00	36500.00	580.90	0.00	581.11	382.62	.21	0.00	0.00
0.00	0.00	0.00	0.00	551.00	53000.00	580.90	0.00	581.34	382.62	.44	0.00	0.00
0.00	0.00	0.00	0.00	551.00	61000.00	580.90	0.00	581.48	382.62	.58	0.00	0.00
0.00	0.00	0.00	0.00	551.00	82000.00	580.90	0.00	581.95	382.62	1.05	0.00	0.00
.19	1010.00	0.00	0.00	551.00	36500.00	580.96	0.00	581.17	382.63	.21	.06	.00
.19	1010.00	0.00	0.00	551.00	53000.00	581.03	0.00	581.47	382.63	.44	.13	.00
.19	1010.00	0.00	0.00	551.00	61000.00	581.07	0.00	581.65	382.64	.58	.17	.00
.19	1010.00	0.00	0.00	551.00	82000.00	581.23	0.00	582.25	382.65	1.03	.30	.00
.38	980.00	0.00	0.00	546.80	36500.00	581.07	0.00	581.22	416.60	.15	.05	.01
.38	980.00	0.00	0.00	546.80	53000.00	581.25	0.00	581.58	416.62	.32	.10	.01
.38	980.00	0.00	0.00	546.80	61000.00	581.37	0.00	581.79	416.63	.42	.13	.02
.38	980.00	0.00	0.00	546.80	82000.00	581.76	0.00	582.51	416.68	.74	.23	.03
.75	1980.00	0.00	0.00	548.10	36500.00	581.19	0.00	581.30	589.67	.11	.07	.00
.75	1980.00	0.00	0.00	548.10	53000.00	581.51	0.00	581.73	592.91	.22	.15	.01
.75	1980.00	0.00	0.00	548.10	61000.00	581.71	0.00	582.00	594.91	.29	.19	.01
.75	1980.00	0.00	0.00	548.10	82000.00	582.36	0.00	582.85	608.91	.49	.32	.03
.98	1190.00	0.00	0.00	552.30	36500.00	581.23	0.00	581.34	655.74	.10	.04	.00
.98	1190.00	0.00	0.00	552.30	53000.00	581.60	0.00	581.81	663.10	.21	.08	.00
.98	1190.00	0.00	0.00	552.30	61000.00	581.83	0.00	582.10	667.63	.28	.10	.00
.98	1190.00	0.00	0.00	552.30	82000.00	582.56	0.00	583.03	682.39	.47	.17	.00
1.16	940.00	0.00	0.00	550.00	34000.00	581.26	0.00	581.39	471.47	.14	.04	.01
1.16	940.00	0.00	0.00	550.00	48800.00	581.65	0.00	581.92	472.31	.27	.09	.02
1.16	940.00	0.00	0.00	550.00	56000.00	581.89	0.00	582.24	472.73	.35	.11	.02
1.16	940.00	0.00	0.00	550.00	74250.00	582.66	0.00	583.25	474.07	.58	.18	.03
1.57	2200.00	0.00	0.00	550.20	34000.00	581.43	0.00	581.54	728.40	.11	.15	.00
1.57	2200.00	0.00	0.00	550.20	48800.00	581.99	0.00	582.21	730.95	.22	.28	.01
1.57	2200.00	0.00	0.00	550.20	56000.00	582.33	0.00	582.61	732.48	.28	.36	.01
1.57	2200.00	0.00	0.00	550.20	74250.00	583.38	0.00	583.82	736.77	.44	.56	.01
2.13	2920.00	0.00	0.00	551.00	34000.00	581.63	0.00	581.76	580.15	.13	.21	.01
2.13	2920.00	0.00	0.00	551.00	48800.00	582.37	0.00	582.62	589.64	.26	.40	.01
2.13	2920.00	0.00	0.00	551.00	56000.00	582.80	0.00	583.12	595.23	.32	.50	.01
2.13	2920.00	0.00	0.00	551.00	74250.00	584.09	0.00	584.59	654.28	.50	.75	.02
2.46	1750.00	0.00	0.00	551.90	34000.00	581.77	0.00	581.93	496.94	.15	.16	.01
2.46	1750.00	0.00	0.00	551.90	48800.00	582.64	0.00	582.93	498.76	.29	.30	.01
2.46	1750.00	0.00	0.00	551.90	56000.00	583.13	0.00	583.50	499.81	.37	.37	.01
2.46	1750.00	0.00	0.00	551.90	74250.00	584.57	0.00	585.15	502.84	.58	.54	.02
2.47	49.00	0.00	0.00	552.00	34000.00	581.76	0.00	581.94	504.06	.19	.01	.01
2.47	49.00	0.00	0.00	552.00	48800.00	582.60	0.00	582.96	504.54	.36	.01	.02
2.47	49.00	0.00	0.00	552.00	56000.00	583.09	0.00	583.54	504.82	.45	.01	.02
2.47	49.00	0.00	0.00	552.00	74250.00	584.51	0.00	585.20	505.00	.69	.02	.03

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	HV	HL	OLØSS
2.47	1.00	592.00	588.40	552.00	34000.00	581.72	0.00	581.96	504.04	.24	.00	.02
2.47	1.00	592.00	583.40	552.00	48800.00	582.53	0.00	582.99	504.50	.46	.00	.03
2.47	1.00	592.00	588.40	552.00	56000.00	583.00	0.00	583.58	504.77	.58	.00	.04
2.47	1.00	592.00	588.40	552.00	74250.00	584.37	0.00	585.26	505.00	.90	.00	.06
2.47	20.00	592.00	588.40	552.00	34000.00	581.73	0.00	581.97	504.04	.24	.00	.00
2.47	20.00	592.00	588.40	552.00	48800.00	582.54	0.00	583.00	504.51	.46	.01	.00
2.47	20.00	592.00	588.40	552.00	56000.00	583.01	0.00	583.59	504.78	.58	.01	.00
2.47	20.00	592.00	588.40	552.00	74250.00	584.38	0.00	585.28	505.00	.89	.01	.00
2.47	1.00	0.00	0.00	552.00	34000.00	581.78	0.00	581.97	504.08	.19	.00	.01
2.47	1.00	0.00	0.00	552.00	48800.00	582.66	0.00	583.01	504.57	.35	.00	.01
2.47	1.00	0.00	0.00	552.00	56000.00	583.16	0.00	583.60	504.86	.44	.00	.01
2.47	1.00	0.00	0.00	552.00	74250.00	584.62	0.00	585.30	505.00	.68	.00	.02
2.48	49.00	0.00	0.00	553.00	34000.00	581.82	0.00	581.98	503.53	.16	.01	.00
2.48	49.00	0.00	0.00	553.00	48800.00	582.73	0.00	583.03	504.05	.29	.01	.01
2.48	49.00	0.00	0.00	553.00	56000.00	583.25	0.00	583.62	504.34	.37	.01	.01
2.48	49.00	0.00	0.00	553.00	74250.00	584.76	0.00	585.33	505.00	.57	.02	.01
2.51	180.00	0.00	0.00	556.40	34000.00	581.79	0.00	582.02	519.80	.23	.02	.02
2.51	180.00	0.00	0.00	556.40	48800.00	582.67	0.00	583.11	521.79	.43	.04	.04
2.51	180.00	0.00	0.00	556.40	56000.00	583.18	0.00	583.72	522.93	.54	.05	.05
2.51	180.00	0.00	0.00	556.40	74250.00	584.65	0.00	585.47	526.26	.82	.07	.08
2.54	150.00	0.00	0.00	551.80	34000.00	581.90	0.00	582.05	530.00	.15	.02	.01
2.54	150.00	0.00	0.00	551.80	48800.00	582.88	0.00	583.15	530.00	.28	.03	.02
2.54	150.00	0.00	0.00	551.80	56000.00	583.43	0.00	583.78	530.00	.35	.04	.02
2.54	150.00	0.00	0.00	551.80	74250.00	585.02	0.00	585.55	530.00	.53	.05	.03
2.55	49.00	0.00	0.00	550.30	34000.00	581.90	0.00	582.06	515.00	.15	.00	.00
2.55	49.00	0.00	0.00	550.30	48800.00	582.87	0.00	583.17	519.76	.29	.01	.00
2.55	49.00	0.00	0.00	550.30	56000.00	583.43	0.00	583.79	522.49	.36	.01	.01
2.55	49.00	0.00	0.00	550.30	74250.00	585.02	0.00	585.58	529.62	.56	.01	.01
2.55	1.00	608.70	605.30	550.30	34000.00	581.87	0.00	582.07	514.80	.20	.00	.01
2.55	1.00	608.70	605.30	550.30	48800.00	582.81	0.00	583.19	519.44	.38	.00	.03
2.55	1.00	608.70	605.30	550.30	56000.00	583.35	0.00	583.83	522.08	.47	.00	.03
2.55	1.00	608.70	605.30	550.30	74250.00	584.90	0.00	585.63	529.13	.72	.00	.05
2.57	100.00	608.70	605.30	550.30	34000.00	581.89	0.00	582.09	514.86	.20	.02	.00
2.57	100.00	608.70	605.30	550.30	48800.00	582.84	0.00	583.22	519.54	.38	.03	.00
2.57	100.00	608.70	605.30	550.30	56000.00	583.39	0.00	583.86	522.21	.47	.03	.00
2.57	100.00	608.70	605.30	550.30	74250.00	584.95	0.00	585.67	529.32	.72	.05	.00
2.57	1.00	0.00	0.00	550.30	34000.00	581.94	0.00	582.09	515.12	.15	.00	.00
2.57	1.00	0.00	0.00	550.30	48800.00	582.94	0.00	583.23	520.04	.29	.00	.01
2.57	1.00	0.00	0.00	550.30	56000.00	583.51	0.00	583.87	522.83	.36	.00	.01
2.57	1.00	0.00	0.00	550.30	74250.00	585.14	0.00	585.69	530.13	.55	.00	.02

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	HV	HL	OLOSS
2.58	49.00	0.00	0.00	551.10	34000.00	581.93	0.00	582.10	509.52	.17	.01	.00
2.58	49.00	0.00	0.00	551.10	48800.00	582.93	0.00	583.24	516.12	.31	.01	.01
2.58	49.00	0.00	0.00	551.10	56000.00	583.50	0.00	583.89	518.87	.39	.01	.01
2.58	49.00	0.00	0.00	551.10	74250.00	585.13	0.00	585.72	526.69	.59	.02	.01
2.64	310.00	0.00	0.00	556.40	34000.00	582.01	0.00	582.14	883.75	.13	.04	.00
2.64	310.00	0.00	0.00	556.40	48800.00	583.08	0.00	583.32	885.61	.24	.07	.01
2.64	310.00	0.00	0.00	556.40	56000.00	583.69	0.00	583.98	886.66	.29	.08	.01
2.64	310.00	0.00	0.00	556.40	74250.00	585.44	0.00	585.84	889.69	.40	.11	.02
2.91	1440.00	0.00	0.00	559.40	34000.00	582.26	0.00	582.36	1486.41	.10	.21	.00
2.91	1440.00	0.00	0.00	559.40	48800.00	583.50	0.00	583.65	1742.05	.16	.33	.01
2.91	1440.00	0.00	0.00	559.40	56000.00	584.18	0.00	584.36	1790.69	.18	.37	.01
2.91	1440.00	0.00	0.00	559.40	74250.00	586.06	0.00	586.29	1906.27	.23	.43	.02
3.28	1950.00	0.00	0.00	567.70	36500.00	582.55	0.00	582.60	3023.89	.05	.23	.00
3.28	1950.00	0.00	0.00	567.70	53000.00	583.91	0.00	583.99	3028.92	.08	.32	.01
3.28	1950.00	0.00	0.00	567.70	61000.00	584.63	0.00	584.71	3042.20	.09	.35	.01
3.28	1950.00	0.00	0.00	567.70	82000.00	586.56	0.00	586.67	3050.00	.11	.37	.01
4.00	3810.00	0.00	0.00	562.30	36500.00	582.90	0.00	582.94	3545.61	.04	.34	.00
4.00	3810.00	0.00	0.00	562.30	53000.00	584.38	0.00	584.43	3900.00	.05	.44	.00
4.00	3810.00	0.00	0.00	562.30	61000.00	585.13	0.00	585.18	3900.00	.06	.47	.00
4.00	3810.00	0.00	0.00	562.30	82000.00	587.09	0.00	587.16	3900.00	.07	.49	.00
4.38	2020.00	0.00	0.00	567.20	36500.00	583.10	0.00	583.15	3925.00	.05	.21	.00
4.38	2020.00	0.00	0.00	567.20	53000.00	584.62	0.00	584.68	3925.00	.06	.25	.00
4.38	2020.00	0.00	0.00	567.20	61000.00	585.37	0.00	585.44	3925.00	.07	.26	.00
4.38	2020.00	0.00	0.00	567.20	82000.00	587.34	0.00	587.41	3925.00	.08	.25	.00
4.75	1950.00	0.00	0.00	565.60	36500.00	583.36	0.00	583.44	2451.53	.07	.28	.01
4.75	1950.00	0.00	0.00	565.60	53000.00	584.92	0.00	585.03	2461.64	.10	.33	.01
4.75	1950.00	0.00	0.00	565.60	61000.00	585.68	0.00	585.79	2466.55	.11	.34	.01
4.75	1950.00	0.00	0.00	565.60	82000.00	587.63	0.00	587.77	2479.78	.14	.34	.02
5.17	2190.00	0.00	0.00	567.60	36500.00	583.67	0.00	583.71	3574.57	.04	.27	.00
5.17	2190.00	0.00	0.00	567.60	53000.00	585.31	0.00	585.36	3582.10	.05	.33	.01
5.17	2190.00	0.00	0.00	567.60	61000.00	586.09	0.00	586.15	3585.72	.06	.35	.01
5.17	2190.00	0.00	0.00	567.60	82000.00	588.07	0.00	588.14	3626.63	.07	.36	.01
5.53	1890.00	0.00	0.00	567.00	36500.00	583.86	0.00	583.95	2914.81	.09	.22	.02
5.53	1890.00	0.00	0.00	567.00	53000.00	585.53	0.00	585.65	2920.00	.12	.26	.02
5.53	1890.00	0.00	0.00	567.00	61000.00	586.31	0.00	586.44	2920.00	.13	.27	.02
5.53	1890.00	0.00	0.00	567.00	82000.00	588.29	0.00	588.44	2920.00	.15	.28	.02
6.21	3590.00	0.00	0.00	563.60	36500.00	584.23	0.00	584.30	2100.00	.06	.34	.00
6.21	3590.00	0.00	0.00	563.60	53000.00	585.99	0.00	586.08	2100.00	.10	.43	.00
6.21	3590.00	0.00	0.00	563.60	61000.00	586.79	0.00	586.90	2100.00	.11	.46	.00
6.21	3590.00	0.00	0.00	563.60	82000.00	588.80	0.00	588.95	2100.00	.14	.50	.00

	SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	HV	HL	OLOSS
	6.45	1290.00	0.00	0.00	569.00	36500.00	584.38	0.00	584.44	2912.14	.06	.14	.00
	6.45	1290.00	0.00	0.00	569.00	53000.00	586.18	0.00	586.25	2941.67	.07	.17	.00
G	6.45	1290.00	0.00	0.00	569.00	61000.00	587.00	0.00	587.09	2964.29	.08	.18	.00
	6.45	1290.00	0.00	0.00	569.00	82000.00	589.04	0.00	589.14	3062.04	.10	.19	.00
	6.97	2750.00	0.00	0.00	567.70	36500.00	584.81	0.00	584.87	3162.10	.06	.43	.00
H	6.97	2750.00	0.00	0.00	567.70	53000.00	586.64	0.00	586.71	3176.90	.07	.46	.00
	6.97	2750.00	0.00	0.00	567.70	61000.00	587.47	0.00	587.55	3177.99	.08	.46	.00
	6.97	2750.00	0.00	0.00	567.70	82000.00	589.51	0.00	589.60	3180.67	.09	.46	.00
	7.38	2150.00	0.00	0.00	567.30	36500.00	585.17	0.00	585.23	3316.88	.06	.36	.00
I	7.38	2150.00	0.00	0.00	567.30	53000.00	587.02	0.00	587.09	3320.52	.07	.38	.00
	7.38	2150.00	0.00	0.00	567.30	61000.00	587.85	0.00	587.92	3322.15	.08	.38	.00
	7.38	2150.00	0.00	0.00	567.30	82000.00	589.88	0.00	589.97	3326.14	.09	.37	.00
	7.94	2960.00	0.00	0.00	568.50	36500.00	585.58	0.00	585.63	2745.00	.05	.39	.00
J	7.94	2960.00	0.00	0.00	568.50	53000.00	587.46	0.00	587.52	2745.00	.06	.43	.00
	7.94	2960.00	0.00	0.00	568.50	61000.00	588.29	0.00	588.36	2745.00	.07	.43	.00
	7.94	2960.00	0.00	0.00	568.50	82000.00	590.32	0.00	590.41	2745.00	.09	.44	.00
	-1.16	0.00	0.00	0.00	562.60	2500.00	581.26	0.00	581.27	224.77	.01	0.00	0.00
	-1.16	0.00	0.00	0.00	562.60	4200.00	581.65	0.00	581.67	226.67	.03	0.00	0.00
	-1.16	0.00	0.00	0.00	562.60	5000.00	581.89	0.00	581.92	227.22	.04	0.00	0.00
	-1.16	0.00	0.00	0.00	562.60	7750.00	582.66	0.00	582.75	228.98	.08	0.00	0.00
	.06	330.00	0.00	0.00	565.10	2500.00	581.26	0.00	581.27	210.90	.02	.01	.00
	.06	330.00	0.00	0.00	565.10	4200.00	581.66	0.00	581.70	213.40	.04	.02	.00
	.06	330.00	0.00	0.00	565.10	5000.00	581.90	0.00	581.95	214.93	.05	.02	.01
	.06	330.00	0.00	0.00	565.10	7750.00	582.69	0.00	582.80	219.40	.12	.05	.01
	.13	330.00	0.00	0.00	567.70	2500.00	581.26	0.00	581.29	199.42	.02	.01	.00
	.13	330.00	0.00	0.00	567.70	4200.00	581.67	0.00	581.73	201.25	.06	.03	.01
	.13	330.00	0.00	0.00	567.70	5000.00	581.92	0.00	582.00	202.34	.09	.04	.01
	.13	330.00	0.00	0.00	567.70	7750.00	582.73	0.00	582.90	205.95	.18	.08	.02
	.19	330.00	0.00	0.00	570.30	2500.00	581.26	0.00	581.34	154.51	.07	.03	.01
	.19	330.00	0.00	0.00	570.30	4200.00	581.67	0.00	581.85	158.48	.18	.08	.04
	.19	330.00	0.00	0.00	570.30	5000.00	581.92	0.00	582.16	160.80	.24	.11	.05
	.19	330.00	0.00	0.00	570.30	7750.00	582.72	0.00	583.19	168.94	.47	.20	.09
	.30	590.00	0.00	0.00	571.30	2500.00	581.40	0.00	581.46	169.71	.06	.13	.00
	.30	590.00	0.00	0.00	571.30	4200.00	582.00	0.00	582.15	170.00	.15	.29	.00
	.30	590.00	0.00	0.00	571.30	5000.00	582.35	0.00	582.54	170.00	.19	.37	.00
	.30	590.00	0.00	0.00	571.30	7750.00	583.49	0.00	583.84	170.00	.35	.64	.01
	.39	480.00	0.00	0.00	571.00	2500.00	581.50	0.00	581.55	160.00	.06	.09	.00
	.39	480.00	0.00	0.00	571.00	4200.00	582.21	0.00	582.35	160.00	.14	.20	.00
	.39	480.00	0.00	0.00	571.00	5000.00	582.60	0.00	582.78	160.00	.18	.24	.00
	.39	480.00	0.00	0.00	571.00	7750.00	583.91	0.00	584.23	160.00	.33	.39	.00

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	HV	HL	OLOSS
.40	49.00	0.00	0.00	571.00	2500.00	581.50	0.00	581.57	150.00	.07	.01	.00
.40	49.00	0.00	0.00	571.00	4200.00	582.21	0.00	582.38	150.00	.17	.02	.01
.40	49.00	0.00	0.00	571.00	5000.00	582.60	0.00	582.82	150.00	.22	.03	.01
.40	49.00	0.00	0.00	571.00	7750.00	583.90	0.00	584.29	150.00	.40	.04	.02
.40	1.00	587.30	584.30	571.00	2500.00	581.46	0.00	581.58	150.00	.12	.00	.02
.40	1.00	587.30	584.30	571.00	4200.00	582.12	0.00	582.41	150.00	.29	.00	.04
.40	1.00	587.30	584.30	571.00	5000.00	582.49	0.00	582.87	150.00	.38	.00	.05
.40	1.00	587.30	584.30	571.00	7750.00	583.69	0.00	584.39	150.00	.70	.00	.09
.40	20.00	587.30	584.30	571.00	2500.00	581.47	0.00	581.59	150.00	.12	.01	.00
.40	20.00	587.30	584.30	571.00	4200.00	582.15	0.00	582.44	150.00	.29	.02	.00
.40	20.00	587.30	584.30	571.00	5000.00	582.52	0.00	582.90	150.00	.37	.03	.00
.40	20.00	587.30	584.30	571.00	7750.00	583.74	0.00	584.43	150.00	.69	.05	.00
.40	1.00	0.00	0.00	571.00	2500.00	581.53	0.00	581.60	150.00	.07	.00	.01
.40	1.00	0.00	0.00	571.00	4200.00	582.29	0.00	582.45	150.00	.16	.00	.01
.40	1.00	0.00	0.00	571.00	5000.00	582.70	0.00	582.91	150.00	.21	.00	.02
.40	1.00	0.00	0.00	571.00	7750.00	584.08	0.00	584.46	150.00	.38	.00	.03
.41	49.00	0.00	0.00	570.60	2500.00	581.55	0.00	581.61	150.00	.06	.01	.00
.41	49.00	0.00	0.00	570.60	4200.00	582.33	0.00	582.47	150.00	.15	.02	.00
.41	49.00	0.00	0.00	570.60	5000.00	582.75	0.00	582.94	150.00	.19	.03	.00
.41	49.00	0.00	0.00	570.60	7750.00	584.16	0.00	584.51	150.00	.35	.04	.00
.46	265.00	0.00	0.00	569.00	2500.00	581.61	0.00	581.65	225.00	.04	.04	.00
.46	265.00	0.00	0.00	569.00	4200.00	582.47	0.00	582.56	225.00	.10	.09	.00
.46	265.00	0.00	0.00	569.00	5000.00	582.93	0.00	583.05	225.00	.12	.10	.01
.46	265.00	0.00	0.00	569.00	7750.00	584.46	0.00	584.67	225.00	.21	.15	.01
.54	420.00	0.00	0.00	570.80	2500.00	581.67	0.00	581.75	218.91	.08	.08	.01
.54	420.00	0.00	0.00	570.80	4200.00	582.58	0.00	582.74	225.00	.17	.16	.02
.54	420.00	0.00	0.00	570.80	5000.00	583.06	0.00	583.26	225.00	.20	.19	.02
.54	420.00	0.00	0.00	570.80	7750.00	584.64	0.00	584.95	225.00	.30	.24	.03
.55	48.00	0.00	0.00	571.00	2500.00	581.74	0.00	581.77	266.00	.03	.02	.00
.55	48.00	0.00	0.00	571.00	4200.00	582.71	0.00	582.78	266.00	.07	.03	.01
.55	48.00	0.00	0.00	571.00	5000.00	583.21	0.00	583.30	266.00	.09	.03	.01
.55	48.00	0.00	0.00	571.00	7750.00	584.85	0.00	585.00	266.00	.15	.04	.02
.55	1.00	589.60	587.40	571.00	2500.00	581.72	0.00	581.78	266.00	.05	.00	.01
.55	1.00	589.60	587.40	571.00	4200.00	582.68	0.00	582.80	266.00	.12	.00	.01
.55	1.00	589.60	587.40	571.00	5000.00	583.17	0.00	583.32	266.00	.15	.00	.02
.55	1.00	589.60	587.40	571.00	7750.00	584.79	0.00	585.03	266.00	.24	.00	.03
.55	12.00	589.60	587.40	571.00	2500.00	581.73	0.00	581.78	266.00	.05	.00	.00
.55	12.00	589.60	587.40	571.00	4200.00	582.69	0.00	582.80	266.00	.12	.01	.00
.55	12.00	589.60	587.40	571.00	5000.00	583.18	0.00	583.33	266.00	.14	.01	.00
.55	12.00	589.60	587.40	571.00	7750.00	584.80	0.00	585.04	266.00	.24	.01	.00

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	HV	HL	OLOSS
.56	1.00	0.00	0.00	571.00	2500.00	581.75	0.00	581.78	266.00	.03	.00	.00
.56	1.00	0.00	0.00	571.00	4200.00	582.73	0.00	582.81	266.00	.07	.00	.00
.56	1.00	0.00	0.00	571.00	5000.00	583.24	0.00	583.33	266.00	.09	.00	.01
.56	1.00	0.00	0.00	571.00	7750.00	584.90	0.00	585.05	266.00	.15	.00	.01
.56	48.00	0.00	0.00	571.10	2500.00	581.76	0.00	581.79	266.00	.04	.01	.00
.56	48.00	0.00	0.00	571.10	4200.00	582.75	0.00	582.82	266.00	.07	.01	.00
.56	48.00	0.00	0.00	571.10	5000.00	583.25	0.00	583.35	266.00	.09	.01	.00
.56	48.00	0.00	0.00	571.10	7750.00	584.92	0.00	585.07	266.00	.15	.02	.00
.68	595.00	0.00	0.00	572.40	2500.00	581.85	0.00	581.89	277.31	.04	.10	.00
.68	595.00	0.00	0.00	572.40	4200.00	582.91	0.00	582.99	280.85	.08	.17	.00
.68	595.00	0.00	0.00	572.40	5000.00	583.44	0.00	583.54	281.88	.10	.19	.00
.68	595.00	0.00	0.00	572.40	7750.00	585.15	0.00	585.30	283.00	.16	.23	.00
.77	490.00	0.00	0.00	573.50	2500.00	581.96	0.00	582.04	196.32	.08	.14	.01
.77	490.00	0.00	0.00	573.50	4200.00	583.07	0.00	583.23	198.28	.16	.21	.02
.77	490.00	0.00	0.00	573.50	5000.00	583.61	0.00	583.80	199.18	.19	.24	.03
.77	490.00	0.00	0.00	573.50	7750.00	585.32	0.00	585.62	200.00	.30	.28	.04
.78	50.00	0.00	0.00	573.70	2500.00	581.98	0.00	582.06	194.09	.08	.02	.00
.78	50.00	0.00	0.00	573.70	4200.00	583.10	0.00	583.26	194.35	.16	.03	.00
.78	50.00	0.00	0.00	573.70	5000.00	583.65	0.00	583.84	194.48	.19	.03	.00
.78	50.00	0.00	0.00	573.70	7750.00	585.37	0.00	585.66	194.89	.30	.04	.00
.78	1.00	590.00	586.60	573.70	2500.00	581.96	0.00	582.07	166.60	.11	.00	.01
.78	1.00	590.00	586.60	573.70	4200.00	583.06	0.00	583.28	168.23	.21	.00	.02
.78	1.00	590.00	586.60	573.70	5000.00	583.60	0.00	583.86	169.02	.26	.00	.02
.78	1.00	590.00	586.60	573.70	7750.00	585.30	0.00	585.70	182.06	.40	.00	.03
.80	98.00	590.00	586.60	573.70	2500.00	582.03	0.00	582.14	166.67	.11	.07	.00
.80	98.00	590.00	586.60	573.70	4200.00	583.18	0.00	583.39	168.40	.21	.11	.00
.80	98.00	590.00	586.60	573.70	5000.00	583.73	0.00	583.98	169.22	.25	.12	.00
.80	98.00	590.00	586.60	573.70	7750.00	585.47	0.00	585.86	182.32	.38	.16	.00
.80	1.00	0.00	0.00	573.70	2500.00	582.06	0.00	582.14	194.11	.08	.00	.00
.80	1.00	0.00	0.00	573.70	4200.00	583.24	0.00	583.39	194.39	.15	.00	.01
.80	1.00	0.00	0.00	573.70	5000.00	583.81	0.00	583.99	194.52	.18	.00	.01
.80	1.00	0.00	0.00	573.70	7750.00	585.58	0.00	585.87	194.94	.28	.00	.01
.81	50.00	0.00	0.00	573.70	2500.00	582.08	0.00	582.16	194.11	.08	.02	.00
.81	50.00	0.00	0.00	573.70	4200.00	583.27	0.00	583.42	194.39	.15	.03	.00
.81	50.00	0.00	0.00	573.70	5000.00	583.84	0.00	584.02	194.53	.18	.03	.00
.81	50.00	0.00	0.00	573.70	7750.00	585.62	0.00	585.90	194.95	.28	.04	.00
.82	90.00	0.00	0.00	574.80	2500.00	582.13	0.00	582.19	251.29	.05	.03	.00
.82	90.00	0.00	0.00	574.80	4200.00	583.37	0.00	583.46	259.94	.10	.04	.00
.82	90.00	0.00	0.00	574.80	5000.00	583.95	0.00	584.07	264.02	.12	.04	.01
.82	90.00	0.00	0.00	574.80	7750.00	585.79	0.00	585.97	339.25	.17	.05	.01

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	HV	HL	OLOSS
.99	890.00	0.00	0.00	574.80	2500.00	582.27	0.00	582.28	1183.23	.01	.09	.00
.99	890.00	0.00	0.00	574.80	4200.00	583.56	0.00	583.57	1185.34	.01	.10	.01
.99	890.00	0.00	0.00	574.80	5000.00	584.16	0.00	584.17	1186.33	.01	.10	.01
.99	890.00	0.00	0.00	574.80	7750.00	586.06	0.00	586.07	1188.00	.01	.09	.02

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
0.000	36500.000	580.900	0.000	0.000	0.000	382.619	0.000	-0.000
0.000	53000.000	580.900	0.000	0.000	0.000	382.619	0.000	-0.000
0.000	61000.000	580.900	0.000	0.000	0.000	382.619	0.000	-0.000
0.000	82000.000	580.900	0.000	0.000	0.000	382.619	0.000	-0.000
.191	36500.000	580.961	0.000	.061	0.000	382.626	0.000	1010.000
.191	53000.000	581.030	.069	.130	0.000	382.633	-.007	1010.000
.191	61000.000	581.074	.044	.174	0.000	382.637	-.012	1010.000
.191	82000.000	581.225	.151	.325	0.000	382.654	-.028	1010.000
.377	36500.000	581.067	0.000	.106	0.000	416.598	0.000	980.000
.377	53000.000	581.254	.187	.224	0.000	416.619	-.022	980.000
.377	61000.000	581.371	.117	.297	0.000	416.633	-.035	980.000
.377	82000.000	581.764	.393	.539	0.000	416.678	-.080	980.000
.752	36500.000	581.190	0.000	.124	0.000	589.670	0.000	1980.000
.752	53000.000	581.512	.322	.258	0.000	592.910	-3.240	1980.000
.752	61000.000	581.711	.199	.340	0.000	594.912	-5.242	1980.000
.752	82000.000	582.364	.654	.600	0.000	608.911	-19.241	1980.000
.977	36500.000	581.233	0.000	.043	0.000	655.736	0.000	1190.000
.977	53000.000	581.600	.367	.088	0.000	663.104	-7.368	1190.000
.977	61000.000	581.826	.226	.115	0.000	667.631	-11.895	1190.000
.977	82000.000	582.561	.735	.197	0.000	682.392	-26.655	1190.000
1.155	34000.000	581.255	0.000	.022	0.000	471.469	0.000	940.000
1.155	48800.000	581.647	.392	.047	0.000	472.315	-.846	940.000
1.155	56000.000	581.886	.239	.060	0.000	472.733	-1.264	940.000
1.155	74250.000	582.664	.778	.103	0.000	474.066	-2.597	940.000
1.572	34000.000	581.428	0.000	.173	0.000	728.400	0.000	2200.000
1.572	48800.000	581.989	.561	.342	0.000	730.951	-2.552	2200.000
1.572	56000.000	582.326	.337	.440	0.000	732.483	-4.084	2200.000
1.572	74250.000	583.381	1.055	.717	0.000	736.768	-8.368	2200.000
2.125	34000.000	581.629	0.000	.201	0.000	580.154	0.000	2920.000
2.125	48800.000	582.368	.739	.379	0.000	589.640	-9.486	2920.000
2.125	56000.000	582.800	.432	.474	0.000	595.227	-15.073	2920.000
2.125	74250.000	584.091	1.291	.709	0.000	654.285	-74.131	2920.000
2.456	34000.000	581.775	0.000	.146	0.000	496.937	0.000	1750.000
2.456	48800.000	582.638	.863	.269	0.000	498.763	-1.826	1750.000
2.456	56000.000	583.133	.495	.333	0.000	499.805	-2.868	1750.000
2.456	74250.000	584.574	1.442	.483	0.000	502.840	-5.902	1750.000
2.465	34000.000	581.757	0.000	-.018	0.000	504.061	0.000	49.000
2.465	48800.000	582.604	.847	-.033	0.000	504.545	-.484	49.000
2.465	56000.000	583.092	.487	-.041	0.000	504.823	-.762	49.000
2.465	74250.000	584.514	1.423	-.060	0.000	504.999	-.938	49.000
2.466	34000.000	581.721	0.000	-.036	0.000	504.040	0.000	1.000
2.466	43800.000	582.534	.813	-.071	0.000	504.505	-.465	1.000
2.466	56000.000	583.001	.468	-.090	0.000	504.773	[illegible]	[illegible]

GRAND RIVER

Cities of Ferrysburg and Grand Haven,
Spring Lake Township and Spring Lake Village

Hydraulic Analysis

Original Cross Section Location

Secno Chart

HYDRAULIC ANALYSIS

Introduction

The river studied was the Grand River in the City of Grand Haven and in Spring Lake Township, Ottawa County, Michigan. The study begins at the mouth of the Grand River at Lake Michigan and continues upstream for approximately 7.8 river miles to the eastern Spring Lake Township line. Discharges were computed by the Bureau of Water Management, Hydrological Survey Division, Michigan Department of Natural Resources. Frequency relationships were determined by the Log-Pearson Type III method, using gage records observed on the Grand River at Grand Rapids. The 10-, 50-, 100-, and 500-year flood frequency flows used in this study have been approved by the Michigan Department of Natural Resources.

Method of Analysis

The flood profiles were calculated by the HEC-2 computer program developed by the U.S. Army Corps of Engineers. All bridges have been modeled for the requirements of the HEC-2 normal bridge routine. The island flow distributions for the Grand River and the South Channel in Grand Haven were analyzed utilizing the method as described in Chow's Open-Channel Hydraulics (Reference 1).

Variables and Coefficients

The roughness factors (Manning's "n") were established by comparing the descriptions in Design Charts for Open-Channel Flow (Reference 2) with photographs and field descriptions taken in Grand Haven and Spring Lake Township by survey crews in 1975 and 1976.

In order to reflect the generally gradual changes in cross sections, the expansion and contraction coefficients used in this study were 0.3 and 0.1, respectively.

Starting Point

The profile computation for the Grand River began at the mouth of the Grand River at Lake Michigan. The starting elevation used was 580.9 (USC&GS), mean lake level of Lake Michigan.

why not at the end of the break water 2500 ft down stream? Note, ΔS_f in the lower 1.5 miles.

Discussion

For the island flow analysis, the HEC-2 backwater profiles for the various frequency events were computed from the mouth of the Grand River at Lake Michigan to Section 1.155. The elevations at Section 1.155 of the Grand River were then used as starting elevations for the backwater profiles on the South Channel and Grand River. The flows for each channel in the island flow analysis were determined by Chow's method (Reference 1). The estimated flows for each profile produce a comparison of water surface elevations at the merging of the two channels (Section 2.911) to within 0.1 foot.

City of Grand Haven, Spring Lake Twp.
Grand River
5555-26, 5555-67

Original Cross Section Location

Cross Section	SECNO	Location
A	0.191	1010' ± u/s of mouth of Lake Michigan
B	0.377	1990' ± u/s of mouth of Lake Michigan
C	0.752	3970' ± u/s of mouth of Lake Michigan
D	0.977	5160' ± u/s of mouth of Lake Michigan
E	1.155	6100' ± u/s of mouth of Lake Michigan; downstream confluence with South Channel
F	1.572	4720' ± d/s of Chesapeake and Ohio RR bridge
G	2.125	1800' ± d/s of Chesapeake and Ohio RR bridge
H	2.466	Chesapeake and Ohio Railroad bridge
I	2.513	250' ± u/s of Chesapeake and Ohio RR bridge and 200' ± d/s of U.S. 31 bridge
J	2.551	U.S. 31 bridge
K	2.638	460' ± u/s of U.S. 31 bridge
L	2.911	1900' ± u/s of U.S. 31 bridge; upstream diversion with South Channel
M	3.280	3850' ± u/s of U.S. 31 bridge
N	4.002	7660' ± u/s of U.S. 31 bridge
O	4.384	9680' ± u/s of U.S. 31 bridge; first section in Spring Lake Township
P	4.754	11630' ± u/s of U.S. 31 bridge
Q	5.169	13820' ± u/s of U.S. 31 bridge
R	5.527	15710' ± u/s of U.S. 31 bridge
S	6.206	19300' ± u/s of U.S. 31 bridge
T	6.451	20590' ± u/s of U.S. 31 bridge

Cross Section	SECNO	Location
U	6.972	23340' ± u/s of U.S. 31 bridge
V	7.379	25490' ± u/s of U.S. 31 bridge
W	7.939	28450' ± u/s of U.S. 31 bridge

Original Cross Section Location
(South Channel)

AA	-1.155	6100'± u/s of mouth of Lake Michigan at confluence with Grand River
BB	0.188	990' ± u/s of confluence with Grand River and 1120' ± d/s of Third Street bridge
CC	0.299	530' ± d/s of Third Street bridge
DD	0.400	Third Street bridge
EE	0.463	335' ± u/s of Third Street bridge and 469' ± d/s of Chesapeake and Ohio RR bridge
FF	0.552	Chesapeake and Ohio RR bridge
GG	0.676	656' ± u/s of Chesapeake and Ohio RR bridge and 541' ± d/s of U.S. 31 bridge
HH	0.779	U.S. 31 bridge
II	0.824	239' ± u/s of U.S. 31 bridge
JJ	0.992	1129' ± u/s of U.S. 31 bridge at upstream divergence with Grand River

DEER CREEK
COOPERSVILLE

TOPOGRAPHY

CITY OF COOPERSVILLE
OTTAWA COUNTY, MICHIGAN

As an Engineer licensed by the State of Michigan, I, Robert Todd Lamer, hereby certify that the information shown on this map represents the existing conditions of the site, and that all elevations shown are accurate and based on N.G.V.D. 1929 Datum.

Robert Todd Lamer, P.E. 40996

exxel engineering, inc.
planners · engineers · surveyors
5252 Clyde Park, S.W. • Grand Rapids, MI 49509
Phone: (616) 531-3660 Fax: (616) 531-2121
www.exxelengineering.com

DATE: 2-7-2011
REV 4/6/11
FILE NO.: 061093E
SEC 13, T6N, R13W

drawing number E F co. twp. sec. project drawing

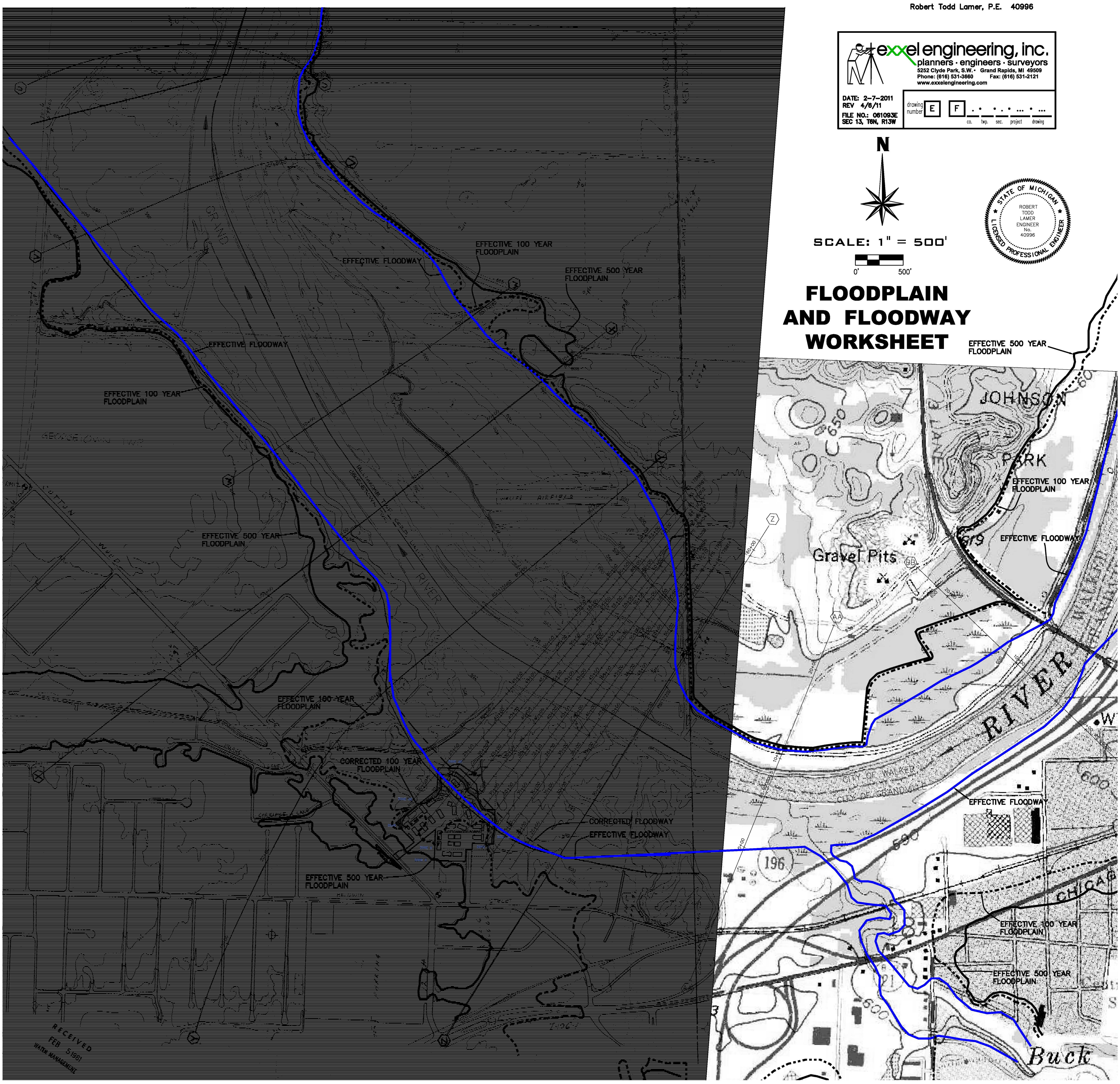
N

STATE OF MICHIGAN ROBERT TODD LAMER ENGINEER No. 40996 LICENSED PROFESSIONAL ENGINEER

SCALE: 1" = 500'

0' 500'

FLOODPLAIN AND FLOODWAY WORKSHEET



00BREAK00

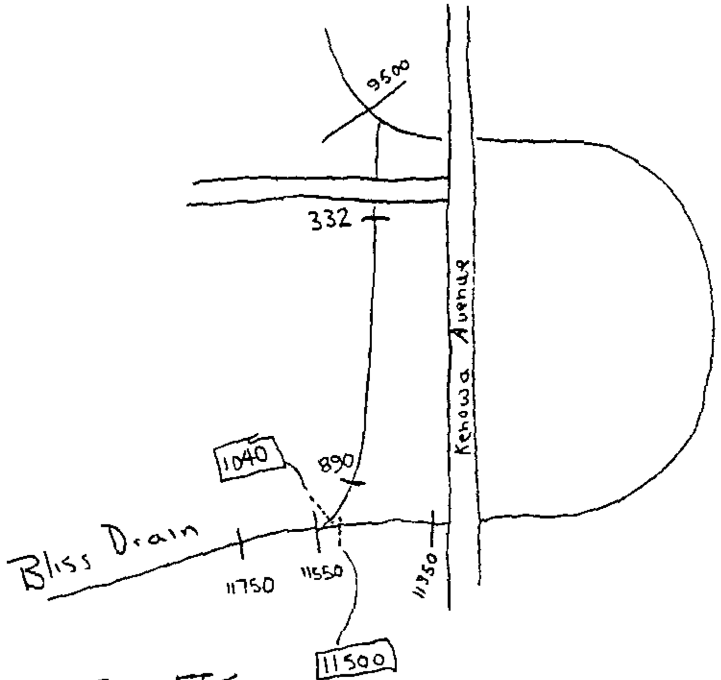
1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP

3) WATERCOURSE: BLISS DRAIN

4) DOCUMENT TYPE: 10YR - 500YR SUMMARY

00BREAK00



Georgetown Twp FIS
Bliss Drain

- If XSEC 11550 is u/s of diversion it should carry $Q_{100} = 2300$ cfs
- Suggest input of XSEC 1040 on diversion channel and XSEC 11500 on the main channel. These XSEC's should be just downstream of the split in flow
- The correct split in flow will result in the energy gradient at 11550 being equal for both the diversion channel and the main channel.

DEPARTMENT OF THE ARMY
DETROIT DISTRICT, CORPS OF ENGINEERS
BOX 1027
DETROIT, MICHIGAN 48231-1027

IN REPLY REFER TO

August 30, 1989

Great Lakes Hydraulics and Hydrology Branch

Mr. Bruce E. Menerey, P.E.
Technical Programs
Land and Water Management Division
Michigan Department of Natural Resources
P.O. Box 30028
Lansing, Michigan 48909

Dear Mr. Menerey:

Submitted for your review and approval is a copy of the hydraulic calculations for the Georgetown Township, Ottawa County, Michigan, Flood Insurance Study. Enclosed are the HEC-2 runs for the 10-, 50-, 100- (natural and encroached) and 500-year flood events, a map showing the location of cross sections along with the corresponding section numbers in the computer runs, copies of the bridge sketches in the field notes, and a brief write up dealing with items that will assist the review process.

According to FEMA guidelines, the information supplied to aid in the review process is not intended for flood plain management purposes or distribution to other individuals at this time. Before using or distributing this information, approval should be obtained from FEMA.

If you have any questions regarding the enclosed data, please contact Mr. Gary O'Keefe at (313) 226-6772.

Sincerely,

H N Singh

H. N. Singh, P.E.S.E.
Acting Chief, Engineering Division

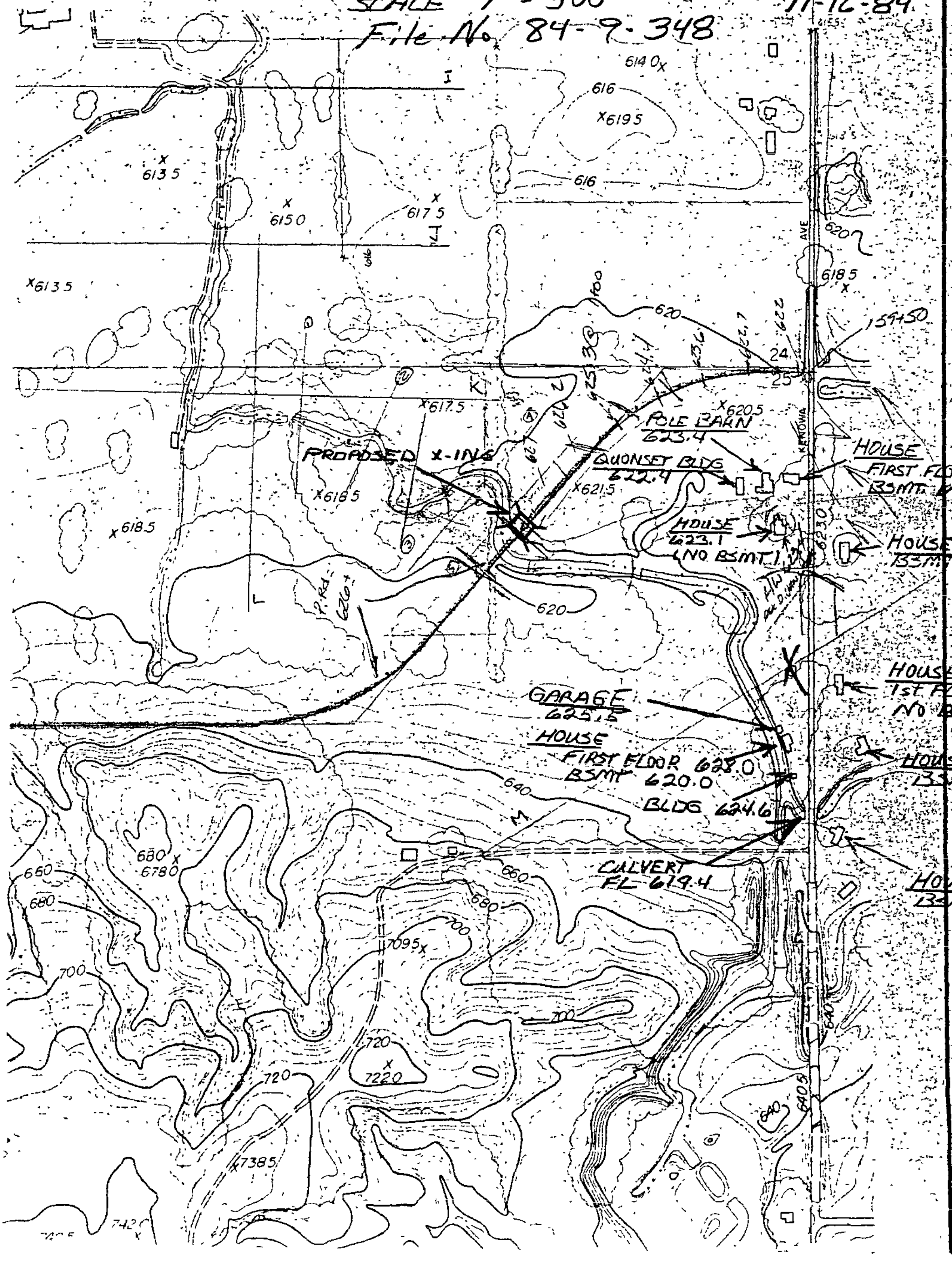
Enclosures

BLISS VS CREEK

SEC 25 T6N R13W GEORGETOWN TWP

SCALE 1" = 500' 11-16-84

File No. 84-9-348



GEORGETOWN TOWNSHIP, MICHIGAN
FLOOD INSURANCE STUDY
HYDRAULIC COMPUTATION BACKGROUND INFORMATION

The Lowing-Comstock Drain was studied from its confluence with the Grand River to 28th Avenue, the tributary to the Lowing-Comstock Drain was studied from its confluence with Lowing-Comstock Drain to 28th Avenue, Bliss Drain was studied from its confluence with Rusk Creek to the corporate limit and Huizenga Drain was studied from its confluence with Rusk Creek to Kenowa Lake.

Analyses of the hydraulic characteristics of flooding along Lowing-Comstock Drain and its tributary, Bliss Drain and Huizenga Drain were carried out to provide estimates of the elevation of the 10-, 50- 100- and 500-year floods. Water surface elevations were computed using the COE HEC-2 step-backwater computer program.

Cross section data for the backwater analysis were obtained by a field survey completed in June 1989. All bridges and culverts which were not included in the previous study, or which have been changed since the previous study, were surveyed to obtain elevation data and structural geometry.

Channel and overbank roughness factors (Manning's "n") used in the hydraulic computations were chosen by engineering judgment and were based on field observations of the streams and flood plain areas, and on back-up information from the previous FIS.

The starting water surface elevations for the backwater analyses were based on the elevations computed for the Grand River in the previous FIS. The flood elevations for Kenowa Lake were based on rating curves developed for the lake's outlet structures.

The diversion channel for Bliss Drain at Kenowa Street was modeled as a tributary to Bliss Drain, with the confluence at the point where the diversion channel re-enters the main channel. The flow distribution between the main channel and the diversion channel was balanced by determining which distributions produced matching water surface elevations at the point of the diversion.

```
NC      0.040      0.040      0.040      0.100      0.300      0.000      0.000      0.000      0.000      0.000
X1    890.000      0.000      0.000      0.000    558.000    558.000    558.000      0.000      6.000      0.000

QT      4.000   1260.000   1955.000   2300.000   3035.000      0.000      0.000      0.000      0.000      0.000
X1  11550.000     24.000    100.000    117.500     50.000     50.000     50.000      0.000      0.000      0.000
GR    630.900      0.000    626.600     50.000    626.200     75.000    629.500     94.000    625.800     98.000
GR    625.700    100.000    622.900    101.000    622.400    102.000    622.200    103.500    622.400    105.000
GR    622.400    106.000    622.400    107.000    622.400    110.500    622.400    111.500    622.400    112.500
GR    622.200    114.000    622.400    115.500    622.900    116.500    625.700    117.500    623.300    121.000
GR    627.200    125.000    627.700    149.000    627.900    175.000    627.900    225.000      0.000      0.000
EJ      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *PROF 1

 CCHV=   0.100 CEHV=   0.300
 *SECNO 0.000

 3470 ENCROACHMENT STATIONS=     1670.0     1750.0  TYPE=     1  TARGET=      80.000
       0.00     11.16    605.46      0.00      0.00    605.63      0.17      0.00      0.00    599.30
      1260.       42.     1168.       51.       44.      341.       48.        0.        0.     599.60
       0.00      0.96      3.42      1.06     0.050     0.030     0.050     0.000    594.30   1670.00
   0.000287        0.        0.        0.         0         0         0      0.00     80.00   1750.00
0
 *SECNO 15.000

 3470 ENCROACHMENT STATIONS=     1670.0     1750.0  TYPE=     1  TARGET=      80.000
      15.00     11.16    605.46      0.00      0.00    605.63      0.17      0.00      0.00    599.30
      1260.       42.     1167.       51.       44.      342.       48.        0.        0.     599.60
       0.00      0.96      3.42      1.06     0.050     0.030     0.050     0.000    594.30   1670.00
   0.000287       15.       15.       15.         0         0         0      0.00     80.00   1750.00
0
 *SECNO 115.000

 3470 ENCROACHMENT STATIONS=     1660.0     1945.0  TYPE=     1  TARGET=     285.000
     115.00     10.16    605.46      0.00      0.00    605.69      0.23      0.04      0.02    600.30
      1260.       28.     1197.       35.       25.      302.       32.        1.        0.     600.60
       0.01      1.11      3.96      1.10     0.050     0.030     0.050     0.000    595.30   1675.85
   0.000453      100.      100.      100.         2         0         0      0.00     66.43   1742.28
0
 *SECNO 290.000
     290.00      6.21    605.43      0.00      0.00    605.88      0.45      0.13      0.07    600.37
      1260.       49.     1120.       91.       26.      197.       62.        2.        1.     600.38
       0.02      1.87      5.69      1.45     0.050     0.030     0.050     0.000    599.22     54.60
   0.001322      175.      175.      175.         2         0         0      0.00    109.10    163.70
0
 *SECNO 990.000

 3265 DIVIDED FLOW

     990.00      5.71    606.43      0.00      0.00    607.02      0.58      1.10      0.04    601.87
      1260.       45.     1148.       67.       21.      180.       36.        7.        2.     601.88
       0.05      2.09      6.39      1.88     0.050     0.030     0.050     0.000    600.72     55.62
   0.001889      700.      700.      700.         2         0         0      0.00     86.04    153.12
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST


 *SECNO 1690.000

 3470 ENCROACHMENT STATIONS=       20.0      182.0  TYPE=      1  TARGET=      162.000
   1690.00      6.43    608.65      0.00      0.00    609.05      0.40      2.01      0.02    603.37
     1260.       51.     1103.      106.       29.      205.       77.       15.        5.    603.38
      0.13      1.78      5.39      1.38     0.050     0.030     0.050     0.000    602.22     54.15
  0.001130     1400.     1400.     1400.         2         0         0      0.00    114.21    168.36
0
 *SECNO 1790.000

 3470 ENCROACHMENT STATIONS=       55.0      167.0  TYPE=      1  TARGET=      112.000
   1790.00      6.33    608.75      0.00      0.00    609.17      0.42      0.12      0.01    603.57
     1260.       51.     1110.       99.       27.      201.       70.       16.        6.    603.58
      0.13      1.85      5.52      1.41     0.050     0.030     0.050     0.000    602.42     55.00
  0.001210      100.      100.      100.         2         0         0      0.00    111.26    166.26
0
 *SECNO 1840.000

 3470 ENCROACHMENT STATIONS=       55.0      142.0  TYPE=      1  TARGET=       87.000
   1840.00      6.28    608.80      0.00      0.00    609.24      0.44      0.06      0.01    603.67
     1260.       51.     1122.       87.       27.      199.       55.       16.        6.    603.68
      0.14      1.88      5.62      1.60     0.050     0.030     0.050     0.000    602.52     55.00
  0.001270       50.       50.       50.         1         0         0      0.00     87.00    142.00
0
 *SECNO 1865.000

 3470 ENCROACHMENT STATIONS=       55.0      130.0  TYPE=      1  TARGET=       75.000
   1865.00      6.30    608.82      0.00      0.00    609.27      0.45      0.03      0.00    603.67
     1260.       52.     1131.       77.       27.      200.       43.       17.        6.    603.68
      0.14      1.89      5.65      1.79     0.050     0.030     0.050     0.000    602.52     55.00
  0.001273       25.       25.       25.         0         0         0      0.00     75.00    130.00
0
 CCHV=    0.500 CEHV=    1.000
 *SECNO 1890.000

 3470 ENCROACHMENT STATIONS=      145.0      230.0  TYPE=      1  TARGET=       85.000
           PORT SHELDON DRIVE
   1890.00      6.23    608.85      0.00      0.00    609.57      0.73      0.02      0.28    603.82
     1260.       63.      953.      243.       30.      124.       84.       17.        6.    604.04
      0.14      2.13      7.71      2.90     0.030     0.015     0.030     0.000    602.62    158.88
  0.000651       25.       25.       25.         0         0         0      0.00     68.63    227.51
0
1
  18 OCT 89    10:58:20                                                                                    PAGE   15


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST


 *SECNO 1940.000

 3470 ENCROACHMENT STATIONS=     1083.0     1143.0  TYPE=      1  TARGET=       60.000
  ELENCL=    616.80  ELENCR=    616.80
   1940.00      6.96    608.88      0.00      0.00    609.62      0.75      0.03      0.02    604.62
     1260.      103.     1085.       72.       43.      146.       37.       17.        6.    604.92
```

```
      0.14      2.37      7.41      1.92     0.030     0.015     0.030     0.000    601.92   1083.35
  0.000594       50.       50.       50.         1         0         0      0.00     59.65   1143.00
0
 CCHV=    0.100 CEHV=    0.300
 *SECNO 1973.000

 3470 ENCROACHMENT STATIONS=     1083.0     1143.0  TYPE=      1  TARGET=      60.000
  ELENCL=     616.80  ELENCR=     616.80
   1973.00      7.19    609.11      0.00      0.00    609.67      0.56      0.03      0.02    604.62
     1260.      151.      999.      110.       47.      152.       41.       17.        6.    604.92
      0.14      3.20      6.57      2.65     0.040     0.030     0.040     0.000    601.92   1083.00
  0.001772       33.       33.       33.         2         0         0      0.00     60.00   1143.00
0
 *SECNO 2023.000

 3470 ENCROACHMENT STATIONS=     1075.0     1400.0  TYPE=      1  TARGET=     325.000
   2023.00      7.31    609.23      0.00      0.00    609.76      0.53      0.09      0.00    604.62
     1260.      154.      991.      114.       49.      155.       44.       17.        6.    604.92
      0.15      3.14      6.39      2.62     0.040     0.030     0.040     0.000    601.92   1083.00
  0.001637       50.       50.       50.         2         0         0      0.00     60.01   1143.01
0
 *SECNO 2448.000

 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=     1095.0     1240.0  TYPE=      1  TARGET=     145.000
   2448.00      5.99    609.91    609.79      0.00    610.97      1.06      1.05      0.16    606.62
     1260.       75.     1076.      108.       16.      122.       46.       19.        7.    606.92
      0.16      4.70      8.80      2.37     0.040     0.030     0.040     0.000    603.92   1095.00
  0.004258      350.      425.      450.         2        12         0      0.00    145.00   1240.00
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 2709.000

 3470 ENCROACHMENT STATIONS=     1000.0     1130.0  TYPE=      1  TARGET=     130.000
   2709.00      5.33    611.24      0.00      0.00    611.80      0.56      0.78      0.05    606.67
     1260.      189.      833.      237.       57.      121.       60.       21.        8.    606.67
      0.17      3.33      6.90      3.96     0.040     0.030     0.040     0.000    605.91   1049.11
  0.002259      215.      261.      275.         3         0         0      0.00     71.40   1120.50
0
 *SECNO 2785.000

 3470 ENCROACHMENT STATIONS=     1035.0     1135.0  TYPE=      1  TARGET=     100.000
           GOLF COURSE BRIDGE
   2785.00      5.56    611.47      0.00      0.00    611.96      0.49      0.16      0.01    606.67
     1260.      199.      819.      242.       64.      127.       65.       21.        8.    606.67
      0.18      3.14      6.47      3.72     0.040     0.030     0.040     0.000    605.91   1046.41
  0.001864       76.       76.       76.         1         0         0      0.00     75.21   1121.62
0

 SPECIAL BRIDGE

 5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      0.00      1.50      2.80      0.00     20.00      0.00    270.00      6.00    605.91    605.91
```

```
*SECNO 2790.000
6870 D.S. ENERGY OF  611.96 HIGHER THAN COMPUTED ENERGY OF  611.88
PRESSURE AND WEIR FLOW


 EGPRS       EGLWC       H3        QWEIR       QPR        BAREA   TRAPEZOID      ELLC       ELTRD
                                                                    AREA
    611.98    611.96      0.00       139.      1133.        270.      291.      611.40     611.40



3470 ENCROACHMENT STATIONS=     1035.0     1130.0  TYPE=      1   TARGET=       95.000
 ELENCL=     614.00  ELENCR=     614.00
  2790.00      5.56   611.47     0.00      0.00   611.96      0.49      0.00      0.00    606.67
    1260.      199.     819.     242.       64.     127.       65.       21.        8.    606.67
     0.18      3.14     6.46     3.72     0.040    0.030     0.040     0.000    605.91   1046.37
 0.001861        6.       6.       6.         2        0         2      0.00     75.27   1121.64
0
1
```

```
    SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 2840.000

3470 ENCROACHMENT STATIONS=      940.0     1135.0  TYPE=      1   TARGET=      195.000
  2840.00      5.69   611.60     0.00      0.00   612.05      0.46      0.09      0.00    606.67
    1260.      205.     811.     244.       67.     129.       68.       21.        8.    606.67
     0.18      3.05     6.27     3.61     0.040    0.030     0.040     0.000    605.91   1043.74
 0.001702       45.      50.      50.         2        0         0      0.00     78.92   1122.67
0
*SECNO 3090.000
  3090.00      5.75   612.01     0.00      0.00   612.47      0.46      0.42      0.00    609.56
    1260.       47.    1076.     138.       26.     187.       44.       23.        8.    606.36
     0.19      1.78     5.76     3.13     0.040    0.030     0.040     0.000    606.26   1034.83
 0.001638      250.     250.     250.         2        0         0      0.00     88.29   1123.12
0
*SECNO 3164.000

3470 ENCROACHMENT STATIONS=      800.0     1113.0  TYPE=      1   TARGET=      313.000
  3164.00      5.90   612.16     0.00      0.00   612.59      0.43      0.12      0.00    609.56
    1260.       53.    1073.     134.       30.     192.       42.       23.        9.    606.36
     0.20      1.75     5.58     3.23     0.040    0.030     0.040     0.000    606.26   1032.21
 0.001477       74.      74.      74.         2        0         0      0.00     80.79   1113.00
0
*SECNO 3165.000

3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  609.56 MAX ELLC=  613.50


3470 ENCROACHMENT STATIONS=     1050.0     1115.0  TYPE=      1   TARGET=       65.000
          GOLF COURSE BRIDGE
  3165.00      5.86   612.12     0.00      0.00   612.60      0.48      0.00      0.02    609.56
    1260.       81.    1043.     135.       21.     178.       35.       23.        9.    606.36
     0.20      3.85     5.87     3.85     0.040    0.030     0.040     0.000    606.26   1050.00
 0.005644        1.       1.       1.         2        0         0    -21.11     65.00   1115.00
0
*SECNO 3170.000

3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  609.56 MAX ELLC=  613.50
```

```
    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST



 3470 ENCROACHMENT STATIONS=     1045.0     1120.0  TYPE=       1  TARGET=        75.000
   3170.00      5.92    612.18      0.00      0.00    612.64      0.46      0.03      0.00    609.56
     1260.       99.     1027.      135.       26.      178.       37.       23.        9.    606.36
      0.20      3.76      5.76      3.67     0.040     0.030     0.040     0.000    606.26   1045.00
  0.005449        5.        5.        5.         2         0         0    -25.12     75.00   1120.00
0
 *SECNO 3171.000

 3470 ENCROACHMENT STATIONS=     1045.0     1120.0  TYPE=       1  TARGET=        75.000
   3171.00      5.98    612.24      0.00      0.00    612.64      0.41      0.00      0.01    609.56
     1260.       53.     1065.      143.       27.      195.       48.       23.        9.    606.36
      0.20      1.93      5.45      2.96     0.040     0.030     0.040     0.000    606.26   1045.00
  0.001380        1.        1.        1.         2         0         0      0.00     75.00   1120.00
0
 *SECNO 3220.000
   3220.00      6.07    612.33      0.00      0.00    612.71      0.38      0.06      0.00    609.56
     1260.       60.     1054.      145.       36.      199.       53.       24.        9.    606.36
      0.20      1.68      5.30      2.77     0.040     0.030     0.040     0.000    606.26   1029.07
  0.001274       49.       49.       49.         2         0         0      0.00    103.09   1132.16
0
 *SECNO 3495.000

 3470 ENCROACHMENT STATIONS=      920.0     1280.0  TYPE=       1  TARGET=       360.000
   3495.00      5.78    612.58      0.00      0.00    613.27      0.69      0.47      0.09    606.80
     1260.      222.      886.      151.       55.      117.       48.       25.        9.    608.00
      0.21      4.06      7.58      3.14     0.040     0.030     0.040     0.000    606.80   1058.65
  0.002395      275.      275.      275.         2         0         0      0.00     95.42   1154.07
0
 *SECNO 3574.000

 3470 ENCROACHMENT STATIONS=     1060.0     1175.0  TYPE=       1  TARGET=       115.000
   3574.00      6.09    612.89      0.00      0.00    613.45      0.57      0.17      0.01    606.80
     1260.      224.      860.      177.       60.      123.       70.       26.        9.    608.00
      0.22      3.70      6.97      2.53     0.040     0.030     0.040     0.000    606.80   1060.00
  0.001886       79.       79.       79.         2         0         0      0.00    115.00   1175.00
0
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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


 *SECNO 3575.000

 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  612.40 MAX ELLC=  614.40


 3470 ENCROACHMENT STATIONS=     1060.0     1175.0  TYPE=       1  TARGET=       115.000
            GOLF COURSE BRIDGE
   3575.00      6.08    612.88      0.00      0.00    613.46      0.58      0.00      0.00    606.80
     1260.      252.      856.      152.       60.      123.       60.       26.        9.    608.00
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     0.22      4.21      6.95      2.55     0.040     0.030     0.040     0.000    606.80   1060.00
 0.002477        1.        1.        1.         0         0         0    -10.86    115.00   1175.00
0
 *SECNO 3580.000

 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  612.40 MAX ELLC=  614.40


 3470 ENCROACHMENT STATIONS=     1060.0     1170.0  TYPE=      1  TARGET=      110.000
   3580.00      6.10    612.90      0.00      0.00    613.47      0.58      0.01      0.00    606.80
     1260.      252.      856.      152.       60.      123.       59.       26.        9.    608.00
     0.22      4.21      6.94      2.58     0.040     0.030     0.040     0.000    606.80   1060.00
 0.002470        5.        5.        5.         0         0         0    -10.91    110.00   1170.00
0
 *SECNO 3581.000

 3470 ENCROACHMENT STATIONS=     1060.0     1170.0  TYPE=      1  TARGET=      110.000
   3581.00      6.11    612.91      0.00      0.00    613.48      0.56      0.00      0.00    606.80
     1260.      224.      859.      178.       61.      124.       70.       26.        9.    608.00
     0.22      3.68      6.94      2.54     0.040     0.030     0.040     0.000    606.80   1060.00
 0.001862        1.        1.        1.         1         0         0      0.00    110.00   1170.00
0
 *SECNO 3630.000

 3470 ENCROACHMENT STATIONS=     1010.0     1300.0  TYPE=      1  TARGET=      290.000
   3630.00      5.67    613.07      0.00      0.00    613.58      0.51      0.10      0.01    607.90
     1260.      254.      806.      200.       76.      121.       59.       26.       10.    608.30
     0.22      3.34      6.68      3.40     0.040     0.030     0.040     0.000    607.40   1035.93
 0.002066       60.       49.       40.         2         0         0      0.00     87.65   1123.57
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 3689.000
   3689.00      5.85    613.25      0.00      0.00    613.70      0.45      0.11      0.01    607.90
     1260.      263.      792.      206.       83.      124.       63.       26.       10.    608.30
     0.22      3.15      6.36      3.26     0.040     0.030     0.040     0.000    607.40   1032.52
 0.001792       70.       59.       50.         2         0         0      0.00     91.63   1124.15
0
 *SECNO 3690.000

 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  612.10 MAX ELLC=  620.00

           GOLF COURSE BRIDGE
   3690.00      5.74    613.14      0.00      0.00    613.75      0.61      0.00      0.05    607.90
     1260.      207.      881.      171.       70.      122.       50.       26.       10.    608.30
     0.22      2.94      7.23      3.40     0.040     0.030     0.040     0.000    607.40   1034.68
 0.002376        1.        1.        1.         2         0         0    -18.16     89.10   1123.79
0
 *SECNO 3695.000

 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  612.10 MAX ELLC=  620.00

   3695.00      5.75    613.15      0.00      0.00    613.76      0.61      0.01      0.00    607.90
     1260.      207.      882.      171.       71.      122.       51.       27.       10.    608.30
     0.22      2.92      7.21      3.39     0.040     0.030     0.040     0.000    607.40   1034.46
 0.002362        5.        5.        5.         0         0         0    -18.37     89.36   1123.82
0
 *SECNO 3696.000
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   3696.00     5.96   613.36    0.00     0.00   613.78     0.42     0.00     0.02   607.90
    1260.      268.    783.     209.      89.    127.      66.      27.      10.     608.30
     0.22      3.02     6.15    3.17    0.040    0.030    0.040    0.000   607.40  1030.16
  0.001626       1.       1.      1.        2        0        0     0.00    94.39  1124.55
0
 *SECNO 3745.000
   3745.00     6.07   613.47    0.00     0.00   613.86     0.40     0.08     0.00   607.90
    1260.      273.    775.     212.      93.    129.      68.      27.      10.     608.30
     0.22      2.92     5.99    3.10    0.040    0.030    0.040    0.000   607.40  1028.31
  0.001509      49.      49.     49.        0        0        0     0.00    96.55  1124.87
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 4045.000
   4045.00     5.06   613.91    0.00     0.00   614.34     0.43     0.47     0.01   609.35
    1260.       91.   1038.     131.      44.    183.      44.      29.      11.     609.35
     0.24      2.05     5.67    2.97    0.040    0.030    0.040    0.000   608.85  1064.99
  0.001610     340.     300.    260.        2        0        0     0.00   107.11  1172.10
0
 *SECNO 4159.000

 3265 DIVIDED FLOW

 3280 CROSS SECTION   4159.00 EXTENDED      0.14 FEET

   4159.00     5.29   614.14    0.00     0.00   614.51     0.37     0.17     0.01   609.35
    1260.      103.   1018.     139.      59.    192.      54.      30.      11.     609.35
     0.25      1.75     5.30    2.56    0.040    0.030    0.040    0.000   608.85   800.00
  0.001322     114.     114.    114.        2        0        0     0.00   211.19  1189.25
0
 *SECNO 4160.000

 3265 DIVIDED FLOW

 3280 CROSS SECTION   4160.00 EXTENDED      0.08 FEET


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  611.15 MAX ELLC=  616.00


 3470 ENCROACHMENT STATIONS=      840.0    1325.0  TYPE=     1  TARGET=     485.000
           GOLF COURSE BRIDGE
   4160.00     5.23   614.08    0.00     0.00   614.54     0.46     0.00     0.03   609.35
    1260.      101.   1081.      78.      48.    186.      45.      30.      11.     609.35
     0.25      2.12     5.80    1.73    0.040    0.030    0.040    0.000   608.85   840.00
  0.002089       1.       1.      1.        2        0        0   -12.57   131.29  1184.80
0
 *SECNO 4165.000

 3265 DIVIDED FLOW

1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
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    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  611.15 MAX ELLC=  616.00


 3470 ENCROACHMENT STATIONS=      830.0     1325.0  TYPE=      1  TARGET=      495.000
   4165.00      5.25    614.10      0.00      0.00    614.55      0.45      0.01      0.00    609.35
     1260.      101.     1080.       78.       48.      187.       46.       30.       11.    609.35
      0.25      2.10      5.79      1.72     0.040     0.030     0.040     0.000    608.85    830.00
  0.002080        5.        5.        5.         0         0         0    -12.73    147.46   1185.49
0
 *SECNO 4166.000

 3265 DIVIDED FLOW


 3470 ENCROACHMENT STATIONS=      910.0     1325.0  TYPE=      1  TARGET=      415.000
   4166.00      5.36    614.21      0.00      0.00    614.56      0.35      0.00      0.01    609.35
     1260.      105.     1013.      141.       56.      195.       58.       30.       11.    609.35
      0.25      1.87      5.21      2.46     0.040     0.030     0.040     0.000    608.85    910.00
  0.001254        1.        1.        1.         2         0         0      0.00    144.53   1194.08
0
 *SECNO 4215.000

 3470 ENCROACHMENT STATIONS=      980.0     1325.0  TYPE=      1  TARGET=      345.000
   4215.00      5.44    614.29      0.00      0.00    614.63      0.33      0.06      0.00    609.35
     1260.      109.     1006.      145.       60.      198.       62.       30.       11.    609.35
      0.25      1.83      5.09      2.33     0.040     0.030     0.040     0.000    608.85   1054.39
  0.001172       49.       49.       49.         0         0         0      0.00    145.63   1200.02
0
 *SECNO 4355.000

 3265 DIVIDED FLOW

   4355.00      5.89    614.29      0.00      0.00    614.93      0.64      0.21      0.09    609.10
     1260.      151.     1015.       94.       44.      145.       38.       31.       12.    609.70
      0.26      3.45      6.99      2.48     0.040     0.030     0.040     0.000    608.40   1080.18
  0.002045      140.      140.      140.         2         0         0      0.00    120.02   1200.57
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 4479.000
   4479.00      6.27    614.67      0.00      0.00    615.16      0.49      0.22      0.02    609.10
     1260.      161.      970.      129.       55.      155.       78.       32.       12.    609.70
      0.26      2.94      6.26      1.64     0.040     0.030     0.040     0.000    608.40   1035.37
  0.001500      124.      124.      124.         2         0         0      0.00    231.96   1267.33
0
 *SECNO 4480.000

 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  611.20 MAX ELLC=  615.00

           GOLF COURSE BRIDGE
   4480.00      6.11    614.51    612.69      0.00    615.23      0.72      0.00      0.07    609.10
     1260.      143.     1009.      109.       40.      135.       49.       32.       12.    609.70
      0.26      3.61      7.47      2.20     0.040     0.030     0.040     0.000    608.40   1076.60
  0.006427        1.        1.        1.         4        14         0    -33.26    161.60   1238.20
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0
 *SECNO 4485.000

 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  611.20 MAX ELLC=  615.00


 3470 ENCROACHMENT STATIONS=     1065.0     1255.0  TYPE=     1  TARGET=     190.000
   4485.00      6.18    614.58    612.69      0.00    615.27      0.69      0.03      0.00    609.10
     1260.      146.      991.      124.       41.      135.       58.       32.       12.     609.70
      0.26      3.55      7.34      2.13     0.040     0.030     0.040     0.000    608.40   1075.27
  0.006201        5.        5.        5.         4        14         0    -36.36    176.85   1252.12
0
 *SECNO 4486.000

 3470 ENCROACHMENT STATIONS=     1065.0     1255.0  TYPE=     1  TARGET=     190.000
   4486.00      6.51    614.91      0.00      0.00    615.30      0.40      0.00      0.03    609.10
     1260.      166.      927.      167.       63.      161.      109.       32.       12.     609.70
      0.26      2.64      5.74      1.53     0.040     0.030     0.040     0.000    608.40   1065.00
  0.001198        1.        1.        1.         2         0         0      0.00    190.00   1255.00
0
 *SECNO 4535.000
 3280 CROSS SECTION   4535.00 EXTENDED      0.02 FEET

1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 3470 ENCROACHMENT STATIONS=     1015.0     1305.0  TYPE=     1  TARGET=     290.000
   4535.00      6.61    615.01      0.00      0.00    615.36      0.35      0.06      0.00    609.10
     1260.      178.      901.      182.       84.      164.      135.       32.       12.     609.70
      0.27      2.11      5.49      1.35     0.040     0.030     0.040     0.000    608.40   1015.00
  0.001071       49.       49.       49.         2         0         0      0.00    290.00   1305.00
0
 *SECNO 5120.000
   5120.00      6.35    615.65      0.00      0.00    616.11      0.46      0.71      0.03    610.00
     1260.      164.      957.      139.       62.      157.       90.       37.       16.     610.60
      0.30      2.64      6.09      1.54     0.040     0.030     0.040     0.000    609.30    989.87
  0.001396      585.      585.      585.         2         0         0      0.00    291.61   1281.48
0
 *SECNO 5705.000
   5705.00      6.25    616.48      0.00      0.00    617.00      0.52      0.87      0.02    611.83
     1260.       46.     1062.      152.       32.      170.       78.       41.       19.     611.80
      0.33      1.44      6.24      1.95     0.040     0.030     0.040     0.000    610.23   1013.91
  0.001590      585.      585.      585.         2         0         0      0.00    183.94   1197.85
0
 *SECNO 5819.000

 3470 ENCROACHMENT STATIONS=     1020.0     1185.0  TYPE=     1  TARGET=     165.000
   5819.00      6.53    616.76      0.00      0.00    617.17      0.41      0.16      0.01    611.83
     1260.       64.     1013.      183.       46.      179.      100.       41.       20.     611.80
      0.33      1.40      5.67      1.82     0.040     0.030     0.040     0.000    610.23   1020.00
  0.001233      114.      114.      114.         2         0         0      0.00    165.00   1185.00
0
 *SECNO 5820.000

 3301 HV CHANGED MORE THAN HVINS


 3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  615.13 MAX ELLC=  618.50
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 3470 ENCROACHMENT STATIONS=     940.0     1300.0  TYPE=      1  TARGET=      360.000
           GOLF COURSE BRIDGE
   5820.00      6.16   616.39   614.58     0.00   617.33     0.94     0.00     0.16   611.83
     1260.       54.    1098.     108.      20.     133.      48.      41.      20.    611.80
      0.33      2.70     8.26     2.25    0.040    0.030    0.040    0.000   610.23  1020.32
  0.010474        1.       1.       1.        6       12        0   -64.02   168.96  1189.29
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 5825.000

 3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  615.13 MAX ELLC=  618.50


 3470 ENCROACHMENT STATIONS=    1015.0     1190.0  TYPE=      1  TARGET=      175.000
   5825.00      6.37   616.60   614.59     0.00   617.39     0.80     0.05     0.01   611.83
     1260.       82.    1038.     140.      31.     133.      63.      41.      20.    611.80
      0.34      2.64     7.81     2.22    0.040    0.030    0.040    0.000   610.23  1015.00
  0.009356        5.       5.       5.        4       12        0   -74.44   175.00  1190.00
0
 *SECNO 5826.000

 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=    1015.0     1190.0  TYPE=      1  TARGET=      175.000
   5826.00      6.92   617.15     0.00     0.00   617.45     0.29     0.00     0.05   611.83
     1260.       92.     940.     228.      69.     190.     138.      41.      20.    611.80
      0.34      1.34     4.94     1.65    0.040    0.030    0.040    0.000   610.23  1015.00
  0.000857        1.       1.       1.        3        0        0     0.00   175.00  1190.00
0
 *SECNO 5875.000

 3470 ENCROACHMENT STATIONS=    1010.0     1190.0  TYPE=      1  TARGET=      180.000
   5875.00      6.98   617.21     0.00     0.00   617.49     0.27     0.04     0.00   611.83
     1260.      100.     927.     234.      76.     192.     144.      42.      20.    611.80
      0.34      1.30     4.82     1.63    0.040    0.030    0.040    0.000   610.23  1010.00
  0.000805       49.      49.      49.        2        0        0     0.00   180.00  1190.00
0
 CCHV=    0.500 CEHV=    1.000
 *SECNO 6065.000
 3280 CROSS SECTION    6065.00 EXTENDED       0.43 FEET


 3470 ENCROACHMENT STATIONS=      50.0      135.0  TYPE=      1  TARGET=       85.000
   6065.00      6.03   617.43     0.00     0.00   618.01     0.58     0.21     0.31   612.30
     1260.       93.    1028.     138.      38.     154.      54.      43.      21.    612.10
      0.35      2.43     6.67     2.59    0.040    0.030    0.040    0.000   611.40    50.00
  0.001790      210.     190.     150.        2        0        0     0.00    85.00   135.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
```

```
     TIME      VLOB      VCH       VROB      XNL       NCH       XNR       WTN       ELMIN     SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


  *SECNO 6140.000
  3280 CROSS SECTION    6140.00 EXTENDED       0.90 FEET


  3470 ENCROACHMENT STATIONS=       50.0      215.0  TYPE=      1  TARGET=      165.000
           GOLF COURSE BRIDGE
    6140.00      6.51    617.91      0.00      0.00    618.24      0.33      0.10      0.13    612.30
      1260.      101.      893.      266.       49.      167.      160.       44.       21.    612.10
       0.35      2.06      5.35      1.66     0.040     0.030     0.040     0.000    611.40     50.00
   0.001034       75.       75.       75.         3         0         0      0.00    165.00    215.00
 0

  SPECIAL BRIDGE

  5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
  SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
       0.00      1.15      3.00      0.00     23.00      0.00    157.00      0.00    611.40    611.40

  *SECNO 6167.000

  6070,LOW FLOW BY NORMAL BRIDGE

  EGPRS=   619.058  EGLWC=   618.237  ELLC=   618.100  PCWSE=   617.908  ELTRD=   617.000
  3280 CROSS SECTION    6167.00 EXTENDED       0.95 FEET


  3370 NORMAL BRIDGE,NRD= 18 MIN ELTRD=  617.00 MAX ELLC=  618.10


  3470 ENCROACHMENT STATIONS=       50.0      200.0  TYPE=      1  TARGET=      150.000
    6167.00      6.55    617.95      0.00      0.00    618.45      0.50      0.04      0.17    612.30
      1260.       32.      987.      240.       18.      157.      116.       44.       21.    612.10
       0.35      1.83      6.31      2.07     0.040     0.030     0.040     0.000    611.40     50.00
   0.002360       27.       27.       27.         2         0         0    -77.39    150.00    200.00
 0
  *SECNO 6220.000
  3280 CROSS SECTION    6220.00 EXTENDED       1.37 FEET


  3470 ENCROACHMENT STATIONS=       50.0      175.0  TYPE=      1  TARGET=      125.000
    6220.00      6.96    618.36      0.00      0.00    618.63      0.27      0.07      0.11    612.30
      1260.      118.      873.      270.       60.      179.      153.       44.       21.    612.10
       0.36      1.96      4.86      1.77     0.040     0.030     0.040     0.000    611.40     50.00
   0.000776       53.       53.       53.         2         0         0      0.00    125.00    175.00
 0
 1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


  CCHV=   0.100 CEHV=    0.300
  *SECNO 7493.000

  3470 ENCROACHMENT STATIONS=      225.0      300.0  TYPE=      1  TARGET=       75.000
    7493.00      5.54    620.04      0.00      0.00    620.49      0.46      1.81      0.06    619.30
      1260.        3.     1257.        0.        3.      232.        0.       54.       24.    620.10
       0.42      1.20      5.42      0.00     0.050     0.035     0.000     0.000    614.50    225.00
```

```
  0.003402     1273.     1273.     1273.          2         0         0      0.00     72.89    297.89
0
 CCHV=    0.300 CEHV=    0.500
 *SECNO 7505.000

 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  625.85 MAX ELLC=  627.00

           44TH STREET
   7505.00      5.56    620.06      0.00      0.00    620.52      0.46      0.02      0.00    624.75
     1260.        0.     1260.        0.        0.      230.        0.       54.       24.     624.70
      0.42      0.00      5.47      0.00     0.000     0.020     0.000     0.000    614.50    229.00
  0.001331       12.       12.       12.          0         0         0     -2.88     68.93    297.93
0
 *SECNO 7565.000

 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  625.85 MAX ELLC=  627.00

   7565.00      5.67    620.17      0.00      0.00    620.61      0.44      0.08      0.01    624.75
     1260.        0.     1260.        0.        0.      238.        0.       54.       24.     624.70
      0.43      0.00      5.30      0.00     0.000     0.020     0.000     0.000    614.50    229.00
  0.001210       60.       60.       60.          2         0         0     -3.04     69.00    298.00
0
 CCHV=    0.100 CEHV=    0.300
 *SECNO 7577.000

 3470 ENCROACHMENT STATIONS=      220.0      305.0  TYPE=      1  TARGET=       85.000
   7577.00      5.72    620.22      0.00      0.00    620.63      0.41      0.02      0.00    619.30
     1260.        7.     1253.        0.        7.      244.        0.       54.       24.     620.10
      0.43      1.07      5.13      0.21     0.050     0.030     0.050     0.000    614.50    220.00
  0.002085       12.       12.       12.          2         0         0      0.00     82.27    302.27
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 CCHV=    0.500 CEHV=    1.000
 *SECNO 9150.000
 3280 CROSS SECTION    9150.00 EXTENDED      1.82 FEET

   9150.00      7.43    622.54      0.00      0.00    622.84      0.30      2.16      0.05    620.51
     1260.      132.      930.      197.       93.      183.      118.       66.       28.     617.06
      0.53      1.42      5.07      1.68     0.050     0.030     0.050     0.000    615.11     20.55
  0.000975     1573.     1573.     1573.          2         0         0      0.00    129.45    150.00
0
 *SECNO 9550.000

 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
           CONFLUENCE WITH DIVERSION CHANNEL
   9550.00      6.37    625.06    625.06      0.00    626.16      1.10      0.83      0.80    628.19
     1260.        0.      725.      535.        0.       69.      122.       68.       29.     620.25
      0.55      0.00     10.45      4.37     0.000     0.030     0.050     0.000    618.69    105.72
  0.006974      400.      400.      400.          2        10         0      0.00     77.73    183.45
0
 *SECNO 9630.000
 3280 CROSS SECTION    9630.00 EXTENDED      1.30 FEET
```

```
 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=       95.0      150.0  TYPE=      1  TARGET=       55.000
   9630.00      6.90   626.61     0.00     0.00   626.78     0.17     0.15     0.47   620.97
      555.       16.     480.      59.      15.     136.      61.      69.      29.   620.71
      0.55      1.05     3.52     0.98    0.050    0.030    0.050    0.000   619.71    95.00
  0.000424       80.      80.      80.        3        0        0     0.00    55.00   150.00
0
 *SECNO 9704.000
 3280 CROSS SECTION    9704.00 EXTENDED      1.36 FEET


 3470 ENCROACHMENT STATIONS=      100.0      117.5  TYPE=      1  TARGET=       17.500
   9704.00      7.03   626.67     0.00     0.00   627.15     0.47     0.07     0.30   623.14
      555.        0.     555.       0.       0.     101.       0.      69.      29. 100000.00
      0.56      0.00     5.52     0.00    0.000    0.030    0.000    0.000   619.64   100.00
  0.002826       74.      74.      74.        2        0        0     0.00    17.50   117.50
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 CCHV=   0.300 CEHV=    0.500
 *SECNO 9705.000
 3280 CROSS SECTION    9705.00 EXTENDED      1.21 FEET


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  628.30 MAX ELLC=  628.30


 3470 ENCROACHMENT STATIONS=      100.0      117.5  TYPE=      1  TARGET=       17.500
           1ST KENOWA STREET CULVERT, 2-7'X145' CMP
   9705.00      6.87   626.51     0.00     0.00   627.32     0.80     0.00     0.16   623.14
      555.        0.     555.       0.       0.      77.       0.      69.      29. 100000.00
      0.56      0.00     7.19     0.00    0.000    0.027    0.000    0.000   619.64   100.00
  0.007084        1.       1.       1.        2        0        0   -20.64    17.50   117.50
0
 *SECNO 9756.000
 3280 CROSS SECTION    9756.00 EXTENDED      1.60 FEET


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  628.30 MAX ELLC=  628.30


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      630.00 ELREA=      630.00

   9756.00      7.27   626.91     0.00     0.00   627.71     0.80     0.39     0.00   623.14
      555.        0.     555.       0.       0.      78.       0.      69.      29.   623.14
      0.56      0.00     7.16     0.00    0.000    0.027    0.000    0.000   619.64   100.00
  0.008247       51.      51.      51.        2        0        0   -44.69    17.50   117.50
0
 CCHV=   0.100 CEHV=    0.300
 *SECNO 9757.000
 3280 CROSS SECTION    9757.00 EXTENDED      2.07 FEET


 3470 ENCROACHMENT STATIONS=      100.0      117.5  TYPE=      1  TARGET=       17.500
   9757.00      7.74   627.38     0.00     0.00   627.75     0.37     0.00     0.04   623.14
      555.        0.     555.       0.       0.     113.       0.      69.      29. 100000.00
```

```
      0.56      0.00      4.91      0.00     0.000     0.030     0.000     0.000    619.64    100.00
  0.002029        1.        1.        1.         2         0         0      0.00     17.50    117.50
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 10405.000
 3280 CROSS SECTION  10405.00 EXTENDED      2.17 FEET

  10405.00      7.83    627.97      0.00      0.00    627.99      0.02      0.20      0.04    623.64
      555.      177.      170.      208.      222.      115.      271.       74.       31.    623.64
      0.73      0.80      1.48      0.77     0.040     0.030     0.040     0.000    620.14      9.60
  0.000125      450.      648.      700.         3         0         0      0.00    215.40    225.00
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 11205.000

 3301 HV CHANGED MORE THAN HVINS


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      653.70 ELREA=      653.70

           2ND KENOWA STREET CULVERT, 2-7'X145' CMP
  11205.00      5.65    627.85      0.00      0.00    628.68      0.83      0.28      0.41    625.70
      555.        0.      555.        0.        0.       76.        0.       80.       33.    625.70
      0.76      0.00      7.32      0.00     0.000     0.027     0.000     0.000    622.20    100.00
  0.004235      600.      800.      850.         3         0         0      0.00     17.50    117.50
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 5227 DOWNSTREAM ELEV IS    624.63 ,NOT    627.85 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

 SB  XK         XKOR       COFQ      RDLEN       BWC        BWP       BAREA       SS         ELCHU      ELCHD
      1.25       2.90       2.80    100.00      14.50       3.50      77.00       0.00      622.20     622.20

 *SECNO 11350.000
 3280 CROSS SECTION  11350.00 EXTENDED      1.89 FEET

 PRESSURE FLOW


  EGPRS       EGLWC        H3        QWEIR       QPR        BAREA    TRAPEZOID      ELLC      ELTRD
                                                                       AREA
     630.19    629.21      0.00         0.       555.        77.        77.      629.20    653.70


1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID      ENDST
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 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      653.70 ELREA=      653.70

  11350.00      7.59    629.79      0.00      0.00    630.19      0.40      1.51      0.00    625.70
       555.       0.      555.        0.        0.      110.        0.       80.       33.     625.70
       0.77     0.00      5.05      0.00     0.000     0.027     0.000     0.000    622.20    100.00
   0.001230     145.      145.      145.         2         0         0      0.00     17.50    117.50
0
 CCHV=    0.100 CEHV=    0.300
 *SECNO 11500.000
 3280 CROSS SECTION  11500.00 EXTENDED      2.34 FEET

  11500.00      8.04    630.24      0.00      0.00    630.26      0.02      0.04      0.04    625.70
       555.     148.      234.      173.      238.      133.      287.       82.       33.     625.70
       0.81     0.62      1.76      0.60     0.050     0.030     0.050     0.000    622.20      7.68
   0.000112     150.      150.      150.         2         0         0      0.00    217.32    225.00
0
 *SECNO 11550.000
 3280 CROSS SECTION  11550.00 EXTENDED      2.28 FEET

  11550.00      7.98    630.18      0.00      0.00    630.31      0.13      0.02      0.03    625.70
      1260.     333.      538.      389.      232.      132.      281.       82.       33.     625.70
       0.81     1.43      4.06      1.38     0.050     0.030     0.050     0.000    622.20      8.34
   0.000604      50.       50.       50.         2         0         0      0.00    216.66    225.00
0
 *SECNO 11750.000
 3280 CROSS SECTION  11750.00 EXTENDED      2.41 FEET

  11750.00      8.11    630.31      0.00      0.00    630.42      0.11      0.11      0.00    625.70
      1260.     338.      524.      397.      244.      135.      295.       85.       34.     625.70
       0.84     1.39      3.89      1.35     0.050     0.030     0.050     0.000    622.20      6.86
   0.000542     200.      200.      200.         2         0         0      0.00    218.14    225.00
0
 *SECNO 12449.000
 3280 CROSS SECTION  12449.00 EXTENDED      2.72 FEET


 3470 ENCROACHMENT STATIONS=     100.0     140.0  TYPE=     1  TARGET=      40.000
  ELENCL=    653.70  ELENCR=     653.70
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


  12449.00      8.42    630.62      0.00      0.00    631.23      0.61      0.66      0.15    625.70
      1260.       0.      970.      290.        0.      140.       92.       92.       36.     625.70
       0.87     0.00      6.92      3.15     0.000     0.030     0.050     0.000    622.20    100.00
   0.002135     500.      699.      750.         2         0         0      0.00     40.00    140.00
0
 CCHV=    0.300 CEHV=    0.500
 *SECNO 12450.000

 3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD=  646.20 MAX ELLC=  635.00


 3470 ENCROACHMENT STATIONS=     100.0     140.0  TYPE=     1  TARGET=      40.000
  ELENCL=    653.70  ELENCR=     653.70
           U/S I-196
  12450.00      8.37    630.87      0.00      0.00    631.29      0.42      0.00      0.06    628.50
      1260.       0.     1260.        0.        0.      241.        0.       92.       36.     653.70
       0.87     0.00      5.22      0.00     0.000     0.027     0.000     0.000    622.50    100.00
   0.001751       1.        1.        1.         2         0         0    -14.71     40.00    140.00
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```
0
 *SECNO 12650.000

  3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD=  646.20 MAX ELLC=  635.00


  3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
   ELENCL=     653.70  ELENCR=     653.70
   12650.00     8.75    631.25      0.00      0.00    631.63      0.38      0.33      0.01    628.50
      1260.       0.     1260.        0.        0.      253.        0.       94.       37.    653.70
       0.88     0.00      4.97      0.00     0.000     0.027     0.000     0.000    622.50    100.00
   0.001557     200.      200.      200.         0         0         0    -18.12     40.00    140.00
0
  CCHV=   0.100 CEHV=    0.300
 *SECNO 12850.000

  3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
   ELENCL=     653.70  ELENCR=     653.70
   12850.00     9.15    631.65      0.00      0.00    631.94      0.30      0.31      0.01    628.50
      1260.       0.     1260.        0.        0.      287.        0.       95.       37.    653.70
       0.89     0.00      4.39      0.00     0.000     0.035     0.000     0.000    622.50    100.00
   0.001507     200.      200.      200.         2         0         0      0.00     40.00    140.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 13600.000
   13600.00     6.97    632.97      0.00      0.00    633.43      0.46      1.43      0.05    631.90
      1260.     164.     1090.        6.      164.      187.        8.      100.       38.    631.30
       0.93     1.00      5.82      0.66     0.100     0.035     0.100     0.000    626.00    150.61
   0.002532     700.      750.      750.         2         0         0      0.00    159.57    310.18
0
 *SECNO 14975.000
   14975.00     7.51    636.21      0.00      0.00    636.81      0.59      3.34      0.04    632.40
      1260.      43.     1044.      173.       33.      154.      200.      112.       44.    632.20
       1.00     1.31      6.76      0.87     0.100     0.035     0.100     0.000    628.70    262.73
   0.002337    1355.     1375.     1375.         2         0         0      0.00    212.36    475.10
0
 *SECNO 16700.000
  3280 CROSS SECTION   16700.00 EXTENDED       1.48 FEET

   16700.00     7.58    638.98      0.00      0.00    639.14      0.16      2.29      0.04    637.00
      1260.     402.      845.       13.      496.      219.       32.      134.       55.    638.30
       1.17     0.81      3.86      0.40     0.100     0.035     0.100     0.000    631.40     10.00
   0.000853    1725.     1725.     1725.         3         0         0      0.00    327.29    337.29
0
 *SECNO 17600.000

  3265 DIVIDED FLOW

   17600.00     6.05    640.05      0.00      0.00    640.53      0.48      1.30      0.10    639.60
      1260.     235.     1025.        0.      172.      167.        0.      146.       60.    640.90
       1.22     1.37      6.13      0.00     0.100     0.035     0.000     0.000    634.00     12.21
   0.002972     900.      900.      900.         2         0         0      0.00    167.86    299.51
0
 *SECNO 18545.000

  3470 ENCROACHMENT STATIONS=      245.0      305.0  TYPE=      1  TARGET=       60.000
   ELENCL=     645.45  ELENCR=     645.45
```

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 18545.00    6.14   641.94    0.00    0.00   642.24    0.31    1.69    0.02   637.60
    1260.     18.    1218      23.     21.     270.     24.    153.     63.    636.80
     1.27    0.90    4.51     0.95   0.100    0.035   0.100   0.000  635.80   245.00
 0.001196    945.    945.     945.       2        0       0    0.00   60.00   305.00
0
1
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   SECNO     DEPTH    CWSEL    CRIWS    WSELK     EG       HV       HL       OLOSS   BANK ELEV
   Q         QLOB     QCH      QROB     ALOB      ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME      VLOB     VCH      VROB     XNL       XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE     XLOBL    XLCH     XLOBR    ITRIAL    IDC      ICONT    CORAR    TOPWID     ENDST


 CCHV=   0.300 CEHV=    0.500
 *SECNO 18565.000

 3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  645.45 MAX ELLC=  651.00


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      645.45 ELREA=      645.45

           BARRY STREET
 18565.00    6.13   641.93    0.00    0.00   642.28    0.35    0.01    0.02   637.60
    1260.      0.   1260.       0.      0.     264.      0.    153.     63.    636.80
     1.28    0.00    4.77     0.00   0.000    0.015   0.000   0.000  635.80   250.00
 0.000318     20.     20.      20.       2        0       0 -100.40   50.00   300.00
0
 *SECNO 18602.000

 3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  645.45 MAX ELLC=  651.00


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      645.45 ELREA=      645.45

 18602.00    6.14   641.94    0.00    0.00   642.29    0.35    0.01    0.00   637.60
    1260.      0.   1260.       0.      0.     265.      0.    153.     63.    636.80
     1.28    0.00    4.75     0.00   0.000    0.015   0.000   0.000  635.80   250.00
 0.000314     37.     37.      37.       1        0       0 -100.99   50.00   300.00
0
 CCHV=   0.100 CEHV=    0.300
 *SECNO 18622.000

 3470 ENCROACHMENT STATIONS=      230.0     320.0  TYPE=      1  TARGET=       90.000
 18622.00    6.37   642.17    0.00    0.00   642.32    0.15    0.01    0.02   637.60
    1260.    139.    952.     170.     77.     280.     87.    153.     63.    636.80
     1.28    1.80    3.40     1.94   0.040    0.030   0.040   0.000  635.80   230.00
 0.000474     20.     20.      20.       2        0       0    0.00   90.00   320.00
0
 *SECNO 19000.000
 19000.00    5.38   642.28    0.00    0.00   642.83    0.55    0.39    0.12   641.20
    1260.    316.    784.     159.    128.     108.     65.    157.     64.    641.30
     1.30    2.48    7.29     2.47   0.040    0.030   0.040   0.000  636.90   150.56
 0.003663    378.    378.     378.       2        0       0    0.00  207.60   358.16
0
1
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   SECNO     DEPTH    CWSEL    CRIWS    WSELK     EG       HV       HL       OLOSS   BANK ELEV
   Q         QLOB     QCH      QROB     ALOB      ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME      VLOB     VCH      VROB     XNL       XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE     XLOBL    XLCH     XLOBR    ITRIAL    IDC      ICONT    CORAR    TOPWID     ENDST
```

```
CCHV=    0.300 CEHV=    0.500
*SECNO 20755.000
3280 CROSS SECTION  20755.00 EXTENDED       1.38 FEET


3470 ENCROACHMENT STATIONS=       95.0      440.0  TYPE=      1  TARGET=      345.000
 20755.00     8.28   644.78     0.00      0.00   644.86      0.08     1.89      0.14    644.30
    1260.     253.     448.     559.      230.     134.      356.     177.       75.    641.10
     1.53     1.10     3.34     1.57     0.040    0.030     0.040    0.000    636.50     95.00
 0.000508    1755.    1755.    1755.         3        0         0     0.00    345.00    440.00
0
*SECNO 20905.000

3265 DIVIDED FLOW

3280 CROSS SECTION  20905.00 EXTENDED       0.13 FEET


3470 ENCROACHMENT STATIONS=       75.0      450.0  TYPE=      1  TARGET=      375.000
 20905.00     7.03   644.73     0.00      0.00   645.20      0.47     0.15      0.19    645.50
    1260.      75.     747.     438.       56.     108.      182.     179.       76.    642.30
     1.54     1.34     6.90     2.41     0.040    0.030     0.040    0.000    637.70     82.37
 0.002760     150.     150.     150.         3        0         0     0.00    270.06    440.21
0
*SECNO 21055.000

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      150.0      450.0  TYPE=      1  TARGET=      300.000
 21055.00     6.91   645.76   645.76      0.00   646.41      0.65     0.47      0.09    646.65
    1260.      12.     821.     427.       12.     106.      165.     180.       77.    643.45
     1.55     1.04     7.77     2.59     0.040    0.030     0.040    0.000    638.85    150.00
 0.003591     150.     150.     150.        20        6         0     0.00    196.63    438.38
0
*SECNO 21355.000
           JACKSON STREET (TOWNSHIP LIMIT)
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 21355.00     5.75   646.95     0.00      0.00   647.41      0.46     0.95      0.06    643.40
    1260.     403.     605.     252.      118.      86.       76.     182.       78.    643.30
     1.56     3.41     7.05     3.33     0.040    0.030     0.040    0.000    641.20    216.97
 0.002804     300.     300.     300.         2        0         0     0.00    124.50    341.47
0

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00       1.56       3.00     150.00      15.00       0.00     110.00       0.00     641.20     641.20

*SECNO 21391.000
3280 CROSS SECTION  21391.00 EXTENDED       0.88 FEET

PRESSURE AND WEIR FLOW
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```
   EGPRS      EGLWC       H3       QWEIR       QPR       BAREA   TRAPEZOID      ELLC       ELTRD
                                                                   AREA
     650.13     647.41      0.00      142.     1121.      110.        87.      647.00     649.00



  3470 ENCROACHMENT STATIONS=      200.0      350.0  TYPE=     1  TARGET=     150.000
   21391.00      8.18    649.38      0.00      0.00    649.46      0.08      2.05      0.00    643.40
      1260.      526.      406.      328.      310.      130.      194.      182.       78.    643.30
       1.57      1.70      3.13      1.69     0.040     0.030     0.040     0.000    641.20    200.00
   0.000319       36.       36.       36.         2         0         3      0.00    150.00    350.00
 0
  CCHV=   0.100 CEHV=    0.300
  *SECNO 22615.000
  3280 CROSS SECTION  22615.00 EXTENDED      4.38 FEET

   22615.00      8.08    649.48      0.00      0.00    649.49      0.01      0.02      0.01    644.10
      1260.      970.      143.      147.     1479.      143.      269.      189.       79.    643.20
       1.66      0.66      1.00      0.55     0.040     0.030     0.040     0.000    641.40     25.00
   0.000030      224.      224.      224.         2         0         0      0.00    351.40    376.40
 0
  CCHV=   0.100 CEHV=    0.300
  *SECNO -9550.000
 1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS  BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


  START TRIB COMP
    -9550.000  9550.000   625.060
   -9550.00      6.37    625.06      0.00      0.00    625.80      0.74      0.00      0.00    628.19
      1260.        0.      565.      695.        0.       69.      122.      198.       81.    620.25
       1.67      0.00      8.15      5.68     0.000     0.040     0.040     0.000    618.69    105.72
   0.007531      400.      400.      400.         0         0         0      0.00     77.73    183.45
 0
  CCHV=   0.300 CEHV=    0.500
  *SECNO 250.000

  3301 HV CHANGED MORE THAN HVINS


  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      632.50 ELREA=      632.50

     250.00      6.82    626.12      0.00      0.00    626.31      0.19      0.35      0.16    623.20
       705.        0.      705.        0.        0.      199.        0.      199.       82.    621.20
       1.69      0.00      3.54      0.00     0.000     0.024     0.000     0.000    619.30    332.00
   0.000343      250.      250.      250.         2         0         0      0.00     35.00    367.00
 0

  SPECIAL BRIDGE

  5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
  SB  XK        XKOR      COFQ      RDLEN      BWC       BWP      BAREA      SS       ELCHU      ELCHD
       0.00      2.32      2.60    125.00     20.00      0.00    177.50      0.00    619.30    619.30

  *SECNO 332.000

  6070,LOW FLOW BY NORMAL BRIDGE
```

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EGPRS=      0.C:)  EGLWC=    626.310  ELLC=    628.300  PCWSE=    626.116  ELTRD=    632.500

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  632.50 MAX ELLC=  628.30


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      632.50 ELREA=      632.50

    332.00     6.85    626.15     0.00     0.00   626.34     0.19     0.03     0.00   623.20
      705.       0.      705.       0.       0.     201.       0.     200.      82.    621.20
      1.70     0.00      3.52     0.00    0.000    0.024    0.000    0.000   619.30   332.00
  0.000336      82.       82.      82.        2        0        0     0.00    35.00   367.00
0
1
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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


CCHV=   0.100 CEHV=    0.300
*SECNO 890.000

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    890.00     3.42    628.72   628.72     0.00   629.80     1.08     0.58     0.27   629.20
      705.       0.      682.      23.       0.      81.       6.     202.      82.    627.20
      1.72     0.00      8.44     4.04    0.000    0.040    0.040    0.000   625.30   332.75
  0.017469     558.      558.     558.       20        8        0     0.00    41.86   374.61
0
 *SECNO 11550.000
3280 CROSS SECTION  11550.00 EXTENDED      1.98 FEET


3301 HV CHANGED MORE THAN HVINS

  11550.00     7.68    629.88     0.00     0.00   629.97     0.09     0.07     0.10   625.70
     1260.     390.      423.     447.     205.     127.     249.     202.      82.    625.70
      1.73     1.90      3.32     1.80    0.040    0.040    0.040    0.000   622.20    11.87
  0.000758      50.       50.      50.        2        0        0     0.00   213.13   225.00
0
1
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                                                                        THIS RUN EXECUTED 18 OCT 89    10:58:46

**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************


T1       GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
T2       FLOOD INSURANCE STUDY
T3       BLISS DRAIN, 50-YEAR FLOOD

J1   ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
```

```
         0.          3.          0.          0.    0.000[illegible]      0.00        0.0         0.    606.690      0.00[illegible]

   J2  NPROF       IPLOT       PRFVS       XSECV       XSECH       FN          ALLDC       IBW         CHNIM       ITRACE

         2.000       0.000      -1.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000

1
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      SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
      Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
      TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
      SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


   *PROF 2

   CCHV=    0.100 CEHV=    0.300
   *SECNO 0.000

   3470 ENCROACHMENT STATIONS=      1650.0      1990.0  TYPE=       1   TARGET=       340.000
         0.00     12.39     606.69       0.00     605.46     606.90       0.21       0.00       0.00     599.30
        1955.      100.      1573.       282.        92.       389.       368.         0.         0.      599.60
         0.00      1.09       4.04       0.77      0.050      0.030      0.050      0.000     594.30    1650.00
     0.000336        0.         0.         0.          0          0          0       0.00     340.00    1990.00
 0
   *SECNO 15.000

   3470 ENCROACHMENT STATIONS=      1655.0      1990.0  TYPE=       1   TARGET=       335.000
        15.00     12.39     606.69       0.00     605.46     606.90       0.21       0.01       0.00     599.30
        1955.       97.      1574.       284.        87.       390.       370.         0.         0.      599.60
         0.00      1.12       4.04       0.77      0.050      0.030      0.050      0.000     594.30    1655.00
     0.000336       15.        15.        15.          0          0          0       0.00     335.00    1990.00
 0
   *SECNO 115.000

   3470 ENCROACHMENT STATIONS=      1660.0      1945.0  TYPE=       1   TARGET=       285.000
       115.00     11.32     606.62       0.00     605.46     607.00       0.38       0.05       0.05     600.30
        1955.       69.      1797.        89.        49.       348.        83.         2.         1.      600.60
         0.01      1.41       5.17       1.07      0.050      0.030      0.050      0.000     595.30    1660.00
     0.000641      100.       100.       100.          2          0          0       0.00     285.00    1945.00
 0
   *SECNO 290.000
       290.00      7.45     606.67       0.00     605.43     607.20       0.53       0.16       0.04     600.37
        1955.      122.      1554.       279.        69.       240.       158.         4.         2.      600.38
         0.02      1.78       6.46       1.76      0.050      0.030      0.050      0.000     599.22      18.30
     0.001309      175.       175.       175.          2          0          0       0.00     171.95     190.25
 0
   *SECNO 990.000
       990.00      6.91     607.63       0.00     606.43     608.36       0.73       1.10       0.06     601.87
        1955.       94.      1642.       218.        45.       222.       113.        11.         4.      601.88
         0.05      2.11       7.41       1.94      0.050      0.030      0.050      0.000     600.72      22.54
     0.001919      700.       700.       700.          2          0          0       0.00     156.19     178.73
 0
1
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      SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
      Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
      TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
      SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


   *SECNO 1690.000
```

```
  3470 ENCROACHMENT STATIONS=      20.0     182.0  TYPE=      1  TARGET=      162.000
    1690.00     7.70   609.92     0.00   608.65   610.37     0.45     1.99     0.03   603.37
      1955.     136.    1508.     311.      80.     249.     177.      25.       9.   603.38
       0.12     1.69     6.05     1.76    0.050    0.030    0.050    0.000   602.22    20.00
   0.001093    1400.    1400.    1400.        2        0        0     0.00   162.00   182.00
0
 *SECNO 1790.000

  3470 ENCROACHMENT STATIONS=      55.0     167.0  TYPE=      1  TARGET=      112.000
    1790.00     7.57   609.99     0.00   608.75   610.51     0.53     0.12     0.02   603.57
      1955.      90.    1570.     295.      40.     244.     153.      26.      10.   603.58
       0.13     2.27     6.42     1.93    0.050    0.030    0.050    0.000   602.42    55.00
   0.001263     100.     100.     100.        2        0        0     0.00   112.00   167.00
0
 *SECNO 1840.000

  3470 ENCROACHMENT STATIONS=      55.0     142.0  TYPE=      1  TARGET=       87.000
    1840.00     7.48   610.00     0.00   608.80   610.61     0.61     0.07     0.03   603.67
      1955.      93.    1636.     226.      39.     241.     105.      26.      10.   603.68
       0.13     2.39     6.78     2.16    0.050    0.030    0.050    0.000   602.52    55.00
   0.001433      50.      50.      50.        2        0        0     0.00    87.00   142.00
0
 *SECNO 1865.000

  3470 ENCROACHMENT STATIONS=      55.0     130.0  TYPE=      1  TARGET=       75.000
    1865.00     7.48   610.00     0.00   608.82   610.66     0.66     0.04     0.01   603.67
      1955.      95.    1678.     181.      39.     241.      78.      27.      10.   603.68
       0.13     2.45     6.95     2.32    0.050    0.030    0.050    0.000   602.52    55.00
   0.001505      25.      25.      25.        2        0        0     0.00    75.00   130.00
0
 CCHV=   0.500 CEHV=   1.000
 *SECNO 1890.000

  3470 ENCROACHMENT STATIONS=     145.0     230.0  TYPE=      1  TARGET=       85.000
              PORT SHELDON DRIVE
    1890.00     7.40   610.02     0.00   608.85   611.02     0.99     0.03     0.34   603.82
      1955.     141.    1392.     422.      57.     151.     118.      27.      10.   604.04
       0.13     2.48     9.24     3.57    0.030    0.015    0.030    0.000   602.62   149.10
   0.000718      25.      25.      25.        1        0        0     0.00    80.90   230.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 1940.000

  3470 ENCROACHMENT STATIONS=    1083.0    1143.0  TYPE=      1  TARGET=       60.000
   ELENCL=    616.80  ELENCR=    616.80
    1940.00     8.14   610.06     0.00   608.88   611.14     1.08     0.04     0.09   604.62
      1955.     196.     1601     158.      63.     176.      58.      27.      10.   604.92
       0.13     3.10     9.11     2.71    0.030    0.015    0.030    0.000   601.92  1083.00
   0.000702      50.      50.      50.        2        0        0     0.00    60.00  1143.00
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 1973.000

  3470 ENCROACHMENT STATIONS=    1083.0    1143.0  TYPE=      1  TARGET=       60.000
   ELENCL=    616.80  ELENCR=    616.80
    1973.00     8.54   610.46     0.00   609.11   611.21     0.75     0.04     0.03   604.62
```

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      1955.      281.     1440.      233.       70.      186.       66.       27.       10.    604.92
       0.13      4.02      7.76      3.55     0.040     0.030     0.040     0.000    601.92   1083.00
   0.001893       33.       33.       33.         3         0         0      0.00     60.00   1143.00
0
 *SECNO 2023.000

 3470 ENCROACHMENT STATIONS=    1075.0    1400.0  TYPE=     1  TARGET=     325.000
    2023.00      8.67    610.59      0.00    609.23    611.30      0.71      0.09      0.00    604.62
      1955.      285.     1432.      238.       72.      189.       68.       28.       10.    604.92
       0.14      3.94      7.58      3.50     0.040     0.030     0.040     0.000    601.92   1082.98
   0.001765       50.       50.       50.         2         0         0      0.00     60.05   1143.02
0
 *SECNO 2448.000

 3470 ENCROACHMENT STATIONS=    1095.0    1240.0  TYPE=     1  TARGET=     145.000
    2448.00      7.62    611.54      0.00    609.91    612.12      0.58      0.81      0.01    606.62
      1955.      102.     1209.      644.       24.      163.      233.       31.       11.    606.92
       0.16      4.21      7.42      2.77     0.040     0.030     0.040     0.000    603.92   1095.00
   0.002066      350.      425.      450.         2         0         0      0.00    145.00   1240.00
0
 *SECNO 2709.000

 3470 ENCROACHMENT STATIONS=    1000.0    1130.0  TYPE=     1  TARGET=     130.000
    2709.00      6.07    611.98      0.00    611.24    612.86      0.88      0.65      0.09    606.67
      1955.      345.     1222.      389.       81.      139.       77.       33.       12.    606.67
       0.17      4.25      8.81      5.06     0.040     0.030     0.040     0.000    605.91   1034.95
   0.003071      215.      261.      275.         2         0         0      0.00     91.15   1126.10
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 2785.000

 3470 ENCROACHMENT STATIONS=    1035.0    1135.0  TYPE=     1  TARGET=     100.000
            GOLF COURSE BRIDGE
    2785.00      6.46    612.37      0.00    611.47    613.08      0.71      0.20      0.02    606.67
      1955.      374.     1182.      399.       97       148.       88.       34.       12.    606.67
       0.17      3.84      7.98      4.53     0.040     0.030     0.040     0.000    605.91   1035.00
   0.002304       76.       76.       76.         2         0         0      0.00     94.68   1129.68
0

 SPECIAL BRIDGE

 5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB   XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA       SS         ELCHU      ELCHD
      0.00       1.50       2.80       0.00      20.00       0.00      270.00       6.00     605.91     605.91

 *SECNO 2790.000
 6870 D.S. ENERGY OF  613.08 HIGHER THAN COMPUTED ENERGY OF  612.86
 PRESSURE AND WEIR FLOW


  EGPRS      EGLWC       H3         QWEIR       QPR        BAREA    TRAPEZOID     ELLC       ELTRD
                                                                       AREA
     613.59    613.08       0.00       735.      1231.       270.       291.      611.40     611.40


 3470 ENCROACHMENT STATIONS=    1035.0    1130.0  TYPE=     1  TARGET=      95.000
```

```
 ELENCL=     614.00  ELENCR=     614.00
  2790.00      6.46   612.37      0.00   611.47   613.08      0.71      0.00      0.00    606.67
    1955.      374.    1183.      399.      97.     148.       88.       34.       12.     606.67
     0.17      3.84     7.99      4.54    0.040    0.030     0.040     0.000    605.91   1035.00
 0.002312        6.       6.        6.        3        0         2      0.00     94.64   1129.64
0
 *SECNO 2840.000

 3470 ENCROACHMENT STATIONS=      940.0     1135.0  TYPE=       1  TARGET=       195.000
  2840.00      6.68   612.59      0.00   611.60   613.19      0.60      0.10      0.01    606.67
    1955.      403.    1151.      401.     132.     153.       95.       34.       12.     606.67
     0.17      3.04     7.50      4.23    0.040    0.030     0.040     0.000    605.91    940.00
 0.001946       45.      50.       50.        2        0         0      0.00    195.00   1135.00
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 3090.000
 3280 CROSS SECTION    3090.00 EXTENDED       0.10 FEET

  3090.00      6.84   613.10      0.00   612.01   613.65      0.55      0.45      0.01    609.56
    1955.      173.    1512.      270.      98.     228.       98.       37.       14.     606.36
     0.19      1.75     6.63      2.76    0.040    0.030     0.040     0.000    606.26    896.26
 0.001662      250.     250.      250.        2        0         0      0.00    303.74   1200.00
0
 *SECNO 3164.000
 3280 CROSS SECTION    3164.00 EXTENDED       0.31 FEET

  3164.00      7.05   613.31      0.00   612.16   613.77      0.45      0.11      0.01    609.56
    1955.      212.    1453.      290.     140.     236.      120.       38.       14.     606.36
     0.19      1.52     6.15      2.43    0.040    0.030     0.040     0.000    606.26    844.52
 0.001363       74.      74.       74.        2        0         0      0.00    355.48   1200.00
0
 *SECNO 3165.000
 3280 CROSS SECTION    3165.00 EXTENDED       0.44 FEET


 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  609.56 MAX ELLC=  613.50


 3470 ENCROACHMENT STATIONS=      830.0     1150.0  TYPE=       1  TARGET=       320.000
           GOLF COURSE BRIDGE
  3165.00      7.18   613.44      0.00   612.12   613.78      0.34      0.00      0.01    609.56
    1955.      584.    1069.      301.     169.     193.       87.       38.       14.     606.36
     0.19      3.47     5.53      3.46    0.040    0.030     0.040     0.000    606.26    830.00
 0.007058        1.       1.        1.        2        0         0    -64.57    320.00   1150.00
0
 *SECNO 3170.000
 3280 CROSS SECTION    3170.00 EXTENDED       0.53 FEET


 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  609.56 MAX ELLC=  613.50


 3470 ENCROACHMENT STATIONS=      830.0     1160.0  TYPE=       1  TARGET=       330.000
  3170.00      7.27   613.53      0.00   612.18   613.82      0.29      0.04      0.00    609.56
    1955.      619.    1016.      320.     189.     197.       99.       38.       14.     606.36
     0.19      3.28     5.17      3.23    0.040    0.030     0.040     0.000    606.26    830.00
 0.006051        5.       5.        5.        2        0         0    -64.69    330.00   1160.00
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0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 3171.000
 3280 CROSS SECTION   3171.00 EXTENDED       0.45 FEET


 3470 ENCROACHMENT STATIONS=      830.0     1160.0  TYPE=      1  TARGET=      330.000
   3171.00      7.19   613.45     0.00    612.24    613.86     0.41      0.00      0.04    609.56
     1955.      245.    1424.     286.      170.      241.     111.       38.       14.     606.36
      0.19      1.44     5.90     2.57     0.040     0.030    0.040     0.000    606.26    830.00
  0.001221        1.       1.       1.         2         0        0      0.00    330.00   1160.00
0
 *SECNO 3220.000
 3280 CROSS SECTION   3220.00 EXTENDED       0.57 FEET

   3220.00      7.31   613.57     0.00    612.33    613.92     0.35      0.06      0.01    609.56
     1955.      271.    1372.     312.      202.      246.     145.       38.       15.     606.36
      0.19      1.34     5.58     2.16     0.040     0.030    0.040     0.000    606.26    800.00
  0.001065       49.      49.      49.         2         0        0      0.00    400.00   1200.00
0
 *SECNO 3495.000
 3280 CROSS SECTION   3495.00 EXTENDED       0.30 FEET


 3470 ENCROACHMENT STATIONS=      920.0     1280.0  TYPE=      1  TARGET=      360.000
   3495.00      7.00   613.80     0.00    612.58    614.37     0.57      0.39      0.07    606.80
     1955.      356.    1106.     493.       123      142.     217.       42.       17.     608.00
      0.21      2.89     7.76     2.27     0.040     0.030    0.040     0.000    606.80    920.00
  0.001928      275.     275.     275.         2         0        0      0.00    360.00   1280.00
0
 *SECNO 3574.000
 3280 CROSS SECTION   3574.00 EXTENDED       0.61 FEET


 3470 ENCROACHMENT STATIONS=      960.0     1280.0  TYPE=      1  TARGET=      320.000
   3574.00      7.31   614.11     0.00    612.89    614.52     0.41      0.13      0.02    606.80
     1955.      374.    1011.     570.       151      149.     273.       43.       18.     608.00
      0.21      2.47     6.79     2.09     0.040     0.030    0.040     0.000    606.80    960.00
  0.001389       79.      79.      79.         3         0        0      0.00    320.00   1280.00
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 3575.000
 3280 CROSS SECTION   3575.00 EXTENDED       0.54 FEET


 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  612.40 MAX ELLC=  614.40
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 3470 ENCROACHMENT STATIONS=      960.0     1280.0   TYPE=      1   TARGET=      320.000
          GOLF COURSE BRIDGE
   3575.00      7.24    614.04      0.00    612.88    614.55      0.50      0.00      0.03    606.80
     1955.      372.     1081.      502.      139.      147.      239.       43.       18.    608.00
      0.21      2.68      7.34      2.10     0.040     0.030     0.040     0.000    606.80    960.00
  0.002307        1.        1.        1.         2         0         0    -28.16    320.00   1280.00
0
 *SECNO 3580.000
 3280 CROSS SECTION   3580.00 EXTENDED      0 55 FEET


 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  612.40 MAX ELLC=  614.40


 3470 ENCROACHMENT STATIONS=      965.0     1280.0   TYPE=      1   TARGET=      315.000
   3580.00      7.26    614.06      0.00    612.90    614.56      0.50      0.01      0.00    606.80
     1955.      370.     1080.      505.      137.      148.      240.       43.       18.    608.00
      0.21      2.69      7.32      2.10     0.040     0.030     0.040     0.000    606.80    965.00
  0.002293        5.        5.        5.         0         0         0    -28.34    315.00   1280.00
0
 *SECNO 3581.000
 3280 CROSS SECTION   3581.00 EXTENDED      0.72 FEET


 3470 ENCROACHMENT STATIONS=      965.0     1280.0   TYPE=      1   TARGET=      315.000
   3581.00      7.41    614.21      0.00    612.91    614.57      0.36      0.00      0.01    606.80
     1955.      380.      980.      595.      161.      151.      292.       43.       18.    608.00
      0.21      2.36      6.48      2.04     0.040     0.030     0.040     0.000    606.80    965.00
  0.001242        1.        1.        1.         2         0         0      0.00    315.00   1280.00
0
 *SECNO 3630.000
 3280 CROSS SECTION   3630.00 EXTENDED      0.16 FEET

1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST



 3470 ENCROACHMENT STATIONS=     1010.0     1300.0   TYPE=      1   TARGET=      290.000
   3630.00      6.76    614.16      0.00    613.07    614.70      0.54      0.08      0.05    607.90
     1955.      462.     1085.      408.      132.      146.      158.       43.       18.    608.30
      0.21      3.49      7.45      2.59     0.040     0.030     0.040     0.000    607.40   1014.55
  0.001996       60.       49.       40.         2         0         0      0.00    285.45   1300.00
0
 *SECNO 3689.000
 3280 CROSS SECTION   3689.00 EXTENDED      0.39 FEET

   3689.00      6.98    614.38      0.00    613.25    614.82      0.44      0.11      0.01    607.90
     1955.      465.     1029.      460.      147.      151.      203.       44.       18.    608.30
      0.22      3.17      6.83      2.27     0.040     0.030     0.040     0.000    607.40   1010.12
  0.001600       70.       59.       50.         2         0         0      0.00    289.88   1300.00
0
 *SECNO 3690.000
 3280 CROSS SECTION   3690.00 EXTENDED      0.28 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  612.10 MAX ELLC=  620.00

          GOLF COURSE BRIDGE
   3690.00      6.88    614.28      0.00    613.14    614.87      0.60      0.00      0.05    607.90
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     1955.      408.     1132.      415.      122.      146.      161.       44.       18.    608.30
      0.22      3.35      7.73      2.58     0.040     0.030     0.040     0.000    607.40   1012.29
   0.005285       1.        1.        1.         2         0         0    -39.68    287.71   1300.00
0
 *SECNO 3695.000
 3280 CROSS SECTION    3695.00 EXTENDED       0.36 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=   612.10 MAX ELLC=   620.00

    3695.00      6.96    614.36      0.00    613.15    614.90      0.55      0.03      0.00    607.90
     1955.      410.     1098.      447.      126.      146.      176.       44.       19.    608.30
      0.22      3.24      7.50      2.54     0.040     0.030     0.040     0.000    607.40   1010.72
   0.004974       5.        5.        5.         2         0         0    -43.17    289.28   1300.00
0
1
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      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 3696.000
 3280 CROSS SECTION    3696.00 EXTENDED       0.56 FEET

    3696.00      7.16    614.56      0.00    613.36    614.92      0.37      0.00      0.02    607.90
     1955.      467.      987.      501.      159.      155.      238.       44.       19.    608.30
      0.22      2.93      6.37      2.11     0.040     0.030     0.040     0.000    607.40   1006.68
   0.001346       1.        1.        1.         2         0         0      0.00    293.33   1300.00
0
 *SECNO 3745.000
 3280 CROSS SECTION    3745.00 EXTENDED       0.65 FEET

    3745.00      7.25    614.65      0.00    613.47    614.99      0.34      0.06      0.00    607.90
     1955.      467.      965.      523.      166.      157.      256.       45.       19.    608.30
      0.22      2.82      6.15      2.04     0.040     0.030     0.040     0.000    607.40   1004.89
   0.001231      49.       49.       49.         2         0         0      0.00    295.11   1300.00
0
 *SECNO 4045.000
 3280 CROSS SECTION    4045.00 EXTENDED       1.03 FEET

    4045.00      6.18    615.03      0.00    613.91    615.36      0.33      0.36      0.00    609.35
     1955.      427.     1263.      265.      299.      226.      128.       49.       21.    609.35
      0.24      1.43      5.59      2.06     0.040     0.030     0.040     0.000    608.85    800.00
   0.001186      340.      300.      260.         1         0         0      0.00    454.29   1254.29
0
 *SECNO 4159.000
 3280 CROSS SECTION    4159.00 EXTENDED       1.22 FEET

    4159.00      6.37    615.22      0.00    614.14    615.48      0.26      0.12      0.01    609.35
     1955.      491.     1187.      277.      356.      233.      152.       51.       23.    609.35
      0.25      1.38      5.09      1.82     0.040     0.030     0.040     0.000    608.85    800.00
   0.000943      114.      114.      114.         2         0         0      0 00    468.18   1268.18
0
 *SECNO 4160.000
 3280 CROSS SECTION    4160.00 EXTENDED       1.19 FEET


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=   611.15 MAX ELLC=   616.00

           GOLF COURSE BRIDGE
1
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      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


    4160.00      6.34    615.19      0.00    614.08    615.50      0.31      0.00      0.02    609.35
      1955.      426.     1179.      350.      329.      213.      141.       51.       23.     609.35
       0.25      1.29      5.55      2.48     0.040     0.030     0.040     0.000    608.85    800.00
   0.003616        1.        1.        1.         2         0         0    -41.24    465.63   1265.63
0
  *SECNO 4165.000
  3280 CROSS SECTION   4165.00 EXTENDED      1.21 FEET


  3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  611.15 MAX ELLC=  616.00

    4165.00      6.37    615.22      0.00    614.10    615.52      0.30      0.02      0.00    609.35
      1955.      431.     1169.      354.      334.      213.      144.       51.       23.     609.35
       0.25      1.29      5.50      2.47     0.040     0.030     0.040     0.000    608.85    800.00
   0.003556        5.        5.        5.         1         0         0    -42.05    466.98   1266.98
0
  *SECNO 4166.000
  3280 CROSS SECTION   4166.00 EXTENDED      1.29 FEET

    4166.00      6.44    615.29      0.00    614.21    615.53      0.24      0.00      0.01    609.35
      1955.      512.     1162.      281.      375.      236.      161.       51.       23.     609.35
       0.25      1.37      4.93      1.75     0.040     0.030     0.040     0.000    608.85    800.00
   0.000872        1.        1.        1.         2         0         0      0.00    473.00   1273.00
0
  *SECNO 4215.000
  3280 CROSS SECTION   4215.00 EXTENDED      1.35 FEET

    4215.00      6.50    615.35      0.00    614.29    615.57      0.22      0.04      0.00    609.35
      1955.      531.     1140.      285.      393.      238.      169.       52.       23.     609.35
       0.25      1.35      4.79      1.69     0.040     0.030     0.040     0.000    608.85    800.00
   0.000813       49.       49.       49.         2         0         0      0.00    477.34   1277.34
0
  *SECNO 4355.000
  3280 CROSS SECTION   4355.00 EXTENDED      0.29 FEET

    4355.00      6.88    615.28    615.12    614.29    615.83      0.55      0.16      0.10    609.10
      1955.      352.     1253.      350.      179.      171.      190.       54.       25.     609.70
       0.26      1.96      7.33      1.84     0.040     0.030     0.040     0.000    608.40    850.00
   0.001802      140.      140.      140.         4         8         0      0.00    475.00   1325.00
0
1
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      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


  *SECNO 4479.000
  3280 CROSS SECTION   4479.00 EXTENDED      0.73 FEET

    4479.00      7.33    615.73      0.00    614.67    616.02      0.29      0.16      0.03    609.10
      1955.      462.     1046.      447.      290.      182.      277.       56.       26.     609.70
       0.27      1.59      5.73      1.62     0.040     0.030     0.040     0.000    608.40    850.00
   0.001012      124.      124.      124.         3         0         0      0.00    475.00   1325.00
0
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 *SECNO 4480.000
 3280 CROSS SECTION    4480.00 EXTENDED       0.93 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  611.20 MAX ELLC=  615.00

           GOLF COURSE BRIDGE
   4480.00      7.53   615.93      0.00   614.51   616.04      0.12      0.00      0.02    609.10
     1955.      706.     524.      726.     325.     141.      302.       56.       26.     609.70
      0.27      2.17     3.71      2.40    0.040    0.030     0.040     0.000    608.40    850.00
  0.002565        1.       1.        1.        2        0         0    -79.90    475.00   1325.00
0
 *SECNO 4485.000
 3280 CROSS SECTION    4485.00 EXTENDED       0.93 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  611.20 MAX ELLC=  615.00

   4485.00      7.54   615.94      0.00   614.58   616.06      0.12      0.01      0.00    609.10
     1955.      706.     523.      726.     325.     141.      302.       56.       26.     609.70
      0.27      2.17     3.71      2.40    0.040    0.030     0.040     0.000    608.40    850.00
  0.002556        5.       5.        5.        0        0         0    -79.90    475.00   1325.00
0
 *SECNO 4486.000
 3280 CROSS SECTION    4486.00 EXTENDED       0.85 FEET

   4486.00      7.45   615.85      0.00   614.91   616.10      0.25      0.00      0.04    609.10
     1955.      489.     996.      470.     322.     186.      301.       56.       26.     609.70
      0.27      1.52     5 36      1.56    0.040    0.030     0.040     0.000    608.40    850.00
  0.000865        1.       1.        1.        2        0         0      0.00    475.00   1325.00
0
1
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     SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 4535.000
 3280 CROSS SECTION    4535.00 EXTENDED       0.93 FEET

   4535.00      7.52   615.92      0.00   615.01   616.14      0.22      0.04      0.00    609.10
     1955.      505.     967.      482.     341.     188.      316.       57.       27.     609.70
      0.28      1.48     5.15      1.53    0.040    0.030     0.040     0.000    608.40    850.00
  0.000788       49.      49.       49.        1        0         0      0.00    475.00   1325.00
0
 *SECNO 5120.000
 3280 CROSS SECTION    5120.00 EXTENDED       0.49 FEET

   5120.00      7.08   616.38      0.00   615.65   616.79      0.41      0.60      0.06    610.00
     1955.      405.    1151.      399.     231.     176.      231.       67.       33.     610.60
      0.31      1.75     6.53      1.73    0.040    0.030     0.040     0.000    609.30    850.00
  0.001373      585.     585.      585.        1        0         0      0.00    475.00   1325.00
0
 *SECNO 5705.000
   5705.00      6.93   617.16      0.00   616.48   617.82      0.66      0.96      0.08    611.83
     1955.      154.    1434.      367.      88.     191.      168.       74.       38.     611.80
      0.34      1.74     7.52      2.18    0.040    0.030     0.040     0.000    610.23    962.50
  0.001980      585.     585.      585.        2        0         0      0.00    304.02   1266 52
0
 *SECNO 5819.000
 3280 CROSS SECTION    5819.00 EXTENDED       0.14 FEET
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 3470 ENCROACHMENT STATIONS=      940.0     1300.0  TYPE=      1  TARGET=      360.000
   5819.00      7.40   617.63     0.00    616.76   618.02     0.39     0.17     0.03    611.83
     1955.      226.    1260.     469.      146.     205.     257.      75.      39.    611.80
      0.34      1.54     6.15     1.82     0.040    0.030    0.040    0.000   610.23    940.00
  0.001204      114.     114.     114.        2        0        0     0.00   360.00   1300.00
0
 *SECNO 5820.000
 3280 CROSS SECTION    5820.00 EXTENDED       0.25 FEET


 3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  615.13 MAX ELLC=  618.50

1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 3470 ENCROACHMENT STATIONS=      940.0     1300.0  TYPE=      1  TARGET=      360.000
           GOLF COURSE BRIDGE
   5820.00      7.52   617.75     0.00    616.39   618.04     0.29     0.00     0.01    611.83
     1955.      437.     802.     716.      152.     140.     242.      75.      39.    611.80
      0.34      2.87     5.71     2.96     0.040    0.030    0.040    0.000   610.23    940.00
  0.007773        1.       1.       1.        3        0        0  -113.99   360.00   1300.00
0
 *SECNO 5825.000
 3280 CROSS SECTION    5825.00 EXTENDED       0.33 FEET


 3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  615.13 MAX ELLC=  618.50


 3470 ENCROACHMENT STATIONS=      945.0     1300.0  TYPE=      1  TARGET=      355.000
   5825.00      7.60   617.83     0.00    616.60   618.08     0.25     0.04     0.00    611.83
     1955.      442.     769.     744.      161.     143.     258.      75.      39.    611.80
      0.35      2.75     5.39     2.89     0.040    0.030    0.040    0.000   610.23    945.00
  0.006761        5.       5.       5.        2        0        0  -113.99   355.00   1300.00
0
 *SECNO 5826.000
 3280 CROSS SECTION    5826.00 EXTENDED       0.27 FEET


 3470 ENCROACHMENT STATIONS=      945.0     1300.0  TYPE=      1  TARGET=      355.000
   5826.00      7.54   617.77     0.00    617.15   618.11     0.34     0.00     0.03    611.83
     1955.      248.    1210.     498.      162.     209.     284.      76.      39.    611.80
      0.35      1.53     5.79     1.75     0.040    0.030    0.040    0.000   610.23    945.00
  0.001041        1.       1.       1.        2        0        0     0.00   355.00   1300.00
0
 *SECNO 5875.000
 3280 CROSS SECTION    5875.00 EXTENDED       0.35 FEET


 3470 ENCROACHMENT STATIONS=      950.0     1280.0  TYPE=      1  TARGET=      330.000
   5875.00      7.62   617.85     0.00    617.21   618.16     0.31     0.05     0.00    611.83
     1955.      259.    1180.     515.      170.     211.     291.      76.      40.    611.80
      0.35      1.53     5.59     1.77     0.040    0.030    0.040    0.000   610.23    950.00
  0.000954       49.      49.      49.        2        0        0     0.00   330.00   1280.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


  CCHV=   0.500 CEHV=   1.000
  *SECNO 6065.000
  3280 CROSS SECTION   6065.00 EXTENDED      1.09 FEET

    6065.00      6.69   618.09     0.00   617.43   618.67     0.58     0.24     0.27   612.30
      1955.      212.    1272.     471.      94.     172.     204.      79.      41.    612.10
       0.36      2.27     7.40     2.31    0.040    0.030    0.040    0.000   611.40     0.00
   0.001901      210.     190.     150.        2        0        0     0.00   235.00   235.00
0
  *SECNO 6140.000
  3280 CROSS SECTION   6140.00 EXTENDED      1.47 FEET

           GOLF COURSE BRIDGE
    6140.00      7.08   618.48     0.00   617.91   618.88     0.40     0.12     0.09   612.30
      1955.      251.    1156.     548.     122.     182.     255.      79.      41.    612.10
       0.36      2.06     6.34     2.14    0.040    0.030    0.040    0.000   611.40     0.00
   0.001292       75.      75.      75.        3        0        0     0.00   235.00   235.00
0

  SPECIAL BRIDGE

  5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
  SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
       0.00       1.15       3.00       0.00      23.00       0.00     157.00       0.00     611.40     611.40

  *SECNO 6167.000

  6070,LOW FLOW BY NORMAL BRIDGE

  EGPRS=   621.249  EGLWC=    618.878  ELLC=    618.100  PCWSE=    618.480  ELTRD=    617.000
  3280 CROSS SECTION   6167.00 EXTENDED      1.71 FEET


  3370 NORMAL BRIDGE,NRD= 18 MIN ELTRD=  617.00 MAX ELLC=  618.10

    6167.00      7.32   618.72     0.00   617.95   618.99     0.27     0.05     0.06   612.30
      1955.      275.     878.     802.     103.     166.     252.      80.      41.    612.10
       0.36      2.67     5.28     3.18    0.040    0.030    0.040    0.000   611.40     0.00
   0.003102       27.      27.      27.        4        0        0   -95.08   235.00   235.00
0
  *SECNO 6220.000
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


  3280 CROSS SECTION   6220.00 EXTENDED      1.80 FEET

    6220.00      7.40   618.80     0.00   618.36   619.10     0.30     0.08     0.02   612.30
      1955.      280.    1073.     602.     146.     191.     300.      80.      42.    612.10
       0.37      1.92     5.61     2.01    0.040    0.030    0.040    0.000   611.40     0.00
   0.000950       53.      53.      53.        2        0        0     0.00   235.00   235.00
0
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 CCHV=    0.100 CEHV=    0.300
 *SECNO 7493.000

 3470 ENCROACHMENT STATIONS=      225.0      300.0  TYPE=      1  TARGET=        75.000
   7493.00      6.23    620.73      0.00    620.04    621.48      0.75      2.25      0.13    619.30
     1955.       11.     1943.        1.        5.      280.        1.       94.       46.    620.10
      0.42      2.00      6.95      1.18     0.050     0.035     0.050     0.000    614.50    225.00
  0.004353     1273.     1273.     1273.         2         0         0      0.00     75.00    300.00
0
 CCHV=    0.300 CEHV=    0.500
 *SECNO 7505.000

 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=   625.85 MAX ELLC=   627.00

           44TH STREET
   7505.00      6.25    620.75      0.00    620.06    621.52      0.77      0.03      0.01    624.75
     1955.        0.     1955.        0.        0.      277.        0.       94.       46.    624.70
      0.42      0.00      7.05      0.00     0.000     0.020     0.000     0.000    614.50    229.00
  0.001811       12.       12.       12.         1         0         0     -3.98     69.00    298.00
0
 *SECNO 7565.000

 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=   625.85 MAX ELLC=   627.00

   7565.00      6.43    620.93      0.00    620.17    621.64      0.71      0.10      0.02    624.75
     1955.        0.     1955.        0.        0.      289.        0.       94.       46.    624.70
      0.42      0.00      6.76      0.00     0.000     0.020     0.000     0.000    614.50    229.00
  0.001591       60.       60.       60.         0         0         0     -4.29     69.00    298.00
0
 CCHV=    0.100 CEHV=    0.300
 *SECNO 7577.000
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 3470 ENCROACHMENT STATIONS=      220.0      305.0  TYPE=      1  TARGET=        85.000
   7577.00      6.56    621.06      0.00    620.22    621.68      0.62      0.02      0.01    619.30
     1955.       26.     1922.        7.       14.      302.        6.       95.       46.    620.10
      0.42      1.80      6.36      1.23     0.050     0.030     0.050     0.000    614.50    220.00
  0.002422       12.       12.       12.         2         0         0      0.00     85.00    305.00
0
 CCHV=    0.500 CEHV=    1.000
 *SECNO 9150.000
 3280 CROSS SECTION    9150.00 EXTENDED       3.06 FEET

   9150.00      8.66    623.77      0.00    622.54    624.13      0.36      2.32      0.13    620.51
     1955.      308.     1261.      386.      157.      219.      179.      110.       50.    617.06
      0.52      1.96      5.75      2.15     0.050     0.030     0.050     0.000    615.11     17.37
  0.000990     1573.     1573.     1573.         2         0         0      0.00    132.63    150.00
0
 *SECNO 9550.000

 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
           CONFLUENCE WITH DIVERSION CHANNEL
   9550.00      7.14    625.83    625.83    625.06    627.25      1.42      0.88      1.06    628.19
     1955.        0.      990.      965.        0.       81.      175.      114.       51.    620.25
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     0.53      0.00     12.27      5.52     0.000     0.030     0.050     0.0.0    618.69    105.11
  0.008462     400.      400.      400.         2        15         0      0.00     87.23    192.34
0
 *SECNO 9630.000
 3280 CROSS SECTION    9630.00 EXTENDED       2.63 FEET


 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=      95.0      150.0  TYPE=     1  TARGET=       55.000
   9630.00      8.23    627.94      0.00    626.61    628.05      0.10      0.14      0.66    620.97
      580.       19.      468.       94.       22.      164.       99.      115.       51.    620.71
      0.54      0.86      2.84      0.94     0.050     0.030     0.050     0.000    619.71     95.00
  0.000216       80.       80.       80.         3         0         0      0.00     55.00    150.00
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 9704.000
 3280 CROSS SECTION    9704.00 EXTENDED       2.67 FEET


 3470 ENCROACHMENT STATIONS=     100.0      117.5  TYPE=     1  TARGET=       17.500
   9704.00      8.34    627.98      0.00    626.67    628.32      0.34      0.03      0.24    623.14
      580.        0.      580.        0.        0.      123.        0.      115.       51. 100000.00
      0.55      0.00      4.70      0.00     0.000     0.030     0.000     0.000    619.64    100.00
  0.001728       74.       74.       74.         2         0         0      0.00     17.50    117.50
0
 CCHV=    0.300 CEHV=    0.500
 *SECNO 9705.000
 3280 CROSS SECTION    9705.00 EXTENDED       2.41 FEET


 3301 HV CHANGED MORE THAN HVINS


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  628.30 MAX ELLC=  628.30


 3470 ENCROACHMENT STATIONS=     100.0      117.5  TYPE=     1  TARGET=       17.500
           1ST KENOWA STREET CULVERT, 2-7'X145' CMP
   9705.00      8.08    627.72      0.00    626.51    628.59      0.87      0.00      0.26    623.14
      580.        0.      580.        0.        0.       78.        0.      115.       51. 100000.00
      0.55      0.00      7.48      0.00     0.000     0.027     0.000     0.000    619.64    100.00
  0.009007        1.        1.        1.         2         0         0    -41.34     17.50    117.50
0
 *SECNO 9756.000
 3280 CROSS SECTION    9756.00 EXTENDED       2.87 FEET


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  628.30 MAX ELLC=  628.30


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      630.00 ELREA=       630.00

   9756.00      8.54    628.18      0.00    626.91    629.05      0.87      0.46      0.00    623.14
      580.        0.      580.        0.        0.       78.        0.      115.       51.    623.14
      0.55      0.00      7.48      0.00     0.000     0.027     0.000     0.000    619.64    100.00
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  0.0090(J8      51.       51.       51.        2         0         0   -71.27    17.50   117.50
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 CCHV=   0.100 CEHV=    0.300
 *SECNO 9757.000
 3280 CROSS SECTION   9757.00 EXTENDED      3.53 FEET


 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=      100.0      117.5  TYPE=      1  TARGET=       17.500
   9757.00      9.20    628.84      0.00    627.38    629.11      0.27      0.00      0.06    623.14
      580.        0.      580.        0.        0.      139.        0.      115.       51. 100000.00
      0.55      0.00      4.19      0.00     0.000     0.030     0.000     0.000    619.64    100.00
  0.001253        1.        1.        1.         2         0         0      0.00     17.50    117.50
0
 *SECNO 10405.000
 3280 CROSS SECTION  10405.00 EXTENDED      3.40 FEET

  10405 00      9.07    629.21      0.00    627.97    629.22      0.01      0.08      0.03    623.64
      580.      202.      138.      240.      341.      136.      404.      122.       53.    623.64
      0.80      0.59      1.01      0.60     0.040     0.030     0.040     0.000    620.14      0.00
  0.000046      450.      648.      700.         3         0         0      0.00    225.00    225.00
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 11205.000
 3280 CROSS SECTION  11205.00 EXTENDED      1.15 FEET


 3301 HV CHANGED MORE THAN HVINS


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      653.70 ELREA=      653.70

           2ND KENOWA STREET CULVERT, 2-7'X145' CMP
  11205.00      6.84    629.04      0.00    627.85    629.60      0.56      0.11      0.28    625.70
      580.        0.      580.        0.        0.       97.        0.      131.       55.    625.70
      0.83      0.00      5.99      0.00     0.000     0.027     0.000     0.000    622.20    100.00
  0.002048      600.      800.      850.         2         0         0      0.00     17.50    117.50
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
       1.25       2.90       2.80     100.00      14.50       3.50      77.00       0.00     622.20     622.20
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*SECNO 11350.000
3280 CROSS SECTION  11350.00 EXTENDED      3.42 FEET

PRESSURE FLOW


  EGPRS       EGLWC        H3        QWEIR        QPR        BAREA   TRAPEZOID      ELLC       ELTRD
                                                                       AREA
      631.60     630.09      0.60          0.        580.        77.        77.      629.20     653.70



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      653.70 ELREA=      653.70

  11350.00      9.12    631.32      0.00    629.79    631.60      0.28      2.00      0.00    625.70
       580.        0.       580.        0.        0.      136.        0.      131.       55.     625.70
      0.84      0.00      4.25      0.00     0.000     0.027     0.000     0.000    622.20    100.00
  0.000651      145.      145.      145.         2         0         0      0.00     17.50    117.50
0
CCHV=    0.100 CEHV=    0.300
*SECNO 11500.000
3280 CROSS SECTION  11500.00 EXTENDED      3.73 FEET

  11500.00      9.43    631.63      0.00    630.24    631.64      0.01      0.02      0.03    625.70
       580.      179.      191.      210.      374.      158.      437.      133.       56.    625.70
      0.90      0.48      1.21      0.48     0.050     0.030     0.050     0.000    622.20      0.00
  0.000042      150.      150.      150.         2         0         0      0.00    225.00    225.00
0
*SECNO 11550.000
3280 CROSS SECTION  11550.00 EXTENDED      3.66 FEET

  11550.00      9.36    631.56      0.00    630.18    631.68      0.12      0.01      0.03    625.70
      1955.      601.      650.      704.      368.      157.      430.      134.       56.    625.70
      0.91      1.63      4.15      1.64     0.050     0.030     0.050     0.000    622.20      0.00
  0.000504       50.       50.       50.         2         0         0      0.00    225.00    225.00
0
1
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     SECNO      DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS   BANK ELEV
     Q          QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA   LEFT/RIGHT
     TIME       VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN       SSTA
     SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID      ENDST


*SECNO 11750.000
3280 CROSS SECTION  11750.00 EXTENDED      3.77 FEET

  11750.00      9.47    631.67      0.00    630.31    631.78      0.11      0.10      0.00    625.70
      1955.      606.      640.      709.      378.      159.      441.      138.       57.    625.70
      0.93      1.60      4.04      1.61     0.050     0.030     0.050     0.000    622.20      0.00
  0.000470      200.      200.      200.         2         0         0      0.00    225.00    225.00
0
*SECNO 12449.000
3280 CROSS SECTION  12449.00 EXTENDED      3.81 FEET


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=      40.000
 ELENCL=     653.70  ELENCR=     653.70
  12449.00      9.51    631.71      0.00    630.62    632.73      1.02      0.68      0.27    625.70
      1955.        0.     1442.      513.        0.      159.      116.      148.       59.    625 70
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      0.96      0.00      9.06      4.40     0.000     0.030     0.050     0.000    622.20    100.00
  0.003255      500.      699.      750.         2         0         0      0.00     40.00    140.00
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 12450.000

 3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD=  646.20 MAX ELLC=  635.00


 3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
  ELENCL=     653.70  ELENCR=     653.70
           U/S I-196
  12450.00      9.53    632.03      0.00    630.87    632.80      0.78      0.00      0.07    628.50
     1955.        0.     1955.        0.        0.      277.        0.      148.       59.    653.70
      0.96      0.00      7.07      0.00     0.000     0.027     0.000     0.000    622.50    100.00
  0.003088        1.        1.        1.         2         0         0    -26.05     40.00    140.00
0
 *SECNO 12650.000

 3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD=  646.20 MAX ELLC=  635.00

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
  ELENCL=     653.70  ELENCR=     653.70
  12650.00     10.23    632.73      0.00    631.25    633.41      0.68      0.58      0.03    628.50
     1955.        0.     1955.        0.        0.      295.        0.      149.       59.    653.70
      0.96      0.00      6.63      0.00     0.000     0.027     0.000     0.000    622.50    100.00
  0.002752      200.      200.      200.         2         0         0    -35.88     40.00    140.00
0
 CCHV=   0.100 CEHV=    0.300
 *SECNO 12850.000

 3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
  ELENCL=     653.70  ELENCR=     653.70
  12850.00     10.92    633.42      0.00    631.65    633.88      0.46      0.45      0.02    628.50
     1955.        0.     1955.        0.        0.      358.        0.      151.       59.    653.70
      0.97      0.00      5.46      0.00     0.000     0.035     0.000     0.000    622.50    100.00
  0.001862      200.      200.      200.         2         0         0      0.00     40.00    140.00
0
 *SECNO 13600.000
  13600.00      8.78    634.78      0.00    632.97    635.15      0.37      1.26      0.01    631.90
     1955.      477.     1447.       31.      372.      258.       37.      159.       61.    631.30
      1.02      1.28      5.61      0.84     0.100     0.035     0.100     0.000    626.00    143.05
  0.001536      700.      750.      750.         2         0         0      0.00    178.17    321.22
0
 *SECNO 14975.000
  14975.00      8.54    637.24      0.00    636.21    637.91      0.67      2.67      0.09    632.40
     1955.       80.     1383.      492.       48.      178.      383.      179.       67.    632.20
      1.08      1.66      7.77      1.28     0.100     0.035     0.100     0.000    628.70    261.09
  0.002552     1355.     1375.     1375.         2         0         0      0.00    220.60    481.68
0
 *SECNO 16700.000
 3280 CROSS SECTION  16700.00 EXTENDED      2.65 FEET


 3301 HV CHANGED MORE THAN HVINS
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  16700.00     8.75   640.15     0.00   638.98   640.32     0.17     2.36     0.05   637.00
     1955.     787.    1115.      53.     795.     258.      82.     214.      78.   638.30
      1.25     0.99     4.31     0.64    0.100    0.035    0.100    0.000   631.40    10.00
  0.000851    1725.    1725.    1725.        2        0        0     0.00   338.52   348.52
0
1
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    SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
    Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
    TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
    SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


 *SECNO 17600.000

 3265 DIVIDED FLOW

 3280 CROSS SECTION  17600.00 EXTENDED      1.10 FEET

  17600.00     7.19   641.19     0.00   640.05   641.70     0.51     1.27     0.10   639.60
     1955.     559.    1386.      10.     400.     206.      19.     232.      85.   640.90
      1.30     1.40     6.73     0.54    0.100    0.035    0.100    0.000   634.00    10.00
  0.002809     900.     900.     900.        2        0        0     0.00   311.32   333.64
0
 *SECNO 18545.000

 3470 ENCROACHMENT STATIONS=      245.0      305.0  TYPE=      1  TARGET=      60.000
  ELENCL=    645.45  ELENCR=     645.45
  18545.00     7.30   643.10     0.00   641.94   643.60     0.50     1.90     0.00   637.60
     1955.      29.    1892.      35.      26.     328.      30.     243.      89.   636.80
      1.35     1.10     5.77     1.14    0.100    0.035    0.100    0.000   635.80   245.00
  0.001509     945.     945.     945.        2        0        0     0.00    60.00   305.00
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 18565.000

 3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  645.45 MAX ELLC=  651.00


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      645.45 ELREA=      645.45

            BARRY STREET
  18565.00     7.27   643.07     0.00   641.93   643.65     0.58     0.01     0.04   637.60
     1955.       0.    1955.       0.       0.     320.       0.     243.      89.   636.80
      1.35     0.00     6.11     0.00    0.000    0.015    0.000    0.000   635.80   250.00
  0.000427      20.      20.      20.        2        0        0  -131.03    50.00   300.00
0
 *SECNO 18602.000

 3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  645.45 MAX ELLC=  651.00

1
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    SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
    Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
    TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
    SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      645.45 ELREA=      645.45
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  18602.00     7.30   643.10     0.00   641.94   643.67     0.57     0.02     0.00   637.60
     1955.       0.    1955.       0.       0.     321.       0.     243.      89.    636.80
      1.35     0.00     6.08     0.00    0.000    0.015    0.000    0.000   635.80   250.00
  0.000421      37.      37.      37.        1        0        0  -131.83    50.00   300.00
0
 CCHV=   0.100 CEHV=    0.300
 *SECNO 18622.000

 3470 ENCROACHMENT STATIONS=      230.0     320.0  TYPE=      1  TARGET=      90.000
  18622.00     7.69   643.49     0.00   642.17   643.72     0.22     0.01     0.04   637.60
     1955.     234.    1449.     272.     103.     346.     114.     244.      89.    636.80
      1.35     2.26     4.18     2.39    0.040    0.030    0.040    0.000   635.80   230.00
  0.000542      20.      20.      20.        2        0        0     0.00    90.00   320.00
0
 *SECNO 19000.000
  19000.00     6.90   643.80     0.00   642.28   644.01     0.21     0.29     0.00   641.20
     1955.     813.     760.     382.     348.     147.     161.     249.      91.    641.30
      1.38     2.34     5.17     2.37    0.040    0.030    0.040    0.000   636.90   111.65
  0.001215     378.     378.     378.        2        0        0     0.00   258.01   369.65
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 20755.000
 3280 CROSS SECTION  20755.00 EXTENDED      1.98 FEET


 3470 ENCROACHMENT STATIONS=      120.0     550.0  TYPE=      1  TARGET=     430.000
  20755.00     8.88   645.38     0.00   644.78   645.48     0.09     1.43     0.04   644.30
     1955.     378.     556.    1020.     277.     147.     593.     283.     105.    641.10
      1.60     1.36     3.79     1.72    0.040    0.030    0.040    0.000   636.50   120.00
  0.000583    1755.    1755.    1755.        1        0        0     0.00   430.00   550.00
0
 *SECNO 20905.000

 3265 DIVIDED FLOW

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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


 3280 CROSS SECTION  20905.00 EXTENDED      0.79 FEET


 3470 ENCROACHMENT STATIONS=       75.0     450.0  TYPE=      1  TARGET=     375.000
  20905.00     7.69   645.39     0.00   644.73   645.79     0.40     0.16     0.15   645.50
     1955.     287.     855.     813.     147.     122.     277.     285.     106.    642.30
      1.61     1.95     7.02     2.93    0.040    0.030    0.040    0.000   637.70    75.00
  0.002540     150.     150.     150.        2        0        0     0.00   335.39   449.88
0
 *SECNO 21055.000

 3265 DIVIDED FLOW

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=      150.0     450.0  TYPE=      1  TARGET=     300.000
  21055.00     7.31   646.16   646.16   645.76   647.04     0.88     0.52     0.24   646.65
     1955.      57.    1090.     808.      30.     114.     222.     287.     107.    643.45
```

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     1.61      1.92      9.56      3.64     0.040     0.030     0.040     0.000    638.85    150.00
  0.005037      150.      150.      150.        20         9         0      0.00    218.72    444.33
0
 *SECNO 21355.000
           JACKSON STREET (TOWNSHIP LIMIT)
  21355.00      6.52    647.72      0.00    646.95    648.29      0.57      1.16      0.09    643.40
     1955.      705.      810.      440.      174.      100.      111.      290.      108.     643.30
     1.63      4.06      8.12      3.96     0.040     0.030     0.040     0.000    641.20    203.18
  0.003046      300.      300.      300.         2         0         0      0.00    147.06    350.25
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00       1.56       3.00     150.00      15.00       0.00     110.00       0.00     641.20     641.20

 *SECNO 21391.000
 3280 CROSS SECTION  21391.00 EXTENDED      1.83 FEET

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 PRESSURE AND WEIR FLOW


  EGPRS      EGLWC        H3        QWEIR      QPR        BAREA    TRAPEZOID     ELLC       ELTRD
                                                                    AREA
     655.37     648.29      0.00       789.       1168.      110.       87.      647.00     649.00



 3470 ENCROACHMENT STATIONS=      200.0     350.0  TYPE=     1  TARGET=     150.000
  21391.00      9.13    650.33      0.00    649.38    650.45      0.12      2.16      0.00    643.40
     1955.      855.      572.      528.      387.      147.      242.      290.      108.     643.30
     1.63      2.21      3.90      2.19     0.040     0.030     0.040     0.000    641.20    200.00
  0.000420       36.       36.       36.         2         0         4      0.00    150.00    350.00
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 22615.000
 3280 CROSS SECTION  22615.00 EXTENDED      5.37 FEET

  22615.00      9.07    650.47      0.00    649.48    650.49      0.01      0.02      0.01    644.10
     1955.     1496.      209.      250.     1733.      162.      347.      298.      110.     643.20
     1.70      0.86      1.29      0.72     0.040     0.030     0.040     0.000    641.40     25.00
  0.000043      224.      224.      224.         2         0         0      0.00    356.37    381.37
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO -9550.000
 START TRIB COMP
   -9550.000  9550.000   625.834
  -9550.00      7.14    625.83      0.00    625.06    626.80      0.96      0.00      0.00    628.19
     1955.        0.      745.     1210.        0.       81.      175.      309.      112.     620.25
     1.72      0.00      9.23      6.92     0.000     0.040     0.040     0.000    618.69    105.11
  0.008515      400.      400.      400.         0         0         0      0.00     87.23    192.34
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 250.000
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3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      632.50 ELREA=      632.50

     250.00      7.64    626.94      0.00    626.12    627.50      0.56      0.58      0.12    623.20
      1375.        0.     1375.        0.        0.      228.        0.      311.      112.     621.20
       1.73      0.00      6.02      0.00     0.000     0.024     0.000     0.000    619.30    332.00
   0.000829      250.      250.      250.         2         0         0      0.00     35.00    367.00
O
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST



 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK          XKOR        COFQ       RDLEN       BWC         BWP        BAREA       SS          ELCHU       ELCHD
       0.00        2.32        2.60    125.00       20.00        0.00     177.50        0.00      619.30      619.30

 *SECNO 332.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=     0.000  EGLWC=    627.502  ELLC=    628.300  PCWSE=    626.939  ELTRD=    632.500

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  632.50 MAX ELLC=  628.30


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      632.50 ELREA=      632.50

     332.00      7.72    627.02      0.00    626.15    627.57      0.55      0.07      0.00    623.20
      1375.        0.     1375.        0.        0.      231.        0.      311.      112.     621.20
       1.73      0.00      5.95      0.00     0.000     0.024     0.000     0.000    619.30    332.00
   0.000795       82.       82.       82.         2         0         0      0.00     35.00    367.00
O
  CCHV=    0.100 CEHV=    0.300
  *SECNO 890.000

  3301 HV CHANGED MORE THAN HVINS

  3685 20 TRIALS ATTEMPTED WSEL,CWSEL
  3693 PROBABLE MINIMUM SPECIFIC ENERGY
  3720 CRITICAL DEPTH ASSUMED
     890.00      4.66    629.96    629.96    628.72    631.50      1.53      1.17      0.30    629.20
      1375.        0.     1268.      106.        0.      124.       19.      313.      113.     627.20
       1.75      1.65     10.22      5.56     0.040     0.040     0.040     0.000    625.30    331.47
   0.014951      558.      558.      558.        20        14         0      0.00     49.36    380.82
O
  *SECNO 11550.000
  3280 CROSS SECTION  11550.00 EXTENDED       3.72 FEET


  3301 HV CHANGED MORE THAN HVINS

   11550.00      9.42    631.62      0.00    629.88    631.69      0.07      0.05      0.15    625.70
      1955.      695.      445.      814.      374.      158.      436.      314.      113.     625.70
       1.75      1.86      2.82      1.87     0.040     0.040     0.040     0.000    622.20      0.00
   0.000411       50.       50.       50.         2         0         0      0.00    225.00    225.00
O
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THIS RUN EXECUTED 18 OCT 89 10:58:56

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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**********************************************


T1      GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
T2      FLOOD INSURANCE STUDY
T3      BLISS DRAIN, 100-YEAR FLOOD

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q        WSEL      FQ

      0.        4.        0.        0.   0.000000    0.00      0.0      0.    607.110    0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH      FN       ALLDC     IBW      CHNIM     ITRACE

     3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


*PROF 3

CCHV=   0.100 CEHV=    0.300
*SECNO 0.000

3470 ENCROACHMENT STATIONS=     1650.0     1990.0  TYPE=      1  TARGET=      340.000
     0.00     12.81    607.11      0.00    606.69    607.33      0.22      0.00      0.00    599.30
    2300.      130.     1740.      430.      109.      406.      478.        0.        0.    599.60
     0.00      1.19      4.29      0.90     0.050     0.030     0.050     0.000    594.30   1650.00
 0.000359        0.        0.        0.         0         0         0      0.00    340.00   1990.00
0
 *SECNO 15.000

3470 ENCROACHMENT STATIONS=     1655.0     1990.0  TYPE=      1  TARGET=      335.000
    15.00     12.81    607.11      0.00    606.69    607.34      0.22      0.01      0.00    599.30
    2300.      125.     1743.      432.      102.      406.      479.        0.        0.    599.60
     0.00      1.23      4.29      0.90     0.050     0.030     0.050     0.000    594.30   1655.00
 0.000359       15.       15.       15.         0         0         0      0.00    335.00   1990.00
0
 *SECNO 115.000

3470 ENCROACHMENT STATIONS=     1660.0     1945.0  TYPE=      1  TARGET=      285.000
   115.00     11.71    607.01      0.00    606.62    607.45      0.44      0.05      0.07    600.30
    2300.       93.     2042.      165.       61.      363.      169.        2.        1.    600.60
     0.01      1.54      5.62      0.98     0.050     0.030     0.050     0.000    595.30   1660.00
 0.000716      100.      100.      100.         2         0         0      0.00    285.00   1945.00
0
 *SECNO 290.000
   290.00      7.87    607.09      0.00    606.67    607.66      0.57      0.17      0.04    600.37
    2300.      172.     1747.      382.       90.      255.      199.        4.        2.    600.38
     0.02      1.92      6.84      1.92     0.050     0.030     0.050     0.000    599.22     14.95
 0.001352      175.      175.      175.         1         0         0      0.00    184.42    199.37
```

```
0
 *SECNO 990.000
    990.00      7.35    608.07      0.00    607.63    608.84      0.77      1.12      0.06    601.87
     2300.      138.     1847.      315.       64.      237.      149.       12.        5.    601.88
      0.04      2.14      7.80      2.11     0.050     0.030     0.050     0.000    600.72     19.08
  0.001940      700.      700.      700.         2         0         0      0.00    169 07    188.15
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 1690.000

 3470 ENCROACHMENT STATIONS=      20.0     182.0  TYPE=      1  TARGET=     162.000
   1690.00      8.18    610.40      0.00    609.92    610.88      0.47      2.00      0.03    603.37
     2300.      189.     1687.      424.      102.      266.      217.       29.       10.    603.38
      0.12      1.86      6.34      1.96     0.050     0.030     0.050     0.000    602.22     20.00
  0.001100     1400.     1400.     1400.         2         0         0      0.00    162.00    182.00
0
 *SECNO 1790.000

 3470 ENCROACHMENT STATIONS=      55.0     167.0  TYPE=      1  TARGET=     112.000
   1790.00      8.02    610.44      0.00    609.99    611.03      0.59      0.12      0.03    603.57
     2300.      109.     1791.      400.       44.      260.      184.       30.       10.    603.58
      0.12      2.44      6.88      2.18     0.050     0.030     0.050     0.000    602.42     55.00
  0.001331      100.      100.      100.         2         0         0      0.00    112.00    167.00
0
 *SECNO 1840.000

 3470 ENCROACHMENT STATIONS=      55.0     142.0  TYPE=      1  TARGET=      87.000
   1840.00      7.91    610.43      0.00    610.00    611.14      0.71      0.07      0.03    603.67
     2300.      113.     1886.      301.       43.      257.      123.       31.       10.    603.68
      0.13      2.61      7.35      2.45     0.050     0.030     0.050     0.000    602.52     55.00
  0.001550       50.       50.       50.         2         0         0      0.00     87.00    142.00
0
 *SECNO 1865.000

 3470 ENCROACHMENT STATIONS=      55.0     130.0  TYPE=      1  TARGET=      75.000
   1865.00      7.91    610.43      0.00    610.00    611.20      0.77      0.04      0.02    603.67
     2300.      117.     1946.      237.       43.      256.       91.       31.       10.    603.68
      0.13      2.70      7.59      2.61     0.050     0.030     0.050     0.000    602.52     55.00
  0.001658       25.       25.       25.         2         0         0      0.00     75.00    130.00
0
 CCHV=   0.500 CEHV=   1.000
 *SECNO 1890.000

 3470 ENCROACHMENT STATIONS=     145.0     230.0  TYPE=      1  TARGET=      85.000
                 PORT SHELDON DRIVE
   1890.00      7.83    610.45      0.00    610.02    611.59      1.13      0.03      0.36    603.82
     2300.      190.     1600.      510.       70.      161.      131.       31.       10.    604.04
      0.13      2.73      9.97      3.89     0.030     0.015     0.030     0.000    602.62    145.59
  0.000768       25.       25.       25.         1         0         0      0.00     84.41    230.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
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    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


  *SECNO 1940.000

  3470 ENCROACHMENT STATIONS=     1083.0     1143.0  TYPE=      1   TARGET=        60.000
    ELENCL=     616.80  ELENCR=     616.80
     1940.00     8.57    610.49     0.00    610.06    611.76      1.27      0.04      0.14    604.62
        2300.     242.     1856.     202.       70.      187.       66.       32.       11.     604.92
        0.13     3.44      9.95     3.04     0.030     0.015     0.030     0.000    601.92   1083.00
    0.000774      50.       50.      50.         2         0         0      0.00     60.00   1143.00
 0
  CCHV=    0.100 CEHV=    0.300
  *SECNO 1973.000

  3470 ENCROACHMENT STATIONS=     1083.0     1143.0  TYPE=      1   TARGET=        60.000
    ELENCL=     616.80  ELENCR=     616.80
     1973.00     9.07    610.99     0.00    610.46    611.84      0.85      0.04      0.04    604.62
        2300.     346.     1659.     295.       79.      199.       75.       32.       11.     604.92
        0.13     4.38      8.34     3.92     0.040     0.030     0.040     0.000    601.92   1083.00
    0.001995      33.       33.      33.         3         0         0      0.00     60.00   1143.00
 0
  *SECNO 2023.000

  3470 ENCROACHMENT STATIONS=     1075.0     1400.0  TYPE=      1   TARGET=       325.000
     2023.00     9.21    611.13     0.00    610.59    611.94      0.81      0.10      0.00    604.62
        2300.     349.     1651.     300.       81.      203.       78.       32.       11.     604.92
        0.13     4.29      8.15     3.86     0.040     0.030     0.040     0.000    601.92   1082.97
    0.001862      50.       50.      50.         2         0         0      0.00     60.06   1143.03
 0
  *SECNO 2448.000
  3280 CROSS SECTION    2448.00 EXTENDED       0.23 FEET


  3470 ENCROACHMENT STATIONS=     1095.0     1240.0  TYPE=      1   TARGET=       145.000
     2448.00     8.30    612.22     0.00    611.54    612.72      0.50      0.74      0.03    606.62
        2300.     112.     1273.     915.       28.      180.      311.       37.       12.     606.92
        0.16     4.07      7.07     2.94     0.040     0.030     0.040     0.000    603.92   1095.00
    0.001642     350.      425.     450.         2         0         0      0.00    145.00   1240.00
 0
  *SECNO 2709.000
 1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



  3470 ENCROACHMENT STATIONS=     1000.0     1130.0  TYPE=      1   TARGET=       130.000
     2709.00     6.58    612.49     0.00    611.98    613.40      0.91      0.56      0.12    606.67
        2300.     451.     1376.     472.      108.      151.       91.       39.       12.     606.67
        0.17     4.19      9.12     5.17     0.040     0.030     0.040     0.000    605.91   1000.00
    0.002936     215.      261.     275.         2         0         0      0.00    130.00   1130.00
 0
  *SECNO 2785.000

  3470 ENCROACHMENT STATIONS=     1035.0     1135.0  TYPE=      1   TARGET=       100.000
              GOLF COURSE BRIDGE
     2785.00     6.95    612.86     0.00    612.37    613.61      0.76      0.20      0.02    606.67
        2300.     478.     1336.     486.      117.      160.      104.       40.       13.     606.67
        0.17     4.08      8.36     4.66     0.040     0.030     0.040     0.000    605.91   1035.00
    0.002287      76.       76.      76.         2         0         0      0.00    100.00   1135.00
```

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0
 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
       0.00      1.50      2.80      0.00     20.00      0.00    270.00      6.00    605.91    605.91

 *SECNO 2790.000
 6870 D.S. ENERGY OF  613.61 HIGHER THAN COMPUTED ENERGY OF  613.25
 PRESSURE AND WEIR FLOW


   EGPRS      EGLWC       H3       QWEIR       QPR       BAREA   TRAPEZOID      ELLC      ELTRD
                                                                    AREA
      614.55    613.61      0.00      1184.      1107.      270.      291.    611.40    611.40



 3470 ENCROACHMENT STATIONS=     1035.0    1130.0  TYPE=     1  TARGET=      95.000
  ELENCL=     614.00  ELENCR=    614.00
   2790.00      6.94    612.85      0.00    612.37    613.61      0.76      0.00      0.00    606.67
     2300.      478.     1339.      484.      117.      160.      102.       40.       13.    606.67
      0.17      4.09      8.39      4.73     0.040     0.030     0.040     0.000    605.91   1035.00
  0.002308        6.        6.        6.         3         0         2      0.00     95.00   1130.00
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 2840.000

 3470 ENCROACHMENT STATIONS=      940.0    1135.0  TYPE=     1  TARGET=     195.000
   2840.00      7.29    613.20      0.00    612.59    613.73      0.53      0.09      0.02    606.67
     2300.      595.     1233.      472.      216.      168.      116.       40.       13.    606.67
      0.17      2.75      7.34      4.06     0.040     0.030     0.040     0.000    605.91    940.00
  0.001644       45.       50.       50.         2         0         0      0.00    195.00   1135.00
0
 *SECNO 3090.000
 3280 CROSS SECTION   3090.00 EXTENDED       0.67 FEET

   3090.00      7.41    613.67      0.00    613.10    614.11      0.44      0.37      0.01    609.56
     2300.      352.     1572.      376.      228.      250.      155.       44.       15.    606.36
      0.19      1.55      6.30      2.43     0.040     0.030     0.040     0.000    606.26    800.00
  0.001330      250.      250.      250.         2         0         0      0.00    400.00   1200.00
0
 *SECNO 3164.000
 3280 CROSS SECTION   3164.00 EXTENDED       0.84 FEET

   3164.00      7.58    613.84      0.00    613.31    614.20      0.37      0.09      0.01    609.56
     2300.      409.     1502.      389.      273.      256.      172.       45.       15.    606.36
      0.19      1.50      5.86      2.27     0.040     0.030     0.040     0.000    606.26    800.00
  0.001113       74.       74.       74.         2         0         0      0.00    400.00   1200.00
0
 *SECNO 3165.000
 3280 CROSS SECTION   3165.00 EXTENDED       1.05 FEET


 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  609.56 MAX ELLC=  613.50
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           GOLF COURSE BRIDGE
   3165.00      7.79   614.05     0.00   613.44   614.23     0.18     0.00     0.02   609.56
     2300.      932.     886.     482.     328.     216.     176.      45.      15.    606.36
     0.19       2.84     4.10     2.74    0.040    0.030    0.040    0.000   606.26   800.00
  0.003420        1.       1.       1.        3        0        0   -65.16   400.00  1200.00
0
 *SECNO 3170.000
 3280 CROSS SECTION   3170.00 EXTENDED      1.06 FEET

1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  609.56 MAX ELLC=  613.50

   3170.00      7.81   614.07     0.00   613.53   614.24     0.17     0.02     0.00   609.56
     2300.      937.     881.     483.     332.     216.     177.      45.      15.    606.36
     0.19       2.82     4.07     2.72    0.040    0.030    0.040    0.000   606.26   800.00
  0.003354        5.       5.       5.        0        0        0   -65.17   400.00  1200.00
0
 *SECNO 3171.000
 3280 CROSS SECTION   3171.00 EXTENDED      0.97 FEET

   3171.00      7.71   613.97     0.00   613.45   614.29     0.32     0.00     0.04   609.56
     2300.      452.    1449.     399.     308.     261.     185.      45.      15.    606.36
     0.19       1.47     5.55     2.16    0.040    0.030    0.040    0.000   606.26   800.00
  0.000970        1.       1.       1.        2        0        0     0.00   400.00  1200.00
0
 *SECNO 3220.000
 3280 CROSS SECTION   3220.00 EXTENDED      1.04 FEET

   3220.00      7.78   614.04     0.00   613.57   614.34     0.30     0.05     0.00   609.56
     2300.      474.    1422.     404.     326.     264.     192.      46.      16.    606.36
     0.19       1.46     5.39     2.10    0.040    0.030    0.040    0.000   606.26   800.00
  0.000904       49.      49.      49.        2        0        0     0.00   400.00  1200.00
0
 *SECNO 3495.000
 3280 CROSS SECTION   3495.00 EXTENDED      0.75 FEET


 3470 ENCROACHMENT STATIONS=     920.0    1280.0  TYPE=      1  TARGET=     360.000
   3495.00      7.45   614.25     0.00   613.80   614.71     0.46     0.32     0.05   606.80
     2300.      477.    1125.     698.     195.     152.     299.      50.      18.    608.00
     0.21       2.45     7.40     2.34    0.040    0.030    0.040    0.000   606.80   920.00
  0.001609      275.     275.     275.        2        0        0     0.00   360.00  1280.00
0
 *SECNO 3574.000
 3280 CROSS SECTION   3574.00 EXTENDED      0.95 FEET

 3470 ENCROACHMENT STATIONS=     960.0    1280.0  TYPE=      1  TARGET=     320.000
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST
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  3574.00     7.64   614.44     0.00   614.11   614.83     0.39     0.12     0.01   606.80
    2300.     471.    1076.     752.     192.     156.     334.      51.      19.    608.00
     0.21     2.46     6.90     2.25    0.040    0.030    0.040    0.000   606.80   960.00
 0.001349      79.      79.      79.        2        0        0     0.00   320.00  1280.00
0
 *SECNO 3575.000
 3280 CROSS SECTION   3575.00 EXTENDED       1.09 FEET


 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  612.40 MAX ELLC=  614.40


 3470 ENCROACHMENT STATIONS=      960.0    1280.0  TYPE=      1  TARGET=      320.000
            GOLF COURSE BRIDGE
  3575.00     7.79   614.59     0.00   614.04   614.85     0.26     0.00     0.01   606.80
    2300.     511.     883.     906.     198.     155.     332.      51.      19.    608.00
     0.21     2.59     5.71     2.73    0.040    0.030    0.040    0.000   606.80   960.00
 0.002819       1.       1.       1.        2        0        0   -43.32   320.00  1280.00
0
 *SECNO 3580.000
 3280 CROSS SECTION   3580.00 EXTENDED       1.10 FEET


 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  612.40 MAX ELLC=  614.40


 3470 ENCROACHMENT STATIONS=      965.0    1280.0  TYPE=      1  TARGET=      315.000
  3580.00     7.80   614.60     0.00   614.06   614.86     0.26     0.02     0.00   606.80
    2300.     504.     884.     913.     193.     155.     333.      52.      19.    608.00
     0.22     2.61     5.71     2.74    0.040    0.030    0.040    0.000   606.80   965.00
 0.002824       5.       5.       5.        0        0        0   -43.64   315.00  1280.00
0
 *SECNO 3581.000
 3280 CROSS SECTION   3581.00 EXTENDED       1.04 FEET


 3470 ENCROACHMENT STATIONS=      965.0    1280.0  TYPE=      1  TARGET=      315.000
  3581.00     7.74   614.54     0.00   614.21   614.90     0.36     0.00     0.03   606.80
    2300.     474.    1052.     774.     198.     158.     350.      52.      19.    608.00
     0.22     2.40     6.66     2.21    0.040    0.030    0.040    0.000   606.80   965.00
 0.001237       1.       1.       1.        2        0        0     0.00   315.00  1280.00
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 3630.000
 3280 CROSS SECTION   3630.00 EXTENDED       0.48 FEET


 3470 ENCROACHMENT STATIONS=     1010.0    1300.0  TYPE=      1  TARGET=      290.000
  3630.00     7.08   614.48     0.00   614.16   615.03     0.55     0.08     0.06   607.90
    2300.     550.    1183.     567.     153.     153.     222.      52.      19.    608.30
     0.22     3.59     7.74     2.56    0.040    0.030    0.040    0.000   607.40  1010.00
 0.002015      60.      49.      40.        2        0        0     0.00   290.00  1300.00
0
 *SECNO 3689.000
 3280 CROSS SECTION   3689.00 EXTENDED       0.71 FEET
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   3689.00      7.30    614.70     0.00    614.38   615.15     0.44      0.11      0.01    607.90
     2300.      550.     1121.     629.      169.     158.     267.       53.       20.     608.30
      0.22      3.25      7.09     2.36     0.040    0.030    0.040     0.000    607.40   1003.86
  0.001619       70.       59.      50.         2        0        0      0.00    296.14   1300.00
0
 *SECNO 3690.000
 3280 CROSS SECTION    3690.00 EXTENDED      0.63 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  612.10 MAX ELLC=  620.00

           GOLF COURSE BRIDGE
   3690.00      7.23    614.63     0.00    614.28   615.18     0.56      0.00      0.03    607.90
     2300.      490.     1152.     658.      143.     146.     227.       53.       20.     608.30
      0.22      3.43      7.87     2.90     0.040    0.030    0.040     0.000    607.40   1005.42
  0.005473        1.        1.       1.         2        0        0    -54.22    294.58   1300.00
0
 *SECNO 3695.000
 3280 CROSS SECTION    3695.00 EXTENDED      0.72 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  612.10 MAX ELLC=  620.00

   3695.00      7.32    614.72     0.00    614.36   615.22     0.50      0.03      0.01    607.90
     2300.      493.     1104.     704.      149.     146.     245.       53.       20.     608.30
      0.22      3.31      7.54     2.87     0.040    0.030    0.040     0.000    607.40   1003.58
  0.005021        5.        5.       5.         2        0        0    -57.81    296.42   1300.00
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 3696.000
 3280 CROSS SECTION    3696.00 EXTENDED      0.84 FEET

   3696.00      7.44    614.84     0.00    614.56   615.23     0.39      0.00      0.01    607.90
     2300.      550.     1084.     665.      180.     161.     294.       53.       20.     608.30
      0.22      3.06      6.72     2.26     0.040    0.030    0.040     0.000    607.40   1001.15
  0.001417        1.        1.       1.         2        0        0      0.00    298.85   1300.00
0
 *SECNO 3745.000
 3280 CROSS SECTION    3745.00 EXTENDED      0.95 FEET

   3745.00      7.55    614.95     0.00    614.65   615.30     0.35      0.07      0.00    607.90
     2300.      551.     1058.     692.      188.     164.     315.       54.       20.     608.30
      0.22      2.94      6.46     2.19     0.040    0.030    0.040     0.000    607.40    999.12
  0.001284       49.       49.      49.         2        0        0      0.00    300.88   1300.00
0
 *SECNO 4045.000
 3280 CROSS SECTION    4045.00 EXTENDED      1.35 FEET

   4045.00      6.51    615.36     0.00    615.03   615.67     0.31      0.36      0.00    609.35
     2300.      626.     1339.     335.      394.     238.     169.       59.       23.     609.35
      0.25      1.59      5.63     1.98     0.040    0.030    0.040     0.000    608.85    800.00
  0.001119      340.      300.     260.         0        0        0      0.00    477.65   1277.65
0
 *SECNO 4159.000
 3280 CROSS SECTION    4159.00 EXTENDED      1.54 FEET
```

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   4159.00     6.69   615.54     0.00   615.22   615.79     0.24     0.11     0.01   609.35
    2300.      690.    1260.     350.     452.     245.     197.      61.      24.    609.35
     0.25      1.53     5.14     1.77    0.040    0.030    0.040    0.000   608.85   800.00
  0.000897     114.     114.     114.        2        0        0     0.00   491.61  1291.61
0
 *SECNO 4160.000
 3280 CROSS SECTION    4160.00 EXTENDED      1.52 FEET


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  611.15 MAX ELLC=  616.00

          GOLF COURSE BRIDGE
1
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   SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


   4160.00     6.67   615.52     0.00   615.19   615.80     0.28     0.00     0.01   609.35
    2300.      615.    1186.     498.     425.     215.     188.      61.      24.    609.35
     0.25      1.45     5.51     2.65    0.040    0.030    0.040    0.000   608.85   800.00
  0.003638       1.       1.       1.        2        0        0   -55.07   490.05  1290.05
0
 *SECNO 4165.000
 3280 CROSS SECTION    4165.00 EXTENDED      1.54 FEET


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  611.15 MAX ELLC=  616.00

   4165.00     6.70   615.55     0.00   615.22   615.82     0.27     0.02     0.00   609.35
    2300.      621.    1176.     503.     430.     216.     191.      61.      24.    609.35
     0.25      1.44     5.45     2.63    0.040    0.030    0.040    0.000   608.85   800.00
  0.003572       5.       5.       5.        1        0        0   -55.77   491.39  1291.39
0
 *SECNO 4166.000
 3280 CROSS SECTION    4166.00 EXTENDED      1.59 FEET

   4166.00     6.74   615.59     0.00   615.29   615.82     0.23     0.00     0.00   609.35
    2300.      706.    1240.     354.     467.     247.     205.      61.      24.    609.35
     0.25      1.51     5.02     1.73    0.040    0.030    0.040    0.000   608.85   800.00
  0.000846       1.       1.       1.        2        0        0     0.00   495.34  1295.34
0
 *SECNO 4215.000
 3280 CROSS SECTION    4215.00 EXTENDED      1.65 FEET

   4215.00     6.80   615.65     0.00   615.35   615.86     0.21     0.04     0.00   609.35
    2300.      722.    1219.     359.     484.     249.     214.      62.      25.    609.35
     0.26      1.49     4.89     1.67    0.040    0.030    0.040    0.000   608.85   800.00
  0.000794      49.      49.      49.        2        0        0     0.00   499.45  1299.45
0
 *SECNO 4355.000
 3280 CROSS SECTION    4355.00 EXTENDED      0.63 FEET

   4355.00     7.23   615.63     0.00   615.28   616.09     0.46     0.15     0.07   609.10
    2300.      517.    1278.     505.     267.     180.     259.      65.      26.    609.70
     0.27      1.94     7.09     1.95    0.040    0.030    0.040    0.000   608.40   850.00
  0.001578     140.     140.     140.        2        0        0     0.00   475.00  1325.00
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 4479.000
3280 CROSS SECTION    4479.00 EXTENDED       0.98 FEET

  4479.00      7.58    615.98      0.00    615.73    616.26      0.29      0.16      0.02    609.10
    2300.      606.     1117.      577.      353.      189.      326.       67.       27.     609.70
     0.28      1.72      5.91      1.77     0.040     0.030     0.040     0.000    608.40    850.00
 0.001027      124.      124.      124.         3         0         0      0.00    475.00   1325.00
0
*SECNO 4480.000
3280 CROSS SECTION    4480.00 EXTENDED       1.17 FEET


3370 NORMAL BRIDGE, NRD= 23 MIN ELTRD=  611.20 MAX ELLC=  615.00

            GOLF COURSE BRIDGE
  4480.00      7.77    616.17      0.00    615.93    616.28      0.12      0.00      0.02    609.10
    2300.      885.      537.      878.      384.      147.      349.       67.       27.     609.70
     0.28      2.30      3.65      2.52     0.040     0.030     0.040     0.000    608.40    850.00
 0.002337        1.        1.        1.         2         0         0    -79.90    475.00   1325.00
0
*SECNO 4485.000
3280 CROSS SECTION    4485.00 EXTENDED       1.17 FEET


3370 NORMAL BRIDGE, NRD= 23 MIN ELTRD=  611.20 MAX ELLC=  615.00

  4485.00      7.78    616.18      0.00    615.94    616.30      0.12      0.01      0.00    609.10
    2300.      886.      536.      879.      385.      147.      350.       67.       27.     609.70
     0.28      2.30      3.64      2.51     0.040     0.030     0.040     0.000    608.40    850.00
 0.002319        5.        5.        5.         0         0         0    -79.90    475.00   1325.00
0
*SECNO 4486.000
3280 CROSS SECTION    4486.00 EXTENDED       1.09 FEET

  4486.00      7.69    616.09      0.00    615.85    616.34      0.25      0.00      0.04    609.10
    2300.      633.     1071.      597.      381.      192.      348.       67.       28.     609.70
     0.28      1.66      5.58      1.71     0.040     0.030     0.040     0.000    608.40    850.00
 0.000897        1.        1.        1.         2         0         0      0.00    475.00   1325.00
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 4535.000
3280 CROSS SECTION    4535.00 EXTENDED       1.16 FEET

  4535.00      7.75    616.15      0.00    615.92    616.38      0.23      0.04      0.00    609.10
    2300.      648.     1043.      608.      400.      194.      362.       68.       28.     609.70
     0.28      1.62      5.38      1.68     0.040     0.030     0.040     0.000    608.40    850.00
 0.000824       49.       49.       49.         1         0         0      0.00    475.00   1325.00
0
*SECNO 5120.000
3280 CROSS SECTION    5120.00 EXTENDED       0.76 FEET
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   5120.00      7.35    616.65     0.00    616.33    617.04     0.39      0.61      0.05    610.00
     2300.      551.     1216.     533.      298.      183.     283.       80.       34.     610.60
      0.32      1.85      6.64     1.88     0.040     0.030    0.040     0.000    609.30    850.00
   0.001349     585.      585.     585.         0         0        0      0.00    475.00   1325.00
0
 *SECNO 5705.000
   5705.00      7.17    617.40   617.04    617.16    618.12     0.71      0.98      0.10    611.83
     2300.      221.     1589.     490.      116.      198.     211.       89.       40.     611.80
      0.34      1.90      8.03     2.32     0.040     0.030    0.040     0.000    610.23    944.61
   0.002149     585.      585.     585.         4        11        0      0.00    345.81   1290.42
0
 *SECNO 5819.000
 3280 CROSS SECTION    5819.00 EXTENDED       0.43 FEET


 3470 ENCROACHMENT STATIONS=       940.0     1300.0  TYPE=      1  TARGET=      360.000
   5819.00      7.71    617.94     0.00    617.63    618.33     0.39      0.18      0.03    611.83
     2300.      320.     1355.     625.      185.      214.     316.       90.       41.     611.80
      0.35      1.73      6.34     1.98     0.040     0.030    0.040     0.000    610.23    940.00
   0.001210     114.      114.     114.         3         0        0      0.00    360.00   1300.00
0
 *SECNO 5820.000
 3280 CROSS SECTION    5820.00 EXTENDED       0.62 FEET


 3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  615.13 MAX ELLC=  618.50

1
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      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST



 3470 ENCROACHMENT STATIONS=       940.0     1300.0  TYPE=      1  TARGET=      360.000
           GOLF COURSE BRIDGE
   5820.00      7.89    618.12     0.00    617.75    618.35     0.23      0.00      0.02    611.83
     2300.      547.      783.     970.      200.      151.     315.       90.       41.     611.80
      0.35      2.73      5.17     3.08     0.040     0.030    0.040     0.000    610.23    940.00
   0.005771       1.        1.       1.         3         0        0   -113.99    360.00   1300.00
0
 *SECNO 5825.000
 3280 CROSS SECTION    5825.00 EXTENDED       0.66 FEET


 3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  615.13 MAX ELLC=  618.50


 3470 ENCROACHMENT STATIONS=       945.0     1300.0  TYPE=      1  TARGET=      355.000
   5825.00      7.93    618.16     0.00    617.83    618.38     0.22      0.03      0.00    611.83
     2300.      548.      769.     983.      202.      153.     324.       90.       41.     611.80
      0.35      2.71      5.03     3.04     0.040     0.030    0.040     0.000    610.23    945.00
   0.005402       5.        5.       5.         2         0        0   -113.99    355.00   1300.00
0
 *SECNO 5826.000
 3280 CROSS SECTION    5826.00 EXTENDED       0.58 FEET


 3470 ENCROACHMENT STATIONS=       945.0     1300.0  TYPE=      1  TARGET=      355.000
   5826.00      7.85    618.08     0.00    617.77    618.41     0.33      0.00      0.03    611.83
     2300.      343.     1297.     660.      201.      218.     346.       90.       41.     611.80
      0.35      1.71      5.94     1.90     0.040     0.030    0.040     0.000    610.23    945.00
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  0.001034       1.         1.         1.          2          0          0      0.00    355.00   1300.00
0
 *SECNO 5875.000
 3280 CROSS SECTION    5875.00 EXTENDED       0.65 FEET


 3470 ENCROACHMENT STATIONS=       950.0     1280.0  TYPE=       1  TARGET=       330.000
    5875.00       7.92    618.15      0.00    617.85    618.46      0.31      0.05      0.00    611.83
      2300.       353.     1278.      669.      206.       220.      345.       91.       41.    611.80
       0.36       1.72      5.80      1.94     0.040     0.030     0.040     0.000    610.23    950.00
  0.000973        49.       49.       49.          2          0          0      0.00    330.00   1280.00
0
1
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     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


 CCHV=   0.500 CEHV=    1.000
 *SECNO 6065.000
 3280 CROSS SECTION    6065.00 EXTENDED       1.39 FEET

    6065.00       6.99    618.39      0.00    618.09    618.99      0.59      0.24      0.28    612.30
      2300.       287.     1386.      627.      116.       180.      245.       94.       42.    612.10
       0.36       2.47      7.70      2.56     0.040     0.030     0.040     0.000    611.40      0.00
  0.001933       210.      190.      150.          2          0          0      0.00    235.00    235.00
0
 *SECNO 6140.000
 3280 CROSS SECTION    6140.00 EXTENDED       1.77 FEET

              GOLF COURSE BRIDGE
    6140.00       7.37    618.77      0.00    618.48    619.19      0.42      0.12      0.09    612.30
      2300.       327.     1271.      702.      143.       190.      295.       95.       43.    612.10
       0.37       2.28      6.68      2.38     0.040     0.030     0.040     0.000    611.40      0.00
  0.001354        75.       75.       75.          3          0          0      0.00    235.00    235.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB   XK          XKOR        COFQ        RDLEN       BWC         BWP        BAREA       SS         ELCHU       ELCHD
        0.00        1.15        3.00        0.00       23.00        0.00     157.00        0.00      611.40      611.40

 *SECNO 6167.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=    622.604  EGLWC=    619.193  ELLC=    618.100  PCWSE=    618.772  ELTRD=    617.000
 3280 CROSS SECTION    6167.00 EXTENDED       2.04 FEET


 3370 NORMAL BRIDGE,NRD= 18 MIN ELTRD=   617.00 MAX ELLC=   618.10

    6167.00       7.64    619.04      0.00    618.72    619.32      0.28      0.05      0.07    612.30
      2300.       380.      880.     1040.      126.       166.      295.       95.       43.    612.10
       0.37       3.02      5.29      3.52     0.040     0.030     0.040     0.000    611.40      0.00
  0.003113        27.       27.       27.          3          0          0   -105.39    235.00    235.00
0
 *SECNO 6220.000
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


  3280 CROSS SECTION   6220.00 EXTENDED      2.13 FEET

    6220.00      7.73    619.13      0.00    618.80    619.44      0.31      0.09      0.04    612.30
      2300.      359.     1178.      762.      170.      200.      344.       96.       43.    612.10
       0.37      2.12      5.89      2.22     0.040     0.030     0.040     0.000    611.40      0.00
   0.000986       53.       53.       53.         2         0         0      0.00    235.00    235.00
 0
  CCHV=   0.100 CEHV=   0.300
  *SECNO 7493.000

  3301 HV CHANGED MORE THAN HVINS


  3470 ENCROACHMENT STATIONS=      225.0      300.0  TYPE=      1  TARGET=        75.000
    7493.00      6.58    621.08      0.00    620.73    621.95      0.87      2.34      0.17    619.30
      2300.       16.     2282.        3.        7.      303.        2.      111.       48.    620.10
       0.42      2.28      7.52      1.51     0.050     0.035     0.050     0.000    614.50    225.00
   0.004570     1273.     1273.     1273.         2         0         0      0.00     75.00    300.00
 0
  CCHV=   0.300 CEHV=   0.500
  *SECNO 7505.000

  3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  625.85 MAX ELLC=  627.00

              44TH STREET
    7505.00      6.59    621.09      0.00    620.75    622.00      0.91      0.03      0.02    624.75
      2300.        0.     2300.        0.        0.      300.        0.      111.       48.    624.70
       0.42      0.00      7.66      0.00     0.000     0.020     0.000     0.000    614.50    229.00
   0.001963       12.       12.       12.         1         0         0     -4.59     69.00    298.00
 0
  *SECNO 7565.000

  3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  625.85 MAX ELLC=  627.00

    7565.00      6.79    621.29      0.00    620.93    622.13      0.84      0.11      0.02    624.75
      2300.        0.     2300.        0.        0.      313.        0.      112.       48.    624.70
       0.42      0.00      7.35      0.00     0.000     0.020     0.000     0.000    614.50    229.00
   0.001734       60.       60.       60.         0         0         0     -4.94     69.00    298.00
 0
 1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


  CCHV=   0.100 CEHV=   0.300
  *SECNO 7577.000

  3470 ENCROACHMENT STATIONS=      220.0      305.0  TYPE=      1  TARGET=        85.000
    7577.00      6.97    621.47      0.00    621.06    622.17      0.71      0.02      0.01    619.30
      2300.       37.     2249.       14.       18.      330.        9.      112.       48.    620.10
       0.42      2.07      6.81      1.56     0.050     0.030     0.050     0.000    614.50    220.00
   0.002459       12.       12.       12.         2         0         0      0.00     85.00    305.00
 0
  CCHV=   0.500 CEHV=   1.000
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*SECNO 9150.000
3280 CROSS SECTION   9150.00 EXTENDED      3.58 FEET

  9150.00     9.19   624.30     0.00   623.77   624.68     0.38     2.34     0.16   620.51
    2300.     403.    1416.     482.     186.     234.     206.     129.      52.   617.06
     0.52     2.17     6.04     2.34    0.050    0.030    0.050    0.000   615.11    16.02
 0.000997    1573.    1573.    1573.        2        0        0     0.00   133.99   150.00
0
 *SECNO 9550.000

 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
           CONFLUENCE WITH DIVERSION CHANNEL
  9550.00     7.53   626.22   626.22   625.83   627.70     1.48     0.89     1.10   628.19
    2300.       0.    1099.    1201.       0.      86.     204.     134.      53.   620.25
     0.53     0.00    12.71     5.89    0.000    0.030    0.050    0.000   618.69   104.81
 0.008570     400.     400.     400.        2       15        0     0.00    92.00   196.81
0
 *SECNO 9630.000
 3280 CROSS SECTION   9630.00 EXTENDED      3.13 FEET


 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=       95.0      150.0  TYPE=      1  TARGET=      55.000
  9630.00     8.73   628.44     0.00   627.94   628.54     0.09     0.14     0.69   620.97
     600.      20.     473.     107.      24.     175.     114.     134.      53.   620.71
     0.54     0.82     2.71     0.94    0.050    0.030    0.050    0.000   619.71    95.00
 0.000180      80.      80.      80.        3        0        0     0.00    55.00   150.00
0
1
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    SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS  BANK ELEV
    Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
    TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
    SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


 *SECNO 9704.000
 3280 CROSS SECTION   9704.00 EXTENDED      3.16 FEET


 3470 ENCROACHMENT STATIONS=      100.0      117.5  TYPE=      1  TARGET=      17.500
  9704.00     8.83   628.47     0.00   627.98   628.79     0.32     0.03     0.23   623.14
     600.       0.     600.       0.       0.     132.       0.     135.      53. 100000.00
     0.55     0.00     4.54     0.00    0.000    0.030    0.000    0.000   619.64   100.00
 0.001530      74.      74.      74.        2        0        0     0.00    17.50   117.50
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 9705.000
 3280 CROSS SECTION   9705.00 EXTENDED      2.86 FEET


 3301 HV CHANGED MORE THAN HVINS


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  628.30 MAX ELLC=  628.30


 3470 ENCROACHMENT STATIONS=      100.0      117.5  TYPE=      1  TARGET=      17.500
           1ST KENOWA STREET CULVERT, 2-7'X145' CMP
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     9705.00      8.53    628.17      0.00    627.72    629.10      0.93      0.00      0.30    623.14
      600.          0.      600.        0.        0.        78.        0.      135.        53. 100000.00
        0.55      0.00      7.74      0.00     0.000     0.027     0.000     0.000    619.64    100.00
    0.009639        1.        1.        1.         3         0         0    -49.28     17.50    117.50
0
   *SECNO 9756.000
   3280 CROSS SECTION   9756.00 EXTENDED      3.64 FEET


   3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  628.30 MAX ELLC=  628.30


   3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      630.00 ELREA=      630.00

     9756.00      9.31    628.95      0.00    628.18    629.65      0.71      0.49      0.07    623.14
      600.          0.      600.        0.        0.        89.        0.      135.        53.    623.14
        0.55      0.00      6.75      0.00     0.000     0.027     0.000     0.000    619.64    100.00
    0.009473       51.       51.       51.         3         0         0    -73.83     17.50    117.50
0
1
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       SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
       Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
       TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
       SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


   CCHV=   0.100 CEHV=   0.300
   *SECNO 9757.000
   3280 CROSS SECTION   9757.00 EXTENDED      4.14 FEET


   3470 ENCROACHMENT STATIONS=      100.0      117.5  TYPE=     1  TARGET=       17.500
     9757.00      9.81    629.45      0.00    628.84    629.70      0.25      0.00      0.05    623.14
      600.          0.      600.        0.        0.       149.        0.      135.        53. 100000.00
        0.55      0.00      4.02      0.00     0.000     0.030     0.000     0.000    619.64    100.00
    0.001091        1.        1.        1.         2         0         0      0.00     17.50    117.50
0
   *SECNO 10405.000
   3280 CROSS SECTION  10405.00 EXTENDED      3.97 FEET

    10405.00      9.64    629.78      0.00    629.21    629.79      0.01      0.06      0.02    623.64
      600.        216.      130.      254.      398.       146.      465.      143.        55.    623.64
        0.83      0.54      0.89      0.55     0.040     0.030     0.040     0.000    620.14      0.00
    0.000032      450.      648.      700.         3         0         0      0.00    225.00    225.00
0
   CCHV=   0.300 CEHV=   0.500
   *SECNO 11205.000
   3280 CROSS SECTION  11205.00 EXTENDED      1.72 FEET


   3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      653.70 ELREA=      653.70

             2ND KENOWA STREET CULVERT, 2-7'X145' CMP
    11205.00      7.41    629.61      0.00    629.04    630.10      0.49      0.08      0.24    625.70
      600.          0.      600.        0.        0.       107.        0.      152.        57.    625.70
        0.87      0.00      5.62      0.00     0.000     0.027     0.000     0.000    622.20    100.00
    0.001580      600.      800.      850.         2         0         0      0.00     17.50    117.50
0

   SPECIAL BRIDGE

   5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
   SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
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      1.25      2.90      2.80    100.00     14.50      3.50     77.00      0.00    622.20    622.20
  *SECNO 11350.000
  3280 CROSS SECTION  11350.00 EXTENDED      4.20 FEET
 1
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    SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


  PRESSURE FLOW


   EGPRS       EGLWC        H3        QWEIR       QPR        BAREA    TRAPEZOID     ELLC      ELTRD
                                                                      AREA
      632.35     630.51       0.47          0.        600.        77.       77.       629.20    653.70



  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      653.70 ELREA=      653.70

   11350.00      9.90    632.10      0.00    631.32    632.35      0.25      2.24      0.00    625.70
       600.        0.      600.        0.        0.      150.        0.      153.       57.     625.70
       0.88      0.00      3.99      0.00     0.000     0.027     0.000     0.000    622.20    100.00
   0.000506      145.      145.      145.         2         0         0      0.00     17.50    117.50
 0
  CCHV=    0.100 CEHV=    0.300
  *SECNO 11500.000
  3280 CROSS SECTION  11500.00 EXTENDED      4.48 FEET

   11500.00     10.18    632.38      0.00    631.63    632.38      0.01      0.01      0.02    625.70
       600.      196.      179.      226.      449.      171.      517.      155.       57.     625.70
       0.94      0.44      1.04      0.44     0.050     0.030     0.050     0.000    622.20      0.00
   0.000028      150.      150.      150.         2         0         0      0.00    225.00    225.00
 0
  *SECNO 11550.000
  3280 CROSS SECTION  11550.00 EXTENDED      4.41 FEET

   11550.00     10.11    632.31      0.00    631.56    632.42      0.11      0.01      0.03    625.70
      2300.      747.      690.      863.      443.      170.      510.      156.       58.     625.70
       0.95      1.69      4.06      1.69     0.050     0.030     0.050     0.000    622.20      0.00
   0.000434       50.       50.       50.         2         0         0      0.00    225.00    225.00
 0
  *SECNO 11750.000
  3280 CROSS SECTION  11750.00 EXTENDED      4.50 FEET

   11750.00     10.20    632.40      0.00    631.67    632.51      0.10      0.08      0.00    625.70
      2300.      751.      682.      867.      452.      171.      520.      161.       59.     625.70
       0.97      1.66      3.98      1.67     0.050     0.030     0.050     0.000    622.20      0.00
   0.000411      200.      200.      200.         2         0         0      0.00    225.00    225.00
 0
 1
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    SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST
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 *SECNO 12449.000
 3280 CROSS SECTION  12449.00 EXTENDED      4.37 FEET


 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
  ELENCL=     653.70  ELENCR=     653.70
  12449.00    10.07   632.27     0.00   631.71   633.46     1.19     0.63     0.33   625.70
     2300.       0.    1665.     635.       0.     169.     129.     172.      61.   625.70
      1.00     0.00     9.85     4.92    0.000    0.030    0.050    0.000   622.20   100.00
  0.003645     500.     699.     750.        2        0        0     0.00    40.00   140.00
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 12450.000

 3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD=  646.20 MAX ELLC=  635.00


 3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
  ELENCL=     653.70  ELENCR=     653.70
          U/S I-196
  12450.00    10.06   632.56     0.00   632.03   633.53     0.97     0.00     0.07   628.50
     2300.       0.    2300.       0.       0.     291.       0.     172.      61.   653.70
      1.00     0.00     7.91     0.00    0.000    0.027    0.000    0.000   622.50   100.00
  0.003900       1.       1.       1.        2        0        0   -33.29    40.00   140.00
0
 *SECNO 12650.000

 3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD=  646.20 MAX ELLC=  635.00


 3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
  ELENCL=     653.70  ELENCR=     653.70
  12650.00    10.96   633.46     0.00   632.73   634.31     0.85     0.74     0.04   628.50
     2300.       0.    2300.       0.       0.     311.       0.     174.      61.   653.70
      1.00     0.00     7.40     0.00    0.000    0.027    0.000    0.000   622.50   100.00
  0.003515     200.     200.     200.        2        0        0   -49.20    40.00   140.00
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 CCHV=   0.100 CEHV=    0.300
 *SECNO 12850.000

 3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
  ELENCL=     653.70  ELENCR=     653.70
  12850.00    11.82   634.32     0.00   633.42   634.85     0.53     0.51     0.03   628.50
     2300.       0.    2300.       0.       0.     394.       0.     175.      61.   653.70
      1.01     0.00     5.83     0.00    0.000    0.035    0.000    0.000   622.50   100.00
  0.001936     200.     200.     200.        2        0        0     0.00    40.00   140.00
0
 *SECNO 13600.000
  13600.00     9.68   635.68     0.00   634.78   636.01     0.33     1.14     0.02   631.90
     2300.     642.    1605.      53.     479.     293.      58.     186.      63.   631.30
      1.06     1.34     5.48     0.91    0.100    0.035    0.100    0.000   626.00   139.90
  0.001239     700.     750.     750.        2        0        0     0.00   187.28   327.18
0
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 *SECNO 14975.000
  14975.00      9.07    637.77     0.00    637.24    638.43      0.66      2.32      0.10    632.40
     2300.      100.     1512.      688.       57.      190.      480.      210.       69.    632.20
      1.13      1.75      7.95     1.43     0.100     0.035     0.100     0.000    628.70    260.24
  0.002448     1355.     1375.     1375.         2         0         0      0.00    224.83    485.07
0
 *SECNO 16700.000
 3280 CROSS SECTION  16700.00 EXTENDED      3.13 FEET

  16700.00      9.23    640.63     0.00    640.15    640.81      0.18      2.33      0.05    637.00
     2300.      983.     1238.       79.      918.      275.      107.      250.       81.    638.30
      1.29      1.07      4.51     0.74     0.100     0.035     0.100     0.000    631.40     10.00
  0.000855     1725.     1725.     1725.         2         0         0      0.00    342.64    352.64
0
 *SECNO 17600.000
 3280 CROSS SECTION  17600.00 EXTENDED      1.56 FEET

  17600.00      7.66    641.66     0.00    641.19    642.15      0.50      1.25      0.10    639.60
     2300.      750.     1523.       26.      517.      222.       36.      272.       87.    640.90
      1.34      1.45      6.87     0.74     0.100     0.035     0.100     0.000    634.00     10.00
  0.002651      900.      900.      900.         2         0         0      0.00    328.11    338.11
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 18545.000

 3470 ENCROACHMENT STATIONS=      245.0      305.0  TYPE=       1  TARGET=       60.000
  ELENCL=     645.45  ELENCR=     645.45
  18545.00      7.75    643.55     0.00    643.10    644.15      0.61      1.97      0.03    637.60
     2300.       34.     2226.       40.       29.      350.       32.      284.       92.    636.80
      1.38      1.19      6.36     1.23     0.100     0.035     0.100     0.000    635.80    245.00
  0.001675      945.      945.      945.         2         0         0      0.00     60.00    305.00
0
 CCHV=    0.300 CEHV=    0.500
 *SECNO 18565.000

 3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  645.45 MAX ELLC=  651.00


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      645.45 ELREA=      645.45

           BARRY STREET
  18565.00      7.71    643.51     0.00    643.07    644.22      0.71      0.02      0.05    637.60
     2300.        0.     2300.        0.        0.      341.        0.      285.       92.    636.80
      1.39      0.00      6.74     0.00     0.000     0.015     0.000     0.000    635.80    250.00
  0.000569       20.       20.       20.         2         0         0   -143.01     50.00    300.00
0
 *SECNO 18602.000

 3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  645.45 MAX ELLC=  651.00


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      645.45 ELREA=      645.45

  18602.00      7.74    643.54     0.00    643.10    644.25      0.70      0.02      0.00    637.60
     2300.        0.     2300.        0.        0.      342.        0.      285.       92.    636.80
      1.39      0.00      6.72     0.00     0.000     0.015     0.000     0.000    635.80    250.00
  0.000745       37.       37.       37.         1         0         0   -144.50     50.00    300.00
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0
 CCHV=   0.100 CEHV=    0.300
 *SECNO 18622.000

 3470 ENCROACHMENT STATIONS=      230.0      320 0  TYPE=      1  TARGET=       90.000
  18622.00      8.24   644.04     0.00   643.49   644.30     0.26     0.01     0.04   637.60
     2300.      281.    1697.     322.     114.     374.     125.     285.      92.    636.80
      1.39      2.45     4.54     2.58    0.040    0.030    0.040    0.000   635.80   230.00
  0.000576       20.      20.      20.        2        0        0     0.00    90.00   320.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 19000.000
  19000.00      7.51   644.41     0.00   643.80   644.58     0.18     0.27     0.01   641.20
     2300.     1039.     784.     478.     451.     163.     205.     291.      93.    641.30
      1.42      2.30     4.81     2.32    0.040    0.030    0.040    0.000   636.90    99.91
  0.000917      378.     378.     378.        2        0        0     0.00   274.38   374.29
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 20755.000
 3280 CROSS SECTION  20755.00 EXTENDED      2.33 FEET


 3470 ENCROACHMENT STATIONS=      120.0      550.0  TYPE=      1  TARGET=      430.000
  20755.00      9.24   645.74     0.00   645.38   645.83     0.09     1.22     0.03   644.30
     2300.      490.     586.    1224.     334.     154.     682.     331.     108.    641.10
      1.64      1.47     3.80     1.79    0.040    0.030    0.040    0.000   636.50   120.00
  0.000547     1755.    1755.    1755.        1        0        0     0.00   430.00   550.00
0
 *SECNO 20905.000

 3265 DIVIDED FLOW

 3280 CROSS SECTION  20905.00 EXTENDED      1.17 FEET


 3470 ENCROACHMENT STATIONS=       75.0      450.0  TYPE=      1  TARGET=      375.000
  20905.00      8.06   645.76     0.00   645.39   646.09     0.33     0.14     0.12   645.50
     2300.      443.     862.     995.     214.     130.     334.     335.     109.    642.30
      1.65      2.07     6.65     2.98    0.040    0.030    0.040    0.000   637.70    75.00
  0.002110      150.     150.     150.        2        0        0     0.00   370.23   450.00
0
 *SECNO 21055.000

 3265 DIVIDED FLOW

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=      150.0      450.0  TYPE=      1  TARGET=      300.000
  21055.00      7.65   646.50   646.50   646.16   647.28     0.77     0.45     0.22   646.65
     2300.      120.    1129.    1050.      56.     121.     272.     337.     110.    643.45
      1.66      2.16     9.33     3.87    0.040    0.030    0.040    0.000   638.85   150.00
  0.004520      150.     150.     150.       20       10        0     0.00   257.89   449.31
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 21355.000
            JACKSON STREET (TOWNSHIP LIMIT)
  21355.00      6.61    647.81      0.00    647.72    648.54      0.74      1.26      0.01    643.40
     2300.      838.      938.      524.      180.      101.      115.      339.      111.    643.30
      1.67      4.65      9.26      4.54     0.040     0.030     0.040     0.000    641.20    201.69
  0.003888      300.      300.      300.         2         0         0      0.00    149.51    351.20
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR        COFQ       RDLEN       BWC         BWP        BAREA        SS         ELCHU       ELCHD
      0.00       1.56        3.00      150.00      15.00        0.00      110.00        0.00      641.20      641.20

 *SECNO 21391.000
 3280 CROSS SECTION  21391.00 EXTENDED      2.15 FEET


 3301 HV CHANGED MORE THAN HVINS

 PRESSURE AND WEIR FLOW


  EGPRS       EGLWC        H3        QWEIR       QPR        BAREA   TRAPEZOID      ELLC       ELTRD
                                                                      AREA
     658.40     648.54       0.00      1084.      1222.       110.       87.      647.00     649.00



 3470 ENCROACHMENT STATIONS=      200.0      350.0  TYPE=      1  TARGET=      150.000
  21391.00      9.45    650.65      0.00    650.33    650.80      0.15      2.25      0.00    643.40
     2300.     1017.      655.      627.      413.      152.      257.      340.      112.    643.30
      1.67      2.46      4.30      2.44     0.040     0.030     0.040     0.000    641.20    200.00
  0.000485       36.       36.       36.         2         0         4      0.00    150.00    350.00
0
 CCHV=    0.100 CEHV=    0.300
 *SECNO 22615.000
 3280 CROSS SECTION  22615.00 EXTENDED      5.72 FEET

  22615.00      9.42    650.82      0.00    650.47    650.84      0.02      0.03      0.01    644.10
     2300.     1756.      241.      303.     1822.      168.      376.      348.      113.    643.20
      1.73      0.96      1.43      0.81     0.040     0.030     0.040     0.000    641.40     25.00
  0.000050      224.      224.      224.         2         0         0      0.00    358.10    383.10
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 CCHV=    0.100 CEHV=    0.300
 *SECNO -9550.000
 START TRIB COMP
   -9550.000  9550.000    626.222
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  -9550.()      7.53   626.22     0.00   625.83   627.24     1.02     0.00     0.00   628.19
     2300.        0.     816.    1484.       0.      86.     204.     360.     115.    620.25
     1.75      0.00     9.43     7.28    0.000    0.040    0.040    0.000   618.69   104.81
  0.008385      400.     400.     400.        0        0        0     0.00    92.00   196.81
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 250.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       632.50 ELREA=       632.50

    250.00      7.91   627.21     0.00   626.94   628.00     0.79     0.69     0.07   623.20
     1700.        0.    1700.       0.       0.     238.       0.     362.     115.    621.20
      1.76      0.00     7.15     0.00    0.000    0.024    0.000    0.000   619.30   332.00
  0.001105      250.     250.     250.        2        0        0     0.00    35.00   367.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      0.00       2.32      2.60    125.00     20.00      0.00    177.50      0.00    619.30    619.30

 *SECNO 332.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=      0.000  EGLWC=    628.001  ELLC=    628.300  PCWSE=    627.206  ELTRD=    632.500

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  632.50 MAX ELLC=  628.30


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       632.50 ELREA=       632.50

    332.00      8.03   627.33     0.00   627.02   628.09     0.77     0.09     0.01   623.20
     1700.        0.    1700.       0.       0.     242.       0.     362.     115.    621.20
      1.76      0.00     7.03     0.00    0.000    0.024    0.000    0.000   619.30   332.00
  0.001048       82.      82.      82.        2        0        0     0.00    35.00   367.00
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 CCHV=   0.100 CEHV=    0.300
 *SECNO 890.000

 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
    890.00      5.17   630.47   630.47   629.96   632.17     1.70     1.44     0.28   629.20
     1700.        1.    1537.     161.       1.     142.      27.     365.     116.    627.20
      1.78      2.25    10.84     6.04    0.040    0.040    0.040    0.000   625.30   331.11
  0.014080      558.     558.     558.       20       14        0     0.00    52.24   383.35
0
 *SECNO 11550.000
 3280 CROSS SECTION  11550.00 EXTENDED       4.41 FEET


 3301 HV CHANGED MORE THAN HVINS
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 11550.00    10.11   632.31    0.00   631.62   632.38    0.07    0.04    0.16   625.70
    2300.     849.     470.     981.     443.     170.     510.     366.     116.   625.70
     1.78     1.92     2.77     1.92    0.040    0.040    0.040   0.000   622.20     0.00
 0.000358      50.      50.      50.        2        0        0    0.00   225.00   225.00
0
1
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                                                          THIS RUN EXECUTED 18 OCT 89    10:59:07
 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
   ERROR CORR -  01,02,03,04,05,06
   MODIFICATION -  50,51,52,53,54,55,56
 **************************************************


 T1      GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
 T2      FLOOD INSURANCE STUDY
 T3      BLISS DRAIN, 500-YEAR FLOOD

 J1   ICHECK     INQ       NINV      IDIR       STRT      METRIC     HVINS     Q          WSEL       FQ

         0.        5.        0.         0.   0.000000     0.00       0.0        0.   607.640     0.000

 J2   NPROF      IPLOT     PRFVS     XSECV     XSECH      FN         ALLDC     IBW       CHNIM      ITRACE

       15.000    0.000    -1.000     0.000     0.000      0.000      0.000     0.000     0.000      0.000
1
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    SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
    Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
    TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
    SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


 *PROF 4

 CCHV=    0.100 CEHV=    0.300
 *SECNO 0.000

 3470 ENCROACHMENT STATIONS=     1650.0    1990.0  TYPE=      1   TARGET=     340.000
     0.00    13.34   607.64     0.00   607.11   607.92    0.28    0.00     0.00   599.30
    3035.     189.    2128.     718.     130.     427.     616.      0.       0.    599.60
     0.00     1.45     4.99     1.17    0.050    0.030    0.050   0.000   594.30  1650.00
 0.000455       0.       0.       0.        0        0        0    0.00   340.00  1990.00
0
 *SECNO 15.000

 3470 ENCROACHMENT STATIONS=     1655.0    1990.0  TYPE=      1   TARGET=     335.000
    15.00    13.35   607.65     0.00   607.11   607.93    0.28    0.01     0.00   599.30
    3035.     180.    2133.     722.     120.     427.     618.      0.       0.    599.60
     0.00     1.49     5.00     1.17    0.050    0.030    0.050   0.000   594.30  1655.00
 0.000456      15.      15.      15.        0        0        0    0.00   335.00  1990.00
0
 *SECNO 115.000

 3470 ENCROACHMENT STATIONS=     1660.0    1945.0  TYPE=      1   TARGET=     285.000
   115.00    12.19   607.49     0.00   607.01   608.08    0.59    0.06     0.09   600.30
    3035.     142.    2550.     343.      75.     382.     273.      3.       1.    600.60
```

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      0.01     1.88     6.68     1.26    0.050    0.030    0.050    0.000   595.[illegible]  1660.[illegible]
   0.000945    100.     100.     100.        2        0        0     0.00   285.00  1945.00
0
 *SECNO 290.000
     290.00    8.39   607.61     0.00   607.09   608.34     0.73     0.22     0.04   600.37
      3035.    269.    2181.     585.     117.     273.     253.       5.       2.   600.38
       0.01    2.31     7.97     2.31    0.050    0.030    0.050    0.000   599.22    10.88
   0.001677    175.     175.     175.        0        0        0     0.00   199.56   210.43
0
 *SECNO 990.000
     990.00    8.08   608.80     0.00   608.07   609.68     0.87     1.29     0.04   601.87
      3035.    244.    2254.     537.     100.     263.     220.      15.       5.   601.88
       0.04    2.44     8.58     2.44    0.050    0.030    0.050    0.000   600.72    13.31
   0.002050    700.     700.     700.        2        0        0     0.00   190.52   203.83
0
1
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     SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
     Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
     TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
     SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


 *SECNO 1690.000

 3470 ENCROACHMENT STATIONS=      20.0     182.0  TYPE=      1  TARGET=      162.000
    1690.00    9.05   611.27     0.00   610.40   611.80     0.53     2.09     0.03   603.37
      3035.    310.    2053.     672.     141.     296.     288.      36.      11.   603.38
       0.11    2.20     6.93     2.34    0.050    0.030    0.050    0.000   602.22    20.00
   0.001136   1400.    1400.    1400.        2        0        0     0.00   162.00   182.00
0
 *SECNO 1790.000

 3470 ENCROACHMENT STATIONS=      55.0     167.0  TYPE=      1  TARGET=      112.000
    1790.00    8.84   611.26     0.00   610.44   611.99     0.73     0.13     0.06   603.57
      3035.    146.    2252.     637.      53.     289.     239.      38.      11.   603.58
       0.12    2.78     7.79     2.67    0.050    0.030    0.050    0.000   602.42    55.00
   0.001485    100.     100.     100.        2        0        0     0.00   112.00   167.00
0
 *SECNO 1840.000

 3470 ENCROACHMENT STATIONS=      55.0     142.0  TYPE=      1  TARGET=       87.000
    1840.00    8.69   611.21     0.00   610.43   612.13     0.92     0.08     0.06   603.67
      3035.    155.    2410.     470.      51.     284.     156.      38.      11.   603.68
       0.12    3.03     8.49     3.02    0.050    0.030    0.050    0.000   602.52    55.00
   0.001810     50.      50.      50.        2        0        0     0.00    87.00   142.00
0
 *SECNO 1865.000

 3470 ENCROACHMENT STATIONS=      55.0     130.0  TYPE=      1  TARGET=       75.000
    1865.00    8.65   611.17     0.00   610.43   612.22     1.05     0.05     0.04   603.67
      3035.    161.    2513.     361.      51.     282.     113.      39.      11.   603.68
       0.12    3.17     8.90     3.19    0.050    0.030    0.050    0.000   602.52    55.00
   0.002002     25.      25.      25.        2        0        0     0.00    75.00   130.00
0
  CCHV=   0.500 CEHV=   1.000
 *SECNO 1890.000

 3470 ENCROACHMENT STATIONS=     145.0     230.0  TYPE=      1  TARGET=       85.000
            PORT SHELDON DRIVE
    1890.00    8.58   611.20     0.00   610.45   612.65     1.45     0.03     0.41   603.82
      3035.    305.    2034.     696.      93.     178.     154.      39.      11.   604.04
       0.12    3.26    11.44     4.53    0.030    0.015    0.030    0.000   602.62   145.00
   0.000883     25.      25.      25.        1        0        0     0.00    85.00   230.00
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 1940.000

 3470 ENCROACHMENT STATIONS=     1083.0     1143.0  TYPE=      1  TARGET=       60.000
  ELENCL=     616.80  ELENCR=    616.80
   1940.00      9.33    611.25      0.00    610.49    612.97      1.72      0.05      0.27    604.62
     3035.      342.     2397.      296.       83.      205.       80.       39.       11.     604.92
      0.12      4.11     11.67      3.70     0.030     0.015     0.030     0.000    601.92   1083.00
  0.000937       50.       50.       50.         2         0         0      0.00     60.00   1143.00
0
 CCHV=    0.100 CEHV=    0.300
 *SECNO 1973.000

 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=     1083.0     1143.0  TYPE=      1  TARGET=       60.000
  ELENCL=     616.80  ELENCR=    616.80
   1973.00     10.07    611.99      0.00    610.99    613.08      1.08      0.05      0.06    604.62
     3035.      485.     2121.      429.       96.      224.       93.       40.       11.     604.92
      0.12      5.05      9.47      4.60     0.040     0.030     0.040     0.000    601.92   1083.00
  0.002196       33.       33.       33.         3         0         0      0.00     60.00   1143.00
0
 *SECNO 2023.000

 3470 ENCROACHMENT STATIONS=     1075.0     1400.0  TYPE=      1  TARGET=      325.000
   2023.00     10.24    612.16      0.00    611.13    613.19      1.03      0.11      0.01    604.62
     3035.      489.     2112.      435.       99.      228.       76.       40.       11.     604.92
      0.12      4.94      9.25      4.52     0.040     0.030     0.040     0.000    601.92   1082.95
  0.002049       50.       50.       50.         2         0         0      0.00     60.09   1143.04
0
 *SECNO 2448.000
 3280 CROSS SECTION    2448.00 EXTENDED       1.49 FEET


 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=     1095.0     1240.0  TYPE=      1  TARGET=      145.000
   2448.00      9.56    613.48      0.00    612.22    613.91      0.43      0.66      0.06    606.62
     3035.      135.     1435.     1465.       34.      211.      456.       46.       12.     606.92
      0.15      3.99      6.79      3.21     0.040     0.030     0.040     0.000    603.92   1095.00
  0.001219      350.      425.      450.         2         0         0      0.00    145.00   1240.00
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 2709.000
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3470 ENCROACHMENT STATIONS=      990.0     1130.0  TYPE=      1  TARGET=      140.000
   2709.00      7.73   613.64      0.00    612.49    614.44      0.80      0.42      0.11    606.67
      3035.      798.     1599.      638.      208.      179.      126.       49.       13.    606.67
       0.16      3.83      8.95      5.07     0.040     0.030     0.040     0.000    605.91    990.00
   0.002259      215.      261.      275.         2         0         0      0.00    140.00   1130.00
0
 *SECNO 2785.000

 3470 ENCROACHMENT STATIONS=    1035.0     1135.0  TYPE=      1  TARGET=      100.000
           GOLF COURSE BRIDGE
   2785.00      7.86   613.77      0.00    612.86    614.63      0.85      0.17      0.02    606.67
      3035.      707.     1646.      682.      155.      182.      136.       50.       13.    606.67
       0.16      4.57      9.06      5.01     0.040     0.030     0.040     0.000    605.91   1035.00
   0.002260       76.       76.       76.         0         0         0      0.00    100.00   1135.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK       XKOR       COFQ       RDLEN      BWC       BWP       BAREA      SS        ELCHU     ELCHD
      0.00      1.50      2.80      0.00     20.00      0.00    270.00      6.00    605.91    605.91

 *SECNO 2790.000
 6870 D.S. ENERGY OF  614.63 HIGHER THAN COMPUTED ENERGY OF  614.07
 PRESSURE AND WEIR FLOW


  EGPRS      EGLWC       H3       QWEIR      QPR       BAREA    TRAPEZOID    ELLC      ELTRD
                                                                  AREA
     616.72    614.63      0.00     2074.      962.      270.      291.     611.40    611.40



 3470 ENCROACHMENT STATIONS=    1035.0     1130.0  TYPE=      1  TARGET=       95.000
  ELENCL=    614.00  ELENCR=    614.00
   2790.00      7.84   613.75      0.00    612.85    614.63      0.88      0.00      0.00    606.67
      3035.      709.     1657.      669.      154.      181.      129.       50.       13.    606.67
       0.16      4.61      9.15      5.18     0.040     0.030     0.040     0.000    605.91   1035.00
   0.002316        6.        6.        6.         3         0         4      0.00     95.00   1130.00
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 2840.000

 3470 ENCROACHMENT STATIONS=     940.0     1135.0  TYPE=      1  TARGET=      195.000
   2840.00      8.39   614.30      0.00    613.20    614.75      0.45      0.08      0.04    606.67
      3035.     1042.     1382.      611.      365.      194.      155.       51.       14.    606.67
       0.17      2.86      7.11      3.95     0.040     0.030     0.040     0.000    605.91    940.00
   0.001272       45.       50.       50.         3         0         0      0.00    195.00   1135.00
0
 *SECNO 3090.000
 3280 CROSS SECTION   3090.00 EXTENDED      1.75 FEET

   3090.00      8.50   614.76      0.00    613.67    615.02      0.26      0.25      0.02    609.56
      3035.      882.     1570.      583.      512.      291.      263.       56.       15.    606.36
       0.18      1.72      5.40      2.21     0.040     0.030     0.040     0.000    606.26    800.00
   0.000796      250.      250.      250.         0         0         0      0.00    400.00   1200.00
0
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 *SECNO 3164.000
 3280 CROSS SECTION    3164.00 EXTENDED       1.83 FEET

   3164.00      8.57   614.83     0.00   613.84   615.08     0.24     0.06     0.00   609.56
     3035.      907.    1541.     587.     534.     294.     271.      58.      16.   606.36
      0.19      1.70     5.24     2.16    0.040    0.030    0.040    0.000   606.26   800.00
  0.000740       74.      74.      74.        0        0        0     0.00   400.00  1200.00
0
 *SECNO 3165.000
 3280 CROSS SECTION    3165.00 EXTENDED       1.97 FEET


 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=   609.56 MAX ELLC=  613.50

             GOLF COURSE BRIDGE
   3165.00      8.71   614.97     0.00   614.05   615.09     0.12     0.00     0.01   609.56
     3035.     1540.     809.     686.     569.     251.     268.      58.      16.   606.36
      0.19      2.71     3.23     2.56    0.040    0.030    0.040    0.000   606.26   800.00
  0.001744        1.       1.       1.        2        0        0   -65.22   400.00  1200.00
0
 *SECNO 3170.000
 3280 CROSS SECTION    3170.00 EXTENDED       1.97 FEET

1
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     SECNO      DEPTH    CWSEL     CRIWS    WSELK    EG       HV       HL       OLOSS  BANK ELEV
     Q          QLOB     QCH       QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
     TIME       VLOB     VCH       VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
     SLOPE      XLOBL    XLCH      XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST



 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=   609.56 MAX ELLC=  613.50

   3170.00      8.72   614.98     0.00   614.07   615.10     0.12     0.01     0.00   609.56
     3035.     1541.     807.     686.     571.     251.     269.       58      16.   606.36
      0.19      2.70     3.22     2.56    0.040    0.030    0.040    0.000   606.26   800.00
  0.001732        5.       5.       5.        0        0        0   -65.22   400.00  1200.00
0
 *SECNO 3171.000
 3280 CROSS SECTION    3171.00 EXTENDED       1.90 FEET

   3171.00      8.64   614.90     0.00   613.97   615.13     0.23     0.00     0.03   609.56
     3035.      927.    1517.     591.     552.     297.     279.      58.      16.   606.36
      0.19      1.68     5.11     2.12    0.040    0.030    0.040    0.000   606.26   800.00
  0.000696        1.       1.       1.        2        0        0     0.00   400.00  1200.00
0
 *SECNO 3220.000
 3280 CROSS SECTION    3220.00 EXTENDED       1.96 FEET

   3220.00      8.69   614.95     0.00   614.04   615.17     0.22     0.03     0 00   609.56
     3035.      942.    1499.     593.     566.     299.     284.      59.      16.   606.36
      0.19      1.67     5.02     2.09    0.040    0.030    0.040    0.000   606.26   800.00
  0.000665       49.      49.      49.        1        0        0     0.00   400.00  1200.00
0
 *SECNO 3495.000
 3280 CROSS SECTION    3495.00 EXTENDED       1.61 FEET


 3470 ENCROACHMENT STATIONS=      920.0     1280.0  TYPE=       1  TARGET=      360.000
   3495.00      8.31   615.11     0.00   614.25   615.44     0.32     0.24     0.03   606.80
     3035.      774.    1150.    1111.     332.     170.     453.      66.      19.   608.00
      0.21      2.33     6.77     2.45    0.040    0.030    0.040    0.000   606.80   920.00
  0.001157      275.     275.     275.        2        0        0     0.00   360.00  1280.00
```

```
0
 *SECNO 3574.000
 3280 CROSS SECTION   3574.00 EXTENDED      1.69 FEET


 3470 ENCROACHMENT STATIONS=     960.0     1280.0  TYPE=     1  TARGET=     320.000
1
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     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


   3574.00       8.39     615.19       0.00     614.44     615.53       0.34       0.09       0.00     606.80
     3035.       703.      1168.      1164.       280.       172.       467.        68.        19.     608.00
      0.22       2.51       6.81       2.49      0.040      0.030      0.040      0.000     606.80     960.00
  0.001156        79.        79.        79.          1          0          0       0.00     320.00    1280.00
0
 *SECNO 3575.000
 3280 CROSS SECTION   3575.00 EXTENDED      1.82 FEET


 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  612.40 MAX ELLC=  614.40


 3470 ENCROACHMENT STATIONS=     960.0     1280.0  TYPE=     1  TARGET=     320.000
           GOLF COURSE BRIDGE
   3575.00       8.52     615.32       0.00     614.59     615.54       0.22       0.00       0.01     606.80
     3035.       769.       822.      1444.       278.       155.       461.        68.        19.     608.00
      0.22       2.76       5.31       3.13      0.040      0.030      0.040      0.000     606.80     960.00
  0.002443         1.         1.         1.          2          0          0     -68.31     320.00    1280.00
0
 *SECNO 3580.000
 3280 CROSS SECTION   3580.00 EXTENDED      1.83 FEET


 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  612.40 MAX ELLC=  614.40


 3470 ENCROACHMENT STATIONS=     965.0     1280.0  TYPE=     1  TARGET=     315.000
   3580.00       8.53     615.33       0.00     614.60     615.56       0.22       0.01       0.00     606.80
     3035.       752.       825.      1458.       270.       155.       463.        68.        20.     608.00
      0.22       2.78       5.33       3.15      0.040      0.030      0.040      0.000     606.80     965.00
  0.002463         5.         5.         5.          0          0          0     -68.54     315.00    1280.00
0
 *SECNO 3581.000
 3280 CROSS SECTION   3581.00 EXTENDED      1.77 FEET


 3470 ENCROACHMENT STATIONS=     965.0     1280.0  TYPE=     1  TARGET=     315.000
   3581.00       8.47     615.27       0.00     614.54     615.59       0.32       0.00       0.03     606.80
     3035.       699.      1151.      1184.       281.       173.       482.        68.        20.     608.00
      0.22       2.49       6.64       2.46      0.040      0.030      0.040      0.000     606.80     965.00
  0.001087         1.         1.         1.          2          0          0       0.00     315.00    1280.00
0
1
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     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST
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 *SECNO 3630.000
 3280 CROSS SECTION   3630.00 EXTENDED      1.23 FEET


 3470 ENCROACHMENT STATIONS=     1010.0     1300.0  TYPE=      1  TARGET=      290.000
    3630.00      7.82   615.22      0.00    614.48   615.70      0.48      0.07      0.05    607.90
      3035.      739.    1302.      994.      203.     170.      370.       69.       20.    608.30
       0.22      3.64     7.66      2.68     0.040    0.030     0.040     0.000    607.40   1010.00
   0.001712       60.      49.       40.         2        0         0      0.00    290.00   1300.00
0
 *SECNO 3689.000
 3280 CROSS SECTION   3689.00 EXTENDED      1.39 FEET

    3689.00      7.98   615.38      0.00    614.70   615.80      0.42      0.09      0.01    607.90
      3035.      729.    1261.     1045.      224.     174.      403.       70.       20.    608.30
       0.23      3.26     7.26      2.60     0.040    0.030     0.040     0.000    607.40    990.54
   0.001497       70.      59.       50.         2        0         0      0.00    309.46   1300.00
0
 *SECNO 3690.000
 3280 CROSS SECTION   3690.00 EXTENDED      1.55 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  612.10 MAX ELLC=  620.00

           GOLF COURSE BRIDGE
    3690.00      8.14   615.54      0.00    614.63   615.82      0.27      0.00      0.01    607.90
      3035.      738.     849.     1448.      214.     152.      407.       70.       20.    608.30
       0.23      3.45     5.58      3.56     0.040    0.030     0.040     0.000    607.40    987.37
   0.004476        1.       1.        1.         2        0         0    -77.22    312.63   1300.00
0
 *SECNO 3695.000
 3280 CROSS SECTION   3695.00 EXTENDED      1.56 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  612.10 MAX ELLC=  620.00

    3695.00      8.17   615.57      0.00    614.72   615.84      0.27      0.02      0.00    607.90
      3035.      738.     844.     1453.      216.     153.      410.       70.       20.    608.30
       0.23      3.42     5.53      3.54     0.040    0.030     0.040     0.000    607.40    987.03
   0.004381        5.       5.        5.         1        0         0    -77.22    312.97   1300.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 3696.000
 3280 CROSS SECTION   3696.00 EXTENDED      1.50 FEET

    3696.00      8.10   615.50      0.00    614.84   615.88      0.38      0.00      0.03    607.90
      3035.      730.    1230.     1075.      233.     176.      425.       70.       20.    608.30
       0.23      3.13     6.98      2.53     0.040    0.030     0.040     0.000    607.40    988.32
   0.001355        1.       1.        1.         2        0         0      0.00    311.68   1300.00
0
 *SECNO 3745.000
 3280 CROSS SECTION   3745.00 EXTENDED      1.59 FEET

    3745.00      8.19   615.59      0.00    614.95   615.94      0.35      0.06      0.00    607.90
      3035.      730.    1205.     1099.      242.     178.      444.       71.       21.    608.30
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      0.23      3.02      6.75      2.48     0.040     0.030     0.040     0.000    607.40   986.46
   0.001249       49.       49.       49.         2         0         0      0.00    313.54  1300.00
0
 *SECND 4045.000
 3280 CROSS SECTION    4045.00 EXTENDED       2.03 FEET

    4045.00      7.18    616.03      0.00    615.36    616.27      0.25      0.32      0.01    609.35
      3035.     1082.     1437.      516.      597.      264.      280.       78.       24.    609.35
       0.25      1.81      5.45      1.84     0.040     0.030     0.040     0.000    608.85    800.00
   0.000916      340.      300.      260.         2         0         0      0.00    525.00   1325.00
0
 *SECNO 4159.000
 3280 CROSS SECTION    4159.00 EXTENDED       2.15 FEET

    4159.00      7.31    616.16      0.00    615.54    616.37      0.21      0.10      0.00    609.35
      3035.     1115.     1385.      535.      634.      268.      303.       81.       25.    609.35
       0.26      1.76      5.16      1.76     0.040     0.030     0.040     0.000    608.85    800.00
   0.000803      114.      114.      114.         0         0         0      0.00    525.00   1325.00
0
 *SECNO 4160.000
 3280 CROSS SECTION    4160.00 EXTENDED       2.21 FEET


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  611.15 MAX ELLC=  616.00

           GOLF COURSE BRIDGE
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


    4160.00      7.36    616.21      0.00    615.52    616.38      0.17      0.00      0.00    609.35
      3035.     1072.     1041.      922.      628.      229.      309.       81.       25.    609.35
       0.26      1.70      4.55      2.99     0.040     0.030     0.040     0.000    608.85    800.00
   0.003351        1.        1.        1.         2         0         0    -71.50    525.00   1325.00
0
 *SECNO 4165.000
 3280 CROSS SECTION    4165.00 EXTENDED       2.22 FEET


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  611.15 MAX ELLC=  616.00

    4165.00      7.38    616.23      0.00    615.55    616.40      0.17      0.02      0.00    609.35
      3035.     1073.     1037.      925.      632.      229.      311.       81.       25.    609.35
       0.26      1.70      4.52      2.98     0.040     0.030     0.040     0.000    608.85    800.00
   0.003303        5.        5.        5.         0         0         0    -71.50    525.00   1325.00
0
 *SECNO 4166.000
 3280 CROSS SECTION    4166.00 EXTENDED       2.21 FEET

    4166.00      7.36    616.21      0.00    615.59    616.41      0.20      0.00      0.01    609.35
      3035.     1129.     1362.      544.      651.      270.      314.       81.       25.    609.35
       0.26      1.73      5.04      1.73     0.040     0.030     0.040     0.000    608.85    800.00
   0.000756        1.        1.        1.         2         0         0      0.00    525.00   1325.00
0
 *SECNO 4215.000
 3280 CROSS SECTION    4215.00 EXTENDED       2.26 FEET

    4215.00      7.40    616.25      0.00    615.65    616.45      0.19      0.04      0.00    609.35
      3035.     1141.     1344.      551.      665.      272.      323.       82.       26.    609.35
       0.27      1.72      4.94      1.71     0.040     0.030     0.040     0.000    608.85    800.00
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 0.0[illegible]0720     49.       49.       49.         2         0         0      0.00    525.00   1325.0[illegible]
0
 *SECNO 4355.000
 3280 CROSS SECTION    4355.00 EXTENDED       1.28 FEET

   4355.00      7.88    616.28      0.00    615.63    616.62      0.34      0.13      0.04    609.10
     3035.      889.     1319.      827.      430.      197.      386.       86.       27.     609.70
      0.28      2.07      6.70      2.14     0.040     0.030     0.040     0.000    608.40    850.00
  0.001248      140.      140.      140.         2         0         0      0.00    475.00   1325.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 4479.000
 3280 CROSS SECTION    4479.00 EXTENDED       1.50 FEET

   4479.00      8.10    616.50      0.00    615.98    616.77      0.26      0.14      0.01    609.10
     3035.      944.     1225.      867.      486.      203.      430.       89.       29.     609.70
      0.29      1.94      6.04      2.02     0.040     0.030     0.040     0.000    608.40    850.00
  0.000978      124.      124.      124.         2         0         0      0.00    475.00   1325.00
0
 *SECNO 4480.000
 3280 CROSS SECTION    4480.00 EXTENDED       1.66 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=   611.20 MAX ELLC=   615.00

           GOLF COURSE BRIDGE
   4480.00      8.26    616.66      0.00    616.17    616.78      0.12      0.00      0.01    609.10
     3035.     1273.      561.     1201.      509.      160.      446.       89.       29.     609.70
      0.29      2.50      3.50      2.69     0.040     0.030     0.040     0.000    608.40    850.00
  0.001929        1.        1.        1.         2         0         0    -79.90    475.00   1325.00
0
 *SECNO 4485.000
 3280 CROSS SECTION    4485.00 EXTENDED       1.67 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=   611.20 MAX ELLC=   615.00

   4485.00      8.27    616.67      0.00    616.18    616.79      0.12      0.01      0.00    609.10
     3035.     1274.      559.     1201.      510.      160.      447.       89.       29.     609.70
      0.29      2.50      3.49      2.69     0.040     0.030     0.040     0.000    608.40    850.00
  0.001913        5.        5.        5.         0         0         0    -79.90    475.00   1325.00
0
 *SECNO 4486.000
 3280 CROSS SECTION    4486.00 EXTENDED       1.59 FEET

   4486.00      8.19    616.59      0.00    616.09    616.83      0.24      0.00      0.04    609.10
     3035.      963.     1191.      880.      508.      205.      447.       89.       29.     609.70
      0.29      1.90      5.81      1.97     0.040     0.030     0.040     0.000    608.40    850.00
  0.000892        1.        1.        1.         2         0         0      0.00    475.00   1325.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
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      SLOPE    XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

    *SECNO 4535.000
    3280 CROSS SECTION    4535.00 EXTENDED       1.66 FEET

      4535.00     8.25   616.65     0.00   616.15   616.87     0.22     0.04     0.00   609.10
        3035.     978.    1166.     891.     525.     207.     460.      91.      29.    609.70
         0.29     1.86     5.64     1.93    0.040    0.030    0.040    0.000   608.40   850.00
     0.000831      49.      49.      49.        0        0        0     0.00   475.00  1325.00
  0
    *SECNO 5120.000
    3280 CROSS SECTION    5120.00 EXTENDED       1.25 FEET

      5120.00     7.86   617.16     0.00   616.65   617.51     0.35     0.60     0.04   610.00
        3035.     881.    1332.     822.     423.     196.     381.     105.      36.    610.60
         0.33     2.08     6.79     2.16    0.040    0.030    0.040    0.000   609.30   850.00
     0.001289     585.     585.     585.        0        0        0     0.00   475.00  1325.00
  0
    *SECNO 5705.000
    3280 CROSS SECTION    5705.00 EXTENDED       0.37 FEET

      5705.00     7.64   617.87     0.00   617.40   618.61     0.74     0.98     0.12   611.83
        3035.     395.    1830.     810.     183.     212.     304.     117.      41.    611.80
         0.36     2.16     8.63     2.66    0.040    0.030    0.040    0.000   610.23   909.60
     0.002269     585.     585.     585.        2        0        0     0.00   390.40  1300.00
  0
    *SECNO 5819.000
    3280 CROSS SECTION    5819.00 EXTENDED       0.92 FEET


    3470 ENCROACHMENT STATIONS=      940.0     1300.0  TYPE=      1  TARGET=      360.000
      5819.00     8.19   618.42     0.00   617.94   618.83     0.41     0.19     0.03   611.83
        3035.     520.    1559.     957.     248.     228.     413.     119.      42.    611.80
         0.36     2.10     6.83     2.32    0.040    0.030    0.040    0.000   610.23   940.00
     0.001286     114.     114.     114.        3        0        0     0.00   360.00  1300.00
  0
    *SECNO 5820.000
    3280 CROSS SECTION    5820.00 EXTENDED       1.13 FEET

  1
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      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST



    3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  615.13 MAX ELLC=  618.50


    3470 ENCROACHMENT STATIONS=      940.0     1300.0  TYPE=      1  TARGET=      360.000
              GOLF COURSE BRIDGE
      5820.00     8.39   618.62     0.00   618.12   618.85     0.23     0.00     0.02   611.83
        3035.     762.     839.    1434.     267.     167.     418.     119.      42.    611.80
         0.36     2.85     5.03     3.43    0.040    0.030    0.040    0.000   610.23   940.00
     0.004786       1.       1.       1.        2        0        0  -113.99   360.00  1300.00
  0
    *SECNO 5825.000
    3280 CROSS SECTION    5825.00 EXTENDED       1.14 FEET


    3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  615.13 MAX ELLC=  618.50
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 3470 ENCROACHMENT STATIONS=      945.0     1300.0  TYPE=      1  TARGET=      355.000
    5825.00      8.42    618.65      0.00    618.16    618.88      0.23      0.03      0.00    611.83
       3035.     757.      838.     1440.      262.      167.      420.      119.       42.    611.80
       0.36      2.89      5.01      3.43     0.040     0.030     0.040     0.000    610.23    945.00
   0.004747        5.        5.        5.         0         0         0   -113.99    355.00   1300.00
0
 *SECNO 5826.000
 3280 CROSS SECTION    5826.00 EXTENDED      1.06 FEET

 3470 ENCROACHMENT STATIONS=      945.0     1300 0  TYPE=      1  TARGET=      355.000
    5826.00      8.33    618.56      0.00    618.08    618.92      0.36      0.00      0.04    611.83
       3035.     539.     1504.      992.      261.      233.      442.      119.       42.    611.80
       0.36      2.07      6.47      2.25     0.040     0.030     0.040     0.000    610.23    945.00
   0.001125        1.        1.        1.         2         0         0      0.00    355.00   1300.00
0
 *SECNO 5875.000
 3280 CROSS SECTION    5875.00 EXTENDED      1.12 FEET

 3470 ENCROACHMENT STATIONS=      950.0     1280.0  TYPE=      1  TARGET=      330.000
    5875.00      8.39    618.62      0.00    618.15    618.97      0.35      0.05      0.00    611.83
       3035.     547.     1499.      988.      262.      234.      430.      120.       43.    611.80
       0.37      2.09      6.39      2.30     0.040     0.030     0.040     0.000    610.23    950.00
   0.001089       49.       49.       49.         2         0         0      0.00    330.00   1280.00
0
1
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      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 CCHV=   0.500 CEHV=   1.000
 *SECNO 6065.000
 3280 CROSS SECTION    6065.00 EXTENDED      1.89 FEET

    6065.00      7.49    618.89      0.00    618.39    619.55      0.66      0.27      0.31    612.30
       3035.     446.     1634.      955.      152.      193.      311.      123.       44.    612.10
       0.38      2.93      8.44      3.07     0.040     0.030     0.040     0.000    611.40      0.00
   0.002115      210.      190.      150.         2         0         0      0.00    235.00    235.00
0
 *SECNO 6140.000
 3280 CROSS SECTION    6140.00 EXTENDED      2.29 FEET

             GOLF COURSE BRIDGE
    6140.00      7.89    619.29      0.00    618.77    619.77      0.48      0.13      0.09    612.30
       3035.     492.     1507.     1037.      181.      204.      365.      124.       44.    612.10
       0.38      2.71      7.38      2.84     0.040     0.030     0.040     0.000    611.40      0.00
   0.001501       75.       75.       75.         3         0         0      0.00    235.00    235.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00       1.15       3.00       0.00      23.00       0.00     157.00       0.00     611.40     611.40

 *SECNO 6167.000

 6070,LOW FLOW BY NORMAL BRIDGE
```

```
 EGPRS=   625.964  EGLWC=   619.772  ELLC=   618.100  PCWSE=   619.291  ELTRD=   617.000
 3280 CROSS SECTION   6167.00 EXTENDED       2.64 FEET


 3370 NORMAL BRIDGE,NRD= 18 MIN ELTRD=  617.00 MAX ELLC=  618.10

   6167.00      8.24   619.64     0.00   619.04   619.93     0.29     0.06     0.10   612.30
     3035.      633.     806.    1596.     169.     168.     376.     125.      44.    612.10
      0.38      3.75     4.80     4.25    0.040    0.030    0.040    0.000   611.40     0.00
  0.003352       27.      27.      27.        2        0        0  -120.93   235.00   235.00
0
 *SECNO 6220.000
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 3280 CROSS SECTION   6220.00 EXTENDED       2.73 FEET

   6220.00      8.33   619.73     0.00   619.13   620.08     0.35     0.09     0.06   612.30
     3035.      533.    1392.    1110.     214.     216.     425.     126.      45.    612.10
      0.38      2.50     6.43     2.61    0.040    0.030    0.040    0.000   611.40     0.00
  0.001059       53.      53.      53.        2        0        0     0.00   235.00   235.00
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 7493.000

 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=      225.0     300.0  TYPE=     1  TARGET=       75.000
   7493.00      7.21   621.71     0.00   621.08   622.86     1.15     2.54     0.24   619.30
     3035.       26.    3003.       6.       9.     347.       3.     143.      49.    620.10
      0.43      2.76     8.65     1.96    0.050    0.035    0.050    0.000   614.50   225.00
  0.005047     1273.    1273.    1273.        2        0        0     0.00    75.00   300.00
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 7505.000

 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  625.85 MAX ELLC=  627.00

           44TH STREET
   7505.00      7.21   621.71     0.00   621.09   622.94     1.23     0.04     0.04   624.75
     3035.        0.    3035.       0.       0.     341.       0.     144.      49.    624.70
      0.43      0.00     8.90     0.00    0.000    0.020    0.000    0.000   614.50   229.00
  0.002326       12.      12.      12.        2        0        0    -5.77    69.00   298.00
0
 *SECNO 7565.000

 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  625.85 MAX ELLC=  627.00

   7565.00      7.51   622.01     0.00   621.29   623.10     1.10     0.13     0.04   624.75
     3035.        0.    3035.       0.       0.     361.       0.     144.      49.    624.70
      0.43      0.00     8.40     0.00    0.000    0.020    0.000    0.000   614.50   229.00
  0.001956       60.      60.      60.        2        0        0    -6.41    69.00   298.00
0
1
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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


 CCHV=    0.100 CEHV=    0.300
 *SECNO 7577.000

 3470 ENCROACHMENT STATIONS=       220.0      305.0  TYPE=       1  TARGET=       85.000
   7577.00      7.78    622.28      0.00    621.47    623.15      0.87      0.03      0.02    619.30
     3035.       63.     2942.       30.       25.      387.       15.      144.       49.     620.10
      0.43      2.49      7.61      2.05     0.050     0.030     0.050     0.000    614.50    220.00
  0.002490       12.       12.       12.         2         0         0      0.00     85.00    305.00
0
 CCHV=    0.500 CEHV=    1.000
 *SECNO 9150.000
 3280 CROSS SECTION    9150.00 EXTENDED       4.60 FEET

   9150.00     10.20    625.31      0.00    624.30    625.74      0.43      2.36      0.22    620.51
     3035.      616.     1732.      688.      243.      264.      256.      166.       53.     617.06
      0.52      2.53      6.56      2.68     0.050     0.030     0.050     0.000    615.11     13.39
  0.001004     1573.     1573.     1573.         2         0         0      0.00    136.61    150.00
0
 *SECNO 9550.000
 3280 CROSS SECTION    9550.00 EXTENDED       0.34 FEET


 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
           CONFLUENCE WITH DIVERSION CHANNEL
   9550.00      8.15    626.84    626.84    626.22    628.54      1.70      0.91      1.28    628.19
     3035.        0.     1330.     1705.        0.       96.      253.      171.       54.     620.25
      0.53      0.00     13.85      6.74     0.000     0.030     0.050     0.000    618.69    104.32
  0.009348      400.      400.      400.         2        12         0      0.00     95.68    200.00
0
 *SECNO 9630.000
 3280 CROSS SECTION    9630.00 EXTENDED       4.10 FEET


 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=        95.0      150.0  TYPE=       1  TARGET=       55.000
1
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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


   9630.00      9.70    629.41      0.00    628.44    629.50      0.08      0.14      0.81    620.97
      670.       23.      509.      138.       29.      195.      142.      171.       55.     620.71
      0.54      0.79      2.61      0.97     0.050     0.030     0.050     0.000    619.71     95.00
  0.000144       80.       80.       80.         3         0         0      0.00     55.00    150.00
0
 *SECNO 9704.000
 3280 CROSS SECTION    9704.00 EXTENDED       4.13 FEET


 3470 ENCROACHMENT STATIONS=       100.0      117.5  TYPE=       1  TARGET=       17.500
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    9704.00     9.80   629.44      0.00   628.47   629.75      0.31      0.02      0.23   623.14
       670.       0.     670.        0.       0.     149.        0.      172.        55. 100000.00
       0.54     0.00     4.50      0.00    0.000    0.030     0.000     0.000    619.64    100.00
   0.001368      74.      74.       74.        2        0         0      0.00     17.50    117.50
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 9705.000
 3280 CROSS SECTION    9705.00 EXTENDED      3.89 FEET


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  628.30 MAX ELLC=  628.30


 3470 ENCROACHMENT STATIONS=      100.0      117.5  TYPE=      1  TARGET=       17.500
          1ST KENOWA STREET CULVERT, 2-7'X145' CMP
    9705.00     9.56   629.20      0.00   628.17   630.00      0.80      0.00      0.24   623.14
       670.       0.     670.        0.       0.      93.        0.      172.        55. 100000.00
       0.54     0.00     7.18      0.00    0.000    0.027     0.000     0.000    619.64    100.00
   0.010429       1.       1.        1.        2        0         0    -51.51     17.50    117.50
0
 *SECNO 9756.000
 3280 CROSS SECTION    9756.00 EXTENDED      4.53 FEET


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  628.30 MAX ELLC=  628.30


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      630.00 ELREA=      630.00

    9756.00    10.20   629.84      0.00   628.95   630.47      0.64      0.43      0.05   623.14
       670.       0.     670.        0.       0.     105.        0.      172.        55.    623.14
       0.55     0.00     6.41      0.00    0.000    0.027     0.000     0.000    619.64    100.00
   0.006876      51.      51.       51.        2        0         0    -73.83     17.50    117.50
0
1
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     SECNO      DEPTH    CWSEL     CRIWS     WSELK    EG        HV        HL        OLOSS   BANK ELEV
     Q          QLOB     QCH       QROB      ALOB     ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME       VLOB     VCH       VROB      XNL      XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE      XLOBL    XLCH      XLOBR     ITRIAL   IDC       ICONT     CORAR     TOPWID      ENDST


 CCHV=   0.100 CEHV=    0.300
 *SECNO 9757.000
 3280 CROSS SECTION    9757.00 EXTENDED      4.94 FEET


 3470 ENCROACHMENT STATIONS=      100.0      117.5  TYPE=      1  TARGET=       17.500
    9757.00    10.61   630.25      0.00   629.45   630.51      0.26      0.00      0.04   623.14
       670.       0.     670.        0.       0.     163.        0.      172.        55. 100000.00
       0.55     0.00     4.10      0.00    0.000    0.030     0.000     0.000    619.64    100.00
   0.001065       1.       1.        1.        2        0         0      0.00     17.50    117.50
0
 *SECNO 10405.000
 3280 CROSS SECTION   10405.00 EXTENDED      4.76 FEET

   10405.00    10.44   630.58      0.00   629.78   630.59      0.01      0.05      0.03   623.64
       670.     250.     131.      289.     478.     160.      550.      181.        56.    623.64
       0.84     0.52     0.82      0.53    0.040    0.030     0.040     0.000    620.14      0.00
   0.000024     450.     648.      700.        2        0         0      0.00    225.00    225.00
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 11205.000
 3280 CROSS SECTION   11205.00 EXTENDED      2.50 FEET
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3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      653.70 ELREA=      653.70

          2ND KENOWA STREET CULVERT, 2-7'X145' CMP
 11205.00     8.20   630.40     0.00   629.61   630.88     0.48     0.06     0.24   625.70
     670.       0.     670.       0.       0.     121.       0.     193.      58.   625.70
     0.88     0.00     5.56     0.00    0.000    0.027    0.000    0.000   622.20   100.00
 0.001315     600.     800.     850.        2        0        0     0.00    17.50   117.50
0

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     1.25       2.90       2.80     100.00      14.50       3.50      77.00       0.00     622.20     622.20

*SECNO 11350.000
3280 CROSS SECTION  11350.00 EXTENDED      5.69 FEET

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


PRESSURE FLOW


  EGPRS       EGLWC        H3        QWEIR        QPR        BAREA    TRAPEZOID      ELLC      ELTRD
                                                                       AREA
     633.81     631.26      0.43         0.        670.        77.        77.      629.20    653.70



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      653.70 ELREA=      653.70

 11350.00    11.39   633.59     0.00   632.10   633.81     0.22     2.93     0.00   625.70
     670.       0.     670.       0.       0.     176.       0.     193.      58.   625.70
     0.89     0.00     3.80     0.00    0.000    0.027    0.000    0.000   622.20   100.00
 0.000371     145.     145.     145.        2        0        0     0.00    17.50   117.50
0
CCHV=   0.100 CEHV=   0.300
*SECNO 11500.000
3280 CROSS SECTION  11500.00 EXTENDED      5.93 FEET

 11500.00    11 63   633.83     0.00   632.38   633.84     0.00     0.01     0.02   625.70
     670.     234.     172.     265.     595.     196.     674.     196.      59.   625.70
     0.97     0.39     0.87     0.39    0.050    0.030    0.050    0.000   622.20     0.00
 0.000017     150.     150.     150.        2        0        0     0.00   225.00   225.00
0
*SECNO 11550.000
3280 CROSS SECTION  11550.00 EXTENDED      5.87 FEET

 11550.00    11.57   633.77     0.00   632.31   633.87     0.10     0.01     0.03   625.70
    3035.    1056.     781.    1198.     589.     195.     667.     198.      59.   625.70
     0.98     1.79     4.00     1.80    0.050    0.030    0.050    0.000   622.20     0.00
 0.000349      50.      50.      50.        2        0        0     0.00   225.00   225.00
0
*SECNO 11750.000
3280 CROSS SECTION  11750.00 EXTENDED      5.95 FEET
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  11750.00    11.65   633.85     0.00   632.40   633.94     0.10     0.07     0.00   625.70
     3035.    1059.     776.    1200.     596.     197.     675.     204.      60.   625.70
      1.00     1.78     3.95     1.78    0.050    0.030    0.050    0.000   622.20     0 00
  0.000337     200.     200.     200.        2        0        0     0.00   225.00   225.00
0
1
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    SECNO    DEPTH    CWSEL    CRIWS    WSELK       EG       HV       HL    OLOSS  BANK ELEV
        Q     QLOB      QCH     QROB     ALOB      ACH     AROB      VOL      TWA LEFT/RIGHT
     TIME     VLOB      VCH     VROB      XNL     XNCH      XNR      WTN    ELMIN       SSTA
    SLOPE    XLOBL     XLCH    XLOBR   ITRIAL      IDC    ICONT    CORAR   TOPWID      ENDST


 *SECNO 12449.000
 3280 CROSS SECTION  12449.00 EXTENDED      5.50 FEET


 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=     100.0      140.0  TYPE=     1  TARGET=      40.000
  ELENCL=    653.70  ELENCR=    653.70
  12449.00    11.20   633.40     0.00   632.27   634.94     1.54     0.56     0.43   625.70
     3035.       0.    2126.     909.       0.     189.     154.     218.      62.   625.70
      1.02     0.00    11.26     5.89    0.000    0.030    0.050    0.000   622.20   100.00
  0.004338     500.     699.     750.        3        0        0     0.00    40.00   140.00
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 12450.000

 3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD=  646.20 MAX ELLC=  635.00


 3470 ENCROACHMENT STATIONS=     100.0      140.0  TYPE=     1  TARGET=      40.000
  ELENCL=    653.70  ELENCR=    653.70
           U/S I-196
  12450.00    10.99   633.49     0.00   632.56   634.96     1.48     0.01     0.02   628.50
     3035.       0.    3035.       0.       0.     311.       0.     218.      62.   653.70
      1.02     0.00     9.75     0.00    0.000    0.027    0.000    0.000   622.50   100.00
  0 006106       1.       1.       1.        2        0        0   -49.75    40.00   140.00
0
 *SECNO 12650.000

 3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD=  646.20 MAX ELLC=  635.00


 3470 ENCROACHMENT STATIONS=     100.0      140.0  TYPE=     1  TARGET=      40.000
  ELENCL=    653.70  ELENCR=    653.70
  12650.00    12.43   634.93     0.00   633.46   636.31     1.38     1.32     0.03   628.50
     3035.       0.    3035.       0.       0.     323.       0.     219.      62.   653.70
      1.03     0.00     9.41     0.00    0.000    0.027    0.000    0.000   622.50   100.00
  0.007106     200.     200.     200.        2        0        0   -96.32    40.00   140.00
0
1
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    SECNO    DEPTH    CWSEL    CRIWS    WSELK       EG       HV       HL    OLOSS  BANK ELEV
        Q     QLOB      QCH     QROB     ALOB      ACH     AROB      VOL      TWA LEFT/RIGHT
     TIME     VLOB      VCH     VROB      XNL     XNCH      XNR      WTN    ELMIN       SSTA
    SLOPE    XLOBL     XLCH    XLOBR   ITRIAL      IDC    ICONT    CORAR   TOPWID      ENDST


 CCHV=   0.100 CEHV=    0.300
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 *SECNO 12850.000
 3280 CROSS SECTION  12850.00 EXTENDED      1.42 FEET


 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=     100.0      140.0  TYPE=     1  TARGET=      40.000
  ELENCL=    653.70  ELENCR=    653.70
  12850.00    13.92   636.42     0.00   634.32   637.05     0.63     0.66     0.08   628.50
      3035.      0.    3035.       0.       0.     478.       0.     221.      62.    653.70
      1.04     0.00     6.34     0.00    0.000    0.035    0.000    0.000   622.50   100.00
  0.001912     200.     200.     200.        2        0        0     0.00    40.00   140.00
0
 *SECNO 13600.000
  13600.00    11.68   637.68     0.00   635.68   637.95     0.26     0.86     0.04   631.90
      3035.    997.    1894.     144.     730.     371.     157.     236.      65.    631.30
      1.09     1.37     5.10     0.92    0.100    0.035    0.100    0.000   626.00   132.78
  0.000782     700.     750.     750.        3        0        0     0.00   229.58   362.36
0
 *SECNO 14975.000
  14975.00    10.38   639.08     0.00   637.77   639.63     0.54     1.60     0.08   632.40
      3035.    146.    1709.    1180.      81.     220.     729.     272.      72.    632.20
      1.17     1.81     7.76     1.62    0.100    0.035    0.100    0.000   628.70   258.13
  0.001912    1355.    1375.    1375.        2        0        0     0.00   235.36   493.49
0
 *SECNO 16700.000
 3280 CROSS SECTION  16700.00 EXTENDED      4.08 FEET

  16700.00    10.18   641.58     0.00   640.63   641.76     0.19     2.10     0.04   637.00
      3035.   1411.    1480.     144.    1161      307.     160.     324.      84.    638.30
      1.33     1.21     4.82     0.90    0.100    0.035    0.100    0.000   631.40    10.00
  0.000844    1725.    1725.    1725.        2        0        0     0.00   350.30   360.30
0
 *SECNO 17600.000
 3280 CROSS SECTION  17600.00 EXTENDED      2.47 FEET

  17600.00     8.57   642.57     0.00   641.66   643.03     0.46     1.18     0.08   639.60
      3035.   1190.    1771.      75.     749.     252.      74.     352.      91.    640.90
      1.38     1.59     7.01     1.01    0.100    0.035    0.100    0.000   634.00    10.00
  0.002321     900.     900.     900.        2        0        0     0.00   336.82   346.82
0
1
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    SECNO      DEPTH     CWSEL      CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q          QLOB      QCH        QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME       VLOB      VCH        VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
    SLOPE      XLOBL     XLCH       XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 18545.000

 3470 ENCROACHMENT STATIONS=     245.0      305.0  TYPE=     1  TARGET=      60.000
  ELENCL=    645.45  ELENCR=    645.45
  18545.00     8.55   644.35     0.00   643.55   645.20     0.85     2.05     0.12   637.60
      3035.     44.    2940.      51.      33.     390.      36.     369.      95.    636.80
      1.42     1.36     7.53     1.40    0.100    0.035    0.100    0.000   635.80   245.00
  0.002037     945.     945.     945.        2        0        0     0.00    60.00   305.00
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 18565.000

 3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  645.45 MAX ELLC=  651.00
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 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      645.45 ELREA=      645.45

          BARRY STREET
  18565.00      8.40   644.20      0.00   643.51   645.42     1.22     0.04     0.18   637.60
     3035.        0.    3035.        0.       0.     343.       0.      369      95.    636.80
      1.42      0.00     8.85      0.00    0.000    0.015    0.000    0.000   635.80   250.00
  0.001775       20.      20.       20.        2        0        0  -192.76    50.00   300.00
0
 *SECNO 18602.000

 3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  645.45 MAX ELLC=  651.00


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      645.45 ELREA=      645.45

  18602.00      8.47   644.27      0.00   643.54   645.49     1.22     0.07     0.00   637.60
     3035.        0.    3035.        0.       0.     343.       0.     369.      95.    636.80
      1.42      0.00     8.85      0.00    0.000    0.015    0.000    0.000   635.80   250.00
  0.001775       37.      37.       37.        0        0        0  -198.05    50.00.  300.00
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 18622.000

 3301 HV CHANGED MORE THAN HVINS

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 3470 ENCROACHMENT STATIONS=      230.0     320.0  TYPE=      1  TARGET=       90.000
  18622.00      9.46   645.26      0.00   644.04   645.59     0.33     0.02     0.09   637.60
     3035.      383.    2224.      428.     139.     435.     149.     370.      95.    636.80
      1.42      2.76     5.12      2.87    0.040    0.030    0.040    0.000   635.80   230.00
  0.000598       20.      20.       20.        3        0        0     0.00    90.00   320.00
0
 *SECNO 19000.000
  19000.00      8.80   645.70      0.00   644.41   645.83     0.13     0.22     0.02   641.20
     3035.     1512.     826.      697.     689.     197.     325.     378.      97.    641.30
      1.46      2.19     4.20      2.15    0.040    0.030    0.040    0.000   636.90    80.80
  0.000544      378.     378.      378.        1        0        0     0.00   327.01   407.80
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 20755.000
 3280 CROSS SECTION  20755.00 EXTENDED      3.20 FEET


 3470 ENCROACHMENT STATIONS=      120.0     550.0  TYPE=      1  TARGET=      430.000
  20755.00     10.10   646.60      0.00   645.74   646.68     0.08     0.84     0.01   644.30
     3035.      751.     621.     1663.     472.     172.     899.     433.     112.    641.10
      1.69      1.59     3.60      1.85    0.040    0.030    0.040    0.000   636.50   120.00
  0.000424     1755.    1755.     1755.        2        0        0     0.00   430.00   550.00
0
 *SECNO 20905.000
 3280 CROSS SECTION  20905.00 EXTENDED      2.04 FEET


 3470 ENCROACHMENT STATIONS=       75.0     450.0  TYPE=      1  TARGET=      375.000
  20905.00      8.94   646.64      0.00   645.76   646.86     0.22     0.10     0.07   645.50
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    3035.     850.      846.     1337.      391.      148.      464.      438.      114.    642.30
     1.70     2.17      5.72      2.89     0.040     0.030     0.040     0.000    637.70     75.00
 0.001310     150.      150.      150.         2         0         0      0.00    375.00    450.00
0
*SECNO 21055.000

3265 DIVIDED FLOW

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      SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL      OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL     TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN     ELMIN      SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR   TOPWID     ENDST


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     150.0     450.0  TYPE=     1  TARGET=     300.000
 21055.00     7.93    646.78    646.78    646.50    647.73      0.95      0.36      0.37    646.65
    3035.     224.     1350.     1462.       82.      127.      313.      440.      115.    643.45
     1.71     2.73     10.64      4.66     0.040     0.030     0.040     0.000    638.85    150.00
 0.005568     150.      150.      150.         4        12         0      0.00    276.57    450.00
0
*SECNO 21355.000
          JACKSON STREET (TOWNSHIP LIMIT)
 21355.00     7.14    648.34      0.00    647.81    649.19      0.85      1.43      0.03    643.40
    3035.    1172.     1125.      738.      226.      111.      145.      444.      116.    643.30
     1.72     5.18     10.14      5.11     0.040     0.030     0.040     0.000    641.20    192.08
 0.004123     300.      300.      300.         2         0         0      0.00    165.23    357.31
0

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK        XKOR      COFQ      RDLEN     BWC       BWP      BAREA      SS        ELCHU     ELCHD
     0.00     1.56      3.00    150.00     15.00      0.00    110.00      0.00    641.20    641.20

*SECNO 21391.000
3280 CROSS SECTION  21391.00 EXTENDED      2 80 FEET


3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW


 EGPRS     EGLWC       H3      QWEIR      QPR       BAREA   TRAPEZOID     ELLC      ELTRD
                                                               AREA
   666.78   649.20      0.00     1780.     1256.      110.       87.     647.00    649.00



3470 ENCROACHMENT STATIONS=     200.0     350.0  TYPE=     1  TARGET=     150.000
 21391.00    10.10    651.30      0.00    650.65    651.50      0.20      2.31      0.00    643.40
    3035.    1370.      824.      841.      467.      164.      290.      444.      116.    643.30
     1.72     2.94      5.02      2.90     0.040     0.030     0.040     0.000    641.20    200.00
 0.000600      36.       36.       36.         2         0         5      0.00    150.00    350.00
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


CCHV=   0.100 CEHV=    0.300
*SECNO 22615.000
3280 CROSS SECTION  22615.00 EXTENDED      6.43 FEET

 22615.00     10.13    651.53      0.00    650.82    651.55      0.02      0.03      0.02    644.10
    3035.     2307.      308.      420.     2003.      182.      436.      454.      118.     643.20
     1.77      1.15      1.69      0.96     0.040     0.030     0.040     0.000    641.40     25.00
 0.000063      224.      224.      224.         2         0         0      0.00    361.64    386.64
0
CCHV=   0.100 CEHV=    0.300
*SECNO -9550.000
START TRIB COMP
  -9550.000  9550.000   626.842
3280 CROSS SECTION  -9550.00 EXTENDED      0.34 FEET

 -9550.00      8.15    626.84      0.00    626.22    628.05      1.21      0.00      0.00    628.19
    3035.        0.      968.     2067.        0.       96.      253.      467.      120.     620.25
     1.79      0.00     10.08      8.17     0.000     0.040     0.040     0.000    618.69    104.32
 0.008798      400.      400.      400.         0         0         0      0.00     95.68    200.00
0
CCHV=   0.300 CEHV=    0.500
*SECNO 250.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      632.50 ELREA=      632.50

   250.00      8.38    627.68      0.00    627.21    629.02      1.34      0.91      0.07    623.20
    2365.        0.     2365.        0.        0.      255.        0.      469.      120.     621.20
     1.79      0.00      9.29      0.00     0.000     0.024     0.000     0.000    619.30    332.00
 0.001705      250.      250.      250.         3         0         0      0.00     35.00    367.00
0

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK        XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00      2.32       2.60     125.00     20.00       0.00     177.50       0.00     619.30     619.30

*SECNO 332.000
3280 CROSS SECTION    332.00 EXTENDED      1.79 FEET

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW


 EGPRS      EGLWC       H3        QWEIR      QPR        BAREA   TRAPEZOID     ELLC      ELTRD
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634.08	629.03	0.00	184.	2193.	178.	180.	628.30	632.50

332.00	13.69	632.99	0.00	627.33	633.19	0.20	4.16	0.00	623.20
2365.	31.	1769.	565.	34.	440.	389.	470.	120.	621.20
1.80	0.92	4.02	1.45	0.040	0.024	0.040	0.000	619.30	325.15
0.000154	82.	82.	82.	2	0	2	0.00	165.85	491.00

0

CCHV= 0.100 CEHV= 0.300

*SECNO 890.000

3301 HV CHANGED MORE THAN HVINS

890.00	7.30	632.60	0.00	630.47	633.71	1.12	0.25	0.28	629.20
2365.	11.	1942.	412.	4.	216.	72.	477.	122.	627.20
1.82	2.71	8.98	5.75	0.040	0.040	0.040	0.000	625.30	329.62
0.005496	558.	558.	558.	3	0	0	0.00	61.54	391.16

0

*SECNO 11550.000

3280 CROSS SECTION 11550.00 EXTENDED 5.88 FEET

3301 HV CHANGED MORE THAN HVINS

11550.00	11.58	633.78	0.00	632.31	633.85	0.07	0.03	0.10	625.70
3035.	1177.	522.	1336.	589.	195.	668.	478.	122.	625.70
1.83	2.00	2.67	2.00	0.040	0.040	0.040	0.000	622.20	0.00
0.000276	50.	50.	50.	2	0	0	0.00	225.00	225.00

0

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THIS RUN EXECUTED 18 OCT 89 10:59:20

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HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984

ERROR CORR - 01,02,03,04,05,06

MODIFICATION - 50,51,52,53,54,55,56

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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

BLISS DRAIN, 10-YEAR FLO

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
0.000	605.46	0.00	605.63	80.00	41.78	1167.59	50.63	80.00	1670.00	1690.00	1729.00	1750.00
0.000	606.69	1.23	606.90	340.00	100.03	1572.80	282.17	340.00	1650.00	1690.00	1729.00	1990.00
0.000	607.11	0.42	607.33	340.00	130.00	1740.13	429.87	340.00	1650.00	1690.00	1729.00	1990.00
0.000	607.64	0.53	607.92	340.00	188.94	2127.93	718.12	340.00	1650.00	1690.00	1729.00	1990.00
15.000	605.46	0.00	605.63	80.00	41.85	1167.45	50.70	80.00	1670.00	1690.00	1729.00	1750.00
15.000	606.69	1.23	606.90	335.00	97.28	1574.09	283.63	335.00	1655.00	1690.00	1729.00	1990.00
15.000	607.11	0.42	607.34	335.00	124.99	1742.89	432.12	335.00	1655.00	1690.00	1729.00	1990.00
15.000	607.65	0.53	607.93	335.00	179.55	2133.07	722.39	335.00	1655.00	1690.00	1729.00	1990.00
115.000	605.46	0.00	605.69	66.43	27.93	1196.83	35.23	285.00	1660.00	1690.00	1729.00	1945.00
115.000	606.62	1.16	607.00	285.00	68.71	1796.82	89.46	285.00	1660.00	1690.00	1729.00	1945.00

115.000	607.01	0.40	607.45	285.00	93.33	2041.57	165.10	285.00	1660.00	1690.00	1729.00	1945.00
115.000	607.49	0.48	608.08	285.00	141.55	2550.48	342.97	285.00	1660.00	1690.00	1729.00	1945.00
290.000	605.43	0.00	605.88	109.10	49.18	1119.98	90.84	0.00	0.00	65.00	100.00	0.00
290.000	606.67	1.24	607.20	171.95	122.30	1554.10	278.60	0.00	0.00	65.00	100.00	0.00
290.000	607.09	0.42	607.66	184.42	171.51	1746.89	381.60	0.00	0.00	65.00	100.00	0.00
290.000	607.61	0.52	608.34	199.56	269.42	2180.72	584.86	0.00	0.00	65.00	100.00	0.00
990.000	606.43	0.00	607.02	86.04	44.67	1148.21	67.12	0.00	0.00	65.00	100.00	0.00
990.000	607.63	1.20	608.36	156.19	94.45	1642.11	218.44	0.00	0.00	65.00	100.00	0.00
990.000	608.07	0.44	608.84	169.07	137.58	1847.41	315.01	0.00	0.00	65.00	100.00	0.00
990.000	608.80	0.73	609.68	190.52	243.93	2254.09	536.97	0.00	0.00	65.00	100.00	0.00
1690.000	608.65	0.00	609.05	114.21	50.89	1103.34	105.77	162.00	20.00	65.00	100.00	182.00
1690.000	609.92	1.28	610.37	162.00	135.61	1508.08	311.31	162.00	20.00	65.00	100.00	182.00
1690.000	610.40	0.48	610.88	162.00	188.79	1687.06	424.15	162.00	20.00	65.00	100.00	182.00
1690.000	611.27	0.87	611.80	162.00	309.91	2052.89	672.19	162.00	20.00	65.00	100.00	182 00
1790.000	608.75	0.00	609.17	111.26	50.96	1110.17	98.86	112.00	55.00	65.00	100.00	167.00
1790.000	609.99	1.24	610.51	112.00	90.35	1569.78	294.87	112.00	55.00	65.00	100.00	167.00
1790.000	610.44	0.46	611.03	112.00	108.55	1791.01	400.44	112.00	55.00	65.00	100.00	167.00
1790.000	611.26	0.82	611.99	112.00	146.04	2251.83	637.13	112.00	55.00	65.00	100.00	167.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
1840.000	608.80	0.00	609.24	87.00	50.87	1121.92	87.20	87.00	55.00	65.00	100.00	142.00
1840.000	610.00	1.20	610.61	87.00	93.03	1635.76	226.21	87.00	55.00	65.00	100.00	142.00
1840.000	610.43	0.44	611.14	87.00	113.01	1885.76	301.23	87.00	55.00	65.00	100.00	142.00
1840.000	611.21	0.78	612.13	87.00	154.66	2410.16	470.18	87.00	55.00	65.00	100.00	142 00
1865.000	608.82	0.00	609.27	75.00	51.64	1131.24	77.13	75.00	55.00	65.00	100.00	130.00
1865.000	610.00	1.18	610.66	75.00	95.49	1678.07	181.44	75.00	55.00	65.00	100.00	130.00
1865.000	610.43	0.43	611.20	75.00	116.53	1946.37	237.09	75.00	55.00	65.00	100.00	130.00
1865.000	611.17	0.74	612.22	75.00	160.78	2513.21	361.00	75.00	55.00	65.00	100.00	130.00
1890.000	608.85	0.00	609.57	68.63	63.31	953.22	243.46	85.00	145.00	177.00	200.00	230.00
1890.000	610.02	1.18	611.02	80.90	141.05	1391.94	422.01	85.00	145.00	177.00	200.00	230.00
1890.000	610.45	0.43	611.59	84.41	189.92	1600.45	509.63	85.00	145.00	177.00	200.00	230.00
1890.000	611.20	0.75	612.65	85.00	305.20	2034.26	695.53	85.00	145.00	177.00	200.00	230.00
1940.000	608.88	0.00	609.62	59.65	103.20	1085.00	71.81	60.00	1083.00	1100.00	1125.00	1143.00
1940.000	610.06	1.18	611.14	60.00	196.03	1600.60	158.37	60.00	1083.00	1100.00	1125.00	1143.00
1940.000	610.49	0.43	611.76	60.00	242.48	1855.78	201.74	60.00	1083.00	1100.00	1125.00	1143.00
1940.000	611.25	0.76	612.97	60.00	342.28	2397.18	295.54	60.00	1083.00	1100.00	1125.00	1143.00
1973.000	609.11	0.00	609.67	60.00	150.87	999.22	109.91	60.00	1083.00	1100.00	1125.00	1143.00
1973.000	610.46	1.35	611.21	60.00	281.09	1440.50	233.41	60.00	1083.00	1100.00	1125.00	1143.00
1973.000	610.99	0.53	611.84	60.00	345.75	1658.99	295.26	60.00	1083.00	1100.00	1125.00	1143.00
1973.000	611.99	1.00	613.08	60.00	484.84	2120.74	429.41	60.00	1083.00	1100.00	1125.00	1143.00
2023.000	609.23	0.00	609.76	60.01	154.21	991.48	114.31	325.00	1075.00	1100.00	1125.00	1400.00
2023.000	610.59	1.36	611.30	60.05	284.51	1432.39	238.10	325.00	1075.00	1100.00	1125.00	1400.00
2023.000	611.13	0.54	611.94	60.06	349.31	1650.51	300.18	325.00	1075.00	1100.00	1125.00	1400.00
2023.000	612.16	1.02	613.19	60.09	488.66	2111.54	434.80	325.00	1075.00	1100.00	1125.00	1400.00
2448.000	609.91	0.00	610.97	145.00	75.35	1076.22	108.43	145.00	1095.00	1100.00	1125.00	1240.00
2448.000	611.54	1.63	612.12	145.00	101.69	1209.39	643.92	145.00	1095.00	1100.00	1125.00	1240.00
2448.000	612.22	0.68	612.72	145.00	112.26	1272.80	914.93	145.00	1095.00	1100.00	1125.00	1240.00
2448.000	613.48	1.26	613.91	145.00	135.03	1434.79	1465.18	145.00	1095.00	1100.00	1125.00	1240.00
2709.000	611.24	0.00	611.80	71.40	189.24	833.46	237.30	130.00	1000.00	1076.00	1100.00	1130.00
2709.000	611.98	0.74	612.86	91.15	344.59	1221.54	388.87	130.00	1000.00	1076.00	1100.00	1130.00

2709.000	612.49	0.51	613.40	130.00	451.42	1376.39	472.19	130.00	1030.00	1076.00	1100.00	1130.00
2709.000	613.64	1.15	614.44	140.00	798.09	1598.63	638.27	140.00	990.00	1076.00	1100.00	1130.00
2785.000	611.47	0.00	611.96	75.21	199.41	818.90	241.70	100.00	1035.00	1076.00	1100.00	1135.00
2785.000	612.37	0.90	613.08	94.68	374.00	1182.25	398.75	100.00	1035.00	1076.00	1100.00	1135.00
2785.000	612.86	0.49	613.61	100.00	478.14	1336.27	485.59	100.00	1035.00	1076.00	1100.00	1135.00
2785.000	613.77	0.92	614.63	100.00	707.30	1645.72	681.97	100.00	1035.00	1076.00	1100.00	1135.00
2790.000	611.47	0.00	611.96	75.27	199.49	818.77	241.73	95.00	1035.00	1076.00	1100.00	1130.00
2790.000	612.37	0.90	613.08	94.64	373.63	1182.75	398.62	95.00	1035.00	1076.00	1100.00	1130.00
2790.000	612.85	0.48	613.61	95.00	477.69	1338.67	483.64	95.00	1035.00	1076.00	1100.00	1130.00
2790.000	613.75	0.90	614.63	95.00	709.03	1656.78	669.19	95.00	1035.00	1076.00	1100.00	1130.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
2840.000	611.60	0.00	612.05	78.92	204.67	811.44	243.89	195.00	940.00	1076.00	1100.00	1135.00
2840.000	612.59	1.00	613.19	195.00	402.93	1150.95	401.12	195.00	940.00	1076.00	1100.00	1135.00
2840.000	613.20	0.61	613.73	195.00	594.51	1233.17	472.32	195.00	940.00	1076.00	1100.00	1135.00
2840.000	614.30	1.10	614.75	195.00	1042.28	1381.85	610.87	195.00	940.00	1076.00	1100.00	1135.00
3090.000	612.01	0.00	612.47	88.29	46.78	1075.54	137.68	0.00	0.00	1062.00	1100.00	0.00
3090.000	613.10	1.09	613.65	303.74	172.64	1512.08	270.28	0.00	0.00	1062.00	1100.00	0.00
3090.000	613.67	0.57	614.11	400.00	352.04	1572.27	375.69	0.00	0.00	1062.00	1100.00	0.00
3090.000	614.76	1.09	615.02	400.00	881.95	1570.19	582.86	0.00	0.00	1062.00	1100.00	0.00
3164.000	612.16	0.00	612.59	80.79	53.15	1072.59	134.26	313.00	800.00	1062.00	1100.00	1113.00
3164.000	613.31	1.16	613.77	355.48	212.15	1452.61	290.25	0.00	0.00	1062.00	1100.00	0.00
3164.000	613.84	0.52	614.20	400.00	409.02	1501.64	389.35	0.00	0.00	1062.00	1100.00	0.00
3164.000	614.83	1.00	615.08	400.00	906.91	1540.80	587.30	0.00	0.00	1062.00	1100.00	0.00
3165.000	612.12	0.00	612.60	65.00	81.38	1043.48	135.15	65.00	1050.00	1062.00	1100.00	1115.00
3165.000	613.44	1.31	613.78	320.00	584.37	1069.20	301.43	320.00	830.00	1062.00	1100.00	1150.00
3165.000	614.05	0.61	614.23	400.00	931.90	886.00	482.11	0.00	0.00	1062.00	1100.00	0.00
3165.000	614.97	0.92	615.09	400.00	1539.72	809.00	686.28	0.00	0.00	1062.00	1100.00	0.00
3170.000	612.18	0.00	612.64	75.00	98.63	1026.57	134.80	75.00	1045.00	1062.00	1100.00	1120.00
3170.000	613.53	1.35	613.82	330.00	619.17	1016.04	319.79	330.00	830.00	1062.00	1100.00	1160.00
3170.000	614.07	0.54	614.24	400.00	936.50	880.50	483.00	0.00	0.00	1062.00	1100.00	0.00
3170.000	614.98	0.91	615.10	400.00	1541.10	807.43	686.46	0.00	0.00	1062.00	1100.00	0.00
3171.000	612.24	0.00	612.64	75.00	52.65	1064.64	142.71	75.00	1045.00	1062.00	1100.00	1120.00
3171.000	613.45	1.21	613.86	330.00	245.41	1423.65	285.94	330.00	830.00	1062.00	1100.00	1160.00
3171.000	613.97	0.52	614.29	400.00	452.30	1448.64	399.06	0.00	0.00	1062.00	1100.00	0.00
3171.000	614.90	0.93	615.13	400.00	927.46	1516.64	590.90	0.00	0.00	1062.00	1100.00	0.00
3220.000	612.33	0.00	612.71	103.09	60.42	1054.28	145.30	0.00	0.00	1062.00	1100.00	0.00
3220.000	613.57	1.23	613.92	400.00	270.94	1372.01	312.05	0.00	0.00	1062.00	1100.00	0.00
3220.000	614.04	0.47	614.34	400.00	474.24	1421.95	403.81	0.00	0.00	1062.00	1100.00	0.00
3220.000	614.95	0.91	615.17	400.00	942.36	1499.16	593.48	0.00	0.00	1062.00	1100.00	0.00
3495.000	612.58	0.00	613.27	95.42	222.32	886.33	151.35	360.00	920.00	1079.00	1100.00	1280.00
3495.000	613.80	1.22	614.37	360.00	356.23	1105.52	493.25	360.00	920.00	1079.00	1100.00	1280.00
3495.000	614.25	0.45	614.71	360.00	477.12	1124.60	698.28	360.00	920.00	1079.00	1100.00	1280.00
3495.000	615.11	0.86	615.44	360.00	774.03	1149.97	1111.00	360.00	920.00	1079.00	1100.00	1280.00
3574.000	612.89	0.00	613.45	115.00	223.57	859.93	176.50	115.00	1060.00	1079.00	1100.00	1175.00
3574.000	614.11	1.22	614.52	320.00	374.22	1010.58	570.21	320.00	960.00	1079.00	1100.00	1280.00
3574.000	614.44	0.34	614.83	320.00	471.23	1076.38	752.39	320.00	960.00	1079.00	1100.00	1280.00
3574.000	615.19	0.75	615.53	320.00	703.23	1167.79	1163.98	320.00	960.00	1079.00	1100.00	1280.00
3575.000	612.88	0.00	613.46	115.00	252.04	855.70	152.26	115.00	1060.00	1079.00	1100.00	1175.00
3575.000	614.04	1.16	614.55	320.00	371.59	1081.41	502.00	320.00	960.00	1079.00	1100.00	1280.00

3575.000	614.59	0.54	614.85	320.00	511.01	882.84	906.14	320.00	960.00	1079.00	1100.00	1280.00
3575.000	615.32	0.74	615.54	320.00	768.82	821.74	1444.44	320.00	960.00	1079.00	1100.00	1280.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
3580.000	612.90	0.00	613.47	110.00	252.19	855.68	152.13	110.00	1060.00	1079.00	1100.00	1170.00
3580.000	614.06	1.16	614.56	315.00	369.82	1080.28	504.90	315.00	965.00	1079.00	1100.00	1280.00
3580.000	614.60	0.54	614.86	315.00	503.51	883.54	912.95	315.00	965.00	1079.00	1100.00	1280.00
3580.000	615.33	0.73	615.56	315.00	751.79	825.15	1458.06	315.00	965.00	1079.00	1100.00	1280.00
3581.000	612.91	0.00	613.48	110.00	223.63	858.62	177.75	110.00	1060.00	1079.00	1100.00	1170.00
3581.000	614.21	1.30	614.57	315.00	379.98	979.98	595.05	315.00	965.00	1079.00	1100.00	1280.00
3581.000	614.54	0.33	614.90	315.00	474.42	1051.81	773.77	315.00	965.00	1079.00	1100.00	1280.00
3581.000	615.27	0.73	615.59	315.00	699.44	1151.17	1184.38	315.00	965.00	1079.00	1100.00	1280.00
3630.000	613.07	0.00	613.58	87.65	254.30	805.52	200.18	290.00	1010.00	1077.00	1100.00	1300.00
3630.000	614.16	1.09	614.70	285.45	462.21	1084.73	408.05	290.00	1010.00	1077.00	1100.00	1300.00
3630.000	614.48	0.32	615.03	290.00	550.23	1183.04	566.73	290.00	1010.00	1077.00	1100.00	1300.00
3630.000	615.22	0.75	615.70	290.00	739.26	1301.60	994.14	290.00	1010.00	1077.00	1100.00	1300.00
3689.000	613.25	0.00	613.70	91.63	262.53	791.93	205.53	0.00	0.00	1077.00	1100.00	0.00
3689.000	614.38	1.14	614.82	289.88	465.44	1029.47	460.09	0.00	0.00	1077.00	1100.00	0.00
3689.000	614.70	0.32	615.15	296.14	549.93	1121.17	628.90	0.00	0.00	1077.00	1100.00	0.00
3689.000	615.38	0.68	615.80	309.46	728.95	1261.28	1044.76	0.00	0.00	1077.00	1100.00	0.00
3690.000	613.14	0.00	613.75	89.10	207.23	881.32	171.45	0.00	0.00	1077.00	1100.00	0.00
3690.000	614.28	1.14	614.87	287.71	408.01	1132.13	414.86	0.00	0.00	1077.00	1100.00	0.00
3690.000	614.63	0.35	615.18	294.58	489.83	1152.11	658.06	0.00	0.00	1077.00	1100.00	0.00
3690.000	615.54	0.92	615.82	312.63	737.80	849.42	1447.78	0.00	0.00	1077.00	1100.00	0.00
3695.000	613.15	0.00	613.76	89.36	206.87	881.75	171.37	0.00	0.00	1077.00	1100.00	0.00
3695.000	614.36	1.21	614.90	289.28	409.79	1098.30	446.91	0.00	0.00	1077.00	1100.00	0.00
3695.000	614.72	0.36	615.22	296.42	492.75	1103.55	703.70	0.00	0.00	1077.00	1100.00	0.00
3695.000	615.57	0.85	615.84	312.97	737.61	844.07	1453.32	0.00	0.00	1077.00	1100.00	0.00
3696.000	613.36	0.00	613.78	94.39	268.36	782.63	209.01	0.00	0.00	1077.00	1100.00	0.00
3696.000	614.56	1.19	614.92	293.33	466.77	986.75	501.48	0.00	0.00	1077.00	1100.00	0.00
3696.000	614.84	0.29	615.23	298.85	550.48	1084.18	665.34	0.00	0.00	1077.00	1100.00	0.00
3696.000	615.50	0.66	615.88	311.68	729.71	1230.18	1075.11	0.00	0.00	1077.00	1100.00	0.00
3745.000	613.47	0.00	613.86	96.55	272.97	775.44	211.59	0.00	0.00	1077.00	1100.00	0.00
3745.000	614.65	1.19	614.99	295.11	467.23	965.17	522.60	0.00	0.00	1077.00	1100.00	0.00
3745.000	614.95	0.29	615.30	300.88	550.82	1057.65	691.53	0.00	0.00	1077.00	1100.00	0.00
3745.000	615.59	0.65	615.94	313.54	730.44	1205.16	1099.40	0.00	0.00	1077.00	1100.00	0.00
4045.000	613.91	0.00	614.34	107.11	90.93	1038.16	130.91	0.00	0.00	1100.00	1138.00	0.00
4045.000	615.03	1.12	615.36	454.29	427.07	1262.89	265.04	0.00	0.00	1100.00	1138.00	0.00
4045.000	615.36	0.33	615.67	477.65	625.75	1339.00	335.24	0.00	0.00	1100.00	1138.00	0.00
4045.000	616.03	0.67	616.27	525.00	1082.02	1436.86	516.13	0.00	0.00	1100.00	1138.00	0.00
4159.000	614.14	0.00	614.51	211.19	103.22	1018.18	138.60	0.00	0.00	1100.00	1138.00	0.00
4159.000	615.22	1.08	615.48	468.18	491.42	1186.91	276.67	0.00	0.00	1100.00	1138.00	0.00
4159.000	615.54	0.32	615.79	491.61	689.70	1260.14	350.15	0.00	0.00	1100.00	1138.00	0.00
4159.000	616.16	0.62	616.37	525.00	1115.00	1384.81	535.19	0.00	0.00	1100.00	1138.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
4160.000	614.08	0.00	614.54	131.29	101.21	1080.72	78.07	485.00	840.00	1100.00	1138.00	1325.00

4160.000	615.19	1.10	615.50	465.63	425.72	1179.06	350.22	0.00	0.00	1100.00	1138.00	0.00
4160.000	615.52	0.33	615.80	490.05	615.50	1186.48	498.03	0.00	0.00	1100.00	1138.00	0.00
4160.000	616.21	0.69	616.38	525.00	1071.54	1041.23	922.23	0.00	0.00	1100.00	1138.00	0.00
4165.000	614.10	0.00	614.55	147.46	101.46	1080.09	78.45	495.00	830.00	1100.00	1138.00	1325.00
4165.000	615.22	1.12	615.52	466.98	431.43	1169.25	354.33	0.00	0.00	1100.00	1138.00	0.00
4165.000	615.55	0.33	615.82	491.39	621.27	1176.12	502.62	0.00	0.00	1100.00	1138.00	0.00
4165.000	616.23	0.68	616.40	525.00	1073.06	1036.97	924.97	0.00	0.00	1100.00	1138.00	0.00
4166.000	614.21	0.00	614.56	144.53	105.18	1013.34	141.48	415.00	910.00	1100.00	1138.00	1325.00
4166.000	615.29	1.08	615.53	473.00	512.37	1161.78	280.85	0.00	0.00	1100.00	1138.00	0.00
4166.000	615.59	0.31	615.82	495.34	705.57	1240.18	354.24	0.00	0.00	1100.00	1138.00	0.00
4166.000	616.21	0.61	616.41	525.00	1129.28	1362.00	543.72	0.00	0.00	1100.00	1138.00	0.00
4215.000	614.29	0.00	614.63	145.63	109.18	1005.66	145.16	345.00	980.00	1100.00	1138.00	1325.00
4215.000	615.35	1.06	615.57	477.34	530.59	1139.74	284.67	0.00	0.00	1100.00	1138.00	0.00
4215.000	615.65	0.30	615.86	499.45	722.42	1218.80	358.78	0.00	0.00	1100.00	1138.00	0.00
4215.000	616.25	0.60	616.45	525.00	1140.60	1343.81	550.60	0.00	0.00	1100.00	1138.00	0.00
4355.000	614.29	0.00	614.93	120.02	151.29	1014.89	93.82	0.00	0.00	1102.00	1128.00	0.00
4355.000	615.28	0.99	615.83	475.00	352.31	1253.09	349.60	0.00	0.00	1102.00	1128.00	0.00
4355.000	615.63	0.35	616.09	475.00	517.38	1277.61	505.00	0.00	0.00	1102.00	1128.00	0.00
4355.000	616.28	0.65	616.62	475.00	888.79	1318.87	827.34	0.00	0.00	1102.00	1128.00	0.00
4479.000	614.67	0.00	615.16	231.96	160.79	970.44	128.77	0.00	0.00	1102.00	1128.00	0.00
4479.000	615.73	1.06	616.02	475.00	461.53	1046.11	447.36	0.00	0.00	1102.00	1128.00	0.00
4479.000	615.98	0.24	616.26	475.00	606.46	1116.77	576.77	0.00	0.00	1102.00	1128.00	0.00
4479.000	616.50	0.53	616.77	475.00	943.74	1224.63	866.63	0.00	0.00	1102.00	1128.00	0.00
4480.000	614.51	0.00	615.23	161.60	142.81	1008.66	108.53	0.00	0.00	1102.00	1128.00	0.00
4480.000	615.93	1.41	616.04	475.00	705.56	523.86	725.57	0.00	0.00	1102.00	1128.00	0.00
4480.000	616.17	0.24	616.28	475.00	884.73	536.91	878.35	0.00	0.00	1102.00	1128.00	0.00
4480.000	616.66	0.50	616.78	475.00	1273.22	560.84	1200.94	0.00	0.00	1102.00	1128.00	0.00
4485.000	614.58	0.00	615.27	176.85	145.68	990.77	123.55	190.00	1065.00	1102.00	1128.00	1255.00
4485.000	615.94	1.36	616.06	475.00	705.98	523.24	725.77	0.00	0.00	1102.00	1128.00	0.00
4485.000	616.18	0.24	616.30	475.00	885.64	535.62	878.74	0.00	0.00	1102.00	1128.00	0.00
4485.000	616.67	0.49	616.79	475.00	1274.28	559.39	1201.33	0.00	0.00	1102.00	1128.00	0.00
4486.000	614.91	0.00	615.30	190.00	166.18	927.13	166.68	190.00	1065.00	1102.00	1128.00	1255.00
4486.000	615.85	0.94	616.10	475.00	489.45	995.66	469.89	0.00	0.00	1102.00	1128.00	0.00
4486.000	616.09	0.24	616.34	475.00	632.52	1070.85	596.62	0.00	0.00	1102.00	1128.00	0.00
4486.000	616.59	0.50	616.83	475.00	963.36	1191.29	880.35	0.00	0.00	1102.00	1128.00	0.00
4535.000	615.01	0.00	615.36	290.00	177.54	900.50	181.95	290.00	1015.00	1102.00	1128.00	1305.00
4535.000	615.92	0.90	616.14	475.00	505.47	967.04	482.49	0.00	0.00	1102.00	1128.00	0.00
4535.000	616.15	0.24	616.38	475.00	648.40	1043.11	608.49	0.00	0.00	1102.00	1128.00	0.00
4535.000	616.65	0.50	616.87	475.00	978.12	1166.31	890.57	0.00	0.00	1102.00	1128.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
5120.000	615.65	0.00	616.11	291.61	163.70	957.21	139.09	0.00	0.00	1102.00	1128.00	0.00
5120.000	616.38	0.73	616.79	475.00	404.76	1151.36	398.87	0.00	0.00	1102.00	1128.00	0.00
5120.000	616.65	0.27	617.04	475.00	551.04	1216.07	532.90	0.00	0.00	1102.00	1128.00	0.00
5120.000	617.16	0.51	617.51	475.00	881.33	1331.77	821.90	0.00	0.00	1102.00	1128.00	0.00
5705.000	616.48	0.00	617.00	183.94	46.43	1062.04	151.53	0.00	0.00	1070.00	1100.00	0.00
5705.000	617.16	0.68	617.82	304.02	153.53	1434.09	367.39	0.00	0.00	1070.00	1100.00	0.00
5705.000	617.40	0.24	618.12	345.81	220.88	1588.76	490.36	0.00	0.00	1070.00	1100.00	0.00
5705.000	617.87	0.47	618.61	390.40	394.77	1830.00	810.23	0.00	0.00	1070.00	1100.00	0.00
5819.000	616.76	0.00	617.17	165.00	64.13	1012.86	183.00	165.00	1020.00	1070.00	1100.00	1135.00

5819.000	617.63	0.87	618.02	360.00	226.14	1260.18	468.67	360.00	940.00	1070.00	1100.00	1300.00
5819.000	617.94	0.31	618.33	360.00	319.77	1355.09	625.14	360.00	940.00	1070.00	1100.00	1300.00
5819.000	618.42	0.48	618.83	360.00	519.70	1558.61	956.69	360.00	940.00	1070.00	1100.00	1300 00
5820.000	616.39	0.00	617.33	168.96	53.81	1098.13	108.06	360.00	940.00	1070.00	1100.00	1300.00
5820.000	617.75	1.36	618.04	360.00	436.72	801.79	716.49	360.00	940.00	1070.00	1100.00	1300.00
5820.000	618.12	0.36	618.35	360.00	546.55	783.20	970.25	360.00	940.00	1070.00	1100.00	1300.00
5820.000	618.62	0.51	618.85	360.00	761.80	838.74	1434.46	360.00	940.00	1070.00	1100.00	1300.00
5825.000	616.60	0.00	617.39	175.00	81.99	1037.87	140.13	175.00	1015.00	1070.00	1100.00	1190.00
5825.000	617.83	1.23	618.08	355.00	442.31	768.76	743.93	355.00	945.00	1070.00	1100.00	1300.00
5825.000	618.16	0.33	618.38	355.00	547.98	768.62	983.40	355.00	945.00	1070.00	1100.00	1300.00
5825.000	618.65	0.49	618.88	355.00	756.95	837.81	1440.25	355.00	945.00	1070.00	1100.00	1300.00
5826.000	617.15	0.00	617.45	175.00	92.39	939.92	227.69	175.00	1015.00	1070.00	1100.00	1190.00
5826.000	617.77	0.62	618.11	355.00	247.63	1209.78	497.58	355.00	945.00	1070.00	1100.00	1300.00
5826.000	618.08	0.31	618.41	355.00	343.36	1297.12	659.52	355.00	945.00	1070.00	1100.00	1300.00
5826.000	618.56	0.48	618.92	355.00	539.05	1504.12	991.82	355.00	945.00	1070.00	1100.00	1300.00
5875.000	617.21	0.00	617.49	180.00	99.54	926.52	233.93	180.00	1010.00	1070.00	1100.00	1190.00
5875.000	617.85	0.64	618.16	330.00	259.33	1180.48	515.19	330.00	950.00	1070.00	1100.00	1280.00
5875.000	618.15	0.30	618.46	330.00	352.74	1278.41	668.85	330.00	950.00	1070.00	1100.00	1280 00
5875.000	618.62	0.47	618.97	330.00	547.30	1499.32	988.37	330.00	950.00	1070.00	1100.00	1280.00
6065.000	617.43	0.00	618.01	85.00	93.29	1028.33	138.39	85.00	50.00	73.00	100.00	135.00
6065.000	618.09	0.66	618.67	235.00	212.34	1271.76	470.90	0.00	0.00	73.00	100.00	0.00
6065.000	618.39	0.30	618.99	235.00	286.67	1386.26	627.07	0.00	0.00	73.00	100.00	0.00
6065.000	618.89	0.49	619.55	235.00	446.24	1633.74	955.03	0.00	0.00	73.00	100.00	0.00
6140.000	617.91	0.00	618.24	165.00	101.43	892.95	265.62	165.00	50.00	73.00	100.00	215.00
6140.000	618.48	0.57	618.88	235.00	251.35	1155.89	547.76	0.00	0.00	73.00	100.00	0.00
6140.000	618.77	0.29	619.19	235.00	326.61	1270.90	702.48	0.00	0.00	73.00	100.00	0.00
6140.000	619.29	0.52	619.77	235.00	491.50	1506.75	1036.75	0.00	0.00	73.00	100.00	0.00
6167.000	617.95	0.00	618.45	150.00	32.14	987.45	240.41	150.00	50.00	73.00	100.00	200.00
6167.000	618.72	0.77	618.99	235.00	275.15	878.09	801.75	0.00	0.00	73.00	100.00	0.00
6167.000	619.04	0.33	619.32	235.00	379.88	879.77	1040.35	0.00	0.00	73.00	100.00	0.00
6167.000	619.64	0.60	619.93	235.00	633.37	806.12	1595.51	0.00	0.00	73.00	100.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
6220.000	618.36	0.00	618.63	125.00	117.59	872.64	269.78	125.00	50.00	73.00	100.00	175.00
6220.000	618.80	0.44	619.10	235.00	280.33	1072.56	602.11	0.00	0.00	73.00	100.00	0.00
6220.000	619.13	0.33	619.44	235.00	359.47	1178.14	762.39	0.00	0.00	73.00	100.00	0.00
6220.000	619.73	0.60	620.08	235.00	533.18	1391.53	1110.29	0.00	0.00	73.00	100.00	0.00
7493.000	620.04	0.00	620.49	72.89	3.18	1256.82	0.00	75.00	225.00	229.00	298.00	300.00
7493.000	620.73	0.69	621.48	75.00	10.84	1942.73	1.43	75.00	225.00	229.00	298.00	300.00
7493.000	621.08	0.34	621.95	75.00	15.54	2281.60	2.86	75.00	225.00	229.00	298.00	300.00
7493.000	621.71	0.63	622.86	75.00	25.80	3003.00	6.20	75.00	225.00	229.00	298.00	300.00
7505.000	620.06	0.00	620.52	68.93	0.00	1260.00	0.00	0.00	0.00	229.00	298.00	0.00
7505.000	620.75	0.69	621.52	69.00	0.00	1955.00	0.00	0.00	0.00	229.00	298.00	0.00
7505.000	621.09	0.34	622.00	69.00	0.00	2300.00	0.00	0.00	0.00	229.00	298.00	0.00
7505.000	621.71	0.62	622.94	69.00	0.00	3035.00	0.00	0.00	0.00	229.00	298.00	0.00
7565.000	620.17	0.00	620.61	69.00	0.00	1260.00	0.00	0.00	0.00	229.00	298.00	0.00
7565.000	620.93	0.76	621.64	69.00	0.00	1955.00	0.00	0.00	0.00	229.00	298.00	0.00
7565.000	621.29	0.36	622.13	69.00	0.00	2300.00	0.00	0.00	0.00	229.00	298.00	0.00
7565.000	622.01	0.71	623.10	69.00	0.00	3035.00	0.00	0.00	0.00	229.00	298.00	0.00
7577.000	620.22	0.00	620 63	82.27	7.26	1252.68	0.05	85.00	220.00	227.00	298.00	305.00

7577.000	621.06	0.83	621.68	85.00	25.75	1921.85	7.40	85.00	220.00	229.00	298.00	305.00
7577.000	621.47	0.41	622.17	85.00	37.13	2249.05	13.83	85.00	220.00	229.00	298.00	305.00
7577.000	622.28	0.81	623.15	85.00	63.01	2942.10	29.89	85.00	220.00	229.00	298.00	305.00
9150.000	622.54	0.00	622.84	129.45	132.32	930.24	197.44	0.00	0.00	71.00	100.00	0.00
9150.000	623.77	1.23	624.13	132.63	308.08	1261.10	385.83	0.00	0.00	71.00	100.00	0.00
9150.000	624.30	0.53	624.68	133.99	402.60	1415.84	481.56	0.00	0.00	71.00	100.00	0.00
9150.000	625.31	1.02	625.74	136.61	615.55	1731.54	687.92	0.00	0.00	71.00	100.00	0.00
* 9550.000	625.06	0.00	626.16	77.73	0.00	725.01	534.99	0.00	0.00	100.00	120.00	0.00
* 9550.000	625.83	0.77	627.25	87.23	0.00	989.61	965.39	0.00	0.00	100.00	120.00	0.00
* 9550.000	626.22	0.39	627.70	92.00	0.00	1099.32	1200.68	0.00	0.00	100.00	120.00	0.00
* 9550.000	626.84	0.62	628.54	95.68	0.00	1330.45	1704.55	0.00	0.00	100.00	120.00	0.00
9630.000	626.61	0.00	626.78	55.00	15.88	480.02	59.10	55.00	95.00	100.00	121.00	150.00
9630.000	627.94	1.33	628.05	55.00	18.79	467.53	93.68	55.00	95.00	100.00	121.00	150.00
9630.000	628.44	0.50	628.54	55.00	19.94	473.10	106.95	55.00	95.00	100.00	121.00	150.00
9630.000	629.41	0.97	629.50	55.00	22.99	509.08	137.94	55.00	95.00	100.00	121.00	150.00
9704.000	626.67	0.00	627.15	17.50	0.00	555.00	0.00	17.50	100.00	100.00	117.50	117.50
9704.000	627.98	1.30	628.32	17.50	0.00	580.00	0.00	17.50	100.00	100.00	117.50	117.50
9704.000	628.47	0.49	628.79	17.50	0.00	600.00	0.00	17.50	100.00	100.00	117.50	117.50
9704.000	629.44	0.97	629.75	17.50	0.00	670.00	0.00	17.50	100.00	100.00	117.50	117.50
9705.000	626.51	0.00	627.32	17.50	0.00	555.00	0.00	17.50	100.00	100.00	117.50	117.50
9705.000	627.72	1.20	628.59	17.50	0.00	580.00	0.00	17.50	100.00	100.00	117.50	117.50
9705.000	628.17	0.45	629.10	17.50	0.00	600.00	0.00	17.50	100.00	100.00	117.50	117 50
9705.000	629.20	1.03	630.00	17.50	0.00	670.00	0.00	17.50	100.00	100.00	117.50	117.50

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
9756.000	626.91	0.00	627.71	17.50	0.00	555.00	0.00	0.00	0.00	100.00	117.50	0.00
9756.000	628.18	1.27	629.05	17.50	0.00	580.00	0.00	0.00	0.00	100.00	117.50	0.00
9756.000	628.95	0.77	629.65	17.50	0.00	600.00	0.00	0.00	0.00	100.00	117.50	0.00
9756.000	629.84	0.89	630.47	17.50	0.00	670.00	0.00	0.00	0.00	100.00	117.50	0.00
9757.000	627.38	0.00	627.75	17.50	0.00	555.00	0.00	17.50	100.00	100.00	117.50	117.50
9757.000	628.84	1.46	629.11	17.50	0.00	580.00	0.00	17.50	100.00	100.00	117.50	117.50
9757.000	629.45	0.61	629.70	17.50	0.00	600.00	0.00	17.50	100.00	100.00	117.50	117 50
9757.000	630.25	0.80	630.51	17.50	0.00	670.00	0.00	17.50	100.00	100.00	117.50	117.50
10405.000	627.97	0.00	627.99	215.40	176.85	169.91	208.23	0.00	0.00	100.00	117.50	0.00
10405.000	629.21	1.24	629.22	225.00	201.94	137.72	240.34	0.00	0.00	100.00	117.50	0.00
10405.000	629.78	0.57	629.79	225.00	216.12	130.05	253.83	0.00	0.00	100.00	117.50	0.00
10405.000	630.58	0.80	630.59	225.00	249.78	131.04	289.18	0.00	0.00	100.00	117.50	0.00
11205.000	627.85	0.00	628.68	17.50	0.00	555.00	0.00	0.00	0.00	100.00	117.50	0.00
11205.000	629.04	1.19	629.60	17.50	0.00	580.00	0.00	0.00	0.00	100.00	117.50	0.00
11205.000	629.61	0.57	630.10	17.50	0.00	600.00	0.00	0.00	0.00	100.00	117.50	0.00
11205.000	630.40	0.79	630.88	17.50	0.00	670.00	0.00	0.00	0.00	100.00	117.50	0.00
* 11350.000	629.79	0.00	630.19	17.50	0.00	555.00	0.00	0.00	0.00	100.00	117.50	0.00
11350.000	631.32	1.53	631.60	17.50	0.00	580.00	0.00	0.00	0.00	100.00	117.50	0.00
11350.000	632.10	0.78	632.35	17.50	0.00	600.00	0.00	0.00	0.00	100.00	117.50	0.00
11350.000	633.59	1.49	633.81	17.50	0.00	670.00	0.00	0.00	0.00	100.00	117.50	0.00
11500.000	630.24	0.00	630.26	217.32	147.74	234.30	172.96	0.00	0.00	100.00	117.50	0.00
11500.000	631.63	1.39	631.64	225.00	179.19	191.05	209.76	0.00	0.00	100.00	117.50	0.00
11500.000	632.38	0.75	632.38	225.00	195.59	178.53	225.88	0.00	0.00	100.00	117.50	0.00
11500.000	633.83	1.46	633.84	225.00	233.61	171.54	264.84	0.00	0.00	100.00	117.50	0.00
11550.000	630.18	0.00	630.31	216.66	332.92	538.33	388.75	0.00	0.00	100.00	117.50	0.00

11550.000	631.56	1.38	631.68	225.00	600.64	650.29	704.07	0.00	0.00	100.00	117.50	0.00
11550.000	632.31	0.75	632.42	225.00	746.92	689.65	863.43	0.00	0.00	100.00	117.50	0.00
11550.000	633.77	1.46	633.87	225.00	1055.96	781.19	1197.85	0.00	0.00	100.00	117.50	0.00
11750.000	630.31	0.00	630.42	218.14	338.44	524.21	397.35	0.00	0.00	100.00	117.50	0.00
11750.000	631.67	1.36	631.78	225.00	606.05	640.07	708.88	0.00	0.00	100.00	117.50	0.00
11750.000	632.40	0.73	632.51	225.00	751.02	682.06	866.92	0.00	0.00	100.00	117.50	0.00
11750.000	633.85	1.44	633.94	225.00	1058.62	776.37	1200.01	0.00	0.00	100.00	117.50	0.00
12449.000	630.62	0.00	631.23	40.00	0.00	970.35	289.65	40.00	100.00	100.00	117.50	140.00
12449.000	631.71	1.09	632.73	40.00	0.00	1442.46	512.54	40.00	100.00	100.00	117.50	140.00
12449.000	632.27	0.56	633.46	40.00	0.00	1664.97	635.03	40.00	100.00	100.00	117.50	140.00
12449.000	633.40	1.13	634.94	40.00	0.00	2126.07	908.93	40.00	100.00	100.00	117.50	140.00
12450.000	630.87	0.00	631.29	40.00	0.00	1260.00	0.00	40.00	100.00	100.00	140.00	140.00
12450.000	632.03	1.16	632.80	40.00	0.00	1955.00	0.00	40.00	100.00	100.00	140.00	140.00
12450.000	632.56	0.53	633.53	40.00	0.00	2300.00	0.00	40.00	100.00	100.00	140.00	140.00
12450.000	633.49	0.92	634.96	40.00	0.00	3035.00	0.00	40.00	100.00	100.00	140.00	140.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
12650.000	631.25	0.00	631.63	40.00	0.00	1260.00	0.00	40.00	100.00	100.00	140.00	140.00
12650.000	632.73	1.49	633.41	40.00	0.00	1955.00	0.00	40.00	100.00	100.00	140.00	140.00
12650.000	633.46	0.73	634.31	40.00	0.00	2300.00	0.00	40.00	100.00	100.00	140.00	140.00
12650.000	634.93	1.48	636.31	40.00	0.00	3035.00	0.00	40.00	100.00	100.00	140.00	140.00
12850.000	631.65	0.00	631.94	40.00	0.00	1260.00	0.00	40.00	100.00	100.00	140.00	140.00
12850.000	633.42	1.78	633.88	40.00	0.00	1955.00	0.00	40.00	100.00	100.00	140.00	140.00
12850.000	634.32	0.90	634.85	40.00	0.00	2300.00	0.00	40.00	100.00	100.00	140.00	140.00
12850.000	636.42	2.10	637.05	40.00	0.00	3035.00	0.00	40.00	100.00	100.00	140.00	140.00
13600.000	632.97	0.00	633.43	159.57	164.48	1089.93	5.58	0.00	0.00	261.00	300.00	0.00
13600.000	634.78	1.81	635.15	178.17	477.17	1446.99	30.85	0.00	0.00	261.00	300.00	0.00
13600.000	635.68	0.89	636.01	187.28	642.29	1604.87	52.84	0.00	0.00	261.00	300.00	0.00
13600.000	637.68	2.01	637.95	229.58	996.74	1893.91	144.34	0.00	0.00	261.00	300.00	0.00
14975.000	636.21	0.00	636.81	212.36	43.05	1043.74	173.21	0.00	0.00	277.00	300.00	0.00
14975.000	637.24	1.03	637.91	220.60	80.34	1383.01	491.66	0.00	0.00	277.00	300.00	0.00
14975.000	637.77	0.53	638.43	224.83	100.15	1511.96	687.89	0.00	0.00	277.00	300.00	0.00
14975.000	639.08	1.31	639.63	235.36	145.55	1709.21	1180.24	0.00	0.00	277.00	300.00	0.00
16700.000	638.98	0.00	639.14	327.29	401.88	845.15	12.97	0.00	0.00	266.00	300.00	0.00
16700.000	640.15	1.18	640.32	338.52	786.88	1115.22	52.90	0.00	0.00	266.00	300.00	0.00
16700.000	640.63	0.48	640.81	342.64	982.99	1238.24	78.77	0.00	0.00	266.00	300.00	0.00
16700.000	641.58	0.95	641.76	350.30	1410.62	1479.92	144.46	0.00	0.00	266.00	300.00	0.00
17600.000	640.05	0.00	640.53	167.86	234.88	1025.11	0.00	0.00	0.00	266.00	300.00	0.00
17600.000	641.19	1.14	641.70	311.32	558.70	1386.14	10.15	0.00	0.00	266.00	300.00	0.00
17600.000	641.66	0.47	642.15	328.11	750.37	1523.17	26.46	0.00	0.00	266.00	300.00	0.00
17600.000	642.57	0.91	643.03	336.82	1189.82	1770.60	74.58	0.00	0.00	266.00	300.00	0.00
18545.000	641.94	0.00	642.24	60.00	18.41	1218.25	23.34	60.00	245.00	250.00	300.00	305.00
18545.000	643.10	1.16	643.60	60.00	28.84	1891.53	34.63	60.00	245.00	250.00	300.00	305.00
18545.000	643.55	0.45	644.15	60.00	33.84	2226.15	40.02	60.00	245.00	250.00	300.00	305.00
18545.000	644.35	0.80	645.20	60.00	44.21	2939.64	51.16	60.00	245.00	250.00	300.00	305.00
18565.000	641.93	0.00	642.28	50.00	0.00	1260.00	0.00	0.00	0.00	250.00	300.00	0.00
18565.000	643.07	1.15	643.65	50.00	0.00	1955.00	0.00	0.00	0.00	250.00	300.00	0.00
18565.000	643.51	0.44	644.22	50.00	0.00	2300.00	0.00	0.00	0.00	250.00	300.00	0.00
18565.000	644.20	0.69	645.42	50.00	0.00	3035.00	0.00	0.00	0.00	250.00	300.00	0.00
18602.000	641.94	0.00	642.29	50.00	0.00	1260.00	0.00	0.00	0.00	250.00	300.00	0.00

18602.000	643.10	1.16	643.67	50.00	0.00	1955.00	0.00	0.00	0.00	250.00	300.00	0.00
18602.000	643.54	0.45	644.25	50.00	0.00	2300.00	0.00	0.00	0.00	250.00	300.00	0.00
18602.000	644.27	0.72	645.49	50.00	0.00	3035.00	0.00	0.00	0.00	250.00	300.00	0.00
18622.000	642.17	0.00	642.32	90.00	138.62	951.58	169.80	90.00	230.00	250.00	300.00	320.00
18622.000	643.49	1.32	643.72	90.00	233.77	1449.15	272.08	90.00	230.00	250.00	300.00	320.00
18622.000	644.04	0.55	644.30	90.00	280.97	1696.72	322.31	90.00	230.00	250.00	300.00	320.00
18622.000	645.26	1.22	645.59	90.00	382.66	2223.87	428.47	90.00	230.00	250.00	300.00	320.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
19000.000	642.28	0.00	642.83	207.60	316.46	784.14	159.40	0.00	0.00	274.00	300.00	0.00
19000.000	643.80	1.52	644.01	258.01	812.88	760.01	382.11	0.00	0.00	274.00	300.00	0.00
19000.000	644.41	0.61	644.58	274.38	1038.73	783.61	477.66	0.00	0.00	274.00	300.00	0.00
19000.000	645.70	1.30	645.83	327.01	1512.30	826.01	696.69	0.00	0.00	274.00	300.00	0.00
20755.000	644.78	0.00	644.86	345.00	253.18	447.58	559.24	345.00	95.00	279.00	300.00	440.00
20755.000	645.38	0.60	645.48	430.00	378.21	556.35	1020.44	430.00	120.00	279.00	300.00	550.00
20755.000	645.74	0.36	645.83	430.00	490.04	585.67	1224.29	430.00	120.00	279.00	300.00	550.00
20755.000	646.60	0.86	646.68	430.00	751.13	621.24	1662.63	430.00	120.00	279.00	300.00	550.00
20905.000	644.73	0.00	645.20	270.06	75.31	746.52	438.17	375.00	75.00	279.00	300.00	450.00
20905.000	645.39	0.66	645.79	335.39	286.62	854.99	813.39	375.00	75.00	279.00	300.00	450.00
20905.000	645.76	0.38	646.09	370.23	443.14	861.93	994.93	375.00	75.00	279.00	300.00	450.00
20905.000	646.64	0.87	646.86	375.00	849.58	846.05	1339.37	375.00	75.00	279.00	300.00	450.00
* 21055.000	645.76	0.00	646.41	196.63	12.07	821.37	426.56	300.00	150.00	279.00	300.00	450.00
* 21055.000	646.16	0.41	647.04	218.72	56.57	1090.18	808.25	300.00	150.00	279.00	300.00	450.00
* 21055.000	646.50	0.34	647.28	257.89	120.08	1129.48	1050.44	300.00	150.00	279.00	300.00	450.00
* 21055.000	646.78	0.28	647.73	276.57	223.84	1349.51	1461.64	300.00	150.00	279.00	300.00	450.00
21355.000	646.95	0.00	647.41	124.50	402.81	604.89	252.30	0.00	0.00	282.00	300.00	0.00
21355.000	647.72	0.77	648.29	147.06	705.46	809.56	439.98	0.00	0.00	282.00	300.00	0.00
21355.000	647.81	0.08	648.54	149.51	838.04	937.82	524.13	0.00	0.00	282.00	300.00	0.00
21355.000	648.34	0.54	649.19	165.23	1172.13	1124.54	738.33	0.00	0.00	282.00	300.00	0.00
21391.000	649.38	0.00	649.46	150.00	526.46	405.64	327.90	150.00	200.00	282.00	300.00	350.00
21391.000	650.33	0.95	650.45	150.00	854.66	571.92	528.42	150.00	200.00	282.00	300.00	350.00
21391.000	650.65	0.32	650.80	150.00	1017.33	655.20	627.47	150.00	200.00	282.00	300.00	350.00
21391.000	651.30	0.65	651.50	150.00	1369.90	824.21	840.90	150.00	200.00	282.00	300.00	350.00
22615.000	649.48	0.00	649.49	351.40	970.13	142.84	147.03	0.00	0.00	281.00	300.00	0.00
22615.000	650.47	0.99	650.49	356.37	1496.35	208.55	250.10	0.00	0.00	281.00	300.00	0.00
22615.000	650.82	0.35	650.84	358.10	1756.49	240.97	302.54	0.00	0.00	281.00	300.00	0.00
22615.000	651.53	0.71	651.55	361.64	2307.01	307.66	420.33	0.00	0.00	281.00	300.00	0.00
-9550.000	625.06	0.00	625.80	77.73	0.00	565.06	694.94	0.00	0.00	100.00	120.00	0.00
-9550.000	625.83	0.77	626.80	87.23	0.00	744.52	1210.48	0.00	0.00	100.00	120.00	0.00
-9550.000	626.22	0.39	627.24	92.00	0.00	815.50	1484.50	0.00	0.00	100.00	120.00	0.00
-9550.000	626.84	0.62	628.05	95.68	0.00	968.01	2066.99	0.00	0.00	100.00	120.00	0.00
250.000	626.12	0.00	626.31	35.00	0.00	705.00	0.00	0.00	0.00	332.00	367.00	0.00
250.000	626.94	0.82	627.50	35.00	0.00	1375.00	0.00	0.00	0.00	332.00	367.00	0.00
250.000	627.21	0.27	628.00	35.00	0.00	1700.00	0.00	0.00	0.00	332.00	367.00	0.00
250.000	627.68	0.48	629.02	35.00	0.00	2365.00	0.00	0.00	0.00	332.00	367.00	0.00
332.000	626.15	0.00	626.34	35.00	0.00	705.00	0.00	0.00	0.00	332.00	367.00	0.00
332.000	627.02	0.88	627.57	35.00	0.00	1375.00	0.00	0.00	0.00	332.00	367.00	0.00
332.000	627.33	0.30	628.09	35.00	0.00	1700.00	0.00	0.00	0.00	332.00	367.00	0.00
332.000	632.99	5.66	633.19	165.85	30.78	1769.39	564.83	0.00	0.00	332.00	367.00	0.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	890.000	628.72	0.00	629.80	41.86	0.00	681.60	23.40	0.00	0.00	332.00	367.00	0.00
*	890.000	629.96	1.24	631.50	49.36	0.34	1268.39	106.27	0.00	0.00	332.00	367.00	0.00
*	890.000	630.47	0.51	632.17	52.24	1.27	1537.29	161.44	0.00	0.00	332.00	367.00	0.00
	890.000	632.60	2.13	633.71	61.54	10.95	1941.57	412.48	0.00	0.00	332.00	367.00	0.00
	11550.000	629.88	0.00	629.97	213.13	390.00	422.50	447.49	0.00	0.00	100.00	117.50	0.00
	11550.000	631.62	1.74	631.69	225.00	695.46	445.35	814.20	0.00	0.00	100.00	117.50	0.00
	11550.000	632.31	0.69	632.38	225.00	848.73	470.16	981.11	0.00	0.00	100.00	117.50	0.00
	11550.000	633.78	1.47	633.85	225.00	1177.41	522.08	1335.51	0.00	0.00	100.00	117.50	0.00

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BLISS DRAIN, 10-YEAR FLO

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.000	0.00	0.00	0.00	594.30	1260.00	605.46	0.00	605.63	2.87	3.42	432.97	743.38
0.000	0.00	0.00	0.00	594.30	1955.00	606.69	0.00	606.90	3.36	4.04	849.75	1065.97
0.000	0.00	0.00	0.00	594.30	2300.00	607.11	0.00	607.33	3.59	4.29	992.55	1214.06
0.000	0.00	0.00	0.00	594.30	3035.00	607.64	0.00	607.92	4.55	4.99	1172.75	1423.16
15.000	15.00	0.00	0.00	594.30	1260.00	605.46	0.00	605.63	2.87	3.42	433.31	744.08
15.000	15.00	0.00	0.00	594.30	1955.00	606.69	0.00	606.90	3.36	4.04	846.16	1066.00
15.000	15.00	0.00	0.00	594.30	2300.00	607.11	0.00	607.34	3.59	4.29	986.98	1213.18
15.000	15.00	0.00	0.00	594.30	3035.00	607.65	0.00	607.93	4.56	5.00	1165.01	1421.21
115.000	100.00	0.00	0.00	595.30	1260.00	605.46	0.00	605.69	4.53	3.96	359.54	592.00
115.000	100.00	0.00	0.00	595.30	1955.00	606.62	0.00	607.00	6.41	5.17	479.84	771.90
115.000	100.00	0.00	0.00	595.30	2300.00	607.01	0.00	607.45	7.16	5.62	592.57	859.25
115.000	100.00	0.00	0.00	595.30	3035.00	607.49	0.00	608.08	9.45	6.68	730.34	987.51
290.000	175.00	0.00	0.00	599.22	1260.00	605.43	0.00	605.88	13.22	5.69	285.69	346.57
290.000	175.00	0.00	0.00	599.22	1955.00	606.67	0.00	607.20	13.09	6.46	467.42	540.45
290.000	175.00	0.00	0.00	599.22	2300.00	607.09	0.00	607.66	13.52	6.84	543.46	625.43
290.000	175.00	0.00	0.00	599.22	3035.00	607.61	0.00	608.34	16.77	7.97	642.86	741.14
990.000	700.00	0.00	0.00	600.72	1260.00	606.43	0.00	607.02	18.89	6.39	236.76	289.93
990.000	700.00	0.00	0.00	600.72	1955.00	607.63	0.00	608.36	19.19	7.41	378.96	446.32
990.000	700.00	0.00	0.00	600.72	2300.00	608.07	0.00	608.84	19.40	7.80	450.62	522.14
990.000	700.00	0.00	0.00	600.72	3035.00	608.80	0.00	609.68	20.50	8.58	582.54	670.34
1690.000	1400.00	0.00	0.00	602.22	1260.00	608.65	0.00	609.05	11.30	5.39	310.04	374.81
1690.000	1400.00	0.00	0.00	602.22	1955.00	609.92	0.00	610.37	10.93	6.05	506.34	591.30
1690.000	1400.00	0.00	0.00	602.22	2300.00	610.40	0.00	610.88	11.00	6.34	584.25	693.42
1690.000	1400.00	0.00	0.00	602.22	3035.00	611.27	0.00	611.80	11.36	6.93	724.83	900.43
1790.000	100.00	0.00	0.00	602.42	1260.00	608.75	0.00	609.17	12.10	5.52	298.85	362.15
1790.000	100.00	0.00	0.00	602.42	1955.00	609.99	0.00	610.51	12.63	6.42	437.42	550.03
1790.000	100.00	0.00	0.00	602.42	2300.00	610.44	0.00	611.03	13.31	6.88	488.67	630.44
1790.000	100.00	0.00	0.00	602.42	3035.00	611.26	0.00	611.99	14.85	7.79	580.46	787.55
1840.000	50.00	0.00	0.00	602.52	1260.00	608.80	0.00	609.24	12.70	5.62	281.01	353.52
1840.000	50.00	0.00	0.00	602.52	1955.00	610.00	0.00	610.61	14.33	6.78	384.78	516.39
1840.000	50.00	0.00	0.00	602.52	2300.00	610.43	0.00	611.14	15.50	7.35	422.99	584.13
1840.000	50.00	0.00	0.00	602.52	3035.00	611.21	0.00	612.13	18.10	8.49	490.61	713.38
1865.000	25.00	0.00	0.00	602.52	1260.00	608.82	0.00	609.27	12.73	5.65	270.65	353.18
1865.000	25.00	0.00	0.00	602.52	1955.00	610.00	0.00	610.66	15.05	6.95	358.53	503.87
1865.000	25.00	0.00	0.00	602.52	2300.00	610.43	0.00	611.20	16.58	7.59	390.51	564.83

1865.000	25.00	0.00	0.00	602.52	3035.00	611.17	0.00	612.22	20.02	8.90	[illegible]6.32	678.26

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1890.000	25.00	0.00	0.00	602.62	1260.00	608.85	0.00	609.57	6.51	7.71	237.31	493.92
1890.000	25.00	0.00	0.00	602.62	1955.00	610.02	0.00	611.02	7.18	9.24	325.75	729.58
1890.000	25.00	0.00	0.00	602.62	2300.00	610.45	0.00	611.59	7.68	9.97	361.22	829.75
1890.000	25.00	0.00	0.00	602.62	3035.00	611.20	0.00	612.65	8.83	11.44	424.95	1021.10
1940.000	50.00	0.00	0.00	601.92	1260.00	608.88	0.00	609.62	5.94	7.41	226.92	517.06
1940.000	50.00	0.00	0.00	601.92	1955.00	610.06	0.00	611.14	7.02	9.11	297.41	737.67
1940.000	50.00	0.00	0.00	601.92	2300.00	610.49	0.00	611.76	7.74	9.95	323.30	826.65
1940.000	50.00	0.00	0.00	601.92	3035.00	611.25	0.00	612.97	9.37	11.67	368.63	991.72
1973.000	33.00	0.00	0.00	601.92	1260.00	609.11	0.00	609.67	17.72	6.57	240.67	299.31
1973.000	33.00	0.00	0.00	601.92	1955.00	610.46	0.00	611.21	18.93	7.76	321.38	449.38
1973.000	33.00	0.00	0.00	601.92	2300.00	610.99	0.00	611.84	19.95	8.34	353.17	514.90
1973.000	33.00	0.00	0.00	601.92	3035.00	611.99	0.00	613.08	21.96	9.47	413.29	647.64
2023.000	50.00	0.00	0.00	601.92	1260.00	609.23	0.00	609.76	16.37	6.39	247.74	311.43
2023.000	50.00	0.00	0.00	601.92	1955.00	610.59	0.00	611.30	17.65	7.58	329.33	465.36
2023.000	50.00	0.00	0.00	601.92	2300.00	611.13	0.00	611.94	18.62	8.15	361.75	533.00
2023.000	50.00	0.00	0.00	601.92	3035.00	612.16	0.00	613.19	20.49	9.25	423.32	670.52
2448.000	425.00	0.00	0.00	603.92	1260.00	609.91	609.79	610.97	42.58	8.80	184.08	193.09
2448.000	425.00	0.00	0.00	603.92	1955.00	611.54	0.00	612.12	20.66	7.42	419.72	430.08
2448.000	425.00	0.00	0.00	603.92	2300.00	612.22	0.00	612.72	16.42	7.07	518.76	567.66
2448.000	425.00	0.00	0.00	603.92	3035.00	613.48	0.00	613.91	12.19	6.79	701.41	869.40
2709.000	261.00	0.00	0.00	605.91	1260.00	611.24	0.00	611.80	22.59	6.90	237.46	265.10
2709.000	261.00	0.00	0.00	605.91	1955.00	611.98	0.00	612.86	30.71	8.81	296.55	352.81
2709.000	261.00	0.00	0.00	605.91	2300.00	612.49	0.00	613.40	29.36	9.12	349.96	424.48
2709.000	261.00	0.00	0.00	605.91	3035.00	613.64	0.00	614.44	22.59	8.95	512.82	638.58
2785.000	76.00	0.00	0.00	605.91	1260.00	611.47	0.00	611.96	18.64	6.47	255.12	291.85
2785.000	76.00	0.00	0.00	605.91	1955.00	612.37	0.00	613.08	23.04	7.98	333.51	407.33
2785.000	76.00	0.00	0.00	605.91	2300.00	612.86	0.00	613.61	22.87	8.36	381.39	480.96
2785.000	76.00	0.00	0.00	605.91	3035.00	613.77	0.00	614.63	22.60	9.06	472.65	638.35
2790.000	5.60	611.40	611.40	605.91	1260.00	611.47	0.00	611.96	18.61	6.46	255.27	292.07
2790.000	5.60	611.40	611.40	605.91	1955.00	612.37	0.00	613.08	23.12	7.99	333.02	406.61
2790.000	5.60	611.40	611.40	605.91	2300.00	612.85	0.00	613.61	23.08	8.39	378.48	478.70
2790.000	5.60	611.40	611.40	605.91	3035.00	613.75	0.00	614.63	23.16	9.15	463.93	630.64
2840.000	50.00	0.00	0.00	605.91	1260.00	611.60	0.00	612.05	17.02	6.27	264.06	305.40
2840.000	50.00	0.00	0.00	605.91	1955.00	612.59	0.00	613.19	19.46	7.50	380.64	443.22
2840.000	50.00	0.00	0.00	605.91	2300.00	613.20	0.00	613.73	16.44	7.34	500.49	567.17
2840.000	50.00	0.00	0.00	605.91	3035.00	614.30	0.00	614.75	12.72	7.11	714.04	850.85
3090.000	250.00	0.00	0.00	606.26	1260.00	612.01	0.00	612.47	16.38	5.76	256.92	311.29
3090.000	250.00	0.00	0.00	606.26	1955.00	613.10	0.00	613.65	16.62	6.63	424.36	479.54
3090.000	250.00	0.00	0.00	606.26	2300.00	613.67	0.00	614.11	13.30	6.30	631.92	630.72
3090.000	250.00	0.00	0.00	606.26	3035.00	614.76	0.00	615.02	7.96	5.40	1066.41	1075.53

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3164.000	74.00	0.00	0.00	606.26	1260.00	612.16	0.00	612.59	14.77	5.58	264.27	327.83
3164.000	74.00	0.00	0.00	606.26	1955.00	613.31	0.00	613.77	13.63	6.15	495.61	529.50
3164.000	74.00	0.00	0.00	606.26	2300.00	613.84	0.00	614.20	11.13	5.86	700.46	689.35
3164.000	74.00	0.00	0.00	606.26	3035.00	614.83	0.00	615.08	7.40	5.24	1099.34	1115.77
3165.000	1.00	609.56	613.50	606.26	1260.00	612.12	0.00	612.60	56.44	5.87	234.08	167.72
3165.000	1.00	609.56	613.50	606.26	1955.00	613.44	0.00	613.78	70.58	5.53	449.22	232.70
3165.000	1.00	609.56	613.50	606.26	2300.00	614.05	0.00	614.23	34.20	4.10	720.24	393.31

3165.000	1.00	609.56	613.50	606.26	3035.00	614.97	0.00	615.09	17.44	3.23	1087.81	726.68
3170.000	5.40	609.56	613.50	606.26	1260.00	612.18	0.00	612.64	54.49	5.76	241.12	170.69
3170.000	5.40	609.56	613.50	606.26	1955.00	613.53	0.00	613.82	60.51	5.17	484.54	251.33
3170.000	5.40	609.56	613.50	606.26	2300.00	614.07	0.00	614.24	33.54	4.07	725.32	397.14
3170.000	5.40	609.56	613.50	606.26	3035.00	614.98	0.00	615.10	17.32	3.22	1090.20	729.20
3171.000	1.00	0.00	0.00	606.26	1260.00	612.24	0.00	612.64	13.80	5.45	270.72	339.15
3171.000	1.00	0.00	0.00	606.26	1955.00	613.45	0.00	613.86	12.21	5.90	522.40	559.56
3171.000	1.00	0.00	0.00	606.26	2300.00	613.97	0.00	614.29	9.70	5.55	753.99	738.38
3171.000	1.00	0.00	0.00	606.26	3035.00	614.90	0.00	615.13	6.96	5.11	1127.41	1150.73
3220.000	49.00	0.00	0.00	606.26	1260.00	612.33	0.00	612.71	12.74	5.30	287.39	353.04
3220.000	49.00	0.00	0.00	606.26	1955.00	613.57	0.00	613.92	10.65	5.58	592.13	598.94
3220.000	49.00	0.00	0.00	606.26	2300.00	614.04	0.00	614.34	9.04	5.39	781.88	765.00
3220.000	49.00	0.00	0.00	606.26	3035.00	614.95	0.00	615.17	6.65	5.02	1148.31	1177.16
3495.000	275.00	0.00	0.00	606.80	1260.00	612.58	0.00	613.27	23.95	7.58	219.76	257.47
3495.000	275.00	0.00	0.00	606.80	1955.00	613.80	0.00	614.37	19.28	7.76	482.90	445.27
3495.000	275.00	0.00	0.00	606.80	2300.00	614.25	0.00	614.71	16.09	7.40	645.34	573.31
3495.000	275.00	0.00	0.00	606.80	3035.00	615.11	0.00	615.44	11.57	6.77	955.05	892.22
3574.000	79.00	0.00	0.00	606.80	1260.00	612.89	0.00	613.45	18.86	6.97	253.49	290.16
3574.000	79.00	0.00	0.00	606.80	1955.00	614.11	0.00	614.52	13.89	6.79	573.05	524.51
3574.000	79.00	0.00	0.00	606.80	2300.00	614.44	0.00	614.83	13.49	6.90	681.33	626.16
3574.000	79.00	0.00	0.00	606.80	3035.00	615.19	0.00	615.53	11.56	6.81	918.91	892.62
3575.000	1.00	612.40	614.40	606.80	1260.00	612.88	0.00	613.46	24.77	6.95	242.65	253.18
3575.000	1.00	612.40	614.40	606.80	1955.00	614.04	0.00	614.55	23.07	7.34	524.84	407.06
3575.000	1.00	612.40	614.40	606.80	2300.00	614.59	0.00	614.85	28.19	5.71	684.20	433.15
3575.000	1.00	612.40	614.40	606.80	3035.00	615.32	0.00	615.54	24.43	5.31	894.15	614.08
3580.000	5.40	612.40	614.40	606.80	1260.00	612.90	0.00	613.47	24.70	6.94	242.21	253.52
3580.000	5.40	612.40	614.40	606.80	1955.00	614.06	0.00	614.56	22.93	7.32	525.21	408.31
3580.000	5.40	612.40	614.40	606.80	2300.00	614.60	0.00	614.86	28.24	5.71	681.18	432.81
3580.000	5.40	612.40	614.40	606.80	3035.00	615.33	0.00	615.56	24.63	5.33	887.63	611.53
3581.000	1.00	0.00	0.00	606.80	1260.00	612.91	0.00	613.48	18.62	6.94	254.35	291.96
3581.000	1.00	0.00	0.00	606.80	1955.00	614.21	0.00	614.57	12.42	6.48	604.54	554.80
3581.000	1.00	0.00	0.00	606.80	2300.00	614.54	0.00	614.90	12.37	6.66	705.55	653.94
3581.000	1.00	0.00	0.00	606.80	3035.00	615.27	0.00	615.59	10.87	6.64	936.36	920.58

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3630.000	49.00	0.00	0.00	607.40	1260.00	613.07	0.00	613.58	20.66	6.68	255.37	277.19
3630.000	49.00	0.00	0.00	607.40	1955.00	614.16	0.00	614.70	19.96	7.45	435.75	437.57
3630.000	49.00	0.00	0.00	607.40	2300.00	614.48	0.00	615.03	20.15	7.74	527.87	512.39
3630.000	49.00	0.00	0.00	607.40	3035.00	615.22	0.00	615.70	17.12	7.66	743.67	733.41
3689.000	59.00	0.00	0.00	607.40	1260.00	613.25	0.00	613.70	17.92	6.36	270.93	297.69
3689.000	59.00	0.00	0.00	607.40	1955.00	614.38	0.00	614.82	16.00	6.83	500.69	488.79
3689.000	59.00	0.00	0.00	607.40	2300.00	614.70	0.00	615.15	16.19	7.09	594.17	571.55
3689.000	59.00	0.00	0.00	607.40	3035.00	615.38	0.00	615.80	14.97	7.26	799.83	784.42
3690.000	1.00	612.10	620.00	607.40	1260.00	613.14	0.00	613.75	23.76	7.23	242.83	258.50
3690.000	1.00	612.10	620.00	607.40	1955.00	614.28	0.00	614.87	52.85	7.73	429.13	268.93
3690.000	1.00	612.10	620.00	607.40	2300.00	614.63	0.00	615.18	54.73	7.87	516.49	310.90
3690.000	1.00	612.10	620.00	607.40	3035.00	615.54	0.00	615.82	44.76	5.58	772.78	453.63
3695.000	5.40	612.10	620.00	607.40	1260.00	613.15	0.00	613.76	23.62	7.21	243.62	259.28
3695.000	5.40	612.10	620.00	607.40	1955.00	614.36	0.00	614.90	49.74	7.50	448.71	277.21
3695.000	5.40	612.10	620.00	607.40	2300.00	614.72	0.00	615.22	50.21	7.54	540.67	324.58
3695.000	5.40	612.10	620.00	607.40	3035.00	615.57	0.00	615.84	43.81	5.53	778.33	458.55
3696.000	1.00	0.00	0.00	607.40	1260.00	613.36	0.00	613.78	16.26	6.15	282.13	312.47

3696.000	1.00	0.00	0.00	607.40	1955.00	614.56	0.00	614.92	13.46	6.37	551.96	532.96
3696.000	1.00	0.00	0.00	607.40	2300.00	614.84	0.00	615.23	14.17	6.72	635.40	611.04
3696.000	1.00	0.00	0.00	607.40	3035.00	615.50	0.00	615.88	13.55	6.98	834.91	824.40
3745.000	49.00	0.00	0.00	607.40	1260.00	613.47	0.00	613.86	15.09	5.99	291.12	324.37
3745.000	49.00	0.00	0.00	607.40	1955.00	614.65	0.00	614.99	12.31	6.15	578.73	557.21
3745.000	49.00	0.00	0.00	607.40	2300.00	614.95	0.00	615.30	12.84	6.46	666.38	641.82
3745.000	49.00	0.00	0.00	607.40	3035.00	615.59	0.00	615.94	12.49	6.75	864.54	858.92
4045.000	300.00	0.00	0.00	608.85	1260.00	613.91	0.00	614.34	16.10	5.67	271.53	313.98
4045.000	300.00	0.00	0.00	608.85	1955.00	615.03	0.00	615.36	11.86	5.59	652.92	567.79
4045.000	300.00	0.00	0.00	608.85	2300.00	615.36	0.00	615.67	11.19	5.63	801.73	687.45
4045.000	300.00	0.00	0.00	608.85	3035.00	616.03	0.00	616.27	9.16	5.45	1140.79	1002.60
4159.000	114.00	0.00	0.00	608.85	1260.00	614.14	0.00	614.51	13.22	5.30	305.22	346.50
4159.000	114.00	0.00	0.00	608.85	1955.00	615.22	0.00	615.48	9.43	5.09	740.53	636.66
4159.000	114.00	0.00	0.00	608.85	2300.00	615.54	0.00	615.79	8.97	5.14	894.14	767.91
4159.000	114.00	0.00	0.00	608.85	3035.00	616.16	0.00	616.37	8.03	5.16	1205.54	1071.29
4160.000	1.00	611.15	616.00	608.85	1260.00	614.08	0.00	614.54	20.89	5.80	279.11	275.67
4160.000	1.00	611.15	616.00	608.85	1955.00	615.19	0.00	615.50	36.16	5.55	683.00	325.11
4160.000	1.00	611.15	616.00	608.85	2300.00	615.52	0.00	615.80	36.38	5.51	828.65	381.34
4160.000	1.00	611.15	616.00	608.85	3035.00	616.21	0.00	616.38	33.51	4.55	1166.01	524.30
4165.000	5.40	611.15	616.00	608.85	1260.00	614.10	0.00	614.55	20.80	5.79	280.52	276.27
4165.000	5.40	611.15	616.00	608.85	1955.00	615.22	0.00	615.52	35.56	5.50	690.78	327.84
4165.000	5.40	611.15	616.00	608.85	2300.00	615.55	0.00	615.82	35.72	5.45	836.93	384.84
4165.000	5.40	611.15	616.00	608.85	3035.00	616.23	0.00	616.40	33.03	4.52	1171.74	528.05

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4166.000	1.00	0.00	0.00	608.85	1260.00	614.21	0.00	614.56	12.54	5.21	308.30	355.77
4166.000	1.00	0.00	0.00	608.85	1955.00	615.29	0.00	615.53	8.72	4.93	771.52	662.11
4166.000	1.00	0.00	0.00	608.85	2300.00	615.59	0.00	615.82	8.46	5.02	919.34	790.59
4166.000	1.00	0.00	0.00	608.85	3035.00	616.21	0.00	616.41	7.56	5.04	1235.44	1103.91
4215.000	49.00	0.00	0.00	608.85	1260.00	614.29	0.00	614.63	11.72	5.09	319.75	368.01
4215.000	49.00	0.00	0.00	608.85	1955.00	615.35	0.00	615.57	8.13	4.79	799.67	685.70
4215.000	49.00	0.00	0.00	608.85	2300.00	615.65	0.00	615.86	7.94	4.89	947.25	816.05
4215.000	49.00	0.00	0.00	608.85	3035.00	616.25	0.00	616.45	7.20	4.94	1260.03	1131.16
4355.000	140.00	0.00	0.00	608.40	1260.00	614.29	0.00	614.93	20.45	6.99	226.78	278.60
4355.000	140.00	0.00	0.00	608.40	1955.00	615.28	615.12	615.83	18.02	7.33	540.77	460.54
4355.000	140.00	0.00	0.00	608.40	2300.00	615.63	0.00	616.09	15.78	7.09	705.76	578.98
4355.000	140.00	0.00	0.00	608.40	3035.00	616.28	0.00	616.62	12.48	6.70	1013.29	858.97
4479.000	124.00	0.00	0.00	608.40	1260.00	614.67	0.00	615.16	15.00	6.26	288.01	325.31
4479.000	124.00	0.00	0.00	608.40	1955.00	615.73	0.00	616.02	10.12	5.73	749.69	614.48
4479.000	124.00	0.00	0.00	608.40	2300.00	615.98	0.00	616.26	10.27	5.91	867.94	717.68
4479.000	124.00	0.00	0.00	608.40	3035.00	616.50	0.00	616.77	9.78	6.04	1118.52	970.60
4480.000	1.00	611.20	615.00	608.40	1260.00	614.51	612.69	615.23	64.27	7.47	223.85	157.17
4480.000	1.00	611.20	615.00	608.40	1955.00	615.93	0.00	616.04	25.65	3.71	767.70	386.01
4480.000	1.00	611.20	615.00	608.40	2300.00	616.17	0.00	616.28	23.37	3.65	880.24	475.81
4480.000	1.00	611.20	615.00	608.40	3035.00	616.66	0.00	616.78	19.29	3.50	1114.71	690.94
4485.000	5.40	611.20	615.00	608.40	1260.00	614.58	612.69	615.27	62.01	7.34	234.21	160.01
4485.000	5.40	611.20	615.00	608.40	1955.00	615.94	0.00	616.06	25.56	3.71	768.60	386.70
4485.000	5.40	611.20	615.00	608.40	2300.00	616.18	0.00	616.30	23.19	3.64	882.35	477.59
4485.000	5.40	611.20	615.00	608.40	3035.00	616.67	0.00	616.79	19.13	3.49	1117.70	693.91
4486.000	1.00	0.00	0.00	608.40	1260.00	614.91	0.00	615.30	11.98	5.74	333.28	364.10
4486.000	1.00	0.00	0.00	608.40	1955.00	615.85	0.00	616.10	8.65	5.36	808.99	664.87
4486.000	1.00	0.00	0.00	608.40	2300.00	616.09	0.00	616.34	8.97	5.58	921.44	767.89
4486.000	1.00	0.00	0.00	608.40	3035.00	616.59	0.00	616.83	8.92	5.81	1159.68	1016.32

4535.000	49.00	0.00	0.00	608.40	1260.00	615.01	0.00	615.36	10.71	5.49	383.58	385.00
4535.000	49.00	0.00	0.00	608.40	1955.00	615.92	0.00	616.14	7.88	5.15	844.80	696.63
4535.000	49.00	0.00	0.00	608.40	2300.00	616.15	0.00	616.38	8.24	5.38	955.78	801.22
4535.000	49.00	0.00	0.00	608.40	3035.00	616.65	0.00	616.87	8.31	5.64	1192.08	1053.10
5120.000	585.00	0.00	0.00	609.30	1260.00	615.65	0.00	616.11	13.96	6.09	309.19	337.29
5120.000	585.00	0.00	0.00	609.30	1955.00	616.38	0.00	616.79	13.73	6.53	638.17	527 53
5120.000	585.00	0.00	0.00	609.30	2300.00	616.65	0.00	617.04	13.49	6.64	763.92	626.32
5120.000	585.00	0.00	0.00	609.30	3035.00	617.16	0.00	617.51	12.89	6.79	1000.01	845.42
5705.000	585.00	0.00	0.00	610.23	1260.00	616.48	0.00	617.00	15.90	6.24	279.90	316.04
5705.000	585.00	0.00	0.00	610.23	1955.00	617.16	0.00	617.82	19.80	7.52	447.44	439.33
5705.000	585.00	0.00	0.00	610.23	2300.00	617.40	617.04	618.12	21.49	8.03	525.10	496.13
5705.000	585.00	0.00	0.00	610.23	3035.00	617.87	0.00	618.61	22.69	8.63	699.02	637.08

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
5819.000	114.00	0.00	0.00	610.23	1260.00	616.76	0.00	617.17	12.33	5.67	324.65	358.86
5819.000	114.00	0.00	0.00	610.23	1955.00	617.63	0.00	618.02	12.04	6.15	608.80	563.48
5819.000	114.00	0.00	0.00	610.23	2300.00	617.94	0.00	618.33	12.10	6.34	714.45	661.26
5819.000	114.00	0.00	0.00	610.23	3035.00	618.42	0.00	618.83	12.86	6.83	888.72	846.45
5820.000	1.00	615.13	618.50	610.23	1260.00	616.39	614.58	617.33	104.74	8.26	200.78	123.12
5820.000	1.00	615.13	618.50	610.23	1955.00	617.75	0.00	618.04	77.73	5.71	534.80	221.74
5820.000	1.00	615.13	618.50	610.23	2300.00	618.12	0.00	618.35	57.71	5.17	666.46	302 75
5820.000	1.00	615.13	618.50	610.23	3035.00	618.62	0.00	618.85	47.86	5.03	852.05	438.72
5825.000	5.40	615.13	618.50	610.23	1260.00	616.60	614.59	617.39	93.56	7.81	227.15	130.26
5825.000	5.40	615.13	618.50	610.23	1955.00	617.83	0.00	618.08	67.61	5.39	561.06	237.77
5825.000	5.40	615.13	618.50	610.23	2300.00	618.16	0.00	618.38	54.02	5.03	678.43	312.93
5825.000	5.40	615.13	618.50	610.23	3035.00	618.65	0.00	618.88	47.47	5.01	849.60	440.52
5826.000	1.00	0.00	0.00	610.23	1260.00	617.15	0.00	617.45	8.57	4.94	397.23	430.38
5826.000	1.00	0.00	0.00	610.23	1955.00	617.77	0.00	618.11	10.41	5.79	654.23	605.82
5826.000	1.00	0.00	0.00	610.23	2300.00	618.08	0.00	618.41	10.34	5.94	765.47	715.34
5826.000	1.00	0.00	0.00	610.23	3035.00	618.56	0.00	618.92	11.25	6.47	934.94	904.96
5875.000	49.00	0.00	0.00	610.23	1260.00	617.21	0.00	617.49	8.05	4.82	412.20	444.09
5875.000	49.00	0.00	0.00	610.23	1955.00	617.85	0.00	618.16	9.54	5.59	671.81	633.06
5875.000	49.00	0.00	0.00	610.23	2300.00	618.15	0.00	618.46	9.73	5.80	770.98	737.30
5875.000	49.00	0.00	0.00	610.23	3035.00	618.62	0.00	618.97	10.89	6.39	926.02	919.87
6065.000	190.00	0.00	0.00	611.40	1260.00	617.43	0.00	618.01	17.90	6.67	246.01	297.74
6065.000	190.00	0.00	0.00	611.40	1955.00	618.09	0.00	618.67	19.01	7.40	469.21	448.37
6065.000	190.00	0.00	0.00	611.40	2300.00	618.39	0.00	618.99	19.33	7.70	540.78	523.11
6065.000	190.00	0.00	0.00	611.40	3035.00	618.89	0.00	619.55	21.15	8.44	657.04	659.88
6140.000	75.00	0.00	0.00	611.40	1260.00	617.91	0.00	618.24	10.34	5.35	376.23	391.93
6140.000	75.00	0.00	0.00	611.40	1955.00	618.48	0.00	618.88	12.92	6.34	559.56	543.95
6140.000	75.00	0.00	0.00	611.40	2300.00	618.77	0.00	619.19	13.54	6.68	628.77	624.96
6140.000	75.00	0.00	0.00	611.40	3035.00	619.29	0.00	619.77	15.01	7.38	751.01	783.26
6167.000	27.00	617.00	618.10	611.40	1260.00	617.95	0.00	618.45	23.60	6.31	290.47	259.35
6167.000	27.00	617.00	618.10	611.40	1955.00	618.72	0.00	618.99	31.02	5.28	521.16	351.04
6167.000	27.00	617.00	618.10	611.40	2300.00	619.04	0.00	619.32	31.13	5.29	587.45	412.20
6167.000	27.00	617.00	618.10	611.40	3035.00	619.64	0.00	619.93	33.52	4.80	712.39	524.23
6220.000	53.00	0.00	0.00	611.40	1260.00	618.36	0.00	618.63	7.76	4.86	391.99	452.21
6220.000	53.00	0.00	0.00	611.40	1955.00	618.80	0.00	619.10	9.50	5.61	636.41	634.29
6220.000	53.00	0.00	0.00	611.40	2300.00	619.13	0.00	619.44	9.86	5.89	713.40	732.56
6220.000	53.00	0.00	0.00	611.40	3035.00	619.73	0.00	620.08	10.59	6.43	855.20	932.55
7493.000	1273.00	0.00	0.00	614.50	1260.00	620.04	0.00	620.49	34.02	5.42	234.33	216.01
7493.000	1273.00	0.00	0.00	614.50	1955.00	620.73	0.00	621.48	43.53	6.95	286.27	296.33

7493.000	1273.00	0.00	0.00	614.50	2300.00	621.08	0.00	621.95	45.70	7.52	312.20	340.22
7493.000	1273.00	0.00	0.00	614.50	3035.00	621.71	0.00	622.86	50.47	8.65	359.89	427.20

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
7505.000	12.00	625.85	627.00	614.50	1260.00	620.06	0.00	620.52	13.31	5.47	230.45	345.33
7505.000	12.00	625.85	627.00	614.50	1955.00	620.75	0.00	621.52	18.11	7.05	277.36	459.41
7505.000	12.00	625.85	627.00	614.50	2300.00	621.09	0.00	622.00	19.63	7.66	300.43	519.09
7505.000	12.00	625.85	627.00	614.50	3035.00	621.71	0.00	622.94	23.26	8.90	341.10	629.25
7565.000	60.00	625.85	627.00	614.50	1260.00	620.17	0.00	620.61	12.10	5.30	237.70	362.20
7565.000	60.00	625.85	627.00	614.50	1955.00	620.93	0.00	621.64	15.91	6.76	289.32	490.09
7565.000	60.00	625.85	627.00	614.50	2300.00	621.29	0.00	622.13	17.34	7.35	312.92	552.26
7565.000	60.00	625.85	627.00	614.50	3035.00	622.01	0.00	623.10	19.56	8.40	361.32	686.20
7577.000	12.00	0.00	0.00	614.50	1260.00	620.22	0.00	620.63	20.85	5.13	251.36	275.96
7577.000	12.00	0.00	0.00	614.50	1955.00	621.06	0.00	621.68	24.22	6.36	322.26	397.25
7577.000	12.00	0.00	0.00	614.50	2300.00	621.47	0.00	622.17	24.59	6.81	357.19	463.79
7577.000	12.00	0.00	0.00	614.50	3035.00	622.28	0.00	623.15	24.90	7.61	426.57	608.19
9150.000	1573.00	0.00	0.00	615.11	1260.00	622.54	0.00	622.84	9.75	5.07	394.31	403.59
9150.000	1573.00	0.00	0.00	615.11	1955.00	623.77	0.00	624.13	9.90	5.75	555.64	621.30
9150.000	1573.00	0.00	0.00	615.11	2300.00	624.30	0.00	624.68	9.97	6.04	625.83	728.41
9150.000	1573.00	0.00	0.00	615.11	3035.00	625.31	0.00	625.74	10.04	6.56	763.56	957.73
* 9550.000	400.00	0.00	0.00	618.69	1260.00	625.06	625.06	626.16	69.74	10.45	191.72	150.88
* 9550.000	400.00	0.00	0.00	618.69	1955.00	625.83	625.83	627.25	84.62	12.27	255.55	212.52
* 9550.000	400.00	0.00	0.00	618.69	2300.00	626.22	626.22	627.70	85.70	12.71	290.35	248.44
* 9550.000	400.00	0.00	0.00	618.69	3035.00	626.84	626.84	628.54	93.48	13.85	349.04	313.90
9630.000	80.00	0.00	0.00	619.71	555.00	626.61	0.00	626.78	4.24	3.52	211.99	269.66
9630.000	80.00	0.00	0.00	619.71	580.00	627.94	0.00	628.05	2.16	2.84	285.34	395.03
9630.000	80.00	0.00	0.00	619.71	600.00	628.44	0.00	628.54	1.80	2.71	312.82	447.72
9630.000	80.00	0.00	0.00	619.71	670.00	629.41	0.00	629.50	1.44	2.61	366.22	558.39
9704.000	74.00	0.00	0.00	619.64	555.00	626.67	0.00	627.15	28.26	5.52	100.63	104.39
9704.000	74.00	0.00	0.00	619.64	580.00	627.98	0.00	628.32	17.28	4.70	123.44	139.52
9704.000	74.00	0.00	0.00	619.64	600.00	628.47	0.00	628.79	15.30	4.54	132.09	153.38
9704.000	74.00	0.00	0.00	619.64	670.00	629.44	0.00	629.75	13.68	4.50	148.98	181.17
9705.000	1.00	628.30	628.30	619.64	555.00	626.51	0.00	627.32	70.84	7.19	77.23	65.94
9705.000	1.00	628.30	628.30	619.64	580.00	627.72	0.00	628.59	90.07	7.48	77.56	61.11
9705.000	1.00	628.30	628.30	619.64	600.00	628.17	0.00	629.10	96.39	7.74	77.56	61.11
9705.000	1.00	628.30	628.30	619.64	670.00	629.20	0.00	630.00	104.29	7.18	93.28	65.61
9756.000	51.00	628.30	628.30	619.64	555.00	626.91	0.00	627.71	82.47	7.16	77.56	61.12
9756.000	51.00	628.30	628.30	619.64	580.00	628.18	0.00	629.05	90.06	7.48	77.56	61.12
9756.000	51.00	628.30	628.30	619.64	600.00	628.95	0.00	629.65	94.73	6.75	88.85	61.65
9756.000	51.00	628.30	628.30	619.64	670.00	629.84	0.00	630.47	68.76	6.41	104.51	80.80
9757.000	1.00	0.00	0.00	619.64	555.00	627.38	0.00	627.75	20.29	4.91	113.03	123.21
9757.000	1.00	0.00	0.00	619.64	580.00	628.84	0.00	629.11	12.53	4.19	138.53	163.87
9757.000	1.00	0.00	0.00	619.64	600.00	629.45	0.00	629.70	10.91	4.02	149.24	181.61
9757.000	1.00	0.00	0.00	619.64	670.00	630.25	0.00	630.51	10.65	4.10	163.26	205.30

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
10405.000	648.00	0.00	0.00	620.14	555.00	627.97	0.00	627.99	1.25	1.48	607.92	497.19
10405.000	648.00	0.00	0.00	620.14	580.00	629.21	0.00	629.22	0.46	1.01	881.20	854.30
10405.000	648.00	0.00	0.00	620.14	600.00	629.78	0.00	629.79	0.32	0.89	1009.66	1053.04
10405.000	648.00	0.00	0.00	620.14	670.00	630.58	0.00	630.59	0.24	0.82	1188.22	1357.62
11205.000	800.00	0.00	0.00	622.20	555.00	627.85	0.00	628.68	42.35	7.32	75.78	85.28
11205.000	800.00	0.00	0.00	622.20	580.00	629.04	0.00	629.60	20.48	5.99	96.75	128.15

11205.000	800.00	0.00	0.00	622.20	600.00	629.61	0.00	630.10	15.80	5.62	106.74	150.95
11205.000	800.00	0.00	0.00	622.20	670.00	630.40	0.00	630.88	13.15	5.56	120.51	184.78
* 11350.000	145.00	653.70	629.20	622.20	555.00	629.79	0.00	630.19	12.30	5.05	109.81	158.24
11350.000	145.00	653.70	629.20	622.20	580.00	631.32	0.00	631.60	6.51	4.25	136.48	227.37
11350.000	145.00	653.70	629.20	622.20	600.00	632.10	0.00	632.35	5.06	3.99	150.21	266.76
11350.000	145.00	653.70	629.20	622.20	670.00	633.59	0.00	633.81	3.71	3.80	176.21	348.07
11500.000	150.00	0.00	0.00	622.20	555.00	630.24	0.00	630.26	1.12	1.76	658.62	525.31
11500.000	150.00	0.00	0.00	622.20	580.00	631.63	0.00	631.64	0.42	1.21	968.80	889.89
11500.000	150.00	0.00	0.00	622.20	600.00	632.38	0.00	632.38	0.28	1.04	1136.84	1124.82
11500.000	150.00	0.00	0.00	622.20	670.00	633.83	0.00	633.84	0.17	0.87	1464.99	1648.55
11550.000	50.00	0.00	0.00	622.20	1260.00	630.18	0.00	630.31	6.04	4.06	646.25	512.61
11550.000	50.00	0.00	0.00	622.20	1955.00	631.56	0.00	631.68	5.04	4.15	954.32	870.78
11550.000	50.00	0.00	0.00	622.20	2300.00	632.31	0.00	632.42	4.34	4.06	1122.88	1104.42
11550.000	50.00	0.00	0.00	622.20	3035.00	633.77	0.00	633.87	3.49	4.00	1451.27	1625.04
11750.000	200.00	0.00	0.00	622.20	1260.00	630.31	0.00	630.42	5.42	3.89	674.05	541.32
11750.000	200.00	0.00	0.00	622.20	1955.00	631.67	0.00	631.78	4.70	4.04	977.91	902.02
11750.000	200.00	0.00	0.00	622.20	2300.00	632.40	0.00	632.51	4.11	3.98	1143.03	1133.92
11750.000	200.00	0.00	0.00	622.20	3035.00	633.85	0.00	633.94	3.37	3.95	1467.35	1652.61
12449.000	699.00	0.00	0.00	622.20	1260.00	630.62	0.00	631.23	21.35	6.92	232.10	272.70
12449.000	699.00	0.00	0.00	622.20	1955.00	631.71	0.00	632.73	32.55	7.06	275.61	342.66
12449.000	699.00	0.00	0.00	622.20	2300.00	632.27	0.00	633.46	36.45	9.85	298.18	380.95
12449.000	699.00	0.00	0.00	622.20	3035.00	633.40	0.00	634.94	43.38	11.26	343.13	460.78
12450.000	1.00	646.20	635.00	622.50	1260.00	630.87	0.00	631.29	17.51	5.22	241.40	301.09
12450.000	1.00	646.20	635.00	622.50	1955.00	632.03	0.00	632.80	30.88	7.07	276.71	351.81
12450.000	1.00	646.20	635.00	622.50	2300.00	632.56	0.00	633.53	39.00	7.91	290.82	368.29
12450.000	1.00	646.20	635.00	622.50	3035.00	633.49	0.00	634.96	61.06	9.75	311.15	388.40
12650.000	200.00	646.20	635.00	622.50	1260.00	631.25	0.00	631.63	15.57	4.97	253.49	319.35
12650.000	200.00	646.20	635.00	622.50	1955.00	632.73	0.00	633.41	27.52	6.63	294.84	372.67
12650.000	200.00	646.20	635.00	622.50	2300.00	633.46	0.00	634.31	35.15	7.40	310.63	387.96
12650.000	200.00	646.20	635.00	622.50	3035.00	634.93	0.00	636.31	71.06	9.41	322.51	360.03
12850.000	200.00	0.00	0.00	622.50	1260.00	631.65	0.00	631.94	15.07	4.39	287.30	324.63
12850.000	200.00	0.00	0.00	622.50	1955.00	633.42	0.00	633.88	18.62	5.46	358.36	453.12
12850.000	200.00	0.00	0.00	622.50	2300.00	634.32	0.00	634.85	19.36	5.83	394.46	522.74
12850.000	200.00	0.00	0.00	622.50	3035.00	636.42	0.00	637.05	19.12	6.34	478.36	694.03

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
13600.000	750.00	0.00	0.00	626.00	1260.00	632.97	0.00	633.43	25.32	5.82	360.26	250.41
13600.000	750.00	0.00	0.00	626.00	1955.00	634.78	0.00	635.15	15.36	5.61	667.03	498.83
13600.000	750.00	0.00	0.00	626.00	2300.00	635.68	0.00	636.01	12.39	5.48	829.87	653.34
13600.000	750.00	0.00	0.00	626.00	3035.00	637.68	0.00	637.95	7.82	5.10	1257.55	1085.38
14975.000	1375.00	0.00	0.00	628.70	1260.00	636.21	0.00	636.81	23.37	6.76	386.93	260.64
14975.000	1375.00	0.00	0.00	628.70	1955.00	637.24	0.00	637.91	25.52	7.77	609.30	386.98
14975.000	1375.00	0.00	0.00	628.70	2300.00	637.77	0.00	638.43	24.48	7.95	726.92	464.88
14975.000	1375.00	0.00	0.00	628.70	3035.00	639.08	0.00	639.63	19.12	7.76	1029.41	694.00
16700.000	1725.00	0.00	0.00	631.40	1260.00	638.98	0.00	639.14	8.53	3.86	746.66	431.50
16700.000	1725.00	0.00	0.00	631.40	1955.00	640.15	0.00	640.32	8.51	4.31	1135.45	669.98
16700.000	1725.00	0.00	0.00	631.40	2300.00	640.63	0.00	640.81	8.55	4.51	1299.41	786.39
16700.000	1725.00	0.00	0.00	631.40	3035.00	641.58	0.00	641.76	8.44	4.82	1628.64	1044.94
17600.000	900.00	0.00	0.00	634.00	1260.00	640.05	0.00	640.53	29.72	6.13	338.92	231.11
17600.000	900.00	0.00	0.00	634.00	1955.00	641.19	0.00	641.70	28.09	6.73	625.02	368.87
17600.000	900.00	0.00	0.00	634.00	2300.00	641.66	0.00	642.15	26.51	6.87	774.63	446.75
17600.000	900.00	0.00	0.00	634.00	3035.00	642.57	0.00	643.03	23.21	7.01	1075.80	629.94

	18545.000	945.00	0.00	0.00	635.80	1260.00	641.94	0.00	642.24	11.96	4.51	314.84	384.28
	18545.000	945.00	0.00	0.00	635.80	1955.00	643.10	0.00	643.60	15.09	5.77	384.33	503.32
	18545.000	945.00	0.00	0.00	635.80	2300.00	643.55	0.00	644.15	16.75	6.36	411.29	561.91
	18545.000	945.00	0.00	0.00	635.80	3035.00	644.35	0.00	645.20	20.37	7.53	459.30	672.43
	18565.000	20.00	645.45	651.00	635.80	1260.00	641.93	0.00	642.28	3.18	4.77	264.36	706.64
	18565.000	20.00	645.45	651.00	635.80	1955.00	643.07	0.00	643.65	4.27	6.11	319.87	946.42
	18565.000	20.00	645.45	651.00	635.80	2300.00	643.51	0.00	644.22	5.69	6.74	341.08	964.14
	18565.000	20.00	645.45	651.00	635.80	3035.00	644.20	0.00	645.42	17.75	8.85	342.75	720.30
	18602.000	37.00	645.45	651.00	635.80	1260.00	641.94	0.00	642.29	3.14	4.75	265.43	711.07
	18602.000	37.00	645.45	651.00	635.80	1955.00	643.10	0.00	643.67	4.21	6.08	321.30	952.86
	18602.000	37.00	645.45	651.00	635.80	2300.00	643.54	0.00	644.25	7.45	6.72	342.17	842.38
	18602.000	37.00	645.45	651.00	635.80	3035.00	644.27	0.00	645.49	17.75	8.85	342.75	720.30
	18622.000	20.00	0.00	0.00	635.80	1260.00	642.17	0.00	642.32	4.74	3.40	444.53	578.93
	18622.000	20.00	0.00	0.00	635.80	1955.00	643.49	0.00	643.72	5.42	4.18	563.68	840.02
	18622.000	20.00	0.00	0.00	635.80	2300.00	644.04	0.00	644.30	5.76	4.54	613.15	958.64
	18622.000	20.00	0.00	0.00	635.80	3035.00	645.26	0.00	645.59	5.98	5.12	722.80	1241.27
	19000.000	378.00	0.00	0.00	636.90	1260.00	642.28	0.00	642.83	36.63	7.29	299.80	208.20
	19000.000	378.00	0.00	0.00	636.90	1955.00	643.80	0.00	644.01	12.15	5.17	656.28	560.84
	19000.000	378.00	0.00	0.00	636.90	2300.00	644.41	0.00	644.58	9.17	4.81	819.11	759.40
	19000.000	378.00	0.00	0.00	636.90	3035.00	645.70	0.00	645.83	5.44	4.20	1210.76	1301.42
	20755.000	1755.00	0.00	0.00	636.50	1260.00	644.78	0.00	644.86	5.08	3.34	720.61	558.88
	20755.000	1755.00	0.00	0.00	636.50	1955.00	645.38	0.00	645.48	5.83	3.79	1016.79	809.90
	20755.000	1755.00	0.00	0.00	636.50	2300.00	645.74	0.00	645.83	5.47	3.80	1170.24	983.48
	20755.000	1755.00	0.00	0.00	636.50	3035.00	646.60	0.00	646.68	4.24	3.60	1543.90	1474.19

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	20905.000	150.00	0.00	0.00	637.70	1260.00	644.73	0.00	645.20	27.60	6.90	346.79	239.82
	20905.000	150.00	0.00	0.00	637.70	1955.00	645.39	0.00	645.79	25.40	7.02	546.46	387.92
	20905.000	150.00	0.00	0.00	637.70	2300.00	645.76	0.00	646.09	21.10	6.65	676.90	500.69
	20905.000	150.00	0.00	0.00	637.70	3035.00	646.64	0.00	646.86	13.10	5.72	1003.39	838.64
*	21055.000	150.00	0.00	0.00	638.85	1260.00	645.76	645.76	646.41	35.91	7.77	282.07	210.28
*	21055.000	150.00	0.00	0.00	638.85	1955.00	646.16	646.16	647.04	50.37	9.56	365.55	275.45
*	21055.000	150.00	0.00	0.00	638.85	2300.00	646.50	646.50	647.28	45.20	9.33	448.41	342.09
*	21055.000	150.00	0.00	0.00	638.85	3035.00	646.78	646.78	647.73	55.68	10.64	522.17	406.73
	21355.000	300.00	0.00	0.00	641.20	1260.00	646.95	0.00	647.41	28.04	7.05	279.58	237.94
	21355.000	300.00	0.00	0.00	641.20	1955.00	647.72	0.00	648.29	30.46	8.12	384.45	354.26
	21355.000	300.00	0.00	0.00	641.20	2300.00	647.81	0.00	648.54	38.88	9.26	396.87	368.88
	21355.000	300.00	0.00	0.00	641.20	3035.00	648.34	0.00	649.19	41.23	10.14	481.52	472.68
	21391.000	36.00	649.00	647.00	641.20	1260.00	649.38	0.00	649.46	3.19	3.13	633.62	705.72
	21391.000	36.00	649.00	647.00	641.20	1955.00	650.33	0.00	650.45	4.20	3.90	775.64	954.09
	21391.000	36.00	649.00	647.00	641.20	2300.00	650.65	0.00	650.80	4.85	4.30	823.13	1044.03
	21391.000	36.00	649.00	647.00	641.20	3035.00	651.30	0.00	651.50	6.00	5.02	920.64	1238.86
	22615.000	224.00	0.00	0.00	641.40	1260.00	649.48	0.00	649.49	0.30	1.00	1890.38	2289.99
	22615.000	224.00	0.00	0.00	641.40	1955.00	650.47	0.00	650.49	0.43	1.29	2242.29	2792.79
	22615.000	224.00	0.00	0.00	641.40	2300.00	650.82	0.00	650.84	0.50	1.43	2365.83	3256.12
	22615.000	224.00	0.00	0.00	641.40	3035.00	651.53	0.00	651.55	0.63	1.69	2621.04	3825.81
	-9550.000	400.00	0.00	0.00	618.69	1260.00	625.06	0.00	625.80	75.31	8.15	191.72	145.19
	-9550.000	400.00	0.00	0.00	618.69	1955.00	625.83	0.00	626.80	85.15	9.23	255.55	211.86
	-9550.000	400.00	0.00	0.00	618.69	2300.00	626.22	0.00	627.24	83.85	9.43	290.35	251.18
	-9550.000	400.00	0.00	0.00	618.69	3035.00	626.84	0.00	628.05	87.98	10.08	349.04	323.58
	250.000	250.00	0.00	0.00	619.30	705.00	626.12	0.00	626.31	3.43	3.54	199.28	380.71
	250.000	250.00	0.00	0.00	619.30	1375.00	626.94	0.00	627.50	8.29	6.02	228.27	477.45
	250.000	250.00	0.00	0.00	619.30	1700.00	627.21	0.00	628.00	11.05	7.15	237.88	511.42

	250.000	250.00	0.00	0.00	619.30	2365.00	627.68	0.00	629.02	17.05	9.29	254.62	572.[illegible]
	332.000	82.00	632.50	628.30	619.30	705.00	626.15	0.00	626.34	3.36	3.52	200.50	384.62
	332.000	82.00	632.50	628.30	619.30	1375.00	627.02	0.00	627.57	7.95	5.95	231.17	487.57
	332.000	82.00	632.50	628.30	619.30	1700.00	627.33	0.00	628.09	10.48	7.03	241.71	525.21
	332.000	82.00	632.50	628.30	619.30	2365.00	632.99	0.00	633.19	1.54	4.02	862.46	1905.05
*	890.000	558.00	0.00	0.00	625.30	705.00	628.72	628.72	629.80	174.69	8.44	86.59	53.34
*	890.000	558.00	0.00	0.00	625.30	1375.00	629.96	629.96	631.50	149.51	10.22	143.41	112.45
*	890.000	558.00	0.00	0.00	625.30	1700.00	630.47	630.47	632.17	140.80	10.84	169.10	143.27
	890.000	558.00	0.00	0.00	625.30	2365.00	632.60	0.00	633.71	54.96	8.98	292.10	319.02
	11550.000	50.00	0.00	0.00	622.20	1260.00	629.88	0.00	629.97	7.58	3.32	581.12	457.61
	11550.000	50.00	0.00	0.00	622.20	1955.00	631.62	0.00	631.69	4.11	2.82	967.82	964.30
	11550.000	50.00	0.00	0.00	622.20	2300.00	632.31	0.00	632.38	3.58	2.77	1122.95	1215.06
	11550.000	50.00	0.00	0.00	622.20	3035.00	633.78	0.00	633.85	2.76	2.67	1453.17	1825.96

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BLISS DRAIN, 10-YEAR FLO

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	1260.00	605.46	0.00	0.00	0.00	80.00	0.00
0.000	1955.00	606.69	1.23	0.00	1.23	340.00	0.00
0.000	2300.00	607.11	0.42	0.00	0.42	340.00	0.00
0.000	3035.00	607.64	0.53	0.00	0.53	340.00	0.00
15.000	1260.00	605.46	0.00	0.00	0.00	80.00	15.00
15.000	1955.00	606.69	1.23	0.00	1.23	335.00	15.00
15.000	2300.00	607.11	0.42	0.00	0.42	335.00	15.00
15.000	3035.00	607.65	0.53	0.01	0.53	335.00	15.00
115.000	1260.00	605.46	0.00	-0.01	0.00	66.43	100.00
115.000	1955.00	606.62	1.16	-0.08	1.16	285.00	100.00
115.000	2300.00	607.01	0.40	-0.10	0.40	285.00	100.00
115.000	3035.00	607.49	0.48	-0.15	0.48	285.00	100.00
290.000	1260.00	605.43	0.00	-0.03	0.00	109.10	175.00
290.000	1955.00	606.67	1.24	0.06	1.24	171.95	175.00
290.000	2300.00	607.09	0.42	0.08	0.42	184.42	175.00
290.000	3035.00	607.61	0.52	0.11	0.52	199.56	175.00
990.000	1260.00	606.43	0.00	1.00	0.00	86.04	700.00
990.000	1955.00	607.63	1.20	0.96	1.20	156.19	700.00
990.000	2300.00	608.07	0.44	0.98	0.44	169.07	700.00
990.000	3035.00	608.80	0.73	1.20	0.73	190.52	700.00
1690.000	1260.00	608.65	0.00	2.21	0.00	114.21	1400.00
1690.000	1955.00	609.92	1.28	2.29	1.28	162.00	1400.00
1690.000	2300.00	610.40	0.48	2.33	0.48	162.00	1400.00
1690.000	3035.00	611.27	0.87	2.47	0.87	162.00	1400.00
1790.000	1260.00	608.75	0.00	0.10	0.00	111.26	100.00
1790.000	1955.00	609.99	1.24	0.06	1.24	112.00	100.00
1790.000	2300.00	610.44	0.46	0.04	0.46	112.00	100.00
1790.000	3035.00	611.26	0.82	-0.01	0.82	112.00	100.00
1840.000	1260.00	608.80	0.00	0.05	0.00	87.00	50.00
1840.000	1955.00	610.00	1.20	0.01	1.20	87.00	50.00
1840.000	2300.00	610.43	0.44	-0.01	0.44	87.00	50.00
1840.000	3035.00	611.21	0.78	-0.05	0.78	87.00	50.00
1865.000	1260.00	608.82	0.00	0.03	0.00	75.00	25.00

1865.[illegible]	1955.[illegible]	610.[illegible]	1.18	0.00	1.18	75.[illegible]	25.0[illegible]
1865.000	2300.00	610.43	0.43	-0.01	0.43	75.00	25.00
1865.000	3035.00	611.17	0.74	-0.04	0.74	75.00	25.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1890.000	1260.00	608.85	0.00	0.02	0.00	68.63	25.00
1890.000	1955.00	610.02	1.18	0.03	1.18	80.90	25.00
1890.000	2300.00	610.45	0.43	0.03	0.43	84.41	25.00
1890.000	3035.00	611.20	0.75	0.03	0.75	85.00	25.00
1940.000	1260.00	608.88	0.00	0.03	0.00	59.65	50.00
1940.000	1955.00	610.06	1.18	0.04	1.18	60.00	50.00
1940.000	2300.00	610.49	0.43	0.04	0.43	60.00	50.00
1940.000	3035.00	611.25	0.76	0.05	0.76	60.00	50.00
1973.000	1260.00	609.11	0.00	0.24	0.00	60.00	33.00
1973.000	1955.00	610.46	1.35	0.40	1.35	60.00	33.00
1973.000	2300.00	610.99	0.53	0.50	0.53	60.00	33.00
1973.000	3035.00	611.99	1.00	0.75	1.00	60.00	33.00
2023.000	1260.00	609.23	0.00	0.12	0.00	60.01	50.00
2023.000	1955.00	610.59	1.36	0.13	1.36	60.05	50.00
2023.000	2300.00	611.13	0.54	0.14	0.54	60.06	50.00
2023.000	3035.00	612.16	1.02	0.16	1.02	60.09	50.00
2448.000	1260.00	609.91	0.00	0.68	0.00	145.00	425.00
2448.000	1955.00	611.54	1.63	0.95	1.63	145.00	425.00
2448.000	2300.00	612.22	0.68	1.09	0.68	145.00	425.00
2448.000	3035.00	613.48	1.26	1.33	1.26	145.00	425.00
2709.000	1260.00	611.24	0.00	1.33	0.00	71.40	261.00
2709.000	1955.00	611.98	0.74	0.44	0.74	91.15	261.00
2709.000	2300.00	612.49	0.51	0.27	0.51	130.00	261.00
2709.000	3035.00	613.64	1.15	0.16	1.15	140.00	261.00
2785.000	1260.00	611.47	0.00	0.24	0.00	75.21	76.00
2785.000	1955.00	612.37	0.90	0.39	0.90	94.68	76.00
2785.000	2300.00	612.86	0.49	0.37	0.49	100.00	76.00
2785.000	3035.00	613.77	0.92	0.13	0.92	100.00	76.00
2790.000	1260.00	611.47	0.00	0.00	0.00	75.27	5.60
2790.000	1955.00	612.37	0.90	0.00	0.90	94.64	5.60
2790.000	2300.00	612.85	0.48	-0.01	0.48	95.00	5.60
2790.000	3035.00	613.75	0.90	-0.02	0.90	95.00	5.60
2840.000	1260.00	611.60	0.00	0.12	0.00	78.92	50.00
2840.000	1955.00	612.59	1.00	0.22	1.00	195.00	50.00
2840.000	2300.00	613.20	0.61	0.35	0.61	195.00	50.00
2840.000	3035.00	614.30	1.10	0.55	1.10	195.00	50.00
3090.000	1260.00	612.01	0.00	0.42	0.00	88.29	250.00
3090.000	1955.00	613.10	1.09	0.51	1.09	303.74	250.00
3090.000	2300.00	613.67	0.57	0.47	0.57	400.00	250.00
3090.000	3035.00	614.76	1.09	0.45	1.09	400.00	250.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3164.000	1260.00	612.16	0.00	0.15	0.00	80.79	74.00
3164.000	1955.00	613.31	1.16	0.22	1.16	355.48	74.00
3164.000	2300.00	613.84	0.52	0.17	0.52	400.00	74.00
3164.000	3035.00	614.83	1.00	0.08	1.00	400.00	74.00
3165.000	1260.00	612.12	0.00	-0.03	0.00	65.00	1.00

3165.000	1955.00	613.44	1.31	0.12	1.31	320.00	1.00
3165.000	2300.00	614.05	0.61	0.21	0.61	400.00	1.00
3165.000	3035.00	614.97	0.92	0.13	0.92	400.00	1.00
3170.000	1260.00	612.18	0.00	0.06	0.00	75.00	5.40
3170.000	1955.00	613.53	1.35	0.09	1.35	330.00	5.40
3170.000	2300.00	614.07	0.54	0.02	0.54	400.00	5.40
3170.000	3035.00	614.98	0.91	0.01	0.91	400.00	5.40
3171.000	1260.00	612.24	0.00	0.06	0.00	75.00	1.00
3171.000	1955.00	613.45	1.21	-0.08	1.21	330.00	1.00
3171.000	2300.00	613.97	0.52	-0.10	0.52	400.00	1.00
3171.000	3035.00	614.90	0.93	-0.07	0.93	400.00	1.00
3220.000	1260.00	612.33	0.00	0.09	0.00	103.09	49.00
3220.000	1955.00	613.57	1.23	0.12	1.23	400.00	49.00
3220.000	2300.00	614.04	0.47	0.07	0.47	400.00	49.00
3220.000	3035.00	614.95	0.91	0.04	0.91	400.00	49.00
3495.000	1260.00	612.58	0.00	0.25	0.00	95.42	275.00
3495.000	1955.00	613.80	1.22	0.23	1.22	360.00	275.00
3495.000	2300.00	614.25	0.45	0.21	0.45	360.00	275.00
3495.000	3035.00	615.11	0.86	0.16	0.86	360.00	275.00
3574.000	1260.00	612.89	0.00	0.30	0.00	115.00	79.00
3574.000	1955.00	614.11	1.22	0.31	1.22	320.00	79.00
3574.000	2300.00	614.44	0.34	0.19	0.34	320.00	79.00
3574.000	3035.00	615.19	0.75	0.08	0.75	320.00	79.00
3575.000	1260.00	612.88	0.00	0.00	0.00	115.00	1.00
3575.000	1955.00	614.04	1.16	-0.06	1.16	320.00	1.00
3575.000	2300.00	614.59	0.54	0.14	0.54	320.00	1.00
3575.000	3035.00	615.32	0.74	0.13	0.74	320.00	1.00
3580.000	1260.00	612.90	0.00	0.01	0.00	110.00	5.40
3580.000	1955.00	614.06	1.16	0.02	1.16	315.00	5.40
3580.000	2300.00	614.60	0.54	0.01	0.54	315.00	5.40
3580.000	3035.00	615.33	0.73	0.01	0.73	315.00	5.40
3581.000	1260.00	612.91	0.00	0.02	0.00	110.00	1.00
3581.000	1955.00	614.21	1.30	0.15	1.30	315.00	1.00
3581.000	2300.00	614.54	0.33	-0.06	0.33	315.00	1.00
3581.000	3035.00	615.27	0.73	-0.06	0.73	315.00	1.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3630.000	1260.00	613.07	0.00	0.16	0.00	87.65	49.00
3630.000	1955.00	614.16	1.09	-0.05	1.09	285.45	49.00
3630.000	2300.00	614.48	0.32	-0.06	0.32	290.00	49.00
3630.000	3035.00	615.22	0.75	-0.05	0.75	290.00	49.00
3689.000	1260.00	613.25	0.00	0.17	0.00	91.63	59.00
3689.000	1955.00	614.38	1.14	0.22	1.14	289.88	59.00
3689.000	2300.00	614.70	0.32	0.23	0.32	296.14	59.00
3689.000	3035.00	615.38	0.68	0.16	0.68	309.46	59.00
3690.000	1260.00	613.14	0.00	-0.11	0.00	89.10	1.00
3690.000	1955.00	614.28	1.14	-0.11	1.14	287.71	1.00
3690.000	2300.00	614.63	0.35	-0.08	0.35	294.58	1.00
3690.000	3035.00	615.54	0.92	0.16	0.92	312.63	1.00
3695.000	1260.00	613.15	0.00	0.02	0.00	89.36	5.40
3695.000	1955.00	614.36	1.21	0.08	1.21	289.28	5.40
3695.000	2300.00	614.72	0.36	0.09	0.36	296.42	5.40
3695.000	3035.00	615.57	0.85	0.03	0.85	312.97	5.40

3696.000	1260.00	613.36	0.00	0.21	0.00	94.39	1.00
3696.000	1955.00	614.56	1.19	0.20	1.19	293.33	1.00
3696.000	2300.00	614.84	0.29	0.12	0.29	298.85	1.00
3696.000	3035.00	615.50	0.66	-0.07	0.66	311.68	1.00
3745.000	1260.00	613.47	0 00	0.10	0.00	96.55	49.00
3745.000	1955.00	614.65	1.19	0.10	1.19	295.11	49.00
3745.000	2300.00	614.95	0.29	0.11	0.29	300.88	49.00
3745.000	3035.00	615.59	0.65	0.09	0.65	313.54	49.00
4045.000	1260.00	613.91	0.00	0.44	0.00	107.11	300.00
4045.000	1955.00	615.03	1.12	0.37	1.12	454.29	300.00
4045.000	2300.00	615.36	0.33	0.41	0.33	477.65	300.00
4045.000	3035.00	616.03	0.67	0.43	0.67	525.00	300.00
4159.000	1260.00	614.14	0.00	0.23	0.00	211.19	114.00
4159.000	1955.00	615.22	1.08	0.20	1.08	468.18	114.00
4159.000	2300.00	615.54	0.32	0.18	0.32	491.61	114.00
4159.000	3035.00	616.16	0.62	0.13	0.62	525.00	114.00
4160.000	1260.00	614.08	0.00	-0.06	0.00	131.29	1.00
4160.000	1955.00	615.19	1.10	-0.03	1.10	465.63	1.00
4160.000	2300.00	615.52	0.33	-0.02	0.33	490.05	1.00
4160.000	3035.00	616.21	0.69	0.05	0.69	525.00	1.00
4165.000	1260.00	614.10	0.00	0.01	0.00	147.46	5.40
4165.000	1955.00	615.22	1.12	0.03	1.12	466.98	5.40
4165.000	2300.00	615.55	0.33	0.03	0.33	491.39	5.40
4165.000	3035.00	616.23	0.68	0.02	0.68	525.00	5.40

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4166.000	1260.00	614.21	0.00	0.11	0.00	144.53	1.00
4166.000	1955.00	615.29	1.08	0.07	1.08	473.00	1.00
4166.000	2300.00	615.59	0.31	0.05	0.31	495.34	1.00
4166.000	3035.00	616.21	0.61	-0.02	0.61	525.00	1.00
4215.000	1260.00	614.29	0.00	0.08	0.00	145.63	49.00
4215.000	1955.00	615.35	1.06	0.06	1.06	477.34	49.00
4215.000	2300.00	615.65	0.30	0.06	0.30	499.45	49.00
4215.000	3035.00	616.25	0.60	0.05	0.60	525.00	49.00
4355.000	1260.00	614.29	0.00	0.00	0.00	120.02	140.00
4355.000	1955.00	615.28	0.99	-0.07	0.99	475.00	140.00
4355.000	2300.00	615.63	0.35	-0.02	0.35	475.00	140.00
4355.000	3035.00	616.28	0.65	0.03	0.65	475.00	140.00
4479.000	1260.00	614.67	0.00	0.38	0.00	231.96	124.00
4479.000	1955.00	615.73	1.06	0.45	1.06	475.00	124.00
4479.000	2300.00	615.98	0.24	0.35	0.24	475.00	124.00
4479.000	3035.00	616.50	0.53	0.22	0.53	475.00	124.00
4480.000	1260.00	614.51	0.00	-0.16	0.00	161.60	1.00
4480.000	1955.00	615.93	1.41	0.19	1.41	475.00	1.00
4480.000	2300.00	616.17	0.24	0.19	0.24	475.00	1.00
4480.000	3035.00	616.66	0.50	0.16	0.50	475.00	1.00
4485.000	1260.00	614.58	0.00	0.07	0.00	176.85	5.40
4485.000	1955.00	615.94	1.36	0.01	1.36	475.00	5.40
4485.000	2300.00	616.18	0.24	0.01	0.24	475.00	5.40
4485.000	3035.00	616.67	0.49	0.01	0.49	475.00	5.40
4486.000	1260.00	614.91	0.00	0.32	0.00	190.00	1.00
4486.000	1955.00	615.85	0.94	-0.09	0.94	475.00	1.00

4486.000	2300.00	616.09	0.24	-0.09	0.24	475.00	1.00
4486.000	3035.00	616.59	0.50	-0.08	0.50	475.00	1.00
4535.000	1260.00	615.01	0.00	0.11	0.00	290.00	49.00
4535.000	1955.00	615.92	0.90	0.07	0.90	475.00	49.00
4535.000	2300.00	616.15	0.24	0.07	0.24	475.00	49.00
4535.000	3035.00	616.65	0.50	0.06	0.50	475.00	49.00
5120.000	1260.00	615.65	0.00	0.64	0.00	291.61	585.00
5120.000	1955.00	616.38	0.73	0.47	0.73	475.00	585.00
5120.000	2300.00	616.65	0.27	0.50	0.27	475.00	585.00
5120.000	3035.00	617.16	0.51	0.51	0.51	475.00	585.00
5705.000	1260.00	616.48	0.00	0.83	0.00	183.94	585.00
5705.000	1955.00	617.16	0.68	0.78	0.68	304.02	585.00
5705.000	2300.00	617.40	0.24	0.75	0.24	345.81	585.00
5705.000	3035.00	617.87	0.47	0.71	0.47	390.40	585.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
5819.000	1260.00	616.76	0.00	0.28	0.00	165.00	114.00
5819.000	1955.00	617.63	0.87	0.47	0.87	360.00	114.00
5819.000	2300.00	617.94	0.31	0.54	0.31	360.00	114.00
5819.000	3035.00	618.42	0.48	0.55	0.48	360.00	114.00
5820.000	1260.00	616.39	0.00	-0.36	0.00	168.96	1.00
5820.000	1955.00	617.75	1.36	0.12	1.36	360.00	1.00
5820.000	2300.00	618.12	0.36	0.18	0.36	360.00	1.00
5820.000	3035.00	618.62	0.51	0.20	0.51	360.00	1.00
5825.000	1260.00	616.60	0.00	0.21	0.00	175.00	5.40
5825.000	1955.00	617.83	1.23	0.08	1.23	355.00	5.40
5825.000	2300.00	618.16	0.33	0.04	0.33	355.00	5.40
5825.000	3035.00	618.65	0.49	0.03	0.49	355.00	5.40
5826.000	1260.00	617.15	0.00	0.56	0.00	175.00	1.00
5826.000	1955.00	617.77	0.62	-0.06	0.62	355.00	1.00
5826.000	2300.00	618.08	0.31	-0.08	0.31	355.00	1.00
5826.000	3035.00	618.56	0.48	-0.09	0.48	355.00	1.00
5875.000	1260.00	617.21	0.00	0.06	0.00	180.00	49.00
5875.000	1955.00	617.85	0.64	0.08	0.64	330.00	49.00
5875.000	2300.00	618.15	0.30	0.07	0.30	330.00	49.00
5875.000	3035.00	618.62	0.47	0.06	0.47	330.00	49.00
6065.000	1260.00	617.43	0.00	0.21	0.00	85.00	190.00
6065.000	1955.00	618.09	0.66	0.24	0.66	235.00	190.00
6065.000	2300.00	618.39	0.30	0.24	0.30	235.00	190.00
6065.000	3035.00	618.89	0.49	0.27	0.49	235.00	190.00
6140.000	1260.00	617.91	0.00	0.48	0.00	165.00	75.00
6140.000	1955.00	618.48	0.57	0.39	0.57	235.00	75.00
6140.000	2300.00	618.77	0.29	0.38	0.29	235.00	75.00
6140.000	3035.00	619.29	0.52	0.40	0.52	235.00	75.00
6167.000	1260.00	617.95	0.00	0.04	0.00	150.00	27.00
6167.000	1955.00	618.72	0.77	0.24	0.77	235.00	27.00
6167.000	2300.00	619.04	0.33	0.27	0.33	235.00	27.00
6167.000	3035.00	619.64	0.60	0.35	0.60	235.00	27.00
6220.000	1260.00	618.36	0.00	0.41	0.00	125.00	53.00
6220.000	1955.00	618.80	0.44	0.08	0.44	235.00	53.00
6220.000	2300.00	619.13	0.33	0.09	0.33	235.00	53.00
6220.000	3035.00	619.73	0.60	0.09	0.60	235.00	53.00

7493.000	1260.00	620.04	0.00	1.68	0.00	72.89	1273.00
7493.000	1955.00	620.73	0.69	1.93	0.69	75.00	1273.00
7493.000	2300.00	621.08	0.34	1.95	0.34	75.00	1273.00
7493.000	3035.00	621.71	0.63	1.98	0.63	75.00	1273.00

1

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	7505.000	1260.00	620.06	0.00	0.02	0.00	68.93	12.00
	7505.000	1955.00	620.75	0.69	0.02	0.69	69.00	12.00
	7505.000	2300.00	621.09	0.34	0.01	0.34	69.00	12.00
	7505.000	3035.00	621.71	0.62	0.00	0.62	69.00	12.00
	7565.000	1260.00	620.17	0.00	0.11	0.00	69.00	60.00
	7565.000	1955.00	620.93	0.76	0.18	0.76	69.00	60.00
	7565.000	2300.00	621.29	0.36	0.20	0.36	69.00	60.00
	7565.000	3035.00	622.01	0.71	0.30	0.71	69.00	60.00
	7577.000	1260.00	620.22	0.00	0.05	0.00	82.27	12.00
	7577.000	1955.00	621.06	0.83	0.12	0.83	85.00	12.00
	7577.000	2300.00	621.47	0.41	0.17	0.41	85.00	12.00
	7577.000	3035.00	622.28	0.81	0.27	0.81	85.00	12.00
	9150.000	1260.00	622.54	0.00	2.31	0.00	129.45	1573.00
	9150.000	1955.00	623.77	1.23	2.71	1.23	132.63	1573.00
	9150.000	2300.00	624.30	0.53	2.83	0.53	133.99	1573.00
	9150.000	3035.00	625.31	1.02	3.03	1.02	136.61	1573.00
*	9550.000	1260.00	625.06	0.00	2.52	0.00	77.73	400.00
*	9550.000	1955.00	625.83	0.77	2.06	0.77	87.23	400.00
*	9550.000	2300.00	626.22	0.39	1.93	0.39	92.00	400.00
*	9550.000	3035.00	626.84	0.62	1.53	0.62	95.68	400.00
	9630.000	555.00	626.61	0.00	1.55	0.00	55.00	80.00
	9630.000	580.00	627.94	1.33	2.11	1.33	55.00	80.00
	9630.000	600.00	628.44	0.50	2.22	0.50	55.00	80.00
	9630.000	670.00	629.41	0.97	2.57	0.97	55.00	80.00
	9704.000	555.00	626.67	0.00	0.07	0.00	17.50	74.00
	9704.000	580.00	627.98	1.30	0.03	1.30	17.50	74.00
	9704.000	600.00	628.47	0.49	0.03	0.49	17.50	74.00
	9704.000	670.00	629.44	0.97	0.02	0.97	17.50	74.00
	9705.000	555.00	626.51	0.00	-0.16	0.00	17.50	1.00
	9705.000	580.00	627.72	1.20	-0.26	1.20	17.50	1.00
	9705.000	600.00	628.17	0.45	-0.30	0.45	17.50	1.00
	9705.000	670.00	629.20	1.03	-0.24	1.03	17.50	1.00
	9756.000	555.00	626.91	0.00	0.40	0.00	17.50	51.00
	9756.000	580.00	628.18	1.27	0.46	1.27	17.50	51.00
	9756.000	600.00	628.95	0.77	0.77	0.77	17.50	51.00
	9756.000	670.00	629.84	0.89	0.64	0.89	17.50	51.00
	9757.000	555.00	627.38	0.00	0.47	0.00	17.50	1.00
	9757.000	580.00	628.84	1.46	0.66	1.46	17.50	1.00
	9757.000	600.00	629.45	0.61	0.51	0.61	17.50	1.00
	9757.000	670.00	630.25	0.80	0.42	0.80	17.50	1.00

1

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
10405.000	555.00	627.97	0.00	0.59	0.00	215.40	648.00
10405.000	580.00	629.21	1.24	0.37	1.24	225.00	648.00
10405.000	600.00	629.78	0.57	0.33	0.57	225.00	648.00
10405.000	670.00	630.58	0.80	0.33	0.80	225.00	648.00

11205.000	555.00	627.85	0.00	-0.13	0.00	17.50	800.00
11205.000	580.00	629.04	1.19	-0.17	1.19	17.50	800.00
11205.000	600.00	629.61	0.57	-0.17	0.57	17.50	800.00
11205.000	670.00	630.40	0.79	-0.18	0.79	17.50	800.00
* 11350.000	555.00	629.79	0.00	1.94	0.00	17.50	145.00
11350.000	580.00	631.32	1.53	2.27	1.53	17.50	145.00
11350.000	600.00	632.10	0.78	2.49	0.78	17.50	145.00
11350.000	670.00	633.59	1.49	3.18	1.49	17.50	145.00
11500.000	555.00	630.24	0.00	0.45	0.00	217.32	150.00
11500.000	580.00	631.63	1.39	0.31	1.39	225.00	150.00
11500.000	600.00	632.38	0.75	0.28	0.75	225.00	150.00
11500.000	670.00	633.83	1.46	0.25	1.46	225.00	150.00
11550.000	1260.00	630.18	0.00	-0.06	0.00	216.66	50.00
11550.000	1955.00	631.56	1.38	-0.06	1.38	225.00	50.00
11550.000	2300.00	632.31	0.75	-0.06	0.75	225.00	50.00
11550.000	3035.00	633.77	1.46	-0.06	1.46	225.00	50.00
11750.000	1260.00	630.31	0.00	0.13	0.00	218.14	200.00
11750.000	1955.00	631.67	1.36	0.10	1.36	225.00	200.00
11750.000	2300.00	632.40	0.73	0.09	0.73	225.00	200.00
11750.000	3035.00	633.85	1.44	0.07	1.44	225.00	200.00
12449.000	1260.00	630.62	0.00	0.31	0.00	40.00	699.00
12449.000	1955.00	631.71	1.09	0.04	1.09	40.00	699.00
12449.000	2300.00	632.27	0.56	-0.13	0.56	40.00	699.00
12449.000	3035.00	633.40	1.13	-0.45	1.13	40.00	699.00
12450.000	1260.00	630.87	0.00	0.24	0.00	40.00	1.00
12450.000	1955.00	632.03	1.16	0.32	1.16	40.00	1.00
12450.000	2300.00	632.56	0.53	0.29	0.53	40.00	1.00
12450.000	3035.00	633.49	0.92	0.09	0.92	40.00	1.00
12650.000	1260.00	631.25	0.00	0.38	0.00	40.00	200.00
12650.000	1955.00	632.73	1.49	0.70	1.49	40.00	200.00
12650.000	2300.00	633.46	0.73	0.90	0.73	40.00	200.00
12650.000	3035.00	634.93	1.48	1.45	1.48	40.00	200.00
12850.000	1260.00	631.65	0.00	0.40	0.00	40.00	200.00
12850.000	1955.00	633.42	1.78	0.69	1.78	40.00	200.00
12850.000	2300.00	634.32	0.90	0.87	0.90	40.00	200.00
12850.000	3035.00	636.42	2.10	1.49	2.10	40.00	200.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
13600.000	1260.00	632.97	0.00	1.32	0.00	159.57	750.00
13600.000	1955.00	634.78	1.81	1.36	1.81	178.17	750.00
13600.000	2300.00	635.68	0.89	1.35	0.89	187.28	750.00
13600.000	3035.00	637.68	2.01	1.26	2.01	229.58	750.00
14975.000	1260.00	636.21	0.00	3.25	0.00	212.36	1375.00
14975.000	1955.00	637.24	1.03	2.46	1.03	220.60	1375.00
14975.000	2300.00	637.77	0.53	2.09	0.53	224.83	1375.00
14975.000	3035.00	639.08	1.31	1.40	1.31	235.36	1375.00
16700.000	1260.00	638.98	0.00	2.76	0.00	327.29	1725.00
16700.000	1955.00	640.15	1.18	2.91	1.18	338.52	1725.00
16700.000	2300.00	640.63	0.48	2.86	0.48	342.64	1725.00
16700.000	3035.00	641.58	0.95	2.49	0.95	350.30	1725.00
17600.000	1260.00	640.05	0.00	1.08	0.00	167.86	900.00
17600.000	1955.00	641.19	1.14	1.04	1.14	311.32	900.00
17600.000	2300.00	641.66	0.47	1.03	0.47	328.11	900.00

17600.000	3035.00	642.57	0.91	0.[illegible]9	0.91	336.82	[illegible]00.00
18545.000	1260.00	641.94	0.00	1.88	0.00	60.00	945.00
18545.000	1955.00	643.10	1.16	1.91	1.16	60.00	945.00
18545.000	2300.00	643.55	0.45	1.89	0.45	60.00	945.00
18545.000	3035.00	644.35	0.80	1.78	0.80	60.00	945.00
18565.000	1260.00	641.93	0.00	-0.01	0.00	50.00	20.00
18565.000	1955.00	643.07	1.15	-0.03	1.15	50.00	20.00
18565.000	2300.00	643.51	0.44	-0.03	0.44	50.00	20.00
18565.000	3035.00	644.20	0.69	-0.14	0.69	50.00	20.00
18602.000	1260.00	641.94	0.00	0.02	0.00	50.00	37.00
18602.000	1955.00	643.10	1.16	0.02	1.16	50.00	37.00
18602.000	2300.00	643.54	0.45	0.03	0.45	50.00	37.00
18602.000	3035.00	644.27	0.72	0.07	0.72	50.00	37.00
18622.000	1260.00	642.17	0.00	0.23	0.00	90.00	20.00
18622.000	1955.00	643.49	1.32	0.40	1.32	90.00	20.00
18622.000	2300.00	644.04	0.55	0.50	0.55	90.00	20.00
18622.000	3035.00	645.26	1.22	0.99	1.22	90.00	20.00
19000.000	1260.00	642.28	0.00	0.11	0.00	207.60	378.00
19000.000	1955.00	643.80	1.52	0.31	1.52	258.01	378.00
19000.000	2300.00	644.41	0.61	0.36	0.61	274.38	378.00
19000.000	3035.00	645.70	1.30	0.44	1.30	327.01	378.00
20755.000	1260.00	644.78	0.00	2.50	0.00	345.00	1755.00
20755.000	1955.00	645.38	0.60	1.58	0.60	430.00	1755.00
20755.000	2300.00	645.74	0.36	1.33	0.36	430.00	1755.00
20755.000	3035.00	646.60	0.86	0.90	0.86	430.00	1755.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
20905.000	1260.00	644.73	0.00	-0.04	0.00	270.06	150.00
20905.000	1955.00	645.39	0.66	0.01	0.66	335.39	150.00
20905.000	2300.00	645.76	0.38	0.02	0.38	370.23	150.00
20905.000	3035.00	646.64	0.87	0.03	0.87	375.00	150.00
* 21055.000	1260.00	645.76	0.00	1.03	0.00	196.63	150.00
* 21055.000	1955.00	646.16	0.41	0.78	0.41	218.72	150.00
* 21055.000	2300.00	646.50	0.34	0.74	0.34	257.89	150.00
* 21055.000	3035.00	646.78	0.28	0.14	0.28	276.57	150.00
21355.000	1260.00	646.95	0.00	1.19	0.00	124.50	300.00
21355.000	1955.00	647.72	0.77	1.56	0.77	147.06	300.00
21355.000	2300.00	647.81	0.08	1.30	0.08	149.51	300.00
21355.000	3035.00	648.34	0.54	1.56	0.54	165.23	300.00
21391.000	1260.00	649.38	0.00	2.44	0.00	150.00	36.00
21391.000	1955.00	650.33	0.95	2.61	0.95	150.00	36.00
21391.000	2300.00	650.65	0.32	2.84	0.32	150.00	36.00
21391.000	3035.00	651.30	0.65	2.96	0.65	150.00	36.00
22615.000	1260.00	649.48	0.00	0.09	0.00	351.40	224.00
22615.000	1955.00	650.47	0.99	0.14	0.99	356.37	224.00
22615.000	2300.00	650.82	0.35	0.17	0.35	358.10	224.00
22615.000	3035.00	651.53	0.71	0.23	0.71	361.64	224.00
-9550.000	1260.00	625.06	0.00	-24.42	0.00	77.73	400.00
-9550.000	1955.00	625.83	0.77	-24.64	0.77	87.23	400.00
-9550.000	2300.00	626.22	0.39	-24.60	0.39	92.00	400.00
-9550.000	3035.00	626.84	0.62	-24.69	0.62	95.68	400.00
250.000	705.00	626.12	0.00	1.06	0.00	35 00	250.00

	250.000	1375.00	626.9[illegible]	0.82	1.10	0.82	35.00	250.00
	250.000	1700.00	627.21	0.27	0.98	0.27	35.00	250.00
	250.000	2365.00	627.68	0.48	0.84	0.48	35.00	250.00
	332.000	705.00	626.15	0.00	0.03	0.00	35.00	82.00
	332.000	1375.00	627.02	0.88	0.08	0.88	35.00	82.00
	332.000	1700.00	627.33	0.30	0.12	0.30	35.00	82.00
	332.000	2365.00	632.99	5.66	5.31	5.66	165.85	82.00
*	890.000	705.00	628.72	0.00	2.57	0.00	41.86	558.00
*	890.000	1375.00	629.96	1.24	2.94	1.24	49.36	558.00
*	890.000	1700.00	630.47	0.51	3.14	0.51	52.24	558.00
	890.000	2365.00	632.60	2.13	-0.39	2.13	61.54	558.00
	11550.000	1260.00	629.88	0.00	1.16	0.00	213.13	50.00
	11550.000	1955.00	631.62	1.74	1.66	1.74	225.00	50.00
	11550.000	2300.00	632.31	0.69	1.84	0.69	225.00	50.00
	11550.000	3035.00	633.78	1.47	1.18	1.47	225.00	50.00

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SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=  9550.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  9550.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  9550.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  9550.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  9550.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  9550.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  9550.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  9550.000  PROFILE= 4  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO= 11350.000  PROFILE= 1  HYDRAULIC JUMP D.S.

CAUTION  SECNO= 21055.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 21055.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 21055.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 21055.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 21055.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 21055.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 21055.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 21055.000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 21055.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 21055.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 21055.000  PROFILE= 4  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   890.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   890 000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   890.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   890.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   890.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   890.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   890.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   890.000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   890.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
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1
18 OCT 89   11:00:09

THIS RUN EXECUTED 18 OCT 89   11:00:09

****

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP.

3) WATERCOURSE: BLISS DRAIN

4) DOCUMENT TYPE: 100 YR ENCROACHED

00BREAK00

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J1   ICHECK    INQ      NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
         0.         3.        0.        0.  0.000000     0.00      0.0       0.     607.210    0.000

J2   NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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1
 18 OCT 89    12:17:22                                                                            PAGE   40

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 *PROF 2

 CCHV=    0.100 CEHV=    0.300
 *SECNO 0.000

 3470 ENCROACHMENT STATIONS=     1650.0     1990.0  TYPE=       1  TARGET=      340.000
       0.00     12.91    607.21      0.00    607.11    607.42      0.21      0.00      0.00    599.30
      2300.      133.     1715.      452.      113.      410.      504.        0.        0.    599.60
       0.00      1.18      4.19      0.90     0.050     0.030     0.050     0.000    594.30   1650.00
   0.000338        0.        0.        0.         0         0         0      0.00    340.00   1990.00
0
 *SECNO 15.000

 3470 ENCROACHMENT STATIONS=     1655.0     1990.0  TYPE=       1  TARGET=      335.000
      15.00     12.91    607.21      0.00    607.11    607.42      0.21      0.01      0.00    599.30
      2300.      127.     1718.      455.      105.      410.      505.        0.        0.    599.60
       0.00      1.21      4.19      0.90     0.050     0.030     0.050     0.000    594.30   1655.00
   0.000338       15.       15.       15.         0         0         0      0.00    335.00   1990.00
0
 *SECNO 115.000
  2800 NAT Q1=     859.25  WSEL=     607.01  ENC Q1=     859.25  WSEL=     607.11  RATIO=  0.0000
  NAT Q1=     925.  RATIOS LOB,CH,ROB=  0.0417  0.8392  0.1191  WSEL=     607.11

 3470 ENCROACHMENT STATIONS=     1688.2     1999.0  TYPE=       4  TARGET=        0.071
     115.00     11.79    607.09      0.00    607.01    607.55      0.46      0.05      0.08    600.30
      2300.       11.     2088.      201.       11.      366.      216.        2.        1.    600.60
       0.01      1.02      5.71      0.93     0.050     0.030     0.050     0.000    595.30   1688.23
   0.000730      100.      100.      100.         2         0         0      0.00    310.79   1999.02
0
 *SECNO 290.000
  2800 NAT Q1=     625.43  WSEL=     607.09  ENC Q1=     625.43  WSEL=     607.19  RATIO=  0.0000
  NAT Q1=     645.  RATIOS LOB,CH,ROB=  0.0771  0.7521  0.1708  WSEL=     607.19

 3470 ENCROACHMENT STATIONS=       39.6      159.3  TYPE=       4  TARGET=        0.030
     290.00      7.94    607.16      0.00    607.09    607.76      0.60      0.17      0.04    600.37
      2300.      146.     1788.      366.       66.      257.      165.        4.        2.    600.38
       0.01      2.23      6.94      2.22     0.050     0.030     0.050     0.000    599.22     39.62
   0.001378      175.      175.      175.         2         0         0      0.00    119.73    159.35
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST
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*SECNO 990.000
 2800 NAT Q1=     522.14  WSEL=     608.07  ENC Q1=     522.14  WSEL=     608.17  RATIO=  0.0000
 NAT Q1=     540.  RATIOS LOB,CH,ROB=  0.0625  0.7950  0.1424  WSEL=     608.17

 3470 ENCROACHMENT STATIONS=       54.1       151.2  TYPE=      4  TARGET=        0.034
    990.00      7.43    608.15      0.00    608.07    608.97      0.82      1.14      0.07    601.87
     2300.      109.     1895.      296.       40.      240.      121.       12.        3.    601.88
      0.04      2.75      7.91      2.44     0.050     0.030     0.050     0.000    600.72     54.08
  0.001966      700.      700.      700.         2         0         0      0.00     97.10    151.18
0
 *SECNO 1690.000
 2800 NAT Q1=     693.42  WSEL=     610.40  ENC Q1=     693.42  WSEL=     610.50  RATIO=  0.0000
 NAT Q1=     715.  RATIOS LOB,CH,ROB=  0.0858  0.7272  0.1871  WSEL=     610.50

 3470 ENCROACHMENT STATIONS=       34.6       163.5  TYPE=      4  TARGET=        0.030
   1690.00      8.30    610.52      0.00    610.40    611.01      0.49      2.01      0.03    603.37
     2300.      169.     1722.      409.       83.      270.      195.       27.        7.    603.38
      0.12      2.02      6.38      2.10     0.050     0.030     0.050     0.000    602.22     34.57
  0.001092     1400.     1400.     1400.         2         0         0      0.00    128.95    163.51
0
 *SECNO 1790.000
 2800 NAT Q1=     630.44  WSEL=     610.44  ENC Q1=     630.44  WSEL=     610.54  RATIO=  0.0000
 NAT Q1=     678.  RATIOS LOB,CH,ROB=  0.0814  0.7398  0.1788  WSEL=     610.54

 3470 ENCROACHMENT STATIONS=       54.4       149.4  TYPE=      4  TARGET=        0.071
   1790.00      8.13    610.55      0.00    610.44    611.16      0.61      0.12      0.04    603.57
     2300.      115.     1832.      353.       47.      264.      153.       28.        7.    603.58
      0.12      2.46      6.94      2.31     0.050     0.030     0.050     0.000    602.42     54.37
  0.001328      100.      100.      100.         2         0         0      0.00     95.04    149.41
0
 *SECNO 1840.000
 2800 NAT Q1=     584.13  WSEL=     610.43  ENC Q1=     584.13  WSEL=     610.53  RATIO=  0.0000
 NAT Q1=     654.  RATIOS LOB,CH,ROB=  0.0784  0.7485  0.1731  WSEL=     610.53

 3470 ENCROACHMENT STATIONS=       60.3       141.1  TYPE=      4  TARGET=        0.107
   1840.00      8.02    610.54      0.00    610.43    611.27      0.73      0.07      0.03    603.67
     2300.       61.     1926.      313.       27.      260.      125.       28.        7.    603.68
      0.12      2.28      7.40      2.51     0.050     0.030     0.050     0.000    602.52     60.35
  0.001540       50.       50.       50.         2         0         0      0.00     80.70    141.05
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 1865.000
 2800 NAT Q1=     564.83  WSEL=     610.43  ENC Q1=     564.83  WSEL=     610.53  RATIO=  0.0000
 NAT Q1=     653.  RATIOS LOB,CH,ROB=  0.0781  0.7492  0.1727  WSEL=     610.53

 3470 ENCROACHMENT STATIONS=       63.1       135.5  TYPE=      4  TARGET=        0.134
   1865.00      8.00    610.52      0.00    610.43    611.34      0.81      0.04      0.03    603.67
     2300.       19.     1999.      281.       12.      260.      108.       29.        7.    603.68
      0.12      1.60      7.70      2.60     0.050     0.030     0.050     0.000    602.52     63.11
  0.001675       25.       25.       25.         2         0         0      0.00     72.38    135.48
0
 CCHV=   0.500 CEHV=   1.000
 *SECNO 1890.000
 2800 NAT Q1=     829.75  WSEL=     610.45  ENC Q1=     829.75  WSEL=     610.55  RATIO=  0.0000
 NAT Q1=     853.  RATIOS LOB,CH,ROB=  0.0848  0.6921  0.2231  WSEL=     610.55
```

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 3470 ENCROACHMENT STATIONS=     162.4      225.2  TYPE=       4   TARGET=        0.027
           PORT SHELDON DRIVE
    1890.00      7.93   610.55     0.00   610.45   611.73     1.18      0.03      0.37   603.82
     2300.       167.    1636.     497.      54.     163.     126.       29.        8.    604.04
       0.12      3.11    10.05     3.95    0.030    0.015    0.030     0.000    602.62   162.42
   0.000768       25.      25.      25.        0        0        0      0.00     62.78   225.20
0
 *SECNO 1940.000

 3470 ENCROACHMENT STATIONS=    1083.0     1143.0  TYPE=       1   TARGET=       60.000
    1940.00      8.67   610.59     0.00   610.49   611.82     1.23      0.04      0.05   604.62
     2300.       245.    1850.     205.      72.     189.      68.       29.        8.    604.92
       0.13      3.40     9.79     3.01    0.030    0.015    0.030     0.000    601.92  1083.00
   0.000737       50.      50.      50.        2        0        0      0.00     60.00  1143.00
0
 CCHV=   0.100 CEHV=    0.300
 *SECNO 1973.000

 3470 ENCROACHMENT STATIONS=    1083.0     1143.0  TYPE=       1   TARGET=       60.000
    1973.00      9.14   611.06     0.00   610.99   611.89     0.83      0.04      0.04   604.62
     2300.       348.    1655.     298.      80.     201.      76.       30.        8.    604.92
       0.13      4.34     8.24     3.89    0.040    0.030    0.040     0.000    601.92  1083.00
   0.001928       33.      33.      33.        3        0        0      0.00     60.00  1143.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 2023.000

 3470 ENCROACHMENT STATIONS=    1075.0     1145.0  TYPE=       1   TARGET=       70.000
    2023.00      9.27   611.19     0.00   611.13   611.99     0.80      0.09      0.00   604.62
     2300.       351.    1647.     302.      82.     204.      79.       30.        8.    604.92
       0.13      4.25     8.07     3.83    0.040    0.030    0.040     0.000    601.92  1082.97
   0.001806       50.      50.      50.        2        0        0      0.00     60.06  1143.03
0
 *SECNO 2448.000
 3280 CROSS SECTION    2448.00 EXTENDED       0.26 FEET


 3470 ENCROACHMENT STATIONS=    1095.0     1240.0  TYPE=       1   TARGET=      145.000
    2448.00      8.34   612.26     0.00   612.22   612.74     0.48      0.72      0.03   606.62
     2300.       112.    1266.     922.      28.     181.     315.       34.        9.    606.92
       0.15      4.03     7.00     2.92    0.040    0.030    0.040     0.000    603.92  1095.00
   0.001598      350.     425.     450.        2        0        0      0.00    145.00  1240.00
0
 *SECNO 2709.000

 3470 ENCROACHMENT STATIONS=    1000.0     1130.0  TYPE=       1   TARGET=      130.000
    2709.00      6.60   612.51     0.00   612.49   613.41     0.90      0.55      0.12   606.67
     2300.       454.    1373.     473.     110.     152.      92.       37.       10.    606.67
       0.16      4.15     9.06     5.13    0.040    0.030    0.040     0.000    605.91  1000.00
   0.002883      215.     261.     275.        2        0        0      0.00    130.00  1130.00
0
 *SECNO 2785.000

 3470 ENCROACHMENT STATIONS=    1035.0     1135.0  TYPE=       1   TARGET=      100.000
           GOLF COURSE BRIDGE
    2785.00      6.96   612.87     0.00   612.86   613.62     0.75      0.19      0.01   606.67
     2300.       479.    1335.     486.     118.     160.     105.       38.       10.    606.67
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      0.17       4.07      8.34      4.64     0.040     0.030     0.040     0.000    605.91   1035.00
   0.002268       76.       76.       76.         2         0         0      0.00    100.00   1135.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



  SPECIAL BRIDGE

  5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
  SB  XK         XKOR        COFQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
      0.00       1.50        2.80        0.00       20.00        0.00      270.00        6.00      605.91      605.91

  *SECNO 2790.000
  6870 D.S. ENERGY OF  613.62 HIGHER THAN COMPUTED ENERGY OF  613.25
  PRESSURE AND WEIR FLOW


   EGPRS      EGLWC        H3        QWEIR       QPR        BAREA   TRAPEZOID      ELLC      ELTRD
                                                                       AREA
     614.56    613.62      0.00      1190.      1099.       270.       291.      611.40    611.40



  3470 ENCROACHMENT STATIONS=     1035.0     1130.0  TYPE=      1  TARGET=       95.000
    2790.00      6.95    612.86      0.00    612.85    613.62      0.76      0.00      0.00    606.67
      2300.      479.     1337.      484.      117.      160.      103.       38.       10.     606.67
       0.17      4.08      8.37      4.72     0.040     0.030     0.040     0.000    605.91   1035.00
   0.002289        6.        6.        6.         3         0         2      0.00     95.00   1130.00
0
  *SECNO 2840.000

  3470 ENCROACHMENT STATIONS=      940.0     1135.0  TYPE=      1  TARGET=      195.000
    2840.00      7.30    613.21      0.00    613.20    613.74      0.53      0.09      0.02    606.67
      2300.      597.     1231.      472.      217.      168.      117.       38.       10.     606.67
       0.17      2.74      7.31      4.04     0.040     0.030     0.040     0.000    605.91    940.00
   0.001630       45.       50.       50.         2         0         0      0.00    195.00   1135.00
0
  *SECNO 3090.000
   2800 NAT Q1=     630.72  WSEL=     613.67  ENC Q1=     630.72  WSEL=     613.77  RATIO=  0.0000
   NAT Q1=     664.  RATIOS LOB,CH,ROB=  0.1676  0.6656  0.1669  WSEL=     613.77
  3280 CROSS SECTION    3090.00 EXTENDED       0.60 FEET


  3470 ENCROACHMENT STATIONS=      937.8     1146.6  TYPE=      4  TARGET=        0.051
    3090.00      7.34    613.60      0.00    613.67    614.13      0.53      0.39      0.00    609.56
      2300.      311.     1653.      336.      157.      247.      109.       41.       11.     606.36
       0.18      1.98      6.69      3.08     0.040     0.030     0.040     0.000    606.26    937.79
   0.001518      250.      250.      250.         2         0         0      0.00    208.80   1146.58
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST
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*SECNO 3164.000
 2800 NAT Q1=    689.35  WSEL=     613.84  ENC Q1=    689.35  WSEL=     613.94  RATIO=  0.0000
 NAT Q1=    725.  RATIOS LOB,CH,ROB=  0.1919  0.6357  0.1725  WSEL=     613.94
3280 CROSS SECTION   3164.00 EXTENDED      0.81 FEET


3470 ENCROACHMENT STATIONS=      909.5     1154.4  TYPE=      4  TARGET=       0.050
  3164.00      7.55    613.81     0.00    613.84    614.24     0.43      0.10      0.01    609.56
     2300.      376.     1573.     351.      207.      255.      127.       42.       11.    606.36
      0.18      1.81     6.16     2.76     0.040     0.030     0.040     0.000    606.26    909.45
 0.001236       74.       74.      74.         2         0         0      0.00    244.93   1154.39
0
*SECNO 3165.000
 2800 NAT Q1=    393.31  WSEL=     614.05  ENC Q1=    393.31  WSEL=     614.15  RATIO=  0.0000
 NAT Q1=    424.  RATIOS LOB,CH,ROB=  0.4205  0.3670  0.2125  WSEL=     614.15
3280 CROSS SECTION   3165.00 EXTENDED      1.05 FEET


3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  609.56 MAX ELLC=  613.50


3470 ENCROACHMENT STATIONS=      870.0     1170.1  TYPE=      4  TARGET=       0.073
          GOLF COURSE BRIDGE
  3165.00      7.79    614.05     0.00    614.05    614.26     0.22      0.00      0.02    609.56
     2300.      920.      949.     431.      279.      216.      142.       42.       11.    606.36
      0.18      3.30     4.40     3.03     0.040     0.030     0.040     0.000    606.26    870.04
 0.003928        1.        1.       1.         3         0         0    -65.16    300.07   1170.11
0
*SECNO 3170.000
 2800 NAT Q1=    397.14  WSEL=     614.07  ENC Q1=    397.14  WSEL=     614.17  RATIO=  0.0000
 NAT Q1=    431.  RATIOS LOB,CH,ROB=  0.4235  0.3634  0.2131  WSEL=     614.17
3280 CROSS SECTION   3170.00 EXTENDED      1.06 FEET


3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  609.56 MAX ELLC=  613.50


3470 ENCROACHMENT STATIONS=      871.9     1168.4  TYPE=      4  TARGET=       0.079
  3170.00      7.81    614.07     0.00    614.07    614.29     0.22      0.02      0.00    609.56
     2300.      926.      945.     428.      281.      216.      142.       42.       12.    606.36
      0.19      3.30     4.37     3.03     0.040     0.030     0.040     0.000    606.26    871.91
 0.003860        5.        5.       5.         0         0         0    -65.17    296.45   1168.36
0
1
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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


*SECNO 3171.000
 2800 NAT Q1=    738.38  WSEL=     613.97  ENC Q1=    738.38  WSEL=     614.07  RATIO=  0.0000
 NAT Q1=    776.  RATIOS LOB,CH,ROB=  0.2102  0.6134  0.1764  WSEL=     614.07
3280 CROSS SECTION   3171.00 EXTENDED      0.97 FEET


3470 ENCROACHMENT STATIONS=      891.3     1160.0  TYPE=      4  TARGET=       0.049
  3171.00      7.70    613.96     0.00    613.97    614.33     0.37      0.00      0.05    609.56
     2300.      423.     1514.     362.      246.      261.      142.       42.       12.    606.36
      0.19      1.72     5.80     2.55     0.040     0.030     0.040     0.000    606.26    891.35
 0.001062        1.        1.       1.         2         0         0      0.00    268.65   1160.00
0
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*SECNO 3220.000
 2800 NAT Q1=    765.00  WSEL=    614.04  ENC Q1=    765.00  WSEL=    614.14  RATIO=  0.0000
 NAT Q1=    804.  RATIOS LOB,CH,ROB=  0.2195  0.6021  0.1784  WSEL=    614.14
3280 CROSS SECTION   3220.00 EXTENDED       1.05 FEET


3470 ENCROACHMENT STATIONS=     883.6    1162.3  TYPE=     4  TARGET=      0.049
  3220.00     7.79   614.05     0.00   614.04   614.39     0.34     0.05     0.00   609.56
    2300.     448.    1484.     368.     267.     264.     150.      43.      12.   606.36
     0.19     1.68     5.62     2.46    0.040    0.030    0.040    0.000   606.26   883.58
 0.000981      49.      49.      49.        2        0        0     0.00   278.68  1162.26
0
*SECNO 3495.000
 2800 NAT Q1=    573.31  WSEL=    614.25  ENC Q1=    573.31  WSEL=    614.35  RATIO=  0.0000
 NAT Q1=    638.  RATIOS LOB,CH,ROB=  0.2455  0.4492  0.3053  WSEL=    614.35
3280 CROSS SECTION   3495.00 EXTENDED       0.77 FEET


3470 ENCROACHMENT STATIONS=     941.6    1220.5  TYPE=     4  TARGET=      0.102
  3495.00     7.47   614.27     0.00   614.25   614.79     0.53     0.35     0.06   606.80
    2300.     487.    1175.     638.     183.     152.     237.      47.      14.   608.00
     0.20     2.66     7.71     2.69    0.040    0.030    0.040    0.000   606.80   941.57
 0.001741     275.     275.     275.        2        0        0     0.00   278.89  1220.46
0
*SECNO 3574.000
 2800 NAT Q1=    626.16  WSEL=    614.44  ENC Q1=    626.16  WSEL=    614.54  RATIO=  0.0000
 NAT Q1=    727.  RATIOS LOB,CH,ROB=  0.2726  0.4121  0.3152  WSEL=    614.54
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3280 CROSS SECTION   3574.00 EXTENDED       1.01 FEET


3470 ENCROACHMENT STATIONS=     929.3    1211.8  TYPE=     4  TARGET=      0.138
  3574.00     7.70   614.50     0.00   614.44   614.93     0.42     0.12     0.01   606.80
    2300.     538.    1110.     652.     227.     157.     253.      48.      14.   608.00
     0.21     2.36     7.06     2.58    0.040    0.030    0.040    0.000   606.80   929.33
 0.001395      79.      79.      79.        2        0        0     0.00   282.49  1211.82
0
*SECNO 3575.000
 2800 NAT Q1=    433.15  WSEL=    614.59  ENC Q1=    433.15  WSEL=    614.69  RATIO=  0.0000
 NAT Q1=    545.  RATIOS LOB,CH,ROB=  0.3376  0.3050  0.3574  WSEL=    614.69
3280 CROSS SECTION   3575.00 EXTENDED       1.18 FEET


3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  612.40 MAX ELLC=  614.40


3470 ENCROACHMENT STATIONS=     899.6    1216.4  TYPE=     4  TARGET=      0.205
          GOLF COURSE BRIDGE
  3575.00     7.88   614.68     0.00   614.59   614.94     0.27     0.00     0.02   606.80
    2300.     680.     884.     737.     273.     155.     252.      48.      14.   608.00
     0.21     2.49     5.71     2.92    0.040    0.030    0.040    0.000   606.80   899.62
 0.002826       1.       1.       1.        2        0        0   -47.05   316.75  1216.37
0
*SECNO 3580.000
 2800 NAT Q1=    432.81  WSEL=    614.60  ENC Q1=    432.81  WSEL=    614.70  RATIO=  0.0000
 NAT Q1=    551.  RATIOS LOB,CH,ROB=  0.3400  0.3019  0.3581  WSEL=    614.70
3280 CROSS SECTION   3580.00 EXTENDED       1.19 FEET
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 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  612.40 MAX ELLC=  614.40


 3470 ENCROACHMENT STATIONS=     903.0     1214.2  TYPE=      4  TARGET=        0.214
   3580.00      7.89   614.69      0.00    614.60   614.96      0.27      0.02      0.00    606.80
     2300.      680.     888.      733.      270.     155.      249.       48.       14.    608.00
      0.21      2.51     5.74      2.94     0.040    0.030     0.040     0.000    606.80    902.97
  0.002849        5.        5.        5.         0        0         0    -47.34    311.24   1214.21
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 3581.000
  2800 NAT Q1=     653.94  WSEL=    614.54  ENC Q1=     653.94  WSEL=     614.64  RATIO=  0.0000
  NAT Q1=     772.  RATIOS LOB,CH,ROB=  0.2851  0.3959  0.3190  WSEL=     614.64
 3280 CROSS SECTION   3581.00 EXTENDED        1.12 FEET


 3470 ENCROACHMENT STATIONS=     923.0     1209.0  TYPE=      4  TARGET=        0.153
   3581.00      7.81   614.61      0.00    614.54   615.00      0.38      0.00      0.03    606.80
     2300.      563.    1081.      656.      250.     160.      260.       48.       14.    608.00
      0.21      2.25     6.77      2.52     0.040    0.030     0.040     0.000    606.80    923.03
  0.001261        1.        1.        1.         2        0         0      0.00    285.99   1209.02
0
 *SECNO 3630.000
  2800 NAT Q1=     512.39  WSEL=    614.48  ENC Q1=     512.39  WSEL=     614.58  RATIO=  0.0000
  NAT Q1=     537.  RATIOS LOB,CH,ROB=  0.2388  0.5029  0.2583  WSEL=     614.58
 3280 CROSS SECTION   3630.00 EXTENDED        0.53 FEET


 3470 ENCROACHMENT STATIONS=    1044.4     1233.4  TYPE=      4  TARGET=        0.046
   3630.00      7.13   614.53      0.00    614.48   615.15      0.62      0.08      0.07    607.90
     2300.      520.    1222.      558.      122.     154.      190.       49.       14.    608.30
      0.21      4.27     7.93      2.93     0.040    0.030     0.040     0.000    607.40   1044.40
  0.002097       60.       49.       40.         2        0         0      0.00    189.01   1233.41
0
 *SECNO 3689.000
  2800 NAT Q1=     571.55  WSEL=    614.70  ENC Q1=     571.55  WSEL=     614.80  RATIO=  0.0000
  NAT Q1=     599.  RATIOS LOB,CH,ROB=  0.2393  0.4762  0.2846  WSEL=     614.80
 3280 CROSS SECTION   3689.00 EXTENDED        0.79 FEET


 3470 ENCROACHMENT STATIONS=    1042.0     1252.3  TYPE=      4  TARGET=        0.046
   3689.00      7.38   614.78      0.00    614.70   615.27      0.48      0.11      0.01    607.90
     2300.      521.    1152.      628.      135.     160.      242.       49.       15.    608.30
      0.21      3.85     7.20      2.59     0.040    0.030     0.040     0.000    607.40   1041.97
  0.001642       70.       59.       50.         2        0         0      0.00    210.30   1252.28
0
 *SECNO 3690.000
  2800 NAT Q1=     310.90  WSEL=    614.63  ENC Q1=     310.90  WSEL=     614.73  RATIO=  0.0000
  NAT Q1=     325.  RATIOS LOB,CH,ROB=  0.2143  0.4787  0.3070  WSEL=     614.73
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
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      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

 3280 CROSS SECTION   3690.00 EXTENDED       0.73 FEET

 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  612.10 MAX ELLC=  620.00

 3470 ENCROACHMENT STATIONS=     1037.0     1268.5  TYPE=     4  TARGET=        0.044
           GOLF COURSE BRIDGE
    3690.00      7.33   614.73      0.00   614.63   615.30      0.57      0.00      0.03    607.90
      2300.      462.    1152.      686.     121.     146.      222.       49.       15.    608.30
       0.21      3.83     7.87      3.09    0.040    0.030     0.040     0.000    607.40   1036.97
   0.005474        1.       1.        1.        2        0         0    -58.02    231.54   1268.50
0
 *SECNO 3695.000
  2800 NAT Q1=      324.58  WSEL=      614.72  ENC Q1=      324.58  WSEL=      614.82  RATIO=  0.0000
  NAT Q1=      340.  RATIOS LOB,CH,ROB=  0.2156  0.4582  0.3262  WSEL=      614.82
 3280 CROSS SECTION   3695.00 EXTENDED       0.82 FEET

 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  612.10 MAX ELLC=  620.00

 3470 ENCROACHMENT STATIONS=     1036.1     1272.3  TYPE=     4  TARGET=        0.045
    3695.00      7.42   614.82      0.00   614.72   615.33      0.51      0.03      0.01    607.90
      2300.      465.    1102.      733.     126.     146.      241.       49.       15.    608.30
       0.21      3.70     7.53      3.04    0.040    0.030     0.040     0.000    607.40   1036.06
   0.005009        5.       5.        5.        2        0         0    -61.55    236.28   1272.34
0
 *SECNO 3696.000
  2800 NAT Q1=      611.04  WSEL=      614.84  ENC Q1=      611.04  WSEL=      614.94  RATIO=  0.0000
  NAT Q1=      640.  RATIOS LOB,CH,ROB=  0.2395  0.4605  0.3000  WSEL=      614.94
 3280 CROSS SECTION   3696.00 EXTENDED       0.92 FEET

 3470 ENCROACHMENT STATIONS=     1040.4     1260.0  TYPE=     4  TARGET=        0.045
    3696.00      7.52   614.92      0.00   614.84   615.34      0.43      0.00      0.01    607.90
      2300.      522.    1115.      663.     143.     163.      270.       49.       15.    608.30
       0.21      3.65     6.85      2.46    0.040    0.030     0.040     0.000    607.40   1040.42
   0.001450        1.       1.        1.        2        0         0      0.00    219.58   1260.00
0
1
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      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

 *SECNO 3745.000
  2800 NAT Q1=      641.82  WSEL=      614.95  ENC Q1=      641.82  WSEL=      615.05  RATIO=  0.0000
  NAT Q1=      673.  RATIOS LOB,CH,ROB=  0.2396  0.4491  0.3113  WSEL=      615.05
 3280 CROSS SECTION   3745.00 EXTENDED       1.03 FEET

 3470 ENCROACHMENT STATIONS=     1039.4     1264.0  TYPE=     4  TARGET=        0.046
    3745.00      7.63   615.03      0.00   614.95   615.41      0.39      0.07      0.00    607.90
      2300.      522.    1087.      691.     149.     166.      292.       50.       15.    608.30
       0.22      3.50     6.57      2.36    0.040    0.030     0.040     0.000    607.40   1039.41
   0.001307       49.      49.       49.        2        0         0      0.00    224.58   1263.99
0
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 *SECNO 4045.000
  2800 NAT Q1=    687.45  WSEL=    615.36  ENC Q1=    687.45  WSEL=    615.46  RATIO=  0.0000
  NAT Q1=     732.  RATIOS LOB,CH,ROB=  0.2881  0.5625  0.1494  WSEL=    615.46
 3280 CROSS SECTION   4045.00 EXTENDED       1.46 FEET


 3470 ENCROACHMENT STATIONS=     833.6     1180.3  TYPE=      4  TARGET=       0.061
   4045.00      6.61    615.46      0.00    615.36    615.78      0.33      0.36      0.01    609.35
     2300.      630.     1379.      291.      378.      242.      109.       55.       17.    609.35
      0.24      1.67      5.70      2.67     0.040     0.030     0.040     0.000    608.85    833.62
  0.001125      340.      300.      260.         2         0         0      0.00    346.65   1180.27
0
 *SECNO 4159.000
  2800 NAT Q1=    767.91  WSEL=    615.54  ENC Q1=    767.91  WSEL=    615.64  RATIO=  0.0000
  NAT Q1=     813.  RATIOS LOB,CH,ROB=  0.3131  0.5311  0.1557  WSEL=    615.64
 3280 CROSS SECTION   4159.00 EXTENDED       1.65 FEET


 3470 ENCROACHMENT STATIONS=     827.4     1191.9  TYPE=      4  TARGET=       0.055
   4159.00      6.80    615.65      0.00    615.54    615.91      0.26      0.11      0.01    609.35
     2300.      697.     1291.      313.      439.      249.      135.       57.       18.    609.35
      0.25      1.59      5.18      2.31     0.040     0.030     0.040     0.000    608.85    827.36
  0.000891      114.      114.      114.         2         0         0      0.00    364.49   1191.85
0
 *SECNO 4160.000
 3280 CROSS SECTION   4160.00 EXTENDED       1.65 FEET

1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  611.15 MAX ELLC=  616.00


 3470 ENCROACHMENT STATIONS=     800.0     1220.0  TYPE=      1  TARGET=     420.000
            GOLF COURSE BRIDGE
   4160.00      6.81    615.66      0.00    615.52    615.91      0.25      0.00      0.00    609.35
     2300.      665.     1135.      500.      462.      217.      165.       57.       18.    609.35
      0.25      1.44      5.24      3.03     0.040     0.030     0.040     0.000    608.85    800.00
  0.003307        1.        1.        1.         0         0         0    -59.82    420.00   1220.00
0
 *SECNO 4165.000

 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  611.15 MAX ELLC=  616.00


 3470 ENCROACHMENT STATIONS=     800.0     1220.0  TYPE=      1  TARGET=     420.000
   4165.00      6.83    615.68      0.00    615.55    615.93      0.24      0.02      0.00    609.35
     2300.      673.     1122.      504.      470.      217.      167.       57.       18.    609.35
      0.25      1.43      5.17      3.02     0.040     0.030     0.040     0.000    608.85    800.00
  0.003231        5.        5.        5.         1         0         0    -60.72    420.00   1220.00
0
 *SECNO 4166.000
  2800 NAT Q1=    790.59  WSEL=    615.59  ENC Q1=    790.59  WSEL=    615.69  RATIO=  0.0000
  NAT Q1=     836.  RATIOS LOB,CH,ROB=  0.3196  0.5229  0.1575  WSEL=    615.69
 3280 CROSS SECTION   4166.00 EXTENDED       1.68 FEET


 3470 ENCROACHMENT STATIONS=     826.5     1194.3  TYPE=      4  TARGET=       0.055
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  4166.00     6.83   615.68     0.00   615.59   615.93     0.25     0.00     0.00   609.35
    2300.     708.    1275.     317.     450.     251.     141.      57.      18.   609.35
     0.25     1.57     5.09     2.26    0.040    0.030    0.040    0.000   608.85   826.49
 0.000854       1.       1.       1.        0        0        0     0.00   367.84  1194.33
0
 *SECNO 4215.000
 2800 NAT Q1=    816.05  WSEL=    615.65  ENC Q1=    816.05  WSEL=    615.75  RATIO=  0.0000
 NAT Q1=    863.  RATIOS LOB,CH,ROB=  0.3265  0.5140  0.1595  WSEL=    615.75
 3280 CROSS SECTION   4215.00 EXTENDED      1.73 FEET
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 3470 ENCROACHMENT STATIONS=     825.6    1197.1  TYPE=     4  TARGET=       0.054
  4215.00     6.89   615.74     0.00   615.65   615.97     0.23     0.04     0.00   609.35
    2300.     721.    1256.     323.     463.     252.     147.      58.      18.   609.35
     0.25     1.56     4.98     2.19    0.040    0.030    0.040    0.000   608.85   825.57
 0.000812      49.      49.      49.        1        0        0     0.00   371.50  1197.07
0
 *SECNO 4355.000
 2800 NAT Q1=    578.98  WSEL=    615.63  ENC Q1=    578.98  WSEL=    615.73  RATIO=  0.0000
 NAT Q1=    616.  RATIOS LOB,CH,ROB=  0.2365  0.5343  0.2292  WSEL=    615.73
 3280 CROSS SECTION   4355.00 EXTENDED      0.71 FEET


 3470 ENCROACHMENT STATIONS=     924.4    1261.1  TYPE=     4  TARGET=       0.060
  4355.00     7.31   615.71     0.00   615.63   616.20     0.49     0.16     0.08   609.10
    2300.     502.    1314.     484.     229.     182.     217.      60.      20.   609.70
     0.26     2.19     7.22     2.23    0.040    0.030    0.040    0.000   608.40   924.36
 0.001608     140.     140.     140.        2        0        0     0.00   336.71  1261.07
0
 *SECNO 4479.000
 2800 NAT Q1=    717.68  WSEL=    615.98  ENC Q1=    717.68  WSEL=    616.08  RATIO=  0.0000
 NAT Q1=    763.  RATIOS LOB,CH,ROB=  0.2739  0.4676  0.2585  WSEL=    616.08
 3280 CROSS SECTION   4479.00 EXTENDED      1.09 FEET


 3470 ENCROACHMENT STATIONS=     900.4    1278.2  TYPE=     4  TARGET=       0.059
  4479.00     7.68   616.08     0.00   615.98   616.38     0.30     0.16     0.02   609.10
    2300.     601.    1137.     562.     325.     192.     292.      62.      21.   609.70
     0.27     1.85     5.92     1.93    0.040    0.030    0.040    0.000   608.40   900.41
 0.001010     124.     124.     124.        2        0        0     0.00   377.83  1278.24
0
 *SECNO 4480.000
 2800 NAT Q1=    475.81  WSEL=    616.17  ENC Q1=    475.81  WSEL=    616.27  RATIO=  0.0000
 NAT Q1=    514.  RATIOS LOB,CH,ROB=  0.3927  0.2220  0.3853  WSEL=    616.27
 3280 CROSS SECTION   4480.00 EXTENDED      1.28 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  611.20 MAX ELLC=  615.00
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
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     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 3470 ENCROACHMENT STATIONS=      884.1     1292.1   TYPE=      4   TARGET=         0.075
           GOLF COURSE BRIDGE
   4480.00      7.87   616.27      0.00    616.17    616.40      0.13      0.00      0.02    609.10
     2300.      886.     549.      865.      367.      150.      325.       62.       21.     609.70
      0.27      2.42     3.66      2.67     0.040     0.030     0.040     0.000    608.40    884.06
  0.002299        1.       1.        1.         2         0         0    -79.90    408.01   1292.07
0
 *SECNO 4485.000
  2800 NAT Q1=     477.59  WSEL=     616.18  ENC Q1=     477.59  WSEL=     616.28  RATIO=  0.0000
  NAT Q1=     520.  RATIOS LOB,CH,ROB=  0.3938  0.2205  0.3857  WSEL=     616.28
 3280 CROSS SECTION    4485.00 EXTENDED       1.28 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  611.20 MAX ELLC=  615.00


 3470 ENCROACHMENT STATIONS=      886.6     1289.9   TYPE=      4   TARGET=         0.082
   4485.00      7.88   616.28      0.00    616.18    616.41      0.13      0.01      0.00    609.10
     2300.      885.     551.      864.      365.      150.      323.       62.       21.     609.70
      0.27      2.43     3.67      2.68     0.040     0.030     0.040     0.000    608.40    886.58
  0.002301        5.       5.        5.         0         0         0    -79.90    403.28   1289.86
0
 *SECNO 4486.000
  2800 NAT Q1=     767.89  WSEL=     616.09  ENC Q1=     767.89  WSEL=     616.19  RATIO=  0.0000
  NAT Q1=     814.  RATIOS LOB,CH,ROB=  0.2844  0.4492  0.2664  WSEL=     616.19
 3280 CROSS SECTION    4486.00 EXTENDED       1.19 FEET


 3470 ENCROACHMENT STATIONS=      894.3     1283.2   TYPE=      4   TARGET=         0.056
   4486.00      7.79   616.19      0.00    616.09    616.45      0.26      0.00      0.04    609.10
     2300.      626.    1093.      581.      353.      195.      314.       62.       21.     609.70
      0.27      1.77     5.62      1.85     0.040     0.030     0.040     0.000    608.40    894.34
  0.000892        1.       1.        1.         2         0         0      0.00    388.87   1283.21
0
 *SECNO 4535.000
  2800 NAT Q1=     801.22  WSEL=     616.15  ENC Q1=     801.22  WSEL=     616.25  RATIO=  0.0000
  NAT Q1=     845.  RATIOS LOB,CH,ROB=  0.2904  0.4389  0.2708  WSEL=     616.25
 3280 CROSS SECTION    4535.00 EXTENDED       1.26 FEET

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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 3470 ENCROACHMENT STATIONS=      889.1     1287.7   TYPE=      4   TARGET=         0.052
   4535.00      7.86   616.26      0.00    616.15    616.50      0.24      0.04      0.00    609.10
     2300.      643.    1062.      595.      374       196.      331.       63.       21.     609.70
      0.27      1.72     5.41      1.80     0.040     0.030     0.040     0.000    608.40    889.10
  0.000818       49.      49.       49.         2         0         0      0.00    398.58   1287.67
0
 *SECNO 5120.000
  2800 NAT Q1=     626.32  WSEL=     616.65  ENC Q1=     626.32  WSEL=     616.75  RATIO=  0.0000
  NAT Q1=     664.  RATIOS LOB,CH,ROB=  0.2501  0.5098  0.2401  WSEL=     616.75
 3280 CROSS SECTION    5120.00 EXTENDED       0.85 FEET
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 3470 ENCROACHMENT STATIONS=      910.8     1270.4   TYPE=      4   TARGET=        0.056
    5120.00     7.45    616.75      0.00    616.65    617.15      0.41      0.61      0.05    610.00
      2300.     540.     1244.      516.      266.      186.      246.       74.       26.    610.60
       0.31     2.03      6.70      2.10     0.040     0.030     0.040     0.000    609.30    910.81
   0.001352     585.      585.      585.         2         0         0      0.00    359.57   1270.38
0
 *SECNO 5705.000
  2800 NAT Q1=     496.13  WSEL=     617.40  ENC Q1=     496.13  WSEL=     617.50  RATIO=  0.0000
  NAT Q1=     522.  RATIOS LOB,CH,ROB=  0.1034  0.6731  0.2236  WSEL=     617.50

 3470 ENCROACHMENT STATIONS=     1025.6     1189.3   TYPE=      4   TARGET=        0.049
    5705.00     7.26    617.49      0.00    617.40    618.25      0.76      0.99      0.11    611.83
      2300.     189.     1630.      481.       76.      200.      167.       82.       30.    611.80
       0.33     2.49      8.13      2.87     0.040     0.030     0.040     0.000    610.23   1025.61
   0.002168     585.      585.      585.         2         0         0      0.00    163.69   1189.30
0
 *SECNO 5819.000
  2800 NAT Q1=     661.26  WSEL=     617.94  ENC Q1=     661.26  WSEL=     618.04  RATIO=  0.0000
  NAT Q1=     696.  RATIOS LOB,CH,ROB=  0.1428  0.5736  0.2837  WSEL=     618.04
 3280 CROSS SECTION    5819.00 EXTENDED       0.55 FEET


 3470 ENCROACHMENT STATIONS=     1000.6     1230.5   TYPE=      4   TARGET=        0.050
    5819.00     7.82    618.05      0.00    617.94    618.46      0.41      0.18      0.04    611.83
      2300.     288.     1384.      628.      140.      217.      277.       83.       30.    611.80
       0.34     2.06      6.37      2.26     0.040     0.030     0.040     0.000    610.23   1000.58
   0.001194     114.      114.      114.         3         0         0      0.00    229.89   1230.46
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 5820.000
  2800 NAT Q1=     302.75  WSEL=     618.12  ENC Q1=     302.75  WSEL=     618.22  RATIO=  0.0000
  NAT Q1=     329.  RATIOS LOB,CH,ROB=  0.2443  0.3239  0.4318  WSEL=     618.22
 3280 CROSS SECTION    5820.00 EXTENDED       0.65 FEET


 3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  615.13 MAX ELLC=  618.50


 3470 ENCROACHMENT STATIONS=     1021.1     1252.2   TYPE=      4   TARGET=        0.080
           GOLF COURSE BRIDGE
    5820.00     7.92    618.15      0.00    618.12    618.47      0.32      0.00      0.01    611.83
      2300.     447.      856.      996.      105.      153.      280.       83.       30.    611.80
       0.34     4.25      5.61      3.56     0.040     0.030     0.040     0.000    610.23   1021.12
   0.006727       1.        1.        1.         2         0         0   -113.99    231.03   1252.16
0
 *SECNO 5825.000
  2800 NAT Q1=     312.93  WSEL=     618.16  ENC Q1=     312.93  WSEL=     618.26  RATIO=  0.0000
  NAT Q1=     340.  RATIOS LOB,CH,ROB=  0.2458  0.3179  0.4363  WSEL=     618.26
 3280 CROSS SECTION    5825.00 EXTENDED       0.71 FEET


 3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  615.13 MAX ELLC=  618.50


 3470 ENCROACHMENT STATIONS=     1020.5     1254.1   TYPE=      4   TARGET=        0.079
    5825.00     7.98    618.21      0.00    618.16    618.51      0.30      0.03      0.00    611.83
      2300.     450.      837.     1013.      109.      154.      291.       83.       30.    611.80
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     0.34      4.12      5.43      3.48     0.040     0.030     0.040     0.000    610.23   1020.47
 0.006196        5.        5.        5.         2         0         0   -113.99    233.64   1254.11
0
 *SECNO 5826.000
  2800 NAT Q1=     715.34  WSEL=     618.08  ENC Q1=     715.34  WSEL=     618.18  RATIO=  0.0000
  NAT Q1=     752.  RATIOS LOB,CH,ROB=  0.1554  0.5485  0.2961  WSEL=     618.18
 3280 CROSS SECTION   5826.00 EXTENDED       0.68 FEET


 3470 ENCROACHMENT STATIONS=       990.8     1239.4  TYPE=      4  TARGET=        0.049
   5826.00      7.95    618.18      0.00    618.08    618.53      0.35      0.00      0.02    611.83
     2300.      317.     1328.      655.      163.      221.      306.       83.       30.    611.80
     0.34      1.95      6.01      2.14     0.040     0.030     0.040     0.000    610.23    990.80
 0.001038        1.        1.        1.         2         0         0      0.00    248.56   1239.36
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 5875.000
  2800 NAT Q1=     737.30  WSEL=     618.15  ENC Q1=     737.30  WSEL=     618.25  RATIO=  0.0000
  NAT Q1=     780.  RATIOS LOB,CH,ROB=  0.1612  0.5372  0.3016  WSEL=     618.25
 3280 CROSS SECTION   5875.00 EXTENDED       0.75 FEET


 3470 ENCROACHMENT STATIONS=       989.9     1239.0  TYPE=      4  TARGET=        0.055
   5875.00      8.02    618.25      0.00    618.15    618.58      0.33      0.05      0.00    611.83
     2300.      327.     1307.      666.      170.      223.      315.       84.       30.    611.80
     0.34      1.92      5.86      2.11     0.040     0.030     0.040     0.000    610.23    989.94
 0.000974       49.       49.       49.         2         0         0      0.00    249.10   1239.05
0
 CCHV=   0.500 CEHV=   1.000
 *SECNO 6065.000
  2800 NAT Q1=     523.11  WSEL=     618.39  ENC Q1=     523.11  WSEL=     618.49  RATIO=  0.0000
  NAT Q1=     549.  RATIOS LOB,CH,ROB=  0.1295  0.5884  0.2820  WSEL=     618.49
 3280 CROSS SECTION   6065.00 EXTENDED       1.50 FEET


 3470 ENCROACHMENT STATIONS=        26.4      217.6  TYPE=      4  TARGET=        0.048
   6065.00      7.09    618.49      0.00    618.39    619.11      0.62      0.24      0.29    612.30
     2300.      256.     1419.      625.       92.      183.      232.       87.       31.    612.10
     0.35      2.78      7.76      2.69     0.040     0.030     0.040     0.000    611.40     26.36
 0.001922      210.      190.      150.         0         0         0      0.00    191.28    217.64
0
 *SECNO 6140.000
  2800 NAT Q1=     624.96  WSEL=     618.77  ENC Q1=     624.96  WSEL=     618.87  RATIO=  0.0000
  NAT Q1=     655.  RATIOS LOB,CH,ROB=  0.1464  0.5401  0.3135  WSEL=     618.87
 3280 CROSS SECTION   6140.00 EXTENDED       1.88 FEET


 3470 ENCROACHMENT STATIONS=        19.2      221.1  TYPE=      4  TARGET=        0.046
           GOLF COURSE BRIDGE
   6140.00      7.48    618.88      0.00    618.77    619.32      0.44      0.12      0.09    612.30
     2300.      298.     1301.      702.      121.      193.      284.       87.       32.    612.10
     0.35      2.46      6.73      2.47     0.040     0.030     0.040     0.000    611.40     19.24
 0.001346       75.       75.       75.         3         0         0      0.00    201.82    221.06
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA       SS         ELCHU      ELCHD
       0.00       1.15       3.00       0.00      23.00       0.00     157.00       0.00     611.40     611.40

 *SECNO 6167.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=   622.713  EGLWC=   619.580  ELLC=   618.100  PCWSE=   618.881  ELTRD=   617.000
  2800 NAT Q1=     412.20  WSEL=    619.04  ENC Q1=     412.20  WSEL=    619.14  RATIO=  0.0000
  NAT Q1=     433.  RATIOS LOB,CH,ROB=  0.1723  0.3642  0.4635  WSEL=    619.14
  WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
 3280 CROSS SECTION   6167.00 EXTENDED       2.04 FEET


 3470 ENCROACHMENT STATIONS=       9.9      227.4  TYPE=      4  TARGET=        0.048
   6167.00      7.64    619.04      0.00    619.04    619.40      0.36      0.03      0.04    612.30
     2300.      331.     1231.      738.      146.      198.      317.       88.       32.    612.10
      0.36      2.26      6.23      2.33     0.040     0.030     0.040     0.000    611.40      9.94
  0.001119       27.       27.       27.         0         0         0      0.00    217.44    227.38
0
 *SECNO 6220.000
  2800 NAT Q1=     732.56  WSEL=    619.13  ENC Q1=     732.56  WSEL=    619.23  RATIO=  0.0000
  NAT Q1=     764.  RATIOS LOB,CH,ROB=  0.1599  0.5022  0.3379  WSEL=    619.23
 3280 CROSS SECTION   6220.00 EXTENDED       2.09 FEET


 3470 ENCROACHMENT STATIONS=      14.1      224.2  TYPE=      4  TARGET=        0.041
   6220.00      7.70    619.10      0.00    619.13    619.46      0.36      0.06      0.00    612.30
     2300.      325.     1233.      741.      142.      199.      317.       89.       32.    612.10
      0.36      2.29      6.19      2.34     0.040     0.030     0.040     0.000    611.40     14.09
  0.001096       53.       53.       53.         0         0         0      0.00    210.07    224.16
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 7493.000

 3470 ENCROACHMENT STATIONS=     225.0      300.0  TYPE=      1  TARGET=       75.000
   7493.00      6.71    621.21      0.00    621.08    622.03      0.82      2.43      0.14    619.30
     2300.       17.     2280.        3.        7.      313.        2.      103.       36.    620.10
      0.41      2.24      7.28      1.52     0.050     0.035     0.050     0.000    614.50    225.00
  0.004112     1273.     1273.     1273.         2         0         0      0.00     75.00    300.00
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 CCHV=   0.300 CEHV=   0.500
 *SECNO 7505.000

 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  625.85 MAX ELLC=  627.00
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         44TH STREET
   7505.00      6.72   621.22     0.00   621.09   622.08     0.86     0.03     0.02   624.75
     2300.        0.    2300.       0.       0.     308.       0.     103.      36.    624.70
      0.41      0.00     7.46     0.00    0.000    0.020    0.000    0.000   614.50   229.00
   0.001815      12.      12.      12.        2        0        0    -4.81    69.00   298.00
0
 *SECNO 7565.000

 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  625.85 MAX ELLC=  627.00

   7565.00      6.90   621.40     0.00   621.29   622.20     0.80     0.10     0.02   624.75
     2300.        0.    2300.       0.       0.     320.       0.     104.      36.    624.70
      0.41      0.00     7.18     0.00    0.000    0.020    0.000    0.000   614.50   229.00
   0.001617      60.      60.      60.        0        0        0    -5.15    69.00   298.00
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 7577.000
  2800 NAT Q1=    463.79  WSEL=    621.47  ENC Q1=    469.10  WSEL=    621.57  RATIO= -0.0114
  NAT Q1=    500.  RATIOS LOB,CH,ROB=  0.0436  0.9381  0.0182  WSEL=    621.57

 3470 ENCROACHMENT STATIONS=     229.0     298.0  TYPE=     4  TARGET=       0.062
   7577.00      6.99   621.49     0.00   621.47   622.23     0.75     0.02     0.01   619.30
     2300.        0.    2300.       0.       0.     332.       0.     104.      36.    620.10
      0.41      0.00     6.93     0.00    0.000    0.030    0.000    0.000   614.50   229.00
   0.002707      12.      12.      12.        2        0        0     0.00    69.00   298.00
0
 CCHV=   0.500 CEHV=   1.000
 *SECNO 9150.000
  2800 NAT Q1=    728.41  WSEL=    624.30  ENC Q1=    728.41  WSEL=    624.40  RATIO=  0.0000
  NAT Q1=    751.  RATIOS LOB,CH,ROB=  0.1782  0.6103  0.2115  WSEL=    624.40
 3280 CROSS SECTION   9150.00 EXTENDED      3.71 FEET


 3470 ENCROACHMENT STATIONS=      24.4     145.9  TYPE=     4  TARGET=       0.029
   9150.00      9.31   624.42     0.00   624.30   624.80     0.38     2.39     0.18   620.51
     2300.      401.    1434.     466.     178.     238.     197.     121.      40.    617.06
      0.51      2.25     6.02     2.37    0.050    0.030    0.050    0.000   615.11    24.41
   0.000970     1573.    1573.    1573.        2        0        0     0.00   121.46   145.86
0
1
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    SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
    Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
    TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
    SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


 *SECNO 9550.000

 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=     104.0     180.0  TYPE=     1  TARGET=      76.000
         CONFLUENCE WITH DIVERSION CHANNEL
   9550.00      7.58   626.27   626.27   626.22   627.77     1.50     0.87     1.11 99999.50
     2300.        0.    1103.    1197.       0.      87.     195.     125.      41.    620.25
      0.52      0.00    12.65     6.15    0.000    0.030    0.050    0.000   618.69   104.77
   0.008423     400.     400.     400.        2       14        0     0.00    75.23   180.00
0
 *SECNO 9630.000
 3280 CROSS SECTION   9630.00 EXTENDED      3.24 FEET
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 3301 HV CHANGED MORE THAN HVINS

   9630.00      8.84   628.55     0.00   628.44   628.57     0.02     0.06     0.74   620.97
      600.      150.     269.     181.     294.     177.     364.     126.      41.   620.71
      0.54      0.51     1.52     0.50    0.050    0.030    0.050    0.000   619.71    12.09
  0.000055       80.      80.      80.        2        0        0     0.00   212.91   225.00
O
 *SECNO 9704.000
 3280 CROSS SECTION   9704.00 EXTENDED      3.26 FEET

   9704.00      8.92   628.56     0.00   628.47   628.58     0.01     0.00     0.00   623.14
      600.      195.     172.     233.     327.     134.     388.     127.      41.   623.14
      0.57      0.60     1.29     0.60    0.050    0.030    0.050    0.000   619.64     0.00
  0.000077       74.      74.      74.        2        0        0     0.00   225.00   225.00
O
 CCHV=   0.300 CEHV=   0.500
 *SECNO 9705.000
 3280 CROSS SECTION   9705.00 EXTENDED      2.80 FEET


 3301 HV CHANGED MORE THAN HVINS

1
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      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  628.30 MAX ELLC=  628.30

           1ST KENOWA STREET CULVERT, 2-7'X145' CMP
   9705.00      8.47   628.11   624.12   628.17   629.04     0.93     0.00     0.46   623.14
      600.        0.     600.       0.       0.      78.       0.     127.      41.   623.14
      0.57      0.00     7.74     0.00    0.000    0.027    0.000    0.000   619.64     2.26
  0.009638        1.       1.       1.        8       15        0  -668.39   222.74   225.00
O
 *SECNO 9756.000
 3280 CROSS SECTION   9756.00 EXTENDED      3.55 FEET


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  628.30 MAX ELLC=  628.30


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      630.00 ELREA=      630.00

   9756.00      9.22   628.86     0.00   628.95   629.60     0.73     0.50     0.06   623.14
      600.        0.     600.       0.       0.      87.       0.     127.      42.   623.14
      0.57      0.00     6.86     0.00    0.000    0.027    0.000    0.000   619.64   100.00
  0.010002       51.      51.      51.        3        0        0   -73.83    17.50   117.50
O
 CCHV=   0.100 CEHV=   0.300
 *SECNO 9757.000
 3280 CROSS SECTION   9757.00 EXTENDED      4.08 FEET


 3470 ENCROACHMENT STATIONS=      100.0     117.5  TYPE=      1  TARGET=      17.500
   9757.00      9.75   629.39     0.00   629.45   629.65     0.25     0.00     0.05   623.14
      600.        0.     600.       0.       0.     148.       0.     127.      42. 100000.00
      0.57      0.00     4.05     0.00    0.000    0.030    0.000    0.000   619.64   100.00
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 0.001113       1.        1.        1.         2         0         0      0.()    17.50    117.50
0
*SECNO 10405.000
 2800 NAT Q1=    1053.04  WSEL=     629.78  ENC Q1=    1053.04  WSEL=     629.88  RATIO=  0.0000
 NAT Q1=   1090.  RATIOS LOB,CH,ROB=  0.3620  0.2137  0.4243  WSEL=     629.88
3280 CROSS SECTION  10405.00 EXTENDED       3.92 FEET
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


3470 ENCROACHMENT STATIONS=       19.2      220.4  TYPE=      4  TARGET=       0.034
 10405.00      9.59   629.73      0.00    629.78   629.73      0.01      0.06      0.02    623.64
     600.      214.      135.      251.      360.      145.      442.      135.       43.    623.64
     0.83      0.59      0.93      0.57     0.040     0.030     0.040     0.000    620.14     19.16
 0.000036      450.      648.      700.         0         0         0      0.00    201.24    220.40
0
CCHV=   0.300 CEHV=   0.500
*SECNO 11205.000
 2800 NAT Q1=     150.95  WSEL=     629.61  ENC Q1=     154.98  WSEL=     629.71  RATIO= -0.0267
 NAT Q1=    155.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     629.71
3280 CROSS SECTION  11205.00 EXTENDED       1.67 FEET


3470 ENCROACHMENT STATIONS=      100.0      117.5  TYPE=      4  TARGET=       0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      653.70 ELREA=      653.70

          2ND KENOWA STREET CULVERT, 2-7'X145' CMP
 11205.00      7.37   629.57      0.00    629.61   630.07      0.50      0.09      0.25    625.70
     600.        0.      600.        0.        0.      106.        0.      144.       45.    625.70
     0.87      0.00      5.66      0.00     0.000     0.027     0.000     0.000    622.20    100.00
 0.001949      600.      800.      850.         2         0         0      0.00     17.50    117.50
0

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     1.25       2.90       2.80     100.00     14.50       3.50      77.00       0.00     622.20     622.20

*SECNO 11350.000
3280 CROSS SECTION  11350.00 EXTENDED       4.30 FEET

CLASS A LOW FLOW

3420 BRIDGE W.S.=    628.99 BRIDGE VELOCITY=,       8.03      CALCULATED CHANNEL AREA=,        75.

 EGPRS       EGLWC        H3        QWEIR       QLOW       BAREA    TRAPEZOID       ELLC      ELTRD
                                                                       AREA
    632.30     632.44      0.48        0.       600.        77.        77.       629.20    653.70
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
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   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      653.70 ELREA=      653.70

  11350.00     10.00    632.20     0.00    632.10    632.44      0.24      2.38      0.00    625.70
      600.        0.      600.       0.        0.      152.        0.      144.       45.    625.70
      0.88      0.00      3.95     0.00     0.000     0.027     0.000     0.000    622.20    100.00
  0.000487      145.      145.     145.         0         0         0      0.00     17.50    117.50
0
 CCHV=    0.100 CEHV=    0.300
 *SECNO 11500.000
  2800 NAT Q1=    1124.82  WSEL=    632.38  ENC Q1=    1124.82  WSEL=    632.48  RATIO=  0.0000
  NAT Q1=    1158.  RATIOS LOB,CH,ROB=  0.3279  0.2940  0.3781  WSEL=    632.48
 3280 CROSS SECTION  11500.00 EXTENDED       4.57 FEET


 3470 ENCROACHMENT STATIONS=       15.3      220.7  TYPE=      4  TARGET=       0.029
  11500.00     10.27    632.47     0.00    632.38    632.48      0.01      0.01      0.02    625.70
      600.      194.      181.     225.      424.      173.      508.      147.       45.    625.70
      0.95      0.46      1.05     0.44     0.050     0.030     0.050     0.000    622.20     15.31
  0.000028      150.      150.     150.         2         0         0      0.00    205.40    220.71
0
 *SECNO 11550.000
  2800 NAT Q1=    1104.42  WSEL=    632.31  ENC Q1=    1104.42  WSEL=    632.41  RATIO=  0.0000
  NAT Q1=    1137.  RATIOS LOB,CH,ROB=  0.3267  0.2962  0.3771  WSEL=    632.41
 3280 CROSS SECTION  11550.00 EXTENDED       4.50 FEET


 3470 ENCROACHMENT STATIONS=       15.8      220.6  TYPE=      4  TARGET=       0.029
  11550.00     10.20    632.40     0.00    632.31    632.52      0.11      0.01      0.03    625.70
     2300.      740.      701.     858.      417.      171.      501.      148.       46.    625.70
      0.95      1.77      4.09     1.71     0.050     0.030     0.050     0.000    622.20     15.81
  0.000435       50.       50.      50.         2         0         0      0.00    204.84    220.65
0
 *SECNO 11750.000
  2800 NAT Q1=    1133.92  WSEL=    632.40  ENC Q1=    1133.92  WSEL=    632.50  RATIO=  0.0000
  NAT Q1=    1167.  RATIOS LOB,CH,ROB=  0.3285  0.2930  0.3786  WSEL=    632.50
 3280 CROSS SECTION  11750.00 EXTENDED       4.59 FEET


 3470 ENCROACHMENT STATIONS=       15.1      220.7  TYPE=      4  TARGET=       0.029
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


  11750.00     10.29    632.49     0.00    632.40    632.60      0.11      0.08      0.00    625.70
     2300.      744.      694.     862.      426.      173.      509.      153.       47.    625.70
      0.98      1.75      4.02     1.69     0.050     0.030     0.050     0.000    622.20     15.10
  0.000414      200.      200.     200.         0         0         0      0.00    205.64    220.74
0
 *SECNO 12449.000
 3280 CROSS SECTION  12449.00 EXTENDED       4.49 FEET


 3301 HV CHANGED MORE THAN HVINS
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 3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
   12449.00    10.19    632.39     0.00   632.27   633.54     1.15     0.63     0.31    625.70
      2300.       0.     1659.     641.       0.     171.     132.     164.      48.    625.70
       1.00     0.00      9.69     4.87    0.000    0.030    0.050    0.000   622.20    100.00
   0.003495     500.      699.     750.        2        0        0     0.00    40.00    140.00
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 12450.000

 3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD=  646.20 MAX ELLC=  635.00


 3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
           U/S I-196
   12450.00    10.15    632.65     0.00   632.56   633.61     0.96     0.00     0.06    628.50
      2300.       0.     2300.       0.       0.     293.       0.     164.      48. 100000.00
       1.00     0.00      7.85     0.00    0.000    0.027    0.000    0.000   622.50    100.00
   0.003853       1.        1.       1.        2        0        0   -34.58    40.00    140.00
0
 *SECNO 12650.000

 3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD=  646.20 MAX ELLC=  635.00


 3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
   12650.00    11.03    633.53     0.00   633.46   634.37     0.84     0.73     0.03    628.50
      2300.       0.     2300.       0.       0.     312.       0.     165.      49. 100000.00
       1.01     0.00      7.37     0.00    0.000    0.027    0.000    0.000   622.50    100.00
   0.003494     200.      200.     200.        2        0        0   -50.64    40.00    140.00
0
1
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      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 CCHV=   0.100 CEHV=   0.300
 *SECNO 12850.000

 3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
   12850.00    11.89    634.39     0.00   634.32   634.91     0.52     0.50     0.03    628.50
      2300.       0.     2300.       0.       0.     397.       0.     167.      49. 100000.00
       1.02     0.00      5.79     0.00    0.000    0.035    0.000    0.000   622.50    100.00
   0.001900     200.      200.     200.        2        0        0     0.00    40.00    140.00
0
 *SECNO 13600.000
  2800 NAT Q1=    653.34  WSEL=     635.68  ENC Q1=    653.34  WSEL=     635.78  RATIO=  0.0000
  NAT Q1=    673.   RATIOS LOB,CH,ROB=  0.2826  0.6933  0.0240  WSEL=     635.78

 3470 ENCROACHMENT STATIONS=      154.2      305.2  TYPE=      4  TARGET=        0.029
   13600.00     9.72    635.72     0.00   635.68   636.07     0.36     1.15     0.02    631.90
      2300.     633.     1647.      19.     457.     294.      21.     176.      50.    631.30
       1.06     1.38      5.60     0.94    0.100    0.035    0.100    0.000   626.00    154.23
   0.001281     700.      750.     750.        2        0        0     0.00   150.94    305.17
0
 *SECNO 14975.000
  2800 NAT Q1=    464.88  WSEL=     637.77  ENC Q1=    464.88  WSEL=     637.87  RATIO=  0.0000
  NAT Q1=    481.   RATIOS LOB,CH,ROB=  0.0440  0.6488  0.3073  WSEL=     637.87

 3470 ENCROACHMENT STATIONS=      267.7      463.1  TYPE=      4  TARGET=        0.033
   14975.00     9.16    637.86     0.00   637.77   638.54     0.68     2.37     0.10    632.40
      2300.      68.     1543.     689.      42.     192.     463.     200.      56.    632.20
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     1.13      1.61      8.03      1.49     0.100     0.035     0.100     0.000    628.70    267.71
  0.002459     1355.     1375.     1375.         2         0         0      0.00    195.39    463.10
0
 *SECNO 16700.000
  2800 NAT Q1=    786.39  WSEL=     640.63  ENC Q1=    786.39  WSEL=     640.73  RATIO=  0.0000
  NAT Q1=    812.  RATIOS LOB,CH,ROB=  0.4321  0.5322  0.0358  WSEL=     640.73
 3280 CROSS SECTION  16700.00 EXTENDED       3.24 FEET


 3470 ENCROACHMENT STATIONS=       22.8      322.5  TYPE=      4  TARGET=       0.032
  16700.00      9.34    640.74      0.00    640.63    640.92      0.18      2.33      0.05    637.00
     2300.      989.     1264.       47.      903.      279.       61.      238.       66.    638.30
      1.29      1.09      4.54      0.78     0.100     0.035     0.100     0.000    631.40     22.77
  0.000852     1725.     1725.     1725.         2         0         0      0.00    299.76    322.54
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 17600.000
  2800 NAT Q1=    446.75  WSEL=     641.66  ENC Q1=    446.75  WSEL=     641.76  RATIO=  0.0000
  NAT Q1=    464.  RATIOS LOB,CH,ROB=  0.3341  0.6530  0.0129  WSEL=     641.76
 3280 CROSS SECTION  17600.00 EXTENDED       1.67 FEET


 3470 ENCROACHMENT STATIONS=       34.3      300.0  TYPE=      4  TARGET=       0.037
  17600.00      7.77    641.77      0.00    641.66    642.27      0.51      1.25      0.10    639.60
     2300.      749.     1551.        0.      498.      225.        0.      258.       71.    640.90
      1.34      1.51      6.88      0.00     0.100     0.035     0.000     0.000    634.00     34.26
  0.002679      900.      900.      900.         2         0         0      0.00    265.74    300.00
0
 *SECNO 18545.000

 3470 ENCROACHMENT STATIONS=      245.0      305.0  TYPE=      1  TARGET=      60.000
  18545.00      7.83    643.63      0.00    643.55    644.23      0.59      1.93      0.03    637.60
     2300.       34.     2226.       40.       29.      355.       33.      271.       75.    636.80
      1.38      1.17      6.28      1.21     0.100     0.035     0.100     0.000    635.80    245.00
  0.001607      945.      945.      945.         2         0         0      0.00     60.00    305.00
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 18565.000

 3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  645.45 MAX ELLC=  651.00


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      645.45 ELREA=      645.45

           BARRY STREET
  18565.00      7.81    643.61      0.00    643.51    644.31      0.70      0.03      0.05    637.60
     2300.        0.     2300.        0.        0.      343.        0.      271.       75.    636.80
      1.38      0.00      6.71      0.00     0.000     0.015     0.000     0.000    635.80    250.00
  0.001020       20.       20.       20.         2         0         0   -148.07     50.00    300.00
0
 *SECNO 18602.000

 3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  645.45 MAX ELLC=  651.00

1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      645.45 ELREA=      645.45

  18602.00      7.84    643.64      0.00    643.54    644.34      0.70      0.04      0.00    637.60
     2300.        0.     2300.        0.        0.      343.        0.      271.       75.    636.80
      1.38      0.00      6.71      0.00     0.000     0.015     0.000     0.000    635.80    250.00
  0.001020       37.       37.       37.         1         0         0   -151.31     50.00    300.00
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 18622.000

 3470 ENCROACHMENT STATIONS=      230.0      320.0  TYPE=      1  TARGET=       90.000
  18622.00      8.35    644.15      0.00    644.04    644.40      0.25      0.01      0.04    637.60
     2300.      282.     1695.      323.      117.      379.      127.      271.       75.    636.80
      1.38      2.42      4.47      2.54     0.040     0.030     0.040     0.000    635.80    230.00
  0.000548       20.       20.       20.         2         0         0      0.00     90.00    320.00
0
 *SECNO 19000.000
  2800 NAT Q1=     759.40  WSEL=     644.41  ENC Q1=     759.40  WSEL=     644.51  RATIO=  0.0000
  NAT Q1=     795.  RATIOS LOB,CH,ROB=  0.4566  0.3341  0.2093  WSEL=      644.51

 3470 ENCROACHMENT STATIONS=      138.2      351.7  TYPE=      4  TARGET=        0.045
  19000.00      7.58    644.48      0.00    644.41    644.67      0.19      0.27      0.01    641.20
     2300.     1045.      809.      446.      424.      165.      176.      277.       76.    641.30
      1.41      2.46      4.91      2.54     0.040     0.030     0.040     0.000    636.90    138.17
  0.000940      378.      378.      378.         2         0         0      0.00    213.51    351.68
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 20755.000
  2800 NAT Q1=     983.48  WSEL=     645.74  ENC Q1=     983.48  WSEL=     645.84  RATIO=  0.0000
  NAT Q1=    1137.  RATIOS LOB,CH,ROB=  0.2855  0.2257  0.4888  WSEL=      645.84
 3280 CROSS SECTION  20755.00 EXTENDED       2.44 FEET


 3470 ENCROACHMENT STATIONS=      110.7      478.4  TYPE=      4  TARGET=        0.135
  20755.00      9.34    645.84      0.00    645.74    645.94      0.10      1.24      0.03    644.30
     2300.      581.      600.     1119.      379.      156.      573.      315.       88.    641.10
      1.62      1.53      3.83      1.95     0.040     0.030     0.040     0.000    636.50    110.72
  0.000547     1755.     1755.     1755.         2         0         0      0.00    367.65    478.38
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 20905.000
  2800 NAT Q1=     500.69  WSEL=     645.76  ENC Q1=     500.69  WSEL=     645.86  RATIO=  0.0000
  NAT Q1=     555.  RATIOS LOB,CH,ROB=  0.1980  0.3470  0.4550  WSEL=      645.86
 3280 CROSS SECTION  20905.00 EXTENDED       1.26 FEET


 3470 ENCROACHMENT STATIONS=      110.9      432.5  TYPE=      4  TARGET=        0.098
  20905.00      8.16    645.86      0.00    645.76    646.21      0.35      0.14      0.13    645.50
     2300.      379.      887.     1034.      180.      132.      329.      318.       89.    642.30
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      1.63      2.10      6.74      3.14     0.040     0.030     0.040     0.000    637.70    110.93
   0.002123     150.      150.      150.         2         0         0      0.00    321.54    432.47
0
 *SECNO 21055.000
  2800 NAT Q1=     342.09  WSEL=     646.50  ENC Q1=     342.09  WSEL=     646.60  RATIO=  0.0000
  NAT Q1=     411.  RATIOS LOB,CH,ROB=  0.1527  0.4189  0.4284  WSEL=     646.60

 3265 DIVIDED FLOW

 3280 CROSS SECTION  21055.00 EXTENDED      0.85 FEET

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=     138.1     407.4  TYPE=     4  TARGET=      0.168
  21055.00      7.75    646.60    646.60    646.50    647.42      0.82      0.45      0.23    646.65
     2300.      188.     1163.      949.       79.      123.      230.      320.       90.    643.45
      1.64      2.39      9.45      4.14     0.040     0.030     0.040     0.000    638.85    138.07
  0.004566      150.      150.      150.        20        10         0      0.00    232.66    407.41
0
 *SECNO 21355.000
  2800 NAT Q1=     368.88  WSEL=     647.81  ENC Q1=     368.88  WSEL=     647.91  RATIO=  0.0000
  NAT Q1=     387.  RATIOS LOB,CH,ROB=  0.3684  0.4004  0.2311  WSEL=     647.91

 3470 ENCROACHMENT STATIONS=     228.3     329.5  TYPE=     4  TARGET=      0.046
           JACKSON STREET (TOWNSHIP LIMIT)
  21355.00      6.68    647.88      0.00    647.81    648.70      0.82      1.28      0.00    643.40
     2300.      833.      970.      497.      164.      103.       97.      323.       91.    643.30
      1.65      5.07      9.47      5.14     0.040     0.030     0.040     0.000    641.20    228.30
  0.003993      300.      300.      300.         2         0         0      0.00    101.20    329.50
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST



 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00       1.56       3.00     150.00      15.00       0.00     110.00       0.00     641.20     641.20

 *SECNO 21391.000
 3280 CROSS SECTION  21391.00 EXTENDED      2.16 FEET


 3301 HV CHANGED MORE THAN HVINS

 PRESSURE AND WEIR FLOW


  EGPRS       EGLWC        H3        QWEIR        QPR        BAREA   TRAPEZOID      ELLC       ELTRD
                                                                        AREA
     658.47     648.57      0.00      1095.      1211.       110.        87.     647.00     649.00



 3470 ENCROACHMENT STATIONS=     200.0     350.0  TYPE=     1  TARGET=    150.000
  21391.00      9.46    650.66      0.00    650.65    650.81      0.15      2.11      0.00    643.40
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     2300.     1018.      654.      628.      414.      153.      258.      323.       91.    643.30
      1.65      2.46      4.29      2.43     0.040     0.030     0.040     0.000    641.20    200.00
  0.000482       36.       36.       36.         2         0         4      0.00    150.00    350.00
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 22615.000
  2800 NAT Q1=    3256.12  WSEL=     650.82  ENC Q1=    3256.12  WSEL=     650.92  RATIO=  0.0000
  NAT Q1=    3334.  RATIOS LOB,CH,ROB=  0.7632  0.1043  0.1326  WSEL=     650.92
 3280 CROSS SECTION  22615.00 EXTENDED      5.73 FEET


 3470 ENCROACHMENT STATIONS=      30.2      355.0  TYPE=      4  TARGET=       0.023
  22615.00      9.43    650.83      0.00    650.82    650.85      0.02      0.03      0.01    644.10
     2300.     1771.      246.      282.     1795.      169.      321.      331.       93.    643.20
      1.72      0.99      1.46      0.88     0.040     0.030     0.040     0.000    641.40     30.17
  0.000052      224.      224.      224.         2         0         0      0.00    324.81    354.98
0
 CCHV=   0.100 CEHV=   0.300
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO -9550.000
 START TRIB COMP
   -9550.000  9550.000    626.272

 3470 ENCROACHMENT STATIONS=     104.0      180.0  TYPE=      1  TARGET=      76.000
  -9550.00      7.58    626.27      0.00    626.22    627.34      1.07      0.00      0.00  99999.50
     2300.        0.      819.     1481.        0.       87.      195.      343.       95.    620.25
      1.73      0.00      9.39      7.61     0.000     0.040     0.040     0.000    618.69    104.77
  0.008254      400.      400.      400.         0         0         0      0.00     75.23    180.00
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 250.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      632.50 ELREA=      632.50

    250.00      8.02    627.32      0.00    627.21    628.09      0.77      0.66      0.09    623.20
     1700.        0.     1700.        0.        0.      242.        0.      344.       95.    621.20
      1.74      0.00      7.03      0.00     0.000     0.024     0.000     0.000    619.30    332.00
  0.001046      250.      250.      250.         2         0         0      0.00     35.00    367.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
       0.00      2.32      2.60    125.00     20.00      0.00    177.50      0.00    619.30    619.30

 *SECNO 332.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=      0.000  EGLWC=     628.089  ELLC=     628.300  PCWSE=     627.320  ELTRD=     632.500

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  632.50 MAX ELLC=  628.30


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      632.50 ELREA=      632.50
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    332.00      8.13    627.43     0.00    627.33    628.18      0.74      0.08      0.01    623.20
     1700.        0.     1700.       0.        0.      245.        0.      345.       95.     621.20
      1.74      0.00      6.93     0.00     0.000     0.024     0.000     0.000    619.30    332.00
  0.000995       82.       82.      82.         2         0         0      0.00     35.00    367.00
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 CCHV=   0.100 CEHV=    0.300
 *SECNO 890.000

 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
    890.00      5.17    630.47   630.47    630.47    632.17      1.71      1.39      0.29    629.20
     1700.        1.     1537.     161.        1.      142.       27.      348.       95.     627.20
      1.76      2.25     10.85     6.04     0.040     0.040     0.040     0.000    625.30    331.11
  0.014106      558.      558.     558.        20        14         0      0.00     52.23    383.34
0
 *SECNO 11550.000
  2800 NAT Q1=    1412.80  WSEL=     632.32  ENC Q1=    1412.80  WSEL=     632.42  RATIO=  0.0000
  NAT Q1=    1453.  RATIOS LOB,CH,ROB=  0.3780  0.1890  0.4331  WSEL=     632.42
 3280 CROSS SECTION  11550.00 EXTENDED       4.92 FEET


 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=       11.5       221.5  TYPE=      4  TARGET=        0.028
  11550.00     10.61    632.31     0.00    632.32    632.37      0.06      0.03      0.16    625.20
     2300.      861.      451.     988.      465.      179.      547.      348.       96.     625.20
      1.76      1.85      2.53     1.81     0.040     0.040     0.040     0.000    621.70     11.50
  0.000279       50.       50.      50.         2         0         0      0.00    209.96    221.46
0
1
  18 OCT 89    12:17:22                                                                                PAGE   71



                                                                         THIS RUN EXECUTED 18 OCT 89    12:17:56
 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
   ERROR CORR -  01,02,03,04,05,06
   MODIFICATION -  50,51,52,53,54,55,56
 **************************************************


 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST


 BLISS DRAIN, 100-YEAR FL

 SUMMARY PRINTOUT TABLE  110


       SECNO      CWSEL     DIFKWS       EG       TOPWID      QLOB        QCH       QROB      PERENC     STENCL      STCHL      STCHR     STENCR
```

0.000	607.11	0.00	607.33	340.00	130.00	1740.13	429.87	340.00	1650.00	1690.00	1729.00	1990.00
0.000	607.21	0.10	607.42	340.00	132.69	1714.95	452.36	340.00	1650.00	1690.00	1729.00	1990.00
15.000	607.11	0.00	607.34	335.00	124.99	1742.89	432.12	335.00	1655.00	1690.00	1729.00	1990.00
15.000	607.21	0.10	607.42	335.00	127.25	1718.10	454.66	335.00	1655.00	1690.00	1729.00	1990.00
115.000	607.01	0.00	607.45	285.00	93.33	2041.57	165.10	285.00	1660.00	1690.00	1729.00	1945.00
115.000	607.09	0.07	607.55	310.79	11.30	2087.61	201.09	0.07	1688.23	1690.00	1729.00	1999.02
290.000	607.09	0.00	607.66	184.42	171.51	1746.89	381.60	0.00	0.00	65.00	100.00	0.00
290.000	607.16	0.07	607.76	119.73	146.04	1787.77	366.19	0.03	39.62	65.00	100.00	159.35
990.000	608.07	0.00	608.84	169.07	137.58	1847.41	315.01	0.00	0.00	65.00	100.00	0.00
990.000	608.15	0.08	608.97	97.10	108.94	1894.92	296.13	0.03	54.08	65.00	100.00	151.18
1690.000	610.40	0.00	610.88	162.00	188.79	1687.06	424.15	162.00	20.00	65.00	100.00	182.00
1690.000	610.52	0.11	611.01	128.95	168.55	1722.38	409.08	0.03	34.57	65.00	100.00	163.52
1790.000	610.44	0.00	611.03	112.00	108.55	1791.01	400.44	112.00	55.00	65.00	100.00	167.00
1790.000	610.55	0.11	611.16	95.04	115.10	1832.26	352.64	0.07	54.37	65.00	100.00	149.41
1840.000	610.43	0.00	611.14	87.00	113.01	1885.76	301.23	87.00	55.00	65.00	100.00	142.00
1840.000	610.54	0.11	611.27	80.70	60.84	1926.10	313.06	0.11	60.35	65.00	100.00	141.05
1865.000	610.43	0.00	611.20	75.00	116.53	1946.37	237.09	75.00	55.00	65.00	100.00	130.00
1865.000	610.52	0.10	611.34	72.38	19.31	1999.32	281.37	0.13	63.11	65.00	100.00	135.48
1890.000	610.45	0.00	611.59	84.41	189.92	1600.45	509.63	85.00	145.00	177.00	200.00	230.00
1890.000	610.55	0.10	611.73	62.78	167.01	1636.09	496.90	0.03	162.42	177.00	200.00	225.20
1940.000	610.49	0.00	611.76	60.00	242.48	1855.78	201.74	60.00	1083.00	1100.00	1125.00	1143.00
1940.000	610.59	0.10	611.82	60.00	244.89	1850.23	204.88	60.00	1083.00	1100.00	1125.00	1143.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
1973.000	610.99	0.00	611.84	60.00	345.75	1658.99	295.26	60.00	1083.00	1100.00	1125.00	1143.00
1973.000	611.06	0.07	611.89	60.00	347.54	1654.74	297.72	60.00	1083.00	1100.00	1125.00	1143.00
2023.000	611.13	0.00	611.94	60.06	349.31	1650.51	300.18	70.00	1075.00	1100.00	1125.00	1145.00
2023.000	611.19	0.06	611.99	60.06	350.84	1646.86	302.30	70.00	1075.00	1100.00	1125.00	1145.00
2448.000	612.22	0.00	612.72	145.00	112.26	1272.80	914.93	145.00	1095.00	1100.00	1125.00	1240.00
2448.000	612.26	0.04	612.74	145.00	111.92	1266.10	921.98	145.00	1095.00	1100.00	1125.00	1240.00
2709.000	612.49	0.00	613.40	130.00	451.42	1376.39	472.19	130.00	1000.00	1076.00	1100.00	1130.00
2709.000	612.51	0.03	613.41	130.00	454.20	1373.01	472.79	130.00	1000.00	1076.00	1100.00	1130.00
2785.000	612.86	0.00	613.61	100.00	478.14	1336.27	485.59	100.00	1035.00	1076.00	1100.00	1135.00
2785.000	612.87	0.01	613.62	100.00	479.03	1334.94	486.03	100.00	1035.00	1076.00	1100.00	1135.00
2790.000	612.85	0.00	613.61	95.00	477.69	1338.67	483.64	95.00	1035.00	1076.00	1100.00	1130.00
2790.000	612.86	0.01	613.62	95.00	478.65	1337.33	484.02	95.00	1035.00	1076.00	1100.00	1130.00
2840.000	613.20	0.00	613.73	195.00	594.51	1233.17	472.32	195.00	940.00	1076.00	1100.00	1135.00
2840.000	613.21	0.01	613.74	195.00	596.73	1231.00	472.27	195.00	940.00	1076.00	1100.00	1135.00
3090.000	613.67	0.00	614.11	400.00	352.04	1572.27	375.69	0.00	0.00	1062.00	1100.00	0.00
3090.000	613.60	-0.06	614.13	208.80	311.26	1652.66	336.08	0.05	937.79	1062.00	1100.00	1146.58
3164.000	613.84	0.00	614.20	400.00	409.02	1501.64	389.35	0.00	0.00	1062.00	1100.00	0.00
3164.000	613.81	-0.02	614.24	244.93	375.53	1573.26	351.21	0.05	909.45	1062.00	1100.00	1154.39

3165.000	614.05	0.00	614.23	400.00	931.90	886.00	482.11	0.00	0.00	1062.00	1100.00	0.00
3165.000	614.05	0.00	614.26	300.07	920.02	948.75	431.22	0.07	870.04	1062.00	1100.00	1170.11
3170.000	614.07	0.00	614.24	400.00	936.50	880.50	483.00	0.00	0.00	1062.00	1100.00	0.00
3170.000	614.07	0.00	614.29	296.45	926.32	945.35	428.33	0.08	871.91	1062.00	1100.00	1168.36
3171.000	613.97	0.00	614.29	400.00	452.30	1448.64	399.06	0.00	0.00	1062.00	1100.00	0.00
3171.000	613.96	0.00	614.33	268.65	423.47	1514.04	362.49	0.05	891.35	1062.00	1100.00	1160.00
3220.000	614.04	0.00	614.34	400.00	474.24	1421.95	403.81	0.00	0.00	1062.00	1100.00	0.00
3220.000	614.05	0.01	614.39	278.68	448.39	1483.71	367.91	0.05	883.58	1062.00	1100.00	1162.26
3495.000	614.25	0.00	614.71	360.00	477.12	1124.60	698.28	360.00	920.00	1079.00	1100.00	1280.00
3495.000	614.27	0.02	614.79	278.89	487.17	1174.59	638.24	0.10	941.57	1079.00	1100.00	1220.46
3574.000	614.44	0.00	614.83	320.00	471.23	1076.38	752.39	320.00	960.00	1079.00	1100.00	1280.00
3574.000	614.50	0.06	614.93	282.49	537.78	1109.91	652.31	0.14	929.33	1079.00	1100.00	1211.82
3575.000	614.59	0.00	614.85	320.00	511.01	882.84	906.14	320.00	960.00	1079.00	1100.00	1280.00
3575.000	614.68	0.09	614.94	316.75	679.51	883.93	736.57	0.21	899.62	1079.00	1100.00	1216.37
3580.000	614.60	0.00	614.86	315.00	503.51	883.54	912.95	315.00	965.00	1079.00	1100.00	1230.00
3580.000	614.69	0.09	614.96	311.24	679.58	887.52	732.90	0.21	902.97	1079.00	1100.00	1214.21

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
3581.000	614.54	0.00	614.90	315.00	474.42	1051.81	773.77	315.00	965.00	1079.00	1100.00	1280.00
3581.000	614.61	0.08	615.00	285.99	563.17	1080.63	656.19	0.15	923.03	1079.00	1100.00	1209.02
3630.000	614.48	0.00	615.03	290.00	550.23	1183.04	566.73	290.00	1010.00	1077.00	1100.00	1300.00
3630.000	614.53	0.05	615.15	189.01	519.68	1222.37	557.95	0.05	1044.40	1077.00	1100.00	1233.41
3689.000	614.70	0.00	615.15	296.14	549.93	1121.17	628.90	0.00	0.00	1077.00	1100.00	0.00
3689.000	614.78	0.08	615.27	210.30	520.87	1151.54	627.59	0.05	1041.97	1077.00	1100.00	1252.28
3690.000	614.63	0.00	615.18	294.58	489.83	1152.11	658.06	0.00	0.00	1077.00	1100.00	0.00
3690.000	614.73	0.10	615.30	231.54	462.31	1152.18	685.51	0.04	1036.97	1077.00	1100.00	1268.50
3695.000	614.72	0.00	615.22	296.42	492.75	1103.55	703.70	0.00	0.00	1077.00	1100.00	0.00
3695.000	614.82	0.10	615.33	236.28	464.93	1102.25	732.82	0.05	1036.06	1077.00	1100.00	1272.34
3696.000	614.84	0.00	615.23	298.85	550.48	1084.18	665.34	0.00	0.00	1077.00	1100.00	0.00
3696.000	614.92	0.07	615.34	219.58	521.95	1115.42	662.63	0.05	1040.42	1077.00	1100.00	1260.00
3745.000	614.95	0.00	615.30	300.88	550.82	1057.65	691.53	0.00	0.00	1077.00	1100.00	0.00
3745.000	615.03	0.08	615.41	224.58	521.98	1086.96	691.06	0.05	1039.41	1077.00	1100.00	1263.99
4045.000	615.36	0.00	615.67	477.65	625.75	1339.00	335.24	0.00	0.00	1100.00	1138.00	0.00
4045.000	615.46	0.10	615.78	346.65	629.92	1379.49	290.59	0.06	833.62	1100.00	1138.00	1180.27
4159.000	615.54	0.00	615.79	491.61	689.70	1260.14	350.15	0.00	0.00	1100.00	1138.00	0.00
4159.000	615.65	0.11	615.91	364.49	696.88	1290.56	312.56	0.06	827.36	1100.00	1138.00	1191.85
4160.000	615.52	0.00	615.80	490.05	615.50	1186.48	498.03	0.00	0.00	1100.00	1138.00	0.00
4160.000	615.66	0.14	615.91	420.00	665.25	1134.65	500.10	420.00	800.00	1100.00	1138.00	1220.00
4165.000	615.55	0.00	615.82	491.39	621.27	1176.12	502.62	0.00	0.00	1100.00	1138.00	0.00
4165.000	615.68	0.13	615.93	420.00	673.45	1122.27	504.28	420.00	800.00	1100.00	1138.00	1220.00
4166.000	615.59	0.00	615.82	495.34	705.57	1240.18	354.24	0.00	0.00	1100.00	1138.00	0.00
4166.000	615.68	0.09	615.93	367.84	707.89	1274.81	317.30	0.05	826.49	1100.00	1138.00	1194.33

4215.000	615.65	0.00	615.86	499.45	722.42	1218.80	358.78	0.00	0.00	1100.00	1138.00	0.00
4215.000	615.74	0.09	615.97	371.50	721.04	1256.38	322.58	0.05	825.57	1100.00	1138.00	1197 07
4355.000	615.63	0.00	616.09	475.00	517.38	1277.61	505.00	0.00	0.00	1102.00	1128.00	0.00
4355.000	615.71	0.08	616.20	336.71	501.61	1314.42	483.97	0.06	924.36	1102.00	1128.00	1261.07
4479.000	615.98	0.00	616.26	475.00	606.46	1116.77	576.77	0.00	0.00	1102.00	1128.00	0.00
4479.000	616.08	0.11	616.38	377.83	600.78	1137.28	561.93	0.06	900.41	1102.00	1128.00	1278.24
4480.000	616.17	0.00	616.28	475.00	884.73	536.91	878.35	0.00	0.00	1102.00	1128.00	0.00
4480.000	616.27	0.11	616.40	408.01	885.50	549.36	865.13	0.08	884.06	1102.00	1128.00	1292.07
4485.000	616.18	0.00	616.30	475.00	885.64	535.62	878.74	0.00	0.00	1102.00	1128.00	0.00
4485.000	616.28	0.11	616.41	403.28	885.27	550.85	863.88	0.08	886.58	1102.00	1128.00	1289.86

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
4486.000	616.09	0.00	616.34	475.00	632.52	1070.85	596.62	0.00	0.00	1102.00	1128.00	0.00
4486.000	616.19	0.11	616.45	388.87	625.76	1093.10	581.14	0.06	894.34	1102.00	1128.00	1283.21
4535.000	616.15	0.00	616.38	475.00	648.40	1043.11	608.49	0.00	0.00	1102.00	1128.00	0.00
4535.000	616.26	0.11	616.50	398.58	642.92	1062.46	594.62	0.05	889.10	1102.00	1128.00	1287.67
5120.000	616.65	0.00	617.04	475.00	551.04	1216.07	532.90	0.00	0.00	1102.00	1128.00	0.00
5120.000	616.75	0.10	617.15	359.57	540.39	1243.89	515.72	0.06	910.81	1102.00	1128.00	1270.38
5705.000	617.40	0.00	618.12	345.81	220.88	1588.76	490.36	0.00	0.00	1070.00	1100.00	0.00
5705.000	617.49	0.08	618.25	163.69	189.45	1629.89	480.66	0.05	1025.61	1070.00	1100.00	1189.30
5819.000	617.94	0.00	618.33	360.00	319.77	1355.09	625.14	360.00	940.00	1070.00	1100.00	1300.00
5819.000	618.05	0.12	618.46	229.89	288.06	1384.29	627.65	0.05	1000.58	1070.00	1100.00	1230.47
5820.000	618.12	0.00	618.35	360.00	546.55	783.20	970.25	360.00	940.00	1070.00	1100.00	1300.00
5820.000	618.15	0.04	618.47	231.03	447.30	856.27	996.43	0.08	1021.12	1070.00	1100.00	1252.16
5825.000	618.16	0.00	618.38	355.00	547.98	768.62	983.40	355.00	945.00	1070.00	1100.00	1300.00
5825.000	618.21	0.05	618.51	233.64	449.71	836.96	1013.33	0.08	1020.47	1070.00	1100.00	1254.11
5826.000	618.08	0.00	618.41	355.00	343.36	1297.12	659.52	355.00	945.00	1070.00	1100.00	1300 00
5826.000	618.18	0.09	618.53	248.56	317.22	1327.96	654.82	0.05	990.80	1070.00	1100.00	1239.36
5875.000	618.15	0.00	618.46	330.00	352.74	1278.41	668.85	330.00	950.00	1070.00	1100.00	1280.00
5875.000	618.25	0.10	618.58	249.10	326.50	1307.46	666.04	0.05	989.94	1070.00	1100.00	1239.05
6065.000	618.39	0.00	618.99	235.00	286.67	1386.26	627.07	0.00	0.00	73.00	100.00	0.00
6065.000	618.49	0.10	619.11	191.28	255.57	1419.20	625.23	0.05	26.36	73.00	100.00	217.64
6140.000	618.77	0.00	619.19	235.00	326.61	1270.90	702.48	0.00	0.00	73.00	100.00	0.00
6140.000	618.88	0.11	619.32	201.82	297.66	1300.61	701.73	0.05	19.24	73.00	100.00	221.06
6167.000	619.04	0.00	619.32	235.00	379.88	879.77	1040.35	0.00	0.00	73.00	100.00	0.00
6167.000	619.04	0.00	619.40	217.44	330.61	1231.34	738.05	0.05	9.94	73.00	100.00	227.38
6220.000	619.13	0.00	619.44	235.00	359.47	1178.14	762.39	0.00	0.00	73.00	100.00	0.00
6220.000	619.10	-0.02	619.46	210.07	325.20	1233.31	741.49	0.04	14.09	73.00	100.00	224.17
7493.000	621.08	0.00	621.95	75.00	15.54	2281.60	2.86	75.00	225.00	229.00	298.00	300.00
7493.000	621.21	0.13	622.03	75.00	16.54	2280.15	3.31	75.00	225.00	229.00	298.00	300.00
7505.000	621.09	0.00	622.00	69.00	0.00	2300.00	0.00	0.00	0.00	229.00	298.00	0.00
7505.000	621.22	0.13	622.08	69.00	0.00	2300.00	0.00	0.00	0.00	229.00	298.00	0.00

	7565.000	621.29	0.00	622.13	69.00	0.00	2300.00	0.00	0.00	0.00	229.00	298.00	0.00
	7565.000	621.40	0.11	622.20	69.00	0.00	2300.00	0.00	0.00	0.00	229.00	298.00	0.00
	7577.000	621.47	0.00	622.17	85.00	37.13	2249.05	13.83	85.00	220.00	229.00	298.00	305.00
	7577.000	621.49	0.02	622.23	69.00	0.00	2300.00	0.00	0.06	229.00	229.00	298.00	298.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	9150.000	624.30	0.00	624.68	133.99	402.60	1415.84	481.56	0.00	0.00	71.00	100.00	0.00
	9150.000	624.42	0.13	624.80	121.46	400.56	1433.88	465.56	0.03	24.41	71.00	100.00	145.87
*	9550.000	626.22	0.00	627.70	92.00	0.00	1099.32	1200.68	0.00	0.00	100.00	120.00	0.00
*	9550.000	626.27	0.05	627.77	75.23	0.00	1103.23	1196.77	76.00	104.00	100.00	120.00	180.00
	9630.000	628.44	0.00	628.54	55.00	19.94	473.10	106.95	55.00	95.00	100.00	121.00	150.00
	9630.000	628.55	0.11	628.57	212.91	150.48	268.61	180.91	0.00	0.00	100.00	121.00	0.00
	9704.000	628.47	0.00	628.79	17.50	0.00	600.00	0.00	17.50	100.00	100.00	117.50	117.50
	9704.000	628.56	0.09	628.58	225.00	194.92	172.23	232.85	0.00	0.00	100.00	117.50	0.00
	9705.000	628.17	0.00	629.10	17.50	0.00	600.00	0.00	17.50	100.00	100.00	117.50	117.50
	9705.000	628.11	-0.06	629.04	222.74	0.00	600.00	0.00	0.00	0.00	100.00	117.50	0.00
	9756.000	628.95	0.00	629.65	17.50	0.00	600.00	0.00	0.00	0.00	100.00	117.50	0.00
	9756.000	628.86	-0.08	629.60	17.50	0.00	600.00	0.00	0.00	0.00	100.00	117.50	0 00
	9757.000	629.45	0.00	629.70	17.50	0.00	600.00	0.00	17.50	100.00	100.00	117.50	117.50
	9757.000	629.39	-0.06	629.65	17.50	0.00	600.00	0.00	17.50	100.00	100.00	117.50	117.50
	10405.000	629.78	0.00	629.79	225.00	216.12	130.05	253.83	0.00	0.00	100.00	117.50	0.00
	10405.000	629.73	-0.05	629.73	201.24	213.61	134.98	251.40	0.03	19.16	100.00	117.50	220.40
	11205.000	629.61	0.00	630.10	17.50	0.00	600.00	0.00	0.00	0.00	100.00	117.50	0.00
	11205.000	629.57	-0.05	630.07	17.50	0.00	600.00	0.00	0.00	100.00	100.00	117.50	117.50
	11350.000	632.10	0.00	632.35	17.50	0.00	600.00	0.00	0.00	0.00	100.00	117.50	0.00
	11350.000	632.20	0.10	632.44	17.50	0.00	600.00	0.00	0.00	0.00	100.00	117.50	0.00
	11500.000	632.38	0.00	632.38	225.00	195.59	178.53	225.88	0.00	0.00	100.00	117.50	0.00
	11500.000	632.47	0.09	632.48	205.40	193.94	181.44	224.61	0.03	15.31	100.00	117.50	220.71
	11550.000	632.31	0.00	632.42	225.00	746.92	689.65	863.43	0.00	0.00	100.00	117.50	0.00
	11550.000	632.40	0.09	632.52	204.84	740.35	701.22	858.43	0.03	15.81	100.00	117.50	220.65
	11750.000	632.40	0.00	632.51	225.00	751.02	682.06	866.92	0.00	0.00	100.00	117.50	0.00
	11750.000	632.49	0.09	632.60	205.64	744.46	693.90	861.65	0.03	15.10	100.00	117.50	220.74
	12449.000	632.27	0.00	633.46	40.00	0.00	1664.97	635.03	40.00	100.00	100.00	117.50	140.00
	12449.000	632.39	0.12	633.54	40.00	0.00	1658.79	641.21	40.00	100.00	100.00	117.50	140.00
	12450.000	632.56	0.00	633.53	40.00	0.00	2300.00	0.00	40.00	100.00	100.00	140.00	140.00
	12450.000	632.65	0.08	633.61	40.00	0.00	2300.00	0.00	40.00	100.00	100.00	140.00	140.00
	12650.000	633.46	0.00	634.31	40.00	0.00	2300.00	0.00	40.00	100.00	100.00	140.00	140.00
	12650.000	633.53	0.07	634.37	40.00	0.00	2300.00	0.00	40.00	100.00	100.00	140.00	140.00
	12850.000	634.32	0.00	634.85	40.00	0.00	2300.00	0.00	40.00	100.00	100.00	140.00	140.00
	12850.000	634.39	0.06	634.91	40.00	0.00	2300.00	0.00	40.00	100.00	100.00	140.00	140.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
13600.000	635.68	0.00	636.01	187.28	642.29	1604.87	52.84	0.00	0.00	261.00	300.00	0.00
13600.000	635.72	0.04	636.07	150.94	633.16	1647.47	19.37	0.03	154.23	261.00	300.00	305.17
14975.000	637.77	0.00	638.43	224.83	100.15	1511.96	687.89	0.00	0.00	277.00	300.00	0.00
14975.000	637.86	0.09	638.54	195.39	67.62	1542.95	689.43	0.03	267.71	277.00	300.00	463.10
16700.000	640.63	0.00	640.81	342.64	982.99	1238.24	78.77	0.00	0.00	266.00	300.00	0.00
16700.000	640.74	0.11	640.92	299.76	988.68	1263.98	47.33	0.03	22.77	266.00	300.00	322.54
17600.000	641.66	0.00	642.15	328.11	750.37	1523.17	26.46	0.00	0.00	266.00	300.00	0.00
17600.000	641.77	0.11	642.27	265.74	749.42	1550.58	0.00	0.04	34.26	266.00	300.00	300.00
18545.000	643.55	0.00	644.15	60.00	33.84	2226.15	40.02	60.00	245.00	250.00	300.00	305.00
18545.000	643.63	0.09	644.23	60.00	33.81	2226.31	39.88	60.00	245.00	250.00	300.00	305.00
18565.000	643.51	0.00	644.22	50.00	0.00	2300.00	0.00	0.00	0.00	250.00	300.00	0.00
18565.000	643.61	0.09	644.31	50.00	0.00	2300.00	0.00	0.00	0.00	250.00	300.00	0.00
18602.000	643.54	0.00	644.25	50.00	0.00	2300.00	0.00	0.00	0.00	250.00	300.00	0.00
18602.000	643.64	0.10	644.34	50.00	0.00	2300.00	0.00	0.00	0.00	250.00	300.00	0.00
18622.000	644.04	0.00	644.30	90.00	280.97	1696.72	322.31	90.00	230.00	250.00	300.00	320.00
18622.000	644.15	0.11	644.40	90.00	281.97	1695.39	322.64	90.00	230.00	250.00	300.00	320.00
19000.000	644.41	0.00	644.58	274.38	1038.73	783.61	477.66	0.00	0.00	274.00	300.00	0.00
19000.000	644.48	0.08	644.67	213.51	1045.07	809.19	445.73	0.04	138.17	274.00	300.00	351.68
20755.000	645.74	0.00	645.83	430.00	490.04	585.67	1224.29	430.00	120.00	279.00	300.00	550.00
20755.000	645.84	0.10	645.94	367.65	580.56	600.01	1119.43	0.13	110.72	279.00	300.00	478.38
20905.000	645.76	0.00	646.09	370.23	443.14	861.93	994.93	375.00	75.00	279.00	300.00	450.00
20905.000	645.86	0.09	646.21	321.54	379.01	886.89	1034.10	0.10	110.93	279.00	300.00	432.47
* 21055.000	646.50	0.00	647.28	257.89	120.08	1129.48	1050.44	300.00	150.00	279.00	300.00	450.00
* 21055.000	646.60	0.09	647.42	232.66	188.14	1162.64	949.22	0.17	138.07	279.00	300.00	407.41
21355.000	647.81	0.00	648.54	149.51	838.04	937.82	524.13	0.00	0.00	282.00	300.00	0.00
21355.000	647.88	0.07	648.70	101.20	832.61	970.27	497.12	0.05	228.30	282.00	300.00	329.50
21391.000	650.65	0.00	650.80	150.00	1017.33	655.20	627.47	150.00	200.00	282.00	300.00	350.00
21391.000	650.66	0.01	650.81	150.00	1017.82	654.48	627.71	150.00	200.00	282.00	300.00	350.00
22615.000	650.82	0.00	650.84	358.10	1756.49	240.97	302.54	0.00	0.00	281.00	300.00	0.00
22615.000	650.83	0.01	650.85	324.81	1771.29	246.43	282.28	0.02	30.17	281.00	300.00	354.98
-9550.000	626.22	0.00	627.24	92.00	0.00	815.50	1484.50	0.00	0.00	100.00	120.00	0.00
-9550.000	626.27	0.05	627.34	75.23	0.00	819.09	1480.91	76.00	104.00	100.00	120.00	180.00
250.000	627.21	0.00	628.00	35.00	0.00	1700.00	0.00	0.00	0.00	332.00	367.00	0.00
250.000	627.32	0.11	628.09	35.00	0.00	1700.00	0.00	0.00	0.00	332.00	367.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
332.000	627.33	0.00	628.09	35.00	0.00	1700.00	0.00	0.00	0.00	332.00	367.00	0.00
332.000	627.43	0.11	628.18	35.00	0.00	1700.00	0.00	0.00	0.00	332.00	367.00	0.00
* 890.000	630.47	0.00	632.17	52.24	1.27	1537.29	161.44	0.00	0.00	332.00	367.00	0.00
* 890.000	630.47	0.00	632.17	52.23	1.26	1537.42	161.32	0.00	0.00	332.00	367.00	0.00

11550.000	632.32	0.00	632.37	225.00	866.27	439.85	993.88	0.00	0.00	100.00	117.50	0.00
11550.000	632.31	0.00	632.37	209.96	860.56	451.17	988.27	0.03	11.50	100.00	117.50	221.46

BLISS DRAIN, 100-YEAR FL

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
0.000	0.00	0.00	0.00	594.30	2300.00	607.11	0.00	607.33	3.59	4.29	992.55	1214.06
0.000	0.00	0.00	0.00	594.30	2300.00	607.21	0.00	607.42	3.38	4.19	1026.55	1251.68
15.000	15.00	0.00	0.00	594.30	2300.00	607.11	0.00	607.34	3.59	4.29	986.98	1213.18
15.000	15.00	0.00	0.00	594.30	2300.00	607.21	0.00	607.42	3.38	4.19	1020.37	1250.39
115.000	100.00	0.00	0.00	595.30	2300.00	607.01	0.00	607.45	7.16	5.62	592.57	859.25
115.000	100.00	0.00	0.00	595.30	2300.00	607.09	0.00	607.55	7.30	5.71	592.65	851.52
290.000	175.00	0.00	0.00	599.22	2300.00	607.09	0.00	607.66	13.52	6.84	543.46	625.43
290.000	175.00	0.00	0.00	599.22	2300.00	607.16	0.00	607.76	13.78	6.94	487.80	619.68
990.000	700.00	0.00	0.00	600.72	2300.00	608.07	0.00	608.84	19.40	7.80	450.62	522.14
990.000	700.00	0.00	0.00	600.72	2300.00	608.15	0.00	608.97	19.66	7.91	400.46	518.66
1690.000	1400.00	0.00	0.00	602.22	2300.00	610.40	0.00	610.88	11.00	6.34	584.25	693.42
1690.000	1400.00	0.00	0.00	602.22	2300.00	610.52	0.00	611.01	10.92	6.38	548.46	696.05
1790.000	100.00	0.00	0.00	602.42	2300.00	610.44	0.00	611.03	13.31	6.88	488.67	630.44
1790.000	100.00	0.00	0.00	602.42	2300.00	610.55	0.00	611.16	13.28	6.94	463.65	631.21
1840.000	50.00	0.00	0.00	602.52	2300.00	610.43	0.00	611.14	15.50	7.35	422.99	584.13
1840.000	50.00	0.00	0.00	602.52	2300.00	610.54	0.00	611.27	15.40	7.40	412.03	586.10
1865.000	25.00	0.00	0.00	602.52	2300.00	610.43	0.00	611.20	16.58	7.59	390.51	564.83
1865.000	25.00	0.00	0.00	602.52	2300.00	610.52	0.00	611.34	16.75	7.70	380.11	562.06
1890.000	25.00	0.00	0.00	602.62	2300.00	610.45	0.00	611.59	7.68	9.97	361.22	829.75
1890.000	25.00	0.00	0.00	602.62	2300.00	610.55	0.00	611.73	7.68	10.05	342.37	829.84
1940.000	50.00	0.00	0.00	601.92	2300.00	610.49	0.00	611.76	7.74	9.95	323.30	826.65
1940.000	50.00	0.00	0.00	601.92	2300.00	610.59	0.00	611.82	7.37	9.79	329.06	847.00
1973.000	33.00	0.00	0.00	601.92	2300.00	610.99	0.00	611.84	19.95	8.34	353.17	514.90
1973.000	33.00	0.00	0.00	601.92	2300.00	611.06	0.00	611.89	19.28	8.24	357.38	523.84
2023.000	50.00	0.00	0.00	601.92	2300.00	611.13	0.00	611.94	18.62	8.15	361.75	533.00
2023.000	50.00	0.00	0.00	601.92	2300.00	611.19	0.00	611.99	18.06	8.07	365.55	541.17
2448.000	425.00	0.00	0.00	603.92	2300.00	612.22	0.00	612.72	16.42	7.07	518.76	567.66
2448.000	425.00	0.00	0.00	603.92	2300.00	612.26	0.00	612.74	15.98	7.00	523.94	575.40
2709.000	261.00	0.00	0.00	605.91	2300.00	612.49	0.00	613.40	29.36	9.12	349.96	424.48
2709.000	261.00	0.00	0.00	605.91	2300.00	612.51	0.00	613.41	28.83	9.06	353.21	428.34
2785.000	76.00	0.00	0.00	605.91	2300.00	612.86	0.00	613.61	22.87	8.36	381.39	480.96
2785.000	76.00	0.00	0.00	605.91	2300.00	612.87	0.00	613.62	22.68	8.34	382.62	482.92

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2790.000	5.60	611.40	611.40	605.91	2300.00	612.85	0.00	613.61	23.08	8.39	378.48	478 70
2790.000	5.60	611.40	611.40	605.91	2300.00	612.86	0.00	613.62	22.89	8.37	379.69	480.72
2840.000	50.00	0.00	0.00	605.91	2300.00	613.20	0.00	613.73	16.44	7.34	500.49	567.17
2840.000	50.00	0.00	0.00	605.91	2300.00	613.21	0.00	613.74	16.30	7.31	502.67	569.68
3090.000	250.00	0.00	0.00	606.26	2300.00	613.67	0.00	614.11	13.30	6.30	631.92	630.72
3090.000	250.00	0.00	0.00	606.26	2300.00	613.60	0.00	614.13	15.18	6.69	513.75	590.40
3164.000	74.00	0.00	0.00	606.26	2300.00	613.84	0.00	614.20	11.13	5.86	700.46	689.35
3164.000	74.00	0.00	0.00	606.26	2300.00	613.81	0.00	614.24	12.36	6.16	589.60	654.08
3165.000	1.00	609.56	613.50	606.26	2300.00	614.05	0.00	614.23	34.20	4.10	720.24	393.31
3165.000	1.00	609.56	613.50	606.26	2300.00	614.05	0.00	614.26	39.28	4.40	637.09	366.97
3170.000	5.40	609.56	613.50	606.26	2300.00	614.07	0.00	614.24	33.54	4.07	725.32	397.14
3170.000	5.40	609.56	613.50	606.26	2300.00	614.07	0.00	614.29	38.60	4.37	638.99	370.19
3171.000	1.00	0.00	0.00	606.26	2300.00	613.97	0.00	614.29	9.70	5.55	753.99	738.38
3171.000	1.00	0.00	0.00	606.26	2300.00	613.96	0.00	614.33	10.62	5.80	649.59	705.61
3220.000	49.00	0.00	0.00	606.26	2300.00	614.04	0.00	614.34	9.04	5.39	781.88	765.00
3220.000	49.00	0.00	0.00	606.26	2300.00	614.05	0.00	614.39	9.81	5.62	681.20	734.24
3495.000	275.00	0.00	0.00	606.80	2300.00	614.25	0.00	614.71	16.09	7.40	645.34	573.31
3495.000	275.00	0.00	0.00	606.80	2300.00	614.27	0.00	614.79	17.41	7.71	573.14	551.20
3574.000	79.00	0.00	0.00	606.80	2300.00	614.44	0.00	614.83	13.49	6.90	681.33	626.16
3574.000	79.00	0.00	0.00	606.80	2300.00	614.50	0.00	614.93	13.95	7.06	637.66	615.71
3575.000	1.00	612.40	614.40	606.80	2300.00	614.59	0.00	614.85	28.19	5.71	684.20	433.15
3575.000	1.00	612.40	614.40	606.80	2300.00	614.68	0.00	614.94	28.26	5.71	679.43	432 62
3580.000	5.40	612.40	614.40	606.80	2300.00	614.60	0.00	614.86	28.24	5.71	681.18	432.81
3580.000	5.40	612.40	614.40	606.80	2300.00	614.69	0.00	614.96	28.49	5.74	674.31	430 87
3581.000	1.00	0.00	0.00	606.80	2300.00	614.54	0.00	614.90	12.37	6.66	705.55	653.94
3581.000	1.00	0.00	0.00	606.80	2300.00	614.61	0.00	615.00	12.61	6.77	669.64	647.58
3630.000	49.00	0.00	0.00	607.40	2300.00	614.48	0.00	615.03	20.15	7.74	527.87	512.39
3630.000	49.00	0.00	0.00	607.40	2300.00	614.53	0.00	615.15	20.97	7.93	465.97	502.25
3689.000	59.00	0.00	0.00	607.40	2300.00	614.70	0.00	615.15	16.19	7.09	594.17	571.55
3689.000	59.00	0.00	0.00	607.40	2300.00	614.78	0.00	615.27	16.42	7.20	537.36	567 53
3690.000	1.00	612.10	620.00	607.40	2300.00	614.63	0.00	615.18	54.73	7.87	516.49	310.90
3690.000	1.00	612.10	620.00	607.40	2300.00	614.73	0.00	615.30	54.74	7.87	489.22	310.88
3695.000	5.40	612.10	620.00	607.40	2300.00	614.72	0.00	615.22	50.21	7.54	540.67	324.58
3695.000	5.40	612.10	620.00	607.40	2300.00	614.82	0.00	615.33	50.09	7.53	513.03	324.96

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3696.000	1.00	0.00	0.00	607.40	2300.00	614.84	0.00	615.23	14.17	6.72	635.40	611.04
3696.000	1.00	0.00	0.00	607.40	2300.00	614.92	0 00	615.34	14.50	6.85	575.77	604.09
3745.000	49.00	0.00	0.00	607.40	2300.00	614.95	0.00	615.30	12.84	6.46	666.38	641.82
3745.000	49.00	0.00	0.00	607.40	2300.00	615.03	0.00	615.41	13.07	6.57	607.04	636 30

4045.000	300.00	0.00	0.00	608.85	2300.00	615.36	0.00	615.67	11.19	5.63	801.73	687.45
4045.000	300.00	0.00	0.00	608.85	2300.00	615.46	0.00	615.78	11.25	5.70	728.47	685.82
4159.000	114.00	0.00	0.00	608.85	2300.00	615.54	0.00	615.79	8.97	5.14	894.14	767.91
4159.000	114.00	0.00	0.00	608.85	2300.00	615.65	0.00	615.91	8.91	5.18	823.16	770.43
4160.000	1.00	611.15	616.00	608.85	2300.00	615.52	0.00	615.80	36.38	5.51	828.65	381.34
4160.000	1.00	611.15	616.00	608.85	2300.00	615.66	0.00	615.91	33.07	5.24	843.85	399.93
4165.000	5.40	611.15	616.00	608.85	2300.00	615.55	0.00	615.82	35.72	5.45	836.93	384.84
4165.000	5.40	611.15	616.00	608.85	2300.00	615.68	0.00	615.93	32.31	5.17	853.52	404.61
4166.000	1.00	0.00	0.00	608.85	2300.00	615.59	0.00	615.82	8.46	5.02	919.34	790.59
4166.000	1.00	0.00	0.00	608.85	2300.00	615.68	0.00	615.93	8.54	5.09	841.22	786.99
4215.000	49.00	0.00	0.00	608.85	2300.00	615.65	0.00	615.86	7.94	4.89	947.25	816.05
4215.000	49.00	0.00	0.00	608.85	2300.00	615.74	0.00	615.97	8.12	4.98	862.88	807.34
4355.000	140.00	0.00	0.00	608.40	2300.00	615.63	0.00	616.09	15.78	7.09	705.76	578.98
4355.000	140.00	0.00	0.00	608.40	2300.00	615.71	0.00	616.20	16.08	7.22	628.36	573.63
4479.000	124.00	0.00	0.00	608.40	2300.00	615.98	0.00	616.26	10.27	5.91	867.94	717.68
4479.000	124.00	0.00	0.00	608.40	2300.00	616.08	0.00	616.38	10.10	5.92	808.75	723.71
4480.000	1.00	611.20	615.00	608.40	2300.00	616.17	0.00	616.28	23.37	3.65	880.24	475.81
4480.000	1.00	611.20	615.00	608.40	2300.00	616.27	0.00	616.40	22.99	3.66	841.04	479.65
4485.000	5.40	611.20	615.00	608.40	2300.00	616.18	0.00	616.30	23.19	3.64	882.35	477.59
4485.000	5.40	611.20	615.00	608.40	2300.00	616.28	0.00	616.41	23.01	3.67	837.57	479.44
4486.000	1.00	0.00	0.00	608.40	2300.00	616.09	0.00	616.34	8.97	5.58	921.44	767.89
4486.000	1.00	0.00	0.00	608.40	2300.00	616.19	0.00	616.45	8.92	5.62	861.80	770.18
4535.000	49.00	0.00	0.00	608.40	2300.00	616.15	0.00	616.38	8.24	5.38	955.78	801.22
4535.000	49.00	0.00	0.00	608.40	2300.00	616.26	0.00	616.50	8.18	5.41	901.66	804.32
5120.000	585.00	0.00	0.00	609.30	2300.00	616.65	0.00	617.04	13.49	6.64	763.92	626.32
5120.000	585.00	0.00	0.00	609.30	2300.00	616.75	0.00	617.15	13.52	6.70	697.17	625.41
5705.000	585.00	0.00	0.00	610.23	2300.00	617.40	617.04	618.12	21.49	8.03	525.10	496.13
5705.000	585.00	0.00	0.00	610.23	2300.00	617.49	0.00	618.25	21.68	8.13	443.98	493.97
5819.000	114.00	0.00	0.00	610.23	2300.00	617.94	0.00	618.33	12.10	6.34	714.45	661.26
5819.000	114.00	0.00	0.00	610.23	2300.00	618.05	0.00	618.46	11.94	6.37	634.99	665.51

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
5820.000	1.00	615.13	618.50	610.23	2300.00	618.12	0.00	618.35	57.71	5.17	666.46	302.75
5820.000	1.00	615.13	618.50	610.23	2300.00	618.15	0.00	618.47	67.27	5.61	537.80	280.43
5825.000	5.40	615.13	618.50	610.23	2300.00	618.16	0.00	618.38	54.02	5.03	678.43	312.93
5825.000	5.40	615.13	618.50	610.23	2300.00	618.21	0.00	618.51	61.96	5.43	554.21	292.18
5826.000	1.00	0.00	0.00	610.23	2300.00	618.08	0.00	618.41	10.34	5.94	765.47	715.34
5826.000	1.00	0.00	0.00	610.23	2300.00	618.18	0.00	618.53	10.38	6.01	689.65	713.74
5875.000	49.00	0.00	0.00	610.23	2300.00	618.15	0.00	618.46	9.73	5.80	770.98	737.30
5875.000	49.00	0.00	0.00	610.23	2300.00	618.25	0.00	618.58	9.74	5.86	708.44	736.82
6065.000	190.00	0.00	0.00	611.40	2300.00	618.39	0.00	618.99	19.33	7.70	540.78	523.11
6065.000	190.00	0.00	0.00	611.40	2300.00	618.49	0.00	619.11	19.22	7.76	507.54	524.57

	6140.000	75.00	0.00	0.00	611.40	2300.00	618.77	0.00	619.19	13.54	6.68	628.77	624.96
	6140.000	75.00	0.00	0.00	611.40	2300.00	618.88	0.00	619.32	13.46	6.73	598.05	626.86
	6167.000	27.00	617.00	618.10	611.40	2300.00	619.04	0.00	619.32	31.13	5.29	587.45	412.20
	6167.000	27.00	999999.00	0.00	611.40	2300.00	619.04	0.00	619.40	11.19	6.23	660.32	687.47
	6220.000	53.00	0.00	0.00	611.40	2300.00	619.13	0.00	619.44	9.86	5.89	713.40	732.56
	6220.000	53.00	0.00	0.00	611.40	2300.00	619.10	0.00	619.46	10.96	6.19	657.70	694.78
	7493.000	1273.00	0.00	0.00	614.50	2300.00	621.08	0.00	621.95	45.70	7.52	312.20	340.22
	7493.000	1273.00	0.00	0.00	614.50	2300.00	621.21	0.00	622.03	41.12	7.28	322.69	358.68
	7505.000	12.00	625.85	627.00	614.50	2300.00	621.09	0.00	622.00	19.63	7.66	300.43	519.09
	7505.000	12.00	625.85	627.00	614.50	2300.00	621.22	0.00	622.08	18.15	7.46	308.29	539.90
	7565.000	60.00	625.85	627.00	614.50	2300.00	621.29	0.00	622.13	17.34	7.35	312.92	552.26
	7565.000	60.00	625.85	627.00	614.50	2300.00	621.40	0.00	622.20	16.17	7.18	320.22	571.93
	7577.000	12.00	0.00	0.00	614.50	2300.00	621.47	0.00	622.17	24.59	6.81	357.19	463.79
	7577.000	12.00	0.00	0.00	614.50	2300.00	621.49	0.00	622.23	27.07	6.93	331.72	442.08
	9150.000	1573.00	0.00	0.00	615.11	2300.00	624.30	0.00	624.68	9.97	6.04	625.83	728.41
	9150.000	1573.00	0.00	0.00	615.11	2300.00	624.42	0.00	624.80	9.70	6.02	613.12	738.57
*	9550.000	400.00	0.00	0.00	618.69	2300.00	626.22	626.22	627.70	85.70	12.71	290.35	248.44
*	9550.000	400.00	0.00	0.00	618.69	2300.00	626.27	626.27	627.77	84.23	12.65	281.80	250.61
	9630.000	80.00	0.00	0.00	619.71	600.00	628.44	0.00	628.54	1.80	2.71	312.82	447.72
	9630.000	80.00	0.00	0.00	619.71	600.00	628.55	0.00	628.57	0.55	1.52	834.90	805.91
	9704.000	74.00	0.00	0.00	619.64	600.00	628.47	0.00	628.79	15.30	4.54	132.09	153.38
	9704.000	74.00	0.00	0.00	619.64	600.00	628.56	0.00	628.58	0.77	1.29	848.97	685.14
	9705.000	1.00	628.30	628.30	619.64	600.00	628.17	0.00	629.10	96.39	7.74	77.56	61.11
	9705.000	1.00	628.30	628.30	619.64	600.00	628.11	624.12	629.04	96.38	7.74	77.56	61.12

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
9756.000	51.00	628.30	628.30	619.64	600.00	628.95	0.00	629.65	94.73	6.75	88.85	61.65
9756.000	51.00	628.30	628.30	619.64	600.00	628.86	0.00	629.60	100.02	6.86	87.41	59.99
9757.000	1.00	0.00	0.00	619.64	600.00	629.45	0.00	629.70	10.91	4.02	149.24	181.61
9757.000	1.00	0.00	0.00	619.64	600.00	629.39	0.00	629.65	11.13	4.05	148.20	179.87
10405.000	648.00	0.00	0.00	620.14	600.00	629.78	0.00	629.79	0.32	0.89	1009.66	1053.04
10405.000	648.00	0.00	0.00	620.14	600.00	629.73	0.00	629.73	0.36	0.93	947.71	1005.38
11205.000	800.00	0.00	0.00	622.20	600.00	629.61	0.00	630.10	15.80	5.62	106.74	150.95
11205.000	800.00	0.00	0.00	622.20	600.00	629.57	0.00	630.07	19.49	5.66	105.97	135.90
11350.000	145.00	653.70	629.20	622.20	600.00	632.10	0.00	632.35	5.06	3.99	150.21	266.76
11350.000	145.00	653.70	629.20	622.20	600.00	632.20	0.00	632.44	4.87	3.95	151.96	271.94
11500.000	150.00	0.00	0.00	622.20	600.00	632.38	0.00	632.38	0.28	1.04	1136.84	1124.82
11500.000	150.00	0.00	0.00	622.20	600.00	632.47	0.00	632.48	0.28	1.05	1104.13	1124.46
11550.000	50.00	0.00	0.00	622.20	2300.00	632.31	0.00	632.42	4.34	4.06	1122.88	1104.42
11550.000	50.00	0.00	0.00	622.20	2300.00	632.40	0.00	632.52	4.35	4.09	1089.14	1103.16
11750.000	200.00	0.00	0.00	622.20	2300.00	632.40	0.00	632.51	4.11	3.98	1143.03	1133.92
11750.000	200.00	0.00	0.00	622.20	2300.00	632.49	0.00	632.60	4.14	4.02	1108.49	1130.45

12449.000	699.00	0.00	0.00	622.20	2300.00	632.27	0.00	633.46	36.45	9.85	298.18	330.95
12449.000	699.00	0.00	0.00	622.20	2300.00	632.39	0.00	633.54	34.95	9.69	302.85	389.03
12450.000	1.00	646.20	635.00	622.50	2300.00	632.56	0.00	633.53	39.00	7.91	290.82	368.29
12450.000	1.00	646.20	635.00	622.50	2300.00	632.65	0.00	633.61	38.53	7.85	292.88	370.55
12650.000	200.00	646.20	635.00	622.50	2300.00	633.46	0.00	634.31	35.15	7.40	310.63	387.96
12650.000	200.00	646.20	635.00	622.50	2300.00	633.53	0.00	634.37	34.94	7.37	311.98	389.09
12850.000	200.00	0.00	0.00	622.50	2300.00	634.32	0.00	634.85	19.36	5.83	394.46	522.74
12850.000	200.00	0.00	0.00	622.50	2300.00	634.39	0.00	634.91	19.00	5.79	396.96	527.65
13600.000	750.00	0.00	0.00	626.00	2300.00	635.68	0.00	636.01	12.39	5.48	829.88	653.34
13600.000	750.00	0.00	0.00	626.00	2300.00	635.72	0.00	636.07	12.81	5.60	772.30	642.67
14975.000	1375.00	0.00	0.00	628.70	2300.00	637.77	0.00	638.43	24.48	7.95	726.92	454.88
14975.000	1375.00	0.00	0.00	628.70	2300.00	637.86	0.00	638.54	24.59	8.03	697.76	463.82
16700.000	1725.00	0.00	0.00	631.40	2300.00	640.63	0.00	640.81	8.55	4.51	1299.41	786.39
16700.000	1725.00	0.00	0.00	631.40	2300.00	640.74	0.00	640.92	8.52	4.54	1242.69	788.00
17600.000	900.00	0.00	0.00	634.00	2300.00	641.66	0.00	642.15	26.51	6.87	774.63	446.75
17600.000	900.00	0.00	0.00	634.00	2300.00	641.77	0.00	642.27	26.79	6.88	722.85	444.38
18545.000	945.00	0.00	0.00	635.80	2300.00	643.55	0.00	644.15	16.75	6.36	411.28	561.91
18545.000	945.00	0.00	0.00	635.80	2300.00	643.63	0.00	644.23	16.07	6.28	416.61	573.77

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
18565.000	20.00	645.45	651.00	635.80	2300.00	643.51	0.00	644.22	5.69	6.74	341.08	964.14
18565.000	20.00	645.45	651.00	635.80	2300.00	643.61	0.00	644.31	10.20	6.71	342.75	720.30
18602.000	37.00	645.45	651.00	635.80	2300.00	643.54	0.00	644.25	7.45	6.72	342.17	842.38
18602.000	37.00	645.45	651.00	635.80	2300.00	643.64	0.00	644.34	10.20	6.71	342.75	720.30
18622.000	20.00	0.00	0.00	635.80	2300.00	644.04	0.00	644.30	5.76	4.54	613.15	958.64
18622.000	20.00	0.00	0.00	635.80	2300.00	644.15	0.00	644.40	5.48	4.47	622.77	982.35
19000.000	378.00	0.00	0.00	636.90	2300.00	644.41	0.00	644.58	9.17	4.81	819.11	759.40
19000.000	378.00	0.00	0.00	636.90	2300.00	644.48	0.00	644.67	9.40	4.91	765.06	750.16
20755.000	1755.00	0.00	0.00	636.50	2300.00	645.74	0.00	645.83	5.47	3.80	1170.24	983.48
20755.000	1755.00	0.00	0.00	636.50	2300.00	645.84	0.00	645.94	5.47	3.83	1108.86	983.51
20905.000	150.00	0.00	0.00	637.70	2300.00	645.76	0.00	646.09	21.10	6.65	676.90	500.69
20905.000	150.00	0.00	0.00	637.70	2300.00	645.86	0.00	646.21	21.23	6.74	641.43	499.14
* 21055.000	150.00	0.00	0.00	638.85	2300.00	646.50	646.50	647.28	45.20	9.33	448.41	342.09
* 21055.000	150.00	0.00	0.00	638.85	2300.00	646.60	646.60	647.42	45.66	9.45	431.41	340.38
21355.000	300.00	0.00	0.00	641.20	2300.00	647.81	0.00	648.54	38.88	9.26	396.87	368.88
21355.000	300.00	0.00	0.00	641.20	2300.00	647.88	0.00	648.70	39.93	9.47	363.42	363.98
21391.000	36.00	649.00	647.00	641.20	2300.00	650.65	0.00	650.80	4.85	4.30	823.13	1044.03
21391.000	36.00	649.00	647.00	641.20	2300.00	650.66	0.00	650.81	4.82	4.29	825.20	1048.03
22615.000	224.00	0.00	0.00	641.40	2300.00	650.82	0.00	650.84	0.50	1.43	2365.83	3256.12
22615.000	224.00	0.00	0.00	641.40	2300.00	650.83	0.00	650.85	0.52	1.46	2284.96	3191.65
-9550.000	400.00	0.00	0.00	618.69	2300.00	626.22	0.00	627.24	83.85	9.43	290.35	251.18
-9550.000	400.00	0.00	0.00	618.69	2300.00	626.27	0.00	627.34	82.54	9.39	281.80	253.16

	250.000	250.00	0.00	0.00	619.30	1700.00	627.21	0.00	628.00	11.05	7.15	237.88	511.42
	250.000	250.00	0.00	0.00	619.30	1700.00	627.32	0.00	628.09	10.46	7.03	241.82	525.60
	332.000	82.00	632.50	628.30	619.30	1700.00	627.33	0.00	628.09	10.48	7.03	241.71	525.21
	332.000	82.00	632.50	628.30	619.30	1700.00	627.43	0.00	628.18	9.95	6.93	245.46	538.87
*	890.000	558.00	0.00	0.00	625.30	1700.00	630.47	630.47	632.17	140.80	10.84	169.10	143.27
*	890.000	558.00	0.00	0.00	625.30	1700.00	630.47	630.47	632.17	141.06	10.85	169.00	143.14
	11550.000	50.00	0.00	0.00	621.70	2300.00	632.32	0.00	632.37	2.65	2.46	1236.00	1412.80
	11550.000	50.00	0.00	0.00	621.70	2300.00	632.31	0.00	632.37	2.79	2.53	1190.69	1377.17

BLISS DRAIN, 100-YEAR FL

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	2300.00	607.11	0.00	0.00	0.00	340.00	0.00
0.000	2300.00	607.21	0.10	0.00	0.10	340.00	0.00
15.000	2300.00	607.11	0.00	0.00	0.00	335.00	15.00
15.000	2300.00	607.21	0.10	0.00	0.10	335.00	15.00
115.000	2300.00	607.01	0.00	-0.10	0.00	285.00	100.00
115.000	2300.00	607.09	0.07	-0.13	0.07	310.79	100.00
290.000	2300.00	607.09	0.00	0.08	0.00	184.42	175.00
290.000	2300.00	607.16	0.07	0.07	0.07	119.73	175.00
990.000	2300.00	608.07	0.00	0.98	0.00	169.07	700.00
990.000	2300.00	608.15	0.08	0.99	0.08	97.10	700.00
1690.000	2300.00	610.40	0.00	2.33	0.00	162.00	1400.00
1690.000	2300.00	610.52	0.11	2.37	0.11	128.95	1400.00
1790.000	2300.00	610.44	0.00	0.04	0.00	112.00	100.00
1790.000	2300.00	610.55	0.11	0.03	0.11	95.04	100.00
1840.000	2300.00	610.43	0.00	-0.01	0.00	87.00	50.00
1840.000	2300.00	610.54	0.11	-0.01	0.11	80.70	50.00
1865.000	2300.00	610.43	0.00	-0.01	0.00	75.00	25.00
1865.000	2300.00	610.52	0.10	-0.02	0.10	72.38	25.00
1890.000	2300.00	610.45	0.00	0.03	0.00	84.41	25.00
1890.000	2300.00	610.55	0.10	0.03	0.10	62.78	25.00
1940.000	2300.00	610.49	0.00	0.04	0.00	60.00	50.00
1940.000	2300.00	610.59	0.10	0.04	0.10	60.00	50.00
1973.000	2300.00	610.99	0.00	0.50	0.00	60.00	33.00
1973.000	2300.00	611.06	0.07	0.47	0.07	60.00	33.00
2023.000	2300.00	611.13	0.00	0.14	0.00	60.06	50.00
2023.000	2300.00	611.19	0.06	0.13	0.06	60.06	50.00
2448.000	2300.00	612.22	0.00	1.09	0.00	145.00	425.00
2448.000	2300.00	612.26	0.04	1.06	0.04	145.00	425.00
2709.000	2300.00	612.49	0.00	0.27	0.00	130.00	261.00

2709.000	2300.00	612.51	0.03	0.26	0.03	130.00	261.00
2785.000	2300.00	612.86	0.00	0.37	0.00	100.00	76.00
2785.000	2300.00	612.87	0.01	0.36	0.01	100.00	76.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2790.000	2300.00	612.85	0.00	-0.01	0.00	95.00	5.60
2790.000	2300.00	612.86	0.01	-0.01	0.01	95.00	5.60
2840.000	2300.00	613.20	0.00	0.35	0.00	195.00	50.00
2840.000	2300.00	613.21	0.01	0.35	0.01	195.00	50.00
3090.000	2300.00	613.67	0.00	0.47	0.00	400.00	250.00
3090.000	2300.00	613.60	-0.06	0.39	-0.06	208.80	250.00
3164.000	2300.00	613.84	0.00	0.17	0.00	400.00	74.00
3164.000	2300.00	613.81	-0.02	0.21	-0.02	244.93	74.00
3165.000	2300.00	614.05	0.00	0.21	0.00	400.00	1.00
3165.000	2300.00	614.05	0.00	0.24	0.00	300.07	1.00
3170.000	2300.00	614.07	0.00	0.02	0.00	400.00	5.40
3170.000	2300.00	614.07	0.00	0.02	0.00	296.45	5.40
3171.000	2300.00	613.97	0.00	-0.10	0.00	400.00	1.00
3171.000	2300.00	613.96	0.00	-0.10	0.00	268.65	1.00
3220.000	2300.00	614.04	0.00	0.07	0.00	400.00	49.00
3220.000	2300.00	614.05	0.01	0.08	0.01	278.68	49.00
3495.000	2300.00	614.25	0.00	0.21	0.00	360.00	275.00
3495.000	2300.00	614.27	0.02	0.22	0.02	278.89	275.00
3574.000	2300.00	614.44	0.00	0.19	0.00	320.00	79.00
3574.000	2300.00	614.50	0.06	0.24	0.06	282.49	79.00
3575.000	2300.00	614.59	0.00	0.14	0.00	320.00	1.00
3575.000	2300.00	614.68	0.09	0.17	0.09	316.75	1.00
3580.000	2300.00	614.60	0.00	0.01	0.00	315.00	5.40
3580.000	2300.00	614.69	0.09	0.01	0.09	311.24	5.40
3581.000	2300.00	614.54	0.00	-0.06	0.00	315.00	1.00
3581.000	2300.00	614.61	0.08	-0.08	0.08	285.99	1.00
3630.000	2300.00	614.48	0.00	-0.06	0.00	290.00	49.00
3630.000	2300.00	614.53	0.05	-0.08	0.05	189.01	49.00
3689.000	2300.00	614.70	0.00	0.23	0.00	296.14	59.00
3689.000	2300.00	614.78	0.08	0.25	0.08	210.30	59.00
3690.000	2300.00	614.63	0.00	-0.08	0.00	294.58	1.00
3690.000	2300.00	614.73	0.10	-0.06	0.10	231.54	1.00
3695.000	2300.00	614.72	0.00	0.09	0.00	296.42	5.40
3695.000	2300.00	614.82	0.10	0.10	0.10	236.28	5.40

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3696.000	2300.00	614.84	0.00	0.12	0.00	298.85	1.00
3696.000	2300.00	614.92	0.07	0.09	0.07	219.58	1.00
3745.000	2300.00	614.95	0.00	0.11	0.00	300.88	49.00
3745.000	2300.00	615.03	0.08	0.11	0.08	224.58	49.00
4045.000	2300.00	615.36	0.00	0.41	0.00	477.65	300.00
4045.000	2300.00	615.46	0.10	0.43	0.10	346.65	300.00
4159.000	2300.00	615.54	0.00	0.18	0.00	491.61	114.00
4159.000	2300.00	615.65	0.11	0.19	0.11	364.49	114.00
4160.000	2300.00	615.52	0.00	-0.02	0.00	490.05	1.00
4160.000	2300.00	615.66	0.14	0.01	0.14	420.00	1.00
4165.000	2300.00	615.55	0.00	0.03	0.00	491.39	5.40
4165.000	2300.00	615.68	0.13	0.03	0.13	420.00	5.40
4166.000	2300.00	615.59	0.00	0.05	0.00	495.34	1.00
4166.000	2300.00	615.68	0.09	0.00	0.09	367.84	1.00
4215.000	2300.00	615.65	0.00	0.06	0.00	499.45	49.00
4215.000	2300.00	615.74	0.09	0.05	0.09	371.50	49.00
4355.000	2300.00	615.63	0.00	-0.02	0.00	475.00	140.00
4355.000	2300.00	615.71	0.08	-0.03	0.08	336.71	140.00
4479.000	2300.00	615.98	0.00	0.35	0.00	475.00	124.00
4479.000	2300.00	616.08	0.11	0.37	0.11	377.83	124.00
4480.000	2300.00	616.17	0.00	0.19	0.00	475.00	1.00
4480.000	2300.00	616.27	0.11	0.19	0.11	408.01	1.00
4485.000	2300.00	616.18	0.00	0.01	0.00	475.00	5.40
4485.000	2300.00	616.28	0.11	0.01	0.11	403.28	5.40
4486.000	2300.00	616.09	0.00	-0.09	0.00	475.00	1.00
4486.000	2300.00	616.19	0.11	-0.09	0.11	388.87	1.00
4535.000	2300.00	616.15	0.00	0.07	0.00	475.00	49.00
4535.000	2300.00	616.26	0.11	0.07	0.11	398.58	49.00
5120.000	2300.00	616.65	0.00	0.50	0.00	475.00	585.00
5120.000	2300.00	616.75	0.10	0.49	0.10	359.57	585.00
5705.000	2300.00	617.40	0.00	0.75	0.00	345.81	585.00
5705.000	2300.00	617.49	0.08	0.74	0.08	163.69	585.00
5819.000	2300.00	617.94	0.00	0.54	0.00	360.00	114.00
5819.000	2300.00	618.05	0.12	0.57	0.12	229.89	114.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
5820.000	2300.00	618.12	0.00	0.18	0.00	360.00	1.00
5820.000	2300.00	618.15	0.04	0.10	0.04	231.03	1.00
5825.000	2300.00	618.16	0.00	0.04	0.00	355.00	5.40
5825.000	2300.00	618.21	0.05	0.06	0.05	233.64	5.40
5826.000	2300.00	618.08	0.00	-0.08	0.00	355.00	1.00

5826.000	2300.00	618.18	0.09	-0.03	0.09	248.56	1.00
5875.000	2300.00	618.15	0.00	0.07	0.00	330.00	49.00
5875.000	2300.00	618.25	0.10	0.07	0.10	249.10	49.00
6065.000	2300.00	618.39	0.00	0.24	0.00	235.00	190.00
6065.000	2300.00	618.49	0.10	0.24	0.10	191.28	190.00
6140.000	2300.00	618.77	0.00	0.38	0.00	235.00	75.00
6140.000	2300.00	618.88	0.11	0.39	0.11	201.82	75.00
6167.000	2300.00	619.04	0.00	0.27	0.00	235.00	27.00
6167.000	2300.00	619.04	0.00	0.16	0.00	217.44	27.00
6220.000	2300.00	619.13	0.00	0.09	0.00	235.00	53.00
6220.000	2300.00	619.10	-0.02	0.06	-0.02	210.07	53.00
7493.000	2300.00	621.08	0.00	1.95	0.00	75.00	1273.00
7493.000	2300.00	621.21	0.13	2.11	0.13	75.00	1273.00
7505.000	2300.00	621.09	0.00	0.01	0.00	69.00	12.00
7505.000	2300.00	621.22	0.13	0.01	0.13	69.00	12.00
7565.000	2300.00	621.29	0.00	0.20	0.00	69.00	60.00
7565.000	2300.00	621.40	0.11	0.18	0.11	69.00	60.00
7577.000	2300.00	621.47	0.00	0.17	0.00	85.00	12.00
7577.000	2300.00	621.49	0.02	0.08	0.02	69.00	12.00
9150.000	2300.00	624.30	0.00	2.83	0.00	133.99	1573.00
9150.000	2300.00	624.42	0.13	2.93	0.13	121.46	1573.00
* 9550.000	2300.00	626.22	0.00	1.93	0.00	92.00	400.00
* 9550.000	2300.00	626.27	0.05	1.85	0.05	75.23	400.00
9630.000	600.00	628.44	0.00	2.22	0.00	55.00	80.00
9630.000	600.00	628.55	0.11	2.28	0.11	212.91	80.00
9704.000	600.00	628.47	0.00	0.03	0.00	17.50	74.00
9704.000	600.00	628.56	0.09	0.02	0.09	225.00	74.00
9705.000	600.00	628.17	0.00	-0.30	0.00	17.50	1.00
9705.000	600.00	628.11	-0.06	-0.46	-0.06	222.74	1.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9756.000	600.00	628.95	0.00	0.77	0.00	17.50	51.00
9756.000	600.00	628.86	-0.08	0.76	-0.08	17.50	51.00
9757.000	600.00	629.45	0.00	0.51	0.00	17.50	1.00
9757.000	600.00	629.39	-0.06	0.53	-0.06	17.50	1.00
10405.000	600.00	629.78	0.00	0.33	0.00	225.00	648.00
10405.000	600.00	629.73	-0.05	0.34	-0.05	201.24	648.00
11205.000	600.00	629.61	0.00	-0.17	0.00	17.50	800.00
11205.000	600.00	629.57	-0.05	-0.16	-0.05	17.50	800.00
11350.000	600.00	632.10	0.00	2.49	0.00	17.50	145.00
11350.000	600.00	632.20	0.10	2.63	0.10	17.50	145.00
11500.000	600.00	632.38	0.00	0.28	0.00	225.00	150.00

11500.000	600.00	632.47	0.09	0.27	0.09	205.[illegible]0	150.00
11550.000	2300.00	632.31	0.00	-0.06	0.00	225.00	50.00
11550.000	2300.00	632.40	0.09	-0.06	0.09	204.84	50.00
11750.000	2300.00	632.40	0.00	0.09	0.00	225.00	200.00
11750.000	2300.00	632.49	0.09	0.09	0.09	205.64	200.00
12449.000	2300.00	632.27	0.00	-0.13	0.00	40.00	699.00
12449.000	2300.00	632.39	0.12	-0.11	0.12	40.00	699.00
12450.000	2300.00	632.56	0.00	0.29	0.00	40.00	1.00
12450.000	2300.00	632.65	0.08	0.26	0.08	40.00	1.00
12650.000	2300.00	633.46	0.00	0.90	0.00	40.00	200.00
12650.000	2300.00	633.53	0.07	0.88	0.07	40.00	200.00
12850.000	2300.00	634.32	0.00	0.87	0.00	40.00	200.00
12850.000	2300.00	634.39	0.06	0.86	0.06	40.00	200.00
13600.000	2300.00	635.68	0.00	1.35	0.00	187.28	750.00
13600.000	2300.00	635.72	0.04	1.33	0.04	150.94	750.00
14975.000	2300.00	637.77	0.00	2.09	0.00	224.83	1375.00
14975.000	2300.00	637.86	0.09	2.14	0.09	195.39	1375.00
16700.000	2300.00	640.63	0.00	2.86	0.00	342.64	1725.00
16700.000	2300.00	640.74	0.11	2.88	0.11	299.76	1725.00
17600.000	2300.00	641.66	0.00	1.03	0.00	328.11	900.00
17600.000	2300.00	641.77	0.11	1.03	0.11	265.74	900.00
18545.000	2300.00	643.55	0.00	1.89	0.00	60.00	945.00
18545.000	2300.00	643.63	0.09	1.87	0.09	60.00	945.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
18565.000	2300.00	643.51	0.00	-0.03	0.00	50.00	20.00
18565.000	2300.00	643.61	0.09	-0.03	0.09	50.00	20.00
18602.000	2300.00	643.54	0.00	0.03	0.00	50.00	37.00
18602.000	2300.00	643.64	0.10	0.04	0.10	50.00	37.00
18622.000	2300.00	644.04	0.00	0.50	0.00	90.00	20.00
18622.000	2300.00	644.15	0.11	0.50	0.11	90.00	20.00
19000.000	2300.00	644.41	0.00	0.36	0.00	274.38	378.00
19000.000	2300.00	644.48	0.08	0.33	0.08	213.51	378.00
20755.000	2300.00	645.74	0.00	1.33	0.00	430.00	1755.00
20755.000	2300.00	645.84	0.10	1.36	0.10	367.65	1755.00
20905.000	2300.00	645.76	0.00	0.02	0.00	370.23	150.00
20905.000	2300.00	645.86	0.09	0.02	0.09	321.54	150.00
* 21055.000	2300.00	646.50	0.00	0.74	0.00	257.89	150.00
* 21055.000	2300.00	646.60	0.09	0.74	0.09	232.66	150.00
21355.000	2300.00	647.81	0.00	1.30	0.00	149.51	300.00
21355.000	2300.00	647.88	0.07	1.28	0.07	101.20	300.00
21391.000	2300.00	650.65	0.00	2.84	0.00	150.00	36.00

21391.000	2300.00	650.66	0.01	2.7	0.01	150.00	36.00
22615.000	2300.00	650.82	0.00	0.17	0.00	358.10	224.00
22615.000	2300.00	650.83	0.01	0.17	0.01	324.81	224.00
-9550.000	2300.00	626.22	0.00	-24.60	0.00	92.00	400.00
-9550.000	2300.00	626.27	0.05	-24.56	0.05	75.23	400.00
250.000	1700.00	627.21	0.00	0.98	0.00	35.00	250.00
250.000	1700.00	627.32	0.11	1.05	0.11	35.00	250.00
332.000	1700.00	627.33	0.00	0.12	0.00	35.00	82.00
332.000	1700.00	627.43	0.11	0.11	0.11	35.00	82.00
* 890.000	1700.00	630.47	0.00	3.14	0.00	52.24	558.00
* 890.000	1700.00	630.47	0.00	3.03	0.00	52.23	558.00
11550.000	2300.00	632.32	0.00	1.85	0.00	225.00	50.00
11550.000	2300.00	632.31	0.00	1.84	0.00	209.96	50.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=  9550.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  9550.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  9550.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  9550.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO= 21055.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 21055.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 21055.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 21055.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 21055.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 21055.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=   890.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   890.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   890.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=   890.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   890.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   890.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
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FLOODWAY DATA, BLISS DRAIN, 100-YEAR FL
PROFILE NO. 2

	------- FLOODWAY -------			WATER SURFACE ELEVATION		
STATION	WIDTH	SECTION AREA	MEAN VELOCITY	WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
0.000	340.	1027.	2.2	607.2	607.1	0.1
15.000	335.	1020.	2.3	607.2	607.1	0.1
115.000	311.	593.	3.9	607.1	607.0	0.1
290.000	120.	488.	4.7	607.2	607.1	0.1

990.0()	97.	400.	5.7	608.2	608.1	0.1
1690.000	129.	548.	4.2	610.5	610.4	0.1
1790.000	95.	464.	5.0	610.5	610.4	0.1
1840.000	81.	412.	5.6	610.5	610.4	0.1
1865.000	72.	380.	6.1	610.5	610.4	0.1
1890.000	63.	342.	6.7	610.6	610.5	0.1
1940.000	60.	329.	7.0	610.6	610.5	0.1
1973.000	60.	357.	6.4	611.1	611.0	0.1
2023.000	60.	366.	6.3	611.2	611.1	0.1
2448.000	145.	524.	4.4	612.2	612.2	0.0
2709.000	130.	353.	6.5	612.5	612.5	0.0
2785.000	100.	383.	6.0	612.9	612.9	0.0
2790.000	95.	380.	6.1	612.8	612.8	0.0
2840.000	195.	503.	4.6	613.2	613.2	0.0
3090.000	209.	514.	4.5	613.7	613.7	0.0
3164.000	245.	590.	3.9	613.8	613.8	0.0
3165.000	300.	637.	3.6	614.0	614.0	0.0
3170.000	296.	639.	3.6	614.1	614.1	0.0
3171.000	269.	650.	3.5	614.0	614.0	0.0
3220.000	279.	681.	3.4	614.0	614.0	0.0
3495.000	279.	573.	4.0	614.3	614.3	0.0
3574.000	282.	638.	3.6	614.5	614.4	0.1
3575.000	317.	679.	3.4	614.7	614.6	0.1
3580.000	311.	674.	3.4	614.7	614.6	0.1
3581.000	286.	670.	3.4	614.6	614.5	0.1
3630.000	189.	466.	4.9	614.6	614.5	0.1
3689.000	210.	537.	4.3	614.8	614.7	0.1
3690.000	232.	489.	4.7	614.7	614.6	0.1
3695.000	236.	513.	4.5	614.8	614.7	0.1
3696.000	220.	576.	4.0	614.9	614.8	0.1
3745.000	225.	607.	3.8	615.0	614.9	0.1
4045.000	347.	728.	3.2	615.5	615.4	0.1
4159.000	364.	823.	2.8	615.6	615.5	0.1
4160.000	420.	844.	2.7	615.6	615.5	0.1
4165.000	420.	854.	2.7	615.6	615.5	0.1
4166.000	368.	841.	2.7	615.7	615.6	0.1
4215.000	371.	863.	2.7	615.8	615.7	0.1
4355.000	337.	628.	3.7	615.7	615.6	0.1

FLOODWAY DATA, BLISS DRAIN, 100-YEAR FL
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	WATER SURFACE ELEVATION DIFFERENCE
4479.000	378.	809.	2.8	616.1	616.0	0.1
4480.000	408.	841.	2.7	616.3	616.2	0.1
4485.000	403.	838.	2.7	616.3	616.2	0.1
4486.000	389.	862.	2.7	616.2	616.1	0.1
4535.000	399.	902.	2.6	616.3	616.2	0.1
5120.000	360.	697.	3.3	616.7	616.6	0.1
5705.000	164.	444.	5.2	617.5	617.4	0.1
5819.000	230.	635.	3.6	618.0	617.9	0.1
5820.000	231.	538.	4.3	618.1	618.1	0.0
5825.000	234.	554.	4.2	618.3	618.2	0.1
5826.000	249.	690.	3.3	618.2	618.1	0.1
5875.000	249.	708.	3.2	618.3	618.2	0.1
6065.000	191.	508.	4.5	618.5	618.4	0.1
6140.000	202.	598.	3.8	618.9	618.8	0.1

6167.0()	217.	660.	3.5	619.0	619.0	0.0
6220.000	210.	658.	3.5	619.1	619.1	0.0
7493.000	75.	323.	7.1	621.2	621.1	0.1
7505.000	69.	308.	7.5	621.2	621.1	0.1
7565.000	69.	320.	7.2	621.4	621.3	0.1
7577.000	69.	332.	6.9	621.5	621.5	0.0
9150.000	121.	613.	3.8	624.4	624.3	0.1
9550.000	75.	282.	8.2	626.2	626.2	0.0
9630.000	213.	835.	0.7	628.5	628.4	0.1
9704.000	225.	849.	0.7	628.6	628.5	0.1
9705.000	223.	78.	7.7	628.2	628.2	0.0
9756.000	18.	87.	6.9	628.9	628.9	0.0
9757.000	17.	148.	4.0	629.5	629.5	0.0
10405.000	201.	948.	0.6	629.8	629.8	0.0
11205.000	18.	106.	5.7	629.6	629.6	0.0
11350.000	18.	152.	3.9	632.2	632.1	0.1
11500.000	205.	1104.	0.5	632.5	632.4	0.1
11550.000	205.	1089.	2.1	632.4	632.3	0.1
11750.000	206.	1108.	2.1	632.5	632.4	0.1
12449.000	40.	303.	7.6	632.4	632.3	0.1
12450.000	40.	293.	7.9	632.7	632.6	0.1
12650.000	40.	312.	7.4	633.6	633.5	0.1
12850.000	40.	397.	5.8	634.4	634.3	0.1
13600.000	151.	772.	3.0	635.7	635.7	0.0
14975.000	195.	698.	3.3	637.9	637.8	0.1
16700.000	300.	1243.	1.9	640.7	640.6	0.1
17600.000	266.	723.	3.2	641.8	641.7	0.1
18545.000	60.	417.	5.5	643.6	643.5	0.1

1

FLOODWAY DATA, BLISS DRAIN, 100-YEAR FL
PROFILE NO. 2

STATION	------- FLOODWAY ------- WIDTH	SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
18565.000	50.	343.	6.7	643.6	643.5	0.1
18602.000	50.	343.	6.7	643.6	643.5	0.1
18622.000	90.	623.	3.7	644.1	644.0	0.1
19000.000	214.	765.	3.0	644.5	644.4	0.1
20755.000	368.	1109.	2.1	645.8	645.7	0.1
20905.000	322.	641.	3.6	645.9	645.8	0.1
21055.000	269.	431.	5.3	646.6	646.5	0.1
21355.000	101.	363.	6.3	647.9	647.8	0.1
21391.000	150.	825.	2.8	650.6	650.6	0.0
22615.000	325.	2285.	1.0	650.8	650.8	0.0
-9550.000	75.	282.	8.2	626.2	626.2	0.0
250.000	35.	242.	7.0	627.3	627.2	0.1
332.000	35.	245.	6.9	627.4	627.3	0.1
890.000	52.	169.	10.1	630.5	630.5	0.0
11550.000	210.	1191.	1.9	632.3	632.3	0.0

1

THIS RUN EXECUTED 18 OCT 89 12:18:11

****
HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984

ERROR CORR - 01,02,03,04,05,06
MODIFICATION - 50,51,52,53,54,55,56
****

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP

3) WATERCOURSE: BLISS DRAIN

4) DOCUMENT TYPE: 100YR NATURAL

00BREAK00

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1*****************************************************                                         *************************************
 *  WATER SURFACE PROFILES                             *                                         *  U.S. ARMY CORPS OF ENGINEERS
 *  VERSION OF NOVEMBER 1976                           *                                         *  THE HYDROLOGIC ENGINEERING CENTER
 *  UPDATED MAY 1984                                   *                                         *  609 SECOND STREET, SUITE D
 *                                                     *                                         *  DAVIS, CALIFORNIA 95616
 *  RUN DATE  18 OCT 89 TIME   12:17:22                *                                         *  (916) 440-2105 (FTS) 448-2105
 *****************************************************                                         *************************************


                                   X     X  XXXXXXX   XXXXX               XXXXX
                                   X     X  X        X     X             X     X
                                   X     X  X        X                         X
                                   XXXXXXX  XXXX     X         XXXXX      XXXXX
                                   X     X  X        X                   X
                                   X     X  X        X     X             X
                                   X     X  XXXXXXX   XXXXX              XXXXXXX
1
  18 OCT 89    12:17:22                                                                                    PAGE    1


                                                                                 THIS RUN EXECUTED 18 OCT 89   12:17:22

 *************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
   ERROR CORR -  01,02,03,04,05,06
   MODIFICATION -  50,51,52,53,54,55,56
 *************************************************


 C
 T1      GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
 T2      FLOOD INSURANCE STUDY
 T3      BLISS DRAIN, 100-YEAR FLOOD, NATURAL CONDITION

 J1   ICHECK     INQ      NINV      IDIR      STRT     METRIC     HVINS      Q        WSEL      FQ

        0.        2.        0.        0.  0.000000     0.00       0.0        0.   607.110    0.000

 J2   NPROF     IPLOT     PRFVS     XSECV     XSECH      FN      ALLDC      IBW      CHNIM     ITRACE

       1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

 J3   VARIABLE CODES FOR SUMMARY PRINTOUT

     150.000   110.000   200.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000


 QT      2.000   2300.000   2300.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
 NC      0.050      0.050      0.030      0.100      0.300      0.000      0.000      0.000      0.000      0.000
 ET      0.000      4.100      4.100   1650.000   1990.000      0.000      0.000      0.000      0.000      0.000
 X1      0.000     23.000   1690.000   1729.000      0.000      0.000      0.000      1.000      0.000      0.000
 GR    614.000   1400.000    612.000   1450.000    608.000   1530.000    606.000   1630.000    605.400   1667.000
 GR    603.800   1682.000    599.300   1690.000    597.200   1694.000    596.200   1694.000    595.300   1698.000
 GR    594.900   1700.000    594.300   1703.000    596.800   1710.000    596.900   1714.000    597.200   1722.000
 GR    599.600   1729.000    604.400   1742.000    605.400   1747.000    605.400   1750.000    605.700   2320.000
 GR    606.800   2800.000    610.000   2860.000    613.000   2900.000      0.000      0.000      0.000      0.000

 ET      0.000      4.100      4.100   1655.000   1990.000      0.000      0.000      0.000      0.000      0.000
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X1	15.000	0.000	0.000	0.000	15.000	15.000	15.000	0.000	0.000	0.000
ET	0.000	4.100	1.400	1660.000	1945.000	0.000	0.000	0.000	0.000	0.000
X1	115.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	1.000	0.000
X1	290.000	13.000	65.000	100.000	175.000	175.000	175.000	0.000	0.000	0.000
GR	609.000	0.000	605.820	25.000	605.720	54.000	600.370	65.000	599.820	72.000
GR	599.220	79.000	599.520	86.000	600.020	92.000	600.380	100.000	601.620	103.000
GR	605.320	113.000	604.320	140.000	609.000	240.000	0.000	0.000	0.000	0.000
X1	990.000	0.000	0.000	0.000	700.000	700.000	700.000	0.000	1.500	0.000

ET	0.000	4.100	0.000	20.000	182.000	0.000	0.000	0.000	0.000	0.000
X1	1690.000	0.000	0.000	0.000	1400.000	1400.000	1400.000	0.000	1.500	0.000
ET	0.000	4.100	0.000	55.000	167.000	0.000	0.000	0.000	0.000	0.000
X1	1790.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.200	0.000
ET	0.000	4.100	0.000	55.000	142.000	0.000	0.000	0.000	0.000	0.000
X1	1840.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.100	0.000
ET	0.000	4.100	0.000	55.000	130.000	0.000	0.000	0.000	0.000	0.000
X1	1865.000	0.000	0.000	0.000	25.000	25.000	25.000	0.000	0.000	0.000
NC	0.030	0.030	0.015	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	145.000	230.000	0.000	0.000	0.000	0.000	0.000

PORT SHELDON DRIVE

X1	1890.000	16.000	177.000	200.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	618.000	0.000	616.920	82.000	612.120	132.000	609.920	150.000	607.520	170.000
GR	603.820	177.000	603.620	178.000	602.620	183.000	603.020	187.000	603.870	191.000
GR	604.040	200.000	605.220	214.000	608.420	226.000	613.620	244.000	614.920	257.000
GR	617.020	322.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	1083.000	1143.000	0.000	0.000	0.000	0.000	0.000
X1	1940.000	16.000	1100.000	1125.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	616.000	950.000	615.820	1082.900	609.000	1083.000	604.720	1096.000	604.620	1100.000
GR	603.420	1106.000	603.320	1109.000	602.820	1112.000	601.920	1114.000	602.820	1115.000
GR	601.920	1120.000	602.820	1124.000	604.920	1125.000	608.700	1143.000	617.120	1143.100
GR	618.000	1166.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.040	0.040	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	1083.000	1143.000	0.000	0.000	0.000	0.000	0.000
X1	1973.000	0.000	0.000	0.000	33.000	33.000	33.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	1075.000	1145.000	0.000	0.000	0.000	0.000	0.000
X1	2023.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	1095.000	1240.000	0.000	0.000	0.000	0.000	0.000
X1	2448.000	16.000	1100.000	1125.000	350.000	450.000	425.000	0.000	0.000	0.000
GR	613.000	950.000	612.820	1082.900	611.000	1083.000	606.720	1096.000	606.620	1100.000
GR	605.420	1106.000	605.320	1109.000	604.820	1112.000	603.920	1114.000	604.820	1115.000
GR	603.920	1120.000	604.820	1124.000	606.920	1125.000	609.700	1143.000	610.000	1450.000
GR	612.000	1800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	1000.000	1130.000	0.000	0.000	0.000	0.000	0.000
X1	2709.000	17.000	1076.000	1100.000	215.000	275.000	261.000	0.000	0.000	0.000
GR	612.000	800.000	612.410	1025.000	611.410	1048.000	609.210	1062.000	608.110	1070.000
GR	606.670	1076.000	606.410	1080.000	606.110	1087.000	605.910	1092.000	606.010	1097.000
GR	606.670	1100.000	607.210	1107.000	608.610	1113.000	611.410	1121.000	612.410	1130.000
GR	612.910	1144.000	618.000	1350.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	4.100	4.100	1035.000	1135.000	0.000	0.000	0.000	0.000	0.000

GOLF COURSE BRIDGE

X1	2785.000	0.000	0.000	0.000	76.000	76.000	76.000	0.000	0.000	0.000
SB	0.000	1.500	2.800	0.000	20.000	0.000	270.000	6.000	0.000	0.000
ET	0.000	4.100	4.100	1035.000	1130.000	0.000	0.000	0.000	0.000	0.000
X1	2790.000	0.000	0.000	0.000	5.600	5.600	5.600	0.000	0.000	0.000
X2	0.000	0.000	1.000	611.400	611.400	0.000	0.000	0.000	0.000	0.000
BT	17.000	800.000	612.000	612.000	1025.000	612.410	612.410	1048.000	611.410	611.410
BT	1062.000	609.210	609.210	1070.000	611.300	610.200	1076.000	612.500	611.400	1080.000
BT	612.500	611.400	1087.000	612.500	611.400	1092.000	612.500	611.400	1097.000	612.500
BT	611.400	1100.000	612.500	611.400	1107.000	611.600	610.500	1113.000	611.000	609.900
BT	1121.000	611.410	611.410	1130.000	612.410	612.410	1144.000	612.910	612.910	1350.000
BT	618.000	618.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	940.000	1135.000	0.000	0.000	0.000	0.000	0.000
X1	2840.000	0.000	0.000	0.000	45.000	50.000	50.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3090.000	21.000	1062.000	1100.000	250.000	250.000	250.000	0.000	0.000	0.000
GR	613.500	800.000	612.560	1025.000	611.160	1050.000	609.560	1062.000	607.760	1069.900
GR	607.700	1070.000	607.700	1071.000	607.700	1071.100	606.460	1083.000	606.360	1090.000
GR	606.260	1094.000	606.260	1098.900	606.360	1099.000	606.360	1100.000	606.360	1100.100
GR	607.760	1104.000	610.060	1108.000	611.360	1115.000	612.160	1125.000	612.760	1150.000
GR	613.000	1200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3164.000	0.000	0.000	0.000	74.000	74.000	74.000	0.000	0.000	0.000

GOLF COURSE BRIDGE

X1	3165.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	21.000	800.000	613.500	613.500	1025.000	612.560	612.520	1050.000	611.160	611.160
BT	1062.000	609.560	609.560	1069.900	614.300	613.200	1070.000	613.200	607.700	1071.000
BT	613.200	607.700	1071.100	613.200	612.100	1083.000	613.200	612.100	1090.000	613.200
BT	612.100	1094.000	613.200	612.100	1098.900	613.200	612.100	1099.000	613.200	606.360
BT	1100.000	613.200	606.360	1100.100	613.200	612.100	1104.000	612.900	611.800	1108.000
BT	612.500	611.360	1115.000	611.800	611.360	1125.000	612.160	612.160	1150.000	612.760
BT	612.760	1200.000	613.000	613.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3170.000	0.000	0.000	0.000	5.400	5.400	5.400	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X1	3171.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	3220.000	0.000	0.000	0.000	49.000	49.000	49.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	920.000	1280.000	0.000	0.000	0.000	0.000	0.000
X1	3495.000	21.000	1079.000	1100.000	275.000	275.000	275.000	0.000	0.000	0.000
GR	614.000	700.000	613.400	1051.000	612.800	1057.000	611.100	1069.900	611.100	1070.000
GR	610.700	1071.000	607.100	1071.100	607.000	1076.000	606.800	1079.000	606.800	1084.000
GR	607.000	1091.000	607.000	1096.000	608.000	1099.900	608.000	1100.000	608.000	1101.000
GR	608.000	1101.100	609.000	1103.000	611.600	1115.000	612.100	1120.000	612.400	1125.000
GR	613.500	1300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	4.100	0.000	960.000	1280.000	0.000	0.000	0.000	0.000	0.000
X1	3574.000	0.000	0.000	0.000	79.000	79.000	79.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	960.000	1280.000	0.000	0.000	0.000	0.000	0.000

GOLF COURSE BRIDGE

X1	3575.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000

BT	21.000	700.000	614.000	614.000	1051.000	613.400	613.400	1057.000	612.800	612.800
BT	1069.900	615.500	614.400	1070.000	615.500	611.100	1071.000	615.500	614.400	1071.100
BT	614.400	613.300	1076.000	615.500	614.400	1079.000	615.500	614.400	1084.000	615.500
BT	614.400	1091.000	615.500	614.400	1096.000	615.500	614.400	1099.900	615.500	614.400
BT	1100.000	615.500	608.000	1101.000	615.500	608.000	1101.100	615.500	614.400	1103.000
BT	615.000	614.000	1115.000	613.800	612.700	1120.000	613.200	612.100	1125.000	612.400
BT	612.400	1300.000	613.500	613.500	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	965.000	1280.000	0.000	0.000	0.000	0.000	0.000
X1	3580.000	0.000	0.000	0.000	5.400	5.400	5.400	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	965.000	1280.000	0.000	0.000	0.000	0.000	0.000
X1	3581.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	1010.000	1300.000	0.000	0.000	0.000	0.000	0.000
X1	3630.000	23.000	1077.000	1100.000	60.000	40.000	49.000	0.000	0.000	0.000
GR	620.000	900.000	612.100	1055.000	609.700	1067.000	608.600	1074.900	608.600	1075.000
GR	608.600	1076.000	608.600	1076.100	607.900	1077.000	607.400	1081.000	607.400	1086.000
GR	607.600	1092.000	609.200	1099.000	608.300	1100.000	609.200	1102.000	609.700	1104.900
GR	609.700	1105.000	609.700	1106.000	609.700	1106.100	609.900	1107.000	610.700	1115.000
GR	612.000	1120.000	613.500	1125.000	614.000	1300.000	0.000	0.000	0.000	0.000
X1	3689.000	0.000	0.000	0.000	70.000	50.000	59.000	0.000	0.000	0.000

GOLF COURSE BRIDGE

X1	3690.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	23.000	900.000	620.000	620.000	1055.000	612.100	612.100	1067.000	614.200	613.100
BT	1074.900	615.300	614.200	1075.000	615.300	608.600	1076.000	615.300	608.600	1076.100
BT	615.300	614.200	1077.000	615.300	614.200	1081.000	615.300	614.200	1086.000	615.300
BT	614.200	1092.000	615.300	614.200	1099.000	615.300	614.200	1100.000	615.300	614.200
BT	1102.000	615.300	614.200	1104.900	615.300	614.200	1105.000	615.300	609.700	1106.000
BT	613.300	609.700	1106.100	615.300	614.200	1107.000	615.000	614.000	1115.000	613.900
BT	612.800	1120.000	613.100	612.000	1125.000	613.500	613.500	1300.000	614.000	614.000
X1	3695.000	0.000	0.000	0.000	5.400	5.400	5.400	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X1	3696.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	3745.000	0.000	0.000	0.000	49.000	49.000	49.000	0.000	0.000	0.000

X1	4045.000	21.000	1100.000	1138.000	340.000	260.000	300.000	0.000	0.000	0.000
GR	614.000	800.000	614.450	1050.000	613.550	1075.000	613.050	1082.000	611.550	1095.000
GR	609.350	1096.000	611.550	1098.000	609.350	1100.000	609.050	1104.000	608.950	1110.000
GR	609.150	1119.000	609.200	1125.000	609.200	1126.000	609.200	1127.000	608.850	1132.000
GR	609.350	1138.000	609.850	1140.000	611.150	1147.000	613.650	1153.000	613.950	1175.000
GR	616.000	1325.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4159.000	0.000	0.000	0.000	114.000	114.000	114.000	0.000	0.000	0.000
ET	0.000	0.000	4.100	800.000	1220.000	0.000	0.000	0.000	0.000	0.000

GOLF COURSE BRIDGE

X1	4160.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	24.000	800.000	614.450	614.450	1050.000	614.450	614.450	1075.000	613.600	613.600
BT	1082.000	614.800	613.700	1095.000	616.000	614.900	1095.000	616.000	614.900	1096.000
BT	616.000	614.900	1096.000	616.000	614.900	1098.000	616.000	614.900	1100.000	616.000
BT	614.900	1104.000	616.000	614.900	1110.000	616.000	614.900	1119.000	616.000	614.900
BT	1125.000	616.000	614.900	1126.000	616.000	614.900	1126.000	615.900	614.800	1126.000
BT	615.800	614.700	1127.000	615.700	614.600	1132.000	615.000	613.900	1140.000	614.000
BT	612.900	1147.000	611.150	611.150	1153.000	613.650	613.650	1175.000	613.950	613.950
BT	1325.000	616.000	616.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	0.000	4.100	800.000	1220.000	0.000	0.000	0.000	0.000	0.000
X1	4165.000	0.000	0.000	0.000	5.400	5.400	5.400	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	4166.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	4215.000	0.000	0.000	0.000	49.000	49.000	49.000	0.000	0.000	0.000
X1	4355.000	19.000	1102.000	1128.000	140.000	140.000	140.000	0.000	0.000	0.000
GR	615.000	850.000	614.600	1075.000	614.000	1085.000	612.900	1090.000	611.200	1095.000
GR	610.800	1097.000	610.000	1100.000	609.100	1102.000	608.900	1109.000	608.600	1112.000
GR	608.500	1116.000	608.400	1123.000	608.600	1126.000	609.700	1128.000	611.600	1132.000
GR	611.600	1134.000	614.300	1141.000	614.000	1150.000	615.000	1325.000	0.000	0.000
X1	4479.000	0.000	0.000	0.000	124.000	124.000	124.000	0.000	0.000	0.000
		GOLF COURSE BRIDGE								
X1	4480.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	23.000	850.000	615.000	615.000	1075.000	614.000	614.000	1085.000	614.000	614.000
BT	1090.000	612.900	612.900	1095.000	611.200	611.200	1095.000	615.700	611.500	1097.000
BT	615.700	611.200	1097.000	615.700	613.900	1100.000	615.700	613.900	1102.000	615.700
BT	613.900	1109.000	615.700	613.900	1112.000	615.700	613.900	1116.000	615.700	613.900
BT	1123.000	615.700	613.900	1126.000	615.700	613.900	1128.000	615.700	613.900	1132.000
BT	615.700	613.900	1132.000	615.700	611.600	1134.000	615.700	611.600	1134.000	611.600
BT	611.600	1141.000	614.300	614.300	1150.000	614.000	614.000	1325.000	615.000	615.000

X1	4485.000	0.000	0.000	0.000	5.400	5.400	5.400	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X1	4486.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	4535.000	0.000	0.000	0.000	49.000	49.000	49.000	0.000	0.000	0.000
X1	5120.000	0.000	0.000	0.000	585.000	585.000	585.000	0.000	0.700	0.000
X1	5705.000	16.000	1070.000	1100.000	585.000	585.000	585.000	0.000	0.000	0.000
GR	618.000	900.000	616.130	1040.000	615.930	1054.000	615.130	1067.000	611.830	1070.000
GR	611.830	1070.100	610.330	1075.000	610.230	1080.000	610.530	1085.000	610.930	1093.000
GR	611.800	1100.000	614.230	1108.000	615.630	1110.000	615.330	1125.000	616.000	1150.000
GR	617.500	1300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	940.000	1300.000	0.000	0.000	0.000	0.000	0.000
X1	5819.000	0.000	0.000	0.000	114.000	114.000	114.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	940.000	1300.000	0.000	0.000	0.000	0.000	0.000
		GOLF COURSE BRIDGE								
X1	5820.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	17.000	900.000	618.500	618.500	1040.000	616.130	616.130	1054.000	615.930	615.930
BT	1067.000	615.130	615.130	1070.000	617.500	611.830	1070.100	617.500	615.500	1075.000
BT	617.500	615.300	1080.000	617.500	615.200	1085.000	617.500	615.200	1093.000	617.500
BT	615.200	1100.000	617.500	615.200	1108.000	617.500	615.200	1108.000	617.500	614.230
BT	1110.000	617.500	615.630	1125.000	615.630	615.630	1150.000	616.000	616.000	1300.000
BT	617.500	617.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	945.000	1300.000	0.000	0.000	0.000	0.000	0.000
X1	5825.000	0.000	0.000	0.000	5.400	5.400	5.400	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	945.000	1300.000	0.000	0.000	0.000	0.000	0.000
X1	5826 000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000

ET	0.000	4.100	0.000	950.000	1280.000	0.000	0.000	0.000	0.000	0.000
X1	5875.000	0.000	0.000	0.000	49.000	49.000	49.000	0.000	0.000	0.000

NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	6065.000	16.000	73.000	100.000	210.000	150.000	190.000	0.000	0.000	0.000
GR	617.300	0.000	617.300	45.000	616.400	60.000	614.300	71.000	612.300	73.000
GR	612.000	75.000	611.400	78.000	611.700	83.000	611.700	90.000	611.600	96.000
GR	611.900	98.000	612.100	100.000	614.300	105.000	616.400	110.000	616.600	125.000
GR	617.000	235.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

GOLF COURSE BRIDGE

X1	6140.000	0.000	0.000	0.000	75.000	75.000	75.000	0.000	0.000	0.000

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SB	0.000	1.150	3.000	0.000	23.000	0.000	157.000	0.000	0.000	0.000
X1	6167.000	0.000	0.000	0.000	27.000	27.000	27.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	618.100	617.000	0.000	0.000	0.000	0.000	0.000
BT	18.000	0.000	617.300	617.300	45.000	617.300	617.300	60.000	616.400	616.400
BT	71.000	619.000	614.300	73.000	619.900	612.300	75.000	619.900	612.000	75.000
BT	619.900	618.600	78.000	619.800	618.500	83.000	619.700	618.400	90.000	619.500
BT	618.300	96.000	619.500	618.200	98.000	619.500	618.100	100.000	619.500	618.100
BT	100.000	619.500	612.100	105.000	618.000	614.300	110.000	616.400	616.400	125.000
BT	616.600	616.600	235.000	616.500	616.500	0.000	0.000	0.000	0.000	0.000

X1	6220.000	0.000	0.000	0.000	53.000	53.000	53.000	0.000	0.000	0.000

NC	0.050	0.050	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	225.000	300.000	0.000	0.000	0.000	0.000	0.000
X1	7493.000	14.000	229.000	298.000	1273.000	1273.000	1273.000	0.000	0.000	0.000
GR	626.100	50.000	619.300	229.000	618.600	235.000	616.000	237.000	615.600	239.000
GR	614.800	250.000	614.500	258.000	616.000	260.000	616.100	261 000	616.800	265.000
GR	617.200	283.000	617.800	294.000	620.100	298.000	625.850	500.000	0.000	0.000

NC	0.040	0.040	0.020	0.300	0.500	0.000	0.000	0.000	0.000	0.000

44TH STREET

X1	7505.000	31.000	229.000	298.000	12.000	12.000	12.000	0.000	0.000	0.000
BT	-23.000	50.000	626.100	626.100	75.000	626.200	626.200	100.000	626.200	626.200
BT	0.000	125.000	626.400	626.400	150.000	626.550	626.550	175.000	626.700	626.700
BT	0.000	200.000	626.900	626.900	225.000	627.000	627.000	229.000	627.000	627.000
BT	0.000	261.000	627.000	624.600	261.000	627.000	616.100	265.000	627.000	627.000
BT	0.000	265.000	627.000	624.600	298.000	626.900	624.700	300.000	626.900	626.900
BT	0.000	325.000	626.800	626.800	350.000	626.600	626.600	375.000	626.500	626.500
BT	0.000	400.000	626.300	626.300	425.000	626.100	626.100	450.000	626.000	626.000
BT	0.000	475.000	625.900	625.900	500.000	625.850	625.850	0.000	0.000	0.000
GR	626.100	50.000	626.200	75.000	626.200	100.000	626.400	125.000	626.550	150.000
GR	626.700	175.000	626.900	200.000	627.000	225.000	624.750	229.000	619.300	229.000
GR	618.600	235.000	616.000	237.000	615.600	239.000	614.800	250.000	614.500	258.000
GR	616.000	260.000	616.100	261.000	616.800	265.000	617.200	283.000	617.800	294.000
GR	620.100	298.000	624.700	298.000	626.900	300.000	626.800	325.000	626.600	350.000
GR	626.500	375.000	626.300	400.000	626.100	425.000	626.000	450.000	625.900	475.000
GR	625.850	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	7565.000	0.000	0.000	0.000	60.000	60.000	60.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000

NC	0.050	0.050	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	1.400	220.000	305.000	0.000	0.000	0.000	0.000	0.000
X1	7577.000	14.000	229.000	298.000	12.000	12.000	12.000	0.000	0.000	0.000
GR	626.100	50.000	619.300	229.000	618.600	235.000	616.000	237.000	615.600	239.000
GR	614.800	250.000	614.500	258.000	616.000	260.000	616.100	261.000	616.800	265.000
GR	617.200	283.000	617.800	294.000	620.100	298.000	625.850	500.000	0.000	0.000

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NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	9150.000	17.000	71.000	100.000	1573.000	1573.000	1573.000	0.000	0.500	0.000
GR	630.000	0.000	620.310	25.000	620.010	50.000	620.010	71.000	616.560	76.000
GR	616.010	77.000	615.510	80.000	615.110	85.000	614.710	91.000	614.610	93.000
GR	614.610	95.000	615.410	99.000	616.560	100.000	619.310	107.000	619.610	115.000
GR	620.210	130.000	620.210	150.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	4.100	104.000	180.000	0.000	0.000	0.000	0.000	0.000

CONFLUENCE WITH DIVERSION CHANNEL

X1	9550.000	14.000	100.000	120.000	400.000	400.000	400.000	0.000	-0.500	0.000
GR	630.000	0.000	629.590	50.000	628.890	75.000	628.690	100.000	627.750	104.000
GR	620.090	110.000	619.190	115.000	620.090	118.000	620.750	120.000	621.990	121.000
GR	621.900	128.000	623.690	145.000	624.390	170.000	627.000	200.000	0.000	0.000
QT	2.000	600.000	600.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	95.000	150.000	0.000	0.000	0.000	0.000	0.000
X1	9630.000	15.000	100.000	121.000	80.000	80.000	80.000	0.000	0.000	0.000
GR	630.000	0.000	624.010	50.000	623.610	75.000	626.910	94.000	623.210	98.000
GR	620.970	100.000	620.010	103.000	620.110	109.000	619.710	115.000	620.010	117.000
GR	620.710	121.000	624.610	125.000	625.010	149.000	625.310	175.000	625.310	225.000
ET	0.000	4.100	0.000	100.000	117.500	0.000	0.000	0.000	0.000	0.000
X1	9704.000	24.000	100.000	117.500	74.000	74.000	74.000	0.000	0.000	0.000
GR	628.300	0.000	624.010	50.000	623.610	75.000	626.910	94.000	623.210	98.000
GR	623.140	100.000	620.270	101.000	619.780	102.000	619.640	103.500	619.780	105.000
GR	620.270	106.000	623.140	107.000	623.140	110.500	620.270	111.500	619.780	112.500
GR	619.640	114.000	619.780	115.500	620.270	116.500	623.140	117.500	620.710	121.000
GR	624.610	125.000	625.010	149.000	625.310	175.000	625.310	225.000	0.000	0.000
NC	0.050	0.050	0.027	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	100.000	117.500	0.000	0.000	0.000	0.000	0.000

1ST KENOWA STREET CULVERT, 2-7'X145' CMP

X1	9705.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	24 000	0.000	628.300	628.300	50.000	628.300	624.010	75.000	628.300	623.610
BT	94.000	628.300	626.910	98.000	628.300	623.210	100.000	628.300	623.140	101.000
BT	628.300	626.010	102.000	628.300	626.500	103.500	628.300	626.640	105.000	628.300
BT	626.500	106.000	628.300	626.010	107.000	628.300	623.140	110.500	628.300	623.140
BT	111.500	628.300	626.010	112.500	628.300	626.500	114.000	628.300	626.640	115.500
BT	628.300	626.500	116.500	628.300	626.010	117.500	628.300	623.140	121.000	628.300
BT	620.710	125.000	628.300	624.610	149.000	628.300	625.010	175.000	628.300	625.310
BT	225.000	628.300	625.310	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	9756.000	0.000	0.000	0.000	51.000	51.000	51.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	630.000	630.000	0.000
NC	0.040	0.040	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	100.000	117.500	0.000	0.000	0.000	0.000	0.000
X1	9757.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000

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ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	10405.000	0.000	0.000	0.000	450.000	700.000	648.000	0.000	0.500	0.000
NC	0.040	0.040	0.027	0.300	0.500	0.000	0.000	0.000	0.000	0.000

2ND KENOWA STREET CULVERT, 2-7'X145' CMP

X1	11205.000	24.000	100.000	117.500	600.000	850.000	800.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	653.700	653.700	0.000
GR	630.900	0.000	626.600	50.000	626.200	75.000	629.500	94.000	625.800	98.000

GR	625.700	100.000	622.900	101.000	622.400	102.000	622.200	103.500	622.400	105.000
GR	622.900	106.000	625.700	107.000	625.700	110.500	622.900	111.500	622.400	112.500
GR	622.200	114.000	622.400	115.500	622.900	116.500	625.700	117.500	623.300	121.000
GR	627.200	125.000	627.700	149.000	627.900	175.000	627.900	225.000	0.000	0.000
SB	1.250	2.900	2.800	100.000	14.500	3.500	77.000	0.000	0.000	0.000
X1	11350.000	0.000	0.000	0.000	145.000	145.000	145.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	629.200	653.700	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	653.700	653.700	0.000
NC	0.050	0.050	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11500.000	24.000	100.000	117.500	150.000	150.000	150.000	0.000	0.000	0.000
GR	630.900	0.000	626.600	50.000	626.200	75.000	629.500	94.000	625.800	98.000
GR	625.700	100.000	622.900	101.000	622.400	102.000	622.200	103.500	622.400	105.000
GR	622.400	106.000	622.400	107.000	622.400	110.500	622.400	111.500	622.400	112.500
GR	622.200	114.000	622.400	115.500	622.900	116.500	625.700	117.500	623.300	121.000
GR	627.200	125.000	627.700	149.000	627.900	175.000	627.900	225.000	0.000	0.000
QT	2.000	2300.000	2300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	11550.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
X1	11750.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	100.000	140.000	0.000	0.000	0.000	0.000	0.000
X1	12449.000	0.000	0.000	0.000	500.000	750.000	699.000	0.000	0.000	0.000
NC	0.050	0.050	0.027	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	100.000	140.000	0.000	0.000	0.000	0.000	0.000
	U/S I-196									
X1	12450.000	25.000	100.000	140.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	25.000	0.000	646.200	635.000	50.000	646.200	632.000	75.000	646.200	630.000
BT	100.000	646.200	628.500	101.000	646.200	631.700	103.000	646.200	633.700	106.000
BT	646.200	634.500	109.000	646.200	633.700	111.000	646.200	631.700	112.000	646.200
BT	628.500	114.000	646.200	628.500	115.000	646.200	631.700	117.000	646.200	633.700
BT	120.000	646.200	634.500	123.000	646.200	633.700	125.000	646.200	631.700	126.000
BT	646.200	628.500	128.000	646.200	628.500	129.000	646.200	631.700	131.000	646.200
BT	633.700	134.000	646.200	634.500	137.000	646.200	633.800	139.000	646.200	631.700
BT	140.000	646.200	628.500	200.000	646.200	635.000	0.000	0.000	0.000	0.000
GR	635.000	0.000	632.000	50.000	630.090	75.000	628.500	100.000	625.190	101.000
GR	623.300	103.000	622.500	106.000	623.300	109.000	625.100	111.000	628.500	112.000
GR	628.500	114.000	625.100	115.000	623.300	117.000	622.500	120.000	623.300	123.000
GR	625.100	125.000	628.500	126.000	628.500	128.000	625.100	129.000	623.300	131.000
GR	622.500	134.000	623.700	137.000	625.100	139.000	628.500	140.000	635.000	200.000

ET	0.000	4.100	4.100	100.000	140.000	0.000	0.000	0.000	0.000	0.000
X1	12650.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
NC	0.100	0.100	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	100.000	140.000	0.000	0.000	0.000	0.000	0.000
X1	12850.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	13600.000	30.000	261.000	300.000	700.000	750.000	750.000	0.000	0.000	0.000
GR	654.200	0.000	653.000	27.000	649.100	50.000	645.700	75.000	641.900	100.000
GR	639.600	126.000	633.100	149.000	631.000	175.000	631.200	200.000	631.400	225.000
GR	631.500	250.000	631.900	261.000	627.900	276.000	626.400	278.000	626.000	286.000
GR	626.700	294.000	627.900	295.000	631.300	300.000	635.400	325.000	635.900	329.000
GR	636.400	350.000	639.000	375.000	644.900	400.000	647.900	412.000	650.200	425.000
GR	651.500	450.000	652.500	475.000	654.300	500.000	656.100	525.000	657.200	550.000

X1	14975.000	29.000	277.000	300.000	1355.000	1375.000	1375.000	0.000	0.000	0.000
GR	654.400	25.000	654.200	50.000	653.900	75.000	653.400	100.000	652.900	125.000
GR	652.500	150.000	651.000	175.000	649.800	200.000	649.200	225.000	647.900	244.000
GR	634.800	265.000	632.400	277.000	630.200	280.000	628.800	282.000	629.100	289.000
GR	628.700	297.000	630.200	298.000	632.200	300.000	634.400	305.000	635.000	325.000
GR	635.600	350.000	636.000	375.000	634.600	400.000	634.600	425.000	634.700	450.000
GR	636.200	475.000	640.100	500.000	641.200	525.000	642.500	550.000	0.000	0.000
X1	16700.000	27.000	266.000	300.000	1725.000	1725.000	1725.000	0.000	0.000	0.000
GR	637.500	10.000	637.200	25.000	636.300	50.000	638.900	75.000	638.100	100.000
GR	637.800	125.000	637.100	150.000	632.400	175.000	636.900	200.000	637.800	225.000
GR	638.000	250.000	637.000	266.000	632.900	269.000	631.700	282.000	631.400	295.000
GR	633.100	297.000	638.300	300.000	637.700	325.000	640.300	350.000	643.400	375.000
GR	646.500	400.000	648.500	425.000	650.200	450.000	651.700	475.000	653.000	500.000
GR	654.500	525.000	656.400	550.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	17600.000	0.000	0.000	0.000	900.000	900.000	900.000	0.000	2.600	0.000
ET	0.000	4.100	4.100	245.000	305.000	0.000	0.000	0.000	0.000	0.000
X1	18545.000	13.000	250.000	300.000	945.000	945.000	945.000	0.000	0.000	0.000
GR	650.200	50.000	649.300	75.000	648.600	100.000	647.800	125.000	647.000	150.000
GR	637.600	250.000	635.800	280.000	636.800	300.000	646.600	400.000	647.500	425.000
GR	648.600	450.000	649.800	475.000	651.000	500.000	0.000	0.000	0.000	0.000
NC	0.040	0.040	0.015	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	BARRY STREET									
X1	18565.000	21.000	250.000	300.000	20.000	20.000	20.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	645.450	645.450	0.000
BT	-20.000	50.000	650.200	650.200	75.000	649.300	649.300	100.000	648.600	648.600
BT	0.000	125.000	647.800	647.800	150.000	647.000	647.000	175.000	646.400	644.100
BT	0.000	200.000	645.900	641.700	225.000	645.800	639.400	250.000	645.700	637.600
BT	0.000	251.000	645.700	643.500	299.000	645.450	643.600	300.000	645.450	636.800
BT	0.000	325.000	645.800	639.300	350.000	645.700	641.800	375.000	646.000	644.300
BT	0.000	400.000	646.600	646.600	425.000	647.500	647.500	450.000	648.600	648.600
BT	0.000	475.000	649.800	649.800	500.000	651.000	651.000	0.000	0.000	0.000
GR	650.200	50.000	649.300	75.000	648.600	100.000	647.800	125.000	647.000	150.000

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GR	644.100	175.000	641.700	200.000	639.400	225.000	637.600	250.000	637.600	251.000
GR	635.800	280.000	636.800	299.000	636.800	300.000	639.300	325.000	641.800	350.000
GR	644.300	375.000	646.600	400.000	647.500	425.000	648.600	450.000	649.800	475.000
GR	651.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18602.000	0.000	0.000	0.000	37.000	37.000	37.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	645.450	645.450	0.000
NC	0.040	0.040	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	230.000	320.000	0.000	0.000	0.000	0.000	0.000
X1	18622.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	19000.000	27.000	274.000	300.000	378.000	378.000	378.000	0.000	0.000	0.000
GR	653.800	25.000	649.100	50.000	646.100	75.000	644.400	100.000	643.100	125.000
GR	642.300	150.000	641.300	175.000	640.600	200.000	640.800	225.000	641.800	250.000
GR	641.200	274.000	637.800	281.000	636.900	284.000	637.000	289.000	637.200	295.000
GR	637.800	296.000	641.300	300.000	640.900	325.000	641.200	350.000	644.500	375.000
GR	645.300	400.000	646.600	425.000	648.200	450.000	649.900	475.000	651.900	500.000
GR	652.900	525.000	654.800	550.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	120.000	550.000	0.000	0.000	0.000	0.000	0.000
X1	20755.000	26.000	279.000	300.000	1755.000	1755.000	1755.000	0.000	0.000	0.000
GR	648.800	25.000	647.600	50.000	643.800	75.000	642.900	100.000	642.700	125.000

GR	643.100	150.000	643.0[illegible]	175.000	643.8[illegible]	200.000	643.900	225.000	644.400	2[illegible]0.000
GR	644.600	275.000	644.300	279.000	637.900	283.000	636.500	290.000	638.400	297.000
GR	641.100	300.000	642.500	325.000	642.100	350.000	642.300	375.000	642.000	400.000
GR	642.500	425.000	644.200	450.000	644.100	475.000	644.400	500.000	643.700	525.000
GR	643.400	550.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	75.000	450.000	0.000	0.000	0.000	0.000	0.000
X1	20905.000	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.200	0.000
ET	0.000	4.100	0.000	150.000	450.000	0.000	0.000	0.000	0.000	0.000
X1	21055.000	0.000	0.000	0.000	150.000	150.000	150.000	0.000	1.150	0.000

JACKSON STREET (TOWNSHIP LIMIT)

X1	21355.000	22.000	282.000	300.000	300.000	300.000	300.000	0.000	0.000	0.000
GR	648.500	75.000	648.700	100.000	648.900	125.000	649.200	150.000	649.300	175.000
GR	647.900	200.000	646.500	225.000	645.100	250.000	643.700	275.000	643.400	282.000
GR	643.400	283.000	641.900	291.000	641.200	299.000	643.300	300.000	645.500	325.000
GR	647.700	350.000	649.900	375.000	652.100	400.000	653.300	425.000	654.250	450.000
GR	655.000	475.000	655.700	500.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.560	3.000	150.000	15.000	0.000	110.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	200.000	350.000	0.000	0.000	0.000	0.000	0.000
X1	21391.000	0.000	0.000	0.000	36.000	36.000	36.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	647.000	649.000	0.000	0.000	0.000	0.000	0.000

NC	0.040	0.040	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	22615.000	26.000	281.000	300.000	224.000	224.000	224.000	0.000	0.000	0.000
GR	645.100	25.000	644.400	50.000	643.300	75.000	643.600	100.000	643.800	125.000
GR	643.500	150.000	642.700	175.000	643.100	200.000	643.700	225.000	644.300	250.000
GR	644.000	275.000	644.100	281.000	641.700	283.000	641.400	291.000	642.600	299.000
GR	643.200	300.000	644.300	325.000	647.200	350.000	649.200	375.000	654.200	400.000
GR	658.700	425.000	661.100	450.000	662.500	475.000	664.500	500.000	665.200	525.000
GR	665.500	550.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.040	0.040	0.040	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	4.100	104.000	180.000	0.000	0.000	0.000	0.000	0.000
X1	-9550.000	14.000	100.000	120.000	400.000	400.000	400.000	0.000	-0.500	0.000
GR	630.000	0.000	629.590	50.000	628.890	75.000	628.690	100.000	627.750	104.000
GR	620.090	110.000	619.190	115.000	620.090	118.000	620.750	120.000	621.990	121.000
GR	621.900	128.000	623.690	145.000	624.390	170.000	627.000	200.000	0.000	0.000
QT	2.000	1700.000	1700.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.040	0.040	0.024	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	250.000	27.000	332.000	367.000	250.000	250.000	250.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	632.500	632.500	0.000
GR	637.100	75.000	636.600	100.000	636.100	125.000	635.700	150.000	635.300	175.000
GR	635.000	200.000	634.400	225.000	634.000	250.000	633.600	275.000	633.350	300.000
GR	633.200	325.000	623.200	332.000	620.000	337.000	619.300	337.000	619.500	344.000
GR	620.100	346.000	620.150	349.000	620.500	354.000	620.600	361.000	621.200	367.000
GR	625.800	390.000	632.700	400.000	631.800	425.000	631.300	450.000	630.800	474.000
GR	631.100	479.000	631.200	491.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.320	2.600	125.000	20.000	0.000	177.500	0.000	0.000	0.000
X1	332.000	0.000	0.000	0.000	82.000	82.000	82.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	628.300	632.500	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	632.500	632.500	0.000
NC	0.040	0.040	0.040	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	890.000	0.000	0.000	0.000	558.000	558.000	558.000	0.000	6.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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QT       2.000    2300.000   2300.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
X1   11550.000      24.000    100.000    117.500     50.000     50.000     50.000      0.000     -0.500      0.000
GR     630.900       0.000    626.600     50.000    626.200     75.000    629.500     94.000    625.800     98.000
GR     625.700     100.000    622.900    101.000    622.400    102.000    622.200    103.500    622.400    105.000
GR     622.400     106.000    622.400    107.000    622.400    110.500    622.400    111.500    622.400    112.500
GR     622.200     114.000    622.400    115.500    622.900    116.500    625.700    117.500    623.300    121.000
GR     627.200     125.000    627.700    149.000    627.900    175.000    627.900    225.000      0.000      0.000
EJ       0.000       0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *PROF 1

 CCHV=   0.100 CEHV=    0.300
 *SECNO 0.000

 3470 ENCROACHMENT STATIONS=     1650.0     1990.0  TYPE=      1  TARGET=      340.000
      0.00     12.81    607.11      0.00      0.00    607.33      0.22      0.00      0.00    599.30
     2300.      130.     1740.      430.      109.      406.      478.        0.        0.    599.60
      0 00      1.19      4.29      0.90     0.050     0.030     0.050     0.000    594.30   1650.00
  0.000359        0.        0.        0.         0         0         0      0.00    340.00   1990.00
0
 *SECNO 15.000

 3470 ENCROACHMENT STATIONS=     1655.0     1990.0  TYPE=      1  TARGET=      335.000
     15.00     12.81    607.11      0.00      0.00    607.34      0.22      0.01      0.00    599.30
     2300.      125.     1743.      432.      102.      406.      479.        0.        0.    599.60
      0.00      1.23      4.29      0.90     0.050     0.030     0.050     0.000    594.30   1655.00
  0.000359       15.       15.       15.         0         0         0      0.00    335.00   1990.00
0
 *SECNO 115.000

 3470 ENCROACHMENT STATIONS=     1660.0     1945.0  TYPE=      1  TARGET=      285.000
    115.00     11.71    607.01      0.00      0.00    607.45      0.44      0.05      0.07    600.30
     2300.       93.     2042.      165.       61.      363.      169.        2.        1.    600.60
      0.01      1.54      5.62      0.98     0.050     0.030     0.050     0.000    595.30   1660.00
  0.000716      100.      100.      100.         2         0         0      0.00    285.00   1945.00
0
 *SECNO 290.000
    290.00      7.87    607.09      0.00      0.00    607.66      0.57      0.17      0.04    600.37
     2300.      172.     1747.      382.       90.      255.      199.        4.        2.    600.38
      0.02      1.92      6.84      1.92     0.050     0.030     0.050     0.000    599.22     14.95
  0.001352      175.      175.      175.         1         0         0      0.00    184.42    199.37
0
 *SECNO 990.000
    990.00      7.35    608.07      0.00      0.00    608.84      0.77      1.12      0.06    601.87
     2300.      138.     1847.      315.       64.      237.      149.       12.        5.    601.88
      0.04      2.14      7.80      2.11     0.050     0.030     0.050     0.000    600.72     19.08
  0.001940      700.      700.      700.         2         0         0      0.00    169.07    188.15
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST
```

```
 *SECNO 1690.000

 3470 ENCROACHMENT STATIONS=      20.0      182.0  TYPE=      1  TARGET=      162.000
    1690.00      8.18    610.40      0.00      0.00    610.88      0.47      2.00      0.03    603.37
      2300.      189.     1687.      424.      102.      266.      217.       29.       10.    603.38
       0.12      1.86      6.34      1.96     0.050     0.030     0.050     0.000    602.22     20.00
   0.001100     1400.     1400.     1400.         2         0         0      0.00    162.00    182.00
0
 *SECNO 1790.000

 3470 ENCROACHMENT STATIONS=      55.0      167.0  TYPE=      1  TARGET=      112.000
    1790.00      8.02    610.44      0.00      0.00    611.03      0.59      0.12      0.03    603.57
      2300.      109.     1791.      400.       44.      260.      184.       30.       10.    603.58
       0.12      2.44      6.88      2.18     0.050     0.030     0.050     0.000    602.42     55.00
   0.001331      100.      100.      100.         2         0         0      0.00    112.00    167.00
0
 *SECNO 1840.000

 3470 ENCROACHMENT STATIONS=      55.0      142.0  TYPE=      1  TARGET=       87.000
    1840.00      7.91    610.43      0.00      0.00    611.14      0.71      0.07      0.03    603.67
      2300.      113.     1886.      301.       43.      257.      123.       31.       10.    603.68
       0.13      2.61      7.35      2.45     0.050     0.030     0.050     0.000    602.52     55.00
   0.001550       50.       50.       50.         2         0         0      0.00     87.00    142.00
0
 *SECNO 1865.000

 3470 ENCROACHMENT STATIONS=      55.0      130.0  TYPE=      1  TARGET=       75.000
    1865.00      7.91    610.43      0.00      0.00    611.20      0.77      0.04      0.02    603.67
      2300.      117.     1946.      237.       43       256.       91.       31.       10.    603.68
       0.13      2.70      7.59      2.61     0.050     0.030     0.050     0.000    602.52     55.00
   0.001658       25.       25.       25.         2         0         0      0.00     75.00    130.00
0
 CCHV=   0.500 CEHV=   1.000
 *SECNO 1890.000

 3470 ENCROACHMENT STATIONS=     145.0      230.0  TYPE=      1  TARGET=       85.000
            PORT SHELDON DRIVE
    1890.00      7.83    610.45      0.00      0.00    611.59      1.13      0.03      0.36    603.82
      2300.      190.     1600.      510.       70.      161.      131.       31.       10.    604.04
       0.13      2.73      9.97      3.89     0.030     0.015     0.030     0.000    602.62    145.59
   0.000768       25.       25.       25.         1         0         0      0.00     84.41    230.00
0
1
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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


 *SECNO 1940.000

 3470 ENCROACHMENT STATIONS=    1083.0     1143.0  TYPE=      1  TARGET=       60.000
    1940.00      8.57    610.49      0.00      0.00    611.76      1.27      0.04      0.14    604.62
      2300.      242.     1856.      202.       70.      187.       66.       32.       11.    604.92
       0.13      3.44      9.95      3.04     0.030     0.015     0.030     0.000    601.92   1083.00
   0.000774       50.       50.       50.         2         0         0      0.00     60.00   1143.00
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 1973.000

 3470 ENCROACHMENT STATIONS=    1083.0     1143.0  TYPE=      1  TARGET=       60.000
    1973.00      9.07    610.99      0.00      0.00    611.84      0.85      0.04      0.04    604.62
```

```
      2300.      346.     1659.      295.       79.     19[illegible].       75.       32.       11.     604.92
        0.13     4.38      8.34      3.93     0.040     0.030     0.040     0.000    601.92   1083.00
   0.001995       33.       33.       33.         3         0         0      0.00     60.00   1143.00
0
 *SECNO 2023.000

 3470 ENCROACHMENT STATIONS=     1075.0    1145.0  TYPE=      1  TARGET=      70.000
     2023.00     9.21    611.13      0.00      0.00    611.94      0.81      0.10      0.00    604.62
      2300.      349.     1651.      300.       81.      203.       78.       32.       11.     604.92
        0.13     4.29      8.15      3.86     0.040     0.030     0.040     0.000    601.92   1082.97
   0.001862       50.       50.       50.         2         0         0      0.00     60.06   1143.03
0
 *SECNO 2448.000
 3280 CROSS SECTION   2448.00 EXTENDED      0.23 FEET


 3470 ENCROACHMENT STATIONS=     1095.0    1240.0  TYPE=      1  TARGET=     145.000
     2448.00     8.30    612.22      0.00      0.00    612.72      0.50      0.74      0.03    606.62
      2300.      112.     1273.      915.       28.      180.      311.       37.       12.     606.92
        0.16     4.07      7.07      2.94     0.040     0.030     0.040     0.000    603.92   1095.00
   0.001642      350.      425.      450.         2         0         0      0.00    145.00   1240.00
0
 *SECNO 2709.000

 3470 ENCROACHMENT STATIONS=     1000.0    1130.0  TYPE=      1  TARGET=     130.000
     2709.00     6.58    612.49      0.00      0.00    613.40      0.91      0.56      0.12    606.67
      2300.      451.     1376.      472.      108.      151.       91.       39.       12.     606.67
        0.17     4.19      9.12      5.17     0.040     0.030     0.040     0.000    605.91   1000.00
   0.002936      215.      261.      275.         2         0         0      0.00    130.00   1130.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK       EG        HV        HL     OLOSS  BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN      ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR    TOPWID     ENDST


 *SECNO 2785.000

 3470 ENCROACHMENT STATIONS=     1035.0    1135.0  TYPE=      1  TARGET=     100.000
             GOLF COURSE BRIDGE
     2785.00     6.95    612.86      0.00      0.00    613.61      0.76      0.20      0.02    606.67
      2300.      478.     1336.      486.      117.      160.      104.       40.       13.     606.67
        0.17     4.08      8.36      4.66     0.040     0.030     0.040     0.000    605.91   1035.00
   0.002287       76.       76.       76.         2         0         0      0.00    100.00   1135.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB   XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA       SS         ELCHU      ELCHD
      0.00       1.50       2.80       0.00      20.00       0.00      270.00      6.00      605.91     605.91

 *SECNO 2790.000
 6870 D.S. ENERGY OF  613.61 HIGHER THAN COMPUTED ENERGY OF  613.25
 PRESSURE AND WEIR FLOW


  EGPRS      EGLWC        H3       QWEIR       QPR       BAREA    TRAPEZOID      ELLC      ELTRD
                                                                   AREA
    614.55     613.61      0.00     1184.      1107.      270.      291.      611.40     611.40
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 3470 ENCROACHMENT STATIONS=     1035. 0     1130. 0  TYPE=      1  TARGET=        95. 000
   2790. 00       6. 94    612. 85      0. 00       0. 00    613. 61      0. 76       0. 00       0. 00     606. 67
     2300.        478.      1339.        484.        117.        160.        102.         40.         13.      606. 67
       0. 17      4. 09      8. 39      4. 73      0. 040      0. 030      0. 040      0. 000     605. 91   1035. 00
   0. 002308        6.         6.         6.          3           0           2        0. 00      95. 00   1130. 00
0
 *SECNO 2840. 000

 3470 ENCROACHMENT STATIONS=      940. 0     1135. 0  TYPE=      1  TARGET=       195. 000
   2840. 00       7. 29    613. 20      0. 00       0. 00    613. 73      0. 53       0. 09       0. 02     606. 67
     2300.        595.      1233.        472.        216.        168.        116.         40.         13.      606. 67
       0. 17      2. 75      7. 34      4. 06      0. 040      0. 030      0. 040      0. 000     605. 91    940. 00
   0. 001644       45.        50.        50.          2           0           0        0. 00     195. 00   1135. 00
0
1
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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


 *SECNO 3090. 000
 3280 CROSS SECTION    3090. 00 EXTENDED       0. 67 FEET

   3090. 00       7. 41    613. 67      0. 00       0. 00    614. 11      0. 44       0. 37       0. 01     609. 56
     2300.        352.      1572.        376.        228.        250.        155.         44.         15.      606. 36
       0. 19      1. 55      6. 30      2. 43      0. 040      0. 030      0. 040      0. 000     606. 26    800. 00
   0. 001330      250.       250.       250.          2           0           0        0. 00     400. 00   1200. 00
0
 *SECNO 3164. 000
 3280 CROSS SECTION    3164. 00 EXTENDED       0. 84 FEET

   3164. 00       7. 58    613. 84      0. 00       0. 00    614. 20      0. 37       0. 09       0. 01     609. 56
     2300.        409.      1502.        389.        273.        256.        172.         45.         15.      606. 36
       0. 19      1. 50      5. 86      2. 27      0. 040      0. 030      0. 040      0. 000     606. 26    800. 00
   0. 001113       74.        74.        74.          2           0           0        0. 00     400. 00   1200. 00
0
 *SECNO 3165. 000
 3280 CROSS SECTION    3165. 00 EXTENDED       1 05 FEET


 3370 NORMAL BRIDGE, NRD= 21 MIN ELTRD=  609. 56 MAX ELLC=  613. 50

               GOLF COURSE BRIDGE
   3165. 00       7. 79    614. 05      0. 00       0. 00    614. 23      0. 18       0. 00       0. 02     609. 56
     2300.        932.       886.        482.        328.        216.        176.         45.         15.      606. 36
       0. 19      2. 84      4. 10      2. 74      0. 040      0. 030      0. 040      0. 000     606. 26    800. 00
   0. 003420        1.         1.         1.          3           0           0      -65. 16     400. 00   1200. 00
0
 *SECNO 3170. 000
 3280 CROSS SECTION    3170. 00 EXTENDED       1. 06 FEET


 3370 NORMAL BRIDGE, NRD= 21 MIN ELTRD=  609. 56 MAX ELLC=  613. 50

   3170. 00       7. 81    614. 07      0. 00       0. 00    614. 24      0. 17       0. 02       0. 00     609. 56
     2300.        937.       881.        483.        332         216.        177.         45.         15.      606. 36
       0. 19      2. 82      4. 07      2. 72      0. 040      0. 030      0. 040      0. 000     606. 26    800. 00
   0. 003354        5.         5.         5.          0           0           0      -65. 17     400. 00   1200. 00
0
1
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       SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
       Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
       TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
       SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


    *SECNO 3171.000
    3280 CROSS SECTION   3171.00 EXTENDED      0.97 FEET

      3171.00      7.71    613.97      0.00      0.00    614.29      0.32      0.00      0.04    609.56
        2300.      452.     1449.      399.      308.      261.      185.       45.       15.    606.36
         0.19      1.47      5.55      2.16     0.040     0.030     0.040     0.000    606.26    800.00
     0.000970        1.        1.        1.         2         0         0      0.00    400.00   1200.00
   0
    *SECNO 3220.000
    3280 CROSS SECTION   3220.00 EXTENDED      1.04 FEET

      3220.00      7.78    614.04      0.00      0.00    614.34      0.30      0.05      0.00    609.56
        2300.      474.     1422.      404.      326.      264.      192.       46.       16.    606.36
         0.19      1.46      5.39      2.10     0.040     0.030     0.040     0.000    606.26    800.00
     0.000904       49.       49.       49.         2         0         0      0.00    400.00   1200.00
   0
    *SECNO 3495.000
    3280 CROSS SECTION   3495.00 EXTENDED      0.75 FEET


    3470 ENCROACHMENT STATIONS=      920.0     1280.0  TYPE=       1  TARGET=       360.000
      3495.00      7.45    614.25      0.00      0.00    614.71      0.46      0.32      0.05    606.80
        2300.      477.     1125.      698.      195.      152.      299.       50.       18.    608.00
         0.21      2.45      7.40      2.34     0.040     0.030     0.040     0.000    606.80    920.00
     0.001609      275.      275.      275.         2         0         0      0.00    360.00   1280.00
   0
    *SECNO 3574.000
    3280 CROSS SECTION   3574.00 EXTENDED      0.95 FEET


    3470 ENCROACHMENT STATIONS=      960.0     1280.0  TYPE=       1  TARGET=       320.000
      3574.00      7.64    614.44      0.00      0.00    614.83      0.39      0.12      0.01    606.80
        2300.      471.     1076.      752.      192.      156.      334.       51.       19.    608.00
         0.21      2.46      6.90      2.25     0.040     0.030     0.040     0.000    606.80    960.00
     0.001349       79.       79.       79.         2         0         0      0.00    320.00   1280.00
   0
    *SECNO 3575.000
    3280 CROSS SECTION   3575.00 EXTENDED      1.09 FEET

   1
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       SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
       Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
       TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
       SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



    3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  612.40 MAX ELLC=  614.40


    3470 ENCROACHMENT STATIONS=      960.0     1280.0  TYPE=       1  TARGET=       320.000
               GOLF COURSE BRIDGE
      3575.00      7.79    614.59      0.00      0.00    614.85      0.26      0.00      0.01    606.80
        2300.      511.      883.      906.      198.      155.      332.       51.       19.    608.00
         0.21      2.59      5.71      2.73     0.040     0.030     0.040     0.000    606.80    960.00
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  0.002819         1.         1.         1.          2          0          0    -43.32    320.00   1280.00
0
 *SECNO 3580.000
 3280 CROSS SECTION   3580.00 EXTENDED       1.10 FEET


 3370 NORMAL BRIDGE,NRD= 21 MIN ELTRD=  612.40 MAX ELLC=  614.40


 3470 ENCROACHMENT STATIONS=      965.0     1280.0  TYPE=      1  TARGET=      315.000
   3580.00      7.80    614.60      0.00      0.00    614.86      0.26      0.02      0.00    606.80
     2300.      504.      884.      913.      193.      155.      333.       52.       19.    608.00
      0.22      2.61      5.71      2.74     0.040     0.030     0.040     0.000    606.80    965.00
  0.002824        5.        5.        5.         0         0         0    -43.64    315.00   1280.00
0
 *SECNO 3581.000
 3280 CROSS SECTION   3581.00 EXTENDED       1.04 FEET


 3470 ENCROACHMENT STATIONS=      965.0     1280.0  TYPE=      1  TARGET=      315.000
   3581.00      7.74    614.54      0.00      0.00    614.90      0.36      0.00      0.03    606.80
     2300.      474.     1052.      774.      198.      158.      350.       52.       19.    608.00
      0.22      2.40      6.66      2.21     0.040     0.030     0.040     0.000    606.80    965.00
  0.001237        1.        1.        1.         2         0         0      0.00    315.00   1280.00
0
 *SECNO 3630.000
 3280 CROSS SECTION   3630.00 EXTENDED       0.48 FEET


 3470 ENCROACHMENT STATIONS=     1010.0     1300.0  TYPE=      1  TARGET=      290.000
   3630 00      7.08    614.48      0.00      0.00    615.03      0.55      0.08      0.06    607.90
     2300.      550.     1183.      567.      153.      153.      222.       52.       19.    608.30
      0.22      3.59      7.74      2.56     0.040     0.030     0.040     0.000    607.40   1010.00
  0.002015       60.       49.       40.         2         0         0      0.00    290.00   1300.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST


 *SECNO 3689.000
 3280 CROSS SECTION   3689.00 EXTENDED       0.71 FEET

   3689.00      7.30    614.70      0.00      0.00    615.15      0.44      0.11      0.01    607.90
     2300.      550.     1121.      629.      169.      158.      267.       53.       20.    608.30
      0.22      3.25      7.09      2.36     0.040     0.030     0.040     0.000    607.40   1003.86
  0.001619       70.       59.       50.         2         0         0      0.00    296.14   1300.00
0
 *SECNO 3690.000
 3280 CROSS SECTION   3690.00 EXTENDED       0.63 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  612.10 MAX ELLC=  620.00

           GOLF COURSE BRIDGE
   3690.00      7.23    614.63      0.00      0.00    615.18      0.56      0.00      0.03    607.90
     2300.      490.     1152.      658.      143.      146.      227.       53.       20.    608.30
      0.22      3.43      7.87      2.90     0.040     0.030     0.040     0.000    607.40   1005.42
  0.005473        1.        1.        1.         2         0         0    -54.22    294.58   1300.00
0
 *SECNO 3695.000
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 3280 CROSS SECTION   3695.00 EXTENDED      0.72 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  612.10 MAX ELLC=  620.00

   3695.00      7.32   614.72     0.00     0.00   615.22     0.50     0.03     0.01   607.90
    2300.       493.    1104.     704.     149.     146.     245.      53.      20.    608.30
      0.22      3.31     7.54     2.87    0.040    0.030    0.040    0.000   607.40  1003.58
  0.005021        5.       5.       5.        2        0        0   -57.81   296.42  1300.00
0
 *SECNO 3696.000
 3280 CROSS SECTION   3696.00 EXTENDED      0.84 FEET

   3696.00      7.44   614.84     0.00     0.00   615.23     0.39     0.00     0.01   607.90
    2300.       550.    1084.     665.     180.     161.     294.      53.      20.    608.30
      0.22      3.06     6.72     2.26    0.040    0.030    0.040    0.000   607.40  1001.15
  0.001417        1.       1.       1.        2        0        0     0.00   298.85  1300.00
0
1
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    SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
    Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
    TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
    SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


 *SECNO 3745.000
 3280 CROSS SECTION   3745.00 EXTENDED      0.95 FEET

   3745.00      7.55   614.95     0.00     0.00   615.30     0.35     0.07     0.00   607.90
    2300.       551.    1058.     692.     188.     164.     315.      54.      20.    608.30
      0.22      2.94     6.46     2.19    0.040    0.030    0.040    0.000   607.40   999.12
  0.001284       49.      49.      49.        2        0        0     0.00   300.88  1300.00
0
 *SECNO 4045.000
 3280 CROSS SECTION   4045.00 EXTENDED      1.35 FEET

   4045.00      6.51   615.36     0.00     0.00   615.67     0.31     0.36     0.00   609.35
    2300.       626.    1339.     335.     394.     238.     169.      59.      23.    609.35
      0.25      1.59     5.63     1.98    0.040    0.030    0.040    0.000   608.85   800.00
  0.001119      340.     300.     260.        0        0        0     0.00   477.65  1277.65
0
 *SECNO 4159.000
 3280 CROSS SECTION   4159.00 EXTENDED      1.54 FEET

   4159.00      6.69   615.54     0.00     0.00   615.79     0.24     0.11     0.01   609.35
    2300.       690.    1260.     350.     452.     245.     197.      61.      24.    609.35
      0.25      1.53     5.14     1.77    0.040    0.030    0.040    0.000   608.85   800.00
  0.000897      114.     114.     114.        2        0        0     0.00   491.61  1291.61
0
 *SECNO 4160.000
 3280 CROSS SECTION   4160.00 EXTENDED      1.52 FEET


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  611.15 MAX ELLC=  616.00

           GOLF COURSE BRIDGE
   4160.00      6.67   615.52     0.00     0.00   615.80     0.28     0.00     0.01   609.35
    2300.       615.    1186.     498.     425.     215.     188.      61.      24.    609.35
      0.25      1.45     5.51     2.65    0.040    0.030    0.040    0.000   608.85   800.00
  0.003638        1.       1.       1.        2        0        0   -55.07   490.05  1290.05
0
 *SECNO 4165.000
 3280 CROSS SECTION   4165.00 EXTENDED      1 54 FEET
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1
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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST



 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  611.15 MAX ELLC=  616.00

   4165.00      6.70    615.55      0.00      0.00    615.82      0.27      0.02      0.00    609.35
     2300.      621.     1176.      503.      430.      216.      191.       61.       24.    609.35
      0.25      1.44      5.45      2.63     0.040     0.030     0.040     0.000    608.85    800.00
  0.003572        5.        5.        5.         1         0         0    -55.77    491.39   1291.39
0
 *SECNO 4166.000
 3280 CROSS SECTION   4166.00 EXTENDED       1.59 FEET

   4166.00      6.74    615.59      0.00      0.00    615.82      0.23      0.00      0.00    609.35
     2300.      706.     1240.      354.      467.      247.      205.       61.       24.    609.35
      0.25      1.51      5.02      1.73     0.040     0.030     0.040     0.000    608.85    800.00
  0.000846        1.        1.        1.         2         0         0      0.00    495.34   1295.34
0
 *SECNO 4215.000
 3280 CROSS SECTION   4215.00 EXTENDED       1.65 FEET

   4215.00      6.80    615.65      0.00      0.00    615.86      0.21      0.04      0.00    609.35
     2300.      722.     1219.      359.      484.      249.      214.       62.       25.    609.35
      0.26      1.49      4.89      1.67     0.040     0.030     0.040     0.000    608.85    800.00
  0.000794       49.       49.       49.         2         0         0      0.00    499.45   1299.45
0
 *SECNO 4355.000
 3280 CROSS SECTION   4355.00 EXTENDED       0.63 FEET

   4355.00      7.23    615.63      0.00      0.00    616.09      0.46      0.15      0.07    609.10
     2300.      517.     1278.      505.      267.      180.      259.       65.       26.    609.70
      0.27      1.94      7.09      1.95     0.040     0.030     0.040     0.000    608.40    850.00
  0.001578      140.      140.      140.         2         0         0      0.00    475.00   1325.00
0
 *SECNO 4479.000
 3280 CROSS SECTION   4479.00 EXTENDED       0.98 FEET

   4479.00      7.58    615.98      0.00      0.00    616.26      0.29      0.16      0.02    609.10
     2300.      606.     1117.      577.      353.      189.      326.       67.       27.    609.70
      0.28      1.72      5.91      1.77     0.040     0.030     0.040     0.000    608.40    850.00
  0.001027      124.      124.      124.         3         0         0      0.00    475.00   1325.00
0
1
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    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


 *SECNO 4480.000
 3280 CROSS SECTION   4480.00 EXTENDED       1.17 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  611.20 MAX ELLC=  615.00
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            GOLF COURSE BRIDGE
    4480.00      7.77   616.17     0.00     0.00   616.28     0.12     0.00     0.02   609.10
     2300.       885.     537.     878.     384.     147.     349.      67.      27.    609.70
      0.28       2.30     3.65     2.52    0.040    0.030    0.040    0.000   608.40   850.00
   0.002337       1.       1.       1.        2        0        0   -79.90   475.00  1325.00
0
 *SECNO 4485.000
 3280 CROSS SECTION    4485.00 EXTENDED       1.17 FEET


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  611.20 MAX ELLC=  615.00

    4485.00      7.78   616.18     0.00     0.00   616.30     0.12     0.01     0.00   609.10
     2300.       886.     536.     879.     385.     147.     350.      67.      27.    609.70
      0.28       2.30     3.64     2.51    0.040    0.030    0.040    0.000   608.40   850.00
   0.002319       5.       5.       5.        0        0        0   -79.90   475.00  1325.00
0
 *SECNO 4486.000
 3280 CROSS SECTION    4486.00 EXTENDED       1.09 FEET

    4486.00      7.69   616.09     0.00     0.00   616.34     0.25     0.00     0.04   609.10
     2300.       633.    1071.     597.     381.     192.     348.      67.      28.    609.70
      0.28       1.66     5.58     1.71    0.040    0.030    0.040    0.000   608.40   850.00
   0.000897       1.       1.       1.        2        0        0     0.00   475.00  1325.00
0
 *SECNO 4535.000
 3280 CROSS SECTION    4535.00 EXTENDED       1.16 FEET

    4535.00      7.75   616.15     0.00     0.00   616.38     0.23     0.04     0.00   609.10
     2300.       648.    1043.     608.     400.     194.     362.      68.      28.    609.70
      0.28       1.62     5.38     1.68    0.040    0.030    0.040    0.000   608.40   850.00
   0.000824      49.      49.      49.        1        0        0     0.00   475.00  1325.00
0
1
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     SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
     Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
     TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
     SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


 *SECNO 5120.000
 3280 CROSS SECTION    5120.00 EXTENDED       0.76 FEET

    5120.00      7.35   616.65     0.00     0.00   617.04     0.39     0.61     0.05   610.00
     2300.       551.    1216.     533.     298.     183.     283.      80.      34.    610.60
      0.32       1.85     6.64     1.88    0.040    0.030    0.040    0.000   609.30   850.00
   0.001349      585.     585.     585.       0        0        0     0.00   475.00  1325.00
0
 *SECNO 5705.000
    5705.00      7.17   617.40   617.04     0.00   618.12     0.71     0.98     0.10   611.83
     2300.       221.    1589.     490.     116.     198.     211.      89.      40.    611.80
      0.34       1.90     8.03     2.32    0.040    0.030    0.040    0.000   610.23   944.61
   0.002149      585.     585.     585.       4       11        0     0.00   345.81  1290.42
0
 *SECNO 5819.000
 3280 CROSS SECTION    5819.00 EXTENDED       0.43 FEET


 3470 ENCROACHMENT STATIONS=      940.0     1300.0  TYPE=     1  TARGET=     360.000
    5819.00      7.71   617.94     0.00     0.00   618.33     0.39     0.18     0.03   611.83
     2300.       320.    1355.     625.     185.     214.     316.      90.      41.    611.80
      0 35       1.73     6.34     1.98    0.040    0.030    0.040    0.000   610.23   940.00
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 0.0)1210     114.     114.     114.        3        0        0     0.00   360.00  1300.00
0
 *SECNO 5820.000
 3280 CROSS SECTION   5820.00 EXTENDED       0.62 FEET


 3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  615.13 MAX ELLC=  618.50


 3470 ENCROACHMENT STATIONS=      940.0     1300.0  TYPE=      1  TARGET=      360.000
            GOLF COURSE BRIDGE
   5820.00     7.89   618.12     0.00     0.00   618.35     0.23     0.00     0.02   611.83
    2300.      547.     783.     970.     200.     151.     315.      90.      41.   611.80
      0.35     2.73     5.17     3.08    0.040    0.030    0.040    0.000   610.23   940.00
  0.005771       1.       1.       1.        3        0        0  -113.99   360.00  1300.00
0
1
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     SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
     Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
     TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
     SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


 *SECNO 5825.000
 3280 CROSS SECTION   5825.00 EXTENDED       0.66 FEET


 3370 NORMAL BRIDGE,NRD= 17 MIN ELTRD=  615.13 MAX ELLC=  618.50


 3470 ENCROACHMENT STATIONS=      945.0     1300.0  TYPE=      1  TARGET=      355.000
   5825.00     7.93   618.16     0.00     0.00   618.38     0.22     0.03     0.00   611.83
    2300.      548.     769.     983.     202.     153.     324.      90.      41.   611.80
      0.35     2.71     5.03     3.04    0.040    0.030    0.040    0.000   610.23   945.00
  0.005402       5.       5.       5.        2        0        0  -113.99   355.00  1300.00
0
 *SECNO 5826.000
 3280 CROSS SECTION   5826.00 EXTENDED       0.58 FEET


 3470 ENCROACHMENT STATIONS=      945.0     1300.0  TYPE=      1  TARGET=      355.000
   5826.00     7.85   618.08     0.00     0.00   618.41     0.33     0.00     0.03   611.83
    2300.      343.    1297.     660.     201.     218.     346.      90.      41.   611.80
      0.35     1.71     5.94     1.90    0.040    0.030    0.040    0.000   610.23   945.00
  0.001034       1.       1.       1.        2        0        0     0.00   355.00  1300.00
0
 *SECNO 5875.000
 3280 CROSS SECTION   5875.00 EXTENDED       0.65 FEET


 3470 ENCROACHMENT STATIONS=      950.0     1280.0  TYPE=      1  TARGET=      330.000
   5875.00     7.92   618.15     0.00     0.00   618.46     0.31     0.05     0.00   611.83
    2300.      353.    1278.     669.     206.     220.     345.      91.      41.   611.80
      0.36     1.72     5.80     1.94    0.040    0.030    0.040    0.000   610.23   950.00
  0.000973      49.      49.      49.        2        0        0     0.00   330.00  1280.00
0
 CCHV=   0.500 CEHV=    1.000
 *SECNO 6065.000
 3280 CROSS SECTION   6065.00 EXTENDED       1.39 FEET

   6065.00     6.99   618.39     0.00     0.00   618.99     0.59     0.24     0.28   612.30
    2300.      287.    1386.     627.     116.     180.     245.      94.      42.   612.10
      0.36     2.47     7.70     2.56    0.040    0.030    0.040    0.000   611.40     0.00
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 0.C)1933    210.    1?0.    150.     2     0     0    0.00  235.C)  235.C)
0
1
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


 *SECNO 6140.000
 3280 CROSS SECTION   6140.00 EXTENDED      1.77 FEET

          GOLF COURSE BRIDGE
   6140.00    7.37   618.77     0.00     0.00   619.19     0.42     0.12     0.09   612.30
     2300.    327.    1271.     702.     143.     190.     295.      95.      43.    612.10
      0.37    2.28     6.68     2.38    0.040    0.030    0.040    0.000   611.40     0.00
  0.001354     75.      75.      75.       3        0        0     0.00   235.00   235.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      0.00      1.15      3.00      0.00     23.00      0.00    157.00      0.00    611.40    611.40

 *SECNO 6167.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=   622.604  EGLWC=   619.193  ELLC=   618.100  PCWSE=   618.772  ELTRD=   617.000
 3280 CROSS SECTION   6167.00 EXTENDED      2.04 FEET


 3370 NORMAL BRIDGE,NRD= 18 MIN ELTRD=  617.00 MAX ELLC=  618.10

   6167.00    7.64   619.04     0.00     0.00   619.32     0.28     0.05     0.07   612.30
     2300.    380.     880.    1040.     126.     166.     295.      95.      43.    612.10
      0.37    3.02     5.29     3.52    0.040    0.030    0.040    0.000   611.40     0.00
  0.003113     27.      27.      27.       3        0        0  -105.39   235.00   235.00
0
 *SECNO 6220.000
 3280 CROSS SECTION   6220.00 EXTENDED      2.13 FEET

   6220.00    7.73   619.13     0.00     0.00   619.44     0.31     0.09     0.04   612.30
     2300.    359.    1178.     762.     170.     200.     344.      96.      43.    612.10
      0.37    2.12     5.89     2.22    0.040    0.030    0.040    0.000   611.40     0.00
  0.000986     53.      53.      53.       2        0        0     0.00   235.00   235.00
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 7493.000
1
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


 3301 HV CHANGED MORE THAN HVINS
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  3470 ENCROACHMENT STATIONS=      225.0      300.0  TYPE=      1  TARGET=       75.000
    7493.00      6.58    621.08      0.00      0.00    621.95      0.87      2.34      0.17    619.30
      2300.       16.     2282.        3.        7.      303.        2.      111.       48.    620.10
       0.42      2.28      7.52      1.51     0.050     0.035     0.050     0.000    614.50    225.00
   0.004570     1273.     1273.     1273.         2         0         0      0.00     75.00    300.00
 0
  CCHV=    0.300 CEHV=    0.500
  *SECNO 7505.000

  3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  625.85 MAX ELLC=  627.00

            44TH STREET
    7505.00      6.59    621.09      0.00      0.00    622.00      0.91      0.03      0.02    624.75
      2300.        0.     2300.        0.        0.      300.        0.      111.       48.    624.70
       0.42      0.00      7.66      0.00     0.000     0.020     0.000     0.000    614.50    229.00
   0.001963       12.       12.       12.         1         0         0     -4.59     69.00    298.00
 0
  *SECNO 7565.000

  3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  625.85 MAX ELLC=  627.00

    7565.00      6.79    621.29      0.00      0.00    622.13      0.84      0.11      0.02    624.75
      2300.        0.     2300.        0.        0.      313.        0.      112.       48.    624.70
       0.42      0.00      7.35      0.00     0.000     0.020     0.000     0.000    614.50    229.00
   0.001734       60.       60.       60.         0         0         0     -4.94     69.00    298.00
 0
  CCHV=    0.100 CEHV=    0.300
  *SECNO 7577.000

  3470 ENCROACHMENT STATIONS=      220.0      305.0  TYPE=      1  TARGET=       85.000
    7577.00      6.97    621.47      0.00      0.00    622.17      0.71      0.02      0.01    619.30
      2300.       37.     2249.       14.       18.      330.        9.      112.       48.    620.10
       0.42      2.07      6.81      1.56     0.050     0.030     0.050     0.000    614.50    220.00
   0.002459       12.       12.       12.         2         0         0      0.00     85.00    305.00
 0
 1
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     SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
     SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


  CCHV=    0.500 CEHV=    1.000
  *SECNO 9150.000
  3280 CROSS SECTION    9150.00 EXTENDED      3.58 FEET

    9150.00      9.19    624.30      0.00      0.00    624.68      0.38      2.34      0.16    620.51
      2300.      403.     1416.      482.      186.      234.      206.      129.       52.    617.06
       0.52      2.17      6.04      2.34     0.050     0.030     0.050     0.000    615.11     16.02
   0.000997     1573.     1573.     1573.         2         0         0      0.00    133.99    150.00
 0
  *SECNO 9550.000

  3301 HV CHANGED MORE THAN HVINS

  7185 MINIMUM SPECIFIC ENERGY
  3720 CRITICAL DEPTH ASSUMED
            CONFLUENCE WITH DIVERSION CHANNEL
    9550.00      7.53    626.22    626.22      0.00    627.70      1.48      0.89      1.10    628.19
      2300.        0.     1099.     1201.        0.       86.      204.      134.       53.    620.25
       0.53      0.00     12.71      5.89     0.000     0.030     0.050     0.000    618.69    104.81
   0.008570      400.      400.      400.         2        15         0      0.00     92.00    196.81
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0
 *SECNO 9630.000
 3280 CROSS SECTION   9630.00 EXTENDED      3.13 FEET


 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=      95.0      150.0  TYPE=      1  TARGET=       55.000
   9630.00      8.73    628.44      0.00      0.00    628.54      0.09      0.14      0.69    620.97
      600.       20.      473.      107.        24      175.      114.      134.       53.    620.71
      0.54      0.82      2.71      0.94     0.050     0.030     0.050     0.000    619.71     95.00
  0.000180       80.       80.       80.         3         0         0      0.00     55.00    150.00
0
 *SECNO 9704.000
 3280 CROSS SECTION   9704.00 EXTENDED      3.16 FEET


 3470 ENCROACHMENT STATIONS=     100.0      117.5  TYPE=      1  TARGET=       17.500
   9704.00      8.83    628.47      0.00      0.00    628.79      0.32      0.03      0.23    623.14
      600.        0.      600.        0.        0.      132.        0.      135.       53. 100000.00
      0.55      0.00      4.54      0.00     0.000     0.030     0.000     0.000    619.64    100.00
  0.001530       74.       74.       74.         2         0         0      0.00     17.50    117.50
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 CCHV=   0.300 CEHV=   0.500
 *SECNO 9705.000
 3280 CROSS SECTION   9705.00 EXTENDED      2.86 FEET


 3301 HV CHANGED MORE THAN HVINS


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  628.30 MAX ELLC=  628.30


 3470 ENCROACHMENT STATIONS=     100.0      117.5  TYPE=      1  TARGET=       17.500
            1ST KENOWA STREET CULVERT, 2-7'X145' CMP
   9705.00      8.53    628.17      0.00      0.00    629.10      0.93      0.00      0.30    623.14
      600.        0.      600.        0.        0.       78.        0.      135.       53. 100000.00
      0.55      0.00      7.74      0.00     0.000     0.027     0.000     0.000    619.64    100.00
  0.009639        1.        1.        1.         3         0         0    -49.28     17.50    117.50
0
 *SECNO 9756.000
 3280 CROSS SECTION   9756.00 EXTENDED      3.64 FEET


 3370 NORMAL BRIDGE,NRD= 24 MIN ELTRD=  628.30 MAX ELLC=  628.30


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      630.00 ELREA=      630.00

   9756.00      9.31    628.95      0.00      0.00    629.65      0.71      0.49      0.07    623.14
      600.        0.      600.        0.        0.       89.        0.      135.       53.    623.14
      0.55      0.00      6.75      0.00     0.000     0.027     0.000     0.000    619.64    100.00
  0.009473       51.       51.       51.         3         0         0    -73.83     17.50    117.50
0
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CCHV=    0.100 CEHV=    0.300
*SECNO 9757.000
3280 CROSS SECTION   9757.00 EXTENDED       4.14 FEET


3470 ENCROACHMENT STATIONS=      100.0      117.5  TYPE=      1  TARGET=       17.500
  9757.00       9.81   629.45      0.00      0.00   629.70      0.25      0.00      0.05    623.14
     600.         0.     600.         0.        0.     149.        0.      135.       53.  100000.00
     0.55       0.00     4.02      0.00     0.000    0.030     0.000     0.000    619.64    100.00
  0.001091        1.       1.        1.         2        0         0      0.00     17.50    117.50
0
1
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


*SECNO 10405.000
3280 CROSS SECTION  10405.00 EXTENDED       3.97 FEET

 10405.00       9.64   629.78      0.00      0.00   629.79      0.01      0.06      0.02    623.64
     600.       216.     130.      254.      398.     146.      465.      143.       55.    623.64
     0.83       0.54     0.89      0.55     0.040    0.030     0.040     0.000    620.14      0.00
 0.000032       450.     648.      700.         3        0         0      0.00    225.00    225.00
0
CCHV=    0.300 CEHV=    0.500
*SECNO 11205.000
3280 CROSS SECTION  11205.00 EXTENDED       1.72 FEET


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       653.70 ELREA=       653.70

          2ND KENOWA STREET CULVERT, 2-7'X145' CMP
 11205.00       7.41   629.61      0.00      0.00   630.10      0.49      0.08      0.24    625.70
     600.         0.     600.         0.        0.     107.        0.      152.       57.    625.70
     0.87       0.00     5.62      0.00     0.000    0.027     0.000     0.000    622.20    100.00
 0.001580       600.     800.      850.         2        0         0      0.00     17.50    117.50
0

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK        XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     1.25       2.90       2.80     100.00      14.50       3.50      77.00       0.00     622.20     622.20

*SECNO 11350.000
3280 CROSS SECTION  11350.00 EXTENDED       4.20 FEET

PRESSURE FLOW


 EGPRS       EGLWC        H3        QWEIR       QPR        BAREA    TRAPEZOID      ELLC       ELTRD
                                                                      AREA
    632.35     630.51       0.47         0.        600.        77.        77.       629.20     653.70



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       653.70 ELREA=       653.70

 11350.00       9.90   632.10      0.00      0.00   632.35      0.25      2.24      0.00    625.70
     600.         0.     600.         0.        0.     150.        0.      153.       57.    625.70
     0.88       0.00     3.99      0.00     0.000    0.027     0.000     0.000    622.20    100.00
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  0.000506     145.      145.      145.          2         0         0      0.00     17.50    117.50
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 CCHV=   0.100 CEHV=    0.300
 *SECNO 11500.000
 3280 CROSS SECTION  11500.00 EXTENDED      4.48 FEET

  11500.00     10.18    632.38      0.00      0.00    632.38      0.01      0.01      0.02    625.70
      600.      196.      179.      226.      449.      171.      517.      155.       57.    625.70
      0.94      0.44      1.04      0.44     0.050     0.030     0.050     0.000    622.20      0.00
  0.000028      150.      150.      150.         2         0         0      0.00    225.00    225.00
0
 *SECNO 11550.000
 3280 CROSS SECTION  11550.00 EXTENDED      4.41 FEET

  11550.00     10.11    632.31      0.00      0.00    632.42      0.11      0.01      0.03    625.70
     2300.      747.      690.      863.      443.      170.      510.      156.       58.    625.70
      0.95      1.69      4.06      1.69     0.050     0.030     0.050     0.000    622.20      0.00
  0.000434       50.       50.       50.         2         0         0      0.00    225.00    225.00
0
 *SECNO 11750.000
 3280 CROSS SECTION  11750.00 EXTENDED      4.50 FEET

  11750.00     10.20    632.40      0.00      0.00    632.51      0.10      0.08      0.00    625.70
     2300.      751.      682.      867.      452.      171.      520.      161.       59.    625.70
      0.97      1.66      3.98      1.67     0.050     0.030     0.050     0.000    622.20      0.00
  0.000411      200.      200.      200.         2         0         0      0.00    225.00    225.00
0
 *SECNO 12449.000
 3280 CROSS SECTION  12449.00 EXTENDED      4.37 FEET


 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=        40.000
  12449.00     10.07    632.27      0.00      0.00    633.46      1.19      0.63      0.33    625.70
     2300.        0.     1665.      635.        0.      169.      129.      172.       61.    625.70
      1.00      0.00      9.85      4.92     0.000     0.030     0.050     0.000    622.20    100.00
  0.003645      500.      699.      750.         2         0         0      0.00     40.00    140.00
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 CCHV=   0.300 CEHV=    0.500
 *SECNO 12450.000

 3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD=  646.20 MAX ELLC=  635.00
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 3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
           U/S I-196
  12450.00     10.06    632.56      0.00      0.00    633.53      0.97      0.00      0.07    628.50
      2300.       0.     2300.        0.        0.      291.        0.      172.       61. 100000.00
      1.00      0.00      7.91      0.00     0.000     0.027     0.000     0.000    622.50    100.00
  0.003900        1.        1.        1.         2         0         0    -33.29     40.00    140.00
0
 *SECNO 12650.000

 3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD=  646.20 MAX ELLC=  635.00


 3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
  12650.00     10.96    633.46      0.00      0.00    634.31      0.85      0.74      0.04    628.50
      2300.       0.     2300.        0.        0.      311.        0.      174.       61. 100000.00
      1.00      0.00      7.40      0.00     0.000     0.027     0.000     0.000    622.50    100.00
  0.003515      200.      200.      200.         2         0         0    -49.20     40.00    140.00
0
 CCHV=   0.100 CEHV=    0.300
 *SECNO 12850.000

 3470 ENCROACHMENT STATIONS=      100.0      140.0  TYPE=      1  TARGET=       40.000
  12850.00     11.82    634.32      0.00      0.00    634.85      0.53      0.51      0.03    628.50
      2300.       0.     2300.        0.        0.      394.        0.      175.       61. 100000.00
      1.01      0.00      5.83      0.00     0.000     0.035     0.000     0.000    622.50    100.00
  0.001936      200.      200.      200.         2         0         0      0.00     40.00    140.00
0
 *SECNO 13600.000
  13600.00      9.68    635.68      0.00      0.00    636.01      0.33      1.14      0.02    631.90
      2300.     642.     1605.       53.      479.      293.       58.      186.       63.    631.30
      1.06      1.34      5.48      0.91     0.100     0.035     0.100     0.000    626.00    139.90
  0.001239      700.      750.      750.         2         0         0      0.00    187.28    327.18
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 14975.000
  14975.00      9.07    637.77      0.00      0.00    638.43      0.66      2.32      0.10    632.40
      2300.     100.     1512.      688.       57.      190.      480.      210.       69.    632.20
      1.13      1.75      7.95      1.43     0.100     0.035     0.100     0.000    628.70    260.24
  0.002448     1355.     1375.     1375.         2         0         0      0.00    224.83    485.07
0
 *SECNO 16700.000
 3280 CROSS SECTION   16700.00 EXTENDED        3.13 FEET

  16700.00      9.23    640.63      0.00      0.00    640.81      0.18      2.33      0.05    637.00
      2300.     983.     1238.       79.      918.      275.      107.      250.       81.    638.30
      1.29      1.07      4.51      0.74     0.100     0.035     0.100     0.000    631.40     10.00
  0.000855     1725.     1725.     1725.         2         0         0      0.00    342.64    352.64
0
 *SECNO 17600.000
 3280 CROSS SECTION   17600.00 EXTENDED        1.56 FEET

  17600.00      7.66    641.66      0.00      0.00    642.15      0.50      1.25      0.10    639.60
      2300.     750.     1523.       26.      517.      222.       36.      272.       87.    640.90
      1.34      1.45      6.87      0.74     0.100     0.035     0.100     0.000    634.00     10.00
  0.002651      900.      900.      900.         2         0         0      0.00    328.11    338.11
0
 *SECNO 18545.000
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 3470 ENCROACHMENT STATIONS=      245.0      305.0  TYPE=      1  TARGET=       60.000
   18545.00      7.75    643.55      0.00      0.00    644.15      0.61      1.97      0.03    637.60
      2300.       34.     2226.       40.       29.      350.       32.      284.       92.    636.80
       1.38      1.19      6.36      1.23     0.100     0.035     0.100     0.000    635.80    245.00
   0.001675      945.      945.      945.         2         0         0      0.00     60.00    305.00
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 18565.000

 3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  645.45 MAX ELLC=  651.00


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       645.45 ELREA=       645.45

           BARRY STREET
1
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     SECNO      DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS   BANK ELEV
     Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


   18565.00      7.71    643.51      0.00      0.00    644.22      0.71      0.02      0.05    637.60
      2300.        0.     2300.        0.        0.      341.        0.      285.       92.    636.80
       1.39      0.00      6.74      0.00     0.000     0.015     0.000     0.000    635.80    250.00
   0.000569       20.       20.       20.         2         0         0   -143.01     50.00    300.00
0
 *SECNO 18602.000

 3370 NORMAL BRIDGE,NRD= 20 MIN ELTRD=  645.45 MAX ELLC=  651.00


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       645.45 ELREA=       645.45

   18602.00      7.74    643.54      0.00      0.00    644.25      0.70      0.02      0.00    637.60
      2300.        0.     2300.        0.        0.      342.        0.      285.       92.    636.80
       1.39      0.00      6.72      0.00     0.000     0.015     0.000     0.000    635.80    250.00
   0.000745       37.       37.       37.         1         0         0   -144.50     50.00    300.00
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 18622.000

 3470 ENCROACHMENT STATIONS=      230.0      320.0  TYPE=      1  TARGET=       90.000
   18622.00      8.24    644.04      0.00      0.00    644.30      0.26      0.01      0.04    637.60
      2300.      281.     1697.      322.      114.      374.      125.      285.       92.    636.80
       1.39      2.45      4.54      2.58     0.040     0.030     0.040     0.000    635.80    230.00
   0.000576       20.       20.       20.         2         0         0      0.00     90.00    320.00
0
 *SECNO 19000.000
   19000.00      7.51    644.41      0.00      0.00    644.58      0.18      0.27      0.01    641.20
      2300.     1039.      784.      478.      451.      163.      205.      291.       93.    641.30
       1.42      2.30      4.81      2.32     0.040     0.030     0.040     0.000    636.90     99.91
   0.000917      378.      378.      378.         2         0         0      0.00    274.38    374.29
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 20755.000
 3280 CROSS SECTION  20755.00 EXTENDED      2.33 FEET


 3470 ENCROACHMENT STATIONS=      120.0      550.0  TYPE=      1  TARGET=      430.000
   20755.00      9.24    645.74      0.00      0.00    645.83      0.09      1.22      0.03    644.30
      2300.      490.      586.     1224.      334.      154.      682.      331.      108.    641.10
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      1.64      1.47      3.80      1.79     0.040     0.030     0.040     0.000    636.50    120.00
  0.000547     1755.     1755.     1755.         1         0         0      0.00    430.00    550.00
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 20905.000

 3265 DIVIDED FLOW

 3280 CROSS SECTION  20905.00 EXTENDED      1.17 FEET


 3470 ENCROACHMENT STATIONS=       75.0      450.0  TYPE=      1  TARGET=      375.000
  20905.00      8.06    645.76      0.00      0.00    646.09      0.33      0.14      0.12    645.50
     2300.      443.      862.      995.      214.      130.      334.      335.      109.    642.30
      1.65      2.07      6.65      2.98     0.040     0.030     0.040     0.000    637.70     75.00
  0.002110      150.      150.      150.         2         0         0      0.00    370.23    450.00
0
 *SECNO 21055.000

 3265 DIVIDED FLOW

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=      150.0      450.0  TYPE=      1  TARGET=      300.000
  21055.00      7.65    646.50    646.50      0.00    647.28      0.77      0.45      0.22    646.65
     2300.      120.     1129.     1050.       56.      121.      272.      337.      110.    643.45
      1.66      2.16      9.33      3.87     0.040     0.030     0.040     0.000    638.85    150.00
  0.004520      150.      150.      150.        20        10         0      0.00    257.89    449.31
0
 *SECNO 21355.000
           JACKSON STREET (TOWNSHIP LIMIT)
  21355.00      6.61    647.81      0.00      0.00    648.54      0.74      1.26      0.01    643.40
     2300.      838.      938.      524.      180.      101.      115.      339.      111.    643.30
      1.67      4.65      9.26      4.54     0.040     0.030     0.040     0.000    641.20    201.69
  0.003888      300.      300.      300.         2         0         0      0.00    149.51    351.20
0

 SPECIAL BRIDGE

1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID      ENDST


 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR      COFQ      RDLEN      BWC       BWP       BAREA      SS        ELCHU     ELCHD
       0.00      1.56      3.00    150.00     15.00      0.00    110.00      0.00    641.20    641.20

 *SECNO 21391.000
 3280 CROSS SECTION  21391.00 EXTENDED      2.15 FEET
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3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW


 EGPRS       EGLWC        H3        QWEIR       QPR        BAREA   TRAPEZOID      ELLC       ELTRD
                                                                     AREA
    658.40     648.54      0.00      1084.      1222.       110.       87.      647.00     649.00



3470 ENCROACHMENT STATIONS=      200.0      350.0  TYPE=     1  TARGET=     150.000
 21391.00      9.45    650.65      0.00      0.00    650.80      0.15      2.25      0.00    643.40
    2300.     1017.      655.      627.      413.      152.      257.      340.      112.    643.30
     1.67      2.46      4.30      2.44     0.040     0.030     0.040     0.000    641.20    200.00
 0.000485       36.       36.       36.         2         0         4      0.00    150.00    350.00
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 22615.000
 3280 CROSS SECTION  22615.00 EXTENDED      5.72 FEET

 22615.00      9.42    650.82      0.00      0.00    650.84      0.02      0.03      0.01    644.10
    2300.     1756.      241.      303.     1822.      168.      376.      348.      113.    643.20
     1.73      0.96      1.43      0.81     0.040     0.030     0.040     0.000    641.40     25.00
 0.000050      224.      224.      224.         2         0         0      0.00    358.10    383.10
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO -9550.000
 START TRIB COMP
   -9550.000  9550.000   626.222
 -9550.00      7.53    626.22      0.00      0.00    627.24      1.02      0.00      0.00    628.19
    2300.        0.      816.     1484.        0.       86.      204.      360.      115.    620.25
     1.75      0.00      9.43      7.28     0.000     0.040     0.040     0.000    618.69    104.81
 0.008385      400.      400.      400.         0         0         0      0.00     92.00    196.81
0
1
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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


 CCHV=   0.300 CEHV=   0.500
 *SECNO 250.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      632.50 ELREA=      632.50

   250.00      7.91    627.21      0.00      0.00    628.00      0.79      0.69      0.07    623.20
    1700.        0.     1700.        0.        0.      238.        0.      362.      115.    621.20
     1.76      0.00      7.15      0.00     0.000     0.024     0.000     0.000    619.30    332.00
 0.001105      250.      250.      250.         2         0         0      0.00     35.00    367.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      0.00      2.32      2.60    125.00     20.00      0.00    177.50      0.00    619.30    619.30

 *SECNO 332.000
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6070,LOW FLOW BY ,ORMAL BRIDGE

EGPRS=     0.000  EGLWC=    628.001  ELLC=    628.300  PCWSE=    627.206  ELTRD=    632.500

3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  632.50 MAX ELLC=  628.30


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      632.50 ELREA=      632.50

   332.00      8.03    627.33      0.00      0.00    628.09      0.77      0.09      0.01    623.20
    1700.        0.     1700.        0.        0.      242.        0.      362.      115.    621.20
     1.76      0.00      7.03      0.00     0.000     0.024     0.000     0.000    619.30    332.00
 0.001048       82.       82.       82.         2         0         0      0.00     35.00    367.00
0
CCHV=   0.100 CEHV=   0.300
*SECNO 890.000

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   890.00      5.17    630.47    630.47      0.00    632.17      1.70      1.44      0.28    629.20
    1700.        1.     1537.      161.        1.      142.       27.      365.      116.    627.20
     1.78      2.25     10.84      6.04     0.040     0.040     0.040     0.000    625.30    331.11
 0.014080      558.      558.      558.        20        14         0      0.00     52.24    383.35
0
1
  18 OCT 89    12:17:22                                                                      PAGE   38


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


*SECNO 11550.000
3280 CROSS SECTION  11550.00 EXTENDED      4.92 FEET


3301 HV CHANGED MORE THAN HVINS

 11550.00     10.62    632.32      0.00      0.00    632.37      0.06      0.03      0.16    625.20
    2300.      866.      440.      994.      493.      179.      564.      366.      116.    625.20
     1.78      1.76      2.46      1.76     0.040     0.040     0.040     0.000    621.70      0.00
 0.000265       50.       50.       50.         2         0         0      0.00    225.00    225.00
0
1
  18 OCT 89    12:17:22                                                                      PAGE   39



                                                                  THIS RUN EXECUTED 18 OCT 89   12:17:42

**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************


T1      GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
T2      FLOOD INSURANCE STUDY
T3      BLISS DRAIN, 100-YEAR FLOOD, ENCROACHED CONDITION
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00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP.

3) WATERCOURSE: E BRANCH LOWING-COMSTOCK DRAIN

4) DOCUMENT TYPE: SUMMARY

00BREAK00

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP

3) WATERCOURSE: HUIZENGA DRAIN

4) DOCUMENT TYPE: 100YR ENCROACHED

00BREAK00

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1*************************************************             ************************************
*  WATER SURFACE PROFILES                        *             *  U.S. ARMY CORPS OF ENGINEERS
*  VERSION OF NOVEMBER 1976                      *             *  THE HYDROLOGIC ENGINEERING CENTER
*  UPDATED MARCH 1982                            *             *  609 SECOND STREET, SUITE D
*                                                *             *  DAVIS, CALIFORNIA 95616
*  RUN DATE  83/03/01.  TIME  13.46.20.          *             *   916  440-2105  FTS  448-2105
*************************************************             ************************************


                                     X     X  XXXXXXX   XXXXX          XXXXX
                                     X     X  X        X     X        X     X
                                     X     X  X        X                    X
                                     XXXXXXX  XXXX     X        XXXXX   XXXXX
                                     X     X  X        X               X
                                     X     X  X        X     X         X
                                     X     X  XXXXXXX   XXXXX          XXXXXXX
1
 83/03/01.   13.46.21.                                                                  PAGE  1


                                                               THIS RUN EXECUTED  83/03/01.   13.46.21.
**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**********************************************


C
T1       GEORGETOWN TOWNSHIP, PROJECT NO 8549, 'HOIZB'
T2       HOIZENGA DRAIN
T3

J1  ICHECK      INQ      NINV      IDIR      STRT      METRIC     HVINS      Q        WSEL       FQ
       0.        4.       0.        0.   0.000000      0.00       0.0       0.     602.750     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH       FN      ALLDC       IBW      CHNIM     ITRACE
     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   150.000   110.000   200.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

QT       5.000   103.000   264.000   334.000   472.000   334.000     0.000     0.000     0.000     0.000
NC        .035      .035      .030      .100      .300     0.000     0.000     0.000     0.000     0.000
ET       0.000     0.000     0.000     0.000     0.000     9.100     0.000     0.000   100.000   250.000
       CROSS SECTION A -  U/S CONFLUENCE WITH RUSH CREEK
X1     200.000    14.000   132.000   150.000     0.000     0.000     0.000     0.000     0.000     0.000
GR     603.220    90.000   603.220   100.000   601.820   122.000   596.620   132.000   595.920   136.000
GR     596.420   140.000   595.820   145.000   596.120   148.000   596.680   150.000   597.620   154.000
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GR    600.320    160.000    601.620    175.000    601.920    200.000    602.000    300.000      0.000      0.000

             CROSS SECTION B - PORT SHELDON ROAD, LC 602.28, TRD 603.07
X1    250.000     21.000     31.000    103.200     50.000     50.000     50.000      0.000      0.000      0.000
X3      0.000      0.000      0.000     86.200    603.070    103.200    603.070      0.000      0.000      0.000
GR    601.520      0.000    599.200     81.000    596.600     83.000    595.900     84.200    596.600     86.200
GR    599.200     88.200    596.900     89.500    596.300     90.500    595.600     92.500    596.300     94.500
GR    598.900     95.700    599.100     96.700    596.500     98.000    595.800    100.000    596.500    102.000
GR    599.100    103.200    600.220    110.000    601.320    124.000    602.920    140.000    602.140    150.000
GR    602.140    230.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

SB      1.250      1.600      2.640    100.000     22.000      2.500    100.000      0.000      0.000      0.000
X1    251.000      0.000      0.000      0.000     56.000     56.000     56.000      0.000      0.000      0.000
X2      0.000      0.000      1.000    602.280    603.070      0.000      0.000      0.000      0.000      0.000
BT     21.000      0.000    603.070    601.520     81.000    603.070    599.200     83.000    603.070    601.800
BT     84.200    603.070    602.300     86.200    603.070    601.800     88.200    603.070    599.200     89.500
BT    603.070    599.100     90.500    603.070    601.800     92.500    603.070    602.300     94.500    603.070
BT    601.800     95.700    603.070    599.100     96.700    603.070    601.800     98.000    603.070    601.800
BT    100.000    603.070    602.300    102.000    603.070    601.800    103.200    603.070    599.100    110.000
BT    603.070    600.220    124.000    603.070    601.320    140.000    603.070    602.920    150.000    603.070
BT    602.140    230.000    603.070    602.140      0.000      0.000      0.000      0.000      0.000      0.000
1
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X1    300.000     12.000    152.000    165.000     25.000     25.000     25.000      0.000      0.000      0.000
X3      0.000      0.000      0.000     50.000    603.700    190.000    603.700      0.000      0.000      0.000
GR    606.520      0.000    606.520    100.000    601.320    145.000    599.920    150.000    598.370    152.000
GR    597.620    156.000    597.920    160.000    598.370    165.000    600.920    175.000    601.120    190.000
GR    601.920    215.000    604.000    265.000      0.000      0.000      0.000      0.000      0.000      0.000

             CROSS SECTION C - WOODEN FOOT BRIDGE, LC 600.29, TRD 602.32
              26.5' LONG X 4.5'WIDE
X1    375.000      0.000      0.000      0.000     65.000    125.000     74.000      0.000      0.000      0.000

X1    376.000      0.000      0.000      0.000      1.000      1.000      1.000      0.000      0.000      0.000
X3      0.000      0.000      0.000    152.000    602.300    165.000    602.300      0.000      0.000      0.000
BT     12.000      0.000    606.520    606.520    100.000    606.520    606.520    145.000    601.320    601.320
BT    150.000    602.300    601.480    152.000    602.320    601.480    156.000    602.300    601.480    160.000
BT    602.260    601.480    165.000    602.250    601.490    175.000    602.200    601.490    190.000    601.120
BT    601.120    215.000    601.920    601.920    265.000    604.000    604.000      0.000      0.000      0.000

X1    380.000      0.000      0.000      0.000      4.500      4.500      4.500      0.000      0.000      0.000
X2      0.000      0.000      0.000      0.000      0.000      0.000      1.000      0.000      0.000      0.000
X3      0.000      0.000      0.000    152.000    602.300    165.000    602.300      0.000      0.000      0.000

X1    381.000      0.000      0.000      0.000      1.000      1.000      1.000      0.000      0.000      0.000
X3      0.000      0.000      0.000    152.000    602.300    165.000    602.300      0.000      0.000      0.000

X1    400.000      0.000      0.000      0.000     25.000     25.000     25.000      0.000      0.000      0.000
X3      0.000      0.000      0.000      0.000      0.000    250.000      0.000      0.000      0.000      0.000

ET      0.000      0.000      0.000      0.000      0.000      9.100      0.000      0.000     50.000    225.000
             CROSS SECTION D - MANUFACTURED CROSS SECTION
X1    700.000     12.000    100.000    140.000    300.000    300.000    300.000      0.000      0.000      0.000
GR    606.000     50.000    605.000     60.000    604.000    100.000    602.000    105.000    600.000    111.000
GR    598.000    115.000    598.000    120.000    600.000    125.000    602.000    130.000    604.000    140.000
GR    606.000    150.000    606.500    250.000      0.000      0.000      0.000      0.000      0.000      0.000
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          CROSS SECTION E - TYLER STREET CULVERT, 2-48  X 92  CMP
X1  1325.000    21.000   150.000   170.000   625.000   700.000   650.000     0.000     0.000     0.000
X3     0.000     0.000     0.000     0.000     0.000   200.000     0.000     0.000     0.000     0.000
GR   606.180     0.000   606.180   100.000   606.180   150.000   602.800   152.700   601.500   153.400
GR   601.300   154.400   601.010   155.900   601.300   157.400   601.500   158.400   602.800   159.100
GR   602.570   163.600   602.270   164.300   601.070   165.300   600.870   166.800   601.070   168.300
GR   601.270   169.300   602.570   170.000   603.780   175.000   605.520   182.000   607.530   200.000
GR   614.000   270.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1  1326.000     0.000     0.000     0.000    75.000    75.000    75.000     0.000     0.000     0.000
X3     0.000     0.000     0.000   152.700   606.180   170.000   606.180     0.000     0.000     0.000

SB     1.250     1.640     2.640     0.000    20.000     4.500    50.000     0.000     0.000     0.000
X1  1350.000     0.000     0.000     0.000    52.800    52.800    52.800     0.000     0.000     0.000
X2     0.000     0.000     1.000   605.900   606.180     0.000     1.000     0.000     0.000     0.000
BT    21.000     0.000   606.180   606.180   100.000   607.610   606.180   150.000   607.610   606.180
BT   152.700   607.610   602.800   153.400   607.610   603.700   154.400   607.610   604.500   155.900
BT   607.610   605.900   157.400   607.610   604.500   158.400   607.610   603.700   159.100   607.610
BT   602.800   163.600   607.610   602.570   164.300   607.610   603.470   165.300   607.610   604.270
1
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BT   166.800   607.610   605.670   168.300   607.610   604.270   169.300   607.610   603.470   170.000
BT   607.520   602.570   175.000   607.520   603.780   182.000   607.630   605.520   200.000   607.630
BT   607.530   270.000   614.000   614.000     0.000     0.000     0.000     0.000     0.000     0.000

ET     0.000     0.000     0.000     0.000     0.000     9.100     0.000     0.000    10.000   190.000
X1  1400.000     0.000     0.000     0.000    50.000    50.000    50.000     0.000     0.000     0.000

ET     0.000     0.000     0.000     0.000     0.000     9.100     0.000     0.000   150.000   250.000
          CROSS SECTION F
X1  2375.000    20.000   130.000   200.000   730.000   730.000   730.000     0.000     0.000     0.000
GR   610.000     0.000   608.570   100.000   607.370   125.000   607.470   174.000   605.870   179.000
GR   604.070   180.000   603.370   181.000   602.270   184.000   601.870   188.000   601.270   191.000
GR   602.400   197.000   603.170   199.000   604.270   200.000   606.870   206.000   607.570   215.000
GR   608.470   222.000   607.370   230.000   605.670   240.000   604.370   247.000   610.000   300.000

QT     5.000   165.000   323.000   378.000   478.000   378.000     0.000     0.000     0.000     0.000
NC      .200      .200      .055      .300      .500     0.000     0.000     0.000     0.000     0.000
ET     0.000     0.000     0.000     0.000     0.000     9.100     0.000     0.000    90.000   120.000
          CROSS SECTION G
X1  4065.000    10.000   100.000   111.000  1950.000  1950.000  1950.000     0.000     0.000     0.000
GR   612.000     0.000   612.850    50.000   612.750    79.000   605.990   100.000   605.350   108.000
GR   605.250   108.000   606.050   111.000   606.050   111.100   612.450   133.000   611.650   155.000

          CROSS SECTION H - RAVENSWOOD BRIDGE, 9.5' X 43' CMP
             LC.  612.10, TRD 613.30
X1  4275.000    12.000   100.000   111.000   110.000   110.000   110.000     0.000     0.000     0.000
GR   614.000     0.000   615.050    25.000   614.650    50.000   614.350    75.000   608.850    95.000
GR   606.550   100.000   605.850   106.000   606.350   111.000   605.550   111.100   612.550   130.000
GR   613.150   155.000   616.000   255.000     0.000     0.000     0.000     0.000     0.000     0.000

X1  4325.000    15.000    99.500   109.500    50.000    50.000    50.000     0.000     0.000     0.000
X3     0.000     0.000     0.000    99.500   613.300   109.500   613.300     0.000     0.000     0.000
GR   615.000     0.000   615.050    25.000   614.650    50.000   614.350    75.000   606.850    95.000
GR   607.200    99.500   606.000   100.500   605.600   102.500   605.500   104.500   605.600   106.500
GR   606.000   108.500   607.200   109.500   610.000   111.000   612.550   130.000   613.150   155.000
GR   615.000   255.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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SB	0.000	1.624	2.540	50.000	9.500	0.000	70.862	0.000	0.000	0.000
X1	4326.000	0.000	0.000	0.000	43.000	43.000	43.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	612.100	613.300	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	99.500	613.300	109.500	613.300	0.000	0.000	0.000
BT	16.000	0.000	615.050	615.000	25.000	615.050	615.050	50.000	614.650	614.650
BT	75.000	614.350	614.350	95.000	613.300	608.850	99.500	613.300	607.200	100.500
BT	613.300	610.000	102.500	613.300	611.730	104.500	613.300	612.100	106.500	613.300
BT	611.700	108.500	613.300	610.000	109.500	613.300	607.200	111.000	613.300	610.000
BT	130.000	613.300	612.550	155.000	613.150	613.150	255.000	615.000	615.000	0.000
X1	4400.000	0.000	0.000	0.000	25.000	25.000	25.000	0.000	0.000	0.000

1

ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	75.000	125.000

CROSS SECTION I - MANUFACTURED CRUSS SECTION

X1	5225.000	13.000	78.000	101.000	425.000	425.000	425.000	0.000	0.000	0.000
GR	617.000	0.000	615.120	50.000	613.620	78.000	609.420	82.000	606.470	94.000
GR	607.220	87.000	606.920	91.000	607.420	94.000	608.470	98.000	610.120	101.000
GR	609.420	108.000	614.820	133.000	614.520	200.000	0.000	0.000	0.000	0.000
X1	5525.000	0.000	0.000	0.000	400.000	400.000	400.000	0.000	1.500	0.000

CROSS SECTION J - KENAWA ST. BRIDGE 84 X 122 CMP, 43' LONG
LC 615.75, TRD 613.09

X1	5775.000	13.000	78.000	101.000	625.000	625.000	625.000	0.000	-1.500	0.000
GR	620.000	0.000	618.120	50.000	616.620	78.000	612.420	82.000	611.470	84.000
GR	610.220	87.000	609.920	91.000	610.420	94.000	611.470	98.000	613.120	101.000
GR	612.420	108.000	617.820	133.000	617.520	200.000	0.000	0.000	0.000	0.000
X1	5850.000	18.000	84.000	98.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	85.500	618.090	96.500	618.090	0.000	0.000	0.000
GR	620.000	0.000	618.120	50.000	617.500	78.000	618.090	82.000	618.090	85.500
GR	609.950	86.000	609.550	87.000	609.350	89.000	609.150	91.000	609.350	93.000
GR	609.550	95.000	609.950	96.000	611.050	96.500	618.090	98.000	618.090	101.000
GR	618.090	108.000	618.090	133.000	617.520	200.000	0.000	0.000	0.000	0.000
SB	0.000	1.380	2.640	0.000	10.000	0.000	54.000	0.000	0.000	0.000
X1	5893.000	0.000	0.000	0.000	43.000	43.000	43.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	85.500	618.090	96.500	618.090	0.000	0.000	0.000
BT	18.000	0.000	620.000	620.000	50.000	618.120	618.120	78.000	617.500	617.500
BT	82.000	618.090	618.090	85.500	618.090	618.050	86.000	618.090	609.950	87.000
BT	618.090	614.550	89.000	618.090	615.350	91.000	618.090	615.750	93.000	618.090
BT	615.350	95.000	618.090	614.550	96.000	618.090	613.350	96.500	618.090	618.090
BT	98.000	618.090	618.090	101.000	618.090	618.090	108.000	618.090	618.090	133.000
BT	618.090	618.090	200.000	617.520	617.520	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	75.000	110.000
X1	5925.000	18.000	81.000	95.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	617.290	0.000	617.290	25.000	616.690	35.000	616.390	45.000	616.490	55.000
GR	614.890	64.000	614.690	71.000	611.690	81.000	611.190	82.000	610.290	88.000
GR	610.590	90.000	611.740	95.000	615.590	109.000	616.190	117.000	618.190	127.000
GR	618.490	143.000	619.790	155.000	619.490	160.000	0.000	1.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	20.000	142.000

CROSS SECTION K

X1	6650.000	14.000	100.000	111.000	750.000	750.000	750.000	0.000	0.000	0.000

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GR   616.000     0.000   615.470    30.000   615.970    91.000   614.570    96.000   612.920   100.000
GR   612.070   101.000   611.870   104.000   612.370   106.000   612.920   111.000   616.370   118.000
GR   617.370   124.000   617.570   128.000   619.170   136.000   616.170   155.000     0.000     0.000
EJ     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
*PROF 1
1
 83/03/01.   13.45.21.                                                                    PAGE     5

      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

CCHV     .100 CEHV     .300
*SECNO 200.000
3280 CROSS SECTION    200.00 EXTENDED      .75 FEET

           CROSS SECTION A -  U/S CONFLUENCE WITH RUSH CREEK
    200.00      6.93    602.75      0.00    602.75    602.78      .03      0.00      0.00    596.62
      334.       33.      198.      103.       42.      118.     175.        0.        0.    596.68
      0.00       .78      1.67       .59      .035      .030     .035     0.000    595.82    107.39
   .000094        0.        0.        0.        0         0        0      0.00    192.61    300.00
0
*SECNO 250.000
3280 CROSS SECTION    250.00 EXTENDED      .50 FEET

3470 ENCROACHMENT STATIONS        96.2      103.2  TYPE       1  TARGET        17.000
 ELENCL      603.07  ELENCR       603.07
           CROSS SECTION B - PORT SHELDON ROAD, LC 602.28, TRD 603.07
    250.00      7.04    602.64      0.00      0.00    602.84      .20       .01       .05    603.07
      334.        0.      334.        0.        0.       94.       0.        0.        0.    603.07
       .00      0.00      3.56      0.00      .035      .030     .035     0.000    595.60     96.20
   .001396       50.       50.       50.        2         0        0      0.00     17.00    103.20
0

SPECIAL BRIDGE  277

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB   XK        XKOR      COFQ       RDLEN      BWC       BWP       BAREA      SS        ELCHU     ELCHD
      1.25      1.80      2.64     100.00     22.00      2.50    100.00      0.00    595.60    595.60

*SECNO 251.000
3280 CROSS SECTION    251.00 EXTENDED     1.43 FEET

PRESSURE FLOW

 EGPRS      EGLWC        H3       QWEIR       QPR       BAREA   TRAPEZOID      ELLC      ELTRD
                                                                  AREA
   602.96    602.71       .05        0.       334.      100.       130.     602.28    603.07

    251.00      7.35    602.95      0.00      0.00    602.96      .01       .11      0.00    599.20
      334.      138.      136.       60.      210.      131.     135.        1.        0.    599.10
       .02       .66      1.04       .44      .035      .030     .035     0.000    595.60      0.00
   .000069       56.       55.       56.        1         0        0      0.00    230.00    230.00
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Revised

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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS     BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA     LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

*SECNO 300.000

3470 ENCROACHMENT STATIONS         50.0       190.0   TYPE       1   TARGET       140.000
  ELENCL      603.70   ELENCR        603.70
    300.00      5.27     602.89       0.00       0.00     602.99        .10        .00        .03     598.37
      334.       40.       195.        99.        29.        64.        60.         1.         0.     598.37
       .03      1.35       3.06       1.65       .035       .030       .035      0.000     597.62     131.45
   .000463       25.        25.        25.          2          0          0      0.000      58.55     190.00
0
*SECNO 375.000
      CROSS SECTION C - WOODEN FOOT BRIDGE, LC 600.29, TRD 602.32
        26.5' LONG X 4.5'WIDE
    375.00      5.34     602.96       0.00       0.00     603.02        .06        .03        .00     598.37
      334.       35.       167.       131.        31.        65.       111.         1.         1.     598.37
       .04      1.14       2.58       1.18       .035       .030       .035      0.000     597.62     130.79
   .000323       65.        74.       125.          2          0          0      0.000     109.27     240.05
0
*SECNO 376.000

3370 NORMAL BRIDGE,NRD  12 MIN ELTRD   601.12 MAX ELLC   606.52

3470 ENCROACHMENT STATIONS        152.0       165.0   TYPE       1   TARGET        13.000
  ELENCL      602.30   ELENCR        602.30
    376.00      5.17     602.79       0.00       0.00     603.10        .31        .00        .07     598.37
      334.       10.       257.        66.         5.        52.        29.         1.         1.     602.30
       .04      2.17       4.93       2.31       .035       .030       .035      0.000     597.62     139.67
   .008208        1.         1.         1.          2          0          0     -10.39      90.02     229.70
0
*SECNO 380.000

3370 NORMAL BRIDGE,NRD  12 MIN ELTRD   601.12 MAX ELLC   606.52

3470 ENCROACHMENT STATIONS        152.0       165.0   TYPE       1   TARGET        13.000
  ELENCL      602.30   ELENCR        602.30
    380.00      5.27     602.89       0.00       0.00     603.14        .25        .03        .01     598.37
      334.       13.       240.        81.         6.        54.        35.         1.         1.     602.30
       .04      2.15       4.48       2.31       .035       .030       .035      0.000     597.62     138.62
   .006559        5.         5.         5.          2          0          0     -10.39      93.99     232.61
0
1
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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS     BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA     LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST
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*SECNO 381.000

3470 ENCROACHMENT STATIONS       152.0      165.0  TYPE       1  TARGET        13.000
 ELENCL      602.30  ELENCR      602.30
   381.00     5.26   602.88     0.00      0.00   603.15      .27       .00      .01    598.37
     334.      7.     287.       41.        6.      64.       34.        1.       1.    602.30
      .04     1.13     4.51     1.21      .035     .030     .035     0.000   597.62   138.85
  .001834      1.       1.       1.         2        0        0      0.00    93.11   231.96
0
 *SECNO 400.000

3470 ENCROACHMENT STATIONS          .0      250.0  TYPE       1  TARGET       249.999
   400.00     5.51   603.13     0.00      0.00   603.19      .05       .01      .02    598.37
     334.     37.     160.      137.       35.      67.      125.        1.       1.    598.37
      .04     1.05     2.39     1.10      .035     .030     .035     0.000   597.62   129.29
  .000264     25.      25.      25.         2        0        0      0.00   114.91   244.21
0
 *SECNO 700.000
          CROSS SECTION D - MANUFACTURED CROSS SECTION
   700.00     5.19   603.19     0.00      0.00   603.39      .20       .16      .04    604.00
737  334.      0.     334.       0.        0.      93.        0.        2.       1.    604.00
      .07     0.00     3.59     0.00      .035     .030     .035     0.000   598.00   102.03
  .001473     300.     300.     300.        2        0        0      0.00    33.91   135.94
0
 *SECNO 1325.000

3470 ENCROACHMENT STATIONS          .0      200.0  TYPE       1  TARGET       199.999
          CROSS SECTION E - TYLER STREET CULVERT, 2-48  X 92  CMP
  1325.00     3.71   604.58     0.00      0.00   605.12      .54      1.63      .10    606.18
     334.      0.     305.       29.        0.      50.        8.        4.       2.    602.57
      .10     0.00     0.06     3.43      .035     .030     .035     0.000   600.87   151.28
  .005168     625.     650.     700.        3        0        0      0.00    26.95   178.22
0                                                                            Revised
 *SECNO 1326.000

3470 ENCROACHMENT STATIONS       152.7      170.0  TYPE       1  TARGET        17.300
 ELENCL      606.18  ELENCR      606.18
  1326.00     4.08   604.95     0.00      0.00   605.51      .56       .38      .01    606.18
     334.      0.     334.       0.        0.      56.        0.        4.       2.    606.18
      .10     0.00     6.02     0.00      .035     .030     .035     0.000   600.87   152.70
  .005074     75.      75.      75.         2        0        0      0.00    17.30   170.00
0
1
 83/03/01.   13.46.21.                                                                        PAGE    8

   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN     SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID    ENDST


SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK       ~~XKOR~~     COFQ      RDLEN      BWC       BWP       BAREA      SS       ELCHU      ELCHD
    1.25     1.84      2.64      0.00      20.00      4.50      50.00      0.00     600.87     600.87
              2.48
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 *SECNO 1350.000
 **ERROR** ELTRD.LT.MIN ROAD ELEV, ELTRD SET EQUAL TO MIN ROAD ELEV
 PRESSURE FLOW

   EGPRS       EGLWC        H3        QWEIR       QPR        BAREA   TRAPEZOID     ELLC      ELTRD
                                                                      AREA
    606.23      605.92       .75        0.        334.        50.      78.       605.90     607.52

   1350.00      5.18    606.05      0.00      0.00    606.23       .17       .71      0.00    606.18
      334.        0.      277.       57.        0.       79.       25.        4.        2.    602.57
       .11      0.00      3.52      2.24      .035      .030      .035     0.000    600.87    150.10
   .001065       53.       53.       53.        2         0         0      0.00     36.67    186.77
0
 *SECNO 1400.000
   1400.00      5.24    606.11      0.00      0.00    606.28       .17       .05       .00    606.18
      334.        0.      276.       58.        0.       80.       25.        4.        2.    602.57
       .11      0.00      3.45      2.20      .035      .030      .035     0.000    600.87    150.05
   .001008       50.       50.       50.        2         0         0      0.00     37.25    187.31
0
 *SECNO 2375.000

 3265 DIVIDED FLOW

          CROSS SECTION F
   2375.00      5.44    606.71      0.00      0.00    606.83       .13       .55       .00    604.07
      334.        2.      276.       56.        3.       39.       47.        6.        3.    604.27
       .16       .78      3.11      1.18      .035      .030      .035     0.000    601.27    176.39
   .000537      730.      730.      730.        2         0         0      0.00     64.31    268.99
0
 CCHV     .300 CEHV      .500
 *SECNO 4065.000
1
  63/03/01.   13.46.21.                                                                              PAGE    9


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL       OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 3301 HV CHANGED MORE THAN HVINS

          CROSS SECTION G
   4065.00      4.45    609.70      0.00      0.00    610.41       .71      3.28       .29    605.99
      378.       24.      327.       27.       21.       45.       23.       11.        5.    606.05
       .27      1.15      7.25      1.15      .200      .055      .200     0.000    605.25     88.49
   .011165     1950.     1950.     1950.        4         0         0      0.00     35.09    123.58
0
 *SECNO 4275.000
          CROSS SECTION H - RAVENSWOOD BRIDGE, 9.5' X 43' CMP
             LC.  612.10, TRD 613.30
   4275.00      5.36    610.91      0.00      0.00    611.37       .46       .89       .07    606.55
      378.       24.      312.       42.       24.       52.       39.       11.        5.    606.35
       .27       .99      5.96      1.07      .200      .055      .200     0.000    605.55     87.49
   .006127      110.      110.      110.        2         0         0      0.00     38.10    125.59
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0
 *SECNO 4325.000

 3470 ENCROACHMENT STATIONS        99.5      109.5  TYPE      1  TARGET       10.000
  ELENCL     613.30  ELENCR      613.30
   4325.00      5.74    611.24      0.00      0.00    612.00       .77       .48       .15    607.20
      378.        0.      378.        0.        0.       54.        0.       11.        5.    613.30
       .26      0.00      7.03      0.00      .200      .055      .200     0.000    605.50     99.50
   .017242       50.       50.       50.         2         0         0      0.00     10.00    109.50
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB   XK        XKOR      COFQ      RDLEN      BWC       BWP       BAREA      SS       ELCHU      ELCHD
      0.00      1.82      2.64      50.00      9.50      0.00      70.88      0.00    605.50     605.50
                2.46                                                43.0
 *SECNO 4326.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS      0.000  EGLWC      612.005  ELLC      612.100  PCWSE      611.238  ELTRD      613.300

 3370 NORMAL BRIDGE,NRD  1. MIN ELTRD    613.30 MAX ELLC     612.10
1
  83/03/01.    13.46.21.                                                                          PAGE   10


     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 3470 ENCROACHMENT STATIONS        99.5      109.5  TYPE      1  TARGET       10.000
  ELENCL     613.30  ELENCR      613.30
   4326.00      6.69    612.19      0.00      0.00    613.09       .90      1.02       .07    607.20
      378.        0.      378.        0.        0.       50.        0.       11.        5.    613.30
       .28      0.00      7.62      0.00      .200      .055      .200     0.000    605.50     99.50
   .034459       43.       43.       43.         4         0         0    -13.68     10.00    109.50
0
 *SECNO 4400.000

 3301 HV CHANGED MORE THAN HVINS

   4400.00      7.69    613.19      0.00      0.00    613.42       .24       .13       .20    607.20
      378.       41.      313.       24.       57.       73.       52.       12.        5.    607.20
       .28       .72      4.27       .46      .200      .055      .200     0.000    605.50     79.23
   .002044       25.       25.       25.         2         0         0      0.00     77.78    157.01
0
 *SECNO 5225.000
         CROSS SECTION I - MANUFACTURED CROSS SECTION
   5225.00      7.10    614.02      0.00      0.00    614.12       .10       .65       .04    613.62
      378.        0.      336.       42.        1.      125.       79.       13.        6.    610.12
       .33       .09      2.68       .53      .200      .055      .200     0.000    606.92     70.59
   .001200      425.      425.      425.         4         0         0      0.00     58.69    129.23
0
 *SECNO 5525.000
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613.4

2.46 (Q/43)^2 / 64.2

(2.28) 63 (EG-613.3)^1.5

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   5525.00      6.20    614.62      0.00      0.00    614.76      .15       .63       .03    615.12
     378.         0.      343.        35.        0.      105.       55.       15.        6.    611.62
     .36        0.00     3.27       .63      .200      .055      .200     0.000    608.42     78.47
   .002184      400.      400.      400.         2         0         0      0.00     46.68    125.15
0
  *SECNO 5775.000
      CROSS SECTION J - KENAWA ST. BRIDGE 64  X 122  CMP, 43' LONG
        LC 615.75, TRD 618.09
   5775.00      7.22    615.64      0.00      0.00    615.74      .09       .94       .02    615.12
     378.         0.      335.        42.        3.      128.       82.       18.        7.    611.62
     .44         .10     2.51       .52      .200      .055      .200     0.000    608.42     68.26
   .001106      625.      625.      625.         2         0         0      0.00     61.60    129.86
0
1
  83/03/01.   13.46.21.                                                                       PAGE   11

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

  *SECNO 5850.000

  3470 ENCROACHMENT STATIONS        35.5       96.5  TYPE       1  TARGET        11.000
   ELENCL       618.09  ELENCR      618.09                                          [illegible] = 616.2 d/s
   5850.00      6.40    615.55      0.00      0.00    616.08      .53       .13       .22    670.00
     378.         0.      378.        0.        0.       65.        0.       18.        7.    618.09
     .44        0.00     5.84      0.00      .200      .055      .200     0.000    609.15     85.66
   .010772       50.       50.       50.         2         0         0      0.00     10.84     96.50
0

  SPECIAL BRIDGE
                                                                                        Corp. limit
  5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
  SB   XK        XKOR       COFQ      RDLEN       BWC       BWP       BAREA      SS        ELCHU       ELCHD
      0.00       1.38       2.64       0.00      10.00      0.00      54.00      0.00     609.15      609.15
  *SECNO 5893.000  242

  3370 NORMAL BRIDGE,NRD  18 MIN ELTRD   617.50 MAX ELLC   620.00                     No weir flow

  3470 ENCROACHMENT STATIONS        85.5       96.5  TYPE       1  TARGET        11.000       u/s stage = 5' low
   ELENCL       618.09  ELENCR      618.09              617.4
   5893.00      7.05    616.20      0.00      0.00    616.90      .70       .74       .08    618.09
     378.         0.      378.        0.        0.       56.        0.       18.        7.    618.09
     .44        0.00     6.71      0.00      .200      .055      .200     0.000    609.15     85.62
   .031590       43.       43.       43.         2         0         0    -15.48     10.88     96.50
0
  *SECNO 5925.000

  3301 HV CHANGED MORE THAN HVINS

   5925.00      6.83    617.12      0.00      0.00    617.27      .15       .20       .17    611.69
     378.        43.      301.        34.       83.       87.       60.       18.        7.    611.74
     .45         .52     3.45       .57      .200      .055      .200     0.000    610.29     27.82
   .001474       50.       50.       50.         2         0         0      0.00     93.83    121.65
0
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*SECNO 6650.000

3265 DIVIDED FLOW

1
 83/03/01.   13.46.21.                                                                                        PAGE   12

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 3280 CROSS SECTION   6650.00 EXTENDED       2.27 FEET

          CROSS SECTION K
  6650.00      6.39    618.26      0.00      0.00    618.36       .10      1.08       .02    612.92
     378.      139.      216.       23.      265.       66.       52.       23.        9.    612.92
      .55       .53      3.26       .44      .200      .055      .200     0.000    611.87      0.00
  .001396      750.      750.      750.         4         0         0      0.00    144.80    155.00
0
1
 83/03/01.   13.46.21.                                                                                        PAGE   13


                                                                     THIS RUN EXECUTED  83/03/01.   13.46.23.
 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **************************************************

 T1
 T2
 T3

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        6.        0.        0.   0.000000      0.00       0.0       0.    602.850     0.000

 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
 83/03/01.   13.46.21.                                                                                        PAGE   14

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *PROF 2
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5925.00	6.81	617.10	0.00	617.12	617.29	.19	.23	.15	611.69
378.	17.	320.	34.	27.	37.	50.	18.	6.	611.74
.45	.61	3.78	.68	.200	.055	.200	0.000	610.29	75.00
.001773	50.	50.	50.	2	0	0	0.00	35.00	110.00

0

*SECNO 6650.000

3265 DIVIDED FLOW

3280 CROSS SECTION 6650.00 EXTENDED 2.24 FEET

3470 ENCROACHMENT STATIONS 20.0 142.0 TYPE 1 TARGET 122.000

CROSS SECTION K

6650.00	6.54	618.41	0.00	618.26	618.52	.11	1.20	.03	612.92
378.	127.	229.	22.	227.	68.	41.	22.	7.	612.92
.54	.50	3.38	.52	.200	.055	.200	0.000	611.87	20.00
.001457	750.	750.	750.	4	0	0	0.00	113.41	142.00

0

1

THIS RUN EXECUTED 83/03/01. 13.45.24.

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 HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
 ERROR CORR - 01,02,03,04,05
 MODIFICATION - 50,51,52,53,54,55
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NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
200.000	602.75	0.00	602.78	192.61	32.74	197.83	103.43	0.00	0.00	132.00	150.00	0.00
200.000	602.85	.10	602.88	144.16	34.55	201.74	97.71	150.00	100.00	132.00	150.00	250.00
250.000	602.64	0.00	602.84	17.00	0.00	334.00	0.00	17.00	86.20	81.00	103.20	103.20
250.000	602.75	.11	602.94	17.00	0.00	334.00	0.00	17.00	86.20	81.00	103.20	103.20
251.000	602.95	0.00	602.96	230.00	137.85	136.12	60.03	0.00	0.00	81.00	103.20	0.00
251.000	603.05	.11	603.06	230.00	138.28	131.43	64.23	0.00	0.00	81.00	103.20	0.00
300.000	602.89	0.00	602.99	58.55	39.66	194.92	99.41	140.00	50.00	152.00	165.00	190.00
300.000	603.00	.11	603.09	59.51	41.20	191.80	101.00	140.00	50.00	152.00	165.00	190.00
375.000	602.96	0.00	603.02	109.27	35.33	167.27	131.39	0.00	0.00	152.00	165.00	0.00
375.000	603.07	.11	603.12	112.73	36.15	162.72	135.13	0.00	0.00	152.00	165.00	0.00
376.000	602.79	0.00	603.10	90.02	10.41	257.48	66.10	13.00	152.00	152.00	165.00	165.00
376.000	602.96	.17	603.17	96.48	14.72	229.11	90.17	13.00	152.00	152.00	165.00	165.00

380.000	602.89	0.00	603.14	93.99	13.09	239.69	81.22	13.00	152.00	152.00	165.00	165.00
380.000	603.00	.11	603.20	98.23	15.85	221.93	96.22	13.00	152.00	152.00	165.00	165.00
381.000	602.88	0.00	603.15	93.11	6.57	286.69	40.73	13.00	152.00	152.00	165.00	165.00
381.000	602.98	.10	603.21	97.23	8.32	275.13	50.50	13.00	152.00	152.00	165.00	165.00
400.000	603.13	0.00	603.19	114.91	36.66	159.94	137.40	250.00	.00	152.00	165.00	250.00
400.000	603.20	.06	603.24	116.90	37.11	157.48	139.41	250.00	.00	152.00	165.00	250.00
700.000	603.19	0.00	603.39	33.91	0.00	334.00	0.00	0.00	0.00	100.00	140.00	0.00
700.000	603.24	.05	603.43	34.32	0.00	334.00	0.00	175.00	50.00	100.00	140.00	225.00
1325.000	604.58	0.00	605.12	26.95	0.00	305.46	28.54	200.00	.00	150.00	170.00	200.00
1325.000	604.56	-.00	605.12	26.93	0.00	305.51	28.49	200.00	.00	150.00	170.00	200.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
1326.000	604.95	0.00	605.51	17.30	0.00	334.00	0.00	17.30	152.70	150.00	170.00	170.00
1326.000	604.95	-.00	605.51	17.30	0.00	334.00	0.00	17.30	152.70	150.00	170.00	170.00
1350.000	606.05	0.00	606.23	36.67	0.00	277.00	57.00	0.00	0.00	150.00	170.00	0.00
1350.000	606.05	-.00	606.23	36.66	0.00	277.02	56.98	0.00	0.00	150.00	170.00	0.00
1400.000	606.11	0.00	606.28	37.25	0.00	275.73	58.21	0.00	0.00	150.00	170.00	0.00
1400.000	606.11	-.00	606.28	37.24	0.00	275.80	58.20	180.00	10.00	150.00	170.00	190.00
2375.000	606.71	0.00	606.83	64.31	2.20	275.95	55.85	0.00	0.00	180.00	200.00	0.00
2375.000	606.72	.01	606.87	45.44	2.38	294.40	37.22	100.00	150.00	180.00	200.00	250.00
4065.000	609.70	0.00	610.41	35.09	24.46	326.93	26.61	0.00	0.00	100.00	111.00	0.00
4065.000	609.93	.24	610.55	30.00	26.84	323.21	27.95	30.00	90.00	100.00	111.00	120.00
4275.000	610.91	0.00	611.37	38.10	23.62	312.33	42.04	0.00	0.00	100.00	111.00	0.00
4275.000	610.94	.03	611.40	38.32	23.85	311.95	42.20	0.00	0.00	100.00	111.00	0.00
4325.000	611.24	0.00	612.00	10.00	0.00	378.00	0.00	10.00	99.50	99.50	109.50	109.50
4325.000	611.26	.02	612.02	10.00	0.00	378.00	0.00	10.00	99.50	99.50	109.50	109.50
4326.000	612.19	0.00	613.09	10.00	0.00	378.00	0.00	10.00	99.50	99.50	109.50	109.50
4326.000	612.20	.01	613.10	10.00	0.00	378.00	0.00	10.00	99.50	99.50	109.50	109.50
4400.000	613.19	0.00	613.42	77.78	41.14	312.93	23.93	0.00	0.00	99.50	109.50	0.00
4400.000	613.20	.01	613.43	78.63	41.23	312.58	24.19	0.00	0.00	99.50	109.50	0.00
5225.000	614.02	0.00	614.12	58.69	.13	336.27	41.60	0.00	0.00	78.00	101.00	0.00
5225.000	614.02	.01	614.12	50.00	.11	335.33	42.56	50.00	75.00	78.00	101.00	125.00
5525.000	614.62	0.00	614.73	46.63	0.00	343.42	34.58	0.00	0.00	78.00	101.00	0.00
5525.000	614.63	.00	614.78	46.69	0.00	343.39	34.61	0.00	0.00	78.00	101.00	0.00
5775.000	615.64	0.00	615.74	61.60	.25	335.31	42.43	0.00	0.00	78.00	101.00	0.00
5775.000	615.64	.00	615.74	61.64	.26	335.30	42.44	0.00	0.00	78.00	101.00	0.00
5850.000	615.55	0.00	616.08	10.84	0.00	378.00	0.00	11.00	85.50	0.00	98.00	96.50
5850.000	615.55	.00	616.08	10.84	0.00	378.00	0.00	11.00	85.50	0.00	98.00	96.50

5893.000	616.20	0.00	616.90	10.83	0.00	378.00	0.00	11.00	85.50	78.00	98.00	96.50
5893.000	616.21	.00	616.91	10.88	0.00	378.00	0.00	11.00	85.50	78.00	98.00	90.50
5925.000	617.12	0.00	617.27	93.83	42.75	300.87	34.38	0.00	0.00	81.00	95.00	0.00
5925.000	617.10	-.02	617.29	35.00	16.56	327.75	33.69	35.00	75.00	81.00	95.00	110.00
6650.000	618.26	0.00	618.36	144.80	139.46	215.65	22.89	0.00	0.00	100.00	111.00	0.00
6650.000	618.41	.14	618.52	113.41	127.33	229.05	21.62	122.00	20.00	100.00	111.00	142.00

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
200.000	0.00	0.00	0.00	595.82	334.00	602.75	0.00	602.78	.94	1.67	335.81	344.97
200.000	0.00	0.00	0.00	595.82	334.00	602.85	0.00	602.88	.93	1.68	311.04	346.90
250.000	50.00	0.00	0.00	595.60	334.00	602.64	0.00	602.84	13.95	3.56	93.76	89.38
250.000	50.00	0.00	0.00	595.60	334.00	602.75	0.00	602.94	13.21	3.50	95.55	91.89
251.000	56.00	603.07	602.28	595.60	334.00	602.95	0.00	602.96	.69	1.04	475.56	402.30
251.000	56.00	603.07	602.28	595.60	334.00	603.05	0.00	603.06	.60	.99	501.03	429.63
300.000	25.00	0.00	0.00	597.62	334.00	602.89	0.00	602.99	4.63	3.06	153.53	155.29
300.000	25.00	0.00	0.00	597.62	334.00	603.00	0.00	603.09	4.16	2.94	160.10	163.84
375.000	74.00	0.00	0.00	597.62	334.00	602.96	0.00	603.02	3.23	2.58	207.16	185.71
375.000	74.00	0.00	0.00	597.62	334.00	603.07	0.00	603.12	2.85	2.46	218.92	197.72
376.000	1.00	601.12	606.52	597.62	334.00	602.79	0.00	603.10	82.08	4.93	85.70	36.87
376.000	1.00	601.12	606.52	597.62	334.00	602.96	0.00	603.17	57.01	4.22	100.72	44.24
380.000	4.50	601.12	606.52	597.62	334.00	602.89	0.00	603.14	65.59	4.48	94.81	41.24
380.000	4.50	601.12	606.52	597.62	334.00	603.00	0.00	603.20	51.67	4.04	104.98	45.47
381.000	1.00	0.00	0.00	597.62	334.00	602.88	0.00	603.15	18.84	4.51	103.14	75.95
381.000	1.00	0.00	0.00	597.62	334.00	602.98	0.00	603.21	16.19	4.24	112.93	83.00
400.000	25.00	0.00	0.00	597.62	334.00	603.13	0.00	603.19	2.64	2.39	226.52	205.57
400.000	25.00	0.00	0.00	597.62	334.00	603.20	0.00	603.24	2.46	2.32	233.57	212.91
700.000	300.00	0.00	0.00	598.00	334.00	603.19	0.00	603.39	14.73	3.59	93.01	87.03
700.000	300.00	0.00	0.00	598.00	334.00	603.24	0.00	603.43	14.01	3.52	94.85	89.22
1325.000	650.00	0.00	0.00	600.87	334.00	604.58	0.00	605.12	51.66	6.06	58.71	46.46
1325.000	650.00	0.00	0.00	600.87	334.00	604.58	0.00	605.12	51.87	6.07	58.63	46.38
1326.000	75.00	0.00	0.00	600.87	334.00	604.95	0.00	605.51	50.74	6.02	55.51	46.39
1326.000	75.00	0.00	0.00	600.87	334.00	604.95	0.00	605.51	50.78	6.02	55.50	46.37
1350.000	52.80	607.52	605.90	600.87	334.00	606.05	0.00	606.23	10.65	3.52	104.26	102.34
1350.000	52.80	607.52	605.90	600.87	334.00	606.05	0.00	606.23	10.66	3.52	104.22	102.30

1400.000	50.00	0.00	0.00	600.87	334.00	606.11	0.00	606.23	10.08	3.45	106.40	105.19
1400.000	50.00	0.00	0.00	600.67	334.00	606.11	0.00	606.23	10.09	3.45	106.45	105.15
2375.000	730.00	0.00	0.00	601.27	334.00	606.71	0.00	606.83	5.67	3.11	138.94	137.80
2375.000	730.00	0.00	0.00	601.27	334.00	606.72	0.00	606.87	6.63	3.31	120.27	129.67
4065.000	1950.00	0.00	0.00	605.25	378.00	609.70	0.00	610.41	111.65	7.25	89.54	35.77
4065.000	1950.00	0.00	0.00	605.25	378.00	609.93	0.00	610.55	90.73	6.73	94.30	39.69

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4275.000	110.00	0.00	0.00	605.55	378.00	610.91	0.00	611.37	61.27	5.96	115.60	48.29
4275.000	110.00	0.00	0.00	605.55	378.00	610.94	0.00	611.40	59.63	5.91	116.91	48.93
4325.000	50.00	0.00	0.00	605.50	378.00	611.24	0.00	612.00	172.42	7.03	53.78	28.79
4325.000	50.00	0.00	0.00	605.50	378.00	611.26	0.00	612.02	170.49	7.00	54.01	28.95
4326.000	43.00	613.30	612.10	605.50	378.00	612.19	0.00	613.09	344.59	7.62	49.60	20.36
4326.000	43.00	613.30	612.10	605.50	378.00	612.20	0.00	613.10	344.59	7.62	49.60	20.36
4400.000	25.00	0.00	0.00	605.50	378.00	613.19	0.00	613.42	20.44	4.27	132.38	83.61
4400.000	25.00	0.00	0.00	605.50	378.00	613.20	0.00	613.43	20.25	4.26	133.54	83.98
5225.000	425.00	0.00	0.00	606.92	378.00	614.02	0.00	614.12	12.00	2.68	205.53	109.11
5225.000	425.00	0.00	0.00	606.92	378.00	614.02	0.00	614.12	11.88	2.67	203.41	109.67
5525.000	400.00	0.00	0.00	608.42	378.00	614.62	0.00	614.78	21.84	3.27	160.25	80.89
5525.000	400.00	0.00	0.00	608.42	378.00	614.63	0.00	614.78	21.79	3.27	160.38	80.97
5775.000	625.00	0.00	0.00	608.42	378.00	615.64	0.00	615.74	11.06	2.61	213.06	113.64
5775.000	625.00	0.00	0.00	608.42	378.00	615.64	0.00	615.74	11.05	2.61	213.15	113.69
5850.000	50.00	0.00	0.00	609.15	378.00	615.55	0.00	616.03	107.72	5.84	64.70	36.42
5850.000	50.00	0.00	0.00	609.15	378.00	615.55	0.00	616.03	107.65	5.84	64.72	36.43
5893.000	43.00	617.50	620.00	609.15	378.00	616.20	0.00	616.90	315.90	6.71	56.32	21.27
5893.000	43.00	617.50	620.00	609.15	378.00	616.21	0.00	616.91	315.92	6.71	56.32	21.27
5925.000	50.00	0.00	0.00	610.29	378.00	617.12	0.00	617.27	14.74	3.45	230.15	98.45
5925.000	50.00	0.00	0.00	610.29	378.00	617.10	0.00	617.29	17.73	3.73	163.29	89.78
6650.000	750.00	0.00	0.00	611.87	378.00	618.26	0.00	618.36	13.96	3.26	382.95	101.15
6650.000	750.00	0.00	0.00	611.87	378.00	618.41	0.00	618.52	14.57	3.38	336.14	99.03

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
200.000	334.00	602.75	0.00	0.00	0.00	192.61	0.00

200.000	334.00	602.85	.10	0.00	.10	144.18	0.00
250.000	334.00	602.64	0.00	-.11	0.00	17.00	50.00
250.000	334.00	602.75	.11	-.10	.11	17.00	50.00
251.000	334.00	602.95	0.00	.30	0.00	230.00	56.00
251.000	334.00	603.05	.11	.30	.11	230.00	56.00
300.000	334.00	602.89	0.00	-.06	0.00	58.55	25.00
300.000	334.00	603.00	.11	-.06	.11	59.51	25.00
375.000	334.00	602.96	0.00	.03	0.00	109.27	74.00
375.000	334.00	603.07	.11	.07	.11	112.73	74.00
376.000	334.00	602.79	0.00	-.17	0.00	90.02	1.00
376.000	334.00	602.96	.17	-.11	.17	96.48	1.00
380.000	334.00	602.89	0.00	.10	0.00	93.99	4.50
380.000	334.00	603.00	.11	.05	.11	98.23	4.50
381.000	334.00	602.88	0.00	-.02	0.00	93.11	1.00
381.000	334.00	602.98	.10	-.02	.10	97.23	1.00
400.000	334.00	603.13	0.00	.26	0.00	114.91	25.00
400.000	334.00	603.20	.06	.22	.06	116.90	25.00
700.000	334.00	603.19	0.00	.05	0.00	33.91	300.00
700.000	334.00	603.24	.05	.05	.05	34.32	300.00
1325.000	334.00	604.58	0.00	1.40	0.00	26.95	650.00
1325.000	334.00	604.58	-.00	1.34	-.00	26.93	650.00
1326.000	334.00	604.95	0.00	.37	0.00	17.30	75.00
1326.000	334.00	604.95	-.00	.37	-.00	17.30	75.00
1350.000	334.00	606.05	0.00	1.10	0.00	36.67	52.60
1350.000	334.00	606.05	-.00	1.10	-.00	36.65	52.60
1400.000	334.00	606.11	0.00	.06	0.00	37.25	50.00
1400.000	334.00	606.11	-.00	.06	-.00	37.24	50.00
2375.000	334.00	606.71	0.00	.59	0.00	64.31	730.00
2375.000	334.00	606.72	.01	.60	.01	45.44	730.00
4065.000	378.00	609.70	0.00	2.99	0.00	35.09	1950.00
4065.000	378.00	609.93	.24	3.22	.24	30.00	1950.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4275.000	378.00	610.91	0.00	1.21	0.00	38.10	110.00
4275.000	378.00	610.94	.03	1.01	.03	38.32	110.00
4325.000	378.00	611.24	0.00	.33	0.00	10.00	50.00
4325.000	378.00	611.26	.02	.32	.02	10.00	50.00
4326.000	378.00	612.19	0.00	.95	0.00	10.00	43.00

4326.000	378.00	612.20	.01	.94	.01	10.00	43.00
4400.000	378.00	613.19	0.00	1.00	0.00	77.78	25.00
4400.000	378.00	613.20	.01	1.00	.01	78.63	25.00
5225.000	378.00	614.02	0.00	.83	0.00	58.69	425.00
5225.000	378.00	614.02	.01	.82	.01	50.00	425.00
5525.000	378.00	614.62	0.00	.61	0.00	46.68	400.00
5525.000	378.00	614.63	.00	.60	.00	46.69	400.00
5775.000	378.00	615.64	0.00	1.02	0.00	61.60	625.00
5775.000	378.00	615.64	.00	1.02	.00	61.64	625.00
5850.000	378.00	615.55	0.00	-.09	0.00	10.84	50.00
5850.000	378.00	615.55	.00	-.09	.00	10.84	50.00
5893.000	378.00	616.20	0.00	.65	0.00	10.88	43.00
5893.000	378.00	616.21	.00	.65	.00	10.88	43.00
5925.000	378.00	617.12	0.00	.92	0.00	93.83	50.00
5925.000	378.00	617.10	-.02	.89	-.02	35.00	50.00
6650.000	378.00	618.26	0.00	1.14	0.00	144.80	750.00
6650.000	378.00	618.41	.14	1.31	.14	113.41	750.00

SUMMARY OF ERRORS AND SPECIAL NOTES

FLOODWAY DATA,
PROFILE NO. 2

STATION	------- FLOODWAY ------- WIDTH	SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
200.000	144.	312.	1.1	602.9	602.8	.1
250.000	17.	96.	3.5	602.7	602.6	.1
251.000	230.	501.	.7	603.0	602.9	.1
300.000	60.	160.	2.1	603.0	602.9	.1
375.000	113.	219.	1.5	603.1	603.0	.1
376.000	96.	101.	3.3	603.0	602.8	.2
380.000	98.	105.	3.2	603.0	602.9	.1
381.000	97.	113.	3.0	603.0	602.9	.1
400.000	117.	234.	1.4	603.2	603.1	.1
700.000	34.	95.	3.5	603.3	603.2	.1
1325.000	27.	59.	5.7	604.6	604.6	0.0

1326.000	17.	56.	6.0	605.0	605.0	0.0
1350.000	37.	104.	3.2	605.1	606.1	0.0
1400.000	37.	106.	3.1	606.1	606.1	0.0
2375.000	74.	120.	2.8	606.7	606.7	0.0
4065.000	30.	94.	4.0	609.9	609.7	.2
4275.000	38.	117.	3.2	610.9	610.9	0.0
4325.000	10.	54.	7.0	611.2	611.2	0.0
4326.000	10.	50.	7.6	612.2	612.2	0.0
4400.000	79.	134.	2.1	613.2	613.2	0.0
5225.000	50.	203.	1.9	614.0	614.0	0.0
5525.000	47.	160.	2.4	614.6	614.6	0.0
5775.000	62.	213.	1.8	615.6	615.6	0.0
5850.000	11.	65.	5.8	615.6	615.6	0.0
5893.000	11.	56.	6.7	616.2	616.2	0.0
5925.000	35.	163.	2.3	617.1	617.1	0.0
6650.000	122.	336.	1.1	618.4	618.3	.1

1

THIS RUN EXECUTED 83/03/01. 13.46.25.

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP

3) WATERCOURSE: HUIZENGA DRAIN

4) DOCUMENT TYPE: 100YR NATURAL

00BREAK00

```
1******************************************************                     **************************************
 *  WATER SURFACE PROFILES                            *                     *  U.S  ARMY CORPS OF ENGINEERS
 *  VERSION OF NOVEMBER 1976                          *                     *  THE HYDROLOGIC ENGINEERING CENTER
 *  UPDATED MAY 1984                                  *                     *  609 SECOND STREET, SUITE D
 *                                                    *                     *  DAVIS, CALIFORNIA 95616
 *  RUN DATE  28 AUG 89 TIME    8:52:27               *                     *  (916) 440-2105 (FTS) 448-2105
 ******************************************************                     **************************************


                                        X     X  XXXXXXX   XXXXX            XXXXX
                                        X     X  X        X     X          X     X
                                        X     X  X        X                      X
                                        XXXXXXX  XXXX     X        XXXXX    XXXXX
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX           XXXXXXX
1
  28 AUG 89     8:52:28                                                                          PAGE    1


                                                                    THIS RUN EXECUTED 28 AUG 89     8:52:28

 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
   ERROR CORR -  01,02,03,04,05,06
   MODIFICATION -  50,51,52,53,54,55,56
 **************************************************


 C
 T1          GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
 T2          FLOOD INSURANCE STUDY
 T3          HUIZENGA DRAIN - 100-YEAR FLOOD, NATURAL CONDITION

 J1  ICHECK     INQ       NINV      IDIR       STRT     METRIC     HVINS     Q          WSEL      FQ

         0.        2.        0.        0.   0.000000     0.00       0 0        0.   602.750     0.000

 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH       FN       ALLDC     IBW       CHNIM     ITRACE

       1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

 J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     150.000   110.000   200.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000


 QT      2.000    465.000    465.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
 NC      0.070      0.070      0.030      0.100      0.300      0.000      0.000      0.000      0.000      0.000
 ET      0.000      4.100      1.400    120.000    160.000      0.000      0.000      0.000      0.000      0.000
         U/S CONFLUENCE WITH RUSH CREEK
 X1    200.000     14.000    132.000    150.000      0.000      0.000      0.000      0.000      0.000      0.000
 GR    603.220     90.000    603.220    100.000    601.820    122.000    596.620    132.000    595.920    136.000
 GR    596.420    140.000    595.820    145.000    596.120    148.000    596.680    150.000    597.620    154.000
 GR    600.320    160.000    601.620    175.000    601.920    200.000    602.000    300.000      0.000      0.000

 NC      0.035      0.035      0.024      0.300      0.500      0.000      0.000      0.000      0.000      0.000
 ET      0.000      4.100      0.000     20.000    120.000      0.000      0.000      0.000      0.000      0.000
         PORT SHELDON ROAD
```

X1	250.000	21.000	81.000	103.200	50.000	50.000	50.000	0.000	0.000	0.000
GR	601.520	0.000	599.200	81.000	596.600	83.000	595.900	84.200	596.600	86.200
GR	599.200	88.200	598.900	89.500	596.300	90.500	595.600	92.500	596.300	94.500
GR	598.900	95.700	599.100	96.700	596.500	98.000	595.800	100.000	596.500	102.000
GR	599.100	103.200	600.220	110.000	601.320	124.000	602.920	140.000	602.140	150.000
GR	602.140	230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	1.250	1.800	2.640	0.000	17.500	2.500	100.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	20.000	120.000	0.000	0.000	0.000	0.000	0.000
X1	306.000	0.000	0.000	0.000	56.000	56.000	56.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	602.280	603.070	0.000	0.000	0.000	0.000	0.000
BT	21.000	0.000	603 070	601.520	81.000	603.070	599.200	83.000	603 070	601.800
BT	84.200	603.070	602.300	86.200	603.070	601.800	88.200	603.070	599.200	89.500
BT	603.070	599.100	90.500	603.070	601.800	92.500	603.070	602.300	94.500	603.070
BT	601.800	95.700	603.070	599.100	96.700	603.070	599.100	98.000	603.070	601.800
BT	100.000	603.070	602.300	102.000	603.070	601.800	103.200	603.070	599.100	110.000

BT	603.070	600.220	124.000	603.070	601.320	140.000	603.070	602.920	150.000	603.070
BT	602 140	230.000	603.070	602.140	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.040	0.040	0.030	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	50.000	190.000	0.000	0.000	0.000	0.000	0.000
X1	331.000	12.000	100.000	113.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	604.000	0.000	601.920	50.000	601.120	75.000	600.920	90.000	597.200	100.000
GR	597.200	105.000	597.200	109.000	598.370	113.000	599.920	115.000	601.320	120.000
GR	606.520	165.000	606.520	265.000	0.000	0.000	0.000	0.000	0.000	0.000

WOODEN FOOT BRIDGE

X1	405.000	0.000	0.000	0.000	65.000	125.000	74.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	30.000	604.000	130.000	604.000	603.000	603.000	0.000
BT	12.000	0.000	604.000	604.000	50.000	601.920	601.920	75.000	601 120	601.120
BT	90.000	602.200	601.490	100.000	602.250	601.490	105.000	602.260	601.480	109.000
BT	602.300	601.480	113.000	602.320	601.480	115.000	602.300	601.480	120.000	601.320
BT	601.320	165.000	606.520	606.520	265.000	606.520	606.520	0.000	0.000	0.000
X1	410.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000
X2	0 000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	603.000	603.000	0.000
ET	0.000	4.100	4.100	175.000	375.000	270.000	310.000	0.000	0 000	0.000
X1	1010.000	27.000	270.000	300.000	600.000	600.000	600.000	0.000	0.000	0.000
GR	608.100	25.000	607.200	50.000	606.300	75.000	605.300	100.000	604.700	125.000
GR	604.500	150.000	604.800	175.000	604.400	200.000	604.200	225.000	604.700	250.000
GR	604.900	270.000	599.700	279.000	598.900	280.000	598.800	286.000	598.700	292.000
GR	599.700	293.000	603.400	300.000	604.100	325.000	604.800	350.000	604.800	375.000
GR	605.000	400.000	606.600	425.000	607.300	450.000	607.100	475.000	606.800	495.000
GR	606.900	525.000	607.100	550.000	0 000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000

TYLER STREET

X1	1360.000	23.000	272.000	300.000	350.000	350.000	350.000	0.000	0.000	0.000
GR	606.200	75.000	606.300	100.000	606.400	125.000	606.600	150.000	606.700	175.000
GR	606.850	200.000	606.900	225.000	606.950	250.000	605.700	272.000	600.500	280.000
GR	598.850	281.000	599.000	286.000	599.600	291.000	600.600	292.000	605.800	300.000
GR	607.100	325.000	607.000	350.000	606.800	375.000	606.600	400.000	606.500	425.000
GR	606.400	450.000	606.500	475.000	606.700	500.000	0.000	0.000	0.000	0.000
SB	0.000	1.990	2.900	0.000	8.300	0.000	58.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	200.000	375.000	274.000	298.000	0.000	0.000	0 000
X1	1435.000	0.000	0.000	0.000	75.000	75.000	75.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	605.100	605.200	0.000	0.000	0.000	0.000	0.000
BT	-23.000	75.000	606.200	606.200	100.000	606.300	606.300	125.000	606.400	606.400
BT	0.000	150.000	606.600	606.600	175.000	606.700	606.700	200.000	606.850	606.850

```
BT      0.000    225.000   606.900   606.900   250.000   606.950   606.950   272.000   607.000   605.700
BT      0.000    280.000   607.000   600.500   281.000   607.000   601.500   286.000   607.100   606.100
BT      0.000    291.000   607.100   601.600   292.000   607.100   600.600   300.000   607.100   605.800
BT      0.000    325.000   607.100   607.100   350.000   607.000   607.000   375.000   606.800   606.800
BT      0.000    400.000   606.600   606.600   425.000   606.500   606.500   450.000   606.400   606.400
BT      0.000    475.000   606.500   606.500   500.000   606.700   606.700     0.000     0.000     0.000
1
 28 AUG 89     8:52:28                                                                            PAGE    3



NC        0.000      0.000     0.000     0.100     0 300     0.000     0.000     0.000     0.000     0.000
X1     1735.000     28.000   250.000   300.000   300.000   300.000   300.000     0.000     0.000     0.000
GR      608.300      0.000   608.400    25.000   608.400    50.000   608 400    75.000   608.300   100.000
GR      608.600    125.000   608.700   150.000   608.600   175.000   608.500   200.000   608.400   225.000
GR      608.000    250.000   608.100   270.000   600.400   282.000   599.500   283.000   599.800   287.000
GR      599.700    291.000   600.400   292.000   607.700   300.000   609.000   325.000   610.300   350.000
GR      611.600    375.000   612.300   400.000   613.300   425.000   613.700   450.000   613.500   475.000
GR      613.300    500.000   613.600   525.000   613.400   550.000     0.000     0.000     0.000     0.000

X1     2235.000      0.000     0.000     0.000   500.000   500.000   500.000     0.000     1.000     0.000
EJ        0.000      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
 28 AUG 89     8:52:28                                                                            PAGE    4


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *PROF 1

 CCHV=   0.100 CEHV=    0.300
 *SECNO 200.000
 3280 CROSS SECTION    200.00 EXTENDED       0.75 FEET


 3470 ENCROACHMENT STATIONS=      120.0      160.0  TYPE=     1  TARGET=       40.000
           U/S CONFLUENCE WITH RUSH CREEK
    200.00      6.93    602.75      0.00      0.00    602.89      0.14      0.00      0.00    596.62
      465.       31.      389.       45.        37      118.       45.        0.        0.     596.68
      0.00      0 84      3.28      1.00     0.070     0.030     0.070     0.000    595.82    120.00
  0.000362        0.        0.        0.         0         0         0      0.00     40.00    160.00
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 250.000
 3280 CROSS SECTION    250.00 EXTENDED       0.76 FEET


 3470 ENCROACHMENT STATIONS=       20.0      120 0  TYPE=     1  TARGET=      100.000
           PORT SHELDON ROAD
    250.00      7.30    602.90      0.00      0.00    602.93      0.04      0.01      0.03    599.20
      465.      175.      247.       43.      172.      129.       45.        0.        0.     599.10
      0.01      1.02      1.91      0.96     0.035     0.024     0.035     0.000    595.60     20.00
  0.000150       50.       50.       50.         2         0         0      0.00    100.00    120.00
0

 SPECIAL BRIDGE

 5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR      COFQ      RDLEN      BWC       BWP       BAREA      SS        ELCHU      ELCHD
      1.25      1.80      2.64      0.00     17.50      2.50    100.00      0.00    595.60     595.60

 *SECNO [illegible]
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3280 CROSS SECTION    306.00 EXTENDED      1.15 FEET

PRESSURE AND WEIR FLOW

1
 28 AUG 89     8:52:28                                                                                                  PAGE    5


    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST



 EGPRS        EGLWC        H3         QWEIR        QPR          BAREA    TRAPEZOID       ELLC       ELTRD
                                                                           AREA
    603.50     602.94       0.01         76.         389.        100.       100.        602.28     603.07



3470 ENCROACHMENT STATIONS=       20.0       120.0  TYPE=      1  TARGET=      100.000
   306.00      7.69    603.29      0.00       0.00    603.32      0.03       0.38       0.00    599.20
     465.      185.      235.       46.       196.      138.       51.         1.         0.     599.10
     0.02      0.94      1.70      0.88      0.035     0.024     0.035      0.000     595.60     20.00
  0.000109       56        56.       56.          2          0          3      0.00     100.00    120.00
0
CCHV=    0.100 CEHV=    0.300
*SECNO 331.000

3470 ENCROACHMENT STATIONS=       50.0       190.0  TYPE=      1  TARGET=      140.000
   331.00      6.04    603.24      0.00       0.00    603.35      0.11       0.00       0.02    597.20
     465.       169      251.       44.       118.       76.       37.         1.         0.     598.37
     0.02      1.43      3.30      1.19      0.040     0.030     0.040      0.000     597.20     50.00
  0.000427       25.       25.       25.          2          0          0      0.00      86.63    136.63
0
*SECNO 405.000

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  601.12 MAX ELLC=  606.52


3470 ENCROACHMENT STATIONS=       30.0       130.0  TYPE=      1  TARGET=      100.000
 ELENCL=    604.00  ELENCR=     604.00
          WOODEN FOOT BRIDGE
   405.00      6.13    603.33      0.00       0.00    603.41      0.08       0.06       0.00    597.20
     465.      222.      193.       50.       130.       67.       32.         1.         0.     598.37
     0.03      1.71      2.88      1.55      0.040     0.030     0.040      0.000     597.20     30.00
  0.001650       65.       74.      125.          2          0          0    -26.76     100.00    130.00
0
*SECNO 410.000

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  601.12 MAX ELLC=  606.52
                                                                                                   6032
   410.00      6.14    603.34      0.00       0.00    603.41      0.08       0.01       0.00    597.20
     465.      222.       192       51.       134.       67.       36.         1.         0.     598.37
     0.03      1.65      2.87      1.43      0.040     0.030     0.040      0.000     597.20     16.05
  0.001641        5.        5.        5.          0          0          0    -26.76     121.37    137.41
0
1
 28 AUG 89     8:52:28                                                                                                  PAGE    6


    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST
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 *SECNO 1010.000

 3470 ENCROACHMENT STATIONS=      175.0      375 0  TYPE=      1  TARGET=       200.000
    1010.00      5.41    604.11      0.00      0.00    604.39      0.28      0.91      0.06    604.90
       465.        0.      459.        6.        0.      108.        9.        4.        2.    603.40
       0 07      0.00      4.24      0.71     0.000     0.030     0.040     0.000    598.70    271.37
   0.001409      600.      600.      600.         2         0         0      0.00     53.98    325.35
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 1360.000
           TYLER STREET
    1360.00      5.81    604.66      0.00      0.00    605.07      0.41      0.62      0.07    605.70      604.95
       465.        0.      465.        0.        0.       91.        0.        5.        2.    605.80
       0.09      0.00      5.12      0.00     0.000     0.030     0.000     0.000    598.85    273.61
   0.002270      350.      350.      350.         1         0         0      0.00     24.62    298.24
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK          XKOR        COFQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
       0.00        1.99        2.90        0.00        8.30        0.00       58.00        0.00      598.85      598.85

 *SECNO 1435.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=      0.000  EGLWC=    605 067  ELLC=    605.100  PCWSE=    604.662  ELTRD=    605 200

 3301 HV CHANGED MORE THAN HVINS


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  605.20 MAX ELLC=  605.10


 3470 ENCROACHMENT STATIONS=      200.0      375.0  TYPE=      1  TARGET=       175.000
    1435.00      5.61    604.46    602.70      0.00    606.01      1.55      0.37      0.57    605.70
       465.        0.      465.         0        0.       46.        0.        5.        2.    605.80
       0.10      0.00     10.00      0.00     0.000     0 030     0.000     0.000    598.85    273.91
   0.017689       75.       75.       75.         4        12         0    -39.65     24.03    297.94
0
1
  28 AUG 89     8:52:28                                                                                            PAGE     7


    SECNO       DEPTH       CWSEL       CRIWS       WSELK       EG          HV          HL          OLOSS   BANK ELEV
    Q           QLOB        QCH         QROB        ALOB        ACH         AROB        VOL         TWA   LEFT/RIGHT
    TIME        VLOB        VCH         VROB        XNL         XNCH        XNR         WTN         ELMIN       SSTA
    SLOPE       XLOBL       XLCH        XLOBR       ITRIAL      IDC         ICONT       CORAR       TOPWID      ENDST


 CCHV=   0.100 CEHV=    0.300
 *SECNO 1735.000

 3301 HV CHANGED MORE THAN HVINS

    1735.00      7.19    606.69      0.00      0.00    606.91      0.23      0.77      0.13    608.00
       465.        0.      465.        0.        0.      122.        0.        5.        2.    607.70
       0.12      0.00      3.82      0.00     0.000     0.030     0.000     0.000    599.50    272.20
   0.000982      300.      300.      300.         3         0         0      0.00     26.69    298.89
0
 *SECNO 2235.000
    2235 00      6.71    607.21      0.00      0.00    607.50      0.28      0.56      0.02    609.00
       465.        0.      465.        0.        0.      108.        0.        7.        2.    608.70
```

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    0.15       0.00       4.25       0.00      0.000      0.030      0.000      0.000    600.50    272.94
 0.001309      500.       500.       500           4          0          0       0.00     25.43    298.37
0
1
 28 AUG 89     8:52:28                                                                                              PAGE     8



                                                                             THIS RUN EXECUTED 28 AUG 89    8.52:31
 ************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
   ERROR CORR -  01,02,03,04,05,06
   MODIFICATION -  50,51,52,53,54,55,56
 ************************************************


 T1          GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
 T2          FLOOD INSURANCE STUDY
 T3          HUIZENGA DRAIN - 100-YEAR FLOOD, ENCROACHED CONDITION

 J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC     HVINS      Q         WSEL       FQ

      0.         3.        0.        0.   0.000000     0.00       0.0        0.   602.850    0.000

 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH       FN       ALLDC      IBW       CHNIM      ITRACE

     15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
 28 AUG 89     8:52:28                                                                                              PAGE     9


    SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG         HV         HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB       ACH        AROB       VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL        XNCH       XNR        WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC        ICONT      CORAR     TOPWID      ENDST


 *PROF 2

 CCHV=   0.100 CEHV=   0.300
 *SECNO 200.000
  2800 NAT Q1=     244.28  WSEL=     602.75  ENC Q1=     244.28  WSEL=     602.85  RATIO=  0.0000
  NAT Q1=     287.  RATIOS LOB,CH,ROB=  0.0626  0.7310  0.2064  WSEL=     602.85
 3280 CROSS SECTION     200.00 EXTENDED       0.85 FEET


 3470 ENCROACHMENT STATIONS=      132.0      173.6  TYPE=      4  TARGET=        0.148
          U/S CONFLUENCE WITH RUSH CREEK
    200.00      7.03    602.85      0.00    602.75    602.99      0.14      0.00      0.00    596.62
     465.        0.       387        78.        0.       120.       72.        0.        0.     596.68
      0.00      0.00      3.22      1.08     0.000     0.030     0.070     0.000    595.82    132.00
  0.000504        0.         0        0.         0         0         0      0.00     41.60    173.60
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 250.000
  2800 NAT Q1=     380.18  WSEL=     602.90  ENC Q1=     380.18  WSEL=     603.00  RATIO=  0.0000
  NAT Q1=     455.  RATIOS LOB,CH,ROB=  0.3756  0.4561  0.1682  WSEL=     603.00
 3280 CROSS SECTION     250.00 EXTENDED       1.47 FEET


 3470 ENCROACHMENT STATIONS=       31.3      121.5  TYPE=      4  TARGET=        0.165
          PORT SHELDON ROAD
    250.00      7.39    602.99      0.00    602.90    603.03      0.04      0.01      0.03    599.20
     465.       143        254        48        153        131        19         0         0     599.10
```

```
     0.01      1.07      1.93      0.97     0.035     0.024     0.035     0.000    595.60     31.30
 0.000150       50.        50       50.         2         0         0      0.00     90.20    121.49
0

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.80      2.64      0.00      17.50     2.50      100.00    0.00      595.60    595.60

*SECNO 306.000
 2800 NAT Q1=    445.64  WSEL=     603.29  ENC Q1=    445.64  WSEL=     603.39  RATIO=  0.0000
 NAT Q1=    563.  RATIOS LOB,CH,ROB=  0.3814  0.4103  0.2083  WSEL=     603.39
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE
3280 CROSS SECTION    306.00 EXTENDED      1.86 FEET

1
 28 AUG 89     8:52:28                                                                                        PAGE   10


   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LFFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



3470 ENCROACHMENT STATIONS=       33.8      127.1  TYPE=     4  TARGET=        0.209
   306.00      7.78    603.38      0.00    603.29    603.41      0.03      0.01      0.00    599.20
     465.      163.      241.       60.      165.      140.       68.        1.        0.     599.10
     0.02      0.99      1.72      0.89     0.035     0.024     0.035     0.000    595.60     33.83
 0.000110       56.       56.       56.         0         0         2      0.00     93.23    127.06
0
CCHV=   0.100 CEHV=   0.300
*SECNO 331.000
 2800 NAT Q1=    225.03  WSEL=     603.24  ENC Q1=    225.03  WSEL=     603.34  RATIO=  0.0000
 NAT Q1=    244.  RATIOS LOB,CH,ROB=  0.3912  0.5138  0.0950  WSEL=     603.34

3470 ENCROACHMENT STATIONS=       51.6      119 5  TYPE=     4  TARGET=        0.076
   331.00      6.13    603 33      0.00    603.24    603.44      0.11      0.00      0.02    597.20
     465.      177.      259.       29.      120.       77.       21.        1.        0.     598.37
     0.02      1.47      3 35      1.38     0.040     0.030     0.040     0 000    597.20     51.58
 0.000430       25.       25.       25.         2         0         0      0.00     67.95    119.53
0
*SECNO 405.000

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  601.12 MAX ELLC=  606.52


3470 ENCROACHMENT STATIONS=       30.0      130.0  TYPE=     1  TARGET=      100.000
 ELENCL=    604.00  ELENCR=     604.00
          WOODEN FOOT BRIDGE
   405.00      6.23    603.43      0.00    603.33    603.50      0.07      0.05      0.00    597.20
     465.      227.      186.       52.      137.       68.       34.        1.        0.     598.37
     0.03      1.66      2.73      1.51     0.040     0.030     0.040     0.000    597.20     30.00
 0.001449       65.       74.      125.         2         0         0    -26.76    100.00    130.00
0
*SECNO 410.000
 2800 NAT Q1=    114.79  WSEL=     603.34  ENC Q1=    114.79  WSEL=     603.44  RATIO=  0.0000
 NAT Q1=    123.  RATIOS LOB,CH,ROB=  0.4883  0.3985  0.1132  WSEL=     603.44

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  601.12 MAX ELLC=  606.52


3470 ENCROACHMENT STATIONS=       42.5      123.4  TYPE=     4  TARGET=        0.069
   410.00      6.23    603.43      0.00    603.34    603.51      0.03      0.01      0.00    597.20
```

```
       465.      227.      200.       38.      125.       68.       25.        1.        0.    598.37
       0.03      1.81      2.93      1.49     0.040     0.030     0.040     0.000    597.20     42.45
   0.001660        5.        5.        5.         0         0         0    -26.76     80.93    123.38
0
1
   28 AUG 89     8:52:28                                                                                        PAGE    11

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


  *SECNO 1010.000

  3470 ENCROACHMENT STATIONS=      175.0      375.0  TYPE=      1  TARGET=      200.000
    1010.00      5.49    604 19      0.00    604.11    604.45      0.26      0.88      0.05    604.90
       465.        0.      457.        8.        0.      110.       11.        4.        1.    603.40
       0.07      0.00      4.14      0.77     0.000     0.030     0.040     0.000    598.70    271.24
   0.001314      600.      600.      600.         2         0         0      0.00     56.85    328.08
0
  CCHV=   0.300 CEHV=   0.500
  *SECNO 1360.000
            TYLER STREET
    1360.00      5.85    604.70      0.00    604.66    605.10      0.40      0.58      0.07    605.70
       465.        0.      465.        0.        0.       92.        0.        5.        2.    605.80
       0.09      0.00      5.05      0.00     0.000     0.030     0.000     0.000    598.85    273.53
   0.002183      350.      350.      350.         0         0         0      0.00     24.79    298.32
0

  SPECIAL BRIDGE

  5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
  SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
       0.00      1.99      2.90      0.00      8.30      0.00     58.00      0.00    598.85    598.85

  *SECNO 1435.000

  6070,LOW FLOW BY NORMAL BRIDGE

  EGPRS=     0.000  EGLWC=   605.100  ELLC=   605.100  PCWSE=   604.703  ELTRD=   605.200

  3301 HV CHANGED MORE THAN HVINS


  3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  605.20 MAX ELLC=  605.10


  3470 ENCROACHMENT STATIONS=      274.0      298 0  TYPE=      1  TARGET=       24.000
    1435.00      5.64    604.49    602.70    604.46    606.03      1.55      0.36      0.58100000.00
       465.        0.      465.        0.        0.       47.        0.        5.        2. 100000.00
       0.10      0.00      9.98      0.00     0.000     0.030     0.000     0.000    598 85    274.00
   0.017641       75.       75.       75.         4        12         0    -40.21     23.98    297.98
0
1
   28 AUG 89     8:52:28                                                                                        PAGE    12

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

  CCHV=   0.1[illegible] CEHV=   0.300
```

*SECNO 1735.000

3301 HV CHANGED MORE THAN HVINS

1735.00	7.20	606.70	0.00	606.69	606.93	0.22	0.77	0.13	608.00
465.	0.	465.	0.	0.	122.	0.	5.	2.	607.70
0.12	0.00	3.81	0 00	0.000	0.030	0.000	0.000	599.50	272.17
0.000972	300.	300.	300.	3	0	0	0.00	26.73	298.91

0

*SECNO 2235.000

2235.00	6.73	607.23	0.00	607.21	607.50	0.28	0.56	0.02	609.00
465.	0.	465.	0.	0.	110.	0.	7.	2.	608.70
0.15	0.00	4.24	0.00	0.000	0.030	0.000	0.000	600.50	272.92
0.001300	500.	500.	500.	4	0	0	0.00	25.46	298.38

0
1

THIS RUN EXECUTED 28 AUG 89 8:52:33

****

HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984
ERROR CORR - 01,02,03,04,05,06
MODIFICATION - 50,51,52,53,54,55,56

****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

HUIZENGA DRAIN - 100

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
200.000	602.75	0.00	602.89	40.00	31.04	388.96	45.00	40.00	120.00	132.00	150.00	160.00
200.000	602.85	0.10	602.99	41.60	0.00	386.81	78.19	0.15	132.00	132.00	150.00	173.60
250.000	602.90	0.00	602 93	100.00	174.98	246.92	43.10	100.00	20.00	81.00	103.20	120.00
250.000	602.99	0.09	603.03	90.20	163.18	253.88	47.94	0.17	31.30	81.00	103.20	121.49
306.000	603.29	0.00	603.32	100.00	184.66	234.83	45.50	100.00	20.00	81.00	103.20	120.00
306.000	603.38	0.09	603.41	93.23	163.13	241.39	60.48	0.21	33.83	81.00	103.20	127.06
331.000	603.24	0.00	603.35	86.63	169.23	251 44	44.32	140.00	50.00	100.00	113.00	190 00
331.000	603.33	0.09	603.44	67.95	177.32	258.81	28.87	0.08	51.58	100.00	113.00	119.53
405.000	603.33	0.00	603.41	100.00	222.02	192.55	50.43	100.00	30.00	100.00	113.00	130.00
405.000	603.43	0.10	603.50	100.00	227.12	186.38	51.50	100.00	30.00	100.00	113.00	130 00
410.000	603.34	0.00	603.41	121.37	221.67	192.34	50.99	0.00	0.00	100.00	113.00	0.00
410.000	603.43	0.09	603.51	80.93	227.15	199.95	37.90	0.07	42.45	100.00	113.00	123.38
1010.000	604.11	0.00	604.39	53.98	0.00	458.66	6.34	200.00	175.00	270.00	300.00	375.00
1010.000	604.19	0.08	604.45	56.85	0.00	456.53	8.47	200.00	175.00	270.00	300.00	375.00
1360.000	604.66	0.00	605.07	24.62	0.00	465.00	0.00	0.00	0 00	272.00	300.00	0.00
1360.000	604.70	0.04	605.10	24.79	0.00	465.00	0.00	0.00	0.00	272.00	300.00	0.00
1435.000	604.46	0.00	606.01	24.03	0.00	465.00	0.00	175.00	200.00	272.00	300.00	375.00
1435.000	604.49	0.03	606.03	23.98	0.00	465.00	0.00	24.00	274.00	272.00	300.00	298.00

1735.000	606.69	0.00	606.91	26.69	0.00	465.00	0.00	0.00	0.00	250.00	300.00	0.00
1735.000	606.70	0.02	606.93	26.73	0.00	465.00	0.00	0.00	0.00	250.00	300.00	0.00
2235.000	607.21	0.00	607.50	25.43	0.00	465.00	0.00	0.00	0.00	250.00	300.00	0.00
2235.000	607.23	0.01	607.50	25.46	0.00	465.00	0.00	0.00	0.00	250.00	300.00	0.00

HUIZENGA DRAIN - 100

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
200.000	0.00	0.00	0.00	595.82	465.00	602.75	0.00	602.89	3.62	3.28	200.54	244.28
200.000	0.00	0.00	0.00	595.82	465.00	602.85	0.00	602.99	5.04	3.22	192.70	207.04
250.000	50.00	0.00	0.00	595.60	465.00	602.90	0.00	602.93	1.50	1.91	346.47	380.18
250.000	50.00	0.00	0.00	595.60	465.00	602.99	0.00	603.03	1.50	1.93	333.61	379.50
306.000	56.00	603.07	602.28	595.60	465.00	603.29	0.00	603.32	1.09	1.70	385.72	445.64
306.000	56.00	999999.00	0.00	595.60	465.00	603.38	0.00	603.41	1.10	1.72	373.18	444.23
331.000	25.00	0.00	0.00	597.20	465.00	603.24	0.00	603.35	4.27	3.30	231.69	225.03
331.000	25.00	0.00	0.00	597.20	465.00	603.33	0.00	603.44	4.30	3.35	218.64	224.14
405.000	74.00	601.12	606.52	597.20	465.00	603.33	0.00	603.41	16.50	2.88	229.05	114.48
405.000	74.00	601.12	606.52	597.20	465.00	603.43	0.00	603.50	14.49	2.73	239.14	122.16
410.000	5.00	601.12	606.52	597.20	465.00	603.34	0.00	603.41	16.41	2.87	236.78	114.79
410.000	5.00	601.12	606.52	597.20	465.00	603.43	0.00	603.51	16.60	2.93	219.23	114.12
1010.000	600.00	0.00	0.00	598.70	465.00	604.11	0.00	604.39	14.09	4.24	117.18	123.86
1010.000	600.00	0.00	0.00	598.70	465.00	604.19	0.00	604.45	13.14	4.14	121.42	128.26
1360.000	350.00	0.00	0.00	598.85	465.00	604.66	0.00	605.07	22.70	5.12	90.84	97.60
1360.000	350.00	0.00	0.00	598.85	465.00	604.70	0.00	605.10	21.83	5.05	92.17	99.53
1435.000	75.00	605.20	605.10	598.85	465.00	604.46	602.70	606.01	176.89	10.00	46.49	34.96
1435.000	75.00	605.20	605.10	598.85	465.00	604.49	602.70	606.03	176.41	9.98	46.59	35.01
1735.000	300.00	0.00	0.00	599.50	465.00	606.69	0.00	606.91	9.82	3.82	121.78	148.42
1735.000	300.00	0.00	0.00	599.50	465.00	606.70	0.00	606.93	9.72	3.81	122.20	149.12
2235.000	500.00	0.00	0.00	600.50	465.00	607.21	0.00	607.50	13.09	4.25	109.42	128.51
2235.000	500.00	0.00	0.00	600.50	465.00	607.23	0.00	607.50	13.00	4.24	109.70	128.96

HUIZENGA DRAIN - 100

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
200.000	465.00	602.75	0.00	0.00	0.00	40.00	0.00
200.000	465.00	602.85	0.10	0.00	0.10	41.60	0.00
250.000	465.00	602.90	0.00	0.15	0.00	100.00	50.00
250.000	465.00	602.99	0.09	0.14	0.09	90.20	50.00

306.000	465.00	603.29	0.00	0.39	0 00	100.00	56.00
306.000	465.00	603.38	0.09	0 39	0.09	93.23	56.00
331.000	465.00	603.24	0.00	-0.05	0.00	86.63	25.00
331.000	465.00	603.33	0.09	-0.05	0.09	67.95	25.00
405.000	465.00	603.33	0.00	0.09	0.00	100.00	74.00
405.000	465.00	603.43	0.10	0.10	0.10	100.00	74.00
410.000	465.00	603.34	0.00	0.01	0.00	121.37	5.00
410.000	465.00	603.43	0.09	0.00	0.09	80.93	5.00
1010.000	465 00	604.11	0.00	0.77	0.00	53.98	600.00
1010.000	465.00	604.19	0.08	0.76	0.08	56.85	600.00
1360.000	465.00	604.66	0.00	0.55	0.00	24.62	350.00
1360.000	465.00	604.70	0.04	0.52	0.04	24.79	350.00
1435.000	465.00	604.46	0.00	-0.20	0.00	24.03	75.00
1435.000	465.00	604.49	0.03	-0.22	0.03	23.98	75.00
1735.000	465.00	606.69	0.00	2.23	0.00	26.69	300.00
1735.000	465.00	606.70	0.02	2.22	0.02	26.73	300.00
2235.000	465.00	607.21	0.00	0.53	0.00	25.43	500.00
2235.000	465.00	607.23	0.01	0.52	0.01	25.46	500.00

SUMMARY OF ERRORS AND SPECIAL NOTES

FLOODWAY DATA, HUIZENGA DRAIN - 100
PROFILE NO. 2

STATION	------- FLOODWAY ------- WIDTH	SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
200.000	42.	193.	2.4	602.9	602.7	0.1
250.000	90.	334.	1.4	603.0	602.9	0.1
306.000	93.	373.	1.2	603.4	603.3	0.1
331 000	68.	219.	2.1	603.3	603.2	0.1
405.000	100.	239.	1.9	603.4	603.3	0.1
410.000	81.	219.	2.1	603.4	603.3	0.1
1010.000	57	121.	3.8	604.2	604.1	0 1
1360 000	25.	92.	5.0	604.7	604.7	0.0
1435.000	24.	47.	10.0	604.5	604.5	0.0
1735.000	27.	122.	3.8	606.7	606.7	0.0
2235.000	25.	110.	4.2	607.2	607.2	0.0

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP

3) WATERCOURSE: HUIZENGA DRAIN

4) DOCUMENT TYPE: REPORT

00BREAK00

Aqua-Tech Geotechnical Consultants, Inc
523 Clayton N.W.
Grand Rapids, Michigan 49504
(616) 453-1457

June 25, 1984

RECEIVED
JUN 27 1984
WATER MANAGEMENT

Mr. Bruce Menery
Water Management Division
Michigan Department of Natural Resources
P.O. Box 30028
Lansing, MI 48909

Dear Mr. Menery:

This letter is to confirm our conversation of June 25, 1984 and the information you provided to us.

We discussed the flood characteristics of Rush Creek in Georgetown Township, Ottawa County, Michigan. You indicated that the flood level of 608.9 for the upstream face of the 12th Avenue bridge quoted in correspondence from your office dated May 11, 1984 has been superceded by the flood level of 607.22 determined by the Gove Associates' study. The level of 607.22 will be used by your office for any future determinations regarding alterations to the floodplain that may affect the flood characteristics of the stream.

We also discussed the rainfall events modeled in the Gove Associates' study. The 100 year recurrence interval storm used by Gove Associates' was a 5 inches in 24 hours storm. We discussed the May 10-11, 1981 storm event that resulted in 6.51 inches of rainfall in 36 hours or approximately 5.5 inches in 24 hours. You indicated that Plaster Creek, which is only a short distance from the Rush Creek drainage basin, experienced slightly greater than 100-year flooding.

Finally, we discussed the crossection multiplication incorporated in the Gove Associates' study. You indicated that the probable reason was to adjust the model in a simpler manner than changing each of the crossection station elevations. Therefore the input data to the 100-year recurrence interval storm as submitted by Gove Associates should be used in modeling this watershed.

Please correct us if any of the above is in error. Thank you very much for your timely assistance.

Sincerely,

Aqua-Tech Geotechnical
Consultants, Inc.

Lawrence M. Austin, CPGS 5181
President

CC: Mr. Jim Jerkatis
Ms. Rosemary Scott

December 9, 1983

Mr. Frank Finch, Director
Natural & Technological Hazards
Region V - FEMA
300 S. Wacker Dr., 24th Floor
Chicago, Illinois 60606

Re: Preliminary FIS
Georgetown Township
Ottawa County

Dear Mr. Finch:

We have reviewed the Preliminary Flood Insurance Study for the Township of Georgetown. The floodway delineations, flood elevations and flood discharges contained within the study have been provided by Gove Associates for our review and comment.

Our review has raised the following concerns:

1. Grand River
   It would be advisable to revise the discharges for the Grand River, shown in Table 3 - Summary of Discharges, to read:

Flooding Source and Location	Drainage Area	Peak Discharge (cfs)			
Grand River	sq. miles	10-year	50-year	100-year	500-year
At downstream corporate limit	5165	34,700	50,520	57,920	77,950
At upstream corporate limit	4980	33,500	48,700	55,800	75,100

2. Rush Creek - Floodway Delineation

   a. Between cross sections A and B (panel 5 of 7), existing buildings in the right overbank would limit the floodway to the "creek-side" of the buildings. Attachment 1 shows our concern.

   b. Between cross sections N and O (panel 5 of 7), existing buildings and berms in the left overbank would affect the floodway. Attachment 2 shows our concern.

3. Bliss Drain

a. Floodway Data - Table 4

It would be advisable to revise the Base Flood Water Surface Elevations to read as follows:

		Base Flood Water Surface Elevation			
			Without	With	
Cross Section	Distance	Regulatory	Floodway	Floodway	Increase
M	12,002	632.5	632.5	632.5	0.0
N	12,802	635.1	635.1	635.1	0.0
O	14,802	641.2	641.2	641.2	0.0

b. Delineation

The delineation in the right overbank upstream of cross section F, panel 5 of 7, should indicate shallow overland flow. The overland flow is a result of high stages between cross section I and Kenowa Road. Attachment 3 shows our concern.

4. Huizenga Drain

a. Kenowa Lake Base Flood Elevation

We were recently made aware of the outlet structure on Kenowa Lake, which was not included in the hydraulic analysis. The structure consists of a 100 foot - 48 inch circular concrete pipe which is controlled by a weir with a crest elevation of 604.0. Attachment 4 shows that the outlet structure would be overtopped at elevation 609.0.

Information on file indicates that the elevation of the berm on the north end of the lake, and near the outlet, is about 608 to 608.5. A 100-year floodplain elevation of 608.6 for Kenowa Lake appears reasonable, assuming the berm around the lake will not be raised. To ensure that overtopping can occur, we would suggest increasing the floodway width at the outlet to about 500 feet. (See attachments 4A and 4B). If the floodway is kept at the current width of about 75 feet, we would suggest raising the flood stage on Kenowa Lake to 609.2.

b. Floodway Data - Table 4

It would be advisable to revise the Base Flood Water Surface Elevations to read as follows:

Cross Section	Distance	Base Flood Water Surface Elevations Without Floodway
A	306	603.0
E	4244	609.7

5. Lowing - Comstock Drain

a. Diversion of flow at station 9300 (Between F & G)

The hydraulic analysis assumed a diversion of flow between Farm Road and 24th Avenue. However, the reduction in discharge due to the diversion was made upstream of 24th Avenue, instead of downstream. Rather than revising the hydraulics, it is suggested that the 100-year flood elevation between Farm Road and 24th Avenue be shown as 623.0, the elevation at which diversion will occur. To pass the 100-year discharge through 24th Avenue, an upstream stage of 624.0 would be required. It is suggested that a pool elevation of 624.0 be shown between 24th Avenue and station 10850.

b. Overland Flow

The diversion of flow between Farm Road and 24th Avenue will result in overland flow between the Lowing-Comstock Drain and the East Branch. It is felt that the overland flow and a floodway should be delineated to ensure that future development will not eliminate the diversion, and significantly increase flood stages upstream of Farm Road. See attachment 5.

c. Flood Profile (16P)

The Farm Road culvert is a 287 foot long culvert with an upstream invert of 616.5, and a downstream invert of 614.6. Attachment 5B plots the culvert and the suggested 100-year flood elevations.

We request that you consider these concerns and where appropriate change the Preliminary Draft. With this consideration the study will be acceptable for use in regulating floodplain development at the state and local level.

If you have any questions, please feel free to contact me.

Sincerely,

Daniel H. Morgan, P.E., Chief
Technical Programs

by: Bruce E. Menerey, P.E.
Technical Programs
Water Management Division
(517) 373-3930

DHM/BEM:mks

Attachments

cc: D. Ellis, Cove Associates
H. Jack Hayes, Clerk, Georgetown Township

Kenowa Lake - outlet structure

Invert = 604.0

Q_{100} = 334 cfs   TWEL = 606.71

100' 48" RCCP   XKOR = $1 + .5 + \frac{291(.013)^2 100}{1}$ = 1.99   A = 12.57

No weir flow ⟹ HW = 606.71 + $\left(\frac{334}{12.57}\right)^2 \frac{1.99}{64.4}$ = 628.55 ⟹ weir flow

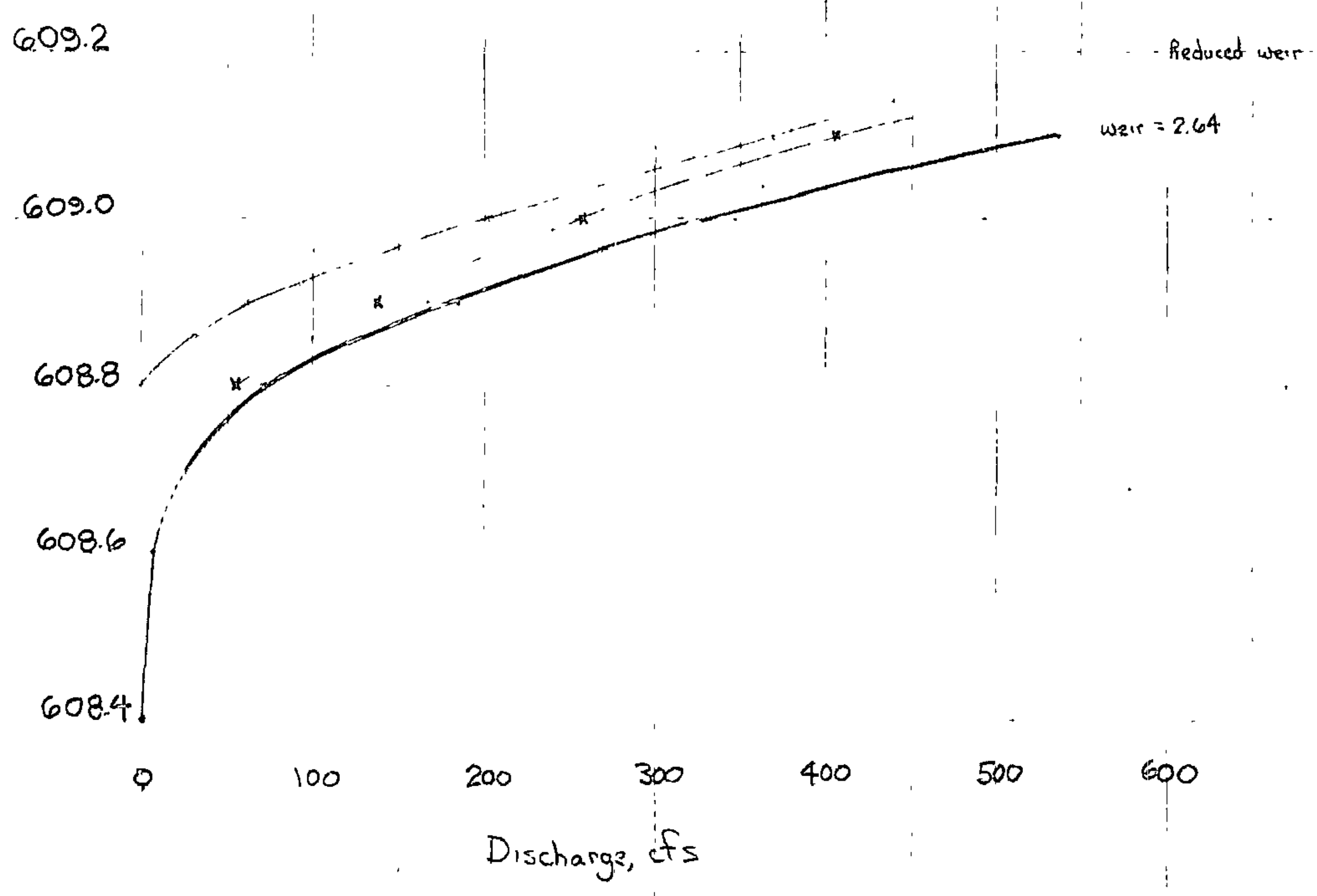
L = 110   L = 150   crest 608.2

L = 480

Stage	Q_{pipe}	$\approx Q_w = (110)(2.7)(EG - 609.0)^{1.5}$
609.0	108	0
609.1	111	9
609.2	113	27
609.5	119	105
609.7	124	174
609.8	126	213
609.6	122	

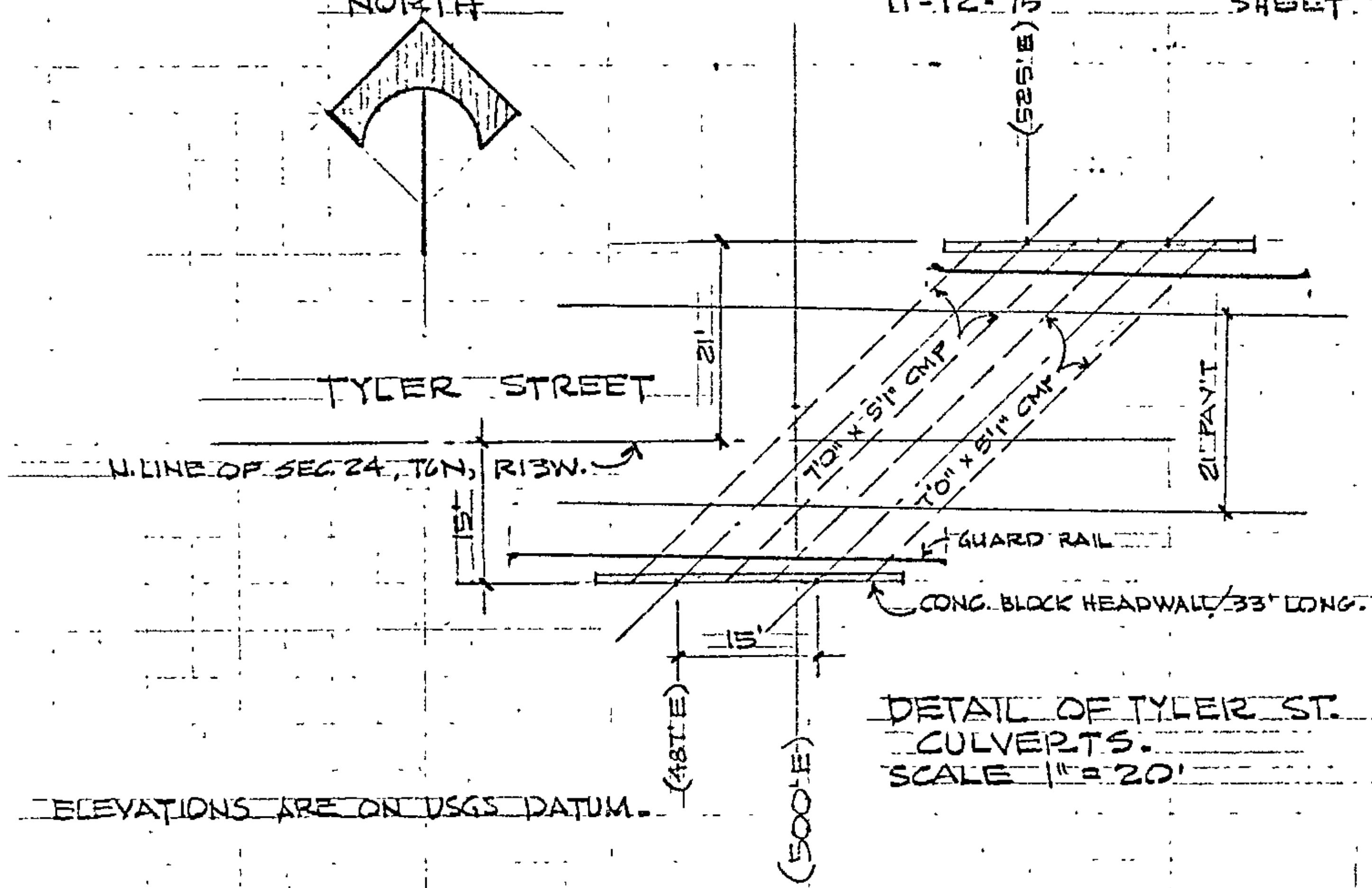
		Q_p	Q_w	
12	608.5	96	213	67
37	608.6	98	320	103
143	608.7	100		143
237	609.0	108		291
	608.9	106		337
188.				

Rating Curve for Kenowa Lake Embankments



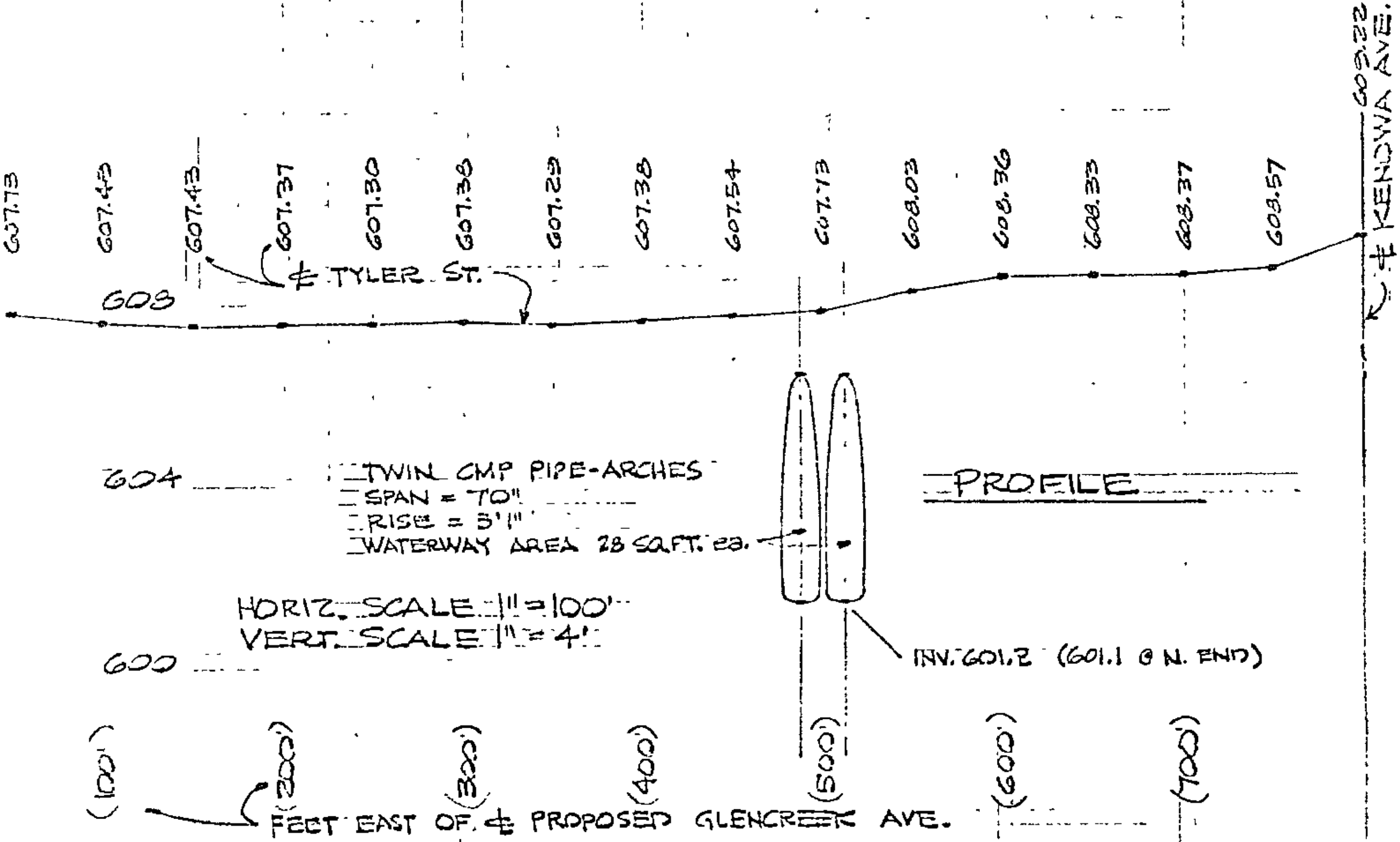
KENOWA PLAINS - SEC. 24, T6N, R13W
MDNR FILE NO. 2268-14
HUIZINGA DRAIN

EXXEL ENGINEERING, INC.
GRAND RAPIDS, MI.
FILE NO. 75539 E
11-12-75 SHEET 2



DETAIL OF TYLER ST. CULVERTS.
SCALE 1" = 20'

ELEVATIONS ARE ON USGS DATUM.



PROFILE

HORIZ. SCALE 1" = 100'
VERT. SCALE 1" = 4'

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP

3) WATERCOURSE: HUIZENGA DRAIN

4) DOCUMENT TYPE: SUMMARY

00BREAK00

```
1*************************************************                          ***********************************
 *  WATER SURFACE PROFILES                       *                          *  U.S  ARMY CORPS OF ENGINEERS
 *  VERSION OF NOVEMBER 1976                     *                          *  THE HYDROLOGIC ENGINEERING CENTER
 *  UPDATED MAY 1984                             *                          *  609 SECOND STREET, SUITE D
 *                                               *                          *  DAVIS, CALIFORNIA 95616
 *  RUN DATE  28 AUG 89 TIME    8:45:41          *                          *  (916) 440-2105 (FTS) 448-2105
 *************************************************                          ***********************************



                                       X     X  XXXXXXX   XXXXX           XXXXX
                                       X     X  X        X     X         X     X
                                       X     X  X        X                     X
                                       XXXXXXX  XXXX     X        XXXXX   XXXXX
                                       X     X  X        X               X
                                       X     X  X        X     X         X
                                       X     X  XXXXXXX   XXXXX          XXXXXXX
1
  28 AUG 89     8:45:42                                                                              PAGE    1



                                                                      THIS RUN EXECUTED 28 AUG 89     8:45:42
 *************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
   ERROR CORR -  01,02,03,04,05,06
   MODIFICATION -  50,51,52,53,54,55,56
 *************************************


 C
 T1          GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
 T2          FLOOD INSURANCE STUDY
 T3          HUIZENGA DRAIN - 10-YEAR FLOOD

 J1  ICHECK     INQ       NINV       IDIR       STRT      METRIC     HVINS      Q        WSEL       FQ

        0.        2.        0.         0.   0.000000      0.00       0.0       0.   599.980     0.000

 J2  NPROF     IPLOT     PRFVS     XSECV      XSECH       FN       ALLDC      IBW      CHNIM     ITRACE

       1.000     0.000    -1.000     0.000      0.000     0.000     0.000     0.000     0.000     0.000

 J3  VARIABLE CODES FOR SUMMARY PRINTOUT

      150.000   110.000     0.000     0.000      0.000     0.000     0.000     0.000     0.000     0.000


 QT        4.000    215.000    390.000    465.000    675.000      0.000      0.000      0.000      0.000      0.000
 NC        0.070      0.070      0.030      0.100      0.300      0.000      0.000      0.000      0.000      0.000
 ET        0.000      6.100      6.100      6.100      0.000    120.000    160.000      0.000      0.000      0.000
        U/S CONFLUENCE WITH RUSH CREEK
 X1      200.000     14.000    132.000    150.000      0.000      0.000      0.000      0.000      0.000      0.000
 GR      603.220     90.000    603.220    100.000    601.820    122.000    596.620    132.000    595.920    136.000
 GR      596.420    140.000    595.820    145.000    596.120    148.000    596.680    150.000    597.620    154.000
 GR      600.320    160.000    601.620    175.000    601.920    200.000    602.000    300.000      0.000      0.000

 NC        0.035      0.035      0.024      0.300      0.500      0.000      0.000      0.000      0.000      0.000
 ET        0.000      6.100      6.100      8.100      0.000     81.000    103.200     20.000    120.000      0.000
        PORT SHELDON ROAD
```

X1	250.000	21.000	81.000	103.200	50.000	50.000	50.000	0.000	0.000	0.000
GR	601.520	0.000	599.200	81.000	596.600	83.000	595.900	84.200	596.600	86.200
GR	599.200	88.200	598.900	89.500	596.300	90.500	595.600	92.500	596.300	94.500
GR	598.900	95.700	599.100	96.700	596.500	98.000	595.800	100.000	596.500	102.000
GR	599.100	103.200	600.220	110.000	601.320	124.000	602.920	140.000	602.140	150.000
GR	602.140	230.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	1.250	1.800	2.640	0.000	17.500	2.500	100.000	0.000	0.000	0.000
ET	0.000	6.100	6.100	8.100	0.000	81 000	103.200	20.000	120.000	0.000
X1	306.000	0.000	0.000	0.000	56.000	56.000	56.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	602.280	603.070	0.000	0.000	0.000	0.000	0.000
BT	21.000	0.000	603.070	601.520	81.000	603.070	599.200	83.000	603.070	601.800
BT	84.200	603.070	602.300	86.200	603.070	601.800	88.200	603.070	599.200	89.500
BT	603.070	599.100	90.500	603.070	601.800	92.500	603.070	602.300	94.500	603.070
BT	601 800	95.700	603.070	599.100	96.700	603.070	599.100	98.000	603.070	601.800
BT	100.000	603.070	602.300	102.000	603.070	601.800	103.200	603.070	599.100	110.000

BT	603.070	600.220	124.000	603.070	601.320	140.000	603.070	602.920	150.000	603.070
BT	602.140	230.000	603.070	602 140	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.040	0.040	0.030	0.100	0 300	0.000	0.000	0.000	0.000	0.000
ET	0.000	6 100	6.100	6.100	0.000	50.000	190.000	0.000	0.000	0.000
X1	331.000	12.000	100.000	113.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	604.000	0.000	601.920	50.000	601.120	75.000	600.920	90.000	597.200	100.000
GR	597.200	105.000	597.200	109.000	598.370	113.000	599.920	115.000	601.320	120.000
GR	606.520	165.000	606.520	265.000	0.000	0.000	0.000	0.000	0.000	0.000

WOODEN FOOT BRIDGE

X1	405.000	0.000	0.000	0.000	65.000	125.000	74.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	30.000	604.000	130.000	604.000	603.000	603.000	0.000
BT	12.000	0.000	604.000	604.000	50.000	601.920	601.920	75.000	601.120	601.120
BT	90.000	602.200	601.490	100.000	602.250	601.490	105.000	602.260	601.480	109.000
BT	602.300	601.480	113.000	602.320	601.480	115.000	602.300	601.480	120.000	601.320
BT	601.320	165.000	606.520	606.520	265.000	606.520	606.520	0.000	0.000	0.000
X1	410.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0 000	0 000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	603.000	603.000	0.000
X1	1010.000	27.000	270.000	300.000	600.000	600.000	600.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	175.000	0.000	375.000	0.000	0.000	0.000	0.000
GR	608.100	25.000	607.200	50.000	606.300	75.000	605.300	100 000	604.700	125.000
GR	604.500	150.000	604 800	175.000	604.400	200.000	604.200	225.000	604.700	250.000
GR	604.900	270.000	599.700	279.000	598.900	280.000	598 800	286.000	598.700	292.000
GR	599.700	293 000	603.400	300.000	604.100	325.000	604.800	350.000	604.800	375.000
GR	605.000	400.000	606.600	425.000	607.300	450.000	607.100	475.000	606.800	495.000
GR	606.900	525.000	607.100	550.000	0.000	0 000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000

TYLER STREET

X1	1360.000	23.000	272.000	300.000	350.000	350.000	350.000	0.000	0.000	0.000
GR	606.200	75.000	606.300	100.000	606.400	125.000	606.600	150 000	606.700	175.000
GR	606.850	200.000	606.900	225.000	606.950	250.000	605.700	272.000	600.500	280.000
GR	598.850	281.000	599.000	286.000	599.600	291.000	600.600	292.000	605.800	300.000
GR	607.100	325.000	607.000	350.000	606.800	375.000	606.600	400.000	606.500	425.000
GR	606.400	450.000	606.500	475.000	606.700	500.000	0 000	0.000	0.000	0.000
SB	0.000	1.990	2.900	0.000	8.300	0.000	58.000	0.000	0.000	0.000
X1	1435.000	0.000	0.000	0.000	75.000	75.000	75.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	605.100	605.200	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	200.000	0.000	375.000	0.000	0.000	0.000	0.000
BT	-23.000	75.000	606.200	606.200	100.000	606.300	606.300	125.000	606.400	606.400
BT	0.000	150.000	606.600	606.600	175.000	606.700	606.700	200.000	606.850	606.850

```
 BT      0.000   225.000   606.900   606.900   250.000   606.950   606.950   272.000   607.000   605.700
 BT      0.000   280.000   607.000   600.500   281.000   607.000   601 500   286.000   607.100   606.100
 BT      0.000   291.000   607.100   601.600   292.000   607.100   600.600   300.000   607.100   605.800
 BT      0.000   325.000   607.100   607.100   350.000   607.000   607.000   375.000   606.800   606.800
 BT      0.000   400.000   606.600   606.600   425.000   606.500   606.500   450.000   606.400   606.400
 BT      0.000   475.000   606.500   606.500   500.000   606.700   606.700     0.000     0.000     0.000
1
  28 AUG 89     8:45:42                                                                            PAGE    3


 NC      0.000     0.000     0.000     0.100     0.300     0.000     0.000     0.000     0.000     0.000
 X1   1735.000    28.000   250.000   300.000   300.000   300.000   300.000     0.000     0.000     0.000
 GR    608.300     0.000   608.400    25.000   608.400    50.000   608.400    75.000   608.300   100.000
 GR    608.600   125.000   608.700   150.000   608.600   175.000   608.500   200.000   608.400   ?25.000
 GR    608.000   250.000   608.100   270.000   600.400   282.000   599.500   283.000   599.800   287.000
 GR    599.700   291 000   600.400   292.000   607.700   300.000   609.000   325.000   610.300   350.000
 GR    611.600   375.000   612.300   400.000   613.300   425.000   613.700   450.000   613.500   475.000
 GR    613 300   500.000   613.600   525.000   613.400   550.000     0.000     0.000     0.000     0.000

 X1   2235.000     0.000     0.000     0.000   500.000   500.000   500.000     0.000     1.000     0.000
 EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
  28 AUG 89     8.45:42                                                                            PAGE    4


     SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *PROF 1

 CCHV=   0.100 CEHV=    0.300
 *SECNO 200.000

 3470 ENCROACHMENT STATIONS=      120.0      160.0  TYPE=       1  TARGET=       40.000
           U/S CONFLUENCE WITH RUSH CREEK
    200.00      4.16    599.98      0.00      0.00    600.09      0.11      0.00      0.00    596.62
      215.        7.       194       14.       11.       69.       18.        0.        0.     596.68
      0.00      0.65      2.82      0.82     0.070     0.030     0.070     0.000    595.82    125.54
  0.000555        0.        0.        0.         0         0         0      0.00     33.71    159.24
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 250.000

 3470 ENCROACHMENT STATIONS=       81.0      103.2  TYPE=       1  TARGET=       22.200
           PORT SHELDON ROAD
    250.00      4.39    599.99      0.00      0.00    600.16      0.17      0.04      0.03    599.20
      215.        0.      215.        0.        0.       65.        0.        0.        0. 100000.00
      0.00      0.00      3.31      0.00     0.000     0.024     0 000     0.000    595.60     81.00
  0.001204       50.       50.       50.         1         0         0      0.00     22.20    103.20
0

 SPECIAL BRIDGE

 5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      1.25       1.80       2.64       0.00      17.50       2.50     100.00       0.00     595.60     595.60

 *SECNO 306.000
 CLASS A LOW FLOW

 3420 BRIDGE W.S =     599.94 BRIDGE VELOCITY=,       3.30      CALCULATED CHANNEL AREA=,        65.
```

```
 EGPRS      EGLWC       H3        QWEIR       QLOW       BAREA    TRAPEZOID      ELLC      ELTRD
                                                                    AREA
      0.00    600.22      0 07         0.        215.       100.       100.      602.28     603.07


3470 ENCROACHMENT STATIONS=       81.0      103 2  TYPE=      1  TARGET=       22.200
   306.00     4.46   600.06    0.00     0 00   600.22     0.16     0.06     0.00   599.20
     215.       0.     215.      0.       0.      66.       0.       0.       0. 100000.00
     0.01     0.00     3.24    0.00    0.000    0.024    0.000    0.000   595.60     81.00
 0.001134      56.      56.     56.        0        0        0     0.00    22.20    103.20
0
1
 28 AUG 89     8:45:42                                                                            PAGE    5


   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELFV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


CCHV=   0.100 CEHV=    0.300
*SECNO 331.000

3470 ENCROACHMENT STATIONS=       50.0      190.0  TYPE=      1  TARGET=      140.000
   331.00     2.71   599.91    0.00     0.00   600.35     0.44     0.05     0.08   597.20
     215       27.     186.      3.      10.      33.       2.       0.       0.    598.37
     0.01     2.70     5.65    1.65    0.040    0.030    0.040    0.000   597.20     92.71
 0.003830      25.      25.     25.        2        0        0     0.00    22.28    114.99
0
*SECNO 405.000

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  601.12 MAX ELLC=  606.52


3470 ENCROACHMENT STATIONS=       30.0      130.0  TYPE=      1  TARGET=      100.000
 ELENCL=     604.00  ELENCR=     604.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       603.00 ELREA=       603.00

          WOODEN FOOT BRIDGE
   405.00     2.91   600.11    0.00     0.00   600.67     0.57     0.29     0.04   597.20
     215.       0.     215.      0.       0.      36.       0.       0.       0.    598.37
     0.01     0.00     6.04    0.00    0.000    0.030    0.000    0.000   597.20    100.00
 0.003948      65.      74.    125.        1        0        0     0.00    13.00    113.00
0
*SECNO 410.000

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  601.12 MAX ELLC=  606 52


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       603.00 ELREA=       603.00

   410.00     2 93   600.13    0.00     0.00   600.69     0.56     0 02     0.00   597.20
     215.       0.     215.      0.       0.      36.       0.       0.       0     598.37
     0.01     0.00     6.02    0.00    0.000    0.030    0 000    0.000   597.20    100.00
 0.003902       5.       5.      5.        0        0        0     0.00    13.00    113.00
0
*SECNO 1010 000

3470 ENCROACHMENT STATIONS=      175.0      375.0  TYPE=      1  TARGET=      200.000
1
 28 AUG 89     8:45:42                                                                            PAGE    6
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


   1010.00      3.43    602.13      0.00      0.00    602.35      0.23      1.63      0.03    604.90
     215.         0.      215.        0.        0.       56.        0.        1.        0.    603.40
      0.06      0.00      3.82      0.00     0.000     0.030     0.000     0.000    598.70    274.81
  0.001989      600.      600.      600.         2         0         0      0.00     22.78    297.58
0
 CCHV=    0.300 CEHV=    0.500
 *SECNO 1360.000
           TYLER STREET
   1360.00      4.00    602.85      0.00      0.00    603.12      0.27      0.75      0.02    605.70
     215.         0.      215         0.        0.       51.        0.        1.        1.    605.80
      0.08      0.00      4.19      0.00     0.000     0.030     0.000     0.000    598.85    276.40
  0.002286      350.      350.      350.         2         0         0      0.00     19.05    295.45
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0 00       1.99       2.90       0.00       8.30       0.00      58.00       0.00     598.85     598.85

 *SECNO 1435.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=     0.000  EGLWC=    603.121  ELLC=    605.100  PCWSE=    602.849  ELTRD=    605.200

 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  605.20 MAX ELLC=  605.10


 3470 ENCROACHMENT STATIONS=      200.0     375.0  TYPE=     1  TARGET=      175.000
   1435.00      4.15    603.00      0.00      0.00    603.47      0.47      0.25      0.10    605.70
     215.         0.      215.        0.        0.       39.        0.        1.        1.    605.80
      0.08      0.00      5.53      0.00     0.000     0.030     0.000     0.000    598.85    276.16
  0.005314       75.       75.       75.         2         0         0    -15.43     19.53    295.69
0
 CCHV=    0.100 CEHV=    0.300
 *SECNO 1735.000
   1735.00      4.54    604.04      0.00      0.00    604 24      0.20      0.74      0 03    608.00
     215.         0.      215.        0.        0.       60.        0.        2.        1.    607.70
      0.11      0.00      3.56      0.00     0.000     0.030     0.000     0.000    599.50    276.33
  0.001405       300      300.      300.         2         0         0      0.00     19.66    295.99
0
1
  28 AUG 89      8:45:42                                                                                    PAGE     7


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELFV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 2235.000
   2235.00      4.30    604.80      0.00      0.00    605.03      0.23      0.78      0.01    609 00
     215          0.      215.        0.        0.       56.        0.        2.        1.    608.70
      0.14      0.00      3.86      0.00     0.000     0.030     0.000     0.000    600.50    276.71
  0.001751      500.      500.      500.         3         0         0      0.00     19.02    295 72
0
1
  28 AUG 89      8:45 42                                                                                    PAGE     8
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                                                                                    THIS RUN EXECUTED 28 AUG 89    8:45:46
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************


T1          GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
T2          FLOOD INSURANCE STUDY
T3          HUIZENGA DRAIN - 50-YEAR FLOOD

J1  ICHECK    ING       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        3.        0.        0.  0.000000     0.00      0.0        0.   602.100    0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     2.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
 28 AUG 89     8:45:42                                                                                  PAGE    9


   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *PROF 2

 CCHV=   0.100 CEHV=    0.300
 *SECNO 200.000
 3280 CROSS SECTION    200.00 EXTENDED      0.10 FEET


 3470 ENCROACHMENT STATIONS=     120.0     160.0  TYPE=     1  TARGET=      40.000
          U/S CONFLUENCE WITH RUSH CREEK
    200.00      6.28    602.10      0.00    599.98    602.23      0.13      0.00      0.00    596.62
      390.       22.      332.       36.       29.      107.       39.        0.        0.     596.68
      0.00      0.76      3.11      0.94     0.070     0.030     0.070     0.000    595.82    120.00
  0.000372        0.        0.        0.         0         0         0      0.00     40.00    160.00
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 250.000

 3470 ENCROACHMENT STATIONS=      81.0     103.2  TYPE=     1  TARGET=      22.200
          PORT SHELDON ROAD
    250.00      6.50    602.10      0.00    599.99    602.29      0 19      0.03      0.03    599.20
      390.        0.      390.        0.        0.      112.        0.        0.        0. 100000.00
      0.00      0.00      3.50      0.00     0.000     0.024     0.000     0.000    595.60     81.00
  0.000765       50.       50.       50.         2         0         0      0.00     22.20    103.20
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      1 25      1.80      2.64      0.00     17.50      2.50    100.00      0.00    595.60    595.60

 *SECNO 306.0[illegible]
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 3280 CROSS SECTION    306.00 EXTENDED       0.21 FEET

 PRESSURE FLOW


  EGPRS       EGLWC        H3        QWEIR        QPR        BAREA   TRAPEZOID       ELLC       ELTRD
                                                                        AREA
      602.52     602.35       0 07          0.        390.        100.      100.       602.28     603.07


1
  28 AUG 89      8:45:42                                                                                                   PAGE    10


     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST



 3470 ENCROACHMENT STATIONS=       81.0      103.2  TYPE=      1  TARGET=       22 200
    306 00      6.75    602.35      0.00     600.06    602.52      0.17       0.24       0.00     599.20
      390.        0.      390.        0.         0.      117.        0.         0.         0. 100000.00
      0.01      0.00      3.33      0.00      0.000     0.024     0.000      0.000     595.60      81.00
  0.000660       56.       56.       56.          2         0         0       0.00      22.20     103.20
0
 CCHV=    0.100 CEHV=    0.300
 *SECNO 331.000

 3470 ENCROACHMENT STATIONS=       50.0      190.0  TYPE=      1  TARGET=      140.000
    331.00      5.18    602.38      0.00     599.91    602.54      0.16       0.02       0 00     597.20
      390.      114.      249.       27.        75.       65.       20.        0.         0.      598.37
      0.01      1.52      3.84      1.37      0.040     0.030     0 040      0.000     597.20      50.00
  0.000715       25.       25        25.          1         0         0       0 00      79.11     129.11
0
 *SECNO 405.000

 3301 HV CHANGED MORE THAN HVINS


 3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  601 12 MAX ELLC=  606.52


 3470 ENCROACHMENT STATIONS=       30.0      130.0  TYPE=      1  TARGET=      100.000
  ELENCL=    604.00  ELENCR=     604.00

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       603.00 ELREA=       603.00

           WOODEN FOOT BRIDGE
    405.00      4.84    602.04      0.00     600.11    602.87      0.83       0.13       0.20     597.20
      390.        0.      390.        0.         0.       53.        0.         1.         0.      598.37
      0.01      0.00      7.31      0.00      0.000     0.030     0 000      0.000     597.20     100.00
  0.008438       65.       74.      125.          3         0         0      -8.38      13.00     113.00
0
 *SECNO 410.000

 3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  601.12 MAX ELLC=  606.52

1
  28 AUG 89      8.45:42                                                                                                   PAGE    11


     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
```

```
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      603.00 ELREA=      603.00

     410.00      4.88     602.08       0.00     600.13    602.91       0.83       0.04       0.00     597.20
       390.        0.        390         0.         0.        53.         0.         1.         0.     598.37
       0.01      0.00       7.31       0.00      0.000     0.030      0.000      0.000     597.20     100.00
   0.008438        5.         5.         5.          1          0          0      -8.83      13.00     113.00
0
 *SECNO 1010.000

 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=      175.0      375 0  TYPE=      1  TARGET=      200.000
    1010.00      5.40     604.10       0.00     602.13    604.30       0.19       1.32       0.06     604.90
       390.        0.       385.         5.         0.       108.         9.         2.         1.     603.40
       0.06      0.00       3.56       0.59      0.000     0.030      0.040      0.000     598.70     271.38
   0.000995      600.       600.       600.          4          0          0       0.00      53.82     325.19
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 1360.000
           TYLER STREET
    1360.00      5.65     604.50       0.00     602.85    604.81       0.31       0.46       0.06     605.70
       390.        0.       390.         0.         0.        87.         0.         3.         1.     605.80
       0.08      0.00       4.47       0.00      0.000     0.030      0.000      0.000     598.85     273.84
   0.001786      350.       350.       350.          3          0          0       0.00      24.16     298.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
       0.00       1.99       2.90       0.00       8.30       0.00      58.00       0.00     598.85     598.85

 *SECNO 1435.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=      0.000  EGLWC=    604.813  ELLC=    605.100  PCWSE=    604.502  ELTRD=    605.200

 3301 HV CHANGED MORE THAN HVINS

1
  28 AUG 89      8:45:42                                                                                  PAGE   12


     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST



 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  605.20 MAX ELLC=  605.10


 3470 ENCROACHMENT STATIONS=      200.0      375.0  TYPE=      1  TARGET=      175.000
    1435.00      5.54     604.39     602.34     603.00    605 49       1.11       0.28       0.40     605.70
       390.        0.       390.         0.         0.        46.         0.         3.         1.     605.80
       0.09      0.00       8.44       0.00      0.000     0.030      0.000      0.000     598.85     274.02
   0.012537       75.        75.        75.          4         12          0     -38.20      23.81     297.83
0
 CCHV=   0.100 CEHV=   0.300
```

```
 *SECNO 1735.000

 3301 HV CHANGED MORE THAN HVINS

   1735.00     6.60   606.10     0.00   604.04   606.31     0 21     0.73     0.09   608.00
      390.       0.     390.       0.       0.     106.       0.       3.       1.    607.70
      0.11     0.00     3.67     0.00    0.000    0.030    0.000    0.000   599.50   273.13
  0.000994     300.     300.     300.        2        0        0     0.00    25.12   298.24
0
 *SECNO 2235.000
   2235.00     6.14   606.64     0.00   604.80   606.90     0.26     0.57     0.02   609.00
      390.       0.     390.       0.       0.      95.       0.       4.       1.    608.70
      0.14     0.00     4.10     0.00    0.000    0.030    0.000    0.000   600.50   273.84
  0.001341     500.     500.     500.        3        0        0     0.00    23.91   297.74
0
1
  28 AUG 89     8:45:42                                                                                   PAGE   13



                                                                      THIS RUN EXECUTED 28 AUG 89     8:45:47

 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
   ERROR CORR -  01,02,03,04,05,06
   MODIFICATION -  50,51,52,53,54,55,56
 **************************************************


 T1          GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
 T2          FLOOD INSURANCE STUDY
 T3          HUIZENGA DRAIN - 100-YEAR FLOOD

 J1   ICHECK     INQ       NINV      IDIR       STRT      METRIC     HVINS      Q          WSEL       FQ

         0.        4.        0.        0.  0.000000      0.00       0.0        0.   602.750      0.000

 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH      FN        ALLDC      IBW       CHNIM      ITRACE

      3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
  28 AUG 89     8:45:42                                                                                   PAGE   14


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *PROF 3

 CCHV=    0.100 CEHV=    0.300
 *SECNO 200.000
 3280 CROSS SECTION    200.00 EXTENDED       0.75 FEET


 3470 ENCROACHMENT STATIONS=      120.0      160.0  TYPE=      1  TARGET=       40.000
            U/S CONFLUENCE WITH RUSH CREEK
    200.00     6.93   602 75     0.00   599.98   602.89     0.14     0.00     0.00   596.62
      465.      31.     389.      45.      37.     118.      45.       0.       0.    596.68
      0 00     0.84     3 28     1.00    0.070    0.030    0.070    0.000   595 82   120 00
  0 000362       0.       0.       0.        0        0        0     0.00    40 00   160.00
0
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 *SECND 250.000
 3280 CROSS SECTION    250.00 EXTENDED      0.76 FEET


 3470 ENCROACHMENT STATIONS=      20.0      120.0  TYPE=     1  TARGET=     100.000
           PORT SHELDON ROAD
    250.00     7.30   602.90     0.00   599.99   602.93     0.04     0.01     0.03   599.20
      465.     175.     247.      43.     172.     129.      45.       0.       0.    599.10
      0.01     1.02     1.91     0.96    0.035    0.024    0.035    0.000   595.60    20.00
  0.000150      50.      50.      50.        2        0        0     0.00   100.00   120.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA      SS        ELCHU     ELCHD
      1.25      1.80      2.64      0.00     17.50      2.50    100.00      0.00    595.60    595.60

 *SECNO 306.000
 3280 CROSS SECTION    306.00 EXTENDED      1.15 FEET

 PRESSURE AND WEIR FLOW

1
  28 AUG 89     8:45:42                                                                                          PAGE   15


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST



  EGPRS      EGLWC        H3       QWEIR       QPR       BAREA  TRAPEZOID     ELLC      ELTRD
                                                                   AREA
     603.50     602.94      0.01        76.        389.       100.      100.       602.28    603.07



 3470 ENCROACHMENT STATIONS=      20.0      120.0  TYPE=     1  TARGET=     100.000
    306.00     7.69   603.29     0.00   600.06   603.32     0.03     0.38     0.00   599.20
      465.     185.     235.      46.     196.     138.      51.       1.       0.    599.10
      0.02     0.94     1.70     0.88    0.035    0.024    0.035    0.000   595.60    20.00
  0.000109      56.      56.      56.        2        0        3     0.00   100.00   120.00
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 331.000

 3470 ENCROACHMENT STATIONS=      50.0      190.0  TYPE=     1  TARGET=     140.000
    331.00     6.04   603.24     0.00   599.91   603.35     0.11     0.00     0.02   597.20
      465.     169.     251.      44.     118.      76.      37.       1.       0.    598.37
      0.02     1.43     3.30     1.19    0.040    0.030    0.040    0.000   597.20    50.00
  0.000427      25.      25.      25.        2        0        0     0.00    86.63   136.63
0
 *SECNO 405.000

 3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  601.12 MAX ELLC=  606.52


 3470 ENCROACHMENT STATIONS=      30.0      130.0  TYPE=     1  TARGET=     100.000
  ELENCL=    604.00  ELENCR=    604.00
           WOODEN FOOT BRIDGE
    405.00     6.13   603.33     0.00   600.11   603.41     0.08     0.06     0.00   597.20
      465.     222.     193.      50.     130.      67.      32.       1.       0.    598.37
      0.03     1.71     2.88     1.55    0.040    0.030    0.040    0.000   597.20    30.00
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 0.001650      65.      74.     125.        2        0        0   -26.76   100.00   130.00
0
 *SECNO 410.000

 3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  601.12 MAX ELLC=  606.52

    410.00     6.14   603 34     0.00   600.13   603.41     0.08     0.01     0.00   597.20
      465.     222.     192.      51.     134.      67.      36.       1.       0.    598.37
      0.03     1.65     2.87     1 43    0.040    0.030    0.040    0.000   597.20    16.05
 0.001641        5.       5.       5.       0        0        0   -26.76   121.37   137.41
0
1
 28 AUG 89      8:45:42                                                                                                       PAGE    16


    SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
    Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
    TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
    SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


 *SECNO 1010.000

 3470 ENCROACHMENT STATIONS=      175.0     375.0  TYPE=      1  TARGET=      200.000
   1010.00     5.41   604.11     0.00   602.13   604.39     0.28     0.91     0.06   604.90
      465.       0.     459.       6.       0.     108.       9.       4.       2     603.40
      0.07     0.00     4.24     0.71    0.000    0.030    0.040    0.000   598.70   271.37
 0.001409     600.     600.     600.        2        0        0     0.00    53.98   325.35
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 1360.000
           TYLER STREET
   1360.00     5.81   604.66     0.00   602.85   605.07     0.41     0.62     0.07   605.70
      465.       0.     465.       0.       0.      91.       0.       5.       2.    605.80
      0.09     0 00     5.12     0.00    0.000    0.030    0.000    0.000   598.85   273.61
 0.002270     350.     350.     350         1        0        0     0.00    24.62   298.24
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00       1.99       2.90       0.00       8.30       0.00      58.00       0.00     598.85     598.85

 *SECNO 1435.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=     0.000  EGLWC=    605.067  ELLC=    605.100  PCWSE=    604.662  ELTRD=   605.200

 3301 HV CHANGED MORE THAN HVINS


 3370 NORMAL BRIDGE,NRD= 23 MIN ELTRD=  605.20 MAX ELLC=  605.10


 3470 ENCROACHMENT STATIONS=      200.0     375.0  TYPE=      1  TARGET=      175.000
   1435.00     5.61   604.46   602 70   603.00   606.01     1.55     0.37     0.57   605.70
      465.       0.     465.       0.       0.      46.       0.       5.       2.    605 80
      0.10     0.00    10.00     0.00    0.000    0.030    0.000    0.000   598.85   273.91
 0.017689      75.      75.      75.        4       12        0   -39.65    24.03   297.94
0
1
 28 AUG 89      8:45:42                                                                                                       PAGE    17
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 CCHV=   0.100 CEHV=    0.300
 *SECNO 1735.000

 3301 HV CHANGED MORE THAN HVINS

   1735.00      7.19    606.69      0.00    604.04    606.91      0.23      0.77      0.13    608.00
      465.        0.      465.        0.        0.      122.        0.        5.        2.     607.70
      0.12      0.00      3.82      0.00     0.000     0.030     0.000     0.000    599.50    272.20
  0.000982      300.       300      300.         3         0         0      0.00     26.69    298.89
0
 *SECNO 2235.000
   2235.00      6.71    607.21      0.00    604.80    607.50      0.28      0.56      0.02    609.00
      465.        0.      465.        0.        0.      109.        0.        7.        2.     608.70
      0.15      0.00      4.25      0.00     0.000     0.030     0.000     0.000    600.50    272.94
  0.001309      500.      500.      500.         4         0         0      0.00     25.43    298.37
0
1
  28 AUG 89     8:45:42                                                                                       PAGE   18



                                                                                THIS RUN EXECUTED 28 AUG 89     8:45:49
 ***********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
   ERROR CORR -  01,02,03,04,05,06
   MODIFICATION -  50,51,52,53,54,55,56
 ***********************************************


 T1          GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
 T2          FLOOD INSURANCE STUDY
 T3          HUIZENGA DRAIN - 500-YEAR FLOOD

 J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC     HVINS      Q          WSEL       FQ

       0.         5.        0.        0.   0.000000     0.00       0.0        0.    604.240     0.000

 J2  NPROF      IPLOT     PRFVS     XSECV      XSECH      FN        ALLDC      IBW        CHNIM      ITRACE

     15.000     0.000    -1.000     0.000      0.000     0.000      0.000     0.000      0.000      0.000

1
  28 AUG 89     8:45:42                                                                                       PAGE   19


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *PROF 4

 CCHV=   0.100 CEHV=    0.300
 *SECNO 200.000
 3280 CROSS SECTION    200.00 EXTENDED       2.24 FEET

          U/S CONFLUENCE WITH RUSH CREEK
    200.00      8.42    604.24      0.00    601.24    604.31      0.07      0.00      0.00    596.62
```

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      675.       57.      388.      230.       98.      145.      399.        0.        0.    596.68
      0.00      0.58      2.67      0.58     0.070     0.030     0.070     0.000    595.82     90.00
  0.000182        0.        0.        0.         0         0         0      0.00    210.00    300.00
0
 CCHV=    0.300 CEHV=    0.500
 *SECNO 250.000
 3280 CROSS SECTION    250.00 EXTENDED      2.79 FEET

           PORT SHELDON ROAD
    250.00      8.71    604.31      0.00      0.00    604.33      0.02      0.00      0.01    599.20
      675.      259.       226      190.      320.      161.      308.        1.        0.    599.10
      0.01      0.81      1.41      0.62     0.035     0.024     0.035     0.000    595.60      0.00
  0.000061       50.       50.       50.         2         0         0      0.00    230.00    230.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      1.25       1.80       2.64       0.00      17.50       2.50     100.00       0.00     595.60     595.60

 *SECNO 306.000
 3280 CROSS SECTION    306.00 EXTENDED      2.88 FEET

 PRESSURE AND WEIR FLOW


  EGPRS      EGLWC        H3       QWEIR       QPR        BAREA   TRAPEZOID      ELLC      ELTRD
                                                                    AREA
     605.58    604.33      0.00      489       186.       100.      100.       602.28    603.07


    306.00      8.79    604.39      0 00      0.00    604.41      0.01      0.08      0.00    599.20
      675.      259.      222.      194.      327.      163.      319.        2.        1.    599.10
      0 03      0.79      1 37      0.61     0.035     0.024     0.035     0.000    595.60      0.00
  0.000057       56.       56.       56.         1         0         7      0.00    230.00    230.00
0
1
  28 AUG 89     8:45:42                                                                                         PAGE   20


     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 CCHV=    0.100 CEHV=    0.300
 *SECNO 331.000
 3280 CROSS SECTION    331.00 EXTENDED      0.35 FEET

    331.00      7.15    604.35      0.00      0.00    604.43      0.08      0.00      0.02    597.20
      675.       316      280.       79.      243.       91.       69.        2.        1.    598.37
      0.03      1.30      3.09      1.14     0.040     0.030     0.040     0.000    597.20      0.00
  0.000298       25.       25.       25.         2         0         0      0.00    146.23    146.23
0
 *SECNO 405.000
 3280 CROSS SECTION    405.00 EXTENDED      0.40 FEET


 3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  601.12 MAX ELLC=  606.52


 3470 ENCROACHMENT STATIONS=       30.0      130.0  TYPE=      1  TARGET=      100.000
  ELENCL=    604.00  ELENCR=    604.00
           WOODEN FOOT BRIDGE
```

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    405.00     7.20   604.40     0.00     0.00   604.47     0.06     0.04     0.00   597.20
     675.      383.     208.      84.     217.      81.      52.       3.       1.   598.37
     0.05     1.77     2.57     1.63    0.040    0.030    0.040    0.000   597.20     0.00
  0.001019      65.      74      125.        2        0        0   -26.76   135.60   135.60
0
 *SECNO 410.000
 3280 CROSS SECTION    410.00 EXTENDED      0.41 FEET


 3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  601.12 MAX ELLC=  606.52

    410.00     7.22   604.42     0.00     0.00   604.47     0.05     0.00     0.00   597.20
     675.      386.     196.      94.     237.      81.      67.       3.       1.   598.37
     0.05     1.63     2.41     1.40    0.040    0.030    0.040    0.000   597.20     0.00
  0.000901       5.       5.       5.        1        0        0   -26.76   146.76   146.76
0
 *SECNO 1010.000

 3470 ENCROACHMENT STATIONS=      175.0     375.0  TYPE=      1  TARGET=      200.000
   1010.00     6.21   604.91     0.00     0.00   605.19     0.28     0.65     0.07   604.90
     675.       29.     593.      53.      36.     132.      43.       7.       3.   603.40
     0.09     0.80     4.51     1.23    0.040    0.030    0.040    0.000   598.70   175.00
  0.001310     600.     600.     600.        2        0        0     0.00   200.00   375.00
0
1
  28 AUG 89     8:45:42                                                                                          PAGE   21


    SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
    Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
    TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
    SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


 CCHV=   0.300 CEHV=    0.500
 *SECNO 1360.000
           TYLER STREET
   1360.00     6.56   605.41     0.00     0.00   605.99     0.58     0.65     0.15   605.70
     675.        0.     675.       0.       0.     110.       0.       8.       4.   605.80
     0.10     0.00     6.12     0.00    0.000    0.030    0.000    0.000   598.85   272.45
  0.002838     350.     350.     350.        2        0        0     0.00    26.94   299.39
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00       1.99       2.90       0.00       8.30       0.00      58.00       0.00     598.85     598.85

 *SECNO 1435.000
 3280 CROSS SECTION   1435.00 EXTENDED      0.49 FEET

 PRESSURE AND WEIR FLOW


  EGPRS       EGLWC        H3        QWEIR       QPR        BAREA    TRAPEZOID      ELLC       ELTRD
                                                                        AREA
     609.59     605.99      0.00       258.       417.        58.        52.      605.10     605.20



 3470 ENCROACHMENT STATIONS=      200.0     375.0  TYPE=      1  TARGET=      175.000
   1435.00     7.84   606.69     0.00     0.00   607.01     0.31     1.02     0.00   605.70
     675.        7.     663.       6.       9.     146.       8.       9.       4.   605.80
     0.11     0.78     4.54     0.73    0.040    0.030    0.040    0.000   598.85   254.56
  0.001130      75.      75.      75.        2        0        5     0.00    62.57   317.13
```

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0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 1735.000
   1735.00     7.54   607.04     0.00     0.00   607.45     0.41     0.41     0.03   608.00
      675.       0.     675.       0.       0.     131.       0.      10.       5.    607.70
      0.12     0.00     5.14     0.00    0.000    0.030    0.000    0.000   599.50   271.66
  0.001692      300      300     300.        2        0        0     0.00    27.62   299.27
0
 *SECNO 2235.000
   2235.00     7.40   607.90     0.00     0.00   608.33     0.44     0.88     0.01   609.00
      675.       0.     675.       0.       0.     127.       0.      11.       5.    608.70
      0.15     0.00     5.30     0.00    0.000    0.030    0.000    0.000   600.50   271.87
  0.001831     500.     500.     500.        2        0        0     0.00    27.25   299.12
0
1
  28 AUG 89     8:45.42                                                                      PAGE   22
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                                                                 THIS RUN EXECUTED 28 AUG 89    8:45:50

 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
   ERROR CORR -  01,02,03,04,05,06
   MODIFICATION -  50,51,52,53,54,55,56
 **************************************************
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

HUIZENGA DRAIN - 10-

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
200.000	599.98	0.00	600.09	33.71	7.08	193.55	14.37	40.00	120.00	132.00	150.00	160.00
200.000	602.10	2.12	602.23	40.00	22.11	331.55	36.34	40.00	120.00	132.00	150.00	160.00
200.000	602.75	2.77	602.89	40.00	31.04	388.96	45.00	40.00	120.00	132.00	150.00	160.00
200.000	604.24	0.00	604.31	210.00	57.27	387.67	230.05	0.00	0.00	132.00	150.00	0.00
250.000	599.99	0.00	600.16	22.20	0.00	215.00	0.00	22.20	81.00	81.00	103.20	103.20
250.000	602.10	2.10	602.29	22.20	0.00	390.00	0.00	22.20	81.00	81.00	103.20	103.20
250.000	602.90	2.91	602.93	100.00	174.98	246.92	43.10	100.00	20.00	81.00	103.20	120.00
250.000	604.31	0.00	604.33	230.00	258.93	226.23	189.85	0.00	0.00	81.00	103.20	0.00
306.000	600.06	0.00	600.22	22.20	0.00	215.00	0.00	22.20	81.00	81.00	103.20	103.20
306.000	602.35	2.29	602.52	22.20	0.00	390.00	0.00	22.20	81.00	81.00	103.20	103.20
306.000	603.29	3.23	603.32	100.00	184.66	234.83	45.50	100.00	20.00	81.00	103.20	120.00
306.000	604.39	0.00	604.41	230.00	258.81	222.50	193.69	0.00	0.00	81.00	103.20	0.00
331.000	599.91	0.00	600.35	22.28	26.66	185.81	2.53	140.00	50.00	100.00	113.00	190.00
331.000	602.38	2.47	602.54	79.11	113.54	249.05	27.42	140.00	50.00	100.00	113.00	190.00
331.000	603.24	3.33	603.35	86.63	169.23	251.44	44.32	140.00	50.00	100.00	113.00	190.00
331.000	604.35	0.00	604.43	146.23	316.11	280.22	78.67	0.00	0.00	100.00	113.00	0.00
405.000	600.11	0.00	600.67	13.00	0.00	215.00	0.00	100.00	30.00	100.00	113.00	130.00
405.000	602.04	1.93	602.87	13.00	0.00	390.00	0.00	100.00	30.00	100.00	113.00	130.00
405.000	603.33	3.22	603.41	100.00	222.02	192.55	50.43	100.00	30.00	100.00	113.00	130.00
405.000	604.40	0.00	604.47	135.60	383.06	207.60	84.34	100.00	30.00	100.00	113.00	130.00
410.000	600.13	0.00	600.69	13.00	0.00	215.00	0.00	0.00	0.00	100.00	113.00	0.00
410.000	602.08	1.95	602.91	13.00	0.00	390.00	0.00	0.00	0.00	100.00	113.00	0.00
410.000	603.34	3.21	603.41	121.37	221.67	192.34	50.88	0.00	0.00	100.00	113.00	0.00

410.000	604.42	0.00	604.47	146.76	385.62	195.66	93.72	0.00	0.00	100.00	113.00	0.00
1010.000	602.13	0.00	602.35	22.78	0.00	215.00	0.00	200.00	175.00	270.00	300.00	375.00
1010 000	604.10	1 98	604.30	53.82	0.00	384.77	5.22	200.00	175.00	270.00	300.00	375.00
1010.000	604.11	1.98	604.39	53.98	0.00	458.66	6.34	200.00	175.00	270.00	300.00	375.00
1010.000	604.91	0.00	605.19	200.00	29.11	593.07	52.81	200.00	175.00	270.00	300.00	375 00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
1360.000	602.85	0.00	603.12	19.05	0.00	215.00	0.00	0.00	0.00	272.00	300.00	0.00
1360.000	604.50	1.65	604.81	24.16	0.00	390.00	0.00	0.00	0.00	272.00	300.00	0.00
1360.000	604.66	1.81	605.07	24.62	0.00	465.00	0.00	0.00	0.00	272.00	300.00	0.00
1360.000	605.41	0.00	605.99	26.94	0.00	675.00	0.00	0.00	0.00	272.00	300.00	0.00
1435.000	603.00	0.00	603.47	19.53	0.00	215.00	0.00	175.00	200.00	272.00	300.00	375.00
1435.000	604 39	1.39	605.49	23.81	0.00	390.00	0.00	175.00	200.00	272.00	300.00	375.00
1435.000	604.46	1.46	606.01	24.03	0.00	465.00	0.00	175.00	200.00	272.00	300.00	375.00
1435.000	606.69	0.00	607.01	62.57	6.75	662.70	5.55	175.00	200.00	272.00	300.00	375.00
1735.000	604.04	0.00	604.24	19.66	0.00	215.00	0.00	0.00	0.00	250.00	300.00	0.00
1735.000	606.10	2.06	606.31	25.12	0.00	390.00	0.00	0.00	0.00	250.00	300.00	0.00
1735.000	606.69	2.65	606.91	26.69	0.00	465.00	0.00	0.00	0.00	250.00	300.00	0.00
1735.000	607.04	0.00	607.45	27.62	0.00	675.00	0.00	0.00	0.00	250.00	300.00	0.00
2235.000	604 80	0 00	605.03	19.02	0.00	215.00	0.00	0.00	0.00	250.00	300.00	0.00
2235.000	606.64	1.84	606.90	23.91	0.00	390.00	0.00	0.00	0.00	250.00	300.00	0.00
2235.000	607.21	2.42	607.50	25.43	0.00	465.00	0.00	0.00	0.00	250.00	300.00	0 00
2235.000	607.90	0.00	608.33	27.25	0.00	675.00	0.00	0.00	0.00	250.00	300.00	0.00

HUIZENGA DRAIN - 10-

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
200.000	0.00	0.00	0.00	595.82	215.00	599.98	0.00	600.09	5.55	2.82	96.93	91.29
200.000	0.00	0.00	0.00	595.82	390.00	602.10	0.00	602.23	3.72	3.11	174.54	202 10
200.000	0.00	0.00	0.00	595.82	465.00	602.75	0.00	602.89	3.62	3.28	200.54	244.28
200.000	0.00	0.00	0.00	595.82	675.00	604.24	0.00	604.31	1.82	2.67	642.27	499.96
250.000	50.00	0.00	0.00	595.60	215.00	599.99	0.00	600.16	12.04	3.31	65.00	61.97
250.000	50.00	0.00	0.00	595.60	390.00	602.10	0.00	602.29	7 65	3.50	111.53	141.05
250.000	50.00	0.00	0.00	595.60	465.00	602.90	0.00	602.93	1 50	1.91	346.47	380.18
250.000	50.00	0.00	0.00	595.60	675.00	604.31	0.00	604.33	0.61	1.41	788.20	864.85
306.000	56.00	603.07	602.28	595.60	215.00	600.06	0.00	600.22	11.34	3.24	66.26	63.85
306.000	56.00	603.07	602.28	595.60	390.00	602.35	0.00	602.52	6.60	3.33	117.15	151.76
306.000	56.00	603.07	602.28	595.60	465.00	603.29	0.00	603.32	1.09	1.70	385.72	445.64
306.000	56.00	603.07	602 28	595.60	675.00	604.39	0.00	604.41	0.57	1.37	808.80	897.55
331.000	25 00	0.00	0.00	597.20	215.00	599.91	0.00	600.35	38.30	5.65	44.33	34.74
331.000	25.00	0.00	0.00	597.20	390.00	602.38	0 00	602.54	7.15	3.84	159.68	145.84
331.000	25.00	0.00	0.00	597.20	465 00	603.24	0.00	603.35	4.27	3.30	231.69	225.03
331.000	25.00	0.00	0.00	597.20	675.00	604.35	0.00	604.43	2.98	3.09	402.73	391.31
405.000	74.00	601.12	606.52	597.20	215.00	600.11	0.00	600.67	39.48	6.04	35.60	34.22
405.000	74.00	601.12	606.52	597.20	390.00	602.04	0.00	602.97	84.38	7.31	53.32	42.46

405.000	74.00	601.12	606.52	597.20	465.00	603.33	0.00	603.41	16.50	2.88	229.05	114.48
405.000	74.00	601.12	606.52	597.20	675.00	604.40	0.00	604.47	10.19	2.57	349.82	211.44
410.000	5.00	601.12	606.52	597.20	215.00	600.13	0.00	600.69	39.02	6.02	35.72	34.42
410.000	5.00	601.12	606.52	597.20	390.00	602.08	0.00	602.91	84.38	7.31	53.32	42.46
410.000	5.00	601.12	606.52	597.20	465.00	603.34	0.00	603.41	16.41	2.87	236.78	114.79
410.000	5.00	601.12	606.52	597.20	675.00	604.42	0.00	604.47	9.01	2.41	384.87	224.91
1010.000	600.00	0.00	0.00	598.70	215.00	602.13	0.00	602.35	19.89	3.82	56.25	48.20
1010.000	600.00	0.00	0.00	598.70	390.00	604.10	0.00	604.30	9.95	3.56	116.95	123.62
1010.000	600.00	0.00	0.00	598.70	465.00	604.11	0.00	604.39	14.09	4.24	117.18	123.86
1010.000	600.00	0.00	0.00	598.70	675.00	604.91	0.00	605.19	13.10	4.51	211.07	186.48
1360.000	350.00	0.00	0.00	598.85	215.00	602.85	0.00	603.12	22.86	4.19	51.31	44.97
1360.000	350.00	0.00	0.00	598.85	390.00	604.50	0.00	604.81	17.86	4.47	87.16	92.27
1360.000	350.00	0.00	0.00	598.85	465.00	604.66	0.00	605.07	22.70	5.12	90.84	97.60
1360.000	350.00	0.00	0.00	598.85	675.00	605.41	0.00	605.99	28.38	6.12	110.26	126.71
1435.000	75.00	605.20	605.10	598.85	215.00	603.00	0.00	603.47	53.14	5.53	38.88	29.49
1435.000	75.00	605.20	605.10	598.85	390.00	604.39	602.34	605.49	125.37	8.44	46.23	34.83
1435.000	75.00	605.20	605.10	598.85	465.00	604.46	602.70	606.01	176.89	10.00	46.49	34.96
1435.000	75.00	605.20	605.10	598.85	675.00	606.69	0.00	607.01	11.30	4.54	162.31	200.80

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1735.000	300.00	0.00	0.00	599.50	215.00	604.04	0.00	604.24	14.05	3.56	60.36	57.36
1735.000	300.00	0.00	0.00	599.50	390.00	606.10	0.00	606.31	9.94	3.67	106.39	123.73
1735.000	300.00	0.00	0.00	599.50	465.00	606.69	0.00	606.91	9.82	3.82	121.78	148.42
1735.000	300.00	0.00	0.00	599.50	675.00	607.04	0.00	607.45	16.92	5.14	131.22	164.09
2235.000	500.00	0.00	0.00	600.50	215.00	604.80	0.00	605.03	17.51	3.86	55.69	51.38
2235.000	500.00	0.00	0.00	600.50	390.00	606.64	0.00	606.90	13.41	4.10	95.21	106.52
2235.000	500.00	0.00	0.00	600.50	465.00	607.21	0.00	607.50	13.09	4.25	109.42	128.51
2235.000	500.00	0.00	0.00	600.50	675.00	607.90	0.00	608.33	18.31	5.30	127.43	157.75

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HUIZENGA DRAIN - 10-

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
200.000	215.00	599.98	0.00	0.00	0.00	33.71	0.00
200.000	390.00	602.10	2.12	0.00	2.12	40.00	0.00
200.000	465.00	602.75	0.65	0.00	2.77	40.00	0.00
200.000	675.00	604.24	1.49	0.00	0.00	210.00	0.00
250.000	215.00	599.99	0.00	0.01	0.00	22.20	50.00
250.000	390.00	602.10	2.10	0.00	2.10	22.20	50.00
250.000	465.00	602.90	0.80	0.15	2.91	100.00	50.00
250.000	675.00	604.31	1.41	0.07	0.00	230.00	50.00
306.000	215.00	600.06	0.00	0.07	0.00	22.20	56.00
306.000	390.00	602.35	2.29	0.25	2.29	22.20	56.00
306.000	465.00	603.29	0.94	0.39	3.23	100.00	56.00
306.000	675.00	604.39	1.10	0.08	0.00	230.00	56.00
331.000	215.00	599.91	0.00	-0.15	[illegible]	22.28	25.00

331.000	390.00	602.38	2.47	0.03	2.47	79.11	25.00
331.000	465.00	603.24	0.86	-0.05	3.33	86 63	25.00
331.000	675.00	604.35	1.11	-0.04	0.00	146.23	25.00
405.000	215.00	600.11	0.00	0.20	0.00	13.00	74.00
405.000	390.00	602.04	1.93	-0.34	1.93	13.00	74.00
405.000	465.00	603.33	1.29	0.09	3.22	100.00	74.00
405.000	675.00	604.40	1.08	0.05	0.00	135.60	74.00
410.000	215.00	600.13	0.00	0.02	0.00	13.00	5.00
410.000	390.00	602.08	1.95	0.04	1.95	13.00	5.00
410.000	465.00	603.34	1.26	0.01	3.21	121.37	5.00
410.000	675.00	604.42	1.08	0.02	0.00	146.76	5.00
1010.000	215.00	602.13	0.00	1.99	0.00	22.78	600.00
1010.000	390.00	604.10	1.98	2.02	1.98	53.82	600 00
1010.000	465.00	604.11	0.01	0.77	1.98	53.98	600.00
1010.000	675.00	604.91	0.80	0.49	0.00	200.00	600.00
1360.000	215.00	602.85	0.00	0.72	0.00	19.05	350.00
1360.000	390.00	604.50	1.65	0.40	1.65	24.16	350.00
1360.000	465.00	604.66	0.16	0.55	1.81	24.62	350.00
1360.000	675.00	605.41	0.74	0.50	0.00	26.94	350.00
1435.000	215.00	603.00	0.00	0.15	0.00	19.53	75.00
1435.000	390.00	604.39	1.39	-0.11	1.39	23.81	75 00
1435.000	465.00	604.46	0.07	-0.20	1.46	24.03	75.00
1435.000	675.00	606.69	2.24	1.29	0.00	62.57	75.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1735.000	215.00	604.04	0.00	1.04	0.00	19.66	300 00
1735.000	390.00	606.10	2.06	1.71	2 06	25.12	300.00
1735.000	465.00	606 69	0.59	2.23	2.65	26.69	300.00
1735.000	675.00	607.04	0.35	0.34	0.00	27.62	300.00
2235.000	215.00	604.80	0 00	0.76	0.00	19.02	500.00
2235.000	390.00	606.64	1.84	0.54	1.84	23.91	500.00
2235 000	465.00	607.21	0.58	0.53	2.42	25.43	500.00
2235.000	675.00	607.90	0 68	0.86	0.00	27.25	500.00

SUMMARY OF ERRORS AND SPECIAL NOTES

THIS RUN EXECUTED 28 AUG 89 8:45:53

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
**************************************************
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00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP

3) WATERCOURSE: LOWING-COMSTOCK DRAIN

4) DOCUMENT TYPE: 100YR ENCROACHED

00BREAK00

```
      15.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

1
  13 OCT 89     12:55:22                                                                                          PAGE    25

     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


 *PROF 2

 CCHV=    0.100 CEHV=    0.300
 *SECNO 300.000
  2800 NAT Q1=      38.66  WSEL=     587.39  ENC Q1=      41.16  WSEL=     587.49  RATIO= -0.0645
  NAT Q1=      46.   RATIOS LOB,CH,ROB=  0.0059   0.8906   0.1036   WSEL=     587.49

 3470 ENCROACHMENT STATIONS=      265.0      300.0  TYPE=      4  TARGET=       0.109
     300.00      3.56    587.46      0.00    587.39    587.78      0.32      0.00      0.00    587.90
       330.        0.      330.        0.        0.       73.        0.        0.        0.     588.30
       0.00      0.00      4.54      0.00     0.000     0.045     0.000     0.000    583.90    266.57
  0.006654      300.      300.      300.         0         0         0      0.00     32.03    298.60
0
 *SECNO 1050.000

 3470 ENCROACHMENT STATIONS=      270.0      350.0  TYPE=      1  TARGET=      80.000
    1050.00      3.39    592.79      0.00    592.77    593.16      0.38      5.37      0.02    592.40
       330.        4.      288.       38.        4.       55.       29.        1.        1.     591.80
       0.04      1.03      5.25      1.31     0.070     0.045     0.070     0.000    589.40    270.00
  0.007843      595.      750.      665.         4         0         0      0.00     80.00    350.00
0
 *SECNO 1425.000
  2800 NAT Q1=      34.73  WSEL=     595.67  ENC Q1=      34.73  WSEL=     595.77  RATIO=  0.0000
  NAT Q1=      39.   RATIOS LOB,CH,ROB=  0.0332   0.8291   0.1378   WSEL=     595.77

 3470 ENCROACHMENT STATIONS=      279.0      333.0  TYPE=      4  TARGET=       0.102
    1425.00      3.41    595.81      0.00    595.67    596.24      0.43      3.06      0.02    595.40
       330.        0.      303.       27.        0.       55.       19.        2.        1.     594.80
       0.06      0.00      5.50      1.41     0.000     0.045     0.070     0.000    592.40    279.00
  0.008734      295.      375.      330.         3         0         0      0.00     53.96    332.96
0
 *SECNO 1615.000
  2800 NAT Q1=      38.44  WSEL=     597.26  ENC Q1=      38.44  WSEL=     597.36  RATIO=  0.0000
  NAT Q1=      42.   RATIOS LOB,CH,ROB=  0.0394   0.8005   0.1601   WSEL=     597.36

 3470 ENCROACHMENT STATIONS=      279.0      344.0  TYPE=      4  TARGET=       0.095
    1615.00      3.48    597.38      0.00    597.26    597.74      0.36      1.50      0.01    596.90
       330.        0.      290.       40.        0.       57.       29.        2.        2.     596.30
       0.07      0.00      5.11      1.38     0.000     0.045     0.070     0.000    593.90    279.00
  0.007283      150.      190.      170.         2         0         0      0.00     64.96    343.96
0
1
  13 OCT 89     12:55:22                                                                                          PAGE    26

     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


 *SECNO 1800.000
  2800 NAT Q1=      35.15  WSEL=     598.68  ENC Q1=      35.15  WSEL=     598.78  RATIO=  0.0000
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 NAT Q1=      39.   RATIOS LOB,CH,ROB=  0.0338  0.8260  0.1401  WSEL=     5[illegible]3.78

 3470 ENCROACHMENT STATIONS=      279.0      335.4  TYPE=      4  TARGET=        0.101
    1800.00      3.39    598.79      0.00    598.68    599.23      0.43      1.46      0.02    598.40
       330.        0.      302.       28.        0.       55.       20.        3.        2.    597.80
       0.08      0.00      5.50      1.39     0.000     0.045     0.070     0.000    595.40    279.00
   0.008781      150.      185.      165.         2         0         0      0.00     56.42    335.42
0
 *SECNO 2240.000
  2800 NAT Q1=       60.00  WSEL=     600.90  ENC Q1=      69.13  WSEL=     601.00  RATIO= -0.1523
  NAT Q1=     137.   RATIOS LOB,CH,ROB=  0.1006  0.5053  0.3941  WSEL=     601.00

 3470 ENCROACHMENT STATIONS=      279.0      300.0  TYPE=      4  TARGET=        0.495
    2240.00      4.59    600.99      0.00    600.90    601.25      0.26      2.01      0.02    599.40
       330.        0.      330.        0.        0.       80.        0.        3.        2.    598.80
       0.11      0.00      4.13      0.00     0.000     0.040     0.000     0.000    596.40    279.00
   0.002831      440.      440.      360.         2         0         0      0.00     21.00    300.00
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 2241.000
  2800 NAT Q1=       50.11  WSEL=     600.82  ENC Q1=      52.34  WSEL=     600.92  RATIO= -0.0445
  NAT Q1=      52.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     600.92

 3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  604.10 MAX ELLC=  604.40


 3470 ENCROACHMENT STATIONS=      275.0      300.0  TYPE=      4  TARGET=        0.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.10 ELREA=      604.10

           PRIVATE DRIVE
    2241.00      4.51    600.91      0.00    600.82    601.34      0.43      0.00      0.08    604.40
       330.        0.      330.        0.        0.       63.        0.        3.        2.    604.10
       0.11      0.00      5.27      0.00     0.000     0.035     0.000     0.000    596.40    277.79
   0.003995        1.        1.        1.         2         0         0      0.00     19.79    297.58
0
 *SECNO 2253.000
1
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      SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
      Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
      TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
      SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


  2800 NAT Q1=       51.89  WSEL=     600.90  ENC Q1=      54.16  WSEL=     601.00  RATIO= -0.0439
  NAT Q1=      54.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     601.00

 3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  604.10 MAX ELLC=  604.40


 3470 ENCROACHMENT STATIONS=      275.0      300.0  TYPE=      4  TARGET=        0.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.10 ELREA=      604.10

    2253.00      4.58    600.98      0.00    600.90    601.39      0.41      0.05      0.01    604.40
       330.        0.      330.        0.        0.       64.        0.        3.        2.    604.10
       0.11      0.00      5.15      0.00     0.000     0.035     0.000     0.000    596.40    277.70
   0.003760       12.       12.       12.         2         0         0      0.00     19.97    297.67
0
 *SECNO 2255.000

 3470 ENCROACHMENT STATIONS=      275.0      300.0  TYPE=      1  TARGET=       25.000
    2255.00      4.85    601.25      0.00    601.19    601.46      0.21      0.00      0.06    599.40
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      330.      12.     318.       0.       7.      86.       0.       3.       2.  100()1.00
      0.11     1.68     3.71     0.00    0.040    0.035    0.000    0.000   596.40   275.00
  0.001498       2.       2.       2.        2        0        0     0.00    25.00   300.00
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 3215.000
   3215.00     4.54   603.44     0.00   603.45   603.86     0.42     2.34     0.06   606.10
      330.       0.     330.       0.       0.      64.       0.       5.       3.   606.80
      0.17     0.00     5.17     0.00    0.000    0.035    0.000    0.000   598.90   268.97
  0.004635     930.     960.    1000.        2        0        0     0.00    24.60   293.58
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 5495.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      608.50 ELREA=      608.50

           FILLMORE STREET
   5495.00     6.45   606.15     0.00   606.15   606.26     0.11     2.31     0.09   600.80
      290.       0.     290.       0.       0.     110.       0.      10.       4.   602.00
      0.41     0.00     2.64     0.00    0.000    0.035    0.000    0.000   599.70   276.00
  0.000393    2280.    2280.    2280.        4        0        0     0.00    19.00   295.00
0
1
  13 OCT 89    12:55:22                                                                            PAGE    28


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00      3.13       3.00       0.00      12.50       0.00      54.00       0.00     599.70     599.70

 *SECNO 5575.000
 PRESSURE FLOW


  EGPRS      EGLWC       H3       QWEIR      QPR       BAREA   TRAPEZOID      ELLC      ELTRD
                                                                  AREA
     607.56     606.26      0.00        0.       290.       54.       54.      604.00    608.50



 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      608.50 ELREA=      608.50

   5575.00     7.78   607.48     0.00   607.48   607.56     0.07     1.29     0.00   600.80
      290.       0.     290.       0.       0.     135.       0.      10.       4.   602.00
      0.42     0.00     2.14     0.00    0.000    0.035    0.000    0.000   599.70   276.00
  0.000198      80.      80.      80.        2        0        0     0.00    19.00   295.00
0
 *SECNO 7725.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      614.70 ELREA=      614.70

           CEDAR LAKE DRIVE
   7725.00     5.34   608.19     0.00   608.19   608.34     0.15     0.74     0.04   604.40
      295.       0.     295.       0.       0.      95.       0.      16.       5.   603.15
      0.61     0.00     3.10     0.00    0.000    0.035    0.000    0.000   602.85   259.00
  0.000738    2150.    2150.    2150.        2        0        0     0.00    21.00   280.00
0
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SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK         XKOR       COFG       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00       3.12       2.70       0.00      10.50       0.00      48.00       0.00     602.85     602.85

*SECNO 7795.000
1
 13 OCT 89    12:55:22                                                                                                  PAGE   29


   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


PRESSURE FLOW


 EGPRS      EGLWC        H3        QWEIR        QPR        BAREA    TRAPEZOID      ELLC      ELTRD
                                                                      AREA
    610.02     608.34      0.00         0.        295.         48.       48.       607.40    614.70



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      614.70 ELREA=      614.70

  7795.00      7.09    609.94      0.00    609.94    610.02      0.08      1.68      0.00    604.40
    295.         0.      295.         0.        0.      132.         0.       16.        5.    603.15
     0.62      0.00      2.24      0.00     0.000     0.035     0.000     0.000    602.85    259.00
 0.000248       70.       70.       70.         2         0         0      0.00     21.00    280.00
0
CCHV=   0.100 CEHV=   0.300
*SECNO 9820.000
3280 CROSS SECTION   9820.00 EXTENDED       1.26 FEET


3470 ENCROACHMENT STATIONS=       25.0      326.0  TYPE=      1   TARGET=      301.000
  9820.00      5.36    611.96      0.00    611.96    612.22      0.26      2.14      0.05    609.00
    800.       289.      380.      132.      133.       70.       48.       25.        9.    608.60
     0.77      2.17      5.39      2.74     0.050     0.040     0.050     0.000    606.60    179.84
 0.002879     2025.     2025.     2025.         2         0         0      0.00    143.79    323.63
0
 *SECNO 10375.000
 3280 CROSS SECTION  10375.00 EXTENDED       0.91 FEET


3470 ENCROACHMENT STATIONS=       25.0      326.0  TYPE=      1   TARGET=      301.000
 10375.00      5.01    613.86      0.00    613.86    614.27      0.41      2.01      0.05    611.25
    800.       241.      428.      131.       97.       65.       40.       28.       11.    610.85
     0.80      2.48      6.54      3.28     0.050     0.040     0.050     0.000    608.85    192.66
 0.004680      555.      555.      555.         3         0         0      0.00    129.02    321.69
0
 *SECNO 10930.000

3470 ENCROACHMENT STATIONS=       25.0      326.0  TYPE=      1   TARGET=      301.000
1
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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
   TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
   SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST
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  10930.00      5.16   616.26     0.00   616.26   616.59     0.33     2.32     0.01   613.50
     800.       263.     405.      131.     113.      68.      43.      30.      12.    613.10
     0.83       2.34     5.99      3.02    0.050    0.040    0.050    0.000   611.10   186.90
  0.003747      555.     555.      555.        2        0        0     0.00   135.66   322.56
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 12039.000

 3301 HV CHANGED MORE THAN HVINS


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      624.60 ELREA=      624.60

          24TH AVENUE
  12039.00      5.28   620.88     0.00   620.88   621.85     0.97     4.94     0.32   615.60
     690.         0.     690.        0.       0.      87.       0.      34.      14.    616.20
     0.87       0.00     7.91      0.00    0.000    0.040    0.000    0.000   615.60   282.00
  0.005556     1109.    1109.     1109.        2        0        0     0.00    18.00   300.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00       3.08       2.80       0.00      17.00       0.00      95.00       0.00     615.60     615.60

 *SECNO 12090.000
 **ERROR** ELTRD.LT.MIN ROAD ELEV, ELTRD SET EQUAL TO MIN ROAD ELEV
 PRESSURE FLOW


  EGPRS      EGLWC       H3        QWEIR      QPR        BAREA    TRAPEZOID      ELLC       ELTRD
                                                                    AREA
     623.41     621.85      0.00         0.       690.        95.     104.       621.70     624.60



 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      624.60 ELREA=      624.60

  12090.00      7.33   622.93     0.00   622.93   623.41     0.48     1.55     0.00   615.60
     690.         0.     690.        0.       0.     124.       0.      34.      14.    616.20
     0.88       0.00     5.56      0.00    0.000    0.040    0.000    0.000   615.60   282.00
  0.001718       51.      51.       51.        2        0        0     0.00    18.00   300.00
0
1
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    SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 12620.000
  2800 NAT Q1=     207.47  WSEL=     623.95  ENC Q1=     207.47  WSEL=     624.05  RATIO=  0.0000
  NAT Q1=    214.  RATIOS LOB,CH,ROB=  0.0493  0.7654  0.1853  WSEL=     624.05

 3470 ENCROACHMENT STATIONS=      278.9      311.9  TYPE=     4  TARGET=        0.029
  12620.00      7.15   623.95     0.00   623.95   624.21     0.26     0.74     0.07   616.80
     690.        25.     541.      123.      16.     121.      53.      36.      15.    617.40
     0.91       1.58     4.48      2.34    0.050    0.040    0.050    0.000   616.80   278.90
  0.001155      530.     530.      530.        2        0        0     0.00    32.96   311.87
0
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*SECNO 13150.000
 2800 NAT Q1=    257.20  WSEL=    624.56  ENC Q1=    257.20  WSEL=    624.66  RATIO=  0.0000
 NAT Q1=    267.  RATIOS LOB,CH,ROB=  0.1453  0.5058  0.3488  WSEL=    624.66

3470 ENCROACHMENT STATIONS=     260.2      309.3  TYPE=      4  TARGET=        0.036
           BAUER ROAD
 13150.00     6.58   624.58     0.00   624.56   624.73     0.16     0.49     0.03   619.80
     690.      89.     365.     236.      37.      99.      91.      39.      15.   618.60
     0.96     2.39     3.67     2.59    0.040    0.035    0.040    0.000   618.00   260.16
 0.000765     530.     530.     530.        2        0        0     0.00    49.18   309.34
0

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00       3.12       2.90     100.00      10.50       0.00      56.00       0.00     618.00     618.00

*SECNO 13220.000
3280 CROSS SECTION  13220.00 EXTENDED      1.02 FEET

PRESSURE AND WEIR FLOW


 EGPRS       EGLWC        H3         QWEIR        QPR         BAREA   TRAPEZOID       ELLC       ELTRD
                                                                        AREA
    631.93    626.64       0.00       372.        322.        56.        56.       623.30     625.00



3470 ENCROACHMENT STATIONS=     250.0      350.0  TYPE=      1  TARGET=      100.000
 ELENCL=    628.00  ELENCR=    628.00
 13220.00     8.12   626.12     0.00   626.12   626.18     0.06     1.45     0.00   619.80
     690.     114.     303.     273.      77.     126.     185.      39.      15.   618.60
     0.97     1.48     2.41     1.48    0.040    0.035    0.040    0.000   618.00   250.00
 0.000242      70.      70.      70.        2        0        4     0.00   100.00   350.00
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


CCHV=   0.100 CEHV=    0.300
*SECNO 13765.000
 2800 NAT Q1=    317.15  WSEL=    626.34  ENC Q1=    317.15  WSEL=    626.44  RATIO=  0.0000
 NAT Q1=    340.  RATIOS LOB,CH,ROB=  0.4546  0.1012  0.4442  WSEL=    626.44

3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD=  624.10 MAX ELLC=  624.60


3470 ENCROACHMENT STATIONS=     123.0      390.8  TYPE=      4  TARGET=        0.066
           PRIVATE ROAD
 13765.00     7.65   626.35     0.00   626.34   626.37     0.02     0.18     0.00   619.50
     690.     307.      77.     307.     344.      70.     262.      46.      17.   624.60
     1.11     0.89     1.09     1.17    0.060    0.040    0.060    0.000   618.70   122.99
 0.000531     500.     545.     525.        2        0        0   -51.37   267.80   390.79
0
*SECNO 13781.000
 2800 NAT Q1=    318.41  WSEL=    626.35  ENC Q1=    318.41  WSEL=    626.45  RATIO=  0.0000
 NAT Q1=    341.  RATIOS LOB,CH,ROB=  0.4551  0.1010  0.4439  WSEL=    626.45
```

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3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD=  624.10 MAX ELLC=  624.60


3470 ENCROACHMENT STATIONS=      123.2      390.7  TYPE=      4  TARGET=        0.067
 13781.00      7.66    626.36     0.00    626.35    626.37     0.02      0.01      0.00    619.50
     690.      307.       77.     306.      345.       70.     262.       46.       17.    624.60
     1.11      0.89      1.09     1.17     0.060     0.040    0.060     0.000    618.70    123.19
 0.000527       16.       16.      16.         0         0        0    -51.37    267.46    390.66
0
 *SECNO 13995.000
 3280 CROSS SECTION  13995.00 EXTENDED      0.51 FEET


 3470 ENCROACHMENT STATIONS=      195.0      550.0  TYPE=      1  TARGET=      355.000
  13995.00      7.21    626.41     0.00    626.40    626.43     0.01      0.05      0.00    620.20
      690.      242.      108.     340.      313.       61.     517.       49.       19.    621.40
      1.17      0.77      1.75     0.66     0.060     0.040    0.060     0.000    619.20    195.00
  0.000200      169.      214.     174.         2         0        0      0.00    355.00    550.00
0
 *SECNO 14365.000
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


  2800 NAT Q1=    206.34  WSEL=    626.51  ENC Q1=    206.34  WSEL=    626.61  RATIO=  0.0000
  NAT Q1=    222.  RATIOS LOB,CH,ROB=  0.3751  0.2418  0.3831  WSEL=    626.61

 3470 ENCROACHMENT STATIONS=      195.6      387.0  TYPE=      4  TARGET=        0.068
  14365.00      5.81    626.51     0.00    626.51    626.60     0.08      0.15      0.02    621.70
      690.      249.      185.     256.      178.       49.     176.       54.       21.    622.90
      1.22      1.40      3.79     1.45     0.060     0.040    0.060     0.000    620.70    195.61
  0.001266      365.      370.     355.         2         0        0      0.00    191.41    387.02
0
 *SECNO 14735.000
  2800 NAT Q1=     66.36  WSEL=    627.08  ENC Q1=     66.36  WSEL=    627.18  RATIO=  0.0000
  NAT Q1=     72.  RATIOS LOB,CH,ROB=  0.0092  0.6361  0.3547  WSEL=    627.18

 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS=      278.0      350.2  TYPE=      4  TARGET=        0.084
  14735.00      4.95    627.15     0.00    627.08    627.79     0.64      1.03      0.17    627.20
      690.        0.      479.     211.        0.       65.      67.       57.       22.    626.10
      1.24      0.00      7.40     3.15     0.000     0.040    0.060     0.000    622.20    278.09
  0.010998      360.      370.     355.         3         0        0      0.00     72.16    350.25
0
 *SECNO 15245.000

 3470 ENCROACHMENT STATIONS=      270.0      360.0  TYPE=      1  TARGET=       90.000
            CONFLUENCE WITH TRIBUTARY DRAIN
  15245.00      5.86    629.36     0.00    629.25    629.53     0.17      1.69      0.05100000.00
      690.        0.      496.     194.        0.      133.     123.       59.       23.    627.00
      1.28      0.00      3.72     1.58     0.000     0.040    0.060     0.000    623.50    270.00
  0.001596      515.      510.     495.         3         0        0      0.00     90.00    360.00
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 17385.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      633.50 ELREA=      633.50
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          PARKSIDE DRIVE
   17385.00     4.89   633.19     0.00   633.14   633.65     0.47     3.97     0.15   629.00
      300.        0.     300.       0.       0.      55.       0.      66.      25.     629.00
      1.39      0.00     5.48     0.00    0.000    0.040    0.000    0.000   628.30   287.50
   0.002843    2125.    2140.    2040.        4        0        0     0.00    11.50   299.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST



  SPECIAL BRIDGE

  5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
  SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
       0.00       3.12       2.80       0.00       8.00       0.00      36.00       0.00     628.30     628.30

  *SECNO 17481.000
  PRESSURE AND WEIR FLOW


   EGPRS       EGLWC        H3        QWEIR       QPR        BAREA    TRAPEZOID      ELLC       ELTRD
                                                                        AREA
     636.55     633.65      0.00       105.       196.        36.        38.      633.00     634.00


   17481.00     6.27   634.57     0.00   634.56   634.63     0.06     0.98     0.00   629.00
      300.       57.     175.      68.      62.      71.      75.      67.      26.     629.00
      1.40      0.92     2.48     0.90    0.060    0.040    0.060    0.000   628.30   213.09
   0.000416      96.      96.      96.        2        0        5     0.00   141.09   354.17
0
  CCHV=   0.100 CEHV=   0.300
  *SECNO 17851.000
   2800 NAT Q1=     352.78  WSEL=     634.67  ENC Q1=     352.78  WSEL=     634.77  RATIO=  0.0000
   NAT Q1=     373.  RATIOS LOB,CH,ROB=  0.0604  0.2274  0.7122  WSEL=     634.77

  3470 ENCROACHMENT STATIONS=      282.8      399.7  TYPE=      4  TARGET=        0.054
   17851.00     6.98   634.68     0.00   634.67   634.69     0.01     0.06     0.01   629.40
      300.       10.      73.     217.      25.      73.     398.      70.      27.     629.70
      1.56      0.42     1.01     0.54    0.060    0.040    0.060    0.000   627.70   282.79
   0.000077     370.     370.     370.        2        0        0     0.00   116.88   399.67
0
  CCHV=   0.300 CEHV=   0.500
  *SECNO 18191.000
   2800 NAT Q1=     205.82  WSEL=     634.71  ENC Q1=     205.82  WSEL=     634.81  RATIO=  0.0000
   NAT Q1=     217.  RATIOS LOB,CH,ROB=  0.3730  0.1663  0.4607  WSEL=     634.81

  3470 ENCROACHMENT STATIONS=      241.5      342.3  TYPE=      4  TARGET=        0.051
          28TH AVENUE
   18191.00     6.02   634.72     0.00   634.71   634.74     0.02     0.04     0.00   629.80
      300.      109.      53.     137.     129.      31.     169.      73.      28.     629.30
      1.66      0.85     1.72     0.81    0.060    0.040    0.060    0.000   628.70   241.46
   0.000230     275.     340.     400.        0        0        0     0.00   100.86   342.32
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
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     TI E      VLOB      VCH       VROB      XNL       XNCH      XNR       WT        EL IN     SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


  SPECIAL BRIDGE

  5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
  SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
       0.00       3.12       2.80       0.00       4.00       0.00      21.00       0.00     628.70     628.70

  *SECNO 18270.000
  3280 CROSS SECTION  18270.00 EXTENDED       0.98 FEET

  PRESSURE AND WEIR FLOW


   EGPRS      EGLWC        H3       QWEIR       QPR        BAREA   TRAPEZOID     ELLC      ELTRD
                                                                   AREA
      644.61     637.20      0.00      167.       134.        21.       21.      633.90     635.70



  3470 ENCROACHMENT STATIONS=      200.0      380.0  TYPE=      1  TARGET=      180.000
   18270.00      7.98    636.68      0.00    636.68    636.68      0.00      1.94      0.00    629.80
       300.      117.       35.      148.      290.       42.      368.       74.       28.    629.30
       1.71      0.40      0.84      0.40     0.060     0.040     0.060     0.000    628.70    200.00
   0.000037       79.       79.       79.         0         0         6      0.00    180.00    380.00
0
  *SECNO 18645.000
   2800 NAT Q1=      68.13  WSEL=     636.67  ENC Q1=      68.13  WSEL=     636.77  RATIO=  0.0000
   NAT Q1=     74.  RATIOS LOB,CH,ROB=  0.3415  0.2678  0.3908  WSEL=     636.77

  3470 ENCROACHMENT STATIONS=      257.3      317.7  TYPE=      4  TARGET=        0.074
   18645.00      4.26    636.66      0.00    636.67    636.78      0.12      0.04      0.06    633.50
       300.       98.       89.      113.       51.       21.       60.       78.       29.    633.00
       1.75      1.94      4.17      1.89     0.060     0.040     0.060     0.000    632.40    257.31
   0.002222      375.      375.      375.         2         0         0      0.00     60.34    317.65
0
  *SECNO 18835.000
   2800 NAT Q1=      98.36  WSEL=     637.00  ENC Q1=      98.36  WSEL=     637.10  RATIO=  0.0000
   NAT Q1=    112.  RATIOS LOB,CH,ROB=  0.0042  0.5757  0.4201  WSEL=     637.10
  3280 CROSS SECTION  18835.00 EXTENDED       0.75 FEET


  3470 ENCROACHMENT STATIONS=      251.0      438.5  TYPE=      4  TARGET=        0.122
   18835.00      2.75    637.05      0.00    637.00    637.09      0.04      0.28      0.02    636.10
       300.        0.      199.      101.         0      102.      126.       78.       29.    635.70
       1.79      0.00      1.95      0.80     0.000     0.040     0.060     0.000    634.30    251.00
   0.001068      190.      190.      190.         2         0         0      0.00    187.50    438.50
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


  *SECNO 18930.000
   2800 NAT Q1=      28.00  WSEL=     637.08  ENC Q1=      28.98  WSEL=     637.18  RATIO= -0.0350
   NAT Q1=     33.  RATIOS LOB,CH,ROB=  0.0002  0.8768  0.1230  WSEL=     637.18

  3470 ENCROACHMENT STATIONS=      251.0      300.0  TYPE=      4  TARGET=        0.123
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  1893).00     1.93   637.13     0.00   637.08   637.49     0.36     0.24     0.16   637.00
     300.        0.     300.        0.       0.      62.        0.      79.      30.    636.60
      1.79     0.00     4.83     0.00    0.000    0.040    0.000    0.000   635.20   251.00
  0.012562      95.      95.      95.        3        0        0     0.00    49.00   300.00
0
 *SECNO 19020.000
  2800 NAT Q1=      32.04  WSEL=     638.06  ENC Q1=      32.04  WSEL=     638.16  RATIO=  0.0000
  NAT Q1=     37.  RATIOS LOB,CH,ROB=  0.0003  0.8539  0.1458  WSEL=     638.16
 3280 CROSS SECTION  19020.00 EXTENDED       0.06 FEET


 3470 ENCROACHMENT STATIONS=      251.0      303.5  TYPE=     4  TARGET=       0.135
  19020.00     2.06   638.16     0.00   638.06   638.45     0.29     0.94     0.02   637.90
     300.        0.     296.        4.       0.      69.        2.      79.      30.    637.50
      1.80     0.00     4.32     1.56    0.000    0.040    0.060    0.000   636.10   251.00
  0.008757      90.      90.      90.        2        0        0     0.00    52.53   303.53
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO -15245.000
 START TRIB COMP
  -15245.000 15245.000   629.363
  2800 NAT Q1=     171.29  WSEL=     629.25  ENC Q1=     171.29  WSEL=     629.35  RATIO=  0.0000
  NAT Q1=    181.  RATIOS LOB,CH,ROB=  0.0000  0.6770  0.3229  WSEL=     629.35

 3470 ENCROACHMENT STATIONS=      267.0      361.3  TYPE=     4  TARGET=       0.053
 -15245.00     5.86   629.36     0.00   629.25   629.39     0.03     0.00     0.00   629.70
     300.        0.     214.       86.       0.     135.      125.      79.      30.    627.00
      1.80     0.00     1.59     0.69    0.000    0.040    0.060    0.000   623.50   267.66
  0.000304       0.       0.       0.        0        0        0     0.00    93.64   361.31
0
 *SECNO 220.000
  2800 NAT Q1=      45.42  WSEL=     629.32  ENC Q1=      48.29  WSEL=     629.42  RATIO= -0.0633
  NAT Q1=     49.  RATIOS LOB,CH,ROB=  0.0000  0.9891  0.0109  WSEL=     629.42

 3470 ENCROACHMENT STATIONS=      267.0      300.0  TYPE=     4  TARGET=       0.011
1
  13 OCT 89     12:55:22                                                                                 PAGE   37


    SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
    Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
    TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
    SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


    220.00     3.83   629.43     0.00   629.32   629.47     0.04     0.08     0.00   631.80
     115.        0.     115.        0.       0.      73.        0.      80.      30.    629.10
      1.84     0.00     1.57     0.00    0.000    0.040    0.000    0.000   625.60   271.63
  0.000562     195.     220.     220.        1        0        0     0.00    28.37   300.00
0
 *SECNO 330.000
  2800 NAT Q1=      23.78  WSEL=     629.40  ENC Q1=      25.61  WSEL=     629.50  RATIO= -0.0768
  NAT Q1=     26.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     629.50

 3470 ENCROACHMENT STATIONS=      267.0      300.0  TYPE=     4  TARGET=       0.000
    330.00     2.85   629.50     0.00   629.40   629.60     0.09     0.11     0.02   632.85
     115.        0.     115.        0.       0.      47.        0.      80.      30.    630.15
      1.85     0.00     2.46     0.00    0.000    0.040    0.000    0.000   626.65   273.58
  0.002018      95.     110.     110.        2        0        0     0.00    24.38   297.95
0
 *SECNO 445.000
  2800 NAT Q1=      12.46  WSEL=     629.76  ENC Q1=      13.71  WSEL=     629.86  RATIO= -0.0998
  NAT Q1=     14.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     629.86

 3470 ENCROACHMENT STATIONS=      267.0      300.0  TYPE=     4  TARGET=       0.000
    445.00     2.05   629.80     0.00   629.76   630.05     0.24     0.41     0.05   633.95
```

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     115.       0.       115.       0.       0.        29.       0.       60.       30.     631.25
      1.86      0.00      3.96      0.00     0.000     0.040     0.000     0.000    627.75   275.14
   0.007776    100.      115.      110.         2         0         0      0.00     20.30   295.44
0
 CCHV=   0.500 CEHV=   1.000
 *SECNO 890.000
  2800 NAT Q1=       8.62  WSEL=     635.45  ENC Q1=       8.62  WSEL=     635.55  RATIO=  0.0000
  NAT Q1=      9.   RATIOS LOB,CH,ROB=  0.1395  0.6833  0.1773  WSEL=     635.55

 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=      996.1    1003.9  TYPE=     4  TARGET=        0.069
            PARK ROAD CULVERT
    890.00      3.33    635.33    635.33    635.45    636.49      1.16      5.49      0.92    633.50
     115.       12.       85.       18.        3.        9.        4.       80.       30.     632.60
      1.87      3.61      9.78      4.06     0.060     0.040     0.060     0.000    632.00   996.11
   0.022969    395.      445.      440.         4        21         0      0.00      7.77  1003.87
0
1
  13 OCT 89    12:55:22                                                                                              PAGE    38


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00       3.12       2.60       0.00       2.50       0.00       7.00       0.00     632.00     632.00

 *SECNO 933.000
  2800 NAT Q1=      19.75  WSEL=     636.44  ENC Q1=      19.75  WSEL=     636.54  RATIO=  0.0000
  NAT Q1=     23.   RATIOS LOB,CH,ROB=  0.1641  0.4428  0.3931  WSEL=     636.54
  WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

 3470 ENCROACHMENT STATIONS=      995.9    1047.2  TYPE=     4  TARGET=        0.129
    933.00      4.44    636.44      0.00    636.44    636.69      0.24      0.35      0.46    633.50
     115.       13.       63.       40.        6        12.       28.       80.       30.     632.60
      1.87      1.96      5.19      1.43     0.060     0.040     0.060     0.000    632.00   995.85
   0.004205     43.       43.       43.         0         0         7      0.00     51.30  1047.16
0
 *SECNO 1055.000
  2800 NAT Q1=      58.78  WSEL=     636.78  ENC Q1=      58.78  WSEL=     636.88  RATIO=  0.0000
  NAT Q1=    143.   RATIOS LOB,CH,ROB=  0.5893  0.3070  0.1037  WSEL=     636.88

 3265 DIVIDED FLOW

 3280 CROSS SECTION   1055.00 EXTENDED       2.68 FEET


 3470 ENCROACHMENT STATIONS=      158.3     312.2  TYPE=     4  TARGET=        0.590
   1055.00      4.28    636.88      0.00    636.78    636.91      0.02      0.11      0.11    636.70
     115.       29.       86.       0.        59        61.       0.        80.       31.     637.00
      1.90      0.49      1.41      0.07     0.050     0.035     0.050     0.000    632.60   158.26
   0.000382    122.      122.      122.         2         0         0      0.00    142.39   312.23
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 1585.000
```

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 2800 NAT Q1=      32.00  WSEL=     637.03  ENC Q1=      33.96  WSEL=     637.13  RATIO= -0.0610
 NAT Q1=      34.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     637.13

3470 ENCROACHMENT STATIONS=      286.0      300.0  TYPE=      4  TARGET=        0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      639.50 ELREA=      639.50

  1585.00      3.15   637.15      0.00   637.03   637.27      0.13      0.34      0.03   634.80
     115.        0.     115.        0.       0.      40.        0.       81.       31.    635.10
     1.95      0.00     2.85      0.00    0.000    0.035     0.000     0.000    634.00   286.00
 0.001345      415.     530.      400.        2        0         0      0.00     14.00   300.00
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


CCHV=   0.300 CEHV=    0.500
*SECNO 1588.000
 2800 NAT Q1=      14.20  WSEL=     636.98  ENC Q1=      14.72  WSEL=     637.08  RATIO= -0.0367
 NAT Q1=      15.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     637.08

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  639.50 MAX ELLC=  639.60


3470 ENCROACHMENT STATIONS=      286.0      300.0  TYPE=      4  TARGET=        0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      639.50 ELREA=      639.50

          28TH AVENUE
  1588.00      3.10   637.10      0.00   636.98   637.33      0.23      0.01      0.05   634.80
     115.        0.     115.        0.       0.      30.        0.       81.       31.    635.10
     1.95      0.00     3.87      0.00    0.000    0.035     0.000     0.000    634.00   286.00
 0.006019        3.       3.        3.        2        0         0    -10.04     14.00   300.00
0
*SECNO 1647.000
 2800 NAT Q1=      16.20  WSEL=     637.38  ENC Q1=      16.65  WSEL=     637.48  RATIO= -0.0279
 NAT Q1=      17.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     637.48

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  639.50 MAX ELLC=  639.60


3470 ENCROACHMENT STATIONS=      286.0      300.0  TYPE=      4  TARGET=        0.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      639.50 ELREA=      639.50

  1647.00      3.47   637.47      0.00   637.38   637.66      0.19      0.32      0.01   634.80
     115.        0.     115.        0.       0.      33.        0.       81.       31.    635.10
     1.96      0.00     3.52      0.00    0.000    0.035     0.000     0.000    634.00   286.00
 0.004803       59.      59.       59.        2        0         0    -12.20     14.00   300.00
0
*SECNO 1650.000
 2800 NAT Q1=      46.74  WSEL=     637.55  ENC Q1=      46.74  WSEL=     637.65  RATIO=  0.0000
 NAT Q1=      51.   RATIOS LOB,CH,ROB=  0.0668  0.8863  0.0469  WSEL=     637.65

3470 ENCROACHMENT STATIONS=      284.5      300.5  TYPE=      4  TARGET=        0.076
  1650.00      3.61   637.61      0.00   637.55   637.70      0.09      0.00      0.03   634.80
     115.        3.     112.        1.       4.      47.        1.       81.       31.    635.10
     1.96      0.75     2.38      0.44    0.050    0.035     0.050     0.000    634.00   284.49
 0.000643        3.       3.        3.        2        0         0      0.00     16.04   300.52
0
```

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1
 13 OCT 89    12:55:22                                                                                          PAGE   40

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


  CCHV=   0.100 CEHV=    0.300
  *SECNO 2070.000

  3265 DIVIDED FLOW

  3685 20 TRIALS ATTEMPTED WSEL,CWSEL
  3693 PROBABLE MINIMUM SPECIFIC ENERGY
  3720 CRITICAL DEPTH ASSUMED

  3470 ENCROACHMENT STATIONS=      287.0      550.0  TYPE=      1  TARGET=      263.000
    2070.00      1.98   641.88    641.88    641.88    642.28      0.41      0.70      0.10    642.30
       115.        0.       97.       18.        0.       18.       11.       82.       32.    641.00
       1.98      0.00     5.52      1.66     0.000     0.035     0.050     0.000    639.90    287.80
   0.011071      365.     420.      390.        20        11         0      0.00     43.50    341.81
0
 *SECNO 3435.000
   2800 NAT Q1=      24.63  WSEL=     647.43  ENC Q1=      24.63  WSEL=     647.53  RATIO=  0.0000
   NAT Q1=      27.  RATIOS LOB,CH,ROB=  0.4488  0.4159  0.1353  WSEL=     647.53

  3470 ENCROACHMENT STATIONS=      281.4      303.5  TYPE=      4  TARGET=        0.084
    3435.00      3.92   647.52      0.00    647.43    647.65      0.13      5.33      0.03    645.00
       115.       51.      52.       11.       26.       14.        7.       83.       33.    645.20
       2.11      1.97     3.68      1.68     0.050     0.035     0.050     0.000    643.60    281.37
   0.002229     1050.    1365.     1055.         6         0         0      0.00     22.11    303.49
0
1
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                                                                                      THIS RUN EXECUTED 13 OCT 89    12:55:42
  **************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
    ERROR CORR -  01,02,03,04,05,06
    MODIFICATION -  50,51,52,53,54,55,56
  **************************************************


  NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST


      LOWING-COMSTOCK DRAI

  SUMMARY PRINTOUT TABLE  110
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SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
300.000	587.39	0.00	587.73	31.65	0.00	330.00	0.00	200.00	150.00	265.00	300.00	350.00
300.000	587.46	0.07	587.78	32.03	0.00	330.00	0.00	0.11	265.00	265.00	300.00	300.00
1050.000	592.77	0.00	593.10	102.76	11.06	273.05	45.89	0.00	0.00	279.00	300.00	0.00
1050.000	592.79	0.01	593.16	80.00	3.98	287.53	38.49	80.00	270.00	279.00	300.00	350.00
1425.000	595.67	0.00	596.07	101.92	8.51	284.84	36.65	0.00	0.00	279.00	300.00	0.00

1425.000	595.81	0.14	596.24	53.96	0.00	302.68	27.32	0.10	279.00	279.00	300.00	332.96
1615.000	597.26	0.00	597.59	102.67	10.79	274.29	44.92	0.00	0.00	279.00	300.00	0.00
1615.000	597.38	0.12	597.74	64.96	0.00	289.95	40.04	0.09	279.00	279.00	300.00	343.96
1800.000	598.68	0.00	599.07	102.01	8.78	283.60	37.62	0.00	0.00	279.00	300.00	0.00
1800.000	598.79	0.12	599.23	56.42	0.00	301.89	28.11	0.10	279.00	279.00	300.00	335.43
2240.000	600.90	0.00	601.18	21.00	0.00	330.00	0.00	21.00	279.00	279.00	300.00	300.00
2240.000	600.99	0.09	601.25	21.00	0.00	330.00	0.00	0.49	279.00	279.00	300.00	300.00
2241.000	600.82	0.00	601.27	19.55	0.00	330.00	0.00	0.00	0.00	275.00	300.00	0.00
2241.000	600.91	0.09	601.34	19.79	0.00	330.00	0.00	0.00	275.00	275.00	300.00	300.00
2253.000	600.90	0.00	601.33	19.75	0.00	330.00	0.00	0.00	0.00	275.00	300.00	0.00
2253.000	600.98	0.09	601.39	19.97	0.00	330.00	0.00	0.00	275.00	275.00	300.00	300.00
2255.000	601.19	0.00	601.40	25.00	12.16	317.83	0.00	25.00	275.00	279.00	300.00	300.00
2255.000	601.25	0.06	601.46	25.00	12.48	317.52	0.00	25.00	275.00	279.00	300.00	300.00
3215.000	603.45	0.00	603.86	24.65	0.00	330.00	0.00	0.00	0.00	262.00	300.00	0.00
3215.000	603.44	-0.01	603.86	24.60	0.00	330.00	0.00	0.00	0.00	262.00	300.00	0.00
5495.000	606.15	0.00	606.26	19.00	0.00	290.00	0.00	0.00	0.00	276.00	295.00	0.00
5495.000	606.15	0.00	606.26	19.00	0.00	290.00	0.00	0.00	0.00	276.00	295.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
5575.000	607.48	0.00	607.56	19.00	0.00	290.00	0.00	0.00	0.00	276.00	295.00	0.00
5575.000	607.48	0.00	607.56	19.00	0.00	290.00	0.00	0.00	0.00	276.00	295.00	0.00
7725.000	608.19	0.00	608.34	21.00	0.00	295.00	0.00	0.00	0.00	259.00	280.00	0.00
7725.000	608.19	0.00	608.34	21.00	0.00	295.00	0.00	0.00	0.00	259.00	280.00	0.00
7795.000	609.94	0.00	610.02	21.00	0.00	295.00	0.00	0.00	0.00	259.00	280.00	0.00
7795.000	609.94	0.00	610.02	21.00	0.00	295.00	0.00	0.00	0.00	259.00	280.00	0.00
9820.000	611.96	0.00	612.22	143.79	288.60	379.87	131.53	301.00	25.00	286.00	300.00	326.00
9820.000	611.96	0.00	612.22	143.79	288.59	379.88	131.53	301.00	25.00	286.00	300.00	326.00
10375.000	613.86	0.00	614.27	129.02	241.29	428.11	130.60	301.00	25.00	286.00	300.00	326.00
10375.000	613.86	0.00	614.27	129.02	241.30	428.11	130.60	301.00	25.00	286.00	300.00	326.00
10930.000	616.26	0.00	616.59	135.66	263.44	405.38	131.18	301.00	25.00	286.00	300.00	326.00
10930.000	616.26	0.00	616.59	135.66	263.44	405.38	131.18	301.00	25.00	286.00	300.00	326.00
12039.000	620.88	0.00	621.85	18.00	0.00	690.00	0.00	0.00	0.00	282.00	300.00	0.00
12039.000	620.88	0.00	621.85	18.00	0.00	690.00	0.00	0.00	0.00	282.00	300.00	0.00
12090.000	622.93	0.00	623.41	18.00	0.00	690.00	0.00	0.00	0.00	282.00	300.00	0.00
12090.000	622.93	0.00	623.41	18.00	0.00	690.00	0.00	0.00	0.00	282.00	300.00	0.00
12620.000	623.95	0.00	624.20	42.02	33.72	530.02	126.26	0.00	0.00	282.00	300.00	0.00
12620.000	623.95	0.00	624.21	32.96	25.32	541.43	123.25	0.03	278.90	282.00	300.00	311.87
13150.000	624.56	0.00	624.70	68.49	98.95	351.92	239.12	0.00	0.00	270.00	287.00	0.00
13150.000	624.58	0.02	624.73	49.18	89.19	364.77	236.04	0.04	260.16	270.00	287.00	309.34
13220.000	626.12	0.00	626.18	100.00	113.62	303.51	272.86	100.00	250.00	270.00	287.00	350.00
13220.000	626.12	0.00	626.18	100.00	113.64	303.41	272.95	100.00	250.00	270.00	287.00	350.00
13765.000	626.34	0.00	626.35	344.94	309.07	72.20	308.73	0.00	0.00	285.00	300.00	0.00

13765.000	626.35	0.01	626.37	267.80	306.66	76.72	306.62	0.07	122.99	285.00	300.00	390.7
13781.000	626.35	0.00	626.36	345.19	309.35	72.06	308.59	0.00	0.00	285.00	300.00	0.00
13781.000	626.36	0.01	626.37	267.46	307.00	76.61	306.39	0.07	123.19	285.00	300.00	390.66
13995.000	626.40	0.00	626.41	355.00	242.18	108.26	339.56	355.00	195.00	291.00	300.00	550.00
13995.000	626.41	0.01	626.43	355.00	242.02	107.79	340.19	355.00	195.00	291.00	300.00	550.00
14365.000	626.51	0.00	626.57	299.24	255.48	174.13	260.39	0.00	0.00	291.00	300.00	0.00
14365.000	626.51	0.01	626.60	191.41	248.61	185.29	256.10	0.07	195.61	291.00	300.00	387.02
* 14735.000	627.08	0.00	627.66	132.91	3.07	455.53	231.40	0.00	0.00	278.00	300.00	0.00
14735.000	627.15	0.07	627.79	72.16	0.00	478.69	211.31	0.08	278.00	278.00	300.00	350.25
15245.000	629.25	0.00	629.40	119.98	0.00	475.51	214.48	0.00	0.00	267.00	300.00	0.00
15245.000	629.36	0.11	629.53	90.00	0.00	495.99	194.01	90.00	270.00	267.00	300.00	360.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
17385.000	633.14	0.00	633.62	11.50	0.00	300.00	0.00	0.00	0.00	287.50	299.00	0.00
17385.000	633.19	0.04	633.65	11.50	0.00	300.00	0.00	0.00	0.00	287.50	299.00	0.00
17481.000	634.56	0.00	634.62	140.12	56.81	175.57	67.62	0.00	0.00	287.50	299.00	0.00
17481.000	634.57	0.01	634.63	141.09	56.94	175.31	67.74	0.00	0.00	287.50	299.00	0.00
17851.000	634.67	0.00	634.68	163.74	13.46	70.31	216.23	185.00	225.00	289.00	300.00	410.00
17851.000	634.68	0.01	634.69	116.88	10.45	72.91	216.64	0.05	282.79	289.00	300.00	399.67
18191.000	634.71	0.00	634.73	148.20	111.51	51.03	137.47	0.00	0.00	280.50	286.00	0.00
18191.000	634.72	0.01	634.74	100.86	109.49	53.29	137.22	0.05	241.46	280.50	286.00	342.32
18270.000	636.68	0.00	636.68	180.00	116.53	35.18	148.28	180.00	200.00	280.50	286.00	380.00
18270.000	636.68	0.00	636.68	180.00	116.54	35.18	148.28	180.00	200.00	280.50	286.00	380.00
18645.000	636.67	0.00	636.77	95.88	101.39	83.15	115.47	0.00	0.00	280.50	286.00	0.00
18645.000	636.66	-0.01	636.78	60.34	98.36	88.67	112.97	0.07	257.31	280.50	286.00	317.65
18835.000	637.00	0.00	637.03	304.44	1.08	181.58	117.35	0.00	0.00	251.00	300.00	0.00
18835.000	637.05	0.05	637.09	187.50	0.00	199.23	100.77	0.12	251.00	251.00	300.00	438.50
18930.000	637.08	0.00	637.38	131.65	0.00	272.71	27.29	0.00	0.00	251.00	300.00	0.00
18930.000	637.13	0.04	637.49	49.00	0.00	300.00	0.00	0.12	251.00	251.00	300.00	300.00
19020.000	638.06	0.00	638.29	138.81	0.00	264.92	35.08	0.00	0.00	251.00	300.00	0.00
19020.000	638.16	0.11	638.45	52.53	0.00	296.40	3.60	0.14	251.00	251.00	300.00	303.54
-15245.000	629.25	0.00	629.28	119.98	0.00	206.73	93.27	0.00	0.00	267.00	300.00	0.00
-15245.000	629.36	0.11	629.39	93.64	0.00	214.15	85.85	0.05	267.00	267.00	300.00	361.31
220.000	629.32	0.00	629.37	54.25	0.00	114.55	0.45	0.00	0.00	267.00	300.00	0.00
220.000	629.43	0.11	629.47	28.37	0.00	115.00	0.00	0.01	267.00	267.00	300.00	300.00
330.000	629.40	0.00	629.51	23.87	0.00	115.00	0.00	0.00	0.00	267.00	300.00	0.00
330.000	629.50	0.10	629.60	24.38	0.00	115.00	0.00	0.00	267.00	267.00	300.00	300.00
445.000	629.76	0.00	630.02	20.07	0.00	115.00	0.00	0.00	0.00	267.00	300.00	0.00
445.000	629.80	0.05	630.05	20.30	0.00	115.00	0.00	0.00	267.00	267.00	300.00	300.00
* 890.000	635.45	0.00	636.34	11.89	15.07	79.95	19.97	0.00	0.00	998.50	1001.50	0.00
* 890.000	635.33	-0.11	636.49	7.77	11.82	85.26	17.92	0.07	996.11	998.50	1001.50	1003.87
933.000	636.44	0.00	636.62	117.09	19.85	56.17	38.98	0.00	0.00	998.50	1001.50	0.00

933.000	636.44	0.00	636.69	51.30	12.63	62.51	3 .86	0.13	995.85	998.50	1001.50	[illegible]
1055.000	636.78	0.00	636.80	146.64	34.16	80.51	0.33	185.00	145.00	274.00	300.00	330.00
1055.000	636.88	0.10	636.91	142.39	29.00	85.99	0.01	0.59	158.26	274.00	300.00	312.24
1585.000	637.03	0.00	637.17	14.00	0.00	115.00	0.00	0.00	0.00	286.00	300.00	0.00
1585.000	637.15	0.12	637.27	14.00	0.00	115.00	0.00	0.00	286.00	286.00	300.00	300.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	1588.000	636.98	0.00	637.23	14.00	0.00	115.00	0.00	0.00	0.00	286.00	300.00	0.00
	1588.000	637.10	0.12	637.33	14.00	0.00	115.00	0.00	0.00	286.00	286.00	300.00	300.00
	1647.000	637.38	0.00	637.58	14.00	0.00	115.00	0.00	0.00	0.00	286.00	300.00	0.00
	1647.000	637.47	0.09	637.66	14.00	0.00	115.00	0.00	0.00	286.00	286.00	300.00	300.00
	1650.000	637.55	0.00	637.62	20.00	6.96	104.98	3.06	20.00	282.00	286.00	300.00	302.00
	1650.000	637.61	0.06	637.70	16.04	2.82	111.64	0.54	0.08	284.49	286.00	300.00	300.52
*	2070.000	641.88	0.00	642.28	43.60	0.00	96.82	18.18	263.00	287.00	287.00	300.00	550.00
*	2070.000	641.88	0.00	642.28	43.50	0.00	96.89	18.11	263.00	287.00	287.00	300.00	550.00
	3435.000	647.43	0.00	647.54	36.84	50.04	49.84	15.12	0.00	0.00	296.00	300.00	0.00
	3435.000	647.52	0.09	647.65	22.11	51.42	52.48	11.10	0.08	281.37	296.00	300.00	303.49

LOWING-COMSTOCK DRAI

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
300.000	0.00	0.00	0.00	583.90	330.00	587.39	0.00	587.73	72.86	4.69	70.33	38.66
300.000	0.00	0.00	0.00	583.90	330.00	587.46	0.00	587.78	66.54	4.54	72.63	40.46
1050.000	750.00	0.00	0.00	589.40	330.00	592.77	0.00	593.10	71.96	5.02	100.29	38.90
1050.000	750.00	0.00	0.00	589.40	330.00	592.79	0.00	593.16	78.43	5.25	87.94	37.26
1425.000	375.00	0.00	0.00	592.40	330.00	595.67	0.00	596.07	90.26	5.46	89.22	34.73
1425.000	375.00	0.00	0.00	592.40	330.00	595.81	0.00	596.24	87.34	5.50	74.35	35.31
1615.000	190.00	0.00	0.00	593.90	330.00	597.26	0.00	597.59	73.72	5.06	99.09	38.44
1615.000	190.00	0.00	0.00	593.90	330.00	597.38	0.00	597.74	72.83	5.11	85.83	38.67
1800.000	185.00	0.00	0.00	595.40	330.00	598.68	0.00	599.07	88.16	5.41	90.35	35.15
1800.000	185.00	0.00	0.00	595.40	330.00	598.79	0.00	599.23	87.81	5.50	75.05	35.22
2240.000	440.00	0.00	0.00	596.40	330.00	600.90	0.00	601.18	30.25	4.22	78.18	60.00
2240.000	440.00	0.00	0.00	596.40	330.00	600.99	0.00	601.25	28.31	4.13	79.96	62.02
2241.000	1.00	604.10	604.40	596.40	330.00	600.82	0.00	601.27	43.37	5.43	60.78	50.11
2241.000	1.00	604.10	604.40	596.40	330.00	600.91	0.00	601.34	39.95	5.27	62.63	52.21
2253.000	12.00	604.10	604.40	596.40	330.00	600.90	0.00	601.33	40.45	5.29	62.35	51.89
2253.000	12.00	604.10	604.40	596.40	330.00	600.98	0.00	601.39	37.60	5.15	64.03	53.82
2255.000	2.00	0.00	0.00	596.40	330.00	601.19	0.00	601.40	15.77	3.78	91.34	83.11
2255.000	2.00	0.00	0.00	596.40	330.00	601.25	0.00	601.46	14.98	3.71	92.94	85.27

3215.000	960.00	0.00	0.00	598.90	330.00	603.45	0.00	603.86	45.87	5.15	64.02	48.72
3215.000	960.00	0.00	0.00	598.90	330.00	603.44	0.00	603.86	46.35	5.17	63.77	48.47
5495.000	2280.00	0.00	0.00	599.70	290.00	606.15	0.00	606.26	3.93	2.64	110.00	146.24
5495.000	2280.00	0.00	0.00	599.70	290.00	606.15	0.00	606.26	3.93	2.64	110.00	146.22
5575.000	80.00	608.50	604.00	599.70	290.00	607.48	0.00	607.56	1.98	2.14	135.23	206.31
5575.000	80.00	608.50	604.00	599.70	290.00	607.48	0.00	607.56	1.98	2.14	135.23	206.30
7725.000	2150.00	0.00	0.00	602.85	295.00	608.19	0.00	608.34	7.38	3.10	95.03	108.60
7725.000	2150.00	0.00	0.00	602.85	295.00	608.19	0.00	608.34	7.38	3.10	95.03	108.60
7795.000	70.00	614.70	607.40	602.85	295.00	609.94	0.00	610.02	2.48	2.24	131.83	187.39
7795.000	70.00	614.70	607.40	602.85	295.00	609.94	0.00	610.02	2.48	2.24	131.83	187.38
9820.000	2025.00	0.00	0.00	606.60	800.00	611.96	0.00	612.22	28.79	5.39	251.47	149.09
9820.000	2025.00	0.00	0.00	606.60	800.00	611.96	0.00	612.22	28.79	5.39	251.46	149.09
10375.000	555.00	0.00	0.00	608.85	800.00	613.86	0.00	614.27	46.80	6.54	202.49	116.94
10375.000	555.00	0.00	0.00	608.85	800.00	613.86	0.00	614.27	46.80	6.54	202.49	116.94

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
10930.000	555.00	0.00	0.00	611.10	800.00	616.26	0.00	616.59	37.47	5.99	223.85	130.69
10930.000	555.00	0.00	0.00	611.10	800.00	616.26	0.00	616.59	37.47	5.99	223.85	130.69
12039.000	1109.00	0.00	0.00	615.60	690.00	620.88	0.00	621.85	55.56	7.91	87.28	92.57
12039.000	1109.00	0.00	0.00	615.60	690.00	620.88	0.00	621.85	55.56	7.91	87.28	92.57
12090.000	51.00	624.60	621.70	615.60	690.00	622.93	0.00	623.41	17.18	5.56	124.11	166.46
12090.000	51.00	624.60	621.70	615.60	690.00	622.93	0.00	623.41	17.18	5.56	124.11	166.46
12620.000	530.00	0.00	0.00	616.80	690.00	623.95	0.00	624.20	11.06	4.38	201.29	207.47
12620.000	530.00	0.00	0.00	616.80	690.00	623.95	0.00	624.21	11.55	4.48	189.57	203.01
13150.000	530.00	0.00	0.00	618.00	690.00	624.56	0.00	624.70	7.20	3.55	249.11	257.20
13150.000	530.00	0.00	0.00	618.00	690.00	624.58	0.00	624.73	7.65	3.67	227.64	249.44
13220.000	70.00	625.00	623.30	618.00	690.00	626.12	0.00	626.18	2.43	2.42	386.45	442.87
13220.000	70.00	625.00	623.30	618.00	690.00	626.12	0.00	626.18	2.42	2.41	386.78	443.35
13765.000	545.00	624.10	624.60	618.70	690.00	626.34	0.00	626.35	4.73	1.03	743.19	317.15
13765.000	545.00	624.10	624.60	618.70	690.00	626.35	0.00	626.37	5.31	1.09	676.05	299.32
13781.000	16.00	624.10	624.60	618.70	690.00	626.35	0.00	626.36	4.70	1.03	745.17	318.41
13781.000	16.00	624.10	624.60	618.70	690.00	626.36	0.00	626.37	5.27	1.09	677.45	300.54
13995.000	214.00	0.00	0.00	619.20	690.00	626.40	0.00	626.41	2.03	1.76	886.61	484.66
13995.000	214.00	0.00	0.00	619.20	690.00	626.41	0.00	626.43	2.00	1.75	891.72	488.48
14365.000	370.00	0.00	0.00	620.70	690.00	626.51	0.00	626.57	11.18	3.56	463.99	206.34
14365.000	370.00	0.00	0.00	620.70	690.00	626.51	0.00	626.60	12.66	3.79	402.67	193.90
* 14735.000	370.00	0.00	0.00	622.20	690.00	627.08	627.08	627.66	108.11	7.24	150.26	66.36
14735.000	370.00	0.00	0.00	622.20	690.00	627.15	0.00	627.79	109.98	7.40	131.87	65.79
15245.000	510.00	0.00	0.00	623.50	690.00	629.25	0.00	629.40	16.23	3.63	277.32	171.26
15245.000	510.00	0.00	0.00	623.50	690.00	629.36	0.00	629.53	15.96	3.72	255.72	172.72
17385.000	2140.00	0.00	0.00	628.30	300.00	633.14	0.00	633.62	29.28	5.53	54.27	55.44
17385.000	2140.00	0.00	0.00	628.30	300.00	633.19	0.00	633.65	28.43	5.48	54.76	56.27

17481.000	96.00	634.00	633.00	628.30	300.00	634.56	0.00	634.62	4.19	2.49	206.72	146 63
17481.000	96.00	634.00	633.00	628.30	300.00	634.57	0.00	634.63	4.16	2.48	207.73	147.13
17851.000	370.00	0.00	0.00	627.70	300.00	634.67	0.00	634.68	0.72	0.97	526.11	352.78
17851.000	370.00	0.00	0.00	627.70	300.00	634.68	0.00	634.69	0.77	1.01	495.13	341.02
18191.000	340.00	0.00	0.00	628.70	300.00	634.71	0.00	634.73	2.12	1.65	364.97	205.82
18191.000	340.00	0.00	0.00	628.70	300.00	634.72	0.00	634.74	2.30	1.72	329.31	198.01
18270.000	79.00	635.70	633.90	628.70	300.00	636.68	0.00	636.68	0.37	0.84	699.76	492.56
18270.000	79.00	635.70	633.90	628.70	300.00	636.68	0.00	636.68	0.37	0.84	699.87	492.67

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
18645.000	375.00	0.00	0.00	632.40	300.00	636.67	0.00	636.77	19.39	3.90	153.05	68.13
18645.000	375.00	0.00	0.00	632.40	300.00	636.66	0.00	636.78	22.22	4.17	131.78	63.65
18835.000	190.00	0.00	0.00	634.30	300.00	637.00	0.00	637.03	9.30	1.82	282.28	98.36
18835.000	190.00	0.00	0.00	634.30	300.00	637.05	0.00	637.09	10.68	1.95	227.88	91.82
18930.000	95.00	0.00	0.00	635.20	300.00	637.08	636.99	637.38	114.81	4.55	81.74	28.00
18930.000	95.00	0.00	0.00	635.20	300.00	637.13	0.00	637.49	125.62	4.83	62.17	26.77
19020.000	90.00	0.00	0.00	636.10	300.00	638.06	0.00	638.29	87.70	4.14	92.58	32.04
19020.000	90.00	0.00	0.00	636.10	300.00	638.16	0.00	638.45	87.57	4.32	70.86	32.06
-15245.000	0.00	0.00	0.00	623.50	300.00	629.25	0.00	629.28	3.07	1.58	27/.36	171.29
-15245.000	0.00	0.00	0.00	623.50	300.00	629.36	0.00	629.39	3.04	1.59	259.11	172.04
220.000	220.00	0.00	0.00	625.60	115.00	629.32	0.00	629.37	6.41	1.64	72.71	45.42
220.000	220.00	0.00	0.00	625.60	115.00	629.43	0.00	629.47	5.62	1.57	73.31	48.49
330.000	110.00	0.00	0.00	626.65	115.00	629.40	0.00	629.51	23.38	2.59	44.39	23 78
330.000	110.00	0.00	0.00	626.65	115.00	629.50	0.00	629.60	20.18	2.46	46.79	25.60
445.000	115.00	0.00	0.00	627.75	115.00	629.76	0.00	630.02	85.16	4.09	28.10	12.46
445.000	115.00	0.00	0.00	627.75	115.00	629.80	0.00	630.05	77.76	3.96	29.00	13.04
* 890.000	445.00	0.00	0.00	632.00	115.00	635.45	635.45	636.34	177.82	8.82	19.45	8.62
* 890.000	445.00	0.00	0.00	632.00	115.00	635.33	635.33	636.49	229.69	9.78	16.41	7.59
933.000	43.00	635.90	635.00	632.00	115.00	636.44	0.00	636.62	33.89	4.66	61.26	19.75
933.000	43.00	999999.00	0.00	632.00	115.00	636.44	0.00	636.69	42.05	5.19	46.42	17.73
1055.000	122.00	0.00	0.00	632.60	115.00	636.78	0.00	636.80	3.83	1.38	125.58	58.78
1055.000	122.00	0.00	0.00	632.60	115.00	636.88	0.00	636.91	3.82	1.41	120.05	58.84
1585.000	530.00	0.00	0.00	634.00	115.00	637.03	0.00	637.17	12.91	2.97	38.73	32.00
1585.000	530.00	0.00	0.00	634.00	115.00	637.15	0.00	637.27	13.45	2.85	40.37	31.36
1588.000	3.00	639.50	639.60	634.00	115.00	636.98	0.00	637.23	65.59	4.01	28.64	14.20
1588.000	3.00	639.50	639.60	634.00	115.00	637.10	0.00	637.33	60.19	3.87	29.69	14.82
1647.000	59.00	639.50	639.60	634.00	115.00	637.38	0.00	637.58	50.40	3.59	32.01	16.20
1647.000	59.00	639.50	639.60	634.00	115.00	637.47	0.00	637.66	48.03	3.52	32.70	16.59
1650.000	3.00	0.00	0.00	634.00	115.00	637.55	0.00	637.62	6.05	2.28	57.61	46.74
1650.000	3.00	0.00	0.00	634.00	115.00	637.61	0.00	637.70	6.43	2.38	51.91	45.34
* 2070.000	420.00	0.00	0.00	639.90	115.00	641.88	641.88	642.28	110.11	5.51	28.58	10.96
* 2070.000	420.00	0.00	0.00	639.90	115.00	641.88	641.88	642.28	110.71	5.52	28.50	10.93

3435.000	1365.00	0.00	0.00	643.60	115.00	647.43	0.00	647.54	21.81	3.58	53.72	24.63
3435.000	1365.00	0.00	0.00	643.60	115.00	647.52	0.00	647.65	22.29	3.68	47.04	24.36

LOWING-COMSTOCK DRAI

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
300.000	330.00	587.39	0.00	0.00	0.00	31.65	0.00
300.000	330.00	587.46	0.07	0.00	0.07	32.03	0.00
1050.000	330.00	592.77	0.00	5.38	0.00	102.76	750.00
1050.000	330.00	592.79	0.01	5.33	0.01	80.00	750.00
1425.000	330.00	595.67	0.00	2.90	0.00	101.92	375.00
1425.000	330.00	595.81	0.14	3.02	0.14	53.96	375.00
1615.000	330.00	597.26	0.00	1.59	0.00	102.67	190.00
1615.000	330.00	597.38	0.12	1.58	0.12	64.96	190.00
1800.000	330.00	598.68	0.00	1.42	0.00	102.01	185.00
1800.000	330.00	598.79	0.12	1.41	0.12	56.42	185.00
2240.000	330.00	600.90	0.00	2.22	0.00	21.00	440.00
2240.000	330.00	600.99	0.09	2.20	0.09	21.00	440.00
2241.000	330.00	600.82	0.00	-0.09	0.00	19.55	1.00
2241.000	330.00	600.91	0.09	-0.08	0.09	19.79	1.00
2253.000	330.00	600.90	0.00	0.08	0.00	19.75	12.00
2253.000	330.00	600.98	0.09	0.07	0.09	19.97	12.00
2255.000	330.00	601.19	0.00	0.29	0.00	25.00	2.00
2255.000	330.00	601.25	0.06	0.27	0.06	25.00	2.00
3215.000	330.00	603.45	0.00	2.27	0.00	24.65	960.00
3215.000	330.00	603.44	-0.01	2.19	-0.01	24.60	960.00
5495.000	290.00	606.15	0.00	2.70	0.00	19.00	2280.00
5495.000	290.00	606.15	0.00	2.71	0.00	19.00	2280.00
5575.000	290.00	607.48	0.00	1.33	0.00	19.00	80.00
5575.000	290.00	607.48	0.00	1.33	0.00	19.00	80.00
7725.000	295.00	608.19	0.00	0.70	0.00	21.00	2150.00
7725.000	295.00	608.19	0.00	0.70	0.00	21.00	2150.00
7795.000	295.00	609.94	0.00	1.75	0.00	21.00	70.00
7795.000	295.00	609.94	0.00	1.75	0.00	21.00	70.00
9820.000	800.00	611.96	0.00	2.02	0.00	143.79	2025.00
9820.000	800.00	611.96	0.00	2.02	0.00	143.79	2025.00
10375.000	800.00	613.86	0.00	1.90	0.00	129.02	555.00
10375.000	800.00	613.86	0.00	1.90	0.00	129.02	555.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	10930.000	800.00	616.26	0.00	2.40	0.00	135.66	555.00
	10930.000	800.00	616.26	0.00	2.40	0.00	135.66	555.00
	12039.000	690.00	620.88	0.00	4.62	0.00	18.00	1109.00
	12039.000	690.00	620.88	0.00	4.62	0.00	18.00	1109.00
	12090.000	690.00	622.93	0.00	2.04	0.00	18.00	51.00
	12090.000	690.00	622.93	0.00	2.04	0.00	18.00	51.00
	12620.000	690.00	623.95	0.00	1.03	0.00	42.02	530.00
	12620.000	690.00	623.95	0.00	1.02	0.00	32.96	530.00
	13150.000	690.00	624.56	0.00	0.60	0.00	68.49	530.00
	13150.000	690.00	624.58	0.02	0.63	0.02	49.18	530.00
	13220.000	690.00	626.12	0.00	1.56	0.00	100.00	70.00
	13220.000	690.00	626.12	0.00	1.55	0.00	100.00	70.00
	13765.000	690.00	626.34	0.00	0.22	0.00	344.94	545.00
	13765.000	690.00	626.35	0.01	0.23	0.01	267.80	545.00
	13781.000	690.00	626.35	0.00	0.01	0.00	345.19	16.00
	13781.000	690.00	626.36	0.01	0.01	0.01	267.46	16.00
	13995.000	690.00	626.40	0.00	0.05	0.00	355.00	214.00
	13995.000	690.00	626.41	0.01	0.06	0.01	355.00	214.00
	14365.000	690.00	626.51	0.00	0.11	0.00	299.24	370.00
	14365.000	690.00	626.51	0.01	0.10	0.01	191.41	370.00
*	14735.000	690.00	627.08	0.00	0.57	0.00	132.91	370.00
	14735.000	690.00	627.15	0.07	0.64	0.07	72.16	370.00
	15245.000	690.00	629.25	0.00	2.17	0.00	119.98	510.00
	15245.000	690.00	629.36	0.11	2.21	0.11	90.00	510.00
	17385.000	300.00	633.14	0.00	3.89	0.00	11.50	2140.00
	17385.000	300.00	633.19	0.04	3.82	0.04	11.50	2140.00
	17481.000	300.00	634.56	0.00	1.42	0.00	140.12	96.00
	17481.000	300.00	634.57	0.01	1.38	0.01	141.09	96.00
	17851.000	300.00	634.67	0.00	0.11	0.00	163.74	370.00
	17851.000	300.00	634.68	0.01	0.12	0.01	116.88	370.00
	18191.000	300.00	634.71	0.00	0.04	0.00	148.20	340.00
	18191.000	300.00	634.72	0.01	0.04	0.01	100.86	340.00
	18270.000	300.00	636.68	0.00	1.96	0.00	180.00	79.00
	18270.000	300.00	636.68	0.00	1.95	0.00	180.00	79.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
18645.000	300.00	636.67	0.00	0.00	0.00	95.88	375.00
18645.000	300.00	636.66	-0.01	-0.01	-0.01	60.34	375.00
18835.000	300.00	637.00	0.00	0.33	0.00	304.44	190.00
18835.000	300.00	637.05	0.05	0.38	0.05	187.50	190.00

	18930.000	300.00	637.03	0.00	0.08	0.00	131.65	95.00
	18930.000	300.00	637.13	0.04	0.08	0.04	49.00	95.00
	19020.000	300.00	638.06	0.00	0.97	0.00	138.81	90.00
	19020.000	300.00	638.16	0.11	1.03	0.11	52.53	90.00
	-15245.000	300.00	629.25	0.00	-8.80	0.00	119.98	0.00
	-15245.000	300.00	629.36	0.11	-8.80	0.11	93.64	0.00
	220.000	115.00	629.32	0.00	0.07	0.00	54.25	220.00
	220.000	115.00	629.43	0.11	0.07	0.11	28.37	220.00
	330.000	115.00	629.40	0.00	0.08	0.00	23.87	110.00
	330.000	115.00	629.50	0.10	0.07	0.10	24.38	110.00
	445.000	115.00	629.76	0.00	0.35	0.00	20.07	115.00
	445.000	115.00	629.80	0.05	0.30	0.05	20.30	115.00
*	890.000	115.00	635.45	0.00	5.69	0.00	11.89	445.00
*	890.000	115.00	635.33	-0.11	5.53	-0.11	7.77	445.00
	933.000	115.00	636.44	0.00	1.00	0.00	117.09	43.00
	933.000	115.00	636.44	0.00	1.11	0.00	51.30	43.00
	1055.000	115.00	636.78	0.00	0.34	0.00	146.64	122.00
	1055.000	115.00	636.88	0.10	0.44	0.10	142.39	122.00
	1585.000	115.00	637.03	0.00	0.25	0.00	14.00	530.00
	1585.000	115.00	637.15	0.12	0.26	0.12	14.00	530.00
	1588.000	115.00	636.98	0.00	-0.05	0.00	14.00	3.00
	1588.000	115.00	637.10	0.12	-0.05	0.12	14.00	3.00
	1647.000	115.00	637.38	0.00	0.40	0.00	14.00	59.00
	1647.000	115.00	637.47	0.09	0.37	0.09	14.00	59.00
	1650.000	115.00	637.55	0.00	0.17	0.00	20.00	3.00
	1650.000	115.00	637.61	0.06	0.14	0.06	16.04	3.00
*	2070.000	115.00	641.88	0.00	4.33	0.00	43.60	420.00
*	2070.000	115.00	641.88	0.00	4.27	0.00	43.50	420.00
	3435.000	115.00	647.43	0.00	5.55	0.00	36.84	1365.00
	3435.000	115.00	647.52	0.09	5.64	0.09	22.11	1365.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO= 14735.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 14735.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   890.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   890.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   890.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   890.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=  2070.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  2070.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  2070.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=  2070.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
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CAUTION SECNO= 2070.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 2070.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

FLOODWAY DATA, LOWING-COMSTOCK DRAI
PROFILE NO. 2

STATION	------- FLOODWAY ------- WIDTH	SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
300.000	32.	73.	4.5	587.5	587.4	0.1
1050.000	80.	88.	3.8	592.8	592.8	0.0
1425.000	54.	74.	4.4	595.8	595.7	0.1
1615.000	65.	86.	3.8	597.4	597.3	0.1
1800.000	56.	75.	4.4	598.8	598.7	0.1
2240.000	21.	80.	4.1	601.0	600.9	0.1
2241.000	20.	63.	5.3	600.9	600.8	0.1
2253.000	20.	64.	5.2	601.0	600.9	0.1
2255.000	25.	93.	3.6	601.3	601.2	0.1
3215.000	25.	64.	5.2	603.5	603.5	0.0
5495.000	19.	110.	2.6	606.2	606.2	0.0
5575.000	19.	135.	2.1	607.5	607.5	0.0
7725.000	21.	95.	3.1	608.2	608.2	0.0
7795.000	21.	132.	2.2	609.9	609.9	0.0
9820.000	144.	251.	3.2	612.0	612.0	0.0
10375.000	129.	202.	4.0	613.9	613.9	0.0
10930.000	136.	224.	3.6	616.3	616.3	0.0
12039.000	18.	87.	7.9	620.9	620.9	0.0
12090.000	18.	124.	5.6	622.9	622.9	0.0
12620.000	33.	190.	3.6	624.0	624.0	0.0
13150.000	49.	228.	3.0	624.6	624.6	0.0
13220.000	100.	387.	1.8	626.1	626.1	0.0
13765.000	268.	676.	1.0	626.3	626.3	0.0
13781.000	267.	677.	1.0	626.3	626.3	0.0
13995.000	355.	892.	0.8	626.4	626.4	0.0
14365.000	191.	403.	1.7	626.5	626.5	0.0
14735.000	72.	132.	5.2	627.2	627.1	0.1
15245.000	90.	256.	2.7	629.4	629.3	0.1
17385.000	12.	55.	5.5	633.1	633.1	0.0
17481.000	141.	208.	1.4	634.6	634.6	0.0
17851.000	117.	495.	0.6	634.7	634.7	0.0
18191.000	101.	329.	0.9	634.7	634.7	0.0
18270.000	180.	700.	0.4	636.7	636.7	0.0
18645.000	60.	132.	2.3	636.7	636.7	0.0
18835.000	187.	228.	1.3	637.0	637.0	0.0
18930.000	49.	62.	4.8	637.1	637.1	0.0
19020.000	53.	71.	4.2	638.2	638.1	0.1
-15245.000	94.	259.	1.2	629.4	629.3	0.1
220.000	28.	73.	1.6	629.4	629.3	0.1
330.000	24.	47.	2.5	629.5	629.4	0.1
445.000	20.	29.	4.0	629.8	629.8	0.0
890.000	8.	16.	7.0	635.4	635.4	0.0

FLOODWAY DATA, LOWING-COMSTOCK DRAI

PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
933.000	51.	46.	2.5	636.4	636.4	0.0
1055.000	154.	120.	1.0	636.9	636.8	0.1
1585.000	14.	40.	2.8	637.1	637.0	0.1
1588.000	14.	30.	3.9	637.1	637.0	0.1
1647.000	14.	33.	3.5	637.5	637.4	0.1
1650.000	16.	52.	2.2	637.6	637.5	0.1
2070.000	54.	28.	4.0	641.9	641.9	0.0
3435.000	22.	47.	2.4	647.5	647.4	0.1

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THIS RUN EXECUTED 13 OCT 89 12:55:49

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
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00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP

3) WATERCOURSE: LOWING- COMSTOCK DRAIN

4) DOCUMENT TYPE: 100 YR NATURAL

00BREAK00

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1**************************************************               **************************************
 *  WATER SURFACE PROFILES                         *               *  U.S. ARMY CORPS OF ENGINEERS
 *  VERSION OF NOVEMBER 1976                       *               *  THE HYDROLOGIC ENGINEERING CENTER
 *  UPDATED MAY 1984                               *               *  609 SECOND STREET, SUITE D
 *                                                 *               *  DAVIS, CALIFORNIA 95616
 *  RUN DATE  13 OCT 89 TIME   12:55:21            *               *  (916) 440-2105 (FTS) 448-2105
 **************************************************               **************************************
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X     X  XXXXXXX   XXXXX             XXXXX
X     X  X        X     X           X     X
X     X  X        X                       X
XXXXXXX  XXXX     X         XXXXX    XXXXX
X     X  X        X                 X
X     X  X        X     X           X
X     X  XXXXXXX   XXXXX            XXXXXXX
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THIS RUN EXECUTED 13 OCT 89   12:55:22

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**************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
 ERROR CORR -  01,02,03,04,05,06
 MODIFICATION -  50,51,52,53,54,55,56
**************************************************
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C
T1   GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
T2   FLOOD INSURANCE STUDY
T3   LOWING-COMSTOCK DRAIN - 100-YEAR FLOOD, NATURAL CONDITIONS

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.007300	0.00	0.0	0.	602.600	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	1.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

J3 VARIABLE CODES FOR SUMMARY PRINTOUT

150.000	110.000	200.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

QT	2.000	330.000	330.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.070	0.070	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	1.400	150.000	350.000	0.000	0.000	0.000	0.000	0.000
X1	300.000	31.000	265.000	300.000	300.000	300.000	300.000	0.000	0.000	0.000
GR	591.800	25.000	591.300	50.000	591.100	75.000	589.900	87.000	588.400	100.000
GR	587.200	105.000	587.400	125.000	588.100	142.000	589.400	150.000	589.200	175.000
GR	588.400	200.000	588.300	225.000	588.200	250.000	587.900	265.000	586.500	270.000
GR	585.500	275.000	583.900	280.000	584.200	288.000	585.100	294.000	586.500	297.000
GR	588.300	300.000	587.700	325.000	587.400	350.000	587.200	375.000	586.400	400.000
GR	587.700	425.000	588.400	450.000	588.800	475.000	589.800	500.000	589.900	525.000
GR	590.200	550.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	0.000	4.100	270.000	350.000	0.000	0.000	0.000	0.000	0.000
X1	1050.000	37.000	279.000	300.000	595.000	665.000	750.000	0.000	-6.000	0.000
GR	603.600	25.000	603.500	50.000	603.400	75.000	603.200	100.000	603.400	125.000
GR	603.700	150.000	604.700	175.000	605.100	200.000	605.000	225.000	605.400	243.000
GR	604.300	252.000	598.000	262.000	598.400	275.000	598.400	279.000	597.200	282.000
GR	595.900	283.000	595.400	284.000	595.400	289.000	595.400	295.000	596.600	296.000
GR	597.800	300.000	598.500	325.000	598.000	350.000	598.200	360.000	599.500	368.000
GR	599.000	376.000	599.900	386.000	603.800	400.000	605.900	409.000	606.500	419.000
GR	606.700	425.000	606.800	450.000	606.500	475.000	605.800	500.000	605.000	506.000
GR	604.700	525.000	604.000	550.000	0.000	0.000	0.000	0.000	0.000	0.000

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ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1425.000	0.000	0.000	0.000	295.000	330.000	375.000	0.000	3.000	0.000
X1	1615.000	0.000	0.000	0.000	150.000	170.000	190.000	0.000	1.500	0.000
X1	1800.000	0.000	0.000	0.000	150.000	165.000	185.000	0.000	1.500	0.000
NC	0.050	0.050	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	279.000	300.000	0.000	0.000	0.000	0.000	0.000
X1	2240.000	0.000	0.000	0.000	440.000	360.000	440.000	0.000	1.000	0.000
NC	0.040	0.040	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000

PRIVATE DRIVE

X1	2241.000	25.000	275.000	300.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	604.100	604.100	0.000
BT	-4.000	275.000	604.400	604.400	276.000	604.400	602.400	299.000	604.100	602.000
BT	0.000	300.000	604.100	604.100	0.000	0.000	0.000	0.000	0.000	0.000
GR	606.400	75.000	606.200	100.000	605.900	125.000	605.500	150.000	605.400	175.000
GR	605.000	200.000	604.600	225.000	604.400	250.000	604.400	275.000	602.400	276.000
GR	597.400	282.000	596.700	283.000	596.400	288.000	596.600	292.000	597.400	293.000
GR	602.000	299.000	604.100	300.000	604.000	325.000	604.200	350.000	604.400	375.000
GR	604.700	400.000	605.100	425.000	605.400	450.000	606.000	475.000	606.400	500.000
X1	2253.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	604.100	604.100	0.000
ET	0.000	4.100	4.100	275.000	300.000	0.000	0.000	0.000	0.000	0.000
X1	2255.000	37.000	279.000	300.000	2.000	2.000	2.000	0.000	1.000	0.000
GR	603.600	25.000	603.500	50.000	603.400	75.000	603.200	100.000	603.400	125.000
GR	603.700	150.000	604.700	175.000	605.100	200.000	605.000	225.000	605.400	243.000
GR	604.300	252.000	598.000	262.000	598.400	275.000	598.400	279.000	597.200	282.000
GR	595.900	283.000	595.400	284.000	595.400	289.000	595.400	295.000	596.600	296.000
GR	597.800	300.000	598.500	325.000	598.000	350.000	598.200	360.000	599.500	368.000
GR	599.000	376.000	599.900	386.000	603.800	400.000	605.900	409.000	606.500	419.000
GR	606.700	425.000	606.800	450.000	606.500	475.000	605.800	500.000	605.000	506.000
GR	604.700	525.000	604.000	550.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	3215.000	30.000	262.000	300.000	930.000	1000.000	960.000	0.000	0.000	0.000
GR	606.500	0.000	606.300	25.000	606.100	50.000	606.000	75.000	605.600	100.000
GR	605.200	125.000	605.200	150.000	604.900	175.000	604.800	200.000	605.100	225.000
GR	605.800	250.000	606.100	262.000	600.000	278.000	599.900	279.000	599.200	280.000
GR	598.900	282.000	599.100	285.000	599.900	286.000	600.000	287.000	606.800	300.000
GR	606.000	325.000	606.000	350.000	606.300	375.000	606.300	400.000	606.200	425.000
GR	606.100	450.000	606.100	475.000	606.400	500.000	606.600	525.000	606.800	550.000
QT	2.000	290.000	290.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.040	0.040	0.035	0.300	0.500	0.000	0.000	0.000	0.000	0.000

1

FILLMORE STREET

X1	5495.000	26.000	276.000	295.000	2280.000	2280.000	2280.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	608.500	608.500	0.000
GR	609.500	50.000	609.500	75.000	609.500	100.000	609.600	125.000	609.500	150.000
GR	609.500	175.000	609.400	200.000	609.550	225.000	609.300	250.000	606.100	263.000
GR	601.300	275.000	600.800	276.000	599.700	281.000	600.600	287.000	600.350	291.000
GR	600.700	294.000	602.000	295.000	607.600	300.000	608.700	325.000	608.650	350.000
GR	608.600	375.000	608.500	400.000	608.500	425.000	608.550	450.000	608.600	475.000
GR	608.600	500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	3.130	3.000	0.000	12.500	0.000	54.000	0.000	0.000	0.000
X1	5575.000	0.000	0.000	0.000	80.000	80.000	80.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	604.000	608.500	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	608.500	608.500	0.000
BT	-23.000	50.000	609.500	609.500	100.000	609.500	609.500	125.000	609.600	609.600
BT	0.000	150.000	609.500	609.500	175.000	609.500	609.500	200.000	609.400	609.400
BT	0.000	225.000	609.550	609.550	250.000	609.300	609.300	263.000	609.100	606.100
BT	0.000	275.000	608.900	601.300	276.000	608.900	600.800	281.000	608.900	604.200
BT	0.000	287.000	608.900	600.600	291.000	608.900	604.000	294.000	608.900	602.000
BT	0.000	295.000	608.900	602.000	300.000	608.900	607.600	325.000	608.700	608.700
BT	0.000	375.000	608.600	608.600	400.000	608.500	608.500	425.000	608.500	608.500
BT	0.000	475.000	608.600	608.600	500.000	608.600	608.600	0.000	0.000	0.000
QT	2.000	295.000	295.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CEDAR LAKE DRIVE

X1	7725.000	27.000	259.000	280.000	2150.000	2150.000	2150.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	614.700	614.700	0.000
GR	617.100	50.000	616.800	75.000	616.550	100.000	616.300	125.000	616.200	150.000
GR	615.900	175.000	615.700	200.000	615.500	225.000	611.800	243.000	604.400	259.000
GR	603.900	263.000	603.100	264.000	602.850	265.000	603.200	267.000	603.800	269.000
GR	603.850	276.000	603.150	280.000	604.100	281.000	611.800	300.000	614.700	325.000
GR	614.800	350.000	615.000	375.000	615.150	400.000	615.300	425.000	615.400	450.000
GR	615.500	475.000	615.700	500.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	3.120	2.700	0.000	10.500	0.000	48.000	0.000	0.000	0.000
X1	7795.000	0.000	0.000	0.000	70.000	70.000	70.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	607.400	614.700	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	614.700	614.700	0.000
BT	-23.000	50.000	617.100	617.100	75.000	616.800	616.800	125.000	616.300	616.300
BT	0.000	150.000	616.200	616.200	175.000	615.900	615.900	225.000	615.500	615.500
BT	0.000	243.000	615.300	611.800	259.000	615.300	604.400	263.000	615.200	607.200
BT	0.000	264.000	615.200	607.400	265.000	615.200	607.700	267.000	615.200	607.300
BT	0.000	269.000	615.100	603.800	276.000	615.100	607.400	280.000	615.100	604.200
BT	0.000	281.000	615.100	604.100	300.000	614.900	611.800	325.000	614.700	614.700
BT	0.000	350.000	614.800	614.800	375.000	615.000	615.000	425.000	615.300	615.300
BT	0.000	475.000	615.500	615.500	500.000	615.700	615.700	0.000	0.000	0.000
QT	2.000	800.000	800.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.040	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	25.000	326.000	0.000	0.000	0.000	0.000	0.000

X1	9820.000	31.000	286.000	300.000	2025.000	2025.000	2025.000	0.000	0.000	0.000
GR	618.000	25.000	619.000	50.000	619.600	75.000	617.100	100.000	615.100	125.000
GR	613.900	150.000	612.100	175.000	611.400	200.000	610.800	225.000	610.600	250.000
GR	609.700	275.000	609.000	286.000	607.000	288.000	606.700	289.000	606.600	293.000
GR	606.600	298.000	607.000	299.000	608.600	300.000	608.900	307.000	612.400	326.000
GR	612.200	350.000	611.700	375.000	611.600	400.000	612.000	425.000	611.800	435.000
GR	609.100	443.000	612.000	448.000	611.200	475.000	610.800	500.000	610.800	525.000
GR	610.700	550.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	4.100	4.100	25.000	326.000	0.000	0.000	0.000	0.000	0.000
X1	10375.000	0.000	0.000	0.000	555.000	555.000	555.000	0.000	2.250	0.000
ET	0.000	4.100	4.100	25.000	326.000	0.000	0.000	0.000	0.000	0.000
X1	10930.000	0.000	0.000	0.000	555.000	555.000	555.000	0.000	2.250	0.000
QT	2.000	690.000	690.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	24TH AVENUE									
X1	12039.000	25.000	282.000	300.000	1109.000	1109.000	1109.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	624.600	624.600	0.000
GR	623.400	75.000	623.500	100.000	623.700	125.000	623.900	150.000	624.000	175.000
GR	624.150	200.000	624.300	225.000	624.400	250.000	624.500	275.000	615.600	282.000
GR	615.700	286.000	615.700	288.000	616.100	289.000	616.200	291.000	616.200	294.000
GR	616.400	297.000	616.200	300.000	625.100	325.000	625.500	350.000	626.000	375.000
GR	626.600	400.000	627.250	425.000	627.900	450.000	628.600	475.000	629.100	500.000
SB	0.000	3.080	2.800	0.000	17.000	0.000	95.000	0.000	0.000	0.000
X1	12090.000	0.000	0.000	0.000	51.000	51.000	51.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	621.700	623.400	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	624.600	624.600	0.000
BT	-8.000	282.000	624.600	624.600	282.000	624.600	621.700	287.800	624.700	621.700
BT	0.000	288.200	624.700	621.700	293.800	624.700	621.700	294.200	624.700	621.700
BT	0.000	300.000	624.800	621.700	300.000	624.800	624.800	0.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12620.000	0.000	0.000	0.000	530.000	530.000	530.000	0.000	1.200	0.000
NC	0.040	0.040	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	BAUER ROAD									
X1	13150.000	26.000	270.000	287.000	530.000	530.000	530.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	623.000	623.000	0.000
GR	627.200	75.000	626.800	100.000	626.600	125.000	626.400	150.000	626.100	175.000
GR	625.950	200.000	625.800	225.000	625.600	250.000	621.600	261.000	619.800	270.000
GR	618.900	275.000	618.600	282.000	618.200	282.000	618.000	285.000	618.100	287.000
GR	618.600	287.000	620.800	300.000	625.200	325.000	625.200	350.000	625.100	375.000
GR	625.100	400.000	625.100	425.000	625.100	450.000	625.000	475.000	625.100	500.000
GR	625.100	525.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	3.120	2.900	100.000	10.500	0.000	56.000	0.000	0.000	0.000
X1	13220.000	0.000	0.000	0.000	70.000	70.000	70.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	623.300	625.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	250.000	628.000	350.000	628.000	625.500	625.500	0.000

NC	0.060	0.060	0.040	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	PRIVATE ROAD									
X1	13765.000	28.000	285.000	300.000	500.000	525.000	545.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	624.100	624.100	0.000
BT	-6.000	261.000	624.100	624.100	273.000	624.550	624.100	276.000	624.550	622.700
BT	0.000	299.000	624.700	622.750	300.000	624.700	624.600	310.000	624.600	624.600
GR	626.500	75.000	625.500	100.000	624.600	125.000	624.100	150.000	624.100	175.000
GR	624.500	200.000	624.400	225.000	624.200	250.000	624.100	261.000	624.100	273.000
GR	622.700	276.000	619.500	285.000	619.300	287.000	619.100	288.000	619.000	291.000
GR	618.700	294.000	619.900	296.000	622.300	299.000	624.600	300.000	624.600	310.000
GR	623.500	325.000	622.700	350.000	623.000	374.000	625.000	400.000	626.400	425.000
GR	628.300	450.000	629.200	475.000	629.300	500.000	0.000	0.000	0.000	0.000
X1	13781.000	0.000	0.000	0.000	16.000	16.000	16.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	624.100	624.100	0.000
X1	13995.000	30.000	291.000	300.000	169.000	174.000	214.000	0.000	0.000	0.000

X3	0.000	0.000	0.000	195.000	0.000	550.000	0.000	0.000	0.000	0.000
GR	627.700	25.000	627.500	50.000	627.400	75.000	627.200	100.000	626.200	125.000
GR	625.300	150.000	624.200	175.000	623.700	200.000	623.400	225.000	622.900	250.000
GR	623.800	273.000	622.400	282.000	620.200	291.000	619.500	292.000	619.200	293.000
GR	619.200	295.000	619.200	297.000	619.500	298.000	621.400	300.000	622.700	315.000
GR	622.900	325.000	623.000	350.000	623.600	375.000	624.300	400.000	624.600	425.000
GR	624.900	450.000	625.400	475.000	625.300	500.000	625.600	525.000	625.900	550.000
X1	14365.000	0.000	0.000	0.000	365.000	355.000	370.000	0.000	1.500	0.000
X1	14735.000	30.000	278.000	300.000	360.000	355.000	370.000	0.000	0.000	0.000
GR	628.900	25.000	628.700	50.000	628.400	75.000	628.100	100.000	627.900	125.000
GR	627.800	150.000	627.500	175.000	627.400	200.000	627.300	225.000	626.800	250.000
GR	627.200	275.000	627.200	278.000	622.800	288.000	622.700	289.000	622.200	289.000
GR	622.200	291.000	622.200	293.000	622.900	293.000	623.300	294.000	626.100	300.000
GR	625.700	325.000	625.800	350.000	626.800	375.000	628.300	400.000	630.000	425.000
GR	630.800	450.000	630.600	475.000	630.800	500.000	631.600	525.000	632.100	550.000
ET	0.000	0.000	4.100	270.000	360.000	0.000	0.000	0.000	0.000	0.000

CONFLUENCE WITH TRIBUTARY DRAIN

X1	15245.000	33.000	267.000	300.000	515.000	495.000	510.000	0.000	0.000	0.000
GR	630.600	25.000	630.600	50.000	630.700	75.000	630.500	100.000	630.000	125.000
GR	629.700	150.000	630.200	175.000	630.000	200.000	629.300	225.000	629.400	250.000
GR	630.700	255.000	629.700	267.000	624.100	278.000	623.900	289.000	623.600	290.000
GR	623.500	291.000	623.500	293.000	624.500	294.000	625.100	294.000	627.000	300.000
GR	627.200	325.000	627.600	350.000	628.000	375.000	628.700	385.000	631.600	400.000
GR	634.800	415.000	635.200	425.000	635.500	450.000	634.600	475.000	633.700	487.000
GR	634.800	497.000	635.000	525.000	635.200	550.000	0.000	0.000	0.000	0.000
GT	2.000	300.000	300.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000

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PARKSIDE DRIVE

X1	17385.000	24.000	287.500	299.000	2125.000	2040.000	2140.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	633.500	633.500	0.000
GR	636.100	75.000	636.100	100.000	635.900	125.000	635.500	150.000	635.200	175.000
GR	634.750	200.000	634.400	225.000	634.200	250.000	634.100	275.000	629.400	284.000
GR	629.000	287.500	628.400	288.000	628.300	292.000	628.500	298.000	629.000	299.000
GR	629.800	300.000	634.200	325.000	634.500	350.000	634.900	375.000	635.400	400.000
GR	636.000	425.000	636.700	450.000	637.200	475.000	637.500	500.000	0.000	0.000
SB	0.000	3.120	2.800	0.000	8.000	0.000	36.000	0.000	0.000	0.000
X1	17481.000	0.000	0.000	0.000	96.000	96.000	96.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	633.000	634.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	634.000	634.000	0.000
BT	-18.000	125.000	635.900	635.900	150.000	635.500	635.500	175.000	635.200	635.200
BT	0.000	200.000	634.750	634.750	225.000	634.400	634.400	250.000	634.200	634.200
BT	0.000	275.000	634.100	634.100	284.000	634.000	629.400	287.500	634.000	629.000
BT	0.000	288.000	634.000	631.600	292.000	634.000	633.000	298.000	634.000	630.000
BT	0.000	299.000	634.100	629.000	300.000	634.100	629.800	325.000	634.200	634.200
BT	0.000	350.000	634.500	634.500	375.000	634.900	634.900	400.000	635.400	635.400
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	1.400	225.000	410.000	0.000	0.000	0.000	0.000	0.000
X1	17851.000	32.000	289.000	300.000	370.000	370.000	370.000	0.000	0.000	0.000
GR	635.500	25.000	635.000	50.000	634.800	75.000	634.700	100.000	634.600	125.000
GR	634.000	150.000	634.500	175.000	634.500	200.000	634.500	225.000	634.600	250.000
GR	635.000	275.000	629.400	289.000	629.200	290.000	629.000	291.000	627.900	292.000
GR	627.700	295.000	627.800	300.000	629.700	300.000	630.900	313.000	631.000	320.000
GR	630.100	325.000	630.600	350.000	630.800	375.000	631.100	390.000	632.100	400.000
GR	635.400	422.000	635.500	425.000	635.700	450.000	635.900	475.000	636.400	500.000
GR	636.900	525.000	637.300	550.000	0.000	0.000	0.000	0.000	0.000	0.000

	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000

28TH AVENUE

X1	18191.000	24.000	280.500	286.000	275.000	400.000	340.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	632.900	632.900	0.000
GR	635.750	75.000	635.800	100.000	635.950	125.000	636.100	150.000	636.200	175.000
GR	636.300	200.000	634.300	225.000	632.300	250.000	630.300	275.000	629.800	280.500
GR	629.500	281.000	628.700	283.000	629.100	285.000	629.300	286.000	630.000	290.000
GR	631.300	300.000	632.250	325.000	633.700	350.000	635.100	375.000	636.000	400.000
GR	636.000	425.000	636.000	450.000	635.800	475.000	635.700	500.000	0.000	0.000
SB	0.000	3.120	2.800	0.000	4.000	0.000	21.000	0.000	0.000	0.000
X1	18270.000	0.000	0.000	0.000	79.000	79.000	79.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	633.900	635.700	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	200.000	0.000	380.000	0.000	635.700	635.700	0.000
BT	-13.000	200.000	636.300	636.300	225.000	636.300	636.300	250.000	636.300	636.300
BT	0.000	275.000	636.300	636.300	280.500	636.300	629.800	281.000	636.300	633.000
BT	0.000	283.000	636.300	633.900	285.000	636.300	633.000	286.000	636.300	629.300
BT	0.000	290.000	636.300	630.000	300.000	636.300	636.300	350.000	636.200	636.200
BT	0.000	400.000	636.000	636.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18645.000	0.000	0.000	0.000	375.000	375.000	375.000	0.000	3.700	0.000
X1	18835.000	26.000	251.000	300.000	190.000	190.000	190.000	0.000	-1.800	0.000
GR	639.800	0.000	639.500	25.000	639.800	50.000	643.100	75.000	643.500	90.000
GR	643.700	100.000	643.400	125.000	643.400	150.000	644.200	175.000	644.400	201.000
GR	642.200	225.000	637.900	251.000	636.100	280.000	636.100	286.000	636.200	292.000
GR	637.500	300.000	637.600	325.000	637.800	350.000	637.900	375.000	638.200	400.000
GR	638.400	425.000	638.300	450.000	638.300	475.000	638.300	500.000	638.200	525.000
GR	638.100	550.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18930.000	0.000	0.000	0.000	95.000	95.000	95.000	0.000	0.900	0.000
X1	19020.000	26.000	251.000	300.000	90.000	90.000	90.000	0.000	0.000	0.000
GR	639.800	0.000	639.500	25.000	639.800	50.000	643.100	75.000	643.500	90.000
GR	643.700	100.000	643.400	125.000	643.400	150.000	644.200	175.000	644.400	201.000
GR	642.200	225.000	637.900	251.000	636.100	280.000	636.100	286.000	636.200	292.000
GR	637.500	300.000	637.600	325.000	637.800	350.000	637.900	375.000	638.200	400.000
GR	638.400	425.000	638.300	450.000	638.300	475.000	638.300	500.000	638.200	525.000
GR	638.100	550.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.040	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	-15245.000	33.000	267.000	300.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	630.600	25.000	630.600	50.000	630.700	75.000	630.500	100.000	630.000	125.000
GR	629.700	150.000	630.200	175.000	630.000	200.000	629.300	225.000	629.400	250.000
GR	630.700	255.000	629.700	267.000	624.100	278.000	623.900	289.000	623.600	290.000
GR	623.500	291.000	623.500	293.000	624.500	294.000	625.100	294.000	627.000	300.000
GR	627.200	325.000	627.600	350.000	628.000	375.000	628.700	385.000	631.600	400.000
GR	634.800	415.000	635.200	425.000	635.500	450.000	634.600	475.000	633.700	487.000
GR	634.800	497.000	635.000	525.000	635.200	550.000	0.000	0.000	0.000	0.000
QT	2.000	115.000	115.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	220.000	0.000	0.000	0.000	195.000	220.000	220.000	0.000	2.100	0.000
X1	330.000	0.000	0.000	0.000	95.000	110.000	110.000	0.000	1.050	0.000
X1	445.000	0.000	0.000	0.000	100.000	110.000	115.000	0.000	1.100	0.000
NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000

PARK ROAD CULVERT

X1	890.000	10.000	998.500	1001.500	395.000	440.000	445.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	634.900	634.900	0.000

GR	638.000	650.000	636.800	990.000	633.500	998.500	632.600	999.000	632.000	1000.000
GR	632.600	1001.500	635.900	1006.000	635.900	1008.000	636.400	1100.000	638.000	1400.000
SB	0.000	3.120	2.600	0.000	2.500	0.000	7.000	0.000	0.000	0.000
X1	933.000	0.000	0.000	0.000	43.000	43.000	43.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	635.000	635.900	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	635.900	635.900	0.000
BT	-7.000	990.000	636.800	636.800	998.500	636.800	633.500	999.000	636.800	634.600
BT	0.000	1000.000	636.800	635.000	1001.500	636.800	634.600	1006.000	635.900	635.900
BT	0.000	1100.000	636.400	636.400	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.050	0.050	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	1.400	145.000	330.000	0.000	0.000	0.000	0.000	0.000
X1	1055.000	25.000	274.000	300.000	122.000	122.000	122.000	0.000	0.000	0.000
GR	634.200	25.000	635.300	50.000	635.600	75.000	635.800	100.000	635.900	125.000
GR	635.500	150.000	635.800	175.000	636.200	200.000	636.600	225.000	636.900	250.000
GR	636.700	274.000	632.800	289.000	632.600	291.000	632.700	292.000	637.000	300.000
GR	636.600	325.000	636.300	350.000	636.400	375.000	636.300	400.000	636.600	425.000
GR	636.900	450.000	636.900	475.000	636.500	500.000	636.300	525.000	636.300	550.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	1585.000	29.000	286.000	300.000	415.000	400.000	530.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	639.500	639.500	0.000
GR	638.700	50.000	638.800	75.000	638.900	100.000	638.900	125.000	639.050	150.000
GR	639.100	175.000	639.200	200.000	639.400	225.000	639.500	250.000	639.500	275.000
GR	634.800	286.000	634.500	287.000	634.000	289.000	634.100	291.000	634.100	292.000
GR	634.100	294.000	634.100	295.000	634.200	297.000	634.800	299.500	635.100	300.000
GR	639.600	310.000	639.700	325.000	639.800	350.000	639.900	375.000	640.000	400.000
GR	640.000	425.000	640.200	450.000	640.200	475.000	640.250	500.000	0.000	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	28TH AVENUE									
X1	1588.000	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	639.500	639.500	0.000
BT	-12.000	275.000	639.500	639.500	286.000	639.500	634.800	287.000	639.500	638.000
BT	0.000	289.000	639.500	638.700	291.000	639.500	637.800	292.000	639.500	634.100
BT	0.000	294.000	639.500	634.100	295.000	639.500	637.800	297.000	639.500	638.600
BT	0.000	299.500	639.500	636.600	300.000	639.500	635.100	310.000	639.600	639.600
X1	1647.000	0.000	0.000	0.000	59.000	59.000	59.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	639.500	639.500	0.000
ET	0.000	4.100	1.400	282.000	302.000	0.000	0.000	0.000	0.000	0.000
X1	1650.000	0.000	0.000	0.000	3.000	3.000	3.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	287.000	550.000	0.000	0.000	0.000	0.000	0.000
X1	2070.000	28.000	287.000	300.000	365.000	390.000	420.000	0.000	0.000	0.000
GR	641.300	25.000	641.700	50.000	641.700	75.000	641.800	100.000	642.100	125.000
GR	642.300	150.000	642.600	175.000	643.400	200.000	643.400	225.000	643.200	250.000
GR	642.900	275.000	642.500	280.000	642.300	287.000	640.200	291.000	639.900	293.000
GR	640.500	299.000	641.000	300.000	642.100	325.000	641.500	340.000	643.600	350.000
GR	643.400	375.000	643.100	400.000	642.800	425.000	642.800	450.000	642.600	475.000
GR	642.600	500.000	642.500	525.000	642.800	550.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3435.000	27.000	296.000	300.000	1050.000	1055.000	1365.000	0.000	0.000	0.000
GR	676.500	25.000	674.300	50.000	672.900	75.000	671.500	100.000	669.200	125.000
GR	666.600	150.000	661.200	175.000	655.600	200.000	652.400	225.000	650.300	250.000
GR	647.100	275.000	645.000	296.000	643.800	297.000	643.600	299.000	643.600	299.500
GR	645.200	300.000	648.100	312.000	648.600	325.000	649.300	350.000	649.400	375.000

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 GR      648.900     400.000     649.300     425.000     649.600     450.000     649.300     475.000     649.600     500.000
 GR      649.600     525.000     649.600     550.000       0.000       0.000       0.000       0.000       0.000       0.000
1
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 EJ        0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *PROF 1

 CCHV=   0.100 CEHV=   0.300
 *SECNO 300.000

 3470 ENCROACHMENT STATIONS=      150.0      350.0  TYPE=      1  TARGET=      200.000
    300.00      3.49    587.39      0.00      0.00    587.73      0.34      0.00      0.00    587.90
      330.        0.      330.        0.        0.       70.        0.        0.        0.    588.30
      0.00      0.00      4.69      0.00     0.000     0.045     0.000     0.000    583.90    266.83
  0.007286      300.      300.      300.         0         0        10      0.00     31.65    298.48
0
 *SECNO 1050.000
   1050.00      3.37    592.77      0.00      0.00    593.10      0.33      5.37      0.00    592.40
      330.       11.      273.       46.        9.       54.       36.        1.        1.    591.80
      0.05      1.17      5.02      1.26     0.070     0.045     0.070     0.000    589.40    260.77
  0.007196      595.      750.      665.         5         0         0      0.00    102.76    363.53
0
 *SECNO 1425.000
   1425.00      3.27    595.67      0.00      0.00    596.07      0.40      2.95      0.02    595.40
      330.        9.      285.       37.        7.       52.       30.        2.        2.    594.80
      0.07      1.14      5.46      1.24     0.070     0.045     0.070     0.000    592.40    260.94
  0.009026      295.      375.      330.         3         0         0      0.00    101.92    362.86
0
 *SECNO 1615.000
   1615.00      3.36    597.26      0.00      0.00    597.59      0.33      1.52      0.01    596.90
      330.       11.      274.       45.        9.       54.       36.        3.        2.    596.30
      0.08      1.17      5.06      1.26     0.070     0.045     0.070     0.000    593.90    260.79
  0.007372      150.      190.      170.         2         0         0      0.00    102.67    363.46
0
 *SECNO 1800.000
   1800.00      3.28    598.68      0.00      0.00    599.07      0.39      1.46      0.02    598.40
      330.        9.      284.       38.        8.       52.       30.        3.        3.    597.80
      0.09      1.15      5.41      1.24     0.070     0.045     0.070     0.000    595.40    260.93
  0.008816      150.      185.      165.         1         0         0      0.00    102.01    362.93
0
 *SECNO 2240.000

 3470 ENCROACHMENT STATIONS=      279.0      300.0  TYPE=      1  TARGET=       21.000
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


   2240.00      4.50    600.90      0.00      0.00    601.18      0.28      2.10      0.01    599.40
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       330.        0.      330.        0.        0.       78.        0.        4.        3.  100000.00
        0.12      0.00      4.22      0.00     0.000     0.040     0.000     0.000    596.40    279.00
    0.003025      440.      440.      360.         3         0         0      0.00     21.00    300.00
0
  CCHV=   0.300 CEHV=    0.500
  *SECNO 2241.000

  3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  604.10 MAX ELLC=  604.40


  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       604.10 ELREA=       604.10

             PRIVATE DRIVE
     2241.00      4.42    600.82      0.00      0.00    601.27      0.46      0.00      0.09    604.40
        330.        0.      330.        0.        0.       61.        0.        4.        3.    604.10
        0.12      0.00      5.43      0.00     0.000     0.035     0.000     0.000    596.40    277.90
    0.004337        1.        1.        1.         2         0         0      0.00     19.55    297.46
0
  *SECNO 2253.000

  3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  604.10 MAX ELLC=  604.40


  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       604.10 ELREA=       604.10

     2253.00      4.50    600.90      0.00      0.00    601.33      0.44      0.05      0.01    604.40
        330.        0.      330.        0.        0.       62.        0.        4.        3.    604.10
        0.12      0.00      5.29      0.00     0.000     0.035     0.000     0.000    596.40    277.81
    0.004045       12.       12.       12.         2         0         0      0.00     19.75    297.56
0
  *SECNO 2255.000

  3470 ENCROACHMENT STATIONS=       275.0       300.0  TYPE=       1  TARGET=       25.000
     2255.00      4.79    601.19      0.00      0.00    601.40      0.21      0.00      0.07    599.40
        330.       12.      318.        0.        7.       84.        0.        4.        3.  100001.00
        0.12      1.70      3.78      0.00     0.040     0.035     0.000     0.000    596.40    275.00
    0.001577        2.        2.        2.         2         0         0      0.00     25.00    300.00
0
1
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      SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
      Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
      TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
      SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


  CCHV=   0.100 CEHV=    0.300
  *SECNO 3215.000
     3215.00      4.55    603.45      0.00      0.00    603.86      0.41      2.40      0.06    606.10
        330.        0.       330        0.        0.       64.        0.        6.        4.    606.80
        0.17      0.00      5.15      0.00     0.000     0.035     0.000     0.000    598.90    268.95
    0.004587      930.      960.     1000.         2         0         0      0.00     24.65    293.60
0
  CCHV=   0.300 CEHV=    0.500
  *SECNO 5495.000

  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       608.50 ELREA=       608.50

             FILLMORE STREET
     5495.00      6.45    606.15      0.00      0.00    606.26      0.11      2.31      0.09    600.80
        290.        0.      290.        0.        0.      110.        0.       10.        5.    602.00
        0.41      0.00      2.64      0.00     0.000     0.035     0.000     0.000    599.70    276.00
    0.000393     2280.     2280.     2280.         4         0         0      0.00     19.00    295.00
0
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SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      3.13      3.00      0.00     12.50      0.00     54.00      0.00    599.70    599.70

*SECNO 5575.000
PRESSURE FLOW


 EGPRS       EGLWC       H3        QWEIR       QPR        BAREA   TRAPEZOID      ELLC       ELTRD
                                                                     AREA
    607.56     606.26      0.00         0.        290.         54.        54.     604.00     608.50



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      608.50 ELREA=      608.50

   5575.00      7.78    607.48      0.00      0.00    607.56      0.07      1.29      0.00    600.80
      290.        0.      290.        0.        0.      135.        0.       10.,        5.    602.00
      0.42      0.00      2.14      0.00     0.000     0.035     0.000     0.000    599.70    276.00
  0.000198       80.       80.       80.         2         0         0      0.00     19.00    295.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


*SECNO 7725.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      614.70 ELREA=      614.70

            CEDAR LAKE DRIVE
   7725.00      5.34    608.19      0.00      0.00    608.34      0.15      0.74      0.04    604.40
      295.        0.      295.        0.        0.       95.        0.       16.        6.    603.15
      0.61      0.00      3.10      0.00     0.000     0.035     0.000     0.000    602.85    259.00
  0.000738     2150.     2150.     2150.         2         0         0      0.00     21.00    280.00
0

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      3.12      2.70      0.00     10.50      0.00     48.00      0.00    602.85    602.85

*SECNO 7795.000
PRESSURE FLOW


 EGPRS       EGLWC       H3        QWEIR       QPR        BAREA   TRAPEZOID      ELLC       ELTRD
                                                                     AREA
    610.02     608.34      0.00         0.        295.         48.        48.     607.40     614.70



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      614.70 ELREA=      614.70

   7795.00      7.09    609.94      0.00      0.00    610.02      0.08      1.68      0.00    604.40
      295.        0.      295.        0.        0.      132.        0.       16.        6.    603.15
      0.62      0.00      2.24      0.00     0.000     0.035     0.000     0.000    602.85    259.00
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 0.00[illegible]8     70.       70.       70.          2          0          0      0.00     21.00    280.00
0
 CCHV=   0.100 CEHV=    0.300
 *SECNO 9820.000
 3280 CROSS SECTION    9820.00 EXTENDED       1.26 FEET


 3470 ENCROACHMENT STATIONS=       25.0       326.0  TYPE=      1  TARGET=      301.000
  9820.00       5.36    611.96      0.00      0.00    612.22      0.26      2.14      0.05    609.00
     800.       289.      380.      132.      133.       70.       48.       25.       10.     608.60
     0.77       2.17      5.39      2.74     0.050     0.040     0.050     0.000    606.60    179.84
 0.002879      2025.     2025.     2025.         2          0          0      0.00    143.79    323.63
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 10375.000
 3280 CROSS SECTION  10375.00 EXTENDED       0.91 FEET


 3470 ENCROACHMENT STATIONS=       25.0       326.0  TYPE=      1  TARGET=      301.000
  10375.00      5.01    613.86      0.00      0.00    614.27      0.41      2.01      0.05    611.25
     800.       241.      428.      131.       97.       65.       40.       28.       12.     610.85
     0.80       2.48      6.54      3.28     0.050     0.040     0.050     0.000    608.85    192.67
 0.004680       555.      555.      555.         3          0          0      0.00    129.02    321.69
0
 *SECNO 10930.000

 3470 ENCROACHMENT STATIONS=       25.0       326.0  TYPE=      1  TARGET=      301.000
  10930.00      5.16    616.26      0.00      0.00    616.59      0.33      2.32      0.01    613.50
     800.       263.      405.      131.      113.       68.       43.       31.       13.     613.10
     0.84       2.34      5.99      3.02     0.050     0.040     0.050     0.000    611.10    186.90
 0.003747       555.      555.      555.         2          0          0      0.00    135.66    322.56
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 12039.000

 3301 HV CHANGED MORE THAN HVINS


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       624.60 ELREA=       624.60

           24TH AVENUE
  12039.00      5.28    620.88      0.00      0.00    621.85      0.97      4.94      0.32    615.60
     690.         0.      690.        0.        0.       87.        0.       35.       15.     616.20
     0.88       0.00      7.91      0.00     0.000     0.040     0.000     0.000    615.60    282.00
 0.005556      1109.     1109.     1109.         2          0          0      0.00     18.00    300.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB   XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00       3.08       2.80       0.00      17.00       0.00      95.00       0.00     615.60     615.60

 *SECNO 12090.000
1
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      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


   **ERROR** ELTRD.LT.MIN ROAD ELEV, ELTRD SET EQUAL TO MIN ROAD ELEV
   PRESSURE FLOW


    EGPRS       EGLWC        H3         QWEIR        QPR         BAREA    TRAPEZOID      ELLC       ELTRD
                                                                            AREA
       623.41     621.85       0.00          0.         690.          95.     104.       621.70     624.60



   3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       624.60 ELREA=       624.60

    12090.00      7.33    622.93      0.00      0.00    623.41      0.48      1.55      0.00    615.60
        690.        0.      690.        0.        0.      124.        0.       35.       15.     616.20
        0.88      0.00      5.56      0.00     0.000     0.040     0.000     0.000    615.60    282.00
    0.001718       51.       51.       51.         2         0         0      0.00     18.00    300.00
  0
   *SECNO 12620.000
    12620.00      7.15    623.95      0.00      0.00    624.20      0.24      0.72      0.07    616.80
        690.       34.      530.      126.       20.      121.       60.       37.       16.     617.40
        0.92      1.68      4.38      2.09     0.050     0.040     0.050     0.000    616.80    276.38
    0.001106      530.      530.      530.         2         0         0      0.00     42.02    318.40
  0
   *SECNO 13150.000
             BAUER ROAD
    13150.00      6.56    624.56      0.00      0.00    624.70      0.14      0.47      0.03    619.80
        690.       99.      352.      239.       47.       99.      103.       39.       16.     618.60
        0.97      2.12      3.55      2.32     0.040     0.035     0.040     0.000    618.00    252.87
    0.000720      530.      530.      530.         2         0         0      0.00     68.49    321.35
  0

   SPECIAL BRIDGE

   5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
   SB  XK        XKOR       COFQ      RDLEN      BWC        BWP       BAREA       SS        ELCHU      ELCHD
        0.00       3.12       2.90    100.00      10.50      0 00      56.00      0.00    618.00     618.00

   *SECNO 13220.000
   3280 CROSS SECTION  13220.00 EXTENDED       1.02 FEET

  1
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      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


   PRESSURE AND WEIR FLOW


    EGPRS       EGLWC        H3         QWEIR        QPR         BAREA    TRAPEZOID      ELLC       ELTRD
                                                                            AREA
       631.91     625.31       0.00        371.         324.          56.      56.       623.30     625.00
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 3470 ENCROACHMENT STATIONS=     250.0      350.0  TYPE=      1  TARGET=     100.000
  ELENCL=     628.00  ELENCR=     628.00
  13220.00      8.12   626.12      0.00      0.00   626.18      0.06      1.48      0.00    619.80
      690.      114.     304.      273.       76.     126.      184.       40.       16.    618.60
      0.98      1.49     2.42      1.48     0.040    0.035     0.040     0.000    618.00    250.00
  0.000243       70.      70.       70.         2        0         4      0.00    100.00    350.00
0
 CCHV=   0.100 CEHV=    0.300
 *SECNO 13765.000

 3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD=  624.10 MAX ELLC=  624.60

           PRIVATE ROAD
  13765.00      7.64   626.34      0.00      0.00   626.35      0.01      0.17      0.00    619.50
      690.      309.      72.      309.      380.      70.      293.       47.       19.    624.60
      1.13      0.81     1.03      1.05     0.060    0.040     0.060     0.000    618.70     78.99
  0.000473      500.     545.      525.         2        0         0    -51.37    344.94    423.93
0
 *SECNO 13781.000

 3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD=  624.10 MAX ELLC=  624.60

  13781.00      7.65   626.35      0.00      0.00   626.36      0.01      0.01      0.00    619.50
      690.      309.      72.      309.      381.      70.      294.       47.       19.    624.60
      1.14      0.81     1.03      1.05     0.060    0.040     0.060     0.000    618.70     78.85
  0.000470       16.      16.       16.         0        0         0    -51.37    345.19    424.04
0
 *SECNO 13995.000
 3280 CROSS SECTION  13995.00 EXTENDED      0.50 FEET

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST



 3470 ENCROACHMENT STATIONS=     195.0      550.0  TYPE=      1  TARGET=     355.000
  13995.00      7.20   626.40      0.00      0.00   626.41      0.01      0.05      0.00    620.20
      690.      242.     108.      340.      312.      61.      514.       50.       20.    621.40
      1.20      0.78     1.76      0.66     0.060    0.040     0.060     0.000    619.20    195.00
  0.000203      169.     214.      174.         2        0         0      0.00    355.00    550.00
0
 *SECNO 14365.000
  14365.00      5.81   626.51      0.00      0.00   626.57      0.07      0.14      0.02    621.70
      690.      255.     174.      260.      206.      49.      209.       56.       23.    622.90
      1.25      1.24     3.56      1.25     0.060    0.040     0.060     0.000    620.70    156.49
  0.001118      365.     370.      355.         1        0         0      0.00    299.24    455.73
0
 *SECNO 14735.000

 3265 DIVIDED FLOW


 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
  14735.00      4.88   627.08    627.08      0.00   627.66      0.58      0.93      0.15    627.20
      690.        3.     456.      231.        4.      63.       83.       58.       25.    626.10
      1.27      0.69     7.24      2.79     0.060    0.040     0.060     0.000    622.20    235.99
  0.010811      360.     370.      355.         5       10         0      0.00    132.91    379.67
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0
 *SECNO 15245.000
           CONFLUENCE WITH TRIBUTARY DRAIN
  15245.00      5.75   629.25      0.00      0.00   629.40      0.15      1.70      0.04   629.70
      690.        0.     476.      214.        0.     131.      146.       61.       26.    627.00
      1.32      0.00     3.63      1.47     0.000    0.040     0.060     0.000    623.50   267.88
  0.001623      515.     510.      495.         5        0         0      0.00    119.98   387.86
0
 CCHV=    0.300 CEHV=    0.500
 *SECNO 17385.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      633.50 ELREA=      633.50

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           PARKSIDE DRIVE
  17385.00      4.84   633.14      0.00      0.00   633.62      0.47      4.05      0.16   629.00
      300.        0.     300.        0.        0.      54.        0.       69.       30.    629.00
      1.42      0.00     5.53      0.00     0.000    0.040     0.000     0.000    628.30   287.50
  0.002928     2125.    2140.     2040.         4        0         0      0.00     11.50   299.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00       3.12       2.80       0.00       8.00       0.00      36.00       0.00     628.30     628.30

 *SECNO 17481.000
 PRESSURE AND WEIR FLOW


  EGPRS       EGLWC        H3        QWEIR       QPR         BAREA    TRAPEZOID      ELLC       ELTRD
                                                                        AREA
     636.51     633.62      0.00       102.       199.        36.        38.      633.00     634.00


  17481.00      6.26   634 56      0.00      0.00   634.62      0.06      1.00      0.00   629.00
      300.       57.     176.       68.       62.      71.       74.       69.       30.    629.00
      1.44      0.92     2.49      0.91     0.060    0.040     0.060     0.000    628.30   213.60
  0.000419       96.      96.       96.         2        0         5      0.00    140.12   353.72
0
 CCHV=    0.100 CEHV=    0.300
 *SECNO 17851.000

 3265 DIVIDED FLOW


 3470 ENCROACHMENT STATIONS=      225.0      410.0  TYPE=       1  TARGET=      185.000
  17851.00      6.97   634.67      0.00      0.00   634.68      0.01      0.05      0.01   629.40
      300.       13.      70.      216.       38.      72.      416.       72.       31.    629.70
      1.60      0.35     0.97      0.52     0.060    0.040     0.060     0.000    627.70   225.00
  0.000072      370.     370.      370.         2        0         0      0.00    163.74   410.00
0
 CCHV=    0.300 CEHV=    0.500
 *SECNO 18191.000
           28TH AVENUE
  18191.00      6.01   634.71      0.00      0.00   634.73      0.01      0.04      0.00   629.80
      300.      112.      51.      137.      147.      31.      187.       76.       32.    629.30
      1.71      0.76     1.65      0.74     0.060    0.040     0.060     0.000    628.70   219.86
  0.000212      275.     340.      400.         2        0         0      0.00    148.20   368.06
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK          XKOR        COFQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
       0.00        3.12        2.80        0.00        4.00        0.00       21.00        0.00      628.70      628.70

 *SECNO 18270.000
 3280 CROSS SECTION  18270.00 EXTENDED      0.98 FEET

 PRESSURE AND WEIR FLOW


  EGPRS        EGLWC        H3         QWEIR        QPR          BAREA   TRAPEZOID      ELLC       ELTRD
                                                                            AREA
     644.60     636.18       0.00        167.        134.          21.        21.       633.90     635.70



 3470 ENCROACHMENT STATIONS=      200.0      380.0  TYPE=      1  TARGET=        180.000
  18270.00      7.98    636.68      0.00      0.00    636.68      0.00      1.95      0.00    629.80
      300.      117.       35.      148.      290.       42.      368.       77.       33.    629.30
      1.76      0.40      0.84      0.40     0.060     0.040     0.060     0.000    628.70    200.00
  0.000037       79.       79.       79.         0         0         6      0.00    180.00    380.00
0
 *SECNO 18645.000
  18645.00      4.27    636.67      0.00      0.00    636.77      0.10      0.04      0.05    633.50
      300.      101.       83.      115.       61.       21.       71.       81.       34.    633.00
      1.81      1.67      3.90      1.63     0.060     0.040     0.060     0.000    632.40    241.59
  0.001939      375.      375.      375.         2         0         0      0.00     95.88    337.47
0
 *SECNO 18835.000
 3280 CROSS SECTION  18835.00 EXTENDED      0.70 FEET

  18835.00      2.70    637.00      0.00      0.00    637.03      0.03      0.25      0.02    636.10
      300.        1.      182.      117.        2.      100.      180.       82.       35.    635.70
      1.85      0.44      1.82      0.65     0.060     0.040     0.060     0.000    634.30    245.56
  0.000930      190.      190.      190.         2         0         0      0.00    304.44    550.00
0
 *SECNO 18930.000
  18930.00      1.88    637.08    636.99      0.00    637.38      0.29      0.21      0.13    637.00
      300.        0.      273.       27.        0.       60.       22.       82.       35.    636.60
      1.85      0.03      4.55      1.26     0.060     0.040     0.060     0.000    635.20    250.48
  0.011481       95.       95.       95.         4        14         0      0.00    131.65    382.13
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 19020.000
  19020.00      1.96    638.06      0.00      0.00    638.29      0.24      0.90      0.02    637.90
      300.        0.      265.       35.        0.       64.       29.       82.       35.    637.50
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       1.86      0.02      4.14      1.23     0.060     0.040     0.060     0.000    636.10    250.00
    0.008770       90.       90.       90.         2         0         0      0.00    138.81    388.81
0
  CCHV=    0.100 CEHV=    0.300
  *SECNO -15245.000
  START TRIB COMP
   -15245.000 15245.000    629.253
  -15245.00      5.75    629.25      0.00      0.00    629.28      0.03      0.00      0.00    629.70
       300.        0.      207.       93.        0.      131.      146.       82.       35.    627.00
       1.86      0.00      1.58      0.64     0.000     0.040     0.060     0.000    623.50    267.88
   0.000307        0.        0.        0.         0         0         0      0.00    119.98    387.86
0
  *SECNO 220.000
     220.00      3.72    629.32      0.00      0.00    629.37      0.04      0.08      0.00    631.80
       115.        0.      115.        0.        0.       70.        3.       83.       36.    629.10
       1.90      0.00      1.64      0.15     0.000     0.040     0.060     0.000    625.60    271.88
   0.000641      195.      220.      220.         0         0         0      0.00     54.25    326.13
0
  *SECNO 330.000
     330.00      2.75    629.40      0.00      0.00    629.51      0.10      0.12      0.02    632.85
       115.        0.      115.        0.        0.       44.        0.       83.       36.    630.15
       1.91      0.00      2.59      0.00     0.000     0.040     0.000     0.000    626.65    273.77
   0.002338       95.      110.      110.         2         0         0      0.00     23.87    297.64
0
  *SECNO 445.000
     445.00      2.01    629.76      0.00      0.00    630.02      0.26      0.46      0.05    633.95
       115.        0.      115.        0.        0.       28.        0.       83.       36.    631.25
       1.92      0.00      4.09      0.00     0.000     0.040     0.000     0.000    627.75    275.23
   0.008516      100.      115.      110.         2         0         0      0.00     20.07    295.30
0
  CCHV=    0.500 CEHV=    1.000
  *SECNO 890.000

  3301 HV CHANGED MORE THAN HVINS

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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


  7185 MINIMUM SPECIFIC ENERGY
  3720 CRITICAL DEPTH ASSUMED
            PARK ROAD CULVERT
     890.00      3.45    635.45    635.45      0.00    636.34      0.90      5.25      0.64    633.50
       115.       15.       80.       20.        5.        9.        6.       83.       36.    632.60
       1.93      3.09      8.82      3.62     0.060     0.040     0.060     0.000    632.00    993.49
   0.017782      395.      445.      440.        13        14         0      0.00     11.89   1005.38
0

  SPECIAL BRIDGE

  5070 VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
  SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
       0.00      3.12      2.60      0.00      2.50      0.00      7.00      0.00    632.00    632.00

  *SECNO 933.000

  3301 HV CHANGED MORE THAN HVINS

  PRESSURE AND WEIR FLOW
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     EGPRS      EGLWC       H3       QWEIR       QPR        BAREA   TRAPEZOID     ELLC      ELTRD
                                                                       AREA
      648.52     637.95      0.00       81.        34.        7.        8.       635.00     635.90


     933.00      4.44   636.44     0.00     0.00   636.62     0.18     0.28     0.00   633.50
       115.       20.      56.      39.      11.      12.      38.      84.      36.   632.60
       1.94      1.78     4.66     1.02    0.060    0.040    0.060    0.000   632.00   990.92
   0.003389       43.      43.      43.        3        0        7     0.00   117.09  1108.01
0
 *SECNO 1055.000

 3265 DIVIDED FLOW

 3280 CROSS SECTION   1055.00 EXTENDED      0.48 FEET


 3470 ENCROACHMENT STATIONS=      145.0      330.0  TYPE=      1  TARGET=      185.000
    1055.00      4.18   636.78     0.00     0.00   636.80     0.02     0.10     0.08   636.70
       115.       34.      81.       0.      65.      58.       2.      84.      37.   637.00
       1.97      0.52     1.38     0.16    0.050    0.035    0.050    0.000   632.60   145.00
   0.000383      122.     122.     122.        3        0        0     0.00   146.64   330.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 CCHV=   0.100 CEHV=   0.300
 *SECNO 1585.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      639.50 ELREA=      639.50

    1585.00      3.03   637.03     0.00     0.00   637.17     0.14     0.33     0.03   634.80
       115.        0.     115.       0.       0.      39.       0.      85.      37.   635.10
       2.02      0.00     2.97     0.00    0.000    0.035    0.000    0.000   634.00   286.00
   0.001291      415.     530.     400.        2        0        0     0.00    14.00   300.00
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 1588.000

 3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  639.50 MAX ELLC=  639.60


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      639.50 ELREA=      639.50

            28TH AVENUE
    1588.00      2.98   636.98     0.00     0.00   637.23     0.25     0.01     0.06   634.80
       115.        0.     115.       0.       0.      29.       0.      85.      37.   635.10
       2.02      0.00     4.01     0.00    0.000    0.035    0.000    0.000   634.00   286.00
   0.006559        3.       3.       3.        2        0        0   -13.32    14.00   300.00
0
 *SECNO 1647.000

 3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  639.50 MAX ELLC=  639.60


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      639.50 ELREA=      639.50

    1647.00      3.38   637.38     0 00     0.00   637.58     0.20     0.34     0.01   634.80
```

```
      115.        0.      115.        0.        0.       32.        0.       85.       37.     635.10
      2.02      0.00      3.59      0.00     0.000     0.035     0.000     0.000    634.00    286.00
  0.005040       59.       59.       59.         2         0         0    -17.46     14.00    300.00
0
 *SECND 1650.000

 3470 ENCROACHMENT STATIONS=     282.0     302.0  TYPE=     1  TARGET=     20.000
   1650.00      3.55    637.55      0.00      0.00    637.62      0.07      0.00      0.04    634.80
      115.        7.      105.        3.        8.       46.        4.       85.       37.     635.10
      2.02      0.92      2.28      0.76     0.050     0.035     0.050     0.000    634.00    282.00
  0.000605        3.        3.        3.         2         0         0      0.00     20.00    302.00
0
1
  13 OCT 89    12:55:22                                                                                    PAGE    23


     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 CCHV=   0.100 CEHV=   0.300
 *SECNO 2070.000

 3265 DIVIDED FLOW

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=     287.0     550.0  TYPE=     1  TARGET=    263.000
   2070.00      1.98    641.88    641.88      0.00    642.28      0.40      0.66      0.10    642.30
      115.        0.       97.       18.        0.       18.       11.       85.       38.     641.00
      2.05      0.00      5.51      1.65     0.000     0.035     0.050     0.000    639.90    287.80
  0.011011      365.      420.      390.        20        11         0      0.00     43.60    341.82
0
 *SECNO 3435.000
   3435.00      3.83    647.43      0.00      0.00    647.54      0.11      5.23      0.03    645.00
      115.       50.       50.       15.       29.       14.       10.       86.       39.     645.20
      2.19      1.70      3.58      1.47     0.050     0.035     0.050     0.000    643.60    272.40
  0.002181     1050.     1365.     1055.         7         0         0      0.00     36.84    309.24
0
1
  13 OCT 89    12:55:22                                                                                    PAGE    24



                                                                              THIS RUN EXECUTED 13 OCT 89    12:55:34
 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
   ERROR CORR -  01,02,03,04,05,06
   MODIFICATION -  50,51,52,53,54,55,56
 **************************************************


 T1          GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
 T2          FLOOD INSURANCE STUDY
 T3          LOWING-COMSTOCK DRAIN - 100-YEAR FLOOD, ENCROACHED CONDITION

 J1   ICHECK     INQ       NINV      IDIR       STRT      METRIC     HVINS      Q         WSEL       FQ

        0.        3.        0.        0.   0.000000      0.00       0.0       0.    587.460     0.000

 J2   NPROF      IPLOT     PRFVS     XSECV      XSECH      FN        ALLDC      IBW       CHNIM      ITRACE
```

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP.

3) WATERCOURSE: LOWING-COMSTOCK DRAIN

4) DOCUMENT TYPE: SUMMARY

00BREAK00

```
     SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
     Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
     TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
     SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


  *PROF 1

  CCHV=   0.100 CEHV=    0.300
  *SECNO 300.000

  3470 ENCROACHMENT STATIONS=      150.0      350.0  TYPE=      1  TARGET=      200.000
     300.00     3.22   587.12     0.00   597.00   587.42     0.31     0.00     0.00    587.90
       275.       0.     275.       0.       0.      62.       0.       0.       0.     588.30
       0.00     0.00     4.44     0.00    0.000    0.045    0.000    0.000   583.90    267.80
   0.007264     300.     300.     300.        0        0        9     0.00    30.22    298.03
 0
  *SECNO 1050.000
    1050.00     3.18   592.58     0.00     0.00   592.91     0.33     5.48     0.01    592.40
       275.       5.     245.      25.       6.      50.      25.       1.       1.     591.80
       0.05     0.91     4.85     1.00    0.070    0.045    0.070    0.000   589.40    261.07
   0.007458     595.     750.     665.        4        0        0     0.00   101.29    362.36
 0
  *SECNO 1425.000
    1425.00     3.12   595.52   594.88     0.00   595.90     0.38     2.97     0.01    595.40
       275.       4.     252.      19.       5.      49.      20.       2.       2.     594.80
       0.07     0.86     5.13     0.96    0.070    0.045    0.070    0.000   592.40    261.18
   0.008680     295.     375.     330.        4       15        0     0.00   100.75    361.93
 0
  *SECNO 1615.000
    1615.00     3.18   597.08     0.00     0.00   597.41     0.33     1.51     0.00    596.90
       275.       5.     245.      24.       6.      50.      24.       2.       2.     596.30
       0.08     0.91     4.86     1.00    0.070    0.045    0.070    0.000   593.90    261.07
   0.007470     150.     190.     170.        2        0        0     0.00   101.29    362.36
 0
  *SECNO 1800.000
    1800.00     3.12   598.52   597.88     0.00   598.89     0.37     1.47     0.01    598.40
       275.       4.     251.      19.       5.      49.      20.       2.       3.     597.80
       0.09     0.86     5.12     0.96    0.070    0.045    0.070    0.000   595.40    261.18
   0.008629     150.     185.     165.        2       15        0     0.00   100.77    361.95
 0
  *SECNO 2240.000

  3470 ENCROACHMENT STATIONS=      279.0      300.0  TYPE=      1  TARGET=       21.000
 1
   13 OCT 89     12:54:01                                                                              PAGE    10


     SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
     Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
     TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
     SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


    2240.00     4.21   600.61     0.00     0.00   600.84     0.23     1.93     0.01    599.40
       275.       0.     275.       0.       0.      72.       0.       3.       3. 100000.00
       0.12     0.00     3.82     0.00    0.000    0.040    0.000    0.000   596.40    279.00
   0.002678     440.     440.     360.        3        0        0     0.00    21.00    300.00
 0
  CCHV=   0.300 CEHV=    0.500
  *SECNO 2241.000

  3370 NORMAL BRIDGE,NRD=   4 MIN ELTRD=   604.10 MAX ELLC=   604.40
```

```
 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.10 ELREA=      604.10

           PRIVATE DRIVE
   2241.00     4.13   600.53     0.00     0.00   600.92     0.38     0.00     0.08   604.40
      275.       0.     275.       0.       0.      55.       0.       3.       3.   604.10
      0.12     0.00     4.97     0.00    0.000    0.035    0.000    0.000   596.40   278.24
  0.003891       1.       1.       1.        2        0        0     0.00    18.85   297.09
O
 *SECNO 2253.000

 3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  604.10 MAX ELLC=  604.40


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.10 ELREA=      604.10

   2253.00     4.20   600.60     0.00     0.00   600.97     0.37     0.05     0.01   604.40
      275.       0.     275.       0.       0.      57.       0.       3.       3.   604.10
      0.12     0.00     4.85     0.00    0.000    0.035    0.000    0.000   596.40   278.16
  0.003655      12.      12.      12.        2        0        0     0.00    19.02   297.18
O
 *SECNO 2255.000

 3470 ENCROACHMENT STATIONS=      275.0     300.0  TYPE=      1  TARGET=       25.000
   2255.00     4.45   600.85     0.00     0.00   601.03     0.18     0.00     0.06   599.40
      275.       9.     266.       0.       6.      77.       0.       3.       3. 100001.00
      0.12     1.48     3.46     0.00    0.040    0.035    0.000    0.000   596.40   275.00
  0.001464       2.       2.       2.        2        0        0     0.00    25.00   300.00
O
1
  13 OCT 89    12:54:01                                                                             PAGE   11


     SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
     Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
     TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
     SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


 CCHV=    0.100 CEHV=    0.300
 *SECNO 3215.000
   3215.00     4.15   603.05     0.00     0.00   603.44     0.40     2.35     0.06   606.10
      275.       0.     275.       0.       0.      54.       0.       5.       4.   606.80
      0.18     0.00     5.05     0.00    0.000    0.035    0.000    0.000   598.90   270.01
  0.004925     930.     960.    1000.        2        0        0     0.00    22.82   292.83
O
 CCHV=    0.300 CEHV=    0.500
 *SECNO 5495.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      608.50 ELREA=      608.50

           FILLMORE STREET
   5495.00     6.00   605.70     0.00     0.00   605.79     0.09     2.26     0.09   600.80
      250.       0.     250.       0.       0.     101.       0.       9.       5.   602.00
      0.43     0.00     2.46     0.00    0.000    0.035    0.000    0.000   599.70   276.00
  0.000383    2280.    2280.    2280.        4        0        0     0.00    19.00   295.00
O

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK       XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
       0.00     3.13      3.00      0.00     12.50      0.00     54.00      0.00    599.70    599.70

 *SECNO 5575.000
 PRESSURE FLOW
```

```
   EGPRS      EGLWC       H3      QWEIR       QPR       BAREA   TRAPEZOID     ELLC      ELTRD
                                                                   AREA
     606.74    605.79     0.00        0.       250.        54.       54.     604.00    608.50


  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      608.50 ELREA=      608.50

    5575.00      6.97   606.67      0.00      0.00    606.74      0.07      0.95      0.00    600.80
      250.         0.     250.        0.        0.      120.        0.        9.        5.    602.00
       0.44      0.00     2.09      0.00     0.000     0.035     0.000     0.000    599.70    276.00
   0.000220       80.      80.       80.         2         0         0      0.00     19.00    295.00
 0
 1
   13 OCT 89    12:54:01                                                                                          PAGE    12


     SECNO     DEPTH     CWSEL     CRIWS     WSELK       EG        HV        HL      OLOSS  BANK ELEV
     Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL        TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST


  *SECNO 7725.000

  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      614.70 ELREA=      614.70

            CEDAR LAKE DRIVE
    7725.00      4.61   607.46      0.00      0.00    607.60      0.14      0.83      0.04    604.40
      240.         0.     240.        0.        0.       80.        0.       14.        6.    603.15
       0.64      0.00     3.01      0.00     0.000     0.035     0.000     0.000    602.85    259.00
   0.000874     2150.    2150.     2150.         2         0         0      0.00     21.00    280.00
 0

  SPECIAL BRIDGE

  5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
  SB   XK         XKOR      COFQ      RDLEN      BWC       BWP      BAREA      SS        ELCHU      ELCHD
       0.00       3.12      2.70      0.00     10.50      0.00     48.00     0.00     602.85     602.85

  *SECNO 7795.000
  PRESSURE FLOW


   EGPRS      EGLWC       H3      QWEIR       QPR       BAREA   TRAPEZOID     ELLC      ELTRD
                                                                   AREA
     608.67    607.60     0.00        0.       240.        48.       48.     607.40    614.70



  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      614.70 ELREA=      614.70

    7795.00      5.74   608.59      0.00      0.00    608.67      0.08      1.07      0.00    604.40
      240.         0.     240.        0.        0.      103.        0.       14.        6.    603.15
       0.65      0.00     2.32      0.00     0.000     0.035     0.000     0.000    602.85    259.00
   0.000368       70.      70.       70.         2         0         0      0.00     21.00    280.00
 0
  CCHV=   0.100 CEHV=   0.300
  *SECNO 9820.000
  3280 CROSS SECTION    9820.00 EXTENDED      0.25 FEET


  3470 ENCROACHMENT STATIONS=       0.0      326.0  TYPE=     1  TARGET=     325.999
    9820.00      4.35   610.95      0.00      0.00    611.29      0.34      2.54      0.08    609.00
      460.        82.     308.       70.       44        56.       27.       19.        9.    608.60
```

```
      0.78      1.86      5.47      2.63     0.050     0.040     0.050     0.000    606.60    218.50
  0.004011     2025.     2025.     2025.         3         0         0      0.00     99.21    318.11
0
1
  13 OCT 89     12:54:01                                                                                               PAGE   13

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 10375.000
 3280 CROSS SECTION  10375.00 EXTENDED      0.24 FEET


 3470 ENCROACHMENT STATIONS=        0.0      326.0  TYPE=      1  TARGET=      325.999
  10375.00      4.33    613.18      0.00      0.00    613.52      0.34      2.24      0.00    611.25
      460.       81.      308.       70.       44.       56.       27.       21.       10.    610.85
      0.81      1.87      5.50      2.64     0.050     0.040     0.050     0.000    608.85    219.18
  0.004051      555.      555.      555.         2         0         0      0.00     98.90    318.07
0
 *SECNO 10930.000

 3470 ENCROACHMENT STATIONS=        0.0      326.0  TYPE=      1  TARGET=      325.999
  10930.00      4.33    615.43      0.00      0.00    615.77      0.34      2.25      0.00    613.50
      460.       81.      308.       70.       44.       56.       27.       23.       11.    613.10
      0.85      1.87      5.50      2.64     0.050     0.040     0.050     0.000    611.10    219.21
  0.004056      555.      555.      555.         1         0         0      0.00     98.86    318.07
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 12039.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      624.60 ELREA=      624.60

           24TH AVENUE
  12039.00      4.23    619.83      0.00      0.00    620.33      0.51      4.48      0.08    615.60
      390.        0.      390.        0.        0.       68.        0.       25.       13.    616.20
      0.90      0.00      5.71      0.00     0.000     0.040     0.000     0.000    615.60    282.00
  0.004016     1109.     1109.     1109.         2         0         0      0.00     18.00    300.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR      COFQ      RDLEN      BWC       BWP       BAREA      SS        ELCHU      ELCHD
      0.00      3.08      2.80      0.00     17.00      0.00     95.00      0.00    615.60    615.60

 *SECNO 12090.000
1
  13 OCT 89     12:54:01                                                                                               PAGE   14


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=     0.000  EGLWC=    620.334  ELLC=    621.700  PCWSE=    619.828  ELTRD=    623.400

 3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD=  623.40 MAX ELLC=  621.70
```

```
 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      624.60 ELREA=      624.60

  12090.00      4.49    620.09     0.00      0.00    620.54     0.44      0.18      0.02    615.60
      390.        0.      390.       0.        0.       73.        0.       25.       13.     616.20
      0.91      0.00      5.33      0.00     0.000     0.040     0.000     0.000    615.60    282.00
  0.003195       51.       51.       51.         2         0         0      0.00     18.00    300.00
0
 *SECNO 12620.000
  12620.00      4.80    621.60     0.00      0.00    621.83     0.23      1.23      0.06    616.80
      390.       15.      327.      49.        9.       78.       25.       26.       13.     617.40
      0.94      1.63      4.16      1.97     0.050     0.040     0.050     0.000    616.80    278.23
  0.001774      530.      530.      530.         2         0         0      0.00     33.55    311.78
0
 *SECNO 13150.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      623.00 ELREA=      623.00

            BAUER ROAD
  13150.00      4.69    622.69     0.00      0.00    623.21     0.52      1.24      0.14    619.80
      390.        0.      390.       0.        0.       67.        0.       27.       13.     618.60
      0.97      0.00      5.79      0.00     0.000     0.035     0.000     0.000    618.00    270.00
  0.003203      530.      530.      530.         2         0         0      0.00     17.00    287 00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00       3.12       2.90     100.00      10.50       0.00      56.00       0.00     618.00     618.00

 *SECNO 13220.000
1
  13 OCT 89    12:54:01                                                                              PAGE   15


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=     0.000  EGLWC=    623.212  ELLC=    623.300  PCWSE=    622.691  ELTRD=   625.000

 3370 NORMAL BRIDGE,NRD=  0 MIN ELTRD=  625.00 MAX ELLC=  623.30


 3470 ENCROACHMENT STATIONS=     250.0      350.0  TYPE=     1  TARGET=     100.000
  ELENCL=    628.00  ELENCR=    628.00

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      625.50 ELREA=      625.50

  13220.00      4.98    622.98     0.00      0.00    623.43     0.45      0.20      0.02    619.80
      390.        0.      390.       0.        0.       72.        0.       28.       13.     618.60
      0.97      0.00      5.39      0.00     0.000     0.035     0.000     0.000    618.00    270.00
  0.002523       70.       70.       70.         2         0         0      0.00     17.00    287.00
0
 CCHV=   0.100 CEHV=    0.300
 *SECNO 13765.000

 3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD=  624.10 MAX ELLC=  624.60
```

```
           PRIVATE ROAD
   13765.00     6.13   624.83     0.00     0.00   624.87     0.04     1.39     0.04   619.50
       390.      85.      90.     215.      97.      47.     126.      30.      15.   624.60
       1.07     0.87     1.89     1.71    0.060    0.040    0.060    0.000   618.70   118.73
   0.002698     500.     545.     525.        3        0        0   -51.37   279.01   397.74
0
 *SECNO 13781.000

 3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD=  624.10 MAX ELLC=  624.60

   13781.00     6.17   624.87     0.00     0.00   624.91     0.04     0.04     0.00   619.50
       390.      90.      87.     213.     104.      48.     130.      30.      15.   624.60
       1.07     0.86     1.81     1.65    0.060    0.040    0.060    0.000   618.70   117.57
   0.002425      16.      16.      16.        0        0        0   -51.37   280.71   398.28
0
 *SECNO 13995.000
1
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     SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
     Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
     TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
     SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST



 3470 ENCROACHMENT STATIONS=      195.0      550.0  TYPE=      1  TARGET=      355.000
   13995.00     5.83   625.03     0.00     0.00   625.05     0.02     0.14     0.00   620.20
       390.     137.     101.     152.     179.      49.     210.      31.      16.   621.40
       1.12     0.76     2.07     0.72    0.060    0.040    0.060    0.000   619.20   195.00
   0.000375     169.     214.     174.        2        0        0     0.00   261.19   456.19
0
 *SECNO 14365.000

 3265 DIVIDED FLOW

   14365.00     4.46   625 16     0.00     0.00   625.45     0.29     0.32     0.08   621.70
       390.      86.     208.      96.      50.      37.      60.      34.      18.   622.90
       1.14     1.72     5.66     1.60    0.060    0.040    0.060    0.000   620.70   202.75
   0.004133     365.     370.     355.        3        0        0     0.00   170.39   377.39
0
 *SECNO 14735.000

 3265 DIVIDED FLOW

   14735.00     4.66   626.86     0.00     0.00   627.13     0.27     1.67     0.00   627.20
       390.       0.     279.     111.       0.      58.      66.      35.      19.   626.10
       1.17     0.10     4.80     1.69    0.060    0.040    0.060    0.000   622.20   247.07
   0.005124     360.     370.     355.        3        0        0     0.00   103.79   375.98
0
 *SECNO 15245.000
           CONFLUENCE WITH TRIBUTARY DRAIN
   15245.00     4.83   628.33     0.00     0.00   628.47     0.13     1.33     0.01   629.70
       390.       0.     324.      66.       0.     102.      68.      36.      20.   627.00
       1.22     0.00     3.16     0.96    0.000    0.040    0.060    0.000   623.50   269.68
   0.001584     515.     510.     495.        3        0        0     0.00   110.11   379.79
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 17385.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      633.50 ELREA=      633.50

           PARKSIDE DRIVE
   17385.00     3.73   632.03     0.00     0.00   632.29     0.26     3.76     0.06   629.00
       170.       0.     170.       0.       0.      41.       0.      42.      23.   629.00
```

```
      1.36      0.00      4.10      0.00      0.000     0.040     0.000     0.000   628.30    287.50
  0.002306     2125.     2140.     2040.          2         0         0      0.00    11.50    299.00
0
1
  13 OCT 89     12:54.01                                                                                      PAGE    17


    SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK          XKOR        COFQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
       0.00        3.12        2.80        0.00        8.00        0.00       36.00        0.00      628.30      628.30

 *SECNO 17481.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=     0.000  EGLWC=    632.287  ELLC=    633.000  PCWSE=    632.025  ELTRD=    634.000

 3370 NORMAL BRIDGE,NRD= 18 MIN ELTRD=  634.00 MAX ELLC=  633.00


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      634.00 ELREA=      634.00

   17481.00      4.08    632.38      0.00      0.00    632.74      0.37      0.41      0.05    629.00
      170.         0.      170.        0.        0.       35.        0.       42.       23.     629.00
      1.37      0.00      4.86      0.00     0.000     0.040     0.000     0.000    628.30    287.50
  0.010119       96.       96.       96.          2         0         0    -13.42     11.50    299.00
0
 CCHV=    0.100 CEHV=    0.300
 *SECNO 17851.000

 3470 ENCROACHMENT STATIONS=      225.0      410.0  TYPE=      1  TARGET=     185.000
   17851.00      5.22    632.92      0.00      0.00    632.93      0.01      0.15      0.04    629.40
      170.         6.       56.      108.       16.       53.      225.       43.       24.     629.70
      1.52      0.39      1.05      0.48     0.060     0.040     0.060     0.000    627.70    280.18
  0.000127      370.      370.      370.          3         0         0      0.00    125.34    405.52
0
 CCHV=    0.300 CEHV=    0.500
 *SECNO 18191.000
           28TH AVENUE
   18191.00      4.30    633.00      0.00      0.00    633.03      0.03      0.09      0.01    629.80
      170.       58.       47.       66.       62.       21.       72.       45.       25.     629.30
      1.60      0.94      2.18      0.91     0.060     0.040     0.060     0.000    628.70    241.32
  0.000603      275.      340.      400.          2         0         0      0.00     96.51    337.83
0
1
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    SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 SPECIAL BRIDGE
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```
 5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
       0.00      3.12      2.80      0.00      4.00      0.00     21.00      0.00    628.70    628.70

 *SECNO 18270.000
 **ERROR** ELTRD.LT.MIN ROAD ELEV, ELTRD SET EQUAL TO MIN ROAD ELEV
 3280 CROSS SECTION  18270.00 EXTENDED      0.39 FEET

 PRESSURE AND WEIR FLOW


  EGPRS      EGLWC       H3        QWEIR       QPR        BAREA   TRAPEZOID      ELLC      ELTRD
                                                                    AREA
      636.17    633.97      0.00         1.        168.        21.        21.     633.90    636.00



 3470 ENCROACHMENT STATIONS=      200.0     380.0  TYPE=     1  TARGET=      180.000
   18270.00      7.39    636.09      0.00      0.00    636.09      0.00      3.06      0.00    629.80
       170.       65.       22.       83.      243.       38.      313.       46.       25.    629.30
       1.68      0.27      0.57      0.27     0.060     0.040     0.060     0.000    628.70    202.62
   0.000019       79.       79.       79.         0         0         2      0.00    177.38    380.00
0
 *SECNO 18645.000
   18645.00      3.67    636.07      0.00      0.00    636.15      0.08      0.02      0.04    633.50
       170.       52.       60.       58.       40.       18.       43.       49.       26.    633.00
       1.73      1.31      3.30      1.35     0.060     0.040     0.060     0.000    632.40    249.06
   0.001738      375.      375.      375.         2         0         0      0.00     78.10    327.16
0
 *SECNO 18835.000

 3265 DIVIDED FLOW

 3280 CROSS SECTION  18835.00 EXTENDED      0.13 FEET

   18835.00      2.13    636.43      0.00      0.00    636.48      0.05      0.32      0.01    636.10
       170.        0.      141.       29.        0.       72.       47.       49.       27.    635.70
       1.76      0.30      1.96      0.62     0.060     0.040     0.060     0.000    634.30    249.00
   0.001665      190.      190.      190.         2         0         0      0.00    187.68    550.00
0
1
  13 OCT 89    12:54:01                                                                                   PAGE   19


     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 18930.000
   18930.00      1.47    636.67      0.00      0.00    636.94      0.27      0.35      0.11    637.00
       170.        0.      170.        0.        0.       41.        1.       49.       27.    636.60
       1.76      0.00      4.17      0.32     0.000     0.040     0.060     0.000    635.20    256.25
   0.013971       95.       95.       95.         2         0         0      0.00     62.22    318.48
0
 *SECNO 19020.000
   19020.00      1.64    637.74      0.00      0.00    637.92      0.18      0.95      0.03    637.90
       170.        0.      166.        4.        0.       48.        6.       49.       27.    637.50
       1.77      0.00      3.45      0.67     0.000     0.040     0.060     0.000    636.10    253.60
   0.008264       90.       90.       90.         3         0         0      0.00     88.74    342.34
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO -15245.000
 START TRIB COMP
  -15245.000 15245.000   628.334
```

```
   -152-5.()     4.83   628.33     0.00     0.()   628.36     0.03     0.00     0.()   629.70
      170.         0.     141.      29.       0.     102.      68.      49.      27.    627.00
       1.77      0 00     1.38     0.42    0.000    0.040    0.060    0.000   623.50   269.68
    0.000301       0.       0.       0.        0        0        0     0.00   110.09   379.77
 0
  *SECNO 220.000
     220.00      2.81   628.41     0.00     0.00   628.45     0.04     0.08     0.00   631.80
       70.         0.      70.       0.       0.      46.       0.      50.      28.    629.10
       1.81      0.00     1.53     0.00    0.000    0.040    0.000    0.000   625.60   273.67
    0.000802     195.     220.     220.        1        0        0     0.00    24.13   297.80
 0
  *SECNO 330.000
     330.00      1.87   628.52     0.00     0.00   628.64     0.12     0.17     0.02   632.85
       70.         0.      70.       0.       0.      25.       0.      50.      28.    630.15
       1.82      0.00     2.76     0.00    0.000    0.040    0.000    0.000   626.65   275.50
    0.004207      95.     110.     110.        2        0        0     0.00    19.37   294.87
 0
  *SECNO 445.000
     445.00      1.46   629.21     0.00     0.00   629.45     0.24     0.77     0.04   633.95
       70.         0.      70.       0.       0.      18.       0.      50.      28.    631.25
       1.83      0.00     3.95     0.00    0.000    0.040    0.000    0.000   627.75   276.32
    0.012243     100.     115.     110.        3        0        0     0.00    17.68   294.00
 0
 1
```



```
     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


  CCHV=   0.500 CEHV=   1.000
  *SECNO 890.000
             PARK ROAD CULVERT
     890.00      2.97   634.97     0.00     0.00   635.57     0.59     5.76     0.35   633.50
       70.         6.      53.      11.       3.       8.       4.      50.      28.    632.60
       1.85      2.26     6.95     2.83    0.060    0.040    0.060    0.000   632.00   994.73
    0.013898     395.     445.     440.        6        0        0     0.00    10.00  1004.72
 0

  SPECIAL BRIDGE

  5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
  SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
       0.00      3.12      2.60      0.00      2.50      0.00      7.00      0.00    632.00    632.00

  *SECNO 933.000
  PRESSURE AND WEIR FLOW


   EGPRS      EGLWC       H3       QWEIR       QPR       BAREA   TRAPEZOID     ELLC      ELTRD
                                                                 AREA
      639.82   636.28      0.00       32.        38.        7.        8.     635.00    635.90


     933.00      4.31   636.31     0.00     0.00   636.40     0.10     0.84     0.00   633.50
       70.        13.      38.      19.      10.      12.      25.      50.      28.    632.60
       1.86      1.24     3.27     0.76    0.060    0.040    0.060    0.000   632.00   991.27
    0.001746      43.      43.      43.        2        0        6     0.00    91.69  1082.95
 0
  *SECNO 1055.000
  3280 CROSS SECTION   1055.00 EXTENDED      0.20 FEET
```

```
 3470 ENCROACHMENT STATIONS=      225.0      330.0  TYPE=      1  TARGET=      105.000
   1055.00     3.90   636.50     0.00     0.00   636.53     0.03     0.09     0.03   636.70
      70.        0.      70.       0.       0.      51.        0.      50.      28.    637.00
     1.88      0.00     1.37     0.00    0.000    0.035    0.000    0.000   632.60   274.77
  0.000415     122.     122.     122.        2        0        0     0.00    24.29   299.07
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 1585.000
1
  13 OCT 89     12:54:01                                                                                    PAGE    21


      SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
      Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
      TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
      SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST



 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      639.50 ELREA=      639.50

   1585.00     2.75   636.75     0.00     0.00   636.82     0.06     0.28     0.01   634.80
      70.        0.      70.       0.       0.      35.        0.      51.      28.    635.10
     1.95      0.00     2.01     0.00    0.000    0.035    0.000    0.000   634.00   286.00
  0.000679     415.     530.     400.        2        0        0     0.00    14.00   300.00
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 1588.000

 3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD=  639.50 MAX ELLC=  639.60


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      639.50 ELREA=      639.50

           28TH AVENUE
   1588.00     2.73   636.73     0.00     0.00   636.84     0.11     0.00     0.02   634.80
      70.        0.      70.       0.       0.      26.        0.      51.      28.    635.10
     1.95      0.00     2.65     0.00    0.000    0.035    0.000    0.000   634.00   286.00
  0.002966       3.       3.       3.        2        0        0   -11.15    14.00   300.00
0
 *SECNO 1647.000

 3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD=  639.50 MAX ELLC=  639.60


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      639.50 ELREA=      639.50

   1647.00     2.91   636.91     0.00     0.00   637.01     0.10     0.16     0.00   634.80
      70.        0.      70.       0.       0.      28.        0.      51.      28.    635.10
     1.96      0.00     2.50     0.00    0.000    0.035    0.000    0.000   634.00   286.00
  0.002558      59.      59.      59.        2        0        0   -12.70    14.00   300.00
0
 *SECNO 1650.000

 3470 ENCROACHMENT STATIONS=      282.0      302.0  TYPE=      1  TARGET=       20.000
   1650.00     2.99   636.99     0.00     0.00   637.03     0.04     0.00     0.02   634.80
      70.        4.      65.       2.       5.      38.        3.      51.      28.    635.10
     1.96      0.66     1.70     0.58    0.050    0.035    0.050    0.000   634.00   282.00
  0.000432       3.       3.       3.        2        0        0     0.00    20.00   302.00
0
1
  13 OCT 89     12:54:01                                                                                    PAGE    22


      SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
      Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
```

```
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 CCHV=   0.100 CEHV=   0.300
 *SECNO 2070.000
 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=      287.0      550.0  TYPE=      1  TARGET=      263.000
   2070.00      1.55    641.45    641.45      0.00    641.88      0.43      0.53      0.12    642.30
      70.        0.       67.        3.        0.       12.        2.       51.       28.      641.00
      1.98      0.00      5.36      1.34     0.000     0.035     0.050     0.000    639.90    288.62
  0.014856      365.      420.      390.        20        11         0      0.00     21.61    310.23
0
 *SECNO 3435.000
   3435.00      3.40    647.00      0.00      0.00    647.08      0.09      5.17      0.03    645.00
      70.       25.       37.        8.       20.       12.        7.       52.       29.      645.20
      2.15      1.27      3.01      1.17     0.050     0.035     0.050     0.000    643.60    275.99
  0.001842     1050.     1365.     1055.         7         0         0      0.00     31.46    307.45
0
1
  13 OCT 89     12:54:01                                                                              PAGE    23



                                                                              THIS RUN EXECUTED 13 OCT 89    12:54:13
 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
   ERROR CORR -  01,02,03,04,05,06
   MODIFICATION -  50,51,52,53,54,55,56
 **************************************************


 T1           GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
 T2           FLOOD INSURANCE STUDY
 T3           LOWING-COMSTOCK DRAIN - 50-YEAR FLOOD

 J1   ICHECK     INQ       NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

         0.         3.        0.         0.   0.007300      0.00        0.0        0.    600.900     0.000

 J2   NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

        2.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

1
  13 OCT 89     12:54:01                                                                              PAGE    24


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *PROF 2

 CCHV=   0.100 CEHV=   0.300
 *SECNO 300.000

 3470 ENCROACHMENT STATIONS=      150.0      350.0  TYPE=      1  TARGET=      200.000
    300.00      3.39    587.29      0.00    600.90    587.62      0.33      0.00      0.00    587.90
      310.       0.       310.       0.        0.       67.        0.        0.        0.      588.30
```

```
      0.00      0.00      4.61      0.00     0.000     0.045     0.000     0.000    583.90    267.18
  0.007294      300.      300.      300.         0         0        10      0.00     31.14    298.32
0
 *SECNO 1050.000
   1050.00      3.31    592.71      0.00      0.00    593.03      0.33      5.41      0.00    592.40
      310.        9.      263.       38.        8.       53.       32.        1.        1.    591.80
      0.05      1.09      4.96      1.17     0.070     0.045     0.070     0.000    589.40    260.88
  0.007288      595.      750.      665.         5         0         0      0.00    102.24    363.12
0
 *SECNO 1425.000
   1425.00      3.22    595.62    595.37      0.00    596.01      0.39      2.95      0.02    595.40
      310.        7.      273.       30.        7.       51.       26.        2.        2.    594.80
      0.07      1.05      5.34      1.14     0.070     0.045     0.070     0.000    592.40    261.03
  0.008886      295.      375.      330.         6         8         0      0.00    101.52    362.55
0
 *SECNO 1615.000
   1615.00      3.30    597.20      0.00      0.00    597.53      0.33      1.51      0.01    596.90
      310.        9.      264.       37.        8.       53.       32.        2.        2.    596.30
      0.08      1.08      5.00      1.17     0.070     0.045     0.070     0.000    593.90    260.89
  0.007429      150.      190.      170.         2         0         0      0.00    102.17    363.07
0
 *SECNO 1800.000
   1800.00      3.22    598.62      0.00      0.00    599.01      0.39      1.46      0.02    598.40
      310.        7.      272.       31.        7.       51.       27.        3.        3.    597.80
      0.09      1.05      5.31      1.15     0.070     0.045     0.070     0.000    595.40    261.01
  0.008737      150.      185.      165.         1         0         0      0.00    101.58    362.60
0
 *SECNO 2240.000

 3470 ENCROACHMENT STATIONS=     279.0     300.0  TYPE=     1  TARGET=      21.000
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


   2240.00      4.40    600.80      0.00    600.61    601.06      0.26      2.04      0.01    599.40
      310.        0.      310.        0.        0.       76.        0.        4.        3. 100000.00
      0.12      0.00      4.08      0.00     0.000     0.040     0.000     0.000    596.40    279.00
  0.002901      440.      440.      360.         3         0         0      0.00     21.00    300.00
0
 CCHV=    0.300 CEHV=    0.500
 *SECNO 2241.000

 3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  604.10 MAX ELLC=  604.40


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.10 ELREA=      604.10

             PRIVATE DRIVE
   2241.00      4.32    600.72      0.00    600.53    601.15      0.43      0.00      0.09    604.40
      310.        0.      310.        0.        0.       59.        0.        4.        3.    604.10
      0.12      0.00      5.27      0.00     0.000     0.035     0.000     0.000    596.40    278.02
  0.004180        1.        1.        1.         2         0         0      0.00     19.31    297.33
0
 *SECNO 2253.000

 3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  604.10 MAX ELLC=  604.40


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.10 ELREA=      604.10
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  2253.00      4.39    600.79     0.00    600.60    601.20     0.41      0.05      0.01    604.40
     310.        0.      310.       0.        0.       60.        0.        4.        3.    604.10
     0.12      0.00      5.14     0.00     0.000     0.035     0.000     0.000    596.40    277.93
 0.003909       12.       12.      12.         2         0         0      0.00     19.49    297.42
0
 *SECND 2255.000

 3470 ENCROACHMENT STATIONS=      275.0      300.0  TYPE=      1  TARGET=        25.000
  2255.00      4.67    601.07     0.00    600.85    601.27     0.20      0.00      0.06    599.40
     310.       11.      299.       0.        7.       82.        0.        4.        3. 100001.00
     0.12      1.62      3.66     0.00     0.040     0.035     0.000     0.000    596.40    275.00
 0.001536        2.        2.       2.         2         0         0      0.00     25.00    300.00
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 CCHV=    0.100 CEHV=    0.300
 *SECNO 3215.000
  3215.00      4.41    603.31     0.00    603.05    603.72     0.41      2.39      0.06    606.10
     310.        0.      310.       0.        0.       61.        0.        5.        4.    606.80
     0.17      0.00      5.12     0.00     0.000     0.035     0.000     0.000    598.90    269.32
 0.004699      930.      960.    1000.         2         0         0      0.00     24.01    293.33
0
 CCHV=    0.300 CEHV=    0.500
 *SECNO 5495.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      608.50 ELREA=      608.50

           FILLMORE STREET
  5495.00      6.33    606.03     0.00    605.70    606.14     0.11      2.33      0.09    600.80
     285.        0.      285.       0.        0.      108.        0.       10.        5.    602.00
     0.41      0.00      2.65     0.00     0.000     0.035     0.000     0.000    599.70    276.00
 0.000409     2280.     2280.    2280.         4         0         0      0.00     19.00    295.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00       3.13       3.00       0.00      12.50       0.00      54.00       0.00     599.70     599.70

 *SECNO 5575.000
 PRESSURE FLOW


  EGPRS      EGLWC       H3        QWEIR       QPR        BAREA    TRAPEZOID     ELLC      ELTRD
                                                                    AREA
    607.38     606.14      0.00        0.        285.        54.        54.      604.00     608.50



 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      608.50 ELREA=      608.50

  5575.00      7.61    607.31     0.00    606.67    607.38     0.07      1.24      0.00    600.80
     285.        0.      285.       0.        0.      132.        0.       10.        5.    602.00
     0.42      0.00      2.16     0.00     0.000     0.035     0.000     0.000    599.70    276.00
 0.000208       80.       80.      80.         2         0         0      0.00     19.00    295.00
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID      ENDST


  *SECNO 7725.000

  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      614.70 ELREA=      614.70

             CEDAR LAKE DRIVE
    7725.00     5.17    608.02      0.00    607.46    608.16      0.14      0.75      0.03    604.40
       275.       0.      275.        0.        0.       92.        0.       15.        6.    603.15
       0.62     0.00      3.00      0.00     0.000     0.035     0.000     0.000    602.85    259.00
   0.000725    2150.     2150.     2150.         2         0         0      0.00     21.00    280.00
 0

  SPECIAL BRIDGE

  5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
  SB  XK         XKOR       COFQ       RDLEN       BWC        BWP        BAREA       SS          ELCHU      ELCHD
       0.00       3.12       2.70       0.00      10.50       0.00      48.00       0.00      602.85     602.85

  *SECNO 7795.000
  PRESSURE FLOW


   EGPRS        EGLWC        H3        QWEIR        QPR         BAREA    TRAPEZOID        ELLC       ELTRD
                                                                           AREA
      609.61     608.16      0.00          0.        275.         48.       48.        607.40     614.70



  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      614.70 ELREA=      614.70

    7795.00     6.69    609.54      0.00    608.59    609.61      0.08      1.45      0.00    604.40
       275.       0.      275.        0.        0.      123.        0.       16.        6.    603.15
       0.63     0.00      2.23      0.00     0.000     0.035     0.000     0.000    602.85    259.00
   0.000269      70.       70.       70.         2         0         0      0.00     21.00    280.00
 0
  CCHV=    0.100 CEHV=    0.300
  *SECNO 9820.000
  3280 CROSS SECTION    9820.00 EXTENDED        0.96 FEET


  3470 ENCROACHMENT STATIONS=         0.0       326.0  TYPE=       1  TARGET=      325.999
    9820.00     5.06    611.66      0.00    610.95    611.95      0.29      2.27      0.06    609.00
       695.     217.      365.      114.      103.       66.       41.       23.        9.    608.60
       0.77     2.11      5.51      2.77     0.050     0.040     0.050     0.000    606.60    190.62
   0.003262    2025.     2025.     2025.         3         0         0      0.00    131.38    322.00
 0
 1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID      ENDST


  *SECNO 10375.000
  3280 CROSS SECTION   10375.00 EXTENDED        0.74 FEET
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 3470 ENCROACHMENT STATIONS=        0.0      326.0  TYPE=      1  TARGET=      325.999
  10375.00      4.84   613.69     0.00   613.18   614.08     0.39     2.10     0.03    611.25
      695.      189.     393.     113.      83.      63.      36.      26.      11.    610.85
      0.80      2.29     6.23     3.09    0.050    0.040    0.050    0.000   608.85   198.45
  0.004443      555.     555.     555.        3        0        0     0.00   122.35   320.81
0
 *SECND 10930.000

 3470 ENCROACHMENT STATIONS=        0.0      326.0  TYPE=      1  TARGET=      325.999
  10930.00      4.94   616.04     0.00   615.43   616.38     0.34     2.29     0 00    613.50
      695.      202.     380.     113.       92      65.      39.      28.      13.    613.10
      0.84      2.21     5.88     2.94    0.050    0.040    0.050    0.000   611.10   194.86
  0.003851      555.     555.     555.        2        0        0     0.00   126.49   321.35
0
 CCHV=  0.300 CEHV=   0.500
 *SECNO 12039.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      624.60 ELREA=      624.60

           24TH AVENUE
  12039.00      5.02   620.62     0.00   619.83   621.45     0.82     4.83     0.24    615.60
      600.        0.     600.       0.       0.      83.       0.      32.      14.    616.20
      0.88      0.00     7.27     0.00    0.000    0.040    0.000    0.000   615.60   282.00
  0.005064     1109.    1109.    1109.        1        0        0     0.00    18.00   300.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      0.00      3.08      2.80      0.00     17.00      0.00     95.00      0.00    615.60    615.60

 *SECNO 12090.000
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS=     0.000  EGLWC=   621.443  ELLC=   621.700  PCWSE=   620.625  ELTRD=   623.400

 3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD=  623.40 MAX ELLC=  621.70


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      624.60 ELREA=      624.60

  12090.00      5.41   621.01     0.00   620.09   621.71     0.70     0.22     0.04    615.60
      600.        0.     600.       0.       0.      90.       0.      32.      15.    616.20
      0.88      0.00     6.70     0.00    0.000    0.040    0.000    0.000   615.60   282.00
  0.003852       51.      51.      51.        3        0        0     0.00    18.00   300.00
0
 *SECNO 12620.000
  12620.00      6.02   622.82     0.00   621.60   623.12     0.30     1.29     0 12    616.80
      600.       26.     480.      94.      14.     100.      41.      33.      15.    617.40
      0.92      1.84     4.78     2.28    0.050    0.040    0.050    0.000   616.80   277.27
  0.001682      530.     530.     530.        2        0        0     0.00    37.94   315.21
0
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*SECNO 13150.000
        BAUER ROAD
 13150.00      5.69   623.69     0.00   622.69   623.87     0.18     0.71     0.04   619.80
    600.        75.     330.     195.      33.      84.      75.      35.      15.    618.60
     0.96      2.27     3.92     2.58    0.040    0.035    0.040    0.000   618.00   255.26
 0.001089      530.     530.     530.        2        0        0     0.00    61.14   316.40
0

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK        XKOR      COFQ      RDLEN      BWC       BWP       BAREA      SS        ELCHU     ELCHD
     0.00      3.12      2.90    100.00     10.50      0.00     56.00      0.00    618.00    618.00

*SECNO 13220.000
3280 CROSS SECTION  13220.00 EXTENDED      0.70 FEET

PRESSURE AND WEIR FLOW

1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST



 EGPRS       EGLWC        H3        QWEIR       QPR        BAREA    TRAPEZOID       ELLC       ELTRD
                                                                      AREA
    629.25    624.48      0.00      228.       374.        56.        56.       623.30     625.00



3470 ENCROACHMENT STATIONS=     250.0     350.0  TYPE=      1  TARGET=     100.000
 ELENCL=    628.00  ELENCR=    628.00
 13220.00      7.80   625.80     0.00   622.98   625.85     0.05     1.99     0.00   619.80
    600.        97.     273.     230.      70.     120.     164.      36.      16.    618.60
     0.97      1.38     2.27     1.40    0.040    0.035    0.040    0.000   618.00   250.00
 0.000228       70.      70.      70.        2        0        4     0.00   100.00   350.00
0
CCHV=   0.100 CEHV=   0.300
*SECNO 13765.000

3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD=  624.10 MAX ELLC=  624.60

          PRIVATE ROAD
 13765.00      7.32   626.02     0.00   624.83   626.03     0.01     0.18     0.00   619.50
    600.       253.      71.     276.     315.      65.     254.      42.      18.    624.60
     1.12      0.80     1.08     1.09    0.060    0.040    0.060    0.000   618.70    87.01
 0.000572      500.     545.     525.        2        0        0   -51.37   331.20   418.21
0
*SECNO 13781.000

3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD=  624.10 MAX ELLC=  624.60

 13781.00      7.33   626.03     0.00   624.87   626.04     0.01     0.01     0.00   619.50
    600.       254.      70.     276.     317.      65.     255.      42.      18.    624.60
     1.13      0.80     1.07     1.08    0.060    0.040    0.060    0.000   618.70    86.85
 0.000567       16.      16.      16.        0        0        0   -51.37   331.48   418.32
0
*SECNO 13995.000
3280 CROSS SECTION  13995.00 EXTENDED      0.19 FEET
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3470 ENCROACHMENT STATIONS=      195.0      550.0  TYPE=      1  TARGET=      355.000
 13995.00      6.89    626.09      0.00    625.03    626.10      0.01      0.06      0.00    620.20
     600.      214.      104.      283.      282.       59.      436.       45.       20.    621.40
     1.19      0.76      1.78      0.65     0.060     0.040     0.060     0.000    619.20    195.00
 0.000218      169.      214.      174.         2         0         0      0.00    355.00    550.00
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


*SECNO 14365.000
 14365.00      5.50    626.20      0.00    625.16    626.29      0.09      0.16      0.02    621.70
     600.      209.      177.      214.      165.       46.      163.       50.       22.    622.90
     1.23      1.27      3.83      1.31     0.060     0.040     0.060     0.000    620.70    163.61
 0.001403      365.      370.      355.         2         0         0      0.00    269.83    433.44
0
*SECNO 14735.000

3265 DIVIDED FLOW

 14735.00      4.77    626.97      0.00    626.86    627.49      0.52      1.07      0.13    627.20
     600.        1.      412.      188.        2.       61.       75.       52.       24.    626.10
     1.25      0.49      6.78      2.51     0.060     0.040     0.060     0.000    622.20    241.19
 0.009822      360.      370.      355.         5         0         0      0.00    119.24    377.94
0
*SECNO 15245.000
          CONFLUENCE WITH TRIBUTARY DRAIN
 15245.00      5.52    629.02      0.00    628.33    629.16      0.14      1.64      0.04    629.70
     600.        0.      432.      168.        0.      124.      126.       54.       25.    627.00
     1.30      0.00      3.49      1.33     0.000     0.040     0.060     0.000    623.50    268.33
 0.001592      515.      510.      495.         3         0         0      0.00    118.33    386.66
0
CCHV=   0.300 CEHV=   0.500
*SECNO 17385.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      633.50 ELREA=      633.50

          PARKSIDE DRIVE
 17385.00      4.53    632.83      0.00    632.03    633.24      0.41      3.94      0.13    629.00
     260.        0.      260.        0.        0.       51.        0.       61.       28.    629.00
     1.42      0.00      5.13      0.00     0.000     0.040     0.000     0.000    628.30    287.50
 0.002770     2125.     2140.     2040.         4         0         0      0.00     11.50    299.00
0

SPECIAL BRIDGE

1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00       3.12       2.80       0.00       8.00       0.00      36.00       0.00     628.30     628.30
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*SECNO 17481.000
PRESSURE AND WEIR FLOW


 EGPRS      EGLWC       H3        QWEIR       QPR        BAREA   TRAPEZOID      ELLC       ELTRD
                                                                    AREA
    635.36    633.24      0.00        53.        209.        36.        38.      633.00     634.00


 17481.00     6.11   634.41     0.00   632.38   634.46     0.05     1.23     0.00   629.00
     260.      47.     156.      56.      51.      69.      67.      61.      28.    629.00
     1.43     0.92     2.27     0.84    0.060    0.040    0.060    0.000   628.30   224.22
 0.000360      96.      96.      96.        2        0        4     0.00   118.36   342.58
0
CCHV=   0.100 CEHV=   0.300
*SECNO 17851.000

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     225.0     410.0  TYPE=     1  TARGET=     185.000
 17851.00     6.81   634.51     0.00   632.92   634.51     0.01     0.05     0.00   629.40
     260.      11.      62.     186.      33.      71.     398.      64.      29.    629.70
     1.61     0.35     0.88     0.47    0.060    0.040    0.060    0.000   627.70   225.00
 0.000062     370.     370.     370.        2        0        0     0.00   135.86   410.00
0
CCHV=   0.300 CEHV=   0.500
*SECNO 18191.000
           28TH AVENUE
 18191.00     5.84   634.54     0.00   633.00   634.55     0.01     0.04     0.00   629.80
     260.      96.      46.     118.      137      30.     173.      68.      31.    629.30
     1.73     0.70     1.54     0.68    0.060    0.040    0.060    0.000   628.70   221.98
 0.000191     275.     340.     400.        2        0        0     0.00   143.06   365.03
0
1
```



```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST



SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00       3.12       2.80       0.00       4.00       0.00      21.00       0.00     628.70     628.70

*SECNO 18270.000
3280 CROSS SECTION  18270.00 EXTENDED       0.90 FEET

PRESSURE AND WEIR FLOW


 EGPRS      EGLWC       H3        QWEIR       QPR        BAREA   TRAPEZOID      ELLC       ELTRD
                                                                    AREA
    641.97    635.71      0.00       123.        137.        21.        21.      633.90     635.70



3470 ENCROACHMENT STATIONS=     200.0     380.0  TYPE=     1  TARGET=     180.000
 18270.00     7.90   636.60     0.00   636.09   636.60     0.00     2.04     0.00   629.80
```

```
       260.      101.       31.      128.      233.       41.      360.       69.       31.    629.30
       1.79      0.36       0.75     0.36      0.060      0.040     0.060     0.000   628.70    200.00
   0.000030       79.        79.       79.          0          0         6      0.00   180.00    380.00
0
 *SECNO 18645.000
   18645.00      4.19     636.59     0.00     636.07     636.67      0.08      0.03      0.04    633.50
       260.       87.        74.       99.        58.        21.       67.       72.       32.    633.00
       1.84      1.51       3.55     1.48      0.060      0.040     0.060     0.000   632.40    242.62
   0.001659      375.       375.      375.          2          0         0      0.00    93.43    336.05
0
 *SECNO 18835.000
 3280 CROSS SECTION  18835.00 EXTENDED      0.59 FEET

   18835.00      2.59     636.89     0.00     636.43     636.92      0.03      0.23      0.01    636.10
       260.        1.       167.       92.         2.        94.      152.       73.       33.    635.70
       1.88      0.41       1.77     0.61      0.060      0.040     0.060     0.000   634.30    246.25
   0.000956      190.       190.      190.          2          0         0      0.00   303.75    550.00
0
 *SECNO 18930.000
   18930.00      1.78     636.98   636.87     636.67     637.27      0.29      0.22      0.13    637.00
       260.        0.       245.       15.         0.        55.       14.       74.       33.    636.60
       1.88      0.00       4.47     1.11      0.000      0.040     0.060     0.000   635.20    251.32
   0.012388       95.        95.       95.          4         14         0      0.00   118.73    370.05
0
1
   13 OCT 89     12:54:01                                                                                    PAGE   34


     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 19020.000
   19020.00      1.89     637.99     0.00     637.74     638.21      0.22      0.91      0.02    637.90
       260.        0.       236.       24.         0.        60.       22.       74.       34.    637.50
       1.89      0.02       3.92     1.09      0.060      0.040     0.060     0.000   636.10    250.45
   0.008470       90.        90.       90.          3          0         0      0.00   132.12    382.57
0
 CCHV=   0.100 CEHV=    0.300
 *SECNO -15245.000
 START TRIB COMP
  -15245.000 15245.000    629.021
  -15245.00      5.52     629.02     0.00     628.33     629.05      0.03      0.00      0.00    629.70
       260.        0.       187.       73.         0.       124.      126.       74.       34.    627.00
       1.89      0.00       1.51     0.58      0.000      0.040     0.060     0.000   623.50    268.33
   0.000299        0.         0.       0.           0          0         0      0.00   118.33    386.66
0
 *SECNO 220.000
     220.00      3.49     629.09     0.00     628.41     629.13      0.04      0.08      0.00    631.80
       100.        0.       100.       0.          0.        63.        0.       75.       34.    629.10
       1.93      0.00       1.58     0.00      0.000      0.040     0.000     0.000   625.60    272.33
   0.000661      195.       220.      220.          0          0         0      0.00    27.62    299.95
0
 *SECNO 330.000
     330.00      2.53     629.18     0.00     628.52     629.28      0.10      0.13      0.02    632.85
       100.        0.       100.       0.          0.        39.        0.       75.       34.    630.15
       1.94      0.00       2.56     0.00      0.000      0.040     0.000     0.000   626.65    274.22
   0.002523       95.       110.      110.          2          0         0      0.00    22.71    296.92
0
 *SECNO 445.000
     445.00      1.82     629.57     0.00     629.21     629.83      0.26      0.51      0.05    633.95
       100.        0.       100.       0.          0.        25.        0.       75.       34.    631.25
       1.95      0.00       4.08     0.00      0.000      0.040     0.000     0.000   627.75    275.59
   0.009493      100.       115.      110.          2          0         0      0.00    19.14    294.72
```

```
0
 CCHV=   0.500 CEHV=    1.000
 *SECNO 890.000

 3301 HV CHANGED MORE THAN HVINS

1
  13 OCT 89     12:54:01                                                                                              PAGE    35


      SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA    LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN       SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID      ENDST


 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
            PARK ROAD CULVERT
      890.00      3.25    635.25    635.25    634.97    636.10      0.85      5.63      0.59    633.50
        100.       11.       72.       17.        4.        8.        5.       75.       34.    632.60
        1.97      2.90      8.49      3.47     0.060     0.040     0.060     0.000    632.00    993.99
    0.017989      395.      445.      440.        10        14         0      0.00     11.12   1005.11
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
       0.00       3.12       2.60       0.00       2.50       0.00       7.00       0.00     632.00     632.00

 *SECNO 933.000

 3301 HV CHANGED MORE THAN HVINS

 PRESSURE AND WEIR FLOW


  EGPRS       EGLWC        H3        QWEIR       QPR        BAREA   TRAPEZOID      ELLC      ELTRD
                                                                       AREA
     645.14     637.41      0.00        64.        36.         7.         8.     635.00     635.90


      933.00      4.40    636.40      0.00    636.31    636.55      0.15      0.45      0.00    633.50
        100.       18.       50.       32.       11.       12.       34.       75.       34.    632.60
        1.97      1.61      4.22      0.93     0.060     0.040     0.060     0.000    632.00    991.01
    0.002818       43.       43.       43.         2         0         7      0.00    110.50   1101.51
0
 *SECNO 1055.000

 3265 DIVIDED FLOW

 3280 CROSS SECTION   1055.00 EXTENDED       0.39 FEET


 3470 ENCROACHMENT STATIONS=       145.0      330.0  TYPE=      1  TARGET=      185.000
     1055.00      4.09    636.69      0.00    636.50    636.71      0.02      0.09      0.07    636.70
        100.       27.       73.        0.       57.       56.        1.       75.       35.    637.00
        2.00      0.48      1.30      0.11     0.050     0.035     0.050     0.000    632.60    145.00
    0.000352      122.      122.      122.         3         0         0      0.00    123.67    330.00
0
1
  13 OCT 89     12:54:01                                                                                              PAGE    36


      SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL        OLOSS   BANK ELEV
```

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      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


   CCHV=   0.100 CEHV=    0.300
   *SECNO 1585.000

   3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      639.50 ELREA=      639.50

     1585.00      2.92    636.92      0.00    636.75    637.03      0.11      0.30      0.03    634.80
        100.        0.      100.        0.        0.       37.        0.       76.       35.    635.10
        2.06      0.00      2.69      0.00     0.000     0.035     0.000     0.000    634.00    286.00
    0.001113      415.      530.      400.         2         0         0      0.00     14.00    300.00
  0
   CCHV=   0.300 CEHV=    0.500
   *SECNO 1588.000

   3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  639.50 MAX ELLC=  639.60


   3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      639.50 ELREA=      639.50

              28TH AVENUE
     1588.00      2.88    636.88      0.00    636.73    637.09      0.20      0.01      0.04    634.80
        100.        0.      100.        0.        0.       28.        0.       76.       35.    635.10
        2.06      0.00      3.60      0.00     0.000     0.035     0.000     0.000    634.00    286.00
    0.005336        3.        3.        3.         2         0         0    -12.45     14.00    300.00
  0
   *SECNO 1647.000

   3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  639.50 MAX ELLC=  639.60


   3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      639.50 ELREA=      639.50

     1647.00      3.21    637.21      0.00    636.91    637.38      0.17      0.28      0.01    634.80
        100.        0.      100.        0.        0.       31.        0.       76.       35.    635.10
        2.06      0.00      3.27      0.00     0.000     0.035     0.000     0.000    634.00    286.00
    0.004230       59.       59.       59.         2         0         0    -15.60     14.00    300.00
  0
   *SECNO 1650.000

   3470 ENCROACHMENT STATIONS=      282.0      302.0  TYPE=        1   TARGET=        20.000
     1650.00      3.34    637.34      0.00    636.99    637.41      0.07      0.00      0.03    634.80
        100.        6.       92.        3.        7.       43.        4.       76.       35.    635.10
        2.06      0.85      2.12      0.72     0.050     0.035     0.050     0.000    634.00    282.00
    0.000573        3.        3.        3.         2         0         0      0.00     20.00    302.00
  0
  1
    13 OCT 89    12:54:01                                                                                           PAGE   37


      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


   CCHV=   0.100 CEHV=    0.300
   *SECNO 2070.000

   3265 DIVIDED FLOW

   3685 20 TRIALS ATTEMPTED WSEL,CWSEL
   3693 PROBABLE MINIMUM SPECIFIC ENERGY
```

```
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=      287.0      550.0  TYPE=      1  TARGET=      263.000
   2070.00      1.86   641.76   641.76   641.45   642.17     0.41     0.64     0.10   642.30
     100.        0.       88.      12.       0.      16.       8.      77.      36.    641.00
      2.09      0.00     5.44     1.58    0.000    0.035    0.050    0.000   639.90   288.02
  0.011709      365.     420.     390.       20       11        0     0.00    37.20   341.26
0
 *SECND 3435.000
   3435.00      3.71   647.31     0.00   647.00   647.41     0.10     5.20     0.03   645.00
     100.       42.      46.      13.      27.      13.       9.      77.      37.    645.20
      2.23      1.57     3.41     1.38    0.050    0.035    0.050    0.000   643.60   273.40
  0.002086     1050.    1365.    1055.        8        0        0     0.00    35.31   308.71
0
1
  13 OCT 89     12:54:01                                                                         PAGE    38



                                                                        THIS RUN EXECUTED 13 OCT 89    12:54:19

 *************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
   ERROR CORR -  01,02,03,04,05,06
   MODIFICATION -  50,51,52,53,54,55,56
 *************************************************


 T1           GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
 T2           FLOOD INSURANCE STUDY
 T3           LOWING-COMSTOCK DRAIN - 100-YEAR FLOOD

 J1   ICHECK     INQ       NINV       IDIR       STRT      METRIC     HVINS      Q         WSEL       FQ

        0.         4.        0.         0.   0.007300     0.00       0.0        0.    602.600     0.000

 J2   NPROF      IPLOT     PRFVS     XSECV      XSECH       FN       ALLDC      IBW       CHNIM      ITRACE

       3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
  13 OCT 89     12:54:01                                                                         PAGE    39


    SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *PROF 3

 CCHV=   0.100 CEHV=   0.300
 *SECND 300.000

 3470 ENCROACHMENT STATIONS=      150.0      350.0  TYPE=      1  TARGET=      200.000
    300.00      3.49   587.39     0.00   602.60   587.73     0.34     0.00     0.00   587.90
     330.        0.      330.       0.       0.      70.       0.       0.       0.    588.30
      0.00      0.00     4.69     0.00    0.000    0.045    0.000    0.000   583.90   266.83
  0.007286      300.     300.     300.        0        0       10     0.00    31.65   298.48
0
 *SECND 1050.000
   1050.00      3.37   592.77     0.00     0.00   593.10     0.33     5.37     0.00   592.40
     330.       11.     273.      46.       9.      54.      36.       1.       1.    591.80
      0.05      1.17     5.02     1.26    0.070    0.045    0.070    0.000   589.40   260.77
  0.007196      595.     750.     665.        5        0        0     0.00   102.76   363.53
```

```
O
 *SECNO 1425.000
   1425.00     3.27   595.67     0.00     0.00   596.07     0.40     2.95     0.02   595.40
      330.       9.     285.      37.       7.      52.      30.       2.       2.    594.80
      0.07     1.14     5.46     1.24    0.070    0.045    0.070    0.000   592.40   260.94
  0.009026     295.     375.     330.        3        0        0     0.00   101.92   362.86
O
 *SECNO 1615.000
   1615.00     3.36   597.26     0.00     0.00   597.59     0.33     1.52     0.01   596.90
      330.      11.     274.      45.       9.      54.      36.       3.       2.    596.30
      0.08     1.17     5.06     1.26    0.070    0.045    0.070    0.000   593.90   260.79
  0.007372     150.     190.     170.        2        0        0     0.00   102.67   363.46
O
 *SECNO 1800.000
   1800.00     3.28   598.68     0.00     0.00   599.07     0.39     1.46     0.02   598.40
      330.       9.     284.      38.       8.      52.      30.       3.       3.    597.80
      0.09     1.15     5.41     1.24    0.070    0.045    0.070    0.000   595.40   260.93
  0.008816     150.     185.     165.        1        0        0     0.00   102.01   362.93
O
 *SECNO 2240.000

 3470 ENCROACHMENT STATIONS=     279.0      300.0  TYPE=      1  TARGET=       21.000
1
  13 OCT 89     12:54:01                                                                                 PAGE    40


    SECNO      DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
    Q          QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
    TIME       VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
    SLOPE      XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


   2240.00     4.50   600.90     0.00   600.80   601.18     0.28     2.10     0.01   599.40
      330.       0.     330.       0.       0.      78.       0.       4.       3. 100000.00
      0.12     0.00     4.22     0.00    0.000    0.040    0.000    0.000   596.40   279.00
  0.003025     440.     440.     360.        3        0        0     0.00    21.00   300.00
O
 CCHV=   0.300 CEHV=    0.500
 *SECNO 2241.000

 3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  604.10 MAX ELLC=  604.40


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.10 ELREA=      604.10

           PRIVATE DRIVE
   2241.00     4.42   600.82     0.00   600.72   601.27     0.46     0.00     0.09   604.40
      330.       0.     330.       0.       0.      61.       0.       4.       3.    604.10
      0.12     0.00     5.43     0.00    0.000    0.035    0.000    0.000   596.40   277.90
  0.004337       1.       1.       1.        2        0        0     0.00    19.55   297.46
O
 *SECNO 2253.000

 3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  604.10 MAX ELLC=  604.40


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.10 ELREA=      604.10

   2253.00     4.50   600.90     0.00   600.79   601.33     0.44     0.05     0.01   604.40
      330.       0.     330.       0.       0.      62.       0.       4.       3.    604.10
      0.12     0.00     5.29     0.00    0.000    0.035    0.000    0.000   596.40   277.81
  0.004045      12.      12.      12.        2        0        0     0.00    19.75   297.56
O
 *SECNO 2255.000

 3470 ENCROACHMENT STATIONS=     275.0      300.0  TYPE=      1  TARGET=       25.000
```

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  2255.00     4.79   601.19     0.00   601.07   601.40     0.21     0.00     0.07   599.40
     330.      12.     318.       0.       7.      84.       0.       4.       3. 100001.00
     0.12     1.70     3.78     0.00    0.040    0.035    0.000    0.000   596.40   275.00
 0.001577       2.       2.       2.        2        0        0     0.00    25.00   300.00
0
1
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   SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


 CCHV=   0.100 CEHV=   0.300
 *SECNO 3215.000
  3215.00     4.55   603.45     0.00   603.31   603.86     0.41     2.40     0.06   606.10
     330.       0.     330.       0.       0.      64.       0.       6.       4.   606.80
     0.17     0.00     5.15     0.00    0.000    0.035    0.000    0.000   598.90   268.95
 0.004587     930.     960.    1000.        2        0        0     0.00    24.65   293.60
0
 CCHV=   0.300 CEHV=   0.500
 *SECNO 5495.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      608.50 ELREA=      608.50

           FILLMORE STREET
  5495.00     6.45   606.15     0.00   606.03   606.26     0.11     2.31     0.09   600.80
     290.       0.     290.       0.       0.     110.       0.      10.       5.   602.00
     0.41     0.00     2.64     0.00    0.000    0.035    0.000    0.000   599.70   276.00
 0.000393    2280.    2280.    2280.        4        0        0     0.00    19.00   295.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00       3.13       3.00       0.00      12.50       0.00      54.00       0.00     599.70     599.70

 *SECNO 5575.000
 PRESSURE FLOW


  EGPRS      EGLWC       H3        QWEIR       QPR        BAREA    TRAPEZOID     ELLC       ELTRD
                                                                     AREA
     607.56     606.26       0.00          0.       290.        54.        54.     604.00     608.50



 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      608.50 ELREA=      608.50

  5575.00     7.78   607.48     0.00   607.31   607.56     0.07     1.29     0.00   600.80
     290.       0.     290.       0.       0.     135.       0.      10.       5.   602.00
     0.42     0.00     2.14     0.00    0.000    0.035    0.000    0.000   599.70   276.00
 0.000198      80.      80.      80.        2        0        0     0.00    19.00   295.00
0
1
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   SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST
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*SECNO 7725.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      614.70 ELREA=      614.70

          CEDAR LAKE DRIVE
  7725.00      5.34   608.19     0.00   608.02   608.34     0.15     0.74     0.04   604.40
     295.        0.     295.       0.       0.      95.       0.      16.       6.   603.15
     0.61      0.00     3.10     0.00    0.000    0.035    0.000    0.000   602.85   259.00
 0.000738     2150.    2150.    2150.        2        0        0     0.00    21.00   280.00
0

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      3.12      2.70      0.00     10.50      0.00     48.00      0.00    602.85    602.85

*SECNO 7795.000
PRESSURE FLOW


 EGPRS      EGLWC       H3       QWEIR       QPR       BAREA   TRAPEZOID     ELLC      ELTRD
                                                                 AREA
    610.02    608.34     0.00        0.      295.        48.       48.      607.40    614.70



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      614.70 ELREA=      614.70

  7795.00      7.09   609.94     0.00   609.54   610.02     0.08     1.68     0.00   604.40
     295.        0.     295.       0.       0.     132.       0.      16.       6.   603.15
     0.62      0.00     2.24     0.00    0.000    0.035    0.000    0.000   602.85   259.00
 0.000248       70.      70.      70.        2        0        0     0.00    21.00   280.00
0
CCHV=   0.100 CEHV=   0.300
*SECNO 9820.000
3280 CROSS SECTION   9820.00 EXTENDED      1.26 FEET


3470 ENCROACHMENT STATIONS=       0.0     326.0  TYPE=     1  TARGET=    325.999
  9820.00      5.36   611.96     0.00   611.66   612.22     0.26     2.14     0.05   609.00
     800.      289.     380.     132.     133.      70.      48.      25.      10.   608.60
     0.77      2.17     5.39     2.74    0.050    0.040    0.050    0.000   606.60   179.84
 0.002879     2025.    2025.    2025.        2        0        0     0.00   143.79   323.63
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 10375.000
3280 CROSS SECTION  10375.00 EXTENDED      0.91 FEET


3470 ENCROACHMENT STATIONS=       0.0     326.0  TYPE=     1  TARGET=    325.999
 10375.00      5.01   613.86     0.00   613.69   614.27     0.41     2.01     0.05   611.25
     800.      241.     428.     131.      97.      65.      40.      28.      12.   610.85
     0.80      2.48     6.54     3.28    0.050    0.040    0.050    0.000   608.85   192.67
 0.004680      555.     555.     555.        3        0        0     0.00   129.02   321.69
0
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*SECNO 10930.000

3470 ENCROACHMENT STATIONS=       0.0      326.0  TYPE=      1  TARGET=      325.999
 10930.00     5.16    616.26     0.00    616.04    616.59     0.33     2.32     0.01    613.50
     800.     263.      405.     131.      113.       68.       43.      31.       13.    613.10
     0.84     2.34      5.99     3.02     0.050     0.040    0.050    0.000   611.10    186.90
 0.003747     555.      555.     555.         2         0        0     0.00   135.66    322.56
0
CCHV=   0.300 CEHV=   0.500
*SECNO 12039.000

3301 HV CHANGED MORE THAN HVINS


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      624.60 ELREA=      624.60

          24TH AVENUE
 12039.00     5.28    620.88     0.00    620.62    621.85     0.97     4.94     0.32    615.60
     690.       0.      690.       0.        0.       87.       0.      35.      15.    616.20
     0.88     0.00      7.91     0.00     0.000     0.040    0.000    0.000   615.60    282.00
 0.005556    1109.     1109.    1109.         2         0        0     0.00    18.00    300.00
0

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB   XK        XKOR       COFQ      RDLEN      BWC        BWP       BAREA      SS        ELCHU      ELCHD
     0.00      3.08       2.80      0.00       17.00      0.00      95.00      0.00      615.60     615.60

*SECNO 12090.000
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


**ERROR** ELTRD.LT.MIN ROAD ELEV, ELTRD SET EQUAL TO MIN ROAD ELEV
PRESSURE FLOW


 EGPRS      EGLWC       H3        QWEIR       QPR        BAREA     TRAPEZOID     ELLC       ELTRD
                                                                     AREA
    623.41     621.85      0.00         0.        690.        95.       104.      621.70     624.60



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      624.60 ELREA=      624.60

 12090.00     7.33    622.93     0.00    621.01    623.41     0.48     1.55     0.00    615.60
     690.       0.      690.       0.        0.      124.       0.      35.      15.    616.20
     0.88     0.00      5.56     0.00     0.000     0.040    0.000    0.000   615.60    282.00
 0.001718      51.       51.      51.         2         0        0     0.00    18.00    300.00
0
*SECNO 12620.000
 12620.00     7.15    623.95     0.00    622.82    624.20     0.24     0.72     0.07    616.80
     690.      34.      530.     126.       20.      121.      60.      37.      16.    617.40
     0.92     1.68      4.38     2.09     0.050     0.040    0.050    0.000   616.80    276.38
 0.001106     530.      530.     530.         2         0        0     0.00    42.02    318.40
0
*SECNO 13150.000
          BAUER ROAD
 13150.00     6.56    624.56     0 00    623.69    624.70     0.14     0.47     0.03    619.80
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       690.        99.       352.       239.        47.        99.       103.        39.        16.     618.60
       0.97       2.12       3.55       2.32      0.040      0.035      0.040      0.000     618.00     252.87
   0.000720       530.       530.       530.          2          0          0       0.00      68.49     321.35
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB   XK         XKOR        COFQ       RDLEN       BWC         BWP        BAREA        SS         ELCHU      ELCHD
      0.00       3.12        2.90      100.00      10.50        0.00       56.00       0.00      618.00     618.00

 *SECNO 13220.000
 3280 CROSS SECTION   13220.00 EXTENDED      1.02 FEET
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     SECNO      DEPTH      CWSEL      CRIWS      WSELK       EG         HV         HL        OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB        ACH        AROB       VOL       TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL         XNCH       XNR        WTN       ELMIN       SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL      IDC        ICONT      CORAR     TOPWID      ENDST


 PRESSURE AND WEIR FLOW


   EGPRS        EGLWC        H3         QWEIR        QPR         BAREA    TRAPEZOID      ELLC       ELTRD
                                                                            AREA
      631.91     625.31      0.00        371.        324.         56.        56.       623.30     625.00



 3470 ENCROACHMENT STATIONS=      250.0      350.0  TYPE=      1  TARGET=      100.000
   ELENCL=     628.00  ELENCR=     628.00
   13220.00       8.12     626.12       0.00     625.80     626.18       0.06       1.48       0.00     619.80
       690.       114.       304.       273.        76.       126.       184.        40.        16.     618.60
       0.98       1.49       2.42       1.48      0.040      0.035      0.040      0.000     618.00     250.00
   0.000243        70.        70.        70.          2          0          4       0.00     100.00     350.00
0
 CCHV=    0.100 CEHV=    0.300
 *SECNO 13765.000

 3370 NORMAL BRIDGE,NRD=   6 MIN ELTRD=   624.10 MAX ELLC=   624.60

            PRIVATE ROAD
   13765.00       7.64     626.34       0.00     626.02     626.35       0.01       0.17       0.00     619.50
       690.       309.        72.       309.       380.        70.       293.        47.        19.     624.60
       1.13       0.81       1.03       1.05      0.060      0.040      0.060      0.000     618.70      78.99
   0.000473       500.       545.       525.          2          0          0     -51.37     344.94     423.93
0
 *SECNO 13781.000

 3370 NORMAL BRIDGE,NRD=   6 MIN ELTRD=   624.10 MAX ELLC=   624.60

   13781.00       7.65     626.35       0.00     626.03     626.36       0.01       0.01       0.00     619.50
       690.       309.        72.       309.       381.        70.       294.        47.        19.     624.60
       1.14       0.81       1.03       1.05      0.060      0.040      0.060      0.000     618.70      78.85
   0.000470        16.        16.        16.          0          0          0     -51.37     345.19     424.04
0
 *SECNO 13995.000
 3280 CROSS SECTION   13995.00 EXTENDED      0.50 FEET
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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


3470 ENCROACHMENT STATIONS=      195.0     550.0  TYPE=      1  TARGET=     355.000
 13995.00     7.20    626.40      0.00    626.09    626.41      0.01      0.05      0.00    620.20
     690.     242.      108.      340.      312.       61.      514.       50.       20.    621.40
     1.20     0.78      1.76      0.66     0.060     0.040     0.060     0.000    619.20    195.00
 0.000203     169.      214.      174.         2         0         0      0.00    355.00    550.00
0
*SECNO 14365.000
 14365.00     5.81    626.51      0.00    626.20    626.57      0.07      0.14      0.02    621.70
     690.     255.      174.      260.      206.       49.      209.       56.       23.    622.90
     1.25     1.24      3.56      1.25     0.060     0.040     0.060     0.000    620.70    156.49
 0.001118     365.      370.      355.         1         0         0      0.00    299.24    455.73
0
*SECNO 14735.000

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
 14735.00     4.88    627.08    627.08    626.97    627.66      0.58      0.93      0.15    627.20
     690.       3.      456.      231.        4.       63.       83.       58.       25.    626.10
     1.27     0.69      7.24      2.79     0.060     0.040     0.060     0.000    622.20    235.99
 0.010811     360.      370.      355.         5        10         0      0.00    132.91    379.67
0
*SECNO 15245.000
           CONFLUENCE WITH TRIBUTARY DRAIN
 15245.00     5.75    629.25      0.00    629.02    629.40      0.15      1.70      0.04    629.70
     690.       0.      476.      214.        0.      131.      146.       61.       26.    627.00
     1.32     0.00      3.63      1.47     0.000     0.040     0.060     0.000    623.50    267.88
 0.001623     515.      510.      495.         5         0         0      0.00    119.98    387.86
0
CCHV=   0.300 CEHV=   0.500
*SECNO 17385.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      633.50 ELREA=      633.50

1
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           PARKSIDE DRIVE
 17385.00     4.84    633.14      0.00    632.83    633.62      0.47      4.05      0.16    629.00
     300.       0.      300.        0.        0.       54.        0.       69.       30.    629.00
     1.42     0.00      5.53      0.00     0.000     0.040     0.000     0.000    628.30    287.50
 0.002928    2125.     2140.     2040.         4         0         0      0.00     11.50    299.00
0

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      3.12      2.80      0.00      8.00      0.00     36.00      0.00    628.30    628.30

*SECNO 17481.000
PRESSURE AND WEIR FLOW
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 EGPRS      EGLWC       H3       QWEIR       QPR       BAREA   TRAPEZOID     ELLC      ELTRD
                                                                 AREA
   636.51     633.62      0.00       102.       199.       36.       38.      633.00     634.00


 17481.00     6.26   634.56    0.00   634.41   634.62     0.06     1.00     0.00   629.00
     300.      57.     176.     68.      62.      71.      74.      69.      30.   629.00
     1.44     0.92     2.49    0.91    0.060    0.040    0.060    0.000   628.30   213.60
 0.000419      96.      96.     96.        2        0        5     0.00   140.12   353.72
0
CCHV=   0.100 CEHV=   0.300
*SECNO 17851.000

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=      225.0      410.0  TYPE=      1  TARGET=      185.000
 17851.00     6.97   634.67    0.00   634.51   634.68     0.01     0.05     0.01   629.40
     300.      13.      70.    216.      38.      72.     416.      72.      31.   629.70
     1.60     0.35     0.97    0.52    0.060    0.040    0.060    0.000   627.70   225.00
 0.000072     370.     370.    370.        2        0        0     0.00   163.74   410.00
0
CCHV=   0.300 CEHV=   0.500
*SECNO 18191.000
           28TH AVENUE
 18191.00     6.01   634.71    0.00   634.54   634.73     0.01     0.04     0.00   629.80
     300.     112.      51.    137.     147.      31.     187.      76.      32.   629.30
     1.71     0.76     1.65    0.74    0.060    0.040    0.060    0.000   628.70   219.86
 0.000212     275.     340.    400.        2        0        0     0.00   148.20   368.06
0
1
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK         XKOR        COFQ        RDLEN      BWC        BWP        BAREA       SS         ELCHU      ELCHD
     0.00       3.12        2.80        0.00       4.00       0.00      21.00        0.00     628.70     628.70

*SECNO 18270.000
3280 CROSS SECTION  18270.00 EXTENDED       0.98 FEET

PRESSURE AND WEIR FLOW


 EGPRS      EGLWC       H3       QWEIR       QPR       BAREA   TRAPEZOID     ELLC      ELTRD
                                                                 AREA
   644.60     636.18      0.00       167.       134.       21.       21.      633.90     635.70



3470 ENCROACHMENT STATIONS=      200.0      380.0  TYPE=      1  TARGET=      180.000
 18270.00     7.98   636.68    0.00   636.60   636.68     0.00     1.95     0.00   629.80
     300.     117.      35.    148.     290.      42.     368.      77.      33.   629.30
     1.76     0.40     0.84    0.40    0.060    0.040    0.060    0.000   628.70   200.00
 0.000037      79.      79.     79.        0        0        6     0.00   180.00   380.00
0
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 *SECNO 18645.000
  18645.00      4.27    636.67      0.00    636.59    636.77      0.10      0.04      0.05    633.50
      300.      101.       83.      115.       61.       21.       71.       81.       34.    633.00
      1.81      1.67      3.90      1.63     0.060     0.040     0.060     0.000    632.40    241.59
  0.001939      375.      375.      375.         2         0         0      0.00     95.88    337.47
0
 *SECNO 18835.000
 3280 CROSS SECTION  18835.00 EXTENDED       0.70 FEET

  18835.00      2.70    637.00      0.00    636.89    637.03      0.03      0.25      0.02    636.10
      300.        1.      182.      117.        2.      100.      180.       82.       35.    635.70
      1.85      0.44      1.82      0.65     0.060     0.040     0.060     0.000    634.30    245.56
  0.000930      190.      190.      190.         2         0         0      0.00    304.44    550.00
0
 *SECNO 18930.000
  18930.00      1.88    637.08    636.99    636.98    637.38      0.29      0.21      0.13    637.00
      300.        0.      273.       27.        0.       60.       22.       82.       35.    636.60
      1.85      0.03      4.55      1.26     0.060     0.040     0.060     0.000    635.20    250.48
  0.011481       95.       95.       95.         4        14         0      0.00    131.65    382.13
0
1
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST


 *SECNO 19020.000
  19020.00      1.96    638.06      0.00    637.99    638.29      0.24      0.90      0.02    637.90
      300.        0.      265.       35.         0       64.       29.       82.       35.    637.50
      1.86      0.02      4.14      1.23     0.060     0.040     0.060     0.000    636.10    250.00
  0.008770       90.       90.       90.         2         0         0      0.00    138.81    388.81
0
 CCHV=    0.100 CEHV=    0.300
 *SECNO -15245.000
 START TRIB COMP
  -15245.000 15245.000    629.253
 -15245.00      5.75    629.25      0.00    629.02    629.28      0.03      0.00      0.00    629.70
      300.        0.      207.       93.        0.      131.      146.       82.       35.    627.00
      1.86      0.00      1.58      0.64     0.000     0.040     0.060     0.000    623.50    267.88
  0.000307        0.        0.        0.         0         0         0      0.00    119.98    387.86
0
 *SECNO 220.000
    220.00      3.72    629.32      0.00    629.09    629.37      0.04      0.08      0.00    631.80
      115.        0.      115.        0.        0.       70.        3.       83.       36.    629.10
      1.90      0.00      1.64      0.15     0.000     0.040     0.060     0.000    625.60    271.88
  0.000641      195.      220.      220.         0         0         0      0.00     54.25    326.13
0
 *SECNO 330.000
    330.00      2.75    629.40      0.00    629.18    629.51      0.10      0.12      0.02    632.85
      115.        0.      115.        0.        0.       44.        0.       83.       36.    630.15
      1.91      0.00      2.59      0.00     0.000     0.040     0.000     0.000    626.65    273.77
  0.002338       95.      110.      110.         2         0         0      0.00     23.87    297.64
0
 *SECNO 445.000
    445.00      2.01    629.76      0.00    629.57    630.02      0.26      0.46      0.05    633.95
      115.        0.      115.        0.        0.       28.        0.       83.       36.    631.25
      1.92      0.00      4.09      0.00     0.000     0.040     0.000     0.000    627.75    275.23
  0.008516      100.      115.      110.         2         0         0      0.00     20.07    295.30
0
 CCHV=    0.500 CEHV=    1.000
 *SECNO 890 000
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 3301 HV CHANGED MORE THAN HVINS
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
           PARK ROAD CULVERT
    890.00      3.45    635.45    635.45    635.25    636.34      0.90      5.25      0.64    633.50
      115.       15.       80.       20.        5.        9.        6.       83.       36.    632.60
      1.93      3.09      8.82      3.62     0.060     0.040     0.060     0.000    632.00    993.49
  0.017782      395.      445.      440.        13        14         0      0.00     11.89   1005.38
0

 SPECIAL BRIDGE

 5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB   XK        XKOR       COFQ       RDLEN       BWC        BWP        BAREA       SS         ELCHU      ELCHD
      0.00      3.12       2.60       0.00       2.50       0.00       7.00       0.00      632.00     632.00

 *SECNO 933.000

 3301 HV CHANGED MORE THAN HVINS

 PRESSURE AND WEIR FLOW


  EGPRS      EGLWC        H3       QWEIR       QPR        BAREA    TRAPEZOID       ELLC       ELTRD
                                                                      AREA
     648.52     637.95       0.00        81.        34.         7.         8.     635.00     635.90


    933.00      4.44    636.44      0.00    636.40    636.62      0.18      0.28      0.00    633.50
      115.       20.       56.       39.       11.       12.       38.       84.       36.    632.60
      1.94      1.78      4.66      1.02     0.060     0.040     0.060     0.000    632.00    990.92
  0.003389       43.       43.       43.         3         0         7      0.00    117.09   1108.01
0
 *SECNO 1055.000

 3265 DIVIDED FLOW

 3280 CROSS SECTION   1055.00 EXTENDED       0.48 FEET


 3470 ENCROACHMENT STATIONS=      145.0      330.0  TYPE=      1  TARGET=      185.000
   1055.00      4.18    636.78      0.00    636.69    636.80      0.02      0.10      0.08    636.70
      115.       34.       81.        0.       65.       58.        2.       84.       37.    637.00
      1.97      0.52      1.38      0.16     0.050     0.035     0.050     0.000    632.60    145.00
  0.000383      122.      122.      122.         3         0         0      0.00    146.64    330.00
0
1
  13 OCT 89    12:54:01                                                                                                  PAGE    51

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST
```

```
CCHV=   0.100 CEHV=    0.300
*SECNO 1585.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      639.50 ELREA=      639.50

  1585.00      3.03   637.03     0.00   636.92   637.17     0.14     0.33     0.03   634.80
     115.        0.     115.       0.       0.      39.       0.      85.      37.    635.10
     2.02      0.00     2.97     0.00    0.000    0.035    0.000    0.000   634.00   286.00
 0.001291      415.     530.     400.        2        0        0     0.00    14.00   300.00
0
CCHV=   0.300 CEHV=    0.500
*SECNO 1588.000

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  639.50 MAX ELLC=  639.60


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      639.50 ELREA=      639.50

          28TH AVENUE
  1588.00      2.98   636.98     0.00   636.88   637.23     0.25     0.01     0.06   634.80
     115.        0.     115.       0.       0.      29.       0.      85.      37.    635.10
     2.02      0.00     4.01     0.00    0.000    0.035    0.000    0.000   634.00   286.00
 0.006559        3.       3.       3.        2        0        0   -13.32    14.00   300.00
0
*SECNO 1647.000

3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  639.50 MAX ELLC=  639.60


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      639.50 ELREA=      639.50

  1647.00      3.38   637.38     0.00   637.21   637.58     0.20     0.34     0.01   634.80
     115.        0.     115.       0.       0.      32.       0.      85.      37.    635.10
     2.02      0.00     3.59     0.00    0.000    0.035    0.000    0.000   634.00   286.00
 0.005040       59.      59.      59.        2        0        0   -17.46    14.00   300.00
0
*SECNO 1650.000

3470 ENCROACHMENT STATIONS=      282.0      302.0  TYPE=      1  TARGET=      20.000
  1650.00      3.55   637.55     0.00   637.34   637.62     0.07     0.00     0.04   634.80
     115.        7.     105.       3.       8.      46.       4.      85       37.    635.10
     2.02      0.92     2.28     0.76    0.050    0.035    0.050    0.000   634.00   282.00
 0.000605        3.       3.       3.        2        0        0     0.00    20.00   302.00
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


CCHV=   0.100 CEHV=    0.300
*SECNO 2070.000

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      287.0      550.0  TYPE=      1  TARGET=     263.000
  2070.00      1.98   641.88   641.88   641.76   642.28     0.40     0.66     0.10   642.30
```

```
      115.       0.       97.      18.       0.      18.      11.      85.      38.    641.[illegible]
      2.05     0.00     5.51     1.65    0.000    0.035    0.050    0.000   639.90   287.80
  0.011011     365.     420.     390.       20       11        0     0.00    43.60   341.82
0
 *SECNO 3435.000
   3435.00     3.83   647.43     0.00   647.31   647.54     0.11     5.23     0.03   645.00
      115.      50.      50.      15.       29      14.      10.      86.      39.   645.20
      2.19     1.70     3.58     1.47    0.050    0.035    0.050    0.000   643.60   272.40
  0.002181    1050.    1365.    1055.        7        0        0     0.00    36.84   309.24
0
1
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                                                                THIS RUN EXECUTED 13 OCT 89    12:54:25
 ***************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
   ERROR CORR -  01,02,03,04,05,06
   MODIFICATION -  50,51,52,53,54,55,56
 ***************************************************


 T1         GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN
 T2         FLOOD INSURANCE STUDY
 T3         LOWING-COMSTOCK DRAIN - 500-YEAR FLOOD

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC     HVINS      Q        WSEL       FQ

        0.        5.        0.        0.  0.007300     0.00       0.0        0.   605.800     0.000

 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH      FN       ALLDC      IBW      CHNIM      ITRACE

     15.000    0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

1
  13 OCT 89    12:54:01                                                                         PAGE   54


    SECNO    DEPTH    CWSEL    CRIWS    WSELK     EG       HV       HL      OLOSS  BANK ELEV
    Q        QLOB     QCH      QROB     ALOB      ACH      AROB     VOL      TWA   LEFT/RIGHT
    TIME     VLOB     VCH      VROB     XNL       XNCH     XNR      WTN      ELMIN     SSTA
    SLOPE    XLOBL    XLCH     XLOBR    ITRIAL    IDC      ICONT    CORAR    TOPWID    ENDST


 *PROF 4

 CCHV=    0.100 CEHV=    0.300
 *SECNO 300.000

 3265 DIVIDED FLOW


 3470 ENCROACHMENT STATIONS=      150.0     350.0  TYPE=      1  TARGET=     200.000
    300.00     3.67   587.57     0.00   605.80   587.94     0.36     0.00     0.00   587.90
      370.       0.     370.       0.        0      76.       1.       0.       0.   588.30
      0.00     0.00     4.84     0.35    0.000    0.045    0.070    0.000   583.90   266.17
  0.007265     300.     300.     300.        0        0       10     0.00    47.07   350.00
0
 *SECNO 1050.000
   1050.00     3.50   592.90     0.00     0.00   593.22     0.33     5.28     0.00   592.40
      370.      16.     292.      63.      12.      57.      44.       2.       1.   591.80
      0.05     1.33     5.11     1.41    0.070    0.045    0.070    0.000   589.40   260.57
  0.007028     595.     750.     665.        5        0        0     0.00   103.72   364.30
0
```

```
 *SECNO 1425.000
  1425.00      3.37    595.77      0.00      0.00    596.19      0.42      2.93      0.03    595.40
     370.       12.      308.       50.        9.       54.       36.        2.        2.    594.80
     0.07      1.31      5.68      1.41     0.070     0.045     0.070     0.000    592.40    260.79
 0.009270      295.      375.      330.         3         0         0      0.00    102.67    363.46
0
 *SECNO 1615.000
  1615.00      3.48    597.38      0.00      0.00    597.72      0.34      1.52      0.01    596.90
     370.       15.      294.       61.       11.       57.       43.        3.        2.    596.30
     0.08      1.33      5.19      1.41     0.070     0.045     0.070     0.000    593.90    260.61
 0.007307      150.      190.      170.         2         0         0      0.00    103.57    364.18
0
 *SECNO 1800.000
  1800.00      3.38    598.78      0.00      0.00    599.19      0.41      1.45      0.02    598.40
     370.       13.      305.       52.       10.       55.       37.        3.        3.    597.80
     0.09      1.32      5.59      1.41     0.070     0.045     0.070     0.000    595.40    260.76
 0.008899      150.      185.      165.         1         0         0      0.00    102.82    363.58
0
1
```



```
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 *SECNO 2240.000

 3470 ENCROACHMENT STATIONS=      279.0     300.0  TYPE=      1  TARGET=       21.000
  2240.00      4.69    601.09      0.00    600.90    601.41      0.32      2.21      0.01    599.40
     370.        0.      370.        0.        0.       82.        0.        4.        3. 100000.00
     0.12      0.00      4.50      0.00     0.000     0.040     0.000     0.000    596.40    279.00
 0.003287      440.      440.      360.         3         0         0      0.00     21.00    300.00
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 2241.000

 3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  604.10 MAX ELLC=  604.40


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.10 ELREA=      604.10

           PRIVATE DRIVE
  2241.00      4.60    601.00      0.00    600.82    601.51      0.51      0.00      0.10    604.40
     370.        0.      370.        0.        0.       64.        0.        4.        3.    604.10
     0.12      0.00      5.75      0.00     0.000     0.035     0.000     0.000    596.40    277.68
 0.004659        1.        1.        1.         2         0         0      0.00     20.01    297.69
0
 *SECNO 2253.000

 3370 NORMAL BRIDGE,NRD=  4 MIN ELTRD=  604.10 MAX ELLC=  604.40


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      604.10 ELREA=      604.10

  2253.00      4.69    601.09      0.00    600.90    601.57      0.49      0.05      0.01    604.40
     370.        0.      370.        0.        0.       66.        0.        4.        3.    604.10
     0.12      0.00      5.59      0.00     0.000     0.035     0.000     0.000    596.40    277.58
 0.004321       12.       12.       12.         2         0         0      0.00     20.23    297.81
0
 *SECNO 2255.000

 3470 ENCROACHMENT STATIONS=      275.0     300.0  TYPE=      1  TARGET=       25.000
  2255.00      5.01    601.41      0.00    601.19    601.65      0.24      0.01      0.07    599.40
```

```
       370.        15.       355.         0.         8.        89.         0.         4.        3. 100001.00
       0.12       1.84       3.99       0.00      0.040      0.035      0.000      0.000    596.40    275.00
   0.001660         2.         2.         2.          2          0          0       0.00     25.00    300.00
0
1
  13 OCT 89     12:54:01                                                                                              PAGE   56


     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


 CCHV=    0.100 CEHV=     0.300
 *SECNO 3215.000
    3215.00       4.82     603.72       0.00     603.45     604.15       0.42       2.44      0.05    606.10
       370.         0.       370.         0.         0.        71.         0.         6.        4.     606.80
       0.17       0.00       5.22       0.00      0.000      0.035      0.000      0.000    598.90    268.24
   0.004388       930.       960.      1000.          2          0          0       0.00     25.88    294.12
0
 CCHV=    0.300 CEHV=     0.500
 *SECNO 5495.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       608.50 ELREA=       608.50

            FILLMORE STREET
    5495.00       6.67     606.37       0.00     606.15     606.47       0.10       2.23      0.10    600.80
       290.         0.       290.         0.         0.       114.         0.        11.        5.     602.00
       0.42       0.00       2.54       0.00      0.000      0.035      0.000      0.000    599.70    276.00
   0.000348      2280.      2280.      2280.          4          0          0       0.00     19.00    295.00
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK          XKOR        COFQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
       0.00        3.13        3.00        0.00       12.50        0.00       54.00        0.00      599.70      599.70

 *SECNO 5575.000
 PRESSURE FLOW


  EGPRS        EGLWC         H3         QWEIR        QPR         BAREA    TRAPEZOID       ELLC       ELTRD
                                                                             AREA
      607.77      606.47       0.00          0.          290.         54.         54.      604.00      608.50



 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       608.50 ELREA=       608.50

    5575.00       8.00     607.70       0.00     607.48     607.77       0.07       1.30      0.00    600.80
       290.         0.       290.         0.         0.       139.         0.        11.        5.     602.00
       0.43       0.00       2.08       0.00      0.000      0.035      0.000      0.000    599.70    276.00
   0.000179        80.        80.        80.          2          0          0       0.00     19.00    295.00
0
1
  13 OCT 89     12:54:01                                                                                              PAGE   57


     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST
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*SEC ) 7725. OC )

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      614. 70 ELREA=      614. 70

          CEDAR LAKE DRIVE
   7725. 00      5. 54   608. 39      0. 00   608. 19   608. 56      0. 17      0. 74      0. 05    604. 40
      330.         0.      330.         0.        0.       99.         0.        17.         6.     603. 15
      0. 61      0. 00     3. 32      0. 00     0. 000    0. 035     0. 000     0. 000    602 85    259. 00
  0. 000796     2150.     2150.     2150.          2         0          0       0. 00     21. 00    280. 00
0

SPECIAL BRIDGE

5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK          XKOR        COFQ       RDLEN      BWC         BWP         BAREA       SS          ELCHU       ELCHD
     0. 00       3. 12       2. 70      0. 00     10. 50       0. 00      48. 00       0. 00     602. 85     602. 85

*SECNO 7795. 000
PRESSURE FLOW


  EGPRS       EGLWC        H3        QWEIR        QPR         BAREA    TRAPEZOID       ELLC        ELTRD
                                                                          AREA
     610. 68     608. 56      0. 00          0.        330.          48.       48.       607. 40     614. 70



3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      614. 70 ELREA=      614. 70

   7795. 00      7. 75   610. 60      0. 00   609. 94   610. 68      0. 08      2. 12      0. 00    604. 40
      330.         0.      330.         0.        0.      146.         0.        17.         6.     603. 15
      0. 62      0. 00     2. 26      0. 00     0. 000    0. 035     0. 000     0. 000    602. 85    259. 00
  0. 000222       70.       70.       70.          2         0          0       0. 00     21. 00    280. 00
0
CCHV=    0. 100 CEHV=    0. 300
*SECNO 9820. 000
3280 CROSS SECTION    9820. 00 EXTENDED       1 84 FEET


3470 ENCROACHMENT STATIONS=         0. 0      326. 0  TYPE=       1   TARGET=      325. 999
   9820. 00      5. 94   612. 54      0. 00   611. 96   612. 76      0. 22      2. 03      0. 04    609. 00
     1055.       457.      415.       184.      197.       78.        93.        29.        15.     608. 60
      0. 78      2. 31     5. 29      1. 99     0. 050    0. 040     0. 050     0. 000    606. 60    168. 95
  0. 002397     2025.     2025.     2025.          2         0          0       0. 00    381. 05    550. 00
0
1
  13 OCT 89     12: 54: 01                                                                                              PAGE    58


    SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
    Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
    TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
    SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


*SECNO 10375. 000
3280 CROSS SECTION  10375. 00 EXTENDED       1. 27 FEET


3470 ENCROACHMENT STATIONS=         0. 0      326. 0  TYPE=       1   TARGET=      325. 999
  10375. 00      5. 38   614. 23      0. 00   613. 86   614. 68      0. 45      1. 85      0. 07    611. 25
     1055.       382.      500.       173.      134.       71.        48.        33.        19.     610. 85
      0. 81      2. 85     7. 08      3. 60     0. 050    0. 040     0. 050     0. 000    608. 85    179. 58
  0. 004960      555.      555.      555.          3         0          0       0. 00    144. 09    323. 67
0
*SECNO 10930. 000
```

```
3470 ENCROACHMENT STATIONS=       0.0     326.0  TYPE=     1  TARGET=     325.999
 10930.00      5.60   616.70     0.00   616.26   617.04     0.34     2.35     0.01   613.50
    1055.      418.     463.     173.     160.      74.      54.      37.      21.   613.10
     0.85      2.61     6.27     3.21    0.050    0.040    0.050    0.000   611.10   173.47
 0.003652      555.     555.     555.        2        0        0     0.00   151.50   324.97
0
CCHV=   0.300 CEHV=   0.500
*SECNO 12039.000

3301 HV CHANGED MORE THAN HVINS


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     624.60 ELREA=     624.60

          24TH AVENUE
 12039.00      5.85   621.45     0.00   620.88   622.82     1.37     5.26     0.52   615.60
     915.        0.     915.       0.       0.      98.       0.      41.      23.   616.20
     0.88      0.00     9.38     0.00    0.000    0.040    0.000    0.000   615.60   282.00
 0.006752     1109.    1109.    1109.        1        0        0     0.00    18.00   300.00
0

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      3.08      2.80      0.00     17.00      0.00     95.00      0.00    615.60    615.60

*SECNO 12090.000
3280 CROSS SECTION  12090.00 EXTENDED      2.03 FEET

1
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   SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS  BANK ELEV
   Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST



3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW


 EGPRS      EGLWC       H3       QWEIR       QPR       BAREA   TRAPEZOID     ELLC      ELTRD
                                                                  AREA
    625.89     622.82      0.00       37.       876.       95.      104.     621.70    623.40


 12090.00      9.83   625.43     0.00   622.93   625.51     0.08     2.70     0.00   615.60
     915.      244.     498.     173.     327.     169.     123.      42.      23.   616.20
     0.89      0.75     2.94     1.41    0.050    0.040    0.050    0.000   615.60    75.00
 0.000318       51.      51.      51.        2        0        2     0.00   270.79   345.79
0
*SECNO 12620.000

3265 DIVIDED FLOW

3280 CROSS SECTION  12620.00 EXTENDED      1.02 FEET

 12620.00      8.82   625.62     0.00   623.95   625.82     0.20     0.25     0.06   616.80
     915.      101.     625.     189.     118.     151.      95.      48.      26.   617.40
     0.93      0.86     4.14     1.99    0.050    0.040    0.050    0.000   616.80    75.00
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 0.000735     530.      530.      530.         3         0         0     0.00   228.07   323.09
0
 *SECNO 13150.000
 3280 CROSS SECTION  13150.00 EXTENDED       0.95 FEET

           BAUER ROAD
  13150.00     8.05    626.05     0.00    624.56    626.11     0.06     0.26     0.04   619.80
      915.     136.      354.     425.       89.      124.     347.      53.      30.    618.60
      1.01     1.53      2.85     1.23     0.040     0.035    0.040    0.000   618.00   183.82
 0.000341     530.      530.      530.         2         0         0     0.00   341.18   525.00
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST



 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR       COFQ      RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00      3.12       2.90    100.00     10.50       0.00      56.00      0.00     618.00     618.00

 *SECNO 13220.000
 3280 CROSS SECTION  13220.00 EXTENDED       1.66 FEET

 PRESSURE AND WEIR FLOW


  EGPRS      EGLWC       H3       QWEIR      QPR        BAREA    TRAPEZOID     ELLC      ELTRD
                                                                   AREA
     638.98    626.11     0.00      689.      226.        56.       56.      623.30    625.00



 3470 ENCROACHMENT STATIONS=     250.0     350.0  TYPE=     1  TARGET=      100.000
  ELENCL=    628.00  ELENCR=    628.00
  13220.00     8.76    626.76     0.00    626.12    626.83     0.08     0.72     0.00   619.80
      915.     155      378.      383.      89.      136.      225.      54.      30.    618.60
      1.02     1.73      2.77     1.70     0.040     0.035    0.040    0.000   618.00   250.00
 0.000285      70.       70.       70.         2         0         5     0.00   100.00   350.00
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO 13765.000
 3280 CROSS SECTION  13765.00 EXTENDED       0.49 FEET


 3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD=  624.10 MAX ELLC=  624.60

           PRIVATE ROAD
  13765.00     8.29    626.99     0.00    626.34    627.01     0.01     0.17     0.01   619.50
      915.     443.       79.     393.      517.       80.     377.      63.      33.    624.60
      1.17     0.86      0.99     1.04     0.060     0.040    0.060    0.000   618.70    75.00
 0.000366     500.      545.      525.         2         0         0   -51.37   357.82   432.82
0
 *SECNO 13781.000
 3280 CROSS SECTION  13781.00 EXTENDED       0.50 FEET

1
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      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


   3370 NORMAL BRIDGE,NRD=  6 MIN ELTRD=  624.10 MAX ELLC=  624.60

    13781.00      8.30    627.00      0.00    626.35    627.01      0.01      0.01      0.00    619.50
        915.      443.       79.      393.      518.       80.      378.       63.       33.     624.60
        1.18      0.85      0.99      1.04     0.060     0.040     0.060     0.000    618.70     75.00
    0.000364       16.       16.       16.         0         0         0    -51.37    357.89    432.89
  0
   *SECNO 13995.000
   3280 CROSS SECTION  13995.00 EXTENDED      1.14 FEET


   3470 ENCROACHMENT STATIONS=      195.0      550.0  TYPE=     1  TARGET=     355.000
    13995.00      7.84    627.04      0.00    626.40    627.06      0.01      0.04      0.00    620.20
        915.      312.      121.      483.      373.       67.      675.       67.       34.     621.40
        1.23      0.83      1.80      0.72     0.060     0.040     0.060     0.000    619.20    195.00
    0.000186      169.      214.      174.         2         0         0      0.00    355.00    550.00
  0
   *SECNO 14365.000
    14365.00      6.44    627.14      0.00    626.51    627.19      0.05      0.12      0.01    621.70
        915.      361.      176.      379.      296.       55.      328.       75.       37.     622.90
        1.29      1.22      3.22      1.16     0.060     0.040     0.060     0.000    620.70    140.44
    0.000790      365.      370.      355.         0         0         0      0.00    388.25    528.69
  0
   *SECNO 14735.000
    14735.00      5.30    627.50    627.39    627.08    628.00      0.50      0.68      0.14    627.20
        915.       39.      515.      362.       30.       72.      118.       78.       40.     626.10
        1.31      1.27      7.12      3.05     0.060     0.040     0.060     0.000    622.20    174.40
    0.008828      360.      370.      355.         5        16         0      0.00    212.39    386.79
  0
   *SECNO 15245.000

   3265 DIVIDED FLOW

              CONFLUENCE WITH TRIBUTARY DRAIN
    15245.00      6.14    629.64      0.00    629.25    629.82      0 19      1.79      0.03    629.70
        915.        4.      588.      322.        9.      144.      180.       82.       42.     627.00
        1.36      0.44      4.10      1.79     0.060     0.040     0.060     0.000    623.50    212.97
    0.001896      515.      510.      495.         2         0         0      0.00    160.66    389.85
  0
  1
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      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


   CCHV=   0.300 CEHV=    0.500
   *SECNO 17385.000
              PARKSIDE DRIVE
    17385.00      5.21    633.51      0.00    633.14    633.73      0.22      3.89      0.02    629.00
        395.       66.      260.       69.       31.       58.       43.       93.       47.     629.00
        1.52      2.10      4.45      1.60     0.060     0.040     0.060     0.000    628.30    276.13
    0.001723     2125.     2140.     2040.         5         0         0      0.00     44.93    321.06
  0
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SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      3.12      2.80      0.00      8.00      0.00     36.00      0.00    628.30    628.30

*SECNO 17481.000
PRESSURE AND WEIR FLOW


  EGPRS      EGLWC        H3        QWEIR        QPR        BAREA   TRAPEZOID      ELLC       ELTRD
                                                                      AREA
    639.34     634.22      0.00       205.        190.        36.        38.      633.00     634.00


  17481.00      6.47    634.77     0.00   634.56   634.86     0.09     1.13      0.00    629.00
      395.       80.      221.      94.      79.      73.      87.      93.       47.    629.00
      1.53      1.02      3.03     1.07    0.060    0.040    0.060    0.000    628.30    198.98
  0.000593       96.       96.      96.        2        0        6     0.00    167.79    366.77
0
 CCHV=    0.100 CEHV=    0.300
 *SECNO 17851.000

 3265 DIVIDED FLOW


 3470 ENCROACHMENT STATIONS=     225.0     410.0  TYPE=      1  TARGET=      185.000
  17851.00      7.23    634.93     0.00   634.67   634.94     0.01     0.08      0.01    629.40
      395.       19.       89.     286.      51.      75.     444.      97.       48.    629.70
      1.67      0.38      1.19     0.65    0.060    0.040    0.060    0.000    627.70    225.00
  0.000103      370.      370.     370.        2        0        0     0.00    180.38    410.00
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 CCHV=    0.300 CEHV=    0.500
 *SECNO 18191.000
            28TH AVENUE
  18191.00      6.28    634.98     0.00   634.71   635.00     0.02     0.06      0.01    629.80
      395.      148.       63.     184.     164.      32.     210.     101.       50.    629.30
      1.76      0.90      1 95     0.88    0.060    0.040    0.060    0.000    628.70    216.48
  0.000279      275.      340.     400.        2        0        0     0.00    156.41    372.89
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      0.00      3.12      2.80      0.00      4.00      0.00     21.00      0.00    628.70    628.70

 *SECNO 18270.000
 3280 CROSS SECTION  18270.00 EXTENDED       1.15 FEET

 PRESSURE AND WEIR FLOW


  EGPRS      EGLWC        H3        QWEIR        QPR        BAREA   TRAPEZOID      ELLC       ELTRD
                                                                      AREA
    652.12     637.29      0.00       268.        130.        21.        21.      633.90     635.70
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 3470 ENCROACHMENT STATIONS=     200.0      380.0  TYPE=      1  TARGET=      180.000
   18270.00      8.14    636.84     0.00    636.68    636.85     0.01      1.85      0.00    629.80
       395.      154.       45.     196.      303.       43.     384.      102.       50.     629.30
       1.80      0.51      1.06     0.51     0.060     0.040    0.060     0.000    628.70    200.00
   0.000057       79.       79.      79.         0         0        6      0.00    180.00    380.00
0
 *SECNO 18645.000
   18645.00      4.44    636.84     0.00    636.67    636.98     0.13      0.06      0.06    633.50
       395.      136.      103.     156.       68.       22.      80.      106.       51.     633.00
       1.84      2.01      4.64     1.95     0.060     0.040    0.060     0.000    632.40    239.46
   0.002594      375.      375.     375.         2         0        0      0.00    100.94    340 40
0
 *SECNO 18835.000
 3280 CROSS SECTION  18835.00 EXTENDED      0.94 FEET
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


   18835.00      2.94    637.24     0.00    637.00    637.27     0.03      0.27      0.03    636.10
       395.        2.      214.     179.        4.      112.     239.      107.       52.     635.70
       1.88      0.50      1.92     0.75     0.060     0.040    0.060     0.000    634.30    244.12
   0.000892      190.      190.     190.         2         0        0      0.00    305.88    550.00
0
 *SECNO 18930.000

 3265 DIVIDED FLOW

 3280 CROSS SECTION  18930.00 EXTENDED      0.12 FEET

   18930.00      2.11    637.31     0.00    637.08    637.60     0.28      0.20      0.12    637.00
       395.        0.      329.      65.        0.       71.      45.      107.       53.     636.60
       1.89      0.70      4.62     1.47     0.060     0.040    0.060     0.000    635.20    249.09
   0.009434       95.       95.      95.         2         0        0      0.00    181.81    550.00
0
 *SECNO 19020.000

 3265 DIVIDED FLOW

 3280 CROSS SECTION  19020.00 EXTENDED      0.09 FEET

   19020.00      2.09    638.19     0.00    638.06    638.49     0.30      0.88      0.01    637.90
       395.        0.      333.      62.        0.       70.      41.      108.       53.     637.50
       1.89      0.69      4.75     1.50     0.060     0.040    0.060     0.000    636.10    249.24
   0.010204       90.       90.      90.         2         0        0      0.00    172.64    550.00
0
 CCHV=   0.100 CEHV=   0.300
 *SECNO -15245.000
 START TRIB COMP
  -15245.000 15245.000   629.636

 3265 DIVIDED FLOW

  -15245.00      6.14    629.64     0.00    629.25    629.67     0.03      0.00      0.00    629.70
       395.        2.      254.     139.        9.      144.     180.      108.       53.     627.00
       1.89      0.19      1.77     0.77     0.060     0.040    0.060     0.000    623.50    212.99
   0.000353        0.        0.       0.         0         0        0      0.00    160.64    389.84
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1
 13 OCT 89    12:54:01                                                                                                          PAGE    65

     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


  *SECNO 220.000
     220.00      4.12     629.72       0.00     629.32     629.76       0.04       0.09       0.00     631.80
       145.        0.       139.         6.         0.        81.        18.       109.        54.      629.10
       1.93      0.00       1.72       0.34      0.000      0.040      0.060      0.000     625.60     271.10
   0.000596      195.       220.       220.          0          0          0       0.00      79.60     350.70
0
  *SECNO 330.000
     330.00      3.13     629.78       0.00     629.40     629.90       0.11       0.11       0.02     632.85
       145.        0.       145.         0.         0.        54.         0.       109.        54.      630 15
       1.94      0.00       2.70       0.00      0.000      0.040      0.000      0.000     626.65     273.04
   0.002192       95.       110.       110.          1          0          0       0.00      25.78     298.82
0
  *SECNO 445.000
     445.00      2.35     630.10       0.00     629.76     630.36       0.26       0.42       0.05     633.95
       145.        0.       145.         0.         0.        35.         0.       109.        54.      631.25
       1.95      0.00       4.13       0.00      0.000      0.040      0.000      0.000     627.75     274.57
   0.007172      100.       115.       110.          2          0          0       0.00      21.79     296.36
0
  CCHV=    0.500 CEHV=    1.000
  *SECNO 890.000
  7185 MINIMUM SPECIFIC ENERGY
  3720 CRITICAL DEPTH ASSUMED
            PARK ROAD CULVERT
     890.00      4.35     636.35     636.35     635.45     636.72       0.38       3.08       0.11     633.50
       145.       26.        77.        42.        10.        12.        29.       109.        55.      632.60
       1.98      2.47       6.51       1.47      0.060      0.040      0.060      0.000     632.00     991.16
   0.006837      395.       445.       440.         11         18          0       0.00      99.29    1090.45
0

  SPECIAL BRIDGE

  5070, VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
  SB  XK         XKOR        COFQ       RDLEN       BWC        BWP        BAREA       SS          ELCHU      ELCHD
       0.00       3 12        2.60       0.00        2.50       0.00       7.00        0.00      632.00     632.00

  *SECNO 933.000
  PRESSURE AND WEIR FLOW

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     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA   LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


   EGPRS        EGLWC        H3        QWEIR        QPR         BAREA    TRAPEZOID      ELLC       ELTRD
                                                                           AREA
      657.14     636.72       0.00       125.        21.          7.         8.       635.00     635.90


     933.00      4.64     636.64       0.00     636.44     636.78       0.14       0.06       0.00     633.50
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      145.       22.       57.       65.       13.       13.       64.      109.       55.    632.60
      1.98      1.75      4.52      1.02     0.060     0.040     0.060     0.000    632.00    990.39
  0.002980       43.       43.       43.         2         0         7      0.00    156.39   1146.78
0
 *SECNO 1055.000

 3265 DIVIDED FLOW

 3280 CROSS SECTION   1055.00 EXTENDED      0.62 FEET


 3470 ENCROACHMENT STATIONS=      145.0      330.0  TYPE=      1  TARGET=     185.000
   1055.00      4.33    636.93      0.00    636.78    636.95      0.03      0.11      0.06    636.70
      145.       48.       95.        1.       82.       62.        5.      110.       55.    637.00
      2.01      0.59      1.54      0.23     0.050     0.035     0.050     0.000    632.60    145.00
  0.000446      122.      122.      122.         2         0         0      0.00    180.06    330.00
0
 CCHV=   0.100 CEHV=    0.300
 *SECNO 1585.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      639.50 ELREA=      639.50

   1585.00      3.20    637.20      0.00    637.03    637.40      0.19      0.40      0.05    634.80
      145.        0.      145.        0.        0.       41.        0.      111.       56.    635.10
      2.05      0.00      3.52      0.00     0.000     0.035     0.000     0.000    634.00    286.00
  0.001671      415.      530.      400.         2         0         0      0.00     14.00    300.00
0
 CCHV=   0.300 CEHV=    0.500
 *SECNO 1588.000

 3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  639.50 MAX ELLC=  639.60

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  13 OCT 89    12:54:01                                                                            PAGE   67


    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST



 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      639.50 ELREA=      639.50

           28TH AVENUE
   1588.00      3.13    637.13      0.00    636.98    637.49      0.36      0.01      0.09    634.80
      145.        0.      145.        0.        0.       30.        0.      111.       56.    635.10
      2.05      0.00      4.85      0.00     0.000     0.035     0.000     0.000    634.00    286.00
  0.009385        3.        3.        3.         2         0         0    -14.77     14.00    300.00
0
 *SECNO 1647.000

 3370 NORMAL BRIDGE,NRD= 12 MIN ELTRD=  639.50 MAX ELLC=  639.60


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      639.50 ELREA=      639.50

   1647.00      3.71    637.71      0.00    637.38    637.99      0.27      0.47      0.03    634.80
      145.        0.      145.        0.        0.       35.        0.      111.       56.    635.10
      2.05      0.00      4.20      0.00     0.000     0.035     0.000     0.000    634.00    286.00
  0.006760       59.       59.       59.         2         0         0    -21.38     14.00    300.00
0
 *SECNO 1650.000

 3470 ENCROACHMENT STATIONS=      282.0      302.0  TYPE=      1  TARGET=      20.000
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  1650.00     3.95   637.95     0.00   637.55   638.05     0.09     0.00     0.05   634.80
     145.       9.     132.       4.       9.      52.       5.     111.      56.    635.10
     2.05     1.03     2.55     0.83    0.050    0.035    0.050    0.000   634.00   282.00
 0.000646       3.       3.       3.        2        0        0     0.00    20.00   302.00
0
 CCHV=    0.100 CEHV=    0.300
 *SECNO 2070.000
 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=     287.0     550.0  TYPE=      1  TARGET=      263.000
  2070.00     2.20   642.10   642.10   641.88   642.47     0.37     0.67     0.08   642.30
     145.       0.     111.      34.       0.      20.      19.     111.      56.    641.00
     2.08     0.00     5.49     1.76    0.000    0.035    0.050    0.000   639.90   287.38
 0.009463     365.     420.     390.       20       11        0     0.00    55.48   342.86
0
1
  13 OCT 89    12:54:01                                                                                PAGE   68

     SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
     Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
     TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
     SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


 *SECNO 3435.000
  3435.00     4.04   647.64     0.00   647.43   647.77     0.13     5.27     0.02   645.00
     145.      67.      58.      20.      35.      15.      12.     113.      58.    645.20
     2.21     1.94     3.92     1.64    0.050    0.035    0.050    0.000   643.60   270.78
 0.002421    1050.    1365.    1055.        7        0        0     0.00    39.32   310.10
0
1
  13 OCT 89    12:54:01                                                                                PAGE   69



                                                                            THIS RUN EXECUTED 13 OCT 89    12:54:32
 **************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
   ERROR CORR -  01,02,03,04,05,06
   MODIFICATION -  50,51,52,53,54,55,56
 **************************************************


 NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST


     LOWING-COMSTOCK DRAI

 SUMMARY PRINTOUT TABLE  110
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SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
300.000	587.12	-9.88	587.42	30.22	0.00	275.00	0.00	200.00	150.00	265.00	300.00	350.00
300.000	587.29	-13.61	587.62	31.14	0.00	310.00	0.00	200.00	150.00	265.00	300.00	350.00
300.000	587.39	-15.21	587.73	31.65	0.00	330.00	0.00	200.00	150.00	265.00	300.00	350.00
300.000	587.57	-18.23	587.94	47.07	0.00	369.56	0.44	200.00	150.00	265.00	300.00	350.00
1050.000	592.58	0.00	592.91	101.29	5.47	244.99	24.54	0.00	0.00	279.00	300.00	0.00
1050.000	592.71	0.00	593.03	102.24	8.94	263.20	37.86	0.00	0.00	279.00	300.00	0.00
1050.000	592.77	0.00	593.10	102.76	11.06	273.05	45.89	0.00	0.00	279.00	300.00	0.00
1050.000	592.90	0.00	593.22	103.72	15.55	291.86	62.59	0.00	0 00	279.00	300.00	0.00

1425.000	595.52	0.00	595.90	100.75	4.10	251.60	19.30	0.00	0.00	279.00	300.00	0.00
1425.000	595.62	0.00	596.01	101.52	6.84	272.98	30.17	0.00	0.00	279.00	300.00	0.00
1425.000	595.67	0.00	596.07	101.92	8.51	284.84	36.65	0.00	0.00	279.00	300.00	0.00
1425.000	595.77	0.00	596.19	102.67	12.10	307.56	50.35	0.00	0.00	279.00	300.00	0.00
1615.000	597.08	0.00	597.41	101.29	5.46	245.06	24.48	0.00	0.00	279.00	300.00	0.00
1615.000	597.20	0.00	597.53	102.17	8.73	264.14	37.12	0.00	0.00	279.00	300.00	0.00
1615.000	597.26	0.00	597.59	102.67	10.79	274.29	44.92	0.00	0.00	279.00	300.00	0.00
1615.000	597.38	0.00	597.72	103.57	15.07	294.03	60.91	0.00	0.00	279.00	300.00	0.00
1800.000	598.52	0.00	598.89	100.77	4.15	251.35	19.50	0.00	0.00	279.00	300.00	0.00
1800.000	598.62	0.00	599.01	101.58	7.02	272.15	30.83	0.00	0.00	279.00	300.00	0 00
1800.000	598.68	0.00	599.07	102.01	8.78	283.60	37.62	0.00	0.00	279.00	300.00	0.00
1800.000	598.78	0.00	599.19	102.82	12.61	305.20	52.19	0.00	0.00	279.00	300.00	0.00
2240.000	600.61	0.00	600.84	21.00	0.00	275.00	0.00	21.00	279.00	279.00	300.00	300.00
2240.000	600.80	0.19	601.06	21.00	0.00	310.00	0.00	21.00	279.00	279.00	300.00	300.00
2240.000	600.90	0.10	601.18	21.00	0.00	330.00	0.00	21.00	279.00	279.00	300.00	300.00
2240.000	601.09	0.19	601.41	21.00	0.00	370.00	0.00	21.00	279.00	279.00	300.00	300.00
2241.000	600.53	0.00	600.92	18.85	0.00	275.00	0.00	0.00	0.00	275.00	300.00	0.00
2241.000	600.72	0.18	601.15	19.31	0.00	310.00	0.00	0.00	0.00	275.00	300.00	0.00
2241.000	600.82	0.10	601.27	19.55	0.00	330.00	0.00	0.00	0.00	275.00	300.00	0.00
2241.000	601.00	0.18	601.51	20.01	0.00	370.00	0.00	0.00	0.00	275.00	300.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
2253.000	600.60	0.00	600.97	19.02	0.00	275.00	0.00	0.00	0.00	275.00	300.00	0 00
2253.000	600.79	0.19	601.20	19.49	0.00	310.00	0.00	0.00	0.00	275.00	300.00	0.00
2253.000	600.90	0.10	601.33	19.75	0.00	330.00	0.00	0.00	0.00	275.00	300.00	0.00
2253.000	601.09	0.19	601.57	20.23	0.00	370.00	0.00	0.00	0.00	275.00	300.00	0.00
2255.000	600.85	0.00	601.03	25.00	8.58	266.42	0.00	25.00	275.00	279.00	300.00	300.00
2255.000	601.07	0.22	601.27	25.00	10.84	299.16	0.00	25.00	275.00	279.00	300.00	300.00
2255.000	601.19	0.12	601.40	25.00	12.16	317.83	0.00	25.00	275.00	279.00	300.00	300.00
2255.000	601.41	0.22	601.65	25.00	14.83	355.17	0.00	25.00	275.00	279.00	300.00	300 00
3215.000	603.05	0.00	603.44	22.82	0.00	275.00	0.00	0.00	0.00	262.00	300.00	0.00
3215.000	603.31	0.26	603.72	24.01	0.00	310.00	0.00	0.00	0.00	262.00	300.00	0.00
3215.000	603.45	0.14	603.86	24.65	0.00	330.00	0.00	0.00	0.00	262.00	300.00	0.00
3215.000	603.72	0.27	604.15	25.88	0.00	370.00	0.00	0.00	0.00	262.00	300.00	0.00
5495.000	605.70	0.00	605.79	19.00	0.00	250.00	0.00	0.00	0.00	276.00	295.00	0.00
5495.000	606.03	0.33	606.14	19.00	0.00	285.00	0.00	0.00	0.00	276.00	295.00	0.00
5495.000	606.15	0.13	606.26	19.00	0.00	290.00	0.00	0.00	0.00	276.00	295.00	0.00
5495.000	606.37	0.22	606.47	19.00	0.00	290.00	0.00	0.00	0.00	276.00	295.00	0.00
5575.000	606.67	0.00	606.74	19.00	0.00	250.00	0.00	0.00	0.00	276.00	295.00	0.00
5575.000	607.31	0.64	607.38	19.00	0.00	285.00	0.00	0.00	0.00	276.00	295.00	0.00
5575.000	607.48	0.18	607.56	19.00	0.00	290.00	0.00	0.00	0.00	276.00	295.00	0.00
5575.000	607.70	0.22	607.77	19.00	0.00	290.00	0.00	0.00	0.00	276.00	295.00	0.00
7725.000	607.46	0.00	607.60	21.00	0.00	240.00	0.00	0.00	0.00	259.00	280.00	0.00
7725.000	608.02	0.56	608.16	21.00	0.00	275.00	0 00	0.00	0.00	259.00	280.00	0.00
7725.000	608.19	0 16	608.34	21.00	0.00	295.00	0.00	0.00	0.00	259.00	280.00	0.00
7725.000	608.39	0.21	608.56	21.00	0.00	330.00	0.00	0.00	0.00	259.00	280.00	0.00
7795.000	608.59	0.00	608.67	21.00	0.00	240.00	0.00	0.00	0.00	259.00	280.00	0.00
7795.000	609.54	0.95	609.61	21.00	0.00	275.00	0.00	0.00	0.00	259.00	280.00	0.00
7795.000	609.94	0.40	610.02	21.00	0.00	295.00	0.00	0.00	0.00	259.00	280.00	0.00
7795.000	610.60	0.66	610.68	21.00	0.00	330.00	0.00	0.00	0.00	259.00	280.00	0.00

9820.000	610.95	0.00	611.29	99.21	81.99	307.65	70.36	326.00	0.00	286.00	300.00	326.00
9820.000	611.66	0.71	611.95	131.38	216.60	364.73	113.67	326.00	0.00	286.00	300.00	326.00
9820.000	611.96	0.29	612.22	143.79	288.60	379.87	131.53	326.00	0.00	286.00	300.00	326.00
9820.000	612.54	0.58	612.76	381.05	456.55	414.59	183.86	326.00	0.00	286.00	300.00	326.00
10375.000	613.18	0.00	613.52	98.90	81.41	308.32	70.27	326.00	0.00	286.00	300.00	326.00
10375.000	613.69	0.51	614.08	122.35	189.08	393.29	112.63	326.00	0.00	286.00	300.00	326.00
10375.000	613.86	0.16	614.27	129.02	241.29	428.11	130.60	326.00	0.00	286.00	300.00	326.00
10375.000	614.23	0.37	614.68	144.09	381.74	499.79	173.47	326.00	0.00	286.00	300.00	326.00
10930.000	615.43	0.00	615.77	98.86	81.33	308.40	70.26	326.00	0.00	286.00	300.00	326.00
10930.000	616.04	0.61	616.38	126.49	201.97	379.85	113.18	326.00	0.00	286.00	300.00	326.00
10930.000	616.26	0.22	616.59	135.66	263.44	405.38	131.18	326.00	0.00	286.00	300.00	326.00
10930.000	616.70	0.44	617.04	151.50	418.41	463.22	173.37	326.00	0.00	286.00	300.00	326.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
12039.000	619.83	0.00	620.33	18.00	0.00	390.00	0.00	0.00	0.00	282.00	300.00	0.00
12039.000	620.62	0.80	621.45	18.00	0.00	600.00	0.00	0.00	0.00	282.00	300.00	0.00
12039.000	620.88	0.26	621.85	18.00	0.00	690.00	0.00	0.00	0.00	282.00	300.00	0.00
12039.000	621.45	0.57	622.82	18.00	0.00	915.00	0.00	0.00	0.00	282.00	300.00	0.00
12090.000	620.09	0.00	620.54	18.00	0.00	390.00	0.00	0.00	0.00	282.00	300.00	0.00
12090.000	621.01	0.92	621.71	18.00	0.00	600.00	0.00	0.00	0.00	282.00	300.00	0.00
12090.000	622.93	1.91	623.41	18.00	0.00	690.00	0.00	0.00	0.00	282.00	300.00	0.00
12090.000	625.43	2.51	625.51	270.79	243.98	497.57	173.45	0.00	0.00	282.00	300.00	0.00
12620.000	621.60	0.00	621.83	33.55	14.70	326.63	48.67	0.00	0.00	282.00	300.00	0.00
12620.000	622.82	1.22	623.12	37.94	26.22	480.06	93.71	0.00	0.00	282.00	300.00	0.00
12620.000	623.95	1.13	624.20	42.02	33.72	530.02	126.26	0.00	0.00	282.00	300.00	0.00
12620.000	625.62	1.67	625.82	228.07	101.02	625.44	188.54	0.00	0.00	282.00	300.00	0.00
13150.000	622.69	0.00	623.21	17.00	0.00	390.00	0.00	0.00	0.00	270.00	287.00	0.00
13150.000	623.69	1.00	623.87	61.14	74.68	330.43	194.89	0.00	0.00	270.00	287.00	0.00
13150.000	624.56	0.87	624.70	68.49	98.95	351.92	239.12	0.00	0.00	270.00	287.00	0.00
13150.000	626.05	1.49	626.11	341.18	135.83	354.19	424.98	0.00	0.00	270.00	287.00	0.00
13220.000	622.98	0.00	623.43	17.00	0.00	390.00	0.00	100.00	250.00	270.00	287.00	350.00
13220.000	625.80	2.82	625.85	100.00	96.97	273.07	229.96	100.00	250.00	270.00	287.00	350.00
13220.000	626.12	0.32	626.18	100.00	113.62	303.51	272.86	100.00	250.00	270.00	287.00	350.00
13220.000	626.76	0.64	626.83	100.00	154.52	377.92	382.56	100.00	250.00	270.00	287.00	350.00
13765.000	624.83	0.00	624.87	279.01	84.81	89.79	215.40	0.00	0.00	285.00	300.00	0.00
13765.000	626.02	1.19	626.03	331.20	253.33	70.52	276.15	0.00	0.00	285.00	300.00	0.00
13765.000	626.34	0.32	626.35	344.94	309.07	72.20	308.73	0.00	0.00	285.00	300.00	0.00
13765.000	626.99	0.65	627.01	357.82	442.59	78.97	393.44	0.00	0.00	285.00	300.00	0.00
13781.000	624.87	0.00	624.91	280.71	89.60	87.00	213.40	0.00	0.00	285.00	300.00	0.00
13781.000	626.03	1.16	626.04	331.48	253.69	70.34	275.97	0.00	0.00	285.00	300.00	0.00
13781.000	626.35	0.32	626.36	345.19	309.35	72.06	308.59	0.00	0.00	285.00	300.00	0.00
13781.000	627.00	0.65	627.01	357.89	442.79	78.87	393.35	0.00	0.00	285.00	300.00	0.00
13995.000	625.03	0.00	625.05	261.19	136.77	101.12	152.11	355.00	195.00	291.00	300.00	550.00
13995.000	626.09	1.06	626.10	355.00	213.54	103.95	282.51	355.00	195.00	291.00	300.00	550.00
13995.000	626.40	0.31	626.41	355.00	242.18	108.26	339.56	355.00	195.00	291.00	300.00	550.00
13995.000	627.04	0.64	627.06	355.00	311.60	120.65	482.75	355.00	195.00	291.00	300.00	550.00
14365.000	625.16	0.00	625.45	170.39	85.91	208.12	95.97	0.00	0.00	291.00	300.00	0.00
14365.000	626.20	1.04	626.29	269.83	209.34	176.64	214.02	0.00	0.00	291.00	300.00	0.00
14365.000	626.51	0.31	626.57	299.24	255.48	174.13	260.39	0.00	0.00	291.00	300.00	0.00
14365.000	627.14	0.64	627.19	388.25	360.52	175.69	378.79	0.00	0.00	291.00	300.00	0.00

14735.000	626.86	0.00	627.13	103.79	0.02	279.27	110.71	0.00	0.00	278.00	300.00	0.00
14735.000	626.97	0.11	627.49	119.24	0.85	411.55	187.60	0.00	0.00	278.00	300.00	0.00
* 14735.000	627.08	0.11	627.66	132.91	3.07	455.53	231.40	0.00	0.00	278.00	300.00	0.00
14735.000	627.50	0.42	628.00	212.39	38.69	514.74	361.57	0.00	0.00	278.00	300.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
15245.000	628.33	0.00	628.47	110.11	0.00	324.01	65.99	0.00	0.00	267.00	300.00	0.00
15245.000	629.02	0.69	629.16	118.33	0.00	431.76	168.24	0.00	0.00	267.00	300.00	0.00
15245.000	629.25	0.23	629.40	119.98	0.00	475.51	214.48	0.00	0.00	267.00	300.00	0.00
15245.000	629.64	0.38	629.82	160.66	4.05	588.49	322.45	0.00	0.00	267.00	300.00	0.00
17385.000	632.03	0.00	632.29	11.50	0.00	170.00	0.00	0.00	0.00	287.50	299.00	0.00
17385.000	632.83	0.80	633.24	11.50	0.00	260.00	0.00	0.00	0.00	287.50	299.00	0.00
17385.000	633.14	0.31	633.62	11.50	0.00	300.00	0.00	0.00	0.00	287.50	299.00	0.00
17385.000	633.51	0.36	633.73	44.93	65.60	260.26	69.14	0.00	0.00	287.50	299.00	0.00
17481.000	632.38	0.00	632.74	11.50	0.00	170.00	0.00	0.00	0.00	287.50	299.00	0.00
17481.000	634.41	2.03	634.46	118.36	47.16	156.36	56.48	0.00	0.00	287.50	279.00	0.00
17481.000	634.56	0.15	634.62	140.12	56.81	175.57	67.62	0.00	0.00	287.50	299.00	0.00
17481.000	634.77	0.21	634.86	167.79	80.33	220.92	93.75	0.00	0.00	287.50	299.00	0.00
17851.000	632.92	0.00	632.93	125.34	6.03	55.76	108.21	185.00	225.00	289.00	300.00	410.00
17851.000	634.51	1.58	634.51	135.86	11.31	62.40	186.29	185.00	225.00	289.00	300.00	410.00
17851.000	634.67	0.16	634.68	163.74	13.46	70.31	216.23	185.00	225.00	289.00	300.00	410.00
17851.000	634.93	0.26	634.94	180.38	19.45	89.24	286.31	185.00	225.00	289.00	300.00	410.00
18191.000	633.00	0.00	633.03	96.51	57.58	46.77	65.65	0.00	0.00	280.50	286.00	0.00
18191.000	634.54	1.54	634.55	143.06	96.00	46.03	117.96	0.00	0.00	280.50	286.00	0.00
18191.000	634.71	0.17	634.73	148.20	111.51	51.03	137.47	0.00	0.00	280.50	286.00	0.00
18191.000	634.98	0.27	635.00	156.41	148.16	63.25	183.60	0.00	0.00	280.50	286.00	0.00
18270.000	636.09	0.00	636.09	177.38	65.17	21.91	82.92	180.00	200.00	280.50	286.00	380.00
18270.000	636.60	0.51	636.60	180.00	100.80	30.87	128.33	180.00	200.00	280.50	286.00	380.00
18270.000	636.68	0.08	636.68	180.00	116.53	35.18	148.28	180.00	200.00	280.50	286.00	380.00
18270.000	636.84	0.17	636.85	180.00	154.03	45.21	195.76	180.00	200.00	280.50	286.00	380.00
18645.000	636.07	0.00	636.15	78.10	52.18	59.56	58.26	0.00	0.00	280.50	286.00	0.00
18645.000	636.59	0.52	636.67	93.43	87.04	74.20	98.75	0.00	0.00	280.50	286.00	0.00
18645.000	636.67	0.08	636.77	95.88	101.39	83.15	115.47	0.00	0.00	280.50	286.00	0.00
18645.000	636.84	0.17	636.98	100.94	135.78	103.32	155.90	0.00	0.00	280.50	286.00	0.00
18835.000	636.43	0.00	636.48	187.68	0.10	140.86	29.04	0.00	0.00	251.00	300.00	0.00
18835.000	636.89	0.45	636.92	303.75	0.76	167.27	91.97	0.00	0.00	251.00	300.00	0.00
18835.000	637.00	0.11	637.03	304.44	1.08	181.58	117.35	0.00	0.00	251.00	300.00	0.00
18835.000	637.24	0.24	637.27	305.88	1.97	213.77	179.26	0.00	0.00	251.00	300.00	0.00
18930.000	636.67	0.00	636.94	62.22	0.00	169.78	0.22	0.00	0.00	251.00	300.00	0.00
18930.000	636.98	0.31	637.27	118.73	0.00	244.91	15.09	0.00	0.00	251.00	300.00	0.00
18930.000	637.08	0.11	637.38	131.65	0.00	272.71	27.29	0.00	0.00	251.00	300.00	0.00
18930.000	637.31	0.23	637.60	181.81	0.21	329.42	65.37	0.00	0.00	251.00	300.00	0.00
19020.000	637.74	0.00	637.92	88.74	0.00	166.05	3.95	0.00	0.00	251.00	300.00	0.00
19020.000	637.99	0.25	638.21	132.12	0.00	235.91	24.09	0.00	0.00	251.00	300.00	0.00
19020.000	638.06	0.07	638.29	138.81	0.00	264.92	35.08	0.00	0.00	251.00	300.00	0.00
19020.000	638.19	0.13	638.49	172.64	0.18	332.81	62.02	0.00	0.00	251.00	300.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
-15245.000	628.33	0.00	628.36	110.09	0.00	141.26	28.74	0.00	0.00	267.00	300.00	0.00
-15245.000	629.02	0.69	629.05	118.33	0.00	187.10	72.90	0.00	0.00	267.00	300.00	0.00
-15245.000	629.25	0.23	629.28	119.98	0.00	206.73	93.27	0.00	0.00	267.00	300.00	0.00
-15245.000	629.64	0.38	629.67	160.64	1.75	254.06	139.19	0.00	0.00	267.00	300.00	0.00
220.000	628.41	0.00	628.45	24.13	0.00	70.00	0.00	0.00	0.00	267.00	300.00	0.00
220.000	629.09	0.68	629.13	27.62	0.00	100.00	0.00	0.00	0.00	267.00	300.00	0.00
220.000	629.32	0.23	629.37	54.25	0.00	114.55	0.45	0.00	0.00	267.00	300.00	0.00
220.000	629.72	0.39	629.76	79.60	0.00	138.93	6.07	0.00	0.00	267.00	300.00	0.00
330.000	628.52	0.00	628.64	19.37	0.00	70.00	0.00	0.00	0.00	267.00	300.00	0.00
330.000	629.18	0.65	629.28	22.71	0.00	100.00	0.00	0.00	0.00	267.00	300.00	0.00
330.000	629.40	0.23	629.51	23.87	0.00	115.00	0 00	0.00	0.00	267.00	300.00	0.00
330.000	629.78	0.38	629.90	25.78	0.00	145.00	0.00	0.00	0.00	267.00	300.00	0.00
445.000	629.21	0.00	629.45	17.68	0.00	70.00	0.00	0.00	0.00	267.00	300.00	0.00
445.000	629.57	0.36	629.83	19.14	0.00	100.00	0.00	0.00	0.00	267.00	300.00	0.00
445.000	629.76	0.18	630.02	20.07	0.00	115.00	0.00	0.00	0.00	267.00	300.00	0.00
445.000	630.10	0.34	630.36	21.79	0.00	145.00	0.00	0.00	0.00	267.00	300.00	0.00
890.000	634.97	0.00	635.57	10.00	6.26	52.96	10.78	0.00	0.00	998.50	1001.50	0.00
* 890.000	635.25	0.28	636.10	11.12	11.44	71.94	16.62	0.00	0.00	998.50	1001.50	0.00
* 890.000	635.45	0.20	636.34	11.89	15.07	79.95	19.97	0.00	0.00	998.50	1001.50	0.00
* 890.000	636.35	0.90	636.72	99.29	25.84	76.67	42.49	0.00	0.00	998.50	1001.50	0.00
933.000	636.31	0.00	636.40	91.69	12.57	38.07	19.36	0.00	0.00	998.50	1001.50	0.00
933.000	636.40	0.09	636.55	110.50	17.54	50.48	31.98	0.00	0.00	998.50	1001.50	0.00
933.000	636.44	0.04	636.62	117.09	19.85	56.17	38.98	0.00	0.00	998.50	1001.50	0.00
933.000	636.64	0.20	636.78	156.39	22.31	57.27	65.42	0.00	0.00	998.50	1001.50	0.00
1055.000	636.50	0.00	636.53	24.29	0.00	70.00	0.00	105.00	225.00	274.00	300.00	330.00
1055.000	636.69	0.19	636.71	123.67	27.31	72.59	0.10	185.00	145.00	274.00	300.00	330.00
1055.000	636.78	0.09	636.80	146.64	34.16	80.51	0.33	185.00	145.00	274.00	300.00	330.00
1055.000	636.93	0.14	636.95	180.06	48.41	95.46	1.13	185.00	145.00	274.00	300.00	330 00
1585.000	636.75	0.00	636.82	14.00	0.00	70.00	0.00	0.00	0.00	286.00	300.00	0.00
1585.000	636.92	0.17	637.03	14.00	0.00	100.00	0.00	0.00	0.00	286.00	300.00	0.00
1585.000	637.03	0.11	637.17	14.00	0.00	115.00	0.00	0.00	0.00	286.00	300.00	0.00
1585.000	637.20	0.18	637.40	14.00	0.00	145.00	0.00	0.00	0.00	286.00	300.00	0.00
1588.000	636.73	0.00	636.84	14.00	0.00	70.00	0.00	0.00	0.00	286.00	300.00	0.00
1588.000	636.88	0.15	637.09	14.00	0.00	100.00	0.00	0.00	0.00	286.00	300.00	0.00
1588.000	636.98	0.10	637.23	14.00	0.00	115.00	0.00	0.00	0.00	286.00	300.00	0.00
1588.000	637.13	0.15	637.49	14.00	0.00	145.00	0.00	0.00	0.00	286.00	300.00	0.00
1647.000	636.91	0.00	637.01	14.00	0.00	70.00	0.00	0.00	0.00	286.00	300.00	0.00
1647.000	637.21	0.30	637.38	14.00	0.00	100.00	0.00	0.00	0.00	286.00	300.00	0.00
1647.000	637.38	0.17	637.58	14.00	0.00	115.00	0.00	0.00	0.00	286.00	300.00	0.00
1647.000	637.71	0.33	637.99	14.00	0.00	145.00	0.00	0.00	0.00	286.00	300.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
1650.000	636.99	0.00	637.03	20.00	3.51	64.83	1.66	20.00	282.00	286.00	300.00	302.00
1650.000	637.34	0.36	637.41	20.00	5.74	91.69	2.58	20.00	282.00	286.00	300.00	302.00
1650.000	637.55	0.21	637.62	20.00	6.96	104.98	3.06	20.00	282.00	286.00	300.00	302.00
1650.000	637.95	0.40	638.05	20.00	9.45	131.54	4.00	20.00	282.00	286.00	300.00	302.00
* 2070.000	641.45	0.00	641.88	21.61	0.00	66.91	3.09	263.00	287.00	287.00	300.00	550.00
* 2070.000	641.76	0.31	642.17	37.20	0.00	87.91	12.09	263.00	287.00	287.00	300.00	550.00
* 2070.000	641.88	0.12	642.28	43.60	0.00	96.82	18.18	263.00	287.00	287.00	300.00	550 00

* 2070.000	642.10	0.22	642.47	55.48	0.00	111.34	33.66	263.00	287.00	287.00	300.00	550.00
3435.000	647.00	0.00	647.08	31.46	25.45	36.73	7.83	0.00	0.00	296.00	300.00	0 00
3435.000	647.31	0.31	647.41	35.31	41.55	45.81	12.64	0.00	0.00	296.00	300.00	0.00
3435.000	647.43	0.13	647.54	36.84	50.04	49.84	15.12	0.00	0.00	296.00	300.00	0 00
3435.000	647.64	0.21	647.77	39.32	66.99	57.82	20.18	0.00	0.00	296.00	300.00	0.00

LOWING-COMSTOCK DRAI

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
300.000	0.00	0.00	0.00	583.90	275.00	587.12	0.00	587.42	72.64	4.44	61.90	32.27
300.000	0.00	0.00	0.00	583.90	310.00	587.29	0.00	587.62	72.94	4.61	67.26	36.30
300.000	0.00	0.00	0.00	583.90	330.00	587.39	0.00	587.73	72.86	4.69	70.33	38.66
300.000	0.00	0.00	0.00	583.90	370.00	587.57	0.00	587.94	72.65	4.84	77.55	43.41
1050.000	750.00	0.00	0.00	589.40	275.00	592.58	0.00	592.91	74.58	4.85	80.99	31.84
1050.000	750.00	0.00	0.00	589.40	310.00	592.71	0.00	593.03	72.88	4.96	93.51	36.31
1050.000	750.00	0.00	0.00	589.40	330.00	592.77	0.00	593.10	71.96	5.02	100.29	38.90
1050.000	750 00	0.00	0.00	589.40	370.00	592.90	0.00	593.22	70.28	5.11	113.19	44.14
1425.000	375.00	0.00	0.00	592.40	275.00	595.52	594.88	595.90	86.80	5.13	73.92	29.52
1425.000	375.00	0.00	0.00	592.40	310.00	595.62	595.37	596.01	88.86	5.34	84.01	32.89
1425.000	375.00	0.00	0.00	592.40	330.00	595.67	0.00	596.07	90.26	5.46	89.22	34.73
1425.000	375.00	0.00	0.00	592.40	370.00	595.77	0.00	596.19	92.70	5.68	99.07	38.43
1615.000	190.00	0.00	0.00	593.90	275.00	597.08	0.00	597.41	74.70	4.86	80.91	31.82
1615.000	190.00	0.00	0.00	593.90	310.00	597.20	0.00	597.53	74.29	5.00	92.58	35 97
1615.000	190.00	0.00	0.00	593.90	330.00	597.26	0.00	597.59	73.72	5.06	99.09	38.44
1615.000	190.00	0.00	0.00	593.90	370.00	597.38	0.00	597.72	73.07	5.19	111.15	43.28
1800.000	185.00	0.00	0.00	595.40	275.00	598.52	597.88	598.89	86.29	5.12	74.19	29.60
1800.000	185.00	0.00	0.00	595.40	310.00	598.62	0.00	599.01	87.37	5.31	84.81	33.16
1800.000	185.00	0.00	0.00	595.40	330.00	598.68	0.00	599.07	88.16	5.41	90.35	35.15
1800.000	185.00	0.00	0.00	595.40	370.00	598.78	0.00	599.19	88.99	5.59	101.11	39.22
2240.000	440.00	0.00	0.00	596.40	275.00	600.61	0.00	600.84	26.78	3.82	72.04	53.14
2240.000	440.00	0.00	0.00	596.40	310.00	600.80	0.00	601.06	29.01	4.08	76.02	57.56
2240.000	440.00	0.00	0.00	596.40	330.00	600.90	0.00	601.18	30.25	4.22	78.18	60.00
2240.000	440.00	0.00	0.00	596.40	370.00	601.09	0.00	601.41	32.87	4.50	82.15	64.54
2241.000	1.00	604.10	604.40	596.40	275.00	600.53	0.00	600.92	38.91	4.97	55.37	44.09
2241.000	1.00	604.10	604.40	596.40	310.00	600.72	0.00	601.15	41.80	5.27	58.86	47.95
2241.000	1.00	604.10	604.40	596.40	330.00	600.82	0.00	601.27	43.37	5.43	60.78	50.11
2241.000	1.00	604.10	604.40	596.40	370.00	601.00	0.00	601.51	46.59	5.75	64.37	54.21
2253.000	12.00	604.10	604.40	596.40	275.00	600.60	0.00	600.97	36.55	4.85	56.64	45.49
2253.000	12.00	604.10	604.40	596.40	310.00	600.79	0.00	601.20	39.09	5.14	60.31	49.58
2253.000	12.00	604.10	604.40	596.40	330.00	600.90	0.00	601.33	40.45	5.29	62.35	51.89
2253.000	12.00	604.10	604.40	596.40	370.00	601.09	0.00	601.57	43.21	5.59	66.17	56.29
2255.000	2.00	0.00	0.00	596.40	275.00	600.85	0.00	601.03	14.64	3.46	82.80	71.88
2255.000	2.00	0.00	0.00	596.40	310.00	601.07	0.00	601.27	15.36	3.66	88.33	79.09
2255.000	2.00	0.00	0.00	596.40	330.00	601.19	0.00	601.40	15.77	3.78	91.34	83.11
2255.000	2.00	0.00	0.00	596.40	370.00	601.41	0.00	601.65	16.60	3.99	96.97	90.81

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3215.000	960.00	0.00	0.00	598.90	275.00	603.05	0.00	603.44	49.25	5.05	54.45	39.18
3215.000	960.00	0.00	0.00	598.90	310.00	603.31	0.00	603.72	46.99	5.12	60.56	45.22
3215.000	960.00	0.00	0.00	598.90	330.00	603.45	0.00	603.86	45.87	5.15	64.02	48.72
3215.000	960.00	0.00	0.00	598.90	370.00	603.72	0.00	604.15	43.88	5.22	70.87	55.86
5495.000	2280.00	0.00	0.00	599.70	250.00	605.70	0.00	605.79	3.83	2.46	101.42	127.72
5495.000	2280.00	0.00	0.00	599.70	285.00	606.03	0.00	606.14	4.09	2.65	107.59	140.94
5495.000	2280.00	0.00	0.00	599.70	290.00	606.15	0.00	606.26	3.93	2.64	110.00	146.24
5495.000	2280.00	0.00	0.00	599.70	290.00	606.37	0.00	606.47	3.48	2.54	114.08	155.39
5575.000	80.00	608.50	604.00	599.70	250.00	606.67	0.00	606.74	2.20	2.09	119.76	168.50
5575.000	80.00	608.50	604.00	599.70	285.00	607.31	0.00	607.38	2.08	2.16	131.87	197.83
5575.000	80.00	608.50	604.00	599.70	290.00	607.48	0.00	607.56	1.98	2.14	135.23	206.31
5575.000	80.00	608.50	604.00	599.70	290.00	607.70	0.00	607.77	1.79	2.08	139.41	217.06
7725.000	2150.00	0.00	0.00	602.85	240.00	607.46	0.00	607.60	8.74	3.01	79.80	81 17
7725.000	2150.00	0.00	0.00	602.85	275.00	608.02	0.00	608.16	7.25	3.00	91.59	102.12
7725.000	2150.00	0.00	0.00	602.85	295.00	608.19	0.00	608.34	7.38	3.10	95.03	108.60
7725.000	2150.00	0.00	0.00	602.85	330.00	608.39	0.00	608.56	7.96	3.32	99.36	116.97
7795.000	70.00	614.70	607.40	602.85	240.00	608.59	0.00	608.67	3.68	2.32	103.49	125.18
7795.000	70.00	614.70	607.40	602.85	275.00	609.54	0.00	609.61	2.69	2.23	123.36	167.76
7795.000	70.00	614.70	607.40	602.85	295.00	609.94	0.00	610.02	2.48	2.24	131.83	187.39
7795.000	70.00	614.70	607.40	602.85	330.00	610.60	0.00	610.68	2.22	2.26	145.78	221.59
9820.000	2025.00	0.00	0.00	606.60	460.00	610.95	0.00	611.29	40.11	5.47	127.02	72 63
9820.000	2025.00	0.00	0.00	606.60	695.00	611.66	0.00	611.95	32.62	5.51	209.96	121.69
9820.000	2025.00	0.00	0.00	606.60	800.00	611.96	0.00	612.22	28.79	5.39	251.47	149.09
9820.000	2025.00	0.00	0.00	606.60	1055.00	612.54	0.00	612.76	23.97	5.29	368.44	215.49
10375.000	555.00	0.00	0.00	608.85	460.00	613.18	0.00	613.52	40.51	5.50	126.36	72.27
10375.000	555.00	0.00	0.00	608.85	695.00	613.69	0.00	614.08	44.43	6.23	182.12	104.27
10375.000	555.00	0.00	0.00	608.85	800.00	613.86	0.00	614.27	46.80	6.54	202.49	116.94
10375.000	555.00	0.00	0.00	608.85	1055.00	614.23	0.00	614.68	49.60	7.08	252.51	149.80
10930.000	555.00	0.00	0.00	611.10	460.00	615.43	0.00	615.77	40.56	5.50	126.28	72.23
10930.000	555.00	0.00	0.00	611.10	695.00	616.04	0.00	616.38	38.51	5.88	194.63	112.00
10930.000	555.00	0.00	0.00	611.10	800.00	616.26	0.00	616.59	37.47	5.99	223.85	130.69
10930.000	555.00	0.00	0.00	611.10	1055.00	616.70	0.00	617.04	36.52	6.27	287.91	174.53
12039.000	1109.00	0.00	0.00	615.60	390.00	619.83	0.00	620.33	40.16	5.71	68.32	61.54
12039.000	1109.00	0.00	0.00	615.60	600.00	620.62	0.00	621.45	50.64	7.27	82.52	84 32
12039.000	1109.00	0.00	0.00	615.60	690.00	620.88	0.00	621.85	55.56	7.91	87.28	92.57
12039.000	1109.00	0.00	0.00	615.60	915.00	621.45	0.00	622.82	67.52	9.38	97.51	111.36
12090.000	51.00	623.40	621.70	615.60	390.00	620.09	0.00	620.54	31.95	5.33	73.17	69.00
12090.000	51.00	623.40	621.70	615.60	600.00	621.01	0.00	621.71	38.52	6.70	89.58	96.67
12090.000	51.00	624.60	621.70	615.60	690.00	622.93	0.00	623.41	17.18	5.56	124.11	166.46
12090.000	51.00	623.40	621.70	615.60	915.00	625.43	0.00	625.51	3.18	2.94	618.90	513.03

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
12620.000	530.00	0.00	0.00	616.80	390.00	621.60	0.00	621.83	17.74	4.16	112.21	92 59
12620.000	530.00	0.00	0.00	616.80	600.00	622.82	0.00	623.12	16.82	4.78	155.87	146.28
12620.000	530.00	0.00	0.00	616.80	690.00	623.95	0.00	624.20	11.06	4.38	201.29	207.47
12620.000	530.00	0.00	0.00	616.80	915.00	625.62	0.00	625.82	7.35	4.14	363.79	337.54
13150.000	530.00	0.00	0.00	618.00	390.00	622.69	0.00	623.21	32.03	5.79	67.33	68 91
13150.000	530.00	0.00	0.00	618.00	600.00	623.69	0.00	623.87	10.89	3.92	192.62	181.84

	13150.000	530.00	0.00	0.00	618.00	690.00	624.56	0.00	624.70	7.20	3.55	249.11	257.20
	13150.000	530.00	0.00	0.00	618.00	915.00	626.05	0.00	626.11	3.41	2.85	560.07	495.17
	13220.000	70.00	625.00	623.30	618.00	390.00	622.98	0.00	623.43	25.23	5.39	72.34	77.65
	13220.000	70.00	625.00	623.30	618.00	600.00	625.80	0.00	625.85	2.28	2.27	354.45	397.58
	13220.000	70.00	625.00	623.30	618.00	690.00	626.12	0.00	626.18	2.43	2.42	386.45	442.87
	13220.000	70.00	625.00	623.30	618.00	915.00	626.76	0.00	626.83	2.85	2.77	450.41	541.64
	13765.000	545.00	624.10	624.60	618.70	390.00	624.83	0.00	624.87	26.98	1.89	270.50	75.09
	13765.000	545.00	624.10	624.60	618.70	600.00	626.02	0.00	626.03	5.72	1.08	634.78	250.82
	13765.000	545.00	624.10	624.60	618.70	690.00	626.34	0.00	626.35	4.73	1.03	743.19	317.15
	13765.000	545.00	624.10	624.60	618.70	915.00	626.99	0.00	627.01	3.66	0.99	973.96	478.18
	13781.000	16.00	624.10	624.60	618.70	390.00	624.87	0.00	624.91	24.25	1.81	282.13	79.20
	13781.000	16.00	624.10	624.60	618.70	600.00	626.03	0.00	626.04	5.67	1.07	636.94	252.08
	13781.000	16.00	624.10	624.60	618.70	690.00	626.35	0.00	626.36	4.70	1.03	745.17	318.41
	13781.000	16.00	624.10	624.60	618.70	915.00	627.00	0.00	627.01	3.64	0.99	975.84	479.60
	13995.000	214.00	0.00	0.00	619.20	390.00	625.03	0.00	625.05	3.75	2.07	438.56	201.40
	13995.000	214.00	0.00	0.00	619.20	600.00	626.09	0.00	626.10	2.18	1.78	775.87	405.97
	13995.000	214.00	0.00	0.00	619.20	690.00	626.40	0.00	626.41	2.03	1.76	886.61	484.66
	13995.000	214.00	0.00	0.00	619.20	915.00	627.04	0.00	627.06	1.86	1.80	1115.33	670.38
	14365.000	370.00	0.00	0.00	620.70	390.00	625.16	0.00	625.45	41.33	5.66	146.74	60.67
	14365.000	370.00	0.00	0.00	620.70	600.00	626.20	0.00	626.29	14.03	3.83	374.46	160.20
	14365.000	370.00	0.00	0.00	620.70	690.00	626.51	0.00	626.57	11.18	3.56	463.99	206.34
	14365.000	370.00	0.00	0.00	620.70	915.00	627.14	0.00	627.19	7.90	3.22	677.92	325.61
	14735.000	370.00	0.00	0.00	622.20	390.00	626.86	0.00	627.13	51.24	4.80	124.04	54.49
	14735.000	370.00	0.00	0.00	622.20	600.00	626.97	0.00	627.49	98.22	6.78	137.15	60.54
*	14735.000	370.00	0.00	0.00	622.20	690.00	627.08	627.08	627.66	108.11	7.24	150.26	66.36
	14735.000	370.00	0.00	0.00	622.20	915.00	627.50	627.39	628.00	88.28	7.12	221.17	97.39
	15245.000	510.00	0.00	0.00	623.50	390.00	628.33	0.00	628.47	15.84	3.16	170.82	98.01
	15245.000	510.00	0.00	0.00	623.50	600.00	629.02	0.00	629.16	15.92	3.49	249.71	150.36
	15245.000	510.00	0.00	0.00	623.50	690.00	629.25	0.00	629.40	16.23	3.63	277.32	171.26
	15245.000	510.00	0.00	0.00	623.50	915.00	629.64	0.00	629.82	18.96	4.10	333.21	210.13
	17385.000	2140.00	0.00	0.00	628.30	170.00	632.03	0.00	632.29	23.06	4.10	41.47	35.40
	17385.000	2140.00	0.00	0.00	628.30	260.00	632.83	0.00	633.24	27.70	5.13	50.65	49.40
	17385.000	2140.00	0.00	0.00	628.30	300.00	633.14	0.00	633.62	29.28	5.53	54.27	55.44
	17385.000	2140.00	0.00	0.00	628.30	395.00	633.51	0.00	633.73	17.23	4.45	132.82	95.17

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
17481.000	96.00	634.00	633.00	628.30	170.00	632.38	0.00	632.74	101.19	4.86	35.01	16.90
17481.000	96.00	634.00	633.00	628.30	260.00	634.41	0.00	634.46	3.60	2.27	187.45	136.97
17481.000	96.00	634.00	633.00	628.30	300.00	634.56	0.00	634.62	4.19	2.49	206.72	146.63
17481.000	96.00	634.00	633.00	628.30	395.00	634.77	0.00	634.86	5.93	3.03	238.89	162.23
17851.000	370.00	0.00	0.00	627.70	170.00	632.92	0.00	632.93	1.27	1.05	293.99	150.85
17851.000	370.00	0.00	0.00	627.70	260.00	634.51	0.00	634.51	0.62	0.88	500.84	330.28
17851.000	370.00	0.00	0.00	627.70	300.00	634.67	0.00	634.68	0.72	0.97	526.11	352.78
17851.000	370.00	0.00	0.00	627.70	395.00	634.93	0.00	634.94	1.03	1.19	570.16	390.03
18191.000	340.00	0.00	0.00	628.70	170.00	633.00	0.00	633.03	6.03	2.18	155.07	69.26
18191.000	340.00	0.00	0.00	628.70	260.00	634.54	0.00	634.55	1.91	1.54	340.28	187.88
18191.000	340.00	0.00	0.00	628.70	300.00	634.71	0.00	634.73	2.12	1.65	364.97	205.82
18191.000	340.00	0.00	0.00	628.70	395.00	634.98	0.00	635.00	2.79	1.95	406.13	236.47
18270.000	79.00	636.00	633.90	628.70	170.00	636.09	0.00	636.09	0.19	0.57	594.01	391.63
18270.000	79.00	635.70	633.90	628.70	260.00	636.60	0.00	636.60	0.30	0.75	685.01	477.77

18270.000	7[illegible].00	635.70	633.90	628.70	300.00	636.68	0.00	636.68	0.37	0.84	69[illegible].76	492.56
18270.000	79.00	635.70	633.90	628.70	395.00	636.84	0.00	636.85	0.57	1.06	729.90	523.46
18645.000	375.00	0.00	0.00	632.40	170.00	636.07	0.00	636.15	17.38	3.30	101.03	40.77
18645.000	375.00	0.00	0.00	632.40	260.00	636.59	0.00	636.67	16.59	3.55	145.25	63.84
18645.000	375.00	0.00	0.00	632.40	300.00	636.67	0.00	636.77	19.39	3.90	153.05	68.13
18645.000	375.00	0.00	0.00	632.40	395.00	636.84	0.00	636.98	25.94	4.64	169.79	77.55
18835.000	190.00	0.00	0.00	634.30	170.00	636.43	0.00	636.48	16.65	1.96	118.93	41.66
18835.000	190.00	0.00	0.00	634.30	260.00	636.89	0.00	636.92	9.56	1.77	247.79	84.11
18835.000	190.00	0.00	0.00	634.30	300.00	637.00	0.00	637.03	9.30	1.82	282.28	98.36
18835.000	190.00	0.00	0.00	634.30	395.00	637.24	0.00	637.27	8.92	1.92	354.96	132.24
18930.000	95.00	0.00	0.00	635.20	170.00	636.67	0.00	636.94	139.71	4.17	41.36	14.38
18930.000	95.00	0.00	0.00	635.20	260.00	636.98	636.87	637.27	123.88	4.47	68.40	23.36
18930.000	95.00	0.00	0.00	635.20	300.00	637.08	636.99	637.38	114.81	4.55	81.74	28.00
18930.000	95.00	0.00	0.00	635.20	395.00	637.31	0.00	637.60	94.34	4.62	116.08	40.67
19020.000	90.00	0.00	0.00	636.10	170.00	637.74	0.00	637.92	82.64	3.45	54.03	18.70
19020.000	90.00	0.00	0.00	636.10	260.00	637.99	0.00	638.21	84.70	3.92	82.43	28.25
19020.000	90.00	0.00	0.00	636.10	300.00	638.06	0.00	638.29	87.70	4.14	92.58	32.04
19020.000	90.00	0.00	0.00	636.10	395.00	638.19	0.00	638.49	102.04	4.75	111.64	39.10
-15245.000	0.00	0.00	0.00	623.50	170.00	628.33	0.00	628.36	3.01	1.38	170.72	97.95
-15245.000	0.00	0.00	0.00	623.50	260.00	629.02	0.00	629.05	2.99	1.51	249.69	150.35
-15245.000	0.00	0.00	0.00	623.50	300.00	629.25	0.00	629.28	3.07	1.58	277.36	171.29
-15245.000	0.00	0.00	0.00	623.50	395.00	629.64	0.00	629.67	3.53	1.77	333.16	210.10
220.000	220.00	0.00	0.00	625.60	70.00	628.41	0.00	628.45	8.02	1.53	45.63	24.72
220.000	220.00	0.00	0.00	625.60	100.00	629.09	0.00	629.13	6.61	1.58	63.22	38.90
220.000	220.00	0.00	0.00	625.60	115.00	629.32	0.00	629.37	6.41	1.64	72.71	45.42
220.000	220.00	0.00	0.00	625.60	145.00	629.72	0.00	629.76	5.96	1.72	99.02	59.40

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	330.000	110.00	0.00	0.00	626.65	70.00	628.52	0.00	628.64	42.07	2.76	25.41	10.79
	330.000	110.00	0.00	0.00	626.65	100.00	629.18	0.00	629.28	25.23	2.56	39.11	19.91
	330.000	110.00	0.00	0.00	626.65	115.00	629.40	0.00	629.51	23.38	2.59	44.39	23.78
	330.000	110.00	0.00	0.00	626.65	145.00	629.78	0.00	629.90	21.92	2.70	53.64	30.97
	445.000	115.00	0.00	0.00	627.75	70.00	629.21	0.00	629.45	122.43	3.95	17.72	6.33
	445.000	115.00	0.00	0.00	627.75	100.00	629.57	0.00	629.83	94.93	4.08	24.53	10.26
	445.000	115.00	0.00	0.00	627.75	115.00	629.76	0.00	630.02	85.16	4.09	28.10	12.46
	445.000	115.00	0.00	0.00	627.75	145.00	630.10	0.00	630.36	71.72	4.13	35.14	17.12
	890.000	445.00	0.00	0.00	632.00	70.00	634.97	0.00	635.57	138.98	6.95	14.20	5.94
*	890.000	445.00	0.00	0.00	632.00	100.00	635.25	635.25	636.10	179.89	8.49	17.21	7.46
*	890.000	445.00	0.00	0.00	632.00	115.00	635.45	635.45	636.34	177.82	8.82	19.45	8.62
*	890.000	445.00	0.00	0.00	632.00	145.00	636.35	636.35	636.72	68.37	6.51	51.03	17.54
	933.000	43.00	635.90	635.00	632.00	70.00	636.31	0.00	636.40	17.46	3.27	47.14	16.75
	933.000	43.00	635.90	635.00	632.00	100.00	636.40	0.00	636.55	28.18	4.22	57.32	18.84
	933.000	43.00	635.90	635.00	632.00	115.00	636.44	0.00	636.62	33.89	4.66	61.26	19.75
	933.000	43.00	635.90	635.00	632.00	145.00	636.64	0.00	636.78	29.80	4.52	89.53	26.56
	1055.000	122.00	0.00	0.00	632.60	70.00	636.50	0.00	636.53	4.15	1.37	51.18	34.36
	1055.000	122.00	0.00	0.00	632.60	100.00	636.69	0.00	636.71	3.52	1.30	113.50	53.32
	1055.000	122.00	0.00	0.00	632.60	115.00	636.78	0.00	636.80	3.83	1.38	125.58	58.78
	1055.000	122.00	0.00	0.00	632.60	145.00	636.93	0.00	636.95	4.46	1.54	149.13	68.69
	1585.000	530.00	0.00	0.00	634.00	70.00	636.75	0.00	636.82	6.79	2.01	34.87	26.86
	1585.000	530.00	0.00	0.00	634.00	100.00	636.92	0.00	637.03	11.13	2.69	37.24	29.98

	1585.000	530.00	0.00	0.00	634.00	115.00	637.03	0.00	637.17	12.91	2.97	38.73	32.00
	1585.000	530.00	0.00	0.00	634.00	145.00	637.20	0.00	637.40	16.71	3.52	41.20	35.48
	1588.000	3.00	639.50	639.60	634.00	70.00	636.73	0.00	636.84	29.66	2.65	26.42	12.85
	1588.000	3.00	639.50	639.60	634.00	100.00	636.88	0.00	637.09	53.36	3.60	27.80	13.69
	1588.000	3.00	639.50	639.60	634.00	115.00	636.98	0.00	637.23	65.59	4.01	28.64	14.20
	1588.000	3.00	639.50	639.60	634.00	145.00	637.13	0.00	637.49	93.85	4.85	29.93	14.97
	1647.000	59.00	639.50	639.60	634.00	70.00	636.91	0.00	637.01	25.58	2.50	28.05	13.84
	1647.000	59.00	639.50	639.60	634.00	100.00	637.21	0.00	637.38	42.30	3.27	30.61	15.38
	1647.000	59.00	639.50	639.60	634.00	115.00	637.38	0.00	637.58	50.40	3.59	32.01	16.20
	1647.000	59.00	639.50	639.60	634.00	145.00	637.71	0.00	637.99	67.60	4.20	34.53	17.64
	1650.000	3.00	0.00	0.00	634.00	70.00	636.99	0.00	637.03	4.32	1.70	46.33	33.67
	1650.000	3.00	0.00	0.00	634.00	100.00	637.34	0.00	637.41	5.73	2.12	53.50	41.79
	1650.000	3.00	0.00	0.00	634.00	115.00	637.55	0.00	637.62	6.05	2.28	57.61	46.74
	1650.000	3.00	0.00	0.00	634.00	145.00	637.95	0.00	638.05	6.46	2.55	65.68	57.05
*	2070.000	420.00	0.00	0.00	639.90	70.00	641.45	641.45	641.88	148.56	5.36	14.79	5.74
*	2070.000	420.00	0.00	0.00	639.90	100.00	641.76	641.76	642.17	117.09	5.44	23.83	9.24
*	2070.000	420.00	0.00	0.00	639.90	115.00	641.88	641.88	642.28	110.11	5.51	28.58	10.96
*	2070.000	420.00	0.00	0.00	639.90	145.00	642.10	642.10	642.47	94.63	5.49	39.43	14.91

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3435.000	1365.00	0.00	0.00	643.60	70.00	647.00	0.00	647.08	18.42	3.01	38.92	16.31
3435.000	1365.00	0.00	0.00	643.60	100.00	647.31	0.00	647.41	20.86	3.41	49.12	21.89
3435.000	1365.00	0.00	0.00	643.60	115.00	647.43	0.00	647.54	21.81	3.58	53.72	24.63
3435.000	1365.00	0.00	0.00	643.60	145.00	647.64	0.00	647.77	24.21	3.92	61.61	29.47

LOWING-COMSTOCK DRAI

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
300.000	275.00	587.12	0.00	0.00	-9.88	30.22	0.00
300.000	310.00	587.29	0.17	0.00	-13.61	31.14	0.00
300.000	330.00	587.39	0.10	0.00	-15.21	31.65	0.00
300.000	370.00	587.57	0.19	0.00	-18.23	47.07	0.00
1050.000	275.00	592.58	0.00	5.47	0.00	101.29	750.00
1050.000	310.00	592.71	0.13	5.42	0.00	102.24	750.00
1050.000	330.00	592.77	0.07	5.38	0.00	102.76	750.00
1050.000	370.00	592.90	0.13	5.32	0.00	103.72	750.00
1425.000	275.00	595.52	0.00	2.94	0.00	100.75	375.00
1425.000	310.00	595.62	0.10	2.91	0.00	101.52	375.00
1425.000	330.00	595.67	0.05	2.90	0.00	101.92	375.00
1425.000	370.00	595.77	0.10	2.87	0.00	102.67	375.00
1615.000	275.00	597.08	0.00	1.56	0.00	101.29	190.00
1615.000	310.00	597.20	0.11	1.58	0.00	102.17	190.00
1615.000	330.00	597.26	0.06	1.59	0.00	102.67	190.00
1615.000	370.00	597.38	0.12	1.61	0.00	103.57	190.00
1800.000	275.00	598.52	0.00	1.43	0.00	100.77	185.00

1800.000	310.00	598.62	0.11	1.43	0.00	101.58	185.00
1800.000	330.00	598.68	0.06	1.42	0.00	102.01	185.00
1800.000	370.00	598.78	0.11	1.41	0.00	102.82	185.00
2240.000	275.00	600.61	0.00	2.09	0.00	21.00	440.00
2240.000	310.00	600.80	0.19	2.18	0.19	21.00	440.00
2240.000	330.00	600.90	0.10	2.22	0.10	21.00	440.00
2240.000	370.00	601.09	0.19	2.31	0.19	21.00	440.00
2241.000	275.00	600.53	0.00	-0.08	0.00	18.85	1.00
2241.000	310.00	600.72	0.18	-0.08	0.18	19.31	1.00
2241.000	330.00	600.82	0.10	-0.09	0.10	19.55	1.00
2241.000	370.00	601.00	0.18	-0.10	0.18	20.01	1.00
2253.000	275.00	600.60	0.00	0.07	0.00	19.02	12.00
2253.000	310.00	600.79	0.19	0.08	0.19	19.49	12.00
2253.000	330.00	600.90	0.10	0.08	0.10	19.75	12.00
2253.000	370.00	601.09	0.19	0.09	0.19	20.23	12.00
2255.000	275.00	600.85	0.00	0.24	0.00	25.00	2.00
2255.000	310.00	601.07	0.22	0.27	0.22	25.00	2.00
2255.000	330.00	601.19	0.12	0.29	0.12	25.00	2.00
2255.000	370.00	601.41	0.22	0.32	0.22	25.00	2.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3215.000	275.00	603.05	0.00	2.20	0.00	22.82	960.00
3215.000	310.00	603.31	0.26	2.24	0.26	24.01	960.00
3215.000	330.00	603.45	0.14	2.27	0.14	24.65	960.00
3215.000	370.00	603.72	0.27	2.31	0.27	25.88	960.00
5495.000	250.00	605.70	0.00	2.65	0.00	19.00	2280.00
5495.000	285.00	606.03	0.33	2.72	0.33	19.00	2280.00
5495.000	290.00	606.15	0.13	2.70	0.13	19.00	2280.00
5495.000	290.00	606.37	0.22	2.65	0.22	19.00	2280.00
5575.000	250.00	606.67	0.00	0.97	0.00	19.00	80.00
5575.000	285.00	607.31	0.64	1.28	0.64	19.00	80.00
5575.000	290.00	607.48	0.18	1.33	0.18	19.00	80.00
5575.000	290.00	607.70	0.22	1.33	0.22	19.00	80.00
7725.000	240.00	607.46	0.00	0.79	0.00	21.00	2150.00
7725.000	275.00	608.02	0.56	0.72	0.56	21.00	2150.00
7725.000	295.00	608.19	0.16	0.70	0.16	21.00	2150.00
7725.000	330.00	608.39	0.21	0.69	0.21	21.00	2150.00
7795.000	240.00	608.59	0.00	1.13	0.00	21.00	70.00
7795.000	275.00	609.54	0.95	1.51	0.95	21.00	70.00
7795.000	295.00	609.94	0.40	1.75	0.40	21.00	70.00
7795.000	330.00	610.60	0.66	2.21	0.66	21.00	70.00
9820.000	460.00	610.95	0.00	2.36	0.00	99.21	2025.00
9820.000	695.00	611.66	0.71	2.13	0.71	131.38	2025.00
9820.000	800.00	611.96	0.29	2.02	0.29	143.79	2025.00
9820.000	1055.00	612.54	0.58	1.94	0.58	381.05	2025.00
10375.000	460.00	613.18	0.00	2.24	0.00	98.90	555.00
10375.000	695.00	613.69	0.51	2.03	0.51	122.35	555.00
10375.000	800.00	613.86	0.16	1.90	0.16	129.02	555.00
10375.000	1055.00	614.23	0.37	1.69	0.37	144.09	555.00
10930.000	460.00	615.43	0.00	2.25	0.00	98.86	555.00

10930.000	695.00	616.04	0.61	2.35	0.61	126.49	555.00
10930.000	800.00	616.26	0.22	2.40	0.22	135.66	555.00
10930.000	1055.00	616.70	0.44	2.47	0.44	151.50	555.00
12039.000	390.00	619.83	0.00	4.40	0.00	18.00	1109.00
12039.000	600.00	620.62	0.80	4.58	0.80	18.00	1109.00
12039.000	690.00	620.88	0.26	4.62	0.26	18.00	1109.00
12039.000	915.00	621.45	0.57	4.75	0.57	18.00	1109.00
12090.000	390.00	620.09	0.00	0.27	0.00	18.00	51.00
12090.000	600.00	621.01	0.92	0.39	0.92	18.00	51.00
12090.000	690.00	622.93	1.91	2.04	1.91	18.00	51.00
12090.000	915.00	625.43	2.51	3.98	2.51	270.79	51.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12620.000	390.00	621.60	0.00	1.50	0.00	33.55	530.00
12620.000	600.00	622.82	1.22	1.81	1.22	37.94	530.00
12620.000	690.00	623.95	1.13	1.03	1.13	42.02	530.00
12620.000	915.00	625.62	1.67	0.19	1.67	228.07	530.00
13150.000	390.00	622.69	0.00	1.09	0.00	17.00	530.00
13150.000	600.00	623.69	1.00	0.87	1.00	61.14	530.00
13150.000	690.00	624.56	0.87	0.60	0.87	68.49	530.00
13150.000	915.00	626.05	1.49	0.43	1.49	341.18	530.00
13220.000	390.00	622.98	0.00	0.29	0.00	17.00	70.00
13220.000	600.00	625.80	2.82	2.11	2.82	100.00	70.00
13220.000	690.00	626.12	0.32	1.56	0.32	100.00	70.00
13220.000	915.00	626.76	0.64	0.71	0.64	100.00	70.00
13765.000	390.00	624.83	0.00	1.85	0.00	279.01	545.00
13765.000	600.00	626.02	1.19	0.22	1.19	331.20	545.00
13765.000	690.00	626.34	0.32	0.22	0.32	344.94	545.00
13765.000	915.00	626.99	0.65	0.24	0.65	357.82	545.00
13781.000	390.00	624.87	0.00	0.04	0.00	280.71	16.00
13781.000	600.00	626.03	1.16	0.01	1.16	331.48	16.00
13781.000	690.00	626.35	0.32	0.01	0.32	345.19	16.00
13781.000	915.00	627.00	0.65	0.01	0.65	357.89	16.00
13995.000	390.00	625.03	0.00	0.16	0.00	261.19	214.00
13995.000	600.00	626.09	1.06	0.06	1.06	355.00	214.00
13995.000	690.00	626.40	0.31	0.05	0.31	355.00	214.00
13995.000	915.00	627.04	0.64	0.04	0.64	355.00	214.00
14365.000	390.00	625.16	0.00	0.14	0.00	170.39	370.00
14365.000	600.00	626.20	1.04	0.11	1.04	269.83	370.00
14365.000	690.00	626.51	0.31	0.11	0.31	299.24	370.00
14365.000	915.00	627.14	0.64	0.10	0.64	388.25	370.00
14735.000	390.00	626.86	0.00	1.69	0.00	103.79	370.00
14735.000	600.00	626.97	0.11	0.77	0.11	119.24	370.00
* 14735.000	690.00	627.08	0.11	0.57	0.11	132.91	370.00
14735.000	915.00	627.50	0.42	0.36	0.42	212.39	370.00
15245.000	390.00	628.33	0.00	1.48	0.00	110.11	510.00
15245.000	600.00	629.02	0.69	2.05	0.69	118.33	510.00
15245.000	690.00	629.25	0.23	2.17	0.23	119.98	510.00
15245.000	915.00	629.64	0.38	2.13	0.38	160.66	510.00
17385.000	170.00	632.03	0.00	3.69	0.00	11.50	2140.00

17385.000	260.00	632.83	0.80	3.81	0.80	11.50	2140.00
17385.000	300.00	633.14	0.31	3.89	0.31	11.50	2140.00
17385.000	395.00	633.51	0.36	3.87	0.36	44.93	2140.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
17481.000	170.00	632.38	0.00	0.35	0.00	11.50	96.00
17481.000	260.00	634.41	2.03	1.58	2.03	118.36	96.00
17481.000	300.00	634.56	0.15	1.42	0.15	140.12	96.00
17481.000	395.00	634.77	0.21	1.26	0.21	167.79	96.00
17851.000	170.00	632.92	0.00	0.55	0.00	125.34	370.00
17851.000	260.00	634.51	1.58	0.10	1.58	135.86	370.00
17851.000	300.00	634.67	0.16	0.11	0.16	163.74	370.00
17851.000	395.00	634.93	0.26	0.16	0.26	180.38	370.00
18191.000	170.00	633.00	0.00	0.07	0.00	96.51	340.00
18191.000	260.00	634.54	1.54	0.03	1.54	143.06	340.00
18191.000	300.00	634.71	0.17	0.04	0.17	148.20	340.00
18191.000	395.00	634.98	0.27	0.05	0.27	156.41	340.00
18270.000	170.00	636.09	0.00	3.09	0.00	177.38	79.00
18270.000	260.00	636.60	0.51	2.05	0.51	180.00	79.00
18270.000	300.00	636.68	0.08	1.96	0.08	180.00	79.00
18270.000	395.00	636.84	0.17	1.86	0.17	180.00	79.00
18645.000	170.00	636.07	0.00	-0.01	0.00	78.10	375.00
18645.000	260.00	636.59	0.52	0.00	0.52	93.43	375.00
18645.000	300.00	636.67	0.08	0.00	0.08	95.88	375.00
18645.000	395.00	636.84	0.17	0.00	0.17	100.94	375.00
18835.000	170.00	636.43	0.00	0.36	0.00	187.68	190.00
18835.000	260.00	636.89	0.45	0.30	0.45	303.75	190.00
18835.000	300.00	637.00	0.11	0.33	0.11	304.44	190.00
18835.000	395.00	637.24	0.24	0.40	0.24	305.88	190.00
18930.000	170.00	636.67	0.00	0.24	0.00	62.22	95.00
18930.000	260.00	636.98	0.31	0.09	0.31	118.73	95.00
18930.000	300.00	637.08	0.11	0.08	0.11	131.65	95.00
18930.000	395.00	637.31	0.23	0.07	0.23	181.81	95.00
19020.000	170.00	637.74	0.00	1.07	0.00	88.74	90.00
19020.000	260.00	637.99	0.25	1.01	0.25	132.12	90.00
19020.000	300.00	638.06	0.07	0.97	0.07	138.81	90.00
19020.000	395.00	638.19	0.13	0.87	0.13	172.64	90.00
-15245.000	170.00	628.33	0.00	-9.41	0.00	110.09	0.00
-15245.000	260.00	629.02	0.69	-8.97	0.69	118.33	0.00
-15245.000	300.00	629.25	0.23	-8.80	0.23	119.98	0.00
-15245.000	395.00	629.64	0.38	-8.55	0.38	160.64	0.00
220.000	70.00	628.41	0.00	0.08	0.00	24.13	220.00
220.000	100.00	629.09	0.68	0.07	0.68	27.62	220.00
220.000	115.00	629.32	0.23	0.07	0.23	54.25	220.00
220.000	145.00	629.72	0.39	0.08	0.39	79.60	220.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH

	330.000	70.00	628.52	0.00	0.11	0.00	19.37	110.00
	330.000	100.00	629.18	0.65	0.08	0.65	22.71	110.00
	330.000	115.00	629.40	0.23	0.08	0.23	23.87	110.00
	330.000	145.00	629.78	0.38	0.06	0.38	25.78	110.00
	445.000	70.00	629.21	0.00	0.68	0.00	17.68	115.00
	445.000	100.00	629.57	0.36	0.40	0.36	19.14	115.00
	445.000	115.00	629.76	0.18	0.35	0.18	20.07	115.00
	445.000	145.00	630.10	0.34	0.31	0.34	21.79	115.00
	890.000	70.00	634.97	0.00	5.76	0.00	10.00	445.00
*	890.000	100.00	635.25	0.28	5.68	0.28	11.12	445.00
*	890.000	115.00	635.45	0.20	5.69	0.20	11.89	445.00
*	890.000	145.00	636.35	0.90	6.25	0.90	99.29	445.00
	933.000	70.00	636.31	0.00	1.34	0.00	91.69	43.00
	933.000	100.00	636.40	0.09	1.15	0.09	110.50	43.00
	933.000	115.00	636.44	0.04	1.00	0.04	117.09	43.00
	933.000	145.00	636.64	0.20	0.29	0.20	156.39	43.00
	1055.000	70.00	636.50	0.00	0.19	0.00	24.29	122.00
	1055.000	100.00	636.69	0.19	0.29	0.19	123.67	122.00
	1055.000	115.00	636.78	0.09	0.34	0.09	146.64	122.00
	1055.000	145.00	636.93	0.14	0.28	0.14	180.06	122.00
	1585.000	70.00	636.75	0.00	0.25	0.00	14.00	530.00
	1585.000	100.00	636.92	0.17	0.23	0.17	14.00	530.00
	1585.000	115.00	637.03	0.11	0.25	0.11	14.00	530.00
	1585.000	145.00	637.20	0.18	0.28	0.18	14.00	530.00
	1588.000	70.00	636.73	0.00	-0.02	0.00	14.00	3.00
	1588.000	100.00	636.88	0.15	-0.04	0.15	14.00	3.00
	1588.000	115.00	636.98	0.10	-0.05	0.10	14.00	3.00
	1588.000	145.00	637.13	0.15	-0.08	0.15	14.00	3.00
	1647.000	70.00	636.91	0.00	0.18	0.00	14.00	59.00
	1647.000	100.00	637.21	0.30	0.33	0.30	14.00	59.00
	1647.000	115.00	637.38	0.17	0.40	0.17	14.00	59.00
	1647.000	145.00	637.71	0.33	0.58	0.33	14.00	59.00
	1650.000	70.00	636.99	0.00	0.07	0.00	20.00	3.00
	1650.000	100.00	637.34	0.36	0.13	0.36	20.00	3.00
	1650.000	115.00	637.55	0.21	0.17	0.21	20.00	3.00
	1650.000	145.00	637.95	0.40	0.24	0.40	20.00	3.00
*	2070.000	70.00	641.45	0.00	4.46	0.00	21.61	420.00
*	2070.000	100.00	641.76	0.31	4.42	0.31	37.20	420.00
*	2070.000	115.00	641.88	0.12	4.33	0.12	43.60	420.00
*	2070.000	145.00	642.10	0.22	4.15	0.22	55.48	420.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3435.000	70.00	647.00	0.00	5.55	0.00	31.46	1365.00
3435.000	100.00	647.31	0.31	5.54	0.31	35.31	1365.00
3435.000	115.00	647.43	0.13	5.55	0.13	36.84	1365.00
3435.000	145.00	647.64	0.21	5.54	0.21	39.32	1365.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO= 14735.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 14735.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   890.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   890.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   890.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   890.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   890.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   890.000  PROFILE= 4  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=  2070.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  2070.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  2070.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=  2070.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  2070.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  2070.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=  2070.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  2070.000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  2070.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=  2070.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  2070.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  2070.000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
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THIS RUN EXECUTED 13 OCT 89   12:54:43

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
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00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP

3) WATERCOURSE: RUSH CREEK

4) DOCUMENT TYPE: 100YR ~~ENCROACHED~~ FLOODWAY

00BREAK00

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 *SECNO 52450.000
  52450.00      8.70    615.50      0.00      0.00    615.50       .00       .00       .00    614.00
     1807.     1350.      211.      246.     3803.      278.      984.     2084.      555.    610.60
    12.27       .35       .76       .25      .040      .032      .040     0.000    606.80    576.73
  .000022       50.       50.       50.         0         0         0      0.00   2029.34   2606.07
0
1
  83/02/28.    12.07.44.                                                                              PAGE   34


                                                                 THIS RUN EXECUTED  83/02/28.   12.07.48.
 **********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 **********************************************

 T1
 T2
 T3

 J1  ICHECK     INQ       NINV      IDIR       STRT      METRIC     HVINS         Q       WSEL        FQ

          0.        6.        0.        0.  0.000000      0.00       0.0        0.   596.600     0.000

 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH        FN     ALLDC       IBW     CHNIM    ITRACE

      -15.000     0.000    -1.000    -0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
  83/02/28.    12.07.44.                                                                              PAGE   35

    SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS  BANK ELEV
        Q      QLOB       QCH      QROB      ALOB       ACH      AROB       VOL       TWA  LEFT/RIGHT
     TIME      VLOB       VCH      VROB       XNL      XNCH       XNR       WTN     ELMIN      SSTA
    SLOPE     XLOBL      XLCH     XLOBR    ITRIAL       IDC     ICONT     CORAR    TOPWID     ENDST

 *PROF 2

 CCHV      .100 CEHV      .300
 *SECNO 2200.000
   2200.00      7.63    596.50      0.00    596.60    597.72      1.12      0.00      0.00    594.87
     3449.       19.     3392.       37.       24.      396.       39.        0.        0.    592.77
      0.00       .80      8.56       .95      .100      .025      .100     0.000    588.97     55.26
   .001928        0.        0.        0.         0         0         0      0.00    114.73    169.99
0
 *SECNO 2250.000

 3470 ENCROACHMENT STATIONS         75.0      138.0  TYPE       1  TARGET        63.000
  ELENCL     604.00  ELENCR      604.00
          C&O RAILROAD BRIDGE
   2250.00      7.71    596.68      0.00      0.00    597.83      1.14       .10       .01    594.87
     3449.        0.     3449.        0.        0.      402.        0.        0.        0.    604.00
       .00      0.00      8.58      0.00      .100      .025      .100     0.000    588.97     75.00
   .002121       50.       50.       50.         1         0         0      0.00     63.00    138.00
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0
 *SECNO 2251.000

 3370 NORMAL BRIDGE,NRD  15 MIN ELTRD   607.50 MAX ELLC   607.50


 3470 ENCROACHMENT STATIONS           75.0      138.0   TYPE        1   TARGET          63.000
  ELENCL      604.00   ELENCR        604.00
   2251.00      7.71    596.68       0.00       0.00    597.83      1.16       .00       .00    594.87
     3449.        0.     3449.         0.         0.      400.        0.        1.        0.    604.00
      .00       0.00      8.63       0.00       .100      .025      .100     0.000    588.97     75.00
   .002170        1.        1.         1.         0         0         0     -2.15     63.00    138.00
0
 *SECNO 2252.000

 3370 NORMAL BRIDGE,NRD  15 MIN ELTRD   607.50 MAX ELLC   607.50


 3470 ENCROACHMENT STATIONS           75.0      138.0   TYPE        1   TARGET          63.000
  ELENCL      604.00   ELENCR        604.00
   2252.00      7.74    596.71       0.00       0.00    597.86      1.15       .03       .00    594.87
     3449.        0.     3449.         0.         0.      401.        0.        1.        0.    604.00
      .00       0.00      8.61       0.00       .100      .025      .100     0.000    588.97     75.00
   .002153       12.       12.        12.         0         0         0     -2.17     63.00    138.00
0
1
  83/02/28.   12.07.44.                                                                            PAGE  36

    SECNO      DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
    Q          QLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID    ENDST


 *SECNO 2253.000

 3470 ENCROACHMENT STATIONS           75.0      138.0   TYPE        1   TARGET          63.000
  ELENCL      604.00   ELENCR        604.00
   2253.00      7.77    596.74       0.00       0.00    597.87      1.13       .00       .00    594.87
     3449.        0.     3449.         0.         0.      405.        0.        1.        0.    604.00
      .00       0.00      8.52       0.00       .100      .025      .100     0.000    588.97     75.00
   .002072        1.        1.         1.         2         0         0      0.00     63.00    138.00
0
 *SECNO 2350.000

 3265 DIVIDED FLOW

            OLD A-21 BRIDGE
   2350.00      7.43    596.73       0.00       0.00    598.03      1.30       .11       .05    594.40
     3449.       90.     3343.        11.        65.      361.        9.        1.        0.    592.90
      .00       1.38      9.27       1.25       .100      .025      .100     0.000    589.30     33.30
   .004100       40.       40.        40.         2         0         0      0.00    130.40    166.79
0
 *SECNO 2351.000

 3265 DIVIDED FLOW


 3301 HV CHANGED MORE THAN HVINS
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 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS        75.0      138.0  TYPE       1  TARGET         63.000
  ELENCL      600.50  ELENCR      600.50
   2351.00      7.60    596.90    596.90      0.00    599.23      2.33       .16       .31    594.40
     3449.        0.      3449.        0.        0.      281.        0.        1.        0.    600.50
       .00      0.00     12.26      0.00      .100      .025      .100     0.000    569.30     75.00
   .007659       30.       30.       30.       20         5         0      0.00     63.19    138.00
0
 *SECNO 2352.000
1
 83/02/28.   12.07.44.                                                                            PAGE   37

      SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
      Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
      TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
      SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 3265 DIVIDED FLOW


 3370 NORMAL BRIDGE,NRD  19 MIN ELTRD   601.00 MAX ELLC   600.10

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS        75.0      138.0  TYPE       1  TARGET         63.000
  ELENCL      600.50  ELENCR      600.50
   2352.00      7.72    597.02    597.02      0.00    599.51      2.48       .01       .04    594.40
     3449.        0.      3449.        0.        0.      273.        0.        1.        0.    600.50
       .00      0.00     12.65      0.00      .100      .025      .100     0.000    589.30     75.00
   .008499        1.        1.        1.       20        19         0    -16.30     60.41    138.00
0
 *SECNO 2353.000

 3265 DIVIDED FLOW


 3301 HV CHANGED MORE THAN HVINS


 3370 NORMAL BRIDGE,NRD  19 MIN ELTRD   601.00 MAX ELLC   600.10


 3470 ENCROACHMENT STATIONS        75.0      138.0  TYPE       1  TARGET         63.000
  ELENCL      600.50  ELENCR      600.50
   2353.00      8.78    598.08      0.00      0.00    599.74      1.66       .15       .08    594.40
     3449.        0.      3449.        0.        0.      333.        0.        1.        0.    600.50
       .00      0.00     10.35      0.00      .100      .025      .100     0.000    589.30     75.00
   .004728       24.       24.       24.        5         0         0    -20.80     62.28    138.00
0
 *SECNO 2354.000
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 3470 ENCROACHMENT STATIONS        75.0      138.0  TYPE      1  TARGET       63.000
  ELENCL      600.50  ELENCR      600.50
   2354.00      9.20   593.50     0.00      0.00    599.78     1.28       .00       .04    594.40
   3449.        0.     3449.      0.        0.      330.       0.         1.        0.     600.50
    .00       0.00     9.07     0.00      .100      .025     .100     0.000    589.30     75.00
   .003172     1.        1.        1.         3         0         0      0.00     63.00    138.00
0
1
  83/02/28.    12.07.44.                                                                          PAGE   38

    SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
    Q         QLCB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST

 *SECNO 3000.000

 3301 HV CHANGED MORE THAN HVINS

   3000.00      9.93   599.28     0.00      0.00    599.94      .66       .10       .06    594.40
   3449.      253.     2993.     199.      204.      429.      133.        2.        0.     593.10
    .01       1.24     6.98     1.49      .100      .025     .100     0.000    589.30      7.33
   .001366     50.       50.       50.        3         0         0      0.00    162.60    169.93
0
 *SECNO 3375.000
   3375.00      8.33   599.93     0.00      0.00    600.94     1.01       .89       .10    601.97
   3449.        0.     3418.      31.        0.      423.       26.       10.        2.     592.90
    .03       0.00     8.09     1.16      .100      .025     .100     0.000    591.60     70.03
   .001623    600.      600.      600.        2         0         0      0.00     70.92    140.95
0
 *SECNO 3400.000

 3470 ENCROACHMENT STATIONS        70.0      132.0  TYPE      1  TARGET       62.000
  ELENCL      604.00  ELENCR      604.00
           CHICAGO DRIVE BRIDGE
   3400.00      8.41   600.01     0.00      0.00    601.03     1.01       .09       .00    601.97
   3449.        0.     3449.      0.        0.      427.       0.        11.        2.     604.00
    .03       0.00     8.07     0.00      .100      .025     .100     0.000    591.60     70.03
   .001824     50.       50.       50.        0         0         0      0.00     61.97    132.00
0
 *SECNO 3401.000

 3370 NORMAL BRIDGE,NRD  16 MIN ELTRD    604.00 MAX ELLC    604.10

   3401.00      8.42   600.02     0.00      0.00    601.03     1.01       .00       .00    601.97
   3449.        0.     3449.      0.        0.      428.       0.        11.        2.     592.90
    .03       0.00     8.06      .09      .100      .025     .100     0.000    591.60     70.03
   .001592      1.        1.        1.        0         0         0    -26.58     71.32    141.34
0
 *SECNO 3415.000

 3370 NORMAL BRIDGE,NRD  16 MIN ELTRD    604.00 MAX ELLC    604.10

   3415.00      8.45   600.05     0.00      0.00    601.05     1.00       .02       .00    601.97
   3449.        0.     3449.      0.        0.      429.       0.        11.        2.     592.90
    .03       0.00     8.04      .09      .100      .025     .100     0.000    591.60     70.03
   .001574     12.       12.       12.        0         0         0    -26.80     71.49    141.52
0
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83/02/28.   12.07.44.   PAGE   39

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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

*SECNO 3420.000
 3420.00     8.60    600.20      0.00      0.00    601.13       .93       .08       .01    601.97
    3449.      0.     3416.       33.        0.      439.       29.       12.        2.    592.90
      .03    0.00      7.78      1.13      .100      .025      .100     0.000    591.60     70.02
  .001436     50.       50.       50.         2         0         0      0.00     72.69    142.72
0
*SECNO 3425.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
 3425.00     7.38    599.05    599.05      0.00    602.25      3.20       .35       .68    593.15
    3449.     94.     3314.       41.       50.      226.       22.       13.        2.    592.67
      .03    1.88     14.65      1.85      .100      .025      .100     0.000    591.67     80.34
  .004551    150.      150.      150.         4        11         0      0.00     59.68    140.02
0
*SECNO 3825.000

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

 3825.00    10.26    602.06      0.00      0.00    603.34      1.29       .90       .19    594.30
    3449.    206.     3203.       40.      119.      339.       36.       17.        3.    596.00
      .05    1.74      9.44      1.11      .100      .025      .100     0.000    591.80    718.82
  .001335    400.      400.      400.         3         0         0      0.00     91.18    918.27
0
*SECNO 3875.000

3470 ENCROACHMENT STATIONS        870.0     912.0  TYPE       1  TARGET        42.000
          MAIN ST. BRIDGE, TR-605.4, LC 602.2
 3875.00     9.77    602.07      0.00    602.07    603.46      1.39       .08       .03    595.80
    3449.      0.     3449.        0.        0.      365.        0.       17.        3. 100000.00
      .05    0.00      9.45      0.00      .100      .025      .100     0.000    592.30    870.00
  .002107     50.       50.       50.         2         0         0      0.00     42.00    912.00
0
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83/02/28.   12.07.44.   PAGE   40

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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

*SECNO 3876.000
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 3370 NORMAL BRIDGE,NRD  11 MIN ELTRD   605.40 MAX ELLC   606.00

 3470 ENCROACHMENT STATIONS        870.0      912.0  TYPE        1  TARGET        42.000
   3876.00      9.77    602.07      0.00    602.07    603.46      1.39       .00       .00    595.80
     3449.        0.     3449.        0.        0.      365.        0.       17.        3.  100000.00
       .05      0.00      9.45      0.00      .100      .025      .100     0.000    592.30    870.00
   .002106        1.        1.        1.         0         0         0      0.00     42.00    912.00
0
 *SECNO 3900.000

 3370 NORMAL BRIDGE,NRD  11 MIN ELTRD   605.40 MAX ELLC   606.00

 3470 ENCROACHMENT STATIONS        870.0      912.0  TYPE        1  TARGET        42.000
   3900.00      9.83    602.18      0.00    602.18    603.53      1.35       .07       .00    595.80
     3449.        0.     3449.        0.        0.      370.        0.       17.        3.  100000.00
       .05      0.00      9.33      0.00      .100      .025      .100     0.000    592.30    870.00
   .002028       35.       35.       35.         2         0         0      0.00     42.00    912.00
0
 *SECNO 3910.000

 3470 ENCROACHMENT STATIONS        850.0      920.0  TYPE        1  TARGET        60.000
   3910.00     10.13    602.43      0.00    602.43    603.57      1.14       .02       .02    595.80
     3449.       58.     3320.       71.       45.      380.       47.       17.        3.    595.20
       .05      1.31      8.73      1.52      .100      .025      .100     0.000    592.30    860.00
   .001197       10.       10.       10.         2         0         0      0.00     60.00    920.00
0
 *SECNO 3925.000

 3470 ENCROACHMENT STATIONS        200.0     1200.0  TYPE        1  TARGET      1000.000
   3925.00     10.00    603.00      0.00    603.00    603.68       .68       .06       .05    595.10
     3449.      214.     2753.      433.      285.      374.      402.       18.        4.    594.60
       .05       .75      7.37      1.20      .100      .030      .100     0.000    593.00    614.32
   .001114       50.       50.       50.         3         0         0      0.00    418.67   1032.98
0
1
  83/02/28.    12.07.44.                                                               PAGE   41

      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

 *SECNO 6250.000

 3470 ENCROACHMENT STATIONS        700.0     1200.0  TYPE        1  TARGET       500.000
              U/S OF HOTZENGA DRAIN
5014   6250.00     11.05    604.35      0.00    604.35    604.75       .40      1.05       .03    594.90
     3315.      113.     2320.      882.      154.      382.      941.       53.       16.    598.20
       .13       .73      6.07       .94      .100      .030      .100     0.000    593.30    700.00
   .000702     1195.     1195.     1195.         2         0         0      0.00    500.00   1200.00
0
 *SECNO 8500.000

 3470 ENCROACHMENT STATIONS        825.0     1650.0  TYPE        1  TARGET       825.000
5956   8500.00     11.71    605.01      0.00    605.01    605.25       .24       .49       .02    596.10
     3315.      838.     2174.      303.     1474.      450.      364.       94.       30.    595.40
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       .20       .57      4.84       .83      .100      .030      .100     0.000    593.30    873.75
   .000395      942.      942.      942.         2         0         0      0.00    776.25   1650.00
0
 *SECNO 9750.000

 3265 DIVIDED FLOW

 3301 HV CHANGED MORE THAN HVINS

 3470 ENCROACHMENT STATIONS      1100.0    1700.0  TYPE      1  TARGET      600.000
   9750.00     11.51    604.81    601.08    604.81    605.74       .93       .28       .21    596.10
     3315.      354.     2798.      162.      481.      333.      190.      110.       36.    595.40
       .22       .74      8.41       .86      .100      .030      .100     0.000    593.30   1145.10
   .001257      427.      427.      427.         4        12         0      0.00    542.47   1700.00
0
 *SECNO 10700.000

 3301 HV CHANGED MORE THAN HVINS

 3470 ENCROACHMENT STATIONS       720.0    1800.0  TYPE      1  TARGET      900.000
  10700.00     11.93    606.03      0.00    606.03    606.37       .34       .58       .06    596.80
     3315.      177.     2538.      600.      375.      474.     1043.      137.       51.    596.10
       .27       .47      5.35       .58      .100      .030      .100     0.000    594.10    720.00
   .000469      800.      800.      800.         2         0         0      0.00   1080.00   1800.00
0
1
  83/02/28.   12.07.44.                                                                   PAGE   42

     SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS  BANK ELEV
         Q      QLOB       QCH      QROB      ALOB       ACH      AROB       VOL       TWA  LEFT/RIGHT
      TIME      VLOB       VCH      VROB       XNL      XNCH       XNR       WTN     ELMIN      SSTA
     SLOPE     XLOBL      XLCH     XLOBR    ITRIAL       IDC     ICONT     CORAR    TOPWID     ENDST

 *SECNO 11700.000

 3470 ENCROACHMENT STATIONS       475.0    1475.0  TYPE      1  TARGET     1000.000
  11700.00     11.78    606.38      0.00    606.31    606.64       .26       .26       .01    598.00
7703 3315.       67.     1837.     1411.       81.      336.     2253.      164.       64.    596.40
       .32       .83      5.46       .63      .100      .030      .100     0.000    594.60    475.00
   .000516      520.      520.      520.         2         0         0      0.00    988.68   1463.68
0
 *SECNO 12000.000

 3301 HV CHANGED MORE THAN HVINS

 3470 ENCROACHMENT STATIONS      1650.0    2600.0  TYPE      1  TARGET      950.000
            GRAVEL PIT BRIDGE, TR 605.4, LC 603.6
  12000.00     11.51    605.31    602.71    605.72    606.95      1.14       .05       .26    599.30
     3315.       66.     3133.      116.       57.      355.      208.      166.       65.    599.60
       .32      1.16      8.82       .56      .100      .030      .100     0.000    594.30   1650.00
   .001813       60.       60.       60.         4        17         0      0.00    719.46   2369.46
0
 SPECIAL BRIDGE
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 SB   XK        XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
        1.05       1.55       2.50       0.00      39.00       1.50     280.40       0.00     596.40     596.40

 *SECNO 12001.000
 6870 D.S. ENERGY OF  606.95 HIGHER THAN COMPUTED ENERGY OF  606.48
 PRESSURE AND WEIR FLOW

   EGPRS      EGLWC        H3       QWEIR       QPR        BAREA    TRAPEZOID     ELLC      ELTRD
                                                                       AREA
    609.17    607.11       .15      1853.      1482.       280.       270.      603.60    605.40

   12001.00     11.51    605.31      0.00    605.74    606.95      1.15      0.00      0.00    599.30
     3315.        66.     3135.      114.       57.      355.      204.      166.       65.    599.60
       .32       1.15      3.83       .56      .100      .030      .100     0.000    594.30   1641.91
   .001820        13.       13.       13.         3         0         0      0.00    724.76   2366.67
 0
 1
   83/02/28.   12.07.44.                                                                           PAGE    43

       SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS   BANK ELEV
       Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA   LEFT/RIGHT
       TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN     ELMIN      SSTA
       SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR   TOPWID     ENDST

 *SECNO 12800.000

 3301 HV CHANGED MORE THAN HVINS

 3470 ENCROACHMENT STATIONS       300.0      1750.0  TYPE       1  TARGET       1450.000
                U/S OF BLISS DRAIN
   12800.00     12.18    607.18      0.00    607.11    607.26       .08       .20       .11    598.00
     1486.         0.      991.      495.        0.      347.     1829.      176.       73.    598.00
       .36       0.00      2.85       .27      .100      .030      .100     0.000    595.00    300.00
   .000190       300.      300.      300.         3         0         0      0.00   1450.00   1750.00
 0
 *SECNO 13500.000
 3280 CROSS SECTION  13500.00 EXTENDED       8.57 FEET

 3470 ENCROACHMENT STATIONS       200.0      1975.0  TYPE       1  TARGET       1775.000
   13500.00     11.17    607.27      0.00    607.21    607.27       .00       .01       .01    597.50
     1486.       595.      107.      783.     6195.      268.     7655.      282.       94.    597.50
      1.66        .10       .40       .10      .100      .030      .100     0.000    596.10    200.00
   .000003       570.      570.      570.         2         0         0      0.00   1775.00   1975.00
 0
 *SECNO 14200.000

 3470 ENCROACHMENT STATIONS       150.0      2185.0  TYPE       1  TARGET       2035.000
   14200.00     11.18    607.28      0.00    607.21    607.28       .00       .00       .00    598.60
     1486.       875.      101.      511.     9329.      260.     5137.      484.      120.    598.60
      3.13        .09       .39       .10      .100      .030      .100     0.000    596.10    150.00
   .000003       610.      610.      610.         2         0         0      0.00   2035.00   2185.00
 0
 *SECNO 17500.000
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3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS      700.0     1750.0  TYPE       1  TARGET       1050.000
 17500.00     11.05    607.25      0.00    607.19    607.30       .05       .01       .01    598.30
   1486.      679.      671.      136.     1939.      261.      317.      724.      160.    598.30
   3.38       .35      2.57       .43      .100      .030      .100     0.000    596.20    700.00
 .000127     1210.     1210.     1210.        2         0         0      0.00    820.10   1750.00
0
1
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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*SECNO 19100.000
3280 CROSS SECTION  19100.00 EXTENDED      1.32 FEET

3470 ENCROACHMENT STATIONS      950.0     2100.0  TYPE       1  TARGET       1150.000
 19100.00     10.63    607.33      0.00    607.26    607.33       .00       .03       .00    599.20
   1500.       38.      162.     1299.      265.      223.     7349.      840.      182.    599.20
   4.53       .14       .73       .18      .100      .030      .100     0.000    596.70    950.00
 .000011      980.      980.      980.        1         0         0      0.00   1150.00   2100.00
0
*SECNO 20200.000
3280 CROSS SECTION  20200.00 EXTENDED      3.34 FEET

3470 ENCROACHMENT STATIONS     1135.0     2215.0  TYPE       1  TARGET        900.000
 20200.00     10.34    607.34      0.00    607.27    607.34       .00       .01       .00    599.20
   1500.        0.      226.     1274.        0.      349.     7176.      973.      201.    599.20
   5.37      0.00       .65       .18      .100      .030      .100     0.000    597.00   1135.00
 .000011      750.      750.      750.        2         0         0      0.00   1080.00   2215.00
0
*SECNO 23700.000

3470 ENCROACHMENT STATIONS     1018.0     1828.0  TYPE       1  TARGET        675.000
 23700.00      9.86    607.36      0.00    607.28    607.36       .01       .02       .00    600.00
   1500.       13.      416.     1071.       74.      329.     3449.     1142.      226.    600.30
   6.00       .18      1.26       .31      .100      .030      .100     0.003    597.50   1018.00
 .000035     1295.     1295.     1295.        0         0         0      0.00    595.12   1613.12
0
*SECNO 24000.000

3470 ENCROACHMENT STATIONS      900.0     1620.0  TYPE       1  TARGET        600.000
 24000.00      9.74    607.34      0.00    607.27    607.39       .05       .01       .01    599.20
   1500.      225.      763.      512.      494.      307.     1501.     1158.      230.    599.20
   6.04       .45      2.48       .34      .100      .030      .100     0.000    597.60    900.00
 .000132      230.      230.      230.        2         0         0      0.00    720.00   1620.00
0
*SECNO 25250.000

3470 ENCROACHMENT STATIONS      700.0     1540.0  TYPE       1  TARGET        700.030
1
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                         12TH AVE. BRIDGE, TR 607.8, LC 606.2
   25250.00      9.04    607.34      0.00    607.26    607.57       .24       .13       .06    602.20
     1500.        46.     1306.      149.       81.      312.      252.     1177.      235.     602.60
       6.09       .57      4.19       .59      .100      .030      .100     0.000    598.30    925.15
    .000500      550.      550.      550.         2         0         0      0.00    198.88   1124.03
0
 *SECNO 25251.000

 3370 NORMAL BRIDGE,NRD  12 MIN ELTRD   607.50 MAX ELLC   608.20

 3470 ENCROACHMENT STATIONS        800.0    1350.0  TYPE       1  TARGET       550.000
   25251.00      8.86    607.16      0.00    607.08    607.66       .50       .01       .08    602.20
     1500.        10.     1331.      159.       21.      220.      172.     1177.      236.     602.60
       6.09       .48      6.04       .92      .100      .030      .100     0.000    598.30    925.88
    .003893       10.       10.       10.         2         0         0   -196.15    196.05   1121.94
0
 *SECNO 25252.000

 3370 NORMAL BRIDGE,NRD  12 MIN ELTRD   607.50 MAX ELLC   608.20

 3470 ENCROACHMENT STATIONS        800.0    1350.0  TYPE       1  TARGET       550.000
   25252.00      9.00    607.30      0.00    607.22    607.79       .50       .13       .00    602.20
4314 1500.        10.     1326.      164.       21.      220.      179.     1177.      236.     602.60
       6.09       .48      6.02       .91      .100      .030      .100     0.000    598.30    925.32
    .003866       33.       33.       33.         2         0         0   -215.40    198.22   1123.54
0
 *SECNO 25253.000

 3470 ENCROACHMENT STATIONS        800.0    1350.0  TYPE       1  TARGET       550.000
   25253.00      9.30    607.60      0.00    607.52    607.83       .23       .01       .03    602.20
     1568.        53.     1341.      173.       91.      322.      285.     1177.      236.     602.60
       6.09       .59      4.17       .61      .100      .030      .100     0.000    598.30    924.04
    .000474       10.       10.       10.         2         0         0      0.00    203.16   1127.20
0
 *SECNO 27250.000
 3280 CROSS SECTION  27250.00 EXTENDED       .02 FEET

 3470 ENCROACHMENT STATIONS        350.0    1425.0  TYPE       1  TARGET      1075.000
1549 27250.00     9.02    608.02      0.00    607.95    608.03       .01      -.18       .02    600.50
     1568.       884.      384.      299.     2637.      204.     1047.     1235.      252.     600.50
       6.52       .34      1.88       .29      .100      .030      .100     0.000    599.00    350.00
    .000084     1095.     1095.     1095.         3         0         0      0.00   1075.00   1425.00
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST

 *SECNO 29700.000
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 3280 CROSS SECTION  29700.00 EXTENDED        .10 FEET

 3470 ENCROACHMENT STATIONS       325.0    1575.0  TYPE       1  TARGET     1250.000
   29700.00     9.30    608.10      0.00    608.04    608.11      .01       .08       .00    601.30
      1568.     839.      328.      401.     2390.      247.     2094.     1358.      285.    603.10
      7.19      .35      1.33       .19      .100      .030      .100     0.000    598.80    325.00
    .000046    1250.     1250.     1250.        2         0         0      0.00   1250.00   1575.00
 0
 *SECNO 32250.000
 3280 CROSS SECTION  32250.00 EXTENDED        .13 FEET

 3470 ENCROACHMENT STATIONS       325.0    1500.0  TYPE       1  TARGET     1175.000
   32250.00     9.43    608.13      0.00    608.07    608.14      .00       .02       .00    601.10
      1568.     566.      169.      832.     1473.      215.     2457.     1455.      312.    600.10
      7.85      .38       .79       .34      .040      .032      .040     0.000    598.70    325.00
    .000017     950.      950.      950.        2         0         0      0.00   1175.00   1500.00
 0
 *SECNO 35000.000
 3280 CROSS SECTION  35000.00 EXTENDED        .18 FEET

 3470 ENCROACHMENT STATIONS       275.0    1125.0  TYPE       1  TARGET      850.000
   35000.00     8.67    608.17      0.00    608.10    608.18      .01       .04       .00    601.00
      1568.     560.      344.      664.     1076.      209.      891.     1552.      343.    601.00
      8.28      .52      1.65       .75      .040      .032      .040     0.000    599.50    275.00
    .000076    1340.     1340.     1340.        0         0         0      0.00    850.00   1125.00
 0
 *SECNO 36300.000
 3280 CROSS SECTION  36300.00 EXTENDED        .21 FEET

 3470 ENCROACHMENT STATIONS       300.0    1100.0  TYPE       1  TARGET      800.000
   36300.00     8.51    608.21      0.00    608.15    608.23      .02       .05       .00    601.00
      1568.     749.      306.      514.     1198.      163.      557.     1579.      353.    601.00
      8.44      .63      1.87       .92      .040      .032      .040     0.000    599.70    300.00
    .000101     560.      560.      560.        2         0         0      0.00    800.00   1100.00
 0
 1
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     SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
     TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 *SECNO 37000.000
 3280 CROSS SECTION  37000.00 EXTENDED        .34 FEET

              PORT SHELDON RD. BRIDGE, TR 610.4, LC 608.0
   37000.00     7.54    607.94      0.00    607.86    608.42      .48       .05       .14    605.10
      1568.     144.     1383.       35.       95.      235.       19.     1584.      356.    604.50
      8.45      1.52      5.91      1.83      .040      .032      .040     0.000    600.40    403.86
    .001794     200.      200.      200.        2         0         0      0.00    183.34    587.20
 0
 *SECNO 37001.000
 3280 CROSS SECTION  37001.00 EXTENDED        .35 FEET
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3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       609.50 ELREA       609.50

  37001.00      7.55    607.95     0.00    607.88    608.64       .59       .15       .06    605.10
    1568.        0.      1563.       0.        0.      235.        0.     1534.      356.     604.50
    8.45      0.00      6.67     0.00      .040      .032      .040     0.000    600.40    520.00
  .002285       75.       75.      75.         2         0         0      0.00     43.20    563.20
0

SPECIAL BRIDGE

5070 VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK        XKOR       COFQ       RDLEN       BWC        BWP        BAREA       SS       ELCHU      ELCHD
     0.00      1.56       3.00       0.00      35.00       0.00      238.00      0.00    600.40     600.40

*SECNO 37002.000
3280 CROSS SECTION  37002.00 EXTENDED        .82 FEET

PRESSURE FLOW

 EGPRS      EGLWC        H3       QWEIR        QPR        BAREA    TRAPEZOID      ELLC       ELTRD
                                                                      AREA
  609.00    608.64      0.00         0.      1568.        238.       266.       608.00     610.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       609.50 ELREA       609.50

  37002.00      8.02    608.42     0.00    608.34    609.00       .58       .36      0.00    605.10
    1568.        0.      1568.       0.        0.      256.        0.     1585.      356.     604.50
    8.45      0.00      6.13     0.00      .040      .032      .040     0.000    600.40    520.00
  .001728       22.       22.      22.         2         0         0      0.00     43.20    563.20
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST

*SECNO 37003.000
3280 CROSS SECTION  37003.00 EXTENDED       1.26 FEET

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       609.50 ELREA       609.50

  37003.00      8.46    608.86     0.00    608.80    609.09       .23       .05       .04    605.10
    1050.        0.      1050.       0.        0.      275.        0.     1585.      356.     604.50
    8.46      0.00      3.82     0.00      .040      .032      .040     0.000    600.40    520.00
  .000611       50.       50.      50.         2         0         0      0.00     43.20    563.20
0
*SECNO 37800.000

3470 ENCROACHMENT STATIONS      920.0     1130.0  TYPE       1  TARGET      210.000
  37800.00      8.82    609.22     0.00    609.17    609.31       .09       .21       .01    606.00
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     1050.     230.     502.     313.     186.     159.     221.    1589.     357.    606.00
     8.51     1.23     3.15     1.44     .040     .032     .040    0.000   600.40   920.00
  .000451     400.     400.     400.        2        0        0     0.00   210.00  1130.00
0
 *SECNO 38500.000

 3470 ENCROACHMENT STATIONS       50.0     350.0  TYPE       1  TARGET      300.000
            GRAVEL PIT BRIDGE, TR 605.1, LC 605.3
 38500.00     9.76   609.36     0.00   609.31   609.37      .02      .05      .01   602.00
     1050.     711.     268.      71.     919.     179.      87.    1596.     359.    602.80
     8.61      .77     1.50      .81     .040     .032     .040    0.000   599.60    50.00
  .000076     350.     350.     350.        2        0        0     0.00   300.00   350.00
0
 *SECNO 38501.000
 3280 CROSS SECTION  38501.00 EXTENDED        .36 FEET


 3370 NORMAL BRIDGE,NRD  15 MIN ELTRD   605.10 MAX ELLC   606.50

 38501.00     9.76   609.36     0.00   609.31   609.37      .01      .00      .00   602.00
     1050.     819.     143.      89.     936.     165.     124.    1596.     359.    602.80
     8.61      .87      .87      .72     .040     .032     .040    0.000   599.60     0.00
  .000113      10.      10.      10.        0        0        0   -72.54   391.97   391.97
0
1
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    SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
    Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
    TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN     SSTA
    SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID    ENDST


 *SECNO 38502.000
 3280 CROSS SECTION  38502.00 EXTENDED        .36 FEET


 3370 NORMAL BRIDGE,NRD  15 MIN ELTRD   605.10 MAX ELLC   606.50

 38502.00     9.76   609.36     0.00   609.31   609.38      .01      .00      .00   602.00
     1050.     819.     143.      89.     938.     165.     124.    1597.     359.    602.80
     8.62      .87      .86      .72     .040     .032     .040    0.000   599.60     0.00
  .000112      36.      36.      36.        0        0        0   -72.54   392.05   392.05
0
 *SECNO 38503.000
 3280 CROSS SECTION  33503.00 EXTENDED        .37 FEET

 38503.00     9.76   609.36     0.00   609.31   609.38      .01      .00      .00   602.00
     1050.     689.     257.     104.     969.     179.     152.    1597.     360.    602.80
     8.63      .71     1.43      .69     .040     .032     .040    0.000   599.60     0.00
  .000069      10.      10.      10.        0        0        0     0.00   392.07   392.07
0
 *SECNO 38810.000

 3470 ENCROACHMENT STATIONS       75.0     460.0  TYPE       1  TARGET      385.000
 38810.00     8.08   609.38     0.00   609.33   609.38      .01      .01      .00   602.00
     1050.     861.     185.       3.    1734.     219.      15.    1603.     361.    601.80
     8.70      .50      .85      .24     .040     .032     .040    0.000   601.30    75.00
  .000022     150.     150.     150.        0        0        0     0.00   385.00   460.00
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0
 *SECNO 40680.000

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS     350.0     900.0  TYPE      1  TARGET      550.000
  40680.00    7.90   609.40     0.00   609.35   609.40      .00      .02      .00   602.00
    1050.     564.     166.     319.    1285.     188.     690.    1646.     371.   602.00
     9.19     .44      .89      .46     .040     .032     .040    0.000   601.50   350.00
  .000024    900.     900.     900.       1        0        0     0.00   548.19   900.00
0
1
  83/02/28.   12.07.44.                                                              PAGE  50

    SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
    Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
    TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN    SSTA
    SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID   ENDST

 *SECNO 42764.000

 3470 ENCROACHMENT STATIONS     375.0    1050.0  TYPE      1  TARGET      675.000
  42764.00    7.53   609.43     0.00   609.37   609.44      .01      .03      .00   602.00
    1050.     123.     203.     724.     327.     179.    1398.    1692.     385.   602.00
     9.63     .30     1.13      .52     .040     .032     .040    0.000   601.90   375.00
  .000041   1000.    1000.    1000.       0        0        0     0.00   675.00  1050.00
0
 *SECNO 45960.000

 3470 ENCROACHMENT STATIONS      75.0     130.0  TYPE      1  TARGET       55.000
            U/S OF THREE TRIBUTARIES
  45960.00    6.91   609.31     0.00   609.27   609.73      .41      .17      .12   604.60
    1050.      57.     635.     356.      19.     106.     101.    1727.     396.   603.70
     9.71    3.08     6.01     3.52     .040     .032     .040    0.000   602.40    75.00
  .001526   1410.    1410.    1410.       2        0        0     0.00    55.00   130.00
0
 *SECNO 46200.000
            M-21 EAST BOUND BRIDGE, TR 614.1, LC 610.3
  46200.00    7.21   609.41     0.00   609.34   610.02      .62      .23      .06   614.10
    1050.      0.     1050.      0.       0.      167.      0.     1727.     397.   608.10
     9.72    0.00     6.30      .02     .040     .032     .040    0.000   602.20  1400.08
  .002596    120.     120.     120.       0        0        0     0.00    34.94  1435.02
0
 *SECNO 46201.000

 3370 NORMAL BRIDGE,NRD    9 MIN ELTRD    614.10 MAX ELLC    614.10

  46201.00    7.34   609.54     0.00   609.48   610.13      .58      .10      .00   614.10
    1050.      0.     1050.      0.       0.      171.      0.     1727.     397.   608.10
     9.72    0.00     6.13      .02     .040     .032     .040    0.000   602.20  1400.08
  .002376     40.      40.      40.       2        0        0     0.00    34.95  1435.02
0
 *SECNO 46350.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      614.90 ELREA      614.90

            M-21 WEST BOUND BRIDGE, TR 614.9, LC 610.1
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  46350.00     6.98   609.98    0.00   609.94   610.36     .38      .22     .02   614.90
     1050.       0.    1050.      0.       0.     212.      0.    1728.    397.   608.80
     9.72     0.00     4.95    0.00     .040     .032    .040    0.000  603.00  1372.58
   .002013    100.     100.    100.        2        0       0     0.00   50.92  1423.50
0
1
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     SECNO    DEPTH    CWSEL    CRIWS    WSELK      EG       HV       HL    OLOSS  BANK ELEV
     Q        QLOB     QCH      QROB     ALOB      ACH     AROB      VOL     TWA   LEFT/RIGHT
     TIME     VLOB     VCH      VROB     XNL       XNCH    XNR       WTN    ELMIN     SSTA
     SLOPE    XLOBL    XLCH     XLOBR    ITRIAL    IDC     ICONT    CORAR  TOPWID     ENDST

 *SECNO 46351.000

 3370 NORMAL BRIDGE,NRD  13 MIN ELTRD   614.90 MAX ELLC   614.90

  46351.00     7.07   610.07    0.00   610.03   610.44     .37      .07     .00   614.90
     1050.       0.    1050.      0.       0.     216.      0.    1728.    397.   608.80
     9.73     0.00     4.36     .02     .040     .032    .040    0.000  603.00  1372.58
   .001891      38.      38.     38.        0        0       0     0.00   50.94  1423.52
0
 *SECNO 46500.000

 3470 ENCROACHMENT STATIONS     1400.0    1450.0  TYPE     1  TARGET     50.000        u/s Chicago Drive
                  C & O R.R. BRIDGE, TR 614.1, LC 609.3
  46500.00     7.89   610.19    0.00   610.15   610.49     .31      .05     .01   608.30
     1050.       0.    1050.      0.       0.     236.      0.    1728.    397. 100000.00
     9.73     0.00     4.45    0.00     .040     .032    .040    0.000  602.30  1400.00
   .001466      30.      30.     30.        2        0       0     0.00   50.00  1450.00
0

 SPECIAL BRIDGE

 SB  XK       XKOR      COFQ      RDLEN      BWC       BWP       BAREA      SS       ELCHU     ELCHD
     0.00     1.92      2.50      0.00      24.00      0.00     1933.00    0.00     602.30    602.30

 *SECNO 46518.000
 1860 XLCEL OF    614.10 EXCEEDS RDEL OF     609.30
 1860 XLCEL OF    614.10 EXCEEDS RDEL OF     609.30

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS    610.196   EGLWC    610.489   ELLC    609.300   PCWSE    610.187   ELTRD    614.100

 3370 NORMAL BRIDGE,NRD   6 MIN ELTRD   614.10 MAX ELLC   609.30 —

 3470 ENCROACHMENT STATIONS     1400.0    1451.0  TYPE     1  TARGET     51.000
  46518.00     7.92   610.22    0.00   610.19   610.52     .30      .03     .00   608.30
     1050.       0.    1050.      0.       0.     240.      0.    1728.    397. 100000.00
     9.73     0.00     4.38    0.00     .040     .032    .040    0.000  602.30  1400.00
   .001424      18.      18.     18.        2        0       0     0.00   51.00  1451.00
0
1
 83/02/28.  12.07.44.                                                          PAGE  52
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SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA     LEFT/RIGHT
TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


*SECNO 46600.000

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS      1350.0     1430.0  TYPE        1  TARGET         80.000
 46600.00     7.07    609.37     0.00   609.32    611.27      1.90       .27       .48    608.30
   1807.        0.     1807.       0.       0.      163.        0.     1729.      397. 100000.00
   9.73        .03     11.06     0.00     .040      .032      .040     0.000    602.30   1399.91
 .008392      100.       75.       50.       3         0         0      0.00     30.09   1430.00
0
 *SECNO 46850.000
3280 CROSS SECTION  46850.00 EXTENDED       4.23 FEET


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS  --  1300.0     1525.0  TYPE        1  TARGET      -1300.000
 ELENCL    1475.00  ELENCR  100000.00
            SECTION 468+50
 46850.00     8.83    611.93     0.00   611.93    612.07       .14       .63       .18    610.50
   1807.        0.     1290.     517.       0.      391.      234.     1731.      398.    610.50
   9.76       0.00      3.30     2.21     .040      .032      .040     0.000    603.10   1300.00
 .001164      360.      260.     210.        3         0         0      0.00    225.00   1525.00
0
 *SECNO 47560.000
 3280 CROSS SECTION  47560.00 EXTENDED       4.10 FEET


 3470 ENCROACHMENT STATIONS --  1320.0     1700.0  TYPE        1  TARGET        380.000
            STATION 475+60
 47560.00     9.20    612.50     0.00   612.49    612.59       .09       .51       .01    610.80
   1807.       20.      885.     902.      28.      281.      625.     1744.      402.    611.20
   9.84        .72      3.15     1.44     .040      .032      .040     0.000    603.30   1367.26
 .000462      810.      710.     760.        3         0         0      0.00    332.74   1700.00
0
 *SECNO 48600.000
 3280 CROSS SECTION  48600.00 EXTENDED       2.64 FEET

1
 83/02/28.   12.07.44.                                                                          PAGE   53

 SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
 Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
 TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
 SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST


 3470 ENCROACHMENT STATIONS      800.0     1320.0  TYPE        1  TARGET        520.000
  ELENCL    610.50  ELENCR    610.50
  48600.00     8.94    612.84     0.00   612.84    612.89       .05       .30       .00    608.00
```

1080 · 611.2 · Change in discharge causing high stage at 46850. · No effect @ 47560 · See "production" run w/ 0, 5?, 100yr, 500yr profiles · 610.8 · 612.5

```
    1807.       32.      656.     1119.       30.      269.     1027.     1768.      411.     610.80
    10.00       1.06     2.44     1.09      .040      .032      .040     0.000    603.90    865.79
  .000244      800.      850.     950.         2         0         0      0.00    454.21   1320.00
0
 *SECNO 50000.000

 3265 DIVIDED FLOW

 50000.00       8.45   613.25     0.00    613.25    613.59       .34       .61       .09    606.20
    1807.       340.    1466.       0.      167.      283.        1.     1797.      421.     612.80
    10.09       2.04     5.09      .21      .040      .032      .040     0.000    604.80   1913.82
  .000965      1410.    1410.    1410.         2         0         0      0.00    151.80   2502.47
0
 *SECNO 50100.000

 3301 HV CHANGED MORE THAN HVINS


 3470 ENCROACHMENT STATIONS     2000.0     2026.0  TYPE       1  TARGET       26.000
  ELENCL      616.00  ELENCR      616.00
  50100.00      7.79   612.79     0.00    612.79    614.04      1.25       .18       .27    606.50
    1807.         0.    1807.       0.        0.      201.        0.     1798.      421.     616.00
    10.09       0.00     8.98     0.00      .040      .032      .040     0.000    605.00   2000.00
  .004371       100.     100.     100.         2         0         0      0.00     26.00   2026.00
0
 *SECNO 50101.000

 3370 NORMAL BRIDGE,NRD  12 MIN ELTRD   616.00 MAX ELLC   616.00

  50101.00      7.73   612.73   610.35    612.73    614.07      1.34       .00       .03    606.50
    1807.         0.    1807.       0.        0.      194.        0.     1798.      421.     606.10
    10.09       0.00     9.30     0.00      .040      .032      .040     0.000    605.00   1949.09
  .004921         1.       1.       1.         4        15         0   -128.64    -84.39   2033.49
0
1
  83/02/28.   12.07.44.                                                                      PAGE   54


    SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 50150.000

 3370 NORMAL BRIDGE,NRD  12 MIN ELTRD   616.00 MAX ELLC   616.00

  50150.00      7.96   612.96   610.35    612.96    614.23      1.27       .15       .01    606.50
    1807.         0.    1807.       0.        0.      200.        0.     1798.      421.     606.10
    10.09       0.00     9.04     0.00      .040      .032      .040     0.000    605.00   1945.58
  .004539        32.      32.      32.         4        15         0   -143.17     88.23   2033.81
0
 *SECNO 50151.000

 3470 ENCROACHMENT STATIONS     2000.0     2026.0  TYPE       1  TARGET       26.000
  ELENCL      614.00  ELENCR      614.00
  50151.00      8.08   613.08     0.00    613.08    614.24      1.16       .00       .01    606.50
    1807.         0.    1807.       0.        0.      209.        0.     1798.      421.     614.00
    10.09       0.00     8.65     0.00      .040      .032      .040     0.000    605.00   2000.00
```

BALSAM
Drive

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   .003942        1.       1.       1.        2         0         0      0.00    26.00  2026.00
0
 *SECNO 50200.000

 3301 HV CHANGED MORE THAN HVINS

  50200.00      9.01    614.01    -0.00    614.01    614.40       .39       .08       .08   606.50
     1807.      403.     1324.      80.      178.      233.       33.     1798.      421.   606.10
    10.10       2.26      5.68     2.39      .040      .032      .040     0.000    605.00  1929.82
   .000858      50.       50.      50.        3         0         0      0.00    105.44  2035.26
0
 *SECNO 50400.000
 3280 CROSS SECTION  50400.00 EXTENDED       .33 FEET

  50400.00      9.43    614.53    -0.00    614.52    614.61       .09       .18       .03   614.00
     1807.       1.      479.    1327.        1.      137.      719.     1801.      422.   614.20
    10.12        .53      3.49     1.85      .040      .032      .040     0.000    605.10   707.13
   .000765      250.      240.     200.       2         0         0      0.00    342.87  1050.00
0
 *SECNO 50500.000
 3280 CROSS SECTION  50500.00 EXTENDED       .31 FEET

  50500.00      9.20    614.30    614.12   614.30    614.89       .58       .13       .15   614.00
     1807.       1.     1443.      364.       2.      211.      247.     1803.      423.   614.00
    10.13        .53      6.33     1.47      .040      .032      .040     0.000    605.10   699.84
   .002416      100.      100.     100.       6         9         0      0.00    400.16  1100.00
0
1
  83/02/28.    12.07.44.                                                                              PAGE   55

   SECNO      DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS   BANK ELEV
     Q        QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN      ELMIN      SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR    TOPWID     ENDST

 *SECNO 50501.000
 3280 CROSS SECTION  50501.00 EXTENDED       .76 FEET

 3370 NORMAL BRIDGE,NRD  14 MIN ELTRD   613.30 MAX ELLC   615.20

  50501.00      9.66    614.76    -0.00    614.76    614.93       .17       .00       .04   614.00
     1807.      14.      678.     1115.      11.      167.      407.     1803.      423.   614.00
    10.13       1.28      4.06     2.74      .040      .032      .040     0.000    605.10   612.85
   .004470       1.        1.       1.        8         0         0    -60.00    487.15  1100.00
0
 *SECNO 50526.000
 3280 CROSS SECTION  50526.00 EXTENDED       .84 FEET

 3370 NORMAL BRIDGE,NRD  14 MIN ELTRD   613.30 MAX ELLC   615.20

  50526.00      9.74    614.84    -0.00    614.84    614.98       .15       .05       .00   614.00
     1807.      21.      640.     1146.      23.      170.      436.     1803.      423.   614.00
    10.13        .90      3.77     2.63      .040      .032      .040     0.000    605.10   499.18
   .003758      12.       12.      12.        2         0         0    -60.00    600.82  1100.00
0
 *SECNO 50527.000
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3280 CROSS SECTION  50527.00 EXTENDED       .49 FEET

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS     710.0     750.0  TYPE     1  TARGET       40.000
  ELENCL     614.00  ELENCR     614.00
  50527.00     9.39   614.49   614.49   614.49   615.24      .74      .00      .18   614.00
     1807.       3.    1599.     205.       4.     218.     172.    1803.     423.   614.00
    10.13      .88     7.34     1.19     .040     .032     .040    0.000   605.10   695.15
  .002681       1.       1.       1.        4        8        0     0.00   404.85  1100.00
0
*SECNO 50600.000
1
 83/02/28.   12.07.44.                                                                  PAGE   56

     SECNO     DEPTH     CWSEL    CRIWS    WSELK     EG       HV       HL      OLOSS   BANK ELEV
     Q         QLOB      QCH      QROB     ALOB      ACH      AROB     VOL     TWA   LEFT/RIGHT
     TIME      VLOB      VCH      VROB     XNL       XNCH     XNR      WTN     ELMIN     SSTA
     SLOPE     XLOBL     XLCH     XLOBR    ITRIAL    IDC      ICONT    CORAR   TOPWID    ENDST

3280 CROSS SECTION  50600.00 EXTENDED      1.25 FEET

3301 HV CHANGED MORE THAN HVINS

  50600.00    10.15   615.25     0.00   615.25   615.38      .13      .09      .06   614.00
     1807.     103.     944.     760.     224.     244.     582.    1804.     424.   614.00
    10.14      .46     3.87     1.31     .040     .032     .040    0.000   605.10     0.00
  .000638      75.      75.      75.        3        0        0     0.00  1100.00  1100.00
0
*SECNO 52250.000
  52250.00     8.70   615.50     0.00   615.50   615.50      .00      .10      .01   614.00
     1807.    1350.     211.     246.    3800.     278.     982.    1921.     484.   610.60
    11.32      .36      .76      .25     .040     .032     .040    0.000   606.80   577.29
  .000022     1700.    1640.    1590.        3        0        0     0.00  2028.40  2605.68
0
*SECNO 52350.000
  52350.00     8.70   615.50     0.00   615.50   615.50      .00      .00      .00   614.00
     1807.    1350.     211.     246.    3801.     278.     983.    1933.     489.   610.60
    11.39      .36      .76      .25     .040     .032     .040    0.000   606.80   577.13
  .000022     100.     100.     100.        2        0        0     0.00  2028.66  2605.79
0
*SECNO 52400.000

3370 NORMAL BRIDGE,NRD  17 MIN ELTRD   611.40 MAX ELLC   618.00

  52400.00     8.70   615.50     0.00   615.50   615.50      .00      .00      .00   614.00
     1807.    1472.      71.     264.    3801.     210.     978.    1933.     489.   610.60
    11.39      .39      .34      .27     .040     .032     .040    0.000   606.80   577.13
  .000026       1.       1.       1.        0        0        0   -72.80  2028.67  2605.79
0
*SECNO 52370.000

3370 NORMAL BRIDGE,NRD  17 MIN ELTRD   611.40 MAX ELLC   618.00
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 52370.00     8.70   615.50     0.00   615.50   615.50      .00      .00      .00   614.00
    1807.    1472.      71.     264.    3802.     210.     979.    1934.     489.   610.60
    11.40      .39      .34      .27     .040     .032     .040    0.000   606.80   576.93
  .000026      12.      12.      12.        0        0        0   -72.80  2029.00  2605.93
0
1
 83/02/28.  12.07.44.                                                                       PAGE   57

    SECNO    DEPTH    CWSEL    CRIWS    WSELK       EG       HV       HL    OLOSS   BANK ELEV
    Q        QLOB     QCH      QROB     ALOB      ACH      AROB     VOL      TWA    LEFT/RIGHT
    TIME     VLOB     VCH      VROB     XNL       XNCH     XNR      WTN     ELMIN     SSTA
    SLOPE    XLOBL    XLCH     XLOBR    ITRIAL    IDC      ICONT    CORAR   TOPWID    ENDST

*SECNO 52371.000
 52371.00     8.70   615.50     0.00   615.50   615.50      .00      .00      .00   614.00
    1807.    1350.     211.     246.    3802.     278.     983.    1935.     489.   610.60
    11.40      .36      .76      .25     .040     .032     .040    0.000   606.80   576.92
  .000022       1.       1.       1.        0        0        0     0.00  2029.02  2605.94
0
*SECNO 52450.000
 52450.00     8.70   615.50     0.00   615.50   615.50      .00      .00      .00   614.00
    1807.    1350.     211.     246.    3803.     278.     984.    1940.     492.   610.60
    11.44      .35      .76      .25     .040     .032     .040    0.000   606.80   576.73
  .000022      50.      50.      50.        0        0        0     0.00  2029.34  2606.07
0
1
 83/02/28.  12.07.44.                                                                       PAGE   58
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                                                            THIS RUN EXECUTED  83/02/28.    12.07.49.
 ***********************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
   ERROR CORR -   01,02,03,04,05
   MODIFICATION -   50,51,52,53,54,55
 ***********************************************************
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

RUSH CREEK

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENG	STENCL	STCHL	STCHR	STENCR
2200.000	596.50	0.00	597.66	112.36	17.66	3396.39	34.95	0.00	0.00	75.00	138.00	0.00
2200.000	596.60	0.00	597.72	114.73	19.43	3392.31	37.26	0.00	0.00	75.00	138.00	0.00
2250.000	596.60	0.00	597.77	63.00	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
2250.000	596.68	0.00	597.83	63.00	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
2251.000	596.59	0.00	597.78	63.00	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
2251.000	596.68	0.00	597.83	63.00	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00

	2252.000	596.62	0.00	597.81	63.00	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
	2252.000	596.71	0.00	597.86	63.00	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
	2253.000	596.65	0.00	597.81	63.00	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
	2253.000	596.74	0.00	597.87	63.00	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
	2350.000	596.62	0.00	597.99	128.96	84.57	3353.38	11.05	0.00	0.00	75.00	162.00	0.00
	2350.000	596.73	0.03	598.03	130.40	89.76	3347.80	11.44	0.00	0.00	75.00	162.00	0.00
*	2351.000	596.85	0.00	599.23	60.11	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
*	2351.000	596.90	0.00	599.23	60.19	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
*	2352.000	597.02	0.00	599.51	60.41	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
*	2352.000	597.02	0.00	599.51	60.41	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
	2353.000	598.08	0.00	599.74	62.28	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
	2353.000	598.08	0.00	599.74	62.28	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
	2354.000	598.50	0.00	599.78	63.00	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
	2354.000	598.50	0.00	599.78	63.00	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
	3000.000	599.28	0.00	599.94	162.60	252.86	2997.63	198.50	0.00	0.00	75.00	138.00	0.00
	3000.000	599.28	0.00	599.94	162.60	252.86	2997.63	198.50	0.00	0.00	75.00	138.00	0.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	3375.000	599.93	0.00	600.94	70.92	0.00	3418.45	30.55	0.00	0.00	70.00	132.00	0.00
	3375.000	599.93	0.00	600.94	70.92	0.00	3418.45	30.55	0.00	0.00	70.00	132.00	0.00
	3400.000	600.01	0.00	601.03	61.97	0.00	3449.00	0.00	62.00	70.00	70.00	132.00	132.00
	3400.000	600.01	0.00	601.03	61.97	0.00	3449.00	0.00	62.00	70.00	70.00	132.00	132.00
	3401.000	600.02	0.00	601.03	71.32	0.00	3448.96	.04	0.00	0.00	70.00	132.00	0.00
	3401.000	600.02	0.00	601.03	71.32	0.00	3448.96	.04	0.00	0.00	70.00	132.00	0.00
	3415.000	600.05	0.00	601.05	71.49	0.00	3448.96	.03	0.00	0.00	70.00	132.00	0.00
	3415.000	600.05	0.00	601.05	71.49	0.00	3448.96	.03	0.00	0.00	70.00	132.00	0.00
	3420.000	600.20	0.00	601.13	72.69	0.00	3416.38	32.62	0.00	0.00	70.00	132.00	0.00
	3420.000	600.20	0.00	601.13	72.69	0.00	3416.38	32.62	0.00	0.00	70.00	132.00	0.00
*	3425.000	599.05	0.00	602.25	59.68	93.70	3313.90	41.39	0.00	0.00	100.00	132.00	0.00
*	3425.000	599.05	0.00	602.25	59.68	93.70	3313.90	41.39	0.00	0.00	100.00	132.00	0.00
	3825.000	602.06	0.00	603.34	91.18	206.35	3202.64	40.00	0.00	0.00	869.00	905.00	0.00
	3825.000	602.06	0.00	603.34	91.18	206.35	3202.64	40.00	0.00	0.00	869.00	905.00	0.00
	3875.000	602.07	0.00	603.46	42.00	0.00	3449.00	0.00	42.00	870.00	870.00	912.00	912.00
	3875.000	602.07	0.00	603.46	42.00	0.00	3449.00	0.00	42.00	870.00	870.00	912.00	912.00
	3876.000	602.07	0.00	603.46	42.00	0.00	3449.00	0.00	42.00	870.00	870.00	912.00	912.00
	3876.000	602.07	0.00	603.46	42.00	0.00	3449.00	0.00	42.00	870.00	870.00	912.00	912.00
	3900.000	602.18	0.00	603.53	42.00	0.00	3449.00	0.00	42.00	870.00	870.00	912.00	912.00
	3900.000	602.18	0.00	603.53	42.00	0.00	3449.00	0.00	42.00	870.00	870.00	912.00	912.00

3910.000	602.43	0.00	603.57	60.00	58.47	3319.62	70.92	60.00	860.00	870.00	912.00	920.00
3910.000	602.43	0.00	603.57	60.00	58.47	3319.62	70.92	60.00	860.00	870.00	912.00	920.00
3925.000	603.00	0.00	603.68	418.67	213.70	2752.74	482.56	0.00	0.00	867.00	906.00	0.00
3925.000	603.00	0.00	603.68	418.67	213.70	2752.74	482.56	1000.00	200.00	867.00	906.00	1200.00
6250.000	604.35	0.00	604.75	609.87	112.35	2310.20	892.45	0.00	0.00	876.00	913.00	0.00
6250.000	604.35	-.00	604.75	500.00	112.58	2320.07	882.35	500.00	700.00	876.00	913.00	1200.00
8500.000	605.01	0.00	605.25	794.66	836.13	2176.40	302.47	0.00	0.00	1500.00	1540.00	0.00
8500.000	605.01	.01	605.25	776.25	837.89	2173.82	303.29	825.00	825.00	1500.00	1540.00	1650.00
9750.000	604.81	0.00	605.72	588.89	353.99	2782.95	178.06	0.00	0.00	1492.00	1523.00	0.00
9750.000	604.81	-.00	605.74	542.47	354.49	2798.09	162.42	600.00	1100.00	1492.00	1523.00	1700.00
10700.000	606.03	0.00	606.33	1225.80	170.18	2438.26	706.56	0.00	0.00	1284.00	1326.00	0.00
10700.000	606.03	.00	606.37	1080.00	177.06	2538.26	599.68	900.00	720.00	1284.00	1326.00	1800.00
11700.000	606.31	0.00	606.59	1006.50	67.39	1862.91	1384.70	0.00	0.00	500.00	530.00	0.00
11700.000	606.38	.06	606.64	988.68	67.40	1836.52	1411.08	1000.00	475.00	500.00	530.00	1475.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
12000.000	605.72	0.00	606.92	681.40	63.47	3157.50	94.04	0.00	0.00	1690.00	1729.00	0.00
12000.000	605.81	.09	606.95	719.46	66.08	3133.15	115.77	950.00	1650.00	1690.00	1729.00	2600.00
12001.000	605.74	0.00	606.92	692.23	64.05	3152.33	98.62	0.00	0.00	1690.00	1729.00	0.00
12001.000	605.81	.07	606.95	724.76	65.82	3135.06	114.13	0.00	0.00	1690.00	1729.00	0.00
12800.000	607.11	0.00	607.20	1599.33	58.50	1016.32	411.19	0.00	0.00	300.00	330.00	0.00
12800.000	607.18	.07	607.26	1450.00	0.00	990.70	495.30	1450.00	300.00	300.00	330.00	1750.00
13500.000	607.21	0.00	607.21	2125.01	574.52	90.41	821.07	0.00	0.00	1020.00	1045.00	0.00
13500.000	607.27	.06	607.27	1775.00	595.25	107.36	783.38	1775.00	200.00	1020.00	1045.00	1975.00
14200.000	607.21	0.00	607.21	2174.17	870.61	99.93	515.46	0.00	0.00	1490.00	1515.00	0.00
14200.000	607.28	.06	607.28	2035.00	874.80	100.53	510.67	2035.00	150.00	1490.00	1515.00	2185.00
17500.000	607.19	0.00	607.24	1002.11	664.82	648.69	172.49	0.00	0.00	1642.00	1668.00	0.00
17500.000	607.25	.06	607.30	820.10	679.37	670.63	136.00	1050.00	700.00	1642.00	1668.00	1750.00
19100.000	607.26	0.00	607.26	1478.27	35.88	133.33	1330.80	0.00	0.00	1005.00	1028.00	0.00
19100.000	607.33	.07	607.33	1150.00	38.36	162.36	1299.28	1150.00	950.00	1005.00	1028.00	2100.00
20200.000	607.27	0.00	607.27	1383.23	27.28	220.59	1252.12	0.00	0.00	1135.00	1171.00	0.00
20200.000	607.34	.07	607.34	1080.00	0.00	225.65	1274.35	900.00	1135.00	1135.00	1171.00	2215.00
23700.000	607.28	0.00	607.29	638.71	13.82	417.03	1069.14	0.00	0.00	1048.00	1084.00	0.00
23700.000	607.36	.08	607.36	595.12	13.22	415.68	1071.10	675.00	1018.00	1048.00	1084.00	1823.00
24000.000	607.27	0.00	607.31	981.99	239.90	752.75	507.35	0.00	0.00	1044.00	1077.60	0.00
24000.000	607.34	.07	607.39	720.00	224.63	763.30	512.06	600.00	900.00	1044.00	1077.60	1620.00
25250.000	607.26	0.00	607.50	197.58	43.94	1312.60	143.46	700.00	700.00	964.00	1002.40	1540.00
25250.000	607.34	.08	607.57	198.88	45.62	1305.64	148.74	700.00	700.00	964.00	1002.40	1540.00

25251.000	607.08	0.00	607.59	194.82	10.21	1334.04	155.75	550.00	800.00	964.00	1002.40	1350.00
25251.000	607.16	.08	607.66	196.05	10.18	1330.92	158.90	550.00	800.00	964.00	1002.40	1350.00
25252.000	607.22	0.00	607.72	197.01	10.17	1328.77	161.07	550.00	800.00	964.00	1002.40	1350.00
25252.000	607.30	.08	607.79	198.22	10.15	1326.30	163.55	550.00	800.00	964.00	1002.40	1350.00
25253.000	607.52	0.00	607.76	201.85	51.63	1348.47	167.91	550.00	800.00	964.00	1002.40	1350.00
25253.000	607.60	.08	607.83	203.16	53.35	1341.34	173.32	550.00	800.00	964.00	1002.40	1350.00
27250.000	607.95	0.00	607.97	1201.27	896.07	330.63	291.30	0.00	0.00	1032.00	1056.00	0.00
27250.000	608.02	.07	608.03	1075.00	884.06	384.44	299.50	1075.00	350.00	1032.00	1056.00	1425.00
29700.000	608.04	0.00	608.04	1430.09	856.51	323.87	387.62	0.00	0.00	700.00	730.00	0.00
29700.000	608.10	.07	608.11	1250.00	839.49	327.60	400.91	1250.00	325.00	700.00	730.00	1575.00
32250.000	608.07	0.00	608.07	1306.46	577.55	169.88	820.57	0.00	0.00	705.00	730.00	0.00
32250.000	608.13	.07	608.14	1175.00	566.39	169.36	832.25	1175.00	325.00	705.00	730.00	1500.00

SECNO	CWSEL	DIFKHS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
35000.000	608.10	0.00	608.12	1060.00	551.90	348.15	667.95	0.00	0.00	815.00	840.00	0.00
35000.000	608.17	.07	608.18	850.00	559.91	343.75	664.34	850.00	275.00	815.00	840.00	1125.00
36300.000	608.15	0.00	608.17	950.00	723.28	307.67	537.04	0.00	0.00	930.00	950.00	0.00
36300.000	608.21	.06	608.23	800.00	748.62	305.80	513.58	800.00	300.00	930.00	950.00	1100.00
37000.000	607.86	0.00	608.37	177.38	130.53	1404.70	32.77	0.00	0.00	520.00	563.20	0.00
37000.000	607.94	.08	608.42	183.34	144.14	1388.36	35.49	0.00	0.00	520.00	563.20	0.00
37001.000	607.88	0.00	608.59	43.20	0.00	1568.00	0.00	0.00	0.00	520.00	563.20	0.00
37001.000	607.95	.06	608.64	43.20	0.00	1568.00	0.00	0.00	0.00	520.00	563.20	0.00
37002.000	608.34	0.00	608.94	43.20	0.00	1568.00	0.00	0.00	0.00	520.00	563.20	0.00
37002.000	608.42	.08	609.00	43.20	0.00	1568.00	0.00	0.00	0.00	520.00	563.20	0.00
37003.000	608.80	0.00	609.03	43.20	0.00	1050.00	0.00	0.00	0.00	520.00	563.20	0.00
37003.000	608.86	.06	609.09	43.20	0.00	1050.00	0.00	0.00	0.00	520.00	563.20	0.00
37800.000	609.17	0.00	609.26	210.00	225.58	509.35	315.03	210.00	920.00	1015.00	1038.00	1130.00
37800.000	609.22	.06	609.31	210.00	229.78	502.24	317.98	210.00	920.00	1015.00	1038.00	1130.00
38500.000	609.31	0.00	609.32	391.33	686.11	260.00	103.90	0.00	0.00	310.00	331.50	0.00
38500.000	609.36	.05	609.37	300.00	711.39	267.71	70.90	300.00	50.00	310.00	331.50	350.00
38501.000	609.31	0.00	609.32	391.36	817.49	144.77	87.74	0.00	0.00	310.00	331.50	0.00
38501.000	609.36	.05	609.37	391.97	818.55	142.86	88.59	0.00	0.00	310.00	331.50	0.00
38502.000	609.31	0.00	609.33	391.41	817.58	144.60	87.81	0.00	0.00	310.00	331.50	0.00
38502.000	609.36	.05	609.38	392.05	818.68	142.62	88.70	0.00	0.00	310.00	331.50	0.00
38503.000	609.31	0.00	609.33	391.44	686.54	259.48	103.98	0.00	0.00	310.00	331.50	0.00
38503.000	609.36	.05	609.38	392.07	688.94	256.60	104.46	0.00	0.00	310.00	331.50	0.00
38810.000	609.33	0.00	609.33	499.37	829.83	169.24	50.93	0.00	0.00	430.00	458.00	0.00
38810.000	609.38	.05	609.38	385.00	861.32	185.23	3.45	385.00	75.00	430.00	458.00	460.00

40680.000	609.35	0.00	609.35	680.53	575.77	157.26	316.97	0.00	0.00	710.00	734.00	0.00
40680.000	609.40	.05	609.40	548.19	564.18	166.40	319.42	550.00	350.00	710.00	734.00	900.00
42764.000	609.37	0.00	609.38	843.18	120.47	196.92	732.61	0.00	0.00	568.00	592.00	0.00
42764.000	609.43	.05	609.44	675.00	122.67	203.00	724.33	675.00	375.00	568.00	592.00	1050.00
45960.000	609.27	0.00	609.66	68.62	78.10	624.87	347.03	0.00	0.00	80.00	96.00	0.00
45960.000	609.31	.05	609.73	55.00	57.29	636.24	356.48	55.00	75.00	80.00	96.00	130.00
46200.000	609.34	0.00	609.97	34.94	0.00	1050.00	.00	0.00	0.00	1400.00	1435.00	0.00
46200.000	609.41	.07	610.02	34.94	0.00	1050.00	.00	0.00	0.00	1400.00	1435.00	0.00
46201.000	609.48	0.00	610.08	34.95	0.00	1050.00	.00	0.00	0.00	1400.00	1435.00	0.00
46201.000	609.54	.06	610.13	34.95	0.00	1050.00	.00	0.00	0.00	1400.00	1435.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
46350.000	609.94	0.00	610.33	50.92	0.00	1050.00	0.00	0.00	0.00	1372.50	1423.50	0.00
46350.000	609.93	.05	610.36	50.92	0.00	1050.00	0.00	0.00	0.00	1372.50	1423.50	0.00
46351.000	610.03	0.00	610.40	50.94	0.00	1050.00	.00	0.00	0.00	1372.50	1423.50	0.00
46351.000	610.07	.04	610.44	50.94	0.00	1050.00	.00	0.00	0.00	1372.50	1423.50	0.00
46500.000	610.15	0.00	610.46	50.00	0.00	1050.00	0.00	50.00	1400.00	1400.00	1452.00	1450.00
46500.000	610.19	.04	610.49	50.00	0.00	1050.00	0.00	50.00	1400.00	1400.00	1452.00	1450.00
46518.000	610.19	0.00	610.49	51.00	0.00	1050.00	0.00	51.00	1400.00	1400.00	1452.00	1451.00
46518.000	610.22	.04	610.52	51.00	0.00	1050.00	0.00	51.00	1400.00	1400.00	1452.00	1451.00
46600.000	609.32	0.00	611.26	30.09	.00	1807.00	0.00	80.00	1350.00	1400.00	1452.00	1430.00
46600.000	609.37	.05	611.27	30.09	.00	1807.00	0.00	80.00	1350.00	1400.00	1452.00	1430.00
46850.000	611.93	0.00	612.07	225.00	0.00	1290.12	516.88	1300.00	1300.00	1300.00	1425.00	1525.00
46850.000	611.93	.00	612.07	225.00	0.00	1289.84	517.16	1300.00	1300.00	1300.00	1425.00	1525.00
47560.000	612.49	0.00	612.58	332.69	19.93	885.48	901.59	380.00	1320.00	1400.00	1445.00	1700.00
47560.000	612.50	.00	612.59	332.74	19.97	885.07	901.96	380.00	1320.00	1400.00	1445.00	1700.00
48600.000	612.84	0.00	612.89	454.20	32.07	656.67	1118.27	520.00	800.00	880.00	920.00	1320.00
48600.000	612.84	.00	612.89	454.21	32.08	656.31	1118.61	520.00	800.00	880.00	920.00	1320.00
50000.000	613.25	0.00	613.59	151.19	340.23	1466.57	.19	0.00	0.00	2000.00	2040.00	0.00
50000.000	613.25	.00	613.59	151.80	340.35	1466.45	.20	0.00	0.00	2000.00	2040.00	0.00
50100.000	612.79	0.00	614.04	26.00	0.00	1807.00	0.00	26.00	2000.00	2000.00	2026.00	2026.00
50100.000	612.79	.00	614.04	26.00	0.00	1807.00	0.00	26.00	2000.00	2000.00	2026.00	2026.00
50101.000	612.73	0.00	614.07	84.38	0.00	1807.00	0.00	0.00	0.00	2000.00	2026.00	0.00
50101.000	612.73	.00	614.07	84.39	0.00	1807.00	0.00	0.00	0.00	2000.00	2026.00	0.00
50150.000	612.96	0.00	614.23	88.22	0.00	1807.00	0.00	0.00	0.00	2000.00	2026.00	0.00
50150.000	612.96	.00	614.23	88.23	0.00	1807.00	0.00	0.00	0.00	2000.00	2026.00	0.00
50151.000	613.08	0.00	614.24	26.00	0.00	1807.00	0.00	26.00	2000.00	2000.00	2026.00	2026.00
50151.000	613.08	.00	614.24	26.00	0.00	1807.00	0.00	26.00	2000.00	2000.00	2026.00	2026.00

50200.000	614.01	0.00	614.40	105.42	402.53	1324.55	79.87	0.00	0.00	2000.00	2026.00	0.00
50200.000	614.01	.00	614.40	105.44	402.65	1324.47	79.88	0.00	0.00	2000.00	2026.00	0.00
50400.000	614.52	0.00	614.61	342.87	.66	479.12	1327.23	0.00	0.00	710.00	732.00	0.00
50400.000	614.53	.00	614.61	342.87	.66	479.03	1327.32	0.00	0.00	710.00	732.00	0.00
50500.000	614.30	0.00	614.89	400.13	.82	1443.19	362.99	0.00	0.00	710.00	745.00	0.00
50500.000	614.30	.00	614.89	400.16	.83	1442.51	363.66	0.00	0.00	710.00	745.00	0.00
50501.000	614.76	0.00	614.93	487.00	13.82	678.10	1115.08	0.00	0.00	710.00	745.00	0.00
50501.000	614.76	.00	614.93	487.15	13.83	678.05	1115.13	0.00	0.00	710.00	745.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
50526.000	614.84	0.09	614.98	600.77	21.01	639.71	1146.28	0.00	0.00	710.00	745.00	0.00
50526.000	614.84	.00	614.98	600.82	21.01	639.69	1146.29	0.00	0.00	710.00	745.00	0.00
* 50527.000	614.49	0.00	615.24	404.85	3.44	1598.96	204.60	40.00	710.00	710.00	745.00	750.00
* 50527.000	614.49	.00	615.24	404.85	3.44	1598.96	204.60	40.00	710.00	710.00	745.00	750.00
50600.000	615.25	0.00	615.38	1100.00	103.00	943.87	760.13	0.00	0.00	710.00	745.00	0.00
50600.000	615.25	-.00	615.38	1100.00	103.00	943.87	760.13	0.00	0.00	710.00	745.00	0.00
52250.000	615.50	0.00	615.50	2028.40	1350.03	210.99	245.99	0.00	0.00	2000.00	2040.00	0.00
52250.000	615.50	-.00	615.50	2028.40	1350.03	210.99	245.99	0.00	0.00	2000.00	2040.00	0.00
52350.000	615.50	0.00	615.50	2028.66	1350.02	210.95	246.03	0.00	0.00	2000.00	2040.00	0.00
52350.000	615.50	-.00	615.50	2028.66	1350.02	210.95	246.03	0.00	0.00	2000.00	2040.00	0.00
52400.000	615.50	0.00	615.50	2028.67	1471.93	70.76	264.31	0.00	0.00	2000.00	2040.00	0.00
52400.000	615.50	-.00	615.50	2028.67	1471.93	70.75	264.31	0.00	0.00	2000.00	2040.00	0.00
52370.000	615.50	0.00	615.50	2029.00	1471.89	70.75	264.37	0.00	0.00	2000.00	2040.00	0.00
52370.000	615.50	-.00	615.50	2029.00	1471.89	70.75	264.37	0.00	0.00	2000.00	2040.00	0.00
52371.000	615.50	0.00	615.50	2029.02	1350.02	210.89	246.09	0.00	0.00	2000.00	2040.00	0.00
52371.000	615.50	-.00	615.50	2029.02	1350.02	210.89	246.09	0.00	0.00	2000.00	2040.00	0.00
52450.000	615.50	0.00	615.50	2029.34	1350.01	210.84	246.14	0.00	0.00	2000.00	2040.00	0.00
52450.000	615.50	-.00	615.50	2029.34	1350.01	210.84	246.14	0.00	0.00	2000.00	2040.00	0.00

RUSH CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2200.000	0.00	0.00	0.00	588.97	3449.00	596.50	0.00	597.66	20.39	8.71	448.42	763.89
2200.000	0.00	0.00	0.00	588.97	3449.00	596.60	0.00	597.72	19.28	8.56	459.77	785.51

2250.000	50.00	0.00	0.00	588.97	3449.00	596.60	0.00	597.77	22.15	8.70	396.38	732.78
2250.000	50.00	0.00	0.00	588.97	3449.00	596.68	0.00	597.83	21.21	8.58	401.99	748.94
2251.000	1.00	607.50	607.50	588.97	3449.00	596.59	0.00	597.78	22.65	8.75	394.04	724.71
2251.000	1.00	607.50	607.50	588.97	3449.00	596.68	0.00	597.83	21.70	8.63	399.56	740.46
2252.000	12.00	607.50	607.50	588.97	3449.00	596.62	0.00	597.81	22.45	8.73	395.11	727.75
2252.000	12.00	607.50	607.50	588.97	3449.00	596.71	0.00	597.86	21.53	8.61	400.56	743.32
2253.000	1.00	0.00	0.00	588.97	3449.00	596.65	0.00	597.81	21.60	8.63	399.62	742.09
2253.000	1.00	0.00	0.00	588.97	3449.00	596.74	0.00	597.87	20.72	8.52	405.02	757.69
2350.000	40.00	0.00	0.00	589.30	3449.00	596.62	0.00	597.99	44.62	9.53	421.25	516.30
2350.000	40.00	0.00	0.00	589.30	3449.00	596.73	0.00	598.03	41.00	9.27	435.40	538.64
* 2351.000	30.00	0.00	0.00	589.30	3449.00	596.85	596.85	599.23	78.87	12.33	278.51	383.36
* 2351.000	30.00	0.00	0.00	589.30	3449.00	596.90	596.90	599.23	76.59	12.26	281.29	394.10
* 2352.000	1.00	601.00	600.10	589.30	3449.00	597.02	597.02	599.51	84.99	12.65	272.67	374.13
* 2352.000	1.00	601.00	600.10	589.30	3449.00	597.02	597.02	599.51	84.99	12.65	272.67	374.13
2353.000	24.00	601.00	600.10	589.30	3449.00	598.08	0.00	599.74	47.28	10.35	333.34	501.58
2353.000	24.00	601.00	600.10	589.30	3449.00	598.08	0.00	599.74	47.28	10.35	333.34	501.58
2354.000	1.00	0.00	0.00	589.30	3449.00	598.50	0.00	599.78	31.72	9.07	380.21	612.40
2354.000	1.00	0.00	0.00	589.30	3449.00	598.50	0.00	599.78	31.72	9.07	380.21	612.40
3000.000	50.00	0.00	0.00	589.30	3449.00	599.28	0.00	599.94	13.66	6.98	766.38	933.17
3000.000	50.00	0.00	0.00	589.30	3449.00	599.28	0.00	599.94	13.66	6.98	766.38	933.17
3375.000	600.00	0.00	0.00	591.60	3449.00	599.93	0.00	600.94	16.23	8.09	449.05	856.12
3375.000	600.00	0.00	0.00	591.60	3449.00	599.93	0.00	600.94	16.23	8.09	449.05	856.12
3400.000	50.00	0.00	0.00	591.60	3449.00	600.01	0.00	601.03	18.24	8.07	427.19	807.57
3400.000	50.00	0.00	0.00	591.60	3449.00	600.01	0.00	601.03	18.24	8.07	427.19	807.57
3401.000	1.00	604.00	604.10	591.60	3449.00	600.02	0.00	601.03	15.92	8.06	428.15	864.52
3401.000	1.00	604.00	604.10	591.60	3449.00	600.02	0.00	601.03	15.92	8.06	428.15	864.52
3415.000	12.00	604.00	604.10	591.60	3449.00	600.05	0.00	601.05	15.74	8.04	429.60	869.20
3415.000	12.00	604.00	604.10	591.60	3449.00	600.05	0.00	601.05	15.74	8.04	429.60	869.20
3420.000	50.00	0.00	0.00	591.60	3449.00	600.20	0.00	601.13	14.36	7.78	467.94	910.12
3420.000	50.00	0.00	0.00	591.60	3449.00	600.20	0.00	601.13	14.36	7.78	467.94	910.12

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
* 3425.000	150.00	0.00	0.00	591.67	3449.00	599.05	599.05	602.25	45.51	14.65	298.44	511.26
* 3425.000	150.00	0.00	0.00	591.67	3449.00	599.05	599.05	602.25	45.51	14.65	298.44	511.26
3825.000	400.00	0.00	0.00	591.80	3449.00	602.06	0.00	603.34	13.35	9.44	493.68	944.04
3825.000	400.00	0.00	0.00	591.80	3449.00	602.06	0.00	603.34	13.35	9.44	493.68	944.04
3875.000	50.00	0.00	0.00	592.30	3449.00	602.07	0.00	603.46	21.07	9.45	364.86	751.40
3875.000	50.00	0.00	0.00	592.30	3449.00	602.07	0.00	603.46	21.07	9.45	364.86	751.40

3876.000	1.00	605.40	606.00	592.30	3449.00	602.07	0.00	603.46	21.06	9.45	364.91	751.57
3876.000	1.00	605.40	606.00	592.30	3449.00	602.07	0.00	603.46	21.06	9.45	364.91	751.57
3900.000	35.20	605.40	606.00	592.30	3449.00	602.18	0.00	603.53	20.28	9.33	369.63	765.81
3900.000	35.20	605.40	606.00	592.30	3449.00	602.18	0.00	603.53	20.28	9.33	359.63	765.81
3910.000	10.00	0.00	0.00	592.30	3449.00	602.43	0.00	603.57	11.97	8.73	471.37	996.78
3910.000	10.00	0.00	0.00	592.30	3449.00	602.43	0.00	603.57	11.97	8.73	471.37	996.78
3925.000	50.00	0.00	0.00	593.00	3449.00	603.00	0.00	603.68	11.14	7.37	1060.92	1033.55
3925.000	50.00	0.00	0.00	593.00	3449.00	603.00	0.00	603.68	11.14	7.37	1060.92	1033.55
6250.000	1195.00	0.00	0.00	593.30	3315.00	604.35	0.00	604.75	6.96	6.04	1547.99	1256.65
6250.000	1195.00	0.00	0.00	593.30	3315.00	604.35	0.00	604.75	7.02	6.07	1477.24	1251.10
8500.000	942.00	0.00	0.00	593.30	3315.00	605.01	0.00	605.25	3.96	4.84	2284.57	1664.98
8500.000	942.00	0.00	0.00	593.30	3315.00	605.01	0.00	605.25	3.95	4.84	2286.74	1668.66
9750.000	427.00	0.00	0.00	593.30	3315.00	604.81	601.12	605.72	12.42	8.36	1041.36	940.60
9750.000	427.00	0.00	0.00	593.30	3315.00	604.81	601.08	605.74	12.57	8.41	1003.54	935.04
10700.000	800.00	0.00	0.00	594.10	3315.00	606.03	0.00	606.33	4.32	5.14	2161.27	1594.31
10700.000	800.00	0.00	0.00	594.10	3315.00	606.03	0.00	606.37	4.69	5.35	1891.53	1531.37
11700.000	520.00	0.00	0.00	594.60	3315.00	606.31	0.00	606.59	5.41	5.57	2610.01	1424.99
11700.000	520.00	0.00	0.00	594.60	3315.00	606.38	0.00	606.64	5.16	5.46	2670.72	1459.24
12000.000	60.00	0.00	0.00	594.30	3315.00	605.72	602.78	606.92	19.06	8.98	555.27	759.35
12000.000	60.00	0.00	0.00	594.30	3315.00	605.81	602.71	606.95	18.13	8.82	620.55	778.52
12001.000	12.50	605.40	603.60	594.30	3315.00	605.74	0.00	606.92	18.84	8.94	570.21	763.66
12001.000	12.50	605.40	603.60	594.30	3315.00	605.81	0.00	606.95	18.20	8.83	616.48	777.13
12800.000	300.00	0.00	0.00	595.00	1486.00	607.11	0.00	607.20	1.45	2.94	2321.96	1233.40
12800.000	300.00	0.00	0.00	595.00	1486.00	607.18	0.00	607.26	1.90	2.85	2176.52	1077.70
13500.000	570.00	0.00	0.00	596.10	1486.00	607.21	0.00	607.21	.02	.34	16763.96	10425.94
13500.000	570.00	0.00	0.00	596.10	1486.00	607.27	0.00	607.27	-.03	.40	14118.17	8864.58
14200.000	610.00	0.00	0.00	596.10	1486.00	607.21	0.00	607.21	-.03	.39	14965.88	8857.05
14200.000	610.00	0.00	0.00	596.10	1486.00	607.23	0.00	607.28	.03	.39	14726.05	8892.64

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
17500.000	1210.00	0.00	0.00	596.20	1486.00	607.19	0.00	607.24	1.21	2.50	2758.99	1352.37
17500.000	1210.00	0.00	0.00	596.20	1486.00	607.25	0.00	607.30	1.27	2.57	2517.44	1321.07
19100.000	980.00	0.00	0.00	596.70	1500.00	607.26	0.00	607.26	.08	.60	9673.69	5459.32
19100.000	980.00	0.00	0.00	596.70	1500.00	607.33	0.00	607.33	.11	.73	7836.12	4536.21
20200.000	750.00	0.00	0.00	597.00	1500.00	607.27	0.00	607.27	.08	.64	8891.29	5225.63
20200.000	750.00	0.00	0.00	597.00	1500.00	607.34	0.00	607.34	.11	.65	7525.05	4524.63
23700.000	1295.00	0.00	0.00	597.50	1500.00	607.28	0.00	607.29	.36	1.29	3827.51	2497.34
23700.000	1295.00	0.00	0.00	597.50	1500.00	607.35	0.00	607.36	.35	1.20	3852.10	2540.65

24000.000	230.00	0.00	0.00	597.60	1500.00	607.27	0.00	607.31	1.32	2.47	2476.74	1306.52
24000.000	230.00	0.00	0.00	597.60	1500.00	607.34	0.00	607.39	1.32	2.48	2302.47	1304.03
25250.000	550.00	0.00	0.00	598.30	1590.00	607.26	0.00	607.50	5.22	4.23	628.66	656.42
25250.000	550.00	0.00	0.00	598.30	1500.00	607.34	0.00	607.57	5.00	4.19	644.59	670.96
25251.000	10.00	607.50	608.20	598.30	1500.00	607.08	0.00	607.59	39.12	6.05	409.56	239.84
25251.000	10.00	607.50	608.20	598.30	1500.00	607.16	0.00	607.66	38.93	6.04	413.94	240.40
25252.000	33.10	607.50	608.20	598.30	1500.00	607.22	0.00	607.72	38.81	6.03	417.16	240.79
25252.000	33.10	607.50	608.20	598.30	1500.00	607.30	0.00	607.79	38.66	6.02	421.07	241.24
25253.000	10.00	0.00	0.00	598.30	1568.00	607.52	0.00	607.76	4.95	4.23	681.25	704.80
25253.000	10.00	0.00	0.00	598.30	1568.00	607.60	0.00	607.83	4.74	4.17	697.61	720.08
27250.000	1095.00	0.00	0.00	599.00	1568.00	607.95	0.00	607.97	.85	1.88	3972.25	1700.59
27250.000	1095.00	0.00	0.00	599.00	1568.00	608.02	0.00	608.03	.84	1.88	3888.16	1705.42
29700.000	1250.00	0.00	0.00	598.80	1568.00	608.04	0.00	608.04	.46	1.32	4867.16	2316.28
29700.000	1250.00	0.00	0.00	598.80	1568.00	608.10	0.00	608.11	.46	1.33	4730.39	2321.75
32250.000	950.00	0.00	0.00	598.70	1568.00	608.07	0.00	608.07	.13	.80	4191.75	3747.34
32250.000	950.00	0.00	0.00	598.70	1568.00	608.13	0.00	608.14	.17	.79	4144.54	3308.67
35000.000	1340.00	0.00	0.00	599.50	1568.00	608.10	0.00	608.12	.80	1.66	2240.75	1749.64
35000.000	1340.00	0.00	0.00	599.50	1568.00	608.17	0.00	608.18	.76	1.65	2175.50	1795.99
36300.000	560.00	0.00	0.00	599.70	1568.00	608.15	0.00	608.17	1.05	1.90	1961.41	1531.03
36300.000	560.00	0.00	0.00	599.70	1568.00	608.21	0.00	608.23	1.01	1.87	1918.20	1560.56
37000.000	200.00	0.00	0.00	600.40	1568.00	607.86	0.00	608.37	19.36	6.07	333.75	356.37
37000.000	200.00	0.00	0.00	600.40	1568.00	607.94	0.00	608.42	17.94	5.91	349.08	370.15
37001.000	75.00	0.00	0.00	600.40	1568.00	607.88	0.00	608.59	23.76	6.74	232.48	321.67
37001.000	75.00	0.00	0.00	600.40	1568.00	607.95	0.00	608.64	22.85	6.67	235.22	328.02
37002.000	21.60	610.40	608.00	600.40	1568.00	608.34	0.00	608.94	18.07	6.21	252.39	368.87
37002.000	21.60	610.40	608.00	600.40	1568.00	608.42	0.00	609.08	17.28	6.13	255.77	377.15

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
37003.000	50.00	0.00	0.00	600.40	1050.00	608.80	0.00	609.03	6.32	3.86	271.94	417.72
37003.000	50.00	0.00	0.00	600.40	1050.00	608.86	0.00	609.09	6.11	3.82	274.74	424.91
37800.000	400.00	0.00	0.00	600.40	1050.00	609.17	0.00	609.26	4.76	3.22	555.27	481.25
37800.000	400.00	0.00	0.00	600.40	1050.00	609.22	0.00	609.31	4.51	3.15	566.85	494.60
38500.000	350.00	0.00	0.00	599.60	1050.00	609.31	0.00	609.32	.73	1.45	1276.73	1231.86
38500.000	350.00	0.00	0.00	599.60	1050.00	609.36	0.00	609.37	.76	1.50	1185.19	1203.21
38501.000	10.00	605.10	606.50	599.60	1050.00	609.31	0.00	609.32	1.18	.88	1205.27	964.81
38501.000	10.00	605.10	606.50	599.60	1050.00	609.36	0.00	609.37	1.13	.87	1224.40	988.16
38502.000	35.50	605.10	606.50	599.60	1050.00	609.31	0.00	609.33	1.18	.88	1206.91	966.80
38502.000	35.50	605.10	606.50	599.60	1050.00	609.36	0.00	609.38	1.12	.86	1226.92	991.25

38503.000	10.00	0.00	0.00	599.60	1050.00	609.31	0.00	609.33	.72	1.46	1280.24	1236.54
38503.000	10.00	0.00	0.00	599.60	1050.00	609.36	0.00	609.38	.69	1.43	1300.17	1263.28
38810.000	150.00	0.00	0.00	601.30	1050.00	609.33	0.00	609.33	.19	.78	2225.51	2448.10
38810.000	150.00	0.00	0.00	601.30	1050.00	609.38	0.00	609.38	.22	.85	1966.70	2261.06
40680.000	900.00	0.00	0.00	601.50	1050.00	609.35	0.00	609.35	.22	.85	2370.41	2256.91
40680.000	900.00	0.00	0.00	601.50	1050.00	609.40	0.00	609.40	.24	.89	2162.64	2161.61
42764.000	1000.00	0.00	0.00	601.90	1050.00	609.37	0.00	609.38	.39	1.11	2042.96	1676.52
42764.000	1000.00	0.00	0.00	601.90	1050.00	609.43	0.00	609.44	.41	1.13	1903.96	1646.47
45960.000	1410.00	0.00	0.00	602.40	1050.00	609.27	0.00	609.66	15.08	5.95	234.21	270.37
45960.000	1410.00	0.00	0.00	602.40	1050.00	609.31	0.00	609.73	15.26	6.01	225.70	268.79
46200.000	120.00	0.00	0.00	602.20	1050.00	609.34	0.00	609.97	27.23	6.40	164.19	201.22
46200.000	120.00	0.00	0.00	602.20	1050.00	609.41	0.00	610.02	25.96	6.30	166.69	205.09
46201.000	40.00	614.10	614.10	602.20	1050.00	609.48	0.00	610.08	24.73	6.20	169.26	211.14
46201.000	40.00	614.10	614.10	602.20	1050.00	609.54	0.00	610.13	23.76	6.13	171.41	215.39
46350.000	100.00	0.00	0.00	603.00	1050.00	609.94	0.00	610.33	20.87	5.01	209.69	229.85
46350.000	100.00	0.00	0.00	603.00	1050.00	609.98	0.00	610.36	20.13	4.95	212.03	234.02
46351.000	37.60	614.90	614.90	603.00	1050.00	610.03	0.00	610.40	19.54	4.91	214.00	237.52
46351.000	37.60	614.90	614.90	603.00	1050.00	610.07	0.00	610.44	18.91	4.86	216.18	241.46
46500.000	30.00	0.00	0.00	602.30	1050.00	610.15	0.00	610.46	15.04	4.48	234.17	270.78
46500.000	30.00	0.00	0.00	602.30	1050.00	610.19	0.00	610.49	14.66	4.45	236.08	274.24
46518.000	18.00	614.10	609.30	602.30	1050.00	610.19	0.00	610.49	14.60	4.41	237.92	274.77
46518.000	18.00	614.10	609.30	602.30	1050.00	610.22	0.00	610.52	14.24	4.38	239.82	278.20
46600.000	75.00	0.00	0.00	602.30	1807.00	609.32	0.00	611.26	86.47	11.17	161.83	194.33
46600.000	75.00	0.00	0.00	602.30	1807.00	609.37	0.00	611.27	83.92	11.06	163.37	197.25

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
46850.000	260.00	0.00	0.00	603.10	1807.00	611.93	0.00	612.07	11.71	3.30	624.36	528.16
46850.000	260.00	0.00	0.00	603.10	1807.00	611.93	0.00	612.07	11.64	3.30	625.43	529.61
47560.000	710.00	0.00	0.00	603.30	1807.00	612.49	0.00	612.58	4.63	3.16	932.32	839.51
47560.000	710.00	0.00	0.00	603.30	1807.00	612.50	0.00	612.59	4.62	3.15	933.03	840.38
48600.000	850.00	0.00	0.00	603.90	1807.00	612.84	0.00	612.89	2.45	2.44	1324.69	1154.65
48600.000	850.00	0.00	0.00	603.90	1807.00	612.84	0.00	612.89	2.44	2.44	1325.65	1155.87
50000.000	1410.00	0.00	0.00	604.80	1807.00	613.25	0.00	613.59	9.65	5.09	455.30	581.61
50000.000	1410.00	0.00	0.00	604.80	1807.00	613.25	0.00	613.59	9.65	5.09	455.48	581.81
50100.000	100.00	0.00	0.00	605.00	1807.00	612.79	0.00	614.04	43.73	8.98	201.29	273.27
50100.000	100.00	0.00	0.00	605.00	1807.00	612.79	0.00	614.04	43.71	8.98	201.32	273.33
50101.000	1.00	616.00	616.00	605.00	1807.00	612.73	610.35	614.07	49.23	9.30	194.21	257.55
50101.000	1.00	616.00	616.00	605.00	1807.00	612.73	610.35	614.07	49.21	9.30	194.24	257.60

50150.000	32.00	616.00	616.00	605.00	1807.00	612.96	610.35	614.23	45.40	9.04	199.91	268.17
50150.000	32.00	616.00	616.00	605.00	1807.00	612.96	610.35	614.23	45.39	9.04	199.94	268.22
50151.000	1.00	0.00	0.00	605.00	1807.00	613.08	0.00	614.24	39.43	8.65	208.32	287.76
50151.000	1.00	0.00	0.00	605.00	1807.00	613.08	0.00	614.24	39.42	8.65	208.85	287.81
50200.000	50.00	0.00	0.00	605.00	1807.00	614.01	0.00	614.40	8.59	5.68	444.74	615.63
50200.000	50.00	0.00	0.00	605.00	1807.00	614.01	0.00	614.40	8.58	5.68	444.82	615.76
50400.000	240.00	0.00	0.00	605.10	1807.00	614.52	0.00	614.61	7.65	3.49	856.70	653.23
50400.000	240.00	0.00	0.00	605.10	1807.00	614.53	0.00	614.61	7.65	3.49	856.91	653.46
50500.000	100.00	0.00	0.00	605.10	1807.00	614.30	614.12	614.89	24.20	6.83	459.52	367.32
50500.000	100.00	0.00	0.00	605.10	1807.00	614.30	614.12	614.89	24.16	6.83	459.98	367.60
50501.000	1.00	613.30	615.20	605.10	1807.00	614.76	0.00	614.93	44.71	4.06	584.42	270.25
50501.000	1.00	613.30	615.20	605.10	1807.00	614.76	0.00	614.93	44.70	4.06	584.48	270.29
50526.000	12.00	613.30	615.20	605.10	1807.00	614.84	0.00	614.98	37.58	3.77	629.26	294.77
50526.000	12.00	613.30	615.20	605.10	1807.00	614.84	0.00	614.98	37.58	3.77	629.29	294.78
* 50527.000	1.00	0.00	0.00	605.10	1807.00	614.49	614.49	615.24	26.81	7.34	393.84	349.00
* 50527.000	1.00	0.00	0.00	605.10	1807.00	614.49	614.49	615.24	26.81	7.34	393.84	349.00
50600.000	75.00	0.00	0.00	605.10	1807.00	615.25	0.00	615.38	6.33	3.87	1050.10	715.43
50600.000	75.00	0.00	0.00	605.10	1807.00	615.25	0.00	615.38	6.38	3.87	1050.10	715.43
52250.000	1640.00	0.00	0.00	606.80	1807.00	615.50	0.00	615.50	.22	.76	5060.39	3385.33
52250.000	1640.00	0.00	0.00	606.80	1807.00	615.50	0.00	615.50	.22	.76	5060.39	3885.33
52350.000	100.00	0.00	0.00	606.80	1807.00	615.50	0.00	615.50	.22	.76	5061.77	3886.70
52350.000	100.00	0.00	0.00	606.80	1807.00	615.50	0.00	615.50	.22	.76	5061.77	3886.69

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
52400.000	1.00	611.40	618.00	606.80	1807.00	615.50	0.00	615.50	.26	.34	4989.01	3564.84
52400.000	1.00	611.40	618.00	606.80	1807.00	615.50	0.00	615.50	.26	.34	4939.01	3564.84
52370.000	12.00	611.40	618.00	606.80	1807.00	615.50	0.00	615.50	.26	.34	4990.72	3566.48
52370.000	12.00	611.40	618.00	606.80	1807.00	615.50	0.00	615.50	.26	.34	4990.72	3566.48
52371.000	1.00	0.00	0.00	606.80	1807.00	615.50	0.00	615.50	.22	.76	5063.63	3888.54
52371.000	1.00	0.00	0.00	606.80	1807.00	615.50	0.00	615.50	.22	.76	5063.63	3888.54
52450.000	50.00	0.00	0.00	606.80	1807.00	615.50	0.00	615.50	.22	.76	5065.30	3890.20
52450.000	50.00	0.00	0.00	606.80	1807.00	615.50	0.00	615.50	.22	.76	5065.30	3890.20

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RUSH CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2200.000	3449.00	596.50	0.00	0.00	0.00	112.36	0.00
2200.000	3449.00	596.60	.10	0.00	0.00	114.73	0.00
2250.000	3449.00	596.50	0.00	.10	0.00	63.00	50.00
2250.000	3449.00	596.68	.09	.08	0.00	63.00	50.00
2251.000	3449.00	596.59	0.00	-.01	0.00	63.00	1.00
2251.000	3449.00	596.63	.09	-.01	0.00	63.00	1.00
2252.000	3449.00	596.62	0.00	.03	0.00	63.00	12.00
2252.000	3449.00	596.71	.09	.03	0.00	63.00	12.00
2253.000	3449.00	596.65	0.00	.03	0.00	63.00	1.00
2253.000	3449.00	596.74	.09	.03	0.00	63.00	1.00
2350.000	3449.00	596.62	0.00	-.03	0.00	128.96	40.00
2350.000	3449.00	596.73	.11	-.01	0.00	130.40	40.00
* 2351.000	3449.00	596.85	0.00	.23	0.00	60.11	30.00
* 2351.000	3449.00	596.90	.05	.16	0.00	60.19	30.00
* 2352.000	3449.00	597.02	0.00	.17	0.00	60.41	1.00
* 2352.000	3449.00	597.02	0.00	.13	0.00	60.41	1.00
2353.000	3449.00	598.08	0.00	1.05	0.00	62.28	24.00
2353.000	3449.00	598.08	0.00	1.05	0.00	62.28	24.00
2354.000	3449.00	598.50	0.00	.43	0.00	63.00	1.00
2354.000	3449.00	598.50	0.00	.43	0.00	63.00	1.00
3000.000	3449.00	599.28	0.00	.78	0.00	162.60	50.00
3000.000	3449.00	599.28	0.00	.78	0.00	162.60	50.00
3375.000	3449.00	599.93	0.00	.65	0.00	70.92	600.00
3375.000	3449.00	599.93	0.00	.65	0.00	70.92	600.00
3400.000	3449.00	600.01	0.00	.08	0.00	61.97	50.00
3400.000	3449.00	600.01	0.00	.08	0.00	61.97	50.00
3401.000	3449.00	600.02	0.00	.00	0.00	71.32	1.00
3401.000	3449.00	600.02	0.00	.00	0.00	71.32	1.00
3415.000	3449.00	600.05	0.00	.03	0.00	71.49	12.00
3415.000	3449.00	600.05	0.00	.03	0.00	71.49	12.00
3420.000	3449.00	600.20	0.00	.15	0.00	72.69	50.00
3420.000	3449.00	600.20	0.00	.15	0.00	72.69	50.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
* 3425.000	3449.00	599.05	-0.00	-1.15	0.00	59.68	150.00
* 3425.000	3449.00	599.05	0.00	-1.15	0.00	59.68	150.00
3825.000	3449.00	602.06	0.00	3.01	0.00	91.18	400.00

3825.000	3449.00	602.06	0.00	3.01	0.00	91.18	400.00
3875.000	3449.00	602.07	0.00	.01	0.00	42.00	50.00
3875.000	3449.00	602.07	0.00	.01	0.00	42.00	50.00
3876.000	3449.00	602.07	0.00	.00	0.00	42.00	1.00
3876.000	3449.00	602.07	0.00	.00	0.00	42.00	1.00
3900.000	3449.00	602.18	0.00	.11	0.00	42.00	35.20
3900.000	3449.00	602.18	0.00	.11	0.00	42.00	35.20
3910.000	3449.00	602.43	0.00	.25	0.00	60.00	10.00
3910.000	3449.00	602.43	0.00	.25	0.00	60.00	10.00
3925.000	3449.00	603.00	0.00	.57	0.00	418.67	50.00
3925.000	3449.00	603.00	-0.00	.57	0.00	418.67	50.00
6250.000	3315.00	604.35	0.00	1.35	0.00	609.87	1195.00
6250.000	3315.00	604.35	-.00	1.35	-.00	500.00	1195.00
8500.000	3315.00	605.01	0.00	.66	0.00	794.66	942.00
8500.000	3315.00	605.01	.01	.67	.01	776.25	942.00
9750.000	3315.00	604.81	0.00	-.19	0.00	588.89	427.00
9750.000	3315.00	604.81	-.00	-.21	-.00	542.47	427.00
10700.000	3315.00	606.03	0.00	1.22	0.00	1225.80	800.00
10700.000	3315.00	606.03	.00	1.22	.00	1030.00	800.00
11700.000	3315.00	606.31	0.00	.28	0.00	1006.50	520.00
11700.000	3315.00	606.38	.06	.35	.06	988.68	520.00
12000.000	3315.00	605.72	0.00	-.59	0.00	681.40	60.00
12000.000	3315.00	605.81	.09	-.57	.09	719.46	60.00
12001.000	3315.00	605.74	0.00	.01	0.00	692.23	12.50
12001.000	3315.00	605.81	.07	-.00	.07	724.76	12.50
12800.000	1486.00	607.11	0.00	1.37	0.00	1599.33	300.00
12800.000	1486.00	607.18	.07	1.37	.07	1450.00	300.00
13500.000	1486.00	607.21	0.00	.11	0.00	2125.01	570.00
13500.000	1486.00	607.27	.06	.10	.06	1775.00	570.00
14200.000	1486.00	607.21	0.00	.00	0.00	2174.17	610.00
14200.000	1486.00	607.28	.06	.00	.05	2035.00	610.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
17500.000	1486.00	607.19	0.00	-.02	0.00	1002.11	1210.00
17500.000	1486.00	607.25	.06	-.02	.06	820.10	1210.00
19100.000	1500.00	607.26	0.00	.07	0.00	1478.27	980.00
19100.000	1500.00	607.33	.07	.08	.07	1150.00	980.00
20200.000	1500.00	607.27	0.00	.01	0.00	1383.23	750.00

20200.000	1500.00	607.34	.07	.01	.07	1080.00	750.00
23700.000	1500.00	607.28	0.00	.01	0.00	638.71	1295.00
23700.000	1500.00	607.36	.08	.02	.08	595.12	1295.00
24000.000	1500.00	607.27	0.00	-.01	0.00	981.99	230.00
24000.000	1500.00	607.34	.07	-.02	.07	720.00	230.00
25250.000	1500.00	607.26	0.00	-.01	0.00	197.58	550.00
25250.000	1500.00	607.34	.08	-.00	.08	198.88	550.00
25251.000	1500.00	607.08	0.00	-.17	0.00	194.82	10.00
25251.000	1500.00	607.16	.08	-.18	.08	196.05	10.00
25252.000	1500.00	607.22	0.00	-.14	0.00	197.01	33.10
25252.000	1500.00	607.30	.08	-.13	.08	198.22	33.10
25253.000	1568.00	607.52	0.00	.30	0.00	201.85	10.00
25253.000	1568.00	607.60	.08	.30	.08	203.16	10.00
27250.000	1568.00	607.95	0.00	.43	0.00	1201.27	1095.00
27250.000	1568.00	608.02	.07	.42	.07	1075.00	1095.00
29700.000	1568.00	608.04	0.00	.03	0.00	1430.09	1250.00
29700.000	1568.00	608.10	.07	.03	.07	1250.00	1250.00
32250.000	1568.00	608.07	0.00	.03	0.00	1306.46	950.00
32250.000	1568.00	608.13	.07	.03	.07	1175.00	950.00
35000.000	1568.00	608.10	0.00	.04	0.00	1060.00	1340.00
35000.000	1568.00	608.17	.07	.03	.07	850.00	1340.00
36300.000	1568.00	608.15	0.00	.05	0.00	950.00	560.00
36300.000	1568.00	608.21	.06	.05	.06	800.00	560.00
37000.000	1568.00	607.86	0.00	-.29	0.00	177.38	200.00
37000.000	1568.00	607.94	.08	-.27	.08	183.34	200.00
37001.000	1568.00	607.88	0.00	.03	0.00	43.20	75.00
37001.000	1568.00	607.95	.06	.01	.06	43.20	75.00
37002.000	1568.00	608.34	0.00	.45	0.00	43.20	21.60
37002.000	1568.00	608.42	.08	.47	.08	43.20	21.60

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
37003.000	1050.00	608.80	0.00	.46	0.00	43.20	50.00
37003.000	1050.00	608.86	.06	.45	.06	43.20	50.00
37800.000	1050.00	609.17	0.00	.37	0.00	210.00	400.00
37800.000	1050.00	609.22	.06	.36	.06	210.00	400.00
38500.000	1050.00	609.31	0.00	.14	0.00	391.33	350.00
38500.000	1050.00	609.36	.05	.13	.05	309.00	350.00
38501.000	1050.00	609.31	0.00	.00	0.00	391.36	10.00

38501.000	1050.00	609.36	.05	.01	.05	391.97	10.00
38502.000	1050.00	609.31	0.00	.00	0.00	391.41	35.50
38502.000	1050.00	609.36	.05	.00	.05	392.05	35.50
38503.000	1050.00	609.31	0.00	-.00	0.00	391.44	10.00
38503.000	1050.00	609.36	.05	-.00	.05	392.07	10.00
38810.000	1050.00	609.33	0.00	.02	0.00	499.37	150.00
38810.000	1050.00	609.38	.05	.01	.05	385.00	150.00
40680.000	1050.00	609.35	0.00	.02	0.00	680.53	900.00
40680.000	1050.00	609.40	.05	.02	.05	548.19	900.00
42764.000	1050.00	609.37	0.00	.03	0.00	843.18	1000.00
42764.000	1050.00	609.43	.05	.03	.05	675.00	1000.00
45960.000	1050.00	609.27	0.00	-.11	0.00	58.62	1410.00
45960.000	1050.00	609.31	.05	-.12	.05	55.00	1410.00
46200.000	1050.00	609.34	0.00	.07	0.00	34.94	120.00
46200.000	1050.00	609.41	.07	.09	.07	34.94	120.00
46201.000	1050.00	609.48	0.00	.14	0.00	34.95	40.00
46201.000	1050.00	609.54	.06	.14	.06	34.95	40.00
46350.000	1050.00	609.94	0.00	.46	0.00	50.92	100.00
46350.000	1050.00	609.98	.05	.44	.05	50.92	100.00
46351.000	1050.00	610.03	0.00	.09	0.00	50.94	37.60
46351.000	1050.00	610.07	.04	.09	.04	50.94	37.60
46500.000	1050.00	610.15	0.00	.12	0.00	50.00	30.00
46500.000	1050.00	610.19	.04	.11	.04	50.00	30.00
46518.000	1050.00	610.19	0.00	.04	0.00	51.00	18.00
46518.000	1050.00	610.22	.04	.04	.04	51.00	18.00
46600.000	1807.00	609.32	0.00	-.87	0.00	30.09	75.00
46600.000	1807.00	609.37	.05	-.85	.05	30.09	75.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
46850.000	1807.00	611.93	0.00	2.61	0.00	225.00	260.00
46850.000	1807.00	611.93	.00	2.56	.00	225.00	260.00
47560.000	1807.00	612.49	0.00	.57	0.00	332.69	710.00
47560.000	1807.00	612.50	.00	.56	.00	332.74	710.00
48600.000	1807.00	612.84	0.00	.35	0.00	454.20	850.00
48600.000	1807.00	612.84	.00	.35	.00	454.21	850.00
50000.000	1807.00	613.25	0.00	.41	0.00	151.19	1410.00
50000.000	1807.00	613.25	.00	.40	.00	151.80	1410.00
50100.000	1807.00	612.79	0.00	-.46	0.00	26.00	100.00

50100.000	1807.00	612.79	.00	-.46	.00	26.00	100.00
50101.000	1807.00	612.73	0.00	-.06	0.00	84.38	1.00
50101.000	1807.00	612.73	.00	-.06	.00	84.39	1.00
50150.000	1807.00	612.96	0.00	.23	0.00	38.22	32.00
50150.000	1807.00	612.96	.00	.23	.00	38.23	32.00
50151.000	1807.00	613.08	0.00	.12	0.00	26.00	1.00
50151.000	1807.00	613.08	.00	.12	.00	26.00	1.00
50200.000	1807.00	614.01	0.00	.93	0.00	105.42	50.00
50200.000	1807.00	614.01	.00	.93	.00	105.44	50.00
50400.000	1807.00	614.52	0.00	.51	0.00	342.87	240.00
50400.000	1807.00	614.53	.00	.51	.00	342.87	240.00
50500.000	1807.00	614.30	0.00	-.22	0.00	400.13	100.00
50500.000	1807.00	614.30	.00	-.22	.00	400.16	100.00
50501.000	1807.00	614.76	0.00	.46	0.00	487.00	1.00
50501.000	1807.00	614.76	.00	.46	.00	487.15	1.00
50526.000	1807.00	614.84	0.00	.07	0.00	600.77	12.00
50526.000	1807.00	614.84	.00	.07	.00	600.82	12.00
* 50527.000	1807.00	614.49	0.00	-.34	0.00	404.85	1.00
* 50527.000	1807.00	614.49	.00	-.34	.00	404.85	1.00
50600.000	1807.00	615.25	0.00	.76	0.00	1100.00	75.00
50600.000	1807.00	615.25	-.00	.76	-.00	1100.00	75.00
52250.000	1807.00	615.50	0.00	.24	0.00	2028.40	1640.00
52250.000	1807.00	615.50	-.00	.24	-.00	2028.40	1640.00
52350.000	1807.00	615.50	0.00	.00	0.00	2028.66	100.00
52350.000	1807.00	615.50	-.00	.00	-.00	2028.66	100.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKHS	TOPWID	XLCH
52400.000	1807.00	615.50	0.00	.00	0.00	2028.67	1.00
52400.000	1807.00	615.50	-.00	.00	-.00	2028.67	1.00
52370.000	1807.00	615.50	0.00	.00	0.00	2029.00	12.00
52370.000	1807.00	615.50	-.00	.00	-.00	2029.00	12.00
52371.000	1807.00	615.50	0.00	-.00	0.00	2029.02	1.00
52371.000	1807.00	615.50	-.00	-.00	-.00	2029.02	1.00
52450.000	1807.00	615.50	0.00	.00	0.00	2029.34	50.00
52450.000	1807.00	615.50	-.00	.00	-.00	2029.34	50.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO  2351.000  PROFILE 1  CRITICAL DEPTH ASSUMED
CAUTION SECNO  2351.000  PROFILE 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO  2351.000  PROFILE 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO  2351.000  PROFILE 2  CRITICAL DEPTH ASSUMED
CAUTION SECNO  2351.000  PROFILE 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO  2351.000  PROFILE 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO  2352.000  PROFILE 1  CRITICAL DEPTH ASSUMED
CAUTION SECNO  2352.000  PROFILE 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO  2352.000  PROFILE 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO  2352.000  PROFILE 2  CRITICAL DEPTH ASSUMED
CAUTION SECNO  2352.000  PROFILE 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO  2352.000  PROFILE 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO  3425.000  PROFILE 1  CRITICAL DEPTH ASSUMED
CAUTION SECNO  3425.000  PROFILE 1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO  3425.000  PROFILE 2  CRITICAL DEPTH ASSUMED
CAUTION SECNO  3425.000  PROFILE 2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO 50527.000  PROFILE 1  CRITICAL DEPTH ASSUMED
CAUTION SECNO 50527.000  PROFILE 1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO 50527.000  PROFILE 2  CRITICAL DEPTH ASSUMED
CAUTION SECNO 50527.000  PROFILE 2  MINIMUM SPECIFIC ENERGY
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FLOODWAY DATA, RUSH CREEK
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	WATER SURFACE ELEVATION DIFFERENCE
2200.000	115.	460.	7.5	596.6	596.5	.1
2250.000	63.	402.	8.6	596.7	596.6	.1
2251.000	63.	400.	8.6	596.7	596.6	.1
2252.000	63.	401.	8.6	596.7	596.6	.1
2253.000	63.	405.	8.5	596.8	596.7	.1
2350.000	133.	435.	7.9	596.7	596.6	.1
2351.000	63.	281.	12.3	596.9	596.9	0.0
2352.000	63.	273.	12.6	597.0	597.0	0.0
2353.000	63.	333.	10.3	598.1	598.1	0.0
2354.000	63.	390.	9.1	598.5	598.5	0.0
3000.000	163.	766.	4.5	599.3	599.3	0.0
3375.000	71.	449.	7.7	599.9	599.9	0.0
3400.000	62.	427.	8.1	600.0	600.0	0.0
3401.000	71.	428.	8.1	600.0	600.0	0.0
3415.000	71.	430.	8.0	600.0	600.0	0.0
3420.000	73.	459.	7.4	600.2	600.2	0.0
3425.000	60.	293.	11.6	599.0	599.0	0.0

3825.000	199.	494.	7.0	602.1	602.1	0.0
3875.000	42.	365.	9.5	602.1	602.1	0.0
3876.000	42.	365.	9.5	602.1	602.1	0.0
3900.000	42.	370.	9.3	602.2	602.2	0.0
3910.000	60.	471.	7.3	602.4	602.4	0.0
3925.000	419.	1061.	3.3	603.0	603.0	0.0
6250.000	500.	1477.	2.2	604.3	604.3	0.0
8500.000	776.	2287.	1.4	605.0	605.0	0.0
9750.000	555.	1004.	3.3	604.8	604.8	0.0
10700.000	1080.	1892.	1.8	606.0	606.0	0.0
11700.000	989.	2671.	1.2	606.4	606.3	.1
12000.000	719.	621.	5.3	605.8	605.7	.1
12001.000	725.	516.	5.4	605.8	605.7	.1
12800.000	1450.	2177.	.7	607.2	607.1	.1
13500.000	1775.	14113.	.1	607.3	607.2	.1
14200.000	2035.	14726.	.1	607.3	607.2	.1
17500.000	1050.	2517.	.6	607.3	607.2	.1
19100.000	1150.	7836.	.2	607.4	607.3	.1
20200.000	1080.	7525.	.2	607.4	607.3	.1
23700.000	595.	3852.	.4	607.4	607.3	.1
24000.000	720.	2302.	.7	607.4	607.3	.1
25250.000	199.	645.	2.3	607.4	607.3	.1
25251.000	196.	414.	3.6	607.2	607.1	.1
25252.000	198.	421.	3.6	607.3	607.2	.1
25253.000	203.	698.	2.2	607.6	607.5	.1

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FLOODWAY DATA, RUSH CREEK
PROFILE NO. 2

STATION	------- FLOODWAY ------- WIDTH	SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
27250.000	1075.	3888.	.4	608.1	608.0	.1
29700.000	1250.	4730.	.3	608.1	608.0	.1
32250.000	1175.	4145.	.4	608.2	608.1	.1
35000.000	850.	2176.	.7	608.2	608.1	.1
36300.000	800.	1918.	.8	608.3	608.2	.1
37000.000	183.	349.	4.5	608.0	607.9	.1
37001.000	43.	235.	6.7	608.0	607.9	.1
37002.000	43.	256.	6.1	608.4	608.3	.1
37003.000	43.	275.	3.8	608.9	608.8	.1
37800.000	210.	567.	1.9	609.3	609.2	.1
38500.000	300.	1185.	.9	609.3	609.3	0.0
38501.000	392.	1224.	.9	609.4	609.3	.1
38502.000	392.	1227.	.9	609.4	609.3	.1
38503.000	392.	1300.	.8	609.4	609.3	.1
38810.000	385.	1967.	.5	609.3	609.3	0.0
40680.000	550.	2163.	.5	609.4	609.3	.1
42764.000	675.	1904.	.6	609.5	609.4	.1
45960.000	55.	225.	4.7	609.3	609.3	0.0
46200.000	35.	167.	6.3	609.4	609.3	.1
46201.000	35.	171.	6.1	609.6	609.5	.1
46350.000	51.	212.	5.0	609.9	609.9	0.0

46351.000	51.	216.	4.9	610.0	610.0	0.0
46500.000	50.	236.	4.4	610.1	610.1	0.0
46518.000	51.	240.	4.4	610.2	610.2	0.0
46600.000	30.	163.	11.1	609.4	609.3	.1
46850.000	225.	625.	2.9	611.9	611.9	0.0
47560.000	333.	933.	1.9	612.5	612.5	0.C
48600.000	454.	1326.	1.4	612.8	612.8	0.0
50000.000	589.	455.	4.0	613.2	613.2	0.0
50100.000	26.	201.	9.0	612.8	612.8	0.0
50101.000	84.	194.	9.3	612.7	612.7	0.0
50150.000	38.	200.	9.0	613.0	613.0	0.0
50151.000	26.	209.	8.7	613.1	613.1	0.0
50200.000	105.	445.	4.1	614.0	614.0	0.0
50400.000	343.	857.	2.1	614.5	614.5	0.0
50500.000	400.	460.	3.9	614.3	614.3	0.0
50501.000	437.	584.	3.1	614.8	614.8	0.0
50526.000	601.	629.	2.9	614.8	614.8	0.0
50527.000	405.	394.	4.6	614.5	614.5	0.0
50600.000	1100.	1050.	1.7	615.3	615.3	0.0
52250.000	2028.	5060.	.4	615.5	615.5	0.C
52350.000	2029.	5062.	.4	615.5	615.5	0.0

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83/02/28. 12.07.44.

FLOODWAY DATA, RUSH CREEK
PROFILE NO. 2

STATION	------- FLOODWAY ------- WIDTH	SECTION AREA	MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
52400.000	2029.	4989.	.4	615.5	615.5	0.C
52370.000	2029.	4991.	.4	615.5	615.5	0.0
52371.000	2029.	5064.	.4	615.5	615.5	0.0
52450.000	2029.	5065.	.4	615.5	615.5	0.0

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83/02/28. 12.07.59.

THIS RUN EXECUTED 83/02/28. 12.07.59.

****
HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
****

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP

3) WATERCOURSE: RUSH CREEK

4) DOCUMENT TYPE: 100YR NATURAL

00BREAK00

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1*********************************************              *****************************************
*  WATER SURFACE PROFILES                    *              *  U.S. ARMY CORPS OF ENGINEERS
*  VERSION OF NOVEMBER 1976                  *              *  THE HYDROLOGIC ENGINEERING CENTER
*  UPDATED MARCH 1982                        *              *  609 SECOND STREET, SUITE D
*                                            *              *  DAVIS, CALIFORNIA 95616
*  RUN DATE  83/02/28. TIME  12.07.44.       *              *   916  440-2105  FTS  448-2105
*********************************************              *****************************************

                         X     X  XXXXXXX   XXXXX        XXXXX
                         X     X  X         X    X      X     X
                         X     X  X         X                 X
                         XXXXXXX  XXXX      X       XXXXX  XXXXX
                         X     X  X         X             X
                         X     X  X         X    X        X
                         X     X  XXXXXXX   XXXXX         XXXXXXX
1
 83/02/28.   12.07.44.                                                                   PAGE    1

                                                         THIS RUN EXECUTED  83/02/28.  12.07.44.
 **********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **********************************************


C
T1      RUSH CREEK, GEORGETOWN TWP, PROJECT NO. 8549, RUSHB2
T2      RUSH CREEK - REVISED
T3      RUSH CREEK

J1  ICHECK    INQ      NINV     IDIR     STRT    METRIC    HVINS     Q      WSEL      FQ

       0.      4.       -0.       0.  0.000000    0.00      0.0      0.   596.500    0.000

J2  NPROF    IPLOT    PREVS    XSECV    XSECH     FN      ALLDC     IBW    CHNIM    ITRACE

     0.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   110.000  150.000  200.000   0.000    0.000    0.000    0.000    0.000    0.000    0.000


NC       .100      .100      .025      .100      .300     0.000     0.000     0.000     0.000     0.000
QT      5.000  2134.000  3143.000  3449.000  4000.000  3449.000     0.000     0.000     0.000     0.000
X1   2200.000    15.000    75.000   138.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    607.500     0.000   595.270    62.000   594.870    75.000   592.670    75.100   590.770    97.000
GR    590.300   100.000   589.470   102.000   598.970   113.000   589.470   118.000   589.070   124.000
GR    589.700   134.000   590.330   136.000   592.770   136.000   595.470   149.000   596.870   175.000
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C&O RAILROAD BRIDGE

X1	2250.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	604.000	138.000	604.000	0.000	0.000	0.000
X1	2251.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	604.000	138.000	604.000	0.000	0.000	0.000
BT	15.000	0.000	607.500	607.500	62.000	607.500	595.270	75.000	607.500	594.870
BT	75.100	607.500	600.000	97.000	607.500	600.000	100.000	607.500	600.000	132.000
BT	607.500	600.000	113.000	607.500	600.000	118.000	607.500	600.000	124.000	607.500
BT	600.000	134.000	607.500	600.000	136.000	607.500	600.000	138.000	607.500	592.770
BT	149.000	607.500	595.470	175.000	607.500	596.870	0.000	0.000	0.000	0.000
X1	2252.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	604.000	138.000	604.000	0.000	0.000	0.000

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X1	2253.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	604.000	138.000	604.000	0.000	0.000	0.000

OLD M-21 BRIDGE

X1	2350.000	19.000	75.000	162.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	600.000	0.000	594.900	52.000	594.400	75.000	594.600	76.000	593.100	99.000
GR	591.100	100.000	590.500	100.100	589.300	106.000	589.300	109.000	598.500	119.000
GR	589.500	125.000	589.800	130.000	589.500	134.000	589.500	136.000	591.160	136.100
GR	593.100	138.000	592.900	162.000	599.300	170.000	600.400	175.000	0.000	0.000
X1	2351.000	19.000	75.000	138.000	30.000	30.000	30.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	600.500	138.000	600.500	0.000	0.000	0.000
GR	600.000	0.000	594.900	52.000	594.400	75.000	594.600	76.000	593.100	99.000
GR	591.100	100.000	590.500	100.100	589.300	106.000	589.300	109.000	598.500	119.000
GR	589.500	125.000	589.800	130.000	589.500	134.000	589.500	136.000	591.160	136.100
GR	593.100	138.000	592.900	148.000	599.300	170.000	600.400	175.000	0.000	0.000
X1	2352.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	600.500	138.000	600.500	0.000	0.000	0.000
BT	19.000	0.000	601.000	600.000	52.000	601.000	594.900	75.000	601.000	594.400
BT	76.000	601.000	599.500	99.000	601.000	599.500	100.000	601.200	599.500	100.100
BT	601.000	599.500	106.000	601.000	599.500	109.000	601.000	599.500	119.000	601.000
BT	599.500	125.000	601.000	599.500	130.000	601.000	599.500	134.000	601.000	599.500
BT	136.000	601.000	589.500	136.100	601.000	591.160	138.000	601.200	593.100	148.000
BT	601.000	592.900	170.000	601.000	599.300	175.000	601.000	600.100	0.000	0.000
X1	2353.000	0.000	0.000	0.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	600.500	138.000	600.500	0.000	0.000	0.000
X1	2354.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	600.500	138.000	600.500	0.000	0.000	0.000
X1	3000.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
X1	3375.000	16.000	70.000	132.000	600.000	600.000	600.000	0.000	0.000	0.000
GR	604.100	0.000	602.870	50.000	601.970	70.000	594.870	70.100	593.450	100.000
GR	591.600	101.000	592.070	110.000	591.970	117.000	592.170	123.000	592.570	129.000
GR	592.900	132.000	593.770	132.100	596.170	135.000	599.970	141.000	601.970	156.000
GR	602.600	163.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CHICAGO DRIVE BRIDGE

X1	3400.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	70.000	604.000	132.000	604.000	0.000	0.000	0.000
X1	3401.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	16.000	0.000	604.100	604.100	50.000	604.000	602.870	70.000	604.000	601.970
BT	70.100	604.000	601.100	100.000	604.000	601.100	101.000	604.000	601.100	110.000
BT	604.000	601.100	117.000	604.000	601.100	123.000	604.000	601.100	129.000	604.000
BT	601.100	132.000	604.000	601.100	132.100	604.000	593.770	135.000	604.000	596.170
BT	141.000	604.000	599.970	156.000	604.000	601.970	163.000	604.000	602.570	0.000

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X1	3415.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X1	3420.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
X1	3425.000	16.000	100.000	132.000	150.000	150.000	150.000	0.000	-.300	0.000
GR	604.000	0.000	604.300	50.000	601.970	70.000	594.870	98.000	593.450	100.000
GR	592.570	101.000	592.070	110.000	591.970	117.000	592.170	123.000	592.570	129.000
GR	592.970	132.000	596.170	135.000	599.970	141.000	601.970	156.000	602.590	163.000
GR	604.000	263.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3825.000	18.000	869.000	905.000	400.000	400.000	400.000	1.000	0.000	0.000
GR	605.900	0.000	604.500	425.000	604.000	500.000	602.000	725.000	602.900	823.000
GR	601.600	848.000	598.400	852.000	595.900	857.000	594.300	869.000	592.700	871.000
GR	591.900	875.000	591.800	893.000	592.700	897.000	594.800	901.200	596.000	905.000
GR	601.200	915.000	604.600	928.000	605.500	1350.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	300.000	1025.000

MAIN ST. BRIDGE, TR 605.4, LC 602.2

X1	3875.000	20.000	870.000	912.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	870.000	0.000	912.000	0.000	0.000	0.000	0.000
GR	605.900	0.000	604.500	800.000	601.800	852.000	599.400	862.000	596.600	868.000
GR	595.800	870.000	595.100	873.000	594.000	877.000	593.000	885.000	592.300	895.000
GR	593.000	897.000	592.600	907.000	594.000	910.000	594.600	910.000	595.200	912.000
GR	595.500	914.000	598.100	919.000	599.000	952.000	606.000	1076.000	605.500	1350.000
X1	3876.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	870.000	0.000	912.000	0.000	0.000	0.000	0.000
BT	11.000	0.000	605.900	605.900	800.000	605.400	604.500	852.000	605.400	601.800
BT	862.000	605.400	599.400	868.000	605.400	596.600	870.000	605.400	602.200	912.000
BT	605.400	602.200	914.000	605.400	595.500	919.000	605.400	598.100	952.000	605.400
BT	599.000	1076.000	606.000	606.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3900.000	0.000	0.000	0.000	35.200	35.200	35.200	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	870.000	0.000	912.000	0.000	0.000	0.000	0.000
X1	3910.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	860.000	0.000	920.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	200.000	1200.000
NC	.100	.100	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3925.000	13.000	867.000	906.000	50.000	50.000	50.000	1.000	0.000	0.000
GR	605.900	200.000	604.000	465.000	601.600	823.000	599.400	858.000	595.100	857.000

GR	593.000	881.000	593.000	904.000	594.600	906.000	598.100	915.000	599.000	948.000
GR	600.000	962.000	604.000	1050.000	605.500	1200.000	0.000	0.000	0.000	0.000
QT	5.000	2038.000	3013.000	3315.000	3839.000	3315.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	700.000	1200.000

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U/S OF HOTZENGA DRAIN B

Sec.

X1	6250.000	22.000	876.000	913.000	1195.000	1195.000	1195.000	1.000	0.000	0.000
GR	608.000	0.000	606.500	215.000	607.500	415.000	606.000	585.000	604.000	705.000
GR	604.100	321.000	602.800	861.000	594.900	876.000	593.900	881.200	593.300	888.000
GR	593.300	900.000	594.000	906.000	594.900	909.000	598.200	913.000	599.900	926.000
GR	598.900	961.000	602.000	1090.000	604.000	1285.000	609.000	1415.000	606.500	1560.000
GR	608.000	1710.000	614.200	1850.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	825.000	1650.000
X1	8500.000	22.000	1500.000	1540.000	942.000	942.000	942.000	1.000	0.000	0.000
GR	612.000	40.000	610.000	300.000	609.000	320.000	610.000	400.000	610.000	480.000
GR	608.000	660.000	606.000	775.000	604.000	975.000	602.000	1149.000	602.000	1495.000
GR	596.100	1500.000	594.600	1502.000	593.300	1504.000	593.300	1515.000	593.700	1523.000
GR	594.100	1538.000	595.400	1540.000	603.800	1600.000	607.900	1835.000	606.000	2200.000
GR	612.000	2220.000	614.500	2400.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	1100.000	1700.000
X1	9750.000	29.000	1492.000	1523.000	427.000	427.000	427.000	1.000	0.000	0.000
GR	615.000	0.000	612.000	160.000	610.000	620.000	608.000	970.000	604.000	1190.000
GR	602.800	1350.000	604.100	1475.000	603.100	1480.000	602.500	1482.000	596.100	1492.000
GR	595.400	1493.000	594.600	1495.000	593.300	1499.000	594.100	1517.000	595.400	1523.000
GR	603.800	1538.000	605.200	1560.000	604.000	1580.000	604.000	1600.000	604.000	1700.000
GR	604.000	1740.000	612.200	1800.000	611.000	1955.000	611.000	2175.000	611.000	2275.000
GR	611.000	2400.000	612.000	2580.000	612.000	2715.000	616.000	2850.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	600.000	1500.000
X1	10700.000	28.000	1070.000	1105.000	800.000	800.000	800.000	1.200	0.000	0.000
GR	614.000	0.000	612.000	350.000	610.200	440.000	610.000	480.000	608.000	535.000
GR	606.000	600.000	605.200	880.000	606.000	1040.000	602.000	1057.000	596.800	1070.000
GR	596.100	1071.000	595.300	1074.000	594.100	1079.000	594.100	1084.000	594.400	1091.000
GR	594.800	1100.000	596.100	1105.000	598.000	1106.000	605.800	1150.000	604.000	1138.000
GR	604.000	1200.000	604.000	1202.000	604.000	1548.000	604.000	1550.000	604.000	1600.000
GR	610.000	1660.000	611.500	1870.000	614.000	1980.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	475.000	1475.000
X1	11700.000	20.000	500.000	530.000	520.000	520.000	520.000	1.000	0.000	0.000
GR	614.000	195.000	612.000	200.000	608.000	300.000	607.000	400.000	606.000	482.000
GR	598.000	500.000	596.400	501.000	594.800	505.000	594.600	508.000	595.000	520.000
GR	595.500	528.000	596.400	530.000	600.000	538.000	605.500	575.000	604.000	600.000
GR	604.000	770.000	604.000	1270.000	604.000	1430.000	610.000	1515.000	613.000	1530.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	1650.000	2600.000

GRAVEL PIT BRIDGE, TR 605.4, LC 603.6

X1	12000.000	23.000	1690.000	1729.000	60.000	60.000	60.000	1.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	604.000	604.000	0.000
GR	614.000	1400.000	612.000	1450.000	608.000	1530.000	606.000	1630.000	605.400	1667.000
GR	603.800	1682.000	599.300	1690.000	597.200	1694.000	596.200	1694.000	595.300	1698.000
GR	594.900	1700.000	594.300	1703.000	596.800	1710.000	596.900	1714.000	597.200	1722.000
GR	599.600	1729.000	604.400	1742.000	605.400	1747.000	605.400	1750.000	605.700	2320.000
GR	606.800	2800.000	610.000	2860.000	613.000	2900.000	0.000	0.000	0.000	0.000

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SB	1.050	1.545	2.500	0.000	39.000	1.500	280.400	0.000	596.400	596.400
X1	12001.000	0.000	0.000	0.000	12.500	12.500	12.500	0.000	0.000	0.000
X2	0.000	0.000	1.000	603.600	605.400	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	604.000	604.000	0.000
BT	15.000	1400.000	614.000	614.000	1450.000	612.000	612.000	1530.000	608.000	608.000
BT	1630.000	605.400	604.500	1667.000	605.400	605.400	1682.000	605.400	603.800	1690.000
BT	605.400	603.600	1729.000	605.400	603.600	1742.000	605.400	604.400	1747.000	605.400
BT	605.400	1750.000	605.400	605.400	2320.000	605.700	605.700	2800.000	606.800	606.800
BT	2860.000	610.000	610.000	2900.000	613.000	613.000	0.000	0.000	0.000	0.000
QT	5.000	1030.000	1377.000	1486.000	1633.000	1486.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	300.000	1750.000

U/S OF BLISS DRAIN

X1	12800.000	18.000	300.000	330.000	300.000	300.000	300.000	1.000	0.000	0.000
GR	616.000	68.000	614.000	75.000	612.000	107.000	610.000	160.000	608.000	202.000
GR	606.000	230.000	604.000	290.000	602.000	298.000	598.000	300.000	595.200	306.000
GR	595.000	315.000	595.200	326.000	598.000	330.000	606.000	370.000	606.000	600.000
GR	606.000	1000.000	606.000	1800.000	614.000	1900.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	200.000	1975.000
X1	13500.000	19.000	1020.000	1045.000	570.000	570.000	570.000	1.000	0.000	0.000
GR	618.000	0.000	610.000	55.000	600.000	98.000	599.400	100.000	599.400	930.000
GR	604.700	995.000	604.100	1010.000	597.500	1020.000	596.400	1027.000	596.100	1032.000
GR	596.100	1038.000	597.500	1045.000	605.400	1057.000	605.400	1072.000	604.900	1033.000
GR	602.000	1101.000	599.400	1114.000	598.700	1122.000	598.700	2192.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	150.000	2135.000
X1	14200.000	20.000	1490.000	1515.000	610.000	610.000	610.000	1.000	0.000	0.000
GR	620.000	43.000	610.000	82.000	600.000	170.000	599.400	180.000	599.400	1210.000
GR	602.000	1228.000	604.000	1243.000	604.000	1478.000	604.100	1480.000	598.600	1490.000
GR	596.400	1497.000	596.100	1502.000	596.100	1508.000	598.600	1515.000	605.400	1527.000
GR	604.500	1580.000	600.000	1621.000	598.700	1631.000	598.700	2130.000	610.000	2330.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	700.000	1750.000
X1	17500.000	19.000	1642.000	1668.000	1210.000	1210.000	1210.000	1.000	0.000	0.000
GR	610.000	570.000	606.000	635.000	604.200	790.000	604.000	1110.000	605.500	1280.000
GR	610.000	1500.000	608.000	1590.000	606.000	1605.000	600.000	1632.000	598.300	1642.000
GR	596.900	1648.000	596.200	1654.000	596.300	1656.000	597.200	1659.000	598.300	1668.000
GR	604.000	1690.000	604.000	1710.000	606.000	1840.000	612.000	1895.000	0.000	0.000
QT	5.000	1061.000	1391.000	1500.000	1702.000	1500.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	950.000	2100.000
X1	19100.000	25.000	1005.000	1028.000	980.000	980.000	980.000	1.000	0.000	0.000
GR	610.000	635.000	610.000	703.000	612.000	715.000	612.000	827.000	614.000	835.000
GR	615.200	860.000	614.000	880.000	610.000	898.000	606.000	918.000	604.500	950.000
GR	604.000	970.000	600.000	998.000	599.200	1005.000	598.800	1007.000	597.400	1012.000
GR	596.700	1019.000	596.800	1021.000	597.700	1025.000	599.200	1028.000	600.000	1032.000
GR	604.800	1050.000	600.400	1068.000	600.400	2345.000	602.000	2353.000	606.000	2390.000

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ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	1100.000	2000.000
X1	20200.000	20.000	1100.000	1130.000	750.000	750.000	750.000	1.200	0.000	0.000
GR	612.000	925.000	612.000	994.000	610.000	1000.000	606.000	1018.000	605.000	1050.000

GR	604.000	1089.000	600.000	1095.000	599.200	1100.000	597.700	1106.000	597.000	1122.000	
GR	597.100	1126.000	599.200	1130.000	600.000	1132.000	602.000	1142.000	604.800	1150.000	
GR	602.000	1158.000	600.400	1162.000	600.400	2080.000	602.000	2110.000	604.000	2165.000	
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	975.000	1650.000	
X1	23700.000	19.000	1000.000	1030.000	1295.000	1295.000	1295.000	1.200	0.000	0.000	
GR	610.000	760.000	610.000	900.000	608.000	910.000	606.000	988.000	602.000	998.000	
GR	600.000	1000.000	598.300	1005.000	597.700	1011.000	597.500	1015.000	597.500	1019.000	
GR	598.200	1026.000	600.300	1030.000	602.000	1035.000	603.200	1045.000	602.000	1060.000	
GR	600.400	1065.000	600.400	1434.000	610.000	1485.000	612.000	1550.000	0.000	0.000	
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	850.000	1450.000	
X1	24000.000	19.000	970.000	998.000	230.000	230.000	230.000	1.200	0.000	0.000	
GR	608.000	600.000	606.500	755.000	606.000	885.000	604.000	910.000	602.000	950.000	
GR	599.200	970.000	598.400	975.000	597.800	981.000	597.600	985.000	597.600	989.000	
GR	598.300	993.000	599.200	998.000	600.400	1000.000	604.700	1013.000	604.600	1050.000	
GR	604.500	1360.000	606.000	1490.000	610.000	1500.000	612.000	1525.000	0.000	0.000	
	12TH AVE. BRIDGE, TR 607.8, LC 606.2										
X1	25250.000	21.000	920.000	952.000	550.000	550.000	550.000	1.200	0.000	0.000	
X3	0.000	0.000	0.000	700.000	0.000	1400.000	0.000	0.000	0.000	0.000	
GR	608.200	700.000	608.000	860.000	607.800	886.000	605.800	893.000	604.600	917.000	
GR	602.200	920.000	600.400	922.000	599.500	922.000	598.900	927.000	598.500	930.000	
GR	598.300	934.000	598.500	939.000	598.900	944.000	599.900	950.000	602.200	950.000	
GR	602.600	952.000	604.600	966.000	605.100	990.000	606.000	1040.000	608.000	1060.000	
GR	608.000	1500.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
ET	0.000	9.100	9.100	9.100	9.100	9.100	0.000	0.000	800.000	1350.000	
X1	25251.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000	
BT	12.000	700.000	608.200	608.200	860.000	608.000	608.000	886.000	607.800	607.800	
BT	893.000	607.500	605.800	917.000	607.500	604.600	920.000	607.800	606.200	952.000	
BT	607.800	606.200	956.000	607.800	604.600	990.000	607.800	605.100	1040.000	607.800	
BT	606.000	1060.000	608.000	608.000	1500.000	608.000	608.000	0.000	0.000	0.000	
ET	0.000	9.100	9.100	9.100	9.100	9.100	0.000	0.000	800.000	1350.000	
X1	25252.000	0.000	0.000	0.000	33.100	33.100	33.100	0.000	0.000	0.000	
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	
QT	5.000	1134.000	1460.000	1568.000	1759.000	1568.000	0.000	0.000	0.000	0.000	P
X1	25253.000	0.000	0.000	0.000	10.000	10.000	10.000	1.000	0.000	0.000	
X3	0.000	0.000	0.000	800.000	0.000	1350.000	0.000	0.000	0.000	0.000	
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	350.000	1425.000	
X1	27250.000	18.000	1032.000	1056.000	1095.000	1095.000	1095.000	1.000	0.000	0.000	
GR	610.000	265.000	608.000	300.000	606.000	322.000	604.000	340.000	604.000	500.000	Q
GR	604.400	981.000	604.700	1022.000	600.500	1032.000	599.900	1036.000	599.100	1040.000	
GR	599.000	1047.000	599.800	1054.000	600.500	1056.000	603.900	1059.000	603.700	1106.000	
GR	605.500	1230.000	606.000	1370.000	608.000	1505.000	0.000	0.000	0.000	0.000	

ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	325.000	1575.000	
X1	29700.000	19.000	700.000	730.000	1250.000	1250.000	1250.000	1.000	0.000	0.000	
GR	610.000	260.000	606.000	270.000	604.000	360.000	601.000	370.000	601.000	640.000	R
GR	604.000	650.000	604.000	682.000	601.300	700.000	599.800	706.000	599.000	710.000	
GR	598.800	717.000	599.700	724.000	603.100	730.000	604.000	768.000	605.200	850.000	
GR	605.500	1100.000	606.000	1175.000	606.200	1500.000	608.000	1695.000	0.000	0.000	

ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	325.000	1500.000
NC	.040	.040	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	32250.000	23.000	705.000	730.000	950.000	950.000	950.000	1.000	0.000	0.000
GR	610.000	270.000	608.000	284.000	606.000	305.000	604.000	370.000	604.000	650.000
GR	606.000	668.000	608.000	680.000	606.000	690.000	604.000	692.000	601.100	705.000
GR	599.600	711.000	598.700	712.000	598.900	716.000	599.400	723.000	600.100	730.000
GR	602.400	737.000	607.400	745.000	606.000	760.000	604.000	765.000	605.200	925.000
GR	604.200	1250.000	606.000	1430.000	608.000	1590.000	0.000	0.000	0.000	0.000

ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	275.000	1125.000
X1	35000.000	12.000	815.000	840.000	1340.000	1340.000	1340.000	1.000	0.000	0.000
GR	608.000	155.000	606.500	370.000	606.000	500.000	606.000	810.000	601.000	815.000
GR	599.800	818.000	599.500	828.000	599.800	837.000	601.000	840.000	604.000	878.000
GR	606.000	1050.000	608.000	1215.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	300.000	1100.000
X1	36300.000	15.000	930.000	950.000	560.000	560.000	560.000	1.000	0.000	0.000
GR	608.000	200.000	606.500	550.000	606.000	735.000	605.200	800.000	606.000	830.000
GR	607.000	890.000	606.000	905.000	601.000	930.000	600.000	933.000	599.700	940.000
GR	600.000	947.000	601.000	950.000	604.000	980.000	606.000	1100.000	608.000	1150.000

PORT SHELDON RD. BRIDGE, TR 610.4, LC 608.0

X1	37000.000	15.000	500.000	536.000	200.000	200.000	200.000	1.200	0.000	0.000
GR	608.000	400.000	606.700	476.000	607.000	491.000	605.100	500.000	604.300	511.000
GR	602.200	512.500	601.000	515.500	600.500	517.000	600.400	522.000	601.100	529.000
GR	601.900	531.000	603.900	534.000	604.500	536.000	607.600	542.000	607.600	556.000

X1	37001.000	0.000	0.000	0.000	75.000	75.000	75.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	609.500	609.500	0.000

SB	0.000	1.560	3.000	0.000	35.000	0.000	238.000	0.000	0.000	0.000
X1	37002.000	0.000	0.000	0.000	21.600	21.600	21.600	0.000	0.000	0.000
X2	0.000	0.000	1.000	608.000	610.400	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	609.500	609.500	0.000
BT	7.000	400.000	609.600	608.000	476.000	610.400	606.700	491.200	610.400	607.000
BT	500.000	610.400	608.000	536.000	610.400	608.000	542.000	610.400	607.600	556.000
BT	610.400	607.600	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

QT	5.000	741.000	966.000	1050.000	1231.000	1050.000	0.000	0.000	0.000	0.000
X1	37003.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	609.500	609.500	0.000

X1	37800.000	13.000	1015.000	1038.000	400.000	400.000	400.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	920.000	0.000	1130.000	0.000	0.000	0.000	0.000
GR	605.700	840.000	606.000	915.000	608.000	980.000	608.000	1000.000	606.000	1015.000
GR	600.500	1028.000	600.400	1030.000	600.600	1036.000	606.000	1038.000	608.000	1046.000
GR	608.000	1065.000	605.000	1122.000	610.000	1140.000	0.000	0.000	0.000	0.000

ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	50.000	350.000

GRAVEL PIT BRIDGE, TR 605.1, LC 605.3

X1	38500.000	19.000	310.000	331.500	350.000	350.000	350.000	0.000	0.000	0.000
GR	609.000	0.000	606.000	130.000	605.100	290.000	602.000	310.000	601.000	310.250
GR	599.800	311.250	599.600	312.500	601.200	315.500	601.600	319.500	601.600	320.500
GR	601.500	324.500	601.500	326.500	600.300	329.000	600.600	330.250	601.600	331.250
GR	602.800	331.500	606.500	350.000	608.000	375.000	610.000	400.000	0.000	0.000

X1	38501.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
BT	15.000	290.000	605.100	605.100	310.000	605.100	602.000	310.250	605.100	603.100
BT	311.250	605.100	604.300	312.500	605.100	604.600	315.500	605.100	604.700	319.500
BT	605.300	604.700	320.500	605.300	604.800	324.500	605.600	605.000	326.500	605.600
BT	605.200	329.000	605.800	605.300	330.250	605.800	605.000	331.250	605.800	604.000
BT	331.500	605.800	602.800	350.000	606.500	606.500	0.000	0.000	0.000	0.000
X1	38502.000	0.000	0.000	0.000	35.500	35.500	35.500	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X1	38503.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	75.000	460.000
X1	38810.000	12.000	430.000	458.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	608.000	15.000	606.000	65.000	604.000	270.000	604.000	345.000	604.000	420.000
GR	602.000	430.000	601.800	432.000	601.300	444.000	601.800	458.000	604.000	466.000
GR	606.000	470.000	612.000	550.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	350.000	900.000
X1	40680.000	21.000	710.000	734.000	900.000	900.000	900.000	0.000	0.000	0.000
GR	612.000	150.000	610.000	235.000	608.000	260.000	606.000	400.000	604.800	560.000
GR	606.000	658.000	608.000	670.000	609.500	682.000	608.000	700.000	604.000	705.000
GR	602.000	710.000	601.500	715.000	601.500	730.000	602.000	734.000	604.000	741.000
GR	606.000	760.000	604.800	835.000	606.000	900.000	608.000	920.000	610.000	930.000
GR	610.000	940.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	375.000	1050.000
X1	42764.000	12.000	568.000	592.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
GR	610.000	272.000	608.000	388.000	608.000	550.000	602.000	568.000	601.900	582.000
GR	602.000	592.000	604.000	605.000	606.000	650.000	606.000	750.000	607.500	1015.000
GR	608.000	1130.000	610.000	1162.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	75.000	130.000

U/S OF THREE TRIBUTARIES

X1	45960.000	14.000	80.000	96.000	1410.000	1410.000	1410.000	0.000	0.000	0.000
GR	610.000	52.000	610.000	69.000	608.000	71.000	606.200	76.000	604.600	80.000
GR	603.500	80.000	602.900	82.000	602.400	88.000	602.500	94.000	603.700	96.000
GR	604.000	103.000	606.000	110.000	608.000	120.000	610.000	149.000	0.000	0.000

M-21 EAST BOUND BRIDGE, TR 614.1, LC 610.3

X1	46200.000	9.000	1400.000	1435.000	120.000	120.000	120.000	0.000	0.000	0.000
GR	614.100	1300.000	614.100	1400.000	608.100	1400.100	603.700	1410.000	602.200	1418.000
GR	603.700	1425.000	608.100	1435.000	614.100	1435.100	614.100	1535.000	0.000	0.000
X1	46201.000	0.000	0.000	0.000	40.000	40.000	40.000	0.000	0.000	0.000
BT	9.000	1300.000	614.100	614.100	1400.000	614.100	614.100	1400.100	614.100	610.300
BT	1410.000	614.100	610.300	1418.000	614.100	610.300	1425.000	614.100	610.300	1435.000
BT	614.100	610.300	1435.100	614.100	614.100	1535.000	614.100	614.100	0.000	0.000

M-21 WEST BOUND BRIDGE, TR 614.9, LC 610.1

X1	46350.000	13.000	1372.500	1423.500	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	614.900	614.900	0.000
GR	614.900	1272.500	614.900	1372.500	609.000	1372.600	609.000	1381.000	604.800	1381.100
GR	604.100	1391.000	603.000	1399.000	604.400	1407.000	607.300	1416.000	608.600	1416.100
GR	608.800	1423.500	614.900	1423.600	614.900	1523.500	0.000	0.000	0.000	0.000

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X1   46351.000      0.000      0.000      0.000     37.600     37.600     37.600      0.000      0.000      0.000
BT      13.000   1272.500    614.900    614.900   1372.500    614.900    614.900   1372.600    614.900    610.100
BT    1381.000    614.900    610.100   1381.100    614.900    610.100   1391.000    614.900    610.100   1399.000
BT     614.900    610.100   1407.000    614.900    610.100   1416.000    614.900    610.100   1416.100    614.900
BT     610.100   1423.500    614.900    610.100   1423.600    614.900    614.900   1523.500    614.900    614.900

          C & O R.R. BRIDGE, TR 614.1, LC 609.3
X1   46500.000     13.000   1400.000   1452.000     30.000     30.000     30.000      0.000      0.000      0.000
X3       0.000      0.000      0.000   1400.000      0.000   1450.000      0.000      0.000      0.000      0.000
GR     614.100   1000.000    614.100   1399.500    608.300   1400.000    608.300   1403.300    603.200   1403.300
GR     602.300   1413.300    603.700   1423.300    604.500   1425.300    607.200   1433.300    608.300   1442.800
GR     608.300   1451.600    614.100   1452.000    614.100   1600.000      0.000      0.000      0.000      0.000

SB       0.000      1.920      2.500      0.000     24.000      0.000   1933.000      0.000    602.300    602.300
X1   46518.000      0.000      0.000      0.000     18.000     18.000     18.000      0.000      0.000      0.000
X2       0.000      0.000      1.000    609.300    614.100      0.000      0.000      0.000      0.000      0.000
X3       0.000      0.000      0.000   1400.000      0.000   1451.000      0.000      0.000      0.000      0.000
BT       6.000   1000.000    614.100    614.100   1399.500    614.100    614.100   1400.000    609.300    614.100
BT    1451.000    609.300    614.100   1452.000    614.100    614.100   1600.000    614.100    614.100      0.000

QT       5.000   1202.000   1674.000   1807.000   1871.000   1807.000      0.000      0.000      0.000      0.000
X1   46600.000      0.000      0.000      0.000    100.000     50.000     75.000      0.000      0.000      0.000
X3       0.000      0.000      0.000   1350.000      0.000   1430.000      0.000      0.000      0.000      0.000

          SECTION 468+50
X1   46850.000     10.000   1300.000   1425.000    360.000    210.000    260.000      0.000      0.000      0.000
X3       0.000      0.000      0.000   1300.000   1475.000      0.000      0.000      0.000      0.000      0.000
GR     614.000   1200.000    610.500   1300.000    610.500   1380.000    608.000   1390.000    604.000   1395.000
GR     603.100   1405.000    603.400   1415.000    610.500   1425.000    611.200   1435.000    607.700   1525.000

          STATION 475+60
X1   47560.000      9.000   1400.000   1445.000    810.000    760.000    710.000      0.000      0.000      0.000
X3       0.000      0.000      0.000   1320.000      0.000   1700.000      0.000      0.000      0.000      0.000
GR     616.000   1300.000    610.800   1400.000    609.500   1410.000    604.100   1415.000    603.300   1425.000
GR     603.700   1435.000    611.200   1445.000    610.900   1455.000    608.400   1800.000      0.000      0.000
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X1   48600.000     10.000    880.000    920.000    800.000    950.000    850.000      0.000      0.000      0.000
X3       0.000      0.000      0.000    800.000    610.500   1320.000    610.500      0.000      0.000      0.000
GR     614.000    860.000    612.000    870.000    608.000    880.000    608.200    890.000    604.000    895.000
GR     603.900    905.000    604.000    910.000    610.800    920.000    610.200   1020.000    610.200   1320.000

X1   50000.000     15.000   2000.000   2040.000   1410.000   1410.000   1410.000      0.000      0.000      0.000
GR     615.800   1500.000    618.100   1800.000    613.800   1900.000    610.200   1990.000    606.200   2000.000
GR     606.100   2005.000    605.200   2012.000    604.800   2015.000    605.300   2022.000    605.700   2030.000
GR     606.200   2035.000    612.800   2040.000    614.200   2045.000    613.200   2500.000    618.000   2750.000

X1   50100.000     12.000   2000.000   2026.000    100.000    100.000    100.000      0.000      0.000      0.000
X3       0.000      0.000      0.000   2000.000    616.000   2026.000    616.000      0.000      0.000      0.000
GR     616.000   1500.000    616.000   1800.000    616.000   1900.000    610.000   1990.000    606.500   2000.000
GR     605.000   2001.000    605.000   2025.000    606.100   2026.000    610.200   2030.000    616.000   2038.000
GR     616.500   2045.000    616.000   2445.000      0.000      0.000      0.000      0.000      0.000      0.000

X1   50101.000      0.000      0.000      0.000      1.000      1.000      1.000      0.000      0.000      0.000
BT      12.000   1500.000    616.000    616.000   1800.000    616.000    616.000   1900.000    616.000    616.000
BT    1990.000    616.000    610.000   2000.000    616.000    606.500   2001.000    616.000    614.000   2025.000
BT     616.000    614.000   2026.000    616.000    606.100   2030.000    616.000    610.200   2038.000    616.000
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BT	616.000	2045.000	616.500	616.000	2445.000	616.000	616.000	0.000	0.000	0.000
X1	50150.000	0.000	0.000	0.000	32.000	32.000	32.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X1	50151.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	2000.000	614.000	2026.000	614.000	0.000	0.000	0.000
X1	50200.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
X1	50400.000	14.000	710.000	732.000	250.000	200.000	240.000	0.000	0.000	0.000
GR	615.800	0.000	618.000	700.000	614.100	708.000	614.000	710.000	609.100	715.000
GR	605.100	720.000	606.200	728.000	611.800	730.000	614.200	732.000	614.000	740.000
GR	612.500	750.000	611.600	850.000	611.600	950.000	614.200	1050.000	0.000	0.000
X1	50500.000	14.000	710.000	745.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	615.200	0.000	614.700	690.000	614.300	700.000	614.000	710.000	609.500	715.000
GR	606.100	725.000	605.100	730.000	605.100	735.000	610.300	740.000	614.000	745.000
GR	614.200	755.000	613.600	778.000	613.300	900.000	614.000	1100.000	0.000	0.000
X1	50501.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	14.000	0.000	615.200	615.200	690.000	614.700	614.700	700.000	614.300	614.300
BT	710.000	614.000	614.000	715.000	614.000	612.000	725.000	614.000	612.000	730.000
BT	614.000	612.000	735.000	614.000	612.000	740.000	614.000	612.000	745.000	614.000
BT	614.000	755.000	614.200	614.200	778.000	613.600	613.600	900.000	613.300	613.300
BT	1100.000	614.000	614.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	50526.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000

X1	50527.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	710.000	614.000	750.000	614.000	0.000	0.000	0.000
X1	50600.000	0.000	0.000	0.000	75.000	75.000	75.000	0.000	0.000	0.000
X1	52250.000	17.000	2000.000	2040.000	1700.000	1590.000	1640.000	0.000	0.000	0.000
GR	618.000	0.000	611.500	1500.000	611.400	1800.000	611.800	1980.000	614.200	1990.000
GR	614.000	2000.000	610.000	2005.000	608.300	2010.000	607.700	2012.000	606.800	2018.000
GR	606.800	2024.000	609.200	2036.000	610.600	2040.000	614.100	2045.000	614.000	2050.000
GR	612.100	2070.000	618.000	3000.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	52350.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.000	0.000
X1	52400.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	17.000	0.000	618.000	618.000	1500.000	611.500	611.500	1800.000	611.400	611.400
BT	1980.000	611.800	611.800	1990.000	614.000	614.000	2000.000	614.000	614.000	2005.000
BT	614.000	612.200	2010.000	614.000	612.200	2012.000	614.200	612.200	2018.000	614.000
BT	612.200	2024.000	614.000	612.200	2036.000	614.000	612.200	2040.000	614.000	612.200
BT	2045.000	614.100	614.100	2050.000	614.000	614.000	2070.000	612.100	612.100	3000.000
BT	618.000	618.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	52370.000	0.000	0.000	0.000	12.000	12.000	12.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X1	52371.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000

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X1  52450.000      0.000      0.000      0.000     50.000     50.000     50.000      0.000      0.000      0.000
EJ      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
*PROF 1
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST


CCHV=     .100 CEHV=     .300
*SECNO 2200.000
   2200.00     7.53    596.50      0.00    596.50    597.66      1.16      0.00      0.00    594.87
     3449.      18.     3396.       35.       22.      390.       36.        0.        0.    592.77
      0.00      .79      3.71       .97      .100      .025      .100     0.000    588.97     55.76
   .002039       0.        0.        0.        0         0         0      0.00    112.36    168.13
0
*SECNO 2250.000

3470 ENCROACHMENT STATIONS        75.0      138.0  TYPE       1  TARGET        63.000
  ELENCL     604.00  ELENCR      604.00
             C&O RAILROAD BRIDGE
   2250.00     7.63    596.60      0.00      0.00    597.77      1.18       .11       .00    594.87
     3449.       0.     3449.        0.        0.      396.        0.        0.        0.    604.00
       .00     0.00      8.70      0.00      .100      .025      .100     0.000    588.97     75.00
   .002215      50.       50.       50.        0         0         0      0.00     63.00    138.00
0
*SECNO 2251.000

3370 NORMAL BRIDGE,NRD  15 MIN ELTRD   607.50 MAX ELLC   607.50


3470 ENCROACHMENT STATIONS        75.0      138.0  TYPE       1  TARGET        63.000
  ELENCL     604.00  ELENCR      604.00
   2251.00     7.62    596.59      0.00      0.00    597.78      1.19       .00       .00    594.87
     3449.       0.     3449.        0.        0.      394.        0.        0.        0.    604.00
       .00     0.00      8.75      0.00      .100      .025      .100     0.000    588.97     75.00
   .002265       1.        1.        1.        0         0         0     -2.05     63.00    138.00
0
*SECNO 2252.000

3370 NORMAL BRIDGE,NRD  15 MIN ELTRD   607.50 MAX ELLC   607.50


3470 ENCROACHMENT STATIONS        75.0      138.0  TYPE       1  TARGET        63.000
  ELENCL     604.00  ELENCR      604.00
   2252.00     7.65    596.62      0.00      0.00    597.81      1.18       .03       .00    594.87
     3449.       0.     3449.        0.        0.      395.        0.        1.        0.    604.00
       .00     0.00      8.73      0.00      .100      .025      .100     0.000    588.97     75.00
   .002246      12.       12.       12.        0         0         0     -2.07     63.00    138.00
0
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS   BANK ELEV
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      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 *SECNO 2253.000

 3470 ENCROACHMENT STATIONS      75.0      138.0   TYPE      1  TARGET        63.000
   ELENCL      604.00   ELENCR     604.00
     2253.00      7.68    596.65      0.00      0.00    597.81      1.16       .00       .00    594.87
       3449.        0.     3449.        0.        0.      400.        0.        1.        0.    604.00
         .00      0.00      8.63      0.00      .100      .025      .100     0.000    583.97     75.00
     .002160        1.        1.        1.         2         0         0      0.00     63.00    138.00
0
 *SECNO 2350.000

 3265 DIVIDED FLOW

         -  OLD M-21 BRIDGE
     2350.00      7.32    596.62      0.00      0.00    597.99      1.37       .12       .06    594.40
       3449.       85.     3353.       11.       61.      352.        9.        1.        0.    592.90
         .00      1.40      9.53      1.27      .100      .025      .100     0.000    589.30     34.41
     .004462       40.       40.       40.         2         0         0      0.00    128.96    166.66
0
 *SECNO 2351.000

 3265 DIVIDED FLOW


 3301 HV CHANGED MORE THAN HVINS

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS      75.0      138.0   TYPE      1  TARGET        63.000
   ELENCL      600.50   ELENCR     600.50
     2351.00      7.55    596.85    596.85      0.00    599.23      2.38       .17       .30    594.40
       3449.        0.     3449.        0.        0.      279.        0.        1.        0.    600.50
         .00      0.00     12.38      0.00      .100      .025      .100     0.000    589.30     75.00
     .007887       30.       30.       30.        20         8         0      0.00     60.11    138.00
0
 *SECNO 2352.000
1
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      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 3265 DIVIDED FLOW

 3370 NORMAL BRIDGE,NRD  19 MIN ELTRD   601.00 MAX ELLC   600.10

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
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 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS         75.0      138.0  TYPE       1  TARGET        63.000
  ELENCL      600.50  ELENCR       600.50
   2352.00      7.72    597.02    597.02      0.00    599.51      2.48       .01       .03    594.40
    3449.         0.     3449.        0.        0.      273.        0.        1.        0.    600.50
      .00       0.00     12.65     -0.00      .100      .025      .100     0.000    589.30     75.00
  .008499         1.        1.        1.        20        19         0    -16.30     60.41    138.00
0
 *SECNO 2353.000

 3265 DIVIDED FLOW


 3301 HV CHANGED MORE THAN HVINS


 3370 NORMAL BRIDGE,NRD  19 MIN ELTRD   601.00 MAX ELLC   600.10


 3470 ENCROACHMENT STATIONS        -75.0      138.0  TYPE       1  TARGET        63.000
  ELENCL      600.50  ELENCR       600.50
   2353.00      8.78    598.08      0.00      0.00    599.74      1.66       .15       .08    594.40
    3449.         0.     3449.        0.        0.      333.        0.        1.        0.    600.50
      .00       0.00     10.35      0.00      .100      .025      .100     0.000    589.30     75.00
  .004728        24.       24.       24.         5         0         0    -20.80     62.28    138.00
0
 *SECNO 2354.000

 3470 ENCROACHMENT STATIONS         75.0      138.0  TYPE       1  TARGET        63.000
  ELENCL      600.50  ELENCR       600.50
   2354.00      9.20    593.50     -0.00      0.00    599.78      1.28       .00       .04    594.40
    3449.         0.     3449.        0.        0.      380.        0.        1.        0.    600.50
      .00       0.00      9.07      0.00      .100      .025      .100     0.000    589.30     75.00
  .003172         1.        1.        1.         3         0         0      0.00     63.00    138.00
0
1
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   SECNO      DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL        OLOSS   BANK ELEV
   Q          QLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID    ENDST


 *SECNO 3000.000

 3301 HV CHANGED MORE THAN HVINS

  -3000.00      9.98    599.28      0.00      0.00    599.94       .66       .10       .06    594.40
    3449.       253.     2998.      199.      204.      429.      133.        2.        0.    593.10
      .01       1.24      6.98      1.49      .100      .025      .100     0.000    589.30      7.33
  .001366        50.       50.       50.         3         0         0     -0.00    162.60    169.93
0
 *SECNO 3375.000
   3375.00      8.33    599.93      0.00      0.00    600.94      1.01       .89       .10    601.97
    3449.         0.     3418.       31.        0.      423.       26.       10.        2.    592.90
      .03       0.00      8.09      1.16      .100      .025      .100     0.000    591.60     70.03
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  .001623     600.     600.     600.        2        0        0    0.00    70.92   140.95
0
 *SECNO 3400.000

 3470 ENCROACHMENT STATIONS        70.0     132.0  TYPE      1  TARGET       62.000
  ELENCL      604.00  ELENCR      604.00
           CHICAGO DRIVE BRIDGE
   3400.00      8.41    600.01     0.00     0.00    601.03     1.01      .09      .00    601.97
     3449.        0.     3449.       0.       0.      427.       0.      11.       2.    604.00
       .03      0.00      8.07     0.00     .100      .025     .100    0.000   591.60     70.03
   .001824       50.       50.      50.        0         0        0     0.00    61.97    132.00
0
 *SECNO 3401.000

 3370 NORMAL BRIDGE,NRD  16 MIN ELTRD   604.00 MAX ELLC   604.10

   3401.00      8.42    600.02     0.00     0.00    601.03     1.01      .00      .00    601.97
     3449.        0.     3449.       0.       0.      428.       0.      11.       2.    592.90
       .03      0.00      8.06      .09     .100      .025     .100    0.000   591.60     70.03
   .001592        1.        1.       1.        0         0        0   -26.58    71.32    141.34
0
 *SECNO 3415.000

 3370 NORMAL BRIDGE,NRD  16 MIN ELTRD   604.00 MAX ELLC   604.10

   3415.00      8.45    600.05     0.00     0.00    601.05     1.00      .02      .00    601.97
     3449.        0.     3449.       0.       0.      429.       0.      11.       2.    592.90
       .03      0.00      8.04      .09     .100      .025     .100    0.000   591.60     70.03
   .001574       12.       12.      12.        0         0        0   -26.80    71.49    141.52
0
1
  83/02/28.    12.07.44.                                                                 PAGE   16

     SECNO     DEPTH     CWSEL     CRIWS    WSELK        EG       HV       HL     OLOSS  BANK ELEV
     Q         QLOB      QCH       QROB     ALOB        ACH     AROB      VOL      TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB     XNL        XNCH      XNR      WTN    ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR    ITRIAL      IDC    ICONT    CORAR   TOPWID     ENDST


 *SECNO 3420.000
   3420.00      8.60    600.20     0.00     0.00    601.13      .93      .08      .01    601.97
     3449.        0.     3416.      33.       0.      439.      29.      12.       2.    592.90
       .03      0.00      7.78     1.13     .100      .025     .100    0.000   591.60     70.02
   .001436       50.       50.      50.        2         0        0     0.00    72.69    142.72
0
 *SECNO 3425.000

 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED
   3425.00      7.38    599.05   599.05     0.00    602.25     3.20      .35      .68    593.15
     3449.       94.     3314.      41.      50.      226.      22.      13.       2.    592.67
       .03      1.88     14.65     1.85     .100      .025     .100    0.000   591.67     80.34
   .004551      150.      150.     150.        4        11        0     0.00    59.68    140.02
0
 *SECNO 3825.000

 3265 DIVIDED FLOW
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 3301 HV CHANGED MORE THAN HVINS
    3825.00    10.26   602.06     0.00     0.00   603.34     1.29      .90      .19   594.30
      3449.     206.    3203.      40.     119.     339.      36.      17.       3.   596.00
       .05      1.74     9.44     1.11     .100     .025     .100    0.000  -591.80   718.82
   .001335      400.     400.     400.        3        0        0     0.00    91.18   918.27
0
 *SECNO 3875.000

 3470 ENCROACHMENT STATIONS      870.0     912.0  TYPE       1  TARGET       42.000
           MAIN ST.-BRIDGE, TR 605.4, LC 602.2
    3875.00     9.77   602.07     0.00     0.00   603.46     1.39      .08      .03   595.80
      3449.       0.    3449.      -0.       0.     365.      -0.      17.       3.100000.00
       .05      0.00     9.45     0.00     .100     .025     .100    0.000   592.30   870.00
   .002107       50.      50.      50.        2        0        0     0.00    42.00   912.00
0
1
 83/02/28.   12.07.44.                                                             PAGE   17

     SECNO     DEPTH    CWSEL    CRIWS    WSELK       EG       HV       HL    OLOSS   BANK ELEV
     Q         QLOB     QCH      QROB     ALOB      ACH      AROB     VOL      TWA   LEFT/RIGHT
     TIME      VLOB     VCH      VROB     XNL       XNCH     XNR      WTN     ELMIN     SSTA
     SLOPE     XLOBL    XLCH     XLOBR    ITRIAL    IDC      ICONT    CORAR   TOPWID    ENDST


 *SECNO 3876.000

 3370 NORMAL BRIDGE,NRD  11 MIN ELTRD   605.40 MAX ELLC   606.00


 3470 ENCROACHMENT STATIONS      870.0     912.0  TYPE       1  TARGET       42.000
    3876.00     9.77   602.07     0.00     0.00   603.46     1.39      .00      .00   595.80
      3449.       0.    3449.       0.       0.     365.       0.      17.       3.100000.00
       .05      0.00     9.45    -0.00     .100     .025     .100    0.000   592.30   870.00
   .002106        1.       1.       1.        0        0        0     0.00    42.00   912.00
0
 *SECNO 3900.000

 3370 NORMAL BRIDGE,NRD  11 MIN ELTRD   605.40 MAX ELLC   606.00


 3470 ENCROACHMENT STATIONS      870.0     912.0  TYPE       1  TARGET       42.000
    3900.00     9.89   602.18     0.00     0.00   603.53     1.35      .07      .00   595.80
      3449.       0.    3449.       0.       0.     370.       0.      17.       3.100000.00
       .05      0.00     9.33     0.00     .100     .025     .100    0.000   592.30   870.00
   .002028       35.      35.      35.        2        0        0     0.00    42.00   912.00
0
 *SECNO 3910.000

 3470 ENCROACHMENT STATIONS      860.0     920.0  TYPE       1  TARGET       60.000
    3910.00    10.13   602.43     0.00     0.00   603.57     1.14      .02      .02   595.80
      3449.       58.   3320.      71.      45.     380.      47.      17.       3.   595.20
       .05      1.31     8.73     1.52     .100     .025     .100    0.000   592.30   860.00
   .001197       10.      10.      10.        2        0        0     0.00    60.00   920.00
0
 *SECNO 3925.000
    3925.00    10.00   603.00     0.00     0.00   603.68      .68      .06      .05   595.10
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     3449.      214.     2753.      433.      285.      374.      402.       18.        4.    594.60
      .05       .75      7.37      1.20      .100      .030      .100     0.000    593.00    614.32
   .001114       50.       50.       50.         3         0         0      0.00    418.67   1032.98
0
 *SECNO 6250.000
          U/S OF HOTZENGA DRAIN
   6250.00     11.05    604.35      0.00      0.00    604.75       .40      1.04       .03    594.90
     3315.      112.     2310.      892.      156.      382.     1009.       54.       18.    593.20
      .13       .72      6.04       .88      .100      .030      .100     0.000    593.30    684.16
   .000696     1195.     1195.     1195.         2         0         0      0.00    609.87   1294.03
0
1
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    SECNO     DEPTH     CWSEL     CRIWS     WSELK       EG        HV        HL      OLOSS   BANK ELEV
      Q       QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME     VLOB      VCH       VROB      XNL       XNCH      XNR       WTN     ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC      ICONT     CORAR    TOPWID     ENDST

 *SECNO 8500.000
   8500.00     11.71    605.01      0.00      0.00    605.25       .24       .49       .02    596.10
     3315.      836.     2176.      302.     1469.      449.      366.       96.       33.    595.40
      .20       .57      4.84       .83      .100      .030      .100     0.000    593.30    874.44
   .000396      942.      942.      942.         2         0         0      0.00    794.66   1669.10
0
 *SECNO 9750.000

 3265 DIVIDED FLOW


 3301 HV CHANGED MORE THAN HVINS

   9750.00     11.51    604.81    601.12      0.00    605.72       .91       .28       .20    596.10
     3315.      354.     2783.      178.      483.      333.      226.      112.       40.    595.40
      .22       .73      8.36       .79      .100      .030      .100     0.000    593.30   1144.85
   .001242      427.      427.      427.         4        15         0      0.00    588.89   1746.01
0
 *SECNO 10700.000

 3301 HV CHANGED MORE THAN HVINS

  10700.00     11.93    606.03      0.00      0.00    606.33       .30       .55       .06    596.80
     3315.      170.     2438.      707.      375.      474.     1312.      141.       56.    596.10
      .28       .45      5.14       .54      .100      .030      .100     0.000    594.10    718.62
   .000432      800.      800.      800.         2         0         0      0.00   1225.80   1944.42
0
 *SECNO 11700.000
  11700.00     11.71    606.31      0.00      0.00    606.59       .27       .25       .00    598.00
     3315.       57.     1863.     1395.       82.      334.     2194.      170.       70.    596.40
      .32       .63      5.57       .63      .100      .030      .100     0.000    594.60    456.28
   .000541      520.      520.      520.         2         0         0      0.00   1006.50   1462.78
0
 *SECNO 12000.000

 3301 HV CHANGED MORE THAN HVINS

               GRAVEL PIT BRIDGE, TR 605.4, LC 603.6
  12000.00     11.42    605.72    602.78      0.00    606.92      1.19       .06       .28    599.30
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604.8 100-yr [illegible]

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    3315.      63.    3157.      94.      53.     352.     150.     172.      71.    599.60
     .32      1.19     8.98      .63     .100     .030     .100    0.000   594.30  1647.27
 .001906       60.      60.      60.       4       20        0     0.00   581.40  2328.68
0
1
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     SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
     Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA      LEFT/RIGHT
     TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN        SSTA
     SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID       ENDST

 SPECIAL BRIDGE

 SB   XK        XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      1.05      1.55       2.50       0.00       39.00      1.50       280.40     0.00       596.40     596.40

 *SECNO 12001.000
 6870 D.S. ENERGY OF  606.92 HIGHER THAN COMPUTED ENERGY OF  606.46
 PRESSURE AND WEIR FLOW

  EGPRS      EGLWC        H3        QWEIR       QPR         BAREA    TRAPEZOID    ELLC      ELTRD
                                                                        AREA
   609.08     607.08       .17       1784.       1550.       280.       270.     603.60    605.40


  12001.00   11.44   605.74    0.00     0.00   606.92     1.18     0.00     0.00   599.30
     3315.     64.    3152.     99.      54.     352.     163.     172.      71.   599.60
      .32     1.18     8.94     .60     .100     .030     .100    0.000   594.30  1645.93
  .001884      13.      13.     13.       2        0        0     0.00   692.23  2338.17
0
 *SECNO 12800.000

 3301 HV CHANGED MORE THAN HVINS

             U/S OF BLISS DRAIN
  12800.00   12.11   607.11    0.00     0.00   607.20      .09      .17      .11   598.00
     1486.     58.    1016.    411.     182.     345.    1795.     132.      79.   596.00
      .36      .32     2.94     .23     .100     .030     .100    0.000   595.00   214.50
  .000145     300.     300.    300.       3        0        0     0.00  1599.33  1813.84
0
 *SECNO 13500.000
 3280 CROSS SECTION  13500.00 EXTENDED       8.51 FEET

  13500.00   11.11   607.21    0.00     0.00   607.21      .00      .00      .01   597.50
     1486.    575.      90.    821.    7053.     266.    9445.     307.     103.   597.50
     1.94      .08      .34     .09     .100     .030     .100    0.000   596.10    66.99
  .000002     570.     570.    570.       2        0        0     0.00  2125.01  2192.00
0
 *SECNO 14200.000
  14200.00   11.11   607.21    0.00     0.00   607.21      .00      .00      .00   598.60
     1486.    871.     103.    515.    9353.     259.    5354.     529.     133.   598.60
     3.43      .09      .39     .10     .100     .030     .100    0.000   596.10   106.52
  .000003     610.     510.    610.       2        0        0     0.00  2174.17  2280.69
0
1
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83/02/28.   12.07.44.                                                                                          PAGE   20

     SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA     LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST

*SECNO 17500.000

3265 DIVIDED FLOW

  17500.00     10.99    607.19      0.00      0.00    607.24       .04       .01       .01    598.30
     1486.      665.      549.      172.     2011.      260.      489.      775.      177.    598.30
     3.69       .33      2.50       .35      .100      .030      .100     0.000    596.20    615.60
   .000121     1210.     1210.     1210.        2         0         0      0.00   1002.11   1850.94
0
*SECNO 19100.000
3280 CROSS SECTION  19100.00 EXTENDED     1.25 FEET

  19100.00     10.56    607.26      0.00      0.00    607.26       .00       .02       .00    599.20
     1500.       36.      133.     1331.      329.      221.     9124.      915.      205.    599.20
     5.16       .11       .60       .15      .100      .030      .100     0.000    596.70    911.73
   .000008      980.      980.      980.        0         0         0      0.00   1478.27   2390.00
0
*SECNO 20200.000
3280 CROSS SECTION  20200.00 EXTENDED     3.27 FEET

  20200.00     10.27    607.27      0.00      0.00    607.27       .00       .01       .00    599.20
     1500.       27.      221.     1252.      285.      347.     8259.     1075.      230.    599.20
     6.10       .10       .64       .15      .100      .030      .100     0.000    597.00   1029.77
   .000008      750.      750.      750.        2         0         0      0.00   1383.23   2413.00
0
*SECNO 23700.000
  23700.00      9.78    607.28      0.00      0.00    607.29       .01       .02       .00    600.00
     1500.       14.      417.     1069.       92.      327.     3409.     1264.      260.    600.30
     6.72       .15      1.28       .31      .100      .030      .100     0.000    597.50    973.92
   .000036     1295.     1295.     1295.        0         0         0      0.00    638.71   1612.63
0
*SECNO 24000.000
  24000.00      9.67    607.27      0.00      0.00    607.31       .05       .01       .01    599.20
     1500.      240.      753.      507.      631.      305.     1541.     1281.      264.    599.20
     6.76       .38      2.47       .33      .100      .030      .100     0.000    597.60    689.84
   .000132      230.      230.      230.        1         0         0      0.00    981.99   1671.83
0
1
 83/02/28.   12.07.44.                                                                                         PAGE   21

     SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA     LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST

*SECNO 25250.000

3470 ENCROACHMENT STATIONS       700.0     1540.0  TYPE       1  TARGET       700.000
          12TH AVE. BRIDGE, TR 607.8, LC 606.2
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  25250.00      8.96    607.26      0.00      0.00    607.50       .25       .13       .06    602.20
     1500.       44.     1313.      143.       78.      309.      243.     1300.      272.    602.60
     6.80        .57      4.25       .59      .100      .030      .100     0.000    598.30    925.49
   .000522      550.      550.      550.         2         0         0      0.00   -197.58  -1123.07
0
 *SECNO 25251.000

 3370 NORMAL BRIDGE,NRD   12 MIN ELTRD   607.50 MAX ELLC   608.20


 3470 ENCROACHMENT STATIONS       800.0      1350.0  TYPE       1  TARGET       550.000
  25251.00      8.78    607.08      0.00      0.00    607.59       .51       .01       .08    602.20
     1500.       10.     1334.      156.       21.      220.      168.     1300.      272.    602.60
     6.80        .48      6.05       .93      .100      .030      .100     0.000    598.30    926.20      Downstream
   .003912       10.       10.       10.         2         0         0   -185.60    194.82   1121.02      Face
-0
 *SECNO 25252.000

 3370 NORMAL BRIDGE,NRD   12 MIN ELTRD   607.50 MAX ELLC   608.20


 3470 ENCROACHMENT STATIONS       800.0      1350.0  TYPE       1  TARGET       550.000
  25252.00      8.92    607.22      0.00      0.00    607.72       .50       .13       .00    602.20
     1500.       10.     1329.      161.       21.      220.      175.     1301.      272.    602.60      Upstream
     6.31        .48      5.03       .92      .100      .030      .100     0.000    598.30    925.64      Face
   .003881       33.       33.       33.         2         0         0   -204.48    197.01  -1122.64
0
 *SECNO 25253.000

 3470 ENCROACHMENT STATIONS       800.0      1350.0  TYPE       1  TARGET       550.000
  25253.00      9.22    607.52      0.00      0.00    607.76       .24       .01       .03    602.20
     1568.       52.     1349.      168.       88.      319.      275.     1301.      272.    602.60      P
     6.81        .59      4.23       .61      .100      .030      .100     0.000    598.30    924.38
   .000495       10.       10.       10.         2         0         0      0.00    201.85   1126.23
0
1
 83/02/28.   12.07.44.                                                                                  PAGE   22


      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 *SECNO 27250.000
  27250.00      8.95    607.95      0.00      0.00    607.97       .01       .19       .02    600.50      Q
     1568.      896.      381.      291.     2704.      203.     1065.     1359.      290.    600.50
     7.24        .33      1.88       .27      .100      .030      .100     0.000    599.00    300.52
   .000085     1095.     1095.     1095.         3         0         0      0.00   1201.27   1501.79
0
 *SECNO 29700.000
 3280 CROSS SECTION   29700.00 EXTENDED        .04 FEET

  29700.00      9.24    608.04      0.00      0.00    608.04       .01       .08       .00    601.30      R
     1568.      857.      324.      388.     2515.      245.     2107.     1486.      327.    603.10
     7.93        .34      1.32       .18      .100      .030      .100     0.000    598.80    264.91
   .000046     1250.     1250.     1250.         2         0         0      0.00   1430.09   1695.00
0
 *SECNO 32250.000
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 3280 CROSS SECTION  32250.00 EXTENDED       .07 FEET

  32250.00      9.37   608.07     0.00     0.00   608.07      .00      .03      .00   601.10
     1568.      578.     170.     821.    1517.     213.    2462.    1585.     357.   600.10      S
      8.59       .38      .30      .33     .040     .032     .040    0.000   598.70   283.54
   .000018      950.     950.     950.        2        0        0     0.00  1306.46  1590.00
0
 *SECNO 35000.000
 3280 CROSS SECTION  35000.00 EXTENDED       .11 FEET

  35000.00      8.60   608.10     0.00     0.00   608.12      .01      .04      .00   601.00
     1568.      552.     343.     668.    1103.     207.     931.    1684.     394.   601.00      T
      9.02       .50     1.68      .72     .040     .032     .040    0.000   599.50   155.00
   .000080     1340.    1340.    1340.        0        0        0     0.00  1060.00  1215.00
0
 *SECNO 36300.000
 3280 CROSS SECTION  36300.00 EXTENDED       .15 FEET

  36300.00      8.45   608.15     0.00     0.00   608.17      .02      .05      .00   601.00
     1568.      723.     308.     537.    1194.     162.     605.    1711.     407.   601.00
      9.19       .61     1.90      .89     .040     .032     .040    0.000   599.70   200.00      U
   .000105      560.     560.     560.        2        0        0     0.00   950.00  1150.00
0
1
  83/02/28.   12.07.44.                                                                     PAGE   23


    SECNO     DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL      OLOSS   BANK ELEV
    Q         QLOB     QCH      QROB     ALOB     ACH      AROB     VOL     TWA    LEFT/RIGHT
    TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN     ELMIN      SSTA
    SLOPE     XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR   TOPWID     ENDST


 *SECNO 37000.000
 3280 CROSS SECTION  37000.00 EXTENDED       .26 FEET

       PORT SHELDON RD. BRIDGE, TR 610.4, LC 608.0
  37000.00      7.46   607.86     0.00     0.00   608.37      .52      .06      .15   605.10      d/s face
     1568.      131.    1405.      33.      85.     231.      17.    1716.     409.   604.50
      9.20      1.54     6.07     1.88     .040     .032     .040    0.000   600.40   409.82
   .001936      200.     200.     200.        2        0        0     0.00   177.38   587.20
0
 *SECNO 37001.000
 3280 CROSS SECTION  37001.00 EXTENDED       .28 FEET


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       609.50 ELREA       609.50

  37001.00      7.48   607.88     0.00     0.00   608.59      .71      .16      .06   605.10
     1568.        0.    1568.       0.       0.     232.       0.    1717.     409.   604.50
      9.20      0.00     6.74     0.00     .040     .032     .040    0.000   600.40   520.00
   .002376       75.      75.      75.        2        0        0     0.00    43.20   563.20
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB   XK       XKOR     COFQ     RDLEN      BWC       BWP      BAREA       SS      ELCHU     ELCHD
      0.00     1.56     3.00      0.00     35.00      0.00    238.00      0.00    600.40    600.40
```

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*SECNO 37002.000
3280 CROSS SECTION  37002.00 EXTENDED        .75 FEET

PRESSURE FLOW

  EGPRS      EGLWC      H3      QWEIR      QPR      BAREA   TRAPEZOID   ELLC      ELTRD
                                                              AREA
   608.94    608.59    0.00        0.       1568.     238.      266.      608.00    610.40


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       609.50 ELREA       609.50

  37002.00     7.94   608.34    0.00     0.00   608.94      .60      .35     0.00    605.10
     1568.       0.    1568.      0.       0.     252.       0.    1717.     409.    604.50
     9.20     0.00     6.21     0.00     .040     .032     .040    0.000   600.40    520.00
   .001807      22.      22.      22.       2        0        0     0.00    43.20    563.20
0
1
 83/02/28.    12.07.44.                                                          PAGE   24

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG       HV       HL      OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH      AROB     VOL     TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH     XNR      WTN     ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC      ICONT    CORAR   TOPWID    ENDST

*SECNO 37003.000
3280 CROSS SECTION  37003.00 EXTENDED        1.20 FEET

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       609.50 ELREA       609.50

  37003.00     8.40   608.80    0.00     0.00   609.03      .23      .06      .04    605.10
     1050.       0.    1050.      0.       0.     272.       0.    1717.     409.    604.50
     9.20     0.00     3.86     0.00     .040     .032     .040    0.000   600.40    520.00
   .000632      50.      50.      50.       2        0        0     0.00    43.20    563.20
0
 *SECNO 37800.000

3470 ENCROACHMENT STATIONS      920.0     1130.0  TYPE      1  TARGET     210.000
  37800.00     8.77   609.17    0.00     0.00   609.26      .09      .22      .01    606.00
     1050.     226.     509.     315.     181.     158.     216.    1721.     411.    606.00
     9.25     1.24     3.22     1.46     .040     .032     .040    0.000   600.40    920.00
   .000476     400.     400.     400.       2        0        0     0.00   210.00   1130.00
0
 *SECNO 38500.000
 3280 CROSS SECTION  38500.00 EXTENDED        .31 FEET

                GRAVEL PIT BRIDGE, TR 605.1, LC 605.3
  38500.00     9.71   609.31    0.00     0.00   609.32      .01      .05      .01    602.00
     1050.     686.     260.     104.     951.     178.     148.    1728.     413.    602.80
     9.36      .72     1.46      .70     .040     .032     .040    0.000   599.60      0.00
   .000073     350.     350.     350.       2        0        0     0.00   391.33    391.33
0
 *SECNO 38501.000
 3280 CROSS SECTION  38501.00 EXTENDED        .31 FEET
```

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 3370 NORMAL BRIDGE,NRD  15 MIN ELTRD   605.10 MAX ELLC   606.50

 38501.00     9.71   609.31     0.00     0.00   609.32      .01      .00      .00   602.00
    1050.     817.     145.      88.     921.     164.     121.    1728.     413.   602.80
    9.36      .89      .38      .73     .040     .032     .040    0.000   599.60     0.00
  .000118      10.      10.      10.        0        0        0   -72.54   391.36   391.36
0
1
  83/02/28.   12.07.44.                                                                     PAGE   25

     SECNO     DEPTH    CWSEL    CRIWS    WSELK       EG       HV       HL    OLOSS  BANK ELEV
       Q       QLOB      QCH     QROB     ALOB      ACH     AROB      VOL      TWA  LEFT/RIGHT
     TIME      VLOB      VCH     VROB      XNL     XNCH      XNR      WTN    ELMIN     SSTA
     SLOPE    XLOBL     XLCH    XLOBR   ITRIAL      IDC    ICONT    CORAR   TOPWID    ENDST


 *SECNO 38502.000
 3280 CROSS SECTION  38502.00 EXTENDED       .31 FEET

 3370 NORMAL BRIDGE,NRD  15 MIN ELTRD   605.10 MAX ELLC   606.50

 38502.00     9.71   609.31     0.00     0.00   609.33      .01      .00      .00   602.00
    1050.     818.     145.      88.     922.     164.     121.    1729.     413.   602.80
    9.38      .89      .38      .73     .040     .032     .040    0.000   599.60     0.00
  .000118      36.      36.      36.        0        0        0   -72.54   391.41   391.41
0
 *SECNO 38503.000
 3280 CROSS SECTION  38503.00 EXTENDED       .32 FEET

 38503.00     9.71   609.31     0.00     0.00   609.33      .01      .00      .00   602.00
    1050.     637.     259.     104.     954.     178.     149.    1730.     413.   602.80
    9.38      .72     1.46      .70     .040     .032     .040    0.000   599.60     0.00
  .000072      10.      10.      10.        0        0        0     0.00   391.44   391.44
0
 *SECNO 38810.000
 3280 CROSS SECTION  38810.00 EXTENDED      1.33 FEET

 38810.00     8.03   609.33     0.00     0.00   609.33      .00      .00      .00   602.00
    1050.     830.     169.      51.    1866.     217.     143.    1736.     415.   601.80
    9.46      .44      .78      .36     .040     .032     .040    0.000   601.30    15.00
  .000018     150.     150.     150.        0        0        0     0.00   499.37   514.37
0
 *SECNO 40680.000

 3265 DIVIDED FLOW

 40680.00     7.85   609.35    -0.00     0.00   609.35      .00      .02      .00   602.00
    1050.     576.     157.     317.    1453.     136.     731.    1783.     427.   602.00
    9.99      .40      .35      .43     .040     .032     .040    0.000   601.50   243.16
  .000022     900.     900.     900.        2        0        0     0.00   680.53   926.74
0
 *SECNO 42764.000
 42764.00     7.47   609.37    -0.00     0.00   609.38      .01      .03      .00   602.00
    1050.     120.     197.     733.     354.     178.    1511.    1834.     445.   602.00
   10.46      .34     1.11      .48     .040     .032     .040    0.000   601.90   308.69
  .000039    1000.    1000.    1000.        0        0        0     0.00   843.18  1151.88
0
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 *SECNO 45960.000
           U/S OF THREE TRIBUTARIES
  45960.00      6.87    609.27      0.00      0.00    609.66       .40       .16       .12   604.60
     1050.       78.      625.      347.       27.      105.      102.     1871.      459.    603.70
     10.54      2.88      5.95      3.40      .040      .032      .040     0.000    602.40     69.73
   .001508     1410.     1410.     1410.         2         0         0      0.00     68.62    138.36
0
 *SECNO 46200.000
               M-21 EAST BOUND BRIDGE, TR 614.1, LC 610.3
  46200.00      7.14    609.34      0.00      0.00    609.97       .64       .24       .07   614.10
     1050.        0.     1050.        0.        0.      164.        0.     1871.      460.    608.10
     10.55      0.00      5.40       .02      .040      .032      .040     0.000    602.20   1400.08
   .002723      120.      120.      120.         2         0         0      0.00     34.94   1435.02
0
 *SECNO 46201.000

 3370 NORMAL BRIDGE,NRD    9 MIN ELTRD    614.10 MAX ELLC    614.10

  46201.00      7.28    609.48      0.00      0.00    610.08       .60       .10       .00   614.10
     1050.        0.     1050.        0.        0.      169.        0.     1871.      460.    608.10
     10.55      0.00      5.20       .02      .040      .032      .040     0.000    602.20   1400.08
   .002473       40.       40.       40.         2         0         0      0.00     34.95   1435.02
0
 *SECNO 46350.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       614.90 ELREA       614.90

               M-21 WEST BOUND BRIDGE, TR 614.9, LC 610.1
  46350.00      6.94    609.94      0.00      0.00    610.33       .39       .23       .02   614.90
     1050.        0.     1050.        0.        0.      210.        0.     1872.      460.    608.80
     10.56      0.00      5.01      0.00      .040      .032      .040     0.000    603.00   1372.58
   .002087      100.      100.      100.         2         0         0      0.00     50.92   1423.50
0
 *SECNO 46351.000

 3370 NORMAL BRIDGE,NRD   13 MIN ELTRD    614.90 MAX ELLC    614.90

  46351.00      7.03    610.03      0.00      0.00    610.40       .37       .08       .00   614.90
     1050.        0.     1050.        0.        0.      214.        0.     1872.      460.    608.80
     10.56      0.00      4.91       .02      .040      .032      .040     0.000    603.00   1372.58
   .001954       38.       38.       38.         0         0         0      0.00     50.94   1423.52
0
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST
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*SECNO 46500.000

3470 ENCROACHMENT STATIONS      1400.0     1450.0  TYPE       1  TARGET        50.000
             C & O R.R. BRIDGE, TR 614.1, LC 609.3
  46500.00      7.85    610.15      0.00      0.00    610.46       .31       .05       .01    608.30
     1050.        0.     1050.        0.        0.      234.        0.     1872.      460. 100000.00
    10.56       0.00      4.48      0.00      .040      .032      .040     0.000    602.30   1400.00
  .001504        30.       30.       30.         2         0         0      0.00     50.00   1450.00
0

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN      BWC       BWP       BAREA      SS       ELCHU     ELCHD
    0.00      1.92      2.50      0.00      24.00      0.00    1933.00     0.00    602.30    602.30

*SECNO 46518.000
1860 XLCEL OF    614.10 EXCEEDS RDEL OF     609.30
1860 XLCEL OF    614.10 EXCEEDS RDEL OF     609.30

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS     610.158  EGLWC      610.456  ELLC      609.300  PCWSE     610.149  ELTRD     614.100

3370 NORMAL BRIDGE,NRD    6 MIN ELTRD   614.10 MAX ELLC    609.30

3470 ENCROACHMENT STATIONS      1400.0     1451.0  TYPE       1  TARGET        51.000
  46518.00      7.89    610.19      0.00      0.00    610.49       .30       .03       .00    608.30
     1050.        0.     1050.        0.        0.      238.        0.     1872.      460. 100000.00
    10.56       0.00      4.41      0.00      .040      .032      .040     0.000    602.30   1400.00
  .001460        18.       18.       18.         2         0         0      0.00     51.00   1451.00
0
*SECNO 46600.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS      1350.0     1430.0  TYPE       1  TARGET        80.000
  46600.00      7.02    609.32      0.00      0.00    611.26      1.94       .28       .49    608.30
     1807.        0.     1807.        0.        0.      162.        0.     1873.      460. 100000.00
    10.56        .03     11.17      0.00      .040      .032      .040     0.000    602.30   1399.91
  .008647       100.       75.       50.         3         0         0      0.00     30.09   1430.00
0
1
 83/02/28.   12.07.44.                                                                  PAGE   28

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

*SECNO 46850.000
3280 CROSS SECTION   46850.00 EXTENDED      4.23 FEET

3301 HV CHANGED MORE THAN HVINS
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 3470 ENCROACHMENT STATIONS      1300.0     1525.0  TYPE       1  TARGET     -1300.000
   ELENCL     1475.00  ELENCR  100000.00
                SECTION 468+50
  46850.00      8.83   611.93      0.00      0.00   612.07       .14       .63       .18    610.50
     1807.        0.    1290.      517.        0.     391.      234.     1875.      461.    610.50
    10.59      0.00     3.30      2.21      .040      .032      .040     0.000    603.10   1300.00
  .001171      360.     260.      210.        3         0         0      0.00    225.00   1525.00
0
 *SECNO 47560.000
 3280 CROSS SECTION  47560.00 EXTENDED      4.10 FEET

 3470 ENCROACHMENT STATIONS      1320.0     1700.0  TYPE       1  TARGET      380.000
                 STATION 475+60
  47560.00      9.19   612.49      0.00      0.00   612.58       .09       .51       .01    610.80
     1807.       20.     885.      902.       28.     281.      624.     1888.      465.    611.20
    10.68       .72     3.16      1.44      .040      .032      .040     0.000    603.30   1367.30
  .000463      810.     710.      760.        3         0         0      0.00    332.69   1700.00
0
 *SECNO 48600.000
 3280 CROSS SECTION  48600.00 EXTENDED      2.64 FEET

 3470 ENCROACHMENT STATIONS       800.0     1320.0  TYPE       1  TARGET      520.000
   ELENCL      610.50  ELENCR     610.50
  48600.00      8.94   612.84      0.00      0.00   612.89       .05       .30       .00    608.00
     1807.       32.     657.     1118.       30.     269.     1026.     1912.      474.    610.80
    10.84      1.06     2.44      1.09      .040      .032      .040     0.000    603.90    865.80
  .000245      800.     850.      950.        2         0         0      0.00    454.20   1320.00
0
 *SECNO 50000.000
1
 83/02/28.   12.07.44.                                                                    PAGE   29

   SECNO     DEPTH    CWSEL     CRIWS     WSELK      EG        HV        HL      OLOSS   BANK ELEV
     Q       QLOB      QCH      QROB      ALOB      ACH      AROB       VOL       TWA   LEFT/RIGHT
    TIME     VLOB      VCH      VROB       XNL      XNCH      XNR       WTN     ELMIN      SSTA
   SLOPE     XLOBL    XLCH     XLOBR    ITRIAL      IDC     ICONT     CORAR    TOPWID     ENDST


 3265 DIVIDED FLOW

  50000.00      8.45   613.25      0.00      0.00   613.59       .34       .61       .09    606.20
     1807.      340.    1467.        0.      166.     288.        1.     1941.      484.    612.80
    10.92      2.04     5.09       .22      .040      .032      .040     0.000    604.80   1913.84
  .000965     1410.    1410.     1410.        2         0         0      0.00    151.19   2502.41
0
 *SECNO 50100.000

 3301 HV CHANGED MORE THAN HVINS

 3470 ENCROACHMENT STATIONS      2000.0     2026.0  TYPE       1  TARGET       26.000
   ELENCL      616.00  ELENCR     616.00
  50100.00      7.79   612.79      0.00      0.00   614.04      1.25       .18       .27    606.50
     1807.        0.    1807.        0.        0.     201.        0.     1942.      484.    616.00
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Stage = 611.6

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   10.93      0.00      8.98      0.00      .040      .032      .040    0.000   605.00  2000.00
 .004373      100.      100.      100.         2         0         0     0.00    26.00  2026.00
0
 *SECNO 50101.000

 3370 NORMAL BRIDGE,NRD  12 MIN ELTRD   616.00 MAX ELLC   616.00

 50101.00     7.73    612.73    610.35      0.00    614.07      1.34      .00      .03   606.50
   1807.       0.     1807.        0.        0.      194.        0.    1942.     484.    606.10
   10.93      0.00      9.30      0.00      .040      .032      .040    0.000   605.00  1949.11
 .004923        1.        1.        1.         4        15         0  -128.57    84.38  2033.48
0
 *SECNO 50150.000

 3370 NORMAL BRIDGE,NRD  12 MIN ELTRD   616.00 MAX ELLC   616.00

 50150.00     7.96    612.96    610.35      0.00    614.23      1.27      .15      .01   606.50
   1807.       0.     1807.        0.        0.      200.        0.    1942.     484.    606.10
   10.93      0.00      9.04      0.00      .040      .032      .C40    0.000   605.00  1945.59
 .004540       32.       32.       32.         4        15         0  -143.10    88.22  2033.81
0
1
 83/02/28.   12.07.44.                                                                  PAGE   30

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL       OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL      TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN      ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR    TOPWID    ENDST


 *SECNO 50151.000

 3470 ENCROACHMENT STATIONS      2000.0     2026.0  TYPE       1  TARGET        26.000
  ELENCL    614.00  ELENCR       614.00
 50151.00     8.08    613.08      0.00      0.00    614.24      1.16      .00      .01   606.50
   1807.       0.     1807.        0.        0.      209.        0.    1942.     484.    614.00
   10.93      0.00      9.65      0.00      .040      .032      .040    0.000   605.00  2000.00
 .003943        1.        1.        1.         2         0         0     0.00    26.00  2026.00
0
 *SECNO 50200.000

 3301 HV CHANGED MORE THAN HVINS

 50200.00     9.01    614.01      0.00      0.00    614.40       .39      .08      .08   606.50
   1807.     403.     1325.       80.      178.      233.       33.    1942.     484.    606.10
   10.93      2.26      5.68      2.39      .040      .032      .040    0.000   605.00  1929.83
 .000859       50.       50.       50.         3         0         0     0.00   105.42  2035.26
0
 *SECNO 50400.000
 3280 CROSS SECTION  50400.00 EXTENDED        .32 FEET

 50400.00     9.42    614.52      0.00      0.00    614.61       .09      .18      .03   614.00
   1807.       1.      479.     1327.        1.      137.      718.    1945.     485.    614.20
   10.96       .58      3.49      1.85      .040      .032      .040    0.000   605.10   707.13
 .000765      250.      240.      200.         2         0         0     0.00   342.87  1050.00
0
 *SECNO 50500.000
 3280 CROSS SECTION  50500.00 EXTENDED        .31 FEET
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     50500.00     9.20   614.30   614.12     0.00   614.89      .59      .13      .15   614.00
       1807.       1.    1443.     363.       2.     211.     247.    1947.     486.    614.00
       10.96      .53     6.33     1.47     .040     .032     .040    0.000   605.10   699.87
     .002420     100.     100.     100.        6        9        0     0.00   400.13  1100.00
0
  *SECNO 50501.000
  3280 CROSS SECTION   50501.00 EXTENDED        .76 FEET
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      SECNO     DEPTH    CWSEL    CRIWS    WSELK      EG        HV       HL      OLOSS   BANK ELEV
        Q       QLOB      QCH     QROB     ALOB      ACH      AROB      VOL      TWA    LEFT/RIGHT
      TIME      VLOB      VCH     VROB      XNL      XNCH      XNR      WTN     ELMIN     SSTA
      SLOPE     XLOBL     XLCH    XLOBR   ITRIAL     IDC     ICONT    CORAR   TOPWID    ENDST


  3370 NORMAL BRIDGE,NRD  14 MIN ELTRD   613.30 MAX ELLC   615.20

     50501.00     9.66   614.76     0.00     0.00   614.93      .17      .00      .04   614.00
       1807.      14.     673.    1115.      11.     167.     407.    1947.     486.    614.00
       10.96     1.23     4.06     2.74     .040     .032     .040    0.000   605.10   613.00
     .004471       1.       1.       1.        8        0        0   -60.00   487.00  1100.00
0
  *SECNO 50526.000
  3280 CROSS SECTION   50526.00 EXTENDED        .84 FEET


  3370 NORMAL BRIDGE,NRD  14 MIN ELTRD   613.30 MAX ELLC   615.20

     50526.00     9.74   614.84     0.00     0.00   614.98      .15      .05      .00   614.00
       1807.      21.     640.    1146.      23.     170.     436.    1947.     486.    614.00
       10.96      .90     3.77     2.63     .040     .032     .040    0.000   605.10   499.23
     .003758      12.      12.      12.        2        0        0   -60.00   500.77  1100.00
0
  *SECNO 50527.000
  3280 CROSS SECTION   50527.00 EXTENDED        .49 FEET


  3301 HV CHANGED MORE THAN HVINS

  7185 MINIMUM SPECIFIC ENERGY
  3720 CRITICAL DEPTH ASSUMED

  3470 ENCROACHMENT STATIONS       710.0      750.0  TYPE       1  TARGET        40.000
   ELENCL     614.00  ELENCR     614.00
     50527.00     9.39   614.49   614.49     0.00   615.24      .74      .00      .18   614.00
       1807.       3.    1599.     205.       4.     218.     172.    1947.     486.    614.00
       10.96      .88     7.34     1.19     .040     .032     .040    0.000   605.10   695.15
     .002681       1.       1.       1.        4        8        0     0.00   404.85  1100.00
0
  *SECNO 50600.000
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST


 3301 HV CHANGED MORE THAN HVINS

   50600.00    10.15    615.25      0.00      0.00    615.38       .13       .09       .06    614.00
      1807.     103.      944.      760.      224.      244.      582.     1948.      487.    614.00
      10.97      .46      3.37      1.31      .040      .032      .040     0.000    605.10      0.00
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0
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      1807.    1350.      211.      246.     3800.      278.      982.     2065.      547.    610.60
      12.15      .36       .76       .25      .040      .032      .040     0.000    606.80    577.29
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0
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      12.22      .36       .76       .25      .040      .032      .040     0.000    606.80    577.13
    .000022     100.      100.      100.         2         0         0      0.00   2028.66   2605.79
0
 *SECNO 52400.000

 3370 NORMAL BRIDGE,NRD  17 MIN ELTRD   611.40 MAX ELLC   618.00

   52400.00     8.70    615.50      0.00      0.00    615.50       .00       .00       .00    614.00
      1807.    1472.       71.      264.     3801.      210.      978.     2077.      552.    610.60
      12.22      .39       .34       .27      .040      .032      .040     0.000    606.80    577.13
    .000026       1.        1.        1.         0         0         0    -72.80   2028.67   2605.79
0
 *SECNO 52370.000

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      1807.    1472.       71.      264.     3802.      210.      979.     2078.      552.    610.60
      12.23      .39       .34       .27      .040      .032      .040     0.000    606.80    576.93
    .000026      12.       12.       12.         0         0         0    -72.80   2029.00   2605.93
0
1
```



```
     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN        SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID       ENDST


 *SECNO 52371.000
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      12.23      .36       .76       .25      .040      .032      .040     0.000    606.80    576.92
    .000022       1.        1.        1.         0         0         0      0.00   2029.02   2605.94
0
```

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP

3) WATERCOURSE: RUSH CREEK

4) DOCUMENT TYPE: REPORT

00BREAK00

Gove Associates Inc.
ARCHITECTS / ENGINEERS / PLANNERS / SURVEYORS
ENVIRONMENTAL SCIENTISTS

2724 E. MICHIGAN AVE
SUITE 200
LANSING, MICHIGAN 48912
(517) 485-0555

April 22, 1982

Mr. Daniel H. Morgan, P.E.
Flood Insurance Unit
Flood Plain Management Section
Water Management Division
Michigan Department of Natural Resources
P.O. Box 30028
Lansing, MI 48909

RECEIVED
APR 22 1982
WATER MANAGEMENT

Re: Georgetown Township Flood Insurance Study

Dear Mr. Morgan:

Enclosed for your review is our Hydraulic Analysis of Rush Creek through Georgetown Township, Michigan.

The following information is included:

1. HEC-2 run for 100-year flood
2. Summary tables for 10-, 50-, 100- and 500-year floods
3. IPLOT for 100-year flow
4. Topographic map
5. Hydraulic Analysis Report

If you have any questions on this information, please call me.

Very truly yours,

GOVE ASSOCIATES INC.

Garth Greenan

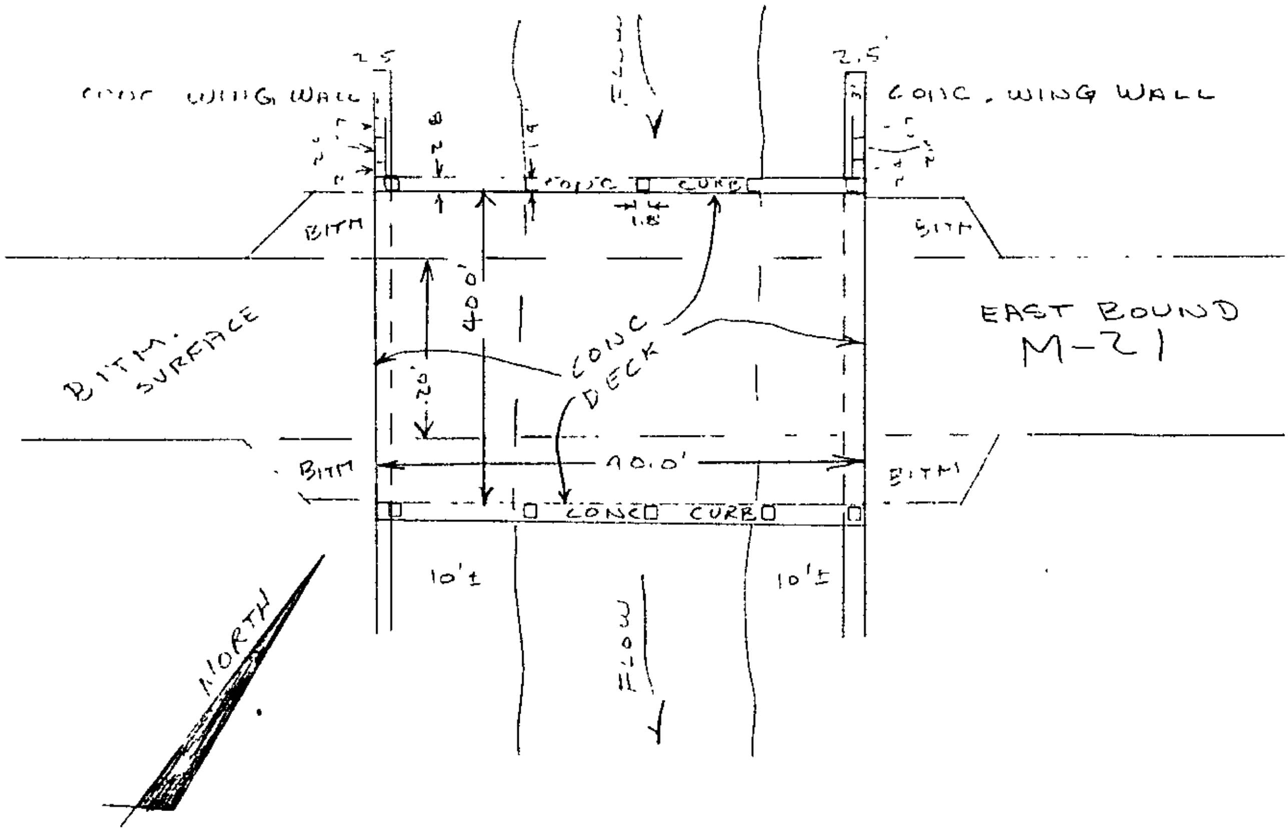
Garth Greenan
Project Engineer

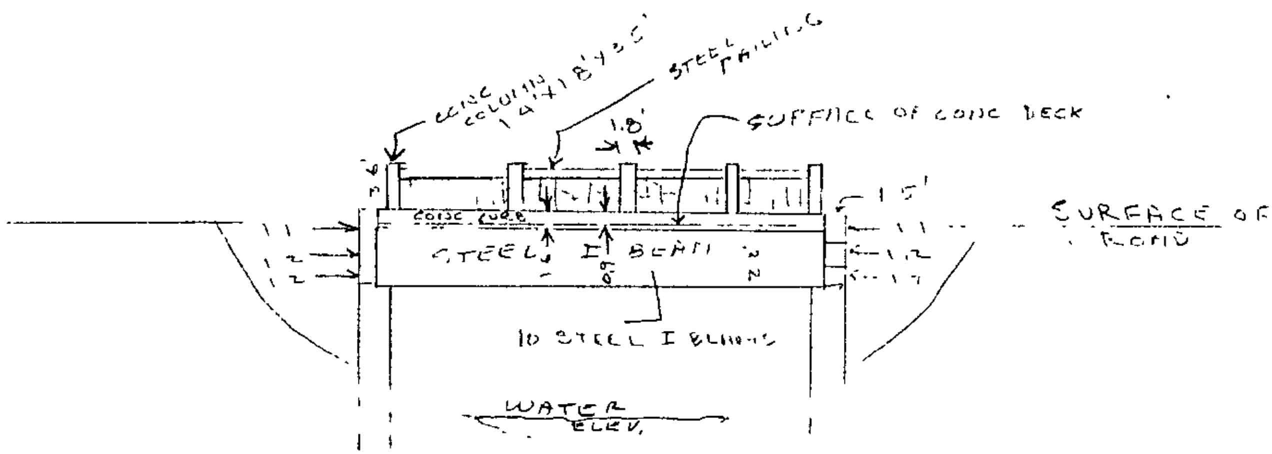
GG/jr

Enclosure: as listed above

SUBJECT RUSH CREEK BRIDGE STA. M-21 EAST BOUND LANE 462+00

PROJ. NO. 8549 SH. NO.
DESIGN J.B. DATE 1/20/00
CHECK DATE





GOVE ASSOCIATES

1601 PORTAGE STREET
KALAMAZOO, MICHIGAN 49001

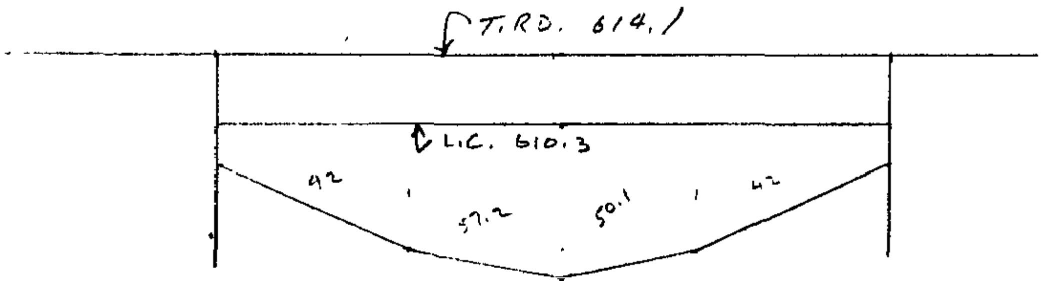
PROJ NO 8549 SH NO

DESIGN B DATE 020481

CHECK DATE

SUBJECT GEORGETOWN TWP.
RUSH CREEK

462+00 M-21 EAST BOUND
40' ~~LONG~~ wide
CONCRETE AND STEEL CONSTRUCTION



610.1	10.1	10.1	10.1	10.1
1400	1410	1418	1425	1435
608.1	03.7	02.2	03.7	08.1

A - 191.3 Sq ft. 150

$K_f = \dfrac{29.1 \times .02^2 \times 40}{2.56^{4/3}} = .13$

Ke - 0.5

n -

WP - 74.6'

R - 2.56'

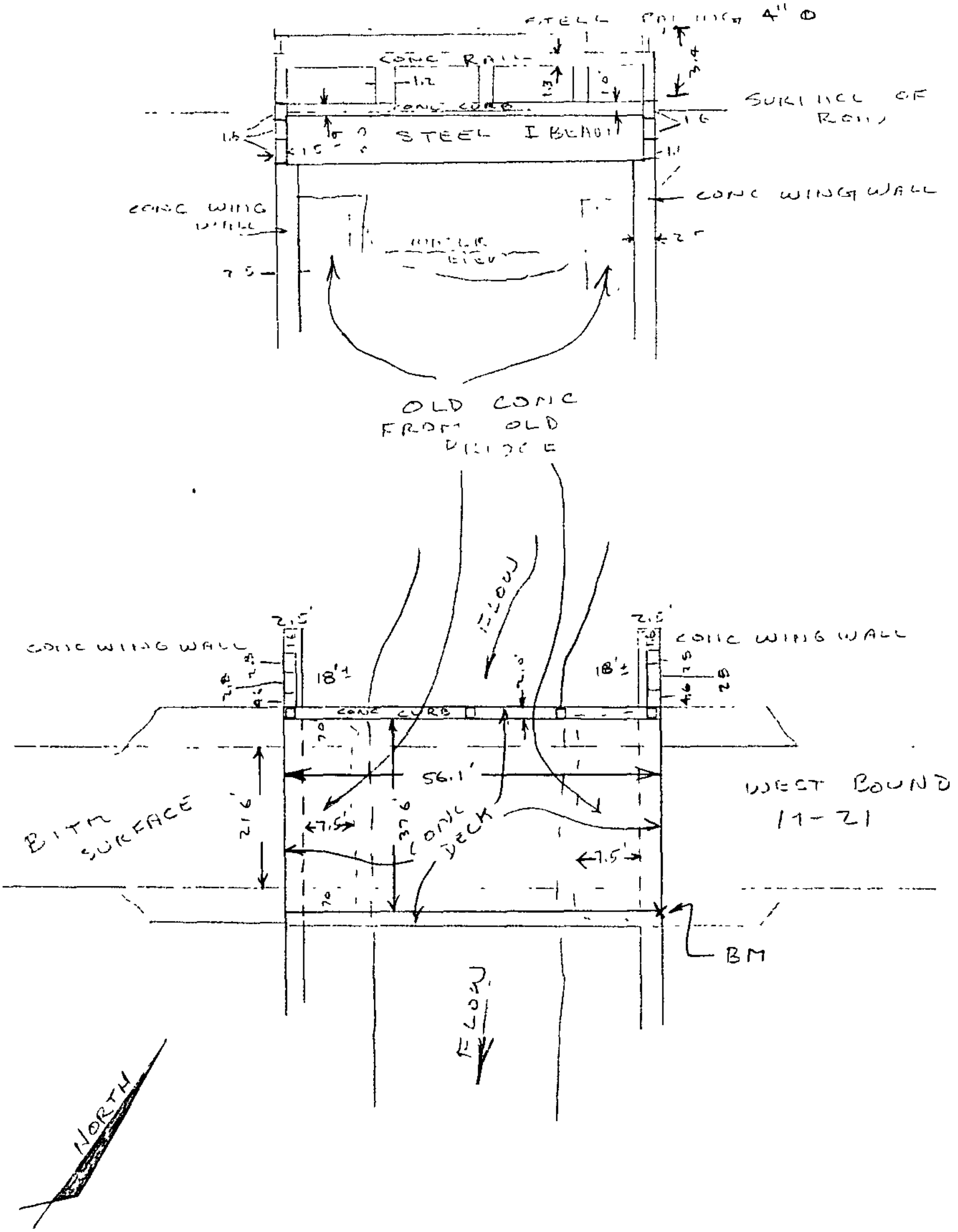
XKOR =

1 + .13 + .5

SUBJECT RUSH CREEK
BRIDGE STA.
M-21 WEST BOUND
463+50

PROJ. NO. 8549
DESIGN J.B.
CHECK

SH. NO.
DATE 11/-/
DATE



GOVE ASSOCIATES

1601 PORTAGE STREET
KALAMAZOO MICHIGAN 49001

PROJ. No. 8549 SH. No

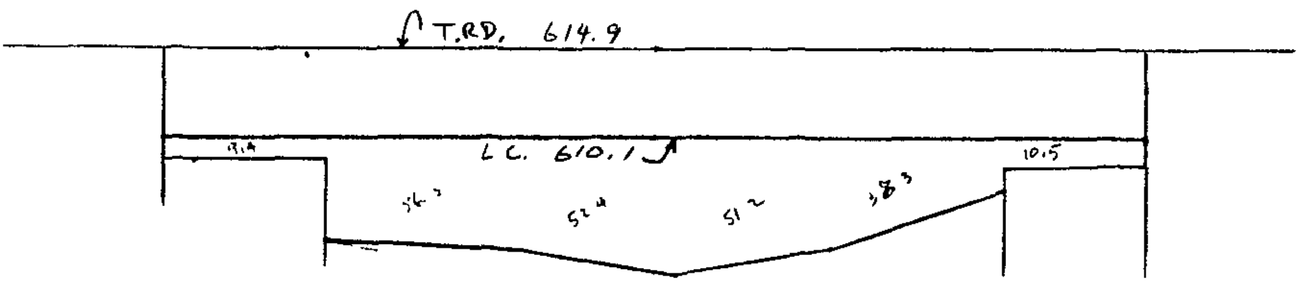
DESIGN JB DATE 020481

CHECK DATE

SUBJECT GEORGETOWN TWP.
RUSH CREEK

1" = 10'

463+50 M-21 WEST BOUND
37.6' ~~LONG~~ wide
CONCRETE AND STEEL CONSTRUCTION



10.1	10.1	10.1	10.1	10.1	10.1	10.1
1372.5	1381	1391	1399	1407	1416	1923.5
09.0	09.0				08.6	08.8
	09.8	04.1	03.0	04.4	07.3	

A - 218.2 Sq ft.
Ke - 0.5
R -
WP - 110.3'
R - 1.98'

$$K_f = \frac{29.1 \times .02^2 \times 40}{1.98^{4/3}}$$

$$= 0.187$$

XKOR = 1 + .19 + .5
= 1.69

SUBJECT RUSH CREEK BRIDGE STA. 465+50 C+O R.R. BRIDGE

PROJ. No. 3549

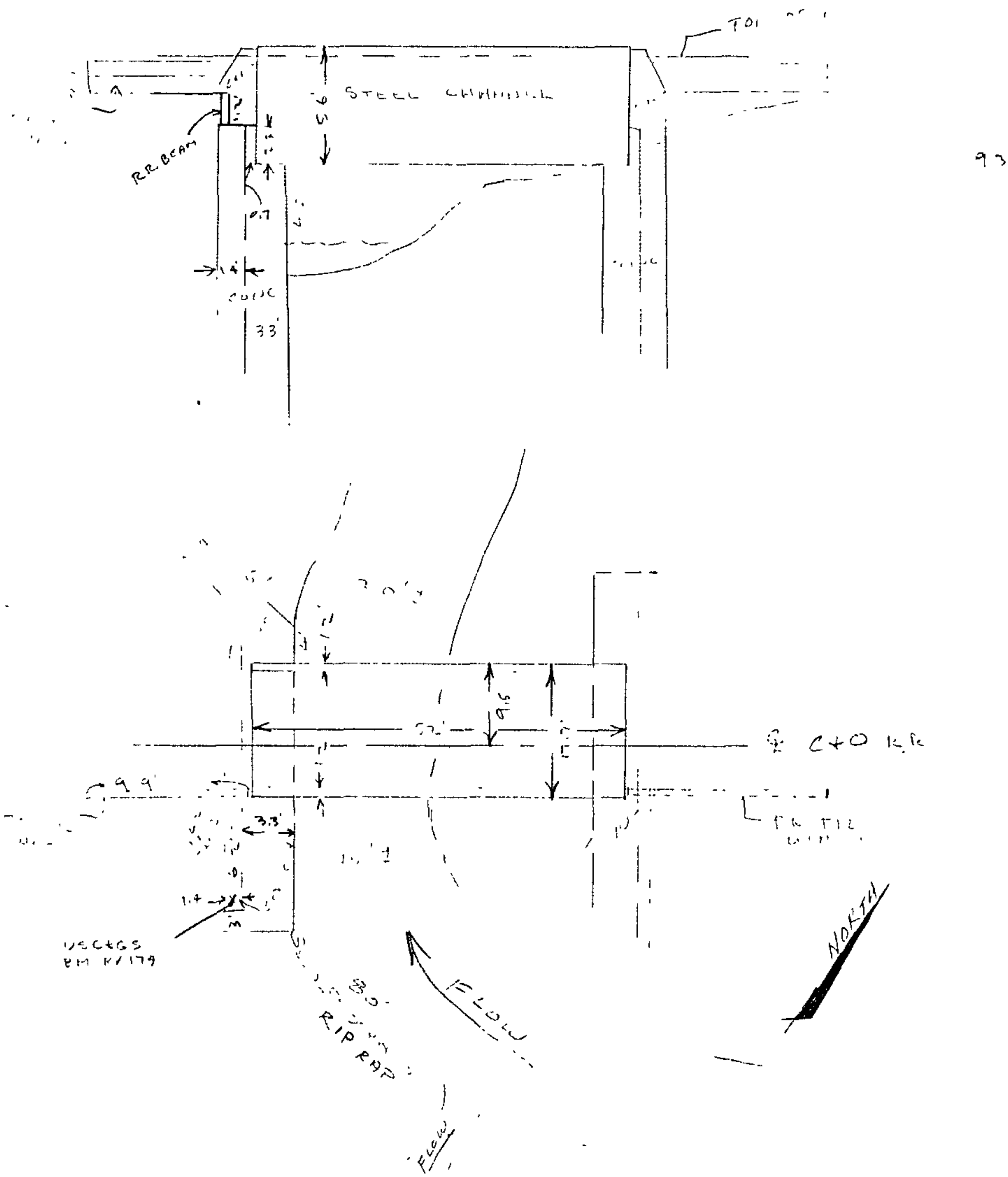
SH. No.

DESIGN 11/20/79

DATE

CHECK

DATE



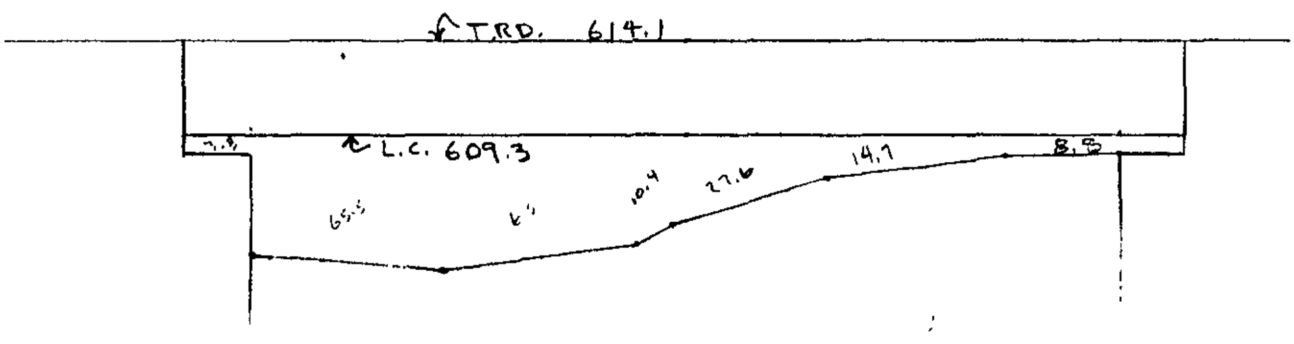
GOVE ASSOCIATES
1601 PORTAGE STREET
KALAMAZOO, MICHIGAN 49001

PROJ. NO 8549 SH NO
DESIGN JB DATE 020481
CHECK DATE

SUBJECT GEORGETOWN TWP.
RUSH CREEK

1" = 10'

465+00 C. + O. RR. BRIDGE
17.7' ~~Long~~ Wide
CONCRETE AND STEEL CONSTRUCTION



09.3	09.3	09.3	09.3		09 3	09.3	09.3
1400	1403.3	1413.3	1423.3	1425.3	1433 3	1442.8	1451.6
608.3	08.3						
	03.2	02.3	03.7	04.5	07 2	08.3	08.3

A - 193.3 Sq ft.
Ke 0.7
n 0.03
WP 110.8'
R. 1.74'

$$\frac{29.1 \times 0.03^2 \times 17.7}{1.74^{1.33}} = 0.22$$

XKoR = 1.92

HYDRAULIC ANALYSIS

1. INTRODUCTION

The stream being studied is the Rush Creek in Georgetown Township, Michigan. Rush Creek is a tributary of the Grand River. Table 1 shows the approved flows used in this study. The project managers for Flood Insurance Studies are William McDonough and Duane Ellis.

TABLE 1

APPROVED DISCHARGES

Section No.	Peak Flows (cfs) 10 year	50 year	100 year	500 year
3825	2223	3277	3611	4178
6250	2125	3123	3433	3965
12800	1033	1345	1447	1633
19100	1061	1391	1506	1702
25253	1134	1460	1568	1759
37002	741	966	1050	1231

2. METHOD OF ANALYSIS

Water surface profiles for 10-, 50-, 100-, and 500-year floods were computed through the HEC-2 computer program, developed by the U.S. Army, Corps of Engineers (Reference 1).

2.1 Cross Sections

The cross sections used in this study were obtained from ground survey. The surveys were made in August to October of 1979. The locations of cross sections are shown in Table 2 for Rush Creek.

2.2 Roughness Coefficients

The roughness coefficients were determined from field descriptions. The material shown on page 101 to page 123 in Chow's Open Channel Hydraulics (Reference 2) served as a general reference. The range of "n" factors used in the model is shown in Table 2.

2.3 Starting Point and Starting Elevation

The starting point in this study is the floodway of the Grand River. The first station is 3736 feet U.S. of the mouth of Rush Creek. The starting elevations were determined from the slope area method.

3. DISCUSSION

For Rush Creek the backwaters will not be confined in the channel due to the lakes adjacent to Rush Creek. The lakes act as storage areas for Rush Creek. The HEC-2 routing has been correlated with stage discharge curves of the outlet for each lake using the TR-20 computer modeling program.

REFERENCES

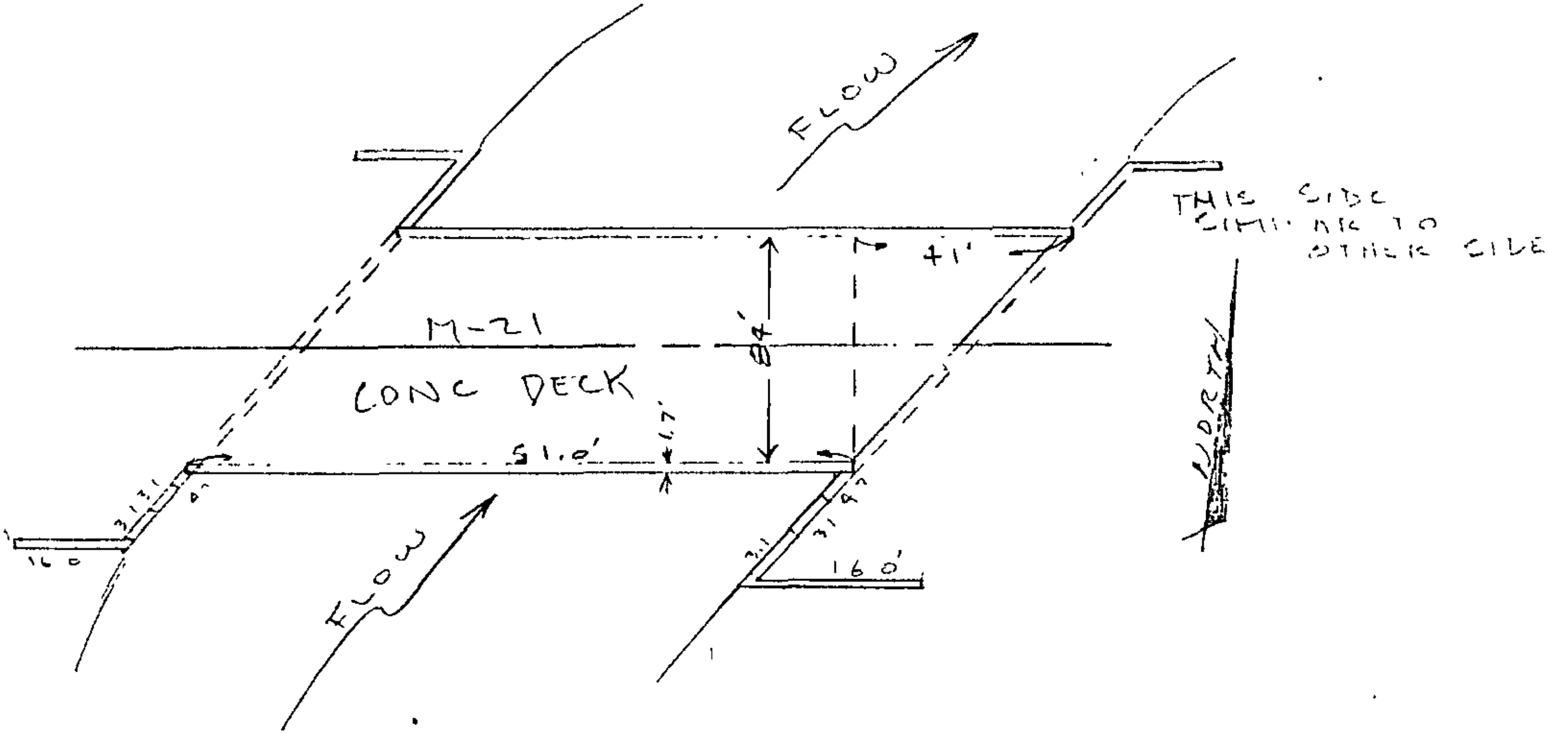
1. HEC-2 water surface profiles, Users Manual, Hydrologic Engineering Center, U.S. Army Corps of Engineers, August 1979.

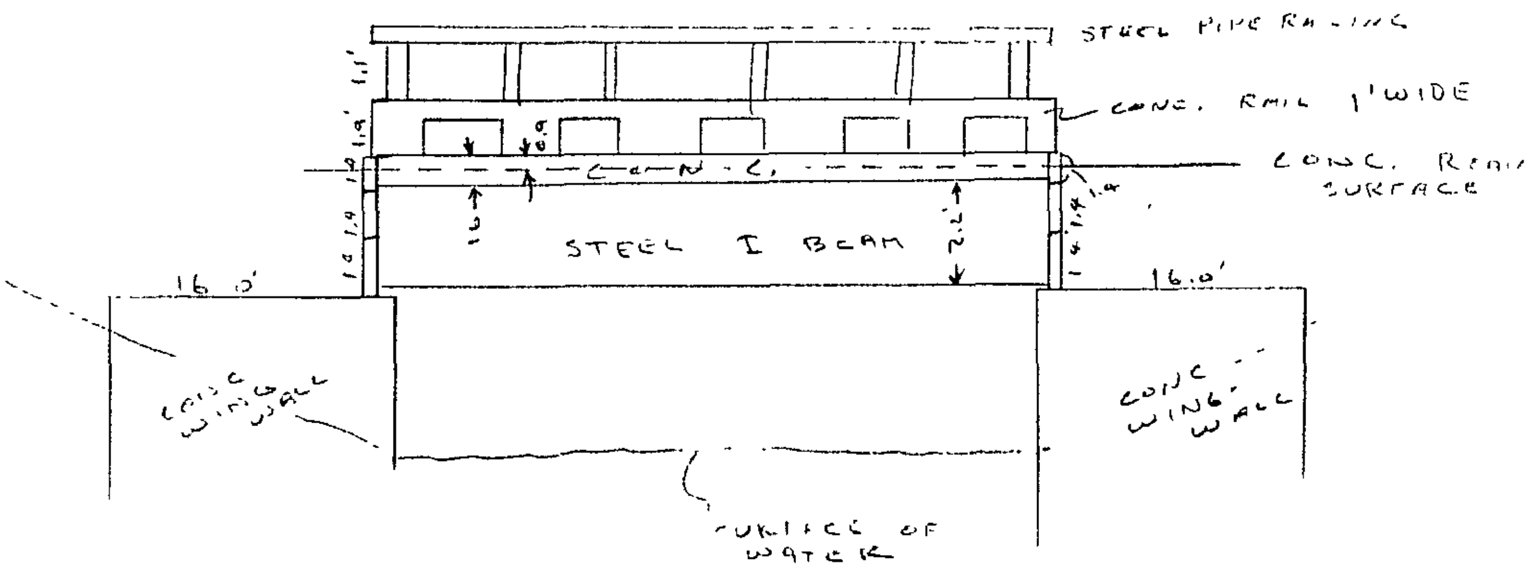
2. Open Channel Hydraulics, V.T. Chow, McGraw-Hill, New York, 1959.

SUBJECT STA 33+75 RUSH CREEK
M-21 HIGHWAY BRIDGE OVER RUSH CREEK

PROJ. NO. 8549
DESIGN J.B.
CHECK

SH. NO.
DATE 11/15/79
DATE

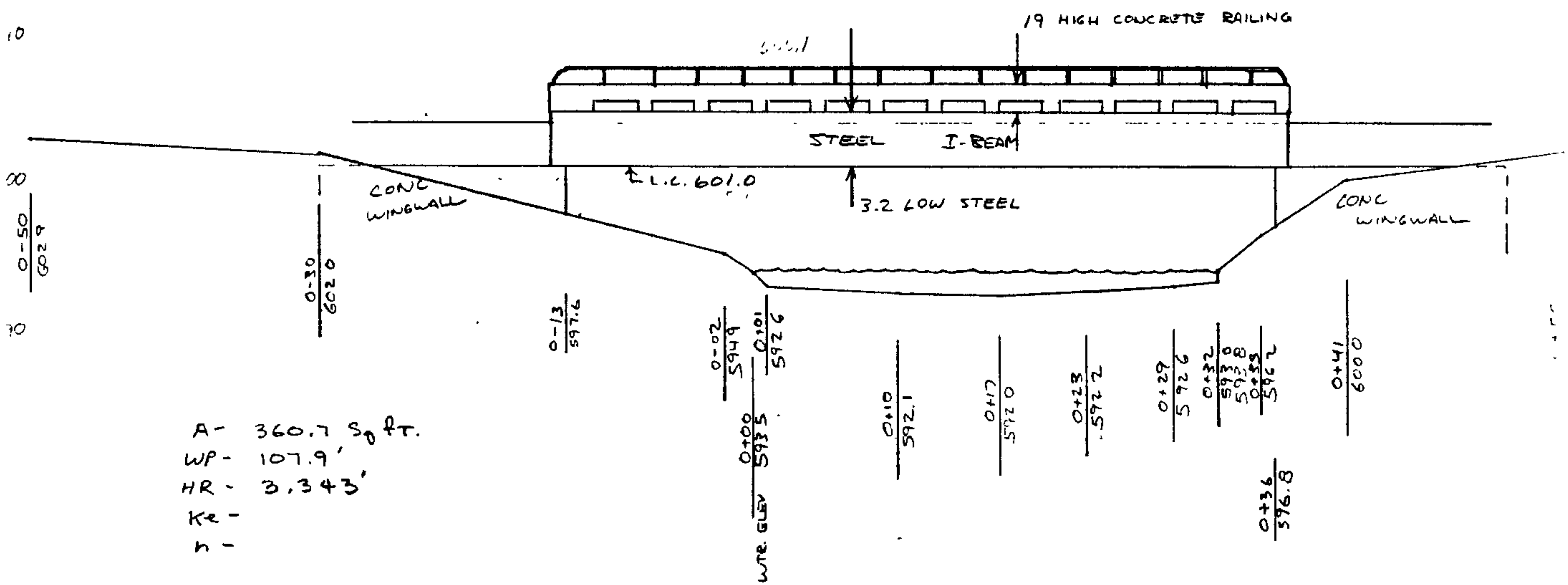




GEORGETOWN TWP : RUSH CREEK

STA 33+75 M-21 BRIDGE

51 LONG 84 WIDE 26° SKEW



A - 360.7 Sq ft.

WP - 107.9'

HR - 3.343'

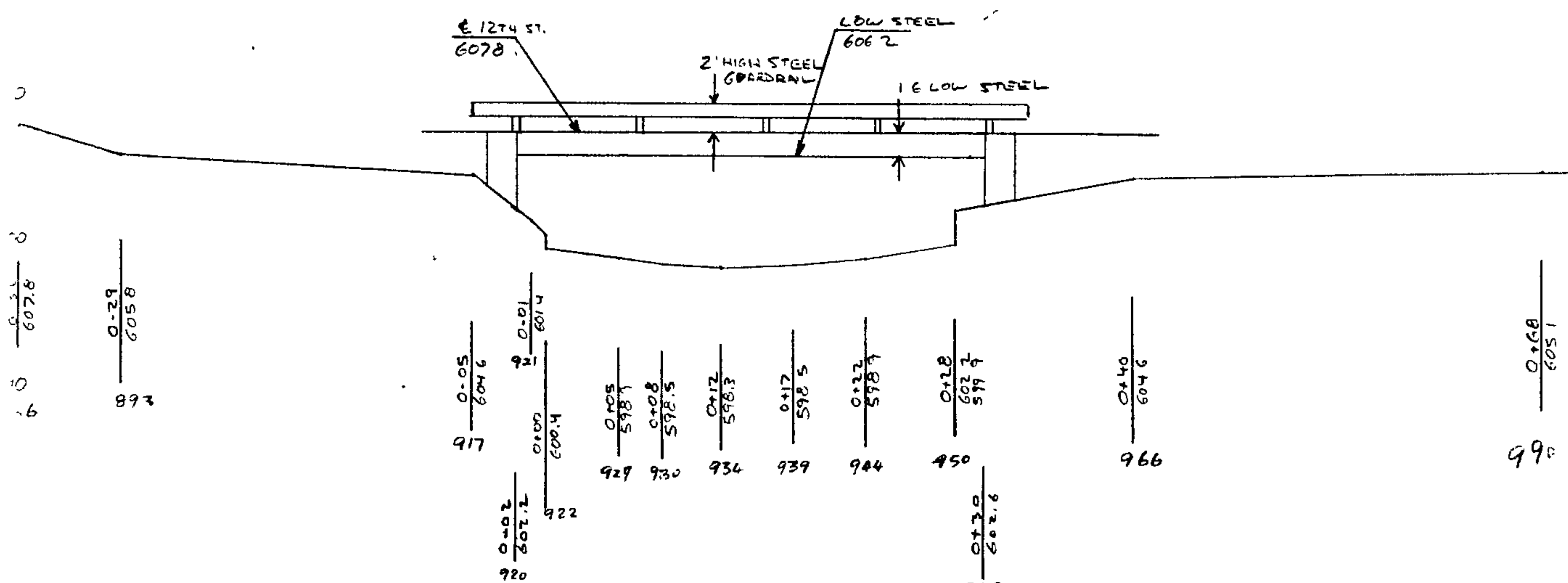
Ke -

n -

LOOKING DOWNSTREAM

SCALE 1" = 10' HORZ. & VER

STA 252+50, 12 ST BRIDGE
32' LONG, 331 WIDE



LOOKING DOWNSTREAM

SCALE 1" = 10' HORZ + VERT

A - 213.1 sq ft.
WP - 74.75'
HR - 2.851
Ke -
n -

EFFECTS OF REDUCTION IN FLOODPLAIN STORAGE ON RUSH CREEK

by Bruce Menerey, P.E. and Hope Meyers Croskey, P.E.

Michigan Department of Natural Resources
Land and Water Management Division

July 27, 1989

INTRODUCTION

Rush Creek is an urbanizing watershed that has experienced flooding problems. The watershed boundary extends over parts of Kent and Ottawa counties and discharges into the Grand River at Jenison, Michigan (Figure 1). Within the watershed there is a substantial amount of floodplain that acts as a storage area which reduces flood peaks and flood stages. The purpose of this study is to investigate the cumulative impact that future filling in the floodplain will have upon flood flows and flood stages of Rush Creek.

BACKGROUND

Flooding on Rush Creek has been a concern since the mid 1970s when the Michigan Department of Natural Resources (MDNR) denied approval of several proposed subdivisions that did not have adequate buildable area above the 100-year floodplain elevation. In 1984 and 1985 the Federal Emergency Management Agency (FEMA) published Flood Insurance Studies (FIS) for the City of Hudsonville and Georgetown Township, which include Rush Creek (references 1 and 2).

The FISs defined the 10, 50, 100, and 500-year flood profiles, the 100, and 500-year floodplain delineation, and the limits of the 100-year floodway. These studies do not consider the impacts of removal of flood storage caused by future filling in the floodplain.

Typically under the State Floodplain Regulatory Authority (Act 245, P.A. of 1929, as amended) (reference 3) projects within the floodplain are reviewed to determine the impact that the project will have on the stage-discharge characteristics of the watercourse. Fill outside of the floodway could be permitted under the Act if the project is not in an area in which storage has been determined to be critical. A storage area is determined to be critical if a hydrologic analysis indicates that the removal of floodplain storage will result in a measurable increase in downstream flood stages. For critical storage areas, compensating excavation is required for fill placed within the floodplain. Currently, at the State level, only four areas have been identified as being critical storage areas: 1) Shiawassee Flats, 2) Clinton River Forks, 3) Saginaw

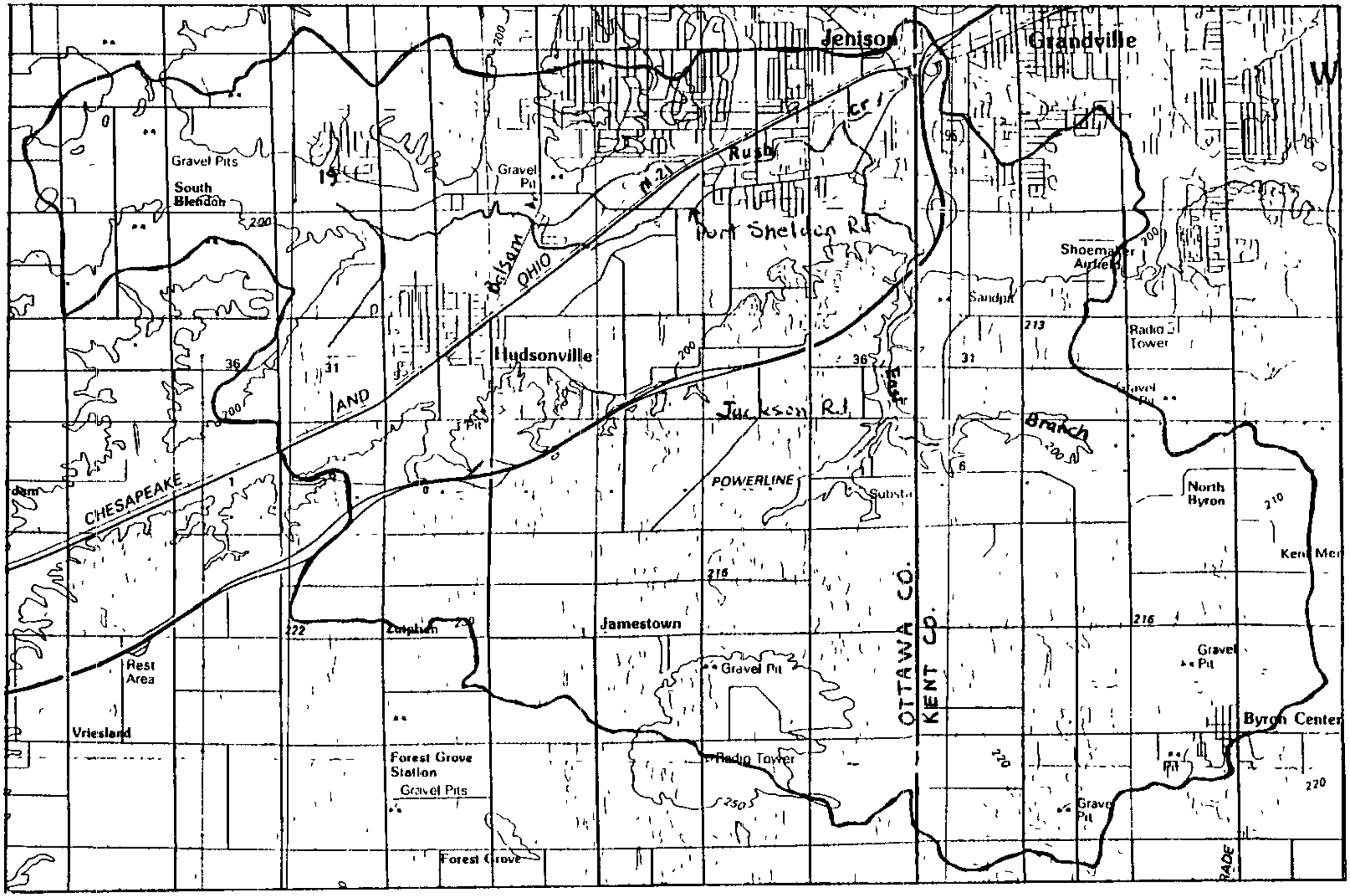


Figure 1. Rush Creek watershed boundary.

River, and 4) Snake Creek near Midland. It is recognized that critical storage probably exists on other streams as well but they have not been documented at the state level. However, compensating cut and fill may be required at the local level for other basins.

DATA SOURCES

The technical support data from the FIS for the City of Hudsonville and Georgetown Township are used to develop the hydraulic model. These studies were prepared by Gove Associates under contract with FEMA. The technical support data included: hydraulic analyses using the HEC-2 computer program (reference 4); hydrologic analyses, using the Soil Conservation Service (SCS) flood routing program TR-20 (reference 5); and bridge sketches and work maps.

METHODOLOGY

This study uses the Corps of Engineers computer programs HEC-1 (reference 6) to develop the flood hydrographs and HEC-2 to compute the flood profiles. The flood routing process is iterative in that the stage-discharge relationships and the friction slopes determined by using the HEC-2 model are used in the HEC-1 model to develop the flood hydrographs. The HEC-1 model is then used to develop the flood hydrographs and peak flows, which are re-entered into HEC-2 to determine if the stage-discharge relationships and friction slopes originally assumed are appropriate. This iterative process is repeated until the stage discharge relationships assumed in HEC1 are reproduced by HEC2.

HYDRAULICS

The FIS HEC-2 computer model for Rush Creek is used as a starting point for the hydraulic computations. Some changes are made to the FIS model to try to better define the hydraulic characteristics of the creek. The changes in the model include modifying some of the bridge routines, adjusting reach lengths and encroachment stations, including expansion and contraction coefficients, and moving several cross section locations in the model to better define the physical conditions of the valley. No additional field cross sections were obtained for this study.

HYDROLOGY

The FIS hydrologic model had used the MDNR's adaptation of SCS methodology (references 7 and 8) to calculate the time of concentration for the subbasins. The SCS computer program TR20 was used to generate and route flood hydrographs. Subbasin delineation was based on United States Geological Survey (USGS) 15 minute topographic maps (references 9 & 10). The modern soil survey for Kent County (reference 11) was not published until after the FIS was published.

Upon review of the hydrologic data used in the FIS it was determined that it would be most appropriate to update the hydrology. This Study uses USGS 7-1/2 minute topographic maps (references 13, 14, 15, 16, 17, and 18) for the delineation of watershed subbasins. Time of concentration calculations are based on MDNR's adaption of SCS methodology. Land use is based on 1988 aerial photographs taken by the MDNR. Modern soil surveys (reference 12) are used to define hydrologic soil groups and runoff curve numbers. The flood hydrographs are developed and routed using the Corps of Engineers computer program HEC-1.

Both reservoir and channel routings are used in the hydrologic model to modify the timing and shape of the hydrogragh as it moves downstream. Reservoir (level-pool) routing is used for storage areas that have a relatively flat water surface upstream of a restriction (i.e., a road crossing, dam, or a natural constriction. In reservoir routing, for a given elevation, the discharge and storage volume is computed. The following areas are modeled as reservoirs:

(1) Georgetown Park Lake
(2) Rushmore Lake
(3) Rush Creek upstream of 12th Avenue
(4) Rush Creek upstrean of Port Sheldon Road
(5) Rush Creek upstream of Balsam Drive (Hudsonville)
(6) Existing detention basin on Rush Creek, Section 19 of Georgetown Township (reference 23)
(7) Tributary to Rush Creek (Butternut Creek) at I-196 in Section 5 of Jamestown Township
(8) Tributary to Rush Creek at I-196 in Section 4 of Jamestown Township
(9) Tributary to East Branch Rush Creek (Bliss Drain) at Jackson Road in Section 1 of Jamestown Township
(10) East Branch Rush Creek (Bliss Drain) at Jackson Road in Section 1 of Jamestown Township

Channel routing is used along a reach that has a sloping water surface. The outflow from the reach is a function of the water surface slope, channel configuration, and roughness coefficients. The storage volume for the reach is a function of the factors mentioned above plus the reach length. Representative cross sections used in the channel routing are obtained from the FIS HEC-2 model. The following reaches on Rush Creek are modeled using channel routing.

(1) Downstream of Bliss Drain to Huizenga Drain
(2) From M-21 to confluence of downstream drains in Section 27 of Georgetown Township
(3) From Balsam Drive to M-21

PAST FLOODING

Rush Creek does not have a gaging station to record flood events, but flooding has occurred in the basin. The 1981 flood resulted in damage throughout the watershed. The majority of the damage occurred along Rush Creek primarily in the vicinity of Rushmore Lake and 12th Avenue.

CALIBRATION

On May 10 and 11, 1981 the Grand Rapids Airport received 6.5 inches of precipitation. Of this, 5.5 inches fell in a 24 hour period (reference 19). The average precipitation for the Rush Creek basin for this 2-day event is estimated to be 5.5 inches. This is based on rainfall data at the Grand Rapids Airport and surrounding rainfall stations. The 1 per cent chance 24-hour point rainfall at the Grand Rapids' Airport is 5.1 inches (reference 20).

The 1981 average basin wide rainfall of 5.5 inches along with the precipitation distribution at the Grand Rapids Airport, are input into the hydrologic model to simulate the flood event. Runoff curve numbers for antecedent moisture condition II are used for the simulation of the 1981 flood event. High-water marks obtained during the 1981 flood are used to calibrate both the hydraulic and hydrologic models. Table 1 provides a comparison of the measured 1981 high-water marks and the 1981 flood elevations computed using HEC-2.

Table 1

Calibration of HEC-2 model using observed high-water marks on Rush Creek during the 1981 flood.

Location	HEC-2 Cross Section	HEC-2 Elevation feet, NGVD+	High-water mark Elevation feet, NGVD+
u/s Old M-21	2354	597.4	597
u/s Chicago Drive	3420	599.5	600
u/s Main Street	3910	601.0	601
at McDonalds**	4025	602.0	602*
Rushmore Lake	17500	607.4	607*
u/s 12th Avenue	25252	608.0	608

+ National Geodetic Vertical Datum of 1929
* High-water marks from Exxel Engineering (reference 22).
** McDonald's Parking Lot approximately 100 feet upstream of Main Street.

A peak flow was not measured during the 1981 flood event. However, the USGS did measure a discharge of 1270 cubic feet per second (cfs) at Main Street on May 12, between 11:00 a.m. and 12:00 noon (reference 21). Exxel Engineering indicated that the peak stage at Main Street occurred at about 5:00 p.m. on May 11. At 3:30 p.m. on May 11, MDNR staff observed East Branch Rush Creek (Bliss Drain) at Port Sheldon Road. The stage had reached its peak and had begun to recede. The simulated hydrographs calculated by HEC1 approximate the observed peak times and match the measured discharge.

The areally adjusted 24-hour rainfalls for the 10, 50, 100 and 200-year events are input into the calibrated model to compute the respective flood hydrographs and floodplain elevations. Runnoff curve numbers for antecedent moisture condition II are used in these scenarios. From these analyses the 1981 flood peak is estimated to be approximately a 200-year event.

EFFECTS OF LOSS OF FLOODPLAIN STORAGE

The calibrated model is then used to simulate flood flows and flood elevations under different storage reduction scenarios. The reduction in storage is computed based on the total storage

---

Table 2

Comparison of Current 100-year Flood Discharges to Storage Reduced Conditions on Rush Creek, Ottawa County, Michigan.

Location	Discharge (cfs) Current Condition	Storage Reduction 5%	10%	20%	Floodway Fringe Filled
d/s Huizenga Drain	3060	3060	3060	3060	3190
d/s Bliss Drain	2830	2830	2830	2830	3130
d/s Georgetown Park Lake	970	980	990	1020	1460
inflow to Georgetown Park Lake	1100	1120	1140	1200	1640
inflow to Rushmore Lake	1270	1280	1290	1330	1670
u/s 12th Avenue	1600	1610	1610	1610	1810
u/s Port Sheldon Road	1040	1050	1060	1070	1580
d/s of M-21 below confluence	1080	1100	1110	1140	1600
d/s of M-21 above concluence	670	680	690	720	1290
d/s Balsam Drive	590	600	610	640	1140

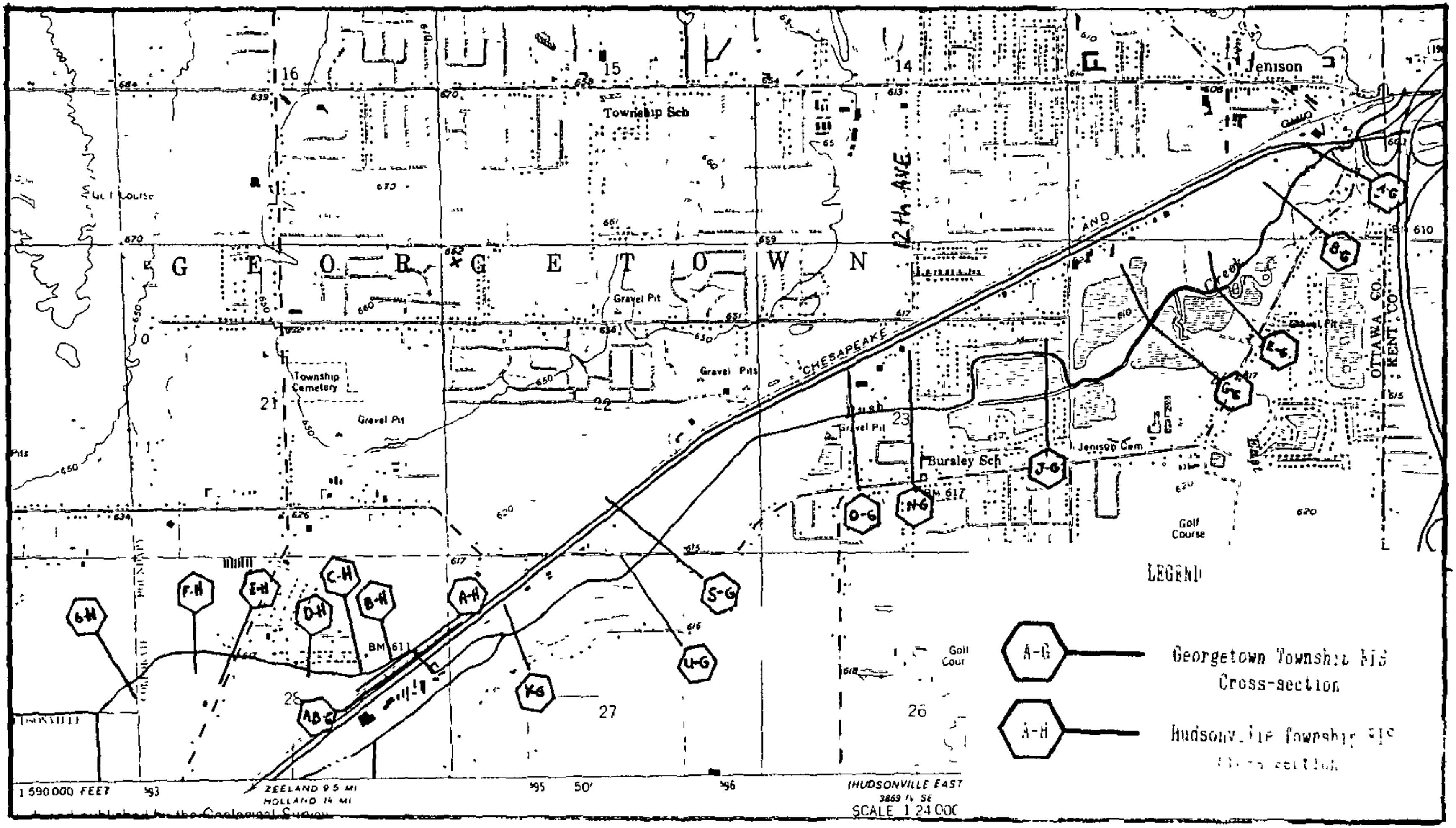


Figure 2. Cross-section locations on Rush Creek, Ottawa County, Michigan.

available for a given reservoir or reach. Four scenarios are evaluated, including reductions in storage of 5, 10, and 20 per cent, and all floodplain outside of the floodway (floodway fringe). This reduction in storage is simulated for the floodplain upstream of 12th Avenue. Table 2 provides a comparison between the current 100-year discharge and the 100-year discharges that would result from the corresponding reductions in floodplain storage.

The resulting flood discharges are input into the HEC-2 model to obtain the flood elevations for the various scenarios. Table 3 provides the HEC-2 100-year flood elevations for current conditions at a number of cross sections (Figure 2).

Table 3

Difference in Surface Water Elevations for Storage Reduced Conditions as Compared to Current 100-Year Elevations using the Calibrated Model of Rush Creek, Ottawa County, Michigan.

FIS XSEC	SECNO	100-year Current Conditions feet, NGVD*	Change in SWEL**, feet			
			Storage Reduction 5%	10%	20%	Floodway Fringe Filled
B-G	6250	603.4	0.00	0.00	0.00	0.26
E-G	10700	605.5	0.00	0.00	0.00	0.33
G-G	13500	607.0	0.00	0.00	0.00	0.36
J-G	19100	607.1	0.00	0.01	0.02	0.42
N-G	25250	607.2	0.00	0.01	0.04	0.44
O-G	27250	607.9	0.01	0.03	0.10	0.58
S-G	36300	608.1	0.01	0.03	0.09	0.54
U-G	37800	608.7	0.02	0.05	0.11	1.12
Y-G	42764	609.0	0.02	0.05	0.16	1.08
AB-G	46350	609.4	0.03	0.06	0.18	1.75
A-H	46518	609.6	0.03	0.06	0.19	2.22
B-H	46850	610.0	0.03	0.07	0.21	2.30
C-H	47560	610.5	0.04	0.08	0.21	2.03
D-H	48600	611.0	0.03	0.07	0.17	1.71
E-H	50101	611.6	0.02	0.05	0.13	1.48
F-H	50526	612.9	0.07	0.13	0.31	2.55
G-H	52450	614.2	0.07	0.13	0.28	1.52

* National Geodetic Vertical Datum of 1929
** Surface Water Elevation

RESULTS

The analysis investigates the impact that filling within the floodplain would have on flood discharges and elevations. The results indicate that on Rush Creek, upstream of 12th Avenue, compensating excavation will be required for fills that exceed 10 per cent of the storage volume available within the floodplain. Filling more than 10 per cent of the storage volume will result in a measurable increase in the 100-year flood elevation, and could not be permitted under the State Floodplain Regulatory Authority. Additional analysis indicates that filling the entire floodway fringe without compensating excavation could increase 100-year flood stages between 0.5 and 2.5 feet, due to increased flood discharges.

The report illustrates that the reduction in floodplain storage will result in increased flood stages and flood discharges. However, even if floodplain storage is not reduced, future urbanization could result in increased runoff potential, greater flood flows, and higher flood elevations. The need to develop and impliment a basin-wide stormwater management plan for Rush Creek is evident. The calibrated model is available for evaluating urbanized conditions and stormwater management alternatives that could be implimented in the Rush Creek watershed.

REFERENCES AND BIBLIOGRAPHY

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2. Federal Emergency Management Agency, Flood Insurance Study, City of Hudsonville, Ottawa County, December 1984.

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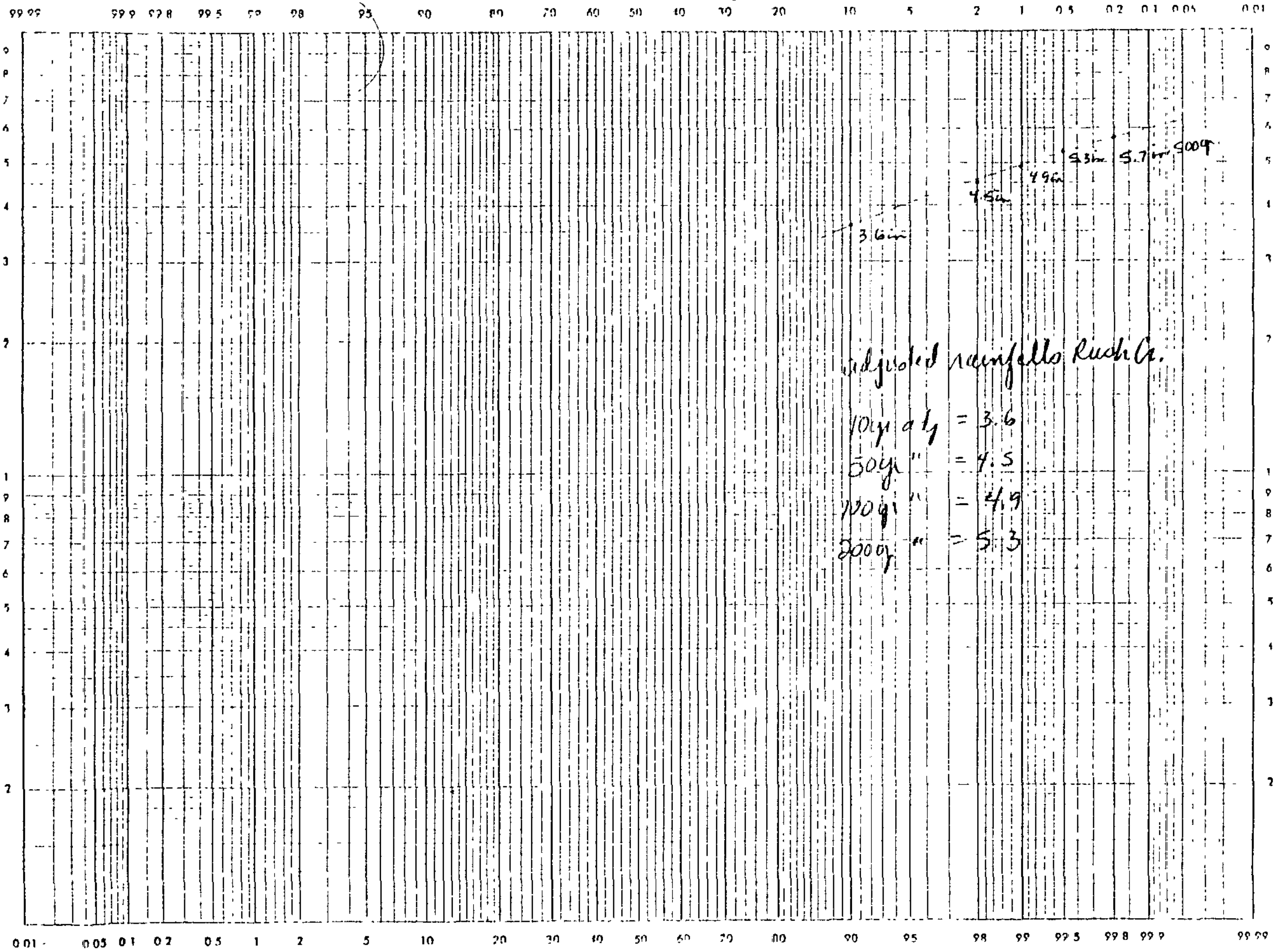
12. U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of Ottawa County, Michigan, 1972.

13. U.S. Geological Survey, Topographic Maps, Scale 1:24000, Contour Interval 10 feet: Allendale, Michigan, 1972.

14. U.S. Geological Survey, Topographic Maps, Scale 1:24000, Contour Interval 10 feet: Grandville, Michigan, 1981.

15. U.S. Geological Survey, Topographic Maps, Scale 1:24000, Contour Interval 10 feet: Grand Rapids West, Michigan, 1981.

Rush Creek extrapolated rainfall



A peak flow was not measured during the 1981 flood event. However, the USGS did measure a discharge of 1270 cubic feet per second (cfs) at Main Street on May 12, between 11:00 a.m. and 12:00 noon (reference 21). Exxel Engineering indicated that the peak stage at Main Street occurred at about 5:00 p.m. on May 11. At 3:30 p.m. on May 11, MDNR staff observed East Branch Rush Creek (Bliss Drain) at Port Sheldon Road. The stage had reached its peak and had begun to recede. The simulated hydrographs calculated by HEC1 approximate the observed peak times and match the measured discharge.

The areally adjusted 24-hour rainfalls for the 10, 50, 100 and 200-year events are input into the calibrated model to compute the respective flood hydrographs and floodplain elevations. Runnoff curve numbers for antecedent moisture condition II are used in these scenarios. From these analyses the 1981 flood peak is estimated to be approximately a 200-year event.

EFFECTS OF LOSS OF FLOODPLAIN STORAGE

The calibrated model is then used to simulate flood flows and flood elevations under different storage reduction scenarios. The reduction in storage is computed based on the total storage

Table 2

Comparison of Current 100-year Flood Discharges to Storage Reduced Conditions on Rush Creek, Ottawa County, Michigan.

HMC 11/12/90

Discharge (cfs)

Location	Current Condition	Storage Reduction 5%	10%	20%	Floodway Fringe Filled	Current Condition 500yr.
d/s Huizenga Drain	3060	3060	3060	3060	3190	3800
d/s Bliss Drain	2830	2830	2830	2830	3130	3500
d/s Georgetown Park Lake	970	980	990	1020	1460	1370
inflow to Georgetown Park Lake	1100	1120	1140	1200	1640	1450
inflow to Rushmore Lake	1270	1280	1290	1330	1670	1500
u/s 12th Avenue	1600	1610	1610	1610	1810	1830
u/s Port Sheldon Road	1040	1050	1060	1070	1580	1260
d/s of M-21 below confluence	1080	1100	1110	1140	1600	1370
d/s of M-21 above concluence	670	680	690	720	1290	780
d/s Balsam Drive	590	600	610	640	1140	700

<u>TABLE 2</u>

LOCATION OF CROSS SECTIONS

SECTION	SECNO	LOCATION AND DESCRIPTIONS
A	3825	Main St. bridge width=84' length=24'
	3875	
	3876	
	3925	
B	6250	1245' U/S from U/S face Main St. bridge
C	8500	2187' U/S from U/S face Main St. bridge
D	9750	2614' U/S from U/S face Main St. bridge
E	10700	3414' U/S from U/S face Main St. bridge
F	11700	3934' U/S from U/S face Main St. bridge
G	12000	Gravel pit bridge width=12.5' length=39'
	12001	
H	12800	300' U/S from U/S face gravel pit bridge
I	13500	870' U/S from U/S face gravel pit bridge
J	14200	1480' U/S from U/S face gravel pit bridge
K	17500	2690' U/S from U/S face gravel pit bridge
L	19100	3670' U/S from U/S face gravel pit bridge
M	20200	4420' U/S from U/S face gravel pit bridge
N	23700	5715' U/S from U/S face gravel pit bridge
O	24000	5945' U/S from U/S face gravel pit bridge
P	25250	12th Avenue bridge width=33' length=32'
	25251	
	25252	
	25253	
Q	27250	1105' U/S from U/S face 12th Ave. bridge
R	29700	2355' U/S from U/S face 12th Ave. bridge
S	32250	3305' U/S from U/S face 12th Ave. bridge
T	35000	4645' U/S from U/S face 12th Ave. bridge
U	36200	5205' U/S from U/S face 12th Ave. bridge
V	37000	Port Sheldon Road bridge width=21.6' length=24'
	37001	
	37002	
	37003	
W	37800	460' U/S from U/S face Port Sheldon Rd. bridge
X	38500	Gravel Pit bridge width=35.5' length=25'
	38501	
	38502	
	38503	
Y	38810	160' U/S from U/S face Gravel Pit bridge
Z	40680	1060' U/S from U/S face Gravel Pit bridge
AA	42764	2060' U/S from U/S face Gravel Pit bridge
AB	45960	3470' U/S from U/S face Gravel Pit bridge
AC	46200	M-21 eastbound bridge width=40' length=40'
	46201	
	46202	

AD	46350	M-21 westbound bridge width=37.6' length=56.1'
	46351	
AE	46500	C&O R.R. bridge width=17.7' length=52'
	46501	
	46502	
AF	46850	260' U/S from U/S face C&O R.R. bridge
AG	47560	970' U/S from U/S face C&O R.R. bridge

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP

3) WATERCOURSE: RUSH CREEK

4) DOCUMENT TYPE: SUMMARY

00BREAK00

THIS RUN EXECUTED 83/02/28. 08.38.23.

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**********************************************
HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
**********************************************
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T1
T2
T3

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	5.	0.	0.	0.000000	0.00	0.0	0.	596.500	0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

1

THIS RUN EXECUTED 83/02/28. 08.38.36.

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**********************************************
HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
**********************************************
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NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

RUSH CREEK

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
2200.000	596.50	0.00	596.94	112.36	10.93	2101.45	21.62	0.00	0.00	75.00	138.00	0.00
2200.000	596.50	0.00	597.46	112.36	16.10	3095.05	31.85	0.00	0.00	75.00	138.00	0.00
2200.000	596.50	0.00	597.66	112.36	17.66	3396.39	34.95	0.00	0.00	75.00	138.00	0.00
2200.000	596.50	0.00	598.06	112.36	20.49	3938.98	40.53	0.00	0.00	75.00	138.00	0.00
2250.000	596.53	0.00	596.99	63.00	0.00	2134.00	0.00	63.00	75.00	75.00	138.00	138.00
2250.000	596.58	0.00	597.56	63.00	0.00	3143.00	0.00	63.00	75.00	75.00	138.00	138.00
2250.000	596.60	0.00	597.77	63.00	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
2250.000	596.64	0.00	598.20	63.00	0.00	4000.00	0.00	63.00	75.00	75.00	138.00	138.00
2251.000	596.53	0.00	596.99	63.00	0.00	2134.00	0.00	63.00	75.00	75.00	138.00	138.00
2251.000	596.57	0.00	597.56	63.00	0.00	3143.00	0.00	63.00	75.00	75.00	138.00	138.00
2251.000	596.59	0.00	597.78	63.00	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00

	2251.000	596.63	0.00	598.21	63.00	0.00	4000.00	0.00	63.00	75.00	75.00	138.00	138.00
	2252.000	596.54	0.00	597.00	63.00	0.00	2134.00	0.00	63.00	75.00	75.00	138.00	138.00
	2252.000	596.60	0.00	597.59	63.00	0.00	3143.00	0.00	63.00	75.00	75.00	138.00	138.00
	2252.000	596.62	0.00	597.81	63.00	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
	2252.000	596.70	0.00	598.25	63.00	0.00	4000.00	0.00	63.00	75.00	75.00	138.00	138.00
	2253.000	596.55	0.00	597.00	63.00	0.00	2134.00	0.00	63.00	75.00	75.00	138.00	138.00
	2253.000	596.61	0.00	597.59	63.00	0.00	3143.00	0.00	63.00	75.00	75.00	138.00	138.00
	2253.000	596.65	0.00	597.81	63.00	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
	2253.000	596.74	0.00	598.25	63.00	0.00	4000.00	0.00	63.00	75.00	75.00	138.00	138.00
	2350.000	596.53	0.00	597.08	127.70	49.52	2077.86	6.63	0.00	0.00	75.00	162.00	0.00
	2350.000	596.59	0.00	597.75	128.46	75.44	3057.61	9.95	0.00	0.00	75.00	162.00	0.00
	2350.000	596.62	0.00	597.99	128.96	84.57	3353.38	11.05	0.00	0.00	75.00	162.00	0.00
	2350.000	596.73	0.00	598.48	130.42	104.20	3832.52	13.28	0.00	0.00	75.00	162.00	0.00
	2351.000	596.10	0.00	597.39	58.79	0.00	2134.00	0.00	63.00	75.00	75.00	138.00	138.00
*	2351.000	596.57	0.00	598.81	59.61	0.00	3143.00	0.00	63.00	75.00	75.00	138.00	138.00
*	2351.000	596.85	0.00	599.23	60.11	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
*	2351.000	597.37	0.00	599.96	61.01	0.00	4000.00	0.00	63.00	75.00	75.00	138.00	138.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	2352.000	595.88	0.00	597.49	58.41	0.00	2134.00	0.00	63.00	75.00	75.00	138.00	138.00
*	2352.000	596.72	0.00	599.07	59.88	0.00	3143.00	0.00	63.00	75.00	75.00	138.00	138.00
*	2352.000	597.02	0.00	599.51	60.41	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
*	2352.000	597.56	0.00	600.26	61.34	0.00	4000.00	0.00	63.00	75.00	75.00	138.00	138.00
	2353.000	596.44	0.00	597.67	59.39	0.00	2134.00	0.00	63.00	75.00	75.00	138.00	138.00
	2353.000	597.73	0.00	599.30	61.67	0.00	3143.00	0.00	63.00	75.00	75.00	138.00	138.00
	2353.000	598.08	0.00	599.74	62.28	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
	2353.000	598.64	0.00	600.50	63.00	0.00	4000.00	0.00	63.00	75.00	75.00	138.00	138.00
	2354.000	596.75	0.00	597.70	59.92	0.00	2134.00	0.00	63.00	75.00	75.00	138.00	138.00
	2354.000	598.13	0.00	599.34	62.35	0.00	3143.00	0.00	63.00	75.00	75.00	138.00	138.00
	2354.000	598.50	0.00	599.78	63.00	0.00	3449.00	0.00	63.00	75.00	75.00	138.00	138.00
	2354.000	599.14	0.00	600.55	63.00	0.00	4000.00	0.00	63.00	75.00	75.00	138.00	138.00
	3000.000	597.28	0.00	597.85	133.26	90.52	1941.22	102.26	0.00	0.00	75.00	138.00	0.00
	3000.000	598.85	0.00	599.49	156.75	211.85	2755.26	175.88	0.00	0.00	75.00	138.00	0.00
	3000.000	599.28	0.00	599.94	162.60	252.86	2997.63	198.50	0.00	0.00	75.00	138.00	0.00
	3000.000	600.03	0.00	600.72	173.29	332.22	3421.29	246.49	0.00	0.00	75.00	138.00	0.00
	3375.000	598.18	0.00	598.89	68.12	0.00	2121.89	12.11	0.00	0.00	70.00	132.00	0.00
	3375.000	599.56	0.00	600.50	70.32	0.00	3117.34	25.66	0.00	0.00	70.00	132.00	0.00
	3375.000	599.93	0.00	600.94	70.92	0.00	3418.45	30.55	0.00	0.00	70.00	132.00	0.00
	3375.000	600.58	0.00	601.70	75.58	0.00	3958.38	41.62	0.00	0.00	70.00	132.00	0.00
	3400.000	598.28	0.00	598.97	61.95	0.00	2134.00	0.00	62.00	70.00	70.00	132.00	132.00
	3400.000	599.64	0.00	600.58	61.97	0.00	3143.00	0.00	62.00	70.00	70.00	132.00	132.00
	3400.000	600.01	0.00	601.03	61.97	0.00	3449.00	0.00	62.00	70.00	70.00	132.00	132.00
	3400.000	600.65	0.00	601.79	61.98	0.00	4000.00	0.00	62.00	70.00	70.00	132.00	132.00
	3401.000	598.29	0.00	598.97	68.28	0.00	2133.97	.03	0.00	0.00	70.00	132.00	0.00
	3401.000	599.65	0.00	600.58	70.45	0.00	3142.96	.04	0.00	0.00	70.00	132.00	0.00

	3401.000	600.02	0.00	601.03	71.32	0.00	3448.96	.04	0.00	0.00	70.00	132.00	0.00
	3401.000	600.66	0.00	601.80	76.13	0.00	3999.97	.03	0.00	0.00	70.00	132.00	0.00
	3415.000	598.31	0.00	598.99	68.32	0.00	2133.97	.03	0.00	0.00	70.00	132.00	0.00
	3415.000	599.67	0.00	600.60	70.49	0.00	3142.96	.04	0.00	0.00	70.00	132.00	0.00
	3415.000	600.05	0.00	601.05	71.49	0.00	3448.96	.03	0.00	0.00	70.00	132.00	0.00
	3415.000	600.68	0.00	601.81	76.30	0.00	3999.97	.03	0.00	0.00	70.00	132.00	0.00
	3420.000	598.43	0.00	599.07	68.52	0.00	2120.93	13.07	0.00	0.00	70.00	132.00	0.00
	3420.000	599.82	0.00	600.68	70.73	0.00	3115.85	27.15	0.00	0.00	70.00	132.00	0.00
	3420.000	600.20	0.00	601.13	72.69	0.00	3416.38	32.62	0.00	0.00	70.00	132.00	0.00
	3420.000	600.86	0.00	601.90	77.63	0.00	3955.44	44.56	0.00	0.00	70.00	132.00	0.00
	3425.000	597.93	0.00	599.72	53.49	40.87	2073.66	19.47	0.00	0.00	100.00	132.00	0.00
	3425.000	598.68	0.00	601.67	57.64	76.94	3031.36	34.70	0.00	0.00	100.00	132.00	0.00
*	3425.000	599.05	0.00	602.25	59.68	93.70	3313.90	41.39	0.00	0.00	100.00	132.00	0.00
*	3425.000	599.75	0.00	603.24	64.12	129.65	3814.64	55.72	0.00	0.00	100.00	132.00	0.00

1

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
3825.000	599.67	0.00	600.62	61.64	96.39	2027.59	10.02	0.00	0.00	869.00	905.00	0.00
3825.000	601.54	0.00	602.76	68.22	178.93	2933.61	30.46	0.00	0.00	869.00	905.00	0.00
3825.000	602.06	0.00	603.34	91.18	206.35	3202.64	40.00	0.00	0.00	869.00	905.00	0.00
3825.000	602.95	0.00	604.31	303.28	293.54	3646.83	59.62	0.00	0.00	869.00	905.00	0.00
3875.000	599.72	0.00	600.72	42.00	0.00	2134.00	0.00	42.00	870.00	870.00	912.00	912.00
3875.000	601.57	0.00	602.87	42.00	0.00	3143.00	0.00	42.00	870.00	870.00	912.00	912.00
3875.000	602.07	0.00	603.46	42.00	0.00	3449.00	0.00	42.00	870.00	870.00	912.00	912.00
3875.000	602.90	0.00	604.45	42.00	0.00	4000.00	0.00	42.00	870.00	870.00	912.00	912.00
3876.000	599.72	0.00	600.72	42.00	0.00	2134.00	0.00	42.00	870.00	870.00	912.00	912.00
3876.000	601.57	0.00	602.87	42.00	0.00	3143.00	0.00	42.00	870.00	870.00	912.00	912.00
3876.000	602.07	0.00	603.46	42.00	0.00	3449.00	0.00	42.00	870.00	870.00	912.00	912.00
3876.000	602.72	0.00	604.53	42.00	0.00	4000.00	0.00	42.00	870.00	870.00	912.00	912.00
3900.000	599.83	0.00	600.79	42.00	0.00	2134.00	0.00	42.00	870.00	870.00	912.00	912.00
3900.000	601.68	0.00	602.94	42.00	0.00	3143.00	0.00	42.00	870.00	870.00	912.00	912.00
3900.000	602.18	0.00	603.53	42.00	0.00	3449.00	0.00	42.00	870.00	870.00	912.00	912.00
3900.000	602.92	0.00	604.73	42.00	0.00	4000.00	0.00	42.00	870.00	870.00	912.00	912.00
3910.000	599.96	0.00	600.82	60.00	19.11	2082.98	31.91	60.00	860.00	870.00	912.00	920.00
3910.000	601.90	0.00	602.98	60.00	48.74	3032.66	61.60	60.00	860.00	870.00	912.00	920.00
3910.000	602.43	0.00	603.57	60.00	58.47	3319.62	70.92	60.00	860.00	870.00	912.00	920.00
3910.000	603.64	0.00	604.82	60.00	79.10	3831.26	89.64	60.00	860.00	870.00	912.00	920.00
3925.000	600.03	0.00	600.91	134.84	32.00	2000.67	101.32	0.00	0.00	867.00	906.00	0.00
3925.000	602.33	0.00	603.07	307.54	129.51	2630.96	382.52	0.00	0.00	867.00	906.00	0.00
3925.000	603.00	0.00	603.68	418.67	213.70	2752.74	482.56	0.00	0.00	867.00	906.00	0.00
3925.000	604.49	0.00	604.93	702.53	563.92	2758.03	678.05	0.00	0.00	867.00	906.00	0.00
6250.000	602.06	0.00	602.52	233.31	47.18	1746.02	244.81	0.00	0.00	876.00	913.00	0.00
6250.000	603.85	0.00	604.27	440.22	86.73	2215.79	710.47	0.00	0.00	876.00	913.00	0.00
6250.000	604.35	0.00	604.75	609.87	112.35	2310.20	892.45	0.00	0.00	876.00	913.00	0.00
6250.000	605.36	0.00	605.67	697.17	225.79	2365.99	1247.22	0.00	0.00	876.00	913.00	0.00
8500.000	602.86	0.00	603.18	519.50	110.82	1764.83	162.36	0.00	0.00	1500.00	1540.00	0.00

8500.000	604.55	0.00	604.82	723.75	639.76	2107.31	265.93	0.00	0.00	1500.00	1540.00	0.00
8500.000	605.01	0.00	605.25	794.66	836.13	2176.40	302.47	0.00	0.00	1500.00	1540.00	0.00
8500.000	605.87	0.00	606.07	931.16	1228.26	2235.38	375.35	0.00	0.00	1500.00	1540.00	0.00
9750.000	602.88	0.00	603.63	73.89	38.18	1943.73	56.04	0.00	0.00	1492.00	1523.00	0.00
9750.000	604.35	0.00	605.33	544.71	214.53	2682.16	116.31	0.00	0.00	1492.00	1523.00	0.00
9750.000	604.81	0.00	605.72	588.89	353.99	2782.95	178.06	0.00	0.00	1492.00	1523.00	0.00
9750.000	605.75	0.00	606.44	659.37	679.36	2810.21	349.43	0.00	0.00	1492.00	1523.00	0.00
10700.000	603.93	0.00	604.27	108.76	65.93	1883.41	88.66	0.00	0.00	1284.00	1326.00	0.00
10700.000	605.65	0.00	605.97	937.73	124.96	2350.76	537.28	0.00	0.00	1284.00	1326.00	0.00
10700.000	606.03	0.00	606.33	1225.80	170.18	2438.26	706.56	0.00	0.00	1284.00	1326.00	0.00
10700.000	606.69	0.00	606.94	1259.22	326.97	2503.00	1009.03	0.00	0.00	1284.00	1326.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
11700.000	604.06	0.00	604.77	910.49	41.26	1876.38	120.36	0.00	0.00	500.00	530.00	0.00
11700.000	605.92	0.00	606.24	975.13	60.80	1852.94	1099.26	0.00	0.00	500.00	530.00	0.00
11700.000	606.31	0.00	606.59	1006.50	67.39	1862.91	1384.70	0.00	0.00	500.00	530.00	0.00
11700.000	606.94	0.00	607.16	1056.49	84.48	1885.36	1869.16	0.00	0.00	500.00	530.00	0.00
12000.000	604.13	0.00	604.85	62.35	20.11	1991.93	25.96	0.00	0.00	1690.00	1729.00	0.00
12000.000	605.45	0.00	606.53	179.85	51.32	2898.93	62.75	0.00	0.00	1690.00	1729.00	0.00
12000.000	605.72	0.00	606.92	681.40	63.47	3157.50	94.04	0.00	0.00	1690.00	1729.00	0.00
12000.000	606.40	0.00	607.46	1014.98	99.22	3345.93	393.85	0.00	0.00	1690.00	1729.00	0.00
12001.000	604.81	0.00	605.40	71.56	26.88	1977.20	33.93	0.00	0.00	1690.00	1729.00	0.00
12001.000	605.45	0.00	606.53	175.88	51.28	2899.03	62.70	0.00	0.00	1690.00	1729.00	0.00
12001.000	605.74	0.00	606.92	692.23	64.05	3152.33	98.62	0.00	0.00	1690.00	1729.00	0.00
12001.000	606.40	0.00	607.46	1016.97	99.40	3343.51	396.09	0.00	0.00	1690.00	1729.00	0.00
12800.000	605.46	0.00	605.60	120.94	17.29	941.88	70.83	0.00	0.00	300.00	330.00	0.00
12800.000	606.69	0.00	606.82	1588.30	48.57	1069.60	258.83	0.00	0.00	300.00	330.00	0.00
12800.000	607.11	0.00	607.20	1599.33	58.50	1016.32	411.18	0.00	0.00	300.00	330.00	0.00
12800.000	607.64	0.00	607.70	1613.36	72.46	976.88	633.66	0.00	0.00	300.00	330.00	0.00
13500.000	605.62	0.00	605.62	2118.16	385.77	68.65	575.58	0.00	0.00	1020.00	1045.00	0.00
13500.000	606.83	0.00	606.83	2123.38	529.00	85.38	762.62	0.00	0.00	1020.00	1045.00	0.00
13500.000	607.21	0.00	607.21	2125.01	574.52	90.41	821.07	0.00	0.00	1020.00	1045.00	0.00
13500.000	607.71	0.00	607.71	2127.17	655.61	100.08	927.31	0.00	0.00	1020.00	1045.00	0.00
14200.000	605.62	0.00	605.62	2131.91	590.63	77.55	361.82	0.00	0.00	1490.00	1515.00	0.00
14200.000	606.83	0.00	606.83	2164.08	803.40	94.84	478.77	0.00	0.00	1490.00	1515.00	0.00
14200.000	607.21	0.00	607.21	2174.17	870.61	99.93	515.46	0.00	0.00	1490.00	1515.00	0.00
14200.000	607.71	0.00	607.71	2187.44	990.76	109.95	582.30	0.00	0.00	1490.00	1515.00	0.00
17500.000	605.56	0.00	605.66	814.32	262.99	682.71	84.29	0.00	0.00	1642.00	1668.00	0.00
17500.000	606.81	0.00	606.86	970.46	567.56	659.09	150.35	0.00	0.00	1642.00	1668.00	0.00
17500.000	607.19	0.00	607.24	1002.11	664.82	648.69	172.49	0.00	0.00	1642.00	1668.00	0.00
17500.000	607.70	0.00	607.74	1044.24	818.41	656.56	208.03	0.00	0.00	1642.00	1668.00	0.00
19100.000	605.70	0.00	605.70	1462.44	19.27	107.91	933.82	0.00	0.00	1005.00	1028.00	0.00
19100.000	606.88	0.00	606.88	1476.39	31.37	127.11	1232.52	0.00	0.00	1005.00	1028.00	0.00
19100.000	607.26	0.00	607.26	1478.27	35.88	133.33	1330.60	0.00	0.00	1005.00	1028.00	0.00
19100.000	607.76	0.00	607.76	1480.76	43.66	146.35	1511.99	0.00	0.00	1005.00	1028.00	0.00

20200.000	605.70	0.00	605.70	1364.95	11.46	177.77	371.77	0.00	0.00	1135.00	1171.00	0.00
20200.000	606.89	0.00	606.89	1381.21	22.75	210.16	1158.09	0.00	0.00	1135.00	1171.00	0.00
20200.000	607.27	0.00	607.27	1383.23	27.28	220.59	1252.12	0.00	0.00	1135.00	1171.00	0.00
20200.000	607.75	0.00	607.76	1385.92	35.00	242.30	1424.69	0.00	0.00	1135.00	1171.00	0.00
23700.000	605.72	0.00	605.73	568.22	5.41	324.57	731.02	0.00	0.00	1048.00	1084.00	0.00
23700.000	606.91	0.00	606.91	618.79	10.72	394.70	985.58	0.00	0.00	1048.00	1084.00	0.00
23700.000	607.28	0.00	607.29	638.71	13.82	417.03	1069.14	0.00	0.00	1048.00	1084.00	0.00
23700.000	607.78	0.00	607.79	665.20	20.11	461.31	1220.58	0.00	0.00	1048.00	1084.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
24000.000	605.68	0.00	605.77	687.36	146.74	751.12	163.14	0.00	0.00	1044.00	1077.60	0.00
24000.000	606.89	0.00	606.94	932.51	209.81	758.19	423.00	0.00	0.00	1044.00	1077.60	0.00
24000.000	607.27	0.00	607.31	981.99	239.90	752.75	507.35	0.00	0.00	1044.00	1077.60	0.00
24000.000	607.77	0.00	607.81	1045.52	294.96	772.60	634.43	0.00	0.00	1044.00	1077.60	0.00
25250.000	605.78	0.00	606.02	161.26	9.32	1016.88	34.80	700.00	700.00	964.00	1002.40	1540.00
25250.000	606.90	0.00	607.15	191.78	33.69	1246.45	110.86	700.00	700.00	964.00	1002.40	1540.00
25250.000	607.26	0.00	607.50	197.58	43.94	1312.60	143.46	700.00	700.00	964.00	1002.40	1540.00
25250.000	607.74	0.00	607.99	205.35	61.00	1443.13	197.87	700.00	700.00	964.00	1002.40	1540.00
25251.000	605.74	0.00	606.05	157.77	7.11	1012.55	41.35	550.00	800.00	964.00	1002.40	1350.00
25251.000	606.77	1.02	607.22	189.65	9.60	1254.09	127.31	550.00	800.00	964.00	1002.40	1350.00
25251.000	607.08	1.34	607.59	194.82	10.21	1334.04	155.75	550.00	800.00	964.00	1002.40	1350.00
25251.000	607.48	1.74	608.12	201.28	11.47	1499.40	191.12	550.00	800.00	964.00	1002.40	1350.00
25252.000	605.82	0.00	606.13	164.41	7.21	1009.62	44.17	550.00	800.00	964.00	1002.40	1350.00
25252.000	606.89	1.07	607.33	191.63	9.53	1246.18	135.29	550.00	800.00	964.00	1002.40	1350.00
25252.000	607.22	1.40	607.72	197.01	10.17	1328.77	161.07	550.00	800.00	964.00	1002.40	1350.00
25252.000	607.65	1.83	608.28	203.99	11.45	1496.13	194.42	550.00	800.00	964.00	1002.40	1350.00
25253.000	605.88	0.00	606.14	168.69	11.32	1081.72	40.96	550.00	800.00	964.00	1002.40	1350.00
25253.000	607.12	1.24	607.36	195.32	39.91	1289.46	130.63	550.00	800.00	964.00	1002.40	1350.00
25253.000	607.52	1.64	607.76	201.85	51.63	1348.47	167.91	550.00	800.00	964.00	1002.40	1350.00
25253.000	608.10	2.22	608.33	550.00	72.35	1454.67	231.98	550.00	800.00	964.00	1002.40	1350.00
27250.000	606.48	0.00	606.51	1085.75	581.97	408.36	143.68	0.00	0.00	1032.00	1056.00	0.00
27250.000	607.58	1.10	607.60	1172.43	822.35	384.81	252.84	0.00	0.00	1032.00	1056.00	0.00
27250.000	607.95	1.47	607.97	1201.27	896.07	380.63	291.30	0.00	0.00	1032.00	1056.00	0.00
27250.000	608.50	2.02	608.51	1213.76	1018.19	382.61	358.21	0.00	0.00	1032.00	1056.00	0.00
29700.000	606.64	0.00	606.65	1279.55	701.57	296.02	136.41	0.00	0.00	700.00	730.00	0.00
29700.000	607.68	1.04	607.69	1394.82	822.81	318.80	318.38	0.00	0.00	700.00	730.00	0.00
29700.000	608.04	1.39	608.04	1430.09	856.51	323.87	387.62	0.00	0.00	700.00	730.00	0.00
29700.000	608.57	1.93	608.58	1431.43	917.61	335.64	505.75	0.00	0.00	700.00	730.00	0.00
32250.000	606.70	0.00	606.70	1165.31	431.05	194.53	508.43	0.00	0.00	705.00	730.00	0.00
32250.000	607.72	1.02	607.72	1277.31	542.34	174.33	743.34	0.00	0.00	705.00	730.00	0.00
32250.000	608.07	1.37	608.07	1306.46	577.55	169.88	820.57	0.00	0.00	705.00	730.00	0.00
32250.000	608.60	1.90	608.60	1310.17	639.68	167.30	952.02	0.00	0.00	705.00	730.00	0.00
35000.000	606.78	0.00	606.83	783.22	161.47	455.00	517.53	0.00	0.00	815.00	840.00	0.00
35000.000	607.76	.98	607.78	1007.17	454.03	372.07	633.90	0.00	0.00	815.00	840.00	0.00
35000.000	608.10	1.32	608.12	1060.00	551.90	348.15	667.95	0.00	0.00	815.00	840.00	0.00
35000.000	608.62	1.85	608.63	1060.00	705.66	322.28	731.07	0.00	0.00	815.00	840.00	0.00

36300.000	606.92	0.00	606.97	670.15	323.59	373.39	437.03	0.00	0.00	930.00	950.00	0.00
36300.000	607.82	.90	607.85	904.62	614.51	326.27	519.22	0.00	0.00	930.00	950.00	0.00
36300.000	608.15	1.23	608.17	950.00	723.28	307.67	537.04	0.00	0.00	930.00	950.00	0.00
36300.000	608.66	1.73	608.67	950.00	902.66	287.26	569.08	0.00	0.00	930.00	950.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
37000.000	606.68	0.00	607.26	57.24	11.75	1111.44	10.81	0.00	0.00	520.00	563.20	0.00
37000.000	607.51	.83	608.08	135.77	73.92	1362.92	23.17	0.00	0.00	520.00	563.20	0.00
37000.000	607.86	1.18	608.37	177.38	130.53	1404.70	32.77	0.00	0.00	520.00	563.20	0.00
37000.000	608.42	1.74	608.83	187.20	263.08	1438.55	57.36	0.00	0.00	520.00	563.20	0.00
37001.000	606.90	0.00	607.45	43.20	0.00	1134.00	0.00	0.00	0.00	520.00	563.20	0.00
37001.000	607.61	.71	608.29	43.20	0.00	1460.00	0.00	0.00	0.00	520.00	563.20	0.00
37001.000	607.88	.98	608.59	43.20	0.00	1568.00	0.00	0.00	0.00	520.00	563.20	0.00
37001.000	608.31	1.41	609.07	43.20	0.00	1759.00	0.00	0.00	0.00	520.00	563.20	0.00
37002.000	606.97	0.00	607.51	43.20	0.00	1134.00	0.00	0.00	0.00	520.00	563.20	0.00
37002.000	607.92	.95	608.52	43.20	0.00	1460.00	0.00	0.00	0.00	520.00	563.20	0.00
37002.000	608.34	1.37	608.94	43.20	0.00	1568.00	0.00	0.00	0.00	520.00	563.20	0.00
37002.000	609.03	2.05	609.63	43.20	0.00	1759.00	0.00	0.00	0.00	520.00	563.20	0.00
37003.000	607.42	0.00	607.61	43.20	0.00	741.00	0.00	0.00	0.00	520.00	563.20	0.00
37003.000	608.40	.98	608.62	43.20	0.00	956.00	0.00	0.00	0.00	520.00	563.20	0.00
37003.000	608.80	1.38	609.03	43.20	0.00	1050.00	0.00	0.00	0.00	520.00	563.20	0.00
37003.000	609.46	2.04	609.72	43.20	0.00	1231.00	0.00	0.00	0.00	520.00	563.20	0.00
37800.000	607.76	0.00	607.98	155.21	57.46	542.44	141.10	210.00	920.00	1015.00	1038.00	1130.00
37800.000	608.77	1.01	608.89	210.00	176.03	522.46	267.50	210.00	920.00	1015.00	1038.00	1130.00
37800.000	609.17	1.41	609.26	210.00	225.58	509.35	315.08	210.00	920.00	1015.00	1038.00	1130.00
37800.000	609.85	2.09	609.92	210.00	316.22	510.55	404.24	210.00	920.00	1015.00	1038.00	1130.00
38500.000	608.07	0.00	608.09	336.05	430.42	247.32	63.25	0.00	0.00	310.00	331.50	0.00
38500.000	608.94	.87	608.96	384.34	613.65	260.02	92.33	0.00	0.00	310.00	331.50	0.00
38500.000	609.31	1.24	609.32	391.33	686.11	260.00	103.90	0.00	0.00	310.00	331.50	0.00
38500.000	609.95	1.88	609.97	399.42	834.85	267.28	128.87	0.00	0.00	310.00	331.50	0.00
38501.000	608.08	0.00	608.09	335.97	548.44	151.04	41.52	0.00	0.00	310.00	331.50	0.00
38501.000	608.95	.87	608.96	384.53	743.65	147.86	74.49	0.00	0.00	310.00	331.50	0.00
38501.000	609.31	1.23	609.32	391.36	817.49	144.77	87.74	0.00	0.00	310.00	331.50	0.00
38501.000	609.96	1.88	609.97	399.44	971.08	144.78	115.14	0.00	0.00	310.00	331.50	0.00
38502.000	608.08	0.00	608.10	336.29	548.65	150.71	41.64	0.00	0.00	310.00	331.50	0.00
38502.000	608.95	.87	608.97	384.81	743.76	147.65	74.59	0.00	0.00	310.00	331.50	0.00
38502.000	609.31	1.23	609.33	391.41	817.58	144.60	87.81	0.00	0.00	310.00	331.50	0.00
38502.000	609.96	1.87	609.97	399.48	971.12	144.68	115.20	0.00	0.00	310.00	331.50	0.00
38503.000	608.08	0.00	608.10	336.54	430.94	246.73	63.33	0.00	0.00	310.00	331.50	0.00
38503.000	608.95	.87	608.97	384.95	614.18	259.37	92.45	0.00	0.00	310.00	331.50	0.00
38503.000	609.31	1.23	609.33	391.44	686.54	259.48	103.98	0.00	0.00	310.00	331.50	0.00
38503.000	609.96	1.87	609.97	399.50	835.11	266.94	128.95	0.00	0.00	310.00	331.50	0.00
38810.000	608.11	0.00	608.11	483.12	565.60	143.51	31.89	0.00	0.00	430.00	458.00	0.00
38810.000	608.97	.86	608.97	494.59	757.72	163.22	45.06	0.00	0.00	430.00	458.00	0.00
38810.000	609.33	1.22	609.33	499.37	829.83	169.24	50.93	0.00	0.00	430.00	458.00	0.00

38810.000	609.97	1.87	609.98	507.93	982.42	184.34	64.25	0.00	0.00	430.00	458.00	0.00

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SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
40680.000	608.13	0.00	608.14	634.95	366.52	151.94	222.54	0.00	0.00	710.00	734.00	0.00
40680.000	608.99	.86	608.99	667.13	517.61	156.58	291.81	0.00	0.00	710.00	734.00	0.00
40680.000	609.35	1.22	609.35	680.53	575.77	157.26	316.97	0.00	0.00	710.00	734.00	0.00
40680.000	609.99	1.86	609.99	694.96	697.96	162.88	370.16	0.00	0.00	710.00	734.00	0.00
42764.000	608.18	0.00	608.19	754.62	44.33	219.31	477.36	0.00	0.00	568.00	592.00	0.00
42764.000	609.02	.84	609.03	816.95	94.38	204.22	667.40	0.00	0.00	568.00	592.00	0.00
42764.000	609.37	1.19	609.38	843.18	120.47	196.92	732.61	0.00	0.00	568.00	592.00	0.00
42764.000	610.01	1.83	610.01	890.00	175.46	191.80	863.74	0.00	0.00	568.00	592.00	0.00
45960.000	608.27	0.00	608.62	53.13	41.49	483.46	216.05	0.00	0.00	80.00	96.00	0.00
45960.000	608.95	.68	609.35	63.73	56.86	591.91	307.23	0.00	0.00	80.00	96.00	0.00
45960.000	609.27	1.00	609.66	68.62	78.10	624.87	347.03	0.00	0.00	80.00	96.00	0.00
45960.000	609.86	1.59	610.25	77.82	101.66	693.22	436.12	0.00	0.00	80.00	96.00	0.00
46200.000	608.41	0.00	608.90	34.91	0.00	741.00	0.00	0.00	0.00	1400.00	1435.00	0.00
46200.000	609.05	.64	609.66	34.93	0.00	966.00	.00	0.00	0.00	1400.00	1435.00	0.00
46200.000	609.34	.92	609.97	34.94	0.00	1050.00	.00	0.00	0.00	1400.00	1435.00	0.00
46200.000	609.87	1.46	610.57	34.96	0.00	1231.00	.00	0.00	0.00	1400.00	1435.00	0.00
46201.000	608.55	0.00	609.01	34.92	0.00	741.00	.00	0.00	0.00	1400.00	1435.00	0.00
46201.000	609.20	.65	609.77	34.94	0.00	966.00	.00	0.00	0.00	1400.00	1435.00	0.00
46201.000	609.48	.93	610.08	34.95	0.00	1050.00	.00	0.00	0.00	1400.00	1435.00	0.00
46201.000	610.01	1.46	610.68	34.96	0.00	1231.00	.00	0.00	0.00	1400.00	1435.00	0.00
46350.000	608.90	0.00	609.24	42.50	0.00	741.00	0.00	0.00	0.00	1372.50	1423.50	0.00
46350.000	609.65	.74	610.03	50.91	0.00	966.00	0.00	0.00	0.00	1372.50	1423.50	0.00
46350.000	609.94	1.03	610.33	50.92	0.00	1050.00	0.00	0.00	0.00	1372.50	1423.50	0.00
46350.000	610.50	1.60	610.92	50.93	0.00	1231.00	0.00	0.00	0.00	1372.50	1423.50	0.00
46351.000	609.00	0.00	609.32	42.50	0.00	741.00	0.00	0.00	0.00	1372.50	1423.50	0.00
46351.000	609.75	.75	610.11	50.93	0.00	966.00	.00	0.00	0.00	1372.50	1423.50	0.00
46351.000	610.03	1.03	610.40	50.94	0.00	1050.00	.00	0.00	0.00	1372.50	1423.50	0.00
46351.000	610.56	1.57	611.06	50.96	0.00	1231.00	.00	0.00	0.00	1372.50	1423.50	0.00
46500.000	609.13	0.00	609.38	50.00	0.00	741.00	0.00	50.00	1400.00	1400.00	1452.00	1450.00
46500.000	609.87	.74	610.17	50.00	0.00	966.00	0.00	50.00	1400.00	1400.00	1452.00	1450.00
46500.000	610.15	1.02	610.46	50.00	0.00	1050.00	0.00	50.00	1400.00	1400.00	1452.00	1450.00
46500.000	610.82	1.69	611.15	50.00	0.00	1231.00	0.00	50.00	1400.00	1400.00	1452.00	1450.00
46518.000	609.17	0.00	609.41	51.00	0.00	741.00	0.00	51.00	1400.00	1400.00	1452.00	1451.00
46518.000	609.91	.74	610.20	51.00	0.00	966.00	0.00	51.00	1400.00	1400.00	1452.00	1451.00
46518.000	610.19	1.02	610.49	51.00	0.00	1050.00	0.00	51.00	1400.00	1400.00	1452.00	1451.00
46518.000	610.86	1.69	611.17	51.00	0.00	1231.00	0.00	51.00	1400.00	1400.00	1452.00	1451.00
46600.000	609.22	0.00	609.56	30.08	.00	741.00	0.00	80.00	1350.00	1400.00	1452.00	1430.00
46600.000	609.92	.70	610.37	30.14	.03	965.97	0.00	80.00	1350.00	1400.00	1452.00	1430.00
46600.000	610.18	.96	610.67	30.16	.05	1049.95	0.00	80.00	1350.00	1400.00	1452.00	1430.00
46600.000	610.81	1.59	611.36	30.22	.10	1230.90	0.00	80.00	1350.00	1400.00	1452.00	1430.00

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SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
46850.000	609.40	0.00	610.21	39.05	0.00	1202.00	0.00	175.00	1300.00	1300.00	1425.00	1475.00
46850.000	610.06	.66	611.22	53.35	0.00	1671.95	2.05	175.00	1300.00	1300.00	1425.00	1475.00
46850.000	610.85	1.45	611.57	160.94	0.00	1760.87	46.13	175.00	1300.00	1300.00	1425.00	1475.00
46850.000	611.49	2.10	611.90	175.00	0.00	1763.15	107.85	175.00	1300.00	1300.00	1425.00	1475.00
47560.000	611.26	0.00	611.41	308.75	.80	823.32	377.88	380.00	1320.00	1400.00	1445.00	1700.00
47560.000	612.14	.89	612.25	325.87	11.84	890.37	771.79	380.00	1320.00	1400.00	1445.00	1700.00
47560.000	612.45	1.20	612.55	331.83	18.96	894.28	893.76	380.00	1320.00	1400.00	1445.00	1700.00
47560.000	612.56	1.31	612.66	333.97	22.13	903.87	945.01	380.00	1320.00	1400.00	1445.00	1700.00
48600.000	611.82	0.00	611.88	449.56	13.74	601.46	531.80	520.00	800.00	880.00	920.00	1320.00
48600.000	612.56	.74	612.61	452.80	28.63	655.70	989.68	520.00	800.00	880.00	920.00	1320.00
48600.000	612.81	.99	612.86	454.09	31.98	660.15	1114.87	520.00	800.00	880.00	920.00	1320.00
48600.000	612.91	1.09	612.96	454.57	33.53	667.13	1170.34	520.00	800.00	880.00	920.00	1320.00
50000.000	612.39	0.00	612.62	104.54	167.18	1034.82	0.00	0.00	0.00	2000.00	2040.00	0.00
50000.000	613.03	.64	613.35	121.64	294.40	1379.60	.00	0.00	0.00	2000.00	2040.00	0.00
50000.000	613.23	.83	613.57	141.83	338.40	1468.46	.15	0.00	0.00	2000.00	2040.00	0.00
50000.000	613.31	.92	613.67	187.84	359.66	1510.54	.80	0.00	0.00	2000.00	2040.00	0.00
50100.000	612.22	0.00	612.87	26.00	0.00	1202.00	0.00	26.00	2000.00	2000.00	2026.00	2026.00
50100.000	612.65	.43	613.76	26.00	0.00	1674.00	0.00	26.00	2000.00	2000.00	2026.00	2026.00
50100.000	612.77	.55	614.03	26.00	0.00	1807.00	0.00	26.00	2000.00	2000.00	2026.00	2026.00
50100.000	612.81	.59	614.15	26.00	0.00	1871.00	0.00	26.00	2000.00	2000.00	2026.00	2026.00
50101.000	612.20	0.00	612.88	75.73	0.00	1202.00	0.00	0.00	0.00	2000.00	2026.00	0.00
50101.000	612.60	.40	613.79	82.29	0.00	1674.00	0.00	0.00	0.00	2000.00	2026.00	0.00
50101.000	612.71	.51	614.06	84.08	0.00	1807.00	0.00	0.00	0.00	2000.00	2026.00	0.00
50101.000	612.75	.55	614.18	84.74	0.00	1871.00	0.00	0.00	0.00	2000.00	2026.00	0.00
50150.000	612.30	0.00	612.97	77.43	0.00	1202.00	0.00	0.00	0.00	2000.00	2026.00	0.00
50150.000	612.80	.50	613.93	85.59	0.00	1674.00	0.00	0.00	0.00	2000.00	2026.00	0.00
50150.000	612.94	.64	614.22	87.96	0.00	1807.00	0.00	0.00	0.00	2000.00	2026.00	0.00
50150.000	613.00	.70	614.35	88.94	0.00	1871.00	0.00	0.00	0.00	2000.00	2026.00	0.00
50151.000	612.35	0.00	612.97	26.00	0.00	1202.00	0.00	26.00	2000.00	2000.00	2026.00	2026.00
50151.000	612.90	.55	613.95	26.00	0.00	1674.00	0.00	26.00	2000.00	2000.00	2026.00	2026.00
50151.000	613.07	.72	614.23	26.00	0.00	1807.00	0.00	26.00	2000.00	2000.00	2026.00	2026.00
50151.000	613.14	.79	614.37	26.00	0.00	1871.00	0.00	26.00	2000.00	2000.00	2026.00	2026.00
50200.000	612.77	0.00	613.06	85.08	193.07	963.23	45.69	0.00	0.00	2000.00	2026.00	0.00
50200.000	613.71	.94	614.09	100.46	347.57	1254.75	71.68	0.00	0.00	2000.00	2026.00	0.00
50200.000	614.00	1.23	614.39	105.23	401.48	1325.74	79.77	0.00	0.00	2000.00	2026.00	0.00
50200.000	614.13	1.37	614.53	107.44	428.32	1358.97	83.71	0.00	0.00	2000.00	2026.00	0.00
50400.000	613.08	0.00	613.35	280.78	0.00	595.30	606.70	0.00	0.00	710.00	732.00	0.00
50400.000	614.22	1.14	614.32	342.25	.12	491.58	1182.30	0.00	0.00	710.00	732.00	0.00
50400.000	614.52	1.44	614.61	342.85	.64	480.52	1325.84	0.00	0.00	710.00	732.00	0.00
50400.000	614.65	1.58	614.74	343.13	.97	476.77	1393.26	0.00	0.00	710.00	732.00	0.00

SECNO CWSEL DIFKWS EG TOPWID QLOB QCH QROB PERENC STENCL STCHL STCHR STENCR

	50500.000	612.93	0.00	613.80	32.50	0.00	1202.00	0.00	0.00	0.00	710.00	745.00	0.00
*	50500.000	614.12	1.14	614.79	387.21	.07	1439.12	234.80	0.00	0.00	710.00	745.00	0.00
	50500.000	614.28	1.30	614.89	399.60	.70	1453.57	352.73	0.00	0.00	710.00	745.00	0.00
	50500.000	614.50	1.51	614.96	404.91	3.00	1379.27	438.72	0.00	0.00	710.00	745.00	0.00
	50501.000	612.74	0.00	613.91	31.90	0.00	1202.00	0.00	0.00	0.00	710.00	745.00	0.00
	50501.000	614.67	1.93	614.84	409.45	10.09	664.05	999.85	0.00	0.00	710.00	745.00	0.00
*	50501.000	614.77	2.03	614.93	491.87	14.02	676.41	1116.57	0.00	0.00	710.00	745.00	0.00
	50501.000	614.84	2.10	615.00	606.00	22.24	660.59	1188.17	0.00	0.00	710.00	745.00	0.00
	50526.000	612.91	0.00	614.07	32.30	0.00	1202.00	0.00	0.00	0.00	710.00	745.00	0.00
	50526.000	614.74	1.84	614.89	469.69	12.21	633.79	1028.00	0.00	0.00	710.00	745.00	0.00
	50526.000	614.84	1.93	614.98	599.79	20.92	640.03	1146.05	0.00	0.00	710.00	745.00	0.00
	50526.000	614.90	2.00	615.04	692.76	32.56	631.53	1206.91	0.00	0.00	710.00	745.00	0.00
	50527.000	613.44	0.00	614.12	33.61	0.00	1202.00	0.00	40.00	710.00	710.00	745.00	750.00
*	50527.000	614.29	.86	615.13	399.77	.80	1585.07	88.13	40.00	710.00	710.00	745.00	750.00
*	50527.000	614.49	1.06	615.24	404.85	3.44	1598.99	204.57	40.00	710.00	710.00	745.00	750.00
*	50527.000	614.55	1.12	615.29	406.37	4.64	1618.41	247.95	40.00	710.00	710.00	745.00	750.00
	50600.000	613.79	0.00	614.31	302.73	0.00	1146.61	55.39	0.00	0.00	710.00	745.00	0.00
	50600.000	615.15	1.36	615.28	1016.18	59.75	928.96	685.30	0.00	0.00	710.00	745.00	0.00
	50600.000	615.25	1.47	615.38	1100.00	103.00	943.86	760.13	0.00	0.00	710.00	745.00	0.00
	50600.000	615.30	1.52	615.43	1100.00	128.93	948.69	793.38	0.00	0.00	710.00	745.00	0.00
	52250.000	614.51	0.00	614.52	1645.97	893.47	191.91	116.62	0.00	0.00	2000.00	2040.00	0.00
	52250.000	615.39	.83	615.40	1938.66	1251.03	201.17	221.80	0.00	0.00	2000.00	2040.00	0.00
	52250.000	615.50	.98	615.50	2028.40	1350.03	210.93	245.99	0.00	0.00	2000.00	2040.00	0.00
	52250.000	615.54	1.03	615.55	2046.93	1397.59	215.60	257.81	0.00	0.00	2000.00	2040.00	0.00
	52350.000	614.52	0.00	614.52	1647.09	893.52	191.71	116.77	0.00	0.00	2000.00	2040.00	0.00
	52350.000	615.40	.88	615.40	1988.79	1251.03	201.15	221.82	0.00	0.00	2000.00	2040.00	0.00
	52350.000	615.50	.98	615.50	2028.65	1350.02	210.94	246.03	0.00	0.00	2000.00	2040.00	0.00
	52350.000	615.55	1.03	615.55	2047.22	1397.59	215.55	257.86	0.00	0.00	2000.00	2040.00	0.00
	52400.000	614.52	0.00	614.52	1647.10	1011.71	60.94	129.35	0.00	0.00	2000.00	2040.00	0.00
	52400.000	615.40	.88	615.40	1988.80	1368.00	67.12	238.88	0.00	0.00	2000.00	2040.00	0.00
	52400.000	615.50	.98	615.50	2028.67	1471.93	70.76	264.31	0.00	0.00	2000.00	2040.00	0.00
	52400.000	615.55	1.03	615.55	2047.23	1521.79	72.48	276.73	0.00	0.00	2000.00	2040.00	0.00
	52370.000	614.52	0.00	614.52	1647.60	1011.66	60.92	129.42	0.00	0.00	2000.00	2040.00	0.00
	52370.000	615.40	.88	615.40	1989.12	1367.97	67.11	238.92	0.00	0.00	2000.00	2040.00	0.00
	52370.000	615.50	.98	615.50	2029.00	1471.89	70.75	264.37	0.00	0.00	2000.00	2040.00	0.00
	52370.000	615.55	1.03	615.55	2047.56	1521.75	72.46	276.78	0.00	0.00	2000.00	2040.00	0.00
	52371.000	614.52	0.00	614.52	1647.63	893.54	191.61	116.85	0.00	0.00	2000.00	2040.00	0.00
	52371.000	615.40	.88	615.40	1989.14	1251.03	201.10	221.87	0.00	0.00	2000.00	2040.00	0.00
	52371.000	615.50	.98	615.50	2029.02	1350.02	210.89	246.09	0.00	0.00	2000.00	2040.00	0.00
	52371.000	615.55	1.03	615.55	2047.58	1397.58	215.50	257.92	0.00	0.00	2000.00	2040.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
52450.000	614.52	0.00	614.52	1648.07	893.56	191.54	116.91	0.00	0.00	2000.00	2040.00	0.00
52450.000	615.40	.88	615.40	1989.44	1251.03	201.05	221.92	0.00	0.00	2000.00	2040.00	0.00
52450.000	615.50	.98	615.50	2029.34	1350.01	210.84	246.14	0.00	0.00	2000.00	2040.00	0.00
52450.000	615.55	1.03	615.55	2047.91	1397.58	215.45	257.93	0.00	0.00	2000.00	2040.00	0.00

RUSH CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2200.000	0.00	0.00	0.00	588.97	2134.00	596.50	0.00	596.94	7.80	5.39	448.42	763.89
2200.000	0.00	0.00	0.00	588.97	3143.00	596.50	0.00	597.46	16.93	7.94	448.42	763.89
2200.000	0.00	0.00	0.00	588.97	3449.00	596.50	0.00	597.66	20.39	8.71	448.42	763.89
2200.000	0.00	0.00	0.00	588.97	4000.00	596.50	0.00	598.06	27.42	10.10	448.42	763.89
2250.000	50.00	0.00	0.00	588.97	2134.00	596.53	0.00	596.99	8.75	5.44	392.41	721.45
2250.000	50.00	0.00	0.00	588.97	3143.00	596.58	0.00	597.56	18.55	7.95	395.29	729.66
2250.000	50.00	0.00	0.00	588.97	3449.00	596.60	0.00	597.77	22.15	8.70	396.38	732.78
2250.000	50.00	0.00	0.00	588.97	4000.00	596.64	0.00	598.20	29.29	10.04	398.59	739.14
2251.000	1.00	607.50	607.50	588.97	2134.00	596.53	0.00	596.99	8.95	5.47	389.96	713.13
2251.000	1.00	607.50	607.50	588.97	3143.00	596.57	0.00	597.56	18.99	8.00	392.81	721.21
2251.000	1.00	607.50	607.50	588.97	3449.00	596.59	0.00	597.78	22.65	8.75	394.04	724.71
2251.000	1.00	607.50	607.50	588.97	4000.00	596.63	0.00	598.21	29.81	10.08	396.81	732.59
2252.000	12.00	607.50	607.50	588.97	2134.00	596.54	0.00	597.00	8.93	5.47	390.37	714.29
2252.000	12.00	607.50	607.50	588.97	3143.00	596.60	0.00	597.59	18.86	7.98	393.67	723.66
2252.000	12.00	607.50	607.50	588.97	3449.00	596.62	0.00	597.81	22.46	8.73	395.11	727.75
2252.000	12.00	607.50	607.50	588.97	4000.00	596.70	0.00	598.25	29.03	9.99	400.22	742.35
2253.000	1.00	0.00	0.00	588.97	2134.00	596.55	0.00	597.00	8.74	5.44	392.49	721.67
2253.000	1.00	0.00	0.00	588.97	3143.00	596.61	0.00	597.59	18.37	7.93	396.58	733.36
2253.000	1.00	0.00	0.00	588.97	3449.00	596.65	0.00	597.81	21.60	8.63	399.62	742.09
2253.000	1.00	0.00	0.00	588.97	4000.00	596.74	0.00	598.25	27.84	9.87	405.18	758.16
2350.000	40.00	0.00	0.00	589.30	2134.00	596.53	0.00	597.08	18.42	6.04	409.06	497.19
2350.000	40.00	0.00	0.00	589.30	3143.00	596.59	0.00	597.75	38.17	8.76	416.44	508.74
2350.000	40.00	0.00	0.00	589.30	3449.00	596.62	0.00	597.99	44.62	9.53	421.25	516.30
2350.000	40.00	0.00	0.00	589.30	4000.00	596.73	596.52	598.48	55.07	10.75	435.64	539.03
2351.000	30.00	0.00	0.00	589.30	2134.00	596.10	0.00	597.39	50.91	9.13	233.73	299.09
* 2351.000	30.00	0.00	0.00	589.30	3143.00	596.57	596.57	598.81	78.95	12.02	261.53	353.74
* 2351.000	30.00	0.00	0.00	589.30	3449.00	596.85	596.85	599.23	78.87	12.38	278.51	388.36
* 2351.000	30.00	0.00	0.00	589.30	4000.00	597.37	597.37	599.96	77.56	12.91	309.72	454.20
2352.000	1.00	601.00	600.10	589.30	2134.00	595.88	0.00	597.49	71.39	10.19	209.32	252.57
* 2352.000	1.00	601.00	600.10	589.30	3143.00	596.72	596.72	599.07	85.43	12.30	255.58	340.05
* 2352.000	1.00	601.00	600.10	589.30	3449.00	597.02	597.02	599.51	84.99	12.65	272.67	374.13
* 2352.000	1.00	601.00	600.10	589.30	4000.00	597.56	597.56	600.26	84.08	13.21	302.81	436.24
2353.000	24.00	601.00	600.10	589.30	2134.00	596.44	0.00	597.67	47.46	8.89	239.99	309.76
2353.000	24.00	601.00	600.10	589.30	3143.00	597.73	0.00	599.30	47.00	10.03	313.31	458.45
2353.000	24.00	601.00	600.10	589.30	3449.00	598.08	0.00	599.74	47.28	10.35	333.34	501.58
2353.000	24.00	601.00	600.10	589.30	4000.00	598.64	0.00	600.50	48.62	10.95	365.14	573.64

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2354.000	1.00	0.00	0.00	589.30	2134.00	596.75	0.00	597.70	32.33	7.84	272.15	375.29
2354.000	1.00	0.00	0.00	589.30	3143.00	598.13	0.00	599.34	31.63	8.81	356.77	553.42
2354.000	1.00	0.00	0.00	589.30	3449.00	598.50	0.00	599.78	31.72	9.07	380.21	612.40
2354.000	1.00	0.00	0.00	589.30	4000.00	599.14	0.00	600.55	31.11	9.51	420.48	717.13
3000.000	50.00	0.00	0.00	589.30	2134.00	597.28	0.00	597.85	16.92	6.37	470.27	518.83
3000.000	50.00	0.00	0.00	589.30	3143.00	598.85	0.00	599.49	14.34	6.85	697.77	830.00
3000.000	50.00	0.00	0.00	589.30	3449.00	599.28	0.00	599.94	13.66	6.98	766.38	933.17
3000.000	50.00	0.00	0.00	589.30	4000.00	600.03	0.00	600.72	12.60	7.19	891.36	1126.94
3375.000	600.00	0.00	0.00	591.60	2134.00	598.18	0.00	598.89	16.29	6.76	326.90	528.69
3375.000	600.00	0.00	0.00	591.60	3143.00	599.56	0.00	600.50	16.18	7.80	422.56	781.44
3375.000	600.00	0.00	0.00	591.60	3449.00	599.93	0.00	600.94	16.23	8.09	449.05	856.12
3375.000	600.00	0.00	0.00	591.60	4000.00	600.58	0.00	601.70	16.29	8.55	496.38	990.99
3400.000	50.00	0.00	0.00	591.60	2134.00	598.28	0.00	598.97	17.23	6.67	319.71	514.09
3400.000	50.00	0.00	0.00	591.60	3143.00	599.64	0.00	600.58	17.99	7.78	404.11	741.05
3400.000	50.00	0.00	0.00	591.60	3449.00	600.01	0.00	601.03	18.24	8.07	427.19	807.57
3400.000	50.00	0.00	0.00	591.60	4000.00	600.65	0.00	601.79	18.64	8.56	467.05	926.48
3401.000	1.00	604.00	604.10	591.60	2134.00	598.29	0.00	598.97	15.43	6.66	320.72	543.21
3401.000	1.00	604.00	604.10	591.60	3143.00	599.65	0.00	600.58	15.78	7.77	405.10	791.18
3401.000	1.00	604.00	604.10	591.60	3449.00	600.02	0.00	601.03	15.92	8.06	428.15	864.52
3401.000	1.00	604.00	604.10	591.60	4000.00	600.66	0.00	601.80	16.13	8.56	467.84	996.04
3415.000	12.00	604.00	604.10	591.60	2134.00	598.31	0.00	598.99	15.22	6.63	322.12	547.07
3415.000	12.00	604.00	604.10	591.60	3143.00	599.67	0.00	600.60	15.60	7.74	406.55	795.71
3415.000	12.00	604.00	604.10	591.60	3449.00	600.05	0.00	601.05	15.74	8.04	429.60	869.20
3415.000	12.00	604.00	604.10	591.60	4000.00	600.68	0.00	601.81	15.97	8.53	469.26	1000.86
3420.000	50.00	0.00	0.00	591.60	2134.00	598.43	0.00	599.07	13.91	6.43	344.18	572.21
3420.000	50.00	0.00	0.00	591.60	3143.00	599.82	0.00	600.68	14.25	7.50	440.73	832.47
3420.000	50.00	0.00	0.00	591.60	3449.00	600.20	0.00	601.13	14.36	7.73	467.94	910.12
3420.000	50.00	0.00	0.00	591.60	4000.00	600.86	0.00	601.90	14.51	8.24	517.35	1050.26
3425.000	150.00	0.00	0.00	591.67	2134.00	597.93	0.00	599.72	31.69	10.90	235.01	379.11
3425.000	150.00	0.00	0.00	591.67	3143.00	598.68	598.64	601.67	45.55	14.14	276.76	465.72
* 3425.000	150.00	0.00	0.00	591.67	3449.00	599.05	599.05	602.25	45.51	14.65	298.44	511.26
* 3425.000	150.00	0.00	0.00	591.67	4000.00	599.76	599.76	603.24	43.85	15.33	342.18	604.08
3825.000	400.00	0.00	0.00	591.80	2134.00	599.67	0.00	600.62	14.15	8.00	334.73	567.22
3825.000	400.00	0.00	0.00	591.80	3143.00	601.54	0.00	602.76	13.51	9.15	455.68	855.19
3825.000	400.00	0.00	0.00	591.80	3449.00	602.06	0.00	603.34	13.35	9.44	493.68	944.04
3825.000	400.00	0.00	0.00	591.80	4000.00	602.95	599.70	604.31	12.80	9.82	672.31	1118.06
3875.000	50.00	0.00	0.00	592.30	2134.00	599.72	0.00	600.72	20.57	8.02	266.12	470.52
3875.000	50.00	0.00	0.00	592.30	3143.00	601.57	0.00	602.87	20.82	9.14	343.85	688.82
3875.000	50.00	0.00	0.00	592.30	3449.00	602.07	0.00	603.45	21.07	9.45	364.86	751.40
3875.000	50.00	0.00	0.00	592.30	4000.00	602.90	0.00	604.45	21.74	10.01	399.66	857.96

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3876.000	1.00	605.40	606.00	592.30	2134.00	599.72	0.00	600.72	20.55	8.02	266.19	470.70

3876.000	1.00	605.40	606.00	592.30	3143.00	601.57	0.00	602.87	20.81	9.14	343.90	680.99
3876.000	1.00	605.40	606.00	592.30	3449.00	602.07	0.00	603.46	21.06	9.45	364.91	751.57
3876.000	1.00	605.40	606.00	592.30	4000.00	602.72	0.00	604.53	56.73	10.80	370.34	531.07
3900.000	35.20	605.40	606.00	592.30	2134.00	599.83	0.00	600.79	19.54	7.88	270.72	482.60
3900.000	35.20	605.40	606.00	592.30	3143.00	601.68	0.00	602.94	20.01	9.02	348.54	702.69
3900.000	35.20	605.40	606.00	592.30	3449.00	602.18	0.00	603.53	20.28	9.33	369.63	765.81
3900.000	35.20	605.40	606.00	592.30	4000.00	602.92	0.00	604.73	56.73	10.80	370.34	531.07
3910.000	10.00	0.00	0.00	592.30	2134.00	599.96	0.00	600.82	13.68	7.54	322.87	577.06
3910.000	10.00	0.00	0.00	592.30	3143.00	601.90	0.00	602.98	12.22	8.43	439.56	399.10
3910.000	10.00	0.00	0.00	592.30	3449.00	602.43	0.00	603.57	11.97	8.73	471.37	995.78
3910.000	10.00	0.00	0.00	592.30	4000.00	603.64	0.00	604.82	10.51	8.89	543.73	1233.86
3925.000	50.00	0.00	0.00	593.00	2134.00	600.03	0.00	600.91	20.16	7.75	387.29	475.31
3925.000	50.00	0.00	0.00	593.00	3143.00	602.33	0.00	603.07	12.95	7.57	818.09	873.49
3925.000	50.00	0.00	0.00	593.00	3449.00	603.00	0.00	603.68	11.14	7.37	1050.92	1033.55
3925.000	50.00	0.00	0.00	593.00	4000.00	604.49	0.00	604.93	6.90	6.39	1879.35	1522.73
6250.000	1195.00	0.00	0.00	593.30	2038.00	602.06	0.00	602.52	9.16	5.86	686.26	673.55
6250.000	1195.00	0.00	0.00	593.30	3013.00	603.85	0.00	604.27	7.57	6.09	1274.58	1094.76
6250.000	1195.00	0.00	0.00	593.30	3315.00	604.35	0.00	604.75	6.96	6.04	1547.99	1256.65
6250.000	1195.00	0.00	0.00	593.30	3839.00	605.36	0.00	605.67	5.34	5.63	2211.41	1661.12
8500.000	942.00	0.00	0.00	593.30	2038.00	602.86	0.00	603.13	5.28	4.85	913.23	887.30
8500.000	942.00	0.00	0.00	593.30	3013.00	604.55	0.00	604.82	4.26	4.89	1942.34	1459.78
8500.000	942.00	0.00	0.00	593.30	3315.00	605.01	0.00	605.25	3.96	4.84	2234.57	1664.98
8500.000	942.00	0.00	0.00	593.30	3839.00	605.87	0.00	606.07	3.26	4.62	3033.26	2125.12
9750.000	427.00	0.00	0.00	593.30	2038.00	602.88	0.00	603.63	11.78	7.13	359.33	593.87
9750.000	427.00	0.00	0.00	593.30	3013.00	604.35	600.68	605.33	13.37	8.43	776.93	823.90
9750.000	427.00	0.00	0.00	593.30	3315.00	604.81	601.12	605.72	12.42	8.36	1041.36	940.80
9750.000	427.00	0.00	0.00	593.30	3839.00	605.75	0.00	606.44	9.59	7.77	1627.74	1239.90
10700.000	800.00	0.00	0.00	594.10	2038.00	603.93	0.00	604.27	5.14	4.83	593.13	899.35
10700.000	800.00	0.00	0.00	594.10	3013.00	605.65	0.00	605.97	4.50	5.13	1739.19	1420.22
10700.000	800.00	0.00	0.00	594.10	3315.00	606.03	0.00	606.33	4.32	5.14	2161.27	1594.31
10700.000	800.00	0.00	0.00	594.10	3839.00	606.69	0.00	606.94	3.78	4.99	2975.48	1975.84
11700.000	520.00	0.00	0.00	594.60	2038.00	604.06	600.42	604.77	11.70	7.04	452.98	595.89
11700.000	520.00	0.00	0.00	594.60	3013.00	605.92	0.00	606.24	6.02	5.74	2227.60	1227.65
11700.000	520.00	0.00	0.00	594.60	3315.00	606.31	0.00	606.59	5.41	5.57	2610.01	1424.99
11700.000	520.00	0.00	0.00	594.60	3839.00	606.94	0.00	607.16	4.62	5.34	3256.66	1785.61
12000.000	60.00	0.00	0.00	594.30	2038.00	604.13	0.00	604.85	14.49	6.88	338.50	535.45
12000.000	60.00	0.00	0.00	594.30	3013.00	605.45	0.00	606.53	17.78	8.50	435.14	714.52
12000.000	60.00	0.00	0.00	594.30	3315.00	605.72	602.78	606.92	19.06	8.98	555.27	759.35
12000.000	60.00	0.00	0.00	594.30	3839.00	606.40	604.06	607.46	16.80	8.85	1131.97	936.64

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
12001.000	12.50	605.40	603.60	594.30	2038.00	604.81	0.00	605.49	10.64	6.25	384.18	624.80
12001.000	12.50	605.40	603.60	594.30	3013.00	605.45	0.00	606.53	17.80	8.50	434.78	714.22
12001.000	12.50	605.40	603.60	594.30	3315.00	605.74	0.00	606.92	18.84	8.94	570.21	763.66
12001.000	12.50	605.40	603.60	594.30	3839.00	606.40	0.00	607.46	16.75	8.84	1136.13	937.98

12800.000	300.00	0.00	0.00	595.00	1030.00	605.46	0.00	605.60	2.09	3.19	496.94	712.54
12800.000	300.00	0.00	0.00	595.00	1377.00	606.69	0.00	606.82	1.82	3.21	1658.47	1021.30
12800.000	300.00	0.00	0.00	595.00	1486.00	607.11	0.00	607.20	1.45	2.94	2321.96	1233.40
12800.000	300.00	0.00	0.00	595.00	1683.00	607.64	0.00	607.70	1.15	2.71	3172.62	1566.48
13500.000	570.00	0.00	0.00	596.10	1030.00	605.62	0.00	605.62	.02	.30	13380.75	7262.19
13500.000	570.00	0.00	0.00	596.10	1377.00	606.83	0.00	606.83	.02	.33	15955.29	9627.64
13500.000	570.00	0.00	0.00	596.10	1486.00	607.21	0.00	607.21	.02	.34	16763.96	10425.94
13500.000	570.00	0.00	0.00	596.10	1683.00	607.71	0.00	607.71	.02	.36	17828.74	11515.38
14200.000	610.00	0.00	0.00	596.10	1030.00	605.62	0.00	605.62	.03	.35	11532.53	5984.45
14200.000	610.00	0.00	0.00	596.10	1377.00	606.83	0.00	606.83	.03	.38	14140.14	8124.07
14200.000	610.00	0.00	0.00	596.10	1486.00	607.21	0.00	607.21	.03	.39	14965.88	8857.05
14200.000	610.00	0.00	0.00	596.10	1683.00	607.71	0.00	607.71	.03	.41	16058.18	9865.17
17500.000	1210.00	0.00	0.00	596.20	1030.00	605.56	0.00	605.66	2.43	3.14	1242.16	561.18
17500.000	1210.00	0.00	0.00	596.20	1377.00	606.81	0.00	606.86	1.42	2.64	2377.40	1154.77
17500.000	1210.00	0.00	0.00	596.20	1486.00	607.19	0.00	607.24	1.21	2.50	2758.99	1352.37
17500.000	1210.00	0.00	0.00	596.20	1683.00	607.70	0.00	607.74	1.05	2.40	3285.89	1645.56
19100.000	980.00	0.00	0.00	596.70	1061.00	605.70	0.00	605.70	.09	.58	7364.63	3546.90
19100.000	980.00	0.00	0.00	596.70	1391.00	606.83	0.00	606.83	.08	.60	9117.69	4963.18
19100.000	980.00	0.00	0.00	596.70	1500.00	607.26	0.00	607.26	.08	.60	9673.69	5457.32
19100.000	980.00	0.00	0.00	596.70	1702.00	607.76	0.00	607.76	.08	.63	10410.70	6138.87
20200.000	750.00	0.00	0.00	597.00	1061.00	605.70	0.00	605.70	.10	.61	6737.02	3413.95
20200.000	750.00	0.00	0.00	597.00	1391.00	606.89	0.00	606.89	.09	.63	8372.86	4760.55
20200.000	750.00	0.00	0.00	597.00	1500.00	607.27	0.00	607.27	.08	.64	8891.29	5225.63
20200.000	750.00	0.00	0.00	597.00	1702.00	607.76	0.00	607.76	.08	.66	9580.59	5871.30
23700.000	1295.00	0.00	0.00	597.50	1061.00	605.72	0.00	605.73	.41	1.20	2893.24	1656.69
23700.000	1295.00	0.00	0.00	597.50	1391.00	606.91	0.00	606.91	.37	1.25	3591.92	2280.77
23700.000	1295.00	0.00	0.00	597.50	1500.00	607.28	0.00	607.29	.36	1.28	3827.51	2497.34
23700.000	1295.00	0.00	0.00	597.50	1702.00	607.78	0.00	607.79	.37	1.34	4152.21	2800.34
24000.000	230.00	0.00	0.00	597.60	1061.00	605.68	0.00	605.77	2.50	2.99	1121.54	670.60
24000.000	230.00	0.00	0.00	597.60	1391.00	606.89	0.00	606.94	1.55	2.60	2103.82	1118.23
24000.000	230.00	0.00	0.00	597.60	1500.00	607.27	0.00	607.31	1.32	2.47	2476.74	1306.62
24000.000	230.00	0.00	0.00	597.60	1702.00	607.77	0.00	607.81	1.16	2.40	2983.87	1579.48
25250.000	550.00	0.00	0.00	598.30	1061.00	605.78	0.00	606.02	6.16	4.04	356.07	427.40
25250.000	550.00	0.00	0.00	598.30	1391.00	606.90	0.00	607.15	5.48	4.23	558.87	594.09
25250.000	550.00	0.00	0.00	598.30	1500.00	607.26	0.00	607.50	5.22	4.25	628.66	656.42
25250.000	550.00	0.00	0.00	598.30	1702.00	607.74	0.00	607.99	5.20	4.41	725.30	746.17

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
25251.000	10.00	607.50	608.20	598.30	1061.00	605.74	0.00	606.05	22.53	4.59	309.15	223.51
25251.000	10.00	607.50	608.20	598.30	1391.00	606.77	0.00	607.22	34.57	5.69	368.90	235.59
25251.000	10.00	607.50	608.20	598.30	1500.00	607.08	0.00	607.59	39.12	6.05	409.56	239.84
25251.000	10.00	607.50	608.20	598.30	1702.00	607.48	0.00	608.12	49.41	6.80	429.93	242.12
25252.000	33.10	607.50	608.20	598.30	1061.00	605.82	0.00	606.13	22.40	4.58	315.34	224.16
25252.000	33.10	607.50	608.20	598.30	1391.00	606.89	0.00	607.33	34.13	5.65	397.25	238.09
25252.000	33.10	607.50	608.20	598.30	1500.00	607.22	0.00	607.72	38.81	6.03	417.16	240.79
25252.000	33.10	607.50	608.20	598.30	1702.00	607.65	0.00	608.23	49.20	6.79	436.74	242.65

25253.000	10.00	0.00	0.00	598.30	1134.00	605.88	0.00	606.14	6.63	4.23	372.45	440.30
25253.000	10.00	0.00	0.00	598.30	1460.00	607.12	0.00	607.36	5.34	4.25	601.25	631.67
25253.000	10.00	0.00	0.00	598.30	1568.00	607.52	0.00	607.76	4.95	4.23	691.25	704.80
25253.000	10.00	0.00	0.00	598.30	1759.00	608.10	0.00	608.33	4.60	4.27	832.77	820.11
27250.000	1095.00	0.00	0.00	599.00	1134.00	606.48	0.00	606.51	1.85	2.44	2289.44	833.07
27250.000	1095.00	0.00	0.00	599.00	1460.00	607.58	0.00	607.60	1.01	1.99	3536.16	1454.29
27250.000	1095.00	0.00	0.00	599.00	1568.00	607.95	0.00	607.97	.85	1.88	3972.25	1700.59
27250.000	1095.00	0.00	0.00	599.00	1759.00	608.50	0.00	608.51	.70	1.77	4634.95	2107.71
29700.000	1250.00	0.00	0.00	598.80	1134.00	606.64	0.00	606.65	.71	1.46	2976.02	1341.16
29700.000	1250.00	0.00	0.00	598.80	1460.00	607.68	0.00	607.69	.51	1.36	4366.72	2034.91
29700.000	1250.00	0.00	0.00	598.80	1568.00	608.04	0.00	608.04	.46	1.32	4867.16	2316.28
29700.000	1250.00	0.00	0.00	598.80	1759.00	608.57	0.00	608.58	.40	1.29	5631.91	2787.01
32250.000	950.00	0.00	0.00	598.70	1134.00	606.70	0.00	606.70	.41	1.09	2494.90	1767.99
32250.000	950.00	0.00	0.00	598.70	1460.00	607.72	0.00	607.72	.21	.85	3740.08	3171.31
32250.000	950.00	0.00	0.00	598.70	1568.00	608.07	0.00	608.07	.18	.80	4191.75	3747.34
32250.000	950.00	0.00	0.00	598.70	1759.00	608.60	0.00	608.60	.14	.74	4884.42	4720.11
35000.000	1340.00	0.00	0.00	599.50	1134.00	606.78	0.00	606.83	2.46	2.62	995.99	722.36
35000.000	1340.00	0.00	0.00	599.50	1460.00	607.76	0.00	607.78	1.06	1.86	1883.70	1420.67
35000.000	1340.00	0.00	0.00	599.50	1568.00	608.10	0.00	608.12	.80	1.68	2240.75	1749.04
35000.000	1340.00	0.00	0.00	599.50	1759.00	608.62	0.00	608.63	.56	1.46	2795.13	2348.25
36300.000	560.00	0.00	0.00	599.70	1134.00	606.92	0.00	606.97	2.67	2.71	945.82	694.10
36300.000	560.00	0.00	0.00	599.70	1460.00	607.82	0.00	607.85	1.35	2.10	1655.45	1255.34
36300.000	560.00	0.00	0.00	599.70	1568.00	608.15	0.00	608.17	1.05	1.90	1961.41	1531.03
36300.000	560.00	0.00	0.00	599.70	1759.00	608.66	0.00	608.67	.75	1.67	2436.22	2032.51
37000.000	200.00	0.00	0.00	600.40	1134.00	606.68	0.00	607.26	27.78	6.16	193.06	215.15
37000.000	200.00	0.00	0.00	600.40	1460.00	607.51	0.00	608.08	22.84	6.30	277.41	305.51
37000.000	200.00	0.00	0.00	600.40	1568.00	607.86	0.00	608.37	19.36	6.07	333.75	356.37
37000.000	200.00	0.00	0.00	600.40	1759.00	608.42	0.00	608.83	14.55	5.62	438.44	461.10
37001.000	75.00	0.00	0.00	600.40	1134.00	606.90	0.00	607.45	24.38	5.97	189.92	229.64
37001.000	75.00	0.00	0.00	600.40	1460.00	607.61	0.00	608.29	24.63	6.63	220.34	294.16
37001.000	75.00	0.00	0.00	600.40	1568.00	607.88	0.00	608.59	23.76	6.74	232.48	321.67
37001.000	75.00	0.00	0.00	600.40	1759.00	608.31	0.00	609.07	23.22	7.01	250.81	365.05

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
37002.000	21.60	610.40	608.00	600.40	1134.00	606.97	0.00	607.51	23.09	5.87	193.05	235.98
37002.000	21.60	610.40	608.00	600.40	1460.00	607.92	0.00	608.52	20.18	5.24	233.94	325.05
37002.000	21.60	610.40	608.00	600.40	1568.00	608.34	0.00	608.94	18.07	6.21	252.39	368.87
37002.000	21.60	610.40	608.00	600.40	1759.00	609.03	0.00	609.63	15.77	6.25	281.65	442.88
37003.000	50.00	0.00	0.00	600.40	741.00	607.42	0.00	607.61	7.16	3.49	212.47	276.86
37003.000	50.00	0.00	0.00	600.40	966.00	608.40	0.00	608.62	6.65	3.79	254.72	374.58
37003.000	50.00	0.00	0.00	600.40	1050.00	608.80	0.00	609.03	6.32	3.86	271.94	417.72
37003.000	50.00	0.00	0.00	600.40	1231.00	609.46	0.00	609.72	6.23	4.10	300.42	493.17
37800.000	400.00	0.00	0.00	600.40	741.00	607.76	0.00	607.98	11.66	4.32	269.36	217.01
37800.000	400.00	0.00	0.00	600.40	966.00	608.77	0.00	608.89	6.11	3.51	471.90	390.88
37800.000	400.00	0.00	0.00	600.40	1050.00	609.17	0.00	609.26	4.76	3.22	555.27	481.25

37800.000	400.00	0.00	0.00	600.40	1231.00	609.85	0.00	609.92	3.49	2.94	697.74	653.49
38500.000	350.00	0.00	0.00	599.60	741.00	608.07	0.00	608.09	1.12	1.64	824.13	693.94
38500.000	350.00	0.00	0.00	599.60	966.00	608.94	0.00	608.96	.84	1.53	1135.65	1051.50
38500.000	350.00	0.00	0.00	599.60	1050.00	609.31	0.00	609.32	.73	1.46	1276.73	1231.36
38500.000	350.00	0.00	0.00	599.60	1231.00	609.95	0.00	609.97	.60	1.40	1532.57	1593.00
38501.000	10.00	605.10	606.50	599.60	741.00	608.08	0.00	608.09	2.32	1.10	751.11	486.49
38501.000	10.00	605.10	606.50	599.60	956.00	608.95	0.00	608.96	1.45	.95	1064.46	801.39
38501.000	10.00	605.10	606.50	599.60	1050.00	609.31	0.00	609.32	1.18	.89	1205.27	964.31
38501.000	10.00	605.10	606.50	599.60	1231.00	609.96	0.00	609.97	.90	.81	1460.85	1295.38
38502.000	35.50	605.10	606.50	599.60	741.00	608.08	0.00	608.10	2.30	1.10	753.03	488.27
38502.000	35.50	605.10	606.50	599.60	966.00	608.95	0.00	608.97	1.45	.95	1066.35	803.43
38502.000	35.50	605.10	606.50	599.60	1050.00	609.31	0.00	609.33	1.18	.88	1206.91	966.80
38502.000	35.50	605.10	606.50	599.60	1231.00	609.96	0.00	609.97	.90	.81	1462.14	1297.15
38503.000	10.00	0.00	0.00	599.60	741.00	608.08	0.00	608.10	1.11	1.63	827.08	702.08
38503.000	10.00	0.00	0.00	599.60	966.00	608.95	0.00	608.97	.84	1.53	1139.88	1056.55
38503.000	10.00	0.00	0.00	599.60	1050.00	609.31	0.00	609.33	.72	1.46	1280.24	1236.54
38503.000	10.00	0.00	0.00	599.60	1231.00	609.96	0.00	609.97	.59	1.39	1535.26	1597.01
38810.000	150.00	0.00	0.00	601.30	741.00	608.11	0.00	608.11	.23	.73	1627.12	1532.33
38810.000	150.00	0.00	0.00	601.30	966.00	608.97	0.00	608.97	.20	.79	2047.40	2153.19
38810.000	150.00	0.00	0.00	601.30	1050.00	609.33	0.00	609.33	.18	.79	2225.51	2448.10
38810.000	150.00	0.00	0.00	601.30	1231.00	609.97	0.00	609.98	.17	.78	2549.03	3009.01
40680.000	900.00	0.00	0.00	601.50	741.00	608.13	0.00	608.14	.36	.97	1571.06	1240.73
40680.000	900.00	0.00	0.00	601.50	966.00	608.99	0.00	608.99	.25	.89	2129.78	1927.72
40680.000	900.00	0.00	0.00	601.50	1050.00	609.35	0.00	609.35	.22	.85	2370.41	2255.91
40680.000	900.00	0.00	0.00	601.50	1231.00	609.99	0.00	609.99	.18	.81	2818.37	2921.59
42764.000	1000.00	0.00	0.00	601.90	741.00	608.18	0.00	608.19	.87	1.47	1086.85	792.33
42764.000	1000.00	0.00	0.00	601.90	966.00	609.02	0.00	609.03	.50	1.20	1748.65	1370.68
42764.000	1000.00	0.00	0.00	601.90	1050.00	609.37	0.00	609.38	.39	1.11	2042.96	1675.52
42764.000	1000.00	0.00	0.00	601.90	1231.00	610.01	0.00	610.01	.28	.99	2596.34	2315.77

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
45960.000	1410.00	0.00	0.00	602.40	741.00	608.27	0.00	608.62	15.66	5.43	173.35	187.25
45960.000	1410.00	0.00	0.00	602.40	956.00	608.95	0.00	609.35	15.95	5.92	213.31	241.88
45960.000	1410.00	0.00	0.00	602.40	1050.00	609.27	0.00	609.66	15.08	5.95	234.21	270.37
45960.000	1410.00	0.00	0.00	602.40	1231.00	609.86	0.00	610.25	13.91	6.05	277.65	330.03
46200.000	120.00	0.00	0.00	602.20	741.00	608.41	0.00	608.90	27.23	5.62	131.91	142.01
46200.000	120.00	0.00	0.00	602.20	966.00	609.05	0.00	609.66	28.16	6.27	154.15	182.05
46200.000	120.00	0.00	0.00	602.20	1050.00	609.34	0.00	609.97	27.23	6.40	164.19	201.22
46200.000	120.00	0.00	0.00	602.20	1231.00	609.87	0.00	610.57	26.68	6.74	182.76	233.33
46201.000	40.00	614.10	614.10	602.20	741.00	608.55	0.00	609.01	24.22	5.42	136.82	150.56
46201.000	40.00	614.10	614.10	602.20	966.00	609.20	0.00	609.77	25.23	6.05	159.57	192.32
46201.000	40.00	614.10	614.10	602.20	1050.00	609.48	0.00	610.09	24.73	6.20	169.26	211.14
46201.000	40.00	614.10	614.10	602.20	1231.00	610.01	0.00	610.68	24.50	6.56	187.76	248.66
46350.000	100.00	0.00	0.00	603.00	741.00	608.90	0.00	609.24	21.13	4.70	157.82	161.19
46350.000	100.00	0.00	0.00	603.00	956.00	609.65	0.00	610.03	22.37	4.95	194.96	204.25

46350.000	100.00	0.00	0.00	603.00	1050.00	609.94	0.00	610.33	20.87	5.01	209.69	229.35
46350.000	100.00	0.00	0.00	603.00	1231.00	610.50	0.00	610.92	18.89	5.16	238.59	283.20
46351.000	37.60	614.90	614.90	603.00	741.00	609.00	0.00	609.32	19.65	4.59	161.42	167.16
46351.000	37.60	614.90	614.90	603.00	966.00	609.75	0.00	610.11	20.69	4.84	199.72	212.39
46351.000	37.60	614.90	614.90	603.00	1050.00	610.03	0.00	610.40	19.54	4.91	214.00	237.52
46351.000	37.60	614.90	614.90	603.00	1231.00	610.56	0.00	611.06	59.32	5.65	217.96	159.34
46500.000	30.00	0.00	0.00	602.30	741.00	609.13	0.00	609.38	16.20	4.04	183.23	184.13
46500.000	30.00	0.00	0.00	602.30	966.00	609.87	0.00	610.17	15.39	4.38	220.37	246.24
46500.000	30.00	0.00	0.00	602.30	1050.00	610.15	0.00	610.46	15.04	4.43	234.17	270.78
46500.000	30.00	0.00	0.00	602.30	1231.00	610.82	0.00	611.15	13.61	4.60	267.82	333.69
46518.000	18.00	614.10	609.30	602.30	741.00	609.17	0.00	609.41	15.81	3.99	185.93	186.37
46518.000	18.00	614.10	609.30	602.30	966.00	609.91	0.00	610.20	14.96	4.32	223.85	249.73
46518.000	18.00	614.10	609.30	602.30	1050.00	610.19	0.00	610.49	14.60	4.41	237.92	274.77
46518.000	18.00	614.10	609.30	602.30	1231.00	610.86	0.00	611.17	13.21	4.52	272.13	338.74
46600.000	75.00	0.00	0.00	602.30	741.00	609.22	0.00	609.56	15.47	4.67	158.65	188.37
46600.000	75.00	0.00	0.00	602.30	966.00	609.92	0.00	610.37	17.78	5.38	179.76	229.07
46600.000	75.00	0.00	0.00	602.30	1050.00	610.18	0.00	610.67	18.41	5.60	187.56	244.75
46600.000	75.00	0.00	0.00	602.30	1231.00	610.81	0.00	611.36	18.75	5.97	206.60	284.30
46850.000	195.00	0.00	0.00	603.10	1202.00	609.40	0.00	610.21	39.43	7.23	166.25	191.43
46850.000	195.00	0.00	0.00	603.10	1674.00	610.06	0.00	611.22	51.84	8.65	195.53	232.50
46850.000	195.00	0.00	0.00	603.10	1807.00	610.85	0.00	611.57	88.25	6.83	275.56	192.36
46850.000	195.00	0.00	0.00	603.10	1871.00	611.49	0.00	611.90	35.54	5.23	386.84	313.84
47560.000	710.00	0.00	0.00	603.30	1202.00	611.26	0.00	611.41	8.42	3.67	532.95	414.27
47560.000	710.00	0.00	0.00	603.30	1674.00	612.14	0.00	612.25	5.69	3.37	815.50	701.49
47560.000	710.00	0.00	0.00	603.30	1807.00	612.45	0.00	612.55	4.84	3.21	917.34	821.26
47560.000	710.00	0.00	0.00	603.30	1871.00	612.56	0.00	612.66	4.66	3.19	954.36	866.68

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
48600.000	850.00	0.00	0.00	603.90	1202.00	611.82	0.00	611.88	3.55	2.64	865.55	638.01
48600.000	850.00	0.00	0.00	603.90	1674.00	612.56	0.00	612.61	2.81	2.54	1198.42	998.30
48600.000	850.00	0.00	0.00	603.90	1807.00	612.81	0.00	612.86	2.50	2.46	1315.31	1142.68
48600.000	850.00	0.00	0.00	603.90	1871.00	612.91	0.00	612.96	2.44	2.45	1359.04	1193.93
50000.000	1410.00	0.00	0.00	604.80	1202.00	612.39	0.00	612.62	7.19	4.08	356.03	448.13
50000.000	1410.00	0.00	0.00	604.80	1674.00	613.03	0.00	613.35	9.45	4.94	428.08	544.67
50000.000	1410.00	0.00	0.00	604.80	1807.00	613.23	0.00	613.57	9.76	5.11	452.74	578.51
50000.000	1410.00	0.00	0.00	604.80	1871.00	613.31	0.00	613.67	9.92	5.20	466.90	593.97
50100.000	100.00	0.00	0.00	605.00	1202.00	612.22	0.00	612.87	24.02	6.45	186.48	245.24
50100.000	100.00	0.00	0.00	605.00	1674.00	612.65	0.00	613.76	39.50	8.47	197.67	266.35
50100.000	100.00	0.00	0.00	605.00	1807.00	612.77	0.00	614.03	44.01	9.00	200.83	272.39
50100.000	100.00	0.00	0.00	605.00	1871.00	612.81	0.00	614.15	46.38	9.26	202.05	274.72
50101.000	1.00	616.00	616.00	605.00	1202.00	612.20	0.00	612.88	26.42	6.63	181.34	233.87
50101.000	1.00	616.00	616.00	605.00	1674.00	612.60	610.10	613.79	44.20	8.76	191.12	251.30
50101.000	1.00	616.00	616.00	605.00	1807.00	612.71	610.35	614.06	49.54	9.33	193.78	256.73
50101.000	1.00	616.00	616.00	605.00	1871.00	612.75	610.48	614.13	52.37	9.61	194.75	258.54
50150.000	32.00	616.00	616.00	605.00	1202.00	612.30	0.00	612.97	25.40	6.54	183.87	233.48

50150.000	32.00	616.00	616.00	605.00	1674.00	612.80	610.10	613.93	41.17	8.54	196.01	260.89
50150.000	32.00	616.00	616.00	605.00	1807.00	612.94	610.35	614.22	45.65	9.06	199.53	267.45
50150.000	32.00	616.00	616.00	605.00	1871.00	613.00	610.48	614.35	47.95	9.31	200.99	270.19
50151.000	1.00	0.00	0.00	605.00	1202.00	612.35	0.00	612.97	22.86	6.33	139.77	251.40
50151.000	1.00	0.00	0.00	605.00	1674.00	612.90	0.00	613.95	36.07	8.70	204.13	278.71
50151.000	1.00	0.00	0.00	605.00	1807.00	613.07	0.00	614.23	39.64	8.67	208.42	286.99
50151.000	1.00	0.00	0.00	605.00	1871.00	613.14	0.00	614.37	41.46	8.93	210.28	290.58
50200.000	50.00	0.00	0.00	605.00	1202.00	612.77	0.00	613.06	7.47	4.80	326.41	439.83
50200.000	50.00	0.00	0.00	605.00	1674.00	613.71	0.00	614.09	8.64	5.57	413.55	569.43
50200.000	50.00	0.00	0.00	605.00	1807.00	614.00	0.00	614.39	8.64	5.70	443.46	614.68
50200.000	50.00	0.00	0.00	605.00	1871.00	614.13	0.00	614.53	8.64	5.75	457.86	630.64
50400.000	240.00	0.00	0.00	605.10	1202.00	613.08	0.00	613.35	24.36	5.61	399.71	243.56
50400.000	240.00	0.00	0.00	605.10	1674.00	614.22	0.00	614.32	9.51	3.77	753.30	542.97
50400.000	240.00	0.00	0.00	605.10	1807.00	614.52	0.00	614.61	7.74	3.51	853.54	649.72
50400.000	240.00	0.00	0.00	605.10	1871.00	614.65	0.00	614.74	7.08	3.41	900.81	703.24
50500.000	100.00	0.00	0.00	605.10	1202.00	612.98	0.00	613.80	33.38	7.23	166.28	208.04
* 50500.000	100.00	0.00	0.00	605.10	1674.00	614.12	614.12	614.79	26.67	7.03	387.10	324.16
50500.000	100.00	0.00	0.00	605.10	1807.00	614.28	614.12	614.89	24.79	6.90	452.61	362.95
50500.000	100.00	0.00	0.00	605.10	1871.00	614.50	0.00	614.96	19.92	6.33	536.51	419.19
50501.000	1.00	613.30	615.20	605.10	1202.00	612.74	0.00	613.91	129.53	8.63	138.49	105.61
50501.000	1.00	613.30	615.20	605.10	1674.00	614.67	614.18	614.84	45.29	4.04	550.42	248.75
* 50501.000	1.00	613.30	615.20	605.10	1807.00	614.77	614.28	614.93	44.37	4.05	586.15	271.26
50501.000	1.00	613.30	615.20	605.10	1871.00	614.84	0.00	615.00	39.97	3.89	631.55	295.95

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
50526.000	12.00	613.30	615.20	605.10	1202.00	612.91	0.00	614.07	131.69	8.65	138.98	104.74
50526.000	12.00	613.30	615.20	605.10	1674.00	614.74	0.00	614.89	39.40	3.81	578.43	266.69
50526.000	12.00	613.30	615.20	605.10	1807.00	614.84	0.00	614.98	37.64	3.77	628.84	294.55
50526.000	12.00	613.30	615.20	605.10	1871.00	614.90	0.00	615.04	35.00	3.67	672.38	316.28
50527.000	1.00	0.00	0.00	605.10	1202.00	613.44	0.00	614.12	26.39	6.64	181.13	234.04
* 50527.000	1.00	0.00	0.00	605.10	1674.00	614.29	614.29	615.13	29.39	7.52	312.92	308.77
* 50527.000	1.00	0.00	0.00	605.10	1807.00	614.49	614.49	615.24	26.81	7.34	393.82	348.99
* 50527.000	1.00	0.00	0.00	605.10	1871.00	614.55	614.55	615.29	26.59	7.36	418.50	362.85
50600.000	75.00	0.00	0.00	605.10	1202.00	613.79	611.00	614.31	20.14	5.94	258.71	267.86
50600.000	75.00	0.00	0.00	605.10	1674.00	615.15	0.00	615.28	6.51	3.86	932.63	655.95
50600.000	75.00	0.00	0.00	605.10	1807.00	615.25	0.00	615.39	6.38	3.87	1050.11	715.44
50600.000	75.00	0.00	0.00	605.10	1871.00	615.30	0.00	615.43	6.29	3.86	1104.90	745.79
52250.000	1640.00	0.00	0.00	606.80	1202.00	614.51	0.00	614.52	.30	.80	3251.43	2203.23
52250.000	1640.00	0.00	0.00	606.80	1674.00	615.39	0.00	615.40	.21	.73	4854.89	3682.91
52250.000	1640.00	0.00	0.00	606.80	1807.00	615.50	0.00	615.50	.22	.76	5060.41	3885.35
52250.000	1640.00	0.00	0.00	606.80	1871.00	615.54	0.00	615.55	.22	.77	5157.61	3982.00
52350.000	100.00	0.00	0.00	606.80	1202.00	614.52	0.00	614.52	.30	.80	3256.19	2207.34
52350.000	100.00	0.00	0.00	606.80	1674.00	615.40	0.00	615.40	.21	.73	4855.58	3683.59
52350.000	100.00	0.00	0.00	606.80	1807.00	615.50	0.00	615.50	.22	.76	5061.78	3886.71
52350.000	100.00	0.00	0.00	606.80	1871.00	615.55	0.00	615.55	.22	.77	5159.16	3983.54

52400.000	1.00	611.40	618.00	606.80	1202.00	614.52	0.00	614.52	.38	.36	3183.42	1949.48
52400.000	1.00	611.40	618.00	606.80	1674.00	615.40	0.00	615.40	.25	.33	4782.82	3368.66
52400.000	1.00	611.40	618.00	606.80	1807.00	615.50	0.00	615.50	.26	.34	4989.03	3564.86
52400.000	1.00	611.40	618.00	606.80	1871.00	615.55	0.00	615.55	.26	.34	5086.40	3658.45
52370.000	12.00	611.40	618.00	606.80	1202.00	614.52	0.00	614.52	.38	.36	3185.55	1951.24
52370.000	12.00	611.40	618.00	606.80	1674.00	615.40	0.00	615.40	.25	.33	4784.44	3370.19
52370.000	12.00	611.40	618.00	606.80	1807.00	615.50	0.00	615.50	.26	.34	4990.74	3566.49
52370.000	12.00	611.40	618.00	606.80	1871.00	615.55	0.00	615.55	.26	.34	5088.15	3660.14
52371.000	1.00	0.00	0.00	606.80	1202.00	614.52	0.00	614.52	.30	.80	3258.50	2209.33
52371.000	1.00	0.00	0.00	606.80	1674.00	615.40	0.00	615.40	.21	.73	4857.34	3685.30
52371.000	1.00	0.00	0.00	606.80	1807.00	615.50	0.00	615.50	.22	.76	5063.64	3988.55
52371.000	1.00	0.00	0.00	606.80	1871.00	615.55	0.00	615.55	.22	.77	5161.06	3985.44
52450.000	50.00	0.00	0.00	606.80	1202.00	614.52	0.00	614.52	.30	.80	3260.35	2210.92
52450.000	50.00	0.00	0.00	606.80	1674.00	615.40	0.00	615.40	.21	.73	4858.91	3666.84
52450.000	50.00	0.00	0.00	606.80	1807.00	615.50	0.00	615.50	.22	.76	5065.32	3990.21
52450.000	50.00	0.00	0.00	606.80	1871.00	615.55	0.00	615.55	.22	.77	5162.79	3987.17

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RUSH CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2200.000	2134.00	596.50	0.00	0.00	0.00	112.36	0.00
2200.000	3143.00	596.50	0.00	0.00	0.00	112.36	0.00
2200.000	3449.00	596.50	0.00	0.00	0.00	112.36	0.00
2200.000	4000.00	596.50	0.00	0.00	0.00	112.36	0.00
2250.000	2134.00	596.53	0.00	.03	0.00	63.00	50.00
2250.000	3143.00	596.58	.05	.08	0.00	63.00	50.00
2250.000	3449.00	596.60	.02	.10	0.00	63.00	50.00
2250.000	4000.00	596.64	.04	.14	0.00	63.00	50.00
2251.000	2134.00	596.53	0.00	-.00	0.00	63.00	1.00
2251.000	3143.00	596.57	.04	-.01	0.00	63.00	1.00
2251.000	3449.00	596.59	.02	-.01	0.00	63.00	1.00
2251.000	4000.00	596.63	.04	-.01	0.00	63.00	1.00
2252.000	2134.00	596.54	0.00	.01	0.00	63.00	12.00
2252.000	3143.00	596.60	.06	.03	0.00	63.00	12.00
2252.000	3449.00	596.62	.03	.03	0.00	63.00	12.00
2252.000	4000.00	596.70	.08	.06	0.00	63.00	12.00
2253.000	2134.00	596.55	0.00	.01	0.00	63.00	1.00
2253.000	3143.00	596.61	.07	.02	0.00	63.00	1.00
2253.000	3449.00	596.65	.04	.03	0.00	63.00	1.00
2253.000	4000.00	596.74	.09	.04	0.00	63.00	1.00
2350.000	2134.00	596.53	0.00	-.02	0.00	127.70	40.00
2350.000	3143.00	596.59	.06	-.03	0.00	128.45	40.00
2350.000	3449.00	596.62	.04	-.03	0.00	128.96	40.00
2350.000	4000.00	596.73	.11	-.01	0.00	130.42	40.00

	2351.000	2134.00	596.10	0.00	-.43	0.00	58.79	30.00
*	2351.000	3143.00	596.57	.47	-.02	0.00	59.61	30.00
*	2351.000	3449.00	596.85	.28	.23	0.00	60.11	30.00
*	2351.000	4000.00	597.37	.52	.63	0.00	61.01	30.00
	2352.000	2134.00	595.88	0.00	-.22	0.00	58.41	1.00
*	2352.000	3143.00	596.72	.84	.15	0.00	59.88	1.00
*	2352.000	3449.00	597.02	.30	.17	0.00	60.41	1.00
*	2352.000	4000.00	597.56	.53	.19	0.00	61.34	1.00
	2353.000	2134.00	596.44	0.00	.56	0.00	59.39	24.00
	2353.000	3143.00	597.73	1.29	1.01	0.00	61.67	24.00
	2353.000	3449.00	598.08	.34	1.05	0.00	62.28	24.00
	2353.000	4000.00	598.64	.56	1.08	0.00	63.00	24.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2354.000	2134.00	596.75	0.00	.30	0.00	59.92	1.00
	2354.000	3143.00	598.13	1.38	.40	0.00	62.35	1.00
	2354.000	3449.00	598.50	.37	.43	0.00	63.00	1.00
	2354.000	4000.00	599.14	.64	.51	0.00	63.00	1.00
	3000.000	2134.00	597.28	0.00	.53	0.00	133.26	50.00
	3000.000	3143.00	598.85	1.57	.72	0.00	156.75	50.00
	3000.000	3449.00	599.28	.43	.78	0.00	162.60	50.00
	3000.000	4000.00	600.03	.74	.88	0.00	173.29	50.00
	3375.000	2134.00	598.18	0.00	.90	0.00	68.12	600.00
	3375.000	3143.00	599.56	1.38	.71	0.00	70.32	600.00
	3375.000	3449.00	599.93	.37	.65	0.00	70.92	600.00
	3375.000	4000.00	600.58	.65	.55	0.00	75.53	600.00
	3400.000	2134.00	598.28	0.00	.10	0.00	61.95	50.00
	3400.000	3143.00	599.64	1.36	.08	0.00	61.97	50.00
	3400.000	3449.00	600.01	.37	.08	0.00	61.97	50.00
	3400.000	4000.00	600.65	.64	.08	0.00	61.98	50.00
	3401.000	2134.00	598.29	0.00	.00	0.00	68.28	1.00
	3401.000	3143.00	599.65	1.36	.00	0.00	70.45	1.00
	3401.000	3449.00	600.02	.37	.00	0.00	71.32	1.00
	3401.000	4000.00	600.66	.64	.00	0.00	76.13	1.00
	3415.000	2134.00	598.31	0.00	.02	0.00	68.32	12.00
	3415.000	3143.00	599.67	1.36	.03	0.00	70.49	12.00
	3415.000	3449.00	600.05	.37	.03	0.00	71.49	12.00
	3415.000	4000.00	600.68	.64	.03	0.00	76.30	12.00
	3420.000	2134.00	598.43	0.00	.12	0.00	68.52	50.00
	3420.000	3143.00	599.82	1.39	.15	0.00	70.73	50.00
	3420.000	3449.00	600.20	.38	.15	0.00	72.69	50.00
	3420.000	4000.00	600.86	.66	.17	0.00	77.63	50.00
	3425.000	2134.00	597.93	0.00	-.51	0.00	53.49	150.00
	3425.000	3143.00	598.68	.75	-1.14	0.00	57.64	150.00
*	3425.000	3449.00	599.05	.37	-1.15	0.00	59.68	150.00

*	3425.000	4000.00	599.76	.71	-1.10	0.00	64.12	150.00
	3825.000	2134.00	599.67	0.00	1.74	0.00	61.64	400.00
	3825.000	3143.00	601.54	1.87	2.86	0.00	68.22	400.00
	3825.000	3449.00	602.06	.51	3.01	0.00	91.18	400.00
	3825.000	4000.00	602.95	.89	3.19	0.00	303.28	400.00
	3875.000	2134.00	599.72	0.00	.05	0.00	42.00	50.00
	3875.000	3143.00	601.57	1.85	.03	0.00	42.00	50.00
	3875.000	3449.00	602.07	.50	.01	0.00	42.00	50.00
	3875.000	4000.00	602.90	.83	-.05	0.00	42.00	50.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3876.000	2134.00	599.72	0.00	.00	0.00	42.00	1.00
3876.000	3143.00	601.57	1.85	.00	0.00	42.00	1.00
3876.000	3449.00	602.07	.50	.00	0.00	42.00	1.00
3876.000	4000.00	602.72	.65	-.18	0.00	42.00	1.00
3900.000	2134.00	599.83	0.00	.11	0.00	42.00	35.20
3900.000	3143.00	601.68	1.85	.11	0.00	42.00	35.20
3900.000	3449.00	602.18	.50	.11	0.00	42.00	35.20
3900.000	4000.00	602.92	.74	.20	0.00	42.00	35.20
3910.000	2134.00	599.96	0.00	.13	0.00	60.00	10.00
3910.000	3143.00	601.90	1.94	.22	0.00	60.00	10.00
3910.000	3449.00	602.43	.53	.25	0.00	60.00	10.00
3910.000	4000.00	603.64	1.21	.72	0.00	60.00	10.00
3925.000	2134.00	600.03	0.00	.07	0.00	134.84	50.00
3925.000	3143.00	602.33	2.30	.43	0.00	307.54	50.00
3925.000	3449.00	603.00	.67	.57	0.00	418.67	50.00
3925.000	4000.00	604.49	1.49	.85	0.00	702.58	50.00
6250.000	2038.00	602.06	0.00	2.03	0.00	233.31	1195.00
6250.000	3013.00	603.85	1.78	1.52	0.00	440.22	1195.00
6250.000	3315.00	604.35	.50	1.35	0.00	609.87	1195.00
6250.000	3839.00	605.36	1.01	.87	0.00	697.17	1195.00
8500.000	2038.00	602.86	0.00	.80	0.00	519.50	942.00
8500.000	3013.00	604.55	1.69	.71	0.00	723.75	942.00
8500.000	3315.00	605.01	.45	.66	0.00	794.65	942.00
8500.000	3839.00	605.87	.87	.51	0.00	931.16	942.00
9750.000	2038.00	602.88	0.00	.02	0.00	73.89	427.00
9750.000	3013.00	604.35	1.47	-.21	0.00	544.71	427.00
9750.000	3315.00	604.81	.46	-.19	0.00	588.89	427.00
9750.000	3839.00	605.75	.94	-.12	0.00	659.37	427.00
10700.000	2038.00	603.93	0.00	1.05	0.00	108.76	800.00
10700.000	3013.00	605.65	1.72	1.31	0.00	987.78	800.00
10700.000	3315.00	606.03	.38	1.22	0.00	1225.80	800.00
10700.000	3839.00	606.69	.66	.93	0.00	1259.22	800.00
11700.000	2038.00	604.06	0.00	.13	0.00	910.49	520.00
11700.000	3013.00	605.92	1.87	.27	0.00	975.13	520.00

11700.000	3315.00	606.31	.39	.28	0.00	1006.50	520.00
11700.000	3839.00	606.94	.62	.25	0.00	1066.49	520.00
12000.000	2038.00	604.13	0.00	.07	0.00	62.35	60.00
12000.000	3013.00	605.45	1.32	-.48	0.00	179.85	60.00
12000.000	3315.00	605.72	.28	-.59	0.00	681.40	60.00
12000.000	3839.00	606.40	.67	-.54	0.00	1014.98	60.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
12001.000	2038.00	604.81	0.00	.68	0.00	71.56	12.50
12001.000	3013.00	605.45	.64	-.00	0.00	175.88	12.50
12001.000	3315.00	605.74	.29	.01	0.00	692.23	12.50
12001.000	3839.00	606.40	.66	.00	0.00	1016.97	12.50
12800.000	1030.00	605.46	0.00	.65	0.00	120.94	300.00
12800.000	1377.00	606.69	1.24	1.24	0.00	1588.30	300.00
12800.000	1486.00	607.11	.42	1.37	0.00	1599.33	300.00
12800.000	1683.00	607.64	.53	1.24	0.00	1613.36	300.00
13500.000	1030.00	605.62	0.00	.16	0.00	2118.16	570.00
13500.000	1377.00	606.83	1.21	.14	0.00	2123.38	570.00
13500.000	1486.00	607.21	.38	.11	0.00	2125.01	570.00
13500.000	1683.00	607.71	.50	.08	0.00	2127.17	570.00
14200.000	1030.00	605.62	0.00	.00	0.00	2131.91	610.00
14200.000	1377.00	606.83	1.21	.00	0.00	2164.08	610.00
14200.000	1486.00	607.21	.38	.00	0.00	2174.17	610.00
14200.000	1683.00	607.71	.50	.00	0.00	2187.44	610.00
17500.000	1030.00	605.56	0.00	-.06	0.00	814.32	1210.00
17500.000	1377.00	606.81	1.25	-.03	0.00	970.46	1210.00
17500.000	1486.00	607.19	.39	-.02	0.00	1002.11	1210.00
17500.000	1683.00	607.70	.51	-.01	0.00	1044.24	1210.00
19100.000	1061.00	605.70	0.00	.14	0.00	1462.44	980.00
19100.000	1391.00	606.88	1.19	.08	0.00	1476.39	980.00
19100.000	1500.00	607.26	.38	.07	0.00	1478.27	980.00
19100.000	1702.00	607.76	.50	.06	0.00	1480.76	980.00
20200.000	1061.00	605.70	0.00	.01	0.00	1364.95	750.00
20200.000	1391.00	606.89	1.19	.01	0.00	1381.21	750.00
20200.000	1500.00	607.27	.38	.01	0.00	1383.23	750.00
20200.000	1702.00	607.76	.50	.01	0.00	1385.92	750.00
23700.000	1061.00	605.72	0.00	.02	0.00	568.22	1295.00
23700.000	1391.00	606.91	1.19	.02	0.00	618.79	1295.00
23700.000	1500.00	607.28	.37	.01	0.00	638.71	1295.00
23700.000	1702.00	607.78	.50	.01	0.00	665.20	1295.00
24000.000	1061.00	605.68	0.00	-.04	0.00	687.36	230.00
24000.000	1391.00	606.89	1.21	-.02	0.00	932.51	230.00
24000.000	1500.00	607.27	.38	-.01	0.00	981.99	230.00
24000.000	1702.00	607.77	.50	-.01	0.00	1045.52	230.00
25250.000	1061.00	605.73	0.00	.10	0.00	161.26	550.00

25250.000	1391.00	606.90	1.12	.01	0.00	191.78	550.00
25250.000	1500.00	607.26	.36	-.01	0.00	197.58	550.00
25250.000	1702.00	607.74	.48	-.03	0.00	205.35	550.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
25251.000	1061.00	605.74	0.00	-.04	0.00	157.77	10.00
25251.000	1391.00	606.77	1.02	-.13	1.02	189.65	10.00
25251.000	1500.00	607.08	.32	-.17	1.34	194.82	10.00
25251.000	1702.00	607.48	.40	-.25	1.74	201.28	10.00
25252.000	1061.00	605.82	0.00	.08	0.00	164.41	33.10
25252.000	1391.00	606.89	1.07	.12	1.07	191.63	33.10
25252.000	1500.00	607.22	.33	.14	1.40	197.01	33.10
25252.000	1702.00	607.65	.43	.17	1.83	203.99	33.10
25253.000	1134.00	605.88	0.00	.06	0.00	168.69	10.00
25253.000	1460.00	607.12	1.24	.23	1.24	195.32	10.00
25253.000	1568.00	607.52	.40	.30	1.64	201.85	10.00
25253.000	1759.00	608.10	.58	.45	2.22	550.00	10.00
27250.000	1134.00	606.48	0.00	.60	0.00	1085.75	1095.00
27250.000	1460.00	607.58	1.10	.47	1.10	1172.43	1095.00
27250.000	1568.00	607.95	.37	.43	1.47	1201.27	1095.00
27250.000	1759.00	608.50	.55	.40	2.02	1213.76	1095.00
29700.000	1134.00	606.64	0.00	.16	0.00	1279.55	1250.00
29700.000	1460.00	607.68	1.04	.10	1.04	1394.82	1250.00
29700.000	1568.00	608.04	.35	.08	1.39	1430.09	1250.00
29700.000	1759.00	608.57	.53	.07	1.93	1431.43	1250.00
32250.000	1134.00	606.70	0.00	.06	0.00	1165.31	950.00
32250.000	1460.00	607.72	1.02	.03	1.02	1277.31	950.00
32250.000	1568.00	608.07	.35	.03	1.37	1306.46	950.00
32250.000	1759.00	608.60	.53	.02	1.90	1310.17	950.00
35000.000	1134.00	606.78	0.00	.08	0.00	783.22	1340.00
35000.000	1460.00	607.76	.98	.04	.98	1007.17	1340.00
35000.000	1568.00	608.10	.34	.04	1.32	1060.00	1340.00
35000.000	1759.00	608.62	.52	.03	1.85	1060.00	1340.00
36300.000	1134.00	606.92	0.00	.15	0.00	670.15	560.00
36300.000	1460.00	607.82	.90	.06	.90	904.62	560.00
36300.000	1568.00	608.15	.33	.05	1.23	950.00	560.00
36300.000	1759.00	608.66	.51	.03	1.73	950.00	560.00
37000.000	1134.00	606.68	0.00	-.25	0.00	57.24	200.00
37000.000	1460.00	607.51	.83	-.32	.83	135.77	200.00
37000.000	1568.00	607.86	.35	-.29	1.18	177.38	200.00
37000.000	1759.00	608.42	.56	-.24	1.74	187.20	200.00
37001.000	1134.00	606.90	0.00	.22	0.00	43.20	75.00
37001.000	1460.00	607.61	.71	.11	.71	43.20	75.00
37001.000	1568.00	607.88	.27	.03	.98	43.20	75.00
37001.000	1759.00	608.31	.42	-.11	1.41	43.20	75.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
37002.000	1134.00	606.97	0.00	.07	0.00	43.20	21.60
37002.000	1460.00	607.92	.95	.31	.95	43.20	21.60
37002.000	1568.00	608.34	.42	.45	1.37	43.20	21.60
37002.000	1759.00	609.03	.69	.72	2.05	43.20	21.60
37003.000	741.00	607.42	0.00	.45	0.00	43.20	50.00
37003.000	966.00	608.40	.98	.48	.98	43.20	50.00
37003.000	1050.00	608.80	.40	.45	1.33	43.20	50.00
37003.000	1231.00	609.45	.66	.43	2.04	43.20	50.00
37800.000	741.00	607.76	0.00	.34	0.00	155.21	400.00
37800.000	966.00	608.77	1.01	.37	1.01	210.00	400.00
37800.000	1050.00	609.17	.40	.37	1.41	210.00	400.00
37800.000	1231.00	609.85	.68	.39	2.09	210.00	400.00
38500.000	741.00	608.07	0.00	.31	0.00	336.05	350.00
38500.000	966.00	608.94	.87	.17	.87	384.34	350.00
38500.000	1050.00	609.31	.36	.14	1.24	391.33	350.00
38500.000	1231.00	609.95	.65	.11	1.88	399.42	350.00
38501.000	741.00	608.08	0.00	.01	0.00	335.97	10.00
38501.000	966.00	608.95	.87	.00	.87	384.53	10.00
38501.000	1050.00	609.31	.36	.00	1.23	391.36	10.00
38501.000	1231.00	609.96	.65	.00	1.88	399.44	10.00
38502.000	741.00	608.08	0.00	.01	0.00	336.29	35.50
38502.000	966.00	608.95	.87	.01	.87	384.81	35.50
38502.000	1050.00	609.31	.36	.00	1.23	391.41	35.50
38502.000	1231.00	609.96	.65	.00	1.87	399.48	35.50
38503.000	741.00	608.08	0.00	-.00	0.00	336.54	10.00
38503.000	966.00	608.95	.87	-.00	.87	384.95	10.00
38503.000	1050.00	609.31	.36	-.00	1.23	391.44	10.00
38503.000	1231.00	609.96	.65	-.00	1.87	399.50	10.00
38810.000	741.00	608.11	0.00	.02	0.00	483.12	150.00
38810.000	966.00	608.97	.86	.02	.86	494.59	150.00
38810.000	1050.00	609.33	.36	.02	1.22	499.37	150.00
38810.000	1231.00	609.97	.64	.01	1.87	507.93	150.00
40680.000	741.00	608.13	0.00	.02	0.00	634.95	900.00
40680.000	966.00	608.99	.86	.02	.86	667.13	900.00
40680.000	1050.00	609.35	.36	.02	1.22	680.53	900.00
40680.000	1231.00	609.99	.64	.02	1.86	694.96	900.00
42764.000	741.00	608.18	0.00	.05	0.00	754.62	1000.00
42764.000	966.00	609.02	.84	.03	.84	816.95	1000.00
42764.000	1050.00	609.37	.35	.03	1.19	843.18	1000.00
42764.000	1231.00	610.01	.64	.02	1.83	890.00	1000.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
45960.000	741.00	608.27	0.00	.09	0.00	53.13	1410.00
45960.000	966.00	608.95	.68	-.07	.68	63.73	1410.00
45960.000	1050.00	609.27	.32	-.11	1.00	68.62	1410.00
45960.000	1231.00	609.86	.59	-.15	1.59	77.82	1410.00
46200.000	741.00	608.41	0.00	.15	0.00	34.91	120.00
46200.000	966.00	609.05	.64	.10	.64	34.93	120.00
46200.000	1050.00	609.34	.28	.07	.92	34.94	120.00
46200.000	1231.00	609.87	.53	.01	1.46	34.96	120.00
46201.000	741.00	608.55	0.00	.14	0.00	34.92	40.00
46201.000	966.00	609.20	.65	.15	.65	34.94	40.00
46201.000	1050.00	609.48	.28	.14	.93	34.95	40.00
46201.000	1231.00	610.01	.53	.14	1.46	34.96	40.00
46350.000	741.00	608.90	0.00	.35	0.00	42.50	100.00
46350.000	966.00	609.65	.74	.44	.74	50.91	100.00
46350.000	1050.00	609.94	.29	.46	1.03	50.92	100.00
46350.000	1231.00	610.50	.57	.49	1.60	50.93	100.00
46351.000	741.00	609.00	0.00	.09	0.00	42.50	37.60
46351.000	966.00	609.75	.75	.10	.75	50.93	37.60
46351.000	1050.00	610.03	.28	.09	1.03	50.94	37.60
46351.000	1231.00	610.56	.53	.06	1.57	50.96	37.60
46500.000	741.00	609.13	0.00	.13	0.00	50.00	30.00
46500.000	966.00	609.87	.74	.12	.74	50.00	30.00
46500.000	1050.00	610.15	.28	.12	1.02	50.00	30.00
46500.000	1231.00	610.82	.67	.26	1.69	50.00	30.00
46518.000	741.00	609.17	0.00	.04	0.00	51.00	18.00
46518.000	966.00	609.91	.74	.04	.74	51.00	18.00
46518.000	1050.00	610.19	.28	.04	1.02	51.00	18.00
46518.000	1231.00	610.86	.67	.04	1.69	51.00	18.00
46600.000	741.00	609.22	0.00	.05	0.00	30.08	75.00
46600.000	966.00	609.92	.70	.01	.70	30.14	75.00
46600.000	1050.00	610.18	.26	-.01	.96	30.16	75.00
46600.000	1231.00	610.81	.63	-.05	1.59	30.22	75.00
46850.000	1202.00	609.40	0.00	.18	0.00	39.05	195.00
46850.000	1674.00	610.06	.66	.14	.66	53.35	195.00
46850.000	1807.00	610.85	.79	.67	1.45	160.94	195.00
46850.000	1871.00	611.49	.65	.69	2.10	175.00	195.00
47560.000	1202.00	611.25	0.00	1.86	0.00	308.75	710.00
47560.000	1674.00	612.14	.89	2.08	.89	325.87	710.00
47560.000	1807.00	612.45	.31	1.60	1.20	331.83	710.00
47560.000	1871.00	612.56	.11	1.07	1.31	333.97	710.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
48600.000	1202.00	611.82	0.00	.56	0.00	449.56	850.00
48600.000	1674.00	612.56	.74	.41	.74	452.80	850.00

48600.000	1807.00	612.81	.26	.36	.99	454.09	850.00
48600.000	1871.00	612.91	.10	.35	1.09	454.57	850.00
50000.000	1202.00	612.39	0.00	.57	0.00	104.54	1410.00
50000.000	1674.00	613.03	.64	.47	.64	121.64	1410.00
50000.000	1807.00	613.23	.20	.41	.83	141.83	1410.00
50000.000	1871.00	613.31	.09	.40	.92	187.84	1410.00
50100.000	1202.00	612.22	0.00	-.17	0.00	26.00	100.00
50100.000	1674.00	612.65	.43	-.38	.43	26.00	100.00
50100.000	1807.00	612.77	.12	-.46	.55	26.00	100.00
50100.000	1871.00	612.81	.05	-.50	.59	26.00	100.00
50101.000	1202.00	612.20	0.00	-.02	0.00	75.73	1.00
50101.000	1674.00	612.60	.40	-.05	.40	82.29	1.00
50101.000	1807.00	612.71	.11	-.06	.51	84.08	1.00
50101.000	1871.00	612.75	.04	-.07	.55	84.74	1.00
50150.000	1202.00	612.30	0.00	.10	0.00	77.43	32.00
50150.000	1674.00	612.80	.50	.20	.50	85.59	32.00
50150.000	1807.00	612.94	.14	.24	.64	87.96	32.00
50150.000	1871.00	613.00	.06	.26	.70	88.94	32.00
50151.000	1202.00	612.35	0.00	.05	0.00	26.00	1.00
50151.000	1674.00	612.90	.55	.10	.55	26.00	1.00
50151.000	1807.00	613.07	.16	.12	.72	26.00	1.00
50151.000	1871.00	613.14	.07	.13	.79	26.00	1.00
50200.000	1202.00	612.77	0.00	.42	0.00	85.08	50.00
50200.000	1674.00	613.71	.94	.81	.94	100.46	50.00
50200.000	1807.00	614.00	.29	.93	1.23	105.23	50.00
50200.000	1871.00	614.13	.14	1.00	1.37	107.44	50.00
50400.000	1202.00	613.08	0.00	.31	0.00	280.78	240.00
50400.000	1674.00	614.22	1.14	.51	1.14	342.25	240.00
50400.000	1807.00	614.52	.30	.52	1.44	342.85	240.00
50400.000	1871.00	614.65	.14	.52	1.58	343.13	240.00
50500.000	1202.00	612.98	0.00	-.09	0.00	32.50	100.00
* 50500.000	1674.00	614.12	1.14	-.10	1.14	387.21	100.00
50500.000	1807.00	614.28	.16	-.23	1.30	399.60	100.00
50500.000	1871.00	614.50	.21	-.16	1.51	404.91	100.00
50501.000	1202.00	612.74	0.00	-.24	0.00	31.90	1.00
50501.000	1674.00	614.67	1.93	.55	1.93	409.45	1.00
* 50501.000	1807.00	614.77	.09	.48	2.03	491.87	1.00
50501.000	1871.00	614.84	.08	.35	2.10	606.00	1.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
50526.000	1202.00	612.91	0.00	.17	0.00	32.30	12.00
50526.000	1674.00	614.74	1.84	.07	1.84	469.69	12.00
50526.000	1807.00	614.84	.09	.07	1.93	599.79	12.00
50526.000	1871.00	614.90	.07	.06	2.00	692.76	12.00
50527.000	1202.00	613.44	0.00	.53	0.00	33.61	1.00

* 50527.000	1674.00	614.29	.86	-.45	.85	399.77	1.00
* 50527.000	1807.00	614.49	.20	-.34	1.06	404.85	1.00
* 50527.000	1871.00	614.55	.06	-.35	1.12	406.37	1.00
50600.000	1202.00	613.79	0.00	.35	0.00	302.73	75.00
50600.000	1674.00	615.15	1.36	.85	1.36	1016.18	75.00
50600.000	1807.00	615.25	.11	.76	1.47	1100.00	75.00
50600.000	1871.00	615.30	.05	.75	1.52	1100.00	75.00
52250.000	1202.00	614.51	0.00	.73	0.00	1645.97	1640.00
52250.000	1674.00	615.39	.88	.25	.88	1988.66	1640.00
52250.000	1807.00	615.50	.10	.24	.98	2028.40	1640.00
52250.000	1871.00	615.54	.05	.24	1.03	2046.93	1640.00
52350.000	1202.00	614.52	0.00	.00	0.00	1647.09	100.00
52350.000	1674.00	615.40	.88	.00	.88	1988.79	100.00
52350.000	1807.00	615.50	.10	.00	.98	2028.66	100.00
52350.000	1871.00	615.55	.05	.00	1.03	2047.22	100.00
52400.000	1202.00	614.52	0.00	.00	0.00	1647.10	1.00
52400.000	1674.00	615.40	.88	.00	.88	1988.80	1.00
52400.000	1807.00	615.50	.10	.00	.98	2028.67	1.00
52400.000	1871.00	615.55	.05	.00	1.03	2047.23	1.00
52370.000	1202.00	614.52	0.00	.00	0.00	1647.60	12.00
52370.000	1674.00	615.40	.88	.00	.88	1939.12	12.00
52370.000	1807.00	615.50	.10	.00	.98	2029.00	12.00
52370.000	1871.00	615.55	.05	.00	1.03	2047.56	12.00
52371.000	1202.00	614.52	0.00	-.00	0.00	1647.63	1.00
52371.000	1674.00	615.40	.88	-.00	.88	1989.14	1.00
52371.000	1807.00	615.50	.10	-.00	.98	2029.02	1.00
52371.000	1871.00	615.55	.05	-.00	1.03	2047.58	1.00
52450.000	1202.00	614.52	0.00	.00	0.00	1648.07	50.00
52450.000	1674.00	615.40	.88	.00	.88	1989.44	50.00
52450.000	1807.00	615.50	.10	.00	.98	2029.34	50.00
52450.000	1871.00	615.55	.05	.00	1.03	2047.91	50.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO  2351.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  2351.000  PROFILE  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  2351.000  PROFILE  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO  2351.000  PROFILE  3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  2351.000  PROFILE  3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  2351.000  PROFILE  3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO  2351.000  PROFILE  4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  2351.000  PROFILE  4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  2351.000  PROFILE  4  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO  2352.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  2352.000  PROFILE  2  PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION  SECNO  2352.000  PROFILE  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO  2352.000  PROFILE  3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  2352.000  PROFILE  3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  2352.000  PROFILE  3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO  2352.000  PROFILE  4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  2352.000  PROFILE  4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  2352.000  PROFILE  4  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO  3425.000  PROFILE  3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  3425.000  PROFILE  3  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  3425.000  PROFILE  4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  3425.000  PROFILE  4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  3425.000  PROFILE  4  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO 50500.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 50500.000  PROFILE  2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO 50501.000  PROFILE  3  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO 50527.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 50527.000  PROFILE  2  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 50527.000  PROFILE  3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 50527.000  PROFILE  3  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 50527.000  PROFILE  4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 50527.000  PROFILE  4  MINIMUM SPECIFIC ENERGY
1
 83/02/28.   08.38.47.                                                                                   PAGE    1


                                                                              THIS RUN EXECUTED  83/02/28.   08.38.47.

 **********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 **********************************************
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00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP.

3) WATERCOURSE: WATSON DRAIN

4) DOCUMENT TYPE: 100 YR RUN

00BREAK00

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1*****************************************************                    ******************************************
*  WATER SURFACE PROFILES                             *                    *  U.S. ARMY CORPS OF ENGINEERS
*  VERSION OF NOVEMBER 1976                           *                    *  THE HYDROLOGIC ENGINEERING CENTER
*  UPDATED MARCH 1982                                 *                    *  609 SECOND STREET, SUITE D
*                                                     *                    *  DAVIS, CALIFORNIA 95616
*  RUN DATE  82/12/01. TIME  08.53.09.                *                    *   916  440-2105  FTS  448-2105
*****************************************************                    ******************************************


                         X     X  XXXXXXX   XXXXX           XXXXX
                         X     X  X        X     X         X     X
                         X     X  X        X                     X
                         XXXXXXX  XXXX     X        XXXXX   XXXXX
                         X     X  X        X               X
                         X     X  X        X     X         X
                         X     X  XXXXXXX   XXXXX          XXXXXXX
1
 82/12/01.    08.53.10.                                                                              PAGE   1


                                                                           THIS RUN EXECUTED  82/12/01.   08.53.10.
  ********************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
   ERROR CORR - 01,02,03,04,05
   MODIFICATION - 50,51,52,53,54,55
  ********************************************

 C
 T1      WATSON DRAIN-GEORGETOWN TOWNSHIP, PROJECT NO. 8549.WADRAIN
 T2      WATSON DRAIN
 T3      WATSON DRAIN

 J1  ICHECK    INQ      NINV      IDIR      STRT      METRIC    HVINS     Q       WSEL      FQ
        0.       4.       0.        0.  -1.000000    0.00      0.0       0.   595.000    0.000

 J2  NPROF    IPLOT    PRFVS     XSECV     XSECH      FN      ALLDC     IBW     CHNIM    ITRACE
      1.000    0.000   -1.000     0.000     0.000     0.000     0.000    0.000    0.000    0.000

 J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    110.000  150.000  200.000     0.000     0.000     0.000     0.000    0.000    0.000    0.000

 NC      .040      .040      .035      .100      .300     0.000     0.000     0.000     0.000     0.000
 QT     5.000   137.000   208.000   240.000   305.000   240.000     0.000     0.000     0.000     0.000
       A  BACKWATER OF GRAND RIVER 100-YEAR 604.78
          DIRT TRAIL, 5.3X7.3X21 CMP, TR 593, LC 592.7
 X1   650.000    11.000    53.200    60.300   650.000   650.000   650.000     0.000     0.000     0.000
 X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   593.000   593.000     0.000
 GR   593.600    45.000   593.400    50.000   588.500    53.200   588.000    53.500   587.500    55.000


 GR   587.400    56.500   587.500    58.000   588.000    60.000   588.500    60.300   593.600    65.000
 GR   593.800    70.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

 X1   651.000     0.000     0.000     0.000     1.000     1.000     1.000     0.000     0.000     0.000
 X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   593.000   593.000     0.000
 BT     9.000    50.000   593.400   593.400    53.200   593.300   588.500    53.500   593.200   590.500
 BT    55.000   593.100   592.200    56.500   593.000   592.700    58.000   593.100   592.400    60.000
 BT   593.200   590.500    60.300   593.300   588.800    65.000   593.600   593.600     0.000     0.000

 X1   652.000     0.000     0.000     0.000    21.000    21.000    21.000     0.000     0.000     0.000
 X2     0.000     0.000     0.000     0.000     0.000     0.000     1.000     0.000     0.000     0.000
 X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   593.000   593.000     0.000

 X1   653.000     0.000     0.000     0.000     1.000     1.000     1.000     0.000     0.000     0.000
 X3    10.000     0.000     0.000     0.000     0.000     0.000     0.000   593.000   593.000     0.000
1
 82/12/01.    08.53.10.                                                                              PAGE   2

 NC     0.000     0.000     0.000      .300      .500     0.000     0.000     0.000     0.000     0.000
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	B									
X1	750.000	7.000	50.000	65.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	593.600	45.000	593.400	50.000	588.000	53.200	587.400	56.500	586.000	60.000
GR	593.600	65.000	593.800	70.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
	C									
X1	1150.000	7.000	94.000	106.000	350.000	350.000	350.000	0.000	0.000	0.000
GR	594.900	0.000	594.900	94.000	589.000	97.000	588.700	100.000	589.000	103.500
GR	594.900	106.000	594.900	200.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000
	D DIRT TRAIL, 5.3X7.3X21 CMP, TR 594.9, LC 594									
X1	1250.000	11.000	96.500	104.200	100.000	100.000	100.000	0.000	0.000	0.000
GR	596.000	75.000	594.900	94.000	590.000	96.500	589.400	97.000	588.800	98.500
GR	588.700	100.000	588.800	101.500	589.400	103.300	590.000	104.200	594.900	106.000
GR	596.000	125.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.500	2.500	0.000	7.700	0.000	30.000	0.000	588.700	588.700
X1	1251.000	0.000	0.000	0.000	21.000	21.000	21.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	594.000	594.900	0.000	0.000	0.000	0.000	0.000
BT	11.000	75.000	596.000	596.000	94.000	594.900	594.900	96.500	594.900	590.000
BT	97.000	594.900	592.400	98.500	594.900	593.500	100.000	594.900	594.000	101.500
BT	594.900	593.500	103.300	594.900	592.400	104.200	594.900	590.000	106.000	594.900
BT	594.900	125.000	596.000	596.000	0.000	0.000	0.000	0.000	0.000	0.000
	E									
X1	1350.000	7.000	94.000	106.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	0.000	125.000	0.000	0.000	0.000	0.000
GR	594.900	0.000	594.900	94.000	589.000	97.000	588.700	100.000	589.000	103.500
GR	594.900	106.000	594.900	200.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000
	F									
X1	1700.000	0.000	0.000	0.000	600.000	600.000	600.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	75.000	0.000	125.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.300	.500	0.000	0.000	0.000	0.000	0.000
	G FARM LANE CULVERT,2 - 6X3.7X21 CMP, TR 597.3, LC 595.7									
X1	1800.000	16.000	193.000	206.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	596.000	596.000	0.000
GR	597.300	180.000	593.400	193.000	592.400	193.500	592.100	195.000	592.000	196.000
GR	592.100	197.000	592.400	198.500	593.400	199.000	593.400	200.000	592.400	200.500
GR	592.100	202.000	592.000	203.000	592.100	204.000	592.400	205.500	593.400	206.000
GR	597.300	210.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.800	2.500	0.000	13.000	0.000	35.200	0.000	592.000	592.000
X1	1801.000	0.000	0.000	0.000	21.000	21.000	21.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	595.700	597.300	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	597.300	597.300	0.000
BT	16.000	180.000	597.300	597.300	193.000	597.300	593.400	193.500	597.300	594.500
BT	195.000	597.300	595.400	196.000	597.300	595.700	197.000	597.300	595.400	198.500

BT	597.300	594.500	199.000	597.300	593.400	200.000	597.300	593.400	200.500	597.300
BT	594.500	202.000	597.300	595.400	203.000	597.300	595.700	204.000	597.300	595.400
BT	205.500	597.300	594.500	206.000	597.300	593.400	210.000	597.300	597.300	0.000
	H									
X1	2400.000	7.000	90.000	116.000	200.000	200.000	200.000	0.000	0.000	0.000
GR	604.000	80.000	600.000	90.000	594.600	97.000	594.400	100.000	594.400	104.000
GR	598.300	116.000	606.400	155.000	0.000	0.000	0.000	0.000	0.000	0.000
	I COTTONWOOD ST. CULVERT, 6.5X400 CMP, TR 603.7, LC 600.0 & 601.2									
X1	2500.000	11.000	96.600	103.400	100.000	100.000	100.000	0.000	0.000	0.000
GR	604.000	80.000	600.000	90.000	596.700	96.600	594.300	97.500	593.500	98.500
GR	593.300	100.000	593.500	101.500	595.000	103.000	596.700	103.400	598.300	116.000
GR	606.400	155.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.030	.030	.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2501.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	598.000	598.000	0.000
SB	0.000	7.400	3.000	50.000	6.500	0.000	33.000	0.000	594.700	593.500
X1	2502.000	9.000	96.600	103.400	400.000	400.000	400.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	598.000	603.700	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	603.700	603.700	0.000
BT	9.000	82.000	603.700	603.700	96.600	603.700	598.000	97.000	603.700	599.400
BT	98.500	603.700	600.900	100.000	603.700	601.200	101.500	603.700	600.900	103.000
BT	603.700	599.400	103.400	603.700	598.000	175.000	603.700	603.700	0.000	0.000

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GR    603.700    82.000   598.000    96.600   596.300    97.000   594.800    98.500   594.400   100.000
GR    594.800   101.500   596.300   103.000   598.000   103.400   603.700   175.000     0.000     0.000

NC       .030      .030      .030     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      5.000    92.000   142.000   163.000   206.000   163.000     0.000     0.000     0.000     0.000
       J
X1   2950.000     8.000    82.000   125.000   100.000   100.000   100.000     0.000     0.000     0.000
GR    604.000     0.000   603.700    82.000   595.200    97.000   594.900   100.000   595.200   105.000
GR    596.500   106.000   603.700   125.000   608.000   150.000     0.000     0.000     0.000     0.000

NC      0.000     0.000     0.000      .100      .300     0.000     0.000     0.000     0.000     0.000
       K
X1   3500.000    17.000   104.000   230.000   500.000   500.000   500.000     0.000     0.000     0.000
GR    605.800     5.000   606.000    32.000   602.400    40.000   597.100    80.000   596.700    84.000
GR    595.100    93.000   594.400    94.000   593.600   104.000   590.700   106.000   594.700   185.000
GR    595.500   192.000   596.100   200.000   596.700   202.000   598.800   204.000   605.100   230.000
GR    605.700   245.000   607.700   246.000     0.000     0.000     0.000     0.000     0.000     0.000


NC      0.000     0.000     0.000      .300      .500     0.000     0.000     0.000     0.000     0.000
       L  PAVED TRAIL, 6.5X61 CMP, TR 604.9, LC 603.3
X1   3600.000    11.000    96.700   103.200   120.000   120.000   120.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   603.500   603.500     0.000
GR    604.800     0.000   604.800    72.500   600.000    96.700   599.000    97.000   597.300    98.500
GR    596.800   100.000   597.300   101.500   599.000   103.000   600.000   103.200   604.800   121.000
GR    604.800   200.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
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SB      0.000     2.100     2.500     0.000     6.500     0.000    33.200     0.000     0.000     0.000
X1   3601.000     0.000     0.000     0.000    61.000    61.000    61.000     0.000     0.000     0.000
X2      0.000     0.000     1.000   603.300   604.800     0.000     0.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   604.800   604.800     0.000
BT      9.000    90.000   604.800   604.800    96.700   604.800   600.000    97.000   604.800   601.000
BT     98.500   604.800   603.000   100.000   604.800   603.300   101.500   604.800   603.000   103.000
BT    604.800   601.000   103.200   604.800   600.000   110.000   604.800   604.800     0.000     0.000

       M
X1   3800.000     8.000    72.500   121.000   100.000   100.000   100.000     0.000     0.000     0.000
X3      0.000     0.000     0.000     0.000     0.000   150.000     0.000     0.000     0.000     0.000
GR    604.800     0.000   604.800    72.500 Lt 597.900   92.000   597.100    93.000   597.000   100.000
GR    597.400   104.000   604.800   121.000   604.800   200.000     0.000     0.000     0.000     0.000

NC       .050      .050      .040      .100      .300     0.000     0.000     0.000     0.000     0.000
QT      5.000    54.000    86.000    99.000   123.000    99.000     0.000     0.000     0.000     0.000
       N
X1   5500.000    14.000   347.000   381.000  1750.000  1750.000  1750.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   215.000     0.000   515.000     0.000     0.000     0.000     0.000
GR    608.900     0.000   604.400    79.000   603.700   237.000   604.000   338.000   604.300   347.000 Lt
GR    602.400   351.000   600.000   355.000   598.700   360.000   600.000   366.000   600.200   368.000
GR    603.400   371.000   605.400   381.000 Rt 603.800  408.000   605.500   842.000     0.000     0.000

QT      5.000    31.000    53.000    61.000    73.000    61.000     0.000     0.000     0.000     0.000
       O
X1   6950.000     6.000    86.000   301.000  2500.000  2500.000  2500.000     0.000     0.000     0.000
GR    606.500     0.000   605.500    86.000   599.000   194.000   598.600   200.000   599.000   206.000
GR    609.200   301.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
*PROF 1
1
 82/12/01.   08.53.10.                                                                       PAGE    5

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


CCHV     .100 CEHV      .300
*SECNO 650.000
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      593.00 ELREA      593.00
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      A   BACKWATER OF GRAND RIVER 100-YEAR 604.78
          DIRT TRAIL, 5.3X7.3X21 CMP, TR 593, LC 592.7
    650.00      3.54    590.94    590.94    595.00    592.59      1.66      0.00      0.00    588.50
    240.        0.      240.      0.        0.        23.         0.        0.        0.      588.50
    0.00        0.00    10.33     0.00      .040      .035      .040      0.000     587.40    53.20
   .013851      650.    650.      650.      0         13          0       0.00      7.10      60.30
0
 *SECNO 651.000

 3370 NORMAL BRIDGE,NRD   9 MIN ELTRD   593.00 MAX ELLC   593.60

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       593.00 ELREA       593.00

    651.00      3.45    590.85    590.85      0.00    592.74      1.90      .02       .07     588.50
    240.        0.      240.      0.        0.        22.         0.        0.        0.      588.50
    .00         0.00    11.05     0.00      .040      .035      .040      0.000     587.40    53.20
   .032572      1.      1.        1.        20        15          0      -2.93      7.10      60.30
0
 *SECNO 652.000

 3301 HV CHANGED MORE THAN HVINS

 3370 NORMAL BRIDGE,NRO   9 MIN ELTRD   593.00 MAX ELLC   593.60

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       593.00 ELREA       593.00

    652.00      4.79    592.19    0.00      0.00      593.35      1.16      .53       .07     588.50
    240.        0.      240.      0.        0.        28.         0.        0.        0.      588.50
    .00         0.00    8.63      0.00      .040      .035      .040      0.000     587.40    53.20
   .020258      21.     21.       21.       3         0           0      -9.97      7.10      60.30
0
1
  82/12/01.    08.53.10.                                                                   PAGE    6

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 *SECNO 653.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       593.00 ELREA       593.00

    653.00      5.30    592.70    0.00      0.00      593.40      .70       .01       .05     588.50
    240.        0.      240.      0.        0.        36.         0.        0.        0.      588.50
    .00         0.00    6.71      0.00      .040      .035      .040      0.000     587.40    53.20
   .003287      1.      1.        1.        3         0           0       0.00      7.10      60.30
0
 CCHV      .300 CEHV      .500
 *SECNO 750.000
      B

    750.00      6.16    593.56    0.00      0.00      593.79      .23       .24       .14     593.40
    240.        0.      240.      0.        0.        63.         0.        0.        0.      593.60
    .01         .29     3.82      0.00      .040      .035      .040      0.000     587.40    46.02
   .001836      100.    100.      100.      2         0           0       0.00      18.95     64.96
0
 CCHV      .100 CEHV      .300
 *SECNO 1150.000
      C
   1150.00      5.63    594.33    0.00      0.00      594.71      .37       .88       .04     594.90
    240.        0.      240.      0.        0.        49.         0.        1.        0.      594.90
    .03         0.00    4.91      0.00      .040      .035      .040      0.000     588.70    94.29
   .003609      350.    350.      350.      2         0           0       0.00      11.47     105.76
0
 CCHV      .300 CEHV      .500
 *SECNO 1250.000
      D   DIRT TRAIL, 5.3X7.3X21 CMP, TR 594.9, LC 594
   1250.00      5.86    594.56    0.00      0.00      594.98      .42       .25       .02     590.00
    240.        9.      226.      5.        5.        42.         4.        1.        0.      590.00
    .03         1.63    5.35      1.36      .040      .035      .040      0.000     588.70    94.17
   .001841      100.    100.      100.      2         0           0       0.00      11.70     105.87
0
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 SPECIAL BRIDGE
1
  82/12/01.   08.53.10.                                                                                              PAGE    7

      SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
      Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
      TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
      SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

 SB  XK          XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00        1.50       2.50       0.00       7.70       0.00      30.00       0.00     588.70     588.70

 *SECNO 1251.000
 PRESSURE AND WEIR FLOW

   EGPRS       EGLWC        H3        QWEIR        QPR        BAREA    TRAPEZOID       ELLC       ELTRD
                                                                          AREA
     596.05     594.98      0.00        34.        205.        30.        41.        594.00     594.90

    1251.00      6.64     595.34      0.00       0.00     595.64        .30        .66       0.00     590.00
     240.        12.      221.         7.         9.        48.          7.         1.         0.      590.00
        .03      1.30       4.58      1.05       .040       .035       .040      0.000     588.70      86.37
    .001128      21.        21.        21.         2          0          3        0.00      27.25     113.63
0
 *SECNO 1350.000
 3280 CROSS SECTION   1350.00 EXTENDED         .76 FEET

 3470 ENCROACHMENT STATIONS          75.0       125.0  TYPE        1  TARGET          50.000
              E
    1350.00      6.96     595.66      0.00       0.00     595.81        .14        .12        .05     594.90
     240.        15.      210.        15.        15.        65.         15.         1.         0.      594.90
        .04      1.04      -3.24      1.04       .040       .035       .040      0.000     588.70      75.00



    .001183      100.       100.       100.         2          0          0        0.00      50.00     125.00
0
 CCHV      .300 CEHV      .500
 *SECNO 1700.000
 3280 CROSS SECTION   1700.00 EXTENDED        1.35 FEET

 3470 ENCROACHMENT STATIONS          75.0       125.0  TYPE        1  TARGET          50.000
              F
    1700.00      7.55     596.25      0.00       0.00     596.34        .08        .51        .02     594.90
     240.        28.      184.        28.        26.        72.         26.         2.         1.      594.90
        .12      1.10       2.56      1.10       .040       .035       .040      0.000     588.70      75.00
    .000640      600.       600.       600.         2          0          0        0.00      50.00     125.00
0
 CCHV      .300 CEHV      .500
1
  82/12/01.   08.53.10.                                                                                              PAGE    8

      SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
      Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
      TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
      SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

 *SECNO 1800.000
              G  FARM LANE CULVERT,2 - 6X3.7X21 CMP, TR 597.3, LC 595.7
    1800.00      4.28     596.28      0.00       0.00     596.51        .23        .10        .07     593.40
     240.        28.      205.         7.        14.        51.          4.         3.         1.      593.40
        .13      2.00       4.04      1.65       .040       .035       .040      0.000     592.00     183.39
    .001880      100.       100.       100.         2          0          0        0.00      25.57     208.96
0
 SPECIAL BRIDGE
 SB  XK          XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00        1.80       2.50       0.00      13.00       0.00      35.20       0.00     592.00     592.00

 *SECNO 1801.000
 3280 CROSS SECTION   1801.00 EXTENDED         .09 FEET

 PRESSURE AND WEIR FLOW
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     EGPRS      EGLWC        H3       QWEIR        QPR        BAREA    TRAPEZOID     ELLC      ELTRD
                                                                         AREA
     597.58     596.63      0.00        7.        232.         35.       48.       595.70     597.30

    1801.00       5.39    597.39      0.00       0.00     597.50        .11        .99       0.00     593.40
     240.         40.       189.       10.        26.        65.         8.         3.         1.      593.40
       .13        1.53      2.91      1.25       .040       .035       .040      0.000     592.00     180.00
    .000699       21.        21.       21.         2          0          2        0.00      30.00     210.00
0
   *SECNO 2400.000
          H
    2400.00       3.12    597.52      0.00       0.00     598.02        .51        .33        .20     600.00
     240.          0.       240.        0.         0.        42.         0.         3.         1.      598.30
       .14        0.00      5.71      0.00       .040       .035       .040      0.000     594.40      93.22
    .007583      200.       200.      200.         2          0          0        0.00      20.38     113.60

0
   *SECNO 2500.000
          I   COTTONWOOD ST. CULVERT, 6.5X400 CMP, TR 603.7, LC 600.0 & 601.2
    2500.00       4.89    598.19      0.00       0.00     598.96        .77        .81        .13     596.70
     240.          6.       209.       25.         2.        28.         9.         3.         1.      596.70
       .14        2.64      7.47      2.83       .040       .035       .040      0.000     593.30      93.60
    .008634      100.       100.      100.         2          0          0        0.00      21.59     115.20
0
1
    82/12/01.   08.53.10.                                                                              PAGE   9

      SECNO      DEPTH     CWSEL     CRIWS      WSELK        EG         HV         HL       OLOSS    BANK ELEV
      Q          QLOB      QCH       QROB       ALOB         ACH        AROB       VOL      TWA     LEFT/RIGHT
      TIME       VLOB      VCH       VROB       XNL          XNCH       XNR        WTN      ELMIN      SSTA
      SLOPE      XLOBL     XLCH      XLOBR      ITRIAL       IDC        ICONT      CORAR    TOPWID     ENDST

   *SECNO 2501.000
    2501.00       5.72    599.02      0.00       0.00     599.31        .30        .21        .14     596.70
     240.         13.       164.       63.         5.        34.        20.         3.         1.      596.70
       .15        2.50      4.90      3.08       .030       .032       .030      0.000     593.30      91.98
    .002436       50.        50.       50.         3          0          0        0.00      27.45     119.43
0

   SPECIAL BRIDGE

   SB   XK        XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS        ELCHU      ELCHD
        0.00      7.40       3.00       50.00      6.50       0.00       33.00      0.00      594.70     593.50

   *SECNO 2502.000
   3280 CROSS SECTION   2502.00 EXTENDED     .21 FEET

   PRESSURE AND WEIR FLOW

     EGPRS      EGLWC        H3       QWEIR        QPR        BAREA    TRAPEZOID     ELLC      ELTRD
                                                                         AREA
     605.09     601.16      0.00       27.        215.         33.       21.       598.00     603.70

    2502.00       9.50    603.90      0.00       0.00     603.91        .01       4.60       0.00     598.00
     240.         30.        56.      154.        45.        58.       219.         5.         2.      598.00
       .29         .67       .96       .70       .030       .032       .030      0.000     594.40      82.00
    .000046      400.       400.      400.         0          0          4        0.00      93.00     175.00
0
   *SECNO 2950.000
          J
    2950.00       9.01    603.91      0.00       0.00     603.91        .01        .00        .00     603.70
     163.          0.       163.        0.         6.       218.         0.         6.         2.      603.70
       .33         .06       .75       .06       .030       .030       .030      0.000     594.90      25.72
    .000029      100.       100.      100.         2          0          0        0.00     100.48     126.20
0
   CCHV      .100 CEHV       .300
   *SECNO 3500.000
          K
    3500.00      13.22    603.92      0.00       0.00     603.92        .00        .00        .00     593.60
     163.         35.       128.        0.       378.      1119.         0.        15.         4.      605.10
      1.59         .09       .11      0.00       .030       .030       .030      0.000     590.70      36.61
    .000000      500.       500.      500.         0          0          0        0.00     188.54     225.15

   3450
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0
1
 82/12/01.   08.53.10.                                                                                                    PAGE   10

     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST


  CCHV      .300 CEHV      .500
 *SECNO 3600.000
          L   PAVED TRAIL, 6.5X61 CMP, TR 604.8, LC 603.3
    3600.00      7.09     603.39       0.00       0.00     603.94        .04        .00        .02     600.00
     163.         47.        82.        34.        38.        40.        28.        18.         4.     600.00
     1.62       1.23       2.05       1.22       .030       .030       .030      0.000     596.80      77.07
  .000260       120.       120.       120.          2          0          0       0.00      40.57     117.64
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK          XKOR        COFQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
     0.00        2.10        2.50        0.00        6.50        0.00        33.20       0.00        596.80      596.80

 *SECNO 3601.000
 PRESSURE FLOW

  EGPRS       EGLWC       H3         QWEIR      QPR        BAREA    TRAPEZOID        ELLC       ELTRD
                                                                      AREA
    604.68     604.15       0.00         0.       163.        33.      42.          603.30     604.80


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA          604.80 ELREA         604.80

    3601.00      7.66     604.46       0.00       0.00     604.68        .22        .74       0.00     600.00
     163.         0.       163.         0.         0.        44.         0.        18.         4.     600.00
     1.62       0.00       3.73       0.00       .030       .030       .030      0.000     596.80      96.70
  .000770        61.        61.        61.          2          0          0       0.00       6.50     103.20
0
 *SECNO 3800.000

 3470 ENCROACHMENT STATIONS         .0        150.0  TYPE       1  TARGET        149.999
          M
    3800.00      7.74     604.74       0.00       0.00     604.75        .01        .01        .06     604.80
     163.         0.       163.         0.         0.       219.         0.        18.         4.     604.80
     1.66       0.00        .74       0.00       .030       .030       .030      0.000     597.00      72.66
  .000032       100.       100.       100.          2          0          0       0.00      48.21     120.87
0
1
 82/12/01.   08.53.10.                                                                                                    PAGE   11

     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST




  CCHV      .100 CEHV      .300
 *SECNO 5500.000

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS       215.0       515.0  TYPE       1  TARGET        300.000
          N
    5500.00      6.11     604.81       0.00       0.00     604.82        .00        .07        .00     604.30
      99.        26.        57.        17.       127.       104.        95.        29.        11.     605.40
     2.89        .20        .55        .17       .050       .040       .050      0.000     598.70     215.00
  .000049      1750.      1750.      1750.          2          0          0       0.00     287.16     515.00
0
 *SECNO 6950.000
          O
    6950.00      6.24     604.84       0.00       0.00     604.84        .00        .02        .00     605.50
      61.         0.        61.         0.         0.       514.         0.        53.        24.     609.20
     8.74       0.00        .12       0.00       .050       .040       .050      0.000     598.60      96.99
  .000002      2500.      2500.      2500.          2          0          0       0.00     163.38     260.33
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THIS RUN EXECUTED 82/12/01. 08.53.11.

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**********************************************
HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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T1
T2
T3

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	6.	0.	0.	-1.000000	0.00	0.0	0.	595.000	0.000

J2	NPROF	IPLOT	PREVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000


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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN     SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID    ENDST
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*PROF 2

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CCHV     .100 CEHV      .300
*SECNO 650.000
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       593.00 ELREA        593.00

          A   BACKWATER OF GRAND RIVER 100-YEAR 604.78
              DIRT TRAIL, 5.3X7.3X21 CMP, TR 593, LC 592.7
   650.00     3.54   590.94   590.94   595.00   592.59     1.66     0.00     0.00   588.50
    240.        0.     240.       0.       0.      23.       0.       0.       0.   588.50
    0.00      0.00    10.33     0.00     .040     .035     .040    0.000   587.40    53.20
 .013851      650.     650.     650.        0       13        0     0.00     7.10    60.30
0
*SECNO 651.000

3370 NORMAL BRIDGE,NRD    9 MIN ELTRD    593.00 MAX ELLC    593.60

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       593.00 ELREA        593.00

   651.00     3.45   590.85   590.85     0.00   592.74     1.90      .02      .07   588.50
    240.        0.     240.       0.       0.      22.       0.       0.       0.   588.50
     .00      0.00    11.05     0.00     .040     .035     .040    0.000   587.40    53.20
 .032572        1.       1.       1.       20       15        0    -2.93     7.10    60.30
0
*SECNO 652.000

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD    9 MIN ELTRD    593.00 MAX ELLC    593.60

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       593.00 ELREA        593.00
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      SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS     BANK  LEV
      Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA     LEFT/RIGHT
      TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
      SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST

      652.00      4.79     592.19       0.00       0.00     593.35       1.16        .53        .07     588.50
        240.        0.       240.         0.         0.        28.         0.         0.         0.     588.50
         .00      0.00       8.63       0.00       .040       .035       .040      0.000     587.40      53.20
     .020258       21.        21.        21.          3          0          0      -9.97       7.10      60.30
 0
  *SECNO 653.000

  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA        593.00 ELREA        593.00

      653.00      5.30     592.70       0.00       0.00     593.40        .70        .01        .05     588.50
        240.        0.       240.         0.         0.        36.         0.         0.         0.     588.50




         .00      0.00       6.71       0.00       .040       .035       .040      0.000     587.40      53.20
     .003287        1.         1.         1.          3          0          0       0.00       7.10      60.30
 0
  CCHV      .300 CEHV       .500
  *SECNO 750.000
                B
      750.00      6.16     593.56       0.00       0.00     593.79        .23        .24        .14     593.40
        240.        0.       240.         0.         0.        63.         0.         0.         0.     593.60
         .01       .29       3.82       0.00       .040       .035       .040      0.000     587.40      46.02
     .001836      100.       100.       100.          2          0          0       0.00      18.95      64.96
 0
  CCHV      .100 CEHV       .300
  *SECNO 1150.000
                C
     1150.00      5.63     594.33       0.00       0.00     594.71        .37        .88        .04     594.90
        240.        0.       240.         0.         0.        49.         0.         1.         0.     594.90
         .03      0.00       4.91       0.00       .040       .035       .040      0.000     588.70      94.29
     .003609      350.       350.       350.          2          0          0       0.00      11.47     105.76
 0
  CCHV      .300 CEHV       .500
  *SECNO 1250.000
                D   DIRT TRAIL, 5.3X7.3X21 CMP, TR 594.9, LC 594
     1250.00      5.86     594.56       0.00       0.00     594.98        .42        .25        .02     590.00
        240.        9.       226.         5.         5.        42.         4.         1.         0.     590.00
         .03      1.63       5.35       1.36       .040       .035       .040      0.000     588.70      94.17
     .001841      100.       100.       100.          2          0          0       0.00      11.70     105.87
 0
 1
   82/12/01.   08.53.10.                                                                          PAGE  15

      SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS     BANK ELEV
      Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA     LEFT/RIGHT
      TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN        SSTA
      SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID       ENDST


  SPECIAL BRIDGE

  SB   XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
       0.00       1.50       2.50       0.00       7.70       0.00      30.00       0.00     588.70     588.70

  *SECNO 1251.000
  PRESSURE AND WEIR FLOW

    EGPRS        EGLWC          H3         QWEIR        QPR        BAREA    TRAPEZOID       ELLC       ELTRD
                                                                              AREA
      596.05     594.98       0.00         34.        205.         30.        41.       594.00     594.90

     1251.00      6.64     595.34       0.00       0.00     595.64        .30        .66       0.00     590.00
        240.       12.       221.         7.         9.        48.         7.         1.         0.     590.00
         .03      1.30       4.58       1.05       .040       .035       .040      0.000     588.70      86.37
     .001128       21.        21.        21.          2          0          3       0.00      27.25     113.63
 0
  *SECNO 1350.000
  3280 CROSS SECTION    1350.00 EXTENDED        .76 FEET
```

```
3470 ENCROACHMENT STATIONS        75.0       125.0  TYPE       1  TARGET          50.000
                  E
    1350.00        6.96     595.66      0.00       0.00    595.81       .14        .12        .05     594.90
     240.           15.      210.        15.        15.       65.        15.         1.         0.      594.90
        .04        1.04      3.24       1.04       .040      .035       .040      0.000     588.70      75.00
   .001183         100.      100.       100.          2         0          0       0.00      50.00     125.00
0
CCHV      .300 CEHV       .500
*SECNO 1700.000
3280 CROSS SECTION    1700.00 EXTENDED       1.35 FEET

3470 ENCROACHMENT STATIONS        75.0       125.0  TYPE       1  TARGET          50.000
                  F
    1700.00        7.55     596.25      0.00       0.00    596.34       .08        .51        .02     594.90
     240.           28.      184.        28.        26.       72.        26.         2.         1.      594.90
        .12        1.10      2.56       1.10       .040      .035       .040      0.000     588.70      75.00
   .000640         600.      600.       600.          2         0          0       0.00      50.00     125.00
0
1
  82/12/01.    08.53.10.                                                                                          PAGE   16

     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST

CCHV      .300 CEHV       .500
*SECNO 1800.000
          G   FARM LANE CULVERT,2 - 6X3.7X21 CMP, TR 597.3, LC 595.7
    1800.00        4.28     596.28      0.00       0.00    596.51       .23        .10        .07     593.40
     240.           28.      205.         7.        14.       51.         4.         3.         1.      593.40
        .13        2.00      4.04       1.65       .040      .035       .040      0.000     592.00     183.39
   .001880         100.      100.       100.          2         0          0       0.00      25.57     208.96
0
SPECIAL BRIDGE

SB   XK         XKOR        COFQ        RDLEN       BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00        1.80        2.50        0.00       13.00       0.00      35.20       0.00     592.00     592.00

*SECNO 1801.000
3280 CROSS SECTION    1801.00 EXTENDED        .09 FEET

PRESSURE AND WEIR FLOW

  EGPRS       EGLWC        H3         QWEIR       QPR        BAREA    TRAPEZOID     ELLC       ELTRD
                                                                         AREA
   597.58      596.63       0.00          7.       232.        35.        48.      595.70     597.30

    1801.00        5.39     597.39      0.00       0.00    597.50       .11        .99       0.00     593.40
     240.           40.      189.        10.        26.       65.         8.         3.         1.      593.40
        .13        1.53      2.91       1.25       .040      .035       .040      0.000     592.00     180.00
   .000699          21.       21.        21.          2         0          2       0.00      30.00     210.00
0




*SECNO 2400.000
          H
    2400.00        3.12     597.52      0.00       0.00    598.02       .51        .33        .20     600.00
     240.            0.      240.         0.         0.       42.         0.         3.         1.      598.30
        .14        0.00      5.71       0.00       .040      .035       .040      0.000     594.40      93.22
   .007583         200.      200.       200.          2         0          0       0.00      20.38     113.60
0
*SECNO 2500.000
          I   COTTONWOOD ST. CULVERT, 6.5X400 CMP, TR 603.7, LC 600.0 & 601.2
    2500.00        4.89     598.19      0.00       0.00    598.96       .77        .81        .13     596.70
     240.            6.      209.        25.         2.       28.         9.         3.         1.      596.70
        .14        2.64      7.47       2.83       .040      .035       .040      0.000     593.30      93.60
   .008634         100.      100.       100.          2         0          0       0.00      21.59     115.20
0
1
  82/12/01.    08.53.10.                                                                                          PAGE   17

     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
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    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 2501.000
  2501.00      5.72    599.02      0.00      0.00    599.31       .30       .21       .14    596.70
    240.        13.      164.       63.        5.       34.       20.        3.        1.     596.70
     .15       2.50      4.90      3.08      .030      .032      .030     0.000    593.30     91.98
 .002436        50.       50.       50.        3         0         0      0.00     27.45    119.43
0
SPECIAL BRIDGE
SB  XK          XKOR        COFQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
    0.00        7.40        3.00        50.00       6.50        0.00        33.00       0.00        594.70      593.50

*SECNO 2502.000
3280 CROSS SECTION    2502.00 EXTENDED       .21 FEET

PRESSURE AND WEIR FLOW

  EGPRS      EGLWC      H3        QWEIR      QPR       BAREA     TRAPEZOID      ELLC       ELTRD
                                                                   AREA
  605.09     601.16     0.00       27.       215.       33.        21.        598.00     603.70

  2502.00      9.50    603.90      0.00      0.00    603.91       .01      4.60      0.00    598.00
    240.        30.       56.      154.       45.       58.      219.        5.        2.     598.00
     .29        .67       .96       .70      .030      .032      .030     0.000    594.40     82.00
 .000046       400.      400.      400.        0         0         4      0.00     93.00    175.00
0
*SECNO 2950.000
         J
  2950.00      9.01    603.91      0.00      0.00    603.91       .01       .00       .00    603.70
    163.         0.      163.        0.        6.      218.        0.        6.        2.     603.70
     .33        .06       .75       .06      .030      .030      .030     0.000    594.90     25.72
 .000029       100.      100.      100.        2         0         0      0.00    100.48    126.20
0
CCHV      .100 CEHV      .300



*SECNO 3500.000
         K
  3500.00     13.22    603.92      0.00      0.00    603.92       .00       .00       .00    593.60
    163.        35.      128.        0.      378.     1119.        0.       15.        4.     605.10
    1.59        .09       .11      0.00      .030      .030      .030     0.000    590.70     36.61
 .000000       500.      500.      500.        0         0         0      0.00    188.54    225.15
0
1
 82/12/01.    08.53.10.                                                                          PAGE   18

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

CCHV      .300 CEHV      .500
*SECNO 3600.000
         L    PAVED TRAIL, 6.5X61 CMP, TR 604.8, LC 603.3
  3600.00      7.09    603.89      0.00      0.00    603.94       .04       .00       .02    600.00
    163.        47.       82.       34.       38.       40.       28.       18.        4.     600.00
    1.62       1.23      2.05      1.22      .030      .030      .030     0.000    596.80     77.07
 .000260       120.      120.      120.        2         0         0      0.00     40.57    117.64
0
SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK          XKOR        COFQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
    0.00        2.10        2.50        0.00        6.50        0.00        33.20       0.00        596.80      596.80

*SECNO 3601.000
PRESSURE FLOW

  EGPRS      EGLWC      H3        QWEIR      QPR       BAREA     TRAPEZOID      ELLC       ELTRD
                                                                   AREA
  604.68     604.15     0.00        0.       163.       33.        42.        603.30     604.80


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       604.80 ELREA       60?.80
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     3601.00      7.66    604.46      0.00      0.00    604.68       .22       .74      0.00    600.00
      163.          0.      163.        0.        0.       44.        0.       18.        4.    600.00
H     1.62       0.00      3.73      0.00      .030      .030      .030     0.000    596.80     96.70
   .000770        61.       61.       61.         2         0         0      0.00      6.50    103.20
0
 *SECNO 3800.000

  3470 ENCROACHMENT STATIONS          .0     150.0  TYPE       1  TARGET       149.999
         M
"I"  3800.00      7.74    604.74      0.00      0.00    604.75       .01       .01       .06    604.80
      163.          0.      163.        0.        0.      219.        0.       18.        4.    604.80
      1.66       0.00       .74      0.00      .030      .030      .030     0.000    597.00     72.66
   .000032       100.      100.      100.         2         0         0      0.00     48.21    120.87
0
1
  82/12/01.   08.53.10.                                                                          PAGE   19


     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 CCHV      .100 CEHV      .300
 *SECNO 5500.000

  3265 DIVIDED FLOW

  3470 ENCROACHMENT STATIONS       215.0     515.0  TYPE       1  TARGET       300.000
         N
"J"  5500.00      6.11    604.81      0.00      0.00    604.82       .00       .07       .00    604.30
       99.        26.       57.       17.      127.      104.       95.       29.       11.    605.40
      2.89        .20       .55       .17      .050      .040      .050     0.000    598.70    215.00
   .000049      1750.     1750.     1750.         2         0         0      0.00    287.16    515.00
0
 *SECNO 6950.000
         O
FIS "K"  6950.00  6.24    604.84      0.00      0.00    604.84       .00       .02       .00    605.50
       61.         0.       61.        0.        0.      514.        0.       53.       24.    609.20
      8.74       0.00       .12      0.00      .050      .040      .050     0.000    598.60     96.99
   .000002      2500.     2500.     2500.         2         0         0      0.00    163.38    260.38
0
1
  82/12/01.   08.53.10.                                                                          PAGE   20


                                                                THIS RUN EXECUTED  82/12/01.   08.53.12.
  **********************************************
    HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
    ERROR CORR -   01,02,03,04,05
    MODIFICATION -   50,51,52,53,54,55
  **********************************************

  NOTE- ASTERISK  *  AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

  WATSON DRAIN

  SUMMARY PRINTOUT TABLE 110

         SECNO      CWSEL     DIFKWS       EG     TOPWID      QLOB       QCH      QROB    PERENC    STENCL     STCHL     STCHR    STENCR

  *    650.000     590.94      -4.06   592.59      7.10      0.00    240.00      0.00      0.00      0.00     53.20     60.30      0.00
  *    650.000     590.94      -4.06   592.59      7.10      0.00    240.00      0.00      0.00      0.00     53.20     60.30      0.00

  *    651.000     590.85       0.00   592.74      7.10      0.00    240.00      0.00      0.00      0.00     53.20     60.30      0.00
  *    651.000     590.85       0.00   592.74      7.10      0.00    240.00      0.00      0.00      0.00     53.20     60.30      0.00

       652.000     592.19       0.00   593.35      7.10      0.00    240.00      0.00      0.00      0.00     53.20     60.30      0.00
       652.000     592.19       0.00   593.35      7.10      0.00    240.00      0.00      0.00      0.00     53.20     60.30      0.00
```

653.000	592.70	0.00	593.40	7.10	0.00	240.00	0.00	0.00	0.00	53.20	60.30	0.00
653.000	592.70	0.00	593.40	7.10	0.00	240.00	0.00	0.00	0.00	53.20	60.30	0.00
750.000	593.56	0.00	593.79	18.95	.09	239.91	0.00	0.00	0.00	50.00	65.00	0.00
750.000	593.56	0.00	593.79	18.95	.09	239.91	0.00	0.00	0.00	50.00	65.00	0.00
1150.000	594.33	0.00	594.71	11.47	0.00	240.00	0.00	0.00	0.00	94.00	106.00	0.00
1150.000	594.33	0.00	594.71	11.47	0.00	240.00	0.00	0.00	0.00	94.00	106.00	0.00
1250.000	594.56	0.00	594.98	11.70	8.65	226.17	5.18	0.00	0.00	96.50	104.20	0.00
1250.000	594.56	0.00	594.98	11.70	8.65	226.17	5.18	0.00	0.00	96.50	104.20	0.00
1251.000	595.34	0.00	595.64	27.25	11.59	221.16	7.25	0.00	0.00	96.50	104.20	0.00
1251.000	595.34	0.00	595.64	27.25	11.59	221.16	7.25	0.00	0.00	96.50	104.20	0.00
1350.000	595.66	0.00	595.81	50.00	15.08	209.84	15.08	50.00	75.00	94.00	106.00	125.00
1350.000	595.66	0.00	595.81	50.00	15.08	209.84	15.08	50.00	75.00	94.00	106.00	125.00
1700.000	596.25	0.00	596.34	50.00	28.24	183.52	28.24	50.00	75.00	94.00	106.00	125.00
1700.000	596.25	0.00	596.34	50.00	28.24	183.52	28.24	50.00	75.00	94.00	106.00	125.00
1800.000	596.28	0.00	596.51	25.57	27.69	205.29	7.02	0.00	0.00	193.00	206.00	0.00
1800.000	596.28	0.00	596.51	25.57	27.69	205.29	7.02	0.00	0.00	193.00	206.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
1801.000	597.39	0.00	597.50	30.00	40.41	189.40	10.18	0.00	0.00	193.00	206.00	0.00
1801.000	597.39	0.00	597.50	30.00	40.41	189.40	10.18	0.00	0.00	193.00	206.00	0.00
2400.000	597.52	0.00	598.02	20.38	0.00	240.00	0.00	0.00	0.00	90.00	116.00	0.00
2400.000	597.52	0.00	598.02	20.38	0.00	240.00	0.00	0.00	0.00	90.00	116.00	0.00
2500.000	598.19	0.00	598.96	21.59	5.93	209.05	25.02	0.00	0.00	96.60	103.40	0.00
2500.000	598.19	0.00	598.96	21.59	5.93	209.05	25.02	0.00	0.00	96.60	103.40	0.00
2501.000	599.02	0.00	599.31	27.45	13.37	164.09	62.54	0.00	0.00	96.60	103.40	0.00
2501.000	599.02	0.00	599.31	27.45	13.37	164.09	62.54	0.00	0.00	96.60	103.40	0.00
2502.000	603.90	0.00	603.91	93.00	29.79	56.32	153.90	0.00	0.00	96.60	103.40	0.00
2502.000	603.90	0.00	603.91	93.00	29.79	56.32	153.90	0.00	0.00	96.60	103.40	0.00
2950.000	603.91	0.00	603.91	100.48	.34	162.65	.01	0.00	0.00	82.00	125.00	0.00
2950.000	603.91	0.00	603.91	100.48	.34	162.65	.01	0.00	0.00	82.00	125.00	0.00
3500.000	603.92	0.00	603.92	188.54	34.83	128.17	0.00	0.00	0.00	104.00	230.00	0.00
3500.000	603.92	0.00	603.92	188.54	34.83	128.17	0.00	0.00	0.00	104.00	230.00	0.00
3600.000	603.89	0.00	603.94	40.57	47.03	81.75	34.23	0.00	0.00	96.70	103.20	0.00
3600.000	603.89	0.00	603.94	40.57	47.03	81.75	34.23	0.00	0.00	96.70	103.20	0.00
3601.000	604.46	0.00	604.68	6.50	0.00	163.00	0.00	0.00	0.00	96.70	103.20	0.00
3601.000	604.46	0.00	604.68	6.50	0.00	163.00	0.00	0.00	0.00	96.70	103.20	0.00
3800.000	604.74	0.00	604.75	48.21	0.00	163.00	0.00	150.00	.00	72.50	121.00	150.00
3800.000	604.74	0.00	604.75	48.21	0.00	163.00	0.00	150.00	.00	72.50	121.00	150.00
5500.000	604.81	0.00	604.82	287.16	25.60	56.85	16.54	300.00	215.00	347.00	381.00	515.00
5500.000	604.81	0.00	604.82	287.16	25.60	56.85	16.54	300.00	215.00	347.00	381.00	515.00
6950.000	604.84	0.00	604.84	163.38	0.00	61.00	0.00	0.00	0.00	86.00	301.00	0.00
6950.000	604.84	0.00	604.84	163.38	0.00	61.00	0.00	0.00	0.00	86.00	301.00	0.00

WATSON DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	650.000	0.00	0.00	0.00	587.40	240.00	590.94	590.94	592.59	138.51	10.33	23.23	20.39
*	650.000	0.00	0.00	0.00	587.40	240.00	590.94	590.94	592.59	138.51	10.33	23.23	20.39

* 651.000	1.00	593.00	593.60	587.40	240.00	590.85	590.85	592.74	325.72	11.05	21.71	13.30
652.000	21.00	593.00	593.60	587.40	240.00	592.19	0.00	593.35	202.58	8.63	27.80	16.86
653.000	1.00	0.00	0.00	587.40	240.00	592.70	0.00	593.40	32.87	6.71	35.77	41.86
750.000	100.00	0.00	0.00	587.40	240.00	593.56	0.00	593.79	18.36	3.82	63.11	56.00
1150.000	350.00	0.00	0.00	588.70	240.00	594.33	0.00	594.71	36.09	4.91	48.88	39.95
1250.000	100.00	0.00	0.00	588.70	240.00	594.56	0.00	594.98	18.41	5.35	51.36	55.94
1251.000	21.00	594.90	594.00	588.70	240.00	595.34	0.00	595.64	11.28	4.58	64.07	71.45
1350.000	100.00	0.00	0.00	588.70	240.00	595.66	0.00	595.81	11.83	3.24	93.72	69.79
1700.000	600.00	0.00	0.00	588.70	240.00	596.25	0.00	596.34	6.40	2.56	123.21	94.86
1800.000	100.00	0.00	0.00	592.00	240.00	596.28	0.00	596.51	18.80	4.04	68.92	55.35
1801.000	21.00	597.30	595.70	592.00	240.00	597.39	0.00	597.50	6.99	2.91	99.75	90.80
2400.000	200.00	0.00	0.00	594.40	240.00	597.52	0.00	598.02	75.83	5.71	42.01	27.56
2500.000	100.00	0.00	0.00	593.30	240.00	598.19	0.00	598.96	86.34	7.47	39.06	25.83
2501.000	50.00	0.00	0.00	593.30	240.00	599.02	0.00	599.31	24.36	4.90	59.14	48.63
2502.000	400.00	603.70	598.00	594.40	240.00	603.90	0.00	603.91	.46	.96	322.25	355.41

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2950.000	100.00	0.00	0.00	594.90	163.00	603.91	0.00	603.91	.29	.75	223.97	300.16
3500.000	500.00	0.00	0.00	590.70	163.00	603.92	0.00	603.92	.00	.11	1496.98	3046.84
3600.000	120.00	0.00	0.00	596.80	163.00	603.89	0.00	603.94	2.60	2.05	106.29	101.01
3601.000	61.00	604.80	603.30	596.80	163.00	604.46	0.00	604.63	7.70	3.73	43.66	58.72
3800.000	100.00	0.00	0.00	597.00	163.00	604.74	0.00	604.75	.32	.74	219.34	286.57
5500.000	1750.00	0.00	0.00	598.70	99.00	604.81	0.00	604.82	.49	.55	325.15	141.45
6950.000	2500.00	0.00	0.00	598.60	61.00	604.84	0.00	604.84	.02	.12	514.37	409.63

WATSON DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO Q CWSEL DIFWSP DIFWSX DIFKWS TOPWID XLCH

*	650.000	240.00	590.94	0.00	0.00	-4.06	7.10	0.00
*	650.000	240.00	590.94	0.00	0.00	-4.06	7.10	0.00
*	651.000	240.00	590.85	0.00	-.09	0.00	7.10	1.00
*	651.000	240.00	590.85	0.00	-.09	0.00	7.10	1.00
	652.000	240.00	592.19	0.00	1.35	0.00	7.10	21.00
	652.000	240.00	592.19	0.00	1.35	0.00	7.10	21.00
	653.000	240.00	592.70	0.00	.51	0.00	7.10	1.00
	653.000	240.00	592.70	0.00	.51	0.00	7.10	1.00
	750.000	240.00	593.56	0.00	.85	0.00	18.95	100.00
	750.000	240.00	593.56	0.00	.85	0.00	18.95	100.00
	1150.000	240.00	594.33	0.00	.77	0.00	11.47	350.00
	1150.000	240.00	594.33	0.00	.77	0.00	11.47	350.00
	1250.000	240.00	594.56	0.00	.23	0.00	11.70	100.00
	1250.000	240.00	594.56	0.00	.23	0.00	11.70	100.00
	1251.000	240.00	595.34	0.00	.78	0.00	27.25	21.00
	1251.000	240.00	595.34	0.00	.78	0.00	27.25	21.00
	1350.000	240.00	595.66	0.00	.32	0.00	50.00	100.00
	1350.000	240.00	595.66	0.00	.32	0.00	50.00	100.00
	1700.000	240.00	596.25	0.00	.59	0.00	50.00	600.00
	1700.000	240.00	596.25	0.00	.59	0.00	50.00	600.00
	1800.000	240.00	596.28	0.00	.03	0.00	25.57	100.00
	1800.000	240.00	596.28	0.00	.03	0.00	25.57	100.00
	1801.000	240.00	597.39	0.00	1.10	0.00	30.00	21.00
	1801.000	240.00	597.39	0.00	1.10	0.00	30.00	21.00
	2400.000	240.00	597.52	0.00	.13	0.00	20.38	200.00
	2400.000	240.00	597.52	0.00	.13	0.00	20.38	200.00
	2500.000	240.00	598.19	0.00	.68	0.00	21.59	100.00
	2500.000	240.00	598.19	0.00	.68	0.00	21.59	100.00
	2501.000	240.00	599.02	0.00	.82	0.00	27.45	50.00
	2501.000	240.00	599.02	0.00	.82	0.00	27.45	50.00
	2502.000	240.00	603.90	0.00	4.89	0.00	93.00	400.00
	2502.000	240.00	603.90	0.00	4.89	0.00	93.00	400.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2950.000	163.00	603.91	0.00	.00	0.00	100.48	100.00
2950.000	163.00	603.91	0.00	.00	0.00	100.48	100.00
3500.000	163.00	603.92	0.00	.01	0.00	188.54	500.00
3500.000	163.00	603.92	0.00	.01	0.00	188.54	500.00
3600.000	163.00	603.89	0.00	-.02	0.00	40.57	120.00
3600.000	163.00	603.89	0.00	-.02	0.00	40.57	120.00
3601.000	163.00	604.46	0.00	.57	0.00	6.50	61.00
3601.000	163.00	604.46	0.00	.57	0.00	6.50	61.00
3800.000	163.00	604.74	0.00	.28	0.00	48.21	100.00
3800.000	163.00	604.74	0.00	.28	0.00	48.21	100.00
5500.000	99.00	604.81	0.00	.07	0.00	287.16	1750.00
5500.000	99.00	604.81	0.00	.07	0.00	287.16	1750.00
6950.000	61.00	604.84	0.00	.02	0.00	163.38	2500.00
6950.000	61.00	604.84	0.00	.02	0.00	163.38	2500.00

1

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION  SECNO   650.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO   650.000  PROFILE  2  CRITICAL DEPTH ASSUMED

CAUTION  SECNO   651.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO   651.000  PROFILE  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO   651.000  PROFILE  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO   651.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO   651.000  PROFILE  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO   651.000  PROFILE  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
```

1

FLOODWAY DATA, WATSON DRAIN
PROFILE NO. 2

	STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	DIFFERENCE
	650.000	7.	23.	10.3	590.9	590.9	0.0
	651.000	7.	22.	11.1	590.8	590.8	0.0
	652.000	7.	28.	8.6	592.2	592.2	0.0
	653.000	7.	36.	6.7	592.7	592.7	0.0
	750.000	19.	63.	3.8	593.6	593.6	0.0
	1150.000	11.	49.	4.9	594.3	594.3	0.0
	1250.000	12.	51.	4.7	594.6	594.6	0.0
	1251.000	27.	64.	3.7	595.3	595.3	0.0
	1350.000	50.	94.	2.6	595.7	595.7	0.0
	1700.000	50.	123.	1.9	596.3	596.3	0.0
	1800.000	26.	69.	3.5	596.3	596.3	0.0
	1801.000	30.	100.	2.4	597.4	597.4	0.0
	2400.000	20.	42.	5.7	597.5	597.5	0.0
I/E	2500.000	22.	39.	6.1	598.2	598.2	0.0
	2501.000	27.	59.	4.1	599.0	599.0	0.0
I/E	2502.000	93.	322.	.7	603.9	603.9	0.0
F	2950.000	100.	224.	.7	603.9	603.9	0.0
G	3500.000	189.	1497.	.1	603.9	603.9	0.0
	3600.000	41.	106.	1.5	603.9	603.9	0.0
H	3601.000	7.	44.	3.7	604.5	604.5	0.0
I	3800.000	48.	219.	.7	604.7	604.7	0.0
J	5500.000	300.	325.	.3	604.8	604.8	0.0
K	6950.000	163.	514.	.1	604.8	604.8	0.0

1

THIS RUN EXECUTED 82/12/01. 08.53.13.

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
**************************************************
```

MATCH LINE TO SHEET 2
GEORGETOWN TWP.
COTTON WOOD
ELMWOOD
RM12
RM10
RM11
WELLER AIRFIELD
TALLMADGE TWP. CORP. LIMITS
GEORGETOWN TWP.
CORPORATE LIMITS
DR.
VILLAGE LANE
CARRIAGE LANE
BALDWIN STREET
12 TH
PARKING
I-196
ALLENDALE TWP.
SCALE
CONT. IN
ELEVATION MARKS
THE
TALLMAD
GEORGET
OTTAWA C
GEORGETOWN TWP.
WATKIN DRAIN
12/16/82
- FLOODWAY
- 100 YR. FLOOD

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP

3) WATERCOURSE: WATSON DRAIN

4) DOCUMENT TYPE: REPORT

00BREAK00

Gove Associates Inc.
ARCHITECTS / ENGINEERS / PLANNERS / SURVEYORS
ENVIRONMENTAL SCIENTISTS

1601 PORTAGE STREET
KALAMAZOO, MICHIGAN 49001
(616) 385-0011

December 8, 1982

Mr. Daniel H. Morgan, P.E.
Flood Insurance Unit
Flood Plain Management Section
Water Management Division
Department of Natural Resources
P. O. Box 30028
Lansing, Michigan 48909

Re: Georgetown Township FIS - Watson Drain - Ottawa County

Dear Mr. Morgan:

We have considered the comments of your September 28, 1982, letter and have made the following adjustments to the hydraulic model and profile:

1. The ELLC on the X2 card at Cottonwood Street has been lowered to 598. As a result, pressure flow is now occurring instead of low flow.

If you have any questions on this information, please call me.

Very truly yours,

GOVE ASSOCIATES INC.

Garth Greenan

Garth Greenan
Project Engineer

GG/tk

Gove Associates Inc.
ARCHITECTS / ENGINEERS / PLANNERS / SURVEYORS
ENVIRONMENTAL SCIENTISTS

1601 PORTAGE STREET
KALAMAZOO, MICHIGAN 49001
(616) 385-0011

September 13, 1982

Mr. Daniel H. Morgan, P.E.
Flood Insurance Unit
Flood Plain Management Section
Water Management Division
Department of Natural Resources
P. O. Box 30028
Lansing, Michigan 48909

Re: Georgetown Township FIS - Watson Drain - Ottawa County

Dear Mr. Morgan:

We have considered the comments of your August 27, 1982, letter and have made the following adjustments to the hydraulic model and profile:

1. The XKOR value at Cottenwood Street has been changed to 7.4. The change in the profile is not significant.

If you have any questions on this information, please call me.

Very truly yours,

GOVE ASSOCIATES INC.

Garth Greenan

Garth Greenan
Project Engineer

GG/tk

HYDRAULIC ANALYSIS

WATSON DRAIN

LOWING & COMSTOCK DRAIN

LOWING & COMSTOCK DRAIN - EAST BRANCH

GEORGETOWN TOWNSHIP, MICHIGAN

Gove Associates Inc.
ARCHITECTS / ENGINEERS / PLANNERS / SURVEYORS
ENVIRONMENTAL SCIENTISTS

1601 PORTAGE STREET
KALAMAZOO, MICHIGAN 49001
(616) 385-0011

February 19, 1981

RECEIVED
MAR 4 1981
WATER MANAGEMENT

Mr. Daniel H. Morgan, P.E.
Flood Insurance Unit
Flood Plain Management Section
Water Management Division
Michigan Department of Natural Resources
P. O. Box 30028
Lansing, Michigan 48909

Re: Georgetown Township Flood Insurance Study

Dear Mr. Morgan:

Enclosed for your review is our Hydraulic Analysis of the Watson Drain, Lowing & Comstock Drain, and the Lowing & Comstock Drain East Branch, all in the Georgetown Township, Michigan.

The following information is included:

1. HEC-2 run for 10-, 50-, 100-, and 500-year floods
2. IPLOT for 100-year flow
3. Topographic map
4. Hydraulic Analysis Report

If you have any questions on this information, please call me.

Very truly yours,

GOVE ASSOCIATES INC.

William J. McDonough

William J. McDonough, P.E.
Associate

WJM/tk

Enclosure: as listed above

HYDRAULIC ANALYSIS

1. INTRODUCTION

The streams being studied are the Watson Drain, Lowing and Comstock Drain, and the Lowing and Comstock Drain East Branch, all in the Georgetown Township, Michigan. The Watson Drain and the Lowing Comstock Drain are tributaries of Grand River while the flow of East Branch of Lowing and Comstock Drain discharges to Lowing and Comstock Drain. Table 1 shows the approved flows used in this study. The project managers for Flood Insurance Studies are William McDonough and Duane Ellis.

2. METHOD OF ANALYSIS

Water surface profiles for 10-, 50-, 100-, and 500-year floods were computed through the HEC-2 computer program, developed by the U. S. Army, Corps of Engineers (Ref. 1).

2.1 Cross Sections

The cross sections used in this study were obtained from ground survey. The surveys were made in August to October of 1979. The locations of cross sections are shown in Table 2 to Table 4 for the Watson Drain, Lowing and Comstock Drain and the Lowing and Comstock Drain East Branch, respectively.

2.2 Roughness Coefficients

The roughness coefficients were determined from field descriptions. The material shown on page 101 to page 123 in Chow's Open Channel Hydraulics (Ref. 2) served as a general reference. The range of "n" factors used in the model is shown in Table 5.

2.3 Starting Point and Starting Elevations

The starting point and the starting elevation for each stream are the mouth and the critical depth.

3. DISCUSSION

For Lowing and Comstock Drain, the flood plain on the right bank starts at about 1400 feet upstream from Filmore Street to the point 3700 feet upstream from Filmore Street, has been excavated and resulted as a manmade lake. The flooding for hydraulic analysis, therefore, has to be encroached to encompass the new situation.

Reference

1. HEC-2 Water Surface Profiles, Users Manual, Hydrological Engineering Center, U. S. Army Corps of Engineers, August, 1979.

2. Open Channel Hydraulics, Ven Te Chow, McGraw-Hill, 1959.

TABLE 1

APPROVED PEAK DISCHARGES

Stream	Location	10-year	50-year	100-year	500-year
Watson	Mouth	137	208	240	305
	Cottonwood Street	92	142	163	206 not in file
	2500' D/S from outlet of Maplewood Lake	54	86	99	123 not in file
	Outlet of Maplewood Lake	31	53	61	73
Lowing and Comstock	Mouth	390 (380)	580	670 (650)	880
	U/S of East Branch	360 (380)	510	600	800
Lowing and Comstock, East Branch		50	66	80	94

TABLE 2

LOCATION OF CROSS SECTION (WATSON DRAIN)

SECTION	FIS	SECNO	LOCATION
A		650	650' U/S from Mouth
		651	Dirt Trail, TR = 593, LC = 592.7
		652	5.3 x 7.3 CMP
		653	
B		750	100' U/S from A
C		1150	100' D/S from D
D		1250	Dirt Trail, TR = 594.9, LC = 594.0
		1251	5.3 x 7.3 CMP
E		1350	100' U/S from D
F		1700	100' D/S from G
G		1800	Farm Lane Culvert, TR = 597.3, LC = 595.7
		1801	6 x 3.7 CMP
H		2400	150' D/S from D/S face of Cottonwood Street Culvert
I		2500	Cottonwood Street Culvert, TR = 603.7
		2501	LC = 600.0 and 601.2
	E	2502	6.8' Round CMP
		2503	
J	F	2950	100' U/S from U/S face of Cottonwood Street Culvert
K	G	3500	120' D/S from D/S face of Paved Trail
L		3600	Paved Trail, TR = 604.8, LC = 603.3
	H	3601	6.5' Found CMP
M	I	3800	100' U/S from U/S face of Paved Trail
N	J	5500	2500 D/S from Maplewood Lake Outlet
O	K	6950	Maplewood Lake Outlet

TABLE 3

LOCATION OF CROSS SECTION (LOWING & COMSTOCK DRAIN)

SECTION	SECNO	LOCATION
A	750	750' U/S from Mouth
B	3250	1600' U/S from A
C	3300 3301	Driveway Bridge, TR = 603.8, LC = 602.6
D	3350	50' U/S from C
E	5250	2150' U/S from D
F	5350	100' U/S from E U/S of Confluence with East Branch
G	5700	50' D/S from D/S face of Filmore Street Culvert
H	5750	Filmore Street Culvert, TR = 610.4, LC = 606.9
I	5800	50' U/S from U/S face of Filmore Street Culvert
J	6625	825' U/S from I
K	7950	1325' U/S from J
L	8000 8001 8002 8003	Driveway Culvert to Gravel Pit TR = 610.2, LC = 609.3 3.5' Round CMP
M	8050	50' U/S from U/S face of Gravel Pit Culvert
N	8850	660' U/S from M
O	9500	800' U/S from N
P	9550 9551	Dirt Trail Culvert, TR = 626, LC = 622.5 6' Round CMP
Q	10050	50' U/S from U/S face of Dirt Trail Culvert

SECTION	SECNO	LOCATION
R	10350 10351 10352 10353	24th Avenue Culvert, TR = 625, LC = 622.5
S	10400	200' U/S from U/S face of 24th Avenue Culvert
T	11450	550' U/S from S
U	11500 11501 11502 11503	Bayer Road Culvert, TR = 625.6, LC = 623.4
V	11550	300' U/S from U/S face of Bauer Road Culvert
W	12900	1200' U/S from V
X	14200	50' D/S from D/S face of Park Road Culvert
Y	14250 14251 14252 14253	Park Road Culvert, TR = 636.8, LC = 635.0
Z	14300	50' U/S from U/S face of Park Road Culvert
AA	14750	50' D/S from D/S face of 28th Street Culvert
AB	14800 14801	28th Street Culvert, TR = 639.9, LC = 368.6

TABLE 4

LOCATION OF CROSS SECTION (LOWING & COMSTOCK - EAST BRANCH)

SECTION	SECNO	LOCATION
A	65	Farm Culvert, TR = 606.3, LC = 606.3
	66	4' Round Concrete Pipe
	67	
	68	
B	115	50' U/S from A
C	1100	50' D/S from D/S face of Filmore Street Culvert
D	1150	Filmore Street Culvert, TR = 609.6, LC = 607.6
	1151	7.1 x 4.5 CMP
	1152	
	1153	
E	1200	50' U/S from U/S face of Filmore Street Culvert
F	2400	1200' U/S from E
G	3600	1010' U/S from F
H	3650	Norman Drive Extension Culvert
	3651	TR - 614.8, LC - 608.3
	3652	2 - 3' Round CMP
	3653	
I	3700	50' U/S from U/S face of Norman Drive Culvert
J	5000	1350' U/S of I

TABLE 5

"N" FACTORS

STREAM	CHANNEL	FLOODPLAINS
Watson	0.03 - 0.04	0.03 - 0.05
Lowing & Comstock	0.035 - 0.045	0.04 - 0.07
Lowing & Comstock East Branch	0.035 - 0.04	0.03 - 0.05

BRIDGE DATA

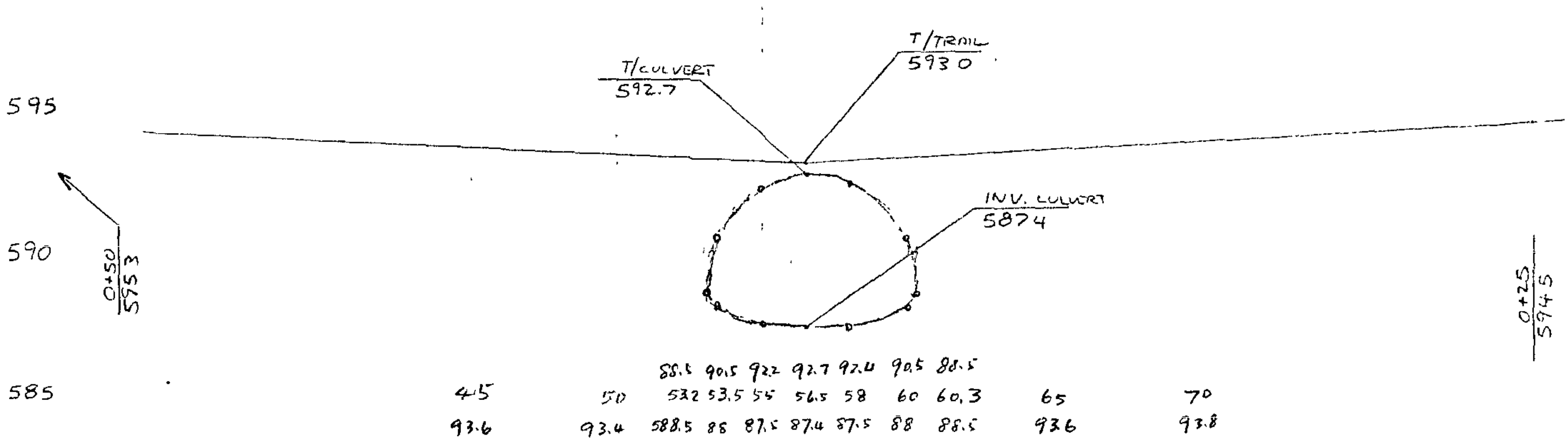
GEORGETOWN TWP. WATSON DR.

STA. 6+50 - DIRT TRAIL

1- 5'-3" x 7'-3' C.M.P. 21' LONG

A= 30 ft²

R= 1.51



LOOKING UPSTREAM

SCALE 1"=5' HORZ. & VE[RT.]

* PHOTO SHOWS BOARD IN FRONT OF CULVERT
WHEN SURVEY WAS MADE 9/25/79

GEORGETOWN TWP - WATSON DRAIN

STA 12+50 DIRT TRAIL

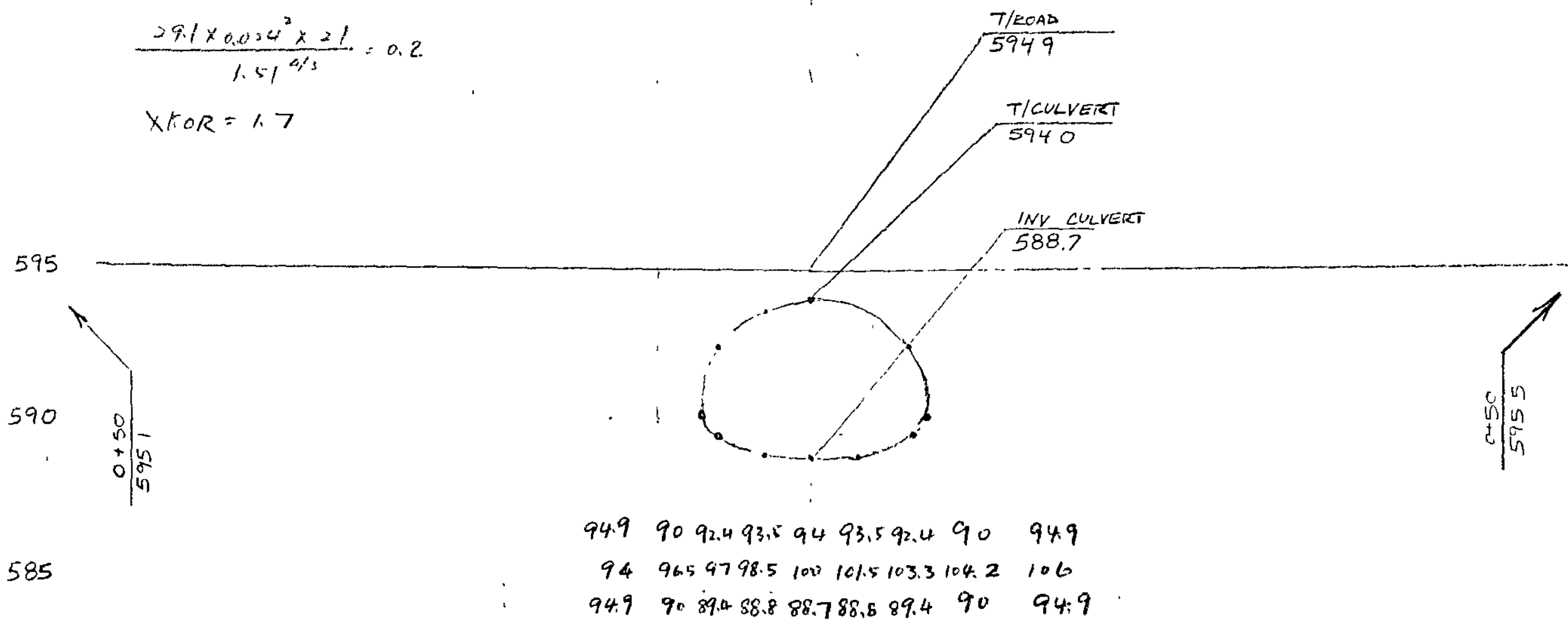
1-53×73 C.M.P., 21' LONG

$A = 30 \quad n = 0.024$

$R = 1.51$

$$\frac{29.1 \times 0.024^2 \times 21}{1.51^{4/3}} = 0.2$$

XKOR = 1.7



LOOKING DOWNSTREAM

SCALE 1" = 5' HORZ. & VERT.

WATSON DRAIN
GEORGETOWN TWP

3544
9-3-80

18+00 FARM LANE

1" = 40'

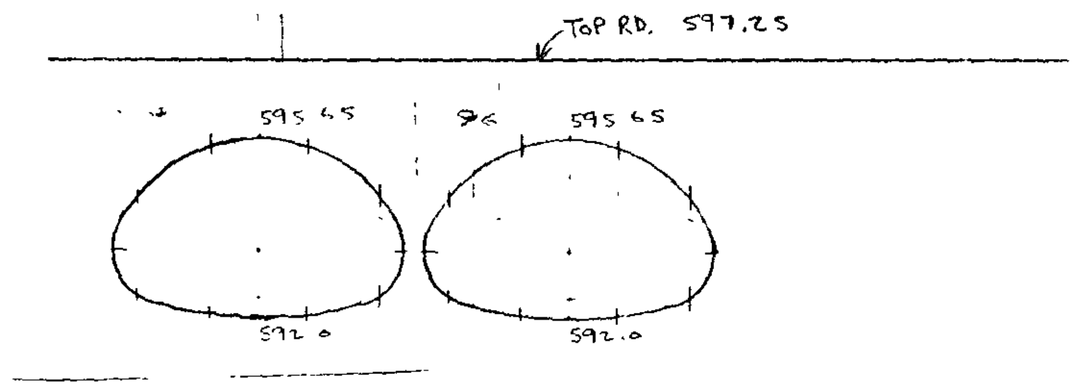
2 6.0' X 3.65' C. M. PIPE ARCH
(72" X 44")

A = [illegible] 21' LONG

n = 0.026

$$\frac{29.1 \times 0.026^2 \times 21}{1.12^{4/3}} = 0.3$$

Xkor = 1.8



93.35	94.5	95.4	95.65	95.4	94.5	93.35	
200	200.5	202	203	204	205.5	206	
93.35	92.4	92.1	92.0	92.1	92.4	93.35	

A = 17.6 □'
R = 1.12'
Ke = .9
n = .0328

93.35	94.5	95.4	95.65	95.4	94.5	93.35
193	193.5	195	196	197	198.5	199
93.35	92.4	92.1	92.0	92.1	92.4	93.35

A = 17.6 □'
R = 1.12'
Ke = .9
n = .0328

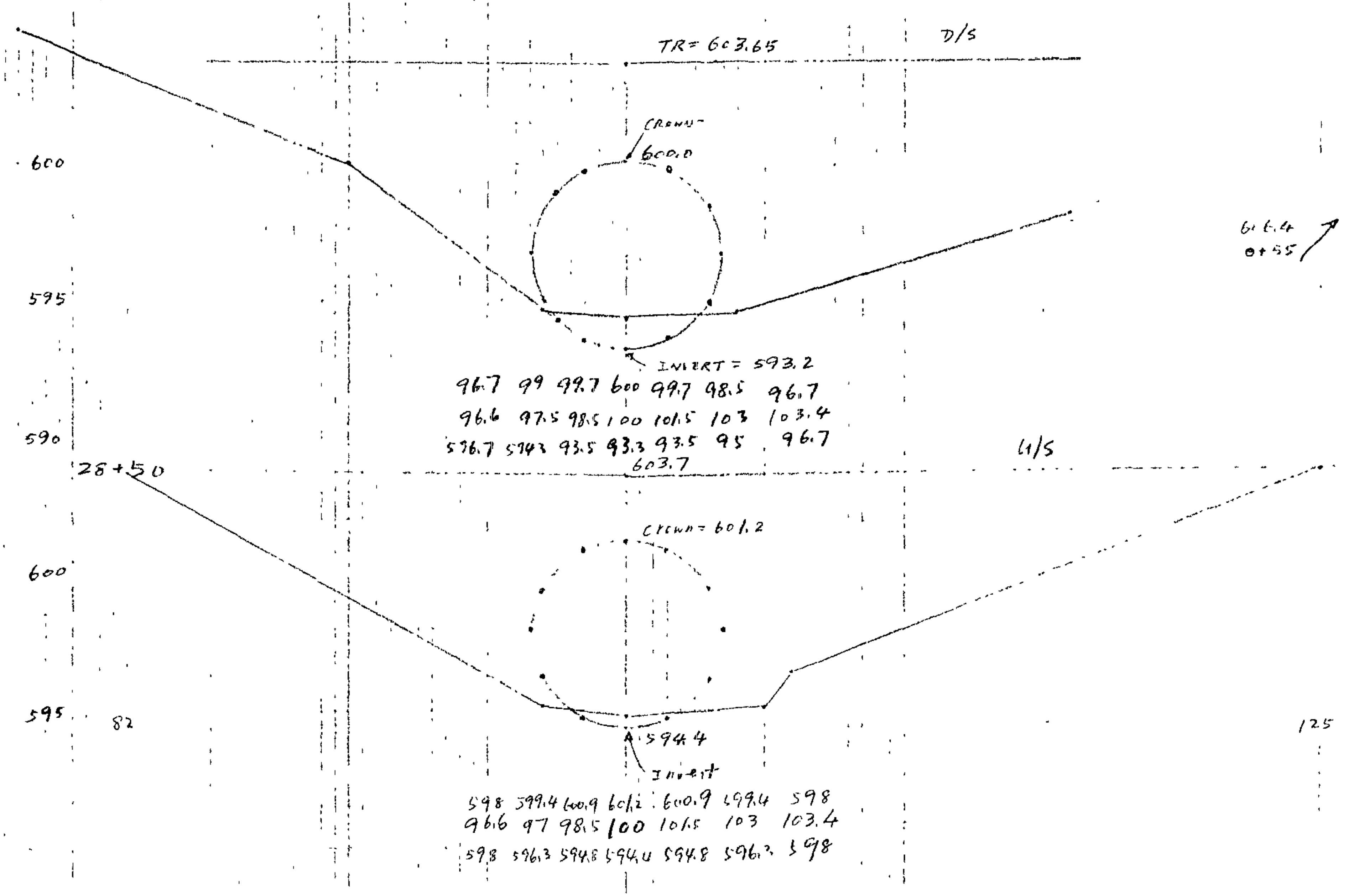
TOTAL A = 35.2 □'
" R =
" Ke =
" n =

25+00

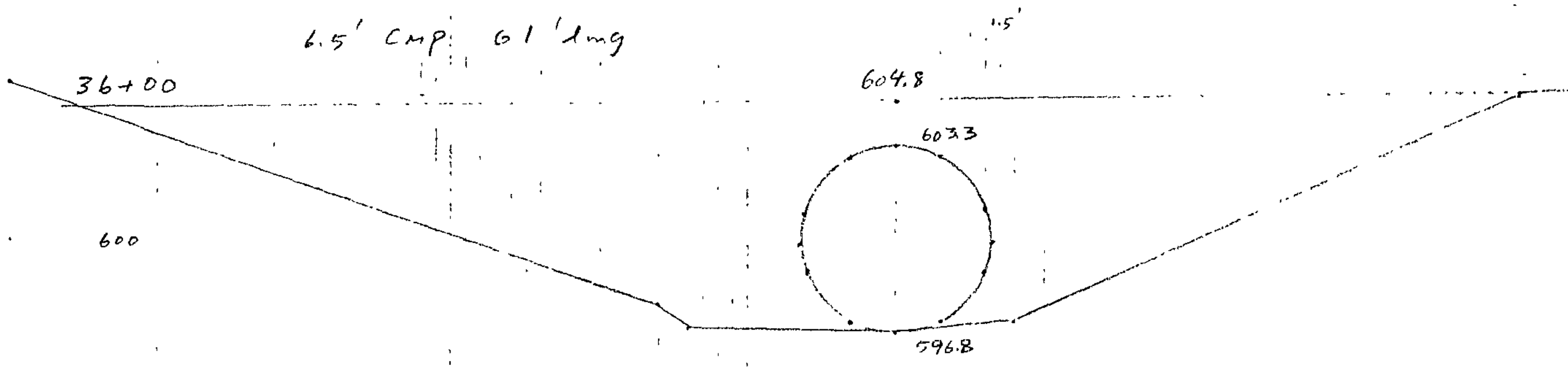
6.8' CMP

Cottonwood st.

400' long



6.5' CMP 61' long



3700

600	601	603	603.3	603	601	600
96.7	97	98.5	100	101.5	10.3	103.2
600	599	597.3	596.8	597.3	599	600

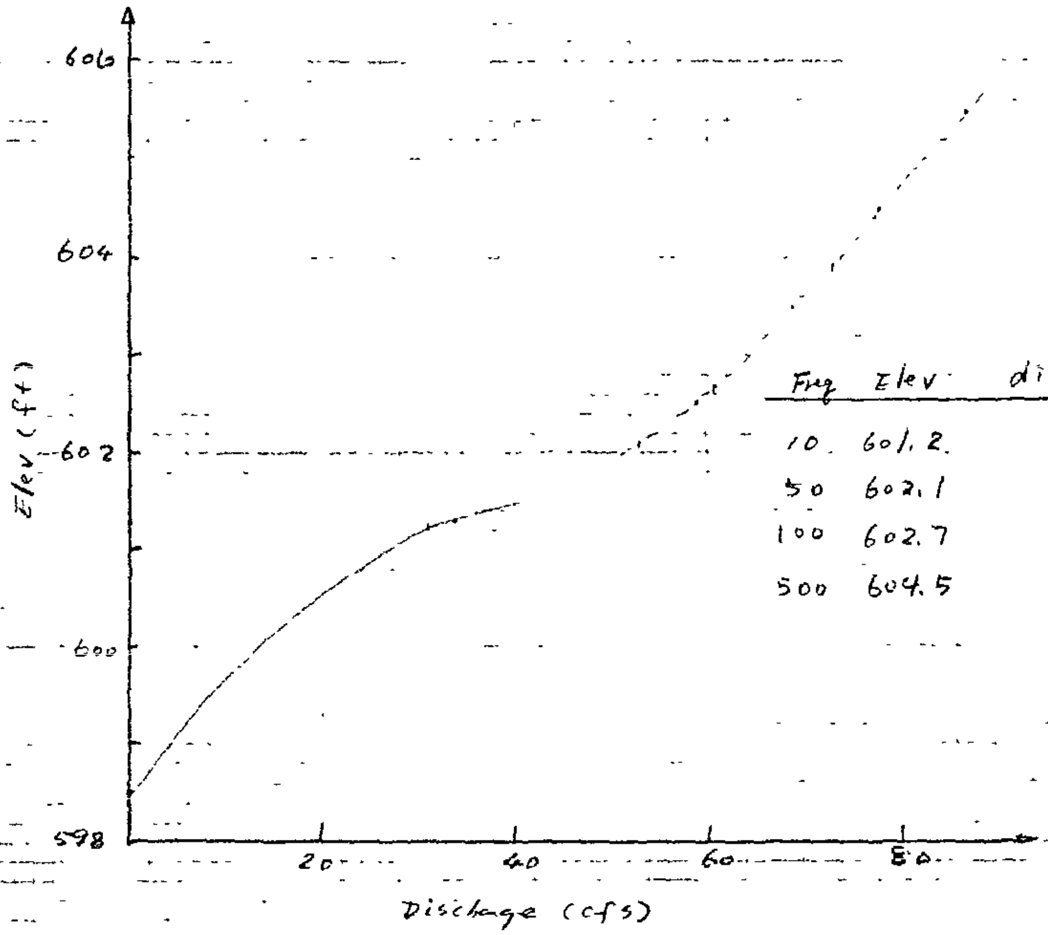
A = 33.2   R = 1.625

$$\frac{29.1 \times 0.026^2 \times 61}{1.625^{4/3}} = .86$$

XKOR = 2.1

Stage- Discharge Curve 082280

Outlet of Maplewood Lake
output To Watson Drain



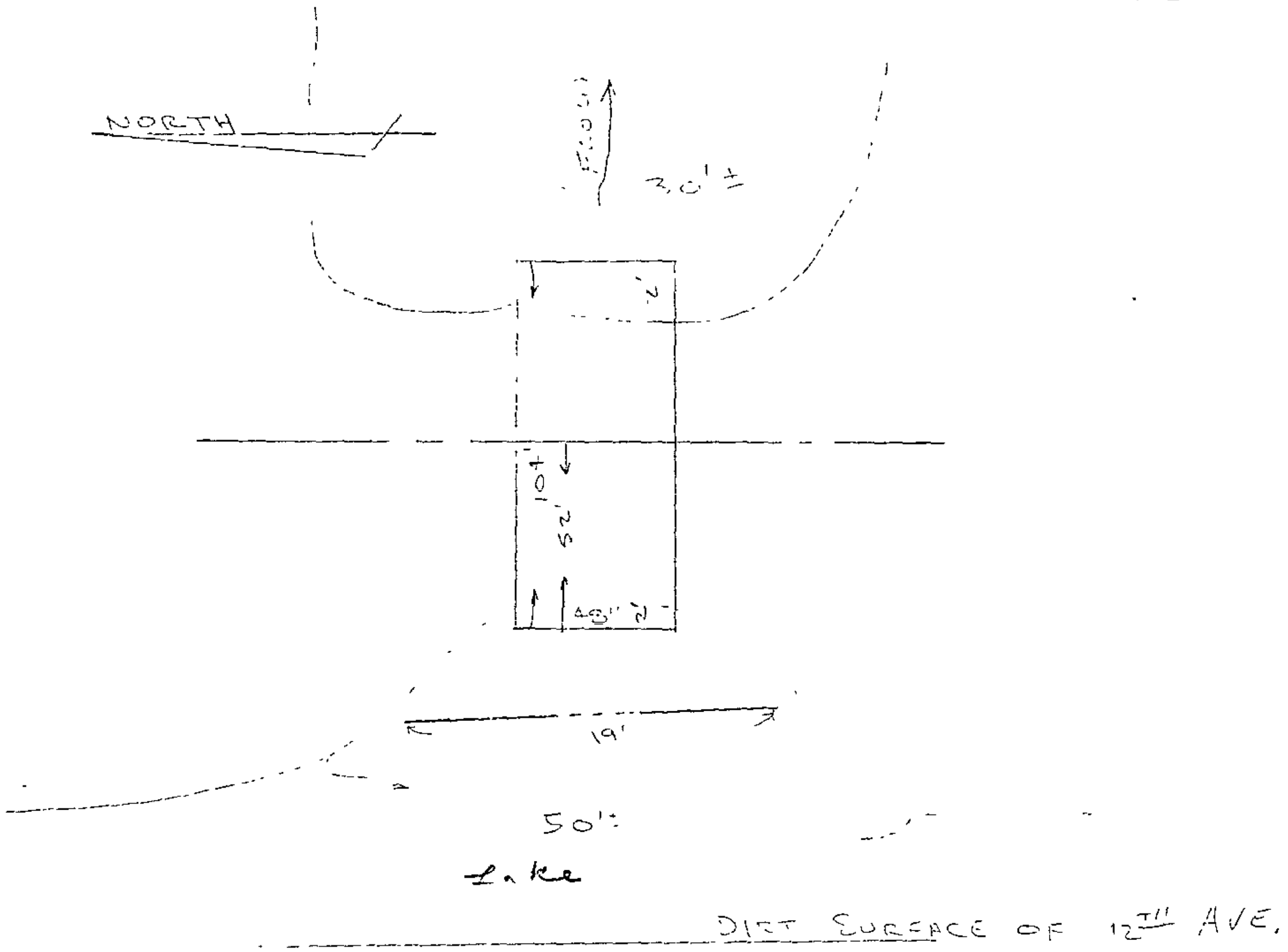
Freq	Elev	discharge
10	601.2	31
50	602.1	53
100	602.7	61
500	604.5	73

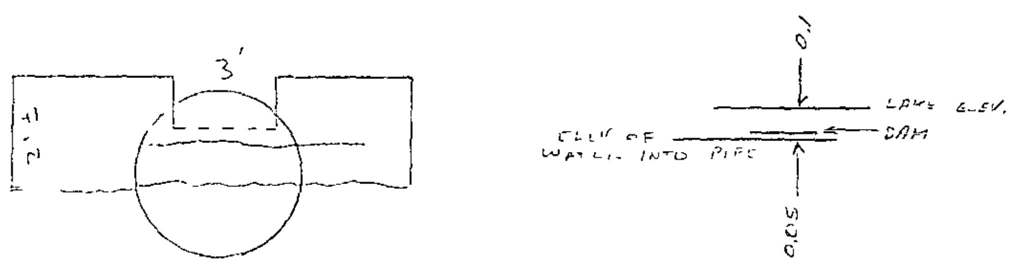
Fig 1 Rating Curve for outlet of Maplewood Lake
This curve was developed for TR-20 to obtain the Hydrograph at the outlet.

SUBJECT STA. 70+00
WATSON DRAIN

PROJ. NO. 2549
DESIGN JS
CHECK

SH. NO.
DATE 8/28/79
DATE





GEORGETOWN TWP., LOWING-COMSTOCK DRAIN

STA. 33+00 DRIVEWAY BRIDGE

BRIDGE 13' LONG, 8.2' WIDE

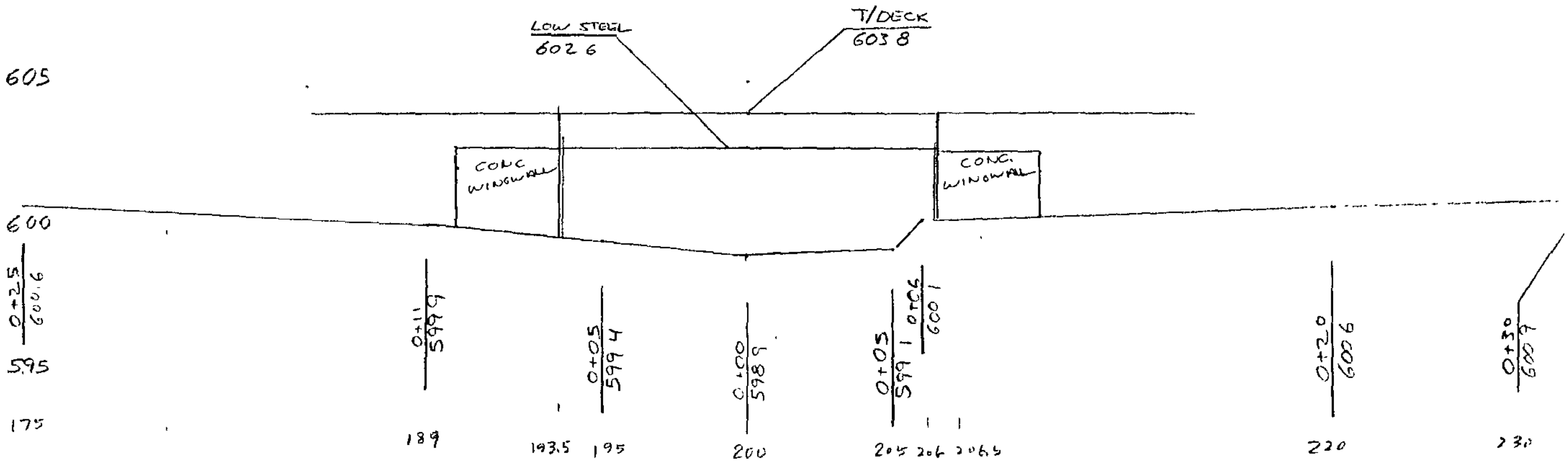
$n = 0.02$

$A = 13 \times 2.5 + 11 = 43.5$ $R = \frac{43.5}{31} = 1.40$

$Ke = 0.5$

$\frac{29.1 \times 0.02^2 \times 13}{1.57} = 0.1$

$X K o R = 1.6$



LOOKING UPSTREAM

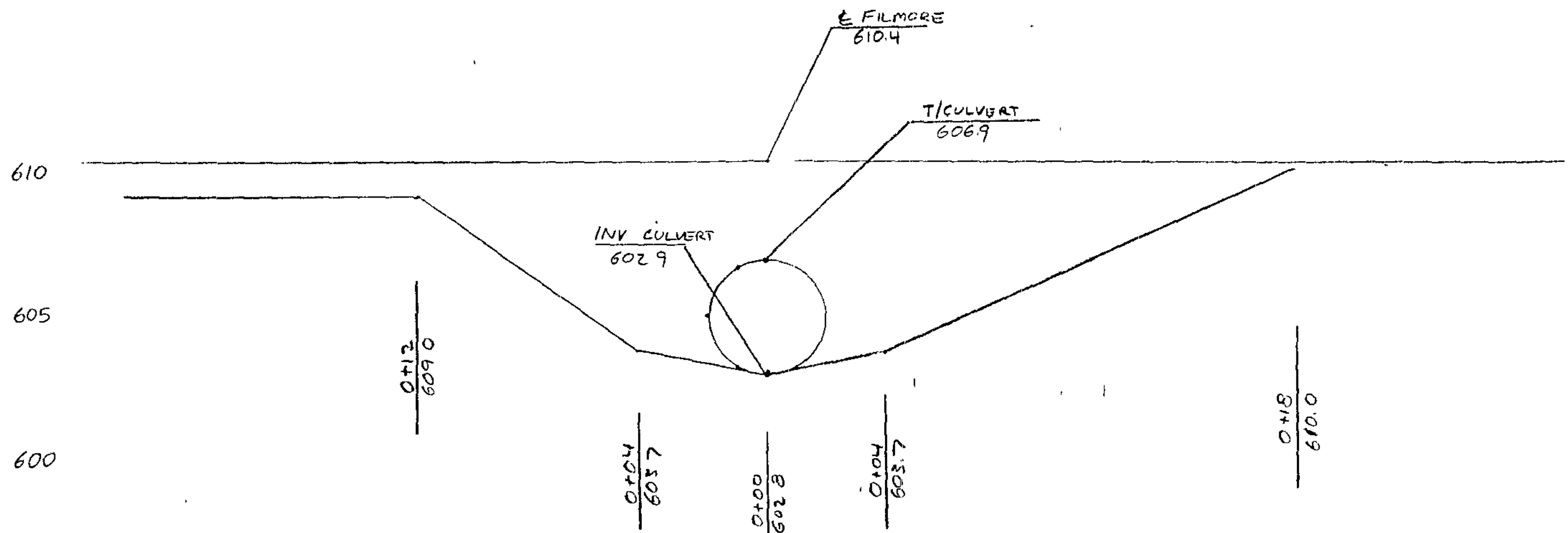
SCALE 1" = 5' HORZ. & VERT.

GEORGETOWN TWP., LOWING-COMSTOCK DRAIN

STA. 57+50 FILMORE ST. CULVERT.

48" CMP. 79' LONG

Not working



605 606.7 606.9 606.7 605

498 499 500 501 502

605 603.2 602.8 603.2 605

LOOKING DOWNSTREAM

SCALE: 1" = 5' HORZ. & VERT.

n = 0.032 R = 1 l = 79 K_e = 0.5

A = 12.57

$29.1 \times 0.032^2 \times 79 = 2.35$

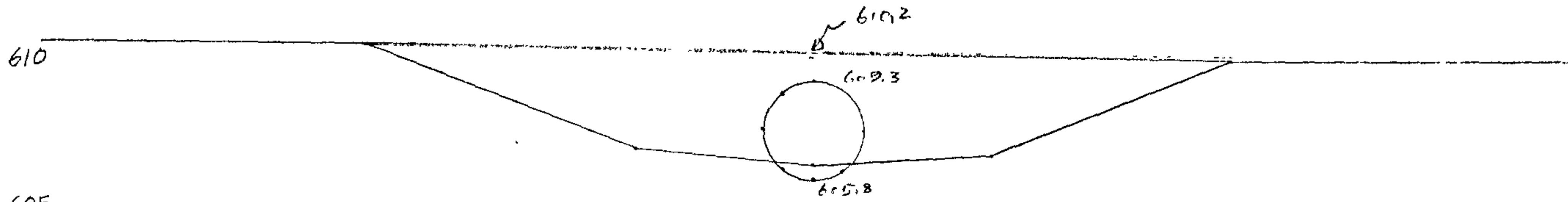
$\times K_e R$ = 3.85

GEORGETOWN TWP, LOWING-COMSTOCK DRAIN

STA. 80+00, GRAVEL PIT CULVERT

42" RCP 34' LONG

This area no longer effective



LOOKING DOWNSTREAM

SCALE 1"=5' HORZ. & VER

607.6 608.7 609.3 608.7 607.6

498.3 499 500 501 501.8

607.6 606.2 605.8 606.2 607.6

$n = 0.012$

$A = 9.62$

$R = .875$ $R^{4/3} = 0.84$ $K_e = 0.5$

$$\frac{29.1 \times 0.012^2 \times 34}{0.84} = 0.17$$

XKOR = 1.67

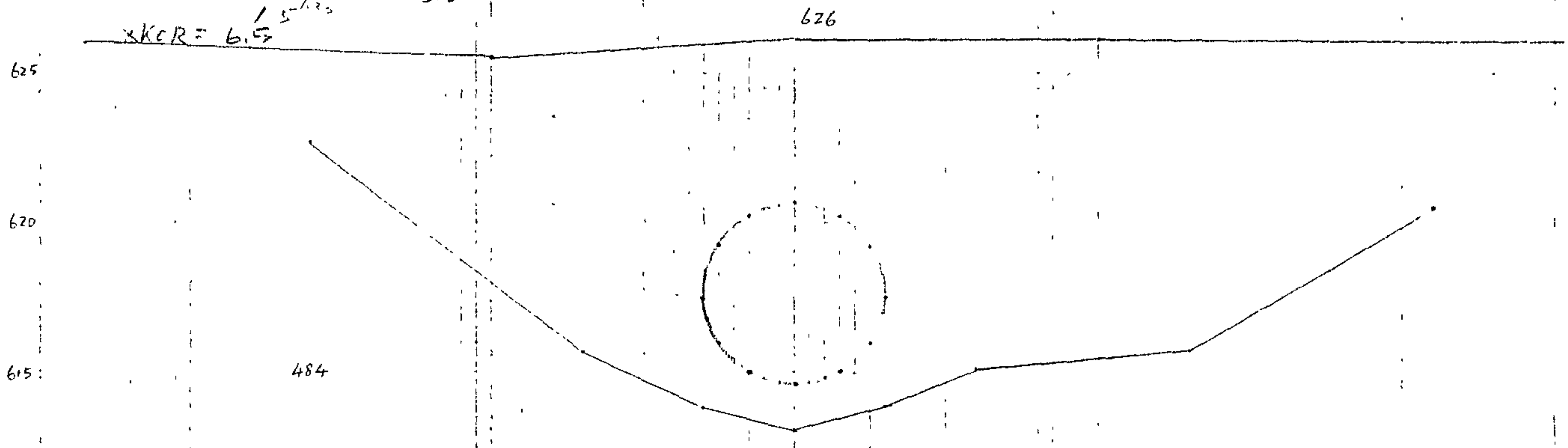
95+00
(Sta 97+50 Culvert)
72" CMP , 287' long

A= 28.27 Ke=0.5

R-1.5

$\frac{29.1 \times 0.033^2 \times 287}{1.5^{1.33}} - 5.0$

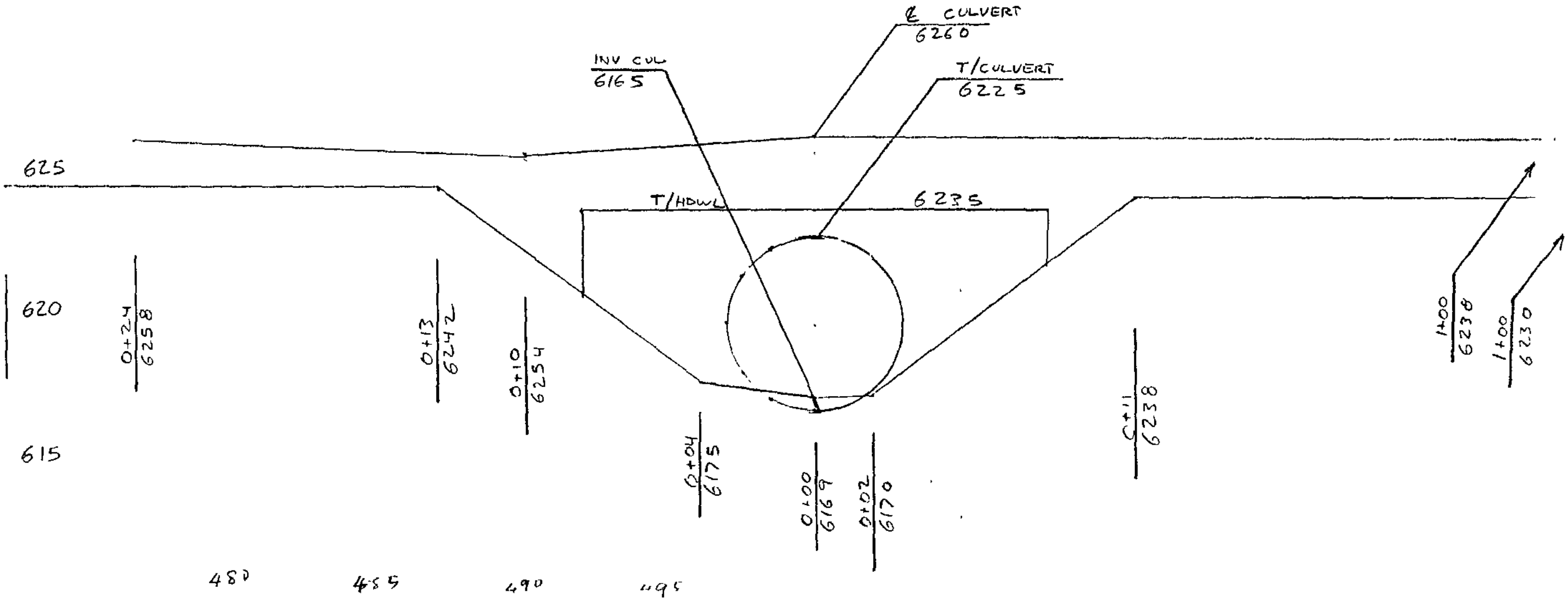
$\Sigma KCR = 6.5$



617.5	619.3	620.2	620.6	620.2	619.3	617.5
497	497.5	498.5	500	501.5	502.5	503
617.5	616	615	614.6	615	616	617.5

Looking upstream

GEORGETOWN TWP, LOWING - COMSTOCK DRAIN
(STA. 97+50 CULVERT) 100+00
72" C.M.P., 287' LONG



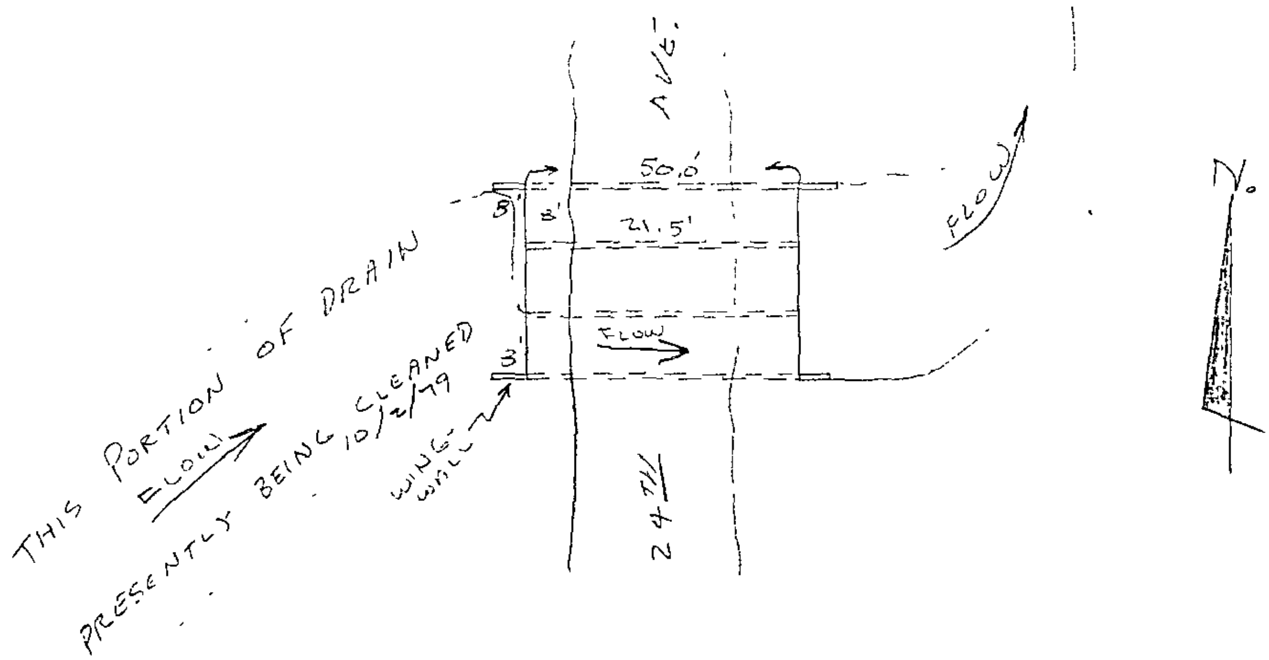
LOOKING D/S

SCALE 1" = 5' HORZ & VERT

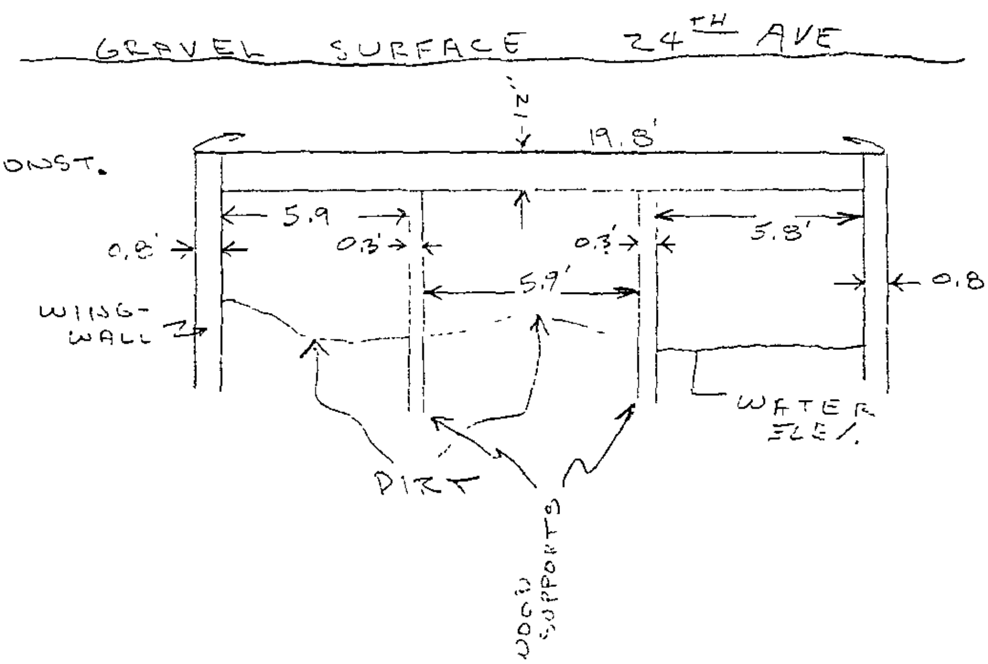
619.5	621.2	622.1	622.5	622.1	621.2	619.5
497	497.5	498.5	500	501.5	502.5	503
619.5	617.8	616.9	616.5	616.9	617.8	619.5

SUBJECT Lowing + Comstock Drain
Str. 103+50 24TH Ave.

PROJ. NO. 8549
DESIGN B
CHECK
SH. NO.
DATE 10/2/79
DATE



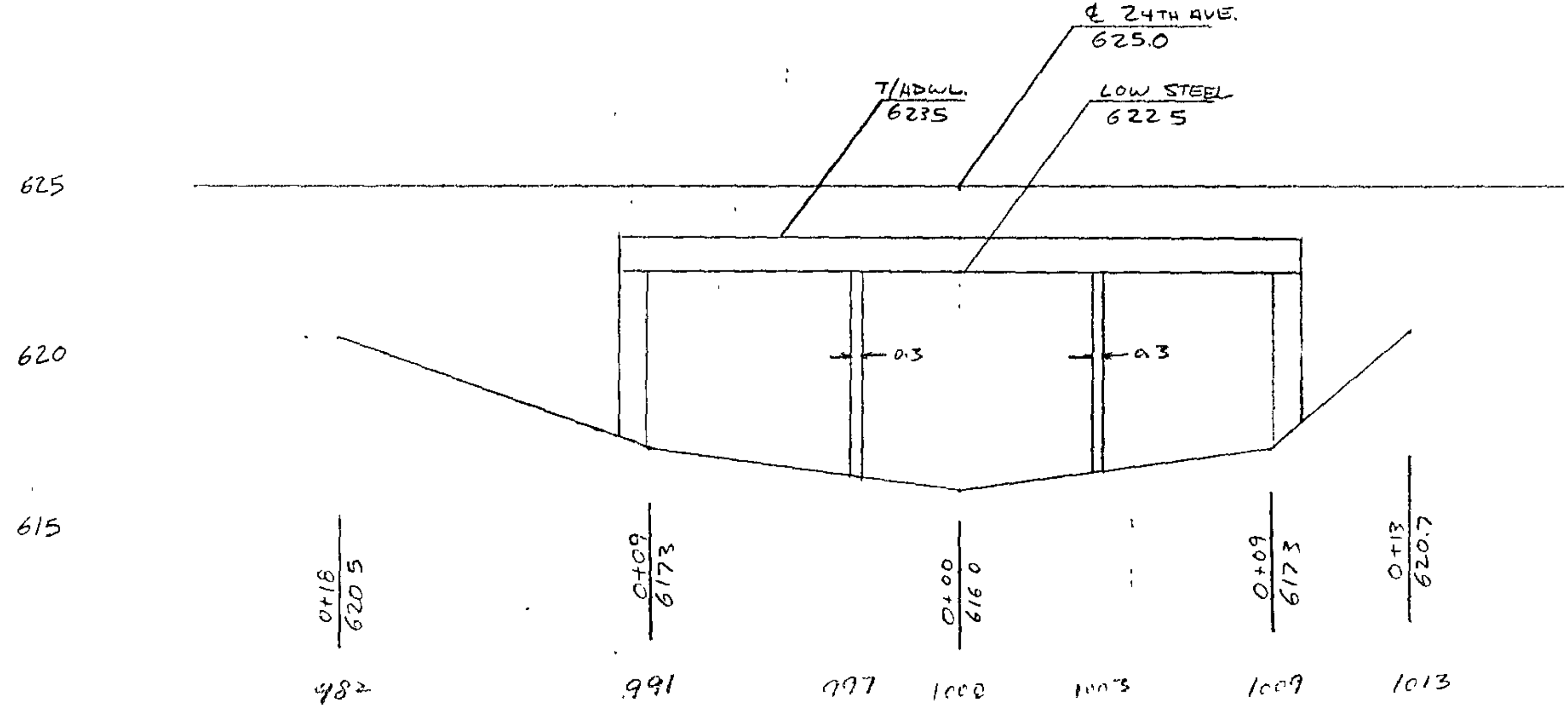
ALL WOOD CONST.



GEORGETOWN TWP, LOWING-COMSTOCK DRAIN

STA. 103+50 24 TH AVE.

CULVERT 21.5' LONG



LOOKING DOWNSTREAM

SCALE 1" = 5' HORZ & VERT

GEORGETOWN TWP., LOWING-COMSTOCK DRAIN

STA 115+00, BAUER RD.

2 - 5.3 x 7.0 ELLIPTICAL C.M.P. 70' LONG, SKEW

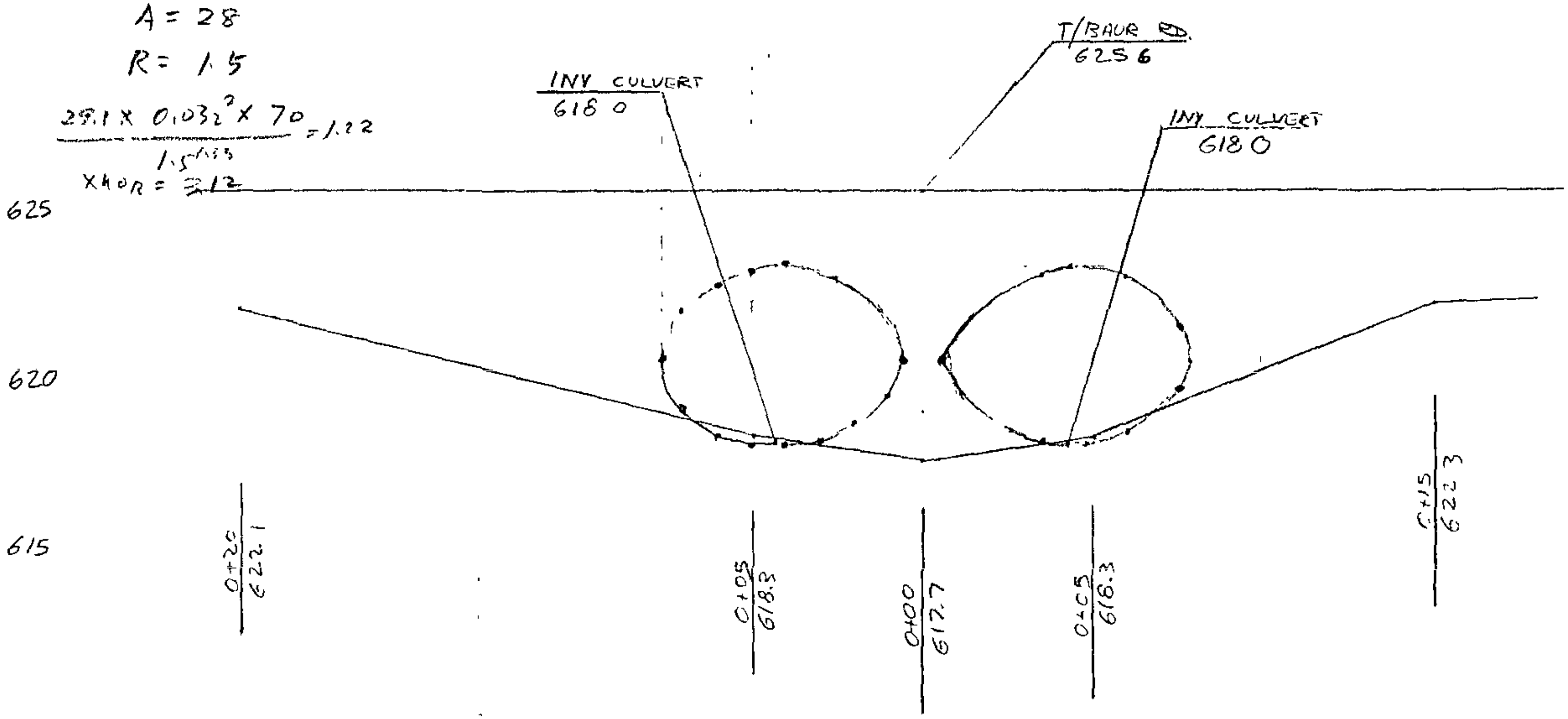
$K_e = 0.9$

$A = 28$

$R = 1.5$

$$\frac{29.1 \times 0.032^2 \times 70}{1.5^{1.33}} = 1.22$$

XHOR = 1.2

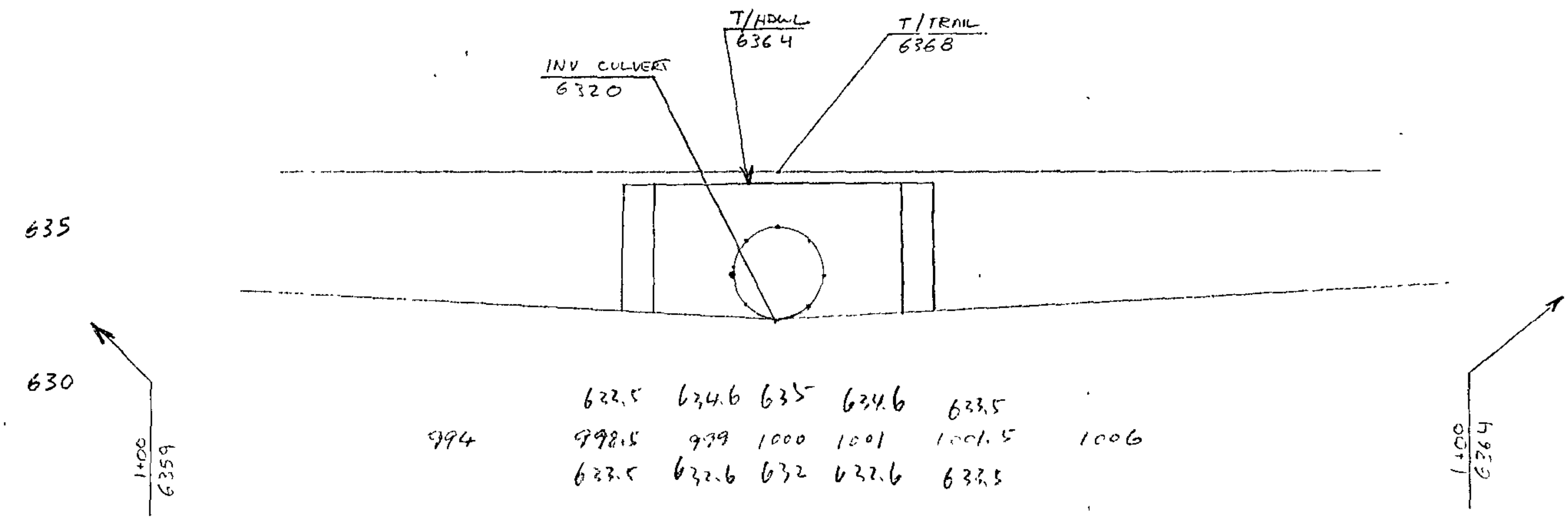


LOOKING DOWNSTREAM

SCALE 1"=5' HORZ. & VERT.

620.5	622.5	622.8	623.2	623.4	623.2	622.8	622.5	620.5	620.5	622.5	622.8	623.2	623.4	623.2	622.8	622.5	620.5
992.5	993	994	995	996	997	998	999	999.5	1000.5	1001	1002	1003	1004	1005	1106	1007	1007.5
620.5	619.1	618.2	618	617.9	618	618.2	619.1	620.5	620.5	619.1	618.2	618	617.9	618	618.2	619.1	620.5

GEORGETOWN TWP, LOWING-COMSTOCK DRAIN
STA. 142+50 PARK RD CULVERT
36" R.C.P, 43' LONG

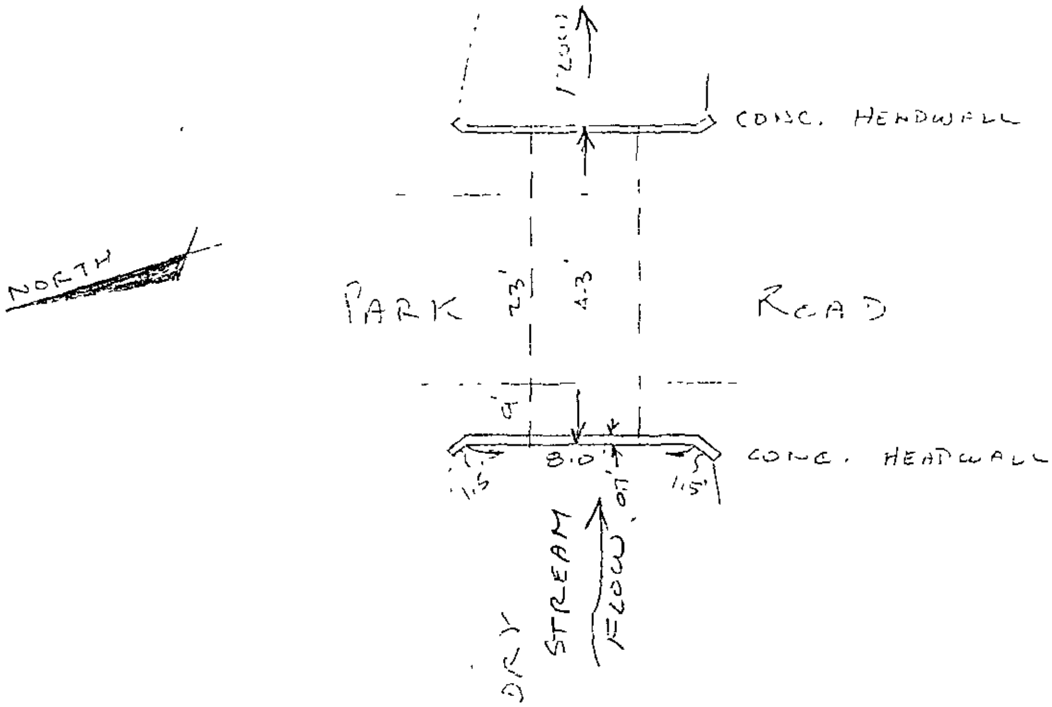


LOOKING DOWNSTREAM

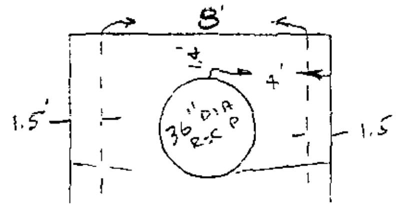
SCALE 1"=5' HORZ. & VERT.

SUBJECT Lowing & Comstock Drain
STA 142+50

PROJ. No. 8549 | SH. No.
DESIGN J.F. | DATE 10/2/79
CHECK | DATE



BITM. SURFACE - PARK RD.



GEORGETOWN TWP., LOWING-COMSTOCK DRAIN

STA 148+00 28TH ST. CULVERT

4.8' x 5.8' ELLIPTICAL C.M.P. 61.5' LONG PARTIALLY FILLED WITH DIRT

$K_e = 0.9$

$n = 0.032$

$A = 2\,4. \times 2$

$R = 1.35$

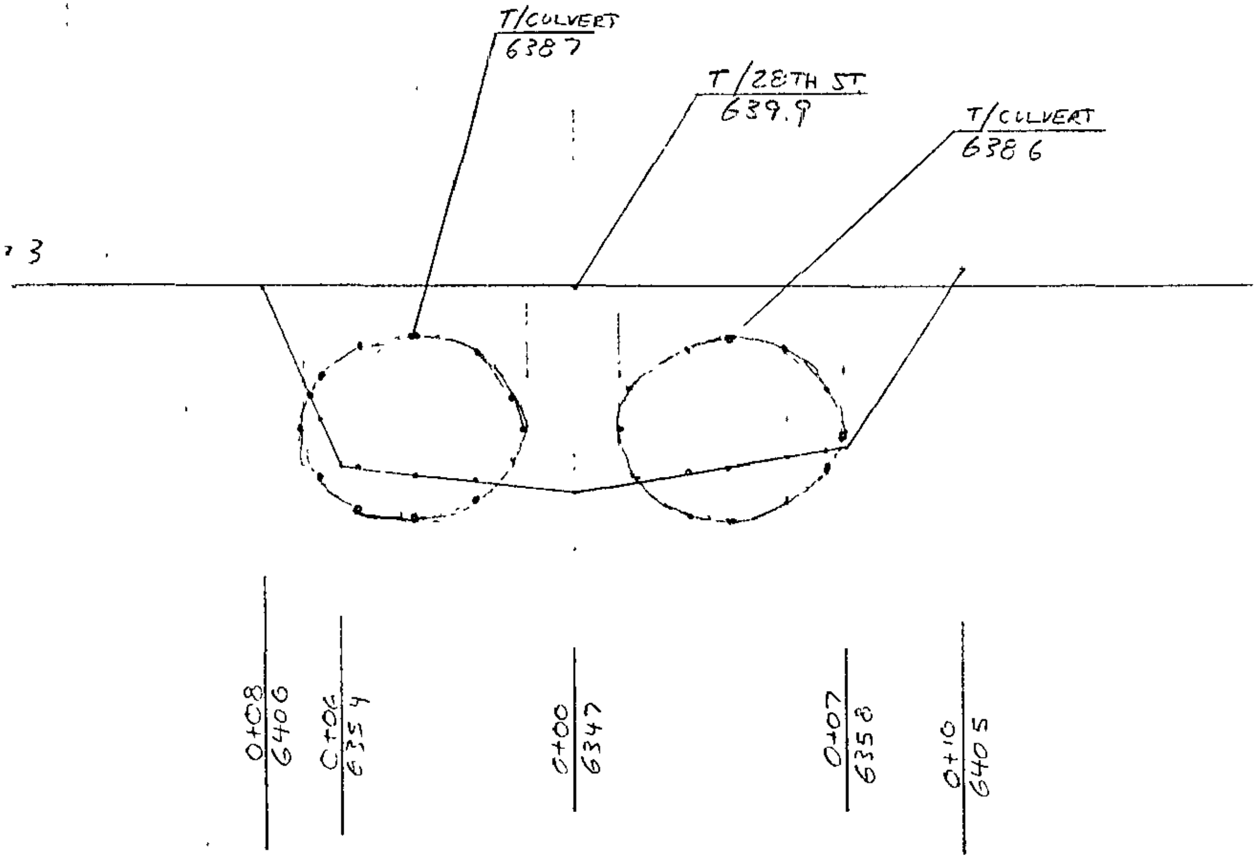
$$\frac{29.1 \times 0.032^2 \times 61.5}{1.35^{1.33}} = 1.23$$

$\times KOR = 3.13$

640

635

630



LOOKING DOWNSTREAM

SCALE 1" = 5' HORZ & VERT.

992

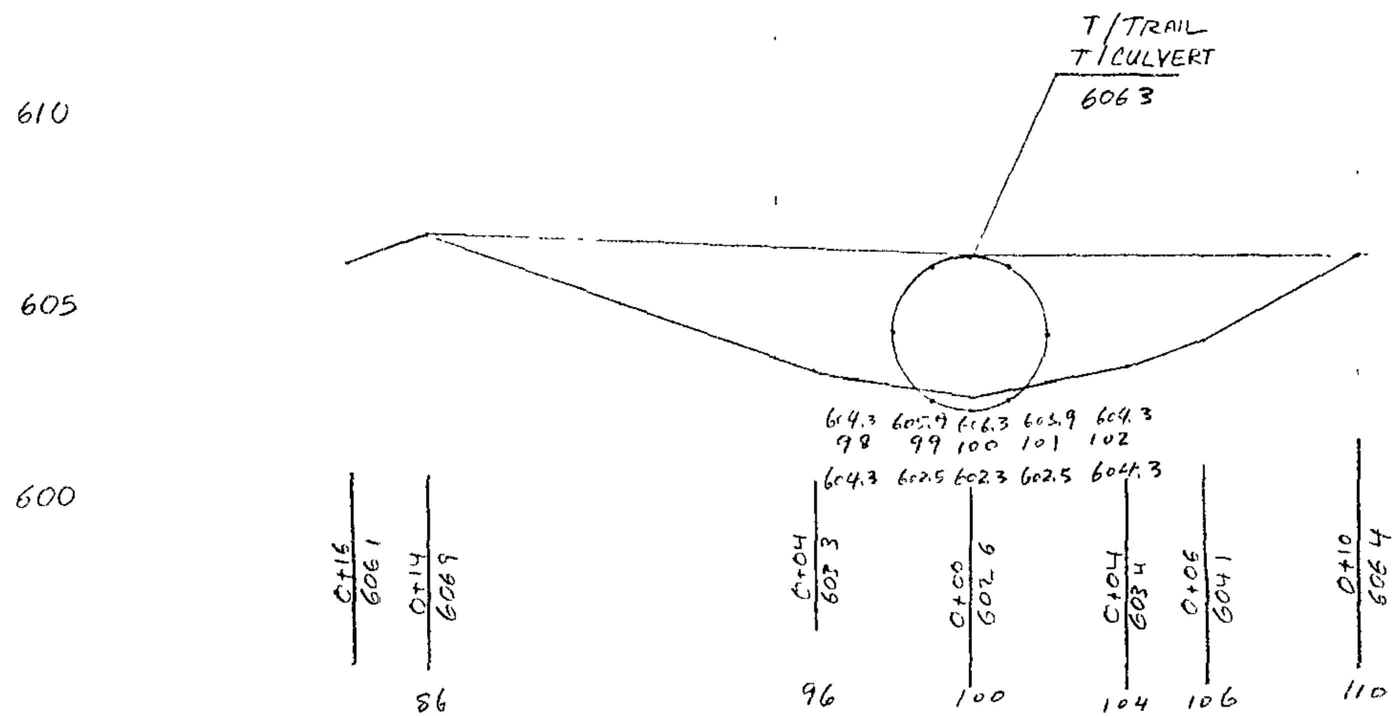
637.2 ~~636.3~~ 637.7 638.5 638.7 638.5 637.7 636.3 636.3 637.7 638.5 ~~638.6~~ 638.5 637.7 636.3

993.2 993.5 994.5 996 997.5 998.5 999 1001 1001.5 1003 1004 1005 1006.5 1007 1010

~~636.3~~ ~~635~~ ~~634.1~~ ~~635~~ ~~634.1~~ 635 636.3 636.3 635 ~~634.1~~ ~~634~~ ~~634.1~~ ~~635~~ 636.3

637.2 636.5 635.2 635 634.9 635.1 635.2 635.5 635.7

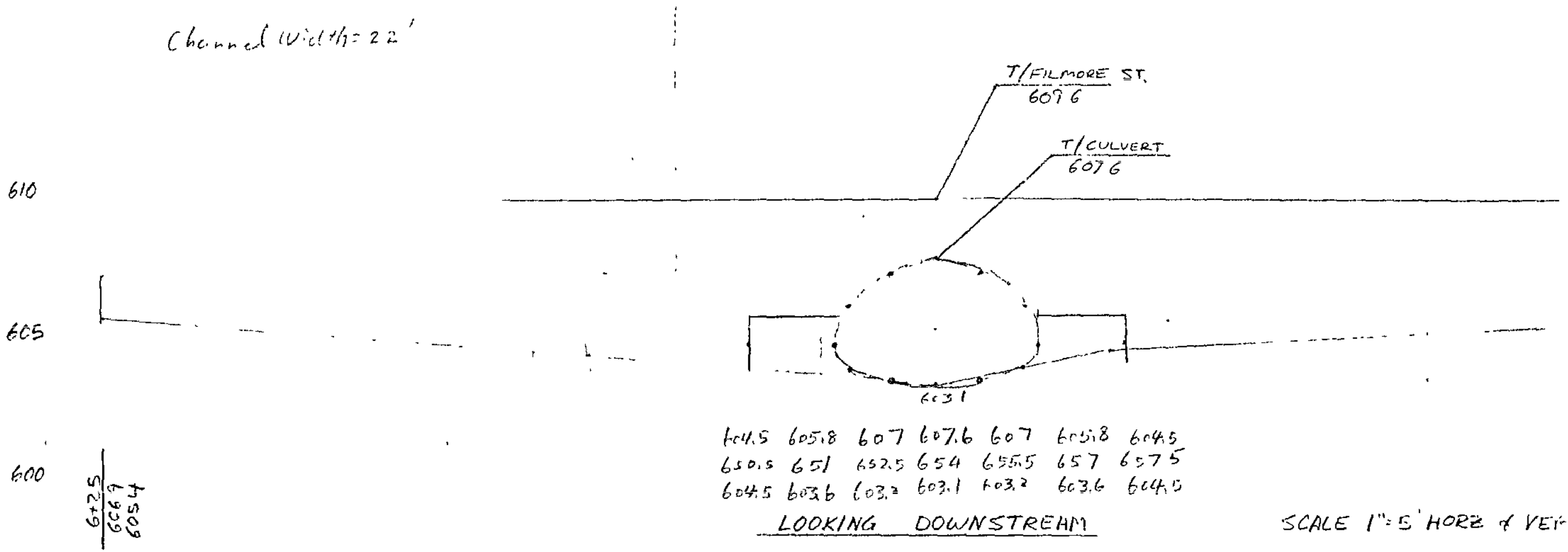
GEORGETOWN TWP., EAST BRANCH LOWING - COMSTOCK DRAIN
STA 0+65 FARM CULVERT 12 5' LONG



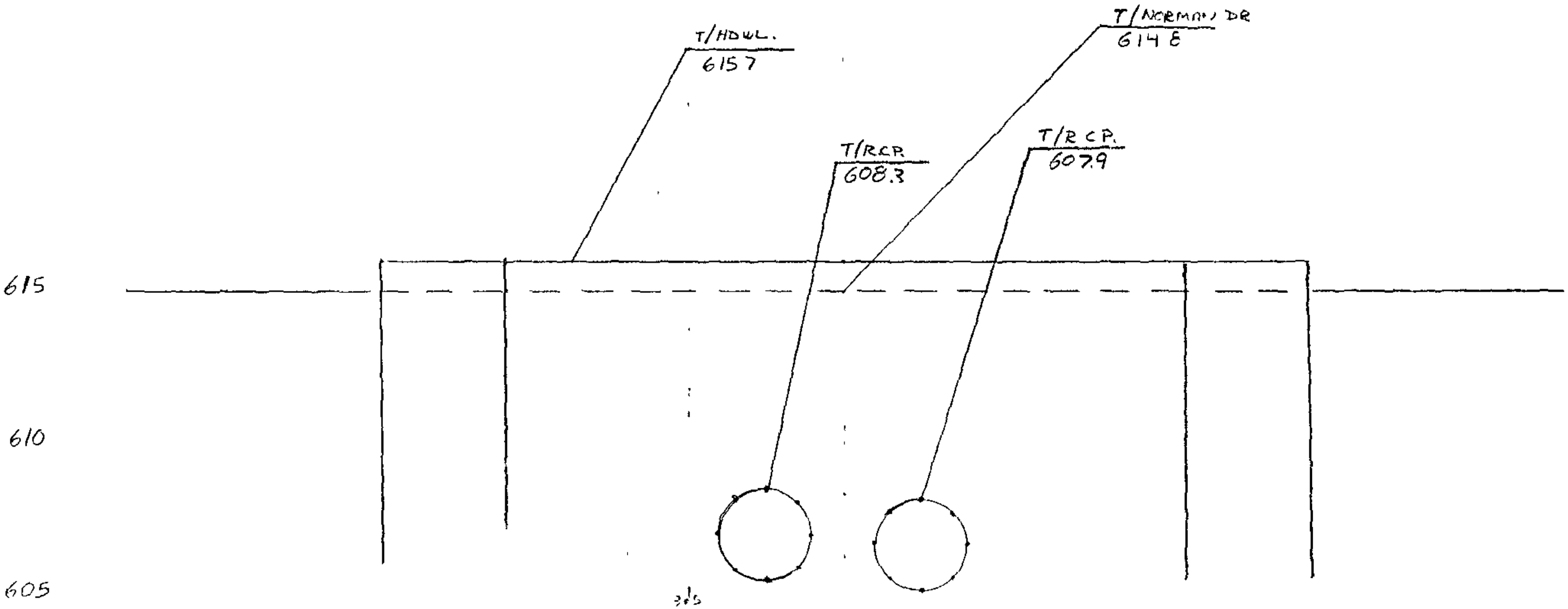
LOOKING DOWNSTREAM

SCALE 1"=5' HORZ & VERT.

GEORGETOWN TWP., EAST BRANCH LOWING-COMSTOCK DRAIN
STA 11+50 FILMORE ST CULVERT
1 7'-1" x 4'-6" C.M.P. 60.5' LONG



GEORGETOWN TWP. EAST BRANCH LOWING-COMSTOCK DRAIN
STA. 36+50 NORMAN DR EXTENSION
2-36" R.C.P.'S 39.5' LONG



606.8 608 605.3 608 606.8 606.5 607.5 607.9 607.5 606.5
306 306.5 307.5 308.5 309 311 311.5 312.5 313.5 314
606.8 605.6 605.3 605.6 606.8 606.5 605.4 604.9 605.4 606.5

LOOKING DOWNSTREAM

SCALE 1"=5' HORZ & VERT.

MSCQCPK

JOB 5042

R2130PR1

PRT1403

EAST BRANCH

SUMMARY 10, 50, 100, 500-YR

Q START 97, 128, 143, 228

@ 1200 116, 179, 198, 309

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1*************************************************
*  WATER SURFACE PROFILES                        *
*  VERSION OF NOVEMBER 1976                      *
*  UPDATED MARCH 1982                            *
*                                                *
*  RUN DATE  82/12/09.  TIME  05.11.07.          *
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**************************************
*  U.S. ARMY CORPS OF ENGINEERS
*  THE HYDROLOGIC ENGINEERING CENTER
*  609 SECOND STREET, SUITE D
*  DAVIS, CALIFORNIA 95616
*   916  440-2105  FTS  448-2105
**************************************
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X     X  XXXXXXX    XXXXX               XXXXX
X     X  X         X     X             X     X
X     X  X         X                         X
XXXXXXX  XXXX      X          XXXXX     XXXXX
X     X  X         X                   X
X     X  X         X     X             X
X     X  XXXXXXX    XXXXX              XXXXXXX
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                                                        THIS RUN EXECUTED  82/12/09.   05.11.07.

 ******************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
 ******************************************

C
T1      LOWING & COMSTOCK-EAST BRANCH,GEORGETOWN TWP, PROJECT NO.8549, LCEAST
T2      LOWING & COMSTOCK DRAIN - EAST BRANCH - LCEASTA
T3      LOWING & COMSTOCK DRAIN - EAST BRANCH

J1  ICHECK     INQ      NINV      IDIR       STRT      METRIC     HVINS      Q        WSEL       FQ
      0.        2.        0.        0.  -1.000000     0.00       0.0       0.    608.000     0.000

J2  NPROF     IPLOT    PREVS     XSECV      XSECH       FN       ALLDC      IBW     CHNIM     ITRACE
     1.000     0.000    -1.000     0.000      0.000     0.000     0.000     0.000     0.000     0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT
   110.000   150.000     0.000     0.000      0.000     0.000     0.000     0.000     0.000     0.000

J5  LPRNT     NUMSEC                 *******REQUESTED SECTION NUMBERS*******
   -10.000   -10.000     0.000     0.000      0.000     0.000     0.000     0.000     0.000     0.000

QT       5.000    97.000   128.000   143.000   228.000   143.000     0.000     0.000     0.000     0.000
NC        .030      .030      .035      .100      .300     0.000     0.000     0.000     0.000     0.000
      A  BACKWATER OF GRAND RIVER 10C-YEAR 602.23
      FARM CULVERT, 4X12.5 CONCRETE PIPE, TR 606.3, LC 606.3


X1      65.000     7.000    98.000   102.000    65.000    65.000    65.000     0.000     0.000     0.000
X3       0.000     0.000     0.000    98.000   606.300   102.000   606.300     0.000     0.000     0.000
GR     606.900     0.000   604.300    98.000   602.500    99.000   602.300   100.000   602.500   101.000
GR     604.300   102.000   606.400   210.000     0.000     0.000     0.000     0.000     0.000     0.000

X1      66.000     0.000     0.000     0.000     1.000     1.000     1.000     0.000     0.000     0.000
X3       0.000     0.000     0.000    98.000   606.300   102.000   606.300     0.000     0.000     0.000
BT       7.000     0.000   606.900   606.900    98.000   606.300   604.300    99.000   606.300   605.900
BT     100.000   606.300   606.300   101.000   606.300   605.900   102.000   606.300   604.300   210.000
BT     606.400   606.400     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1      67.000     0.000     0.000     0.000   -12.500    12.500    12.500     0.000     0.000     0.000
X2       0.000     0.000     0.000     0.000     0.000     0.000     1.000     0.000     0.000     0.000
X3       0.000     0.000     0.000    98.000   606.300   102.000   606.300     0.000     0.000     0.000

X1      68.000     0.000     0.000     0.000     1.000     1.000     1.000     0.000     0.000     0.000
X3       0.000     0.000     0.000    98.000   606.300   102.000   606.300     0.000     0.000     0.000
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NC      0.000     0.000     0.000      .300      .500     0.000     0.000     0.000     0.000     0.000
         B
X1    115.000     6.000    96.000   104.000    50.000    50.000    50.000     0.000     0.000     0.000
GR    606.900     0.000   603.300    96.000   602.600   100.000   603.400   104.000   604.100   106.000
GR    606.400   350.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       .040      .040      .035      .100      .300     0.000     0.000     0.000     0.000     0.000
         C
X1   1100.000    12.000   642.000   660.000  1030.000  1030.000  1030.000     0.000     0.000     0.000
GR    609.100   350.000   608.200   350.000   607.100   400.000   605.400   600.000   605.100   640.000
GR    604.300   642.000   603.200   654.000   604.300   660.000   605.000   662.000   605.300   680.000
GR    604.900   690.000   609.100   900.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.000     0.000     0.000      .300      .500     0.000     0.000     0.000     0.000     0.000
         D  FILMORE ST. CULVERT  7.1X4.5X60.5 CMP, TR 609.6, LC 607.6
X1   1150.000    11.000   650.500   657.500    50.000    50.000    50.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   608.000   608.000     0.000
GR    609.600   300.000   606.700   650.500   604.500   650.500   603.600   651.000   603.200   652.500
GR    603.100   654.000   603.200   655.500   603.600   657.000   604.500   657.500   606.700   657.500
GR    609.600   965.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

SB      0.000     2.660     2.630   665.000     7.000     0.000    25.300     0.000     0.000     0.000
X1   1151.000     0.000     0.000     0.000    60.500    60.500    60.500     0.000     0.000     0.000
X2      0.000     0.000     1.000   607.600   607.600     0.000     0.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   609.600   609.600     0.000
BT      9.000   300.000   609.600   609.600   650.500   609.600   604.500   651.000   609.600   605.800
BT    652.500   609.600   607.000   654.000   609.600   607.600   655.500   609.600   607.000   657.000
BT    609.600   605.800   657.500   609.600   604.500   965.000   609.600   609.600     0.000     0.000

NC       .050      .050      .040     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      5.000   116.000   174.000   193.000   309.000   193.000     0.000     0.000     0.000     0.000
         E
X1   1200.000    10.000   663.000   679.000    50.000    50.000    50.000     0.000     0.000     0.000
GR    608.900     0.000   606.900   600.000   606.900   625.000   605.400   662.000   604.100   663.000
GR    603.200   671.000   604.200   679.000   605.000   682.000   605.200   700.000   605.400  1200.000

NC      0.000     0.000     0.000      .100      .300     0.000     0.000     0.000     0.000     0.000
         F

X1   2400.000     8.000   194.000   206.000  1200.000  1200.000  1200.000     0.000     0.000     0.000
GR    607.300  -800.000   608.300   178.000   604.800   194.000   604.500   200.000   604.800   206.000
GR    606.700   209.000   606.500   225.000   609.400   675.000     0.000     0.000     0.000     0.000

         G
X1   3600.000     0.000     0.000     0.000  1010.000  1010.000  1010.000     0.000     0.000     0.000

NC      0.000     0.000     0.000      .300      .500     0.000     0.000     0.000     0.000     0.000
         H  NORMAN DR. EXTENSION, 2- 3X39.5 CMP,TR 614.8, T/HD WL 614.0, LC 608.3
X1   3650.000    14.000   306.000   314.000    80.000    80.000    80.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   150.000     0.000   450.000     0.000     0.000     0.000     0.000
GR    614.000  -800.000   608.000   306.000   606.800   306.000   605.600   306.500   605.300   307.500
GR    605.600   308.500   606.800   309.000   606.500   311.000   605.400   311.500   604.900   312.500
GR    605.400   313.500   606.500   314.000   608.000   314.000   614.000   820.000     0.000     0.000
1
 82/12/09.   05.11.07.                                                                          PAGE    3

X1   3651.000    14.000   306.000   314.000    50.000    50.000    50.000     0.000     0.000     0.000
GR    614.000  -500.000   608.000   306.000   606.800   306.000   605.600   306.500   605.300   307.500
GR    605.600   308.500   606.800   309.000   606.500   311.000   605.400   311.500   604.900   312.500
GR    605.400   313.500   606.500   314.000   608.000   314.000   614.000   820.000     0.000     0.000

SB      1.250     1.500     2.640   600.000     8.000     2.000    14.140     0.000     0.000     0.000
X1   3652.000     0.000     0.000     0.000    40.000    40.000    40.000     0.000     0.000     0.000
X2      0.000     0.000     1.000   607.900   614.800     0.000     0.000     0.000     0.000     0.000
X5      5.000   609.600   611.180   611.940   612.070   611.940     0.000     0.000     0.000     0.000
BT     12.000  -500.000   614.800   614.800   306.000   614.800   608.000   306.500   614.800   608.000
BT    307.500   614.800   608.300   308.500   614.800   608.000   309.000   614.800   606.800   311.000
BT    614.800   606.500   311.500   614.800   607.500   312.500   614.800   607.900   313.500   614.800
BT    607.500   314.000   614.800   608.000   820.000   614.800   614.800     0.000     0.000     0.000

         I
X1   3700.000     9.000   195.000   208.000    50.000    50.000    50.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   100.000     0.000   300.000     0.000     0.000     0.000     0.000
GR    609.200  -500.000   609.200   100.000   609.100   195.000   606.800   197.000   606.100   200.000
GR    606.900   203.000   607.800   205.000   609.700   208.000   609.600  1000.000     0.000     0.000
         J
X1   5000.000     0.000     0.000     0.000  1350.000  1350.000  1350.000     0.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
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                                                                  THIS RUN EXECUTED  82/12/09.   05.11.09.
 ****************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ****************************************************

 T1
 T2
 T3

 J1  ICHECK     INQ      NINV      IDIR      STRT     METRIC     HVINS       Q       WSEL        FQ
        0.        3.       0.        0.  -1.000000    0.00       0.0        0.   608.000     0.000
 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH       FN      ALLDC      IBW     CHNIM     ITRACE
      2.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
 82/12/09.   05.11.07.                                                                   PAGE    5

                                                                  THIS RUN EXECUTED  82/12/09.   05.11.10.
 ****************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ****************************************************

 T1
 T2
 T3
 J1  ICHECK     INQ      NINV      IDIR      STRT     METRIC     HVINS       Q       WSEL        FQ
        0.        4.       0.        0.  -1.000000    0.00       0.0        0.   608.000     0.000
 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH       FN      ALLDC      IBW     CHNIM     ITRACE
      3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
 82/12/09.   05.11.07.                                                                   PAGE    6

                                                                  THIS RUN EXECUTED  82/12/09.   05.11.10.
 ****************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ****************************************************

 T1
 T2
 T3
 J1  ICHECK     INQ      NINV      IDIR      STRT     METRIC     HVINS       Q       WSEL        FQ
        0.        5.       0.        0.  -1.000000    0.00       0.0        0.   608.000     0.000
 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH       FN      ALLDC      IBW     CHNIM     ITRACE
     15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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THIS RUN EXECUTED 82/12/09. 05.11.11.

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**********************************************
HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

LOWING & COMSTOCK DRAIN

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	65.000	605.53	-2.47	606.85	4.00	0.00	97.00	0.00	4.00	98.00	98.00	102.00	102.00
*	65.000	606.67	-1.33	606.80	171.94	12.54	59.33	56.12	4.00	98.00	98.00	102.00	102.00
*	65.000	606.68	-1.32	606.83	174.78	15.00	63.18	64.82	4.00	98.00	98.00	102.00	102.00
*	65.000	606.83	-1.17	606.98	199.18	36.76	68.83	122.41	4.00	98.00	98.00	102.00	102.00
*	66.000	606.54	0.00	606.71	151.52	6.98	48.88	41.14	4.00	98.00	98.00	102.00	102.00
	66.000	606.76	0.00	606.81	186.19	20.44	29.97	77.60	4.00	98.00	98.00	102.00	102.00
	66.000	606.78	0.00	606.84	190.41	24.18	31.01	87.81	4.00	98.00	98.00	102.00	102.00
	66.000	606.91	0.00	606.99	210.00	49.17	34.85	143.99	4.00	98.00	98.00	102.00	102.00
	67.000	606.75	0.00	606.78	185.54	15.34	22.99	58.67	4.00	98.00	98.00	102.00	102.00
	67.000	606.82	0.00	606.85	196.33	23.28	25.06	79.66	4.00	98.00	98.00	102.00	102.00
	67.000	606.85	0.00	606.89	201.51	27.55	25.72	89.73	4.00	98.00	98.00	102.00	102.00
	67.000	606.98	0.00	607.04	210.00	55.42	29.88	142.69	4.00	98.00	98.00	102.00	102.00
	68.000	606.75	0.00	606.79	185.92	12.74	35.76	48.50	4.00	98.00	98.00	102.00	102.00
	68.000	606.81	0.00	606.86	197.06	20.04	39.85	68.11	4.00	98.00	98.00	102.00	102.00
	68.000	606.84	0.00	606.89	201.97	23.93	41.48	77.59	4.00	98.00	98.00	102.00	102.00
	68.000	606.98	0.00	607.04	210.00	50.49	49.18	128.33	4.00	98.00	98.00	102.00	102.00
	115.000	606.80	0.00	606.80	347.33	28.09	7.51	61.40	0.00	0.00	96.00	104.00	0.00
	115.000	606.86	0.00	606.88	349.37	36.63	9.56	81.81	0.00	0.00	96.00	104.00	0.00
	115.000	606.91	0.00	606.91	350.00	40.78	10.51	91.71	0.00	0.00	96.00	104.00	0.00
	115.000	607.07	0.00	607.07	350.00	54.88	15.56	147.55	0.00	0.00	96.00	104.00	0.00
	1100.000	606.81	0.00	606.81	351.42	37.27	26.84	32.90	0.00	0.00	642.00	660.00	0.00
	1100.000	606.89	0.00	606.89	365.01	50.52	33.81	43.66	0.00	0.00	642.00	660.00	0.00
	1100.000	606.93	0.00	606.93	371.07	57.09	37.03	48.89	0.00	0.00	642.00	660.00	0.00
	1100.000	607.10	0.00	607.11	399.52	95.47	53.93	78.60	0.00	0.00	642.00	660.00	0.00
	1150.000	606.68	0.00	606.95	7.00	0.00	97.00	0.00	0.00	0.00	650.50	657.50	0.00
	1150.000	606.66	0.00	607.14	7.00	0.00	128.00	0.00	0.00	0.00	650.50	657.50	0.00
	1150.000	606.63	0.00	607.25	7.00	0.00	143.00	0.00	0.00	0.00	650.50	657.50	0.00
*	1150.000	606.58	0.00	608.19	7.00	0.00	228.00	0.00	0.00	0.00	650.50	657.50	0.00

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SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
1151.000	606.93	0.00	607.30	7.00	0.00	97.00	0.00	0.00	0.00	650.50	657.50	0.00
1151.000	607.21	0.00	607.73	7.00	0.00	128.00	0.00	0.00	0.00	650.50	657.50	0.00
1151.000	607.35	0.00	607.99	7.00	0.00	143.00	0.00	0.00	0.00	650.50	657.50	0.00
1151.000	609.63	0.00	609.64	665.00	111.40	18.87	97.73	0.00	0.00	650.50	657.50	0.00
1200.000	607.39	0.00	607.39	747.26	4.44	10.05	101.51	0.00	0.00	663.00	679.00	0.00
1200.000	607.89	0.00	607.89	896.21	12.45	12.76	148.79	0.00	0.00	663.00	679.00	0.00
1200.000	608.18	0.00	608.18	983.10	18.32	12.99	161.68	0.00	0.00	663.00	679.00	0.00
1200.000	609.64	0.00	609.64	1200.00	72.05	14.47	222.48	0.00	0.00	663.00	679.00	0.00
2400.000	607.38	0.00	607.42	262.74	14.08	61.82	40.10	0.00	0.00	194.00	206.00	0.00
2400.000	607.90	0.00	607.90	846.36	50.64	50.58	72.78	0.00	0.00	194.00	206.00	0.00
2400.000	608.19	0.00	608.19	1174.19	80.03	37.96	75.01	0.00	0.00	194.00	206.00	0.00
2400.000	609.64	0.00	609.64	1475.00	204.84	15.90	88.26	0.00	0.00	194.00	206.00	0.00

	3600.000	608.06	0.00	608.08	1052.66	64.71	39.45	59.64	0.00	0.00	194.00	206.00	0.00
	3600.000	608.25	0.00	608.23	1230.40	86.57	33.67	72.77	0.00	0.00	194.00	206.00	0.00
	3600.000	609.64	0.00	609.65	1475.00	204.82	15.95	88.23	0.00	0.00	194.00	206.00	0.00
*	3650.000	608.46	0.00	608.67	131.28	18.77	88.65	8.59	300.00	150.00	306.00	314.00	450.00
*	3650.000	608.62	0.00	608.85	175.41	46.17	106.70	21.12	300.00	150.00	306.00	314.00	450.00
*	3650.000	608.66	0.00	608.89	185.82	55.61	111.95	25.44	300.00	150.00	306.00	314.00	450.00
	3650.000	609.64	0.00	609.66	300.00	175.42	51.63	81.96	300.00	150.00	306.00	314.00	450.00
	3651.000	608.85	0.00	608.90	192.45	35.88	57.59	22.53	0.00	0.00	306.00	314.00	0.00
	3651.000	609.05	0.00	609.09	239.31	66.62	65.56	41.82	0.00	0.00	306.00	314.00	0.00
	3651.000	609.10	0.00	609.15	249.00	76.28	68.83	47.89	0.00	0.00	306.00	314.00	0.00
	3651.000	609.68	0.00	609.70	375.04	153.50	59.13	96.37	0.00	0.00	306.00	314.00	0.00
*	3652.000	609.60	0.00	609.60	357.87	56.57	23.92	35.51	0.00	0.00	306.00	314.00	0.00
*	3652.000	611.18	0.00	611.18	703.36	99.48	12.08	62.45	0.00	0.00	306.00	314.00	0.00
*	3652.000	611.94	0.00	611.94	869.55	112.65	9.64	70.72	0.00	0.00	306.00	314.00	0.00
*	3652.000	612.07	0.00	612.07	897.97	180.81	14.69	113.50	0.00	0.00	306.00	314.00	0.00
	3700.000	609.58	0.00	609.67	107.81	33.56	82.44	0.00	200.00	100.00	195.00	208.00	300.00
	3700.000	611.18	0.00	611.18	200.00	85.73	38.78	49.49	200.00	100.00	195.00	208.00	300.00
	3700.000	611.94	0.00	611.94	200.00	94.67	34.29	64.04	200.00	100.00	195.00	208.00	300.00
	3700.000	612.07	0.00	612.07	200.00	151.42	53.32	104.26	200.00	100.00	195.00	208.00	300.00
	5000.000	609.91	0.00	609.91	1500.00	83.94	14.99	17.07	0.00	0.00	195.00	208.00	0.00
	5000.000	611.19	0.00	611.19	1500.00	96.50	6.08	71.42	0.00	0.00	195.00	208.00	0.00
	5000.000	611.95	0.00	611.95	1500.00	101.98	5.09	85.93	0.00	0.00	195.00	208.00	0.00
	5000.000	612.03	0.00	612.03	1500.00	162.26	7.85	138.89	0.00	0.00	195.00	208.00	0.00

LOWING & COMSTOCK DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	65.000	0.00	0.00	0.00	602.30	97.00	605.53	605.53	606.85	362.01	9.23	10.51	5.10
*	65.000	0.00	0.00	0.00	602.30	128.00	606.67	606.67	606.80 ←	50.85	3.94	60.30	17.95
*	65.000	0.00	0.00	0.00	602.30	143.00	606.68	606.68	606.83 ←	56.78	4.17	63.32	18.98
*	65.000	0.00	0.00	0.00	602.30	228.00	606.83	606.83	606.98	59.22	4.37	91.25	29.63
*	66.000	1.00	606.30	606.90	602.30	97.00	606.54	606.54	606.71	145.18	4.15	37.28	8.05
	66.000	1.00	606.30	606.90	602.30	128.00	606.76	0.00	606.81	43.27	2.33	73.12	19.46
	66.000	1.00	606.30	606.90	602.30	143.00	606.78	0.00	606.84	45.09	2.44	77.99	21.30
	66.000	1.00	606.30	606.90	602.30	228.00	606.91	0.00	606.99	49.71	2.63	104.56	32.34
	67.000	12.50	606.30	606.90	602.30	97.00	606.75	0.00	606.73	25.57	1.62	72.38	19.18
	67.000	12.50	606.30	606.90	602.30	128.00	606.82	0.00	606.86	28.36	1.95	84.99	24.04
	67.000	12.50	606.30	606.90	602.30	143.00	606.85	0.00	606.89	28.90	1.98	91.30	25.60
	67.000	12.50	606.30	606.90	602.30	228.00	606.98	0.00	607.04	34.35	2.21	117.73	38.90
	68.000	1.00	0.00	0.00	602.30	97.00	606.75	0.00	606.79	17.14	2.32	75.62	23.43
	68.000	1.00	0.00	0.00	602.30	128.00	606.81	0.00	606.86	20.07	2.54	88.68	23.57
	68.000	1.00	0.00	0.00	602.30	143.00	606.84	0.00	606.89	21.20	2.62	94.68	31.06
	68.000	1.00	0.00	0.00	602.30	228.00	606.98	0.00	607.04	26.72	3.01	122.08	44.11
	115.000	50.00	0.00	0.00	602.60	97.00	606.80	0.00	606.80	.06	.25	578.20	405.55
	115.000	50.00	0.00	0.00	602.60	128.00	606.88	0.00	606.88	.09	.31	604.79	434.67
	115.000	50.00	0.00	0.00	602.60	143.00	606.91	0.00	606.91	.10	.33	616.61	448.08
	115.000	50.00	0.00	0.00	602.60	228.00	607.07	0.00	607.07	.20	.48	671.17	514.71
	1100.000	1030.00	0.00	0.00	603.20	97.00	606.81	0.00	606.81	.30	.49	381.23	177.19
	1100.000	1030.00	0.00	0.00	603.20	128.00	606.89	0.00	606.89	.44	.60	410.27	193.84
	1100.000	1030.00	0.00	0.00	603.20	143.00	606.93	0.00	606.93	.50	.65	423.57	201.59
	1100.000	1030.00	0.00	0.00	603.20	228.00	607.10	0.00	607.11	.90	.90	488.95	240.66
	1150.000	50.00	0.00	0.00	603.10	97.00	606.68	0.00	606.95	43.55	4.21	23.06	14.70
	1150.000	50.00	0.00	0.00	603.10	128.00	606.66	0.00	607.14	76.97	5.58	22.92	14.59
	1150.000	50.00	0.00	0.00	603.10	143.00	606.63	0.00	607.25	98.02	6.29	22.75	14.44
*	1150.000	50.00	0.00	0.00	603.10	228.00	606.58	606.58	608.19	261.16	10.20	22.35	14.11
	1151.000	60.50	607.60	607.60	603.10	97.00	606.98	0.00	607.30	67.24	4.49	21.60	11.83
	1151.000	60.50	607.60	607.60	603.10	128.00	607.21	0.00	607.73	119.09	5.77	22.18	11.73
	1151.000	60.50	607.60	607.60	603.10	143.00	607.35	0.00	607.99	152.90	6.36	22.40	11.56
	1151.000	60.50	609.60	607.60	603.10	228.00	609.63	0.00	609.64	.20	.43	1021.11	515.30
	1200.000	50.00	0.00	0.00	603.20	116.00	607.39	0.00	607.39	.04	.17	1251.46	608.87
	1200.000	50.00	0.00	0.00	603.20	174.00	607.89	0.00	607.89	.04	.19	1659.45	886.5[illegible]

1200.000	50.00	0.00	0.00	603.20	193.00	608.18	0.00	608.18	.03	.13	1931.61	1078.80
1200.000	50.00	0.00	0.00	603.20	309.00	609.64	0.00	609.64	.02	.15	3603.53	2476.28

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	2400.000	1200.00	0.00	0.00	604.50	116.00	607.38	0.00	607.42	6.74	1.88	129.74	44.70
	2400.000	1200.00	0.00	0.00	604.50	174.00	607.90	0.00	607.90	2.54	1.30	414.20	109.13
	2400.000	1200.00	0.00	0.00	604.50	193.00	608.19	0.00	608.19	1.08	.89	705.30	185.84
	2400.000	1200.00	0.00	0.00	604.50	309.00	609.64	0.00	609.64	.06	.27	2741.87	1265.09
	3600.000	1010.00	0.00	0.00	604.50	116.00	607.75	0.00	607.76	2.01	1.12	298.51	81.92
	3600.000	1010.00	0.00	0.00	604.50	174.00	608.08	0.00	608.08	1.29	.96	586.37	153.18
	3600.000	1010.00	0.00	0.00	604.50	193.00	608.28	0.00	608.23	.73	.77	819.87	218.85
	3600.000	1010.00	0.00	0.00	604.50	309.00	609.64	0.00	609.65	.06	.27	2733.50	1258.84
*	3650.000	80.00	0.00	0.00	604.90	116.00	608.46	608.46	608.67	75.39	4.22	49.31	13.36
*	3650.000	80.00	0.00	0.00	604.90	174.00	608.62	608.62	608.85	89.25	4.73	74.49	18.42
*	3650.000	80.00	0.00	0.00	604.90	193.00	608.66	608.66	608.89	93.84	4.94	81.49	19.92
	3650.000	80.00	0.00	0.00	604.90	309.00	609.64	0.00	609.66	7.38	1.69	335.28	113.71
	3651.000	50.00	0.00	0.00	604.90	116.00	608.85	0.00	608.90	20.18	2.39	101.89	25.82
	3651.000	50.00	0.00	0.00	604.90	174.00	609.05	0.00	609.09	20.80	2.54	148.16	38.16
	3651.000	50.00	0.00	0.00	604.90	193.00	609.10	0.00	609.15	21.91	2.63	158.97	41.24
	3651.000	50.00	0.00	0.00	604.90	309.00	609.68	0.00	609.70	9.41	1.92	336.82	100.73
*	3652.000	40.00	100000.00	100000.00	604.90	116.00	609.60	0.00	609.60	1.65	.79	310.04	90.31
*	3652.000	40.00	100000.00	100000.00	604.90	174.00	611.18	0.00	611.18	.13	.28	1148.41	481.01
*	3652.000	40.00	100000.00	100000.00	604.90	193.00	611.94	0.00	611.94	.05	.20	1746.12	834.34
*	3652.000	40.00	100000.00	100000.00	604.90	309.00	612.07	0.00	612.07	.12	.29	1861.01	907.51
	3700.000	50.00	0.00	0.00	606.10	116.00	609.58	0.00	609.67	24.29	2.86	59.34	23.54
	3700.000	50.00	0.00	0.00	606.10	174.00	611.18	0.00	611.18	.90	.73	379.03	183.89
	3700.000	50.00	0.00	0.00	606.10	193.00	611.94	0.00	611.94	.38	.55	531.08	312.19
	3700.000	50.00	0.00	0.00	606.10	309.00	612.07	0.00	612.07	.84	.87	556.92	335.71
	5000.000	1350.00	0.00	0.00	606.10	116.00	609.91	0.00	609.91	.52	.45	725.28	160.81
	5000.000	1350.00	0.00	0.00	606.10	174.00	611.19	0.00	611.19	.02	.12	2662.65	1180.69
	5000.000	1350.00	0.00	0.00	606.10	193.00	611.95	0.00	611.95	.01	.09	3791.18	2108.29
	5000.000	1350.00	0.00	0.00	606.10	309.00	612.08	0.00	612.08	.02	.13	3996.96	2300.21

LOWING & COMSTOCK DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	65.000	97.00	605.53	0.00	0.00	-2.47	4.00	0.00
*	65.000	128.00	606.67	1.14	0.00	-1.33	171.94	0.00
*	65.000	143.00	606.68	.02	0.00	-1.32	174.78	0.00
*	65.000	228.00	606.83	.15	0.00	-1.17	199.18	0.00
*	66.000	97.00	606.54	0.00	1.01	0.00	151.52	1.00
	66.000	128.00	606.76	.22	.09	0.00	186.19	1.00
	66.000	143.00	606.78	.03	.10	0.00	190.41	1.00
	66.000	228.00	606.91	.12	.07	0.00	210.00	1.00
	67.000	97.00	606.75	0.00	.21	0.00	185.54	12.50
	67.000	128.00	606.82	.07	.06	0.00	196.33	12.50
	67.000	143.00	606.85	.03	.06	0.00	201.51	12.50
	67.000	228.00	606.98	.13	.07	0.00	210.00	12.50
	68.000	97.00	606.75	0.00	-.00	0.00	185.92	1.00
	68.000	128.00	606.81	.07	-.00	0.00	197.06	1.00
	68.000	143.00	606.84	.03	-.00	0.00	201.97	1.00
	68.000	228.00	606.98	.13	-.00	0.00	210.00	1.00
	115.000	97.00	606.80	0.00	.05	0.00	347.33	50.00
	115.000	128.00	606.83	.08	.06	0.00	349.37	50.00

	115.000	143.00	606.91	.03	.07	0.00	350.00	50.00
	115.000	228.00	607.07	.16	.09	0.00	350.00	50.00
	1100.000	97.00	606.81	0.00	.01	0.00	351.42	1030.00
	1100.000	128.00	606.89	.08	.02	0.00	365.01	1030.00
	1100.000	143.00	606.93	.04	.02	0.00	371.07	1030.00
	1100.000	228.00	607.10	.17	.04	0.00	399.52	1030.00
	1150.000	97.00	606.68	0.00	-.13	0.00	7.00	50.00
	1150.000	128.00	606.66	-.02	-.23	0.00	7.00	50.00
	1150.000	143.00	606.63	-.03	-.30	0.00	7.00	50.00
*	1150.000	228.00	606.58	-.05	-.52	0.00	7.00	50.00
	1151.000	97.00	606.93	0.00	.30	0.00	7.00	60.50
	1151.000	128.00	607.21	.23	.56	0.00	7.00	60.50
	1151.000	143.00	607.35	.14	.72	0.00	7.00	60.50
	1151.000	228.00	609.63	2.28	3.06	0.00	665.00	60.50
	1200.000	116.00	607.39	0.00	.41	0.00	747.26	50.00
	1200.000	174.00	607.89	.50	.67	0.00	896.21	50.00
	1200.000	193.00	608.18	.29	.82	0.00	983.10	50.00
	1200.000	309.00	609.64	1.46	.00	0.00	1200.00	50.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2400.000	116.00	607.38	0.00	-.01	0.00	262.74	1200.00
	2400.000	174.00	607.90	.51	.01	0.00	846.36	1200.00
	2400.000	193.00	608.19	.29	.01	0.00	1174.19	1200.00
	2400.000	309.00	609.64	1.45	.00	0.00	1475.00	1200.00
	3600.000	116.00	607.75	0.00	.37	0.00	673.12	1010.00
	3600.000	174.00	608.08	.33	.18	0.00	1052.66	1010.00
	3600.000	193.00	608.28	.20	.09	0.00	1280.40	1010.00
	3600.000	309.00	609.64	1.37	.01	0.00	1475.00	1010.00
*	3650.000	116.00	608.46	0.00	.71	0.00	131.28	80.00
*	3650.000	174.00	608.62	.16	.54	0.00	175.41	80.00
*	3650.000	193.00	608.66	.04	.38	0.00	185.82	80.00
	3650.000	309.00	609.64	.98	-.01	0.00	300.00	80.00
	3651.000	116.00	608.85	0.00	.39	0.00	192.45	50.00
	3651.000	174.00	609.05	.20	.43	0.00	239.31	50.00
	3651.000	193.00	609.10	.05	.44	0.00	249.00	50.00
	3651.000	309.00	609.68	.58	.04	0.00	375.04	50.00
*	3652.000	116.00	609.60	0.00	.75	0.00	357.87	40.00
*	3652.000	174.00	611.18	1.58	2.13	0.00	703.36	40.00
*	3652.000	193.00	611.94	.76	2.84	0.00	869.55	40.00
*	3652.000	309.00	612.07	.13	2.39	0.00	897.97	40.00
	3700.000	116.00	609.58	0.00	-.02	0.00	107.81	50.00
	3700.000	174.00	611.18	1.60	-.00	0.00	200.00	50.00
	3700.000	193.00	611.94	.76	-.00	0.00	200.00	50.00
	3700.000	309.00	612.07	.13	-.00	0.00	200.00	50.00
	5000.000	116.00	609.91	0.00	.33	0.00	1500.00	1350.00
	5000.000	174.00	611.19	1.28	.01	0.00	1500.00	1350.00
	5000.000	193.00	611.95	.75	.01	0.00	1500.00	1350.00
	5000.000	309.00	612.08	.14	.01	0.00	1500.00	1350.00

1

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO    65.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO    65.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO    65.000  PROFILE  3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO    65.000  PROFILE  4  CRITICAL DEPTH ASSUMED

CAUTION  SECNO    66.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO    66.000  PROFILE  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION   SECNO   1150.000   PROFILE   4   CRITICAL DEPTH ASSUMED
CAUTION   SECNO   1150.000   PROFILE   4   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO   1150.000   PROFILE   4   20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION   SECNO   3650.000   PROFILE   1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO   3650.000   PROFILE   1   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO   3650.000   PROFILE   1   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO   3650.000   PROFILE   2   CRITICAL DEPTH ASSUMED
CAUTION   SECNO   3650.000   PROFILE   2   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO   3650.000   PROFILE   2   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO   3650.000   PROFILE   3   CRITICAL DEPTH ASSUMED
CAUTION   SECNO   3650.000   PROFILE   3   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO   3650.000   PROFILE   3   20 TRIALS ATTEMPTED TO BALANCE WSEL

NOTE      SECNO   3652.000   PROFILE   1   WSEL BASED ON X5 CARD
NOTE      SECNO   3652.000   PROFILE   2   WSEL BASED ON X5 CARD
NOTE      SECNO   3652.000   PROFILE   3   WSEL BASED ON X5 CARD
CAUTION   SECNO   3652.000   PROFILE   3   HYDRAULIC JUMP D.S.
NOTE      SECNO   3652.000   PROFILE   4   WSEL BASED ON X5 CARD
CAUTION   SECNO   3652.000   PROFILE   4   HYDRAULIC JUMP D.S.
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                                                  THIS RUN EXECUTED  82/12/09.   05.11.12.

**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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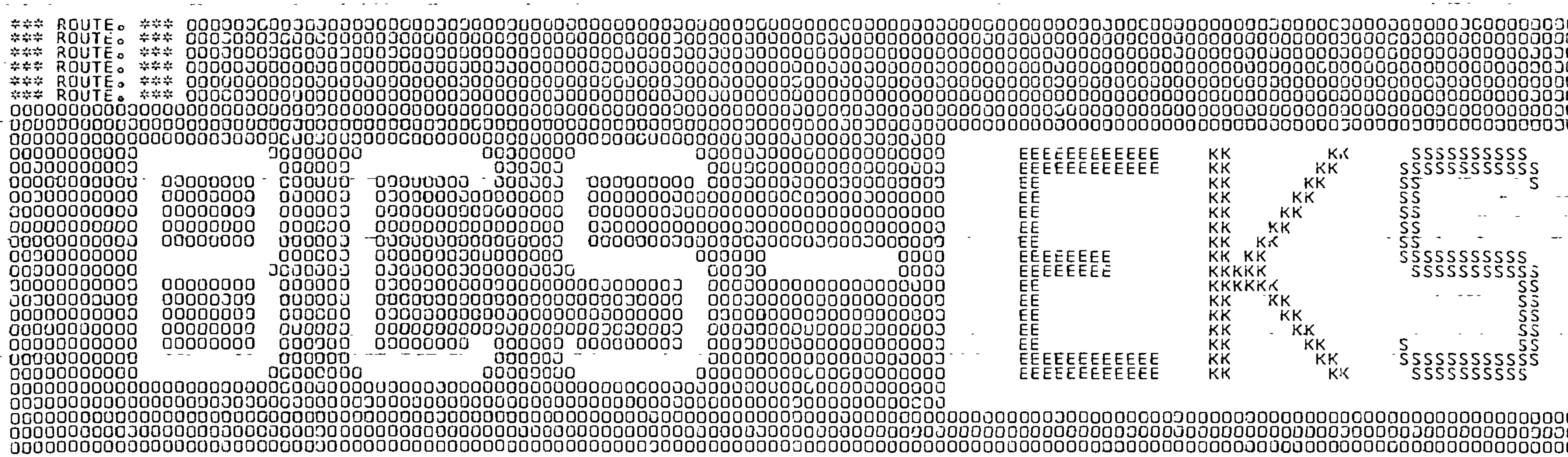


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05.11.13. 82/12/09.EKS1 760K.N0501.69 A 82/12/05.DS-0

ROUTING JOB NAME    MSCOCPGE, USER    GOVE01     PRIORITY P04.
05.11.14. ROUTED FILE NAME-    HEC2OUT  SHIFTED    PRIORITY P02.

LENGTH IN PRUS IS                  81.
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1) COUNTY: OTTAWA

2) STUDY NAME: GEORGETOWN TWP

3) WATERCOURSE: WATSON DRAIN

4) DOCUMENT TYPE: SUMMARY

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GR    594.800   101.500   596.300   103.000   598.000   103.400   603.700   175.000     0.000     0.000

NC       .030      .030      .030     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT      5.000    92.000   142.000   163.000   206.000   163.000     0.000     0.000     0.000     0.000
        J
X1   2950.000     8.000    82.000   125.000   100.000   100.000   100.000     0.000     0.000     0.000
GR    604.000     0.000   603.700    82.000   595.200    97.000   594.900   100.000   595.200   105.000
GR    596.500   106.000   603.700   125.000   608.000   150.000     0.000     0.000     0.000     0.000

NC      0.000     0.000     0.000      .100      .300     0.000     0.000     0.000     0.000     0.000
        K
X1   3500.000    17.000   104.000   230.000   500.000   500.000   500.000     0.000     0.000     0.000
GR    605.800     5.000   606.000    32.000   602.400    40.000   597.100    80.000   596.700    84.000
GR    595.100    93.000   594.400    94.000   593.600   104.000   590.700   106.000   594.700   185.000
GR    595.500   192.000   596.100   200.000   596.700   202.000   598.800   204.000   605.100   230.000
GR    605.700   245.000   607.700   246.000     0.000     0.000     0.000     0.000     0.000     0.000


NC      0.000     0.000     0.000      .300      .500     0.000     0.000     0.000     0.000     0.000
        L   PAVED TRAIL, 6.5X61 CMP, TR 604.8, LC 603.3
X1   3600.000    11.000    96.700   103.200   120.000   120.000   120.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   603.500   603.500     0.000
GR    604.800     0.000   604.800    72.500   600.000    96.700   599.000    97.000   597.300    98.500
GR    596.800   100.000   597.300   101.500   599.000   103.000   600.000   103.200   604.800   121.000
GR    604.800   200.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
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SB      0.000     2.100     2.500     0.000     6.500     0.000    33.200     0.000     0.000     0.000
X1   3601.000     0.000     0.000     0.000    61.000    61.000    61.000     0.000     0.000     0.000
X2      0.000     0.000     1.000   603.300   604.800     0.000     0.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000   604.800   604.800     0.000
BT      9.000    90.000   604.800   604.800    96.700   604.800   600.000    97.000   604.800   601.000
BT     98.500   604.800   603.000   100.000   604.800   603.300   101.500   604.800   603.000   103.000
BT    604.800   601.000   103.200   604.800   600.000   110.000   604.800   604.800     0.000     0.000

        M
X1   3800.000     8.000    72.500   121.000   100.000   100.000   100.000     0.000     0.000     0.000
X3      0.000     0.000     0.000     0.000     0.000   150.000     0.000     0.000     0.000     0.000
GR    604.800     0.000   604.800    72.500   597.900    92.000   597.100    93.000   597.000   100.000
GR    597.400   104.000   604.800   121.000   604.800   200.000     0.000     0.000     0.000     0.000

NC       .050      .050      .040      .100      .300     0.000     0.000     0.000     0.000     0.000
QT      5.000    54.000    86.000    99.000   123.000    99.000     0.000     0.000     0.000     0.000
        N
X1   5500.000    14.000   347.000   381.000  1750.000  1750.000  1750.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   215.000     0.000   515.000     0.000     0.000     0.000     0.000
GR    608.900     0.000   604.400    79.000   603.700   237.000   604.000   338.000   604.300   347.000
GR    602.400   351.000   600.000   355.000   598.700   360.000   600.000   366.000   600.200   358.000
GR    603.400   371.000   605.400   381.000   603.800   408.000   605.500   842.000     0.000     0.000

QT      5.000    31.000    53.000    61.000    73.000    61.000     0.000     0.000     0.000     0.000
        O
X1   6950.000     6.000    86.000   301.000  2500.000  2500.000  2500.000     0.000     0.000     0.000
GR    606.500     0.000   605.500    86.000   599.000   194.000   598.600   200.000   599.000   206.000
GR    609.200   301.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
EJ      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
*PROF 1
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


CCHV      .100 CEHV      .300
*SECNO 650.000
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       593.00 ELREA       593.00
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       A  BACKWATER OF GRAND RIVER 100-YEAR 604.78
          DIRT TRAIL, 5.3X7.3X21 CMP, TR 593, LC 592.7
    650.00       2.52    589.92    589.92    595.00    591.06      1.14      0.00      0.00    588.50
      137.         0.      137.        0.        0.       16.        0.        0.        0.    588.50
      0.00       0.00      8.57      0.00      .040      .035      .040     0.000    587.40     53.20
   .015665       650.      650.      650.         0        16         0      0.00      7.10     60.30
 0
  *SECNO 651.000

  3370 NORMAL BRIDGE,NRD   9 MIN ELTRD   593.00 MAX ELLC    593.60

  7185 MINIMUM SPECIFIC ENERGY
  3720 CRITICAL DEPTH ASSUMED

  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA        593.00 ELREA        593.00

    651.00       2.51    589.91    589.91      0.00    591.10      1.19       .02       .01    588.50
      137.         0.      137.        0.        0.       16.        0.        0.        0.    588.50
       .00       0.00      3.74      0.00      .040      .035      .040     0.000    587.40     53.20
   .024433         1.        1.        1.         2        15         0      -.86      7.10     60.30
 0
  *SECNO 652.000

  3301 HV CHANGED MORE THAN HVINS

  3370 NORMAL BRIDGE,NRD   9 MIN ELTRD   593.00 MAX ELLC    593.60

  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA        593.00 ELREA        593.00

    652.00       3.46    590.86      0.00      0.00    591.48       .61       .32       .06    588.50
      137.         0.      137.        0.        0.       22.        0.        0.        0.    588.50
       .00       0.00      6.29      0.00      .040      .035      .040     0.000    587.40     53.20
   .010542        21.       21.       21.         3         0         0     -2.97      7.10     60.30
 0
 1
   82/12/01.   12.08.47.                                                                       PAGE    6

     SECNO      DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS  BANK ELEV
     Q          QLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA  LEFT/RIGHT
     TIME       VLOB      VCH       VROB      XNL        XNCH      XNR       WTN     ELMIN      SSTA
     SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR   TOPWID     ENDST

  *SECNO 653.000

  3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA        593.00 ELREA        593.00

    653.00       3.56    590.96      0.00      0.00    591.49       .53       .01       .01    588.50
      137.         0.      137.        0.        0.       23.        0.        0.        0.    588.50
       .00       0.00      5.86      0.00      .040      .035      .040     0.000    587.40     53.20
   .004424         1.        1.        1.         2         0         0      0.00      7.10     60.30
 0
  CCHV      .300 CEHV       .500
  *SECNO 750.000
         B
    750.00       4.30    591.70      0.00      0.00    591.91       .21       .32       .10    593.40



      137.         0.      137.        0.        0.       37.        0.        0.        0.    593.60
       .01       0.00      3.66      0.00      .040      .035      .040     0.000    587.40     51.00
   .002429       100.      100.      100.         0         0         0      0.00     12.30     63.31
 0
  CCHV      .100 CEHV       .300
  *SECNO 1150.000
         C
   1150.00       4.00    592.70      0.00      0.00    592.99       .30      1.06       .03    594.90
      137.         0.      137.        0.        0.       31.        0.        0.        0.    594.90
       .03       0.00      4.37      0.00      .040      .035      .040     0.000    588.70     95.12
   .003853       350.      350.      350.         2         0         0      0.00      9.94    105.07
 0
  CCHV      .300 CEHV       .500
  *SECNO 1250.000
         D  DIRT TRAIL, 5.3X7.3X21 CMP, TR 594.9, LC 594
   1250.00       4.27    592.97      0.00      0.00    593.26       .29       .27       .00    590.00
      137.         3.      132.        2.        2.       30.        2.        0.        0.    590.00
       .04       1.27      4.42      1.06      .040      .035      .040     0.000    588.70     94.99
   .001977       100.      100.      100.         2         0         0      0.00     10.30    105.29
 0

  SPECIAL BRIDGE
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1
 82/12/01.    12.08.47.                                                                                              PAGE    7

      SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS     BANK ELEV
      Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA     LEFT/RIGHT
      TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
      SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

 SB   XK          XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00        1.50       2.50       0.00       7.70       0.00       30.00      0.00       588.70     588.70

 *SECNO 1251.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS       0.000  EGLWC      593.261  ELLC      594.000  PCWSE      592.967  ELTRD      594.900

 3370 NORMAL BRIDGE,NRD  11 MIN.ELTRD    594.90 MAX ELLC    594.00

    1251.00      4.29     592.99      0.00       0.00     593.38       .40        .07        .05     590.00
      137.         0.       137.         0.         0.       27.         0.         0.         0.      590.00
       .04       0.00       5.06       0.00       .040       .035       .040      0.000     588.70      94.98
   .006741        21.        21.        21.          1          0          0      -6.87      10.31     105.29
0
 *SECNO 1350.000

 3470 ENCROACHMENT STATIONS         75.0       125.0  TYPE        1  TARGET         50.000
          E
    1350.00      4.90     593.60      0.00       0.00     593.77       .18        .33        .07     594.90
      137.         0.       137.         0.         0.        41.         0.         1.         0.     594.90
       .05       0.00       3.36       0.00       .040       .035       .040      0.000     588.70      94.66
   .001909       100.       100.       100.          2          0          0       0.00      10.79     105.45
0
 CCHV       .300 CEHV       .500
 *SECNO 1700.000



 3470 ENCROACHMENT STATIONS         75.0       125.0  TYPE        1  TARGET         50.000
          F
    1700.00      5.81     594.51      0.00       0.00     594.63       .11        .83        .02     594.90
      137.         0.       137.         0.         0.        51.         0.         1.         0.     594.90
       .11       0.00       2.69       0.00       .040       .035       .040      0.000     588.70      94.20
   .001052       600.       600.       600.          3          0          0       0.00      11.64     105.84
0
 CCHV       .300 CEHV       .500
 *SECNO 1800.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       596.00 ELREA        596.00

          G  FARM LANE CULVERT,2 - 6X3.7X21 CMP, TR 597.3, LC 595.7
    1800.00      2.60     594.60      0.00       0.00     594.95       .35        .20        .12     593.40
      137.         0.       137.         0.         0.        29.         0.         1.         0.     593.40
       .11       0.00       4.74       0.00       .040       .035       .040      0.000     592.00     193.00
   .005496       100.       100.       100.          2          0          0       0.00      13.00     206.00
0
1
 82/12/01.    12.08.47.                                                                                              PAGE    8

      SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS     BANK ELEV
      Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA     LEFT/RIGHT
      TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN       SSTA
      SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID      ENDST

 SPECIAL BRIDGE

 SB   XK          XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
      0.00        1.80       2.50       0.00       13.00      0.00       35.20      0.00       592.00     592.00

 *SECNO 1801.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS       0.000  EGLWC      594.948  ELLC      595.700  PCWSE      594.598  ELTRD      597.300

 3370 NORMAL BRIDGE,NRD  16 MIN ELTRD    597.30 MAX ELLC    595.70
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 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA         597.30 ELREA         597.30
     1801.00      2.73    594.73     0.00      0.00    595.12       .38       .15       .02    593.40
      137.         0.      137.       0.        0.        28.        0.        1.        0.     593.40
       .12        0.00      4.97     0.00      .040      .035      .040     0.000    592.00    193.00
   .009713        21.       21.       21.        2         0         0      -3.99     13.00    206.00
0
 *SECNO 2400.000
                 H
     2400.00      2.23    596.63     0.00      0.00    597.07       .44      1.93       .03    600.00
      137.         0.      137.       0.        0.        26.        0.        1.        0.     598.30
       .13        0.00      5.35     0.00      .040      .035      .040     0.000    594.40     94.37
   .009572       200.      200.      200.        3         0         0       0.00     16.49    110.86
0
 *SECNO 2500.000
         I  COTTONWOOD ST. CULVERT, 6.5X400 CMP, TR 603.7, LC 600.0 & 601.2



     2500.00      4.11    597.41     0.00      0.00    597.93       .52       .82       .04    596.70
      137.         1.      133.       3.        1.        23.        2.        1.        0.     596.70
       .13        1.46      5.39     1.56      .040      .035      .040     0.000    593.30     95.18
   .007115       100.      100.      100.        2         0         0       0.00     13.81    108.99
0
 *SECNO 2501.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA         598.00 ELREA         598.00

     2501.00      4.47    597.77     0.00      0.00    598.23       .46       .28       .02    596.70
      137.         0.      137.       0.        0.        25.        0.        1.        0.     596.70
       .13        0.00      5.47     0.00      .030      .032      .030     0.000    593.30     96.60
   .004484        50.       50.       50.        2         0         0       0.00      6.80    103.40
0
1
  82/12/01.    12.08.47.                                                                                    PAGE    9

      SECNO      DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS   BANK ELEV
      Q          QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA    LEFT/RIGHT
      TIME       VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN      SSTA
      SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST


 SPECIAL BRIDGE

 SB  XK         XKOR        COFQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
     0.00       7.40        3.00        50.00       6.50        0.00        33.00       0.00        594.70      593.50

 *SECNO 2502.000
 PRESSURE FLOW

   EGPRS      EGLWC        H3        QWEIR        QPR        BAREA     TRAPEZOID      ELLC      ELTRD
                                                                         AREA
    599.75    599.59      0.00         0.        137.        33.        21.       598.00    603.70


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA         603.70 ELREA         603.70

     2502.00      4.96    599.36     0.00      0.00    599.75       .38      1.52      0.00    598.00
      137.         0.      137.       0.        0.        28.        0.        2.        1.     598.00
       .16        0.00      4.98     0.00      .030      .032      .030     0.000    594.40     96.60
   .003316       400.      400.      400.        2         0         0       0.00      6.80    103.40
0
 *SECNO 2950.000
                 J
     2950.00      4.99    599.89     0.00      0.00    599.91       .02       .05       .11    603.70
       92.         0.       92.       0.        0.        77.        0.        2.        1.     603.70
       .18        0.00      1.19     0.00      .030      .030      .030     0.000    594.90     88.73
   .000154       100.      100.      100.        2         0         0       0.00     26.21    114.94
0
 CCHV     .100 CEHV      .300
 *SECNO 3500.000
                 K
     3500.00      9.21    599.91     0.00     -0.00    599.91       .00       .00       .00    593.60
       92.        13.       79.       0.      142.       666.        0.        7.        2.     605.10
      1.39        .09       .12      0.00      .030      .030      .030     0.000    590.70     58.77
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    .000001      500.      500.      500.        2         0         0      0.00    149.83   208.59
0
 CCHV      .300 CEHV      .500
 *SECNO 3600.000
1
  82/12/01.    12.08.47.                                                                                PAGE   10

        SECNO       DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
        Q           QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
        TIME        VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
        SLOPE       XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST

 3301 HV CHANGED MORE THAN HVINS

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       603.50 ELREA        603.50

          L  PAVED TRAIL, 6.5X61 CMP, TR 604.8, LC 603.3
      3600.00      2.74     599.54     599.54      0.00     600.50        .96        .00        .48     600.00
          92.        0.        92.        0.        0.        12.         0.         8.         2.     600.00
         1.39      0.00      7.84       0.00       .030      .030       .030      0.000     596.80      96.84
      .017142      120.      120.       120.        4         17          0       0.00       6.27     103.11
0
 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR        COFQ       RDLEN       BWC         BWP        BAREA        SS         ELCHU      ELCHD
     0.00      2.10        2.50       0.00        6.50        0.00       33.20        0.00       596.80     596.80

 *SECNO 3601.000

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS       0.000   EGLWC      600.498   ELLC      603.300   PCWSE     599.542   ELTRD     604.800

 3301 HV CHANGED MORE THAN HVINS

 3370 NORMAL BRIDGE,NRD    9 MIN ELTRD    604.80 MAX ELLC    603.30

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       604.80 ELREA        604.80

      3601.00      4.01     600.81      0.00       0.00     601.15        .34        .46        .19     600.00
          92.        0.        92.        0.        0.        20.         0.         8.         2.     600.00
         1.39      0.00      4.66       0.00       .030      .030       .030      0.000     596.80      96.70
      .004266       61.       61.        61.        4          0          0       -.63       5.50     103.20
0
 *SECNO 3800.000

 3470 ENCROACHMENT STATIONS             .0       150.0   TYPE       1   TARGET        149.999
1
  82/12/01.    12.08.47.                                                                                PAGE   11

            M
      3800.00      4.26     601.26      0.00       0.00     601.28        .02        .04        .10     604.80
          92.        0.        92.        0.        0.        83.         0.         8.         2.     604.80
         1.42      0.00      1.11       0.00       .030      .030       .030      0.000     597.00      82.50
      .000143      100.      100.       100.        2          0          0       0.00      30.38     112.87
0
 CCHV      .100 CEHV      .300
 *SECNO 5500.000

 3470 ENCROACHMENT STATIONS          215.0       515.0   TYPE       1   TARGET        300.000
            N
      5500.00      2.97     601.67      0.00       0.00     601.71        .04        .42        .01     604.30
          54.        0.        54.        0.        0.        32.         0.        10.         3.     605.40
         1.71      0.00      1.69       0.00       .050      .040       .050      0.000     598.70     352.22
      .001002     1750.     1750.      1750.        3          0          0       0.00      17.16     369.39
0
 *SECNO 6950.000
            O
      6950.00      3.32     601.92      0.00       0.00     601.92        .00        .20        .00     605.50
          31.        0.        31.        0.        0.       148.         0.        16.         6.     609.20
         5.02      0.00       .21       0.00       .050      .040       .050      0.000     593.60     145.67
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 .000016    2500.    2500.    2500.        3          0        0      0.00    87.74   233.21
0
1
 82/12/01.   12.08.47.                                                                                 PAGE   12

                                                                        THIS RUN EXECUTED  82/12/01.    12.08.49.

 ****************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
   ERROR CORR - 01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 ****************************************************

 T1
 T2
 T3

 J1  ICHECK      INQ       NINV       IDIR       STRT       METRIC      HVINS       Q          WSEL        FQ
         0.        3.        0.        0.  -1.000000      0.00        0.0        0.    595.000      0.000

 J2  NPROF      IPLOT     PREVS      XSECV      XSECH        FN       ALLDC       IBW        CHNIM      ITRACE
       2.000     0.000    -1.000     0.000      0.000      0.000      0.000      0.000      0.000      0.000
1
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID    ENDST


 *PROF 2

 CCHV      .100 CEHV      .300
 *SECNO 650.000
 3720 CRITICAL DEPTH ASSUMED

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       593.00 ELREA        593.00

         A  BACKWATER OF GRAND RIVER 100-YEAR 604.78
            DIRT TRAIL, 5.3X7.3X21 CMP, TR 593, LC 592.7
    650.00      3.25    590.65    590.65    595.00    592.15      1.50      0.00     -0.00    588.50
     208.         0.      208.        0.        0.       21.        0.        0.        0.    588.50
     0.00       0.00      9.82      0.00      .040      .035      .040     0.000    587.40     53.20
  .014149       650.      650.      650.         0        13         0      0.00      7.10     60.30
0
 *SECNO 651.000

 3370 NORMAL BRIDGE,NRD    9 MIN ELTRD    593.00 MAX ELLC    593.60

 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       593.00 ELREA        593.00

    651.00      3.21    590.61    590.61      0.00    592.24      1.63       .02       .04    588.50
     208.         0.      208.        0.        0.       20.        0.        0.        0.    588.50
      .00       0.00     10.24      0.00      .040      .035      .040     0.000    587.40     53.20
  .028506         1.        1.        1.         3        12         0     -2.25      7.10     60.30
0
 *SECNO 652.000

 3301 HV CHANGED MORE THAN HVINS

 3370 NORMAL BRIDGE,NRD    9 MIN ELTRD    593.00 MAX ELLC    593.60

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       593.00 ELREA        593.00

    652.00      4.39    591.79      0.00      0.00    592.76       .97       .45       .07    588.50
     208.         0.      208.        0.        0.       26.        0.        0.        0.    588.50
      .00       0.00      7.90      0.00      .040      .035      .040     0.000    587.40     53.20
 [illegible]  [illegible]  [illegible]  21.      3         0         0     -7.29      7.10     60.30
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0
1
 82/12/01.   12.08.47.

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 *SECNO 653.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       593.00 ELREA       593.00

    653.00      4.73    592.13      0.00      0.00    592.80       .67       .01       .03    588.50


      208.        0.      208.        0.        0.       32.        0.        0.        0.    588.50
       .00      0.00      6.55      0.00      .040      .035      .040     0.000    587.40     53.20
   .003667        1.        1.        1.         2         0         0      0.00      7.10     60.30
0
 CCHV      .300 CEHV      .500
 *SECNO 750.000
          B
    750.00      5.57    592.97      0.00      0.00    593.20       .23       .27       .13    593.40
      208.        0.      208.        0.        0.       54.        0.        0.        0.    593.60
       .01      0.00      3.84      0.00      .040      .035      .040     0.000    587.40     50.26
   .002073      100.      100.      100.         2         0         0      0.00     14.18     64.44
0
 CCHV      .100 CEHV      .300
 *SECNO 1150.000
          C
   1150.00      5.13    593.83      0.00      0.00    594.19       .36       .95       .04    594.90
      208.        0.      208.        0.        0.       43.        0.        1.        0.    594.90
       .03      0.00      4.81      0.00      .040      .035      .040     0.000    588.70     94.54
   .003748      350.      350.      350.         2         0         0      0.00     11.00    105.55
0
 CCHV      .300 CEHV      .500
 *SECNO 1250.000
          D   DIRT TRAIL, 5.3X7.3X21 CMP, TR 594.9, LC 594
   1250.00      5.38    594.08      0.00      0.00    594.47       .39       .26       .02    590.00
      208.        7.      198.        4.        4.       39.        3.        1.        0.    590.00
       .03      1.54      5.13      1.28      .040      .035      .040     0.000    588.70     94.42
   .001908      100.      100.      100.         2         0         0      0.00     11.28    105.70
0

 SPECIAL BRIDGE

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 82/12/01.   12.08.47.                                                                              PAGE   15

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU      ELCHD
      0.00      1.50      2.50      0.00      7.70      0.00     30.00      0.00    588.70     588.70

 *SECNO 1251.000
 PRESSURE AND WEIR FLOW

   EGPRS     EGLWC        H3     QWEIR       QPR     BAREA   TRAPEZOID      ELLC     ELTRD
                                                               AREA
    595.20    594.47      0.00        4.      203.       30.       41.    594.00    594.90

   1251.00      6.16    594.86      0.00      0.00    595.14       .28       .68      0.00    590.00
      208.        8.      195.        5.        6.       45.        4.        1.        0.    590.00
       .04      1.34      4.38      1.12      .040      .035      .040     0.000    588.70     94.02
   .001145       21.       21.       21.         2         0         3      0.00     11.97    105.99
0
 *SECNO 1350.000
 3280 CROSS SECTION    1350.00 EXTENDED        .22 FEET
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 3470 ENCROACHMENT STATIONS         75.0       125.0  TYPE       1  TARGET         50.000
           E
   1350.00       6.42     595.12      0.00      0.00    595.30       .19       .13       .03     594.90
    208.          2.      204.         2.        4.       58.        4.        1.        0.      594.90
     .04         .53      3.50        .53      .040      .035      .040     0.000    588.70      75.00
  .001590       100.      100.       100.        2         0         0       0.00     50.00     125.00
0
 CCHV      .300 CEHV      .500
 *SECNO 1700.000
 3280 CROSS SECTION    1700.00 EXTENDED        .96 FEET

 3470 ENCROACHMENT STATIONS         75.0       125.0  TYPE       1  TARGET         50.000
           F
   1700.00       7.16     595.86      0.00      0.00    595.95       .09       .62       .03     594.90
    208.         17.      174.        17.       18.       67.       18.        2.        1.      594.90
     .12         .94      2.59        .94      .040      .035      .040     0.000    588.70      75.00
  .000719       600.      600.       600.        2         0         0       0.00     50.00     125.00
0
 CCHV      .300 CEHV      .500
1
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     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST

 *SECNO 1800.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       596.00 ELREA        596.00

           G  FARM LANE CULVERT,2 - 6X3.7X21 CMP, TR 597.3, LC 595.7
   1800.00       3.87     595.87      0.00      0.00    596.20       .33       .13       .12     593.40
    208.          0.      208.         0.        0.       45.        0.        2.        1.      593.40
     .12         0.00     4.58        0.00     .040      .035      .040     0.000    592.00     193.00
  .002804       100.      100.       100.        2         0         0       0.00     13.00     206.00
0
 SPECIAL BRIDGE
 SB   XK          XKOR        COFQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
      0.00        1.80        2.50        0.00       13.00        0.00       35.20        0.00      592.00      592.00
 *SECNO 1801.000
 PRESSURE FLOW

   EGPRS       EGLWC         H3        QWEIR        QPR        BAREA    TRAPEZOID      ELLC       ELTRD
                                                                          AREA
    596.85      596.20       0.00         0.        208.         35.        48.       595.70     597.30

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       597.30 ELREA        597.30



   1801.00       4.62     596.62      0.00      0.00    596.85       .22       .65      0.00     593.40
    208.          0.      208.         0.        0.       55.        0.        2.        1.      593.40
     .12         0.00     3.77        0.00     .040      .035      .040     0.000    592.00     193.00
  .001459        21.       21.        21.        2         0         0       0.00     13.00     206.00
0*SECNO 2400.000
           H
   2400.00       2.65     597.05      0.00      0.00    597.67       .62       .63       .20     600.00
    208.          0.      203.         0.        0.       33.        0.        2.        1.      598.30
     .13         0.00     6.31        0.00     .040      .035      .040     0.000    594.40      93.82
  .011037       200.      200.       200.        0         0         0       0.00     18.34     112.16
0*SECNO 2500.000
           I  COTTONWOOD ST. CULVERT, 6.5X400 CMP, TR 603.7, LC 600.0 & 601.2
1
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     SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS   BANK ELEV
     Q          QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
     TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN        ELMIN      SSTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IDC        ICONT      CORAR      TOPWID     ENDST
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 2500.00      4.67    597.97      0.00      0.00    598.69       .72       .96       .05    596.70
   208.         4.      188.       16.        2.       26.        6.        2.        1.    596.70
    .14       2.35      7.13      2.51      .040      .035      .040     0.000    593.30     94.07
 .008502      100.      100.      100.         2         0         0      0.00     19.31    113.37
0
 *SECNO 2501.000
 2501.00      5.43    598.73      0.00      0.00    599.03       .30       .21       .13    596.70
   208.        10.      153.       45.        4.       32.       16.        2.        1.    596.70
    .14       2.36      4.85      2.82      .030      .032      .030     0.000    593.30     92.54
 .002584       50.       50.       50.         3         0         0      0.00     25.54    118.08
0
 SPECIAL BRIDGE
 SB  XK        XKOR       COFQ      RDLEN     BWC        BWP       BAREA      SS        ELCHU     ELCHD
     0.00      7.40       3.00      50.00     6.50       0.00      33.00      0.00      594.70    593.50

 *SECNO 2502.000
 PRESSURE FLOW

   EGPRS      EGLWC        H3        QWEIR       QPR       BAREA   TRAPEZOID     ELLC      ELTRD
                                                                     AREA
   603.30     600.76      0.00        0.        208.        33.      21.        598.00    603.70

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA        603.70 ELREA        603.70

 2502.00      8.65    603.05      0.00      0.00    603.30       .24      4.27      0.00    598.00
   208.         0.      208.        0.        0.       53.        0.        3.        1.    598.00
    .17       0.00      3.95      0.00      .030      .032      .030     0.000    594.40     96.60
 .000883      400.      400.      400.         2         0         0      0.00      6.80    103.40
0
 *SECNO 2950.000
         J



 2950.00      8.47    603.37      0.00      0.00    603.38       .01       .01       .07    603.70
   142.         0.      142.        0.        0.      195.        0.        3.        1.    603.70
    .21       0.00       .73      0.00      .030      .030      .030     0.000    594.90     82.58
 .000031      100.      100.      100.         2         0         0      0.00     41.55    124.13
0
1
  82/12/01.    12.08.47.                                                                          PAGE    18

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


 CCHV     .100 CEHV      .300
 *SECNO 3500.000
         K
 3500.00     12.68    603.38      0.00      0.00    603.38       .00       .00       .00    593.60
   142.        29.      113.        0.      342.     1053.        0.       12.        3.    605.10
   1.56        .08       .11      0.00      .030      .030      .030     0.000    590.70     37.82
 .000000      500.      500.      500.         2         0         0      0.00    185.08    222.90
0
 CCHV     .300 CEHV      .500
 *SECNO 3600.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA        603.50 ELREA        603.50

         L   PAVED TRAIL, 6.5X61 CMP, TR 604.8, LC 603.3
 3600.00      6.46    603.26      0.00      0.00    603.50       .24       .00       .12    600.00
   142.         0.      142.        0.        0.       36.        0.       14.        3.    600.00
   1.57       0.00      3.96      0.00      .030      .030      .030     0.000    596.80     96.70
 .001130      120.      120.      120.         2         0         0      0.00      6.50    103.20
0
 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB  XK        XKOR       COFQ      RDLEN     BWC        BWP       BAREA      SS        ELCHU     ELCHD
     0.00      2.10       2.50       0.00     6.50       0.00      33.20      0.00      596.80    596.80

 *SECNO 3601.000
 PRESSURE FLOW
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 EGPRS     EGLWC      H3       QWEIR      QPR       BAREA   TRAPEZOID    ELLC     ELTRD
                                                              AREA
 603.85    603.50     0.00       0.       142.       33.       42.      603.30   604.80

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       604.80 ELREA       604.80

  3601.00    6.84   603.64     0.00     0.00   603.85     .21      .35     0.00   600.00
    142.       0.     142.       0.       0.      38.       0.      14.       3.   600.00
    1.57     0.00     3.71     0.00     .030     .030     .030    0.000   596.80    96.70
  .000903     61.      61.      61.        2        0        0     0.00     6.50   103.20
0
1
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  SECNO     DEPTH    CWSEL    CRIWS    WSELK     EG       HV       HL      OLOSS  BANK ELEV
  Q         QLOB     QCH      QROB     ALOB      ACH      AROB     VOL     TWA   LEFT/RIGHT
  TIME      VLOB     VCH      VROB     XNL       XNCH     XNR      WTN     ELMIN    SSTA
  SLOPE     XLOBL    XLCH     XLOBR    ITRIAL    IDC      ICONT    CORAR   TOPWID   ENDST

 *SECNO 3800.000

 3470 ENCROACHMENT STATIONS          .0      150.0  TYPE      1  TARGET      149.999
          M
  3800.00    6.92   603.92     0.00     0.00   603.93     .01      .01      .06   604.80
    142.       0.     142.      -0.       0.     131.       0.      15.       3.   604.80
    1.61     0.00      .78     0.00     .030     .030     .030    0.000   597.00    74.99
  .000041    100.     100.     100.        2        0        0     0.00    43.98   118.97
0
 CCHV=     .100 CEHV=     .300
 *SECNO 5500.000

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS       215.0      515.0  TYPE      1  TARGET      300.000
          N
  5500.00    5.33   604.03     0.00     0.00   604.04     .01      .11      .00   604.30
     86.       4.      82.       1.      25.      81.       7.      21.       8.   605.40
    2.11      .14     1.01      .10     .050     .040     .050    0.000   598.70   215.00
  .000190   1750.    1750.    1750.        2        0        0     0.00   213.78   467.29
0
 *SECNO 6950.000
          O
  6950.00    5.48   604.08     0.00     0.00   604.08     .00      .04      .00   605.50
     53.       0.      53.      -0.       0.     398.       0.      35.      18.   609.20
    7.33     0.00      .13     0.00     .050     .040     .050    0.000   598.60   109.58
  .000003   2500.    2500.    2500.        2        0        0     0.00   143.74   253.32
0
1
 82/12/01.   12.08.47.                                                                    PAGE   20


                                                     THIS RUN EXECUTED  82/12/01.   12.08.50.
 *************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
   ERROR CORR -  01,02,03,04,05
   MODIFICATION -  50,51,52,53,54,55
 *************************************************

 T1
 T2
 T3

 J1  ICHECK    INQ      NINV     IDIR      STRT     METRIC    HVINS      Q      WSEL      FQ
        0.       4.       0.       0.   -1.000000    0.00      0.0       0.   595.000    0.000

 J2  NPROF     IPLOT    PRFVS    XSECV     XSECH     FN       ALLDC     IBW     CHNIM     ITRACE
```

```
     3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
1
  82/12/01.   12.08.47.                                                                                PAGE   21

        SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
        Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
        TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
        SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

 *PROF 3

 CCHV     .100 CEHV      .300
 *SECNO 650.000
 3720 CRITICAL DEPTH ASSUMED

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA         593.00 ELREA         593.00

          A  BACKWATER OF GRAND RIVER 100-YEAR 604.78
             DIRT TRAIL, 5.3X7.3X21 CMP, TR 593, LC 592.7
       650.00      3.54    590.94    590.94    595.00    592.59      1.66      0.00      0.00    588.50
        240.        0.      240.        0.        0.       23.        0.        0.        0.     588.50
        0.00      0.00     10.33      0.00      .040      .035      .040     0.000    587.40     53.20
     .013851      650.      650.      650.        0        13         0      0.00      7.10     60.30
0
 *SECNO 651.000

 3370 NORMAL BRIDGE,NRD    9 MIN ELTRD   593.00 MAX ELLC    593.60

 3685 20 TRIALS ATTEMPTED WSEL,CWSEL
 3693 PROBABLE MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA         593.00 ELREA         593.00

       651.00      3.45    590.85    590.85      0.00    592.74      1.90       .02       .07    588.50
        240.        0.      240.        0.        0.       22.        0.        0.        0.     588.50
         .00      0.00     11.05      0.00      .040      .035      .040     0.000    587.40     53.20
     .032572        1.        1.        1.       20        15         0     -2.93      7.10     60.30
0
 *SECNO 652.000

 3301 HV CHANGED MORE THAN HVINS

 3370 NORMAL BRIDGE,NRD    9 MIN ELTRD   593.00 MAX ELLC    593.60

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA         593.00 ELREA         593.00
1
  82/12/01.   12.08.47.                                                                                PAGE   22

        SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
        Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT



        TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
        SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

       652.00      4.79    592.19      0.00      0.00    593.35      1.16       .53       .07    588.50
        240.        0.      240.        0.        0.       28.        0.        0.        0.     588.50
         .00      0.00      3.63      0.00      .040      .035      .040     0.000    587.40     53.20
     .020258       21.       21.       21.        3         0         0     -9.97      7.10     60.30
0
 *SECNO 653.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA         593.00 ELREA         593.00

       653.00      5.30    592.70      0.00      0.00    593.40       .70       .01       .05    588.50
        240.        0.      240.        0.        0.       36.        0.        0.        0.     588.50
         .00      0.00      6.71      0.00      .040      .035      .040     0.000    587.40     53.20
     .003287        1.        1.        1.        3         0         0      0.00      7.10     60.30
0
 CCHV     .300 CEHV      .500
 *SECNO 750.000
          B
       750.00      6.16    593.56      0.00      0.00    593.79       .23       .24       .14    593.40
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      240.        0.       240.        0.        0.       63.        0.        0.         0.     93.60
       .01       .29       3.92      0.00      .040      .035      .040     0.000     587.40     46.02
   .001836      100.       100.      100.         2         0         0      0.00      18.95     64.96
0
 CCHV      .100 CEHV      .300
 *SECNO 1150.000
            C
   1150.00      5.63    594.33      0.00      0.00    594.71       .37       .88       -.04    594.90
      240.        0.      240.        0.        0.       49.        0.        1.         0.    594.90
       .03      0.00      4.91      0.00      .040      .035      .040     0.000     588.70     94.29
   .003609      350.      350.      350.         2         0         0      0.00      11.47    105.76
0
 CCHV      .300 CEHV      .500
 *SECNO 1250.000
            D  DIRT TRAIL, 5.3X7.3X21 CMP, TR 594.9, LC 594
   1250.00      5.86    594.56      0.00      0.00    594.98       .42       .25        .02    590.00
      240.        9.      226.        5.        5.       42.        4.        1.         0.    590.00
       .03      1.63      5.35      1.36      .040      .035      .040     0.000     588.70     94.17
   .001841      100.      100.      100.         2         0         0      0.00      11.70    105.87
0
1
  82/12/01.    12.08.47.                                                                       PAGE   23

      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 SPECIAL BRIDGE

 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.50      2.50      0.00      7.70      0.00      30.00     0.00      588.70    588.70

 *SECNO 1251.000
 PRESSURE AND WEIR FLOW



   EGPRS      EGLWC       H3       QWEIR      QPR       BAREA   TRAPEZOID    ELLC      ELTRD
                                                                   AREA
    596.05    594.98     0.00      34.       205.       30.       41.       594.00    594.90

   1251.00      6.64    595.34     -0.00      0.00    595.64       .30       .66       0.00    590.00
      240.       12.      221.        7.        9.       48.        7.        1.         0.    590.00
       .03      1.30      4.58      1.05      .040      .035      .040     0.000     588.70     86.37
   .001128       21.       21.       21.         2         0         3      0.00      27.25    113.63
0
 *SECNO 1350.000
 3280 CROSS SECTION    1350.00 EXTENDED        .76 FEET

 3470 ENCROACHMENT STATIONS        75.0      125.0  TYPE      1  TARGET       50.000
            E
   1350.00      6.96    595.66      0.00      0.00    595.81       .14       .12        .05    594.90
      240.       15.      210.       15.       15.       65.       15.        1.         0.    594.90
       .04      1.04      3.24      1.04      .040      .035      .040     0.000     588.70     75.00
   .001183      100.      100.      100.         2         0         0      0.00      50.00    125.00
0
 CCHV      .300 CEHV      .500
 *SECNO 1700.000
 3280 CROSS SECTION    1700.00 EXTENDED       1.35 FEET

 3470 ,ENCROACHMENT STATIONS       75.0      125.0  TYPE      1  TARGET       50.000
            F
   1700.00      7.55    596.25      0.00      0.00    596.34       .08       .51        .02    594.90
      240.       28.      184.       28.       26.       72.       26.        2.         1.    594.90
       .12      1.10      2.56      1.10      .040      .035      .040     0.000     588.70     75.00
   .000640      600.      600.      600.         2         0         0      0.00      50.00    125.00
0
1
  82/12/01.    12.08.47.                                                                       PAGE   24

      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST
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 CCHV      .300 CEHV      .500
 *SECNO 1800.000
      G   FARM LANE CULVERT,2 - 6X3.7X21 CMP, TR 597.3, LC 595.7
   1800.00      4.28    596.28     0.00      0.00    596.51       .23       .10       .07    593.40
     240.        28.      205.       7.       14.       51.        4.        3.        1.    593.40
      .13       2.00      4.04     1.65      .040      .035      .040     0.000    592.00    183.39
   .001880      100.      100.     100.        2         0         0      0.00     25.57    208.96
 0
 SPECIAL BRIDGE

 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.80      2.50      0.00      13.00     0.00      35.20     0.00      592.00    592.00

 *SECNO 1801.000



 3280 CROSS SECTION   1801.00 EXTENDED        .09 FEET

 PRESSURE AND WEIR FLOW

   EGPRS      EGLWC      H3       QWEIR      QPR      BAREA    TRAPEZOID    ELLC      ELTRD
                                                                  AREA
   597.58     596.63     0.00       7.       232.       35.       48.       595.70    597.30

   1801.00      5.39    597.39     0.00      0.00    597.50       .11       .99      0.00    593.40
     240.        40.      189.      10.       26.       65.        8.        3.        1.    593.40
      .13       1.53      2.91     1.25      .040      .035      .040     0.000    592.00    180.00
   .000699       21.       21.      21.        2         0         2      0.00     30.00    210.00
 0
 *SECNO 2400.000
      H
   2400.00      3.12    597.52     0.00      0.00    598.02       .51       .33       .20    600.00
     240.        0.       240.       0.        0.       42.        0.        3.        1.    598.30
      .14       0.00      5.71     0.00      .040      .035      .040     0.000    594.40     93.22
   .007583      200.      200.     200.        2         0         0      0.00     20.38    113.60
 0
 *SECNO 2500.000
      I   COTTONWOOD ST. CULVERT, 6.5X400 CMP, TR 603.7, LC 600.0 & 601.2
   2500.00      4.89    598.19     0.00      0.00    598.96       .77       .81       .13    596.70
     240.        6.       209.      25.        2.       28.        9.        3.        1.    596.70
      .14       2.64      7.47     2.83      .040      .035      .040     0.000    593.30     93.60
   .008634      100.      100.     100.        2         0         0      0.00     21.59    115.20
 0
 1
   82/12/01.   12.08.47.                                                              PAGE   25

      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 *SECNO 2501.000
   2501.00      5.72    599.02     0.00      0.00    599.31       .30       .21       .14    596.70
     240.        13.      164.      63.        5.       34.       20.        3.        1.    596.70
      .15       2.50      4.90     3.08      .030      .032      .030     0.000    593.30     91.98
   .002436       50.       50.      50.        3         0         0      0.00     27.45    119.43
 0
 SPECIAL BRIDGE

 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      7.40      3.00      50.00     6.50      0.00      33.00     0.00      594.70    593.50

 *SECNO 2502.000
 3280 CROSS SECTION   2502.00 EXTENDED        .21 FEET

 PRESSURE AND WEIR FLOW

   EGPRS      EGLWC      H3       QWEIR      QPR      BAREA    TRAPEZOID    ELLC      ELTRD
                                                                  AREA
   605.09     601.16     0.00      27.       215.       33.       21.       598.00    603.70
```

```
  2502.00      9.50    603.90      0.00      0.00    603.91       .01      4.60      0.00    598.00
   240.        30.       56.      154.        45.       58.      219.        5.        2.     598.00
    .29        .67      .96       .70      .030      .032      .030     0.000    594.40     82.00
 .000046      400.     400.      400.         0         0         4      0.00     93.00    175.00
0
 *SECNO 2950.000
                                                               J
  2950.00      9.01    603.91      0.00      0.00    603.91       .01       .00       .00    603.70
   163.         0.      163.        0.        6.      218.        0.        6.        2.     603.70
    .33        .06       .75       .06      .030      .030      .030     0.000    594.90     25.72
 .000029      100.      100.      100.        2         0         0      0.00    100.48    126.20
0
 CCHV     .100 CEHV      .300
 *SECNO 3500.000
            K
  3500.00     13.22    603.92      0.00      0.00    603.92       .00       .00       .00    593.60
   163.        35.      128.        0.      378.     1119.        0.       15.        4.     605.10
   1.59        .09       .11      0.00      .030      .030      .030     0.000    590.70     36.61
 .000000      500.      500.      500.        0         0         0      0.00    188.54    225.15
0
1
 82/12/01.   12.08.47.                                                                           PAGE   26

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 CCHV     .300 CEHV      .500
 *SECNO 3600.000
            L   PAVED TRAIL, 6.5X61 CMP, TR 604.8, LC 603.3
  3600.00      7.09    603.89      0.00      0.00    603.94       .04       .00       .02    600.00
   163.        47.       82.       34.       38.       40.       28.       18.        4.     600.00
   1.62       1.23      2.05      1.22      .030      .030      .030     0.000    596.80     77.07
 .000260      120.      120.      120.        2         0         0      0.00     40.57    117.64
0

 SPECIAL BRIDGE

 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB   XK         XKOR      COFQ      RDLEN      BWC        BWP        BAREA      SS        ELCHU      ELCHD
      0.00       2.10      2.50      0.00       6.50       0.00       33.20      0.00      596.80     596.80

 *SECNO 3601.000
 PRESSURE FLOW

   EGPRS     EGLWC      H3        QWEIR      QPR        BAREA     TRAPEZOID     ELLC      ELTRD
                                                                   AREA
    604.68    604.15     0.00        0.       163.        33.        42.       603.30    604.80

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       604.80 ELREA       604.80

  3601.00      7.66    604.46      0.00      0.00    604.68       .22       .74      0.00    600.00



   163.         0.      163.        0.        0.       44.        0.       18.        4.     600.00
   1.62       0.00      3.73      0.00      .030      .030      .030     0.000    596.80     96.70
 .000770       61.       61.       61.        2         0         0      0.00      6.50    103.20
0
 *SECNO 3800.000

 3470 ENCROACHMENT STATIONS            .0      150.0  TYPE       1  TARGET       149.999
            M
  3800.00      7.74    604.74      0.00      0.00    604.75       .01       .01       .06    604.80
   163.         0.      163.        0.        0.      219.        0.       18.        4.     604.80
   1.66       0.00       .74      0.00      .030      .030      .030     0.000    597.00     72.66
 .000032      100.      100.      100.        2         0         0      0.00     48.21    120.87
0
1
 82/12/01.   12.08.47.                                                                           PAGE   27

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST
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CCHV      .100 CEHV      .300
*SECNO 5500.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS       215.0      515.0  TYPE      1  TARGET      300.000
          N
 5500.00     6.11    604.81     0.00     0.00   604.82      .00      .07      .00   604.30
     99.      26.       57.      17.     127.     104.      95.      29.      11.   605.40
    2.89      .20       .55      .17     .050     .040     .050    0.000   598.70   215.00
 .000049    1750.     1750.    1750.        2        0        0     0.00   287.16   515.00
0
*SECNO 6950.000
       0
 6950.00     6.24    604.84     0.00     0.00   604.84      .00      .02      .00   605.50
     61.       0.       61.       0.       0.     514.       0.      53.      24.   609.20
    8.74     0.00       .12     0.00     .050     .040     .050    0.000   598.60    96.99
 .000002    2500.     2500.    2500.        2        0        0     0.00   163.38   260.38
0
1
 82/12/01.    12.08.47.                                                              PAGE   28


                                                       THIS RUN EXECUTED  82/12/01.  12.08.50.

**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION - 50,51,52,53,54,55
**********************************************

T1
T2
T3



J1  ICHECK    INQ     NINV     IDIR     STRT     METRIC    HVINS     Q      WSEL      FQ

       0.       5.      0.       0.  -1.000000     0.00     0.0      0.   595.000    0.000

J2  NPROF    IPLOT    PREVS    XSECV    XSECH     FN      ALLDC     IBW    CHNIM    ITRACE

   15.000    0.000   -1.000    0.000    0.000    0.000    0.000   0.000    0.000    0.000
1
 82/12/01.    12.08.47.                                                              PAGE   29

     SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG       HV       HL      OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH      AROB     VOL      TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH     XNR      WTN      ELMIN     SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC      ICONT    CORAR    TOPWID    ENDST

*PROF 4

CCHV      .100 CEHV      .300
*SECNO 650.000
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      593.00 ELREA      593.00

            A   BACKWATER OF GRAND RIVER 100-YEAR 604.78
                DIRT TRAIL, 5.3X7.3X21 CMP, TR 593, LC 592.7
  650.00     4.11    591.51    591.51   595.00   593.45     1.94     0.00     0.00   588.50
    305.       0.      305.        0.       0.      27.       0.       0.       0.   588.50
    0.00     0.00     11.18      0.00     .040     .035     .040    0.000   587.40    53.20
 .013108     650.      650.      650.        0       10        0     0.00     7.10    60.30
0
*SECNO 651.000

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE,NRD     9 MIN ELTRD    593.00 MAX ELLC    593.60

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
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3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       593.00 ELREA       593.00

  651.00      3.90    591.30    591.30     0.00    593.78     2.48      .02       .16    588.50
   305.        0.      305.        0.        0.      24.        0.       0.        0.     588.50
    .00       0.00     12.63      0.00      .040      .035      .040    0.000    587.40    53.20
  .041939      1.        1.        1.        20        22         0    -4.71      7.10    60.30
0
 *SECNO 652.000

 3301 HV CHANGED MORE THAN HVINS

 3370 NORMAL BRIDGE,NRD    9 MIN ELTRD    593.00 MAX ELLC    593.60


1
  82/12/01.    12.08.47.                                                                    PAGE   30

    SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       593.00 ELREA       593.00

  652.00      5.54    592.94      0.00     0.00    594.68     1.75      .83       .07    588.50
   305.        0.      305.        0.        0.      29.        0.       0.        0.     588.50
    .00       0.00     10.61      0.00      .040      .035      .040    0.000    587.40    53.20
  .037739      21.       21.       21.        9         0         0   -17.05      7.10    60.30
0
 *SECNO 653.000
 3280 CROSS SECTION    653.00 EXTENDED        .93 FEET

 3301 HV CHANGED MORE THAN HVINS

  653.00      7.14    594.54    591.50     0.00    594.83      .29      .00       .15    588.50
   305.       28.      236.       40.       17.       49.       21.       0.        0.     588.50
    .00       1.70      4.34      1.97      .040      .035      .040    0.000    587.40    45.00
  .001134       1.        1.        1.       15        22         0     0.00     25.00    70.00
0
 CCHV     .300 CEHV     .500
 *SECNO 750.000
 3280 CROSS SECTION    750.00 EXTENDED       1.19 FEET

          B
  750.00      7.39    594.79      0.00     0.00    594.98      .19      .11       .03    593.40
   305.        8.      290.        6.        6.      81.        5.       0.        0.     593.60
    .01       1.29      3.57      1.18      .040      .035      .040    0.000    587.40    45.00
  .001143     100.      100.      100.        3         0         0     0.00     25.00    70.00
0
 CCHV     .100 CEHV     .300
 *SECNO 1150.000
 3280 CROSS SECTION   1150.00 EXTENDED        .40 FEET

          C
 1150.00      6.60    595.30      0.00     0.00    595.49      .19      .51       .00    594.90
   305.       33.      238.       33.       38.       60.       38.       1.        1.     594.90
    .04        .88      3.95       .88      .040      .035      .040    0.000    588.70     0.00
  .001926     350.      350.      350.        2         0         0     0.00    200.00   200.00
0
1
  82/12/01.    12.08.47.                                                                    PAGE   31

    SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 CCHV     .300 CEHV     .500
```

```
 *SECNO 1250.000
      D   DIRT TRAIL, 5.3X7.3X21 CMP, TR 594.9, LC 594
  1250.00      6.64    595.34     0.00      0.00    595.83      .49      .19      .15    590.00
    305.        15.      281.       9.        9.       48.        7.       1.       1.     590.00
     .04       1.66      5.83     1.34      .040      .035     .040    0.000   588.70     86.46
 .001828       100.      100.     100.         2         0        0     0.00    27.08    113.54
0

 SPECIAL BRIDGE

 SB  XK          XKOR       COFQ       RDLEN      BWC       BWP       BAREA      SS        ELCHU      ELCHD
     0.00        1.50       2.50        0.00      7.70      0.00      30.00     0.00      588.70     588.70

 *SECNO 1251.000
 PRESSURE AND WEIR FLOW

   EGPRS      EGLWC       H3       QWEIR      QPR       BAREA    TRAPEZOID     ELLC      ELTRD
                                                                   AREA
   597.74     595.83     0.00      117.       189.        30.       41.      594.00    594.90

  1251.00      7.21    595.91     0.00      0.00    596.26      .35      .44     0.00    590.00
    305.        23.      266.      16.       18.       53.       15.       1.       1.     590.00
     .04       1.28      5.04     1.09      .040      .035     .040    0.000   588.70     76.41
 .001216        21.       21.      21.         2         0        3     0.00    47.17    123.59
0
 *SECNO 1350.000
 3280 CROSS SECTION   1350.00 EXTENDED       1.41 FEET

 3470 ENCROACHMENT STATIONS        75.0     125.0  TYPE      1  TARGET       -50.000
      E
  1350.00      7.61    596.31     0.00      0.00    596.44      .13      .11      .07    594.90
    305.        37.      230.      37.       27.       73.       27.       2.       1.     594.90
     .05       1.39      3.17     1.39      .040      .035     .040    0.000   588.70     75.00
 .000973       100.      100.     100.         2         0        0     0.00    50.00    125.00
0
 CCHV      .300 CEHV      .500
 *SECNO 1700.000
1
  82/12/01.   12.08.47.                                                                                PAGE   32

   SECNO      DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
   Q          QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA    LEFT/RIGHT
   TIME       VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN      SSTA
   SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST

 3280 CROSS SECTION   1700.00 EXTENDED       1.92 FEET

 3470 ENCROACHMENT STATIONS        75.0     125.0  TYPE      1  TARGET        50.000
      F
  1700.00      8.12    596.82     0.00      0.00    596.91      .08      .46      .01    594.90
    305.        48.      208.      48.       37.       79.       37.       4.       2.     594.90
     .13       1.33      2.65     1.33      .040      .035     .040    0.000   588.70     75.00
 .000608       600.      600.     600.         2         0        0     0.00    50.00    125.00
0



 CCHV      .300 CEHV      .500
 *SECNO 1800.000
      G   FARM LANE CULVERT,2 - 6X3.7X21 CMP, TR 597.3, LC 595.7
  1800.00      4.84    596.84     0.00      0.00    597.09      .25      .10      .08    593.40
    305.        43.      251.      11.       20.       58.        6.       4.       2.     593.40
     .14       2.20      4.33     1.81      .040      .035     .040    0.000   592.00    181.55
 .001806       100.      100.     100.         2         0        0     0.00    27.97    209.52
0

 SPECIAL BRIDGE

 SB  XK          XKOR       COFQ       RDLEN      BWC       BWP       BAREA      SS        ELCHU      ELCHD
     0.00        1.80       2.50        0.00     13.00      0.00      35.20     0.00      592.00     592.00

 *SECNO 1801.000
 3280 CROSS SECTION   1801.00 EXTENDED        .75 FEET

 PRESSURE AND WEIR FLOW

   EGPRS      EGLWC       H3       QWEIR      QPR       BAREA    TRAPEZOID     ELLC      ELTRD
                                                                   AREA
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```
   598.93    597.27      0.00       61.      243.       35.       48.      595.70    597.30

   1801.00      6.05    598.05      0.00      0.00    598.17       .12      1.08      0.00    593.40
    305.         61.      229.       15.       35.       74.       11.        4.        2.     593.40
     .14        1.75      3.10      1.38      .040      .035      .040     0.000    592.00    180.00
  .000674        21.       21.       21.         2         0         2      0.00     30.00    210.00
0
 *SECNO 2400.000
           H
1
  82/12/01.   12.08.47.                                                                                        PAGE   33

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

   2400.00      3.78    598.18      0.00      0.00    598.63       .45       .30       .17    600.00
    305.          0.      305.        0.        0.       56.        0.        4.        2.     598.30
     .15        0.00      5.41      0.00      .040      .035      .040     0.000    594.40     92.36
  .005501       200.      200.      200.         2         0         0      0.00     23.27    115.63
0
 *SECNO 2500.000
           I  COTTONWOOD ST. CULVERT, 6.5X400 CMP, TR 603.7, LC 600.0 & 601.2
   2500.00      5.38    598.68      0.00      0.00    599.43       .75       .65       .15    596.70
    305.         12.      238.       55.        4.       31.       15.        4.        2.     596.70
     .15        3.02      7.62      3.58      .040      .035      .040     0.000    593.30     92.63
  .007738       100.      100.      100.         2         0         0      0.00     25.22    117.85
0
 *SECNO 2501.000
   2501.00      6.13    599.43      0.00      0.00    599.75       .33       .20       .13    596.70
    305.         21.      188.       96.        7.       36.       27.        4.        2.     596.70
     .16        2.79      5.17      3.53      .030      .032      .030     0.000    593.30     91.15
  .002444        50.       50.       50.         3         0         0      0.00     30.26    121.41
0


 SPECIAL BRIDGE
 SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      7.40      3.00      50.00     6.50      0.00      33.00     0.00      594.70    593.50

 *SECNO 2502.000
 3280 CROSS SECTION    2502.00 EXTENDED        .48 FEET

 PRESSURE AND WEIR FLOW

  EGPRS      EGLWC        H3        QWEIR       QPR        BAREA    TRAPEZOID     ELLC      ELTRD
                                                                       AREA
   609.24     601.86      0.00        94.      212.        33.        21.       598.00    603.70

   2502.00      9.77    604.17      0.00      0.00    604.19       .01      4.43      0.00    598.00
    305.         38.       67.      200.       49.       60.      238.        6.        3.     598.00
     .28         .79      1.11       .84      .030      .032      .030     0.000    594.40     82.00
  .000058       400.      400.      400.         1         0         5      0.00     93.00    175.00
0
1
  82/12/01.   12.08.47.                                                                                        PAGE   34

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

 *SECNO 2950.000
 3280 CROSS SECTION    2950.00 EXTENDED        .18 FEET
           J
   2950.00      9.28    604.18      0.00      0.00    604.19       .01       .00       .00    603.70
    206.          4.      202.        0.       27.      230.        1.        7.        3.     603.70
     .31         .15       .88       .12      .030      .030      .030     0.000    594.90      0.00
  .000038       100.      100.      100.         2         0         0      0.00    127.78    127.78
0
 CCHV     .100 CEHV      .300
 *SECNO 3500.000
           K
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   3500.00      13.49    604.19      0.00      0.00    604.19       .00        .00        .00    593.60
    206.          45.      161.        0.      397.     1152.        0.        17.         5.    605.10
    1.35          .11       .14      0.00      .030      .030      .030      0.000     590.70     36.01
  .000000        500.      500.      500.         1         0         0       0.00     190.27    226.28
0
 CCHV      .300 CEHV      .500
 *SECNO 3600.000
         L  PAVED TRAIL, 6.5X61 CMP, TR 604.8, LC 603.3
   3600.00       7.36    604.16      0.00      0.00    604.22       .06        .00        .03    600.00
    206.          63.       98.       46.       44.       42.       32.        20.         5.    600.00
    1.37         1.43      2.34      1.42      .030      .030      .030      0.000     596.80     75.71
  .000323        120.      120.      120.         2         0         0       0.00      42.93    118.64
0

 SPECIAL BRIDGE



 5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
 SB    XK         XKOR       COFQ       RDLEN       BWC        BWP        BAREA       SS         ELCHU      ELCHD
       0.00       2.10       2.50       0.00       6.50       0.00       33.20       0.00      596.80     596.80

 *SECNO 3601.000
 3280 CROSS SECTION   3601.00 EXTENDED       .43 FEET

 PRESSURE AND WEIR FLOW

1
  82/12/01.    12.08.47.                                                                           PAGE    35

       SECNO      DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL        OLOSS    BANK ELEV
       Q          QLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA     LEFT/RIGHT
       TIME       VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN       SSTA
       SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID      ENDST


  EGPRS         EGLWC         H3         QWEIR        QPR         BAREA    TRAPEZOID       ELLC        ELTRD
                                                                               AREA
    605.42       604.54        0.00        15.         191.          33.       42.        603.30      604.80

   3601.00       8.42    605.22      0.00      0.00    605.24       .02       1.02       0.00    600.00
    206.          76.       71.       59.      100.       49.       84.        20.         5.    600.00
    1.38          .77      1.46       .70      .030      .030      .030      0.000     596.80      0.00
  .000102         61.       61.       61.         1         0         2       0.00     200.00    200.00
0
 *SECNO 3800.000
 3280 CROSS SECTION   3800.00 EXTENDED       .44 FEET

 3470 ENCROACHMENT STATIONS          .0      150.0  TYPE      1  TARGET      149.999
            M
   3800.00       8.24    605.24      0.00      0.00    605.25       .01        .01        .00    604.80
    206.           5.      198.        2.       32.      244.       13.        21.         6.    604.80
    1.42          .17       .81       .17      .030      .030      .030      0.000     597.00       .00
  .000034        100.      100.      100.         0         0         0       0.00     150.00    150.00
0
 CCHV      .100 CEHV      .300
 *SECNO 5500.000

 3265 DIVIDED FLOW

 3470 ENCROACHMENT STATIONS       215.0      515.0  TYPE      1  TARGET      300.000
            N
   5500.00       6.60    605.30      0.00      0.00    605.30       .00        .06        .00    604.30
    123.          40.       54.       29.      191.      120.      157.        36.        15.    605.40
    2.99          .21       .45       .19      .050      .040      .050      0.000     598.70    215.00
  .000030       1750.     1750.     1750.         2         0         0       0.00     297.86    515.00
0
 *SECNO 6950.000
            O
   6950.00       6.72    605.32      0.00      0.00    605.32       .00        .02        .00    605.50
     73.           0.       73.        0.        0.      596.        0.        66.        28.    609.20
    8.67         0.00       .12      0.00      .050      .040      .050      0.000     598.60     88.95
  .000002       2500.     2500.     2500.         2         0         0       0.00     175.93    264.88
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THIS RUN EXECUTED 82/12/01. 12.08.51.

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**********************************************
HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55
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NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

WATSON DRAIN

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	650.000	589.92	-5.08	591.06	7.10	0.00	137.00	0.00	0.00	0.00	53.20	60.30	0.00
*	650.000	590.65	-4.35	592.15	7.10	0.00	208.00	0.00	0.00	0.00	53.20	60.30	0.00
*	650.000	590.94	-4.06	592.59	7.10	0.00	240.00	0.00	0.00	0.00	53.20	60.30	0.00
*	650.000	591.51	-3.49	593.45	7.10	0.00	305.00	0.00	0.00	0.00	53.20	60.30	0.00
*	651.000	589.91	0.00	591.10	7.10	0.00	137.00	0.00	0.00	0.00	53.20	60.30	0.00
*	651.000	590.61	0.00	592.24	7.10	0.00	208.00	0.00	0.00	0.00	53.20	60.30	0.00
*	651.000	590.85	0.00	592.74	7.10	0.00	240.00	0.00	0.00	0.00	53.20	60.30	0.00
*	651.000	591.30	0.00	593.78	7.10	0.00	305.00	0.00	0.00	0.00	53.20	60.30	0.00
	652.000	590.86	0.00	591.48	7.10	0.00	137.00	0.00	0.00	0.00	53.20	60.30	0.00
	652.000	591.79	0.00	592.76	7.10	0.00	208.00	0.00	0.00	0.00	53.20	60.30	0.00
	652.000	592.19	0.00	593.35	7.10	0.00	240.00	0.00	0.00	0.00	53.20	60.30	0.00
	652.000	592.94	0.00	594.68	7.10	0.00	305.00	0.00	0.00	0.00	53.20	60.30	0.00
	653.000	590.96	0.00	591.49	7.10	0.00	137.00	0.00	0.00	0.00	53.20	60.30	0.00
	653.000	592.13	0.00	592.80	7.10	0.00	208.00	0.00	0.00	0.00	53.20	60.30	0.00
	653.000	592.70	0.00	593.40	7.10	0.00	240.00	0.00	0.00	0.00	53.20	60.30	0.00
	653.000	594.54	0.00	594.83	25.00	28.32	236.19	40.49	0.00	0.00	53.20	60.30	0.00
	750.000	591.70	0.00	591.91	12.30	0.00	137.00	0.00	0.00	0.00	50.00	65.00	0.00
	750.000	592.97	0.00	593.20	14.18	0.00	208.00	0.00	0.00	0.00	50.00	65.00	0.00
	750.000	593.56	0.00	593.79	18.95	.09	239.91	0.00	0.00	0.00	50.00	65.00	0.00
	750.000	594.79	0.00	594.98	25.00	8.31	290.27	6.42	0.00	0.00	50.00	65.00	0.00
	1150.000	592.70	0.00	592.99	9.94	0.00	137.00	0.00	0.00	0.00	94.00	106.00	0.00
	1150.000	593.83	0.00	594.19	11.00	0.00	208.00	0.00	0.00	0.00	94.00	106.00	0.00
	1150.000	594.33	0.00	594.71	11.47	0.00	240.00	0.00	0.00	0.00	94.00	106.00	0.00
	1150.000	595.30	0.00	595.49	200.00	33.29	238.42	33.29	0.00	0.00	94.00	106.00	0.00
	1250.000	592.97	0.00	593.26	10.30	2.85	132.44	1.71	0.00	0.00	96.50	104.20	0.00
	1250.000	594.08	0.00	594.47	11.28	6.54	197.55	3.91	0.00	0.00	96.50	104.20	0.00
	1250.000	594.56	0.00	594.98	11.70	8.65	226.17	5.18	0.00	0.00	96.50	104.20	0.00
	1250.000	595.34	0.00	595.83	27.08	14.68	281.15	9.17	0.00	0.00	96.50	104.20	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
1251.000	592.99	0.00	593.38	10.31	0.00	137.00	0.00	0.00	0.00	96.50	104.20	0.00
1251.000	594.86	0.00	595.14	11.97	8.10	195.05	4.85	0.00	0.00	96.50	104.20	0.00
1251.000	595.34	0.00	595.64	27.25	11.59	221.16	7.25	0.00	0.00	96.50	104.20	0.00
1251.000	595.91	-0.00	596.26	47.17	22.60	265.90	16.50	0.00	0.00	96.50	104.20	0.00
1350.000	593.60	0.00	593.77	10.79	0.00	137.00	0.00	50.00	75.00	94.00	106.00	125.00
1350.000	595.12	0.00	595.30	50.00	2.19	203.62	2.19	50.00	75.00	94.00	106.00	125.00
1350.000	595.66	0.00	595.81	50.00	15.08	209.84	15.08	50.00	75.00	94.00	106.00	125.00
1350.000	596.31	0.00	596.44	50.00	37.42	230.16	37.42	50.00	75.00	94.00	106.00	125.00
1700.000	594.51	0.00	594.63	11.64	0.00	137.00	0.00	50.00	75.00	94.00	106.00	125.00
1700.000	595.86	0.00	595.95	50.00	17.13	173.74	17.13	50.00	75.00	94.00	106.00	125.00
1700.000	596.25	0.00	596.34	50.00	28.24	183.52	28.24	50.00	75.00	94.00	106.00	125.00
1700.000	596.82	0.00	596.91	50.00	48.48	208.04	48.48	50.00	75.00	94.00	106.00	125.00
1800.000	594.60	0.00	594.95	13.00	0.00	137.00	0.00	0.00	0.00	193.00	206.00	0.00

1800.000	595.87	0.00	596.20	13.00	0.00	208.00	0.00	0.00	0.00	193.00	206.00	0.00
1800.000	596.28	0.00	596.51	25.57	27.69	205.29	7.02	0.00	0.00	193.00	206.00	0.00
1800.000	596.84	0.00	597.09	27.97	43.28	250.76	10.97	0.00	0.00	193.00	206.00	0.00
1801.000	594.73	0.00	595.12	13.00	0.00	137.00	0.00	0.00	0.00	193.00	206.00	0.00
1801.000	596.62	0.00	596.85	13.00	0.00	208.00	0.00	0.00	0.00	193.00	206.00	0.00
1801.000	597.39	0.00	597.50	30.00	40.41	199.40	10.18	0.00	0.00	193.00	206.00	0.00
1801.000	598.05	0.00	598.17	30.00	61.46	228.70	14.84	0.00	0.00	193.00	206.00	0.00
2400.000	596.63	0.00	597.07	16.49	0.00	137.00	0.00	0.00	0.00	90.00	116.00	0.00
2400.000	597.05	0.00	597.67	18.34	0.00	208.00	0.00	0.00	0.00	90.00	116.00	0.00
2400.000	597.52	0.00	598.02	20.38	0.00	240.00	0.00	0.00	0.00	90.00	116.00	0.00
2400.000	598.18	0.00	598.63	23.27	0.00	305.00	0.00	0.00	0.00	90.00	116.00	0.00
2500.000	597.41	0.00	597.93	13.81	.74	133.16	3.10	0.00	0.00	96.60	103.40	0.00
2500.000	597.97	0.00	598.69	19.31	3.76	188.36	15.87	0.00	0.00	96.60	103.40	0.00
2500.000	598.19	0.00	598.96	21.59	5.93	209.05	25.02	0.00	0.00	96.60	103.40	0.00
2500.000	598.68	0.00	599.43	25.22	11.89	238.42	54.69	0.00	0.00	96.60	103.40	0.00
2501.000	597.77	0.00	598.23	6.80	0.00	137.00	0.00	0.00	0.00	96.60	103.40	0.00
2501.000	598.73	0.00	599.03	25.54	9.74	153.23	45.02	0.00	0.00	96.60	103.40	0.00
2501.000	599.02	0.00	599.31	27.45	13.37	164.09	62.54	0.00	0.00	96.60	103.40	0.00
2501.000	599.43	0.00	599.75	30.26	20.73	197.89	96.38	0.00	0.00	96.60	103.40	0.00
2502.000	599.36	0.00	599.75	6.80	0.00	137.00	0.00	0.00	0.00	96.60	103.40	0.00
2502.000	603.05	0.00	603.30	6.80	0.00	208.00	0.00	0.00	0.00	96.60	103.40	0.00
2502.000	603.90	0.00	603.91	93.00	29.79	56.32	153.90	0.00	0.00	96.60	103.40	0.00
2502.000	604.17	0.00	604.19	93.00	38.31	67.02	199.67	0.00	0.00	96.60	103.40	0.00
2950.000	599.89	0.00	599.91	26.21	0.00	92.00	0.00	0.00	0.00	82.00	125.00	0.00
2950.000	603.37	0.00	603.38	41.55	0.00	142.00	0.00	0.00	0.00	82.00	125.00	0.00
2950.000	603.91	0.00	603.91	100.48	.34	162.65	.01	0.00	0.00	82.00	125.00	0.00
2950.000	604.18	0.00	604.19	127.78	3.92	202.00	.08	0.00	0.00	82.00	125.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
3500.000	599.91	0.00	599.91	149.83	12.67	79.33	0.00	0.00	0.00	104.00	230.00	0.00
3500.000	603.38	0.00	603.38	185.08	28.95	113.05	0.00	0.00	0.00	104.00	230.00	0.00
3500.000	603.92	0.00	603.92	188.54	34.83	128.17	0.00	0.00	0.00	104.00	230.00	0.00
3500.000	604.19	0.00	604.19	190.27	44.97	161.03	0.00	0.00	0.00	104.00	230.00	0.00
* 3600.000	599.54	0.00	600.50	6.27	0.00	92.00	0.00	0.00	0.00	96.70	103.20	0.00
3600.000	603.26	0.00	603.50	6.50	0.00	142.00	0.00	0.00	0.00	96.70	103.20	0.00
3600.000	603.89	0.00	603.94	40.57	47.03	81.75	34.23	0.00	0.00	96.70	103.20	0.00
3600.000	604.16	0.00	604.22	42.93	62.62	97.80	45.58	0.00	0.00	96.70	103.20	0.00
3601.000	600.81	0.00	601.15	6.50	0.00	92.00	0.00	0.00	0.00	96.70	103.20	0.00
3601.000	603.64	0.00	603.85	6.50	0.00	142.00	0.00	0.00	0.00	96.70	103.20	0.00
3601.000	604.46	0.00	604.68	6.50	0.00	163.00	0.00	0.00	0.00	96.70	103.20	0.00
3601.000	605.22	0.00	605.24	200.00	76.37	70.84	58.79	0.00	0.00	96.70	103.20	0.00
3800.000	601.26	0.00	601.28	30.38	0.00	92.00	0.00	150.00	.00	72.50	121.00	150.00
3800.000	603.92	0.00	603.93	43.98	0.00	142.00	0.00	150.00	.00	72.50	121.00	150.00
3800.000	604.74	0.00	604.75	48.21	0.00	163.00	0.00	150.00	.00	72.50	121.00	150.00
3800.000	605.24	0.00	605.25	150.00	5.38	198.48	2.14	150.00	.00	72.50	121.00	150.00
5500.000	601.67	0.00	601.71	17.16	0.00	54.00	0.00	300.00	215.00	347.00	381.00	515.00
5500.000	604.03	0.00	604.04	213.78	3.52	81.77	.71	300.00	215.00	347.00	381.00	515.00
5500.000	604.81	0.00	604.82	287.16	25.60	56.85	16.54	300.00	215.00	347.00	381.00	515.00
5500.000	605.30	0.00	605.30	297.86	39.80	53.97	29.23	300.00	215.00	347.00	381.00	515.00
6950.000	601.92	0.00	601.92	87.74	0.00	31.00	0.00	0.00	0.00	86.00	301.00	0.00
6950.000	604.08	0.00	604.08	143.74	0.00	53.00	0.00	0.00	0.00	86.00	301.00	0.00
6950.000	604.84	0.00	604.84	163.38	0.00	61.00	0.00	0.00	0.00	86.00	301.00	0.00
6950.000	605.32	0.00	605.32	175.93	0.00	73.00	0.00	0.00	0.00	86.00	301.00	0.00

WATSON DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
* 650.000	0.00	0.00	0.00	587.40	137.00	589.92	589.92	591.06	156.65	8.57	15.99	10.95

*	650.000	0.00	0.00	0.00	587.40	208.00	590.65	590.65	592.15	141.49	9.82	21.18	17.49
*	650.000	0.00	0.00	0.00	587.40	240.00	590.94	590.94	592.59	138.51	10.33	23.23	20.39
*	650.000	0.00	0.00	0.00	587.40	305.00	591.51	591.51	593.45	131.08	11.13	27.27	26.64
*	651.000	1.00	593.00	593.60	587.40	137.00	589.91	589.91	591.10	244.33	8.74	15.67	8.76
*	651.000	1.00	593.00	593.60	587.40	208.00	590.61	590.61	592.24	285.06	10.24	20.30	12.32
*	651.000	1.00	593.00	593.60	587.40	240.00	590.85	590.85	592.74	325.72	11.05	21.71	13.30
*	651.000	1.00	593.00	593.60	587.40	305.00	591.30	591.30	593.78	419.39	12.63	24.15	14.89
	652.000	21.00	593.00	593.60	587.40	137.00	590.86	0.00	591.48	105.42	6.29	21.78	13.34
	652.000	21.00	593.00	593.60	587.40	208.00	591.79	0.00	592.76	165.64	7.90	26.33	16.16
	652.000	21.00	593.00	593.60	537.40	240.00	592.19	0.00	593.35	202.58	8.63	27.80	16.86
	652.000	21.00	593.00	593.60	587.40	305.00	592.94	0.00	594.68	377.39	10.61	28.75	15.70
	653.000	1.00	0.00	0.00	587.40	137.00	590.96	0.00	591.49	44.24	5.85	23.37	20.60
	653.000	1.00	0.00	0.00	587.40	208.00	592.13	0.00	592.80	36.67	6.55	31.77	34.35
	653.000	1.00	0.00	0.00	587.40	240.00	592.70	0.00	593.40	32.87	6.71	35.77	41.86
	653.000	1.00	0.00	0.00	587.40	305.00	594.54	591.50	594.83	11.34	4.84	85.90	90.58
	750.000	100.00	0.00	0.00	587.40	137.00	591.70	0.00	591.91	24.29	3.66	37.43	27.80
	750.000	100.00	0.00	0.00	587.40	208.00	592.97	0.00	593.20	20.73	3.84	54.16	45.68
	750.000	100.00	0.00	0.00	587.40	240.00	593.56	0.00	593.79	18.36	3.82	63.11	56.00
	750.000	100.00	0.00	0.00	587.40	305.00	594.79	0.00	594.98	11.43	3.57	93.13	90.20
	1150.000	350.00	0.00	0.00	588.70	137.00	592.70	0.00	592.99	38.53	4.37	31.35	22.07
	1150.000	350.00	0.00	0.00	588.70	208.00	593.83	0.00	594.19	37.48	4.81	43.26	33.98
	1150.000	350.00	0.00	0.00	588.70	240.00	594.33	0.00	594.71	36.09	4.91	48.88	39.95
	1150.000	350.00	0.00	0.00	588.70	305.00	595.30	0.00	595.49	19.26	3.95	135.71	69.50
	1250.000	100.00	0.00	0.00	588.70	137.00	592.97	0.00	593.26	19.77	4.42	33.85	30.81
	1250.000	100.00	0.00	0.00	588.70	208.00	594.08	0.00	594.47	19.08	5.13	45.82	47.61
	1250.000	100.00	0.00	0.00	588.70	240.00	594.56	0.00	594.98	18.41	5.35	51.36	55.94
	1250.000	100.00	0.00	0.00	588.70	305.00	595.34	0.00	595.83	18.28	5.83	63.93	71.34
	1251.000	21.00	594.90	594.00	588.70	137.00	592.99	0.00	593.38	67.41	5.06	27.07	16.69
	1251.000	21.00	594.90	594.00	588.70	208.00	594.86	0.00	595.14	11.45	4.38	54.94	61.48
	1251.000	21.00	594.90	594.00	588.70	240.00	595.34	0.00	595.64	11.28	4.58	64.07	71.45
	1251.000	21.00	594.90	594.00	588.70	305.00	595.91	0.00	596.26	12.16	5.04	85.53	87.46
	1350.000	100.00	0.00	0.00	588.70	137.00	593.60	0.00	593.77	19.09	3.36	40.73	31.35
	1350.000	100.00	0.00	0.00	598.70	208.00	595.12	0.00	595.30	15.90	3.50	66.40	52.16
	1350.000	100.00	0.00	0.00	588.70	240.00	595.66	0.00	595.81	11.83	3.24	93.72	69.79
	1350.000	100.00	0.00	0.00	588.70	305.00	596.31	0.00	596.44	9.73	3.17	126.29	97.78

SEGNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1700.000	600.00	0.00	0.00	588.70	137.00	594.51	0.00	594.63	10.52	2.69	50.98	42.24
1700.000	600.00	0.00	0.00	588.70	208.00	595.86	0.00	595.95	7.19	2.59	103.58	77.56
1700.000	600.00	0.00	0.00	588.70	240.00	596.25	0.00	596.34	6.40	2.56	123.21	94.86
1700.000	600.00	0.00	0.00	538.70	305.00	596.82	0.00	596.91	6.08	2.65	151.65	123.73
1800.000	100.00	0.00	0.00	592.00	137.00	594.60	0.00	594.95	54.96	4.74	28.88	18.48
1800.000	100.00	0.00	0.00	592.00	208.00	595.87	0.00	596.20	28.04	4.58	45.40	39.28
1800.000	100.00	0.00	0.00	592.00	240.00	596.28	0.00	596.51	18.80	4.04	68.92	55.35
1800.000	100.00	0.00	0.00	592.00	305.00	596.84	0.00	597.09	18.06	4.33	83.68	71.77
1801.000	21.00	597.30	595.70	592.00	137.00	594.73	0.00	595.12	97.13	4.97	27.54	13.90
1801.000	21.00	597.30	595.70	592.00	208.00	596.62	0.00	596.85	14.59	3.77	55.24	54.46
1801.000	21.00	597.30	595.70	592.00	240.00	597.39	0.00	597.50	6.99	2.91	99.75	90.80
1801.000	21.00	597.30	595.70	592.00	305.00	598.05	0.00	598.17	6.74	3.10	119.59	117.51
2400.000	200.00	0.00	0.00	594.40	137.00	596.63	0.00	597.07	95.72	5.35	25.62	14.00
2400.000	200.00	0.00	0.00	594.40	208.00	597.05	0.00	597.67	110.37	6.31	32.97	19.80
2400.000	200.00	0.00	0.00	594.40	240.00	597.52	0.00	598.02	75.83	5.71	42.01	27.56
2400.000	200.00	0.00	0.00	594.40	305.00	598.18	0.00	598.63	55.01	5.41	56.43	41.12
2500.000	100.00	0.00	0.00	593.30	137.00	597.41	0.00	597.93	71.15	5.89	25.11	16.24
2500.000	100.00	0.00	0.00	593.30	208.00	597.97	0.00	598.69	85.02	7.13	34.33	22.56
2500.000	100.00	0.00	0.00	593.30	240.00	598.19	0.00	598.96	86.34	7.47	39.06	25.83
2500.000	100.00	0.00	0.00	593.30	305.00	598.68	0.00	599.43	77.38	7.62	50.51	34.67
2501.000	50.00	0.00	0.00	593.30	137.00	597.77	0.00	598.23	44.84	5.47	25.05	20.46

	2501.000	50.00	0.00	0.00	593.30	208.00	598.73	0.00	599.03	25.84	4.85	1.69	40.92
	2501.000	50.00	0.00	0.00	593.30	240.00	599.02	0.00	599.31	24.36	4.90	49.14	48.53
	2501.000	50.00	0.00	0.00	593.30	305.00	599.43	0.00	599.75	24.44	5.17	71.03	61.70
	2502.000	400.00	603.70	598.00	594.40	137.00	599.36	0.00	599.75	33.16	4.98	27.53	23.79
	2502.000	400.00	603.70	598.00	594.40	208.00	603.05	0.00	603.30	8.83	3.95	52.60	70.02
	2502.000	400.00	603.70	598.00	594.40	240.00	603.90	0.00	603.91	.46	.95	322.25	355.41
	2502.000	400.00	603.70	598.00	594.40	305.00	604.17	0.00	604.19	.58	1.11	347.22	399.52
	2950.000	100.00	0.00	0.00	594.90	92.00	599.89	0.00	599.91	1.54	1.19	77.29	74.04
	2950.000	100.00	0.00	0.00	594.90	142.00	603.37	0.00	603.38	.31	.73	195.29	255.01
	2950.000	100.00	0.00	0.00	594.90	163.00	603.91	0.00	603.91	.29	.75	223.97	300.16
	2950.000	100.00	0.00	0.00	594.90	206.00	604.18	0.00	604.19	.38	.88	257.41	333.33
	3500.000	500.00	0.00	0.00	590.70	92.00	599.91	0.00	599.91	.01	.12	808.21	1291.04
	3500.000	500.00	0.00	0.00	590.70	142.00	603.38	0.00	603.38	.00	.11	1395.25	2756.27
	3500.000	500.00	0.00	0.00	590.70	163.00	603.92	0.00	603.92	.00	.11	1496.98	3046.84
	3500.000	500.00	0.00	0.00	590.70	206.00	604.19	0.00	604.19	.00	.14	1548.64	3198.11
*	3600.000	120.00	0.00	0.00	596.80	92.00	599.54	599.54	600.50	171.42	7.84	11.73	7.03
	3600.000	120.00	0.00	0.00	596.80	142.00	603.26	0.00	603.50	11.30	3.96	35.83	42.24
	3600.000	120.00	0.00	0.00	596.80	163.00	603.89	0.00	603.94	2.60	2.05	106.29	101.01
	3600.000	120.00	0.00	0.00	596.80	206.00	604.16	0.00	604.22	3.23	2.34	117.57	114.63

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3601.000	61.00	604.80	603.30	596.80	92.00	600.81	0.00	601.15	42.66	4.66	19.75	14.09
3601.000	61.00	604.80	603.30	596.80	142.00	603.64	0.00	603.85	9.03	3.71	38.32	47.25
3601.000	61.00	604.80	603.30	596.80	163.00	604.46	0.00	604.68	7.70	3.73	43.66	58.72
3601.000	61.00	604.80	603.30	596.80	206.00	605.22	0.00	605.24	1.02	1.46	232.73	204.46
3800.000	100.00	0.00	0.00	597.00	92.00	601.26	0.00	601.28	1.43	1.11	82.62	76.92
3800.000	100.00	0.00	0.00	597.00	142.00	603.92	0.00	603.93	.41	.78	181.33	221.98
3800.000	100.00	0.00	0.00	597.00	163.00	604.74	0.00	604.75	.32	.74	219.34	286.57
3800.000	100.00	0.00	0.00	597.00	206.00	605.24	0.00	605.25	.34	.81	288.58	352.81
5500.000	1750.00	0.00	0.00	598.70	54.00	601.67	0.00	601.71	10.02	1.69	31.97	17.06
5500.000	1750.00	0.00	0.00	598.70	86.00	604.03	0.00	604.04	1.90	1.01	113.20	62.46
5500.000	1750.00	0.00	0.00	598.70	99.00	604.81	0.00	604.82	.49	.55	325.15	141.45
5500.000	1750.00	0.00	0.00	598.70	123.00	605.30	0.00	605.30	.30	.45	468.26	223.57
6950.000	2500.00	0.00	0.00	598.60	31.00	601.92	0.00	601.92	.16	.21	148.08	77.82
6950.000	2500.00	0.00	0.00	598.60	53.00	604.08	0.00	604.08	.03	.13	398.04	291.00
6950.000	2500.00	0.00	0.00	598.60	61.00	604.84	0.00	604.84	.02	.12	514.37	409.63
6950.000	2500.00	0.00	0.00	598.60	73.00	605.32	0.00	605.32	.02	.12	596.49	499.09

WATSON DRAIN

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	650.000	137.00	589.92	0.00	0.00	-5.08	7.10	0.00
*	650.000	208.00	590.65	.73	0.00	-4.35	7.10	0.00
*	650.000	240.00	590.94	.29	0.00	-4.06	7.10	0.00
*	650.000	305.00	591.51	.57	0.00	-3.49	7.10	0.00
*	651.000	137.00	589.91	0.00	-.01	0.00	7.10	1.00
*	651.000	208.00	590.61	.71	-.03	0.00	7.10	1.00
*	651.000	240.00	590.85	.23	-.09	0.00	7.10	1.00
*	651.000	305.00	591.30	.45	-.21	0.00	7.10	1.00
	652.000	137.00	590.86	0.00	.95	0.00	7.10	21.00
	652.000	208.00	591.79	.93	1.17	0.00	7.10	21.00
	652.000	240.00	592.19	.40	1.35	0.00	7.10	21.00
	652.000	305.00	592.94	.74	1.64	0.00	7.10	21.00
	653.000	137.00	590.96	0.00	.10	0.00	7.10	1.00
	653.000	208.00	592.13	1.17	.34	0.00	7.10	1.00
	653.000	240.00	592.70	.57	.51	0.00	7.10	1.00
	653.000	305.00	594.54	1.83	1.60	0.00	25.00	1.00
	750.000	137.00	591.70	0.00	.74	0.00	12.30	100.00

750.000	208.00	592.97	1.27	.84	0.00	14.18	100.00
750.000	240.00	593.56	.59	.85	0.00	18.95	100.00
750.000	305.00	594.79	1.23	.25	0.00	25.00	100.00
1150.000	137.00	592.70	0.00	.99	0.00	9.94	350.00
1150.000	208.00	593.83	1.14	.86	0.00	11.00	350.00
1150.000	240.00	594.33	.50	.77	0.00	11.47	350.00
1150.000	305.00	595.30	.97	.51	0.00	200.00	350.00
1250.000	137.00	592.97	0.00	.27	0.00	10.30	100.00
1250.000	208.00	594.08	1.11	.24	0.00	11.28	100.00
1250.000	240.00	594.56	.48	.23	0.00	11.70	100.00
1250.000	305.00	595.34	.78	.04	0.00	27.08	100.00
1251.000	137.00	592.99	0.00	.02	0.00	10.31	21.00
1251.000	208.00	594.86	1.88	.78	0.00	11.97	21.00
1251.000	240.00	595.34	.48	.78	0.00	27.25	21.00
1251.000	305.00	595.91	.57	.58	0.00	47.17	21.00
1350.000	137.00	593.60	0.00	.61	0.00	10.79	100.00
1350.000	208.00	595.12	1.52	.26	0.00	50.00	100.00
1350.000	240.00	595.66	.54	.32	0.00	50.00	100.00
1350.000	305.00	596.31	.65	.40	0.00	50.00	100.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1700.000	137.00	594.51	0.00	.91	0.00	11.64	600.00
1700.000	208.00	595.86	1.35	.74	0.00	50.00	600.00
1700.000	240.00	596.25	.39	.59	0.00	50.00	600.00
1700.000	305.00	596.82	.57	.51	0.00	50.00	600.00
1800.000	137.00	594.60	0.00	.08	0.00	13.00	100.00
1800.000	208.00	595.87	1.27	.01	0.00	13.00	100.00
1800.000	240.00	596.28	.41	.03	0.00	25.57	100.00
1800.000	305.00	596.84	.55	.01	0.00	27.97	100.00
1801.000	137.00	594.73	0.00	.13	0.00	13.00	21.00
1801.000	208.00	596.62	1.89	.76	0.00	13.00	21.00
1801.000	240.00	597.39	.76	1.10	0.00	30.00	21.00
1801.000	305.00	598.05	.66	1.21	0.00	30.00	21.00
2400.000	137.00	596.63	0.00	1.90	0.00	16.49	200.00
2400.000	208.00	597.05	.42	.43	0.00	18.34	200.00
2400.000	240.00	597.52	.46	.13	0.00	20.38	200.00
2400.000	305.00	598.18	.66	.13	0.00	23.27	200.00
2500.000	137.00	597.41	0.00	.78	0.00	13.81	100.00
2500.000	208.00	597.97	.55	.91	0.00	19.31	100.00
2500.000	240.00	598.19	.23	.68	0.00	21.59	100.00
2500.000	305.00	598.68	.49	.50	0.00	25.22	100.00
2501.000	137.00	597.77	0.00	.36	0.00	6.80	50.00
2501.000	208.00	598.73	.97	.77	0.00	25.54	50.00
2501.000	240.00	599.02	.28	.82	0.00	27.45	50.00
2501.000	305.00	599.43	.41	.75	0.00	30.26	50.00
2502.000	137.00	599.36	0.00	1.60	0.00	6.80	400.00
2502.000	208.00	603.05	3.69	4.32	0.00	6.80	400.00
2502.000	240.00	603.90	.85	4.89	0.00	93.00	400.00
2502.000	305.00	604.17	.27	4.75	0.00	93.00	400.00
2950.000	92.00	599.89	0.00	.53	0.00	26.21	100.00
2950.000	142.00	603.37	3.48	.32	0.00	41.55	100.00
2950.000	163.00	603.91	.54	.00	0.00	100.48	100.00
2950.000	206.00	604.18	.27	.01	0.00	127.78	100.00
3500.000	92.00	599.91	0.00	.02	0.00	149.83	500.00
3500.000	142.00	603.38	3.47	.01	0.00	185.08	500.00
3500.000	163.00	503.92	.54	.01	0.00	188.54	500.00
3500.000	206.00	604.19	.28	.01	0.00	190.27	500.00
* 3600.000	92.00	599.54	0.00	-.37	0.00	6.27	120.00
3600.000	142.00	603.26	3.72	-.12	0.00	6.50	120.00
3600.000	163.00	603.89	.64	-.02	0.00	40.57	120.00
3600.000	206.00	604.16	.27	-.03	0.00	42.93	120.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3601.000	92.00	600.81	0.00	1.27	0.00	6.50	61.00
3601.000	142.00	603.64	2.83	.38	0.00	6.50	61.00
3601.000	163.00	604.46	.82	.57	0.00	6.50	61.00
3601.000	206.00	605.22	.76	1.06	0.00	200.00	61.00
3800.000	92.00	601.26	0.00	.45	0.00	30.38	100.00
3800.000	142.00	603.92	2.65	.29	0.00	43.98	100.00
3800.000	163.00	604.74	.82	.28	0.00	48.21	100.00
3800.000	206.00	605.24	.49	.01	0.00	150.00	100.00
5500.000	54.00	601.67	0.00	.40	0.00	17.16	1750.00
5500.000	86.00	604.03	2.36	.11	0.00	213.73	1750.00
5500.000	99.00	604.81	.79	.07	0.00	287.16	1750.00
5500.000	123.00	605.30	.49	.07	0.00	297.86	1750.00
6950.000	31.00	601.92	0.00	.25	0.00	87.74	2500.00
6950.000	53.00	604.08	2.16	.05	0.00	143.74	2500.00
6950.000	61.00	604.84	.76	.02	0.00	163.38	2500.00
6950.000	73.00	605.32	.48	.02	0.00	175.93	2500.00

GEORGETOWN TWP.
WATSON DRAIN
12/1/82

SUMMARY OF ERRORS AND SPECIAL NOTES

```
CAUTION  SECNO   650.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO   650.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO   650.000  PROFILE  3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO   650.000  PROFILE  4  CRITICAL DEPTH ASSUMED

CAUTION  SECNO   651.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO   651.000  PROFILE  1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO   651.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO   651.000  PROFILE  2  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO   651.000  PROFILE  3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO   651.000  PROFILE  3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO   651.000  PROFILE  3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO   651.000  PROFILE  4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO   651.000  PROFILE  4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO   651.000  PROFILE  4  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO  3600.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  3600.000  PROFILE  1  MINIMUM SPECIFIC ENERGY
```


THIS RUN EXECUTED 82/12/01. 12.08.53.

```
*************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MARC 1982
  ERROR CORR -  01,02,03,04,05
  MODIFICATION -  50,51,52,53,54,55
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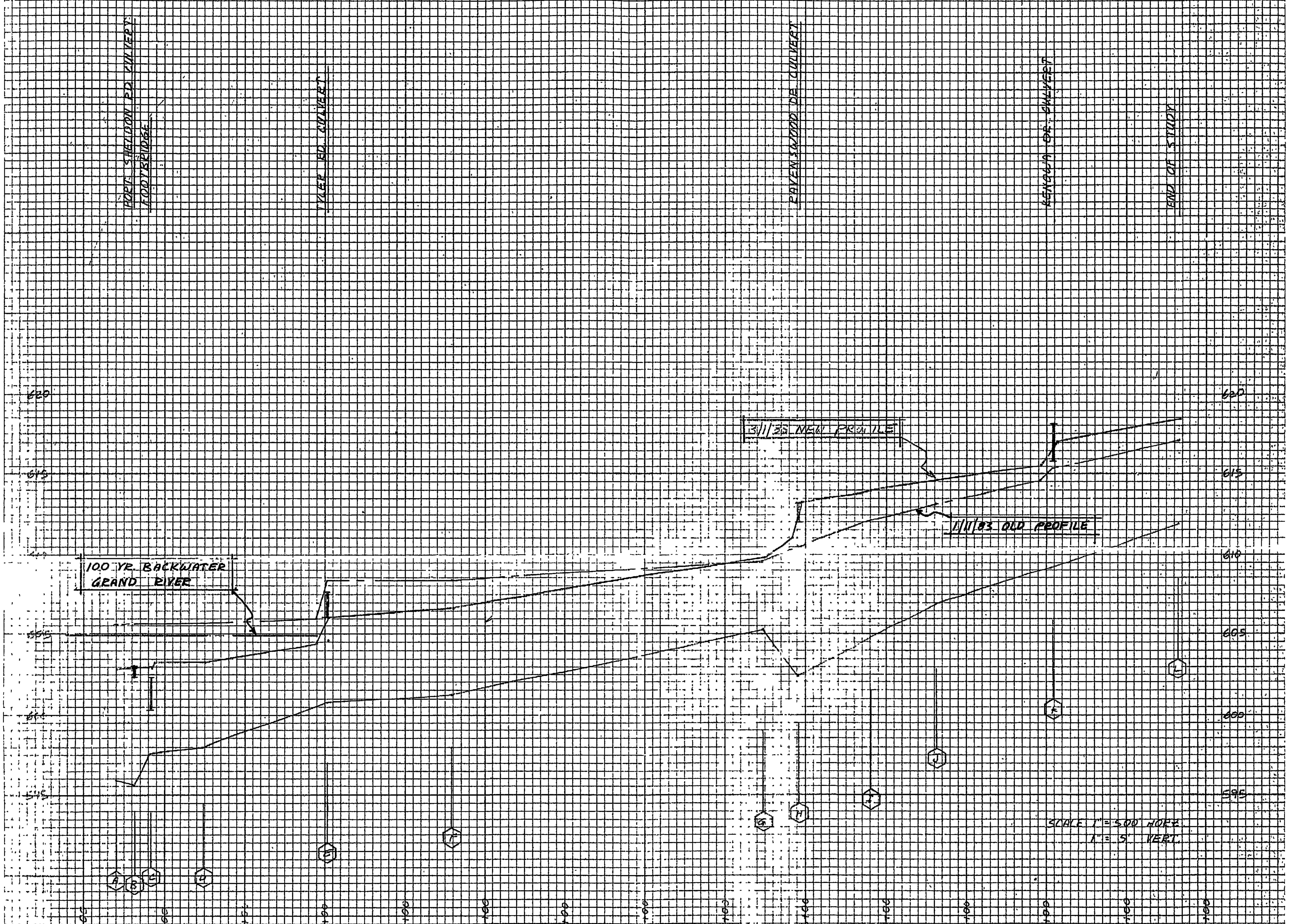

LEGEND
- 10 YR FLOOD
- 50 YR FLOOD
- 100 YR FLOOD
- 500 YR FLOOD
- CROSS SECTION LOCATION
- STREAMBED

FLOOD INSURANCE STUDY
GEORGETOWN TWP
HOIZENGA DRAIN

ARCHITECTS ENGINEERS PLANNERS SURVEYORS	**GOVE ASSOCIATES, INC.** 1601 Portage Street Kalamazoo, Michigan 616 385-0011	2724 E. Michigan Lansing, Michigan (517) 485-0555

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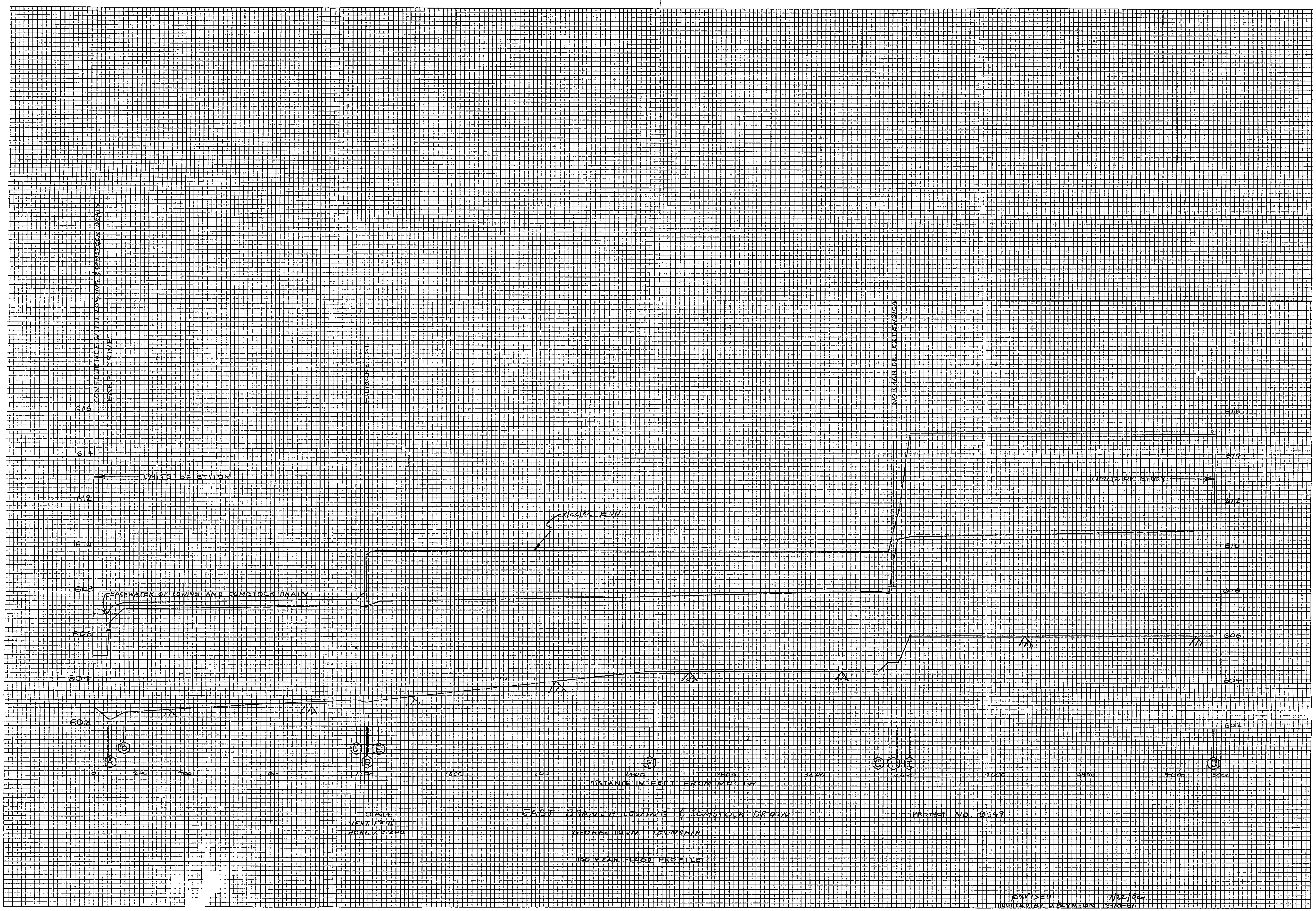
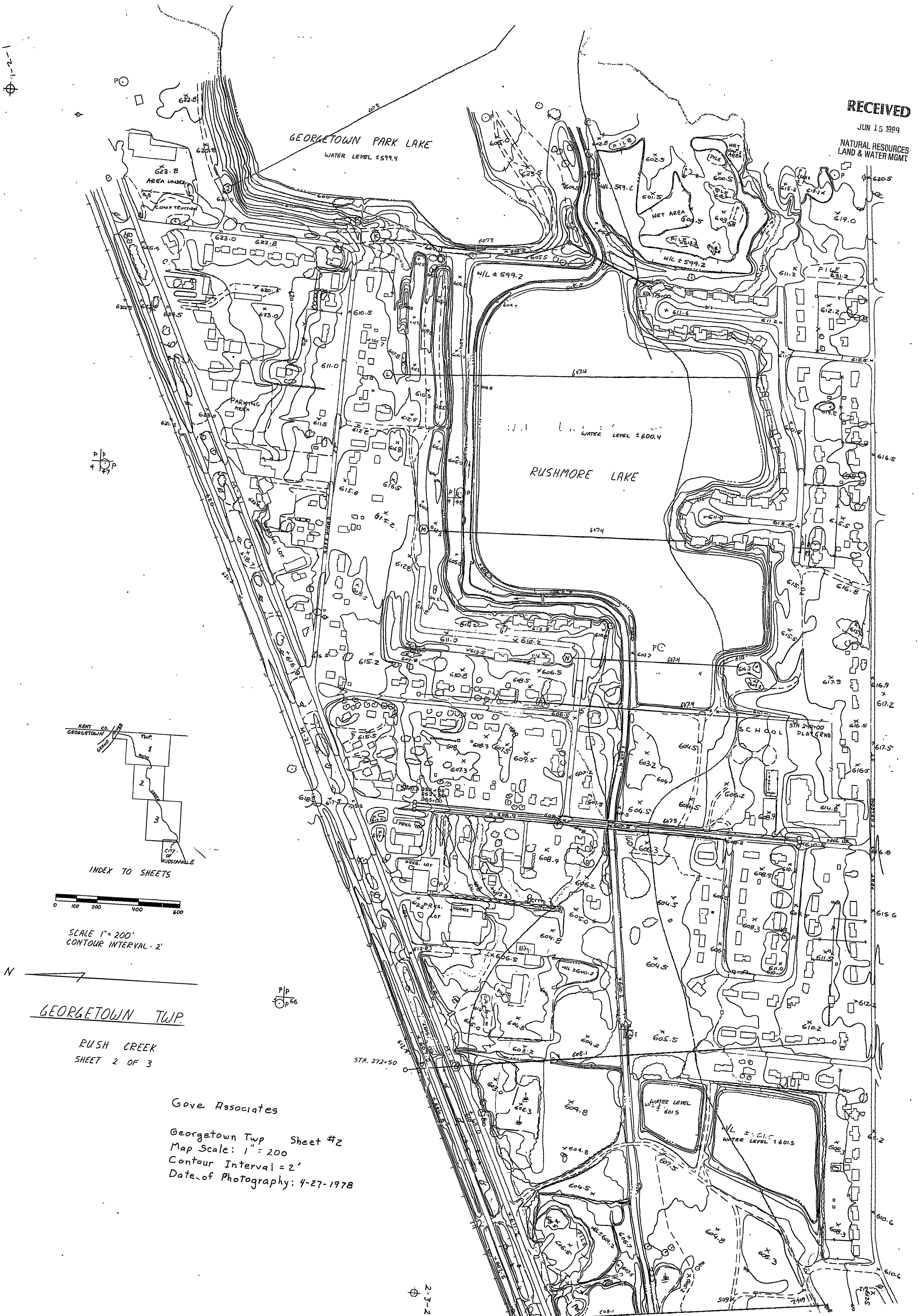
7-13-82
REV. 1-1-83
REV. 3/1/83



GEORGETOWN
E BR. LOWING +
COMSTOCK DR.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JUN 15 1989
NATURAL RESOURCES
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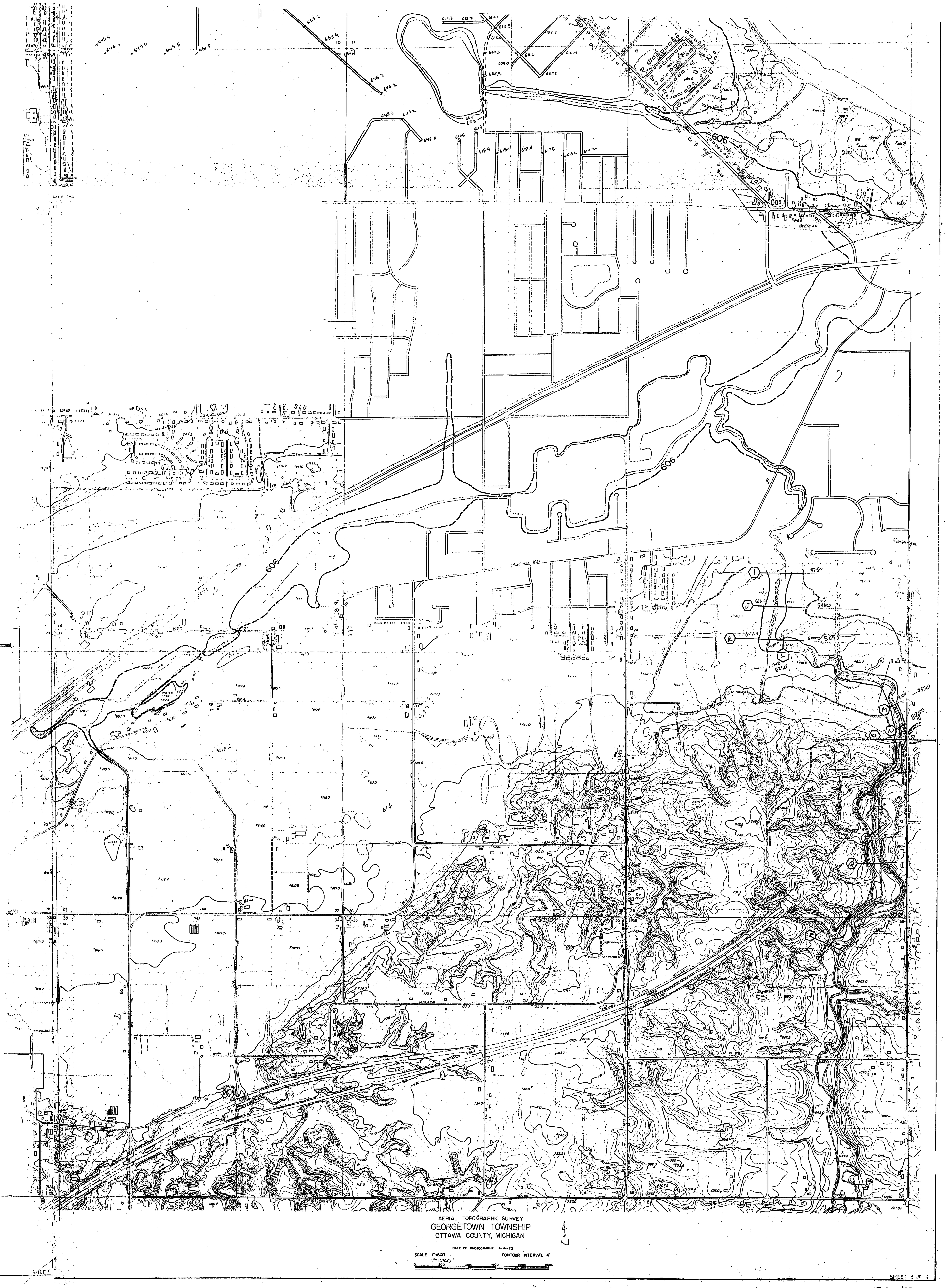
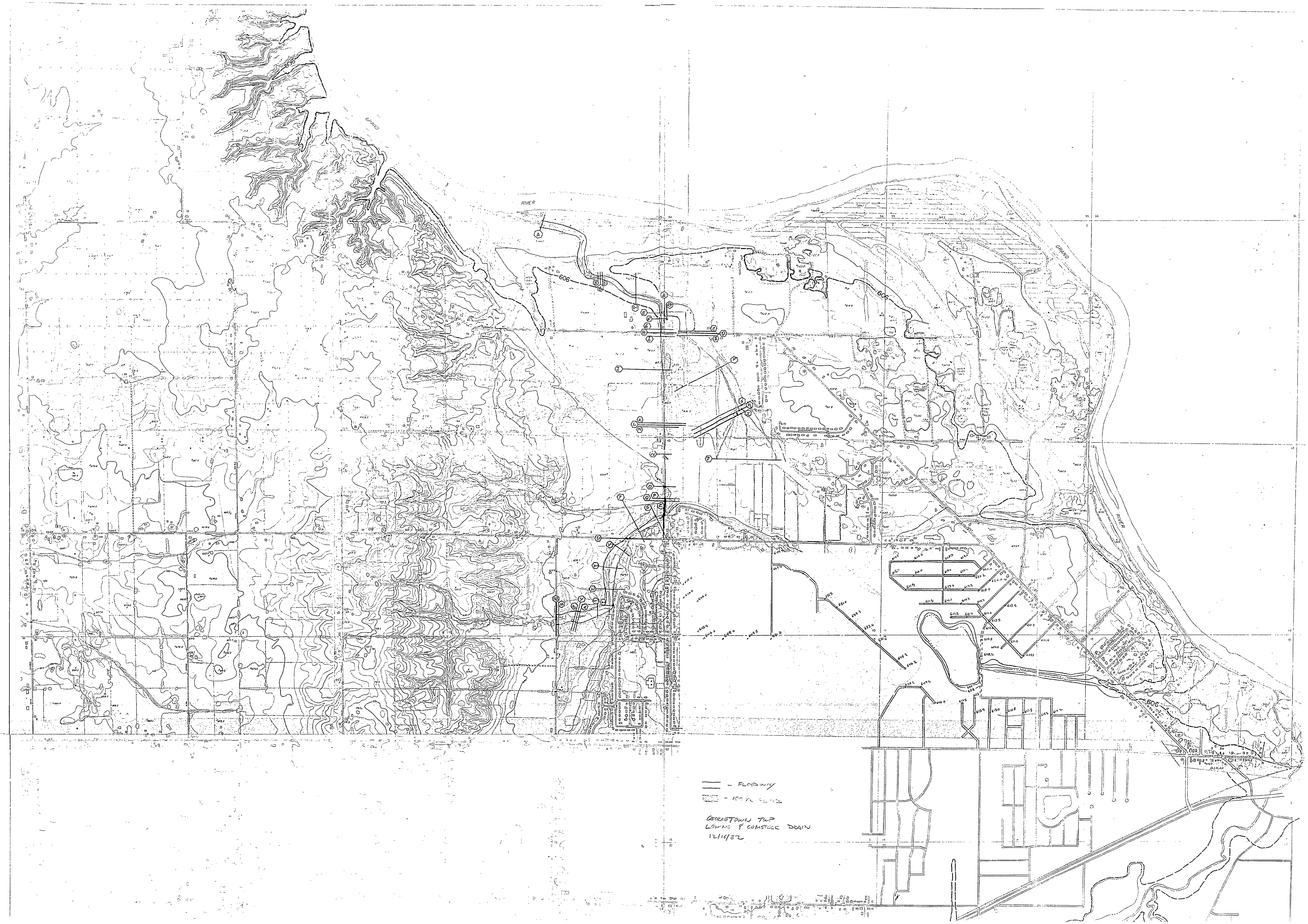
GEORGETOWN PARK LAKE
WATER LEVEL ±599.4
RUSHMORE LAKE
WATER LEVEL ±600.4
SCHOOL
PLAYGRND
PARKING AREA
AREA UNDER CONSTRUCTION
WET AREA
INDEX TO SHEETS
SCALE 1" = 200'
CONTOUR INTERVAL - 2'
N
GEORGETOWN TWP.
RUSH CREEK
SHEET 2 OF 3
Gove Associates
Georgetown Twp Sheet #2
Map Scale: 1" = 200
Contour Interval = 2'
Date of Photography: 4-27-1978



AERIAL TOPOGRAPHIC SURVEY
GEORGETOWN TOWNSHIP
OTTAWA COUNTY, MICHIGAN
DATE OF PHOTOGRAPHY 4-14-73
SCALE 1"=1000'
CONTOUR INTERVAL 4'
0 500 1000 1500 2000 2500
2/28/83 REV.


GRAND
RIVER
606
RIVER
FLOODWAY
GEORGETOWN TWP
LOWING & COMSTOCK DRAIN
12/16/82

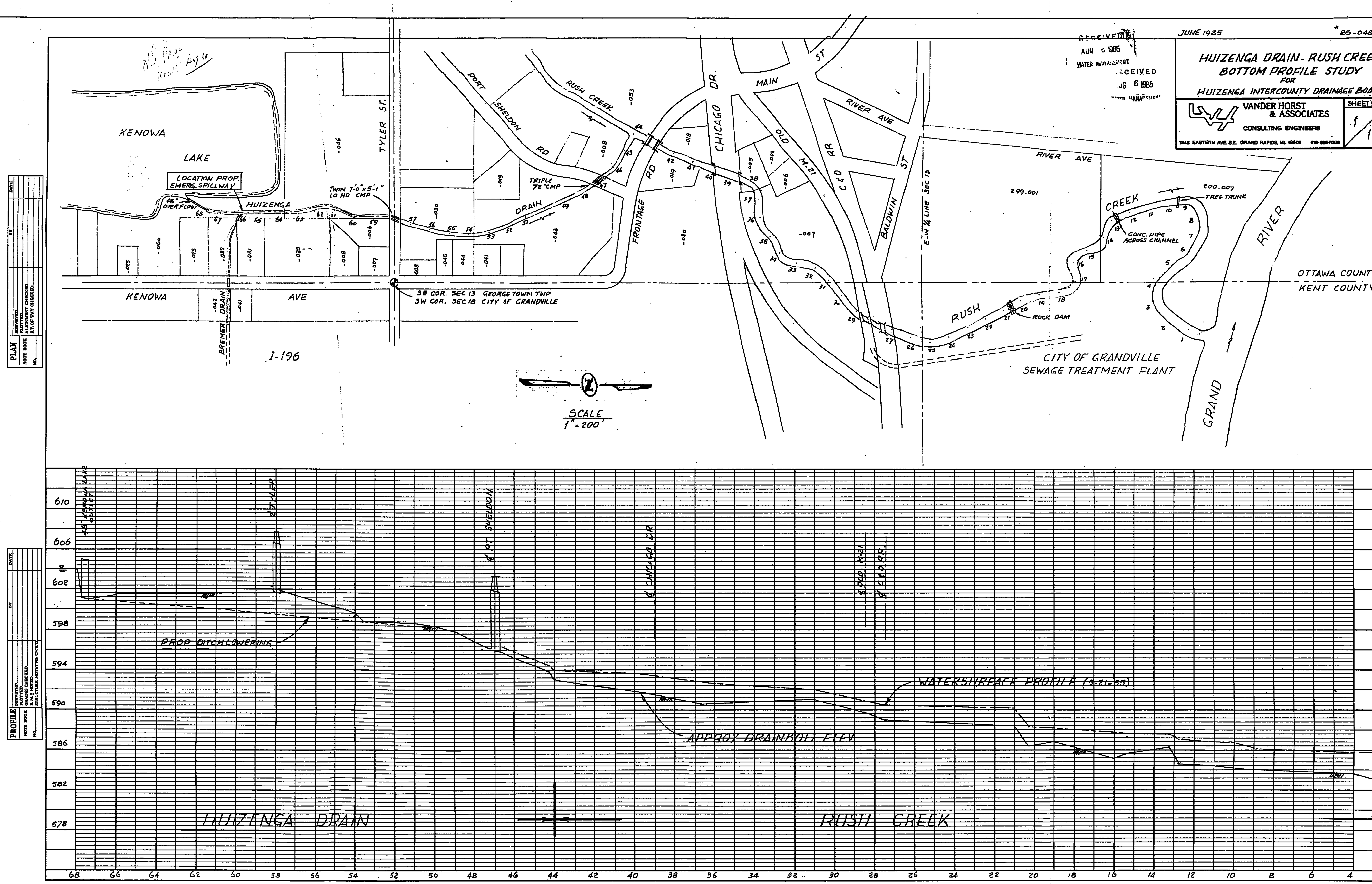
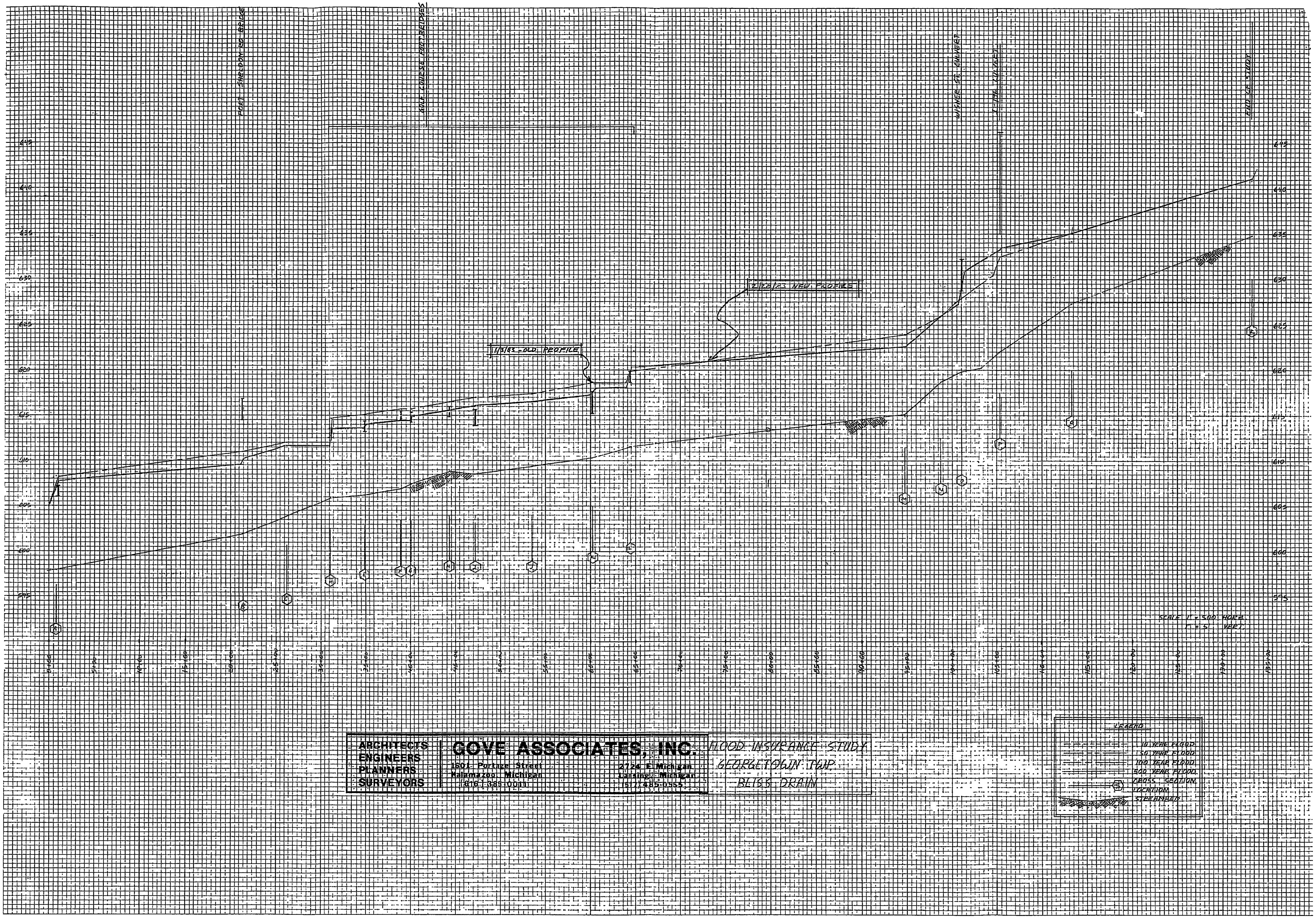
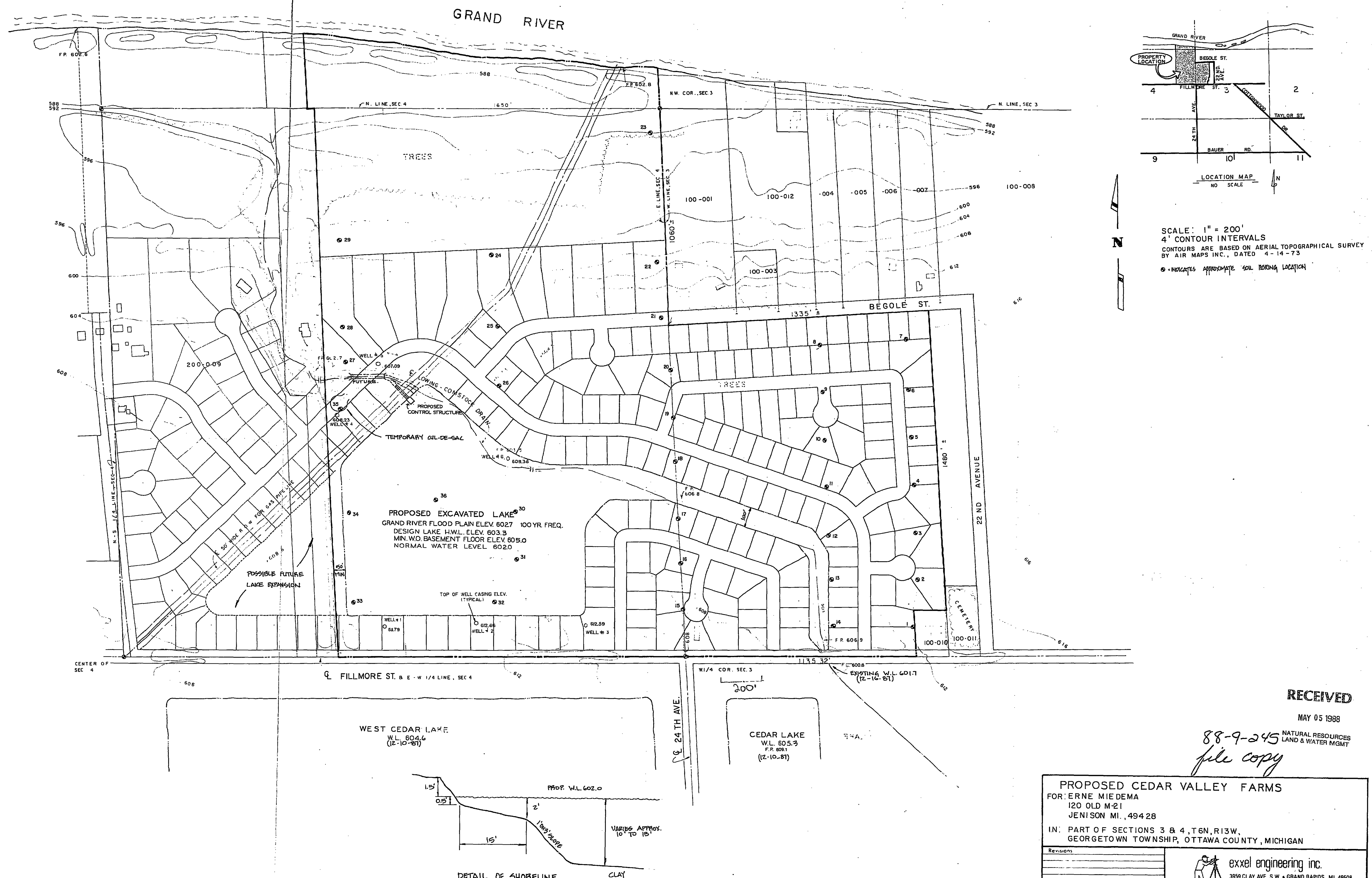


PLATE 1 - PLAN - PROFILE - F.A.H.
CLEARPRINT PAPER CO., S.F. CAL.
NO. 1000H-1



K+E 10 X 10 TO THE INCH KEUFFEL & ESSER CO. PRINTED IN U.S.A.

~~7/13/82~~
~~REV. 1/3/83~~
REV. 2/25/83



RECEIVED
MAY 05 1988
NATURAL RESOURCES LAND & WATER MGMT

88-9-245
file copy

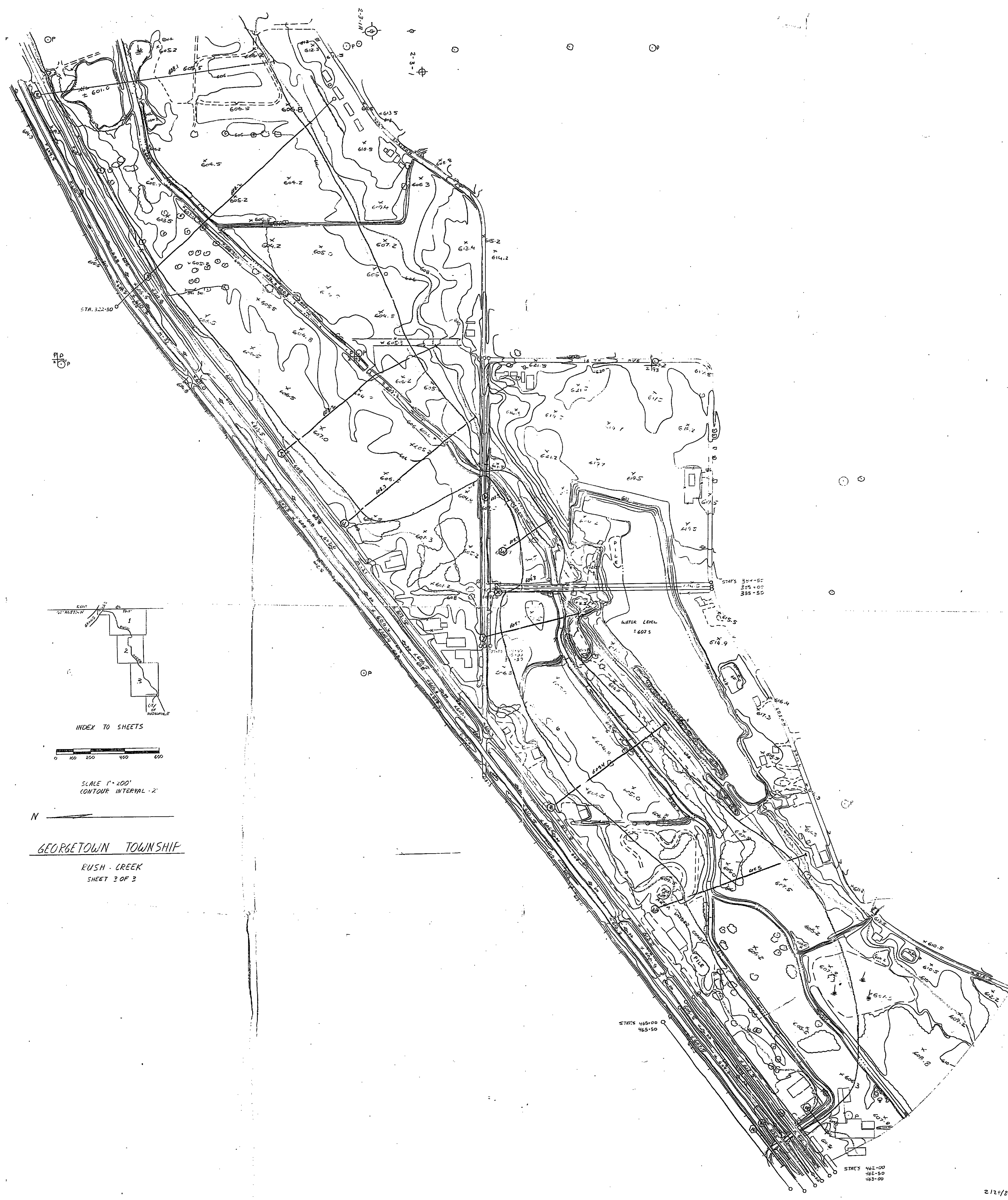
PROPOSED CEDAR VALLEY FARMS

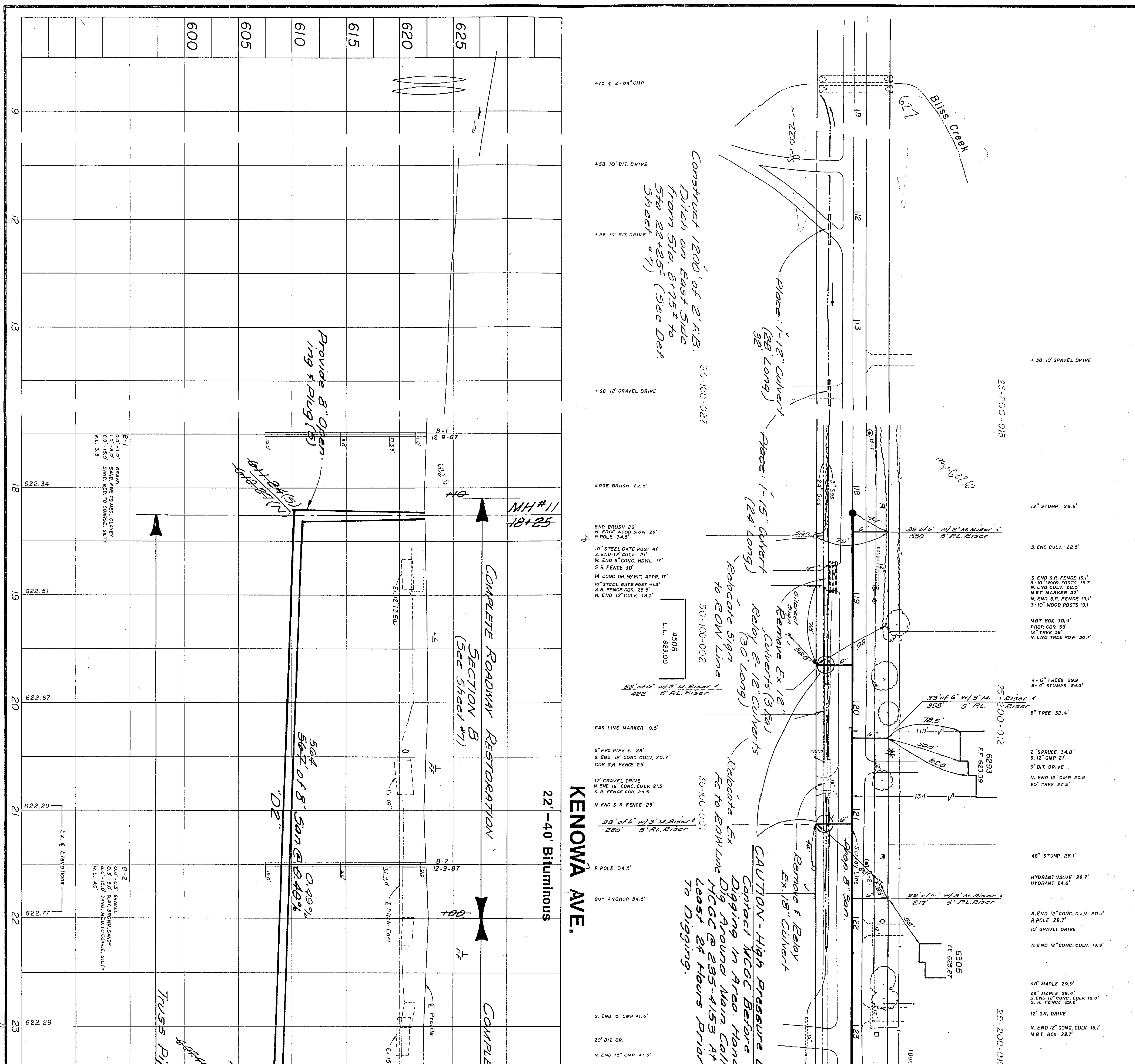
FOR: ERNE MIEDEMA
120 OLD M-21
JENISON MI., 49428

IN: PART OF SECTIONS 3 & 4, T6N, R13W,
GEORGETOWN TOWNSHIP, OTTAWA COUNTY, MICHIGAN

Revisions		
5-2-88 CHANGE CONTROL STRUCT.	Drawn by TS	File Number 871009 E
MARCH 1, 1988 - ADDED SOIL BORINGS	Approved by DVL	
FEB. 8, 1988 - REVISED LAYOUT	Date 6-13-87	Sheet Number 1 of 1
JAN. 6, 1988 - PER OWNER		

exxel engineering inc.
3959 CLAY AVE. S.W. • GRAND RAPIDS, MI. 49508
PHONE (616) 531-3660


STA. 322+50
INDEX TO SHEETS
1
2
3
SCALE 1"=200'
CONTOUR INTERVAL 2'
N
GEORGETOWN TOWNSHIP
RUSH CREEK
SHEET 3 OF 3
WATER LEVEL
PILE
STA'S 465+00
465+50
STA'S 462+00
462+50
463+00



drawn by	E.J.
date	12-87
checked by	D.A.M.
date	2-88
project number	01326-B
sheet number	2 of 7

GEORGETOWN TOWNSHIP
Ottawa County, Michigan

SANITARY SEWER IMPROVEMENTS

KENOWA AVENUE

revisions	by	date
1. Lowered MH #10, Chng'd Grades		6/1988

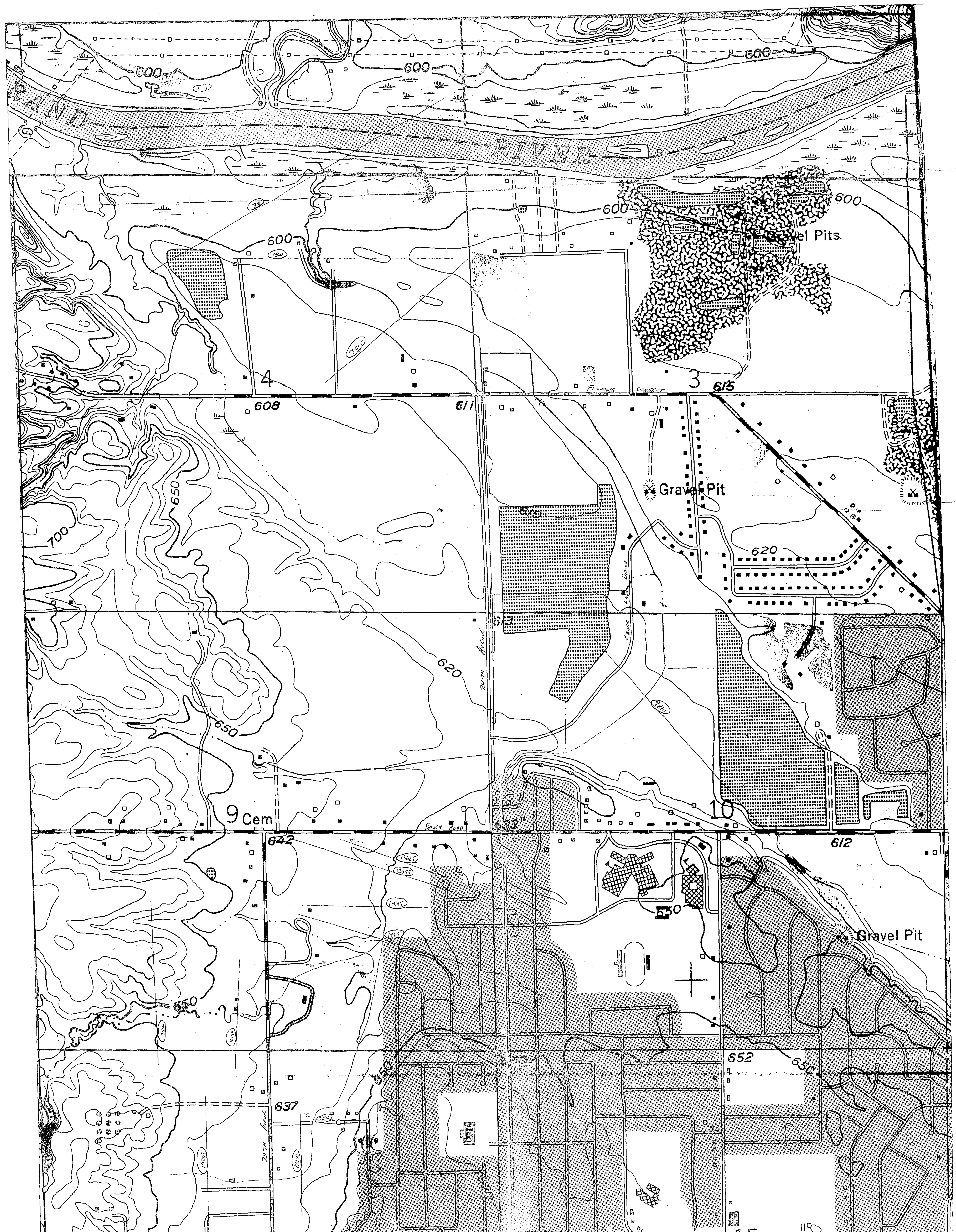
sewer permit number 884044 4/11/88
water permit number
approved by
name date
revised in accordance w/construction records by DAM / NB & N Inc. date 11/88

olson, meyers & may, inc.
civil engineers
1550 east beltline s.e.
grand rapids, mi. 49506
616-957-4350

KENOWA AVENUE 11/18/88

FILLMORE
STREET
EXIST. 54" CULV. INV. 603.4 ROAD 610.4
EXCEPTION
EXCEPTION
EXCEPTION
EXC.
(SEE EXXEL FILE NO. 7981DE)
EXISTING LOWING COMSTOCK DRAIN
PROPOSED LAKE OUTLET
PROPOSED SHORE LINE
BOXED FIGURES INDICATE TENTATIVE FINISH STREET CENTERLINE ELEVS.
EXIST GROUND LEVEL BEFORE GRAVEL EXTRACTION BEGAN (ELEV 610 - 606)
PROP. LAKE LEVEL (ELEV. 605 ±)
BOTTOM OF PROP. LAKE PROFILE
1" = 200' HORIZONTAL
1" = 10' VERTICAL
SECTION "B-B"
AVENUE
24 TH.
CEDAR
PROPOSED LAKE LEVEL 605
LAKE
CEDAR LAKE DRIVE
DRAINAGE EASEMENTS
EXIST 36" CULV. INV 604.28
AREA EAST OF 24TH AVENUE
- THE PROPOSED LAKE CONTAINS 70.5 ACRES
- THE AVERAGE CUT OVER THE ENTIRE LAKE IS 21 FEET FROM EXISTING GROUND TO PROPOSED BOTTOM OF LAKE
- TOTAL CUT IN THE PROPOSED LAKE AREA IS 2,591,800 CUBIC YARDS OF GRAVEL
- SECTION "B-B" WILL BE USED WITHIN THE ENTIRE LIMITS OF THE PROPOSED LAKE
AREA WEST OF 24TH AVE.
- AS OF JULY 7, 1980, NO WORK HAS BEEN DONE
- THE PROPOSED LAKE CONTAINS 6.0 AC.
- TOTAL GRAVEL EXTRACTION ESTIMATED AT 1,178,000 CU. YDS.
- THE AVERAGE CUT OVER THE ENTIRE LAKE IS ESTIMATED AT 14' FROM EXISTING GROUND TO PROPOSED BOTTOM OF LAKE.
N
SCALE 1" = 200'
GRAND RIVER
FILLMORE AVE
COTTONWOOD DRIVE
PROPOSED EASEMENT 20'
CENTERLINE OF DRAIN
50'
EXISTING GROUND
DESIGN H.W.L.
BACKSLOPE
DEPTH 4.0' (MIN.)
WIDTH OF FLAT BOTTOM = 8' FOR S = 0.35% (OR, 10' " S = 0.24%.
PLACE 4" TOPSOIL-FERTILIZE-SEED-MULCH BACKSLOPE AREAS.
SECTION A-A
SCALE - HORIZ. 1" = 10' VERT. 1" = 5'
DETAIL FOR THE 8-20-82 LOWING-COMSTOCK DRAIN RELOCATION PROPOSAL.
SOUTH LINE OF SEC. 3, T6N, R13W = PLACE OF BEGINNING FOR THE 8-20-82 LOWING-COMSTOCK DRAIN RELOCATION PROPOSAL. - MUCK SURFACE ELEV. 608 - DRAIN BOTTOM = 604
RECEIVED
MAR 3 1983
WATER MANAGEMENT
PROPOSED DRAIN BOTTOM ELEV. 606
Muck Ditches
2-28-83 Rev Lots 1-20 & show existing contours.
1-4-83 REV. LOTS 1-14 FOR PRELIMINARY APPROVAL.
9-3-82 LOTS 1-14 FOR PRELIM. APPROVAL.
8-20-82 LOWING-COMSTOCK DRAIN RELOCATION PROPOSAL.
JULY 7, 1980 - ADDED INFO. WEST OF 24TH AVE.
FEB. 15, 1980 - PROPOSED LAYOUT WEST OF 24TH AVE.
JANUARY 16, 1980 - added positive lake outlet and notes
MARCH 1, 1979 - added Sec. "B-B"
Future Waters Edge
Existing Lowing Comstock Drain
(●) = POINTS OF ENDING FOR THE 8-20-82 LOWING-COMSTOCK DRAIN RELOCATION PROPOSAL.
NOTE: JEI PLAN INV. 613
24TH AVE.
(DETAIL)
(SEE DETAIL AT LEFT)
CEDAR LAKE ESTATES
Part of Sections 3, 4 & 10, T6N, R13W, Georgetown Twp, Ottawa County Mich.
For Mc Erne-Miedema 120 Old M-21 Jenison Mich. 49428
DATE 10-13-75
FILE NO. 73327-E
EXXEL ENGINEERING, INC.
ENGINEERS, SURVEYORS & PLANNERS
2959 CLAY AVE. SW
GRAND RAPIDS, MICHIGAN 49508
DRAWN BY J.S.
SHEET NO. 1 of 1

KENOWA AVENUE



RAND
RIVER
Gravel Pits
Gravel Pit
Gravel Pit
Cem
3
4
9
10
15
16
600
608
611
615
612
613
610
620
633
642
637
650
652
658
700


KENOWA LAKE
WATER LEVEL 604.2±
WATER LEVEL ±608.8
WATER LEVEL ±598.7
WATER LEVEL 598.7±
GEORGETOWN PARK LAKE
WATER LEVEL ±599.4
INDEX TO SHEETS
2
3
0
100
200
400
600
SCALE 1" = 200'
CONTOUR INTERVAL 2'
N
GEORGETOWN TOWNSHIP
RUSH CREEK, BLISS DRAIN,
HOIZENGA DRAIN
SHEET 1 OF 3

```
*******************************************
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
*******************************************


T1       THE GRAND RIVER, OTTAWA COUNTY MICHIGAN - JOB NOS. 5555-19,26,67,68-01
T2       100-YEAR FLOOD = 61,000 CFS
T3       FERRYSBURG, GRAND HAVEN, SPRING LAKE TOWNSHIP AND SPRING LAKE VILLAGE

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

    -10.        4.         -0.        -0. -0.000000     -0.00      -0.0        -0.    580.900     -0.000

J2  NPROF      IPLOT      PREVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE

     3.000     -0.000     -1.000     -0.000     -0.000     -0.000     -0.000     -0.000     -0.000     -0.000

CCHV=      .100 CEHV=      .300
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


              MOUTH OF GRAND RIVER AT LAKE MICHIGAN

      0.00     29.90    580.90      0.00    580.90    581.48       .58      0.00      0.00    584.00
    61000.        0.    61000.        0.        0.     9959.        0.        0.        0.    584.90
      0.00      0.00      6.13      0.00      .050      .026      .050     0.000    551.00   1200.16
   .000166       -0.       -0.       -0.         0         0         1      0.00    382.62   1582.78


              VALLEY SECTION NO. 1

       .19     30.07    581.07      0.00      0.00    581.65       .58       .17       .00    584.00
    61000.        0.    61000.        0.        0.    10023.        0.      232.        9.    584.90
       .05      0.00      6.09      0.00      .050      .026      .050      .026    551.00   1200.15
   .000162     1010.     1010.     1010.         0         0         1      0.00    382.64   1582.79


              VALLEY SECTION NO. 2

       .38     34.57    581.37      0.00      0.00    581.79       .42       .13       .02    585.10
    61000.        0.    61000.        0.        0.    11698.        0.      476.       18.    584.00
       .10      0.00      5.21      0.00      .060      .026      .060      .026    546.80    244.22
   .000109     1040.      980.      960.         2         0         1      0.00    416.63    660.85


              VALLEY SECTION NO. 3

       .75     33.61    581.71      0.00      0.00    582.00       .29       .19       .01    584.50
    61000.        0.    61000.        0.        0.    14211.        0.     1065.       41.    582.30
       .23      0.00      4.29      0.00      .060      .026      .060      .026    548.10    140.20
   .000085     2060.     1980.     1940.         2         0         1      0.00    594.91    735.11
```

Encroached run —
Used for F/S

```
                VALLEY SECTION NO. 4

     .98     29.53    581.83      0.00      0.00    582.10      .28       .10       .00    580.60
  61000.        3.    60997.        0.       11.    14489.       0.     1457.       58.    592.80
     .30       .29      4.21      0.00      .035      .026     .055      .026    552.30    382.29
 .000088     1150.     1190.     1100.         0         0        1      0.00    667.63   1049.92


CCHV=     .100 CEHV=     .300

                VALLEY SECTION NO. 24

    1.16     31.89    581.89      0.00      0.00    582.24      .35       .11       .02    584.80
  56000.        0.    56000.        0.        0.    11766.       0.     1740.       70.    590.40
     .36      0.00      4.76      0.00      .040      .035     .040      .027    550.00    233.25
 .000185     1060.      940.      850.         1         0        1      0.00    472.73    705.98


1490 NH CARD USED
   SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB       ACH       AROB       VOL       TWA  LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR        WTN     ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC      ICONT     CORAR    TOPWID      ENDST


3470 ENCROACHMENT STATIONS=     2336.0     3102.0  TYPE=      1  TARGET=    -2336.000

                VALLEY SECTION NO. 5

    1.57     32.13    582.33      0.00      0.00    582.61      .28       .36       .01100000.00
  56000.        0.    56000.        0.        0.    13209.       0.     2371.      101. 100000.00
     .50      0.00      4.24      0.00      .040      .035     .040      .029    550.20   2336.00
 .000146     2180.     2200.     2190.         2         0        1      0.00    732.48   3068.48


                VALLEY SECTION NO. 6

    2.13     31.80    582.80      0.00      0.00    583.12      .32       .50       .01    583.80
  56000.        0.    56000.        0.        0.    12291.       0.     3226.      145.    584.70
     .68      0.00      4.56      0.00      .090      .035     .050      .031    551.00   1540.76
 .000207     2150.     2920.     3440.         0         0        1      0.00    595.23   2135.99


3470 ENCROACHMENT STATIONS=     1635.0     2140.0  TYPE=      1  TARGET=      505.000
    2.46     31.23    583.13      0.00      0.00    583.50      .37       .37       .01100000.00
  56000.        0.    56000.        0.        0.    11469.       0.     3703.      167. 100000.00
     .78      0.00      4.88      0.00      .090      .035     .050      .031    551.90   1635.00
 .000212     1590.     1750.     1900.         2         0        1      0.00    499.81   2134.81


3470 ENCROACHMENT STATIONS=      500.0     1005.0  TYPE=      1  TARGET=      505.000

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      592.60 ELREA=   100000.00

    2.47     31.09    583.09      0.00      0.00    583.54      .45       .01       .02    592.60
  56000.        0.    56000.        0.        0.    10442.       0.     3715.      168. 100000.00
     .78      0.00      5.36      0.00      .090      .035     .055      .031    552.00    500.00
 .000316       49.       49.       49.         2         0        1      0.00    504.82   1004.82
```

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NORMAL BRIDGE,NRD=35 MIN ELTRD=  592.00 MAX ELLC=  588.40

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      592.60 ELREA=      592.00

                  C @ O RAILROAD BRIDGE - SECTION NO. 8 - DOWNSTREAM FACE

      2.47     31.00    583.00      0.00      0.00    583.58       .58       .00       .04    592.60
    56000.        0.    56000.        0.        0.     9193.        0.     3716.      168.    592.00
       .78      0.00      6.09      0.00      .030      .035      .030      .031    552.00    500.00
   .000483        1.        1.        1.         2         0         1  -1203.20    504.77   1004.77

NORMAL BRIDGE,NRD=35 MIN ELTRD=  592.00 MAX ELLC=  588.40

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      592.60 ELREA=      592.00

                  C @ O RAILROAD BRIDGE - SECTION NO. 8 - UPSTREAM FACE

      2.47     31.01    583.01      0.00      0.00    583.59       .58       .01       .00    592.60
    56000.        0.    56000.        0.        0.     9197.        0.     3720.      168.    592.00
       .79      0.00      6.09      0.00      .030      .035      .030      .031    552.00    500.00
   .000483       20.       20.       20.         0         0         1  -1203.82    504.78   1004.78

     SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS  BANK ELEV
         Q      QLOB       QCH      QROB      ALOB       ACH      AROB       VOL       TWA  LEFT/RIGHT
      TIME      VLOB       VCH      VROB       XNL      XNCH       XNR       WTN     ELMIN      SSTA
     SLOPE     XLOBL      XLCH     XLOBR    ITRIAL       IDC     ICONT     CORAR    TOPWID     ENDST

3470 ENCROACHMENT STATIONS=      500.0     1005.0  TYPE=     1  TARGET=     505.000

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      592.60 ELREA=   100000.00

      2.47     31.16    583.16      0.00      0.00    583.60       .44       .00       .01    592.60
    56000.        0.    56000.        0.        0.    10475.        0.     3720.      168. 100000.00
       .79      0.00      5.35      0.00      .090      .035      .055      .031    552.00    500.00
   .000313        1.        1.        1.         2         0         1      0.00    504.86   1004.86

3470 ENCROACHMENT STATIONS=      500.0     1005.0  TYPE=     1  TARGET=     505.000
      2.48     30.25    583.25      0.00      0.00    583.62       .37       .01       .01    593.60
    56000.        0.    56000.        0.        0.    11463.        0.     3732.      169. 100001.00
       .79      0.00      4.89      0.00      .090      .035      .055      .031    553.00    500.00
   .000212       49.       49.       49.         2         0         1      0.00    504.34   1004.34

3470 ENCROACHMENT STATIONS=     1482.0     2012.0  TYPE=     1  TARGET=     530.000

                  VALLEY SECTION NO. 7

      2.51     26.78    583.18      0.00      0.00    583.72       .54       .05       .05    578.30
    56000.      218.    55782.        0.      258.     9416.        0.     3776.      171. 100000.00
       .80       .85      5.92      0.00      .090      .035      .055      .031    556.40   1482.00
   .000360      180.      180.      180.         2         0         1      0.00    522.93   2004.93
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3470 ENCROACHMENT STATIONS=    1482.0     2012.0  TYPE=      1  TARGET=      530.000
     2.54     31.63    583.43      0.00      0.00    583.78       .35       .04       .02    573.70
   56000.      524.    55476.        0.      539.    11695.        0.     3814.      173. 100000.00
      .81       .97      4.74      0.00      .090      .035      .055      .032    551.80   1482.00
  .000177      150.      150.      150.         2         0         1      0.00    530.00   2012.00


OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      608.00 ELREA=      608.90

     2.55     33.13    583.43      0.00      0.00    583.79       .36       .01       .01    608.00
   56000.        0.    56000.        0.        0.    11556.        0.     3827.      173.    608.90
      .81      0.00      4.85      0.00      .090      .035      .055      .032    550.30    575.90
  .000215       49.       49.       49.         1         0         1      0.00    522.49   1098.38


NORMAL BRIDGE,NRD=29 MIN ELTRD=  608.70 MAX ELLC=  605.30

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      608.00 ELREA=      608.90

                U.S. 31 BRIDGE - SECTION NO. 9 - DOWNSTREAM FACE

     2.55     33.05    583.35      0.00      0.00    583.83       .47       .00       .03    608.00
   56000.        0.    56000.        0.        0.    10151.        0.     3827.      173.    608.90
      .81      0.00      5.52      0.00      .015      .035      .015      .032    550.30    576.14
  .000330        1.        1.        1.         2         0         1  -1360.76    522.08   1098.21


    SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS  BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


NORMAL BRIDGE,NRD=29 MIN ELTRD=  608.70 MAX ELLC=  605.30

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      608.00 ELREA=      608.90

                U.S. 31 BRIDGE - SECTION NO. 9 - UPSTREAM FACE

     2.57     33.09    583.39      0.00      0.00    583.86       .47       .03       .00    608.00
   56000.        0.    56000.        0.        0.    10164.        0.     3851.      174.    608.90
      .81      0.00      5.51      0.00      .015      .035      .015      .032    550.30    576.06
  .000329      100.      100.      100.         0         0         1  =1362.33    522.21   1098.27


OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      608.00 ELREA=      608.90

     2.57     33.21    583.51      0.00      0.00    583.87       .36       .00       .01    608.00
   56000.        0.    56000.        0.        0.    11593.        0.     3851.      174.    608.90
      .81      0.00      4.83      0.00      .090      .035      .055      .032    550.30    575.69
  .000213        1.        1.        1.         2         0         1      0.00    522.83   1098.53


OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      608.80 ELREA=      609.70
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2.58	32.40	583.50	0.00	0.00	583.89	.39	.01	.01	608.80
56000.	0.	56000.	0.	0.	11172.	0.	3864.	175.	609.70
.82	0.00	5.01	0.00	.090	.035	.055	.032	551.10	578.00
.000238	49.	49.	49.	2	0	1	0.00	518.87	1096.87

3470 ENCROACHMENT STATIONS= 2000.0 2900.0 TYPE= 1 TARGET= 900.000

VALLEY SECTION NO. 10

2.64	27.29	583.69	0.00	0.00	583.98	.29	.08	.01	100000.00
56000.	0.	56000.	0.	0.	13049.	0.	3950.	180.	100000.00
.84	0.00	4.29	0.00	.090	.035	.055	.032	556.40	2000.00
.000287	480.	310.	180.	2	0	1	0.00	886.66	2886.66

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= 3198.0 5300.0 TYPE= 1 TARGET= 2102.000

VALLEY SECTION NO. 11

2.91	24.78	584.18	0.00	0.00	584.36	.18	.37	.01	575.30
56000.	8.	55864.	128.	40.	16420.	297.	4443.	225.	583.50
.95	.20	3.40	.43	.090	.036	.060	.032	559.40	3260.13
.000227	1280.	1440.	1600.	2	0	1	0.00	1790.69	5050.82

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= 600.0 3650.0 TYPE= 1 TARGET= 3050.000

VALLEY SECTION NO. 12

3.28	16.93	584.63	0.00	0.00	584.71	.09	.35	.01	578.10
61000.	991.	60009.	0.	1397.	25159.	0.	5412.	333.	100000.00
1.18	.71	2.39	0.00	.065	.037	.060	.032	567.70	607.79
.000147	1920.	1950.	1950.	2	0	1	0.00	3042.20	3650.00

1490 NH CARD USED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 200.0 4100.0 TYPE= 1 TARGET= 3900.000

VALLEY SECTION NO. 13

Twp of Grand Haven

4.00	22.83	585.13	0.00	0.00	585.18	.06	.47	.00	572.70
61000.	11621.	48965.	414.	9583.	23352.	845.	8072.	642.	579.00
1.74	1.21	2.10	.49	.050	.039	.060	.033	562.30	200.00
.000103	3920.	3810.	4560.	2	0	1	0.00	3900.00	4100.00

1490 NH CARD USED

3470 ENCROACHMENT STATIONS= 225.0 4150.0 TYPE= 1 TARGET= 3925.000

VALLEY SECTION NO. 14

```
   61000.        0.    53569.     7431.       0.    24754.    5672.    9544.     825.    579.40
    2.01      0.00      2.16      1.31      .050      .039     .045     .033   567.20    225.00
 .000161     1560.     2020.     2480.         0         0        1     0.00  3925.00   4150.00

1490 NH CARD USED
3470 ENCROACHMENT STATIONS=        .0     2624.0  TYPE=     1  TARGET=    2623.999
                    VALLEY SECTION NO. 15

    4.75     20.08    585.68      0.00      0.00    585.79      .11      .34      .01    587.60
   61000.        0.    61000.        0.        0.    22422.       0.   10704.     964. 100000.00
    2.20      0.00      2.72      0.00      .050      .038     .045     .033   565.60    157.44
 .000193     2240.     1950.     1600.         2         0        1     0.00  2466.55   2624.00

1490 NH CARD USED
3470 ENCROACHMENT STATIONS=     600.0     4400.0  TYPE=     1  TARGET=    -600.000
                    VALLEY SECTION NO. 16

    5.17     18.49    586.09      0.00      0.00    586.15      .06      .35      .01    579.30
   61000.     1159.    59841.        0.     1221.    30588.       0.   12075.    1117.    587.00
    2.52       .95      1.96      0.00      .060      .041     .045     .033   567.60    600.00
 .000131     2740.     2190.     1660.         1         0        1     0.00  3585.72   4185.72

1490 NH CARD USED                                                                          5280
3470 ENCROACHMENT STATIONS=     400.0     3320.0  TYPE=     1  TARGET=    2920.000
                    VALLEY SECTION NO. 17

    5.53     19.31    586.31      0.00      0.00    586.44      .13      .27      .02    581.40
   61000.    22344.    38656.        0.    15622.    11095.       0.   13357.    1260. 100000.00
    2.71      1.43      3.48      0.00      .050      .035     .045     .033   567.00    400.00
 .000158     1950.     1890.     2350.         2         0        1     0.00  2920.00   3320.00

1490 NH CARD USED
3470 ENCROACHMENT STATIONS=    1144.0     3244.0  TYPE=     1  TARGET=    2100.000
                    VALLEY SECTION NO. 18

    6.21     23.19    586.79      0.00      0.00    586.90      .11      .46      .00    583.50
   61000.    11262.    49738.        0.     7587.    17395.       0.   15314.    1443. 100000.00
    3.08      1.48      2.86      0.00      .045      .036     .045     .034   563.60   1144.00
 .000116     2940.     3590.     4250.         2         0        1     0.00  2100.00   3244.00

1490 NH CARD USED
3470 ENCROACHMENT STATIONS=        .0     3200.0  TYPE=     1  TARGET=    3199.999
                    VALLEY SECTION NO. 19

    6.45     18.00    587.00      0.00      0.00    587.09      .08      .18      .00    585.20
   61000.       11.    54771.     6217.       44.    23165.    4356.   16108.    1521.    579.40
    3.24       .25      2.36      1.43      .070      .040     .050     .034   559.00    235.71
 .000162     1160.     1290.     1840.         1         0        1     0.00  2964.29   3200.00
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3470 ENCROACHMENT STATIONS=        .0    3185.0  TYPE=     1  TARGET=    3184.999

              VALLEY SECTION NO. 20

     6.97     19.77    587.47     0.00      0.00    587.55      .08      .46      .00   584.00
   61000.       78.    44997.    15926.     118.    18856.    9982.   17865.    1711.   580.70
     3.58       .66      2.39      1.60     .060      .041     .050     .034   567.70     7.01
  .000178     3140.     2750.     2580.        2         0        1     0.00  3177.99  3185.00

1490 NH CARD USED
3280 CROSS SECTION       7.38 EXTENDED       4.85 FEET

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG       HV       HL      OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH      AROB     VOL     TWA    LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH     XNR      WTN     ELMIN     SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC      ICONT    CORAR   TOPWID    ENDST

3470 ENCROACHMENT STATIONS=        .0    3335.0  TYPE=     1  TARGET=    3334.999

              VALLEY SECTION NO. 21

     7.38     20.55    587.85     0.00      0.00    587.92      .08      .38      .00   581.00
   61000.      280.    55077.     5643.     228.    23862.    4551.   19289.    1872.   582.00
     3.85      1.23      2.31      1.24     .050      .041     .053     .034   567.30    12.85
  .000172     2380.     2150.     2160.        0         0        1     0.00  3322.15  3335.00

1490 NH CARD USED
3280 CROSS SECTION       7.94 EXTENDED       5.19 FEET

3470 ENCROACHMENT STATIONS=     360.0    3105.0  TYPE=     1  TARGET=    2745.000

              VALLEY SECTION NO. 22

     7.94     19.79    588.29     0.00      0.00    588.36      .07      .43      .00   583.20
   61000.        0.    61000.       0.        0.    28636.       0.   21126.    2060. 100000.00
     4.23       .00      2.13      0.00     .050      .041     .053     .034   568.50   360.00
  .000134     5240.     2960.      750.        2         0        1     0.00  2745.00  3105.00

CCHV=    .100 CEHV=    .300
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START TRIB COMP
     -1.155       1.155 58188.612   581.886
     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


                    VALLEY SECTION NO. 24

      -1.16     19.29    581.89      0.00      0.00    581.92       .04      0.00      0.00    581.30
      5000.        0.     5000.        0.        1.     3216.        0.    21126.     2060.    581.30
       4.23       .15      1.55       .07      .040      .040      .060      .034    562.60    264.79
    .000053       -0.       -0.       -0.         0         0         1      0.00    227.22    492.00

        .06     16.80    581.90      0.00      0.00    581.95       .05       .02       .01    583.80
      5000.        0.     5000.        0.        0.     2666.        0.    21148.     2062.    583.80
       4.28      0.00      1.88      0.00      .040      .040      .060      .034    565.10    272.80
    .000094      330.      330.      330.         0         0         1      0.00    214.93    487.73

        .13     14.22    581.92      0.00      0.00    582.00       .09       .04       .01    586.40
      5000.        0.     5000.        0.        0.     2129.        0.    21166.     2063.    586.40
       4.32      0.00      2.35      0.00      .040      .040      .060      .034    567.70    279.99
    .000182      330.      330.      330.         1         0         1      0.00    202.34    482.33


3470 ENCROACHMENT STATIONS=      310.0     500.0  TYPE=      1  TARGET=     190.000

                    VALLEY SECTION NO. 25

        .19     11.62    581.92      0.00      0.00    582.16       .24       .11       .05    583.00
      5000.        0.     5000.        0.        0.     1272.        0.    21179.     2065.    583.50
       4.34      0.00      3.93      0.00      .050      .040      .050      .034    570.30    325.60
    .000733      330.      330.      330.         2         0         1      0.00    160.80    486.40


3470 ENCROACHMENT STATIONS=      500.0     670.0  TYPE=      1  TARGET=     170.000

                    VALLEY SECTION NO. 26

        .30     11.05    582.35      0.00      0.00    582.54       .19       .37       .00    576.10
      5000.        0.     5000.        0.        0.     1429.        0.    21197.     2067. 100000.00
       4.39      0.00      3.50      0.00      .035      .040      .060      .034    571.30    500.00
    .000554      590.      590.      590.         2         0         1      0.00    170.00    670.00


3470 ENCROACHMENT STATIONS=      505.0     665.0  TYPE=      1  TARGET=     160.000
        .39     11.60    582.60      0.00      0.00    582.78       .18       .24       .00100000.00
      5000.        0.     5000.        0.        0.     1478.        0.    21213.     2069. 100000.00
       4.43      0.00      3.38      0.00      .035      .040      .060      .034    571.00    505.00
    .000467      460.      480.      480.         2         0         1      0.00    160.00    665.00

     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
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OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      586.80 ELREA=      586.90

      .40     11.60    582.60      0.00      0.00    582.82       .22       .03       .01    586.80
    5000.        0.     5000.        0.        0.     1340.        0.    21215.     2069.     586.90
     4.43      0.00      3.73      0.00      .035      .040      .060      .034    571.00    500.00
  .000586       49.       49.       49.         2         0         1      0.00    150.00    650.00


NORMAL BRIDGE,NRD=46 MIN ELTRD=  587.30 MAX ELLC=  584.30

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      586.80 ELREA=      586.90

                    THIRD STREET BRIDGE - SECTION NO. 27 - DOWNSTREAM FACE

      .40     11.49    582.49      0.00      0.00    582.87       .38       .00       .05    586.80
    5000.        0.     5000.        0.        0.     1015.        0.    21215.     2069.     586.90
     4.43      0.00      4.93      0.00      .020      .040      .020      .034    571.00    500.00
  .001478        1.        1.        1.         2         0         1   -308.45    150.00    650.00


NORMAL BRIDGE,NRD=46 MIN ELTRD=  587.30 MAX ELLC=  584.30

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      586.80 ELREA=      586.90

                    THIRD STREET BRIDGE - SECTION NO. 27 - UPSTREAM FACE

      .40     11.52    582.52      0.00      0.00    582.90       .37       .03       .00    586.80
    5000.        0.     5000.        0.        0.     1018.        0.    21215.     2069.     586.90
     4.43      0.00      4.91      0.00      .020      .040      .020      .034    571.00    500.00
  .001464       20.       20.       20.         1         0         1   -309.29    150.00    650.00


OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      586.80 ELREA=      586.90

      .40     11.70    582.70      0.00      0.00    582.91       .21       .00       .02    586.80
    5000.        0.     5000.        0.        0.     1355.        0.    21215.     2069.     586.90
     4.43      0.00      3.69      0.00      .050      .040      .050      .034    571.00    500.00
  .000566        1.        1.        1.         2         0         1      0.00    150.00    650.00

3280 CROSS SECTION       .41 EXTENDED       .05 FEET


OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      586.40 ELREA=      586.50

      .41     12.15    582.75      0.00      0.00    582.94       .19       .03       .00    586.40
    5000.        0.     5000.        0.        0.     1423.        0.    21217.     2069.     586.50
     4.43      0.00      3.51      0.00      .050      .040      .050      .034    570.60    500.00
  .000485       49.       49.       49.         0         0         1      0.00    150.00    650.00

1490 NH CARD USED
   SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS  BANK ELEV
       Q      QLOB       QCH      QROB      ALOB       ACH      AROB       VOL       TWA  LEFT/RIGHT
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      SLOPE     XLOBL      XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

   3470 ENCROACHMENT STATIONS=      335.0      560.0  TYPE=      1  TARGET=      225.000

                      VALLEY SECTION NO. 28

           .46     13.93    582.93      0.00      0.00    583.05       .12       .10       .01100000.00
         5000.        0.     5000.        0.        0.     1769.        0.    21227.     2070. 100000.00
          4.46      0.00      2.83      0.00      .050      .040      .050      .034    569.00    335.00
       .000320      265.      265.      265.         2         0         1      0.00    225.00    560.00


   3470 ENCROACHMENT STATIONS=      335.0      560.0  TYPE=      1  TARGET=      225.000
           .54     12.26    583.06      0.00      0.00    583.26       .20       .19       .02100000.00
         5000.        0.     5000.        0.        0.     1394.        0.    21242.     2072. 100000.00
          4.49      0.00      3.59      0.00      .050      .040      .050      .034    570.80    335.00
       .000646      335.      420.      535.         2         0         1      0.00    225.00    560.00


   OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       589.70 ELREA=       589.60

           .55     12.21    583.21      0.00      0.00    583.30       .09       .03       .01    589.70
         5000.        0.     5000.        0.        0.     2073.        0.    21244.     2073.    589.60
          4.50      0.00      2.41      0.00      .050      .067      .050      .034    571.00    508.00
       .000678       48.       48.       48.         2         0         1      0.00    266.00    774.00


   NORMAL BRIDGE,NRD=50 MIN ELTRD=  589.60 MAX ELLC=  587.40

   OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       589.70 ELREA=       589.60

                      C @ O RAILROAD BRIDGE - EXTENSION OF GRAND RIVER SECTION NO. 8

           .55     12.17    583.17      0.00      0.00    583.32       .15       .00       .02    589.70
         5000.        0.     5000.        0.        0.     1635.        0.    21244.     2073.    589.60
          4.50      0.00      3.06      0.00      .040      .040      .040      .034    571.00    508.00
       .000626        1.        1.        1.         2         0         1   -427.60    266.00    774.00


   NORMAL BRIDGE,NRD=50 MIN ELTRD=  589.60 MAX ELLC=  587.40

   OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       589.70 ELREA=       589.60

                      C @ O RAILROAD BRIDGE - UPSTREAM FACE

           .55     12.18    583.18      0.00      0.00    583.33       .14       .01       .00    589.70
         5000.        0.     5000.        0.        0.     1637.        0.    21244.     2073.    589.60
          4.50      0.00      3.05      0.00      .040      .040      .040      .034    571.00    508.00
       .000624       12.       12.       12.         0         0         1   -428.02    266.00    774.00


   OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       589.70 ELREA=       589.60

           .56     12.24    583.24      0.00      0.00    583.33       .09       .00       .01    589.70
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      4.50      0.00      2.40      0.00      .070      .040      .090      .034    571.00    508.00
   .000279        1.        1.        1.         2         0         1      0.00    266.00    774.00

     SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS  BANK ELEV
         Q      QLOB       QCH      QROB      ALOB       ACH      AROB       VOL       TWA LEFT/RIGHT
      TIME      VLOB       VCH      VROB       XNL      XNCH       XNR       WTN     ELMIN      SSTA
     SLOPE     XLOBL      XLCH     XLOBR    ITRIAL       IDC     ICONT     CORAR    TOPWID     ENDST

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      589.80 ELREA=      589.70

       .56     12.15    583.25      0.00      0.00    583.35       .09       .01       .00    589.80
     5000.        0.     5000.        0.        0.     2060.        0.    21247.     2073.    589.70
      4.51      0.00      2.43      0.00      .070      .040      .090      .034    571.10    508.00
   .000288       48.       48.       48.         0         0         1      0.00    266.00    774.00

3280 CROSS SECTION       .68 EXTENDED      3.03 FEET

3470 ENCROACHMENT STATIONS=      696.0     979.0   TYPE=      1  TARGET=     283.000

               EXTENSION OF GRAND RIVER SECTION NO. 7

       .68     11.04    583.44      0.00      0.00    583.54       .10       .19       .00    583.00
     5000.        0.     5000.        0.        0.     1964.        0.    21274.     2077. 100000.00
      4.57      0.00      2.55      0.00      .070      .040      .090      .035    572.40    696.00
   .000357      620.      595.      535.         0         0         1      0.00    281.88    977.88

3280 CROSS SECTION       .77 EXTENDED      2.11 FEET

3470 ENCROACHMENT STATIONS=      696.0     896.0   TYPE=      1  TARGET=     200.000
       .77     10.11    583.61      0.00      0.00    583.80       .19       .24       .03    584.10
     5000.        0.     5000.        0.        0.     1419.        0.    21293.     2079. 100000.00
      4.61      0.00      3.52      0.00      .070      .040      .090      .035    573.50    696.82
   .000682      490.      490.      510.         2         0         1      0.00    199.18    896.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      590.00 ELREA=      590.10

       .78      9.95    583.65      0.00      0.00    583.84       .19       .03       .00    590.00
     5000.        0.     5000.        0.        0.     1434.        0.    21295.     2080.    590.10
      4.61      0.00      3.49      0.00      .070      .040      .090      .035    573.70    454.00
   .000637       50.       50.       50.         1         0         1      0.00    194.48    648.48

3265 DIVIDED FLOW

NORMAL BRIDGE,NRD= 4 MIN ELTRD=  590.00 MAX ELLC=  586.60

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      590.00 ELREA=      590.10

               U.S. 31 BRIDGE - EXTENSION OF GRAND RIVER SECTION NO. 9
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  5000.       0.     5000.       0.       0.     1223.       0.    21295.    2080.    590.10
   4.61     0.00      4.09     0.00     .020      .040     .020      .035   573.70    457.27
.001262       1.        1.       1.        2         0        1      0.00   169.02    648.80


3265 DIVIDED FLOW

  SECNO    DEPTH     CWSEL    CRIWS    WSELK       EG       HV        HL     OLOSS   BANK ELEV
  Q        QLOB      QCH      QROB     ALOB       ACH      AROB      VOL     TWA    LEFT/RIGHT
  TIME     VLOB      VCH      VROB     XNL        XNCH     XNR       WTN     ELMIN      SSTA
  SLOPE    XLOBL     XLCH     XLOBR    ITRIAL     IDC      ICONT     CORAR   TOPWID     ENDST


NORMAL BRIDGE,NRD= 4 MIN ELTRD=  590.00 MAX ELLC=  586.60

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       590.00 ELREA=       590.10

               U.S. 31 BRIDGE - UPSTREAM FACE

    .80    10.03    583.73     0.00     0.00    583.98      .25       .12      .00    590.00
  5000.       0.     5000.       0.       0.     1245.       0.    21297.    2080.    590.10
   4.62     0.00      4.02     0.00     .020      .040     .020      .035   573.70    457.13
.001197      98.       98.      98.        2         0        1      0.00   169.22    648.85


OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       590.00 ELREA=       590.10

    .80    10.11    583.81     0.00     0.00    583.99      .18       .00      .01    590.00
  5000.       0.     5000.       0.       0.     1466.       0.    21298.    2080.    590.10
   4.62     0.00      3.41     0.00     .060      .040     .090      .035   573.70    454.00
.000593       1.        1.       1.        2         0        1      0.00   194.52    648.52


OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       590.00 ELREA=       590.10

    .81    10.14    583.84     0.00     0.00    584.02      .18       .03      .00    590.00
  5000.       0.     5000.       0.       0.     1474.       0.    21299.    2080.    590.10
   4.62     0.00      3.39     0.00     .060      .040     .090      .035   573.70    454.00
.000584      50.       50.      50.        1         0        1      0.00   194.53    648.53


               EXTENSION OF GRAND RIVER SECTION NO. 10

    .82     9.15    583.95     0.00     0.00    584.07      .12       .04      .01    584.20
  5000.       0.     5000.       0.       0.     1824.       0.    21303.    2081.    584.70
   4.63     0.00      2.74     0.00     .050      .040     .090      .035   574.80    568.12
.000422      60.       90.     100.        2         0        1      0.00   264.02    832.14


3470 ENCROACHMENT STATIONS=     2010.0     3198.0  TYPE=      1  TARGET=    -2010.000

               EXTENSION OF GRAND RIVER SECTION NO. 11

    .99     9.36    584.16     0.00     0.00    584.17      .01       .10      .01    585.10
  5000.       0.     5000.       0.       0.     6338.       0.    21386.    2096. 100000.00
   4.95     0.00       .79     0.00     .050      .040     .090      .035   574.80   2011.34
.000049    1025.      890.    1000.        2         0        1      0.00 [illegible] [illegible]
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 **************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
 **************************************************


 C
 T1       BOSCH & HULST DRAIN, HOLLAND TWP, PROJECT NO. 3553, BOSCH
 T2       BOSCH & HULST DRAIN
 T3       BOSCH & HULST DRAIN

 J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       -10.       4.        0.        0.   0.0       0.0       0.0        0.   590.000    0.0

 J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

       1.000     0.0    -1.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0

 J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     110.000   200.000   150.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0

 *PROF 1

 CCHV    0.100 CEHV    0.300
 *SECNO 1000.000
 3280 CROSS SECTION   1000.00 EXTENDED      3.00 FEET


      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 3470 ENCROACHMENT STATIONS     1400.0    1650.0  TYPE       1  TARGET      250.000

            A

    1000.00      9.30    590.00      0.0     590.00    590.07      0.07      0.0       0.0     581.70
      2680.     1153.      632.      894.      568.      263.      494.        0.        0.     581.70
        0.0      2.03      2.41      1.81     0.035     0.042     0.035      0.0     580.70   1400.00
   0.000252      610.      610.      610.         0         0         0     -0.01    250.00   1650.00


 *SECNO 1800.000
 3280 CROSS SECTION   1800.00 EXTENDED      1.93 FEET



            B  CHANNEL MANU

    1800.00      9.73    590.43      0.0       0.0     590.85      0.42      0.68      0.11    581.70
      2680.      248.     1725.      707.      127.      274.      311.       30.        7.    581.20
       0.07      1.95      6.31      2.27     0.050     0.045     0.050     0.045    580.70   1440.00
   0.001834     1265.     1265.     1265.         2         0         0     -0.01    230.00   1670.00


 *SECNO 2400.000
            C

    2400.00      9.28    591.08      0.0       0.0     591.62      0.55      0.74      0.04    585.10
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*SECNO 2400.000

        C

  2400.00     9.28   591.08     0.0      0.0    591.62     0.55     0.74     0.04   585.10
   2680.      321.   1844.      515.     145.     269.      154.      34.       9.   585.10
    0.09      2.21     6.86     3.35    0.050    0.045    0.050    0.045   581.80   300.49
 0.002754     360.     335.     305.       2        0        0     -0.02   182.34   482.83


CCHV    0.300 CEHV     0.500
*SECNO 2500.000

        D  107TH AVE BRIDGE, TR 595.4, LC 593.5

  2500.00    10.40   591.70     0.0      0.0    592.33     0.63     0.67     0.04   595.40
   2680.       0.    2680.       0.       0.      421.       0.       38.       9.   595.40
    0.10      0.0      6.36     0.0     0.040    0.035    0.040    0.043   581.30   150.00
 0.001824     280.     300.     315.       2        0        0     -0.00    53.00   203.00


*SECNO 2501.000
    SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
    Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
    TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
    SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    595.40 MAX ELLC    593.50

  2501.00    10.41   591.71     0.0      0.0    592.34     0.63     0.01     0.00   595.40
   2680.       0.    2680.       0.       0.      422.       0.       38.       9.   595.40
    0.10      0.0      6.35     0.0     0.040    0.035    0.040    0.043   581.30   150.00
 0.001816      5.       5.       5.       0        0        0     -0.00    53.00   203.00


*SECNO 2502.000

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    595.40 MAX ELLC    593.50

  2502.00    10.50   591.80     0.0      0.0    592.41     0.62     0.07     0.00   595.40
   2680.       0.    2680.       0.       0.      426.       0.       38.       9.   595.40
    0.10      0.0      6.29     0.0     0.040    0.035    0.040    0.043   581.30   150.00
 0.001766      38.      38.      38.       1        0        0     -0.00    53.00   203.00


*SECNO 2503.000
  2503.00    10.51   591.81     0.0      0.0    592.42     0.61     0.01     0.00   595.40
   2680.       0.    2680.       0.       0.      427.       0.       38.       9.   595.40
    0.10      0.0      6.28     0.0     0.040    0.035    0.040    0.043   581.30   150.00
 0.001755      5.       5.       5.       0        0        0     -0.00    53.00   203.00


*SECNO 2600.000
3280 CROSS SECTION    2600.00 EXTENDED        1.03 FEET


3470 ENCROACHMENT STATIONS        40.0      260.0  TYPE       1  TARGET      220.000

        E

  2600.00     9.82   592.52     0.0      0.0    592.66     0.13     0.09     0.14   585.10
   2680.      768.   1094.      818.     358.     276.      470.      40.      10.   585.10
    0.11      2.15     3.96     1.74    0.050    0.038    0.050    0.043   582.70    40.00
 0.000555      83.     100.     123.       2        0        0     -0.02   220.00   260.00
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*SECNO 3200.000
3280 CROSS SECTION    3200.00 EXTENDED      1.27 FEET


3470 ENCROACHMENT STATIONS        210.0      620.0  TYPE       1  TARGET       410.000

            F  CHANNEL MANU

    3200.00      9.27   592.77     0.0       0.0    592.81     0.04     0.13      0.03   585.90
      2680.     1449.     396.    835.      912.      173.     636.      51.       12.    585.90
       0.18      1.59     2.29    1.31     0.040     0.040    0.040    0.045    583.50   210.00
   0.000234      380.     500.    245.         2         0        0    -0.00    410.00   620.00


CCHV     0.100 CEHV     0.300
*SECNO 3700.000
     SECNO     DEPTH    CWSEL    CRIWS     WSELK      EG       HV       HL        OLOSS  BANK ELEV
     Q         QLOB     QCH      QROB      ALOB       ACH      AROB     VOL       TWA    LEFT/RIGHT
     TIME      VLOB     VCH      VROB      XNL        XNCH     XNR      WTN       ELMIN      SSTA
     SLOPE     XLOBL    XLCH     XLOBR     ITRIAL     IDC      ICONT    CORAR     TOPWID     ENDST


3470 ENCROACHMENT STATIONS        330.0      557.0  TYPE       1  TARGET       227.000

            G  CHANNEL MANU

    3700.00      8.52   592.92     0.0       0.0    593.17     0.25     0.30      0.06   586.80
      2680.     1731.     834.    115.      524.      158.      43.      67.       16.    586.80
       0.22      3.30     5.27    2.66     0.040     0.045    0.060    0.045    584.40   330.00
   0.001770      660.     585.    365.         2         0        0    -0.00    227.00   557.00


CCHV     0.100 CEHV     0.300
*SECNO 4200.000

            H  CHANNEL MANU

    4200.00      8.32   594.12     0.0       0.0    594.21     0.09     1.03      0.02   587.80
      2680.      956.     629.   1095.      656.      155.     610.      86.       22.    587.80
       0.32      1.46     4.07    1.79     0.070     0.045    0.070    0.046    585.80   149.12
   0.001055      705.     865.    770.         2         0        0    -0.01    423.53   572.65


*SECNO 4900.000
3280 CROSS SECTION    4900.00 EXTENDED      2.63 FEET


            I

    4900.00      7.83   595.63     0.0       0.0    596.06     0.43     1.74      0.10   588.30
      2680.      824.    1124.    732.      415.      146.     305.     107.       27.    588.30
       0.38      1.99     7.68    2.40     0.100     0.045    0.100    0.050    587.80   625.00
   0.003850      615.    1440.    830.         2         0        0    -0.02    249.90   874.90


CCHV     0.300 CEHV     0.500
*SECNO 5000.000

            J  M-21 BRIDGE, TR 603.6, LC 600.6

    5000.00     10.06   595.76     0.0       0.0    596.21     0.45     0.14      0.01   603.60
      2680.        0.    2680.      0.        0.      499.       0.     108.       28.    603.60
       0.38       0.0     5.37     0.0     0.035     0.035    0.035    0.050    585.70  1522.50
   0.001226       70.      70.     70.         2         0        0    -0.00     55.00  1577.50
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   5000.00    10.80   595.70     0.0
     2680.       0.    2680.       0.       0.     499.       0.     108.      28.   603.60
      0.38      0.0     5.37      0.0    0.035    0.035    0.035    0.050   585.70  1522.50
  0.001226      70.      70.      70.        2        0        0    -0.00    55.00  1577.50

*SECNO 5001.000

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD   603.60 MAX ELLC   599.60

   5001.00    10.07   595.77      0.0      0.0   596.21     0.45     0.01     0.00   603.60
     2680.       0.    2680.       0.       0.     500.       0.     108.      28.   603.60
      0.38      0.0     5.36      0.0    0.035    0.035    0.035    0.050   585.70  1522.50
  0.001221       5.       5.       5.        0        0        0    -0.00    55.00  1577.50

*SECNO 5002.000
     SECNO    DEPTH    CWSEL    CRIWS    WSELK       EG       HV       HL    OLOSS   BANK ELEV
         Q     QLOB      QCH     QROB     ALOB      ACH     AROB      VOL      TWA  LEFT/RIGHT
      TIME     VLOB      VCH     VROB      XNL     XNCH      XNR      WTN    ELMIN     SSTA
     SLOPE    XLOBL     XLCH    XLOBR   ITRIAL      IOC    ICONT    CORAR   TOPWID    ENDST

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD   603.60 MAX ELLC   599.60

   5002.00    10.13   595.83      0.0      0.0   596.27     0.44     0.05     0.00   603.60
     2680.       0.    2680.       0.       0.     502.       0.     109.      28.   603.60
      0.38      0.0     5.33      0.0    0.035    0.035    0.035    0.050   585.70  1522.50
  0.001201      45.      45.      45.        0        0        0    -0.00    55.00  1577.50

*SECNO 5003.000

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD   603.60 MAX ELLC   599.60

   5003.00    10.18   595.88      0.0      0.0   596.31     0.44     0.04     0.00   603.60
     2680.       0.    2680.       0.       0.     505.       0.     109.      28.   603.60
      0.38      0.0     5.30      0.0    0.035    0.035    0.035    0.050   585.70  1522.50
  0.001182      36.      36.      36.        0        0        0    -0.00    55.00  1577.50

*SECNO 5004.000

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD   603.60 MAX ELLC   599.60

   5004.00    10.24   595.94      0.0      0.0   596.37     0.43     0.05     0.00   603.60
     2680.       0.    2680.       0.       0.     508.       0.     110.      28.   603.60
      0.39      0.0     5.27      0.0    0.035    0.035    0.035    0.050   585.70  1522.50
  0.001159      45.      45.      45.        0        0        0    -0.00    55.00  1577.50

*SECNO 5005.000
   5005.00    10.24   595.94      0.0      0.0   596.37     0.43     0.01     0.00   603.60
     2680.       0.    2680.       0.       0.     509.       0.     110.      28.   603.60
      0.39      0.0     5.26      0.0    0.035    0.035    0.035    0.050   585.70  1522.50
  0.001155       5.       5.       5.        0        0        0    -0.00    55.00  1577.50

*SECNO 5100.000

        K

   5100.00    10.89   596.19      0.0      0.0   596.58     0.39     0.20     0.01   588.30
     2680.     368.    2022.     289.     152.     362.      94.     112.      28.   588.30
      0.40     2.42     5.58     3.09    0.050    0.045    0.050    0.049   585.30    39.05
  0.001562     110.     150.     190.        2        0        0    -0.00   123.58   162.63
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*SECNO 5600.000
  SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
  Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
  TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
  SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

         L  CHANNEL MANU

   5600.00     11.34    596.94      0.0       0.0     597.00      0.06      0.32      0.10    583.60
     2680.     1934.      737.       8.     1322.      251.       11.      121.       30.     588.60
      0.46      1.46      2.94      0.76     0.050     0.045     0.050     0.050    585.60     29.12
  0.000453      320.      505.      330.        2         0         0     -0.00    440.94    470.06

 CCHV     0.100 CEHV     0.300
 *SECNO 6100.000

         M  CHANNEL MANU

   6100.00     11.14    597.14      0.0       0.0     597.17      0.04      0.17      0.00    589.00
     2680.     1971.      703.       6.     1678.      297.        8.      140.       35.     589.00
      0.55      1.17      2.37      0.68     0.050     0.045     0.050     0.051    586.00     55.07
  0.000269      435.      655.      475.        2         0         0     -0.06    516.57    571.64

 CCHV     0.200 CEHV     0.400
 *SECNO 7100.000

         N

   7100.00     10.63    597.33      0.0       0.0     597.49      0.16      0.27      0.05    590.80
     2680.      752.      994.      935.      287.      251.      340.      160.       41.     590.70
      0.60      2.62      3.96      2.75     0.035     0.045     0.035     0.050    586.70    270.36
  0.000858      580.      640.      600.        2         0         0     -0.02    281.27    551.64

 CCHV     0.300 CEHV     0.500
 *SECNO 7200.000

 3470 ENCROACHMENT STATIONS       435.0      492.0  TYPE       1  TARGET         57.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA        597.50 ELREA        597.50

         O  104TH AVE, THREE STRUCTURAL PLATE STEEL PIPE ARCHES, 14-2X9-10

            TR 598.6, CROWN 596.3, INVERT 586.5

   7200.00     10.94    597.44      0.0       0.0     597.86      0.42      0.24      0.13    588.60
     2680.        0.     2680.        0.        0.      514.        0.      163.       41.     588.60
      0.62      0.0       5.21      0.0      0.035     0.045     0.035     0.050    586.50    438.00
  0.001249      210.      245.      235.        1         0         0     -0.00     51.00    489.00

 *SECNO 7201.000

 3301 HV CHANGED MORE THAN HVINS

 3370 NORMAL BRIDGE,NRD  29 MIN ELTRD   598.60 MAX ELLC   598.60

 3470 ENCROACHMENT STATIONS       435.0      492.0  TYPE       1  TARGET         57.000
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3470 ENCROACHMENT STATIONS       435.0       492.0  TYPE        1  TARGET        57.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA          597.50 ELREA         597.50

  7201.00     10.68   597.18      0.0       0.0     598.19     1.02      0.03      0.30    588.60
    2680.        0.    2680.        0.        0.      331.        0.      163.       41.    588.60
     0.62       0.0     8.09      0.0     0.035     0.045     0.035     0.050    586.50    438.00
 0.015130       10.      10.       10.         2         0         0   -180.05     51.00    489.00


*SECNO 7202.000
    SECNO     DEPTH    CWSEL    CRIWS     WSELK      EG        HV        HL      OLOSS   BANK ELEV
    Q         QLOB     QCH      QROB      ALOB       ACH       AROB      VOL     TWA   LEFT/RIGHT
    TIME      VLOB     VCH      VROB      XNL        XNCH      XNR       WTN     ELMIN      SSTA
    SLOPE     XLOBL    XLCH     XLOBR     ITRIAL     IDC       ICONT     CORAR   TOPWID     ENDST


3370 NORMAL BRIDGE,NRD  29 MIN ELTRD   598.60 MAX ELLC   598.60

3470 ENCROACHMENT STATIONS       435.0       492.0  TYPE        1  TARGET        57.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA          598.60 ELREA         598.60

  7202.00     11.40   597.90      0.0       0.0     598.92     1.02      0.73      0.0     588.60
    2680.        0.    2680.        0.        0.      331.        0.      164.       41.    588.60
     0.62       0.0     8.09      0.0     0.035     0.045     0.035     0.050    586.50    438.00
 0.015130       48.      48.       48.         2         0         0   -219.02     51.00    489.00


*SECNO 7203.000
3280 CROSS SECTION   7203.00 EXTENDED       0.24 FEET


3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS       435.0       492.0  TYPE        1  TARGET        57.000
  7203.00     12.34   598.84      0.0       0.0     599.15     0.31      0.02      0.21    588.60
    2680.       24.    2632.       24.       16.      585.       16.      164.       41.    588.60
     0.62      1.54     4.50     1.54     0.035     0.045     0.035     0.050    586.50    435.00
 0.000783       10.      10.       10.         3         0         0     -0.00     57.00    492.00


*SECNO 7300.000

3470 ENCROACHMENT STATIONS       130.0       310.0  TYPE        1  TARGET       180.000

         P

  7300.00     12.76   599.06      0.0       0.0     599.27     0.20      0.09      0.03    590.70
    2680.      535.    1658.      487.      174.      411.      188.      166.       42.    588.70
     0.63      3.07     4.04     2.59     0.040     0.045     0.040     0.050    586.30    139.35
 0.000920      105.     100.      100.         2         0         0     -0.00    170.65    310.00


CCHV    0.300 CEHV    0.500
*SECNO 8100.000

3470 ENCROACHMENT STATIONS       200.0       625.0  TYPE        1  TARGET       425.000

         Q
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    8100.00     11.50   599.50      0.0       0.0    599.59      0.10      0.30      0.03    589.90
     2680.       587.    1066.     1026.      263.      327.      684.      177.       45.    589.20
       0.68      2.24     3.26      1.50     0.040     0.045     0.040     0.050    588.00    200.00
   0.000412      515.     505.      480.         1         0         0     -0.00    390.96    590.96


 CCHV     0.100 CEHV     0.300
 *SECNO 8350.000

 3470 ENCROACHMENT STATIONS       450.0      725.0  TYPE        1  TARGET       275.000

          R

    8350.00     10.15   599.75      0.0       0.0    599.95      0.20      0.33      0.03    589.90
     2680.       473.    1558.      649.      352.      337.      576.      193.       49.    590.80
       0.73      1.35     4.63      1.13     0.100     0.045     0.100     0.050    589.60    450.00
   0.000962      540.     575.      495.         2         0         0     -0.00    275.00    725.00


 *SECNO 8565.000
 3280 CROSS SECTION   8565.00 EXTENDED       4.42 FEET


      SECNO     DEPTH    CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS  BANK ELEV
          Q      QLOB      QCH      QROB      ALOB       ACH      AROB       VOL       TWA  LEFT/RIGHT
       TIME      VLOB      VCH      VROB       XNL      XNCH       XNR       WTN     ELMIN      SSTA
      SLOPE     XLOBL     XLCH     XLOBR    ITRIAL       IDC     ICONT     CORAR    TOPWID     ENDST



 3470 ENCROACHMENT STATIONS       170.0      410.0  TYPE        1  TARGET       240.000

          S  CHANNEL MANU

    8565.00      9.82   600.42      0.0       0.0    600.86      0.45      0.84      0.07    592.50
     2680.       409.    1594.      677.      249.      234.      390.      206.       52.    591.80
       0.77      1.64     6.82      1.73     0.100     0.045     0.100     0.050    590.60    170.00
   0.002362      540.     635.      495.         2         0         0     -0.01    240.00    410.00


 CCHV     0.300 CEHV     0.500
 *SECNO 8900.000

 3301 HV CHANGED MORE THAN HVINS


          T  PAW PAW RD BRIDGE, TR 613.4, LC 603.7, CONCRETE ARCH

    8900.00      9.26   600.76      0.0       0.0    602.78      2.02      1.13      0.79    613.40
     2680.         0.    2680.        0.        0.      235.        0.      210.       53.    613.40
       0.77       0.0    11.40       0.0     0.040     0.030     0.040     0.049    591.50    197.00
   0.005653      325.     325.      320.         2         0         0     -0.00     26.00    223.00


 *SECNO 8901.000

 3301 HV CHANGED MORE THAN HVINS


 3370 NORMAL BRIDGE,NRD  13 MIN ELTRD   613.40 MAX ELLC    603.70

    8901.00      8.98   600.48      0.0       0.0    603.14      2.66      0.04      0.32    613.40
     2680.         0.    2680.        6.        0.      205.        0.      210.       53.    613.40
       0.77       0.0    13.08       0.0     0.040     0.030     0.040     0.049    591.50    197.00
   0.009542        5.       5.        5.         2         0         0    -22.84     26.00    223.00

 *SECNO 8902.000
                                        613.40 MAX ELLC    603.70
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*SECNO 8902.000

3370 NORMAL BRIDGE,NRD  13 MIN ELTRD   613.40 MAX ELLC   603.70

   8902.00      9.46   600.96      0.0       0.0    603.42     2.46      0.22      0.06    613.40
     2680.        0.    2680.       0.        0.      213.       0.      210.       53.    613.40
      0.77       0.0    12.58      0.0     0.040     0.030    0.040     0.049    591.50    197.00
  0.008724       25.      25.      25.         2         0        0    -27.32     26.00    223.00

*SECNO 8903.000

3301 HV CHANGED MORE THAN HVINS

   8903.00     10.74   602.24      0.0       0.0    603.74     1.49      0.03      0.29    613.40
     2680.        0.    2680.       0.        0.      273.       0.      210.       53.    613.40
      0.77       0.0     9.81      0.0     0.040     0.030    0.040     0.049    591.50    197.00
  0.003729        5.       5.       5.         3         0        0     -0.00     26.00    223.00

*SECNO 9100.000

3301 HV CHANGED MORE THAN HVINS

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST


3470 ENCROACHMENT STATIONS       90.0      220.0  TYPE      1  TARGET       130.000

           U

   9100.00     12.84   604.14      0.0       0.0    604.30     0.16      0.17      0.40    592.70
     2680.      950.    1377.     353.      491.      332.     224.      212.       53.    592.70
      0.79      1.93     4.15     1.58     0.070     0.045    0.070     0.049    591.30     90.00
  0.000562      130.     145.     150.         2         0        0     -0.00    130.00    220.00

*SECNO 9350.000

           V  CHICAGO RD BRIDGE, TR 618.3, LC 599.9

   9350.00     13.17   603.97      0.0       0.0    604.61     0.65      0.07      0.24    618.30
     2680.        0.    2680.       0.        0.      416.       0.      214.       53.    618.30
      0.79       0.0     6.45      0.0     0.050     0.035    0.050     0.049    590.80    633.80
  0.001634      100.      70.     100.         2         0        0     -0.00     32.40    666.20


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN      BWC       BWP       BAREA      SS        ELCHU      ELCHD
      1.25      1.90      2.50      0.0      32.40      1.60    269.00      0.0      591.30     591.30

*SECNO 9351.000
PRESSURE FLOW


 EGPRS      EGLWC        H3       QWEIR       QPR       BAREA    TRAPEZOID      ELLC      ELTRD
                                                                    AREA
   606.89    604.69      0.09        0.      2680.      269.      265.       599.90    618.30
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   9351.00     15.64    606.44     0.0       0.0     606.89     0.45      2.28      0.0     618.30
     2680.        0.     2680.       0.        0.      496.       0.      215.       53.    618.30
      0.80       0.0      5.41     0.0     0.050     0.035     0.050     0.048    590.80   633.80
  0.001014       90.       90.      90.        2         0         0     -0.00     32.40   666.20

 *SECNO 9800.000

 3470 ENCROACHMENT STATIONS      280.0      410.0  TYPE        1  TARGET       130.000

          W

   9800.00     15.57    606.97     0.0       0.0     607.06     0.09      0.06      0.11    592.70
     2680.     1363.     1103.     213.      681.      374.      188.      219.       54.    592.70
      0.82      2.00      2.95     1.13     0.040     0.035     0.040     0.048    591.40   280.00
  0.000133      200.      210.     230.        2         0         0     -0.01    130.00   410.00

 *SECNO 9900.000

 3265 DIVIDED FLOW

          X   C & D R. R. BRIDGE

   9900.00     16.62    606.92     0.0       0.0     607.21     0.29      0.05      0.10    627.00
     2680.        0.     2632.      48.        0.      608.       36.      223.       54.    627.00
      0.83       0.0      4.33     1.32     0.040     0.035     0.040     0.048    590.30  1155.50
  0.000587      165.      190.     230.        2         0         0     -0.00     55.00  1217.00


 SPECIAL BRIDGE

 SB   XK        XKOR       COFQ      RDLEN      BWC        BWP       BAREA      SS        ELCHU      ELCHD
       1.25      1.85      2.50      0.0       39.50       3.50    294.00      0.0       592.50     592.50

 *SECNO 9901.000

 3265 DIVIDED FLOW

     SECNO      DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL        OLOSS    BANK ELEV
     Q          QLOB      QCH       QROB      ALOB       ACH       AROB      VOL       TWA    LEFT/RIGHT
     TIME       VLOB      VCH       VROB      XNL        XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR     TOPWID      ENDST

 PRESSURE AND WEIR FLOW

  EGPRS      EGLWC       H3       QWEIR       QPR       BAREA    TRAPEZOID      ELLC      ELTRD
                                                                    AREA
    609.31    607.26      0.05      320.      2378.      294.      259.      599.70    604.60

   9901.00     18.28    608.58     0.0       0.0     608.80     0.22      1.59      0.0     627.00
     2680.        0.     2590.      90.        0.      674.       62.      224.       54.    627.00
      0.84       0.0      3.84     1.47     0.040     0.035     0.040     0.048    590.30  1155.50
  0.000429       88.       88.      88.        2         0         2     -0.00     55.00  1217.00

 *SECNO 10000.000
 3280 CROSS SECTION   10000.00 EXTENDED        0.86 FEET

 3470 ENCROACHMENT STATIONS      170.0      450.0  TYPE        1  TARGET       280.000
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3470 ENCROACHMENT STATIONS        170.0      450.0  TYPE       1  TARGET       280.000

          Y

  10000.00    16.66   608.86     0.0      0.0    608.87     0.01     0.00     0.07   592.80
     2025.     979.     302.     745.    1719.     359.    1300.     230.      55.   592.80
      0.89     0.57     0.84     0.57    0.040    0.035    0.040    0.048   592.20   170.00
  0.000010     135.     115.     120.        2        0        0    -0.01   280.00   450.00

CCHV    0.100 CEHV    0.300
*SECNO 10900.000
3280 CROSS SECTION  10900.00 EXTENDED       0.87 FEET

3470 ENCROACHMENT STATIONS        185.0      590.0  TYPE       1  TARGET       405.000

          Z

  10900.00    16.37   608.87     0.0      0.0    608.87     0.00     0.00     0.00   593.20
     2025.    1093.     279.     652.    2377.     402.    1205.     262.      58.   593.20
      1.10     0.46     0.69     0.54    0.040    0.040    0.040    0.047   592.50   185.00
  0.000009     430.     350.     310.        2        0        0    -0.01   405.00   590.00

*SECNO 11000.000

3470 ENCROACHMENT STATIONS        130.0      570.0  TYPE       1  TARGET       440.000

          AA  104TH AVE BRIDGE, TR 607.1, LC 605.2

  11000.00    15.91   608.81     0.0      0.0    608.90     0.09     0.00     0.03   606.80
     2025.     281.    1710.      34.     377.     663.      67.     268.      59.   607.30
      1.11     0.75     2.58     0.50    0.040    0.040    0.040    0.047   592.90   145.32
  0.000230     100.      65.      85.        2        0        0    -0.05   411.98   557.30


SPECIAL BRIDGE

SB   XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
       0.0        1.59       2.50       0.0       46.80       0.0      494.30       0.0      593.00     593.00

*SECNO 11001.000
PRESSURE AND WEIR FLOW

  EGPRS      EGLWC       H3        QWEIR       QPR       BAREA    TRAPEZOID      ELLC       ELTRD
                                                                     AREA
    609.23     609.00      0.0        932.      1091.       494.       571.     605.20     607.10


3470 ENCROACHMENT STATIONS        130.0      570.0  TYPE       1  TARGET       440.000
  11001.00    15.95   608.84     0.0      0.0    608.93     0.09     0.03     0.0    606.80
     2025.     288.    1701.      36.     386.     665.      70.     268.      59.   607.30
      1.11     0.75     2.56     0.51    0.040    0.040    0.040    0.047   592.90   142.61
  0.000225      37.      37.      37.        2        0        6    -0.03   416.94   559.55

*SECNO 11100.000
3280 CROSS SECTION  11100.00 EXTENDED       0.94 FEET
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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

3470 ENCROACHMENT STATIONS       150.0      625.0  TYPE        1  TARGET      475.000

          AB

 11100.00     16.44    608.94       0.0       0.0    608.94      0.01      0.00      0.01    593.20
    2025.      865.      672.      483.     2705.      775.     1349.      274.       60.    593.20
     1.16      0.32      0.87      0.36     0.080     0.045     0.080     0.047    592.50    150.00
 0.000017       85.       85.       85.         2         0         0     -0.04    475.00    625.00

*SECNO 12000.000

          AC  CHANNEL MANU

 12000.00     16.36    608.96       0.0       0.0    608.96      0.01      0.02      0.00    595.90
    2025.     1165.      491.      369.     2653.      451.     1137.      352.       67.    592.60
     1.55      0.44      1.09      0.32     0.100     0.045     0.100     0.048    592.60    111.31
 0.000033      655.     1160.      730.         2         0         0     -0.00    432.60    543.91

*SECNO 12300.000

          AD

 12300.00     12.71    609.01       0.0       0.0    609.03      0.02      0.06      0.00    597.20
    2025.     1076.      384.      564.     1612.      210.      803.      434.       78.    597.50
     1.89      0.67      1.83      0.70     0.080     0.045     0.080     0.049    596.30     89.72
 0.000110     1020.     1460.      970.         2         0         0     -0.03    452.85    542.57

*SECNO 13700.000

          AE  CHANNEL MANU

 13700.00     11.29    609.19       0.0       0.0    609.25      0.06      0.21      0.01    598.80
    2025.     1107.      570.      349.     1250.      175.      369.      484.       88.    599.10
     2.09      0.89      3.26      0.95     0.080     0.045     0.080     0.051    597.90    206.73
 0.000408      945.     1710.      820.         2         0         0     -0.00    518.69    725.42

*SECNO 14900.000

          AF

 14900.00     10.16    609.66       0.0       0.0    609.70      0.04      0.45      0.00    600.90
    2025.     1258.      611.      156.     1207.      238.      116.      531.      103.    599.60
     2.32      1.04      2.57      1.35     0.050     0.045     0.050     0.051    599.50     14.65
 0.000302     1170.     1620.     1145.         2         0         0     -0.06    539.49    554.14

*SECNO 15900.000
  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

          AG  CHANNEL MANU

 15900.00      9.07    610.07       0.0       0.0    610.16      0.10      0.45      0.02    602.40
    2025.      374.      796.      856.      332.      247.      403.      562.      113.    602.40
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 15900.00     9.07   610.07     0.0      0.0    610.16     0.10     0.45     0.02   602.40
    2025.     374.     796.     856.     332.     247.     403.     562.     113.   602.40
     2.45     1.13     3.22     2.12    0.050    0.045    0.050    0.051   601.00   314.47
 0.000580    1000.    1265.    1010.        2        0        0    -0.01   348.28   662.75

*SECNO 17300.000

        AH   CHANNEL MANU

 17300.00     9.36   610.86     0.0      0.0    610.92     0.05     0.75     0.00   604.50
    2025.      88.     616.    1321.      58.     211.    1176.     600.     127.   603.00
     2.69     1.52     2.91     1.12    0.050    0.045    0.050    0.052   601.50   381.41
 0.000465     940.    1745.    1370.        2        0        0    -0.01   589.36   970.78


*SECNO 18200.000

        AI

 18200.00     8.89   611.19     0.0      0.0    611.22     0.02     0.30     0.00   605.30
    2025.    1612.     328.      84.    1623.     157.      69.     631.     138.   603.80
     2.89     0.99     2.10     1.23    0.050    0.045    0.050    0.052   602.30   234.43
 0.000269     680.    1135.     890.        2        0        0    -0.03   645.55   879.98


CCHV    0.300 CEHV     0.500
*SECNO 18960.000

3301 HV CHANGED MORE THAN HVINS


        AJ   CHANNEL MANU

 18960.00     8.59   611.19     0.0      0.0    612.04     0.85     0.41     0.41   605.50
    2025.     500.    1286.     238.      95.     151.      64.     641.     141.   604.10
     2.91     5.25     8.52     3.72    0.050    0.045    0.050    0.053   602.60   176.00
 0.004660     275.     950.     845.        2        0        0    -0.00    72.97   248.97


CCHV    0.100 CEHV     0.300
*SECNO 19600.000

3470 ENCROACHMENT STATIONS        28.0       160.0  TYPE        1  TARGET       132.000

        AK

 19600.00     8.15   613.65     0.0      0.0    614.00     0.35     1.91     0.05   606.50
    2025.     232.    1134.     658.      73.     193.     247.     647.     143.   606.50
     2.95     3.17     5.88     2.66    0.060    0.045    0.060    0.052   605.50    28.00
 0.002095     680.     640.     595.        2        0        0    -0.01   132.00   160.00


*SECNO 19700.000

3301 HV CHANGED MORE THAN HVINS

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA   LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


        AL   RILEY ST BRIDGE, TR 616.0, LC 613.9
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  19700.00     7.79   613.49     0.0      0.0    614.39     0.90     0.23     0.16   616.00
     2025.       0.    2025.       0.       0.     266.       0.     647.     143.    616.00
      2.96      0.0     7.61     0.0    0.060     0.045    0.060    0.052   605.70   237.00
  0.005611      70.      70.      70.        2         0        0    -0.00    35.30   272.30

 *SECNO 19701.000

 3370 NORMAL BRIDGE,NRD    9 MIN ELTRD    616.00 MAX ELLC    620.00

  19701.00     7.83   613.53     0.0      0.0    614.42     0.89     0.03     0.00   616.00
     2025.       0.    2025.       0.       0.     267.       0.     647.     143.    616.00
      2.96      0.0     7.59     0.0    0.060     0.045    0.060    0.052   605.70   237.00
  0.005560       5.       5.       5.        1         0        0    -0.00    35.30   272.30

 *SECNO 19702.000

 3370 NORMAL BRIDGE,NRD    9 MIN ELTRD    616.00 MAX ELLC    620.00

  19702.00     8.08   613.78     0.0      0.0    614.62     0.83     0.19     0.01   616.00
     2025.       0.    2025.       0.       0.     276.       0.     648.     143.    616.00
      2.96      0.0     7.33     0.0    0.060     0.045    0.060    0.052   605.70   237.00
  0.005031      36.      36.      36.        2         0        0    -0.00    35.30   272.30

 *SECNO 19703.000
  19703.00     8.11   613.81     0.0      0.0    614.64     0.83     0.03     0.00   616.00
     2025.       0.    2025.       0.       0.     277.       0.     648.     143.    616.00
      2.96      0.0     7.31     0.0    0.060     0.045    0.060    0.052   605.70   237.00
  0.004982       5.       5.       5.        3         0        0    -0.00    35.30   272.30

 CCHV    0.300 CEHV    0.500
 *SECNO 19800.000

 3301 HV CHANGED MORE THAN HVINS

 3470 ENCROACHMENT STATIONS       170.0     400.0  TYPE      1  TARGET      230.000

         AM

  19800.00     9.15   614.75     0.0      0.0    615.01     0.26     0.19     0.17   606.90
     2025.     687.    1127.     211.     321.     218.     162.     648.     143.    606.90
      2.96     2.14     5.17     1.30   0.070     0.045    0.070    0.052   605.60   170.00
  0.001381      65.      85.      85.        3         0        0    -0.02   230.00   400.00

 CCHV    0.100 CEHV    0.300
 *SECNO 20300.000
    SECNO    DEPTH    CWSEL    CRIWS    WSELK       EG       HV       HL    OLOSS  BANK ELEV
      Q       QLOB      QCH     QROB     ALOB      ACH     AROB      VOL      TWA  LEFT/RIGHT
    TIME      VLOB      VCH     VROB      XNL     XNCH      XNR      WTN    ELMIN     SSTA
    SLOPE    XLOBL     XLCH    XLOBR   ITRIAL      IDC    ICONT    CORAR   TOPWID    ENDST

         AN  CHANNEL MANU

  20300.00     9.69   615.29     0.0      0.0    615.55     0.26     0.54     0.00   606.90
     2025.     309.    1254.     462.     167.     250.     300.     655.     145.    606.90
      3.00     1.86     5.02     1.54   0.070     0.045    0.070    0.052   605.60   139.31
  0.001201     400.     430.     430.        2         0        0    -0.02   216.99   356.30

 *SECNO 20800.000

         AS  U/S OF CONFLUENCE WITH ZEELAND DRAIN
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*SECNO 20800.000

      AO  U/S OF CONFLUENCE WITH ZEELAND DRAIN

 20800.00     7.58   616.08     0.0      0.0    616.20     0.12     0.64     0.01   609.50
    815.      222.     482.     111.     223.     138.     132.     663.     148.   609.50
     3.06     0.99     3.49     0.84    0.080    0.045    0.080    0.052   608.50    15.66
 0.000807     535.     620.     600.       2        0        0    -0.01   220.49   236.16

*SECNO 21800.000

      AP  CHANNEL MANU

 21800.00     6.95   617.15     0.0      0.0    617.33     0.19     1.11     0.02   612.00
    815.       42.     507.     266.      33.     119.     195.     673.     152.   612.10
     3.16     1.27     4.27     1.36    0.080    0.045    0.080    0.052   610.20    87.13
 0.001453     905.    1170.     835.       2        0        0    -0.02   178.93   266.07

*SECNO 22900.000

      AQ

 22900.00     6.92   618.72     0.0      0.0    618.82     0.10     1.47     0.01   613.00
    815.      471.     339.       5.     344.      93.       7.     683.     156.   613.00
     3.30     1.37     3.62     0.73    0.070    0.045    0.070    0.052   611.80    12.50
 0.001006    1235.    1390.     720.       2        0        0    -0.00   146.95   159.45

*SECNO 23100.000

      AR  CHANNEL MANU

 23100.00     5.66   619.96     0.0      0.0    620.07     0.11     1.25     0.00   615.80
    815.      123.     311.     380.      70.      81.     250.     692.     159.   615.50
     3.42     1.76     3.85     1.52    0.070    0.045    0.070    0.052   614.30    75.12
 0.001518     780.    1185.    1125.       1        0        0    -0.00   149.10   224.23

*SECNO 25700.000
    SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
    Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
    TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
    SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

      AS

 25700.00     6.08   622.68     0.0      0.0    623.12     0.45     2.95     0.10   618.20
    815.       17.     579.     219.       9.      94.      88.     701.     162.   618.20
     3.49     1.97     6.18     2.48    0.060    0.045    0.060    0.052   616.60   138.18
 0.003843    1195.    1335.    1245.       2        0        0    -0.01    71.47   209.65

*SECNO 26500.000

      AT  CHANNEL MANU

 26500.00     6.02   624.52     0.0      0.0    624.64     0.12     1.48     0.03   618.80
    815.      407.     326.      81.     229.      87.      45.     706.     164.   619.80
     3.57     1.78     3.74     1.82    0.060    0.045    0.060    0.051   618.50    77.65
 0.001254     725.     750.     675.       2        0        0    -0.00   154.45   232.09
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*SECNO 27100.000

       AU

 27100.00     5.05   627.25      0.0      0.0   627.48     0.23     2.81     0.03   624.00
     815.     424.     245.     145.     172.      42.      59.     714.     168.   624.00
     3.67     2.47     5.90     2.46    0.060    0.045    0.060    0.051   622.20   344.35
 0.005195    1180.    1415.    1050.        2        0        0    -0.02   152.22   496.57


*SECNO 28100.000

3470 ENCROACHMENT STATIONS        29.0      170.0  TYPE       1  TARGET       141.000

       AV

 28100.00     4.28   628.88      0.0      0.0   628.95     0.07     1.46     0.02   625.60
     815.      25.     322.     467.      19.     124.     253.     720.     171.   625.20
     3.77     1.38     2.59     1.85    0.045    0.045    0.045    0.051   624.60    29.00
 0.000926     745.     850.     785.        3        0        0    -0.00   141.00   170.00


CCHV    0.300 CEHV    0.500
*SECNO 28200.000

3301 HV CHANGED MORE THAN HVINS


       AW  QUINCY ST BRIDGE, TR 633.9, LC 631.8

 28200.00     4.47   628.97      0.0      0.0   629.79     0.82     0.46     0.38   634.80
     815.       0.     815.       0.       0.     112.       0.     722.     171.   633.90
     3.78      0.0     7.28      0.0    0.045    0.045    0.045    0.051   624.50   125.00
 0.010725     210.     225.     165.        2        0        0    -0.00    30.00   155.00


*SECNO 28201.000
   SECNO    DEPTH     CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB      QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB      VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL     XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST



3370 NORMAL BRIDGE,NRD    8 MIN ELTRD    633.80 MAX ELLC    636.60

 28201.00     4.57   629.07      0.0      0.0   629.85     0.78     0.05     0.01   634.80
     815.       0.     815.       0.       0.     115.       0.     722.     171.   633.90
     3.78      0.0     7.10      0.0    0.045    0.045    0.045    0.051   624.50   125.00
 0.009914       5.       5.       5.        2        0        0    -0.00    30.00   155.00


*SECNO 28202.000

3370 NORMAL BRIDGE,NRD    8 MIN ELTRD    633.80 MAX ELLC    636.60

 28202.00     5.09   629.59      0.0      0.0   630.20     0.61     0.29     0.05   634.80
     815.       0.     815.       0.       0.     131.       0.     722.     171.   633.90
     3.78      0.0     6.24      0.0    0.045    0.045    0.045    0.051   624.50   125.00
 0.006728      36.      36.      36.        2        0        0    -0.00    30.00   155.00


*SECNO 28203.000
 28203.00     5.14   629.64      0.0      0.0   630.23     0.59     0.03     0.00   634.80
     815.       0.     815.       0.       0.     132.       0.     722.     171.   633.90
     3.78      0.0     6.19      0.0    0.045    0.045    0.045    0.051   624.50   125.00
 0.006546       5.       5.       5.        0        0        0    -0.00    30.00   155.00
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HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
ERROR CORR - 01,02,03
MODIFICATION - 50,51,52,53
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NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

BOSCH & HULST DRAIN

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
1000.000	590.00	0.0	590.07	250.00	1153.31	632.38	894.30	250.00	1400.00	1510.00	1539.00	1650.00
1000.000	590.00	0.0	590.07	250.00	1153.31	632.38	894.30	250.00	1400.00	1510.00	1539.00	1650.00
1800.000	590.43	0.0	590.85	230.00	247.98	1725.44	706.58	0.0	0.0	1510.00	1539.00	0.0
1800.000	590.43	0.0	590.85	230.00	247.98	1725.44	706.58	0.0	0.0	1510.00	1539.00	0.0
2400.000	591.08	0.0	591.62	182.34	320.63	1844.30	515.08	0.0	0.0	389.00	422.00	0.0
2400.000	591.08	0.00	591.61	165.00	333.44	1826.92	519.64	165.00	310.00	389.00	422.00	475.00
2500.000	591.70	0.0	592.33	53.00	0.0	2680.00	0.0	0.0	0.0	150.00	203.00	0.0
2500.000	591.69	-0.01	592.32	53.00	0.0	2680.00	0.0	0.0	0.0	150.00	203.00	0.0
2501.000	591.71	0.0	592.34	53.00	0.0	2680.00	0.0	0.0	0.0	150.00	203.00	0.0
2501.000	591.70	-0.01	592.33	53.00	0.0	2680.00	0.0	0.0	0.0	150.00	203.00	0.0
2502.000	591.80	0.0	592.41	53.00	0.0	2680.00	0.0	0.0	0.0	150.00	203.00	0.0
2502.000	591.79	-0.01	592.40	53.00	0.0	2680.00	0.0	0.0	0.0	150.00	203.00	0.0
2503.000	591.81	0.0	592.42	53.00	0.0	2680.00	0.0	0.0	0.0	150.00	203.00	0.0
2503.000	591.80	-0.01	592.41	53.00	0.0	2680.00	0.0	0.0	0.0	150.00	203.00	0.0
2600.000	592.52	0.0	592.66	220.00	767.98	1094.03	817.99	220.00	40.00	109.00	139.00	260.00
2600.000	592.52	-0.01	592.65	220.00	767.87	1094.97	817.16	220.00	40.00	109.00	139.00	260.00
3200.000	592.77	0.0	592.81	410.00	1448.68	396.24	835.07	410.00	210.00	400.00	420.00	620.00
3200.000	592.76	-0.01	592.81	410.00	1448.90	396.73	834.37	410.00	210.00	400.00	420.00	620.00
3700.000	592.92	0.0	593.17	227.00	1731.11	833.52	115.37	227.00	330.00	525.00	545.00	557.00
3700.000	592.92	-0.01	593.17	227.00	1729.84	834.74	115.42	227.00	330.00	525.00	545.00	557.00
4200.000	594.12	0.0	594.21	423.53	955.50	629.42	1095.07	0.0	0.0	405.00	425.00	0.0
4200.000	594.13	0.00	594.22	400.00	969.67	635.52	1074.81	400.00	160.00	405.00	425.00	560.00
4900.000	595.63	0.0	596.06	249.90	824.20	1124.07	731.72	0.0	0.0	765.00	785.00	0.0
4900.000	595.65	0.02	596.07	250.00	826.86	1120.89	732.25	250.00	625.00	765.00	785.00	875.00
5000.000	595.76	0.0	596.21	55.00	0.0	2680.00	0.0	0.0	0.0	1522.50	1577.50	0.0
5000.000	595.78	0.02	596.22	55.00	0.0	2680.00	0.0	0.0	0.0	1522.50	1577.50	0.0

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
5001.000	595.77	0.0	596.21	55.00	0.0	2680.00	0.0	0.0	0.0	1522.50	1577.50	0.0
5001.000	595.78	0.02	596.23	55.00	0.0	2680.00	0.0	0.0	0.0	1522.50	1577.50	0.0
5002.000	595.83	0.0	596.27	55.00	0.0	2680.00	0.0	0.0	0.0	1522.50	1577.50	0.0
5002.000	595.84	0.02	596.28	55.00	0.0	2680.00	0.0	0.0	0.0	1522.50	1577.50	0.0
5003.000	595.88	0.0	596.31	55.00	0.0	2680.00	0.0	0.0	0.0	1522.50	1577.50	0.0
5003.000	595.89	0.02	596.33	55.00	0.0	2680.00	0.0	0.0	0.0	1522.50	1577.50	0.0
5004.000	595.94	0.0	596.37	55.00	0.0	2680.00	0.0	0.0	0.0	1522.50	1577.50	0.0
5004.000	595.95	0.02	596.38	55.00	0.0	2680.00	0.0	0.0	0.0	1522.50	1577.50	0.0
5005.000	595.94	0.0	596.37	55.00	0.0	2680.00	0.0	0.0	0.0	1522.50	1577.50	0.0
5005.000	595.96	0.02	596.39	55.00	0.0	2680.00	0.0	0.0	0.0	1522.50	1577.50	0.0
5100.000	596.19	0.0	596.58	123.58	368.38	2022.40	289.23	0.0	0.0	97.00	135.00	0.0
5100.000	596.21	0.02	596.60	120.00	369.71	2020.98	289.32	120.00	40.00	97.00	135.00	160.00
5600.000	596.94	0.0	597.00	440.94	1934.46	737.14	8.40	0.0	0.0	440.00	465.00	0.0
5600.000	596.95	0.01	597.01	430.00	1935.31	736.26	8.43	430.00	40.00	440.00	465.00	470.00
6100.000	597.14	0.0	597.17	516.57	1971.10	703.23	5.67	0.0	0.0	540.00	570.00	0.0
6100.000	597.16	0.02	597.19	505.00	2052.32	627.68	0.0	505.00	65.00	540.00	570.00	570.00
7100.000	597.33	0.0	597.49	281.27	751.57	993.74	934.69	0.0	0.0	418.00	445.00	0.0
7100.000	597.36	0.03	597.52	276.44	758.41	992.36	929.23	285.00	260.00	418.00	445.00	545.00
7200.000	597.44	0.0	597.86	51.00	0.0	2680.00	0.0	57.00	435.00	438.00	489.00	492.00
7200.000	597.47	0.03	597.89	51.00	0.0	2680.00	0.0	57.00	435.00	438.00	489.00	492.00
7201.000	597.18	0.0	598.19	51.00	0.0	2680.00	0.0	57.00	435.00	438.00	489.00	492.00
7201.000	597.20	0.02	598.22	51.00	0.0	2680.00	0.0	57.00	435.00	438.00	489.00	492.00
7202.000	597.90	0.0	598.92	51.00	0.0	2680.00	0.0	57.00	435.00	438.00	489.00	492.00
7202.000	597.93	0.02	598.94	51.00	0.0	2680.00	0.0	57.00	435.00	438.00	489.00	492.00
7203.000	598.84	0.0	599.15	57.00	24.17	2631.66	24.16	57.00	435.00	438.00	489.00	492.00
7203.000	598.87	0.03	599.17	57.00	24.24	2631.53	24.23	57.00	435.00	438.00	489.00	492.00
7300.000	599.06	0.0	599.27	170.65	534.71	1658.28	487.01	180.00	130.00	192.00	235.00	310.00
7300.000	599.09	0.03	599.29	170.91	535.97	1654.18	489.85	180.00	130.00	192.00	235.00	310.00
8100.000	599.50	0.0	599.59	390.96	587.27	1066.28	1026.45	425.00	200.00	255.00	285.00	625.00
8100.000	599.52	0.02	599.61	392.20	586.65	1061.59	1031.77	425.00	200.00	255.00	285.00	625.00
8350.000	599.75	0.0	599.95	275.00	473.12	1557.92	648.96	275.00	450.00	542.00	577.00	725.00
8350.000	599.77	0.02	599.97	275.00	473.75	1555.53	650.72	275.00	450.00	542.00	577.00	725.00
8565.000	600.42	0.0	600.86	240.00	408.66	1594.30	677.04	240.00	170.00	265.00	290.00	410.00
8565.000	600.43	0.01	600.87	240.00	409.61	1592.17	678.22	240.00	170.00	265.00	290.00	410.00
8900.000	600.76	0.0	602.78	26.00	0.0	2680.00	0.0	0.0	0.0	197.00	223.00	0.0
8900.000	600.77	0.01	602.78	26.00	0.0	2680.00	0.0	0.0	0.0	197.00	223.00	0.0
8901.000	600.48	0.0	603.14	26.00	0.0	2680.00	0.0	0.0	0.0	197.00	223.00	0.0
8901.000	600.48	0.01	603.14	26.00	0.0	2680.00	0.0	0.0	0.0	197.00	223.00	0.0

SECNO CWSEL DIFKWS EG TOPWID QLOB QCH QROB PERENC STENCL STCHL STCHR STENCR

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
8902.000	600.96	0.0	603.42	26.00	0.0	2680.00	0.0	0.0	0.0	197.00	223.00	0.0
8902.000	600.97	0.00	603.42	26.00	0.0	2680.00	0.0	0.0	0.0	197.00	223.00	0.0
8903.000	602.24	0.0	603.74	26.00	0.0	2680.00	0.0	0.0	0.0	197.00	223.00	0.0
8903.000	602.25	0.00	603.74	26.00	0.0	2680.00	0.0	0.0	0.0	197.00	223.00	0.0
9100.000	604.14	0.0	604.30	130.00	949.60	1377.36	353.04	130.00	90.00	156.00	183.00	220.00
9100.000	604.14	0.00	604.30	130.00	949.68	1377.20	353.12	130.00	90.00	156.00	183.00	220.00
9350.000	603.97	0.0	604.61	32.40	0.0	2680.00	0.0	0.0	0.0	633.80	666.20	0.0
9350.000	603.97	0.00	604.61	32.40	0.0	2680.00	0.0	0.0	0.0	633.80	666.20	0.0
9351.000	606.44	0.0	606.89	32.40	0.0	2680.00	0.0	0.0	0.0	633.80	666.20	0.0
9351.000	606.44	0.00	606.90	32.40	0.0	2680.00	0.0	0.0	0.0	633.80	666.20	0.0
9800.000	606.97	0.0	607.06	130.00	1363.34	1103.23	213.42	130.00	280.00	340.00	365.00	410.00
9800.000	606.98	0.00	607.06	130.00	1363.33	1103.17	213.50	130.00	280.00	340.00	365.00	410.00
9900.000	606.92	0.0	607.21	55.00	0.0	2632.34	47.66	0.0	0.0	1155.50	1195.00	0.0
9900.000	606.92	0.00	607.21	55.00	0.0	2632.31	47.69	0.0	0.0	1155.50	1195.00	0.0
9901.000	608.58	0.0	608.80	55.00	0.0	2589.60	90.40	0.0	0.0	1155.50	1195.00	0.0
9901.000	608.58	0.00	608.80	55.00	0.0	2589.56	90.44	0.0	0.0	1155.50	1195.00	0.0
10000.000	608.86	0.0	608.87	280.00	978.77	301.52	744.71	280.00	170.00	316.00	338.00	450.00
10000.000	608.87	0.00	608.87	280.00	978.78	301.50	744.72	280.00	170.00	316.00	338.00	450.00
10900.000	608.87	0.0	608.87	405.00	1093.28	279.24	652.48	405.00	185.00	457.00	482.00	590.00
10900.000	608.87	0.00	608.87	405.00	1093.33	279.21	652.46	405.00	185.00	457.00	482.00	590.00
11000.000	608.81	0.0	608.90	411.98	281.06	1710.28	33.67	440.00	130.00	420.00	466.80	570.00
11000.000	608.81	0.00	608.90	412.19	281.36	1709.89	33.75	440.00	130.00	420.00	466.80	570.00
11001.000	608.84	0.0	608.93	416.94	288.05	1701.34	35.61	440.00	130.00	420.00	466.80	570.00
11001.000	608.85	0.00	608.93	417.19	288.41	1700.88	35.71	440.00	130.00	420.00	466.80	570.00
11100.000	608.94	0.0	608.94	475.00	865.13	671.56	488.31	475.00	150.00	457.00	505.00	625.00
11100.000	608.94	0.00	608.95	475.00	865.18	671.52	488.30	475.00	150.00	457.00	505.00	625.00
12000.000	608.96	0.0	608.96	432.60	1165.36	490.81	368.82	0.0	0.0	350.00	382.00	0.0
12000.000	608.96	0.00	608.96	415.00	1166.18	491.51	367.31	415.00	120.00	350.00	382.00	535.00
12300.000	609.01	0.0	609.03	452.85	1076.16	384.48	564.37	0.0	0.0	397.00	414.00	0.0
12300.000	609.01	0.00	609.03	430.00	1078.14	385.04	561.82	430.00	100.00	397.00	414.00	530.00
13700.000	609.19	0.0	609.25	518.69	1106.60	569.61	348.79	0.0	0.0	602.00	618.00	0.0
13700.000	609.19	0.00	609.25	510.00	1107.01	569.18	348.81	510.00	215.00	602.00	618.00	725.00
14900.000	609.66	0.0	609.70	539.49	1257.59	611.21	156.20	0.0	0.0	500.00	525.00	0.0
14900.000	609.66	0.00	609.71	520.00	1257.46	616.03	151.51	520.00	30.00	500.00	525.00	550.00
15900.000	610.07	0.0	610.16	348.28	373.64	795.79	855.58	0.0	0.0	545.00	575.00	0.0
15900.000	610.08	0.01	610.17	335.00	378.55	800.53	845.92	335.00	320.00	545.00	575.00	655.00
17300.000	610.86	0.0	610.92	589.36	88.49	615.55	1320.96	0.0	0.0	400.00	425.00	0.0
17300.000	610.87	0.01	610.93	578.00	88.52	612.73	1323.75	578.00	382.00	400.00	425.00	960.00

MOORE BUSINESS FORMS, INC. 27

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
18200.000	611.19	0.0	611.22	645.55	1612.28	328.23	84.49	0.0	0.0	840.00	860.00	0.0
18200.000	611.20	0.01	611.22	635.00	1615.11	327.36	82.53	635.00	240.00	840.00	860.00	875.00
18960.000	611.19	0.0	612.04	72.97	500.42	1286.10	238.49	0.0	0.0	200.00	220.00	0.0
18960.000	611.20	0.00	612.04	72.00	500.05	1284.12	240.82	72.00	176.00	200.00	220.00	248.00
19600.000	613.65	0.0	614.00	132.00	232.26	1134.37	658.37	132.00	28.00	46.00	71.00	160.00
19600.000	613.65	-0.00	614.00	132.00	232.24	1134.64	658.12	132.00	28.00	46.00	71.00	160.00
19700.000	613.49	0.0	614.39	35.30	0.0	2025.00	0.0	0.0	0.0	237.00	272.30	0.0
19700.000	613.49	-0.00	614.39	35.30	0.0	2025.00	0.0	0.0	0.0	237.00	272.30	0.0
19701.000	613.53	0.0	614.42	35.30	0.0	2025.00	0.0	0.0	0.0	237.00	272.30	0.0
19701.000	613.53	-0.00	614.42	35.30	0.0	2025.00	0.0	0.0	0.0	237.00	272.30	0.0
19702.000	613.78	0.0	614.62	35.30	0.0	2025.00	0.0	0.0	0.0	237.00	272.30	0.0
19702.000	613.78	-0.00	614.62	35.30	0.0	2025.00	0.0	0.0	0.0	237.00	272.30	0.0
19703.000	613.81	0.0	614.64	35.30	0.0	2025.00	0.0	0.0	0.0	237.00	272.30	0.0
19703.000	613.81	-0.00	614.64	35.30	0.0	2025.00	0.0	0.0	0.0	237.00	272.30	0.0
19800.000	614.75	0.0	615.01	230.00	686.98	1127.30	210.72	230.00	170.00	273.00	298.00	400.00
19800.000	614.75	-0.00	615.01	230.00	686.90	1127.54	210.55	230.00	170.00	273.00	298.00	400.00
20300.000	615.29	0.0	615.55	216.99	309.49	1253.72	461.80	0.0	0.0	198.00	225.00	0.0
20300.000	615.29	-0.00	615.55	215.00	309.87	1252.40	462.73	215.00	140.00	198.00	225.00	355.00
20800.000	616.08	0.0	616.20	220.49	221.71	482.45	110.84	0.0	0.0	116.00	135.00	0.0
20800.000	616.08	-0.00	616.20	219.00	221.49	482.84	110.67	219.00	16.00	116.00	135.00	235.00
21800.000	617.15	0.0	617.33	178.93	41.92	507.26	265.82	0.0	0.0	100.00	118.00	0.0
21800.000	617.15	-0.00	617.33	175.00	42.54	506.91	265.55	175.00	90.00	100.00	118.00	265.00
22900.000	618.72	0.0	618.82	146.95	471.39	338.52	5.10	0.0	0.0	143.00	157.00	0.0
22900.000	618.71	-0.00	618.82	144.00	471.30	338.35	4.86	144.00	15.00	143.00	157.00	159.00
23100.000	619.96	0.0	620.07	149.10	123.37	311.19	380.44	0.0	0.0	100.00	115.00	0.0
23100.000	619.95	-0.01	620.06	145.00	124.10	309.60	381.30	145.00	77.00	100.00	115.00	222.00
25700.000	622.68	0.0	623.12	71.47	16.88	579.02	219.10	0.0	0.0	142.00	159.00	0.0
25700.000	622.67	-0.00	623.13	68.00	11.97	582.01	221.03	68.00	140.00	142.00	159.00	208.00
26500.000	624.52	0.0	624.64	154.45	407.45	326.15	81.40	0.0	0.0	200.00	215.00	0.0
26500.000	624.53	0.01	624.65	150.00	403.63	326.22	80.15	150.00	80.00	200.00	215.00	230.00
27100.000	627.25	0.0	627.48	152.22	423.66	245.02	146.31	0.0	0.0	450.00	460.00	0.0
27100.000	627.25	-0.00	627.47	150.00	422.23	244.03	148.74	150.00	345.00	450.00	460.00	495.00
28100.000	628.88	0.0	628.95	141.00	25.49	322.09	467.42	141.00	29.00	40.00	70.00	170.00
28100.000	628.88	-0.00	628.95	141.00	25.46	322.24	467.30	141.00	29.00	40.00	70.00	170.00
28200.000	628.97	0.0	629.79	30.00	0.0	815.00	0.0	0.0	0.0	125.00	155.00	0.0
28200.000	628.96	-0.00	629.79	30.00	0.0	815.00	0.0	0.0	0.0	125.00	155.00	0.0
28201.000	629.07	0.0	629.85	30.00	0.0	815.00	0.0	0.0	0.0	125.00	155.00	0.0
28201.000	629.07	-0.00	629.85	30.00	0.0	815.00	0.0	0.0	0.0	125.00	155.00	0.0

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
28202.000	629.59	0.0	630.20	30.00	0.0	815.00	0.0	0.0	0.0	125.00	155.00	0.0
28202.000	629.59	-0.00	630.20	30.00	0.0	815.00	0.0	0.0	0.0	125.00	155.00	0.0
28203.000	629.64	0.0	630.23	30.00	0.0	815.00	0.0	0.0	0.0	125.00	155.00	0.0
28203.000	629.64	-0.00	630.23	30.00	0.0	815.00	0.0	0.0	0.0	125.00	155.00	0.0

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 *****************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
   ERROR CORR -  01,02,03
   MODIFICATION -  50,51,52,53
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5 Bosch & Hulst Drain

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 C
 T1        BOSCH & HULST DRAIN, HOLLAND TWP, PROJECT NO. 8553, BOSCH
 T2        BOSCH & HULST DRAIN
 T3        BOSCH & HULST DRAIN

 J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

        0.        2.        0.        0.  0.000252      0.0       0.0       0.   590.000     0.0

 J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      1.000       0.0    -1.000       0.0       0.0       0.0       0.0       0.0       0.0       0.0

 J5  LPRNT    NUMSEC                     ********REQUESTED SECTION NUMBERS********

    -10.000   -10.000       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0
 NC       0.035     0.035     0.042     0.100     0.300     0.0       0.0       0.0       0.0       0.0
 QT       5.000  1470.000  2320.000  2680.000  3400.000  2680.000     0.0       0.0       0.0       0.0

           A

 X1    1000.000    18.000  1510.000  1539.000   610.000   610.000   610.000     0.0       0.0       0.0
 X3       0.0       0.0       0.0    1400.000     0.0    1650.000     0.0       0.0       0.0       0.0
 GR     586.000  1350.000   585.500  1438.000   585.100  1482.000   582.800  1497.000   581.800  1503.000
 GR     581.700  1510.000   581.200  1512.000   580.900  1518.000   580.900  1523.000   580.700  1528.000
 GR     580.800  1533.000   581.200  1539.000   581.700  1539.000   581.900  1540.000   583.900  1542.000
 GR     584.700  1559.000   586.000  1588.000   587.000  1815.000     0.0       0.0       0.0       0.0
 NC       0.050     0.050     0.045     0.0       0.0       0.0       0.0       0.0       0.0       0.0

           B  CHANNEL MANU

 X1    1800.000     8.000  1510.000  1539.000  1265.000  1265.000  1265.000     0.0       0.0       0.0
 GR     589.800  1440.000   588.000  1505.000   581.700  1510.000   580.900  1518.000   580.700  1528.000
 GR     581.200  1539.000   588.000  1546.000   588.500  1670.000     0.0       0.0       0.0       0.0
 ET       0.0       0.0       0.0       0.0       0.0       9.100     0.0       0.0     310.000   475.000

           C

 X1    2400.000    14.000   389.000   422.000   360.000   305.000   335.000     0.0       0.0       0.0
 GR     596.000     4.000   592.000   275.000   588.000   386.000   585.100   389.000   582.600   394.000
 GR     581.800   396.000   581.900   401.000   582.300   406.000   583.500   416.000   583.900   419.000
 GR     585.100   422.000   588.000   442.000   592.000   495.000   594.500   520.000     0.0       0.0
 NC       0.040     0.040     0.035     0.300     0.500     0.0       0.0       0.0       0.0       0.0

           D  107TH AVE BRIDGE, TR 595.4, LC 593.5

 X1    2500.000    18.000   150.000   203.000   280.000   315.000   300.000     0.0       0.0       0.0
 GR     595.400   150.000   587.900   150.000   587.900   152.500   584.400   156.000   583.900   159.500
 GR     583.300   163.000   583.300   166.000   583.200   168.000   582.900   170.000   582.300   171.000
 GR     581.500   177.000   581.300   181.000   581.400   186.000   582.400   191.000   587.500   198.500
 GR     587.900   200.500   587.900   203.000   595.400   203.000     0.0       0.0       0.0       0.0
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X1	2501.000	0.0	0.0	0.0	5.000	5.000	5.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	593.500	595.400	0.0	0.0	0.0	0.0	0.0

X1	2502.000	0.0	0.0	0.0	38.000	38.000	38.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	593.500	595.400	0.0	0.0	0.0	0.0	0.0

X1	2503.000	0.0	0.0	0.0	5.000	5.000	5.000	0.0	0.0	0.0
NC	0.050	0.050	0.038	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	40.000	240.000

E

X1	2600.000	15.000	109.000	139.000	83.000	123.000	100.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	40.000	0.0	260.000	0.0	0.0	0.0	0.0
GR	596.000	0.0	590.600	37.000	589.300	47.000	586.200	89.000	585.100	109.000
GR	583.400	111.000	582.700	114.000	582.900	124.000	583.200	129.000	584.000	136.000
GR	585.100	139.000	586.800	143.000	587.400	149.000	583.100	169.000	591.500	330.000
NC	0.040	0.040	0.040	0.0	0.0	0.0	0.0	0.0	0.0	0.0

F CHANNEL MANU

X1	3200.000	13.000	400.000	420.000	380.000	245.000	500.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	210.000	0.0	620.000	0.0	0.0	0.0	0.0
GR	588.000	210.000	588.000	395.000	585.900	400.000	584.200	401.000	583.500	403.000
GR	583.700	410.000	584.000	413.000	584.800	418.000	585.900	420.000	588.000	450.000
GR	592.000	615.000	592.000	650.000	591.500	735.000	0.0	0.0	0.0	0.0
NC	0.040	0.060	0.045	0.100	0.300	0.0	0.0	0.0	0.0	0.0

G CHANNEL MANU

X1	3700.000	14.000	525.000	545.000	660.000	365.000	585.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	330.000	0.0	557.000	0.0	0.0	0.0	0.0
GR	596.000	100.000	592.000	160.000	592.000	370.000	588.000	512.000	586.800	525.000
GR	585.100	526.000	584.400	528.000	584.600	535.000	584.900	538.000	585.700	543.000
GR	586.800	545.000	588.000	550.000	592.000	555.000	596.000	565.000	0.0	0.0
NC	0.070	0.070	0.045	0.100	0.300	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	160.000	560.000

H CHANNEL MANU

X1	4200.000	14.000	405.000	425.000	705.000	770.000	865.000	0.0	0.0	0.0
GR	596.000	95.000	592.000	210.000	591.600	340.000	588.000	400.000	587.800	405.000
GR	586.500	406.000	585.800	408.000	586.000	415.000	586.300	418.000	587.100	423.000
GR	587.800	425.000	583.000	430.000	592.000	570.000	596.000	575.000	0.0	0.0
NC	0.100	0.100	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	625.000	875.000

I

X1	4900.000	13.000	765.000	785.000	615.000	830.000	1440.000	0.0	0.0	0.0
GR	593.000	625.000	593.300	715.000	592.300	745.000	588.700	763.000	588.300	765.000
GR	587.800	767.000	587.900	771.000	588.300	773.000	588.800	778.000	588.300	785.000
GR	588.800	788.000	592.000	825.000	596.000	880.000	0.0	0.0	0.0	0.0
NC	0.035	0.035	0.035	0.300	0.500	0.0	0.0	0.0	0.0	0.0

J M-21 BRIDGE, TR 603.6, LC 600.6

X1	5000.000	11.000	1522.500	1577.500	70.000	70.000	70.000	0.0	0.0	0.0
GR	603.600	1500.000	603.600	1522.500	588.000	1522.500	588.000	1530.500	587.100	1540.500
GR	586.500	1550.500	585.900	1559.500	585.700	1569.500	585.900	1577.500	603.600	1577.500
GR	603.600	1800.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

X1	5000.000	11.000	1522.500	1577.500	70.000	70.000	70.000	0.0	0.0	0.0
GR	603.600	1500.000	603.600	1522.500	588.000	1522.500	588.000	1530.500	587.100	1540.500
GR	586.500	1550.500	585.900	1559.500	585.700	1569.500	585.900	1577.500	603.600	1577.500
GR	603.600	1800.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
X1	5001.000	0.0	0.0	0.0	5.000	5.000	5.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	599.600	603.600	0.0	0.0	0.0	0.0	0.0
X1	5002.000	0.0	0.0	0.0	45.000	45.000	45.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	599.600	603.600	0.0	0.0	0.0	0.0	0.0
X1	5003.000	0.0	0.0	0.0	36.200	36.200	36.200	0.0	0.0	0.0
X2	0.0	0.0	0.0	599.600	603.600	0.0	0.0	0.0	0.0	0.0
X1	5004.000	0.0	0.0	0.0	45.000	45.000	45.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	599.600	603.600	0.0	0.0	0.0	0.0	0.0
X1	5005.000	0.0	0.0	0.0	5.000	5.000	5.000	0.0	0.0	0.0
NC	0.050	0.050	0.045	0.0 0.3	0.0 0.3	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	40.000	160.000

K

Reach Length

X1	5100.000	15.000	97.000	135.000	110.000	190.000	150.000	0.0	0.0	0.0
GR	604.000	0.0	596.000	40.000	592.000	90.000	588.300	97.000	587.800	101.000
GR	586.800	105.000	586.200	108.000	588.900	112.000	585.300	116.000	585.600	124.000
GR	585.600	129.000	588.300	135.000	592.000	145.000	596.000	160.000	600.000	215.000
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	40.000	470.000

L CHANNEL MANU

X1	5600.000	18.000	440.000	465.000	320.000	330.000	505.000	0.0	0.0	0.0
GR	604.000	0.0	600.000	10.000	596.000	35.000	593.500	230.000	592.000	435.000
GR	588.600	440.000	588.100	442.000	587.100	445.000	586.500	447.000	589.200	450.000
GR	585.600	452.000	585.900	457.000	585.900	461.000	588.600	465.000	592.000	466.000
~~GR~~	596.000	467.000	600.000	480.000	604.000	482.000	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.100 0.0	0.300 0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	65.000	570.000

M CHANNEL MANU

X1	6100.000	17.000	540.000	570.000	435.000	475.000	655.000	0.0	0.0	0.0
GR	604.000	0.0	600.000	30.000	596.000	65.000	594.200	200.000	592.000	530.000
GR	589.000	540.000	588.500	543.000	587.500	546.000	586.900	549.000	588.600	552.000
GR	586.000	555.000	586.300	561.000	586.300	565.000	589.000	570.000	592.000	571.000
GR	600.000	572.000	604.000	595.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.035	0.035	0.045	0.200	0.400	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	260.000	545.000

N

X1	7100.000	15.000	418.000	445.000	580.000	600.000	640.000	0.0	0.0	0.0
GR	600.000	100.000	596.000	355.000	592.000	410.000	590.800	418.000	590.500	418.000
GR	588.000	420.000	586.800	423.000	588.500	428.000	586.700	438.000	589.900	443.000
GR	590.700	445.000	592.000	446.000	596.000	545.000	600.000	565.000	604.000	605.000
NC	0.0	0.0	0.0	0.300	0.500	0.0	0.0	0.0	0.0	0.0

O 104TH AVE, THREE STRUCTURAL PLATE STEEL PIPE ARCHES, 14-2X9-10

TR 598.6, CROWN 596.3, INVERT 586.5

X1	7200.000	29.000	438.000	489.000	210.000	235.000	245.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	435.000	0.0	492.000	0.0	597.500	597.500	0.0
GR	598.600	435.000	588.600	438.000	587.600	438.800	587.200	440.000	586.900	442.500
GR	586.500	445.000	586.900	447.500	587.200	450.000	587.600	451.200	588.600	452.000
GR	588.600	456.000	587.600	455.800	587.200	458.000	586.900	459.500	586.500	463.000
GR	586.900	465.500	587.200	468.000	587.600	469.200	588.600	470.000	588.600	475.000
GR	587.600	475.800	587.200	477.000	586.900	479.500	586.500	482.000	586.900	484.500
GR	587.200	487.000	587.600	488.200	588.600	489.000	598.600	492.000	0.0	0.0
X1	7201.000	0.0	0.0	0.0	10.000	10.000	10.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	435.000	0.0	492.000	0.0	597.500	597.500	0.0
BT	29.000	435.000	598.600	598.600	438.000	598.600	588.600	438.800	598.600	593.600
BT	440.000	598.600	594.800	442.500	598.600	596.000	445.000	598.600	596.300	447.500
BT	598.600	596.000	450.000	598.600	594.800	451.200	598.600	593.600	452.000	598.600
BT	588.600	456.000	598.600	588.600	455.800	598.600	593.600	458.000	598.600	594.800
BT	459.500	598.600	596.000	463.000	593.600	596.300	465.500	598.600	596.000	468.000
BT	598.600	594.800	469.200	598.600	593.600	470.000	598.600	588.600	475.000	598.600
BT	588.600	475.800	598.600	593.600	477.000	598.600	594.800	479.500	598.600	596.000
BT	482.000	598.600	596.300	484.500	598.600	596.000	487.000	598.600	594.800	488.200
BT	598.600	593.600	489.000	598.600	588.600	492.000	598.600	598.600	0.0	0.0
X1	7202.000	0.0	0.0	0.0	48.000	48.000	48.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	0.0	0.0	0.0	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	435.000	0.0	492.000	0.0	598.600	598.600	0.0
X1	7203.000	0.0	0.0	0.0	10.000	10.000	10.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	435.000	0.0	492.000	0.0	598.600	598.600	0.0
NC	0.040	0.040	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0

P

X1	7300.000	14.000	192.000	235.000	105.000	100.000	100.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	130.000	0.0	310.000	0.0	0.0	0.0	0.0
GR	600.000	130.000	596.000	170.000	592.000	186.000	590.700	192.000	590.100	192.000
GR	588.700	200.000	596.300	208.000	588.200	216.000	586.300	224.000	587.200	232.000
GR	588.700	235.000	592.000	240.000	596.000	250.000	600.000	330.000	0.0	0.0
NC	0.0	0.0	0.0	0.300	0.500	0.0	0.0	0.0	0.0	0.0

Q

X1	8100.000	14.000	255.000	285.000	515.000	480.000	505.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	200.000	0.0	625.000	0.0	0.0	0.0	0.0
GR	596.000	120.000	596.000	235.000	592.000	245.000	589.900	255.000	588.300	258.000
GR	588.500	260.000	588.400	267.000	588.000	272.000	589.000	280.000	589.200	285.000
GR	596.000	300.000	597.900	500.000	600.000	620.000	604.000	630.000	0.0	0.0
NC	0.100	0.100	0.045	0.100	0.300	0.0	0.0	0.0	0.0	0.0

R

X1	8350.000	15.000	542.000	577.000	540.000 LT	495.000 RT	575.000 CH	0.0	0.0	0.0
X3	0.0	0.0	0.0	450.000	0.0	725.000	0.0	0.0	0.0	0.0
GR	600.000	300.000	600.000	410.000	596.000	520.000	592.000	525.000	589.900	542.000
GR	589.900	544.000	590.100	547.000	590.000	555.000	589.600	562.000	590.600	570.000
GR	590.800	577.000	596.000	585.000	596.000	720.000	596.000	740.000	600.000	800.000

S CHANNEL MANU

X1	8565.000	16.000	265.000	290.000	540.000	495.000	635.000	0.0	0.0	0.0

S CHANNEL MANU

X1	8565.000	16.000	265.000	290.000	540.000	495.000	635.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	170.000	0.0	410.000	0.0	0.0	0.0	0.0
GR	604.000	75.000	600.000	105.000	598.500	230.000	596.000	250.000	592.500	265.000
GR	590.900	265.000	590.900	267.000	591.100	269.000	591.000	275.000	590.600	281.000
GR	591.600	287.000	591.800	290.000	596.000	310.000	600.000	420.000	600.000	510.000
GR	596.000	600.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.040	0.040	0.030	0.300	0.500	0.0	0.0	0.0	0.0	0.0

T PAW PAW RD BRIDGE, TR 613.4, LC 603.7, CONCRETE ARCH

X1	8900.000	15.000	197.000	223.000	325.000	320.000	325.000	0.0	0.0	0.0
GR	613.400	197.000	592.000	197.000	591.900	198.000	591.800	200.000	591.700	202.000
GR	591.600	204.000	591.500	207.000	591.500	210.000	591.500	213.000	591.600	216.000
GR	591.700	218.000	591.900	220.000	592.800	222.000	592.100	223.000	613.400	223.000

X1	8901.000	0.0	0.0	0.0	5.000	5.000	5.000	0.0	0.0	0.0
BT	13.000	197.000	613.400	593.800	198.000	613.400	596.400	200.000	613.400	599.300
BT	202.000	613.400	601.100	204.000	613.400	602.300	207.000	613.400	603.400	210.000
BT	613.400	603.700	213.000	613.400	603.400	216.000	613.400	602.300	218.000	613.400
BT	601.100	220.000	613.400	599.300	222.000	613.400	596.400	223.000	613.400	593.800

X1	8902.000	0.0	0.0	0.0	24.500	24.500	24.500	0.0	0.0	0.0
X2	0.0	0.0	0.0	0.0	0.0	0.0	1.000	0.0	0.0	0.0

X1	8903.000	0.0	0.0	0.0	5.000	5.000	5.000	0.0	0.0	0.0
NC	0.070	0.070	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0

U

X1	9100.000	16.000	156.000	183.000	130.000	150.000	145.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	90.000	0.0	220.000	0.0	0.0	0.0	0.0
GR	608.000	0.0	604.000	28.000	600.000	40.000	598.100	128.000	594.100	135.000
GR	593.400	152.000	592.700	156.000	591.900	162.000	591.800	168.000	591.400	173.000
GR	591.300	178.000	592.700	183.000	599.200	196.000	599.300	222.000	604.000	245.000
GR	608.000	270.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.050	0.050	0.035	0.0	0.0	0.0	0.0	0.0	0.0	0.0

V CHICAGO RD BRIDGE, TR 618.3, LC 599.9

X1	9350.000	10.000	633.800	666.200	100.000	100.000	70.000	0.0	0.0	0.0
GR	618.300	600.000	618.300	633.800	590.800	633.800	591.300	641.000	590.800	649.200
GR	590.800	650.800	590.800	659.000	592.800	666.200	618.300	666.200	618.300	670.000
SB	1.250	1.900	2.500	0.0	32.400	1.600	269.000	0.0	591.300	591.300

X1	9351.000	0.0	0.0	0.0	90.000	90.000	90.000	0.0	0.0	0.0
X2	0.0	0.0	1.000	599.900	618.300	0.0	0.0	0.0	0.0	0.0
BT	2.000	600.000	618.300	599.900	670.000	618.300	599.900	0.0	0.0	0.0
NC	0.040	0.040	0.035	0.0	0.0	0.0	0.0	0.0	0.0	0.0

W

X1	9800.000	15.000	340.000	365.000	200.000	230.000	210.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	280.000	0.0	410.000	0.0	0.0	0.0	0.0
GR	608.000	60.000	604.000	130.000	600.000	150.000	599.500	200.000	596.000	315.000
GR	592.700	340.000	592.300	342.000	592.600	344.000	591.900	349.000	591.800	354.000

GR	591.400	359.000	592.700	365.000	591.400	367.000	601.300	375.000	607.500	415.000

X C & O R. R. BRIDGE

X1	9900.000	15.000	1155.500	1195.000	165.000	230.000	190.000	0.0	0.0	0.0
GR	627.000	1150.000	627.000	1155.500	590.300	1155.500	590.300	1159.000	590.300	1168.000
GR	591.200	1173.500	591.700	1177.000	593.000	1186.000	592.800	1195.000	627.000	1195.000
GR	627.000	1201.500	604.600	1201.500	604.600	1217.000	627.000	1217.000	627.000	1220.000
SB	1.250	1.850	2.500	0.0	39.500	3.500	294.000	0.0	592.500	592.500

X1	9901.000	0.0	0.0	0.0	88.200	88.200	88.200	0.0	0.0	0.0
X2	0.0	0.0	1.000	599.700	604.600	0.0	0.0	0.0	0.0	0.0
BT	2.000	1201.500	604.600	604.600	1217.000	604.600	604.600	0.0	0.0	0.0
QT	5.000	1100.000	1740.000	2025.000	2570.000	2025.000	0.0	0.0	0.0	0.0

Y

X1	10000.000	13.000	316.000	338.000	135.000	120.000	115.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	170.000	0.0	450.000	0.0	0.0	0.0	0.0
GR	616.000	45.000	604.000	80.000	600.000	110.000	596.000	302.000	592.800	316.000
GR	592.200	318.000	592.300	323.000	592.700	328.000	592.800	338.000	596.000	360.000
GR	598.800	420.000	600.000	490.000	608.000	525.000	0.0	0.0	0.0	0.0
NC	0.040	0.040	0.040	0.100	0.300	0.0	0.0	0.0	0.0	0.0

Z

X1	10900.000	15.000	457.000	482.000	430.000	310.000	350.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	185.000	0.0	590.000	0.0	0.0	0.0	0.0
GR	612.000	100.000	608.000	170.000	604.000	175.000	600.000	250.000	599.600	431.000
GR	600.300	445.000	596.500	451.000	593.200	457.000	592.500	461.000	592.700	468.000
GR	592.700	474.000	593.200	482.000	596.000	500.000	600.000	580.000	608.000	620.000

AA 104TH AVE BRIDGE, TR 607.1, LC 605.2

X1	11000.000	18.000	420.000	466.800	100.000	85.000	65.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	130.000	0.0	570.000	0.0	0.0	0.0	0.0
GR	616.000	0.0	612.000	40.000	609.000	130.000	607.000	293.000	606.800	420.000
GR	596.800	420.000	595.300	427.000	593.600	434.000	592.900	438.000	592.900	442.000
GR	593.100	446.000	593.600	450.000	595.200	456.000	596.300	462.000	597.300	466.800
GR	607.300	466.800	608.600	543.000	609.000	570.000	0.0	0.0	0.0	0.0
SB	0.0	1.590	2.500	0.0	46.800	0.0	494.300	0.0	593.000	593.000

X1	11001.000	0.0	0.0	0.0	36.800	36.800	36.800	0.0	0.0	0.0
X2	0.0	0.0	1.000	605.200	607.100	0.0	0.0	0.0	0.0	0.0
X3	0.0	0.0	0.0	130.000	0.0	570.000	0.0	0.0	0.0	0.0
BT	6.000	130.000	609.000	609.000	293.000	607.000	607.000	420.000	606.800	605.200
BT	466.800	607.300	605.300	543.000	608.600	608.600	570.000	609.000	609.000	0.0
NC	0.080	0.080	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AB

X1	11100.000	15.000	457.000	505.000	85.000	85.000	85.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	150.000	0.0	625.000	0.0	0.0	0.0	0.0
GR	608.000	50.000	604.000	100.000	600.000	115.000	600.800	350.000	600.000	420.000
GR	596.000	455.000	593.200	457.000	592.500	465.000	592.700	475.000	592.700	490.000
GR	593.200	505.000	596.000	508.000	600.000	640.000	604.000	690.000	608.000	690.000
NC	0.100	0.100	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	120.000	535.000

AC CHANNEL MANU

X1	12000.000	14.000	350.000	382.000	655.000	730.000	1160.000	0.0	0.0	0.0

AC CHANNEL MANU

X1	12000.000	14.000	350.000	382.000	655.000	730.000	1160.000	0.0	0.0	0.0
GR	612.000	90.000	608.000	118.000	600.000	140.000	596.000	230.000	596.000	340.000
GR	595.900	350.000	595.300	356.000	595.000	368.000	595.200	373.000	592.600	382.000
GR	600.000	398.000	604.000	525.000	608.000	542.000	612.000	550.000	0.0	0.0
NC	0.080	0.080	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	100.000	530.000

AD

X1	12300.000	14.000	397.000	414.000	1020.000	970.000	1460.000	0.0	0.0	0.0
GR	612.000	0.0	603.000	120.000	604.000	200.000	602.700	300.000	600.000	380.000
GR	597.200	397.000	596.600	399.000	596.300	403.000	596.500	408.000	597.500	414.000
GR	600.000	420.000	604.000	518.000	608.000	535.000	612.000	565.000	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	215.000	725.000

AE CHANNEL MANU

X1	13700.000	12.000	602.000	618.000	945.000	820.000	1710.000	0.0	0.0	0.0
GR	612.000	140.000	609.000	235.000	605.500	450.000	604.000	592.000	598.800	602.000
GR	598.200	604.000	597.900	608.000	598.100	613.000	599.100	618.000	604.000	630.000
GR	608.000	715.000	612.000	750.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.050	0.050	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	30.000	550.000

AF

X1	14900.000	16.000	500.000	525.000	1170.000	1145.000	1620.000	0.0	0.0	0.0
GR	612.000	0.0	608.000	25.000	606.200	100.000	608.000	340.000	608.200	400.000
GR	608.000	465.000	604.000	480.000	600.900	500.000	600.500	501.000	600.700	503.000
GR	600.500	510.000	599.500	519.000	599.600	525.000	604.000	530.000	608.000	550.000
GR	612.000	560.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	320.000	655.000

AG CHANNEL MANU

X1	15900.000	13.000	545.000	575.000	1000.000	1010.000	1265.000	0.0	0.0	0.0
GR	612.000	210.000	609.500	345.000	608.000	528.000	602.400	545.000	602.000	547.000
GR	602.200	550.000	602.000	561.000	601.000	570.000	601.100	572.000	602.400	575.000
GR	604.000	600.000	608.000	655.000	612.000	670.000	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	382.000	960.000

AH CHANNEL MANU

X1	17300.000	12.000	400.000	425.000	940.000	1370.000	1745.000	0.0	0.0	0.0
GR	612.000	378.000	608.000	390.000	604.500	400.000	602.900	405.000	602.100	410.000
GR	601.500	420.000	603.000	425.000	608.000	431.000	608.000	655.000	610.500	770.000
GR	608.000	935.000	612.000	985.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.050	0.050	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	240.000	875.000

AI

X1	18200.000	12.000	840.000	860.000	680.000	890.000	1135.000	0.0	0.0	0.0
GR	616.000	60.000	612.000	180.000	608.000	450.000	608.000	815.000	605.300	840.000
GR	603.700	845.000	602.900	850.000	602.300	855.000	603.800	860.000	608.000	870.000
GR	616.000	895.000	620.000	920.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.300	0.500	0.0	0.0	0.0	0.0	0.0

ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	176.000	248.000

AJ CHANNEL MANU

X1	18960.000	11.000	200.000	220.000	275.000	845.000	950.000	0.0	0.0	0.0
GR	616.000	130.000	612.000	175.000	608.000	180.000	605.500	200.000	604.000	205.000
GR	603.200	210.000	602.600	215.000	604.100	220.000	608.000	225.000	612.000	255.000
GR	612.000	335.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.060	0.060	0.045	0.100	0.300	0.0	0.0	0.0	0.0	0.0

AK

X1	19600.000	14.000	46.000	71.000	680.000	595.000	640.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	28.000	0.0	160.000	0.0	0.0	0.0	0.0
GR	620.000	0.0	616.000	20.000	612.000	32.000	609.300	36.000	606.500	46.000
GR	605.900	51.000	605.500	56.000	606.000	66.000	606.500	71.000	608.000	84.000
GR	612.000	105.000	612.500	390.000	616.000	487.000	620.000	760.000	0.0	0.0

AL RILEY ST BRIDGE, TR 616.0, LC 613.9

X1	19700.000	14.000	237.000	272.300	70.000	70.000	70.000	0.0	0.0	0.0
GR	618.900	105.000	617.600	155.000	616.600	205.000	616.000	237.000	606.400	237.000
GR	605.900	247.000	605.800	257.000	605.700	267.000	606.700	272.300	616.000	272.300
GR	616.000	277.000	616.100	355.000	616.500	455.000	620.000	820.000	0.0	0.0

X1	19701.000	0.0	0.0	0.0	5.000	5.000	5.000	0.0	0.0	0.0
BT	9.000	105.000	618.900	618.900	155.000	617.600	617.600	205.000	616.600	616.600
BT	237.000	616.000	613.900	272.300	616.000	613.900	277.000	616.000	616.000	355.000
BT	616.100	616.100	455.000	616.500	616.500	820.000	620.000	620.000	0.0	0.0

X1	19702.000	0.0	0.0	0.0	36.000	36.000	36.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	0.0	0.0	0.0	1.000	0.0	0.0	0.0

X1	19703.000	0.0	0.0	0.0	5.000	5.000	5.000	0.0	0.0	0.0
NC	0.070	0.070	0.045	0.300	0.500	0.0	0.0	0.0	0.0	0.0

AM

X1	19800.000	12.000	273.000	298.000	66.000	85.000	85.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	170.000	0.0	400.000	0.0	0.0	0.0	0.0
GR	620.000	105.000	616.000	115.000	612.000	240.000	607.900	254.000	606.900	273.000
GR	605.700	282.000	605.600	292.000	606.900	298.000	611.700	306.000	613.200	318.000
GR	616.000	580.000	620.000	815.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.100	0.300	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	140.000	355.000

AN CHANNEL MANU

X1	20300.000	12.000	198.000	225.000	400.000	430.000	430.000	0.0	0.0	0.0
GR	624.000	90.000	620.000	120.000	616.000	130.000	612.000	183.000	608.000	192.000
GR	606.900	198.000	605.700	208.000	605.600	218.000	606.900	225.000	612.000	245.000
GR	616.000	380.000	620.000	585.000	0.0	0.0	0.0	0.0	0.0	0.0
QT	5.000	447.000	700.000	815.000	1030.000	815.000	0.0	0.0	0.0	0.0
NC	0.080	0.080	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	16.000	235.000

AO U/S OF CONFLUENCE WITH ZEELAND DRAIN

X1	20800.000	14.000	116.000	135.000	535.000	600.000	620.000	0.0	0.0	0.0
GR	620.000	0.0	616.000	16.000	612.400	106.000	610.500	111.000	609.500	116.000
GR	608.500	119.000	608.500	125.000	609.100	132.000	609.500	135.000	609.800	138.000

AO U/S OF CONFLUENCE WITH ZEELAND DRAIN

X1	20800.000	14.000	116.000	135.000	535.000	600.000	620.000	0.0	0.0	0.0
GR	620.000	0.0	616.000	16.000	612.400	106.000	610.500	111.000	609.500	116.000
GR	608.500	119.000	608.500	125.000	609.100	132.000	609.500	135.000	609.800	138.000
GR	613.400	140.000	614.800	170.000	616.000	235.000	620.000	290.000	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	90.000	265.000

AP CHANNEL MANU

X1	21800.000	10.000	100.000	118.000	905.000	835.000	1170.000	0.0	0.0	0.0
GR	628.000	75.000	620.000	80.000	612.000	100.000	610.200	103.000	610.300	115.000
GR	612.100	118.000	612.000	132.000	616.000	148.000	616.800	240.000	620.000	480.000
NC	0.070	0.070	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	15.000	159.000

AQ

X1	22900.000	11.000	143.000	157.000	1235.000	720.000	1390.000	0.0	0.0	0.0
GR	620.000	0.0	616.400	35.000	616.400	91.000	615.100	100.000	615.100	137.000
GR	613.000	143.000	611.900	146.000	611.800	150.000	611.800	155.000	613.000	157.000
GR	620.000	160.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	77.000	222.000

AR CHANNEL MANU

X1	23100.000	10.000	100.000	115.000	780.000	1125.000	1185.000	0.0	0.0	0.0
GR	624.000	55.000	620.000	75.000	616.000	90.000	615.800	100.000	614.300	104.000
GR	614.300	113.000	615.500	115.000	616.000	130.000	620.000	225.000	624.000	255.000
NC	0.060	0.060	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	140.000	208.000

AS

X1	25700.000	13.000	142.000	159.000	1195.000	1245.000	1335.000	0.0	0.0	0.0
GR	632.000	55.000	624.000	80.000	622.900	138.000	618.200	142.000	616.700	144.000
GR	616.600	148.000	617.200	152.000	617.900	159.000	618.200	159.000	620.000	168.000
GR	624.000	230.000	628.000	280.000	632.000	400.000	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	80.000	230.000

AT CHANNEL MANU

X1	26500.000	15.000	200.000	215.000	725.000	675.000	750.000	0.0	0.0	0.0
GR	636.000	0.0	632.000	20.000	628.000	62.000	624.000	80.000	623.500	150.000
GR	620.000	185.000	618.800	200.000	618.500	204.000	618.500	211.000	619.800	215.000
GR	620.000	218.000	624.000	230.000	628.000	246.000	632.000	258.000	636.000	395.000
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	345.000	495.000

AU

X1	27100.000	9.000	450.000	460.000	1180.000	1050.000	1415.000	0.0	0.0	0.0
GR	633.500	210.000	632.000	290.000	628.000	320.000	624.000	450.000	622.200	455.000
GR	624.000	460.000	628.000	505.000	632.000	535.000	633.000	615.000	0.0	0.0
NC	0.045	0.045	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0

AV

X1	28100.000	8.000	40.000	70.000	745.000	785.000	850.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	29.000	0.0	170.000	0.0	0.0	0.0	0.0
GR	636.000	0.0	632.000	18.000	625.600	40.000	624.600	45.000	624.600	65.000

GR	625.200	78.000	625.200	200.000	632.000	210.000	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.300	0.500	0.0	0.0	0.0	0.0	0.0

AW QUINCY ST BRIDGE, TR 633.9, LC 631.8

X1	28200.000	20.000	125.000	155.000	210.000	165.000	225.000	0.0	0.0	0.0
GR	636.600	0.0	635.200	42.000	634.800	125.000	626.000	125.000	625.700	128.000
GR	625.600	129.000	625.100	132.000	624.600	134.000	624.500	137.000	624.500	140.000
GR	624.800	144.000	625.100	146.000	625.600	147.000	625.700	148.000	626.200	155.000
GR	633.900	155.000	633.800	160.000	634.000	192.000	634.800	242.000	636.300	292.000
X1	28201.000	0.0	0.0	0.0	5.000	5.000	5.000	0.0	0.0	0.0
BT	8.000	0.0	636.600	636.600	42.000	635.200	635.200	125.000	634.800	631.800
BT	155.000	633.900	631.800	160.000	633.800	633.800	192.000	634.000	634.000	242.000
BT	634.800	634.800	292.000	636.300	636.300	0.0	0.0	0.0	0.0	0.0
X1	28202.000	0.0	0.0	0.0	36.000	36.000	36.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	0.0	0.0	0.0	1.000	0.0	0.0	0.0
X1	28203.000	0.0	0.0	0.0	5.000	5.000	5.000	0.0	0.0	0.0
EJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

MOORE BUSINESS FORMS, INC. 27

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**************************************************
HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
ERROR CORR -  01,02,03
MODIFICATION -  50,51,52,53
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NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

BOSCH & HULST DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1000.000	610.00	0.0	0.0	580.70	1470.00	588.29	0.0	588.33	2.52	2.09	896.51	926.46
1000.000	610.00	0.0	0.0	580.70	2320.00	589.54	0.0	589.60	2.51	2.32	1210.10	1464.76
1000.000	610.00	0.0	0.0	580.70	2680.00	590.00	0.0	590.07	2.52	2.41	1324.63	1687.48
1000.000	610.00	0.0	0.0	580.70	3400.00	590.86	0.0	590.94	2.52	2.56	1539.57	2140.27
1800.000	1265.00	0.0	0.0	580.70	1470.00	588.69	0.0	589.16	20.44	5.81	334.08	325.12
1800.000	1265.00	0.0	0.0	580.70	2320.00	589.95	0.0	590.41	19.64	6.31	602.84	523.51
1800.000	1265.00	0.0	0.0	580.70	2680.00	590.43	0.0	590.85	18.34	6.31	711.69	625.73
1800.000	1265.00	0.0	0.0	580.70	3400.00	591.30	0.0	591.68	16.14	6.28	912.91	846.28
2400.000	335.00	0.0	0.0	581.80	1470.00	589.49	0.0	589.91	24.81	5.63	328.76	295.12
2400.000	335.00	0.0	0.0	581.80	2320.00	590.67	0.0	591.19	27.19	6.59	495.92	444.93
2400.000	335.00	0.0	0.0	581.80	2680.00	591.08	0.0	591.62	27.54	6.86	567.57	510.65
2400.000	335.00	0.0	0.0	581.80	3400.00	591.85	0.0	592.41	26.86	7.20	721.18	656.00
2500.000	300.00	0.0	0.0	581.30	1470.00	590.12	0.0	590.42	10.74	4.36	337.48	448.53
2500.000	300.00	0.0	0.0	581.30	2320.00	591.28	0.0	591.81	16.11	5.82	398.84	577.96
2500.000	300.00	0.0	0.0	581.30	2680.00	591.70	0.0	592.33	18.24	6.36	421.24	627.51
2500.000	300.00	0.0	0.0	581.30	3400.00	592.45	0.0	593.29	22.46	7.38	460.66	717.36
2501.000	5.00	595.40	593.50	581.30	1470.00	590.13	0.0	590.42	10.70	4.35	337.95	449.48
2501.000	5.00	595.40	593.50	581.30	2320.00	591.29	0.0	591.82	16.03	5.81	399.53	579.48
2501.000	5.00	595.40	593.50	581.30	2680.00	591.71	0.0	592.34	18.16	6.35	421.84	628.84
2501.000	5.00	595.40	593.50	581.30	3400.00	592.46	0.0	593.30	22.37	7.37	461.30	718.83
2502.000	38.00	595.40	593.50	581.30	1470.00	590.17	0.0	590.46	10.50	4.32	339.96	453.56
2502.000	38.00	595.40	593.50	581.30	2320.00	591.36	0.0	591.88	15.65	5.76	402.75	586.54
2502.000	38.00	595.40	593.50	581.30	2680.00	591.80	0.0	592.41	17.66	6.29	425.84	637.82
2502.000	38.00	595.40	593.50	581.30	3400.00	592.57	0.0	593.39	21.53	7.28	467.31	732.82
2503.000	5.00	0.0	0.0	581.30	1470.00	590.18	0.0	590.47	10.46	4.32	340.45	454.56
2503.000	5.00	0.0	0.0	581.30	2320.00	591.37	0.0	591.89	15.54	5.75	403.68	588.58
2503.000	5.00	0.0	0.0	581.30	2680.00	591.81	0.0	592.42	17.55	6.28	426.72	639.78
2503.000	5.00	0.0	0.0	581.30	3400.00	592.59	0.0	593.41	21.45	7.27	467.88	734.14
2600.000	100.00	0.0	0.0	582.70	1470.00	590.46	0.0	590.60	6.93	3.74	649.54	558.55
2600.000	100.00	0.0	0.0	582.70	2320.00	591.96	0.0	592.09	5.85	3.90	979.33	959.33
2600.000	100.00	0.0	0.0	582.70	2680.00	592.52	0.0	592.66	5.55	3.96	1103.56	1137.39
2600.000	100.00	0.0	0.0	582.70	3400.00	593.56	0.0	593.70	5.13	4.09	1332.77	1500.81

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3200.000	500.00	0.0	0.0	583.50	1470.00	590.78	0.0	590.83	3.95	2.50	944.19	739.50

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3200.000	500.00	0.0	0.0	583.50	1470.00	590.78	0.0	590.83	3.95	2.50	944.19	739.50
3200.000	500.00	0.0	0.0	583.50	2320.00	592.22	0.0	592.26	2.68	2.34	1495.15	1416.16
3200.000	500.00	0.0	0.0	583.50	2680.00	592.77	0.0	592.81	2.34	2.29	1720.90	1751.94
3200.000	500.00	0.0	0.0	583.50	3400.00	593.80	0.0	593.84	1.91	2.23	2141.63	2460.85
3700.000	585.00	0.0	0.0	584.40	1470.00	591.09	0.0	591.42	30.65	5.81	362.26	265.54
3700.000	585.00	0.0	0.0	584.40	2320.00	592.40	0.0	592.68	21.49	5.54	607.61	500.41
3700.000	585.00	0.0	0.0	584.40	2680.00	592.92	0.0	593.17	17.70	5.27	725.70	637.00
3700.000	585.00	0.0	0.0	584.40	3400.00	593.91	0.0	594.13	13.02	4.88	948.89	942.15
4200.000	865.00	0.0	0.0	585.80	1470.00	592.75	0.0	592.84	11.55	3.74	868.33	432.53
4200.000	865.00	0.0	0.0	585.80	2320.00	593.75	0.0	593.84	10.86	3.99	1264.33	704.10
4200.000	865.00	0.0	0.0	585.80	2680.00	594.12	0.0	594.21	10.55	4.07	1420.97	825.07
4200.000	865.00	0.0	0.0	585.80	3400.00	594.89	0.0	594.98	9.49	4.11	1754.41	1103.86
4900.000	1440.00	0.0	0.0	587.80	1470.00	594.42	0.0	594.73	30.64	6.07	572.98	265.57
4900.000	1440.00	0.0	0.0	587.80	2320.00	595.31	0.0	595.71	36.77	7.28	785.10	382.59
4900.000	1440.00	0.0	0.0	587.80	2680.00	595.63	0.0	596.06	38.50	7.68	866.14	431.90
4900.000	1440.00	0.0	0.0	587.80	3400.00	596.23	0.0	596.71	40.89	8.35	1018.52	531.72
5000.000	70.00	0.0	0.0	585.70	1470.00 Q10	594.67	0.0	594.84	5.43	3.35	439.09	630.98
5000.000	70.00	0.0	0.0	585.70	2320.00 Q50	595.48	0.0	595.84	10.12	4.80	483.35	729.46
5000.000	70.00	0.0	0.0	585.70	2680.00 Q100	595.76	0.0	596.21	12.26	5.37	499.03	765.31
5000.000	70.00	0.0	0.0	585.70	3400.00 Q500	596.32	0.0	596.96	16.49	6.42	529.93	837.28
5001.000	5.00	603.60	599.60	585.70	1470.00	594.67	0.0	594.85	5.41	3.34	439.58	632.05
5001.000	5.00	603.60	599.60	585.70	2320.00	595.49	0.0	595.84	10.05	4.79	484.41	731.87
5001.000	5.00	603.60	599.60	585.70	2680.00	595.77	0.0	596.21	12.21	5.36	499.72	766.88
5001.000	5.00	603.60	599.60	585.70	3400.00	596.33	0.0	596.97	16.42	6.41	530.71	839.13
5002.000	45.00	603.60	599.60	585.70	1470.00	594.70	0.0	594.87	5.37	3.34	440.58	634.24
5002.000	45.00	603.60	599.60	585.70	2320.00	595.54	0.0	595.89	9.91	4.77	486.64	736.94
5002.000	45.00	603.60	599.60	585.70	2680.00	595.83	0.0	596.27	12.01	5.33	502.47	773.23
5002.000	45.00	603.60	599.60	585.70	3400.00	596.42	0.0	597.04	16.04	6.36	534.89	849.02
5003.000	36.20	603.60	599.60	585.70	1470.00	594.72	0.0	594.89	5.33	3.33	441.71	636.70
5003.000	36.20	603.60	599.60	585.70	2320.00	595.58	0.0	595.93	9.78	4.75	488.82	741.90
5003.000	35.20	603.60	599.60	585.70	2680.00	595.88	0.0	596.31	11.82	5.30	505.20	779.53
5003.000	36.20	603.60	599.60	585.70	3400.00	596.49	0.0	597.10	15.72	6.31	538.47	857.50
5004.000	45.00	603.60	599.60	585.70	1470.00	594.74	0.0	594.91	5.28	3.32	443.08	639.70
5004.000	45.00	603.60	599.60	585.70	2320.00	595.62	0.0	595.97	9.62	4.72	491.45	747.91
5004.000	45.00	603.60	599.60	585.70	2680.00	595.94	0.0	596.37	11.59	5.27	508.45	787.05
5004.000	45.00	603.60	599.60	585.70	3400.00	596.57	0.0	597.18	15.31	6.26	543.23	868.82
5005.000	5.00	0.0	0.0	585.70	1470.00	594.75	0.0	594.92	5.27	3.32	443.28	640.14
5005.000	5.00	0.0	0.0	585.70	2320.00	595.63	0.0	595.98	9.59	4.72	491.93	749.01
5005.000	5.00	0.0	0.0	585.70	2680.00	595.94	0.0	596.37	11.55	5.26	509.10	788.58
5005.000	5.00	0.0	0.0	585.70	3400.00	596.58	0.0	597.19	15.25	6.25	544.02	870.69
5100.000	150.00	0.0	0.0	585.30	1470.00	594.83	0.0	595.03	9.31	3.89	454.81	481.80
5100.000	150.00	0.0	0.0	585.30	2320.00	595.81	0.0	596.15	14.17	5.17	561.44	616.34
5100.000	150.00	0.0	0.0	585.30	2680.00	596.19	0.0	596.58	15.62	5.58	607.91	678.11
5100.000	150.00	0.0	0.0	585.30	3400.00	597.01	0.0	597.47	16.87	6.13	715.91	827.90

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
5600.000	505.00	0.0	0.0	585.60	1470.00	595.32	0.0	595.39	5.82	2.96	897.43	609.17
5600.000	505.00	0.0	0.0	585.60	2320.00	596.50	0.0	596.56	4.89	2.96	1388.80	1049.04
5600.000	505.00	0.0	0.0	585.60	2680.00	596.94	0.0	597.00	4.53	2.94	1583.93	1259.30
5600.000	505.00	0.0	0.0	585.60	3400.00	597.82	0.0	597.88	3.86	2.87	1974.48	1731.66
6100.000	655.00	0.0	0.0	586.00	1470.00	595.57	0.0	595.61	3.16	2.29	1192.89	827.24
6100.000	655.00	0.0	0.0	586.00	2320.00	596.71	0.0	596.74	2.82	2.36	1762.17	1382.21
6100.000	655.00	0.0	0.0	586.00	2680.00	597.14	0.0	597.17	2.69	2.37	1983.06	1635.32
6100.000	655.00	0.0	0.0	586.00	3400.00	597.98	0.0	598.02	2.39	2.36	2425.42	2198.24
7100.000	640.00	0.0	0.0	586.70	1470.00	595.82	0.0	595.96	9.41	3.69	530.40	479.27
7100.000	640.00	0.0	0.0	586.70	2320.00	596.91	0.0	597.07	9.02	3.94	766.30	772.69
7100.000	640.00	0.0	0.0	586.70	2680.00	597.33	0.0	597.49	8.58	3.96	877.25	914.69
7100.000	640.00	0.0	0.0	586.70	3400.00	598.15	0.0	598.30	7.40	3.89	1131.45	1249.73
7200.000	245.00	0.0	0.0	586.50	1470.00	595.99	0.0	596.16	6.34	3.34	439.90	584.04
7200.000	245.00	0.0	0.0	586.50	2320.00	597.06	0.0	597.40	10.72	4.70	493.99	708.56
7200.000	245.00	0.0	0.0	586.50	2680.00	597.44	0.0	597.86	12.49	5.21	514.47	758.18
7200.000	245.00	0.0	0.0	586.50	3400.00	598.19	0.0	598.75	15.35	6.05	579.81	867.67
7201.000	10.00	598.60	598.60	586.50	1470.00	595.93	0.0	596.24	38.33	4.48	327.93	237.43
7201.000	10.00	598.60	598.60	586.50	2320.00	596.87	0.0	597.63	113.38	7.00	331.46	217.88
7201.000	10.00	598.60	598.60	586.50	2680.00	597.18	0.0	598.19	151.30	8.09	331.46	217.88
7201.000	10.00	598.60	598.60	586.50	3400.00	597.69	0.0	599.33	243.51	10.26	331.46	217.88
7202.000	48.00	598.60	598.60	586.50	1470.00	596.13	0.0	596.44	41.17	4.45	330.68	229.09
7202.000	48.00	598.60	598.60	586.50	2320.00	597.42	0.0	598.18	113.38	7.00	331.46	217.88
7202.000	48.00	598.60	598.60	586.50	2680.00	597.90	0.0	598.92	151.30	8.09	331.46	217.88
7202.000	48.00	598.60	598.60	586.50	3400.00	599.37	0.0	600.65	266.54	9.10	375.54	208.26
7203.000	10.00	0.0	0.0	586.50	1470.00	596.33	0.0	596.49	5.56	3.21	457.42	623.30
7203.000	10.00	0.0	0.0	586.50	2320.00	598.06	0.0	598.34	7.70	4.25	545.60	836.19
7203.000	10.00	0.0	0.0	586.50	2680.00	598.84	0.0	599.15	7.83	4.50	616.89	957.70
7203.000	10.00	0.0	0.0	586.50	3400.00	600.58	0.0	600.95	7.83	4.94	716.16	1215.27
7300.000	100.00	0.0	0.0	586.30	1470.00	596.39	0.0	596.59	12.12	3.72	420.81	422.26
7300.000	100.00	0.0	0.0	586.30	2320.00	598.23	0.0	598.45	10.71	4.10	640.34	709.03
7300.000	100.00	0.0	0.0	586.30	2680.00	599.06	0.0	599.27	9.20	4.04	773.20	883.53
7300.000	100.00	0.0	0.0	586.30	3400.00	600.92	0.0	601.08	5.83	3.62	1104.39	1407.99
8100.000	505.00	0.0	0.0	588.00	1470.00	596.91	0.0	597.09	8.36	3.88	479.10	508.34
8100.000	505.00	0.0	0.0	588.00	2320.00	598.73	0.0	598.85	5.44	3.57	990.86	994.48
8100.000	505.00	0.0	0.0	588.00	2680.00	599.50	0.0	599.59	4.12	3.26	1273.72	1319.96
8100.000	505.00	0.0	0.0	583.00	3400.00	601.22	0.0	601.28	2.13	2.58	1994.21	2330.77
8350.000	575.00	0.0	0.0	589.60	1470.00	597.44	0.0	597.65	11.60	4.23	645.69	431.67
8350.000	575.00	0.0	0.0	589.60	2320.00	599.07	0.0	599.28	10.51	4.60	1076.23	715.74
8350.000	575.00	0.0	0.0	589.60	2680.00	599.75	0.0	599.95	9.62	4.63	1264.24	864.00
8350.000	575.00	0.0	0.0	589.60	3400.00	601.33	0.0	601.50	7.27	4.45	1699.56	1261.10
8565.000	635.00	0.0	0.0	590.60	1470.00	598.29	0.0	598.73	26.44	6.08	422.94	285.88
8565.000	635.00	0.0	0.0	590.60	2320.00	599.80	0.0	600.28	25.81	6.81	726.79	456.65
8565.000	635.00	0.0	0.0	590.60	2680.00	600.42	0.0	600.86	23.62	6.82	873.73	551.48
8565.000	635.00	0.0	0.0	590.60	3400.00	601.82	0.0	602.18	17.68	6.48	1210.87	808.61

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
8900.000	325.00	0.0	0.0	591.50	1470.00	598.98	0.0	599.92	31.60	7.79	188.64	261.48

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
8900.000	325.00	0.0	0.0	591.50	1470.00	598.98	0.0	599.92	31.60	7.79	188.64	261.48
8900.000	325.00	0.0	0.0	591.50	2320.00	600.33	0.0	602.00	48.59	10.37	223.75	332.83
8900.000	325.00	0.0	0.0	591.50	2680.00	600.76	0.0	602.78	56.53	11.40	235.02	356.45
8900.000	325.00	0.0	0.0	591.50	3400.00	601.68	0.0	604.35	69.59	13.13	258.91	407.57
8901.000	5.00	613.40	603.70	591.50	1470.00	598.92	0.0	600.01	42.31	8.39	175.11	226.01
8901.000	5.00	613.40	603.70	591.50	2320.00	600.14	0.0	602.25	76.74	11.67	198.77	264.83
8901.000	5.00	613.40	603.70	591.50	2680.00	600.48	0.0	603.14	95.42	13.08	204.87	274.35
8901.000	5.00	613.40	603.70	591.50	3400.00	601.14	0.0	604.99	136.46	15.74	215.97	291.05
8902.000	24.50	613.40	603.70	591.50	1470.00	599.07	0.0	600.13	40.40	8.25	178.17	231.28
8902.000	24.50	613.40	603.70	591.50	2320.00	600.48	0.0	602.47	71.51	11.32	204.87	274.35
8902.000	24.50	613.40	603.70	591.50	2680.00	600.96	0.0	603.42	87.24	12.58	213.09	286.93
8902.000	24.50	613.40	603.70	591.50	3400.00	601.96	0.0	605.42	124.55	14.94	227.62	304.65
8903.000	5.00	0.0	0.0	591.50	1470.00	599.35	0.0	600.21	27.36	7.41	198.45	281.05
8903.000	5.00	0.0	0.0	591.50	2320.00	601.36	0.0	602.69	35.49	9.26	250.50	389.44
8903.000	5.00	0.0	0.0	591.50	2680.00	602.24	0.0	603.74	37.29	9.81	273.27	438.89
8903.000	5.00	0.0	0.0	591.50	3400.00	604.31	0.0	605.99	36.84	10.39	327.29	560.14
9100.000	145.00	0.0	0.0	591.30	1470.00	600.44	0.0	600.61	8.44	4.00	566.12	506.06
9100.000	145.00	0.0	0.0	591.30	2320.00	603.05	0.0	603.22	6.30	4.13	906.53	924.28
9100.000	145.00	0.0	0.0	591.30	2680.00	604.14	0.0	604.30	5.62	4.15	1047.36	1130.08
9100.000	145.00	0.0	0.0	591.30	3400.00	606.43	0.0	606.58	4.41	4.12	1345.04	1618.62
9350.000	70.00	0.0	0.0	590.80	1470.00	600.41	0.0	600.78	12.14	4.89	300.35	421.82
9350.000	70.00	0.0	0.0	590.80	2320.00	602.92	0.0	603.50	15.46	6.08	381.72	590.07
9350.000	70.00	0.0	0.0	590.80	2680.00	603.97	0.0	604.61	16.34	6.45	415.51	662.99
9350.000	70.00	0.0	0.0	590.80	3400.00	606.19	0.0	606.94	17.06	6.97	487.57	823.26
9351.000	90.00	618.30	599.90	590.80	1470.00	600.96	0.0	601.29	10.32	4.62	318.17	457.65
9351.000	90.00	618.30	599.90	590.80	2320.00	604.68	0.0	605.12	10.56	5.29	438.76	714.05
9351.000	90.00	618.30	599.90	590.80	2680.00	606.44	0.0	606.89	10.14	5.41	495.69	841.66
9351.000	90.00	618.30	599.90	590.80	3400.00	610.44	0.0	610.90	8.84	5.44	625.41	1143.46
9800.000	210.00	0.0	0.0	591.40	1470.00	601.35	0.0	601.46	2.96	3.21	605.38	854.71
9800.000	210.00	0.0	0.0	591.40	2320.00	605.19	0.0	605.29	1.71	3.07	1019.02	1776.26
9800.000	210.00	0.0	0.0	591.40	2680.00	606.97	0.0	607.06	1.33	2.95	1243.15	2321.91
9800.000	210.00	0.0	0.0	591.40	3400.00	610.99	0.0	611.06	0.79	2.66	1765.05	3824.69
9900.000	190.00	0.0	0.0	590.30	1470.00	601.37	0.0	601.59	6.46	3.78	389.03	578.55
9900.000	190.00	0.0	0.0	590.30	2320.00	605.15	0.0	605.44	6.36	4.30	546.85	919.74
9900.000	190.00	0.0	0.0	590.30	2680.00	606.92	0.0	607.21	5.87	4.33	644.16	1106.44
9900.000	190.00	0.0	0.0	590.30	3400.00	610.92	0.0	611.18	4.69	4.20	864.19	1570.14
9901.000	88.20	604.60	599.70	590.30	1470.00	601.89	0.0	602.09	5.57	3.59	409.49	622.91
9901.000	88.20	604.60	599.70	590.30	2320.00	606.56	0.0	606.79	4.73	3.85	624.24	1066.92
9901.000	88.20	604.60	599.70	590.30	2680.00	608.58	0.0	608.80	4.29	3.84	735.27	1293.29
9901.000	88.20	604.60	599.70	590.30	3400.00	612.86	0.0	613.07	3.54	3.77	970.81	1806.98
10000.000	115.00	0.0	0.0	592.20	1100.00	602.15	0.0	602.16	0.36	1.15	1498.38	1825.93
10000.000	115.00	0.0	0.0	592.20	1740.00	606.85	0.0	606.86	0.13	0.88	2814.56	4904.17
10000.000	115.00	0.0	0.0	592.20	2025.00	608.86	0.0	608.87	0.10	0.84	3377.98	6557.80
10000.000	115.00	0.0	0.0	592.20	2570.00	613.13	0.0	613.13	0.06	0.77	4571.73	10624.98

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
10900.000	350.00	0.0	0.0	592.50	1100.00	602.17	0.0	602.18	0.72	1.40	1285.16	1298.93
10900.000	350.00	0.0	0.0	592.50	1740.00	606.86	0.0	606.86	0.13	0.78	3169.97	4803.72
10900.000	350.00	0.0	0.0	592.50	2025.00	608.87	0.0	608.87	0.09	0.69	3984.32	6894.83
10900.000	350.00	0.0	0.0	592.50	2570.00	613.13	0.0	613.13	0.04	0.58	5710.71	12288.09
11000.000	65.00	0.0	0.0	592.90	1100.00	602.08	0.0	602.23	6.58	3.16	348.28	428.81
11000.000	65.00	0.0	0.0	592.90	1740.00	606.76	0.0	606.91	3.95	3.07	567.40	875.02
11000.000	65.00	0.0	0.0	592.90	2025.00	608.81	0.0	608.90	2.30	2.58	1107.18	1336.57
11000.000	65.00	0.0	0.0	592.90	2570.00	613.12	0.0	613.14	0.37	1.24	3005.15	4207.70
11001.000	36.80	607.10	605.20	592.90	1100.00	602.10	0.0	602.26	6.51	3.15	349.48	431.01
11001.000	36.80	607.10	605.20	592.90	1740.00	606.93	0.0	607.07	3.79	3.02	580.03	893.27
11001.000	36.80	607.10	605.20	592.90	2025.00	608.84	0.0	608.93	2.25	2.56	1120.96	1348.85
11001.000	36.80	607.10	605.20	592.90	2570.00	613.19	0.0	613.21	0.36	1.23	3035.34	4269.38
11100.000	85.00	0.0	0.0	592.50	1100.00	602.27	0.0	602.29	0.89	1.40	1662.15	1165.72
11100.000	85.00	0.0	0.0	592.50	1740.00	607.08	0.0	607.09	0.23	0.93	3947.03	3651.92
11100.000	85.00	0.0	0.0	592.50	2025.00	608.94	0.0	608.94	0.17	0.87	4829.89	4932.62
11100.000	85.00	0.0	0.0	592.50	2570.00	613.21	0.0	613.21	0.09	0.75	6854.60	8430.08
12000.000	1160.00	0.0	0.0	592.60	1100.00	602.37	0.0	602.39	1.46	1.52	1593.56	909.94
12000.000	1160.00	0.0	0.0	592.60	1740.00	607.10	0.0	607.11	0.44	1.15	3454.61	2627.20
12000.000	1160.00	0.0	0.0	592.60	2025.00	608.96	0.0	608.96	0.33	1.09	4241.07	3550.06
12000.000	1160.00	0.0	0.0	592.60	2570.00	613.21	0.0	613.22	0.17	0.95	6160.88	6174.25
12300.000	1460.00	0.0	0.0	596.30	1100.00	602.62	0.0	602.97	32.93	6.17	378.24	191.68
12300.000	1460.00	0.0	0.0	596.30	1740.00	607.18	0.0	607.21	2.11	2.28	1855.79	1198.79
12300.000	1460.00	0.0	0.0	596.30	2025.00	609.01	0.0	609.03	1.10	1.83	2624.65	1931.00
12300.000	1460.00	0.0	0.0	596.30	2570.00	613.24	0.0	613.25	0.34	1.23	4841.64	4431.79
13700.000	1710.00	0.0	0.0	597.90	1100.00	606.03	0.0	606.33	18.60	5.53	458.93	255.06
13700.000	1710.00	0.0	0.0	597.90	1740.00	607.57	0.0	607.74	11.49	4.91	1001.54	513.32
13700.000	1710.00	0.0	0.0	597.90	2025.00	609.19	0.0	609.25	4.08	3.26	1793.93	1002.47
13700.000	1710.00	0.0	0.0	597.90	2570.00	613.28	0.0	613.29	0.66	1.62	4157.51	3164.43
14900.000	1620.00	0.0	0.0	599.50	1100.00	607.71	0.0	607.81	6.42	3.22	584.93	434.10
14900.000	1620.00	0.0	0.0	599.50	1740.00	608.72	0.0	608.80	5.65	3.28	1058.46	731.96
14900.000	1620.00	0.0	0.0	599.50	2025.00	609.66	0.0	609.70	3.02	2.57	1561.14	1165.21
14900.000	1620.00	0.0	0.0	599.50	2570.00	613.35	0.0	613.36	0.43	1.20	3604.57	3925.69
15900.000	1265.00	0.0	0.0	601.00	1100.00	608.43	0.0	608.52	5.89	2.80	529.34	453.09
15900.000	1265.00	0.0	0.0	601.00	1740.00	609.40	0.0	609.52	7.14	3.38	765.10	651.12
15900.000	1265.00	0.0	0.0	601.00	2025.00	610.07	0.0	610.16	5.80	3.22	982.61	841.12
15900.000	1265.00	0.0	0.0	601.00	2570.00	613.41	0.0	613.43	1.05	1.72	2412.23	2503.50
17300.000	1745.00	0.0	0.0	601.50	1100.00	609.45	0.0	609.54	7.58	3.29	688.58	399.67
17300.000	1745.00	0.0	0.0	601.50	1740.00	610.40	0.0	610.47	5.80	3.13	1177.27	722.45
17300.000	1745.00	0.0	0.0	601.50	2025.00	610.86	0.0	610.92	4.65	2.91	1445.58	938.77
17300.000	1745.00	0.0	0.0	601.50	2570.00	613.54	0.0	613.56	0.83	1.48	3062.40	2823.09
18200.000	1135.00	0.0	0.0	602.30	1100.00	609.96	0.0	609.98	3.30	2.07	1105.16	605.77
18200.000	1135.00	0.0	0.0	602.30	1740.00	610.80	0.0	610.83	2.97	2.13	1601.39	1009.97
18200.000	1135.00	0.0	0.0	602.30	2025.00	611.19	0.0	611.22	2.69	2.10	1848.99	1235.07
18200.000	1135.00	0.0	0.0	602.30	2570.00	613.61	0.0	613.62	0.64	1.22	3563.77	3223.54

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
[illegible]	[illegible]	0.0	0.0	602.60	1100.00	610.22	0.0	610.62	25.69	5.77	243.26	217.01

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
18960.000	950.00	0.0	0.0	602.60	1100.00	610.22	0.0	610.62	25.69	5.77	243.26	217.01
18960.000	950.00	0.0	0.0	602.60	1740.00	610.90	0.0	611.62	41.30	7.81	288.95	270.74
18960.000	950.00	0.0	0.0	602.60	2025.00	611.19	0.0	612.04	46.60	8.52	310.29	296.63
18960.000	950.00	0.0	0.0	602.60	2570.00	613.52	0.0	613.91	17.97	6.33	627.20	606.22
19600.000	640.00	0.0	0.0	605.50	1100.00	611.84	0.0	612.13	21.26	4.96	289.61	238.57
19600.000	640.00	0.0	0.0	605.50	1740.00	613.15	0.0	613.50	21.30	5.68	448.28	377.01
19600.000	640.00	0.0	0.0	605.50	2025.00	613.65	0.0	614.00	20.95	5.88	513.10	442.45
19600.000	640.00	0.0	0.0	605.50	2570.00	614.71	0.0	615.05	18.06	5.96	653.80	604.73
19700.000	70.00	0.0	0.0	605.70	1100.00	611.93	0.0	612.35	33.04	5.22	210.63	191.36
19700.000	70.00	0.0	0.0	605.70	1740.00	613.09	0.0	613.83	48.70	6.91	251.78	249.33
19700.000	70.00	0.0	0.0	605.70	2025.00	613.49	0.0	614.39	56.11	7.61	266.06	270.34
19700.000	70.00	0.0	0.0	605.70	2570.00	614.35	0.0	615.52	66.10	8.67	296.26	316.11
19701.000	5.00	616.00	620.00	605.70	1100.00	611.94	0.0	612.37	32.83	5.21	211.10	191.99
19701.000	5.00	616.00	620.00	605.70	1740.00	613.12	0.0	613.86	48.29	6.89	252.52	250.40
19701.000	5.00	616.00	620.00	605.70	2025.00	613.53	0.0	614.42	55.60	7.59	266.89	271.57
19701.000	5.00	616.00	620.00	605.70	2570.00	614.30	0.0	615.61	158.04	9.17	280.31	204.43
19702.000	36.00	616.00	620.00	605.70	1100.00	612.08	0.0	612.48	30.77	5.10	215.72	198.30
19702.000	36.00	616.00	620.00	605.70	1740.00	613.33	0.0	614.03	44.17	6.68	260.31	261.82
19702.000	36.00	616.00	620.00	605.70	2025.00	613.78	0.0	614.62	50.31	7.33	276.20	285.51
19702.000	36.00	616.00	620.00	605.70	2570.00	614.87	0.0	616.18	158.04	9.17	280.31	204.43
19703.000	5.00	0.0	0.0	605.70	1100.00	612.10	0.0	612.50	30.41	5.08	216.56	199.46
19703.000	5.00	0.0	0.0	605.70	1740.00	613.36	0.0	614.05	43.77	6.66	261.12	263.01
19703.000	5.00	0.0	0.0	605.70	2025.00	613.81	0.0	614.64	49.82	7.31	277.13	286.91
19703.000	5.00	0.0	0.0	605.70	2570.00	615.31	0.0	616.25	48.36	7.78	330.21	369.55
19800.000	85.00	0.0	0.0	605.60	1100.00	612.47	0.0	612.72	16.86	4.67	323.81	267.85
19800.000	85.00	0.0	0.0	605.60	1740.00	614.09	0.0	614.37	15.71	5.23	550.12	438.96
19800.000	85.00	0.0	0.0	605.60	2025.00	614.75	0.0	615.01	13.81	5.17	701.46	544.95
19800.000	85.00	0.0	0.0	605.60	2570.00	616.45	0.0	616.62	8.11	4.46	1092.82	902.44
20300.000	430.00	0.0	0.0	605.60	1100.00	613.12	0.0	613.35	12.90	4.35	355.56	306.24
20300.000	430.00	0.0	0.0	605.60	1740.00	614.71	0.0	614.96	12.46	4.89	597.11	493.00
20300.000	430.00	0.0	0.0	605.60	2025.00	615.29	0.0	615.55	12.01	5.02	717.07	584.42
20300.000	430.00	0.0	0.0	605.60	2570.00	616.78	0.0	616.97	8.25	4.59	1091.61	894.67
20800.000	620.00	0.0	0.0	608.50	447.00	613.99	0.0	614.15	13.35	3.58	183.80	122.36
20800.000	620.00	0.0	0.0	608.50	700.00	615.53	0.0	615.66	9.36	3.57	380.70	228.82
20800.000	620.00	0.0	0.0	608.50	815.00	616.08	0.0	616.20	8.07	3.49	493.59	286.92
20800.000	620.00	0.0	0.0	608.50	1030.00	617.32	0.0	617.39	4.76	2.98	779.81	472.20
21800.000	1170.00	0.0	0.0	610.20	447.00	615.54	0.0	615.70	15.08	3.61	179.34	115.11
21800.000	1170.00	0.0	0.0	610.20	700.00	616.73	0.0	616.92	14.97	4.15	279.72	180.93
21800.000	1170.00	0.0	0.0	610.20	815.00	617.15	0.0	617.33	14.53	4.27	346.91	213.82
21800.000	1170.00	0.0	0.0	610.20	1030.00	617.98	0.0	618.14	11.63	4.14	523.36	302.05
22900.000	1390.00	0.0	0.0	611.80	447.00	617.33	0.0	617.44	12.44	3.45	250.08	126.73
22900.000	1390.00	0.0	0.0	611.80	700.00	618.36	0.0	618.46	10.26	3.53	392.60	218.56
22900.000	1390.00	0.0	0.0	611.80	815.00	618.72	0.0	618.82	10.06	3.62	444.45	256.96
22900.000	1390.00	0.0	0.0	611.80	1030.00	619.31	0.0	619.42	9.83	3.79	534.07	328.54

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
23100.000	1185.00	0.0	0.0	614.30	447.00	618.80	0.0	618.89	15.17	3.27	246.04	114.75
23100.000	1185.00	0.0	0.0	614.30	700.00	619.63	0.0	619.74	15.28	3.71	353.74	179.10
23100.000	1185.00	0.0	0.0	614.30	815.00	619.96	0.0	620.07	15.18	3.85	401.18	209.20
23100.000	1185.00	0.0	0.0	614.30	1030.00	620.50	0.0	620.62	14.45	4.00	483.20	270.95
25700.000	1335.00	0.0	0.0	616.60	447.00	621.49	0.0	621.81	34.48	4.97	116.60	76.13
25700.000	1335.00	0.0	0.0	616.60	700.00	622.36	0.0	622.77	37.49	5.86	168.12	114.33
25700.000	1335.00	0.0	0.0	616.60	815.00	622.68	0.0	623.12	38.43	6.18	190.53	131.47
25700.000	1335.00	0.0	0.0	616.60	1030.00	623.16	0.0	623.68	41.51	6.79	228.28	159.87
26500.000	750.00	0.0	0.0	618.50	447.00	623.21	0.0	623.32	13.25	3.25	201.85	122.79
26500.000	750.00	0.0	0.0	618.50	700.00	624.18	0.0	624.30	12.90	3.65	308.41	194.87
26500.000	750.00	0.0	0.0	618.50	815.00	624.52	0.0	624.64	12.54	3.74	360.46	230.19
26500.000	750.00	0.0	0.0	618.50	1030.00	625.08	0.0	625.20	12.01	3.89	447.61	297.24
27100.000	1415.00	0.0	0.0	622.20	447.00	626.33	0.0	626.58	66.37	5.64	150.95	54.87
27100.000	1415.00	0.0	0.0	622.20	700.00	627.01	0.0	627.24	53.78	5.78	237.84	95.45
27100.000	1415.00	0.0	0.0	622.20	815.00	627.25	0.0	627.48	51.95	5.90	272.68	113.07
27100.000	1415.00	0.0	0.0	622.20	1030.00	627.65	0.0	627.88	48.49	6.07	338.03	147.92
28100.000	850.00	0.0	0.0	624.60	447.00	628.03	0.0	628.08	8.47	2.12	276.58	153.59
28100.000	850.00	0.0	0.0	624.60	700.00	628.64	0.0	628.71	9.02	2.45	362.27	233.05
28100.000	850.00	0.0	0.0	624.60	815.00	628.88	0.0	628.95	9.26	2.59	395.87	267.78
28100.000	850.00	0.0	0.0	624.60	1030.00	629.28	0.0	629.37	9.74	2.82	451.72	330.06
28200.000	225.00	0.0	0.0	624.50	447.00	628.24	0.0	628.62	62.92	4.96	90.12	56.35
28200.000	225.00	0.0	0.0	624.50	700.00	628.77	0.0	629.45	93.15	6.60	106.14	72.53
28200.000	225.00	0.0	0.0	624.50	815.00	628.97	0.0	629.79	107.25	7.28	111.95	78.70
28200.000	225.00	0.0	0.0	624.50	1030.00	629.26	0.0	630.39	137.02	8.55	120.46	87.99
28201.000	5.00	633.80	636.60	624.50	447.00	628.28	0.0	628.66	60.45	4.90	91.29	57.49
28201.000	5.00	633.80	636.60	624.50	700.00	628.85	0.0	629.50	87.33	6.46	108.40	74.91
28201.000	5.00	633.80	636.60	624.50	815.00	629.07	0.0	629.85	99.14	7.10	114.87	81.85
28201.000	5.00	633.80	636.60	624.50	1030.00	629.47	0.0	630.49	116.79	8.11	126.97	95.31
28202.000	36.00	633.80	636.60	624.50	447.00	628.55	0.0	628.86	46.69	4.50	99.25	65.41
28202.000	36.00	633.80	636.60	624.50	700.00	629.29	0.0	629.80	61.84	5.77	121.37	89.01
28202.000	36.00	633.80	636.60	624.50	815.00	629.59	0.0	630.20	67.28	6.24	130.51	99.36
28202.000	36.00	633.80	636.60	624.50	1030.00	630.14	0.0	630.90	75.18	7.01	146.96	118.79
28203.000	5.00	0.0	0.0	624.50	447.00	628.58	0.0	628.89	45.57	4.47	100.03	66.21
28203.000	5.00	0.0	0.0	624.50	700.00	629.33	0.0	629.84	60.19	5.72	122.46	90.23
28203.000	5.00	0.0	0.0	624.50	815.00	629.64	0.0	630.23	65.46	6.19	131.70	100.73
28203.000	5.00	0.0	0.0	624.50	1030.00	630.19	0.0	630.94	73.17	6.95	148.30	120.41

BOSCH & HULST DRAIN

SUMMARY PRINTOUT TABLE 150

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 *************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
 *************************************************
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7. Brower Drain

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C
T1       BROWER DRAIN,HOLLAND,PROJECT NO. 8553, BROWER
T2       BROWER DRAIN
T3       BROWER DRAIN

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

        0.        4.        0.        0.   0.0         0.0       0.0        0.   621.150    0.0

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      1.000     0.0     -1.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    110.000   200.000   150.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0

NC      0.070     0.070     0.045     0.300     0.500     0.0       0.0       0.0       0.0       0.0
QT      5.000   695.000  1100.000  1270.000  1610.000  1270.000     0.0       0.0       0.0       0.0

         104TH ST BRIDGE,SECTION 2400 ON ZEELAND DRAIN,TR 622.5, LC 620.8

X1      1.000    16.000   500.000   535.000   100.000   100.000   100.000     0.0       0.0       0.0
X3     10.000     0.0       0.0       0.0       0.0       0.0       0.0     622.000   622.000     0.0
GR    624.200   367.000   623.100   417.000   622.700   469.000   622.000   480.000   613.800   500.000
GR    613.800   505.000   614.100   510.000   613.700   515.000   614.300   520.000   615.400   523.000
GR    616.200   525.000   617.000   535.000   622.000   550.000   622.600   567.000   623.400   617.000
GR    624.700   667.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0


X1      2.000     0.0       0.0       0.0       5.000     5.000     5.000     0.0       0.0       0.0
X3     10.000     0.0       0.0       0.0       0.0       0.0       0.0     622.000   622.000     0.0
BT      8.000   367.000   624.200   624.200   417.000   623.100   623.100   469.000   622.700   622.700
BT    500.000   622.600   620.800   535.000   622.500   620.800   567.000   622.600   622.600   617.000
BT    623.400   623.400   667.000   624.700   624.700     0.0       0.0       0.0       0.0       0.0


X1      3.000     0.0       0.0       0.0      36.000    36.000    36.000     0.0       0.0       0.0
X2      0.0       0.0       0.0       0.0       0.0       0.0       1.000     0.0       0.0       0.0
X3     10.000     0.0       0.0       0.0       0.0       0.0       0.0     622.600   622.600     0.0


X1      4.000     0.0       0.0       0.0       5.000     5.000     5.000     0.0       0.0       0.0
X3     10.000     0.0       0.0       0.0       0.0       0.0       0.0     622.600   622.600     0.0
NC      0.050     0.050     0.045     0.100     0.300     0.0       0.0       0.0       0.0       0.0
QT      5.000   320.000   520.000   600.000   775.000   600.000     0.0       0.0       0.0       0.0
ET      0.0       0.0       0.0       0.0       0.0       9.100     0.0       0.0     160.000   230.000


         A  DRIVEWAY BRIDGE, TR 622.2, LC 621.7

X1     10.000    10.000   200.000   220.000    50.000    50.000    50.000     0.0       0.0       0.0
GR    622.500   160.000   622.200   200.000   616.800   200.000   615.200   202.000   615.100   208.000
GR    615.100   216.000   615.800   220.000   622.200   220.000   624.000   238.000   628.000   333.000
ET      0.0       0.0       0.0       0.0       0.0       9.100     0.0       0.0     160.000   230.000
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X1	11.000	0.0	0.0	0.0	1.000	1.000	1.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	621.700	622.200	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	160.000	230.000

X1	12.000	0.0	0.0	0.0	15.500	15.500	15.500	0.0	0.0	0.0
X2	0.0	0.0	0.0	621.700	622.200	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	160.000	230.000

X1	13.000	0.0	0.0	0.0	1.000	1.000	1.000	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	10.000	110.000

B

X1	50.000	12.000	82.000	95.000	70.000	70.000	70.000	0.0	0.0	0.0
GR	621.200	10.000	619.900	45.000	620.300	70.000	619.200	79.000	616.700	82.000
GR	616.300	85.000	616.100	90.000	616.700	95.000	619.600	101.000	622.900	110.000
GR	624.000	125.000	628.000	200.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.060	0.060	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	131.000	260.000

C

X1	700.000	10.000	213.000	227.000	665.000	665.000	665.000	0.0	0.0	0.0
GR	628.000	115.000	624.000	128.000	620.000	200.000	618.600	213.000	618.200	216.000
GR	618.000	222.000	618.600	227.000	620.000	240.000	624.000	262.000	628.000	280.000

D

X1	1300.000	13.000	319.000	332.000	460.000	460.000	460.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	275.000	0.0	360.000	0.0	0.0	0.0	0.0
GR	632.000	0.0	628.000	70.000	624.000	130.000	623.400	253.000	623.000	317.000
GR	619.900	319.000	619.600	321.000	619.700	326.000	619.900	332.000	623.300	339.000
GR	623.700	359.000	627.000	366.000	631.300	376.000	0.0	0.0	0.0	0.0
NC	0.060	0.060	0.042	0.300	0.500	0.0	0.0	0.0	0.0	0.0

E RILEY ST. CULVERT, TR 631.4, LC 626.2

X1	1400.000	4.000	350.000	365.000	230.000	230.000	230.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	630.000	630.000	0.0
GR	631.400	350.000	619.600	350.000	619.600	365.000	631.400	635.000	0.0	0.0

X1	1401.000	0.0	0.0	0.0	5.000	5.000	5.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	626.200	631.400	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	630.000	630.000	0.0

X1	1402.000	0.0	0.0	0.0	48.500	48.500	48.500	0.0	0.0	0.0
X2	0.0	0.0	0.0	626.200	631.400	0.0	0.0	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	631.400	631.400	0.0

X1	1403.000	0.0	0.0	0.0	5.000	5.000	5.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	631.400	631.400	0.0

F

X1	1450.000	11.000	215.000	228.000	100.000	100.000	100.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	130.000	0.0	270.000	0.0	0.0	0.0	0.0
GR	632.000	70.000	628.000	103.000	624.000	142.000	622.800	185.000	622.500	215.000
GR	622.200	218.000	622.200	225.000	622.500	228.000	624.000	328.000	628.000	340.000

X1	1450.000	11.000	215.000	228.000	100.000	100.000	100.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	130.000	0.0	270.000	0.0	0.0	0.0	0.0
GR	632.000	70.000	628.000	103.000	624.000	142.000	622.800	185.000	622.500	215.000
GR	622.200	218.000	622.200	225.000	622.500	228.000	624.000	328.000	628.000	340.000
GR	632.000	350.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.040	0.040	0.045	0.100	0.300	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	349.000	386.000

G

X1	1500.000	16.000	355.000	377.000	285.000	285.000	285.000	0.0	0.0	0.0
GR	635.100	60.000	627.600	91.000	627.600	305.000	628.400	317.000	628.300	328.000
GR	628.500	343.000	626.200	350.000	623.200	355.000	622.500	358.000	622.300	368.000
GR	623.200	377.000	624.100	379.000	627.100	388.000	629.800	404.000	631.100	429.000
GR	634.100	554.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.050	0.050	0.045	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	172.000	285.000

H

X1	2400.000	14.000	179.000	196.000	1000.000	1000.000	1000.000	0.0	0.0	0.0
GR	635.500	153.000	634.600	168.000	628.700	172.000	626.200	179.000	625.900	183.000
GR	625.700	187.000	625.700	192.000	626.200	196.000	627.400	199.000	629.300	206.000
GR	629.500	241.000	631.200	330.000	632.000	480.000	636.000	520.000	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	190.000	265.000

I

X1	3300.000	11.000	246.000	260.000	1120.000	1120.000	1120.000	0.0	0.0	0.0
GR	632.600	190.000	632.700	240.000	631.500	243.000	629.200	246.000	629.000	248.000
GR	628.200	250.000	627.600	254.000	627.900	256.000	628.200	258.000	629.200	260.000
GR	632.600	265.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.050	0.050	0.035	0.300	0.500	0.0	0.0	0.0	0.0	0.0

J 100TH ST. CULVERT, TR 638.6, LC 636.3

CORRUGATED STRUCTURAL PLATE PIPE ARCH, 8.1X12.8X40

X1	3400.000	13.000	250.000	263.000	100.000	100.000	100.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	637.500	637.500	0.0
GR	638.600	200.000	638.600	250.000	630.300	250.000	628.900	251.000	628.400	253.000
GR	628.200	255.000	628.200	256.200	628.200	258.000	628.400	260.000	628.900	262.000
GR	630.300	263.000	638.600	263.000	638.600	300.000	0.0	0.0	0.0	0.0
X1	3401.000	0.0	0.0	0.0	5.000	5.000	5.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	637.500	637.500	0.0
BT	11.000	200.000	638.600	638.600	250.000	638.600	630.300	251.000	638.600	633.100
BT	253.000	638.600	635.200	255.000	638.600	636.100	256.200	638.600	636.300	258.000
BT	638.600	636.100	260.000	638.600	635.200	262.000	638.600	633.100	263.000	638.600
BT	630.300	300.000	638.600	638.600	0.0	0.0	0.0	0.0	0.0	0.0
X1	3402.000	0.0	0.0	0.0	24.000	24.000	24.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	0.0	0.0	0.0	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	638.600	638.600	0.0
X1	3403.000	0.0	0.0	0.0	5.000	5.000	5.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	638.600	638.600	0.0
EJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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*PROF 1

CCHV    0.300 CEHV     0.500
*SECNO 1.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       622.00 ELREA       622.00

         104TH ST BRIDGE,SECTION 2400 ON ZEELAND DRAIN,TR 622.5, LC 620.8

      1.00      7.45    621.15       0.0    621.15    621.67      0.52       0.0       0.0    613.80
     1270.        0.     1270.        0.        0.      220.        0.        0.        0.    617.00
      0.0        0.0      5.78       0.0     0.070     0.045     0.070       0.0    613.70    500.00
  0.002685      100.      100.      100.         0         0         0     -0.00     35.00    535.00

*SECNO 2.000

3370 NORMAL BRIDGE,NRD    8 MIN ELTRD   622.50 MAX ELLC   624.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       622.00 ELREA       622.00

      2.00      7.44    621.14       0.0       0.0    621.72      0.58      0.02      0.03    613.80
     1270.        0.     1270.        0.        0.      208.        0.        0.        0.    617.00
      0.00       0.0      6.12       0.0     0.070     0.045     0.070     0.037    613.70    500.00
  0.008122        5.        5.        5.         2         0         0    -12.91     35.00    535.00

*SECNO 3.000

3370 NORMAL BRIDGE,NRD    8 MIN ELTRD   622.50 MAX ELLC   624.70

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       622.60 ELREA       622.60

      3.00      7.73    621.43       0.0       0.0    622.01      0.58      0.29       0.0    613.80
     1270.        0.     1270.        0.        0.      208.        0.        0.        0.    617.00
      0.00       0.0      6.12       0.0     0.070     0.045     0.070     0.043    613.70    500.00
  0.008122       36.       36.       36.         2         0         0    -25.67     35.00    535.00

*SECNO 4.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       622.60 ELREA       622.60

      4.00      7.92    621.62       0.0       0.0    622.07      0.45      0.02      0.04    613.80
     1270.        0.     1270.        0.        0.      236.        0.        0.        0.    617.00
      0.00       0.0      5.37       0.0     0.070     0.045     0.070     0.042    613.70    500.00
  0.002107        5.        5.        5.         2         0         0     -0.00     35.00    535.00

CCHV    0.100 CEHV     0.300
*SECNO 10.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


         A DRIVEWAY BRIDGE, TR 622.2, LC 621.7
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     A  DRIVEWAY BRIDGE, TR 622.2, LC 621.7

     10.00      6.78    621.88      0.0       0.0     622.20      0.32      0.12      0.01    622.20
      600.        0.      600.        0.        0.      132.        0.        0.        0.    622.20
      0.01       0.0      4.54      0.0     0.050     0.045     0.050     0.043    615.10    200.00
  0.002832       50.       50.       50.        0         0         0     -0.00     20.00    220.00


*SECNO 11.000

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    622.20 MAX ELLC    621.70

     11.00      6.77    621.87      0.0       0.0     622.21      0.34      0.00      0.01    622.20
      600.        0.      600.        0.        0.      128.        0.        0.        0.    622.20
      0.01       0.0      4.67      0.0     0.050     0.045     0.050     0.043    615.10    200.00
  0.005896        1.        1.        1.        1         0         0     -3.52     20.00    220.00


*SECNO 12.000

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    622.20 MAX ELLC    621.70

     12.00      6.86    621.96      0.0       0.0     622.30      0.34      0.09      0.0     622.20
      600.        0.      600.        0.        0.      128.        0.        0.        0.    622.20
      0.01       0.0      4.67      0.0     0.050     0.045     0.050     0.043    615.10    200.00
  0.005896       16.       16.       16.        2         0         0     -5.23     20.00    220.00


*SECNO 13.000
     13.00      6.90    622.00      0.0       0.0     622.31      0.31      0.00      0.00    622.20
      600.        0.      600.        0.        0.      134.        0.        0.        0.    622.20
      0.01       0.0      4.46      0.0     0.050     0.045     0.050     0.042    615.10    200.00
  0.002695        1.        1.        1.        2         0         0     -0.00     20.00    220.00


*SECNO 50.000
3280 CROSS SECTION     50.00 EXTENDED      1.12 FEET


          B

     50.00      6.22    622.32      0.0       0.0     622.44      0.12      0.11      0.02    616.70
      600.      251.      278.       71.      154.       78.       35.        1.        0.    616.70
      0.01      1.63      3.58      2.02     0.050     0.045     0.050     0.043    616.10     10.00
  0.001088       70.       70.       70.        2         0         0     -0.01     98.43    108.43


*SECNO 700.000
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


          C

    700.00      5.14    623.14      0.0       0.0     623.24      0.10      0.80      0.00    618.60
      600.      219.      238.      143.      138.       69.       77.        5.        2.    618.60
      0.09      1.58      3.47      1.86     0.060     0.045     0.060     0.045    618.00    143.53
  0.001338      665.      665.      665.        2         0         0     -0.01    113.72    257.25
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MOORE BUSINESS FORMS, INC. 27

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*SECNO 1300.000

 3301 HV CHANGED MORE THAN HVINS

      SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
      Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
      TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
      SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS        275.0      360.0  TYPE        1  TARGET        85.000

          D

     1300.00      4.35    623.95    623.95      0.0     624.72      0.77      1.27      0.20    619.90
       600.        83.      442.       75.       39.       55.       25.        7.        3.    619.90
       0.11       2.11      8.06      2.95     0.060     0.045     0.060     0.045    619.60    275.00
   0.008785       460.      460.      460.         3        12         0     -0.00     84.53    359.53


 CCHV     0.300 CEHV      0.500
*SECNO 1400.000

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA        630.00 ELREA        630.00


        E  RILEY ST. CULVERT, TR 631.4, LC 626.2

     1400.00      5.97    625.57      0.0       0.0     626.27      0.70      1.53      0.02    631.40
       600.         0.      600.        0.        0.       90.        0.        8.        3.    619.60
       0.12        0.0      6.70       0.0     0.060     0.042     0.060     0.044    619.60    350.00
   0.005183       230.      230.      230.         2         0         0     -0.02     15.00    365.00


*SECNO 1401.000

 3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    631.40 MAX ELLC    626.20


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA        630.00 ELREA        630.00

     1401.00      6.00    625.60      0.0       0.0     626.29      0.69      0.03      0.00    631.40
       600.         0.      600.        0.        0.       90.        0.        8.        3.    619.60
       0.12        0.0      6.66       0.0     0.060     0.042     0.060     0.044    619.60    350.00
   0.005093         5.        5.        5.         0         0         0     -0.02     15.00    365.00


*SECNO 1402.000

 3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    631.40 MAX ELLC    626.20


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA        631.40 ELREA        631.40

     1402.00      6.32    625.92      0.0       0.0     626.54      0.62      0.23      0.02    631.40
       600.         0.      600.        0.        0.       95.        0.        8.        3.    619.60
       0.12        0.0      6.33       0.0     0.060     0.042     0.060     0.044    619.60    350.00
   0.004376        49.       49.       49.         2         0         0     -0.02     15.00    365.00

*SECNO 1403.000
      SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
      Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
      TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
      SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST
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      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST


 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       631.40 ELREA       631.40

    1403.00     6.35    625.95       0.0       0.0    626.57      0.62      0.02      0.00    631.40
       600.       0.      600.        0.        0.       95.        0.        8.        3.    619.60
       0.12      0.0      6.31       0.0     0.060     0.042     0.060     0.044    619.60    350.00
   0.004328       5.        5.        5.         0         0         0     -0.00     15.00    365.00

 *SECNO 1450.000

 3301 HV CHANGED MORE THAN HVINS

 3470 ENCROACHMENT STATIONS       130.0      270.0  TYPE       1  TARGET      140.000

          F

    1450.00     4.60    626.80       0.0       0.0    626.83      0.02      0.08      0.18    622.50
       600.     315.      105.      181.      297.       59.      167.        9.        3.    622.50
       0.15     1.06      1.77      1.08     0.060     0.042     0.060     0.044    622.20    130.00
   0.000336     100.      100.      100.         2         0         0     -0.01    140.00    270.00

 CCHV     0.100 CEHV     0.300
 *SECNO 1500.000

          G

    1500.00     4.45    626.75       0.0       0.0    627.18      0.43      0.23      0.12    623.20
       600.      37.      504.       60.       11.       91.       17.       11.        4.    623.20
       0.16     3.41      5.52      3.56     0.040     0.045     0.040     0.044    622.30    348.32
   0.004223     285.      285.      285.         3         0         0     -0.00     38.64    386.96

 *SECNO 2400.000

          H

    2400.00     4.72    630.42       0.0       0.0    630.68      0.27      3.49      0.02    626.20
       600.      67.      379.      154.       22.       77.       83.       14.        6.    626.20
       0.23     3.09      4.90      1.87     0.050     0.045     0.050     0.044    625.70    170.84
   0.002927    1000.     1000.     1000.         3         0         0     -0.01    118.01    288.84

 *SECNO 3300.000
 3280 CROSS SECTION   3300.00 EXTENDED       1.13 FEET


          I

    3300.00     6.13    633.73       0.0       0.0    634.10      0.36      3.39      0.03    629.20
       600.     137.      426.       37.       69.       76.       14.       18.        8.    629.20
       0.30     1.98      5.59      2.61     0.050     0.045     0.050     0.045    627.60    190.00
   0.003124    1120.     1120.     1120.         3         0         0     -0.01     75.00    265.00

 CCHV     0.300 CEHV     0.500
 *SECNO 3400.000

 3301 HV CHANGED MORE THAN HVINS
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  SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
  Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA     LEFT/RIGHT
  TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
  SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA        637.50 ELREA        637.50


         J  100TH ST. CULVERT, TR 638.6, LC 636.3


            CORRUGATED STRUCTURAL PLATE PIPE ARCH, 8.1X12.8X40

   3400.00     5.61   633.81      0.0      0.0   635.02     1.21     0.50     0.42   638.60
      600.       0.     600.       0.       0.      68.       0.      19.       8.   638.60
      0.30      0.0     8.82      0.0    0.050    0.035    0.050    0.044   628.20   250.00
  0.009368     100.     100.     100.        2        0        0    -0.00    13.00   263.00


*SECNO 3401.000

3370 NORMAL BRIDGE,NRD  11 MIN ELTRD   638.60 MAX ELLC   638.60


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA        637.50 ELREA        637.50

   3401.00     5.56   633.76      0.0      0.0   635.18     1.42     0.05     0.10   638.60
      600.       0.     600.       0.       0.      63.       0.      19.       8.   638.60
      0.30      0.0     9.56      0.0    0.050    0.035    0.050    0.044   628.20   250.00
  0.012794       5.       5.       5.        2        0        0    -4.55    13.00   263.00


*SECNO 3402.000

3370 NORMAL BRIDGE,NRD  11 MIN ELTRD   638.60 MAX ELLC   638.60


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA        638.60 ELREA        638.60

   3402.00     6.11   634.31      0.0      0.0   635.52     1.21     0.28     0.06   638.60
      600.       0.     600.       0.       0.      68.       0.      19.       8.   638.60
      0.30      0.0     8.84      0.0    0.050    0.035    0.050    0.044   628.20   250.00
  0.010766      24.      24.      24.        2        0        0    -6.65    13.00   263.00


*SECNO 3403.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA        638.60 ELREA        638.60

   3403.00     6.62   634.82      0.0      0.0   635.67     0.85     0.04     0.11   638.60
      600.       0.     600.       0.       0.      81.       0.      19.       8.   638.60
      0.30      0.0     7.40      0.0    0.050    0.035    0.050    0.044   628.20   250.00
  0.005871       5.       5.       5.        3        0        0    -0.00    13.00   263.00



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HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
ERROR CORR - 01,02,03
MODIFICATION - 50,51,52,53

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Floodway Summary

NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

BROWER DRAIN

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	1.000	621.15	0.0	621.67	35.00	0.0	1270.00	0.0	0.0	0.0	500.00	535.00	0.0
	1.000	621.15	0.0	621.67	35.00	0.0	1270.00	0.0	0.0	0.0	500.00	535.00	0.0
	2.000	621.14	0.0	621.72	35.00	0.0	1270.00	0.0	0.0	0.0	500.00	535.00	0.0
	2.000	621.14	0.0	621.72	35.00	0.0	1270.00	0.0	0.0	0.0	500.00	535.00	0.0
	3.000	621.43	0.0	622.01	35.00	0.0	1270.00	0.0	0.0	0.0	500.00	535.00	0.0
	3.000	621.43	0.0	622.01	35.00	0.0	1270.00	0.0	0.0	0.0	500.00	535.00	0.0
	4.000	621.62	0.0	622.07	35.00	0.0	1270.00	0.0	0.0	0.0	500.00	535.00	0.0
	4.000	621.62	0.0	622.07	35.00	0.0	1270.00	0.0	0.0	0.0	500.00	535.00	0.0
	10.000	621.88	0.0	622.20	20.00	0.0	600.00	0.0	0.0	0.0	200.00	220.00	0.0
	10.000	621.88	0.0	622.20	20.00	0.0	600.00	0.0	70.00	160.00	200.00	220.00	230.00
	11.000	621.87	0.0	622.21	20.00	0.0	600.00	0.0	0.0	0.0	200.00	220.00	0.0
	11.000	621.87	0.0	622.21	20.00	0.0	600.00	0.0	70.00	160.00	200.00	220.00	230.00
	12.000	621.96	0.0	622.30	20.00	0.0	600.00	0.0	0.0	0.0	200.00	220.00	0.0
	12.000	621.96	0.0	622.30	20.00	0.0	600.00	0.0	70.00	160.00	200.00	220.00	230.00
	13.000	622.00	0.0	622.31	20.00	0.0	600.00	0.0	0.0	0.0	200.00	220.00	0.0
	13.000	622.00	0.0	622.31	20.00	0.0	600.00	0.0	70.00	160.00	200.00	220.00	230.00
	50.000	622.32	0.0	622.44	98.43	251.24	277.77	70.99	0.0	0.0	82.00	95.00	0.0
	50.000	622.32	0.0	622.44	98.43	251.24	277.77	70.99	100.00	10.00	82.00	95.00	110.00
	700.000	623.14	0.0	623.24	113.72	218.53	238.40	143.06	0.0	0.0	213.00	227.00	0.0
	700.000	623.14	0.0	623.24	113.72	218.53	238.40	143.06	129.00	131.00	213.00	227.00	260.00
*	1300.000	623.95	0.0	624.72	84.53	83.15	441.80	75.05	85.00	275.00	319.00	332.00	360.00
*	1300.000	623.95	0.0	624.72	84.53	83.15	441.80	75.05	85.00	275.00	319.00	332.00	360.00
	1400.000	625.57	0.0	626.27	15.00	0.0	600.00	0.0	0.0	0.0	350.00	365.00	0.0
	1400.000	625.57	0.0	626.27	15.00	0.0	600.00	0.0	0.0	0.0	350.00	365.00	0.0
	1401.000	625.60	0.0	626.29	15.00	0.0	600.00	0.0	0.0	0.0	350.00	365.00	0.0
	1401.000	625.60	0.0	626.29	15.00	0.0	600.00	0.0	0.0	0.0	350.00	365.00	0.0

SECNO CWSEL DIFKWS EG TOPWID QLOB QCH QROB PERENC STENCL STCHL STCHR STENCR

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
1402.000	625.92	0.0	626.54	15.00	0.0	600.00	0.0	0.0	0.0	350.00	365.00	0.0
1402.000	625.92	0.0	626.54	15.00	0.0	600.00	0.0	0.0	0.0	350.00	365.00	0.0
1403.000	625.95	0.0	626.57	15.00	0.0	600.00	0.0	0.0	0.0	350.00	365.00	0.0
1403.000	625.95	0.0	626.57	15.00	0.0	600.00	0.0	0.0	0.0	350.00	365.00	0.0
1450.000	626.80	0.0	626.83	140.00	314.71	104.53	180.77	140.00	130.00	215.00	228.00	270.00
1450.000	626.80	0.0	626.83	140.00	314.71	104.53	180.77	140.00	130.00	215.00	228.00	270.00
1500.000	626.75	0.0	627.18	38.64	36.59	503.73	59.68	0.0	0.0	355.00	377.00	0.0
1500.000	626.75	0.0	627.18	37.00	36.51	502.91	60.58	37.00	349.00	355.00	377.00	386.00
2400.000	630.42	0.0	630.68	118.01	67.11	378.62	154.27	0.0	0.0	179.00	196.00	0.0
2400.000	630.43	0.01	630.70	113.00	58.30	382.69	159.01	113.00	172.00	179.00	196.00	285.00
3300.000	633.73	0.0	634.10	75.00	136.91	426.06	37.03	0.0	0.0	246.00	260.00	0.0
3300.000	633.75	0.01	634.11	75.00	138.25	424.75	37.00	75.00	190.00	246.00	260.00	265.00
3400.000	633.81	0.0	635.02	13.00	0.0	600.00	0.0	0.0	0.0	250.00	263.00	0.0
3400.000	633.82	0.01	635.03	13.00	0.0	600.00	0.0	0.0	0.0	250.00	263.00	0.0
3401.000	633.76	0.0	635.18	13.00	0.0	600.00	0.0	0.0	0.0	250.00	263.00	0.0
3401.000	633.77	0.01	635.19	13.00	0.0	600.00	0.0	0.0	0.0	250.00	263.00	0.0
3402.000	634.31	0.0	635.52	13.00	0.0	600.00	0.0	0.0	0.0	250.00	263.00	0.0
3402.000	634.32	0.00	635.53	13.00	0.0	600.00	0.0	0.0	0.0	250.00	263.00	0.0
3403.000	634.82	0.0	635.67	13.00	0.0	600.00	0.0	0.0	0.0	250.00	263.00	0.0
3403.000	634.82	0.00	635.67	13.00	0.0	600.00	0.0	0.0	0.0	250.00	263.00	0.0

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 HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
 ERROR CORR -  01,02,03
 MODIFICATION -  50,51,52,53
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NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

BROWER DRAIN

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1.000	100.00	0.0	0.0	613.70	695.00	620.00	0.0	620.23	15.78	3.87	179.60	174.98
1.000	100.00	0.0	0.0	613.70	1100.00	620.88	0.0	621.30	23.32	5.23	210.40	227.80
1.000	100.00	0.0	0.0	613.70	1270.00	621.15	0.0	621.67	26.85	5.78	219.85	245.10
1.000	100.00	0.0	0.0	613.70	1610.00	621.58	0.0	622.31	34.60	6.85	234.90	273.71
2.000	5.00	622.50	624.70	613.70	695.00	620.01	0.0	620.24	15.70	3.86	179.87	175.43
2.000	5.00	622.50	624.70	613.70	1100.00	620.89	0.0	621.33	60.93	5.30	207.60	140.92
2.000	5.00	622.50	624.70	613.70	1270.00	621.14	0.0	621.72	81.22	6.12	207.60	140.92
2.000	5.00	622.50	624.70	613.70	1610.00	621.51	0.0	622.44	130.52	7.76	207.60	140.92
3.000	36.00	622.50	624.70	613.70	695.00	620.07	0.0	620.30	15.13	3.82	181.88	178.70
3.000	36.00	622.50	624.70	613.70	1100.00	621.11	0.0	621.55	60.93	5.30	207.60	140.92
3.000	36.00	622.50	624.70	613.70	1270.00	621.43	0.0	622.01	81.22	6.12	207.60	140.92
* 3.000	36.00	622.50	624.70	613.70	1610.00	621.98	0.0	622.91	130.52	7.76	207.60	140.92
4.000	5.00	0.0	0.0	613.70	695.00	620.08	0.0	620.31	15.00	3.81	182.33	179.44
4.000	5.00	0.0	0.0	613.70	1100.00	621.20	0.0	621.58	19.67	4.97	221.43	248.05
4.000	5.00	0.0	0.0	613.70	1270.00	621.62	0.0	622.07	21.07	5.37	236.43	276.70
4.000	5.00	0.0	0.0	613.70	1610.00	622.48	0.0	623.04	22.73	6.04	266.47	337.73
10.000	50.00	0.0	0.0	615.10	320.00	620.23	0.0	620.39	18.15	3.23	99.07	75.11
10.000	50.00	0.0	0.0	615.10	520.00	621.42	0.0	621.70	26.03	4.23	122.86	101.92
10.000	50.00	0.0	0.0	615.10	600.00	621.88	0.0	622.20	28.32	4.54	132.08	112.74
10.000	50.00	0.0	0.0	615.10	775.00	622.80	0.0	623.19	29.87	5.02	170.51	141.80
11.000	1.00	622.20	621.70	615.10	320.00	620.23	0.0	620.39	18.13	3.23	99.10	75.15
11.000	1.00	622.20	621.70	615.10	520.00	621.42	0.0	621.70	26.01	4.23	122.90	101.96
11.000	1.00	622.20	621.70	615.10	600.00	621.87	0.0	622.21	58.96	4.67	128.50	78.14
11.000	1.00	622.20	621.70	615.10	775.00	622.78	0.0	623.20	104.87	5.30	159.13	75.68
12.000	15.50	622.20	621.70	615.10	320.00	620.26	0.0	620.42	17.84	3.21	99.67	75.76
12.000	15.50	622.20	621.70	615.10	520.00	621.46	0.0	621.74	25.53	4.20	123.71	102.91
12.000	15.50	622.20	621.70	615.10	600.00	621.96	0.0	622.30	58.96	4.67	128.50	78.14
12.000	15.50	622.20	621.70	615.10	775.00	623.00	0.0	623.36	88.05	4.96	173.70	82.59
13.000	1.00	0.0	0.0	615.10	320.00	620.26	0.0	620.42	17.80	3.21	99.74	75.84
13.000	1.00	0.0	0.0	615.10	520.00	621.47	0.0	621.74	25.46	4.20	123.83	103.05
13.000	1.00	0.0	0.0	615.10	600.00	622.00	0.0	622.31	26.95	4.46	134.46	115.58
13.000	1.00	0.0	0.0	615.10	775.00	623.02	0.0	623.36	26.20	4.79	184.65	151.41

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
50.000	70.00	0.0	0.0	616.10	320.00	620.33	0.0	620.64	34.99	4.89	86.02	54.10

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
50.000	70.00	0.0	0.0	616.10	320.00	620.33	0.0	620.64	34.99	4.89	86.02	54.10
50.000	70.00	0.0	0.0	616.10	520.00	621.74	0.0	621.89	15.40	3.97	209.44	132.49
50.000	70.00	0.0	0.0	616.10	600.00	622.32	0.0	622.44	10.88	3.58	266.74	181.91
50.000	70.00	0.0	0.0	616.10	775.00	623.38	0.0	623.47	7.04	3.21	374.08	292.18
700.000	665.00	0.0	0.0	618.00	320.00	621.97	0.0	622.05	13.92	2.96	167.68	85.77
700.000	665.00	0.0	0.0	618.00	520.00	622.78	0.0	622.89	14.46	3.43	245.09	136.77
700.000	665.00	0.0	0.0	618.00	600.00	623.14	0.0	623.24	13.38	3.47	284.02	164.05
700.000	665.00	0.0	0.0	618.00	775.00	623.95	0.0	624.04	10.58	3.42	383.89	238.26
1300.000	460.00	0.0	0.0	619.60	320.00	622.89	0.0	623.58	96.81	6.98	53.13	32.52
* 1300.000	460.00	0.0	0.0	619.60	520.00	623.75	623.75	624.50	87.13	7.78	102.81	55.71
* 1300.000	460.00	0.0	0.0	619.60	600.00	623.95	623.95	624.72	87.85	8.06	119.60	64.02
1300.000	460.00	0.0	0.0	619.60	775.00	624.58	0.0	625.18	64.56	7.59	173.45	96.45
1400.000	230.00	0.0	0.0	619.60	320.00	624.47	0.0	624.76	27.12	4.39	72.96	61.45
1400.000	230.00	0.0	0.0	619.60	520.00	625.37	0.0	625.93	43.12	6.01	86.47	79.19
1400.000	230.00	0.0	0.0	619.60	600.00	625.57	0.0	626.27	51.83	6.70	89.51	83.34
1400.000	230.00	0.0	0.0	619.60	775.00	625.94	0.0	626.97	72.46	8.15	95.04	91.04
1401.000	5.00	631.40	626.20	619.60	320.00	624.48	0.0	624.78	26.67	4.36	73.36	61.96
1401.000	5.00	631.40	626.20	619.60	520.00	625.40	0.0	625.95	42.39	5.98	86.97	79.87
1401.000	5.00	631.40	626.20	619.60	600.00	625.60	0.0	626.29	50.93	6.66	90.04	84.08
1401.000	5.00	631.40	626.20	619.60	775.00	626.00	0.0	627.01	70.43	8.08	95.97	92.35
1402.000	48.50	631.40	626.20	619.60	320.00	624.63	0.0	624.91	24.66	4.25	75.30	64.44
1402.000	48.50	631.40	626.20	619.60	520.00	625.65	0.0	626.16	37.44	5.73	90.69	84.98
1402.000	48.50	631.40	626.20	619.60	600.00	625.92	0.0	626.54	43.76	6.33	94.80	90.70
1402.000	48.50	631.40	626.20	619.60	775.00	626.53	0.0	627.48	129.89	7.83	99.00	68.00
1403.000	5.00	0.0	0.0	619.60	320.00	624.64	0.0	624.92	24.37	4.23	75.60	64.82
1403.000	5.00	0.0	0.0	619.60	520.00	625.67	0.0	626.18	37.09	5.71	90.99	85.39
1403.000	5.00	0.0	0.0	619.60	600.00	625.95	0.0	626.57	43.28	6.31	95.16	91.20
1403.000	5.00	0.0	0.0	619.60	775.00	626.75	0.0	627.56	50.81	7.22	107.33	108.73
1450.000	100.00	0.0	0.0	622.20	320.00	625.09	0.0	625.11	6.60	1.81	283.37	124.56
1450.000	100.00	0.0	0.0	622.20	520.00	626.38	0.0	626.41	3.69	1.74	464.85	270.77
1450.000	100.00	0.0	0.0	622.20	600.00	626.80	0.0	626.83	3.36	1.77	523.34	327.18
1450.000	100.00	0.0	0.0	622.20	775.00	627.84	0.0	627.87	2.55	1.77	669.29	485.45
1500.000	285.00	0.0	0.0	622.30	320.00	625.28	0.0	625.64	62.06	4.99	67.77	40.62
1500.000	285.00	0.0	0.0	622.30	520.00	626.36	0.0	626.78	46.31	5.41	104.21	76.41
1500.000	285.00	0.0	0.0	622.30	600.00	626.75	0.0	627.18	42.23	5.52	118.76	92.33
1500.000	285.00	0.0	0.0	622.30	775.00	627.80	0.0	628.13	26.45	5.08	207.47	150.69
2400.000	1000.00	0.0	0.0	625.70	320.00	629.45	0.0	629.67	28.12	4.10	92.98	60.35
2400.000	1000.00	0.0	0.0	625.70	520.00	630.19	0.0	630.45	29.52	4.75	155.87	95.70
2400.000	1000.00	0.0	0.0	625.70	600.00	630.42	0.0	630.68	29.27	4.90	181.71	110.91
2400.000	1000.00	0.0	0.0	625.70	775.00	630.74	0.0	631.04	32.25	5.39	223.69	136.46
3300.000	1120.00	0.0	0.0	627.60	320.00	632.63	0.0	632.94	29.68	4.68	77.97	58.74
3300.000	1120.00	0.0	0.0	627.60	520.00	633.49	0.0	633.84	30.58	5.36	141.37	94.04
3300.000	1120.00	0.0	0.0	627.60	600.00	633.73	0.0	634.10	31.24	5.59	159.69	107.34
3300.000	1120.00	0.0	0.0	627.60	775.00	634.24	0.0	634.62	31.21	5.92	197.82	138.73

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3400.000	100.00	0.0	0.0	628.20	320.00	632.89	0.0	633.40	45.29	5.72	55.96	47.55
3400.000	100.00	0.0	0.0	628.20	520.00	633.64	0.0	634.61	77.19	7.91	65.70	59.19
3400.000	100.00	0.0	0.0	628.20	600.00	633.81	0.0	635.02	93.68	8.82	68.00	61.99
3400.000	100.00	0.0	0.0	628.20	775.00	634.09	0.0	635.91	135.49	10.81	71.73	66.58
3401.000	5.00	638.60	638.60	628.20	320.00	632.89	0.0	633.44	53.20	5.96	53.69	43.87
3401.000	5.00	638.60	638.60	628.20	520.00	633.61	0.0	634.73	101.68	8.49	61.25	51.57
3401.000	5.00	638.60	638.60	628.20	600.00	633.76	0.0	635.18	127.94	9.56	62.78	53.05
3401.000	5.00	638.60	638.60	628.20	775.00	633.97	0.0	636.19	199.07	11.97	64.76	54.93
3402.000	24.00	638.60	638.60	628.20	320.00	633.06	0.0	633.58	48.86	5.77	55.44	45.78
3402.000	24.00	638.60	638.60	628.20	520.00	634.00	0.0	634.99	88.66	7.99	65.08	55.23
3402.000	24.00	638.60	638.60	628.20	600.00	634.31	0.0	635.52	107.66	8.84	67.90	57.83
3402.000	24.00	638.60	638.60	628.20	775.00	635.04	0.0	636.76	152.62	10.53	73.58	62.73
3403.000	5.00	0.0	0.0	628.20	320.00	633.17	0.0	633.62	38.03	5.37	59.64	51.89
3403.000	5.00	0.0	0.0	628.20	520.00	634.36	0.0	635.10	53.88	6.92	75.14	70.84
3403.000	5.00	0.0	0.0	628.20	600.00	634.82	0.0	635.67	58.71	7.40	81.06	78.30
3403.000	5.00	0.0	0.0	628.20	775.00	636.02	0.0	637.02	62.00	8.02	96.66	98.43

HYDRAULIC ANALYSIS

1. INTRODUCTION

The streams being studied in this report are the Bosch & Hulst Drain, Zeeland Drain, Brower Drain, North Branch Drain, Unnamed Drain, and the Pine Creek, all in Holland Township, Michigan. The Zeeland Drain and the Brower Drain are the tributaries of Bosch & Hulst Drain; while the Bosch & Hulst Drain, North Branch Drain, Unnamed Drain and the Pine Creek discharge to the Macatawa River. All the flows used in this study have been approved by the Michigan Department of Natural Resources and shown in Table 1.

The project managers for the Flood Insurance Studies are William McDonough and Duane Ellis.

2. METHOD OF ANALYSIS

Water surface profiles for 10-, 50-, 100-, and 500-year floods were computed through the HEC-2 computer program, developed by U.S. Army, Corps of Engineers (Ref. 1).

2.1 Cross Sections

Cross sections were obtained by combining the results from the field ground survey for the channel portion and aerial photo survey for the flood plain portion. The ground survey was taken in April, May, June, and July of 1979. The locations of the cross sections for each stream are shown in Table 2 to Table 7. The bridge routine used at each bridge was based on the HEC-2 Users Manual (Ref. 1).

2.2 Roughness Coefficients

The Manning's Roughness Coefficients were established by aerial photographs and field descriptions. Through comparison with the materials and photographs shown in page 101 to page 123 in Chow's Open Channel Hydraulics (Ref. 2), the roughness coefficients for channel and flood plain were determined. Table 8 shows the range used for each stream.

2.3 Starting Elevations

Starting elevations for the Bosch & Hulst Drain, North Branch Drain, and the Unnamed Drain are critical depths. It is believed that for Bosch & Hulst Drain and North Branch Drain, the water surface profiles will converge within the backwaters of Macatawa River. For the Unnamed Drain, the reason is different. Downstream from Section 2100 (Section G), there are C & O Railroad Yards on the right bank with a maximum elevation of about 596 feet. With the critical depth at the mouth for 100-year flood, the water elevation at the Railroad Yards is already over 596. Therefore, the critical depth is adopted as the starting elevation. For the Zeeland Drain and the Brower Drain, the starting elevations are the same elevations at the downstream of the confluence point since the flows at the confluence are almost the same (see Table 1). For the Pine Creek, the starting elevations were determined from the downstream FIS report (Ref. 3).

Reference

1. HEC-2 Water Surface Profiles, Users Manual, Hydrologocial Engineering Center, Corps of Engineers, U. S. Army, August 1979.

2. Open-Channel Hydraulics, Ven Te Chow, McGraw-Hill, 1959.

3. Hydraulic Analysis, Pine Creek, City of Holland, Michigan, Johnson and Anderson, Inc., August 1977.

TABLE 1

PEAK DISCHARGES

STREAM	LOCATION	10-year	50-year	100-year	500-year
		Peak Discharges (cfs)			
Bosch & Hulst 5.5 sq miles cut off	Mouth	1470	2320	2680	3400
	D/S of Zeeland	1100	1740	2025	2570
	U/S of Zeeland	445	700	815	1030
Zeeland	Confluence with Bosch & Hulst	695	1100	1270	1610
	U/S of Brower	375	580	670	840
Brower	Confluence with Zeeland	320	520	600	775
North Branch	Mouth	565	890	1025	1400
Unnamed	Mouth	530	790	900	1200
	U/S of C & O Railroad Bridge	460	670	770	1000
	U/S of James St.	380	560	630	820
Pine Creek	144th Ave. Bridge	320	510	590	740

see FIS Park Twp

TABLE 2

LOCATION OF CROSS SECTION (BOSCH & HULST DRAIN)

SECTION	SECNO	LOCATION
A	1000	610' U/S from Mouth American Legion Golf Course Backwaters of the Macatawa River: 590.52, 592.10, 592.71, 594.18 Starting elevation - Critical depth
B	1800	1265' U/S from A
C	2400	300' D/S from D/S face of 107th Ave. Bridge
D	2500	107th Ave. Bridge, TR = 595.4, LC = 593.5
E	2600	100' U/S from U/S face of 107th Ave. Bridge
F	3200	500' U/S from E
G	3700	585' U/S from F
H	4200	865' U/S from G
I	4900	70' D/S from D/S face of M-21 Bridge
J	5000 to 5005	M-21 Bridge, TR = 603.6, LC = 600.6
K	5100	150' U/S from U/S face of M-21 Bridge
L	5600	505' U/S from K
M	6100	655' U/S from L
N	7100	255' D/S from 104th Ave. Culverts
O	7200 7201	104th Ave., Three Structural Plate Steel Pipe Arches, 14-2 x 9-10, TR = 598.6, LC - 596.3
P	7300	100' U/S from U/S face of 104th Ave.
Q	8100	505' U/S from P
R	8350	575' U/S from Q
S	8565	325' D/S from D/S face of Paw Paw Rd. Bridge
T	8900 to 8903	Paw Paw Rd. Bridge, TR = 613.4, LC = 603.7 Concrete Arch

City of Zeeland

SECTION	SECNO	LOCATION
U	9100	145' U/S from U/S face of Paw Paw Rd. Bridge
V	9350 9351	Chicago Rd. Bridge, TR = 618.3, LC = 599.9
W	9800	210' U/S from U/S face of Chicago Rd. Bridge
X	9900 9901	C & O Railroad Bridge, High TR & LC Abandoned Rd. Bridge on Right Side
Y	10000	115' U/S from U/S face of C & O Railroad Bridge
Z	10900	65' D/S from D/S face of 104th Ave. Bridge
AA	11000 11001	104th Ave. Bridge, TR = 607.1, LC = 605.2
AB	11100	85' U/S from U/S face of 104th Ave. Bridge
AC	12000	1160' U/S from AB
AD	12300	1460' U/S from AC
AE	13700	1710' U/S from AD
AF	14900	1620' U/S from AE
AG	15900	1265' U/S from AF
AH	17300	1745' U/S from AG
AI	18200	1135' U/S from AH
AJ	18960	950' U/S from AI
AK	19600	70' D/S from Riley Street Bridge
AL	19700 to 19703	Riley Street Bridge, TR = 616, LC = 613.9
AM	19800	85' U/S from U/S face of Riley Street Bridge
AN	20300	430' U/S from AM
AO	20800	620' U/S from AN U/S of Confluence with Zeeland Drain
AP	21800	1170' U/S of AO
AQ	22900	1390' U/S of AP
AR	23100	1185' U/S of AQ

SECTION	SECNO	LOCATION
AS	25700	1335' U/S of AR
AT	26500	750' U/S of AS
AU	27100	1415' U/S of AT
AV	28100	225' D/S from D/S face of Quincy Street Bridge
AW	28200 to 28203	Quincy Street Bridge, TR = 633.9, LC = 631.8

TABLE 4

LOCATION OF CROSS SECTION (BROWER DRAIN)

SECTION	SECNO	LOCATION
	1	104th Street Bridge on Zeeland Drain
	2	TR = 622.5, LC = 620.8 Confluence of Zeeland Drain and Brower Drain Assume same peak time for both Drains
A	10 to 13	Driveway Bridge, TR = 622.2, LC = 621.7 U/S from Confluence with Zeeland Drain
B	50	70' U/S from Driveway Bridge
C	700	665' U/S from B
D	1300	230' D/S from D/S face of Riley Street Bridge
E	1400 to 1403	Riley Street Bridge, TR = 631.4, LC = 626.2
F	1450	100' U/S from U/S face of Riley Street Bridge
G	1500	285' U/S from F
H	2400	1000' U/S from G
I	3300	100' D/S from 100th Street Culvert
J	3400 to 3403	100th Street Culvert, TR = 638.6, LC = 636.3 Corrugated Structural Plate Pipe Arch 8.1 x 12.8

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: HUDSONVILLE, CITY

3) WATERCOURSE: BUTTERMILK CREEK

4) DOCUMENT TYPE: 100 YR

00BREAK00

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*****************************************************
HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
ERROR CORR - 01,02,03,04
MODIFICATION - 50,51,52,53,54
*****************************************************

C
T1      CITY OF HUDSONVILLE, PROJECT NO. 8566,BUTNEW1,SEC 7700 REVISED TO SBR
T2      BUTTERMILK CREEK
T3      BUTTERMILK CREEK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       4.       0.       0.  0.000000     0.00     0.0      0.   614.320    0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

     0.000    0.000   -1.000    0.000    0.000   -2.000    0.000    0.000    0.000    0.000

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

   150.000  110.000  200.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

NC        .040      .040      .024      .100      .300     0.000     0.000     0.000     0.000     0.000
QT       5.000   440.000   535.000   725.000   940.000   725.000     0.000     0.000     0.000     0.000

X1       0.000     9.000   287.000   313.000     0.000     0.000     0.000     0.000     0.000     0.000
X3       0.000     0.000     0.000   265.000     0.000   315.000     0.000     0.000     0.000     0.000
GR     614.000    90.000   611.800   200.000   610.000   287.000   606.300   293.000   607.000   303.000
GR     607.100   306.000   610.000   313.000   611.600   500.000   611.900   900.000     0.000     0.000
ET       0.000     0.000     0.000     0.000     0.000     9.100     0.000     0.000  1845.000  1375.000

         SECTION A   MOUTH OF BUTTERMILK CREEK, MANUFACTURED

X1     900.000    12.000  1351.000  1363.000   300.000   300.000   300.000     0.000     0.000     0.000
X3       0.000     0.000     0.000  1337.000     0.000  1375.000     0.000     0.000     0.000     0.000
GR     619.400   395.000   616.000   575.000   612.300  1200.000   612.600  1510.000   614.200  1525.000
GR     610.400  1535.000   612.900  1545.000   613.000  1330.000   614.900  1837.000   614.400  1347.000
GR     607.400  1851.000   607.600  1360.000   607.700  1366.000   613.100  1373.000   614.200  1375.000
GR     612.900  1555.000   614.500  2005.000   615.300  2265.000   617.200  2400.000     0.000     0.000
ET       0.000     0.000     0.000     0.000     0.000     9.100     0.000     0.000   568.000   600.000

        SECTION 3

X1    2150.000    12.000   574.500   580.500   975.000   975.000   975.000     0.000     0.000     0.000
GR     623.200   530.000   622.000   550.000   618.200   565.000   617.900   567.500   617.000   574.500
GR     613.300   575.000   612.200   577.500   612.500   580.000   613.500   580.500   617.300   593.500
GR     618.000   600.000   622.300   610.000     0.000     0.000     0.000     0.000     0.000     0.000
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SECTION C

SECTION D   FOOT BRIDGE, WIDTH 3.5 FT, LENGTH 23 FT

X1	2250.000	16.000	1981.500	2004.500	75.000	75.000	75.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	622.500	622.500	0.000
GR	626.700	1795.000	625.000	1845.000	624.200	1895.000	623.900	1945.000	622.500	1973.000
GR	613.800	1978.500	615.100	1981.500	613.900	1983.500	613.200	1986.500	613.800	1995.000
GR	615.000	1998.500	618.400	2004.500	622.500	2009.700	623.700	2045.000	623.300	2095.000
GR	623.200	2145.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2251.000	15.000	1981.500	2004.500	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	621.800	622.500	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	622.500	622.500	0.000
GR	626.670	1795.000	625.000	1845.000	624.200	1895.000	623.700	1945.000	622.500	1981.500
GR	615.000	1931.500	613.600	1933.500	613.200	1983.500	613.800	1995.000	615.000	1995.500
GR	616.400	2004.500	622.500	2004.500	623.700	2045.000	623.300	2095.000	623.200	2145.000
X1	2252.000	0.000	0.000	0.000	3.500	3.500	3.500	0.000	0.000	0.000
X2	0.000	0.000	0.000	621.300	622.500	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	622.500	622.500	0.000
X1	2253.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	622.500	622.500	0.000

LC 621.75 FT, TRD 622.5 FT

X1	2425.000	11.000	1993.000	2024.000	200.000	200.000	200.000	0.000	0.000	0.000
GR	625.400	1795.000	624.100	1975.000	624.300	1973.000	624.200	1983.000	623.700	1990.000
GR	622.100	1993.000	615.200	2001.000	614.900	2007.000	615.200	2013.000	624.600	2024.000
GR	625.000	2031.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECTION E

SECTION F   OAT ST. BRIDGE, WIDTH 19.7 FT, LENGTH 19.7 FT

X1	2600.000	7.000	1997.500	2017.200	175.000	175.000	175.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	626.000	629.000	0.000
GR	626.300	1985.000	617.800	1997.500	615.500	2002.500	615.200	2007.500	615.500	2012.000
GR	618.000	2017.200	620.900	2030.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2601.000	9.000	1997.500	2017.200	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	625.400	626.900	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	626.900	626.900	0.000
GR	626.900	1935.000	626.900	1997.500	617.800	1997.500	615.500	2002.500	615.200	2007.500
GR	615.500	2012.200	613.300	2017.200	626.900	2017.200	626.900	2030.000	0.000	0.000

X1	2602.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	623.400	626.900	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	626.900	626.700	0.000

X1	2603.000	7.000	1997.500	2017.200	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	625.900	625.900	0.000
GR	626.900	1985.000	617.500	1997.500	615.500	2002.500	615.200	2007.500	615.500	2012.200
GR	618.300	2017.200	626.900	2030.000	0.000	0.000	0.000	0.000	0.000	0.000

LC 625.4 FT. TRD 626.9 FT

X1	2300.000	11.000	1993.000	2026.000	170.000	170.000	170.000	0.000	0.000	0.000
GR	631.500	1660.000	623.300	1730.000	627.300	1740.000	627.800	1983.000	626.900	1993.000
GR	619.400	2003.000	618.300	2008.000	619.300	2013.000	627.300	2026.000	627.300	2030.000
GR	626.700	2110.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECTION 3

SECTION H VAN BURE. ST. BRIDGE WITH U/S AND D/S FOOT BRIDGES

ROAD BRIDGE WIDTH 26.5 FT. LENGTH 28 FT

D/S FOOT BRIDGE LC 627.3 FT, TRD 628.6 FT

ROAD BRIDGE LC 627.3 FT. TRD 628.6 FT

X1	3000.000	10.000	2000.000	2015.500	170.000	170.000	170.000	0.000	0.000	0.000
GR	634.300	1600.000	629.200	1800.000	629.700	1950.000	623.600	2000.000	616.700	2000.000
GR	616.700	2015.500	623.500	2015.500	629.400	2050.000	629.100	2100.000	629.000	2150.000

X1	3001.000	15.000	2007.000	2028.800	5.300	5.300	5.300	0.000	0.000	0.000
X2	0.000	0.000	0.000	627.300	628.600	0.000	0.000	0.000	0.000	0.000
GR	634.300	1600.000	629.200	1800.000	629.700	1950.000	623.500	2000.000	615.700	2000.000
GR	619.000	2016.400	617.600	2016.400	621.600	2020.000	621.500	2022.000	624.100	2022.000
GR	627.300	2028.800	626.500	2028.800	629.400	2050.000	629.100	2100.000	629.000	2150.000

X1	3002.000	14.000	2000.000	2023.800	5.000	5.000	5.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	627.300	628.600	0.000	0.000	0.000	0.000	0.000
GR	634.300	1600.000	629.200	1800.000	629.700	1950.000	628.600	2000.000	618.700	2000.000
GR	619.000	2019.500	621.600	2020.000	621.600	2022.000	624.100	2022.000	627.300	2023.800
GR	628.600	2028.800	629.400	2050.000	629.100	2100.000	629.000	2150.000	0.000	0.000

X1	3005.000	15.000	1985.000	2013.300	5.500	5.500	5.500	0.000	0.000	0.000
GR	634.300	1500.000	627.400	1700.000	627.700	1950.000	629.400	1935.000	621.400	1985.300
GR	620.500	1987.400	617.500	1993.000	619.600	1998.000	619.300	2002.000	619.100	2007.000
GR	619.200	2010.500	621.000	2010.500	621.000	2011.900	629.400	2013.300	629.400	2050.000
SB	.900	1.660	2.500	0.000	25.600	4.000	193.300	.166	619.300	619.300

X1	3004.000	0.000	0.000	0.000	24.500	24.500	24.500	0.000	0.000	0.000
X2	0.000	0.000	1.000	627.800	629.400	0.000	0.000	0.000	0.000	0.000
BT	4.000	1900.000	629.400	0.000	1950.000	629.700	0.000	1985.000	629.400	0.000
BT	2050.000	629.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	3005.000	11.000	1977.000	2009.000	11.600	11.600	11.600	0.000	0.000	0.000
X2	0.000	0.000	0.000	627.700	623.600	0.000	0.000	0.000	0.000	0.000
GR	634.300	1600.000	627.400	1800.000	625.700	1950.000	628.600	1977.000	622.900	1977.000
GR	619.700	1935.000	619.700	1994.000	620.400	2000.000	624.300	2009.000	623.600	2009.000
GR	629.400	2050.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	3006.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	627.700	628.600	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	627.700	628.600	0.000	0.000	0.000	0.000	0.000

X1	3007.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	627.700	628.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	1987.000	2035.000

U/S FOOT BRIDGE LC 627.7 FT, TRD 626.6 FT

X1	3125.000	16.000	1987.000	2023.000	85.000	85.000	85.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1975.000	0.000	2035.000	0.000	0.000	0.000	0.000
GR	634.900	1620.000	628.200	1680.000	625.400	1710.000	626.900	1760.000	627.500	1825.000
GR	627.200	1870.000	625.600	1977.000	625.400	1987.000	620.000	1989.000	620.000	2000.000
GR	620.700	2011.000	625.500	2023.000	627.200	2033.000	627.300	2180.000	626.900	2260.000
GR	627.400	2280.000	620.500	2295.000	630.900	2380.000	0.000	0.000	0.000	0.000

SECTION I

SECTION J C & O R. R. BRIDGE, WIDTH 26.6 FT, LENGTH 33 FT

X1	3250.000	10.000	1985.600	2014.200	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	633.400	633.400	0.000
GR	634.300	1800.000	634.000	1850.000	633.300	1900.000	633.600	1950.000	633.600	1985.600
GR	621.000	1985.600	620.700	1992.300	621.100	1999.300	628.100	1999.300	629.100	2000.700
GR	621.500	2000.700	621.100	2007.600	622.200	2014.200	633.400	2014.200	633.400	2024.200
GR	633.200	2050.000	633.000	2100.000	633.800	2150.000	0.000	0.000	0.000	0.000
SB	.900	1.700	2.500	0.000	28.600	1.400	190.000	0.000	620.700	620.700

X1	3251.000	0.000	0.000	0.000	33.000	33.000	33.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	623.100	633.400	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	633.400	633.400	0.000
BT	0.000	1850.000	634.000	0.000	1950.000	633.600	0.000	1985.600	633.400	0.000
BT	2024.200	633.400	0.000	2050.000	633.200	0.000	2100.000	633.000	0.000	0.000

LC 628.1 FT, TRD 633.4 FT

SECTION K M-21 BRIDGE, WIDTH 30 FT, LENGTH 136 FT

X1	3400.000	15.000	1985.000	2015.000	20.000	20.000	20.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	634.000	634.000	0.000
GR	633.100	1800.000	635.100	1850.000	634.700	1900.000	634.400	1950.000	634.200	1985.000
GR	622.300	1985.000	623.000	1995.000	621.700	1998.000	620.800	2005.000	621.300	2015.000
GR	634.200	2015.000	634.100	2050.000	633.700	2100.000	633.700	2150.000	633.100	6200.000

X1	3401.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	630.300	634.200	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	634.000	634.000	0.000

X1	3402.000	0.000	0.000	0.000	136.000	136.000	136.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	630.300	634.200	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	634.000	634.000	0.000

X1	3403.000	15.000	1985.000	2015.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	634.000	634.000	0.000
GR	633.100	1800.000	635.100	1850.000	634.700	1900.000	634.400	1950.000	634.200	1975.000
GR	622.500	1985.000	623.000	1995.000	621.700	1998.000	620.800	2005.000	621.300	2015.000
GR	634.200	2025.000	634.100	2050.000	633.700	2100.000	633.700	2150.000	633.100	6200.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	1942.500	1992.500

LC 630.8 FT, TRD 634.2 FT

X1	3500.000	13.000	1942.500	1992.500	30.000	30.000	30.000	0.000	0.000	0.000
GR	634.000	1735.000	633.400	1875.000	623.000	1942.500	623.400	1952.500	623.500	1962.500
GR	622.000	1955.500	620.600	1972.500	620.400	1982.500	626.900	1992.500	630.700	2002.500
GR	632.500	2007.500	633.200	2012.500	633.600	2022.500	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	1972.500	2014.500

SECTION L

X1	4000.000	14.000	1972.500	2014.500	470.000	470.000	470.000	0.000	0.000	0.000
GR	635.600	1495.000	634.000	1765.000	633.400	1875.000	633.200	1965.000	627.800	1972.500
GR	622.100	1978.500	621.100	1982.500	622.100	1986.500	623.000	1992.500	625.300	2002.500
GR	629.100	2014.500	629.800	2023.500	633.200	2110.000	635.200	2330.000	0.000	0.000

SECTION M

SECTION N FOOT BRIDGE, WIDTH 10 FT, LENGTH 25 FT

X1	4100.000	15.000	357.500	382.500	77.000	77.000	77.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	320.000	0.000	430.000	0.000	0.000	0.000	0.000
GR	635.000	230.000	633.400	281.000	631.100	320.000	630.300	357.500	623.700	357.500
GR	622.500	361.500	621.000	364.500	621.700	370.000	622.600	373.500	627.300	382.500
GR	630.800	382.500	630.000	420.000	627.400	470.000	629.400	520.000	629.000	570.000
X1	4101.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	320.000	0.000	430.000	0.000	0.000	0.000	0.000
BT	6.000	281.000	633.400	633.400	320.000	631.100	631.100	357.500	630.800	629.300
BT	382.500	630.800	629.300	420.000	630.000	630.000	470.000	629.400	629.400	0.000
X1	4102.000	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	345.000	0.000	395.000	0.000	0.000	0.000	0.000
X1	4103.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	345.000	0.000	395.000	0.000	0.000	0.000	0.000

LC 629.3 FT, TRD 630.8 FT

X1	4200.000	13.000	123.000	167.000	60.000	60.000	60.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	200.000	0.000	0.000	0.000	0.000
GR	635.500	0.000	633.500	105.000	629.900	111.000	629.900	123.000	624.800	135.000
GR	622.300	137.000	621.400	145.000	622.300	152.000	629.900	167.000	629.300	180.000
GR	630.300	245.000	630.500	405.000	638.900	510.000	0.000	0.000	0.000	0.000

SECTION O

SECTION P PROSPECTS ST, BRIDGE , TWO 7.5X12.0 CMP, LENGTH 56.5 FT

X1	4300.000	30.000	486.400	513.800	70.000	70.000	70.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	632.700	632.700	0.000
GR	635.900	200.000	633.700	300.000	633.200	350.000	633.000	400.000	632.900	450.000
GR	632.700	475.000	624.300	486.400	623.700	486.900	623.500	487.800	623.100	489.300
GR	622.300	490.800	622.300	492.300	622.300	493.300	623.100	495.300	623.300	496.300
GR	623.700	497.700	624.300	498.200	624.300	502.000	623.700	502.500	623.300	503.400
GR	623.100	504.900	622.300	506.400	622.300	508.100	622.300	509.400	623.100	510.900
GR	623.300	512.400	623.700	513.300	622.300	513.800	632.500	550.000	632.400	600.000

X1	4301.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	632.700	632.700	0.000
BT	30.000	200.000	635.900	635.900	300.000	633.700	633.700	350.000	633.200	633.200
BT	400.000	633.000	633.000	450.000	632.900	632.900	475.000	632.700	632.700	485.400
BT	632.700	624.600	486.900	632.700	625.300	487.300	632.700	623.000	489.300	632.700
BT	629.400	490.800	632.700	630.200	492.300	632.700	630.240	493.300	632.700	630.200
BT	495.300	632.700	629.400	496.300	632.700	626.000	497.700	632.700	623.300	493.200
BT	632.700	624.600	502.000	632.700	624.300	502.500	632.700	625.300	503.400	632.700
BT	628.000	504.900	632.700	629.400	506.400	632.700	630.200	508.100	632.700	630.460
BT	509.400	632.700	630.200	510.900	632.900	629.400	512.400	632.700	628.000	513.300
BT	632.700	626.300	513.300	632.700	626.300	550.000	632.500	632.500	600.000	632.400
BT	632.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	4302.000	0.000	0.000	0.000	60.000	60.000	60.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	632.700	632.700	0.000

X1	4303.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	632.700	632.700	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	554.000	590.000

LC 630.45 FT, TPD 632.71 FT

X1	4400.000	14.000	554.000	590.000	65.000	65.000	65.000	0.000	0.000	0.000
GR	636.100	320.000	635.300	435.000	632.700	530.000	630.100	544.000	629.300	554.000
GR	624.900	552.000	623.200	554.000	622.500	570.000	623.000	577.000	625.700	578.000
GR	630.600	590.000	631.400	600.000	633.300	630.000	633.300	595.000	0.000	0.000

SECTION D

X1	5000.000	24.000	1209.000	1291.000	670.000	670.000	670.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	0.000	0.000	1291.000	0.000	0.000	0.000	0.000
GR	641.500	835.000	641.500	935.000	640.000	950.000	632.600	995.000	632.900	1030.000
GR	632.200	1075.000	635.000	1095.000	632.100	1120.000	632.900	1135.000	632.300	1209.000
GR	631.000	1219.000	625.200	1245.000	624.300	1249.000	623.800	1257.000	624.900	1265.000
GR	629.400	1231.000	629.000	1291.000	627.600	1320.000	624.600	1340.000	624.600	1350.000
GR	630.400	1360.000	632.600	1425.000	634.200	1465.000	635.600	1555.000	0.000	0.000
NC	.040	.040	.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECTION R

SECTION S 32ND ST. BRIDGE, TWC 7.2X11.0 CMP, LENGTH 151 FT.

X1	5100.000	38.000	435.300	513.000	105.000	105.000	105.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	636.300	635.300	0.000
GR	641.500	0.000	541.100	100.000	539.300	200.000	637.300	300.000	535.700	352.000
GR	636.300	400.000	536.200	450.000	526.000	486.900	624.900	487.500	624.500	487.300
GR	624.400	469.700	524.000	491.200	524.000	492.700	624.000	494.100	624.400	495.600
GR	624.500	497.000	624.900	497.600	625.400	496.400	625.400	501.500	624.900	502.100
GR	624.500	502.900	624.400	504.300	524.000	505.700	624.000	507.300	524.000	507.700
GR	624.400	510.200	624.500	511.500	624.900	512.400	625.000	513.000	636.200	534.000
GR	635.600	550.000	636.300	600.000	537.100	650.000	637.400	700.000	537.400	300.000
GR	538.200	900.000	639.000	1100.000	540.100	1300.000	0.000	0.000	0.000	0.000

X1	5101.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	636.300	636.300	0.000
BT	38.000	0.000	641.800	641.800	100.000	641.100	641.100	200.000	639.800	639.800
BT	300.000	637.300	637.300	350.000	635.700	635.700	400.000	635.300	636.300	450.000
BT	636.200	636.200	465.900	635.200	525.000	487.500	536.200	627.500	483.300	636.200
BT	629.100	439.700	636.200	530.500	491.200	635.200	531.200	492.700	636.200	631.300
BT	494.100	636.200	531.200	495.600	536.200	530.500	497.000	536.200	629.100	497.800
BT	636.200	627.500	496.400	536.200	525.000	501.500	536.200	520.000	502.100	635.200
BT	627.500	502.900	530.200	529.100	504.300	535.200	530.500	505.300	635.200	631.200
BT	507.300	636.200	531.300	506.700	535.200	531.200	510.200	636.200	630.500	511.600
BT	635.600	629.100	512.400	535.300	527.500	513.000	637.100	626.000	534.000	637.400
BT	637.400	550.000	536.600	535.600	600.000	536.300	636.300	650.000	637.100	637.100
BT	700.000	637.400	537.400	800.000	637.400	537.400	900.000	638.200	639.200	1100.000
BT	639.000	639.000	1300.000	540.100	540.100	0.000	0.000	0.000	0.000	0.000

X1	5102.000	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	636.300	636.300	0.000

X1	5103.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	636.300	636.300	0.000
NC	.040	.040	.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	500.000	655.000

LC 631.72 FT, TR) 636.27 FT

X1	5200.000	15.000	600.000	655.000	40.000	40.000	40.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	600.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	542.600	0.000	542.300	195.000	637.500	315.000	532.400	495.000	632.500	500.000
GR	632.100	610.000	625.900	621.000	624.100	625.000	625.500	629.000	632.100	545.000
GR	634.100	655.000	535.000	660.000	539.900	705.000	640.300	1025.000	642.700	1170.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000

SECTION T

X1	6200.000	17.000	375.000	430.000	700.000	700.000	700.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	355.000	0.000	440.000	0.000	0.000	0.000	0.000
GR	641.900	0.000	641.700	40.000	634.800	105.000	634.000	235.000	634.800	375.000
GR	633.500	395.000	627.500	394.000	626.800	395.500	626.300	400.000	626.800	404.500
GR	627.700	406.000	631.200	409.000	631.100	420.000	632.400	430.000	630.100	460.000
GR	645.900	490.000	647.400	510.000	0.000	0.000	0.000	0.000	0.000	0.000

SECTION U

SECTION V   FOOT BRIDGE, WIDTH 6.2 FT, LENGTH 79.5 FT

X1	6300.000	13.000	400.000	479.000	97.000	97.000	97.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	633.100	633.100	0.000
GR	635.000	200.000	634.700	250.000	634.300	300.000	635.300	350.000	638.100	400.000
GR	634.100	402.000	630.300	410.000	627.400	413.000	626.700	420.000	627.400	425.000
GR	630.000	430.000	632.300	440.000	632.100	446.000	631.100	450.000	632.200	450.000
GR	636.000	470.000	647.100	470.000	647.500	479.000	0.000	0.000	0.000	0.000

X1	6301.000	0.000	0.000	0.000	6.200	6.200	6.200	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	633.100	633.100	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	375.000	412.000

LC 636.1 FT, TRD 633.1 FT

X1	6400.000	17.000	375.000	412.000	97.000	97.000	97.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	360.000	0.000	430.000	0.000	0.000	0.000	0.000
GR	643.500	0.000	642.300	75.000	639.900	125.000	635.500	165.000	634.800	240.000
GR	634.000	290.000	634.500	330.000	634.600	375.000	633.200	385.000	627.700	394.000
GR	626.500	396.000	625.400	400.000	625.700	404.000	628.200	406.000	632.300	412.000
GR	632.600	422.000	642.800	445.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	305.000	341.000

SECTION W

X1	7600.000	18.000	305.000	340.000	600.000	600.000	600.000	0.000	0.000	0.000
GR	644.300	0.000	643.700	50.000	642.700	125.000	641.400	180.000	640.200	245.000
GR	637.900	305.000	628.700	332.000	628.600	335.000	623.700	338.000	630.600	340.000
GR	639.300	350.000	639.300	355.000	639.200	385.000	640.000	440.000	640.500	545.000
GR	645.100	570.000	646.300	610.000	651.000	650.000	0.000	0.000	0.000	0.000
NC	.040	.040	.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECTION 3

SECTION Y BAREY ST. BRIDGE, TWO 7.2X11.4 CMP, LENGTH 120 FT.

X1	7700.000	38.000	407.200	512.700	40.000	40.000	40.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	437.200	0.000	512.700	0.000	0.000	0.000	0.000
GR	641.800	0.000	642.900	100.000	643.000	200.000	641.000	300.000	640.500	350.000
GR	640.500	430.000	640.400	450.000	631.700	487.200	631.900	487.800	631.900	487.600
GR	631.900	490.000	631.900	491.500	631.900	493.000	631.900	494.400	631.900	495.900
GR	631.900	497.300	631.900	499.100	631.900	499.700	631.900	501.200	630.800	501.800
GR	630.400	502.600	630.200	504.000	629.900	505.500	629.900	507.000	629.900	509.400
GR	630.200	509.900	630.400	511.300	630.200	512.100	631.900	512.700	640.500	550.000
GR	640.900	600.000	641.000	650.000	641.300	700.000	641.800	800.000	643.300	900.000
GR	645.200	1000.000	647.500	1100.000	650.000	1200.000	0.000	0.000	0.000	0.000
SB	0.000	2.940	2.500	0.000	25.500	0.000	12[illegible].300	0.000	630.000	[illegible]

X1	7701.000	0.000	0.000	0.000	120.000	120.000	120.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	637.400	640.400	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	487.200	0.000	512.700	0.000	0.000	0.000	0.000
BT	22.000	487.200	640.400	631.900	487.800	640.400	633.400	489.600	640.000	635.000
BT	490.000	640.400	635.400	491.500	640.400	637.100	493.000	640.400	637.000	494.400
BT	640.400	637.100	495.900	640.400	637.400	497.300	640.400	635.000	499.100	640.400
BT	633.400	499.700	640.400	631.900	501.200	640.400	631.900	501.800	640.400	633.400
BT	502.600	640.400	635.000	504.000	640.400	635.400	505.500	640.400	637.100	507.000
BT	640.400	637.200	509.400	640.400	637.100	509.900	640.400	635.400	511.300	640.400
BT	635.000	512.100	640.400	633.400	512.700	640.400	631.900	0.000	0.000	0.000
NC	.040	.040	.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	467.000	531.000

LC 637.4 FT, TRD 640.6 FT

X1	7800.000	19.000	467.000	531.000	40.000	40.000	40.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	460.000	0.000	540.000	0.000	0.000	0.000	0.000
GR	646.900	260.000	645.800	285.000	641.200	315.000	640.200	360.000	635.500	405.000
GR	635.700	467.000	633.700	483.000	632.500	493.000	630.500	497.000	629.900	500.000
GR	630.500	503.000	632.700	506.000	635.400	516.000	638.500	531.000	633.500	535.000
GR	640.700	700.000	642.200	795.000	644.600	875.000	643.900	905.000	0.000	0.000
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
QT	5.000	410.000	590.000	570.000	370.000	670.000	0.000	0.000	0.000	0.000

SECTION 2

X1	8250.000	23.000	1975.000	2033.000	510.000	510.000	510.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1965.000	0.000	2045.000	0.000	0.000	0.000	0.000
GR	650.700	1170.000	642.500	1270.000	641.600	1440.000	641.400	1555.000	640.700	1610.000
GR	640.500	1710.000	639.400	1820.000	639.100	1900.000	639.100	1970.000	635.100	1975.000
GR	635.100	1989.000	630.700	1995.000	629.500	2000.000	630.700	2005.000	633.300	2010.000
GR	644.500	2033.000	645.300	2035.000	648.300	2135.000	649.200	2215.000	643.500	2300.000
GR	646.700	2335.000	653.500	2390.000	653.200	2400.000	0.000	0.000	0.000	0.000
NC	.040	.040	.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Sect AA

SECTION A3

SECTION A3 ONE 7.5X9.5 OVAL CMP, ONE 7.5 BOILER PIPE, LENGTH 33.0 FT

X1	8350.000	25.000	191.200	210.000	60.000	60.000	60.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	191.200	0.000	210.000	0.000	0.000	0.000	0.000
GR	640.200	0.000	639.600	100.000	639.800	150.000	640.000	180.000	633.700	191.200
GR	630.600	193.800	630.000	195.000	633.700	197.200	633.700	198.700	633.700	200.400
GR	630.800	202.000	630.000	205.000	630.700	208.000	633.700	210.000	643.000	220.000
GR	645.000	250.000	647.100	300.000	647.200	311.000	643.500	355.000	649.500	655.000
GR	649.200	770.000	643.600	310.000	659.600	365.000	659.700	910.000	666.000	935.000
SB	0.000	2.120	2.500	0.000	15.000	0.000	97.980	0.000	630.000	530.000

X1	8351.000	0.000	0.000	0.000	38.600	38.300	38.300	0.000	0.000	0.000
X2	0.000	0.000	1.000	536.960	641.920	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	191.200	0.000	210.000	0.000	0.000	0.000	0.000
BT	25.000	0.000	542.200	542.200	100.000	542.200	642.200	150.000	642.200	642.200
BT	180.000	542.000	542.000	191.200	641.500	633.700	193.800	641.600	535.700	195.000
BT	641.700	637.400	197.200	641.300	636.700	193.700	641.600	633.700	200.400	641.900
BT	633.700	202.000	542.000	533.700	205.000	642.200	537.400	208.000	642.400	535.700
BT	210.000	642.500	630.700	220.000	643.000	643.000	250.000	645.000	545.000	300.000
BT	647.100	647.100	311.000	647.200	647.200	355.000	648.500	546.500	655.000	549.000
BT	649.600	770.000	649.200	649.200	310.000	643.600	543.600	585.000	659.600	559.600
BT	910.000	659.700	659.700	935.000	665.000	665.000	0.000	0.000	0.000	0.000
NC	.040	.040	.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000

~~LC 638.95 FT TO 641.92 FT~~

AC

X1	8450.000	19.000	301.000	355.000	65.000	65.000	65.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	290.000	0.000	365.000	0.000	0.000	0.000	0.000
GR	640.900	0.000	640.400	245.000	639.400	301.000	636.500	313.000	633.000	321.000
GR	631.200	322.000	630.200	325.000	633.800	325.000	632.600	329.000	635.100	335.000
GR	640.000	345.000	643.100	355.000	643.000	440.000	650.200	680.000	643.200	925.000
GR	653.700	955.000	654.600	1070.000	655.700	1145.000	660.000	1205.000	0.000	0.000

SECTION AC

AD

SECTION AD NORTH GOLF COURSE FOOTBRIDGE, LENGTH 45', WIDTH 8'

X1	9450.000	10.000	1963.000	2000.000	900.000	900.000	900.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1940.000	0.000	2020.000	0.000	0.000	0.000	0.000
GR	641.300	1150.000	643.500	1325.000	642.400	1360.000	643.900	1570.000	640.100	1393.000
GR	640.900	1940.000	641.800	1963.000	641.900	1973.000	633.300	1977.000	633.200	1980.000
GR	634.200	1987.000	635.100	1986.000	636.000	1990.000	640.100	2000.000	639.000	2030.000
GR	652.700	2340.000	654.500	2420.000	655.000	2425.000	0.000	0.000	0.000	0.000
NC	.030	.030	.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	9505.000	15.000	304.000	331.000	120.000	120.000	120.000	0.000	0.000	0.000
GR	641.700	0.000	641.200	101.000	642.900	200.000	642.600	300.000	639.200	304.000
GR	637.300	316.000	636.000	320.000	635.700	323.000	635.400	328.000	635.000	337.000
GR	635.700	337.000	636.500	331.000	642.300	345.000	642.900	445.000	647.200	356.000

X1	9605.000	16.000	304.000	337.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	642.500	642.500	0.000
GR	643.700	0.000	643.200	100.000	642.900	200.000	642.500	300.000	642.500	304.000
GR	639.200	305.000	637.300	310.000	636.000	320.000	635.000	323.000	635.400	323.000
GR	635.000	332.000	635.700	337.000	637.700	344.000	642.300	345.000	642.900	445.000
GR	642.900	556.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.350	2.500	0.000	45.000	0.000	275.000	0.000	0.000	0.000

X1	9606.000	0.000	0.000	0.000	8.000	8.000	8.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	641.200	642.500	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	64.000	2.500	642.500	0.000
BT	10.000	304.000	642.500	642.600	305.000	642.600	642.600	313.000	642.500	641.200
BT	320.000	642.500	641.100	323.000	642.500	641.000	328.000	642.400	641.000	332.000
BT	642.400	640.900	337.000	642.500	640.800	344.000	642.300	640.300	345.000	642.300
BT	642.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	9635.000	0.000	0.000	0.000	25.000	25.000	25.000	0.000	0.000	0.000

L.C. 640.3 FT., TRD. 642.2 FT.

AE

X1	10100.000	25.000	1525.000	1579.000	575.000	575.000	570.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	1510.000	0.000	1590.000	0.000	0.000	0.000	0.000
GR	648.700	0.000	645.200	965.000	645.400	1130.000	644.500	1130.000	645.900	1145.000
GR	644.100	1240.000	643.200	1390.000	644.300	1420.000	643.700	1440.000	642.300	1445.000
GR	643.500	1525.000	642.200	1535.000	639.600	1545.000	637.400	1552.000	635.300	1555.000
GR	637.500	1560.000	643.700	1569.000	643.300	1579.000	643.500	1742.000	642.400	1760.000
GR	644.400	1790.000	646.100	1920.000	644.300	1930.000	646.500	2070.000	648.200	2085.000
GR	650.300	2120.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.030	.030	.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECTION AE

SECTION AEF SOUTH GOLF COURSE FOOTBRIDGE, LENGTH 57', WIDTH 3'

AF

X1	11050.000	19.000	424.000	455.000	1050.000	1050.000	1050.000	0.000	0.000	0.000
GR	652.500	0.000	649.200	100.000	647.500	200.000	647.500	300.000	646.500	321.000
GR	648.400	420.000	641.400	423.000	643.600	424.000	640.100	435.000	639.100	439.000
GR	638.500	444.000	639.100	445.000	640.400	455.000	643.200	454.000	649.300	465.000
GR	648.200	472.000	640.200	520.000	652.500	600.000	652.900	700.000	0.000	0.000

Golf Course

X1	11150.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
3T	0.000	420.000	543.400	543.400	423.200	543.400	647.200	441.000	549.300	547.100
ET	455.000	546.200	547.100	464.000	540.200	647.000	473.000	549.200	548.200	0.000
X1	11158.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
NC	.030	.030	.030	0.000	0.000	0.000	0.100	0.100	0.000	0.000
X1	11159.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	575.000	455.000
X1	11185.000	13.000	394.000	421.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	552.000	0.000	549.200	100.000	547.500	300.000	647.500	301.000	645.700	394.000
GR	639.200	412.000	533.500	417.000	539.200	421.000	642.100	427.000	643.600	471.000
GR	648.400	500.000	552.500	500.000	532.900	700.000	0.000	0.000	0.000	0.000

New Holland

X1	11409.000	29.000	394.000	420.900	60.000	60.000	60.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	647.300	647.300	0.000
GR	652.000	0.000	650.000	100.000	643.200	200.000	647.200	300.000	641.000	394.000
GR	639.900	394.500	639.700	395.400	639.300	395.900	639.000	398.400	639.000	399.900
GR	639.000	401.400	637.300	402.900	639.500	404.400	639.900	405.300	641.000	405.800
GR	641.000	409.100	639.900	407.600	639.500	410.500	639.300	412.100	639.000	411.500
GR	639.000	415.200	639.000	415.500	639.300	413.000	639.500	419.500	639.900	420.400
GR	641.000	420.900	649.400	500.000	652.700	500.000	552.200	700.000	0.000	0.000
SB	1.250	2.200	2.030	0.000	25.000	0.000	142.000	0.000	639.200	639.200

New Holland

X1	11411.000	0.000	0.000	0.000	57.000	57.000	57.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	547.900	647.800	0.000
3T	20.000	300.000	647.200	647.200	394.000	647.300	541.000	394.500	647.800	547.500
3T	395.400	647.800	644.200	395.900	547.000	545.600	395.400	547.800	646.400	399.900
LT	547.300	646.400	401.400	547.500	545.400	402.900	547.300	545.500	404.400	547.800
3T	646.000	409.600	647.800	642.500	410.500	647.000	544.200	412.000	647.600	645.600
4T	413.500	647.800	643.400	415.200	547.800	645.550	416.542	547.300	645.400	413.000
UT	547.800	645.500	419.500	647.300	644.200	420.400	547.000	542.500	420.900	547.800
5T	541.000	500.000	649.400	549.400	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	275.000	419.000
X1	11530.000	14.000	394.000	419.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	653.100	0.000	649.100	100.000	647.500	200.000	644.900	300.000	645.600	377.000
GR	641.100	394.000	639.400	400.000	633.700	405.000	639.400	411.000	642.700	419.000
GR	647.100	436.000	641.200	500.000	652.200	600.000	555.100	700.000	0.000	0.000
ET	0.000	0.000	0.000	0.000	0.000	9.100	0.000	0.000	60.000	225.000

LOW 647.0 FT, TOP 54 .2 FT.

AH

X1	12080.000	11.000	171.300	215.000	510.000	510.000	510.000	0.000	0.000	0.000
GR	647.500	0.000	643.700	174.000	543.300	170.000	543.300	163.100	639.000	184.000
GR	638.500	130.000	639.000	197.000	540.300	197.000	543.600	200.000	546.000	215.000
GR	647.500	242.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.050	.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECTION AI

SECTION AI NEW HILLAND STREET BRIDGE T/C 7.5? X 12.0? CMP'S AI

X1	12740.000	15.000	65.000	106.000	700.000	700.000	700.000	0.000	0.000	0.000
GR	648.300	0.000	545.300	35.000	543.400	94.000	544.900	97.500	643.940	97.700
GR	643.130	98.200	642.590	99.000	542.400	100.000	642.590	101.000	643.130	101.000
GR	643.940	102.300	641.900	102.500	543.400	103.000	645.000	106.000	648.300	200.000
NC	.100	.035	.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	12741.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
ST	15.000	0.000	543.300	543.300	85.000	543.300	545.000	94.000	643.300	643.400
ST	97.500	648.300	544.300	97.700	545.300	545.460	98.200	641.300	646.570	99.000
ST	643.300	547.210	100.000	643.300	547.400	101.000	643.300	547.210	101.800	643.300
ST	646.570	102.300	543.300	645.460	102.500	543.300	644.900	103.000	642.300	545.400
ST	105.000	648.300	545.500	200.000	543.400	543.400	0.000	0.000	0.000	0.000
X1	12762.000	0.000	0.000	0.000	21.000	21.000	21.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000
X1	12763.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

LENGTH 57 FT, LOW 647.6 FT, TOP 548.3 FT

AJ

X1	12850.000	16.000	41.000	55.000	210.000	190.000	190.000	0.000	0.000	0.000
GR	649.400	0.000	549.200	3.000	547.200	34.000	545.600	41.000	644.100	44.000
GR	643.500	46.000	544.100	51.000	543.100	55.000	649.100	157.000	644.100	164.000
GR	643.700	155.000	543.700	167.000	544.000	170.000	645.100	180.000	650.100	192.000
GR	650.300	195.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

AK

SECTION ~~AH~~

X1	13413.000	16.000	41.000	55.000	550.000	550.000	650.000	0.000	0.000	0.000
GR	653.400	0.000	651.300	100.000	649.300	146.000	648.600	155.000	647.100	152.000
GR	646.600	151.000	647.100	164.000	648.900	165.000	650.900	172.000	651.500	335.000
GR	649.900	345.000	643.600	343.000	648.300	352.000	648.800	355.000	651.100	360.000
GR	652.200	460.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*PROF 1

CCHV .100 CEHV .300

*SECNO 0.000

3230 CROSS SECTION 0.00 EXTENDED 2.42 FEET

3470 ENCROACHMENT STATIONS 265.00 315.00 TYPE 1 TARGET 50.000

0.00	7.52	614.32	0.00	614.32	614.44	.12	0.00	0.00	610.00
725.	215.	499.	11.	90.	170.	9.	0.	0.	610.00
0.00	2.39	2.93	1.28	.040	.049	.040	0.000	606.80	265.00
.000785	0.	0.	0.	0	0	0	0.00	50.00	315.00

*SECNO 900.000

3470 ENCROACHMENT STATIONS 1837.0 1875.0 TYPE 1 TARGET 38.000

900.00	7.66	615.06	0.00	0.00	615.37	.31	.97	.06	607.40
725.	43.	603.	78.	21.	127.	26.	4.	1.	607.70
.05	2.09	4.74	3.01	.040	.049	.040	.043	607.40	1837.00
.001602	900.	900.	900.	2	0	0	0.00	38.00	1875.00

*SECNO 2150.000

3301 HV CHANGED MORE THAN HVINS

7135 MINIMUM SPECIFIC ENERGY

3720 CRITICAL DEPTH ASSUMED

2150.00	6.19	618.39	618.39	0.00	619.61	1.22	3.56	.27	617.00
725.	33.	300.	392.	3.	34.	43.	7.	2.	613.60
.03	4.35	8.95	9.06	.040	.049	.040	.048	612.20	564.24
.017147	975.	975.	975.	6	15	0	0.00	36.74	600.98

*SECNO 2250.000

3301 HV CHANGED MORE THAN HVINS

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 622.50 ELREA 622.50

2250.00	6.51	619.71	0.00	0.00	620.29	.58	.51	.06	615.10
725.	0.	725.	0.	0.	119.	0.	7.	2.	612.40
.06	0.00	6.12	0.00	.040	.048	.040	.048	613.20	1981.50
.004780	75.	75.	75.	2	0	0	0.00	23.00	2004.50

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2251.000

3370 NORMAL BRIDGE,NRD 0 MIN ELTRD 622.50 MAX ELLC 621.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 622.50 ELREA 622.50

2251.00	6.52	619.72	0.00	0.00	620.30	.58	.01	.00	622.50
725.	0.	725.	0.	0.	119.	0.	7.	2.	622.50
.08	0.00	6.10	0.00	.040	.048	.040	.048	613.20	1981.50
.006331	1.	1.	1.	3	0	0	0.00	23.00	2004.50

*SECNO 2252.000

3370 NORMAL BRIDGE,NRD 0 MIN ELTRD 622.50 MAX ELLC 621.30

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 622.50 ELREA 622.50

2252.00	6.54	619.74	0.00	0.00	620.32	.57	.02	.00	622.50
725.	0.	725.	0.	0.	119.	0.	7.	2.	622.50
.08	0.00	6.08	0.00	.040	.048	.040	.048	613.20	1981.50
.006269	4.	4.	4.	0	0	0	0.00	23.00	2004.50

*SECNO 2253.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 622.50 ELREA 622.50

2253.00	6.55	619.75	0.00	0.00	620.32	.57	.01	.00	622.50
725.	0.	725.	0.	0.	120.	0.	7.	2.	622.50
.08	0.00	6.06	0.00	.040	.048	.040	.048	613.20	1981.50
.006223	1.	1.	1.	0	0	0	0.00	23.00	2004.50

*SECNO 2425.000

2425.00	6.16	621.06	0.00	0.00	621.71	.65	1.35	.02	622.10
725.	0.	725.	0.	0.	112.	0.	8.	2.	624.60
.09	0.00	6.46	0.00	.040	.048	.040	.048	614.90	1994.20
.007509	200.	200.	200.	2	0	0	0.00	25.66	2019.86

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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*SECNO 2600.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       626.90 ELREA       629.00

  2600.00      6.85    622.05      0.00      0.00    622.54       .53       .92       .01    617.80
   725.          0.      725.        0.        0.      113.        0.        8.        2.    618.00
    .010       0.00      6.13      0.00      .040      .043      .043      .048    615.20   1997.50
  .003865      175.      175.      175.         2         0         0      0.00     19.70   2017.20

*SECNO 2601.000

3370 NORMAL BRIDGE,NRD    2 MIN ELTRD   626.90  MAX ELLC    625.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       626.90 ELREA       626.90

  2601.00      6.85    622.05      0.00      0.00    622.64       .59       .00       .00    626.90
   725.          0.      725.        0.        0.      113.        0.        8.        2.    626.90
    .010       0.00      6.15      0.00      .040      .043      .040      .046    615.20   1997.50
  .006074        1.        1.        1.         0         0         0      0.00     19.70   2017.20

*SECNO 2602.000

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD   626.90  MAX ELLC    625.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       626.90 ELREA       626.90

  2602.00      7.00    622.20      0.00      0.00    622.76       .56       .12       .00    626.90
   725.          0.      725.        0.        0.      121.        0.        8.        2.    626.90
    .010       0.00      6.01      0.00      .040      .048      .040      .048    615.20   1997.50
  .005665       20.       20.       20.         2         0         0      0.00     19.70   2017.20

*SECNO 2603.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       626.90 ELREA       626.90

  2603.00      7.01    622.21      0.00      0.00    622.77       .56       .00       .00    617.90
   725.          0.      725.        0.        0.      121.        0.        8.        2.    618.30
    .010       0.00      6.00      0.00      .040      .040      .040      .043    615.20   1997.50
  .003631        1.        1.        1.         0         0         0      0.00     19.70   2017.20
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2800.000

3301 HV CHANGED MORE THAN HVINS

3655 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2800.00	5.13	623.43	623.43	0.00	625.26	1.83	1.32	.32	625.90
725.	0.	725.	0.	0.	71.	0.	9.	2.	627.30
.11	0.00	10.25	0.00	.040	.048	.040	.048	618.30	1997.63
.027163	170.	170.	170.	20	19	0	0.00	22.08	2019.71

*SECNO 3000.000

3301 HV CHANGED MORE THAN HVINS

3000.00	7.82	626.52	0.00	0.00	627.08	.56	1.91	.11	628.60
725.	0.	725.	0.	0.	121.	0.	9.	2.	628.60
.12	0.00	5.93	0.00	.040	.045	.040	.048	618.70	2000.00
.006092	170.	170.	170.	3	0	0	0.00	15.50	2015.50

*SECNO 3001.000

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 628.60 MAX ELLC= 627.30

3001.00	9.26	626.86	0.00	0.00	627.13	.26	.02	.03	628.50
725.	0.	725.	0.	0.	175.	0.	9.	2.	628.60
.12	0.00	4.11	0.00	.040	.048	.040	.048	617.60	2000.00
.002637	5.	5.	5.	2	0	0	0.00	27.87	2027.87

*SECNO 3002.000

3370 NORMAL BRIDGE,NRD= 0 MIN ELTRD= 628.50 MAX ELLC= 627.30

3002.00	8.13	626.83	0.00	0.00	627.14	.25	.01	.00	628.50
725.	0.	725.	0.	0.	179.	0.	9.	2.	628.60
.12	0.00	4.05	0.00	.040	.048	.040	.048	618.70	2000.00
.002437	5.	5.	5.	0	0	0	0.00	27.92	2027.92

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 3003.000

3003.00	7.34	626.94	0.00	0.00	627.16	.22	.01	.00	629.40
725.	0.	725.	0.	0.	193.	0.	7.	2.	629.40
.12	0.00	3.75	0.00	.040	.040	.040	.043	619.10	1985.40
.001785	7.	7.	7.	2	0	0	0.00	27.49	2012.89

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	.90	1.60	2.50	0.00	25.60	4.00	193.30	.17	619.30	619.30

*SECNO 3004.000
CLASS A LOW FLOW

3420 BRIDGE W.S. 626.85 BRIDGE VELOCITY 4.20 CALCULATED CHANNEL AREA 173.

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
0.00	627.19	.04	0.	725.	193.	196.	627.80	629.40

3004.00	7.37	626.97	0.00	0.00	627.19	.22	.03	0.00	629.40
725.	0.	725.	0.	0.	194.	0.	7.	2.	629.40
.12	0.00	3.73	0.00	.040	.048	.040	.048	619.10	1985.39
.001759	25.	25.	25.	0	0	0	0.00	27.50	2012.90

*SECNO 3005.000

3370 NORMAL BRIDGE,NRD 0 MIN ELTRD 628.60 MAX ELLC 627.70

3005.00	7.29	626.99	0.00	0.00	627.21	.22	.02	.00	628.60
725.	0.	725.	0.	0.	192.	0.	9.	2.	628.60
.12	0.00	3.77	0.00	.040	.043	.040	.048	619.70	1977.00
.001821	12.	12.	12.	0	0	0	0.00	32.00	2009.00

*SECNO 3006.000

3370 NORMAL BRIDGE,NRD 0 MIN ELTRD 628.60 MAX ELLC 627.70

3470 ENCROACHMENT STATIONS 527.7 2050.0 TYPE 1 TARGET -627.700

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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

 ELENCL     623.50  ELENCR  100000.00
  3006.00     7.30    627.00      0.00      0.00    627.22       .22       .01       .00    628.50
    725.        0.      725.        0.        0.      193.        0.        9.        2.    628.60
     .12      0.00      3.76      0.00      .040      .040      .040      .048    619.70   1977.00
 .001815        5.        5.        5.         0         0         0      0.00     32.00   2009.00

*SECNO 3007.000

3470 ENCROACHMENT STATIONS     627.7     2050.0  TYPE      1  TARGET     -527.700
 ELENCL     623.50  ELENCR  100000.00
  3007.00     7.30    627.00      0.00      0.00    627.22       .22       .00       .00    628.60
    725.        0.      725.        0.        0.       193        0.        9.        2.    628.60
     .12      0.00      3.75      0.00      .040      .040      .040      .048    619.70   1977.00
 .001813        1.        1.        1.         0         0         0      0.00     32.00   2009.00

*SECNO 3125.000

3470 ENCROACHMENT STATIONS    1975.0     2035.0  TYPE      1  TARGET      60.000
  3125.00     7.19    627.19      0.00      0.00    627.30       .13       .14       .00    625.40
    725.       16.      706.        2.       12.      206.        3.       10.        2.    626.50
     .13      1.42      3.42       .69      .040      .043      .040      .048    620.00   1975.00
 .001424       85.       55.       35.         2         0         0      0.00     57.80   2032.30

*SECNO 3250.000

3265 DIVIDED FLOW

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      633.40 ELREA      633.40

  3250.00     6.63    627.33      0.00      0.00    627.62       .29       .22       .03    633.50
    725.        0.      725.        0.        0.      163.        0.       10.        2.    633.40
     .13      0.00      4.32      0.00      .040      .048      .040      .048    620.70   1985.60
 .003969      100.      100.      100.         1         0         0      0.00     27.20   2014.20
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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
 TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

SPECIAL BRIDGE

SB  XK     XKOR     COFQ     RDLEN    BWC      BWP      BAREA     SS       ELCHU    ELCHD
    .90    1.70     2.50     0.00     23.00    1.40     190.00    0.00     620.70   620.70

*SECNO 3251.000

3265 DIVIDED FLOW

CLASS A LOW FLOW

3420 BRIDGE W.S.=    627.30 BRIDGE VELOCITY =     4.04   CALCULATED CHANNEL AREA =     180.

   EGPRS      EGLWC       H3        QWEIR      QPR       BAREA    TRAPEZOID     ELLC      ELTRD
                                                                  AREA
    0.00     627.64      .02         0.       725.       190.       201.       626.10    633.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      633.40 ELREA        633.40

  3251.00     6.65     627.35     0.00     0.00    627.64      .29      .02     0.00    633.60
   725.        0.       725.       0.       0.      163.        0.      10.       2.      633.40
    .13       0.00      4.31      0.00     .040     .048     .040     .048    620.70   1985.60
  .003952      33.       33.       33.       0        0        0      0.00     27.20   2014.20

*SECNO 3400.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      634.00 ELREA        634.00

  3400.00     6.62     627.42     0.00     0.00    627.71      .29      .07      .00    634.20
   725.        0.       725.       0.       0.      167.        0.      10.       2.      634.20
    .14       0.00      4.33      0.00     .040     .048     .040     .048    620.80   1985.00
  .003003      20.       20.       20.       1        0        0      0.00     30.00   2015.00

*SECNO 3401.000

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    634.20 MAX ELLC    630.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      634.00 ELREA        634.00
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3401.00	6.02	627.42	0.00	0.00	627.71	.29	.00	.00	634.20
725.	0.	725.	0.	0.	167.	0.	10.	2.	634.20
.14	0.00	4.33	0.00	.040	.045	.040	.048	620.00	1985.00
.003013	1.	1.	1.	0	0	0	0.00	30.00	2015.00

*SECNO 3402.000

3370 NORMAL BRIDGE,NRD 0 MIN ELTRD 634.20 MAX ELLC 630.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 634.00 ELREA 634.00

3402.00	7.03	627.33	0.00	0.00	628.08	.25	.37	.00	634.20
725.	0.	725.	0.	0.	180.	0.	11.	2.	634.20
.15	0.00	4.04	0.00	.040	.048	.040	.048	620.80	1985.00
.002443	135.	136.	135.	0	0	0	0.00	30.00	2015.00

*SECNO 3403.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 634.00 ELREA 634.00

3403.00	7.03	627.83	0.00	0.00	628.08	.25	.00	.00	622.80
725.	0.	725.	0.	0.	180.	0.	11.	2.	621.30
.15	0.00	4.04	0.00	.040	.048	.040	.048	620.80	1985.00
.001536	1.	1.	1.	0	0	0	0.00	30.00	2015.00

*SECNO 3600.000

3600.00	7.60	628.00	0.00	0.00	628.14	.13	.04	.01	628.00
725.	0.	724.	1.	0.	243.	2.	11.	2.	626.90
.15	0.00	2.92	.31	.040	.046	.040	.048	620.40	1942.44
.001155	30.	30.	30.	2	0	0	0.00	52.95	1995.41

CCHV .100 CEHV .300

*SECNO 4000.000

4000.00	7.60	628.70	0.00	0.00	628.95	.25	.76	.04	627.80
725.	1.	724.	0.	1.	180.	0.	13.	3.	629.10
.18	.97	4.02	0.00	.040	.046	.040	.048	621.10	1971.25
.002590	470.	470.	470.	2	0	0	0.00	42.00	2013.24

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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*SECNO 4100.000

3470 ENCROACHMENT STATIONS      320.0     430.0   TYPE       1   TARGET       110.000
  4100.00     7.24    628.34     0.00      0.00    629.25      .41       .25       .05     630.80
    725.       0.      725.       0.        0.      141.       0.       14.        3.      630.80
    .19      0.00     5.14      0.00      .040      .048      .040      .048    621.60    357.50
 .004012      77.      77.       77.        0.        0         0      0.00     25.00    382.50

*SECNO 4101.000

3370 NORMAL BRIDGE,NRD   6 MIN ELTRD   629.40 MAX ELLC   633.40

3470 ENCROACHMENT STATIONS      320.0     430.0   TYPE       1   TARGET       110.000
  4101.00     7.24    628.84     0.00      0.00    629.25      .41       .00       .00     630.80
    725.       0.      725.       0.        0.      141.       0.       14.        3.      630.80
    .19      0.00     5.14      0.00      .040      .048      .040      .043    621.60    357.50
 .004025       1.       1.        1.        0         0         0      0.00     25.00    382.50

*SECNO 4102.000

3370 NORMAL BRIDGE,NRD   6 MIN ELTRD   629.40 MAX ELLC   633.40

3470 ENCROACHMENT STATIONS      345.0     395.0   TYPE       1   TARGET        50.000
  4102.00     7.29    628.59     0.00      0.00    629.29      .41       .04       .00     630.80
    725.       0.      725.       0.        0.      142.       0.       14.        3.      630.80
    .19      0.00     5.11      0.00      .040      .048      .040      .048    621.60    357.50
 .003244      10.      10.       10.        0         0         0      0.00     25.00    382.50

*SECNO 4103.000

3470 ENCROACHMENT STATIONS      345.0     395.0   TYPE       1   TARGET        50.000
  4103.00     7.29    628.69     0.00      0.00    629.30      .40       .00       .00     630.80
    725.       0.      725.       0.        0.      142.       0.       14.        3.      630.80
    .19      0.00     5.10      0.00      .040      .048      .040      .048    621.60    357.50
 .003924       1.       1.        1.        0         0         0      0.00     25.00    382.50
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  SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
  Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA      LEFT/RIGHT
  TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN    SSTA
  SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID   ENDST

*SECNO 4200.000

3470 ENCROACHMENT STATIONS      .0      2000.0  TYPE      1  TARGET      1999.999
  4200.00    7.36   629.25     0.00     0.00   629.45     .23      .17      .02   629.90
   725.       0.     725.       0.       0.     190.       0.      14.       3.   629.90
   .19      0.00     3.81     0.00     .040     .046     .040     .048   621.40   124.63
  .002250     50.      50.      50.       2        0        0     0.00    41.11   165.74

*SECNO 4300.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      632.70 ELREA      632.70

  4300.00    6.56   629.36     0.00     0.00   629.57     .30      .16      .02   624.80
   725.       0.     725.       0.       0.     164.       0.      14.       3.   622.80
   .19      0.00     4.43     0.00     .040     .043     .040     .046   622.80   486.40
  .002180     70.      70.      70.       2        0        0     0.00    27.40   513.80

*SECNO 4301.000

3370 NORMAL BRIDGE,NRD  30 MIN ELTRD  632.40 MAX ELLC  635.90

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      632.70 ELREA      632.70

  4301.00    6.42   629.22     0.00     0.00   629.73     .51      .00      .06   624.80
   725.       0.     725.       0.       0.     125.       0.      14.       3.   622.80
   .19      0.00     5.73     0.00     .040     .048     .040     .045   622.80   486.40
  .009652      1.       1.       1.       2        0        0   -79.38    27.40   513.80

*SECNO 4302.000

3370 NORMAL BRIDGE,NRD  30 MIN ELTRD  632.40 MAX ELLC  635.90

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      632.70 ELREA      632.70

  4302.00    7.04   629.34     0.00     0.00   630.30     .46      .57      .01   624.80
   725.       0.     725.       0.       0.     133.       0.      14.       3.   622.80
   .20      0.00     5.44     0.00     .040     .048     .040     .048   622.80   486.40
  .009190     60.      50.      60.       2        0        0  -103.42    27.40   513.80
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      SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS   BANK ELEV
      Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA     LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN      SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID     ENDST

*SECNO 4303.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       632.70 ELREA       632.70

   4303.00      7.28    630.03      0.00      0.00    630.33       .24       .00       .02    624.80
     725.        0.      725.        0.        0.      184.        0.       14.        3.    622.80
       .20      0.00      3.95      0.00      .040      .048      .040      .048    622.80    485.40
   .001490        1.        1.        1.         2         0         0      0.00     27.40    513.80

*SECNO 4400.000
   4400.00      7.56    630.18      0.00      0.00    630.48       .30       .13       .02    629.30
     725.        6.      719.        0.        5.      163.        0.       15.        3.    630.60
       .20      1.26      4.42      0.00      .040      .048      .040      .048    622.60    543.57
   .003093       65.       55.       55.         2         0         0      0.00     45.39    588.97

*SECNO 5000.000

3470 ENCROACHMENT STATIONS            .0      1291.0  TYPE        1  TARGET      1290.999
   5000.00      7.59    631.39      0.00      0.00    631.47       .08       .96       .02    632.30
     725.        0.      725.        0.        0.      320.        0.       15.        4. 100000.00
       .28      0.00      2.27      0.00      .040      .048      .040      .048    623.80   1216.05
   .000829      670.      670.      670.         2         0         0      0.00     74.95   1291.00

*SECNO 5100.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       636.30 ELREA       636.30

   5100.00      7.40    631.40      0.00      0.00    631.66       .25       .14       .05    626.00
     725.        0.      725.        0.        0.      180.        0.       19.        4.    626.00
       .29      0.00      4.03      0.00      .040      .052      .040      .048    624.00    486.90
   .002412      105.      105.      105.         2         0         0      0.00     26.13    513.00

*SECNO 5101.000

3370 NORMAL BRIDGE,NRD  35 MIN ELTRD   636.20 MAX ELLC    641.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       636.30 ELREA       636.20
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
     Q        QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN      ELMIN      SSTA
    SLOPE     XLOBL     XLCH      XLOBR    ITRIAL     IDC      ICONT     CORAR    TOPWID     ENDST


   5101.00     7.24    631.24      0.00      0.00    631.73       .49       .01       .07    626.00
    725.         0.      725.        0.        0.      127.        0.       19.        4.    626.00
      .29      0.00      5.63      0.00      .040      .062      .040      .048    624.00    485.90
   .020896       1.        1.        1.         2         0         0    -72.22     26.10    513.00

*SECNO 5102.000

3370 NORMAL BRIDGE,NRD   30  MIN ELTRD   636.20 MAX ELLC   541.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       636.30 ELREA       636.30

   5102.00    10.40    634.48      0.00      0.00    634.98       .49      3.24       .00    625.00
    725.        0.      725.        0.        0.      127.        0.       19.        4.    626.00
      .30      0.00      5.63      0.00      .040      .062      .040      .048    624.00    486.90
   .022378     150.      150.      150.         2         0         0   -197.76     26.10    513.00

*SECNO 5103.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       636.30 ELREA       636.30

   5103.00    10.91    634.91      0.00      0.00    635.02       .11       .00       .04    626.00
    725.        0.      725.        0.        0.      271.        0.       19.        4     626.00
      .30      0.00      2.57      0.00      .040      .052      .040      .048    624.00    486.90
   .000613       1.        1.        1.         2         0         0      0.00     25.10    513.00

*SECNO 5200.000

3470 ENCROACHMENT STATIONS       600.0     1170.0   TYPE        1   TARGET      -600.000
   5200.00    10.15    634.95      0.00      0.00    635.05       .09       .03       .00    632.50
    725.        0.      724.        1.        0.      294.        2.       20.        4.    634.10
      .30      0.00      2.45       .58      .040      .048      .040      .048    624.10    600.00
   .000776      40.       40.       40.         2         0         0      0.00     59.74    659.74

CCHV      .100 CEHV      .300
*SECNO 6200.000

3470 ENCROACHMENT STATIONS       365.0      440.0   TYPE        1   TARGET       75.000
   6200.00     8.72    635.52      0.00      0.00    635.61       .09       .56       .00    634.30
    725.        6.      647.       67.        7.      265.       35.       24.        5.    632.40
      .38       .84      2.44      1.78      .040      .048      .040      .043    626.80    365.00
   .000832     700.      700.      700.         2         0         0      0.00     75.00    440.00
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   SECNO     DEPTH    CWSEL    CRIWS    WSELK     EG       HV       HL      OLOSS   BANK ELEV
   Q         QLOB     QCH      QROB     ALOB      ACH      AROB     VOL     TWA    LEFT/RIGHT
   TIME      VLOB     VCH      VROB     XNL       XNCH     XNR      WTN     ELMIN     SSTA
   SLOPE     XLOBL    XLCH     XLOBR    ITRIAL    IDC      ICONT    CORAR   TOPWID    ENDST

*SECNO 6300.000
3280 CROSS SECTION   6300.00 EXTENDED        .60 FEET

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      638.10 ELREA      638.10

   6300.00     3.91   635.61     0.00     0.00   635.69      .08      .08      .00   638.10
    725.         0.     725.       0.       0.     319.       0.      25.       6.   647.50
     .40      0.00     2.27     0.00     .040     .048     .040     .048   626.70   401.25
  .000745      97.      97.      97.        0        0        0     0.00    67.69   468.94

*SECNO 6301.000
3280 CROSS SECTION   6301.00 EXTENDED        .61 FEET

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      638.10 ELREA      638.10

   6301.00     3.91   635.61     0.00     0.00   635.69      .08      .00      .00   638.10
    725.         0.     725.       0.       0.     320.       0.      25.       5.   647.50
     .40      0.00     2.27     0.00     .040     .048     .040     .048   626.70   401.24
  .000734       5.       5.       6.        0        0        0     0.00    67.73   468.97

*SECNO 6400.000

3470 ENCROACHMENT STATIONS       360.0      430.0  TYPE      1  TARGET      70.000
   6400.00     9.26   635.66     0.00     0.00   635.79      .13      .29      .01   634.60
    725.       20.     604.     101.      16.     204.      43.      25.       6.   632.30
     .41      1.22     2.96     2.36     .040     .048     .040     .048   626.40   360.00
  .001063      97.      97.      97.        1        0        0     0.00    68.93   423.93

CCHV=   .100 CEHV=   .300
*SECNO 7600.000
   7600.00     7.91   636.51     0.00     0.00   636.79      .29      .96      .05   637.90
    725.        0.     659.      65.       0.     150.      20.      29.       7.   630.60
     .45      0.00     4.39     3.27     .040     .045     .040     .048   628.60   309.08
  .002656     600.     600.     600.        2        0        0     0.00    37.71   346.79

*SECNO 7700.000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS 487.2 512.7 TYPE 1 TARGET 25.500

7700.00	5.68	635.53	0.00	0.00	637.01	.43	.17	.04	631.90
725.	0.	725.	0.	0.	131.	0.	29.	7.	100000.00
.45	0.00	5.25	0.00	.040	.052	.040	.048	629.90	487.20
.008149	40.	40.	40.	0	0	0	0.00	25.50	512.70

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.94	2.50	0.00	25.50	0.00	126.00	0.00	630.00	630.00

*SECNO 7701.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS 0.000 EGLWC 637.094 ELLC 637.400 PCWSE 636.560 ELTRD 640.400 7.75

3370 NORMAL BRIDGE,NRD 22 MIN ELTRD 640.40 MAX ELLC 637.40

3470 ENCROACHMENT STATIONS 487.2 512.7 TYPE 1 TARGET 25.500

7701.00	3.34	638.24	0.00	0.00	~~638.92~~	.68	1.33	.07	631.90
725.	0.	725.	0.	0.	110.	0	27.	7.	100000.00
.45	0.00	6.61	0.00	.040	.062	.040	.049	629.90	487.20
.038254	120.	120.	120.	3	0	0	-70.44	25.50	512.70

Approx 2' of fill in left culvert

*SECNO 7800.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS 460.0 540.0 TYPE 1 TARGET 80.000

7800.00	9.03	638.95	0.00	0.00	639.06	.07	.08	.06	635.70
725.	37.	636.	2.	23.	311.	3.	30.	7.	638.60
.46	1.01	2.02	.49	.040	.048	.040	.048	629.90	450.00
.000644	40.	40.	40.	2	0	0	0.00	80.00	540.00

2.80

= 639.3

= 5.83

636.6 639.6

CCHV .100 CEHV .300
*SECNO 8250.000

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    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
    Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
    TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

3470 ENCROACHMENT STATIONS     1965.0    2345.0    TYPE      1         TARGET              80.000
   8250.00      9.65    639.35      0.00      0.00    639.47       .11       .40       .01    636.10
     670.        4.       666.        0.        5.      244.        0.       33.        7.    644.50
       .51       .32      2.73      0.00      .040      .048      .040      .048    629.50   1965.00
   .000974       510.      510.      510.        3         0         0      0.00     57.43   2022.43

*SECNO 8350.000     AB

3470 ENCROACHMENT STATIONS     191.2     210.0     TYPE      1         TARGET              18.800
   8350.00      9.33    639.33      0.00      0.00    639.54       .32       .12       .06    633.70
     670.        0.       670.        0.        0.      143.        0.       33.        8. 100000.00
       .51      0.00      4.52      0.00      .040      .032      .040      .049    630.00    191.20
   .005532       60.       60.       60.        2         0         0      0.00     18.80    210.00

SPECIAL BRIDGE

SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      2.12      2.50      0.00      18.80     0.00      97.93     0.00      630.00    630.00

*SECNO 8351.000
PRESSURE FLOW

 EGPRS     EGLWC     H3        QWEIR     QPR       BAREA     TRAPEZOID      ELLC      ELTRD
                                                              AREA
 640.65    639.64    0.00      0.        670.      98.       166.           638.95    641.92

3470 ENCROACHMENT STATIONS     191.2     210.0     TYPE      1         TARGET              18.800
   8351.00     10.63    640.63      0.00      0.00    640.86       .23      1.22      0.00    633.70
     670.        0.       670.        0.        0.      173.        0.       33.        8. 100000.00
       .52      0.00      3.87      0.00      .040      .052      .040      .049    630.00    191.20
   .003669       37.       37.       37.        2         0         0      0.00     18.80    210.00

*SECNO 8450.000

3470 ENCROACHMENT STATIONS     290.0     365.0     TYPE      1         TARGET              75.000
   8450.00     10.53    640.30      0.00      0.00    640.99       .11       .11       .01    639.40
     670.       20.       630.        0.       15.      240.        0.       34.        8.    643.10
       .52      1.34      2.70      0.00      .040      .049      .040      .049    630.20    290.00
   .000989       65.       65.       65.        2         0         0      0.00     57.83    347.83
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$\frac{(39)}{(4\ 81)^{43}}$ 7.43 Area 46

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*SECNO 9450.000

3470 ENCROACHMENT STATIONS      1940.0     2020.0   TYPE       1   TARGET          80.000
  9450.00      1.31    642.01      0.00      0.00    642.16       .14      1.16       .01    641.60
   670.        17.      540.      113.       15.      169.       46.       39.        9.    640.10
   .61       1.14      3.19      2.47      .040      .048      .040      .049    633.20   1940.00
  .001741     900.      900.      900.         5         0         0      0.00     80.00   2020.00

*SECNO 9505.000
  9505.00      7.21    642.21      0.00      0.00    642.37       .15       .21       .00    639.20
   670.        12.      591.       67.        5.      187.       19.       39.        9.    636.60
   .62       2.26      3.15      3.45      .030      .050      .030      .049    635.00    300.46
  .001729     120.      120.      120.         2         0         0      0.00     44.43    344.89

*SECNO 9605.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       642.60 ELREA        642.60

  9605.00      7.30    642.30      0.00      0.00    642.50       .20       .20       .01    642.60
   670.         0.      670.        0.        0.      187.        0.       40.        9.    635.70
   .62       0.00      3.59      0.00      .030      .050      .030      .049    635.00    304.06
  .002325     100.      100.      100.         0         0         0      0.00     32.94    337.00

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.35      2.50      0.00     45.00      0.00    275.00      0.00    635.00    635.00

*SECNO 9606.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS    642.505  EGLWC     642.530  ELLC     641.200  PCWSE     642.381  ELTRD     642.600

3370 NORMAL BRIDGE,NRD  10 MIN ELTRD   642.60 MAX ELLC   641.20

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       2.60 ELREA        642.60

  9606.00      7.35    642.35      0.00      0.00    642.64       .29       .03       .03    642.60
   670.         0.      570.        0.        0.      154.        0.       40.        9.    635.70
   .63       0.00      4.35      0.00      .030      .050      .030      .049    635.00    304.07
  .009977       0.        8.        0.         2         0         0    -43.01     32.93    337.00
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 9635.000

9635.00	7.57	642.57	0.00	0.00	642.71	.15	.06	.01	642.50
670.	0.	451.	209.	0.	193.	50.	40.	9.	635.70
.63	0.00	2.39	4.21	.030	.050	.030	.049	635.00	304.01
.000998	25.	25.	25.	2	0	0	0.00	85.68	389.69

*SECNO 10100.000

3470 ENCROACHMENT STATIONS 1510.0 1590.0 TYPE 1 TARGET 80.000

10100.00	7.34	643.64	0.00	0.00	643.93	.29	1.17	.04	643.50
670.	4.	656.	0.	3.	153.	0.	43.	10.	643.30
.66	1.35	4.35	0.00	.030	.060	.030	.050	636.30	1510.00
.006439	575.	570.	575.	3	0	0	0.00	53.91	1563.91

*SECNO 11050.000

3265 DIVIDED FLOW

11050.00	7.73	646.53	0.00	0.00	646.65	.12	2.70	.02	643.60
670.	1.	669.	0.	1.	233.	0.	47.	12.	648.30
.77	.50	2.81	0.00	.030	.050	.030	.051	638.80	322.45
.001376	1050.	1050.	1050.	2	0	0	0.00	43.16	464.55

*SECNO 11150.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD 5 MIN ELTRD 643.20 MAX ELLC 648.40

11150.00	7.73	646.53	0.00	0.00	646.65	.12	.00	.00	643.60
670.	1.	669.	0.	1.	239.	0.	47.	12.	648.30
.77	.79	2.80	0.00	.030	.050	.030	.051	638.80	322.30
.001371	1.	1.	1.	0	0	0	0.00	43.66	464.55

*SECNO 11153.000

3265 DIVIDED FLOW

```
   SECNO    DEPTH    CWSEL    CRIWS    WSELK     EG      HV      HL     OLOSS   BANK ELEV
     Q      QLOB     QCH      QROB     ALOB     ACH     AROB     VOL     TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH    XNR      WTN    ELMIN     SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC     ICONT   CORAR   TOPWID    ENDST


3370 NORMAL BRIDGE,NRD    6  IN ELTRD    648.20 MAX ELLC    648.40

 11158.00     7.74   646.54     0.00     0.00   646.66     .12     .01     .00   643.60
      670.      1.     669.       0.       1.     239.      0.      47.     12.   648.30
      .77      .77    2.80      0.00     .030     .060    .030    .051   638.80   322.12
  .001364       1.      1.       0.        0.       0.      0.    0.00    44.30   464.56

*SECNO 11159.000

3265 DIVIDED FLOW

 11159.00     7.74   646.54     0.00     0.00   646.57     .12     .00     .00   643.60
      670.      1.     669.       0.       1.     239.      0.      47.     12.   648.30
      .77      .76    2.80      0.00     .030     .050    .030    .051   638.80   322.08
  .001363       1.      1.       1.        0        0       0     0.00    44.42   464.56

*SECNO 11185.000
 11185.00     6.08   645.52     0.00     0.00   646.69     .12     .03     .00   645.70
      670.     165.    319.     335.      19.     146.    103.     48.     12.   639.20
      .77      .36    2.21      3.24     .030     .060    .030    .051   633.50   351.03
  .000913      25.     25.      25.        0        0       0     0.00   106.29   457.31

*SECNO 11409.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       647.80 ELREA       647.80

 11409.00     7.60   646.60     0.00     0.00   646.79     .20     .07     .02   641.00
      670.      0.     670.       0.       0.     189.      0.      48.     12.   641.00
      .78     0.00    3.55      0.00     .030     .060    .030    .051   639.00   394.00
  .001785      60.     60.      60.        2        0       0     0.00    26.90   420.90


SPECIAL BRIDGE

SB  XK        XKOR      COFQ     RDLEN     BWC       BWP     BAREA      SS      ELCHU     ELCHD
    1.25      2.20      2.63      0.00     26.00      0.00    142.00    0.00    639.20    639.20

*SECNO 11411.000
```

A=142.1
A=142

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3370 NORMAL BRIDGE,NRD 20 MIN ELTRD 647.20 MAX ELLC 647.20

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 647.30 ELREA 647.30

11411.00	7.72	646.72	0.00	0.00	647.03	.31	.21	.03	641.00
670.	0.	670.	0.	0.	152.	0.	48.	12.	641.00
.78	0.00	4.46	0.00	.030	.050	.030	.051	639.00	394.00
.010671	57.	57.	57.	2	0	0	-42.07	26.90	420.90

*SECNO 11530.000

11530.00	3.37	647.07	0.00	0.00	647.10	.03	.04	.03	641.10
670.	365. →	257.	49.	274.	177.	37.	45.	12.	642.70
.79	1.24	1.45	1.32	.030	.050	.030	.051	638.70	215.48
.000263	52.	50.	53.	2	0	0	0.00	219.41	435.89

*SECNO 12030.000

12030.00	3.78	647.28	0.00	0.00	647.44	.15	.30	.04	646.70
670.	40.	630.	0.	37.	192.	0.	53.	14.	648.00
.84	1.07	3.23	0.00	.030	.050	.030	.051	636.50	46.77
.002423	510.	510.	510.	3	0	0	0.00	165.79	212.56

*SECNO 12740.000
3280 CROSS SECTION 12740.00 EXTENDED .04 FEET

12740.00	6.44	648.34	0.00	0.00	648.39	.05	1.44	.01	645.00
670.	266.	225.	179.	165.	102.	135.	58.	17.	646.00
.95	1.61	2.20	1.32	.060	.070	.060	.052	642.40	0.00
.001757	700.	700.	700.	2	0	0	0.00	200.00	200.00

*SECNO 12741.000
3280 CROSS SECTION 12741.00 EXTENDED .25 FEET

3370 NORMAL BRIDGE,NRD 15 MIN ELTRD 648.30 MAX ELLC 648.60

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3720 CRITICAL DEPTH ASSUMED

12741.00	6.59	649.30	649.08	0.00	649.49	.41	.01	.11	645.00
670.	45.	198.	425.	24.	40.	78.	58.	17.	646.00
.95	1.92	5.00	5.44	.100	.020	.035	.052	642.40	0.00
.090759	1.	1.	1.	20	20	0	-309.17	200.00	200.00

(4 2)

*SECNO 12762.000
3280 CROSS SECTION 12762.00 EXTENDED 1.03 FEET

3370 NORMAL BRIDGE,NRD 15 MIN ELTRD 648.30 MAX ELLC 648.80

Struc may be ≈ 3–4' high
spread [illegible] app. p. [illegible]

12762.00	7.43	649.83	0.00	0.00	649.97	.09	.45	.03	645.00
670.	133.	114.	413.	92.	56.	154.	53.	17.	646.00
.95	1.50	2.03	2.72	.100	.080	.035	.052	642.40	0.00
.009273	21.	21.	21.	4	0	0	-309.17	200.00	200.00

*SECNO 12763.000
3280 CROSS SECTION 12763.00 EXTENDED 1.15 FEET

12763.00	7.55	649.95	0.00	0.00	649.98	.03	.00	.01	645.00
670.	161.	132.	377.	260.	125.	240.	53.	17.	646.00
.95	.62	1.05	1.57	.100	.080	.035	.052	642.40	0.00
.000399	1.	1.	1.	2	0	0	0.00	200.00	200.00

*SECNO 12850.000
3280 CROSS SECTION 12850.00 EXTENDED .60 FEET

12850.00	6.30	650.00	0.00	0.00	650.05	.05	.06	.01	645.60
670.	50.	99.	521.	95.	74.	276.	60.	18.	648.10
.97	.53	1.23	1.68	.100	.040	.035	.053	643.50	0.00
.000543	210.	190.	100.	2	0	0	0.00	191.71	191.71

*SECNO 13413.000

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3720 CRITICAL DEPTH ASSUMED

13413.00	4.38	650.98	650.98	0.00	651.52	.53	.39	.15	703.40
670.	0.	0.	670.	0.	0.	114.	64.	20.	703.40
1.00	0.00	0.02	5.86	.100	.000	.035	.055	646.60	109.72
.007943	650.	650.	650.	20	16	0	0.00	102.74	359.80

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  HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54
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T1
T2
T3

J1  ICHECK    INQ     NINV     IDIR     STRT      METRIC   HVINS    Q      WSEL      FQ

      0.        6.      0.       0.    0.000000    0.00     0.0     0.   514.420   0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH     FN      ALLDC    IBW    CHNIM    ITRACE

   15.000    0.000   -1.000    0.000    0.000   -2.000    0.000   0.000   0.000    0.000
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*PROF 2

CCHV     .100 CEHV      .300
*SECNO 0.000
3250 CROSS SECTION       0.00 EXTENDED       2.52 FEET

3470 ENCROACHMENT STATIONS       265.0      315.0  TYPE       1   TARGET         50.000
     0.00      7.52    614.42      0.00    614.42    614.53       .11      0.00      0.00    610.00
     725.      217.      497.       11.       92.      173.        9.        0.        0.    610.00
     0.00      2.35      2.30      1.25      .040      .046      .040     0.000    606.90    265.00
  .000741        0.        0.        0.         0         0         0      0.00     50.00    315.00

*SECNO 900.000

3470 ENCROACHMENT STATIONS      1837.0     1875.0  TYPE       1   TARGET         38.000
   900.00      7.72    615.12      0.00    615.06    615.42       .30       .33       .06    607.40
     725.      144.      602.       79.       22.      125.       27.       14.        1.    607.70
      .05      2.06      4.80      2.95      .040      .046      .040      .046    607.40   1837.00
  .001550      900.      900.      900.         2         0         0      0.00     38.00   1875.00

*SECNO 2150.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS       568.0      600.0  TYPE       1   TARGET         32.000
  2150.00      6.22    618.42    618.42    615.39    619.64      1.22      3.56       .27    617.00
     725.       30.      300.      395.        7.       31.       44.        7.        2.    613.60
      .08      4.54      9.92      9.05      .040      .048      .040      .048    612.20    568.00
  .016862      975.      975.      975.         6        14         0      0.00     32.00    600.00

*SECNO 2250.000

3301 HV CHANGED MORE THAN HVINS
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 622.50 ELREA 622.50

2250.00	5.53	619.73	0.00	619.71	620.31	.58	.60	.06	615.10
725.	0.	725.	0.	0.	117.	0.	7.	2.	618.40
.09	0.00	6.09	0.00	.040	.048	.040	.048	613.20	1981.50
.004706	75.	75.	75.	2	0	0	0.00	23.00	2004.50

*SECNO 2251.000

3370 NORMAL BRIDGE,NRD 0 MIN ELTRD 622.50 MAX ELLC 621.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 622.50 ELREA 622.50

2251.00	6.54	619.74	0.00	619.72	620.31	.57	.01	.00	622.50
725.	0.	725.	0.	0.	119.	0.	7.	2.	622.50
.09	0.00	6.07	0.00	.040	.048	.040	.048	613.20	1981.50
.006248	1.	1.	1.	0	0	0	0.00	23.00	2004.50

*SECNO 2252.000

3370 NORMAL BRIDGE,NRD 0 MIN ELTRD 622.50 MAX ELLC 621.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 622.50 ELREA 622.50

2252.00	6.57	619.77	0.00	619.74	620.34	.57	.02	.00	622.50
725.	0.	725.	0.	0.	120.	0.	7.	2.	622.50
.09	0.00	6.05	0.00	.040	.048	.040	.048	613.20	1981.50
.006186	4.	4.	4.	0	0	0	0.00	23.00	2004.50

*SECNO 2253.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 622.50 ELREA 622.50

2253.00	6.58	619.78	0.00	619.75	620.34	.57	.01	.00	622.50
725.	0.	725.	0.	0.	120.	0.	7.	2.	622.50
.09	0.00	6.03	0.00	.040	.049	.040	.048	613.20	1981.50
.006144	1.	1.	1.	0	0	0	0.00	23.00	2004.50

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 2425.000

2425.00	6.17	621.07	0.00	621.06	621.72	.65	1.35	.02	622.10
725.	0.	725.	0.	0.	112.	0.	1.	2.	624.60
.09	0.00	6.45	0.00	.042	.040	.042	.043	614.90	1994.19
.007467	200.	200.	200.	2	0	0	0.00	25.68	2019.37

*SECNO 2600.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 626.00 ELREA 629.00

2600.00	6.85	622.05	0.00	622.05	622.64	.58	.91	.01	617.80
725.	0.	725.	0.	0.	113.	0.	5.	2.	618.00
.10	0.00	6.13	0.00	.040	.040	.040	.048	615.20	1997.50
.003857	175.	175.	175.	2	0	0	0.00	19.70	2017.20

*SECNO 2601.000

3370 NORMAL BRIDGE,NRD 0 MIN ELTRD 626.90 MAX ELLC 625.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 626.90 ELREA 626.90

2601.00	6.86	622.06	0.00	622.05	622.64	.59	.00	.01	625.90
725.	0.	725.	0.	0.	113.	0.	8.	2.	626.90
.10	0.00	6.15	0.00	.040	.040	.040	.048	615.20	1997.50
.000064	1.	1.	1.	0	0	1	0.00	19.70	2017.20

*SECNO 2602.000

3370 NORMAL BRIDGE,NRD 0 MIN ELTRD 626.90 MAX ELLC 625.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 626.90 ELREA 626.90

2602.00	7.00	622.20	0.00	622.20	622.75	.56	.12	.00	626.90
725.	0.	725.	0.	0.	121.	0.	3.	2.	626.90
.10	0.00	6.00	0.00	.040	.048	.040	.048	615.20	1997.50
.005677	20.	20.	20.	2	0	0	0.00	19.70	2017.20

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    SECNO     DEPTH    CWSEL    CRIWS    WSELK     EG       HV       HL      OLOSS   BANK ELEV
      Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
    TIME       VLOB     VCH      VROB     XNL      XNCH     XNR      WTN     ELMIN     SSTA
    SLOPE      XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR   TOPWID    ENDST

*SECNO 2603.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      626.90 ELREA      626.90

  2603.00      7.01   622.21     0.00   622.21   622.77      .56      .00      .00   617.30
   725.         0.     725.       0.       0.     121.       0.       0.       2.    618.30
   .10        0.00     6.00     0.00     .040     .048     .040     .043   615.20  1997.50
 .003625        1.       1.       1.       0        0        0      0.00    19.70  2017.20

*SECNO 2800.000

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
  2800.00      5.13   623.43   623.43   623.43   625.06     1.63     1.32      .32   625.90
   725.         0.     725.       0.       0.      71.       0.       9.       2.    627.20
   .11        0.00    10.20     0.00     .040     .040     .040     .043   618.30  1997.63
 .027163       170.     170.     170.      20       19        0      0.00    22.03  2019.71

*SECNO 3000.000

3301 HV CHANGED MORE THAN HVINS

  3000.00      7.82   626.52     0.00   626.52   627.08      .56     1.91      .11   628.60
   725.         0.     725.       0.       0.     121.       0.       9.       2.    628.60
   .12        0.00     5.98     0.00     .040     .048     .043     .043   618.70  2000.00
 .006092       170.     170.     170.       3        0        0      0.00    15.50  2015.50

*SECNO 3001.000

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD   628.60 MAX ELLC   627.30

  3001.00      9.26   626.55     0.00   626.55   627.13      .25      .02      .03   628.60
   725.         0.     725.       0.       0.     175.       0.       9.       2.    628.60
   .12        0.00     4.11     0.00     .040     .048     .040     .048   617.60  2000.00
 .002637         5.       5.       5.       2        0        0      0.00    27.87  2027.87
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     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

*SECNO 3002.000

3370 NORMAL BRIDGE,NRD    0  MIN ELTRD   628.60 MAX ELLC   627.30

     3002.00     7.18    626.88      0.00    626.88    627.14       .26       .01       .00    628.60
      725.         0.      725.        0.        0.      179.        0.        9.        2.    628.60
       .12       0.00      4.05      0.00      .040      .048      .040      .048    619.70   2000.00
    .002437        5.        5.        5.         0         0         0      0.00     27.92   2027.92

*SECNO 3003.000
     3003.00     7.84    626.94      0.00    626.94    627.16       .22       .01       .00    629.40
      725.         0.      725.        0.        0.      193.        0.        9.        2.    629.40
       .12       0.00      3.75      0.00      .040      .048      .040      .049    619.10   1985.40
    .001785        7.        7.        7.         2         0         0      0.00     27.49   2012.89


SPECIAL BRIDGE

SB   XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
       .90      1.06      2.50      0.00     25.60      4.00    193.30       .17    619.30    619.30

*SECNO 3004.000
CLASS A LOW FLOW

3420 BRIDGE W.S.     626.65 BRIDGE VELOCITY =        4.20     CALCULATED CHANNEL AREA =        173.

  EGPRS     EGLWC        H3     QWEIR       QPR     BAREA  TRAPEZOID      ELLC     ELTRD
                                                              AREA
      0.00    627.19       .04        0.      725.      193.      196.    627.80    629.40

     3004.00     7.87    626.97      0.00    626.97    627.19       .22       .03      0.00    629.40
      725.         0.      725.        0.        0.      194.        0.        9.        2.    629.40
       .12       0.00      3.73      0.00      .040      .048      .040      .048    619.10   1985.39
    .001759       25.       25.       25.         0         0         0      0.00     27.50   2012.90

*SECNO 3005.000

3370 NORMAL BRIDGE,NRD    0  MIN ELTRD   628.60 MAX ELLC   627.70

     3005.00     7.29    626.99      0.00    626.99    627.21       .22       .02       .00    628.60
      725.         0.      725.        0.        0.      192.        0.        9.        2.    628.60
       .12       0.00      3.77      0.00      .040      .048      .040      .048    619.70   1977.00
    .001821       12.       12.       12.         0         0         0      0.00     32.00   2009.00
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 3006.000

3370 NORMAL BRIDGE,NRD 0 MIN ELTRD 628.60 MAX ELLC 627.70

3470 ENCROACHMENT STATIONS 627.7 2050.0 TYPE 1 TARGET -627.700
ELENCL 621.60 ELENCR 100000.00

3006.00	7.30	627.00	0.00	627.00	627.22	.22	.01	.00	628.60
725.	0.	725.	0.	0.	193.	0.	9.	2.	628.60
.12	0.00	3.75	0.00	.040	.048	.040	.048	619.70	1977.00
.001615	5.	5.	5.	0	0	0	0.00	32.00	2009.00

*SECNO 3007.000

3470 ENCROACHMENT STATIONS 627.7 2050.0 TYPE 1 TARGET -627.700
ELENCL 628.60 ELENCR 100000.00

3007.00	7.30	627.00	0.00	627.00	627.22	.22	.00	.00	628.60
725.	0.	725.	0.	0.	193.	0.	9.	2.	628.60
.12	0.00	3.75	0.00	.040	.048	.040	.048	619.70	1977.00
.001613	1.	1.	1.	0	0	0	0.00	32.00	2009.00

*SECNO 3125.000

3470 ENCROACHMENT STATIONS 1975.0 2035.0 TYPE 1 TARGET 60.000

3125.00	7.19	627.19	0.00	627.19	627.36	.17	.14	.02	625.40
725.	16.	705.	2.	12.	205.	3.	10.	2.	626.50
.13	1.42	3.42	.59	.040	.048	.040	.048	620.00	1975.00
.001424	85.	85.	85.	2	0	0	0.00	57.80	2032.80

*SECNO 3250.000

3265 DIVIDED FLOW

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 633.40 ELREA 633.40

3250.00	6.63	627.33	0.00	627.33	627.62	.29	.22	.03	633.60
725.	0.	725.	0.	0.	167.	0.	10.	2.	633.40
.13	0.00	4.32	0.00	.040	.048	.040	.048	620.70	1985.60
.003969	100.	100.	100.	1	0	0	0.00	27.20	2014.20

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 SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG      HV      HL      OLOSS   BANK ELEV
 Q        QLOB     QCH      QROB     ALOB     ACH     AROB    VOL     TWA     LEFT/RIGHT
 TIME     VLOB     VCH      VROB     XNL      XNCH    XNR     WTN     ELMIN   SSTA
 SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC     ICONT   CORAR   TOPWID  ENDST

SPECIAL BRIDGE

SB  XK       XKOR     COFQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
     .90     1.70     2.50     0.00     28.50    1.40     190.00   0.00     620.70   620.70

*SECNO 3251.000

3265 DIVIDED FLOW

CLASS A LOW FLOW

3420 BRIDGE W.S.=   627.30 BRIDGE VELOCITY =     4.04     CALCULATED CHANNEL AREA =     190.

 EGPRS      EGLWC      H3       QWEIR      QPR      BAREA    TRAPEZOID    ELLC     ELTRD
                                                              AREA
   0.00     627.64     .02       0.       725.      190.      201.       628.10   633.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       633.40 ELREA       633.40

 3251.00     6.65    627.35     0.00    627.35    627.64      .29      .02      0.00    633.60
    725.      0.      725.       0.       0.      153.       0.      10.        2.    633.40
    .14      0.00     4.31      0.00     .040     .048      .040     .048    620.70   1985.60
 .003952     330.     330.      330.       3        0         0      0.00     27.20   2014.20

*SECNO 3400.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       634.00 ELREA       634.00

 3400.00     6.62    627.42     0.00    627.42    627.71      .29      .07      .00    634.20
    725.      0.      725.       0.       0.      157.       0.      10.        2.    634.20
    .14      0.00     4.33      0.00     .040     .048      .040     .048    620.80   1985.00
 .003003     200.     200.      200.       1        0         0      0.00     30.00   2015.00

*SECNO 3401.000

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    634.20 MAX ELLC    630.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       634.00 ELREA       634.00
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3401.00	6.62	627.42	0.00	627.42	627.71	.29	.00	.00	634.20
725.	0.	725.	0.	0.	167.	0.	10.	2.	634.20
.14	0.00	4.35	0.00	.040	.040	.040	.048	620.80	1985.00
.003013	1.	1.	1.	0	0	0	0.00	30.00	2015.00

*SECNO 3402.000

3370 NORMAL BRIDGE,NRD C MIN ELTRD 634.20 MAX ELLC 630.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 634.00 ELREA 634.00

3402.00	7.03	627.83	0.00	627.83	628.08	.25	.37	.00	634.20
725.	0.	725.	0.	0.	180.	0.	11.	2.	634.20
.15	0.00	4.04	0.00	.040	.040	.040	.048	620.80	1985.00
.002443	136.	136.	136.	0	0	0	0.00	30.00	2015.00

*SECNO 3403.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 624.00 ELREA 634.00

3403.00	7.03	627.83	0.00	627.83	628.08	.25	.00	.00	622.00
725.	0.	725.	0.	0.	180.	0.	11.	2.	621.30
.15	0.00	4.04	0.00	.040	.040	.040	.048	620.80	1985.00
.001586	1.	1.	1.	0	0	0	0.00	30.00	2015.00

*SECNO 3600.000

3470 ENCROACHMENT STATIONS 1942.5 1992.5 TYPE 1 TARGET 50.000

3600.00	7.00	628.00	0.00	628.00	628.14	.13	.04	.01	628.00
725.	0.	725.	0.	0.	245.	0.	11.	2.	100000.00
.15	0.00	2.93	0.00	.040	.043	.040	.048	620.40	1942.50
.001192	30.	30.	30.	2	0	0	0.00	50.00	1992.50

CCHV .100 CEHV .300
*SECNO 4000.000

3470 ENCROACHMENT STATIONS 1972.5 2014.5 TYPE 1 TARGET 42.000

4000.00	7.62	628.72	0.00	628.70	628.97	.25	.80	.03	627.80
725.	0.	725.	0.	0.	181.	0.	13.	3.	100000.00
.13	0.00	4.01	0.00	.040	.040	.040	.048	621.10	1972.50
.002630	470.	470.	470.	2	0	0	0.00	40.81	2013.31

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 4100.000

3470 ENCROACHMENT STATIONS 320.0 430.0 TYPE 1 TARGET 110.000

4100.00	7.26	626.86	0.00	628.84	629.27	.41	.25	.05	630.80
725.	0.	725.	0.	0.	142.	0	14.	3.	630.80
.19	0.00	5.12	0.00	.040	.048	.040	.049	621.60	357.50
.003974	77.	77.	77.	1	0	0	0.00	25.00	382.50

*SECNO 4101.000

3370 NORMAL BRIDGE,NRD 6 MIN ELTRD 629.40 MAX ELLC 633.40

3470 ENCROACHMENT STATIONS 320.0 430.0 TYPE 1 TARGET 110.000

4101.00	7.26	626.86	0.00	628.84	629.27	.41	.00	.00	630.80
725.	0.	725.	0.	0.	142.	0.	14.	3.	630.80
.19	0.00	5.12	0.00	.040	.048	.040	.048	621.60	357.50
.003979	1.	1.	1.	0	0	0	0.00	25.00	382.50

*SECNO 4102.000

3370 NORMAL BRIDGE,NRD 6 MIN ELTRD 629.40 MAX ELLC 633.40

3470 ENCROACHMENT STATIONS 345.0 395.0 TYPE 1 TARGET 50.000

4102.00	7.31	626.91	0.00	628.39	629.31	.40	.04	.00	630.80
725.	0.	725.	0.	0.	143.	0.	14.	3.	630.80
.19	0.00	5.09	0.00	.040	.046	.040	.048	621.60	357.50
.003899	10.	10.	10.	0	0	0	0.00	25.00	382.50

*SECNO 4103.000

3470 ENCROACHMENT STATIONS 345.0 395.0 TYPE 1 TARGET 50.000

4103.00	7.31	626.91	0.00	628.39	629.31	.40	.00	.00	630.80
725.	0.	725.	0.	0.	143.	0.	14.	3.	630.80
.19	0.00	5.09	0.00	.040	.046	.040	.048	621.60	357.50
.003879	1.	1.	1.	0	0	0	0.00	25.00	382.50

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      SECNO      DEPTH      CWSEL      CRIWS      WSELK       EG         HV         HL        OLOSS    BANK ELEV
        Q         QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TWA    LEFT/RIGHT
       TIME       VLOB       VCH        VROB       XNL        XNCH       XNR        WTN       ELMIN      SSTA
      SLOPE      XLOBL       XLCH       XLOBR     ITRIAL      IDC       ICONT      CORAR     TOPWID     ENDST

*SECNO 4200.000

3470 ENCROACHMENT STATIONS          .0        200.0  TYPE       1  TARGET       199.999
     4200.00      7.63     629.23      0.00     629.26     629.31        .22        .17        .02     629.90
       725.        0.       725.        0.         0.       191.         0.        14.         3.     629.90
        .19      0.00       3.80      0.00       .040       .048       .040       .046     621.40     124.58
    .002225       60.        60.       60.          2          0          0       0.00      41.20     165.78

*SECNO 4300.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       632.70 ELREA       632.70

     4300.00      6.53     629.33      0.00     629.36     629.53        .30        .15        .02     624.30
       725.        0.       725.        0.         0.       164.         0.        14.         3.     622.80
        .20      0.00       4.41      0.00       .040       .048       .040       .043     622.80     436.40
    .002159       70.        70.       70.          2          0          0       0.00      27.40     513.80

*SECNO 4301.000

3370 NORMAL BRIDGE,NRD  30 MIN ELTRD   632.40 MAX ELLC   635.90

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       632.70 ELREA       632.70

     4301.00      5.44     629.24      0.00     629.22     629.75        .51        .00        .06     624.80
       725.        0.       725.        0.         0.       127.         0.        14.         3.     622.80
        .20      0.00       5.72      0.00       .040       .043       .040       .048     622.80     485.40
    .009622        1.         1.        1.          2          0          0     -80.00      27.40     513.80

*SECNO 4302.000

3370 NORMAL BRIDGE,NRD  30 MIN ELTRD   632.40 MAX ELLC   635.90

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       632.70 ELREA       632.70

     4302.00      7.06     629.85      0.00     629.84     630.32        .46        .56        .00     624.30
       725.        0.       725.        0.         0.       133.         0.        14.         3.     622.80
        .20      0.00       5.43      0.00       .040       .048       .040       .043     622.80     486.40
    .009189       60.        60.       60.          2          0          0    -104.09      27.40     513.80
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     SECNO     DEPTH    CWSEL     CRIWS    WSELK      EG         HV        HL       OLOSS   BANK ELEV
       Q       QLOB      QCH      QROB     ALOB      ACH        AROB      VOL       TWA    LEFT/RIGHT
     TIME      VLOB      VCH      VROB      XNL      XNCH       XNR       WTN      ELMIN     SSTA
     SLOPE     XLOBL     XLCH     XLOBR    ITRIAL     IDC       ICONT    CORAR    TOPWID    ENDST

*SECNO 4303.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       632.70 ELREA       632.70
   4303.00      7.30   630.10      0.00   630.03   630.34       .24       .20       .02   624.30
      725.        0.     725.        0.       0.     184.        0.       14.        3.   622.80
       .20      0.00     3.94      0.00     .040     .048      .043      .048    622.80   485.40
   .001478        1.       1.        1.        2        0         0      0.00     27.40   513.00

*SECNO 4400.000

3470 ENCROACHMENT STATIONS       554.0      590.0  TYPE       1  TARGET        36.000
   4400.00      7.59   630.19      0.00   630.19   630.50       .31       .14       .02   629.30
      725.        0.     725.        0.       0.     163.        0.       15.        3. 100000.00
       .20      0.00     4.45      0.00     .040     .042      .040      .048    622.60   554.00
   .003215       65.      65.       65.        2        0         0      0.00     35.00   589.00

*SECNO 5000.000

3470 ENCROACHMENT STATIONS          .0     1291.0  TYPE       1  TARGET      1290.999
   5000.00      7.51   631.41      0.00   631.39   631.49       .03       .97       .02   632.30
      725.        0.     725.        0.       0.     322.        0.       18.        4. 100000.00
       .29      0.00     2.25      0.00     .040     .048      .040      .048    623.80  1215.87
   .000817      670.     670.      670.        2        0         0      0.00     75.13  1291.00

*SECNO 5100.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       636.30 ELREA       636.30
   5100.00      7.43   631.43      0.00   631.40   631.68       .25       .14       .05   626.00
      725.        0.     725.        0.       0.     180.        0.       19.        4.   626.00
       .29      0.00     4.02      0.00     .040     .052      .040      .048    624.00   486.90
   .002386      105.     105.      105.        2        0         0      0.00     26.10   513.00

*SECNO 5101.000

3370 NORMAL BRIDGE,NRD   38 MIN ELTRD   636.20 MAX ELLC   641.80
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 636.30 ELREA 635.30

5101.00	7.26	631.25	0.00	631.26	631.75	.49	.01	.07	626.00
725.	0.	725.	0.	0.	129.	0.	19.	4.	626.00
.29	0.00	5.63	0.00	.040	.062	.040	.048	624.00	486.90
.021410	1.	1.	1.	2	0	0	-72.91	26.10	513.00

*SECNO 5102.000

3370 NORMAL BRIDGE,NRD 38 MIN ELTRD 636.20 MAX ELLC 641.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 636.30 ELREA 635.30

5102.00	10.55	634.55	0.00	634.48	635.04	.49	3.28	.00	626.00
725.	0.	725.	0.	0.	129.	0.	19.	4.	626.00
.30	0.00	5.62	0.00	.040	.062	.040	.048	624.00	486.90
.022373	150.	150.	150.	2	0	0	-200.30	26.10	513.00

*SECNO 5103.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 636.30 ELREA 635.30

5103.00	10.97	634.97	0.00	634.91	635.08	.11	.00	.04	626.00
725.	0.	725.	0.	0.	273.	0.	19.	4.	626.00
.30	0.00	2.65	0.00	.040	.052	.040	.048	624.00	486.90
.000601	1.	1.	1.	2	0	0	0.00	26.10	513.00

*SECNO 5200.000

3470 ENCROACHMENT STATIONS 500.0 1170.0 TYPE 1 TARGET -500.000

5200.00	10.91	635.01	0.00	634.95	635.11	.09	.03	.00	632.50
725.	0.	724.	1.	0.	293.	2.	20.	4.	634.10
.30	0.00	2.43	.50	.040	.048	.040	.048	624.10	600.00
.000747	40.	40.	40.	2	0	0	0.00	50.14	560.14

CCHV .100 CEHV .300

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      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
      SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST

*SECNO 6200.000

3470 ENCROACHMENT STATIONS       365.0      440.0  TYPE       1  TARGET       75.000
     6200.00     6.76    635.55      0.00    635.52    635.65       .09       .54       .00    634.30
      725.         7.      649.       70.        8.      269.       35.       25.        5.    632.40
       .39        .86      2.41      1.96      .040      .048      .040      .048    626.80    365.00
   .000306      700.      700.      700.         2         0         0      0.00     75.00    440.00

*SECNO 6300.000
3200 CROSS SECTION   6300.00 EXTENDED       .64 FEET

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       638.10 ELREA       633.10

     6300.00     3.95    635.65      0.00    635.61    635.72       .08       .07       .00    638.10
      725.         0.      725.        0.        0.      321.        0.       25.        5.    647.50
       .40       0.00      2.26      0.00      .040      .048      .040      .048    626.70    401.23
   .000726       97.       97.       97.         0         0         0      0.00     57.82    469.05

*SECNO 6301.000
3260 CROSS SECTION   6301.00 EXTENDED       .65 FEET

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       638.10 ELREA       633.10

     6301.00     3.95    635.65      0.00    635.61    635.73       .08       .00       .00    638.10
      725.         0.      725.        0.        0.      322.        0.       25.        5.    647.50
       .40       0.00      2.25      0.00      .040      .048      .040      .048    626.70    401.22
   .000721        5.        6.        5.         0         0         0      0.00     67.85    469.08

*SECNO 6400.000

3470 ENCROACHMENT STATIONS       360.0      430.0  TYPE       1  TARGET       70.000
     6400.00     9.30    635.71      0.00    635.66    635.83       .12       .08       .01    634.60
      725.        21.      602.      102.       17.      206.       44.       26.        6.    632.30
       .41       1.23      2.93      2.35      .040      .048      .040      .048    626.40    360.00
   .001033       97.       97.       97.         1         0         0      0.00     59.02    429.02
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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

CCHV=     .100 CEHV=     .300
*SECNO 7600.000

3470 ENCROACHMENT STATIONS=      305.0      341.0  TYPE=    1  TARGET=     35.000
  7600.00      7.94    636.54      0.00    636.51    636.88       .34       .99       .07    637.90
     725.        0.      715.       10.        0.      151.        6.       29.        6.    630.50
     .44       0.00      4.72      1.06      .040      .048      .040      .048    628.60    303.99
  .003062       600.      600.      600.         2         0         0      0.00     32.01    341.00

*SECNO 7700.000

3470 ENCROACHMENT STATIONS=      487.2      512.7  TYPE=    1  TARGET=     25.500
  7700.00      5.77    635.67      0.00    636.53    637.39       .41       .18       .02    631.90
     725.        0.      725.        0.        0.      140.        0.       29.        6. 100000.00
     .45       0.00      5.17      0.00      .040      .052      .040      .048    629.90    487.20
  .007752        40.       40.       40.         2         0         0      0.00     25.50    512.70

SPECIAL BRIDGE
SB  XK      XKOR     COFQ     RDLEN     BWC      BWP     BAREA      SS     ELCHU     ELCHD
     0.00    2.94     2.50     0.00    25.50     0.00    126.00    0.00   630.00    630.00

*SECNO 7701.000

6070 LOW FLOW BY NORMAL BRIDGE

EGPRS      0.000  EGLWC     637.175  ELLC     637.400  PCWSE     636.675  ELTRD     640.400

3370 NORMAL BRIDGE,NRD=  22 MIN ELTRD=  640.40 MAX ELLC=   637.40

3470 ENCROACHMENT STATIONS=      487.2      512.7  TYPE=    1  TARGET=     25.500
  7701.00      8.36    638.26      0.00    638.24    638.94       .68      1.77       .08    631.90
     725.        0.      725.        0.        0.      110.        0.       29.        6. 100000.00
     .45       0.00      6.61      0.00      .040      .052      .040      .049    629.90    487.20
  .038272       120.      120.      120.         3         0         0    -71.03     25.50    512.70

*SECNO 7800.000

3301 HV CHANGED MORE THAN HVINS
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      SECNO      DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS   BANK ELEV
        Q        QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
      TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
      SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

3470 ENCROACHMENT STATIONS      460.0      540.0   TYPE       1   TARGET      80.000
     7800.00      9.11    639.01      0.00    638.93    639.03      .07       .03       .05    635.70
       725.        37.      646.        2.       23.      313.        4.       30.        6.    623.62
        .46       1.61      2.19       .50      .040      .048      .040      .048    629.90    460.00
    .000634        40.       40.       40.         2         0         0      0.00     80.00    540.00

CCHV      .100 CEHV      .300
*SECNO 8250.000

3470 ENCROACHMENT STATIONS     1965.0     2045.0   TYPE       1   TARGET      80.000
     8250.00      9.37    639.37      0.00    639.35    639.48      .11       .39       .01    633.10
       670.         4.      655.        5.        5.      245.        0.       33.        7.    644.50
        .51        .33      2.72      0.00      .040      .049      .040      .043    629.50   1965.00
    .000963       510.      510.      510.         3         0         0      0.00     57.47   2022.47

*SECNO 8350.000

3470 ENCROACHMENT STATIONS      191.2      210.0   TYPE       1   TARGET      13.900
     8350.00      9.34    639.34      0.00    639.33    639.56      .32       .12       .06    633.70
       670.         0.      670.        0.        0.      149.        0.       33.        7. 100000.00
        .51       0.00      4.51      0.00      .040      .062      .040      .049    630.00    191.20
    .005550        60.       60.       60.         2         0         0      0.00     13.80    210.00


SPECIAL BRIDGE

SB   XK         XKOR      COFQ      RDLEN      BWC       BWP       BAREA      SS        ELCHU      ELCHD
     0.00       2.12      2.50      0.00      18.80      0.00      97.93      0.00      630.00     630.00

*SECNO 8351.000
PRESSURE FLOW

  EGPRS       EGLWC        H3        QWEIR        QPR        BAREA   TRAPEZOID      ELLC      ELTRD
                                                                      AREA
   640.88     639.66      0.00        0.         670.        98.       168.       638.96    641.92


3470 ENCROACHMENT STATIONS      191.2      210.0   TYPE       1   TARGET      13.900
     8351.00     10.65    640.65      0.00    640.63    640.80      .23      1.22      0.00    633.70
       670.         0.      670.        0.        0.      173.        0.       33.        7. 100000.00
        .52       0.00      3.87      0.00      .040      .062      .040      .049    630.00    191.20
    .003650        39.       39.       39.         2         0         0      0.00     13.80    210.00
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 SECNO     DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL       OLOSS    BANK ELEV
 Q         QLOB      QCH       QROB      ALOB       ACH       AROB      VOL      TWA    LEFT/RIGHT
 TIME      VLOB      VCH       VROB      XNL        XNCH      XNR       WTN      ELMIN     SSTA
 SLOPE     XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR    TOPWID    ENDST

*SECNO 8450.000

3470 ENCROACHMENT STATIONS       2900.0     3650.0  TYPE        1  TARGET        75.000
  8450.00    10.69    640.89      0.00    640.88    641.00       .11       .11       .01    639.40
     670.      21.      649.        0.       15.      241.        0.       34.        7.    643.10
     .52      1.35      2.69      0.00      .040      .048      .040      .049    630.20    290.00
 .000979       65.       55.       65.         2         0         0      0.00     57.88    347.88

*SECNO 9450.000

3470 ENCROACHMENT STATIONS      1940.0     2020.0  TYPE        1  TARGET        30.000
  9450.00     6.82    642.02      0.00    642.01    642.16       .14       .15       .01    641.30
     670.      18.      540.      113.       15.      170.       46.       39.        9.    640.10
     .61      1.14      3.11      2.47      .040      .048      .040      .049    633.20   1940.00
 .001730      900.      900.      900.         3         0         0      0.00     80.00   2020.00

*SECNO 9505.000
  9505.00     7.22    642.22      0.00    642.21    642.37       .15       .21       .00    639.20
     670.      12.      591.       67.        5.      188.       19.       39.        9.    636.60
     .62      2.25      3.15      3.45      .030      .050      .030      .049    635.00    300.45
 .001723      120.      120.      120.         2         0         0      0.00     44.45    344.90

*SECNO 9605.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA        642.60 ELREA        642.60

  9605.00     7.39    642.39      0.00    642.30    642.58       .20       .20       .01    642.60
     670.       0.      670.        0.        0.      137.        0.       40.        9.    635.70
     .62      0.00      3.58      0.00      .030      .060      .030      .049    635.00    304.06
 .002320      100.      100.      100.         0         0         0      0.00     32.94    337.00

SPECIAL BRIDGE

5070,VARIABLE ELCHU OR ELCHD ON CARD SB NOT SPECIFIED
SB  XK        XKOR      COFQ      RDLEN      BWC       BWP       BAREA      SS       ELCHU      ELCHD
    0.00      1.35      2.50      0.00      45.00      0.00     275.00      0.00    635.00     635.00

*SECNO 9605.000
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     SECNO      DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
     Q          QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
     TIME       VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

 6070,LOW FLOW BY NORMAL BRIDGE

 EGPRS    642.510  EGLWC    642.504  ELLC    641.200  RCWSE    642.386  ELTRD    642.600

 3370 NORMAL BRIDGE,NRD  10 MIN ELTRD    642.60 MAX ELLC    641.20

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       2.60 ELREA       642.60

   9606.00       7.35    642.35      0.00    642.35    642.65       .29       .03       .03    642.60
      670.         0.      670.        0.        0.      154.        0.       40.        9.    635.70
       .62       0.00      4.35      0.00      .030      .050      .030      .049    635.00    304.07
   .009983         0.        8.        0.         2         0         0    -45.17     32.93    337.00

 *SECNO 9635.000
   9635.00       7.57    642.57      0.00    642.57    642.72       .15       .06       .01    642.60
      670.         0.      461.      209.        0.      193.       50.       40.        9.    635.70
       .63       0.00      2.39      4.19      .030      .060      .030      .049    635.00    304.01
   .000995        25.       25.       25.         2         0         0      0.00     26.59    390.59

 *SECNO 10100.000

 3470 ENCROACHMENT STATIONS     1510.0    1590.0  TYPE       1  TARGET       60.000
  10100.00       7.34    643.64      0.00    643.64    643.93       .29      1.17       .04    643.50
      670.         4.      666.        0.        3.      153.        0.       43.       10.    643.80
       .60       1.39      4.36      0.00      .030      .050      .030      .050    636.30   1510.00
   .006429       575.      570.      575.         3         0         0      0.00     58.91   1568.91

 *SECNO 11050.000

 3265 DIVIDED FLOW

  11050.00       7.73    646.53      0.00    646.53    646.65       .12      2.70       .02    643.60
      670.         1.      669.        0.        1.      236.        0.       47.       11.    648.30
       .77        .60      2.81      0.00      .030      .060      .030      .051    638.80    322.45
   .001376      1050.     1050.     1050.         2         0         0      0.00     43.15    464.65
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 11150.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD 6 MIN ELTRD 646.20 MAX ELLC 648.40

11150.00	7.73	646.53	0.00	646.53	646.55	.12	.00	.00	643.50
670.	1.	669.	0.	1.	239.	0.	47.	11.	648.30
.77	.79	2.30	0.30	.030	.050	.030	.051	638.80	322.31
.001371	1.	1.	1.	0	0	0	0.00	43.65	464.65

*SECNO 11158.000

3265 DIVIDED FLOW

3370 NORMAL BRIDGE,NRD 6 MIN ELTRD 648.20 MAX ELLC 648.40

11158.00	7.74	646.54	0.00	646.54	646.56	.12	.01	.00	643.50
670.	1.	669.	0.	1.	239.	0.	47.	11.	646.30
.77	.77	2.80	0.00	.030	.050	.030	.051	638.80	322.12
.001364	3.	3.	3.	0	0	0	0.00	44.29	464.66

*SECNO 11159.000

3265 DIVIDED FLOW

11159.00	7.74	646.54	0.00	646.54	646.57	.12	.00	.00	643.60
670.	1.	669.	0.	1.	239.	0.	47.	11.	648.30
.77	.75	2.80	0.00	.030	.050	.030	.051	638.80	322.09
.001363	1.	1.	1.	0	0	0	0.00	44.41	464.66

*SECNO 11185.000

3470 ENCROACHMENT STATIONS 375.0 455.0 TYPE 1 TARGET 80.000

11185.00	3.07	646.57	0.00	646.58	646.69	.12	.03	.00	645.70
670.	15.	310.	339.	13.	144.	103.	48.	11.	639.20
.77	1.13	2.20	3.29	.030	.060	.030	.051	638.50	375.00
.000900	25.	25.	25.	0	0	0	0.00	80.00	455.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 11409.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 647.80 ELREA 647.80

11409.00	7.59	646.59	0.00	646.60	646.79	.20	.07	.02	641.00
670.	0.	670.	0.	0.	189.	0.	43.	11.	641.00
.78	0.00	3.55	0.00	.030	.060	.030	.051	639.00	394.00
.001787	60.	60.	60.	2	0	0	0.00	26.90	420.90

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	2.20	2.63	0.00	26.00	0.00	142.00	0.00	639.20	639.20

*SECNO 11411.000

3370 NORMAL BRIDGE,NRD 20 MIN ELTRD 647.20 MAX ELLC 647.20

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA 647.80 ELREA 647.80

11411.00	7.72	646.72	0.00	646.72	647.03	.31	.21	.03	641.00
670.	0.	670.	0.	0.	150.	0.	48.	11.	641.00
.78	0.00	4.46	0.00	.030	.050	.030	.051	639.00	394.00
.010571	57.	57.	57.	2	0	0	-42.02	26.90	420.90

*SECNO 11530.000

3470 ENCROACHMENT STATIONS 275.0 419.0 TYPE 1 TARGET 144.000

11530.00	8.37	647.07	0.00	647.07	647.11	.04	.05	.03	641.10
670.	399.	271.	0.	250.	177.	0.	43.	12.	100000.00
.79	1.60	1.53	0.00	.030	.060	.030	.051	638.70	275.00
.000361	50.	50.	50.	2	0	0	0.00	144.00	419.00

*SECNO 12080.000

3470 ENCROACHMENT STATIONS 60.0 225.0 TYPE 1 TARGET 165.000

12080.00	8.87	647.37	0.00	647.28	647.51	.14	.37	.03	646.70
670.	59.	611.	0.	46.	195.	0.	52.	13.	648.00
.84	1.27	3.13	0.00	.030	.050	.030	.051	638.50	60.00
.002175	510.	510.	510.	3	0	0	0.00	152.85	212.85

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   SECNO      DEPTH     CWSEL      CRIWS     WSELK      EG         HV         HL       OLOSS   BANK ELEV
     Q         QLOB      QCH       QROB       ALOB      ACH       AROB        VOL       TWA    LEFT/RIGHT
    TIME       VLOB      VCH       VROB       XNL       XNCH       XNR        WTN      ELMIN      SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT      CORAR    TOPWID     ENDST

*SECNO 12740.000
3280 CROSS SECTION  12740.00 EXTENDED       .04 FEET

  12740.00      5.44    648.84      0.00    648.84    648.89       .05       1.36       .01    645.00
      670.      266.      225.      179.      165.      102.      135.        50.       16.    646.00
       .95      1.61      2.20      1.32      .060      .070      .060       .052    642.40      0.00
   .001757      700.      700.      700.         1         0         0       0.00    200.00    200.00

*SECNO 12741.000
3280 CROSS SECTION  12741.00 EXTENDED       .23 FEET

3370 NORMAL BRIDGE,NRD  15 MIN ELTRD   648.30 MAX ELLC   648.80

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
  12741.00      6.68    649.08    649.08    649.08    649.49       .41        .01       .21    645.00
      670.       45.      193.      425.       24.       40.       73.        53.       16.    646.00
       .95      1.92      5.00      5.44      .100      .090      .035       .052    642.40      0.00
   .090757        1.        1.        1.        20        20         0    -309.17    200.00    200.00

*SECNO 12762.000
3280 CROSS SECTION  12762.00 EXTENDED      1.08 FEET

3370 NORMAL BRIDGE,NRD  15 MIN ELTRD   648.30 MAX ELLC   648.80

  12762.00      7.48    649.88      0.00    649.83    649.97       .09        .45       .03    645.00
      670.      138.      114.      418.       92.       56.      154.        58.       16.    646.00
       .95      1.50      2.05      2.72      .100      .030      .035       .052    642.40      0.00
   .009273       21.       21.       21.         4         0         0    -309.17    200.00    200.00

*SECNO 12763.000
3280 CROSS SECTION  12763.00 EXTENDED      1.15 FEET

  12763.00      7.55    649.95      0.00    649.95    649.98       .03        .00       .01    645.00
      670.      161.      132.      377.      250.      126.      240.        53.       16.    646.00
       .95       .62      1.05      1.57      .100      .030      .035       .052    642.40      0.00
   .000399        1.        1.        1.         2         0         0       0.00    200.00    200.00
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

*SECNO 12850.000
3280 CROSS SECTION 12850.00 EXTENDED .60 FEET

12850.00	6.50	650.00	0.00	650.00	650.05	.05	.06	.01	645.60
670.	60.	69.	521.	95.	74.	276.	60.	17.	648.10
.97	.63	1.20	1.38	.100	.080	.035	.053	643.50	0.00
.000543	210.	190.	100.	2	0	0	0.00	191.71	191.71

*SECNO 13413.000

3265 DIVIDED FLOW

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

13413.00	4.38	650.93	650.98	650.98	651.52	.53	.39	.15	703.40
670.	0.	0.	670.	0.	0.	114.	64.	19.	703.40
1.00	0.00	0.00	5.36	.100	.080	.035	.055	646.60	109.72
.007943	650.	650.	650.	20	16	0	0.00	102.74	359.80

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HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
ERROR CORR - 01,02,03,04
MODIFICATION - 50,51,52,53,54
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

BUTTERMILK CREEK

SUMMARY PRINTOUT TABLE 110

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	0.000	614.32	0.00	614.44	50.00	215.28	498.56	11.06	50.00	265.00	287.00	313.00	315.00
	0.000	614.42	0.00	614.53	50.00	217.15	496.31	11.04	50.00	265.00	287.00	313.00	315.00
	900.000	615.06	0.00	615.37	38.00	43.31	603.23	78.46	38.00	1837.00	1851.00	1863.00	1875.00
	900.000	615.12	.06	615.42	38.00	44.41	601.55	79.04	38.00	1837.00	1851.00	1863.00	1875.00
*	2150.000	618.39	0.00	619.61	36.74	32.74	300.35	391.90	0.00	0.00	574.50	580.50	0.00
*	2150.000	618.42	.03	619.64	32.00	29.56	300.45	374.09	32.00	568.00	574.50	580.50	600.00
	2250.000	619.71	0.00	620.29	23.00	0.00	725.00	0.00	0.00	0.00	1981.50	2004.50	0.00
	2250.000	619.73	.02	620.31	23.00	0.00	725.00	0.00	0.00	0.00	1981.50	2004.50	0.00
	2251.000	619.72	0.00	620.30	23.00	0.00	725.00	0.00	0.00	0.00	1981.50	2004.50	0.00
	2251.000	619.74	.02	620.31	23.00	0.00	725.00	0.00	0.00	0.00	1981.50	2004.50	0.00
	2252.000	619.74	0.00	620.32	23.00	0.00	725.00	0.00	0.00	0.00	1981.50	2004.50	0.00
	2252.000	619.77	.02	620.34	23.00	0.00	725.00	0.00	0.00	0.00	1981.50	2004.50	0.00
	2253.000	619.75	0.00	620.32	23.00	0.00	725.00	0.00	0.00	0.00	1981.50	2004.50	0.00
	2253.000	619.76	.02	620.34	23.00	0.00	725.00	0.00	0.00	0.00	1981.50	2004.50	0.00
	2425.000	621.06	0.00	621.71	25.66	0.00	725.00	0.00	0.00	0.00	1993.00	2024.00	0.00
	2425.000	621.07	.01	621.72	25.68	0.00	725.00	0.00	0.00	0.00	1993.00	2024.00	0.00
	2600.000	622.05	0.00	622.64	19.70	0.00	725.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2600.000	622.05	.00	622.64	19.70	0.00	725.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2601.000	622.05	0.00	622.64	19.70	0.00	725.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2601.000	622.06	.00	622.64	19.70	0.00	725.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2602.000	622.20	0.00	622.76	19.70	0.00	725.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2602.000	622.20	.00	622.76	19.70	0.00	725.00	0.00	0.00	0.00	1997.50	2017.20	0.00

	SECNO	CWSEL	DIFWS	EG	TOPWID	XLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	2603.000	622.21	0.00	622.77	19.70	0.00	725.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2603.000	622.21	.00	622.77	19.70	0.00	725.00	0.00	0.00	0.00	1997.50	2017.20	0.00
*	2800.000	623.43	0.00	625.06	22.08	0.00	725.00	0.00	0.00	0.00	1993.00	2026.00	0.00
*	2800.000	623.43	.00	625.06	22.08	0.00	725.00	0.00	0.00	0.00	1993.00	2026.00	0.00
	3000.000	626.52	0.00	627.03	15.50	0.00	725.00	0.00	0.00	0.00	2000.00	2015.50	0.00
	3000.000	626.52	.00	627.03	15.50	0.00	725.00	0.00	0.00	0.00	2000.00	2015.50	0.00
	3001.000	626.86	0.00	627.13	27.87	0.00	725.00	0.00	0.00	0.00	2000.00	2028.30	0.00
	3001.000	626.86	.00	627.13	27.87	0.00	725.00	0.00	0.00	0.00	2000.00	2028.30	0.00
	3002.000	626.83	0.00	627.14	27.92	0.00	725.00	0.00	0.00	0.00	2000.00	2028.30	0.00
	3002.000	626.83	.00	627.14	27.92	0.00	725.00	0.00	0.00	0.00	2000.00	2028.30	0.00
	3003.000	626.94	0.00	627.16	27.49	0.00	725.00	0.00	0.00	0.00	1985.00	2013.30	0.00
	3003.000	626.94	.00	627.16	27.49	0.00	725.00	0.00	0.00	0.00	1985.00	2013.30	0.00
	3004.000	626.97	0.00	627.19	27.50	0.00	725.00	0.00	0.00	0.00	1985.00	2013.30	0.00
	3004.000	626.97	.00	627.19	27.50	0.00	725.00	0.00	0.00	0.00	1985.00	2013.30	0.00
	3005.000	626.99	0.00	627.21	32.00	0.00	725.00	0.00	0.00	0.00	1977.00	2009.00	0.00
	3005.000	626.99	.00	627.21	32.00	0.00	725.00	0.00	0.00	0.00	1977.00	2009.00	0.00
	3006.000	627.00	0.00	627.22	32.00	0.00	725.00	0.00	-627.70	627.70	1977.00	2009.00	2050.01
	3006.000	627.00	.00	627.22	32.00	0.00	725.00	0.00	-627.70	627.70	1977.00	2009.00	2050.01
	3007.000	627.00	0.00	627.22	32.00	0.00	725.00	0.00	-627.70	627.70	1977.00	2009.00	2050.01
	3007.000	627.00	.00	627.22	32.00	0.00	725.00	0.00	-627.70	627.70	1977.00	2009.00	2050.01
	3125.000	627.19	0.00	627.36	57.80	16.49	706.21	2.31	60.00	1975.00	1987.00	2023.00	2035.00
	3125.000	627.19	.00	627.36	57.80	16.49	706.21	2.31	60.00	1975.00	1987.00	2023.00	2035.00
	3250.000	627.33	0.00	627.62	27.20	0.00	725.00	0.00	0.00	0.00	1985.60	2014.20	0.00
	3250.000	627.33	.00	627.62	27.20	0.00	725.00	0.00	0.00	0.00	1985.60	2014.20	0.00
	3251.000	627.35	0.00	627.64	27.20	0.00	725.00	0.00	0.00	0.00	1985.60	2014.20	0.00
	3251.000	627.35	.00	627.64	27.20	0.00	725.00	0.00	0.00	0.00	1985.60	2014.20	0.00
	3400.000	627.42	0.00	627.71	30.00	0.00	725.00	0.00	0.00	0.00	1985.00	2015.00	0.00
	3400.000	627.42	.00	627.71	30.00	0.00	725.00	0.00	0.00	0.00	1985.00	2015.00	0.00
	3401.000	627.42	0.00	627.71	30.00	0.00	725.00	0.00	0.00	0.00	1985.00	2015.00	0.00
	3401.000	627.42	.00	627.71	30.00	0.00	725.00	0.00	0.00	0.00	1985.00	2015.00	0.00
	3402.000	627.83	0.00	628.08	30.00	0.00	725.00	0.00	0.00	0.00	1985.00	2015.00	0.00
	3402.000	627.83	.00	628.08	30.00	0.00	725.00	0.00	0.00	0.00	1985.00	2015.00	0.00
	3403.000	627.83	0.00	628.08	30.00	0.00	725.00	0.00	0.00	0.00	1985.00	2015.00	0.00
	3403.000	627.83	.00	628.08	30.00	0.00	725.00	0.00	0.00	0.00	1985.00	2015.00	0.00

SECNO	CWSEL	DIFWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
3600.000	623.00	0.00	623.14	52.76	0.00	723.70	1.30	0.00	0.00	1942.50	1992.50	0.00
3600.000	623.00	-.00	623.14	50.00	0.00	725.00	0.00	50.00	1942.50	1942.50	1992.50	1992.50
4000.000	623.70	0.00	623.95	42.00	.55	724.45	0.00	0.00	0.00	1972.50	2014.50	0.00
4000.000	623.72	.02	623.97	42.31	0.00	725.00	0.00	42.00	1972.50	1972.50	2014.50	2014.50
4100.000	623.84	0.00	629.25	25.00	0.00	725.00	0.00	110.00	320.00	357.50	382.50	430.00
4100.000	623.86	.02	629.27	25.00	0.00	725.00	0.00	110.00	320.00	357.50	382.50	430.00
4101.000	623.64	0.00	629.25	25.00	0.00	725.00	0.00	110.00	320.00	357.50	382.50	430.00
4101.000	626.66	.02	629.27	25.00	0.00	725.00	0.00	110.00	320.00	357.50	382.50	430.00
4102.000	628.89	0.00	629.29	25.00	0.00	725.00	0.00	50.00	345.00	357.50	382.50	395.00
4102.000	628.91	.02	629.31	25.00	0.00	725.00	0.00	50.00	345.00	357.50	382.50	395.00
4103.000	628.39	0.00	629.30	25.00	0.00	725.00	0.00	50.00	345.00	357.50	382.50	395.00
4103.000	623.91	.02	629.31	25.00	0.00	725.00	0.00	50.00	345.00	357.50	382.50	395.00
4200.000	629.26	0.00	629.49	41.41	0.00	725.00	0.00	200.00	.00	123.00	167.00	200.00
4200.000	629.28	.02	629.51	41.20	0.00	725.00	0.00	200.00	.00	123.00	167.00	200.00
4300.000	629.36	0.00	629.57	27.40	0.00	725.00	0.00	0.00	0.00	436.40	513.30	0.00
4300.000	629.38	.02	629.58	27.40	0.00	725.00	0.00	0.00	0.00	486.40	513.30	0.00
4301.000	629.22	0.00	629.73	27.40	0.00	725.00	0.00	0.00	0.00	485.40	513.30	0.00
4301.000	629.24	.02	629.75	27.40	0.00	725.00	0.00	0.00	0.00	486.40	513.30	0.00
4302.000	629.84	0.00	630.30	27.40	0.00	725.00	0.00	0.00	0.00	486.40	513.30	0.00
4302.000	629.36	.02	630.32	27.40	0.00	725.00	0.00	0.00	0.00	486.40	513.30	0.00
4303.000	630.00	0.00	630.33	27.40	0.00	725.00	0.00	0.00	0.00	486.40	513.90	0.00
4303.000	630.10	.02	630.34	27.40	0.00	725.00	0.00	0.00	0.00	486.40	513.50	0.00
4400.000	630.18	0.00	630.48	43.39	6.05	718.95	0.00	0.00	0.00	554.00	590.00	0.00
4400.000	630.19	.01	630.50	35.00	0.00	725.00	0.00	35.00	554.00	554.00	590.00	590.00
5000.000	631.39	0.00	631.47	74.95	0.00	725.00	0.00	1291.00	.00	1209.00	1291.00	1291.00
5000.000	631.41	.02	631.49	73.13	0.00	725.00	0.00	1291.00	.00	1209.00	1291.00	1291.00
5100.000	631.40	0.00	631.56	26.10	0.00	725.00	0.00	0.00	0.00	485.90	513.00	0.00
5100.000	631.43	.02	631.58	26.10	0.00	725.00	0.00	0.00	0.00	486.90	513.00	0.00
5101.000	631.24	0.00	631.73	26.10	0.00	725.00	0.00	0.00	0.00	486.90	513.00	0.00
5101.000	631.26	.02	631.75	26.10	0.00	725.00	0.00	0.00	0.00	485.90	513.00	0.00
5102.000	634.48	0.00	634.98	26.10	0.00	725.00	0.00	0.00	0.00	486.90	513.00	0.00
5102.000	634.55	.06	635.04	26.10	0.00	725.00	0.00	0.00	0.00	486.90	513.00	0.00
5103.000	634.91	0.00	635.02	26.10	0.00	725.00	0.00	0.00	0.00	486.90	513.00	0.00
5103.000	634.97	.06	635.08	26.10	0.00	725.00	0.00	0.00	0.00	486.90	513.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
5200.000	634.95	0.00	635.05	59.74	0.00	723.23	1.17	-600.00	600.00	600.00	655.00	1170.00
5200.000	635.01	.06	635.11	60.14	0.00	723.60	1.40	-600.00	600.00	600.00	655.00	1170.00
6200.000	635.52	0.00	635.61	75.00	6.29	649.27	69.44	75.00	365.00	375.00	430.00	440.00
6200.000	635.56	.04	635.65	75.00	5.77	648.61	69.62	75.00	365.00	375.00	430.00	440.00
6300.000	635.61	0.00	635.69	67.59	0.00	725.00	0.00	0.00	0.00	400.00	479.00	0.00
6300.000	635.65	.04	635.72	67.82	0.00	725.00	0.00	0.00	0.00	400.00	479.00	0.00
6301.000	635.61	0.00	635.69	67.73	0.00	725.00	0.00	0.00	0.00	400.00	479.00	0.00
6301.000	635.65	.04	635.73	67.85	0.00	725.00	0.00	0.00	0.00	400.00	479.00	0.00
6400.000	635.66	0.00	635.79	61.93	19.99	603.70	101.31	70.00	360.00	375.00	412.00	430.00
6400.000	635.70	.04	635.83	69.02	20.85	602.06	102.09	70.00	360.00	375.00	412.00	430.00
7600.000	636.51	0.00	636.79	37.71	0.00	659.47	65.53	0.00	0.00	305.00	340.00	0.00
7600.000	636.54	.03	636.83	32.01	0.00	714.77	10.23	36.00	305.00	305.00	340.00	341.00
7700.000	636.58	0.00	637.01	25.50	0.00	725.00	0.00	25.50	487.20	487.20	512.70	512.70
7700.000	636.67	.09	637.09	25.50	0.00	725.00	0.00	25.50	487.20	487.20	512.70	512.70
7701.000	638.24	0.00	638.92	25.50	0.00	725.00	0.00	25.50	487.20	487.20	512.70	512.70
7701.000	638.26	.02	638.94	25.50	0.00	725.00	0.00	25.50	487.20	487.20	512.70	512.70
7800.000	638.99	0.00	639.06	80.00	37.26	686.03	1.71	80.00	460.00	467.00	531.00	540.00
7800.000	639.01	.02	639.08	80.00	37.33	685.81	1.86	80.00	460.00	467.00	531.00	540.00
8250.000	639.35	0.00	639.47	57.43	4.14	665.86	0.00	80.00	1965.00	1975.00	2033.00	2045.00
8250.000	639.37	.02	639.49	57.47	4.32	665.68	0.00	80.00	1965.00	1975.00	2033.00	2045.00
8350.000	639.33	0.00	639.54	13.60	0.00	670.00	0.00	16.30	191.20	191.20	210.00	210.00
8350.000	639.34	.02	639.56	13.60	0.00	670.00	0.00	16.30	191.20	191.20	210.00	210.00
8351.000	640.63	0.00	640.86	13.60	0.00	670.00	0.00	16.30	191.20	191.20	210.00	210.00
8351.000	640.65	.02	640.88	13.60	0.00	670.00	0.00	16.30	191.20	191.20	210.00	210.00
8450.000	640.85	0.00	640.99	57.83	20.40	649.60	0.00	75.00	290.00	301.00	355.00	365.00
8450.000	640.89	.02	641.00	57.88	20.69	649.31	0.00	75.00	290.00	301.00	355.00	365.00
9450.000	642.01	0.00	642.16	80.00	17.39	540.04	112.59	80.00	1940.00	1963.00	2000.00	2020.00
9450.000	642.02	.01	642.16	80.00	17.61	539.64	112.75	80.00	1940.00	1963.00	2000.00	2020.00
9505.000	642.21	0.00	642.37	44.43	12.04	591.10	66.86	0.00	0.00	304.00	333.00	0.00
9505.000	642.22	.01	642.37	44.45	12.07	591.02	66.91	0.00	0.00	304.00	333.00	0.00
9605.000	642.36	0.00	642.58	32.94	0.00	670.00	0.00	0.00	0.00	304.00	337.00	0.00
9605.000	642.39	.00	642.58	32.94	0.00	670.00	0.00	0.00	0.00	304.00	337.00	0.00
9606.000	642.35	0.00	642.54	32.93	0.00	670.00	0.00	0.00	0.00	304.00	337.00	0.00
9606.000	642.35	.00	642.55	32.93	0.00	670.00	0.00	0.00	0.00	304.00	337.00	0.00

SECNO	CWSEL	DIFWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
9635.000	642.57	0.00	642.71	85.60	0.00	461.14	208.86	0.00	0.00	304.00	337.00	0.00
9635.000	642.57	.01	642.72	86.59	0.00	461.03	208.97	0.00	0.00	304.00	337.00	0.00
10100.000	643.64	0.00	643.93	53.91	4.13	665.86	0.00	80.00	1510.00	1525.00	1579.00	1590.00
10100.000	643.64	.00	643.93	53.91	4.19	665.81	0.00	80.00	1510.00	1525.00	1579.00	1590.00
11050.000	646.53	0.00	646.55	43.16	.73	669.27	0.00	0.00	0.00	424.00	465.00	0.00
11050.000	646.53	-.00	646.55	43.15	.73	669.27	0.00	0.00	0.00	424.00	465.00	0.00
11150.000	646.53	0.00	646.55	43.56	.74	669.26	0.00	0.00	0.00	424.00	465.00	0.00
11150.000	646.53	-.00	646.55	43.55	.74	669.26	0.00	0.00	0.00	424.00	465.00	0.00
11158.000	646.54	0.00	646.56	44.30	.74	669.26	0.00	0.00	0.00	424.00	465.00	0.00
11158.000	646.54	-.00	646.56	44.29	.74	669.26	0.00	0.00	0.00	424.00	465.00	0.00
11159.000	646.54	0.00	646.57	44.42	.74	669.26	0.00	0.00	0.00	424.00	465.00	0.00
11159.000	646.54	-.00	646.57	44.41	.74	669.26	0.00	0.00	0.00	424.00	465.00	0.00
11185.000	646.58	0.00	646.59	106.29	16.30	318.59	335.11	0.00	0.00	394.00	421.00	0.00
11185.000	646.57	-.00	646.59	30.00	14.73	321.37	333.90	80.00	375.00	394.00	421.00	455.00
11409.000	646.60	0.00	646.79	26.90	0.00	670.00	0.00	0.00	0.00	394.00	420.90	0.00
11409.000	646.59	-.00	646.79	26.90	0.00	670.00	0.00	0.00	0.00	394.00	420.90	0.00
11411.000	646.72	0.00	647.03	26.90	0.00	670.00	0.00	0.00	0.00	394.00	420.90	0.00
11411.000	646.72	-.00	647.03	26.90	0.00	670.00	0.00	0.00	0.00	394.00	420.90	0.00
11530.000	647.07	0.00	647.10	219.41	364.58	255.50	49.92	0.00	0.00	394.00	419.00	0.00
11530.000	647.07	-.00	647.11	144.00	399.25	270.75	0.00	144.00	275.00	394.00	419.00	419.00
12030.000	647.28	0.00	647.44	155.79	39.98	630.02	0.00	0.00	0.00	174.00	215.00	0.00
12030.000	647.37	.09	647.51	152.85	58.89	611.11	0.00	165.00	60.00	174.00	215.00	225.00
12740.000	648.64	0.00	648.89	200.00	256.53	224.37	179.10	0.00	0.00	85.00	106.00	0.00
12740.000	648.64	-.00	648.89	200.00	266.53	224.38	179.09	0.00	0.00	85.00	106.00	0.00
* 12741.000	649.08	0.00	649.49	200.00	46.22	198.16	425.60	0.00	0.00	85.00	106.00	0.00
* 12741.000	649.08	0.00	649.49	200.00	46.22	198.18	425.50	0.00	0.00	85.00	106.00	0.00
12762.000	649.36	0.00	649.97	200.00	137.96	114.33	417.71	0.00	0.00	85.00	106.00	0.00
12762.000	649.36	0.00	649.97	200.00	137.96	114.33	417.71	0.00	0.00	85.00	106.00	0.00
12763.000	649.95	0.00	649.98	200.00	160.63	132.17	377.20	0.00	0.00	85.00	106.00	0.00
12763.000	649.95	0.00	649.99	200.00	160.63	132.17	377.20	0.00	0.00	85.00	106.00	0.00
12850.000	650.00	0.00	650.05	191.71	59.34	89.86	520.80	0.00	0.00	41.00	55.00	0.00
12850.000	650.00	0.00	650.05	191.71	59.34	89.86	520.80	0.00	0.00	41.00	55.00	0.00
* 13413.000	650.98	0.00	651.52	102.74	0.00	0.00	670.00	0.00	0.00	0.00	0.00	0.00
* 13413.000	650.98	0.00	651.52	102.74	0.00	0.00	670.00	0.00	0.00	0.00	0.00	0.00

BUTTERMILK CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	0.000	0.00	0.00	0.00	605.80	725.00	614.32	0.00	614.44	7.35	2.93	263.52	258.69
	0.000	0.00	0.00	0.00	606.80	725.00	614.42	0.00	614.53	7.41	2.58	273.52	266.31
	900.000	600.00	0.00	0.00	607.40	725.00	615.06	0.00	615.37	16.02	4.74	174.02	151.15
	900.000	600.00	0.00	0.00	607.40	725.00	615.12	0.00	615.42	15.50	4.69	175.36	154.14
*	2150.000	975.00	0.00	0.00	612.20	725.00	618.39	618.39	619.61	171.47	8.96	84.32	55.37
*	2150.000	975.00	0.00	0.00	612.20	725.00	618.42	618.42	619.64	163.62	8.92	83.86	55.83
	2250.000	75.00	0.00	0.00	613.20	725.00	619.71	0.00	620.29	47.80	6.12	118.54	104.86
	2250.000	75.00	0.00	0.00	613.20	725.00	619.73	0.00	620.31	47.06	6.09	119.10	105.68
	2251.000	1.00	622.50	621.20	613.20	725.00	619.72	0.00	620.30	63.31	6.10	119.90	91.11
	2251.000	1.00	622.50	621.20	613.20	725.00	619.74	0.00	620.31	62.48	6.07	119.45	91.72
	2252.000	3.50	622.50	621.50	613.20	725.00	619.74	0.00	620.32	62.59	6.08	119.30	91.55
	2252.000	3.50	622.50	621.80	613.20	725.00	619.77	0.00	620.34	61.98	6.05	119.85	92.17
	2253.000	1.00	0.00	0.00	613.20	725.00	619.75	0.00	620.32	62.23	6.06	119.61	91.90
	2253.000	1.00	0.00	0.00	613.20	725.00	619.78	0.00	620.34	61.44	6.03	120.15	92.50
	2425.000	200.00	0.00	0.00	614.90	725.00	621.06	0.00	621.71	75.09	6.46	112.20	83.67
	2425.000	200.00	0.00	0.00	614.90	725.00	621.07	0.00	621.72	74.57	6.45	112.43	83.90
	2600.000	175.00	0.00	0.00	615.20	725.00	622.05	0.00	622.64	33.65	6.13	119.24	116.62
	2600.000	175.00	0.00	0.00	615.20	725.00	622.05	0.00	622.64	33.57	6.13	113.31	116.74
	2601.000	1.00	626.50	625.40	615.20	725.00	622.05	0.00	622.64	60.74	6.15	117.88	93.02
	2601.000	1.00	626.50	625.40	615.20	725.00	622.06	0.00	622.64	60.64	6.15	117.95	93.10
	2602.000	20.00	626.70	625.40	615.20	725.00	622.20	0.00	622.76	55.85	6.01	120.72	96.15
	2602.000	20.00	626.70	625.40	615.20	725.00	622.20	0.00	622.76	56.77	6.00	120.78	96.22
	2603.000	1.00	0.00	0.00	615.20	725.00	622.21	0.00	622.77	36.31	6.00	120.83	120.31
	2603.000	1.00	0.00	0.00	615.20	725.00	622.21	0.00	622.77	36.25	6.00	120.90	120.41
*	2800.000	170.00	0.00	0.00	613.30	725.00	623.43	623.43	625.06	271.63	10.26	70.69	43.99
*	2800.000	170.00	0.00	0.00	613.30	725.00	623.43	623.43	625.06	271.63	10.26	70.69	43.99
	3000.000	170.00	0.00	0.00	613.70	725.00	626.52	0.00	627.08	60.92	5.98	121.24	92.89
	3000.000	170.00	0.00	0.00	613.70	725.00	626.52	0.00	627.08	60.92	5.98	121.24	92.89
	3001.000	5.30	628.60	627.30	617.60	725.00	626.36	0.00	627.13	25.37	4.11	176.23	141.10
	3001.000	5.30	628.60	627.30	617.60	725.00	626.36	0.00	627.13	25.37	4.11	176.23	141.10
	3002.000	5.60	628.60	627.30	615.70	725.00	626.83	0.00	627.14	24.37	4.05	178.30	146.85
	3002.000	5.60	628.60	627.30	615.70	725.00	626.83	0.00	627.14	24.37	4.05	178.30	146.85

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3003.000	6.00	0.00	0.00	619.10	725.00	626.94	0.00	627.16	17.35	3.75	193.18	171.62
3003.000	6.00	0.00	0.00	619.10	725.00	626.94	0.00	627.16	17.35	3.75	193.18	171.62
3004.000	24.50	629.40	627.30	619.10	725.00	626.97	0.00	627.19	17.59	3.73	194.17	172.89
3004.000	24.50	629.40	627.30	619.10	725.00	626.97	0.00	627.19	17.59	3.73	194.17	172.89
3005.000	11.60	623.60	627.70	619.70	725.00	626.99	0.00	627.21	13.21	3.77	192.44	169.89
3005.000	11.60	623.60	627.70	619.70	725.00	626.99	0.00	627.21	13.21	3.77	192.44	169.89
3006.000	5.00	623.50	627.70	619.70	725.00	627.00	0.00	627.22	15.15	3.76	192.54	170.15
3006.000	5.00	623.50	627.70	619.70	725.00	627.00	0.00	627.22	15.15	3.76	192.54	170.15
3007.000	1.00	0.00	0.00	619.70	725.00	627.00	0.00	627.22	18.13	3.76	192.72	170.25
3007.000	1.00	0.00	0.00	619.70	725.00	627.00	0.00	627.22	18.13	3.76	192.72	170.26
3125.000	65.00	0.00	0.00	620.00	725.00	627.19	0.00	627.36	14.24	3.42	221.23	192.11
3125.000	65.00	0.00	0.00	620.00	725.00	627.19	0.00	627.36	14.24	3.42	221.23	192.11
3250.000	101.00	0.00	0.00	620.70	725.00	627.33	0.00	627.62	39.69	4.32	167.77	115.05
3250.000	101.00	0.00	0.00	620.70	725.00	627.33	0.00	627.62	39.69	4.32	167.77	115.05
3251.000	33.00	633.40	627.10	620.70	725.00	627.35	0.00	627.64	39.52	4.31	168.05	115.33
3251.000	33.00	633.40	627.10	620.70	725.00	627.35	0.00	627.64	39.52	4.31	168.05	115.33
3400.000	20.00	0.00	0.00	620.00	725.00	627.42	0.00	627.71	30.08	4.33	167.38	132.13
3400.000	20.00	0.00	0.00	620.00	725.00	627.42	0.00	627.71	30.08	4.33	167.38	132.13
3401.000	1.00	634.20	630.00	620.80	725.00	627.42	0.00	627.71	30.13	4.33	167.30	132.08
3401.000	1.00	634.20	630.00	620.80	725.00	627.42	0.00	627.71	30.13	4.33	167.30	132.08
3402.000	135.00	634.20	630.30	620.80	725.00	627.83	0.00	628.08	24.43	4.04	179.56	146.67
3402.000	135.00	634.20	630.30	620.80	725.00	627.83	0.00	628.08	24.43	4.04	179.56	146.67
3403.000	1.00	0.00	0.00	620.80	725.00	627.83	0.00	628.06	15.66	4.04	179.67	132.06
3403.000	1.00	0.00	0.00	620.80	725.00	627.83	0.00	628.08	15.86	4.04	179.67	132.06
3600.000	30.00	0.00	0.00	620.40	725.00	628.00	0.00	628.14	11.55	2.92	249.14	213.31
3600.000	30.00	0.00	0.00	620.40	725.00	628.00	0.00	628.14	11.92	2.93	247.52	210.02
4000.000	470.00	0.00	0.00	621.10	725.00	628.70	0.00	628.95	25.90	4.02	180.61	142.47
4000.000	470.00	0.00	0.00	621.10	725.00	628.72	0.00	628.97	26.30	4.01	180.90	141.37
4100.000	77.00	0.00	0.00	621.60	725.00	628.84	0.00	629.25	40.12	5.14	141.11	114.46
4100.000	77.00	0.00	0.00	621.60	725.00	628.86	0.00	629.27	39.74	5.12	141.57	115.01
4101.000	1.00	629.40	633.40	621.60	725.00	628.84	0.00	629.25	40.25	5.14	140.94	114.27
4101.000	1.00	629.40	633.40	621.60	725.00	628.86	0.00	629.27	39.79	5.12	141.51	114.94
4102.000	10.00	629.40	633.40	621.60	725.00	628.89	0.00	629.29	39.44	5.11	141.95	115.45
4102.000	10.00	629.40	633.40	621.60	725.00	628.91	0.00	629.31	38.99	5.09	142.52	116.11

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4103.000	1.00	0.00	0.00	621.60	725.00	628.89	0.00	629.30	33.24	5.10	142.20	115.74
4103.000	1.00	0.00	0.00	621.60	725.00	628.91	0.00	629.31	33.79	5.08	142.76	116.40
4200.000	60.00	0.00	0.00	621.40	725.00	629.26	0.00	629.49	22.50	3.81	190.10	152.85
4200.000	60.00	0.00	0.00	621.40	725.00	629.28	0.00	629.51	22.25	3.80	190.89	153.63
4300.000	70.00	0.00	0.00	622.80	725.00	629.36	0.00	629.67	21.80	4.43	163.74	155.29
4300.000	70.00	0.00	0.00	622.80	725.00	629.38	0.00	629.68	21.59	4.41	164.22	156.04
4301.000	1.00	632.40	635.90	622.80	725.00	629.22	0.00	629.73	96.52	5.73	126.50	73.80
4301.000	1.00	632.40	635.90	622.80	725.00	629.24	0.00	629.75	96.22	5.72	126.72	73.91
4302.000	60.00	632.40	635.90	622.80	725.00	629.84	0.00	630.30	91.90	5.44	133.28	75.63
4302.000	60.00	632.40	635.90	622.80	725.00	629.86	0.00	630.32	91.89	5.43	133.42	75.63
4303.000	1.00	0.00	0.00	622.80	725.00	630.08	0.00	630.33	14.90	3.95	183.55	137.85
4303.000	1.00	0.00	0.00	622.80	725.00	630.10	0.00	630.34	14.78	3.94	183.99	138.59
4400.000	65.00	0.00	0.00	622.60	725.00	630.18	0.00	630.48	30.93	4.42	167.42	130.35
4400.000	65.00	0.00	0.00	622.60	725.00	630.19	0.00	630.50	32.15	4.45	163.05	127.85
5000.000	670.00	0.00	0.00	623.80	725.00	631.39	0.00	631.47	3.29	2.27	319.79	251.80
5000.000	670.00	0.00	0.00	623.80	725.00	631.41	0.00	631.49	3.17	2.26	321.50	253.62
5100.000	105.00	0.00	0.00	624.00	725.00	631.40	0.00	631.66	24.12	4.03	179.83	147.63
5100.000	105.00	0.00	0.00	624.00	725.00	631.43	0.00	631.68	23.86	4.02	180.40	148.42
5101.000	1.00	636.20	641.80	624.00	725.00	631.24	0.00	631.73	209.96	5.63	128.67	50.15
5101.000	1.00	636.20	641.80	624.00	725.00	631.26	0.00	631.75	214.10	5.63	128.73	49.55
5102.000	150.00	636.20	641.80	624.00	725.00	634.49	0.00	634.98	223.78	5.63	128.77	48.45
5102.000	150.00	636.20	641.80	624.00	725.00	634.55	0.00	635.04	223.73	5.63	128.77	48.46
5103.000	1.00	0.00	0.00	624.00	725.00	634.91	0.00	635.02	6.13	2.67	271.23	292.85
5103.000	1.00	0.00	0.00	624.00	725.00	634.97	0.00	635.08	6.01	2.66	272.85	295.78
5200.000	40.00	0.00	0.00	624.10	725.00	634.95	0.00	635.05	7.76	2.46	296.48	260.30
5200.000	40.00	0.00	0.00	624.10	725.00	635.01	0.00	635.11	7.47	2.43	300.23	265.30
6200.000	700.00	0.00	0.00	626.60	725.00	635.52	0.00	635.61	3.32	2.44	308.80	251.41
6200.000	700.00	0.00	0.00	626.80	725.00	635.56	0.00	635.65	3.06	2.41	312.01	255.40
6300.000	97.00	0.00	0.00	626.70	725.00	635.61	0.00	635.69	7.45	2.27	318.77	265.59
6300.000	97.00	0.00	0.00	626.70	725.00	635.65	0.00	635.72	7.26	2.26	321.50	268.98
6301.000	6.20	0.00	0.00	626.70	725.00	635.61	0.00	635.69	7.39	2.27	319.51	266.63
6301.000	6.20	0.00	0.00	626.70	725.00	635.65	0.00	635.73	7.21	2.25	322.33	270.03
6400.000	97.00	0.00	0.00	626.40	725.00	635.66	0.00	635.79	10.63	2.96	263.47	222.39
6400.000	97.00	0.00	0.00	626.40	725.00	635.70	0.00	635.83	10.33	2.93	266.13	225.60

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
7600.000	300.00	0.00	0.00	621.50	725.00	635.51	0.00	635.79	25.56	4.39	170.39	140.66
7600.000	300.00	0.00	0.00	621.50	725.00	635.34	0.00	635.36	30.62	4.72	156.36	131.02
7700.000	40.00	0.00	0.00	629.90	725.00	635.55	0.00	637.01	81.49	5.26	137.96	30.31
7700.000	40.00	0.00	0.00	629.90	725.00	635.07	0.00	637.09	77.52	5.17	140.33	32.35
7701.000	120.00	640.40	637.40	629.90	725.00	638.24	0.00	638.92	382.54	6.61	109.72	37.07
7701.000	120.00	640.40	637.40	629.90	725.00	638.26	0.00	638.94	382.72	6.61	107.72	37.06
7800.000	40.00	0.00	0.00	629.90	725.00	638.93	0.00	639.06	5.44	2.20	337.79	235.72
7800.000	40.00	0.00	0.00	629.90	725.00	639.01	0.00	639.08	5.34	2.19	339.60	238.02
8250.000	510.00	0.00	0.00	629.50	670.00	639.35	0.00	639.47	9.74	2.73	249.26	214.74
8250.000	510.00	0.00	0.00	629.50	670.00	639.37	0.00	639.48	9.63	2.72	250.25	215.87
8350.000	50.00	0.00	0.00	630.00	670.00	639.33	0.00	639.64	55.32	4.52	143.37	89.67
8350.000	50.00	0.00	0.00	630.00	670.00	639.34	0.00	639.66	55.50	4.51	143.68	89.93
8351.000	33.00	541.52	630.96	630.00	670.00	640.53	0.00	640.86	35.69	3.37	172.93	110.61
8351.000	33.00	541.52	630.96	630.00	670.00	640.55	0.00	640.88	35.50	3.37	173.25	110.90
8450.000	65.00	0.00	0.00	630.20	670.00	640.88	0.00	640.99	9.39	2.70	255.62	213.06
8450.000	65.00	0.00	0.00	630.20	670.00	640.89	0.00	641.00	9.79	2.69	256.57	214.14
9450.000	900.00	0.00	0.00	633.20	670.00	642.01	0.00	642.16	17.41	3.19	230.22	160.57
9450.000	900.00	0.00	0.00	633.20	670.00	642.02	0.00	642.16	17.30	3.18	230.74	161.07
9505.000	120.00	0.00	0.00	635.00	670.00	642.21	0.00	642.37	17.29	3.15	212.05	161.15
9505.000	120.00	0.00	0.00	635.00	670.00	642.22	0.00	642.37	17.23	3.15	212.29	161.43
9605.000	100.00	0.00	0.00	633.00	670.00	642.33	0.00	642.56	23.25	3.58	187.21	138.94
9605.000	100.00	0.00	0.00	635.00	670.00	642.39	0.00	642.58	23.20	3.58	187.35	139.11
9606.000	1.00	642.50	641.20	635.00	670.00	642.35	0.00	642.64	99.77	4.36	153.76	57.09
9606.000	1.00	642.50	641.20	635.00	670.00	642.35	0.00	642.65	99.33	4.36	153.78	57.06
9635.000	25.00	0.00	0.00	635.00	670.00	642.57	0.00	642.71	9.98	2.39	242.39	212.10
9635.000	25.00	0.00	0.00	635.00	670.00	642.57	0.00	642.72	9.95	2.38	243.35	212.45
10100.000	570.00	0.00	0.00	636.30	670.00	643.64	0.00	643.93	64.39	4.36	155.65	83.50
10100.000	570.00	0.00	0.00	636.30	670.00	643.64	0.00	643.93	64.29	4.36	155.74	83.56
11050.000	1050.00	0.00	0.00	631.60	670.00	646.53	0.00	646.65	13.76	2.91	239.30	130.64
11050.000	1050.00	0.00	0.00	631.60	670.00	646.53	0.00	646.65	13.76	2.81	239.30	130.63
11150.000	1.00	643.20	643.40	633.80	670.00	646.53	0.00	646.65	13.71	2.80	239.61	130.98
11150.000	1.00	643.20	643.40	633.80	670.00	646.53	0.00	646.65	13.71	2.80	239.60	130.97
11158.000	6.00	643.20	643.40	633.80	670.00	646.54	0.00	646.56	13.64	2.80	239.99	181.41
11158.000	6.00	643.20	643.40	636.30	670.00	646.54	0.00	646.56	13.64	2.80	239.99	181.40

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
11159.000	1.00	0.00	0.00	639.80	670.00	645.54	0.00	646.67	13.63	2.80	240.07	181.49
11159.000	1.00	0.00	0.00	639.80	670.00	645.54	0.00	646.67	13.63	2.80	240.07	181.49
11135.000	25.00	0.00	0.00	639.50	670.00	645.58	0.00	646.69	9.13	2.21	266.15	221.80
11125.000	25.00	0.00	0.00	631.50	670.00	645.57	0.00	646.69	9.00	2.20	259.88	223.34
11409.000	60.00	0.00	0.00	639.00	670.00	645.60	0.00	645.79	17.85	3.55	188.76	158.56
11409.000	60.00	0.00	0.00	639.00	670.00	645.59	0.00	645.79	17.87	3.55	188.70	158.48
11411.000	57.00	647.20	647.20	639.00	670.00	646.72	0.00	647.03	103.71	4.46	150.09	64.25
11411.000	57.00	647.20	647.20	639.00	670.00	646.72	0.00	647.03	103.71	4.46	150.09	64.25
11530.000	50.00	0.00	0.00	633.70	670.00	647.07	0.00	647.10	2.63	1.45	500.49	412.86
11530.000	50.00	0.00	0.00	633.70	670.00	647.07	0.10	647.11	3.61	1.53	426.30	352.46
12080.000	510.00	0.00	0.00	638.50	670.00	647.23	0.00	647.44	24.23	3.28	229.17	136.10
12080.000	510.00	0.00	0.00	638.50	670.00	647.37	0.00	647.51	21.75	3.13	241.65	143.65
12740.000	700.00	0.00	0.00	642.40	670.00	648.84	0.00	648.89	17.57	2.20	402.54	159.34
12740.000	700.00	0.00	0.00	642.40	670.00	648.84	0.00	648.89	17.57	2.20	402.53	159.34
* 12741.000	1.00	648.30	648.30	642.40	670.00	649.08	649.08	649.49	907.59	5.00	141.39	22.24
* 12741.000	1.00	648.30	648.50	642.40	670.00	649.08	649.08	649.49	907.59	5.00	141.39	22.24
12762.000	21.00	648.30	648.80	642.40	670.00	649.88	0.00	649.97	92.78	2.03	302.12	69.55
12762.000	21.00	648.30	648.80	642.40	670.00	649.88	0.00	649.97	92.78	2.03	302.12	69.55
12763.000	1.00	0.00	0.00	642.40	670.00	649.95	0.00	649.99	3.99	1.05	625.31	335.44
12763.000	1.00	0.00	0.00	642.40	670.00	649.95	0.00	649.99	3.99	1.05	625.31	335.44
12850.000	190.00	0.00	0.00	643.50	670.00	650.00	0.00	650.05	5.43	1.20	445.49	237.57
12850.000	190.00	0.00	0.00	643.50	670.00	650.00	0.00	650.05	5.43	1.20	445.49	237.57
* 13413.000	650.00	0.00	0.00	645.60	670.00	650.98	650.98	651.52	79.43	0.00	114.41	75.13
* 13413.000	650.00	0.00	0.00	645.60	670.00	650.98	650.98	651.52	79.43	0.00	114.41	75.13

BUTTERMILK CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	0.000	725.00	614.32	0.00	0.00	0.00	50.00	0.00
	0.000	725.00	614.42	.10	0.00	0.00	50.00	0.00
	900.000	725.00	615.06	0.00	.74	0.00	35.00	900.00
	900.000	725.00	615.12	.05	.70	.06	35.00	900.00
*	2150.000	725.00	618.39	0.00	3.34	0.00	36.74	975.00
*	2150.000	725.00	618.42	.03	3.30	.03	32.00	975.00
	2250.000	725.00	619.71	0.00	1.32	0.00	23.00	75.00
	2250.000	725.00	619.73	.02	1.31	.02	23.00	75.00
	2251.000	725.00	619.72	0.00	.01	0.00	23.00	1.00
	2251.000	725.00	619.74	.02	.01	.02	23.00	1.00
	2252.000	725.00	619.74	0.00	.03	0.00	23.00	3.50
	2252.000	725.00	619.77	.02	.03	.02	23.00	3.50
	2253.000	725.00	619.75	0.00	.01	0.00	23.00	1.00
	2253.000	725.00	619.78	.02	.01	.02	23.00	1.00
	2425.000	725.00	621.06	0.00	1.31	0.00	25.66	200.00
	2425.000	725.00	621.07	.01	1.30	.01	25.66	200.00
	2600.000	725.00	622.05	0.00	.99	0.00	19.70	175.00
	2600.000	725.00	622.05	.00	.98	.00	19.70	175.00
	2601.000	725.00	622.05	0.00	.00	0.00	19.70	1.00
	2601.000	725.00	622.06	.00	.00	.00	19.70	1.00
	2602.000	725.00	622.20	0.00	.15	0.00	19.70	20.00
	2602.000	725.00	622.20	.00	.15	.00	19.70	20.00
	2603.000	725.00	622.21	0.00	.01	0.00	19.70	1.00
	2603.000	725.00	622.21	.00	.01	.00	19.70	1.00
*	2800.000	725.00	623.43	0.00	1.22	0.00	22.03	170.00
*	2800.000	725.00	623.43	-.00	1.22	-.00	22.03	170.00
	3000.000	725.00	626.52	0.00	3.09	0.00	15.50	170.00
	3000.000	725.00	626.52	.00	3.09	.00	15.50	170.00
	3001.000	725.00	626.86	0.00	.34	0.00	27.37	5.30
	3001.000	725.00	626.86	.00	.34	.00	27.37	5.30
	3002.000	725.00	626.88	0.00	.02	0.00	27.92	5.00
	3002.000	725.00	626.88	.00	.02	.00	27.92	5.00

SECNO		CWSEL	DIFWSP	DIF SX	DIFKWS	TOPWID	XLCH
3003.000	725.00	525.94	0.00	.05	0.00	27.49	5.50
3003.000	725.00	525.94	.00	.05	.00	27.49	5.50
3004.000	725.00	526.97	0.00	.34	0.00	27.50	24.50
3004.000	725.00	526.97	.00	.34	.00	27.50	24.50
3005.000	725.00	526.99	0.00	.02	0.00	32.00	11.60
3005.000	725.00	526.99	.00	.02	.00	32.00	11.60
3006.000	725.00	527.00	0.00	.01	0.00	32.00	5.00
3006.000	725.00	527.00	.00	.01	.00	32.00	5.00
3007.000	725.00	527.00	0.00	.00	0.00	32.00	1.00
3007.000	725.00	527.00	.00	.00	.00	32.00	1.00
3125.000	725.00	527.19	0.00	.18	0.00	57.30	85.00
3125.000	725.00	527.19	.00	.18	.00	57.30	85.00
3250.000	725.00	527.33	0.00	.14	0.00	27.20	100.00
3250.000	725.00	527.33	.00	.14	.00	27.20	100.00
3251.000	725.00	527.35	0.00	.02	0.00	27.20	33.00
3251.000	725.00	527.35	.00	.02	.00	27.20	33.00
3400.000	725.00	527.42	0.00	.07	0.00	30.00	20.00
3400.000	725.00	527.42	.00	.07	.00	30.00	20.00
3401.000	725.00	527.42	0.00	.00	0.00	30.00	1.00
3401.000	725.00	527.42	.00	.00	.00	30.00	1.00
3402.000	725.00	527.83	0.00	.41	0.00	30.00	136.00
3402.000	725.00	527.83	.00	.41	.00	30.00	136.00
3403.000	725.00	527.83	0.00	.00	0.00	30.00	1.00
3403.000	725.00	527.83	.00	.00	.00	30.00	1.00
3600.000	725.00	528.00	0.00	.17	0.00	53.95	30.00
3600.000	725.00	528.00	-.00	.17	-.00	53.00	30.00
4000.000	725.00	528.70	0.00	.70	0.00	42.00	470.00
4000.000	725.00	528.72	.02	.72	.02	42.01	470.00
4100.000	725.00	528.84	0.00	.13	0.00	25.00	77.00
4100.000	725.00	528.86	.02	.14	.02	25.00	77.00
4101.000	725.00	528.84	0.00	.00	0.00	25.00	1.00
4101.000	725.00	528.86	.02	.00	.02	25.00	1.00
4102.000	725.00	528.89	0.00	.05	0.00	25.00	13.00
4102.000	725.00	528.91	.02	.05	.02	25.00	13.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4103.000	725.00	623.89	0.00	.01	0.00	25.00	1.00
4103.000	725.00	623.91	.02	.01	.02	25.00	1.00
4200.000	725.00	629.26	0.00	.37	0.00	41.11	60.00
4200.000	725.00	629.28	.02	.37	.02	41.20	60.00
4300.000	725.00	629.36	0.00	.10	0.00	27.40	70.00
4300.000	725.00	629.38	.02	.10	.02	27.40	70.00
4301.000	725.00	629.22	0.00	-.14	0.00	27.40	1.00
4301.000	725.00	629.24	.02	-.14	.02	27.40	1.00
4302.000	725.00	629.34	0.00	.62	0.00	27.40	60.00
4302.000	725.00	629.36	.02	.62	.02	27.40	60.00
4303.000	725.00	630.08	0.00	.24	0.00	27.40	1.00
4303.000	725.00	630.10	.02	.24	.02	27.40	1.00
4400.000	725.00	630.18	0.00	.09	0.00	45.39	65.00
4400.000	725.00	630.19	.01	.09	.01	35.10	65.00
5000.000	725.00	631.39	0.00	1.21	0.00	74.95	570.00
5000.000	725.00	631.41	.02	1.22	.02	75.13	570.00
5100.000	725.00	631.40	0.00	.02	0.00	26.10	105.00
5100.000	725.00	631.43	.02	.02	.02	26.10	105.00
5101.000	725.00	631.24	0.00	-.16	0.00	26.10	1.00
5101.000	725.00	631.26	.02	-.16	.02	26.12	1.00
5102.000	725.00	634.48	0.00	3.24	0.00	26.10	150.00
5102.000	725.00	634.55	.06	3.28	.06	26.10	150.00
5103.000	725.00	634.91	0.00	.42	0.00	26.10	1.00
5103.000	725.00	634.97	.06	.42	.06	26.10	1.00
5200.000	725.00	634.95	0.00	.05	0.00	59.74	40.00
5200.000	725.00	635.01	.06	.05	.06	60.14	40.00
6200.000	725.00	635.52	0.00	.57	0.00	75.00	700.00
6200.000	725.00	635.56	.04	.55	.04	75.00	700.00
6300.000	725.00	635.61	0.00	.09	0.00	67.69	97.00
6300.000	725.00	635.65	.04	.08	.04	67.82	97.00
6301.000	725.00	635.61	0.00	.01	0.00	67.73	6.20
6301.000	725.00	635.65	.04	.00	.04	67.85	6.20
6400.000	725.00	635.66	0.00	.05	0.00	68.93	97.00
6400.000	725.00	635.70	.04	.05	.04	69.02	97.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
7600.000	725.00	[illegible]	0.00	.64	0.00	37.71	500.00
7600.000	725.00	630.54	.02	.64	.03	32.01	500.00
7700.000	725.00	635.53	0.00	.07	0.00	25.50	40.00
7700.000	725.00	635.57	.09	.13	.09	25.50	40.00
7701.000	725.00	636.24	0.00	1.66	0.00	25.50	120.00
7701.000	725.00	633.26	.02	1.59	.02	25.50	120.00
7800.000	725.00	635.98	0.00	.75	0.00	80.00	40.00
7800.000	725.00	637.01	.02	.75	.02	80.00	40.00
8250.000	670.00	639.35	0.00	.37	0.00	57.43	510.00
8250.000	670.00	639.37	.02	.36	.02	57.47	510.00
8350.000	670.00	539.33	0.00	-.03	0.00	18.80	60.00
8350.000	670.00	539.34	.02	-.03	.02	18.80	60.00
8351.000	670.00	540.53	0.00	1.31	0.00	18.30	38.60
8351.000	670.00	540.55	.02	1.31	.02	18.30	38.00
8450.000	670.00	540.98	0.00	.25	0.00	57.83	65.00
8450.000	670.00	540.39	.02	.25	.02	57.80	65.00
9450.000	670.00	542.01	0.00	1.13	0.00	80.00	900.00
9450.000	670.00	542.02	.01	1.12	.01	80.00	900.00
9505.000	670.00	542.21	0.00	.20	0.00	44.43	120.00
9505.000	670.00	542.22	.01	.20	.01	44.45	120.00
9605.000	670.00	542.36	0.00	.17	0.00	32.94	100.00
9605.000	670.00	542.39	.00	.17	.00	32.94	100.00
9606.000	670.00	542.35	0.00	-.03	0.00	32.93	8.00
9606.000	670.00	542.35	.00	-.03	.00	32.93	8.00
9635.000	670.00	542.57	0.00	.22	0.00	65.68	25.00
9635.000	670.00	542.57	.01	.22	.01	65.59	25.00
10100.000	670.00	543.64	0.00	1.07	0.00	53.91	570.00
10100.000	670.00	543.64	.00	1.07	.00	53.91	570.00
11050.000	670.00	645.53	0.00	2.39	0.00	43.16	1050.00
11050.000	670.00	646.53	-.00	2.39	-.00	43.15	1050.00
11150.000	670.00	645.53	0.00	.00	0.00	43.66	1.00
11150.000	670.00	645.53	-.00	.00	-.00	43.65	1.00
11158.000	670.00	645.54	0.00	.01	0.00	44.30	3.00
11158.000	670.00	645.54	-.00	.01	-.00	44.29	3.00

	SECND	D	CASEL	DIF ISP	DIF SX	DIFKHS	IDPUID	XLCH
	11159.000	670.00	645.54	0.00	.00	0.00	44.42	1.00
	11159.000	670.00	645.54	-.00	.00	-.00	44.41	1.00
	11185.000	670.00	645.58	0.00	.03	0.00	105.29	25.00
	11185.000	670.00	645.57	-.00	.03	-.00	60.00	25.00
	11409.000	670.00	645.60	0.00	.02	0.00	25.90	60.00
	11409.000	670.00	645.59	-.00	.02	-.00	26.90	60.00
	11411.000	670.00	646.72	0.00	.13	0.00	26.90	57.00
	11411.000	670.00	646.72	-.00	.13	-.00	26.90	57.00
	11530.000	670.00	647.07	0.00	.35	0.00	219.41	50.00
	11530.000	670.00	647.07	-.00	.35	-.00	144.00	50.00
	12080.000	670.00	647.28	0.00	.21	0.00	165.79	510.00
	12080.000	670.00	647.37	.09	.30	.09	152.95	510.00
	12740.000	670.00	643.84	0.00	1.55	0.00	200.00	700.00
	12740.000	670.00	643.84	-.00	1.47	-.00	200.00	700.00
*	12741.000	670.00	649.08	0.00	.24	0.00	200.00	1.00
*	12741.000	670.00	649.08	0.00	.25	0.00	200.00	1.00
	12762.000	670.00	649.08	0.00	.30	0.00	200.00	21.00
	12762.000	670.00	649.08	0.00	.30	0.00	200.00	21.00
	12763.000	670.00	649.95	0.00	.07	0.00	200.00	1.00
	12763.000	670.00	649.95	0.00	.07	0.00	200.00	1.00
	12850.000	670.00	650.00	0.00	.05	0.00	191.71	190.00
	12850.000	670.00	650.00	0.00	.05	0.00	191.71	190.00
*	13413.000	670.00	650.96	0.00	.98	0.00	102.74	650.00
*	13413.000	670.00	650.96	0.00	.98	0.00	102.74	650.00

SUMMARY OF ERRORS

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CAUTION  SECNO  2150.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  2150.000  PROFILE  1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  2150.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  2150.000  PROFILE  2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO  2800.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  2800.000  PROFILE  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  2800.000  PROFILE  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO  2800.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO  2800.000  PROFILE  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO  2800.000  PROFILE  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO 12741.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 12741.000  PROFILE  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 12741.000  PROFILE  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO 12741.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 12741.000  PROFILE  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 12741.000  PROFILE  2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO 13413.000  PROFILE  1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 13413.000  PROFILE  1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 13413.000  PROFILE  1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO 13413.000  PROFILE  2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO 13413.000  PROFILE  2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO 13413.000  PROFILE  2  20 TRIALS ATTEMPTED TO BALANCE WSEL
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FLOODWAY DATA, BUTTERMILK CREEK
PROFILE NO. 2

	STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	WATER SURFACE ELEVATION DIFFERENCE
A	0.000	50.	274.	2.6	614.4	614.3	.1
B	900.000	33.	176.	4.1	615.2	615.1	.1
C	2150.000	32.	24.	3.0	618.4	618.4	0.0
D	2250.000	23.	119.	6.1	619.7	619.7	0.0
	2251.000	23.	119.	6.1	619.7	619.7	0.0
	2252.000	23.	120.	6.0	619.7	619.7	0.0
	2253.000	23.	120.	6.0	619.8	619.8	0.0
E	2425.000	26.	112.	6.4	621.1	621.1	0.0
F	2600.000	20.	118.	6.1	622.1	622.1	0.0
	2601.000	20.	118.	6.1	622.1	622.1	0.0
	2602.000	20.	121.	6.0	622.2	622.2	0.0
	2603.000	20.	121.	6.0	622.2	622.2	0.0
G	2800.000	22.	71.	10.3	623.4	623.4	0.0
H	3000.000	16.	121.	6.0	626.5	626.5	0.0
	3001.000	23.	175.	4.1	626.9	626.9	0.0
	3002.000	25.	179.	4.1	626.9	626.9	0.0
	3003.000	27.	193.	3.8	626.9	626.9	0.0
	3004.000	25.	194.	3.7	627.0	627.0	0.0
	3005.000	32.	192.	3.8	627.0	627.0	0.0
	3006.000	32.	193.	3.8	627.0	627.0	0.0
	3007.000	32.	193.	3.7	627.0	627.0	0.0
I	3125.000	53.	221.	3.3	627.2	627.2	0.0
J	3250.000	29.	158.	4.6	627.3	627.3	0.0
	3251.000	29.	159.	4.3	627.3	627.3	0.0
K	3400.000	30.	157.	4.3	627.4	627.4	0.0
	3401.000	30.	157.	4.3	627.4	627.4	0.0
	3402.000	30.	150.	4.8	627.8	627.8	0.0
	3403.000	30.	150.	4.8	627.8	627.8	0.0
L	3600.000	50.	248.	2.9	628.0	628.0	0.0
M	4000.000	41.	151.	4.8	628.7	628.7	0.0
N	4100.000	25.	142.	5.1	628.8	628.8	0.0
	4101.000	25.	142.	5.1	628.8	628.8	0.0
	4102.000	25.	143.	5.1	628.9	628.9	0.0
	4103.000	25.	143.	5.1	628.9	628.9	0.0
O	4200.000	41.	191.	3.8	629.3	629.3	0.0
P	4300.000	27.	164.	4.4	629.4	629.4	0.0
	4301.000	27.	127.	5.7	629.2	629.2	0.0
	4302.000	27.	133.	5.4	629.8	629.8	0.0
	4303.000	27.	134.	5.4	630.1	630.1	0.0
Q	4400.000	35.	163.	4.4	630.2	630.2	0.0
R	5000.000	75.	322.	2.3	631.4	631.4	0.0
S	5100.000	26.	130.	5.5	631.4	631.4	0.0

FLOODWAY DATA, BUTTERMILK CREEK
PROFILE NO. 2

	STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WATER SURFACE ELEVATION WITHOUT FLOODWAY	WATER SURFACE ELEVATION DIFFERENCE
S	5101.000	25.	129.	5.6	631.2	631.2	0.0
	5102.000	25.	129.	5.6	634.6	634.5	.1
	5103.000	25.	273.	2.7	635.0	634.9	.1
T	5200.000	60.	300.	2.4	635.1	635.0	.1
U	6200.000	75.	312.	2.3	635.5	635.5	0.0
V	6300.000	65.	321.	2.3	635.6	635.6	0.0
	6301.000	66.	322.	2.2	635.6	635.6	0.0
W	6400.000	69.	256.	2.7	635.7	635.7	0.0
X	7600.000	32.	157.	4.6	636.5	636.5	0.0
Y	7700.000	25.	140.	5.2	636.7	636.6	.1
	7701.000	25.	110.	6.5	638.2	638.2	0.0
Z	7800.000	80.	340.	2.1	639.0	639.0	0.0
AA	8250.000	57.	250.	2.7	639.4	639.4	0.0
AB	8350.000	19.	169.	4.5	639.3	639.3	0.0
	8351.000	19.	173.	3.9	640.6	640.6	0.0
AC	8450.000	53.	257.	2.6	640.9	640.9	0.0
	9450.000	80.	231.	2.9	642.0	642.0	0.0
	9505.000	44.	212.	3.2	642.2	642.2	0.0
AD	9605.000	33.	167.	3.6	642.4	642.4	0.0
	9606.000	33.	154.	4.4	642.3	642.3	0.0
	9635.000	87.	243.	2.5	642.6	642.6	0.0
AE	10100.000	53.	156.	4.3	643.6	643.6	0.0
AF	11050.000	142.	239.	2.6	646.5	646.5	0.0
	11150.000	142.	240.	2.8	646.5	646.5	0.0
	11158.000	143.	240.	2.9	646.5	646.5	0.0
	11159.000	143.	240.	2.0	646.5	646.5	0.0
	11195.000	80.	200.	2.6	646.6	646.6	0.0
AG	11409.000	27.	139.	3.6	646.6	646.6	0.0
	11411.000	27.	150.	4.5	646.7	646.7	0.0
	11530.000	144.	427.	1.6	647.1	647.1	0.0
AH	12080.000	153.	242.	2.8	647.4	647.3	.1
AI	12740.000	200.	403.	1.7	648.8	648.8	0.0
	12741.000	200.	142.	4.7	649.1	649.1	0.0
	12762.000	200.	302.	2.2	649.9	649.9	0.0
	12763.000	200.	625.	1.1	650.0	650.0	0.0
AJ	12850.000	192.	445.	1.5	650.0	650.0	0.0
AK	13413.000	250.	114.	5.9	651.0	651.0	0.0

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: HUDSONVILLE, CITY

3) WATERCOURSE: BUTTERMILK CREEK

4) DOCUMENT TYPE: REPORT

00BREAK00

FLOOD INSURANCE STUDY

CITY OF HUDSONVILLE

HYDRAULIC ANALYSIS

1. INTRODUCTION

This report covers the Buttermilk Creek in the City of Hudsonville, Ottawa County, Michigan. The Buttermilk Creek has a small drainage basin area of 3.86 square miles and is confluent to Rush Creek.

The 10-, 50-, 100-, and 500-year flows used in this study were obtained by averaging the flows from Brater and UD-21 methods. These flows have been approved by the Michigan Department of Natural Resources. The flows were further prorated to upstream and shown below:

Peak Flows (cfs)

	10-year	50-year	100-year	500-year
At mouth	440	635	725	940
At SECNO 8250	410	590	670	870

The project managers for Flood Insurance Study are William McDonough and Duane Ellis.

2. METHOD OF ANALYSIS

Water surface profiles were calculated using the HEC-2 computer program, developed by the U.S. Army, Corps of Engineers (Ref. 1).

2.1 Cross Sections

Cross sections used in the model were obtained by combining the results from ground survey for channel portion and aerial photographic survey for flood plain portion. The survey was made in January and February of 1979. The locations of the cross sections are shown in Table 1. All the bridges and culverts were coded by Normal Bridge Routine except the road bridge of Van Buren Street and

C & O Railraod Bridge which, with piers in the waterway, were coded by Special Bridge Routine.

2.2 Roughness Coefficients

The roughness coefficients were determined from field description. A field trip was made in April, 1979. Through comparison with the materials and photographs shown in page 101 to page 123 in Chow's Open Channel Hydraulics (Ref. 2), the roughness coefficients for channel and flood plain were determined as 0.024 and 0.04 respectively. Because the flow was almost confined to the channel, the contraction and expansion ratios used in this study were 0.1 and 0.3 respectively.

2.3 Starting Point and Starting Elevation

This neglects flood hazard from Rush Creek

The starting point of this study is the mouth of Buttermilk Creek. The starting elevation, therefore, was determined by the slope-area method by assuming the channel slope as the energy slope.

Reference

1. HEC-2 Water Surface Profiles, Users Manual, Hydrologic Engineering Center, U.S. Army, Corps of Engineers, August, 1979.

2. Open Channel Hydraulics, V.T. Chow, McGraw-Hill, New York, 1959.

TABLE 1

LOCATIONS OF CROSS SECTIONS

SECTION	SECNO	LOCATION AND DESCRIPTIONS
A	0	Mouth of Buttermilk Creek Manufactured
B	900	800' U/S from mouth
C	2150	975' U/S from Section B
D	2250 2251 2252 2253	First Foot Bridge
E	2425	200' U/S from U/S face of First Foot Bridge
F	2600 2601 2602 2603	Oak? Oat Street Bridge mapped bridge data
G	2800	170' U/S from U/S face of Oat Street Bridge
H	3000 3001 3002 3003 3004 3005 3006 3007	Van Buren Street D/S Foot Bridge Road Bridge U/S Foot Bridge
I	3125	85' U/S from U/S face of Van Buren U/S Foot Bridge
J	3250 3251	C & O Railroad Bridge
K	3400 3401 3402 3403	M-21 Bridge
L	3600	30' U/S from U/S face of M-21 Bridge
M	4000	500' U/S from U/S face of M-21 Bridge

SECTION	SECNO	LOCATION AND DESCRIPTIONS
N	4100	Second Foot Bridge
	4101	
	4102	
	4103	
O	4200	60' U/S from U/S face of Second Foot Bridge
P	4300	Prospects Street Bridge
	4301	Two 7.5 x 12.0 CMP
	4302	
	4303	
Q	4400	65' U/S from U/S face of Prospects Street Bridge
R	5000	735' U/S from U/S face of Prospects Street Bridge
S	5100	32nd Street Bridge
	5101	Two 7.2 x 11.0 CMP
	5102	
	5103	
T	5200	40' U/S from U/S face of 32nd Street Bridge
U	6200	740' U/S from U/S face of 32nd Street Bridge
V	6300	Third Foot Bridge
	6301	
W	6400	97' U/S from U/S face of Third Foot Bridge
X	7600	697' U/S from U/S face of Third Foot Bridge
Y	7700	Barry Street Bridge
	7701	Two 7.2 x 11.4 CMP
	7702	
	7703	
Z	7800	40' U/S from U/S face of Barry Street Bridge
AA	8250	510' U/S from Section Z
AB	8350	One 7.5 x 9.5 Oval CMP
	8351	One 7.5 Boiler Pipe
	8352	is this the High School culvert?
	8353	

SECTION	SECNO	LOCATION AND DESCRIPTIONS
AC	8450	65' U/S from SECNO 8353
AD	9450	990' U/S from Section AC
AE	10100	725' U/S from Section AD
AF	11000	1100' U/S from Section AE

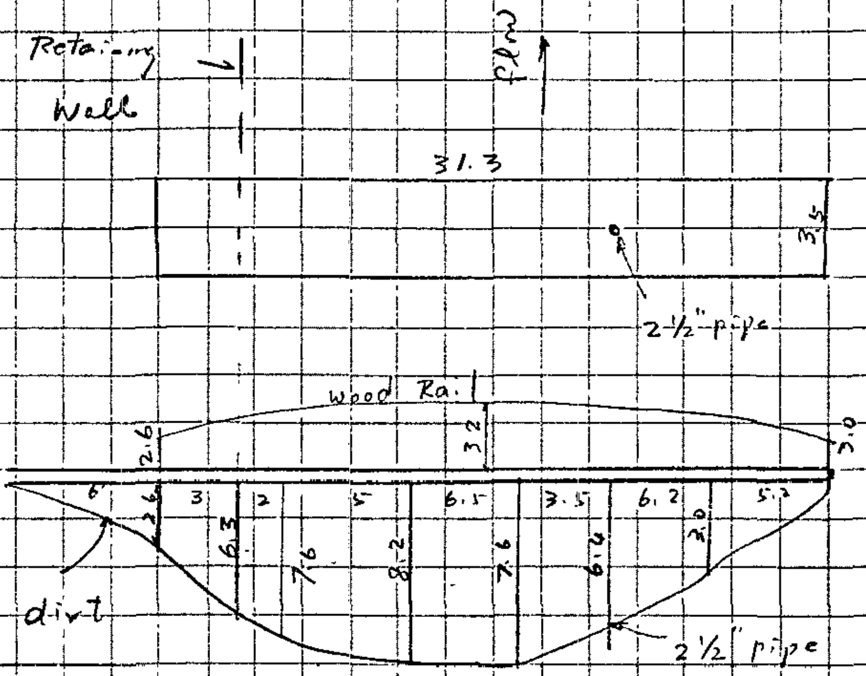
BRIDGE DATA

GOVE ASSOCIATES
1601 PORTAGE STREET
KALAMAZOO, MICHIGAN 49001

PROJ. NO. 8566-10 SH. NO
DESIGN DATE
CHECK DATE

SUBJECT Buttermilk Creek

Sta 22+50

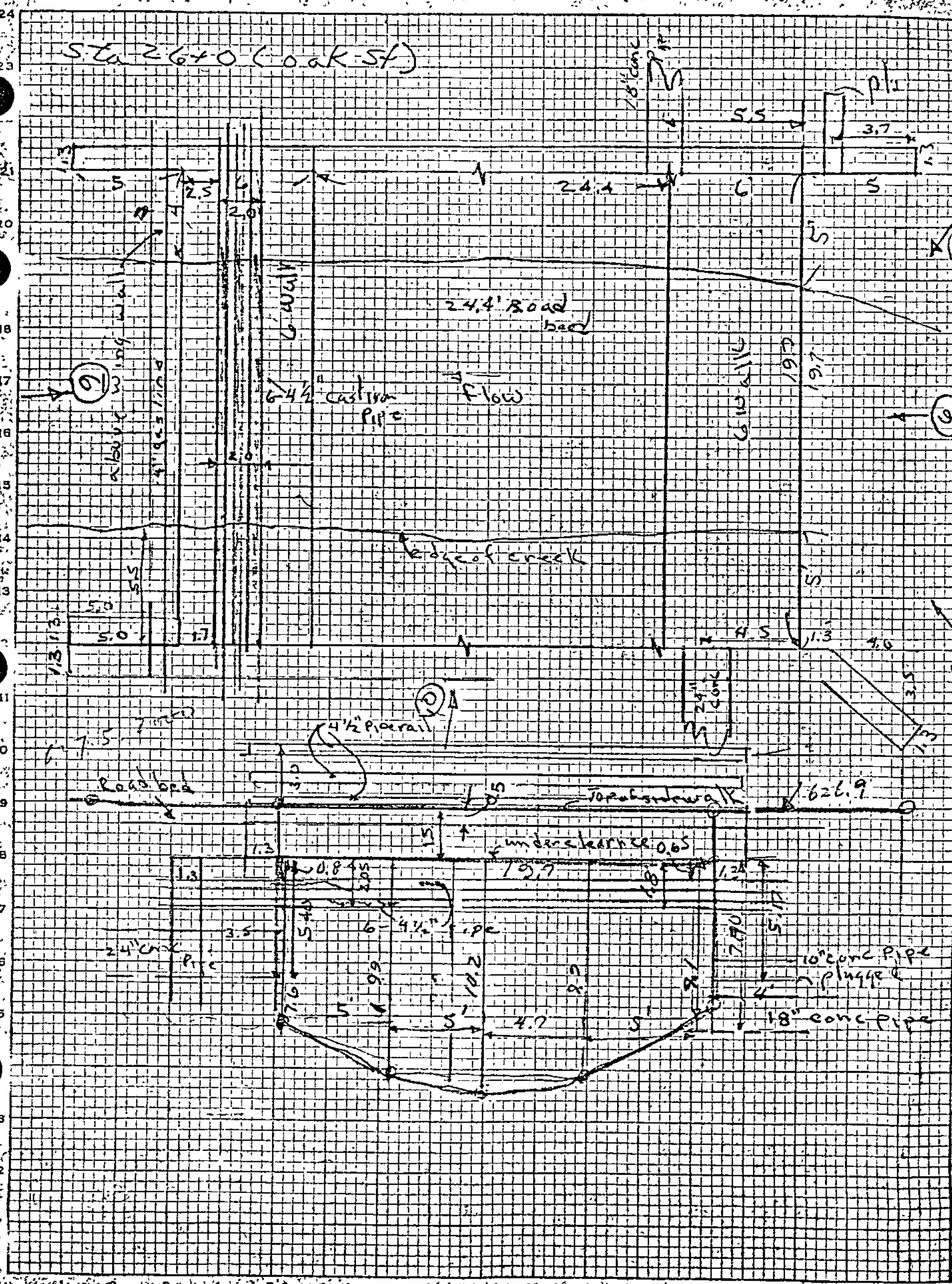


Narrow Foot Bridge

Area 199.54 total area

WS 619.67
613.2 invert
6.47

water at low stage



Sta 26+0 (Oak St)
18" conc pipe
pl
5.5
3.7
24.4
2.5
2.0
above wing wall
4' gas line
C wall
24.4' Road bed
6-4½" cast iron pipe
Flow
19.7
edge of creek
5.0
1.7
4.5
4.0
3.5
24" conc
4½" pipe rail
Road bed
Top of sidewalk
626.9
under clearance 0.65
19.7
24" conc pipe
6-4½" pipe
10.2
10" conc pipe plugged
18" conc pipe
4.7

Van Buren

SUBJECT Sta 30 Buttermilk Creek

PROJ. NO. 8566-10

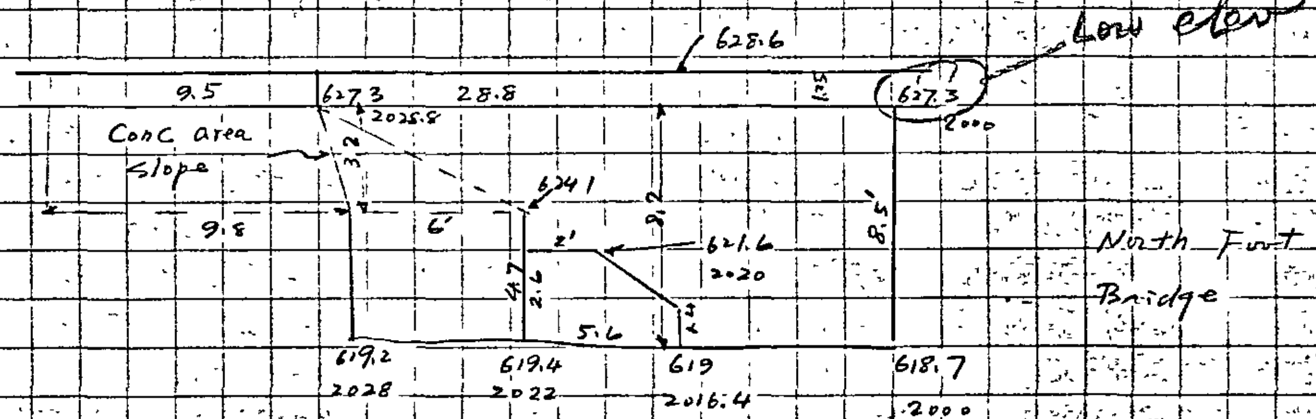
SH. NO.

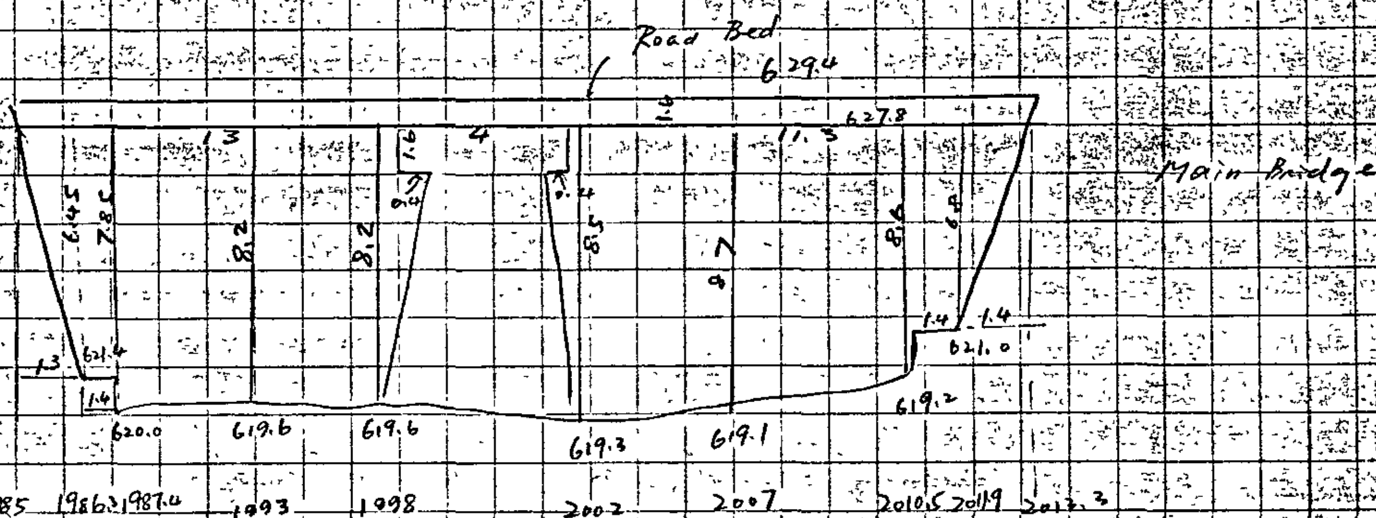
DESIGN

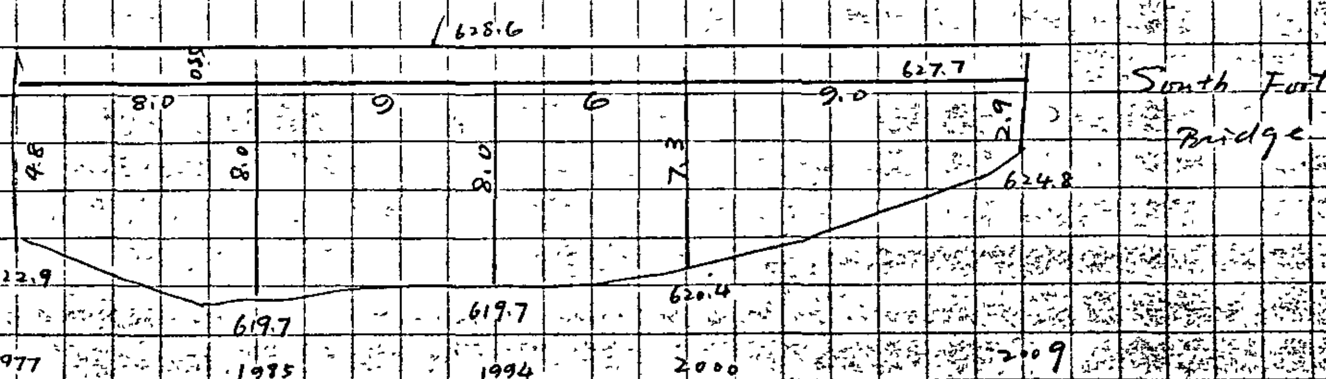
DATE 1-12-79

CHECK

DATE



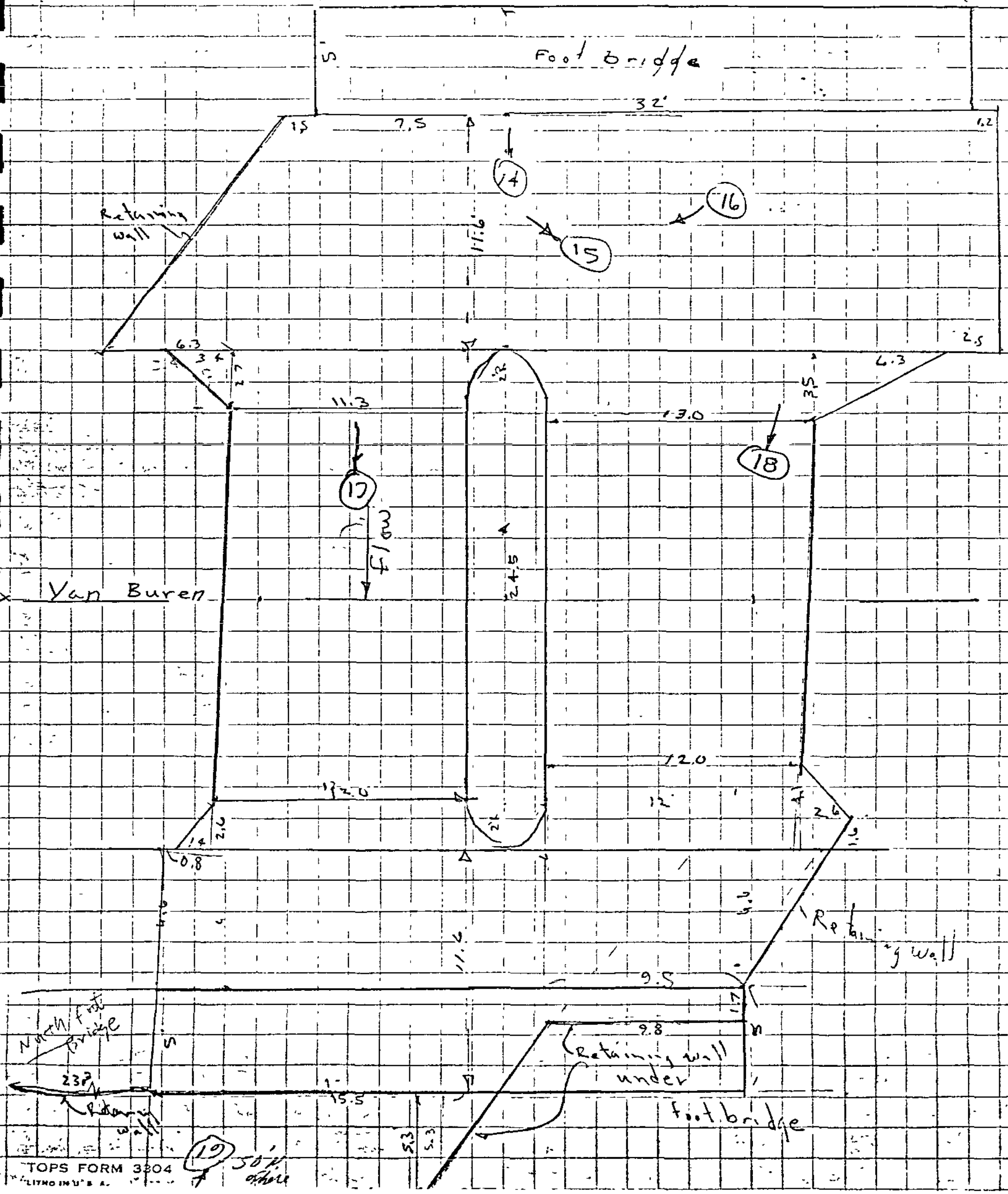




SUBJECT Sta 30 Buttermilk Creek PROJ. NO. 8566-10 SH. NO.

DESIGN 12 DATE 1-12-7

CHECK 11 13 DATE

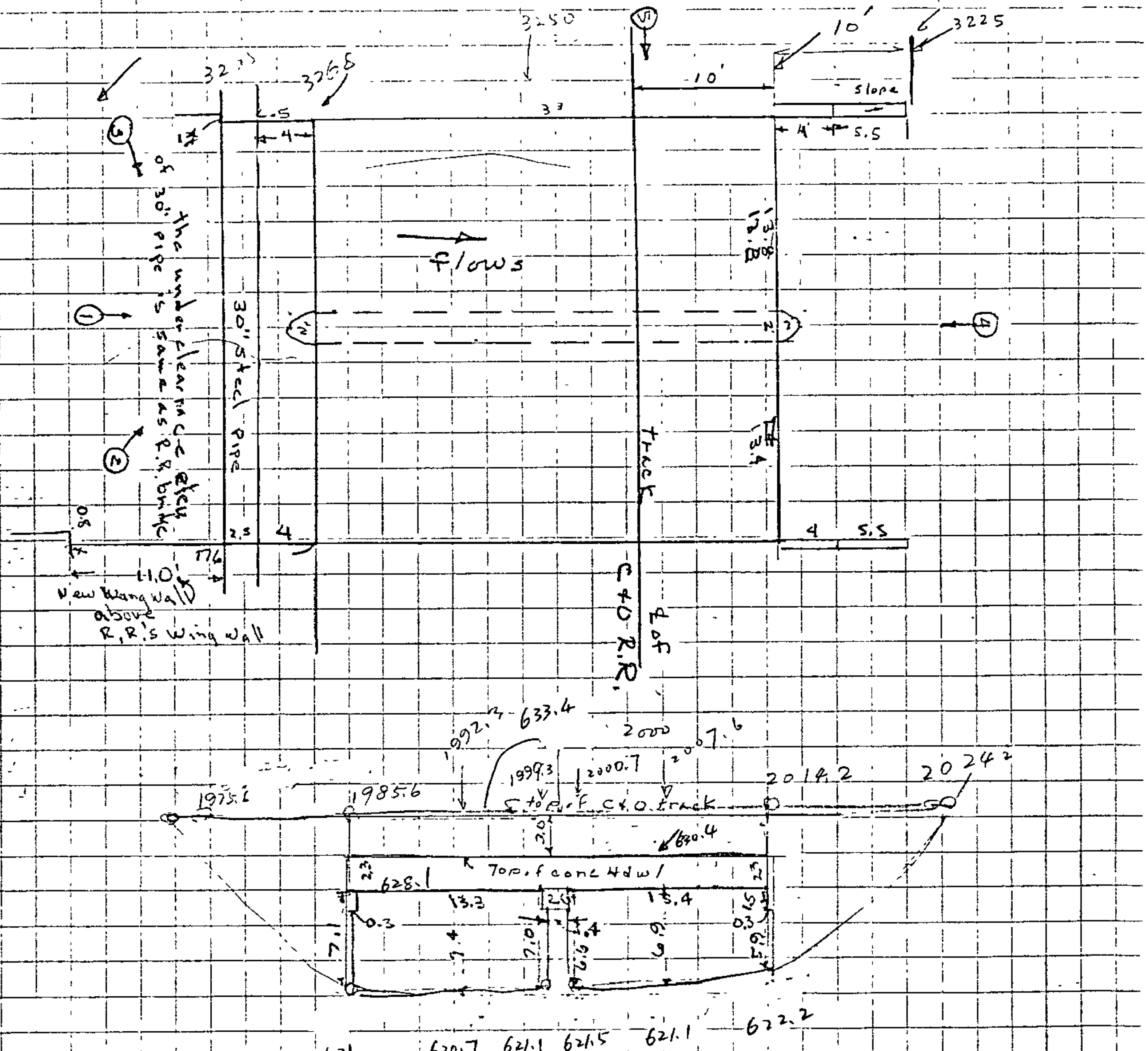


SUBJECT ~~Sta 32+50~~ R. R. bridge

PROJ. NO. 8566-10 SH. NO.

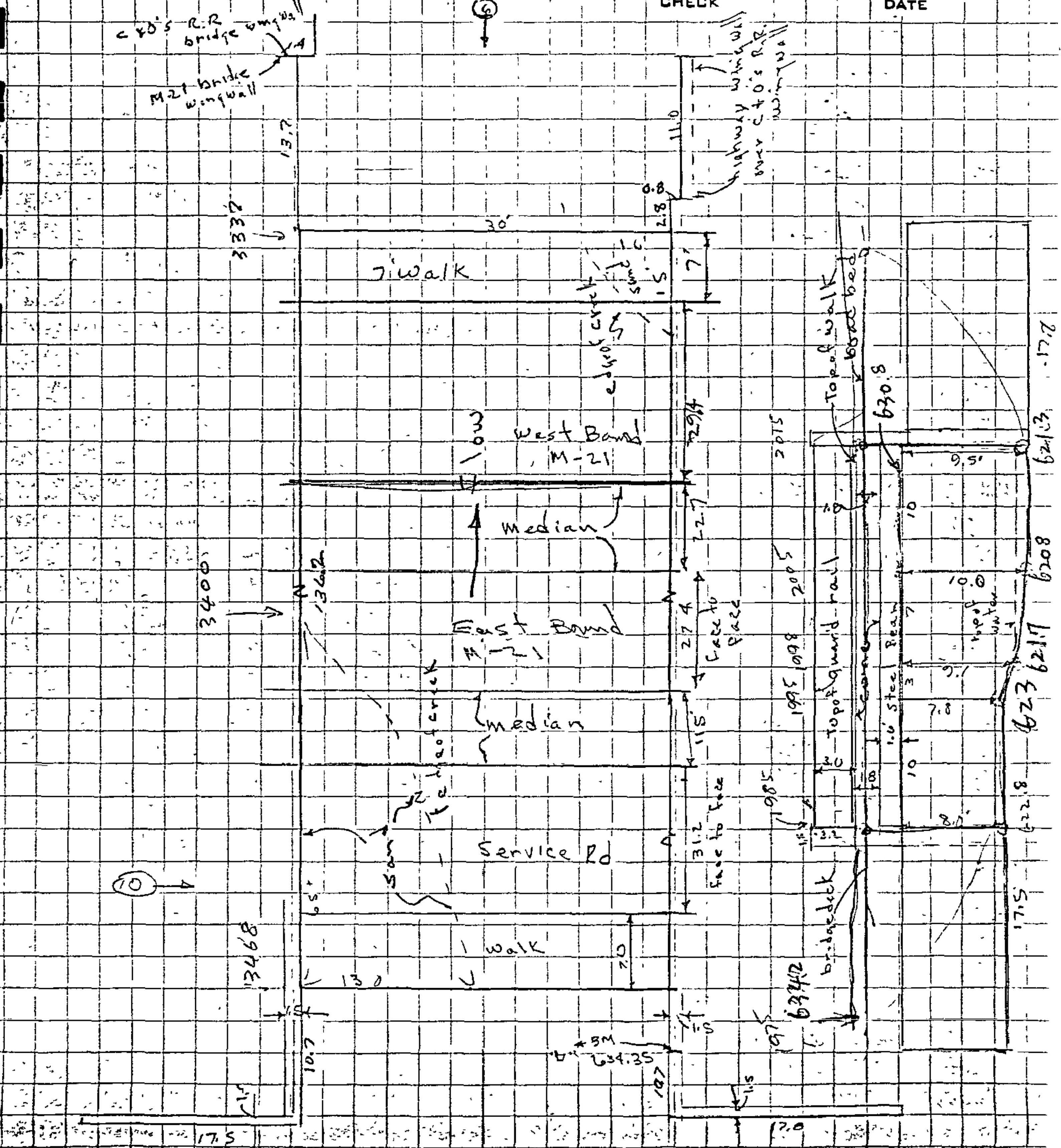
DESIGN DATE 1-22-79

CHECK DATE



SUBJECT Sta 34+00
M-21 Bridge

PROJ. NO. 8566-10 SH. NO.
DESIGN DATE 1-22-79
CHECK DATE



TOPS FORM 3304
LITHO IN U.S.A.

SUBJECT Sta 4+40

PROJ. NO. 8566-10

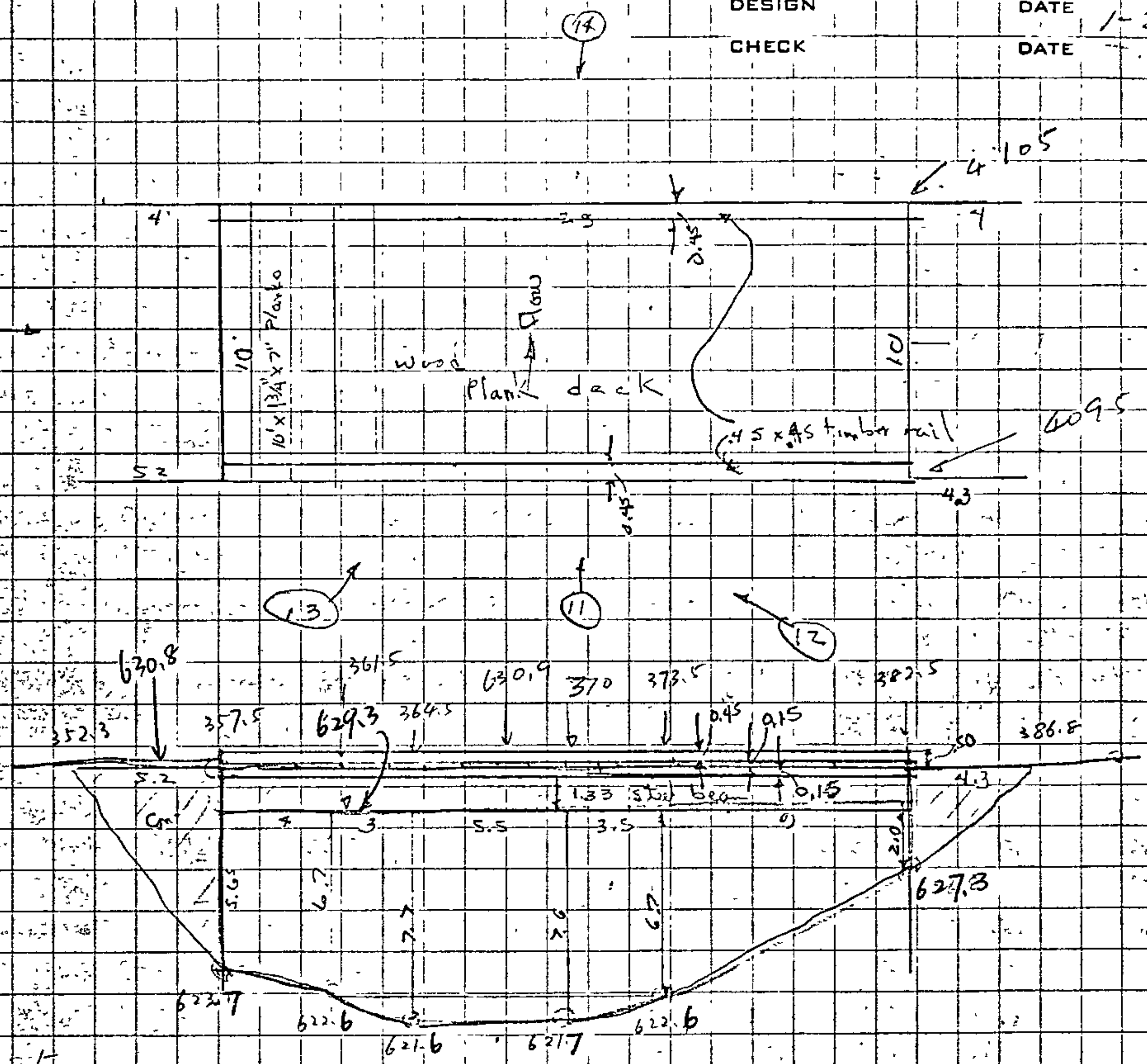
SH. NO.

DESIGN

DATE 1-23-79

CHECK

DATE



CFS 25

Road 10

SUBJECT Sta 4370 Prospects St.

PROJ. NO. 8566-10

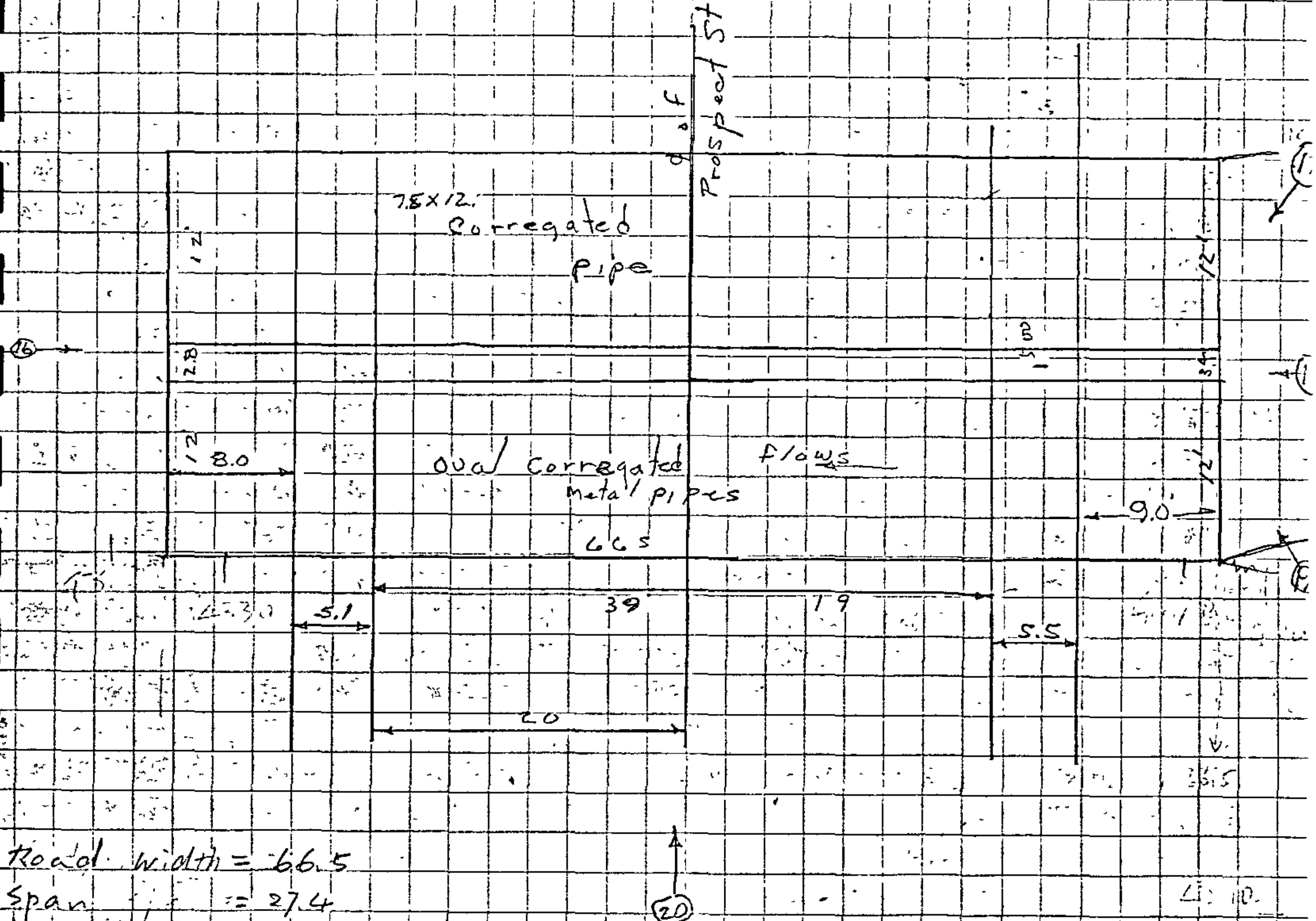
SH. NO.

DESIGN

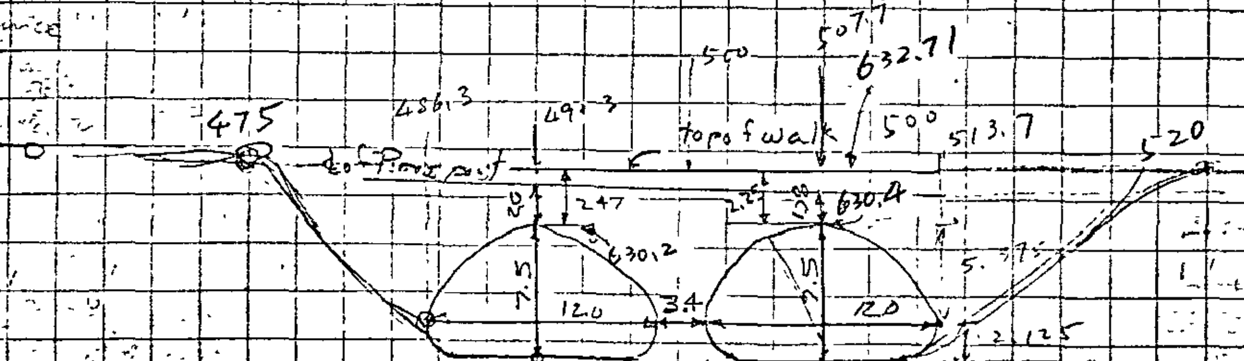
DATE 1-23-79

CHECK

DATE



Road width = 66.5
Span = 27.4

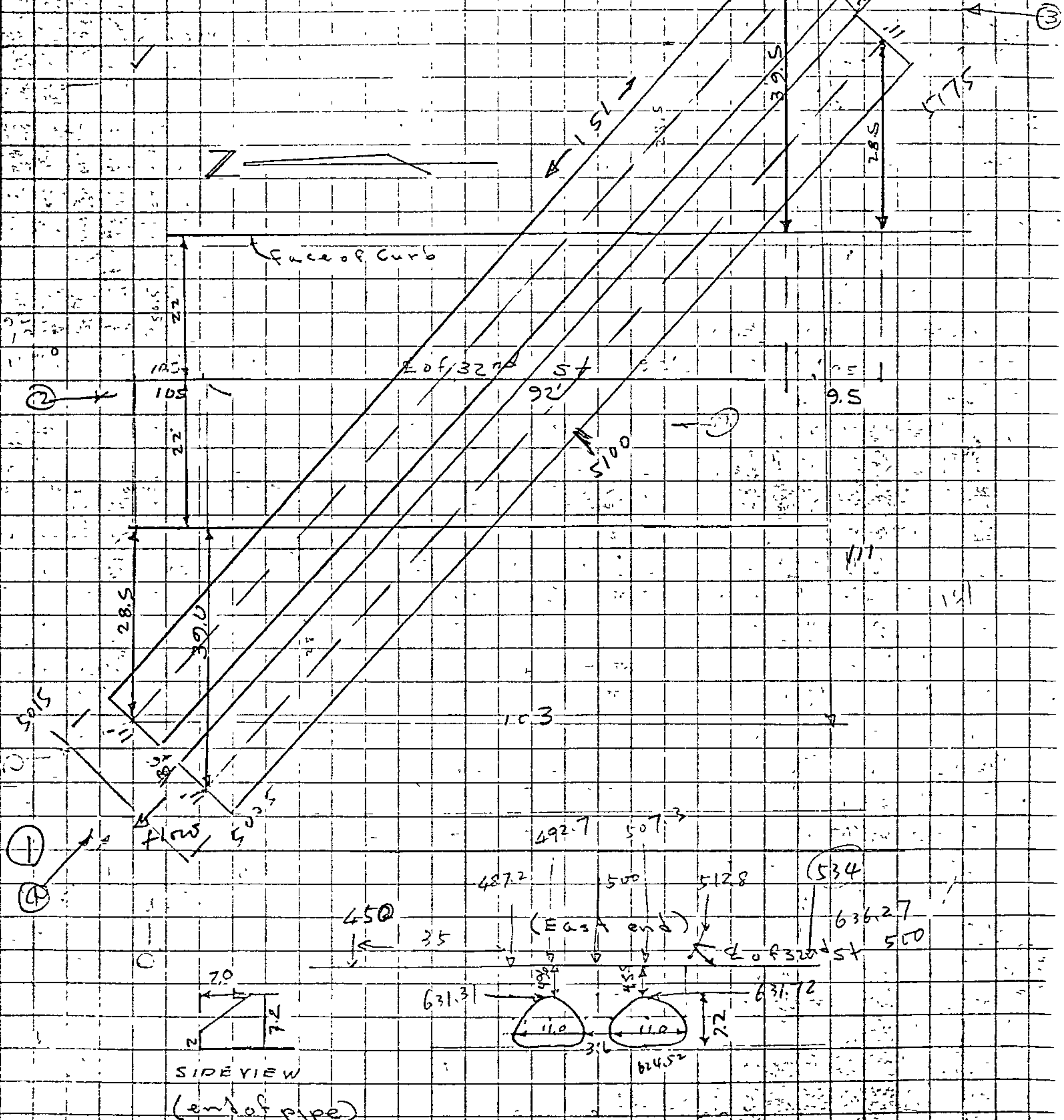


SUBJECT Station 51+0 32nd St.

PROJ. NO. 8566-10 SH. NO.

DESIGN DATE 1-30-79

CHECK DATE



SUBJECT Station 63 + 0 Foot Bridge

PROJ. NO. 8566-10

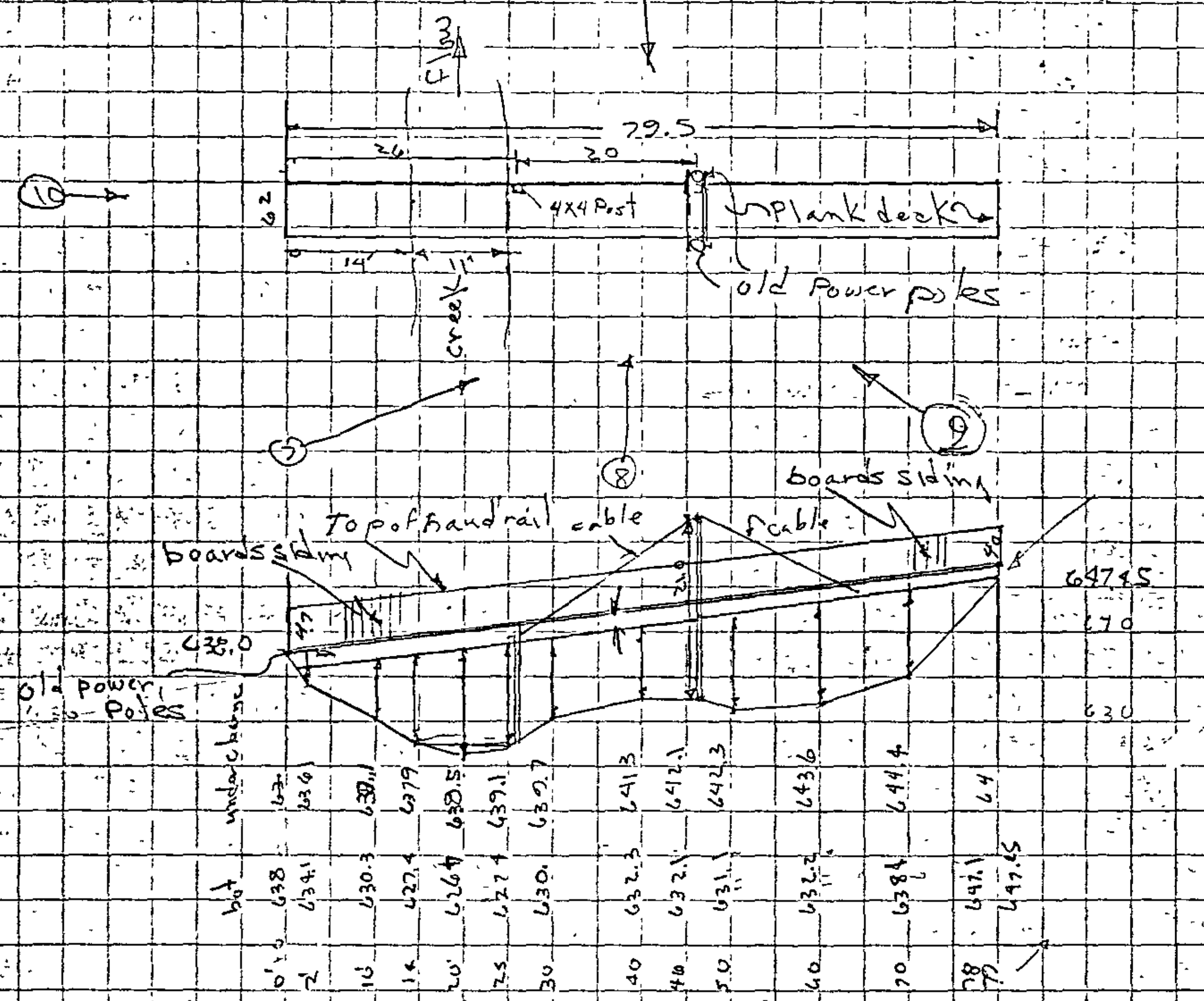
SH. NO.

DESIGN

DATE 1-30-7

CHECK

DATE



TOPS FORM 3304

LITHO IN U.S.A.

SUBJECT Sta 77+0
32nd & Barry

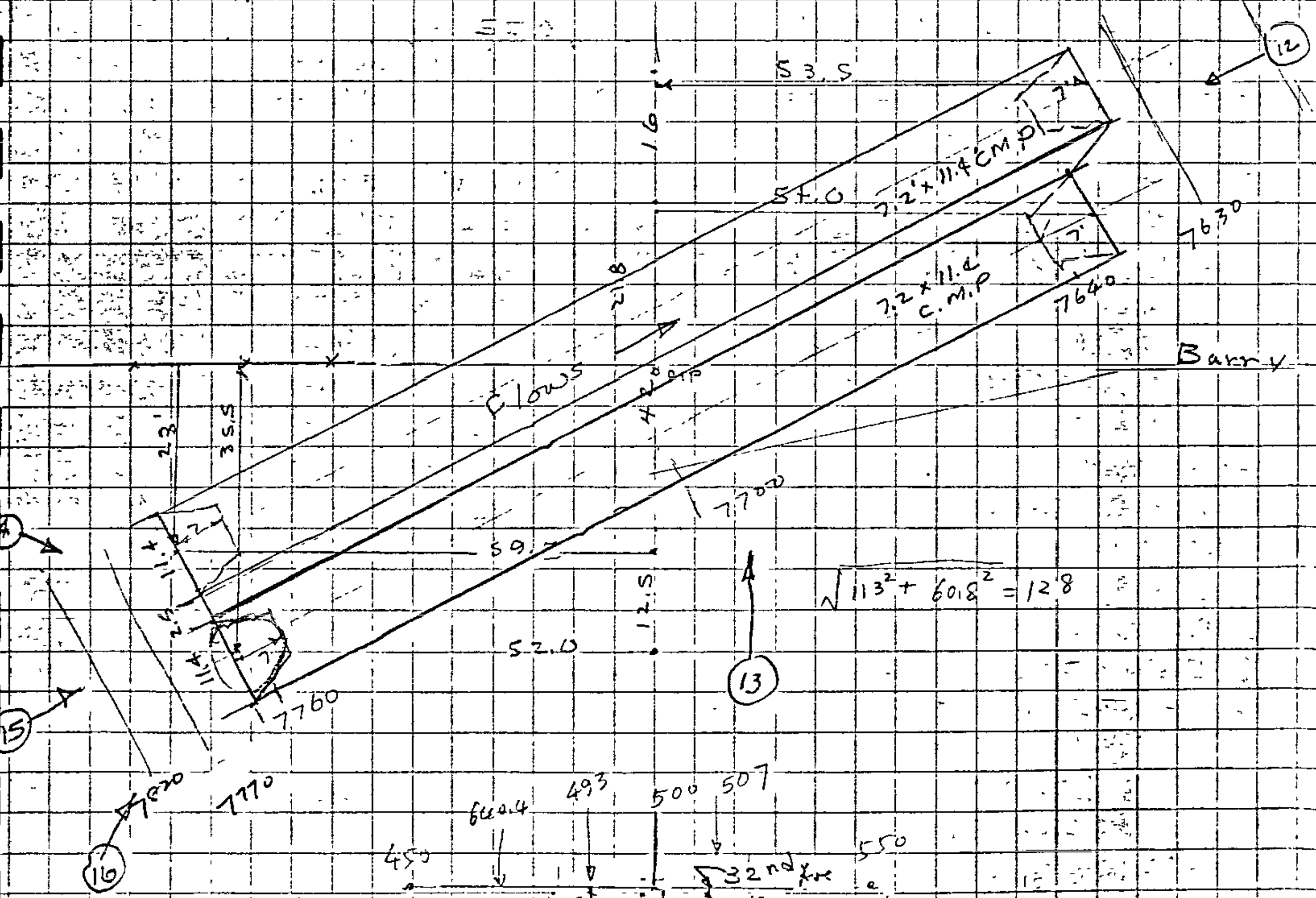
PROJ. No. 856610 SH. No.

DESIGN DATE 1-30-79

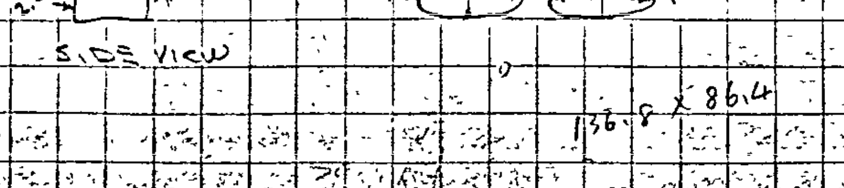
CHECK DATE

7'-1" x 11'-4" = 63 sq ft

(twin)(63 sq ft) - 126



$\sqrt{113^2 + 60.8^2} = 128$



136.8×86.4

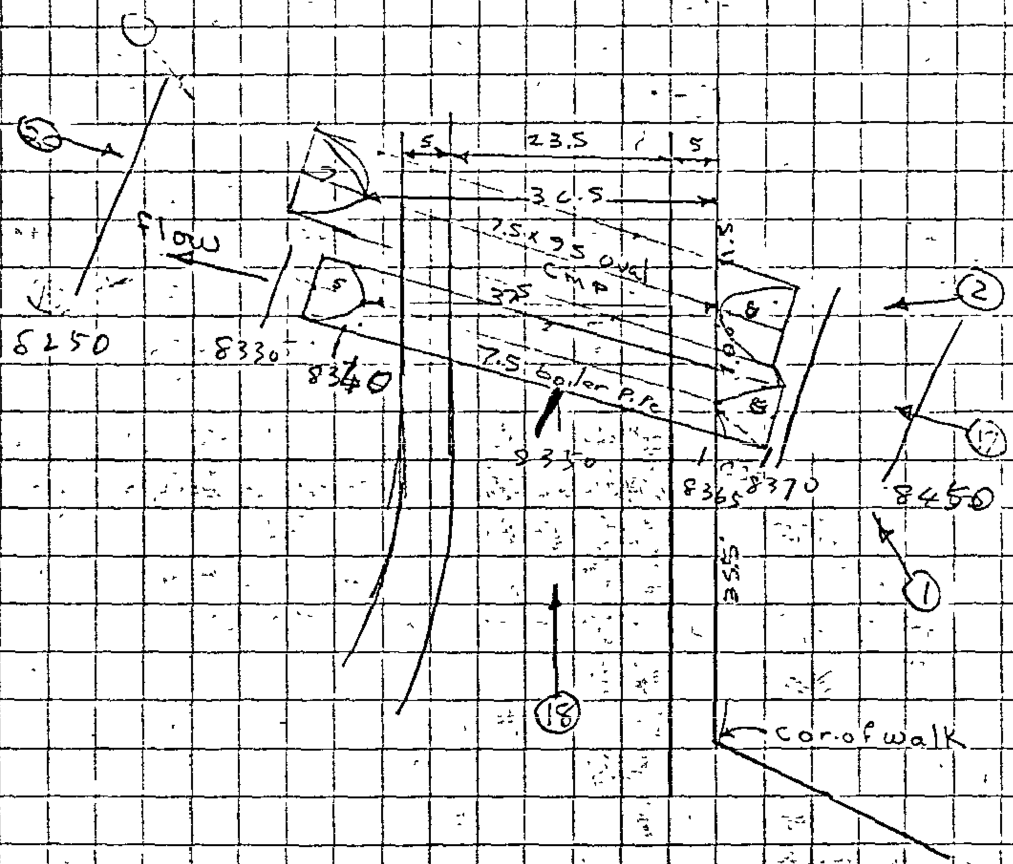
TOPS FORM 3304
LITHO IN U.S.A.

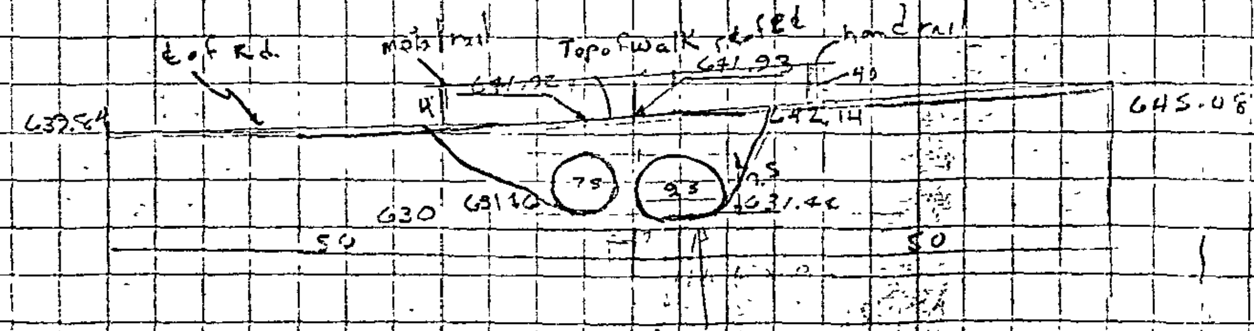
SUBJECT Station 83+50 (School area)

PROJ. No. 856610 SH. No.

DESIGN DATE 1-31-79

CHECK DATE





111.6 x 90

112 x 75

9.3 x 6.25

TOPS FORM 3304

00BREAK00

1) COUNTY: OTTAWA

2) STUDY NAME: HUDSONVILLE, CITY

3) WATERCOURSE: BUTTERMILK CREEK

4) DOCUMENT TYPE: SUMMARY

```
**********************************************
 HEC2 RELEASE DATED NOV 76 UPDATED APRIL 1980
 ERROR CORR - 01,02,03,04
 MODIFICATION - 50,51,52,53,54
**********************************************
```

NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

BUTTER MILK CREEK

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
0.000	612.26	0.00	612.94	50.00	105.99	320.41	6.50	50.00	265.00	287.00	313.00	315.00
0.000	613.89	0.00	614.00	50.00	180.69	444.60	9.71	50.00	265.00	287.00	313.00	315.00
0.000	614.32	0.00	614.44	50.00	215.28	493.66	11.06	50.00	265.00	287.00	313.00	315.00
0.000	615.30	0.00	615.44	50.00	299.13	525.80	14.07	50.00	265.00	287.00	313.00	315.00
900.000	613.58	0.00	613.78	26.41	19.20	383.31	36.39	38.00	1837.00	1851.00	1863.00	1875.00
900.000	614.63	0.00	614.91	32.51	32.93	537.35	64.67	38.00	1837.00	1851.00	1863.00	1875.00
900.000	615.06	0.00	615.37	38.00	43.31	603.23	78.46	38.00	1837.00	1851.00	1863.00	1875.00
900.000	615.02	0.00	615.38	38.00	81.10	747.63	111.22	38.00	1837.00	1851.00	1863.00	1875.00
* 2150.000	617.16	0.00	619.45	17.74	.01	249.93	193.06	0.00	0.00	574.50	580.50	0.00
* 2150.000	618.19	0.00	619.31	35.36	20.53	273.12	336.35	0.00	0.00	574.50	580.50	0.00
* 2150.000	618.39	0.00	619.51	36.74	32.74	300.35	391.90	0.00	0.00	574.50	580.50	0.00
2150.000	619.01	0.00	620.25	40.74	79.93	332.32	527.64	0.00	0.00	574.50	580.50	0.00
2250.000	618.79	0.00	619.10	23.00	0.00	440.00	0.00	0.00	0.00	1981.50	2004.50	0.00
2250.000	619.45	0.00	619.74	23.00	0.00	635.00	0.00	0.00	0.00	1981.50	2004.50	0.00
2250.000	619.71	0.00	620.29	23.00	0.00	725.00	0.00	0.00	0.00	1981.50	2004.50	0.00
2250.000	620.14	0.00	620.97	23.00	0.00	940.00	0.00	0.00	0.00	1981.50	2004.50	0.00
2251.000	618.79	0.00	619.11	23.00	0.00	440.00	0.00	0.00	0.00	1981.50	2004.50	0.00
2251.000	619.46	0.00	619.95	23.00	0.00	635.00	0.00	0.00	0.00	1981.50	2004.50	0.00
2251.000	619.72	0.00	620.30	23.00	0.00	725.00	0.00	0.00	0.00	1981.50	2004.50	0.00
2251.000	620.15	0.00	620.98	23.00	0.00	940.00	0.00	0.00	0.00	1981.50	2004.50	0.00
2252.000	618.81	0.00	619.12	23.00	0.00	440.00	0.00	0.00	0.00	1981.50	2004.50	0.00
2252.000	619.48	0.00	619.97	23.00	0.00	635.00	0.00	0.00	0.00	1981.50	2004.50	0.00
2252.000	619.74	0.00	620.32	23.00	0.00	725.00	0.00	0.00	0.00	1981.50	2004.50	0.00
2252.000	620.19	0.00	621.01	23.00	0.00	940.00	0.00	0.00	0.00	1981.50	2004.50	0.00
2253.000	618.81	0.00	619.13	23.00	0.00	440.00	0.00	0.00	0.00	1981.50	2004.50	0.00
2253.000	619.49	0.00	619.97	23.00	0.00	635.00	0.00	0.00	0.00	1981.50	2004.50	0.00
2253.000	619.75	0.00	620.32	23.00	0.00	725.00	0.00	0.00	0.00	1981.50	2004.50	0.00
2253.000	620.20	0.00	621.02	23.00	0.00	940.00	0.00	0.00	0.00	1981.50	2004.50	0.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	ELLC	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	2425.000	619.75	0.00	620.21	27.50	0.00	440.00	0.00	0.00	0.00	1993.00	2024.00	0.00
	2425.000	620.68	0.00	621.24	24.79	0.00	635.00	0.00	0.00	0.00	1993.00	2024.00	0.00
	2425.000	621.06	0.00	621.71	25.66	0.00	725.00	0.00	0.00	0.00	1993.00	2024.00	0.00
	2425.000	621.86	0.00	622.53	27.52	0.00	940.00	0.00	0.00	0.00	1993.00	2024.00	0.00
	2600.000	620.68	0.00	621.04	19.70	0.00	440.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2600.000	621.66	0.00	622.17	19.70	0.00	635.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2600.000	622.05	0.00	622.64	19.70	0.00	725.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2600.000	622.56	0.00	623.62	19.70	0.00	940.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2601.000	620.68	0.00	621.05	19.70	0.00	440.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2601.000	621.66	0.00	622.18	19.70	0.00	635.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2601.000	622.05	0.00	622.64	19.70	0.00	725.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2601.000	622.86	0.00	623.53	19.70	0.00	940.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2602.000	620.79	0.00	621.14	19.70	0.00	440.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2602.000	621.30	0.00	622.29	19.70	0.00	635.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2602.000	622.20	0.00	622.76	19.70	0.00	725.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2602.000	623.04	0.00	623.77	19.70	0.00	940.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2603.000	620.30	0.00	621.14	19.70	0.00	440.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2603.000	621.80	0.00	622.30	19.70	0.00	635.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2603.000	622.21	0.00	622.77	19.70	0.00	725.00	0.00	0.00	0.00	1997.50	2017.20	0.00
	2603.000	623.35	0.00	623.78	19.70	0.00	940.00	0.00	0.00	0.00	1997.50	2017.20	0.00
*	2800.000	622.32	0.00	623.62	18.80	0.00	440.00	0.00	0.00	0.00	1993.00	2026.00	0.00
*	2800.000	623.11	0.00	624.65	21.13	0.00	635.00	0.00	0.00	0.00	1993.00	2026.00	0.00
*	2800.000	623.43	0.00	625.06	22.08	0.00	725.00	0.00	0.00	0.00	1993.00	2026.00	0.00
*	2800.000	624.11	0.00	625.95	24.11	0.00	940.00	0.00	0.00	0.00	1993.00	2026.00	0.00
	3000.000	624.89	0.00	625.22	15.50	0.00	440.00	0.00	0.00	0.00	2000.00	2015.50	0.00
	3000.000	626.06	0.00	626.54	15.50	0.00	635.00	0.00	0.00	0.00	2000.00	2015.50	0.00
	3000.000	626.52	0.00	627.08	15.50	0.00	725.00	0.00	0.00	0.00	2000.00	2015.50	0.00
	3000.000	627.49	0.00	628.23	15.50	0.00	940.00	0.00	0.00	0.00	2000.00	2015.50	0.00
	3001.000	625.37	0.00	625.25	24.06	0.00	440.00	0.00	0.00	0.00	2000.00	2028.80	0.00
	3001.000	625.35	0.00	626.55	26.77	0.00	635.00	0.00	0.00	0.00	2000.00	2028.30	0.00
	3001.000	625.86	0.00	627.13	27.87	0.00	725.00	0.00	0.00	0.00	2000.00	2028.30	0.00
	3001.000	627.92	0.00	628.30	28.80	0.00	940.00	0.00	0.00	0.00	2000.00	2028.80	0.00
	3002.000	625.09	0.00	625.26	24.09	0.00	440.00	0.00	0.00	0.00	2000.00	2028.30	0.00
	3002.000	626.37	0.00	626.50	25.81	0.00	635.00	0.00	0.00	0.00	2000.00	2028.50	0.00
	3002.000	626.66	0.00	627.14	27.92	0.00	725.00	0.00	0.00	0.00	2000.00	2028.80	0.00
	3002.000	627.96	0.00	628.34	28.80	0.00	940.00	0.00	0.00	0.00	2000.00	2028.80	0.00
	3003.000	625.13	0.00	625.27	26.89	0.00	440.00	0.00	0.00	0.00	1985.00	2013.30	0.00
	3003.000	626.42	0.00	626.51	27.02	0.00	635.00	0.00	0.00	0.00	1985.00	2013.30	0.00
	3003.000	626.94	0.00	627.16	27.49	0.00	725.00	0.00	0.00	0.00	1985.00	2013.30	0.00
	3003.000	628.10	0.00	628.37	27.37	0.00	940.00	0.00	0.00	0.00	1985.00	2013.30	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
3004.000	625.15	0.00	625.30	25.90	0.00	440.00	0.00	0.00	0.00	1985.00	2013.30	0.00
3004.000	626.45	0.00	626.64	27.33	0.00	635.00	0.00	0.00	0.00	1985.00	2013.30	0.00
3004.000	626.97	0.00	627.19	27.50	0.00	725.00	0.00	0.00	0.00	1985.00	2013.30	0.00
3004.000	628.46	0.00	628.71	27.99	0.00	940.00	0.00	0.00	0.00	1985.00	2013.30	0.00
3005.000	625.15	0.00	625.32	32.00	0.00	440.00	0.00	0.00	0.00	1977.00	2009.00	0.00
3005.000	625.46	0.00	626.67	32.00	0.00	635.00	0.00	0.00	0.00	1977.00	2009.00	0.00
3005.000	626.99	0.00	627.21	32.00	0.00	725.00	0.00	0.00	0.00	1977.00	2009.00	0.00
3005.000	628.46	0.00	628.70	32.00	0.00	940.00	0.00	0.00	0.00	1977.00	2009.00	0.00
3006.000	625.16	0.00	625.33	32.00	0.00	440.00	0.00	-627.70	627.70	1977.00	2009.00	2050.01
3006.000	625.47	0.00	626.63	32.00	0.00	635.00	0.00	-627.70	627.70	1977.00	2009.00	2050.01
3006.000	627.00	0.00	627.22	32.00	0.00	725.00	0.00	-627.70	627.70	1977.00	2009.00	2050.01
3006.000	628.48	0.00	628.78	32.00	0.00	940.00	0.00	-627.70	627.70	1977.00	2009.00	2050.01
3007.000	625.17	0.00	625.33	32.00	0.00	440.00	0.00	-627.70	627.70	1977.00	2009.00	2050.01
3007.000	626.47	0.00	626.68	32.00	0.00	635.00	0.00	-627.70	627.70	1977.00	2009.00	2050.01
3007.000	627.00	0.00	627.22	32.00	0.00	725.00	0.00	-627.70	627.70	1977.00	2009.00	2050.01
3007.000	628.56	0.00	628.79	32.00	0.00	940.00	0.00	-627.70	627.70	1977.00	2009.00	2050.01
3125.000	625.34	0.00	625.50	33.57	0.00	440.00	0.00	60.00	1975.00	1987.00	2023.00	2035.00
3125.000	626.65	0.00	626.82	46.93	5.34	629.12	.03	60.00	1975.00	1987.00	2023.00	2035.00
3125.000	627.19	0.00	627.36	57.60	16.49	705.21	2.31	60.00	1975.00	1987.00	2023.00	2035.00
3125.000	628.75	0.00	628.90	87.00	60.76	843.51	35.73	60.00	1975.00	1987.00	2023.00	2035.00
3250.000	625.55	0.00	625.76	27.20	0.00	440.00	0.00	0.00	0.00	1985.60	2014.20	0.00
3250.000	626.32	0.00	627.09	27.20	0.00	635.00	0.00	0.00	0.00	1985.60	2014.20	0.00
3250.000	627.33	0.00	627.52	27.20	0.00	725.00	0.00	0.00	0.00	1985.60	2014.20	0.00
3250.000	628.30	0.00	629.11	28.60	0.00	940.00	0.00	0.00	0.00	1985.60	2014.20	0.00
3251.000	625.57	0.00	625.78	27.20	0.00	440.00	0.00	0.00	0.00	1985.60	2014.20	0.00
3251.000	625.84	0.00	627.10	27.20	0.00	635.00	0.00	0.00	0.00	1985.60	2014.20	0.00
3251.000	627.35	0.00	627.64	27.20	0.00	725.00	0.00	0.00	0.00	1985.60	2014.20	0.00
3251.000	629.15	0.00	629.44	28.60	0.00	940.00	0.00	0.00	0.00	1985.60	2014.20	0.00
3400.000	625.62	0.00	625.86	30.00	0.00	440.00	0.00	0.00	0.00	1985.00	2015.00	0.00
3400.000	626.90	0.00	627.17	30.00	0.00	635.00	0.00	0.00	0.00	1985.00	2015.00	0.00
3400.000	627.42	0.00	627.71	30.00	0.00	725.00	0.00	0.00	0.00	1985.00	2015.00	0.00
3400.000	629.22	0.00	629.50	30.00	0.00	940.00	0.00	0.00	0.00	1985.00	2015.00	0.00
3401.000	625.63	0.00	625.86	30.00	0.00	440.00	0.00	0.00	0.00	1985.00	2015.00	0.00
3401.000	626.90	0.00	627.18	30.00	0.00	635.00	0.00	0.00	0.00	1985.00	2015.00	0.00
3401.000	627.42	0.00	627.71	30.00	0.00	725.00	0.00	0.00	0.00	1985.00	2015.00	0.00
3401.000	629.22	0.00	629.50	30.00	0.00	940.00	0.00	0.00	0.00	1985.00	2015.00	0.00
3402.000	626.08	0.00	626.27	30.00	0.00	440.00	0.00	0.00	0.00	1985.00	2015.00	0.00
3402.000	627.32	0.00	627.55	30.00	0.00	635.00	0.00	0.00	0.00	1985.00	2015.00	0.00
3402.000	627.33	0.00	628.08	30.00	0.00	725.00	0.00	0.00	0.00	1985.00	2015.00	0.00
3402.000	629.53	0.00	629.79	30.00	0.00	940.00	0.00	0.00	0.00	1985.00	2015.00	0.00

GEUNJ	GNSEL	DIRKRS	EG	TOP ID	DLCH	CCH	DROP	PERENC	STENCL	STCHL	STCHR	STENCR
3403.000	626.09	0.00	626.27	30.00	0.00	440.00	0.00	0.00	0.00	1985.00	2015.00	0.00
3403.000	627.32	0.00	627.55	30.00	0.00	635.00	0.00	0.00	0.00	1985.00	2015.00	0.00
3403.000	627.63	0.00	628.05	30.00	0.00	725.00	0.00	0.00	0.00	1985.00	2015.00	0.00
3403.000	629.53	0.00	629.79	30.00	0.00	940.00	0.00	0.00	0.00	1985.00	2015.00	0.00
3600.000	626.21	0.00	626.33	45.07	0.00	440.00	0.00	0.00	0.00	1942.50	1992.50	0.00
3600.000	627.46	0.00	627.91	50.39	0.00	634.76	.24	0.00	0.00	1942.50	1992.50	0.00
3600.000	628.00	0.00	628.14	52.96	0.00	723.70	1.30	0.00	0.00	1942.50	1992.50	0.00
3600.000	629.71	0.00	629.83	78.35	15.06	911.79	12.15	0.00	0.00	1942.50	1992.50	0.00
4000.000	627.13	0.00	627.34	35.06	0.00	440.00	0.00	0.00	0.00	1972.50	2014.50	0.00
4000.000	628.23	0.00	628.43	39.37	.06	634.92	0.00	0.00	0.00	1972.50	2014.50	0.00
4000.000	628.70	0.00	628.95	42.00	.55	724.45	0.00	0.00	0.00	1972.50	2014.50	0.00
4000.000	630.11	0.00	630.35	62.23	5.49	926.95	7.56	0.00	0.00	1972.50	2014.50	0.00
4100.000	627.33	0.00	627.61	25.00	0.00	440.00	0.00	110.00	320.00	357.50	382.50	430.00
4100.000	628.39	0.00	628.77	25.00	0.00	635.00	0.00	110.00	320.00	357.50	382.50	430.00
4100.000	628.84	0.00	629.25	25.00	0.00	725.00	0.00	110.00	320.00	357.50	382.50	430.00
4100.000	630.15	0.00	630.60	41.87	0.00	930.19	1.81	110.00	320.00	357.50	382.50	430.00
4101.000	627.34	0.00	627.62	25.00	0.00	440.00	0.00	110.00	320.00	357.50	382.50	430.00
4101.000	628.40	0.00	628.77	25.00	0.00	635.00	0.00	110.00	320.00	357.50	382.50	430.00
4101.000	628.84	0.00	629.25	25.00	0.00	725.00	0.00	110.00	320.00	357.50	382.50	430.00
4101.000	630.06	0.00	630.35	37.66	0.00	939.47	.53	110.00	320.00	357.50	382.50	430.00
4102.000	627.38	0.00	627.65	25.00	0.00	440.00	0.00	50.00	345.00	357.50	382.50	395.00
4102.000	628.44	0.00	628.81	25.00	0.00	635.00	0.00	50.00	345.00	357.50	382.50	395.00
4102.000	628.89	0.00	629.29	25.00	0.00	725.00	0.00	50.00	345.00	357.50	382.50	395.00
4102.000	630.17	0.00	630.76	25.00	0.00	940.00	0.00	50.00	345.00	357.50	382.50	395.00
4103.000	627.30	0.00	627.66	25.00	0.00	440.00	0.00	50.00	345.00	357.50	382.50	395.00
4103.000	628.45	0.00	628.81	25.00	0.00	635.00	0.00	50.00	345.00	357.50	382.50	395.00
4103.000	628.89	0.00	629.30	25.00	0.00	725.00	0.00	50.00	345.00	357.50	382.50	395.00
4103.000	630.35	0.00	630.79	25.00	0.00	940.00	0.00	50.00	345.00	357.50	382.50	395.00
4200.000	627.05	0.00	627.34	33.56	0.00	440.00	0.00	200.00	.00	123.00	167.00	200.00
4200.000	628.79	0.00	629.00	35.97	0.00	635.00	0.00	200.00	.00	123.00	167.00	200.00
4200.000	629.26	0.00	629.49	41.11	0.00	725.00	0.00	200.00	.00	123.00	167.00	200.00
4200.000	630.75	0.00	630.93	90.42	13.14	890.11	36.75	200.00	.00	123.00	167.00	200.00
4300.000	627.80	0.00	628.00	27.40	0.00	440.00	0.00	0.00	0.00	486.40	513.80	0.00
4300.000	628.90	0.00	629.13	27.40	0.00	635.00	0.00	0.00	0.00	486.40	513.80	0.00
4300.000	629.36	0.00	629.67	27.40	0.00	725.00	0.00	0.00	0.00	486.40	513.80	0.00
4300.000	630.75	0.00	631.09	27.40	0.00	940.00	0.00	0.00	0.00	486.40	513.80	0.00
4301.000	627.74	0.00	628.03	27.40	0.00	440.00	0.00	0.00	0.00	486.40	513.80	0.00
4301.000	628.80	0.00	629.23	27.40	0.00	635.00	0.00	0.00	0.00	486.40	513.80	0.00
4301.000	629.22	0.00	629.73	27.40	0.00	725.00	0.00	0.00	0.00	486.40	513.80	0.00
4301.000	630.40	0.00	631.21	27.40	0.00	940.00	0.00	0.00	0.00	486.40	513.80	0.00

SECNO	CWSEL	DIFWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
4302.000	628.03	0.00	628.33	27.40	0.00	440.00	0.00	0.00	0.00	485.40	513.80	0.00
4302.000	629.31	0.00	629.59	27.40	0.00	635.00	0.00	0.00	0.00	485.40	513.80	0.00
4302.000	629.04	0.00	630.30	27.40	0.00	725.00	0.00	0.00	0.00	485.40	513.80	0.00
4302.000	631.63	0.00	632.27	27.40	0.00	940.00	0.00	0.00	0.00	486.40	513.80	0.00
4303.000	628.17	0.00	628.34	27.40	0.00	440.00	0.00	0.00	0.00	486.40	513.80	0.00
4303.000	629.49	0.00	629.71	27.40	0.00	635.00	0.00	0.00	0.00	486.40	512.80	0.00
4303.000	630.08	0.00	630.33	27.40	0.00	725.00	0.00	0.00	0.00	486.40	513.80	0.00
4303.000	632.08	0.00	632.32	27.40	0.00	940.00	0.00	0.00	0.00	486.40	513.80	0.00
4400.000	628.25	0.00	628.34	21.33	0.00	440.00	0.00	0.00	0.00	554.00	590.00	0.00
4400.000	629.57	0.00	629.83	35.91	.28	634.72	0.00	0.00	0.00	554.00	590.00	0.00
4400.000	630.16	0.00	630.43	45.39	5.05	719.95	0.00	0.00	0.00	554.00	590.00	0.00
4400.000	632.22	0.00	632.40	99.48	78.24	839.35	22.42	0.00	0.00	554.00	590.00	0.00
5000.000	628.78	0.00	629.05	65.55	0.00	440.00	0.00	1291.00	.00	1209.00	1291.00	1291.00
5000.000	630.69	0.00	630.97	71.50	0.00	635.00	0.00	1291.00	.00	1209.00	1291.00	1291.00
5000.000	631.39	0.00	631.47	74.95	0.00	725.00	0.00	1291.00	.00	1209.00	1291.00	1291.00
5000.000	632.87	0.00	632.94	260.49	21.16	918.84	0.00	1291.00	.00	1209.00	1291.00	1291.00
5100.000	629.86	0.00	630.03	26.10	0.00	440.00	0.00	0.00	0.00	486.90	513.00	0.00
5100.000	630.93	0.00	631.15	26.10	0.00	635.00	0.00	0.00	0.00	486.90	513.00	0.00
5100.000	631.40	0.00	631.66	26.10	0.00	725.00	0.00	0.00	0.00	486.90	513.00	0.00
5100.000	632.62	0.00	633.11	26.10	0.00	940.00	0.00	0.00	0.00	486.90	513.00	0.00
5101.000	629.83	0.00	630.06	26.10	0.00	440.00	0.00	0.00	0.00	486.90	513.00	0.00
5101.000	630.31	0.00	631.21	26.10	0.00	635.00	0.00	0.00	0.00	486.90	513.00	0.00
5101.000	631.24	0.00	631.73	26.10	0.00	725.00	0.00	0.00	0.00	486.90	513.00	0.00
5101.000	632.45	0.00	633.27	26.10	0.00	940.00	0.00	0.00	0.00	486.90	513.00	0.00
5102.000	631.06	0.00	631.25	26.10	0.00	440.00	0.00	0.00	0.00	486.90	513.00	0.00
5102.000	633.25	0.00	633.53	26.10	0.00	635.00	0.00	0.00	0.00	486.90	513.00	0.00
5102.000	634.48	0.00	634.98	26.10	0.00	725.00	0.00	0.00	0.00	486.90	513.00	0.00
5102.000	636.86	0.00	637.12	273.64	249.55	636.52	53.53	0.00	0.00	486.90	513.00	0.00
5103.000	631.16	0.00	631.26	26.10	0.00	440.00	0.00	0.00	0.00	486.90	513.00	0.00
5103.000	633.54	0.00	633.66	26.10	0.00	635.00	0.00	0.00	0.00	486.90	513.00	0.00
5103.000	634.91	0.00	635.02	26.10	0.00	725.00	0.00	0.00	0.00	486.90	513.00	0.00
5103.000	637.12	0.00	637.14	337.59	321.85	443.01	170.14	0.00	0.00	486.90	513.00	0.00
5200.000	631.14	0.00	631.36	31.34	0.00	440.00	0.00	-600.00	600.00	600.00	655.00	1170.00
5200.000	633.57	0.00	633.72	52.63	0.00	635.00	0.00	-600.00	600.00	600.00	655.00	1170.00
5200.000	634.95	0.00	635.05	59.74	0.00	723.83	1.17	-600.00	600.00	600.00	655.00	1170.00
5200.000	637.09	0.00	637.16	79.19	0.00	906.69	33.31	-600.00	600.00	600.00	655.00	1170.00
6200.000	631.04	0.00	633.18	54.31	0.00	423.25	16.75	75.00	365.00	375.00	430.00	440.00
6200.000	634.57	0.00	634.65	63.21	0.00	580.92	54.08	75.00	365.00	375.00	430.00	440.00
6200.000	635.52	0.00	635.61	75.00	6.29	649.27	69.44	75.00	365.00	375.00	430.00	440.00
6200.000	637.39	0.00	637.46	75.00	33.09	812.36	94.55	75.00	365.00	375.00	430.00	440.00

SECNO	CWSEL	CRIWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
6300.000	633.27	0.00	633.37	59.07	0.00	440.00	0.00	0.00	0.00	400.00	479.00	0.00
6300.000	634.70	0.00	634.79	64.39	0.00	535.00	0.00	0.00	0.00	400.00	479.00	0.00
6300.000	635.61	0.00	635.69	67.69	0.00	725.00	0.00	0.00	0.00	400.00	479.00	0.00
6300.000	637.44	0.00	637.50	70.70	0.00	940.00	0.00	0.00	0.00	400.00	479.00	0.00
6301.000	633.23	0.00	633.39	59.13	0.00	440.00	0.00	0.00	0.00	400.00	479.00	0.00
6301.000	634.71	0.00	634.80	64.91	0.00	535.00	0.00	0.00	0.00	400.00	479.00	0.00
6301.000	635.61	0.00	635.69	67.73	0.00	725.00	0.00	0.00	0.00	400.00	479.00	0.00
6301.000	637.44	0.00	637.51	70.71	0.00	940.00	0.00	0.00	0.00	400.00	479.00	0.00
6400.000	633.41	0.00	633.59	40.37	0.00	423.99	16.01	70.00	360.00	375.00	412.00	430.00
6400.000	634.79	0.00	634.95	65.94	1.61	562.97	70.41	70.00	360.00	375.00	412.00	430.00
6400.000	635.66	0.00	635.79	63.93	19.99	603.70	101.31	70.00	360.00	375.00	412.00	430.00
6400.000	637.47	0.00	637.56	70.00	68.30	701.34	169.36	70.00	360.00	375.00	412.00	430.00
7600.000	634.79	0.00	635.04	30.70	0.00	411.98	28.02	0.00	0.00	305.00	340.00	0.00
7600.000	635.93	0.00	636.26	35.53	0.00	582.52	52.48	0.00	0.00	305.00	340.00	0.00
7600.000	636.51	0.00	636.79	37.71	0.00	659.47	65.53	0.00	0.00	305.00	340.00	0.00
7600.000	637.93	0.00	638.20	44.14	.00	837.69	102.11	0.00	0.00	305.00	340.00	0.00
7700.000	634.93	0.00	635.26	25.50	0.00	440.00	0.00	25.50	487.20	487.20	512.70	512.70
7700.000	636.07	0.00	636.47	25.50	0.00	535.00	0.00	25.50	487.20	487.20	512.70	512.70
7700.000	636.53	0.00	637.01	25.50	0.00	725.00	0.00	25.50	487.20	487.20	512.70	512.70
7700.000	637.93	0.00	638.39	25.50	0.00	940.00	0.00	25.50	487.20	487.20	512.70	512.70
7701.000	636.24	0.00	636.54	25.50	0.00	440.00	0.00	25.50	487.20	487.20	512.70	512.70
7701.000	637.39	0.00	638.21	25.50	0.00	535.00	0.00	25.50	487.20	487.20	512.70	512.70
7701.000	638.24	0.00	638.92	25.50	0.00	725.00	0.00	25.50	487.20	487.20	512.70	512.70
7701.000	640.13	0.00	640.44	25.50	0.00	940.00	0.00	25.50	487.20	487.20	512.70	512.70
7800.000	635.50	0.00	635.70	61.60	3.27	431.73	0.00	80.00	460.00	467.00	531.00	540.00
7800.000	638.28	0.00	638.36	69.48	29.47	505.53	0.00	80.00	460.00	467.00	531.00	540.00
7800.000	638.98	0.00	639.06	80.00	37.26	686.03	1.71	80.00	460.00	467.00	531.00	540.00
7800.000	640.42	0.00	640.49	80.00	51.50	871.60	16.90	80.00	460.00	467.00	531.00	540.00
8250.000	637.34	0.00	637.45	30.79	0.30	410.00	0.00	60.00	1965.00	1975.00	2033.00	2045.00
8250.000	638.73	0.00	638.85	49.35	.58	539.42	0.00	60.00	1965.00	1975.00	2033.00	2045.00
8250.000	639.35	0.00	639.47	57.43	4.14	665.86	0.60	80.00	1965.00	1975.00	2033.00	2045.00
8250.000	640.68	0.00	640.79	63.15	25.43	843.57	0.00	80.00	1965.00	1975.00	2033.00	2045.00
8350.000	637.41	0.00	637.62	13.80	0.00	410.00	0.00	18.00	191.20	191.20	210.00	210.00
8350.000	638.74	0.00	639.03	13.80	0.00	590.00	0.00	18.00	191.20	191.20	210.00	210.00
8350.000	639.33	0.00	639.64	13.30	0.00	670.00	0.00	18.30	191.20	191.20	210.00	210.00
8350.000	640.56	0.00	640.96	13.30	0.00	870.00	0.00	18.30	191.20	191.20	210.00	210.00
8351.000	637.61	0.00	638.03	13.80	0.00	410.00	0.00	18.30	191.20	191.20	210.00	210.00
8351.000	639.71	0.00	639.93	13.80	0.00	590.00	0.00	18.30	191.20	191.20	210.00	210.00
8351.000	640.63	0.00	640.86	13.80	0.00	670.00	0.00	18.30	191.20	191.20	210.00	210.00
8351.000	642.23	0.00	642.52	13.80	0.00	870.00	0.00	18.30	191.20	191.20	210.00	210.00

	SECNO	CWSEL	CRIWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	8450.000	638.24	0.00	638.60	35.50	0.00	410.00	0.00	75.00	290.00	301.00	355.00	365.00
	8450.000	639.75	0.00	640.08	54.99	3.97	586.03	0.00	75.00	290.00	301.00	355.00	365.00
	8450.000	640.08	0.00	640.99	57.83	20.40	649.60	0.00	75.00	290.00	301.00	355.00	365.00
	8450.000	642.53	0.00	642.62	63.15	57.26	812.74	0.00	75.00	290.00	301.00	355.00	365.00
	9450.000	640.16	0.00	640.34	45.14	0.00	402.21	7.79	80.00	1940.00	1963.00	2000.00	2020.00
	9450.000	641.32	0.00	641.50	57.52	1.22	525.84	62.94	80.00	1940.00	1963.00	2000.00	2020.00
	9450.000	642.01	0.00	642.16	80.00	17.38	540.04	112.59	80.00	1940.00	1963.00	2000.00	2020.00
	9450.000	643.25	0.00	643.37	90.00	75.39	621.53	173.08	80.00	1940.00	1963.00	2000.00	2020.00
	9505.000	640.43	0.00	640.51	40.26	1.47	378.54	29.99	0.00	0.00	304.00	338.00	0.00
	9505.000	641.57	0.00	641.73	42.89	7.00	529.73	53.27	0.00	0.00	304.00	338.00	0.00
	9505.000	642.21	0.00	642.37	64.43	12.04	591.10	66.86	0.00	0.00	304.00	338.00	0.00
	9505.000	643.41	0.00	643.48	400.32	120.28	564.96	184.36	0.00	0.00	304.00	338.00	0.00
	9605.000	640.72	0.00	640.97	32.45	0.00	410.00	0.00	0.00	0.00	304.00	337.00	0.00
	9605.000	641.70	0.00	641.97	32.76	0.00	590.00	0.00	0.00	0.00	304.00	337.00	0.00
	9605.000	642.33	0.00	642.56	32.94	0.00	670.00	0.00	0.00	0.00	304.00	337.00	0.00
	9605.000	643.51	0.00	643.55	515.65	106.94	424.00	339.06	0.00	0.00	304.00	337.00	0.00
	9606.000	640.75	0.00	640.99	32.45	0.00	410.00	0.00	0.00	0.00	304.00	337.00	0.00
	9606.000	641.74	0.00	642.02	32.76	0.00	590.00	0.00	0.00	0.00	304.00	337.00	0.00
	9606.000	642.35	0.00	642.54	32.93	0.00	670.00	0.00	0.00	0.00	304.00	337.00	0.00
	9606.000	643.54	0.00	643.67	545.01	134.58	388.03	347.38	0.00	0.00	304.00	337.00	0.00
	9635.000	640.61	0.00	640.93	40.15	0.00	287.14	122.86	0.00	0.00	304.00	337.00	0.00
	9635.000	641.92	0.00	642.18	43.71	0.00	409.53	180.47	0.00	0.00	304.00	337.00	0.00
	9635.000	642.57	0.00	642.71	85.68	0.00	461.14	208.86	0.00	0.00	304.00	337.00	0.00
	9635.000	643.05	0.00	643.33	546.30	135.87	385.15	347.98	0.00	0.00	304.00	337.00	0.00
	10100.000	642.09	0.00	642.33	31.22	0.00	410.00	0.00	80.00	1510.00	1525.00	1579.00	1590.00
	10100.000	643.16	0.00	643.47	40.62	0.00	590.00	0.00	80.00	1510.00	1525.00	1579.00	1590.00
	10100.000	643.64	0.00	643.93	53.91	4.13	665.86	0.00	80.00	1510.00	1525.00	1579.00	1590.00
	10100.000	644.04	0.00	644.39	80.00	29.25	835.70	5.05	80.00	1510.00	1525.00	1579.00	1590.00
	11050.000	645.05	0.00	645.14	40.57	.11	409.89	0.00	0.00	0.00	424.00	465.00	0.00
	11050.000	645.13	0.00	645.24	41.10	.49	589.51	0.00	0.00	0.00	424.00	465.00	0.00
	11050.000	646.53	0.00	646.65	43.16	.73	669.27	0.00	0.00	0.00	424.00	465.00	0.00
	11050.000	647.33	0.00	647.46	101.49	27.66	842.34	0.00	0.00	0.00	424.00	465.00	0.00
	11150.000	645.06	0.00	645.14	40.67	.11	409.89	0.00	0.00	0.00	424.00	465.00	0.00
	11150.000	645.13	0.00	645.24	41.10	.49	589.51	0.00	0.00	0.00	424.00	465.00	0.00
	11150.000	646.53	0.00	646.65	43.66	.74	669.26	0.00	0.00	0.00	424.00	465.00	0.00
*	11150.000	647.33	0.00	647.43	101.65	44.27	825.73	0.00	0.00	0.00	424.00	465.00	0.00
	11158.000	645.07	0.00	645.15	40.67	.11	409.89	0.00	0.00	0.00	424.00	465.00	0.00
	11158.000	645.14	0.00	645.25	41.11	.49	589.51	0.00	0.00	0.00	424.00	465.00	0.00
	11158.000	646.54	0.00	646.66	44.30	.74	669.26	0.00	0.00	0.00	424.00	465.00	0.00
*	11158.000	647.36	0.00	647.51	103.00	46.33	823.67	0.00	0.00	0.00	424.00	465.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
11159.000	645.07	0.00	645.13	40.07	.11	403.89	0.00	0.00	0.00	424.00	465.00	0.00
11159.000	645.14	0.00	645.25	41.11	.49	587.51	0.00	0.00	0.00	424.00	465.00	0.00
11159.000	645.54	0.00	645.57	46.42	.74	565.26	0.00	0.00	0.00	424.00	465.00	0.00
11159.000	647.37	0.00	647.51	103.35	30.32	339.68	0.00	0.00	0.00	424.00	465.00	0.00
11165.000	645.08	0.00	645.19	51.44	0.00	225.71	184.29	0.00	0.00	394.00	421.00	0.00
11165.000	645.16	0.00	645.28	83.65	3.22	253.38	292.39	0.00	0.00	394.00	421.00	0.00
11165.000	645.58	0.00	646.59	105.29	16.30	313.59	335.11	0.00	0.00	394.00	421.00	0.00
11165.000	647.44	0.00	647.54	153.37	63.04	363.06	421.90	0.00	0.00	394.00	421.00	0.00
11409.000	645.16	0.00	645.27	26.90	0.00	410.00	0.00	0.00	0.00	394.00	420.90	0.00
11409.000	645.20	0.00	645.37	26.90	0.00	590.00	0.00	0.00	0.00	394.00	420.90	0.00
11409.000	645.60	0.10	645.79	26.90	0.00	570.00	0.00	0.00	0.00	394.00	420.90	0.00
11409.000	647.39	0.00	647.66	26.90	0.00	370.00	0.00	0.00	0.00	394.00	420.90	0.00
11411.000	645.27	0.00	645.40	26.90	0.00	410.00	0.00	0.00	0.00	394.00	420.90	0.00
11411.000	646.33	0.00	646.57	26.90	0.00	590.00	0.00	0.00	0.00	394.00	420.90	0.00
11411.000	646.72	0.00	647.03	26.90	0.00	570.00	0.00	0.00	0.00	394.00	420.90	0.00
11411.000	647.48	0.00	648.00	26.90	0.00	370.00	0.00	0.00	0.00	394.00	420.90	0.00
11530.000	645.42	0.00	645.49	120.90	93.89	291.62	24.49	0.00	0.00	394.00	419.00	0.00
11530.000	646.01	0.00	646.54	193.02	279.31	267.79	42.40	0.00	0.00	394.00	419.00	0.00
11530.000	647.07	0.00	647.10	219.41	364.59	256.50	40.92	0.00	0.00	394.00	419.00	0.00
11530.000	648.06	0.00	[illegible]	326.45	555.76	225.19	77.05	0.00	0.00	394.00	419.00	0.00
12030.000	646.02	0.00	646.15	33.92	0.00	410.00	0.00	0.00	0.00	174.00	215.00	0.00
12030.000	646.90	0.00	647.07	31.94	2.55	587.45	0.00	0.00	0.00	174.00	215.00	0.00
12030.000	647.26	0.00	647.64	165.79	39.98	630.02	0.00	0.00	0.00	174.00	215.00	0.00
12030.000	648.13	0.00	648.25	242.00	321.34	540.06	3.60	0.00	0.00	174.00	215.00	0.00
12740.000	647.82	0.00	647.98	144.50	147.53	193.75	68.72	0.00	0.00	85.00	106.00	0.00
12740.000	648.59	0.00	648.64	180.31	230.39	214.75	144.36	0.00	0.00	85.00	106.00	0.00
12740.000	648.94	0.00	648.99	200.00	256.33	224.37	179.10	0.00	0.00	85.00	106.00	0.00
12740.000	649.17	0.00	649.23	200.00	353.30	257.76	258.44	0.00	0.00	85.00	106.00	0.00
* 12741.000	649.01	0.00	649.16	200.00	.19	163.10	241.72	0.00	0.00	85.00	105.00	0.00
* 12741.000	649.26	0.00	649.41	200.00	23.55	195.33	370.51	0.00	0.00	85.00	106.00	0.00
* 12741.000	649.08	0.00	649.49	200.00	45.22	194.18	425.60	0.00	0.00	85.00	106.00	0.00
* 12741.000	649.24	0.00	649.71	200.00	93.65	221.64	554.50	0.00	0.00	85.00	106.00	0.00
12762.000	649.54	0.00	649.59	200.00	57.69	81.28	259.03	0.00	0.00	85.00	106.00	0.00
12762.000	649.30	0.00	649.83	200.00	116.03	104.40	363.97	0.00	0.00	85.00	106.00	0.00
12762.000	649.80	0.00	649.97	200.00	137.96	114.33	417.71	0.00	0.00	85.00	106.00	0.00
12762.000	650.10	0.00	650.21	200.00	195.95	135.95	533.10	0.00	0.00	85.00	106.00	0.00
12763.000	649.59	0.00	649.60	200.00	98.60	89.15	221.55	0.00	0.00	85.00	106.00	0.00
12763.000	649.66	0.00	649.69	200.00	141.57	113.47	328.95	0.00	0.00	85.00	106.00	0.00
12763.000	649.95	0.00	649.99	200.00	160.63	132.17	377.20	0.00	0.00	85.00	106.00	0.00
12763.000	650.18	0.00	650.22	200.00	278.12	161.39	497.99	0.00	0.00	85.00	106.00	0.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	12650.000	647.51	0.00	649.54	190.54	35.35	61.67	312.98	0.00	0.00	41.00	55.00	0.00
	12650.000	649.70	0.00	649.94	191.42	52.33	80.97	456.70	0.00	0.00	41.00	55.00	0.00
	12850.000	650.00	0.00	650.05	191.71	59.24	89.36	520.30	0.00	0.00	41.00	55.00	0.00
	12650.000	650.24	0.00	650.31	194.17	71.66	108.30	633.24	0.00	0.00	41.00	55.00	0.00
*	13413.000	650.27	0.00	650.60	54.22	0.00	0.00	410.00	0.00	0.00	0.00	0.00	0.00
*	13413.000	651.05	0.00	651.05	60.74	0.00	0.00	590.00	0.00	0.00	0.00	0.00	0.00
*	13413.000	650.93	0.00	651.52	102.74	0.00	0.00	570.00	0.00	0.00	0.00	0.00	0.00
*	13413.000	651.39	0.00	651.74	242.07	0.00	0.00	570.00	0.00	0.00	0.00	0.00	0.00

BUTTERMILK CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	0.000	0.00	0.00	0.00	606.80	440.00	612.36	0.00	612.94	7.81	2.47	195.62	157.40
	0.000	0.00	0.00	0.00	606.80	635.00	613.39	0.00	614.00	7.83	2.60	247.12	226.36
	0.000	0.00	0.00	0.00	606.80	725.00	614.32	0.00	614.44	7.35	2.93	268.62	258.69
	0.000	0.00	0.00	0.00	606.80	940.00	615.30	0.00	615.44	7.79	3.21	317.62	336.79
	900.000	900.00	0.00	0.00	607.40	440.00	613.58	0.00	613.70	13.45	3.75	129.29	119.97
	900.000	900.00	0.00	0.00	607.40	635.00	614.63	0.00	614.91	15.48	4.48	153.42	161.39
	900.000	900.00	0.00	0.00	607.40	725.00	615.06	0.00	615.37	15.02	4.74	174.02	181.16
	900.000	900.00	0.00	0.00	607.40	940.00	616.02	0.00	615.38	15.43	5.21	210.55	231.90
*	2150.000	975.00	0.00	0.00	612.20	440.00	617.16	617.16	618.45	266.35	9.46	48.45	26.96
*	2150.000	975.00	0.00	0.00	612.20	635.00	618.19	618.19	619.31	166.62	8.62	76.09	49.19
*	2150.000	975.00	0.00	0.00	612.20	725.00	618.39	618.39	619.61	171.47	8.96	84.32	55.37
	2150.000	975.00	0.00	0.00	612.20	940.00	619.01	618.90	620.25	147.34	8.93	103.31	77.31
	2250.000	75.00	0.00	0.00	613.20	440.00	618.79	0.00	619.10	34.06	4.52	97.25	75.39
	2250.000	75.00	0.00	0.00	613.20	635.00	619.45	0.00	619.74	43.75	5.65	112.43	96.00
	2250.000	75.00	0.00	0.00	613.20	725.00	619.71	0.00	620.29	47.80	6.12	118.54	104.86
	2250.000	75.00	0.00	0.00	613.20	940.00	620.14	0.00	620.97	61.13	7.30	128.68	120.23
	2251.000	1.00	622.50	621.80	613.20	440.00	618.79	0.00	619.11	41.22	4.50	97.77	68.54
	2251.000	1.00	622.50	621.80	613.20	635.00	619.46	0.00	619.95	56.40	5.62	112.90	84.55
	2251.000	1.00	622.50	621.80	613.20	725.00	619.72	0.00	620.30	63.31	6.10	118.90	91.11
	2251.000	1.00	622.50	621.80	613.20	940.00	620.15	0.00	620.98	84.50	7.30	128.35	102.2-
	2252.000	3.50	622.50	621.80	613.20	440.00	618.81	0.00	619.12	41.06	4.49	97.89	68.67
	2252.000	3.50	622.50	621.80	613.20	635.00	619.48	0.00	619.97	55.86	5.61	113.23	84.96
	2252.000	3.50	622.50	621.80	613.20	725.00	619.74	0.00	620.32	62.69	6.08	119.30	91.56
	2252.000	3.50	622.50	621.80	613.20	940.00	620.19	0.00	621.01	83.20	7.26	129.56	103.06
	2253.000	1.00	0.00	0.00	613.20	440.00	618.81	0.00	619.13	40.68	4.49	98.04	68.82
	2253.000	1.00	0.00	0.00	613.20	635.00	619.49	0.00	619.97	55.49	5.59	113.54	85.25
	2253.000	1.00	0.00	0.00	613.20	725.00	619.75	0.00	620.32	62.23	6.06	119.61	91.70
	2253.000	1.00	0.00	0.00	613.20	940.00	620.20	0.00	621.02	82.52	7.23	129.93	103.43
	2425.000	200.00	0.00	0.00	614.90	440.00	619.75	0.00	620.21	68.88	5.46	80.55	53.01
	2425.000	200.00	0.00	0.00	614.90	635.00	620.68	0.00	621.28	73.53	6.19	102.64	74.05
	2425.000	200.00	0.00	0.00	614.90	725.00	621.06	0.00	621.71	75.09	6.46	112.20	83.67
	2425.000	200.00	0.00	0.00	614.90	940.00	621.86	0.00	622.63	78.69	7.05	133.42	105.97
	2600.000	175.00	0.00	0.00	615.20	440.00	620.63	0.00	621.04	33.75	4.82	91.25	75.73
	2600.000	175.00	0.00	0.00	615.20	635.00	621.55	0.00	622.17	37.08	5.74	110.56	104.28
	2600.000	175.00	0.00	0.00	615.20	725.00	622.05	0.00	622.64	39.55	6.13	118.24	116.62
	2600.000	175.00	0.00	0.00	615.20	940.00	622.86	0.00	623.62	42.60	7.00	134.20	144.03

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
	2601.000	1.00	626.90	625.40	615.20	440.00	620.68	0.00	621.05	44.63	4.34	90.39	94.44
	2601.000	1.00	626.90	625.40	615.20	635.00	621.56	0.00	622.18	55.24	5.76	110.20	34.67
	2601.000	1.00	626.90	625.40	615.20	725.00	622.25	0.00	622.54	60.74	6.15	117.88	93.02
	2601.000	1.00	626.90	625.40	615.20	940.00	622.86	0.00	623.63	71.91	7.02	133.84	110.85
	2602.000	20.00	625.50	625.40	615.20	440.00	620.79	0.00	621.14	43.73	4.73	92.95	66.56
	2602.000	20.00	625.70	625.40	615.20	635.00	621.30	0.00	622.29	52.70	5.63	112.79	87.47
	2602.000	20.00	625.90	625.40	615.20	725.00	622.20	0.00	622.76	55.85	6.01	120.72	96.15
	2602.000	20.00	625.90	625.40	615.20	940.00	623.04	0.00	623.77	67.00	6.34	137.34	114.84
	2603.000	1.00	0.00	0.00	615.20	440.00	620.00	0.00	621.14	31.97	4.73	93.04	77.81
	2603.000	1.00	0.00	0.00	615.20	635.00	621.80	0.00	622.30	34.94	5.62	112.90	107.42
	2603.000	1.00	0.00	0.00	615.20	725.00	622.21	0.00	622.77	35.31	6.00	120.83	120.31
	2603.000	1.00	0.00	0.00	615.20	940.00	623.05	0.00	623.78	39.71	6.84	137.43	149.17
*	2800.000	170.00	0.00	0.00	613.20	440.00	622.32	622.32	623.62	287.72	9.16	48.03	25.94
*	2800.000	170.00	0.00	0.00	613.20	635.00	623.11	623.11	624.65	275.78	9.96	63.78	38.24
*	2800.000	170.00	0.00	0.00	613.50	725.00	623.43	623.43	625.06	271.63	10.26	70.59	43.99
*	2800.000	170.00	0.00	0.00	613.30	940.00	624.11	624.11	625.95	263.69	10.86	86.56	57.89
	3000.000	170.00	0.00	0.00	613.70	440.00	624.39	0.00	625.22	42.10	4.58	96.05	67.81
	3000.000	170.00	0.00	0.00	613.70	635.00	625.06	0.00	625.54	54.99	5.57	114.08	85.53
	3000.000	170.00	0.00	0.00	613.70	725.00	626.52	0.00	627.08	60.92	5.98	121.24	92.89
	3000.000	170.00	0.00	0.00	613.70	940.00	627.49	0.00	628.23	75.22	6.90	135.24	108.33
	3001.000	5.30	623.50	627.30	617.60	440.00	625.07	0.00	625.25	22.05	3.39	129.63	93.71
	3001.000	5.50	623.50	627.30	617.60	635.00	626.35	0.00	626.58	25.30	3.92	162.06	126.24
	3001.000	5.50	623.50	627.30	617.60	725.00	626.86	0.00	627.13	26.37	4.11	176.23	141.10
	3001.000	5.50	623.50	627.30	617.60	940.00	627.92	0.00	628.30	72.60	4.98	188.58	110.32
	3002.000	5.00	623.50	627.30	615.70	440.00	625.09	0.00	625.26	20.02	3.33	131.39	98.34
	3002.000	5.00	623.50	627.30	615.70	635.00	626.37	0.00	626.60	23.28	3.36	164.56	131.61
	3002.000	5.00	628.00	627.30	615.70	725.00	626.98	0.00	627.14	24.37	4.05	178.30	146.85
	3002.000	5.00	623.50	627.30	615.70	940.00	627.96	0.00	628.34	63.79	4.93	190.56	113.33
	3003.000	6.50	0.00	0.00	619.10	440.00	625.13	0.00	625.27	15.39	3.06	143.97	112.14
	3003.000	6.50	0.00	0.00	619.10	635.00	626.42	0.00	626.61	17.06	3.55	178.90	153.74
	3003.000	6.50	0.00	0.00	619.10	725.00	626.94	0.00	627.16	17.85	3.75	193.18	171.62
	3003.000	6.50	0.00	0.00	619.10	940.00	628.10	0.00	628.37	19.38	4.17	225.39	213.55
	3004.000	24.50	629.40	627.30	619.10	440.00	625.15	0.00	625.30	15.20	3.04	144.58	112.84
	3004.000	24.50	629.40	627.30	619.10	635.00	626.45	0.00	626.64	15.83	3.53	179.77	154.81
	3004.000	24.50	629.40	627.30	619.10	725.00	626.97	0.00	627.19	17.59	3.73	194.17	172.38
	3004.000	24.50	629.40	627.30	619.10	940.00	628.46	0.00	628.71	17.13	3.99	235.52	227.14
	3005.000	11.50	628.50	627.70	619.70	440.00	625.15	0.00	625.32	19.82	3.29	133.73	98.82
	3005.000	11.50	628.50	627.70	619.70	635.00	626.46	0.00	626.67	11.29	3.62	175.00	148.45
	3005.000	11.50	628.50	627.70	619.70	725.00	626.99	0.00	627.21	13.21	3.77	192.44	169.89
	3005.000	11.50	628.50	627.70	619.70	940.00	628.46	0.00	628.76	47.56	4.37	215.00	136.30

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
3006.000	1.00	627.50	627.70	619.70	440.00	625.16	0.00	625.33	19.30	3.29	133.62	98.87
3006.000	5.00	627.50	627.70	619.70	535.00	625.47	0.00	625.63	13.27	3.51	175.69	148.58
3006.000	5.00	627.50	627.70	619.70	725.00	627.00	0.00	627.22	13.15	3.76	192.64	170.15
3006.000	5.00	623.50	627.70	619.70	940.00	628.53	0.00	628.78	47.56	4.37	215.00	136.30
3007.000	1.00	0.00	0.00	619.70	440.00	625.17	0.00	625.33	19.76	3.29	133.93	98.99
3007.000	1.00	0.00	0.00	619.70	535.00	625.47	0.00	625.68	13.24	3.61	175.77	148.69
3007.000	1.00	0.00	0.00	619.70	725.00	627.00	0.00	627.22	13.13	3.76	192.72	170.25
3007.000	1.00	0.00	0.00	619.70	940.00	628.56	0.00	628.79	15.63	3.88	242.42	237.41
3125.000	35.00	0.00	0.00	620.00	440.00	625.34	0.00	625.50	17.91	3.12	141.01	103.98
3125.000	35.00	0.00	0.00	620.00	535.00	626.65	0.00	626.82	15.79	3.37	192.17	159.79
3125.000	35.00	0.00	0.00	620.00	725.00	627.19	0.00	627.36	14.24	3.42	221.23	192.11
3125.000	65.00	0.00	0.00	620.00	940.00	628.75	0.00	628.90	9.09	3.21	314.97	311.74
3250.000	100.00	0.00	0.00	620.70	440.00	625.55	0.00	625.76	37.60	3.70	118.90	71.76
3250.000	100.00	0.00	0.00	620.70	635.00	626.82	0.00	627.09	38.64	4.13	153.62	102.16
3250.000	100.00	0.00	0.00	620.70	725.00	627.39	0.00	627.52	39.69	4.32	167.77	115.08
3250.000	100.00	0.00	0.00	620.70	940.00	628.30	0.00	629.11	37.46	4.51	201.35	153.59
3251.000	33.00	633.40	620.10	620.70	440.00	625.57	0.00	625.78	37.04	3.68	119.55	72.30
3251.000	33.00	633.40	620.10	620.70	635.00	626.84	0.00	627.10	38.29	4.12	154.13	102.67
3251.000	33.00	633.40	620.10	620.70	725.00	627.35	0.00	627.64	39.52	4.31	168.05	115.33
3251.000	33.00	633.40	620.10	620.70	940.00	628.15	0.00	629.44	32.44	4.30	218.64	135.04
3400.000	20.00	0.00	0.00	620.90	440.00	625.62	0.00	625.86	35.64	3.87	113.57	73.70
3400.000	20.00	0.00	0.00	620.90	635.00	626.93	0.00	627.17	30.81	4.18	151.94	114.41
3400.000	20.00	0.00	0.00	620.90	725.00	627.42	0.00	627.71	30.08	4.33	167.38	132.16
3400.000	20.00	0.00	0.00	620.90	940.00	629.22	0.00	629.50	22.26	4.25	221.43	199.25
3401.000	1.00	634.20	630.90	620.90	440.00	625.63	0.00	625.86	35.80	3.38	113.51	73.54
3401.000	1.00	634.20	630.90	620.90	635.00	626.90	0.00	627.18	30.87	4.18	151.33	114.28
3401.000	1.00	634.20	630.90	620.90	725.00	627.42	0.00	627.71	30.13	4.33	167.30	132.08
3401.000	1.00	634.20	630.80	620.90	940.00	629.22	0.00	629.50	22.31	4.25	221.25	199.01
3402.000	136.00	634.20	630.90	620.90	440.00	626.08	0.00	626.27	25.26	3.46	127.24	37.54
3402.000	136.00	634.20	630.90	620.90	535.00	627.32	0.00	627.55	24.35	3.86	164.39	128.69
3402.000	136.00	634.20	630.80	620.80	725.00	627.83	0.00	628.08	24.43	4.04	179.56	146.67
3402.000	136.00	634.20	630.90	620.80	940.00	629.53	0.00	629.79	19.87	4.08	230.32	210.89
3403.000	1.00	0.00	0.00	620.80	440.00	626.09	0.00	626.27	13.40	3.46	127.33	102.57
3403.000	1.00	0.00	0.00	620.80	635.00	627.32	0.00	627.55	16.37	3.86	164.36	156.95
3403.000	1.00	0.00	0.00	620.80	725.00	627.83	0.00	628.08	15.86	4.04	179.67	182.06
3403.000	1.00	0.00	0.00	620.80	940.00	629.53	0.00	629.79	11.60	4.08	230.59	275.95
3600.000	30.00	0.00	0.00	620.40	440.00	626.21	0.00	626.33	15.21	2.72	161.87	112.83
3600.000	30.00	0.00	0.00	620.40	535.00	627.49	0.00	627.51	12.47	2.87	221.97	179.34
3600.000	30.00	0.00	0.00	620.40	725.00	628.00	0.00	628.14	11.55	2.92	249.14	213.31
3600.000	30.00	0.00	0.00	620.40	940.00	628.71	0.00	629.83	6.82	2.74	361.86	359.98

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4000.000	470.00	0.00	0.00	621.10	440.00	627.13	0.00	627.34	30.18	3.57	120.02	80.09
4000.000	470.00	0.00	0.00	621.10	635.00	628.23	0.00	628.48	27.35	3.94	161.47	121.43
4000.000	470.00	0.00	0.00	621.10	725.00	628.70	0.00	628.95	25.90	4.02	180.51	142.45
4000.000	470.00	0.00	0.00	621.10	940.00	630.11	0.00	630.35	17.13	3.98	250.09	227.15
4100.000	77.00	0.00	0.00	621.50	440.00	627.33	0.00	627.61	36.86	4.26	103.25	72.47
4100.000	77.00	0.00	0.00	621.50	635.00	628.39	0.00	628.77	39.32	4.90	129.65	101.25
4100.000	77.00	0.00	0.00	621.50	725.00	625.34	0.00	629.25	40.12	5.14	141.11	114.46
4100.000	77.00	0.00	0.00	621.50	940.00	630.15	0.00	630.60	37.21	5.40	175.19	154.09
4101.000	1.00	627.40	633.40	621.60	440.00	627.34	0.00	627.62	36.77	4.26	103.33	72.55
4101.000	1.00	627.40	633.40	621.60	635.00	628.40	0.00	628.77	39.15	4.89	129.85	101.49
4101.000	1.00	627.40	633.40	621.60	725.00	628.84	0.00	629.25	40.25	5.14	140.94	114.27
4101.000	1.00	627.40	633.40	621.50	940.00	630.06	0.00	630.65	112.20	6.16	153.59	38.74
4102.000	10.00	627.40	633.40	621.60	440.00	627.38	0.00	627.65	35.79	4.22	104.27	73.54
4102.000	10.00	627.40	633.40	621.60	635.00	628.44	0.00	628.81	38.26	4.85	130.88	102.65
4102.000	10.00	627.40	633.40	621.60	725.00	628.99	0.00	629.29	39.44	5.11	141.95	115.45
4102.000	10.00	627.40	633.40	621.60	940.00	630.17	0.00	630.76	112.32	6.17	152.45	48.69
4103.000	1.00	0.00	0.00	621.60	440.00	627.38	0.00	627.66	35.57	4.21	104.49	73.77
4103.000	1.00	0.00	0.00	621.60	635.00	628.45	0.00	628.31	38.06	4.94	131.12	102.93
4103.000	1.00	0.00	0.00	621.60	725.00	628.09	0.00	629.30	39.24	5.10	142.20	115.74
4103.000	1.00	0.00	0.00	621.60	940.00	630.35	0.00	630.78	34.42	5.26	178.74	160.22
4200.000	60.00	0.00	0.00	621.40	440.00	627.66	0.00	627.84	22.77	3.38	129.99	92.20
4200.000	60.00	0.00	0.00	621.40	635.00	628.79	0.00	629.00	22.84	3.71	171.11	132.87
4200.000	60.00	0.00	0.00	621.40	725.00	629.26	0.00	629.49	22.50	3.81	190.10	152.85
4200.000	60.00	0.00	0.00	621.40	940.00	630.75	0.00	630.93	14.00	3.50	294.60	251.22
4300.000	70.00	0.00	0.00	622.50	440.00	627.80	0.00	628.00	22.11	3.64	120.83	93.59
4300.000	70.00	0.00	0.00	622.30	635.00	628.90	0.00	629.18	21.34	4.20	151.13	135.87
4300.000	70.00	0.00	0.00	622.50	725.00	629.36	0.00	629.67	21.80	4.43	163.74	155.28
4300.000	70.00	0.00	0.00	622.50	940.00	630.75	0.00	631.09	13.25	4.66	201.33	220.05
4301.000	1.00	632.40	635.90	622.30	440.00	627.74	0.00	628.03	53.40	4.29	102.65	60.21
4301.000	1.00	632.40	635.90	622.60	635.00	628.90	0.00	629.23	80.79	5.26	120.68	70.65
4301.000	1.00	632.40	635.90	622.70	725.00	627.22	0.00	629.73	96.52	5.73	125.50	73.80
4301.000	1.00	632.40	635.90	622.10	940.00	630.49	0.00	631.21	176.35	6.89	135.35	70.79
4302.000	60.00	632.40	635.90	622.50	440.00	628.08	0.00	628.33	45.56	4.04	109.00	64.48
4302.000	60.00	632.40	635.90	622.50	635.00	629.31	0.00	629.69	72.98	4.99	127.56	74.33
4302.000	60.00	632.40	635.90	622.50	725.00	629.34	0.00	630.30	91.90	5.44	133.28	75.63
4302.000	60.00	632.40	635.90	622.50	940.00	631.53	0.00	632.27	175.35	6.89	136.35	70.73
4303.000	1.00	0.00	0.00	622.30	440.00	628.17	0.00	628.34	15.90	3.36	130.98	107.04
4303.000	1.00	0.00	0.00	622.30	635.00	629.49	0.00	629.71	15.61	3.80	167.15	160.71
4303.000	1.00	0.00	0.00	622.30	725.00	630.03	0.00	630.33	14.90	3.95	183.55	187.85
4303.000	1.00	0.00	0.00	622.30	940.00	632.08	0.00	632.32	10.49	3.94	236.33	290.29

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4400.000	55.00	0.00	0.00	622.60	440.00	628.25	0.00	628.54	40.65	4.37	100.67	66.59
4400.000	55.00	0.00	0.00	622.60	635.00	629.57	0.00	629.88	35.94	4.47	142.36	105.92
4400.000	55.00	0.00	0.00	622.60	725.00	630.18	0.00	630.48	30.93	4.42	167.42	130.35
4400.000	55.00	0.00	0.00	622.60	940.00	632.22	0.00	632.45	12.53	3.56	291.11	264.50
5000.000	670.00	0.00	0.00	623.30	440.00	629.70	0.00	629.85	10.75	2.12	207.44	134.17
5000.000	670.00	0.00	0.00	623.30	635.00	630.89	0.00	630.97	8.35	2.24	283.54	213.41
5000.000	670.00	0.00	0.00	623.30	725.00	631.39	0.00	631.47	8.29	2.27	319.79	251.80
5000.000	670.00	0.00	0.00	623.30	940.00	632.37	0.00	632.44	5.33	2.09	492.10	407.32
5100.000	105.00	0.00	0.00	624.00	440.00	629.38	0.00	630.03	20.46	3.14	140.01	97.27
5100.000	105.00	0.00	0.00	624.00	635.00	630.93	0.00	631.15	23.46	3.79	167.45	131.09
5100.000	105.00	0.00	0.00	624.00	725.00	631.40	0.00	631.66	24.12	4.03	179.33	147.63
5100.000	105.00	0.00	0.00	624.00	940.00	632.22	0.00	632.51	21.78	4.34	216.59	201.44
5101.000	1.00	636.20	641.80	624.00	440.00	629.83	0.00	630.06	85.91	3.38	113.46	47.47
5101.000	1.00	636.20	641.80	624.00	635.00	630.31	0.00	631.21	151.46	5.06	125.60	51.60
5101.000	1.00	636.20	641.80	624.00	725.00	631.24	0.00	631.73	208.96	5.63	122.67	50.15
5101.000	1.00	635.20	641.80	624.00	940.00	632.45	0.00	633.27	376.19	7.30	128.77	43.45
5102.000	150.00	636.20	641.80	624.00	440.00	631.06	0.00	631.25	72.37	3.45	127.58	51.54
5102.000	150.00	636.20	641.80	624.00	635.00	633.25	0.00	633.63	171.67	4.93	128.77	48.46
5102.000	150.00	636.20	641.80	624.00	725.00	634.48	0.00	634.98	223.78	5.63	128.77	48.40
5102.000	150.00	635.20	641.80	624.00	940.00	636.36	0.00	637.12	160.82	4.39	247.35	69.90
5103.000	1.00	0.00	0.00	624.00	440.00	631.16	0.00	631.26	10.02	2.54	173.45	139.01
5103.000	1.00	0.00	0.00	624.00	635.00	633.54	0.00	633.66	7.51	2.69	235.69	231.73
5103.000	1.00	0.00	0.00	624.00	725.00	634.91	0.00	635.02	6.13	2.67	271.23	292.85
5103.000	1.00	0.00	0.00	624.00	940.00	637.12	0.00	637.14	1.23	1.36	799.46	847.45
5200.000	40.00	0.00	0.00	624.10	440.00	631.14	0.00	631.36	30.33	3.80	115.93	79.90
5200.000	40.00	0.00	0.00	624.10	635.00	633.57	0.00	633.70	14.56	2.90	219.18	155.84
5200.000	40.00	0.00	0.00	624.10	725.00	634.95	0.00	635.05	7.76	2.46	295.48	250.39
5200.000	40.00	0.00	0.00	624.10	940.00	637.09	0.00	637.16	4.16	2.20	444.76	460.94
6200.000	700.00	0.00	0.00	625.80	440.00	633.04	0.00	633.18	22.23	2.99	151.01	93.33
6200.000	700.00	0.00	0.00	625.80	635.00	634.57	0.00	634.68	13.21	2.71	239.62	174.70
6200.000	700.00	0.00	0.00	625.80	725.00	635.52	0.00	635.61	9.32	2.44	308.80	251.41
6200.000	700.00	0.00	0.00	625.80	940.00	637.39	0.00	637.46	4.38	2.20	449.14	449.15
6300.000	97.00	0.00	0.00	625.70	440.00	633.27	0.00	633.37	18.13	2.58	170.28	103.33
6300.000	97.00	0.00	0.00	625.70	635.00	634.70	0.00	634.79	10.62	2.45	259.47	194.84
6300.000	97.00	0.00	0.00	626.70	725.00	635.61	0.00	635.69	7.45	2.27	318.77	265.59
6300.000	97.00	0.00	0.00	626.70	940.00	637.44	0.00	637.50	4.46	2.11	446.28	445.21
6301.000	5.20	0.00	0.00	626.70	440.00	633.28	0.00	633.39	17.90	2.57	171.02	104.01
6301.000	5.20	0.00	0.00	626.70	635.00	634.71	0.00	634.80	10.57	2.44	259.36	195.28
6301.000	5.20	0.00	0.00	625.70	725.00	635.61	0.00	635.69	7.39	2.27	319.61	256.63
6301.000	5.20	0.00	0.00	625.70	940.00	637.44	0.00	637.51	4.44	2.10	446.72	445.37

SECNO	XLCH	ITRIAL	ELLC	ELTRD	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
6400.000	97.00	0.00	0.00	626.40	440.00	633.41	0.00	633.59	19.31	3.37	136.12	120.13
6400.000	97.00	0.00	0.00	626.40	635.00	634.79	0.00	634.95	15.53	3.28	203.44	156.13
6400.000	97.00	0.00	0.00	626.40	725.00	635.56	0.00	635.79	10.63	2.96	263.47	222.39
6400.000	97.00	0.00	0.00	626.40	940.00	637.47	0.00	637.56	5.60	2.59	389.39	397.22
7600.000	500.00	0.00	0.00	628.60	440.00	634.79	0.00	635.04	30.23	4.05	111.74	80.03
7600.000	500.00	0.00	0.00	628.60	635.00	635.96	0.00	635.26	23.19	4.24	150.39	119.51
7600.000	500.00	0.00	0.00	628.60	725.00	636.51	0.00	635.79	25.56	4.39	170.39	140.68
7600.000	500.00	0.00	0.00	628.60	940.00	637.93	0.00	636.20	20.45	4.25	223.02	207.84
7700.000	40.00	0.00	0.00	629.90	440.00	634.93	0.00	635.26	89.04	4.59	95.85	46.63
7700.000	40.00	0.00	0.00	629.90	635.00	635.07	0.00	536.47	84.06	5.09	124.79	69.25
7700.000	40.00	0.00	0.00	629.90	725.00	625.58	0.00	537.01	81.49	5.26	137.96	30.31
7700.000	40.00	0.00	0.00	629.90	940.00	637.93	0.00	633.39	71.76	5.45	172.34	110.96
7701.000	120.00	540.40	537.40	629.90	440.00	636.24	0.00	636.54	129.00	4.38	100.45	38.74
7701.000	120.00	540.40	537.40	629.90	635.00	637.59	0.00	538.21	290.23	5.79	109.72	37.27
7701.000	120.00	540.40	537.40	629.90	725.00	538.24	0.00	538.92	382.54	6.61	109.72	37.07
7701.000	120.00	540.40	537.40	629.90	940.00	640.13	0.00	640.44	31.98	4.09	229.59	166.48
7800.000	40.00	0.00	0.00	629.90	440.00	635.60	0.00	636.70	15.21	2.57	174.21	109.30
7800.000	40.00	0.00	0.00	629.90	635.00	633.23	0.00	633.36	3.18	2.27	284.39	222.07
7800.000	40.00	0.00	0.00	629.90	725.00	631.90	0.00	639.06	5.44	2.20	337.79	285.72
7800.000	40.00	0.00	0.00	629.90	940.00	640.42	0.00	540.49	4.30	2.16	452.96	449.22
8250.000	510.00	0.00	0.00	629.50	410.00	637.34	0.00	637.45	13.49	2.65	154.47	111.61
8250.000	510.00	0.00	0.00	629.50	590.00	638.73	0.00	638.85	11.18	2.74	216.39	176.47
8250.000	510.00	0.00	0.00	629.50	670.00	639.35	0.00	639.47	9.74	2.73	249.26	214.74
8250.000	510.00	0.00	0.00	629.50	870.00	540.53	0.00	540.79	7.71	2.73	327.17	313.37
8350.000	60.00	0.00	0.00	630.00	410.00	637.41	0.00	637.62	45.59	3.65	112.41	60.72
8350.000	60.00	0.00	0.00	630.00	590.00	638.74	0.00	639.03	53.64	4.30	137.35	80.55
8350.000	60.00	0.00	0.00	630.00	670.00	639.33	0.00	639.64	55.42	4.52	147.37	89.67
8350.000	60.00	0.00	0.00	630.00	870.00	640.58	0.00	640.93	62.78	5.06	171.99	109.80
8351.000	33.00	541.92	531.96	530.00	410.00	637.61	0.00	638.03	244.93	5.21	78.76	26.20
8351.000	33.00	541.92	531.96	530.00	590.00	639.71	0.00	639.93	37.97	3.79	155.60	95.75
8351.000	33.00	541.92	531.96	530.00	670.00	640.63	0.00	640.86	35.69	3.87	172.93	110.61
8351.000	33.00	541.92	531.96	530.00	870.00	642.23	0.00	642.52	40.20	4.29	203.00	137.22
8450.000	65.00	0.00	0.00	530.20	410.00	638.24	0.00	638.40	22.17	3.18	129.04	87.08
8450.000	65.00	0.00	0.00	530.20	590.00	639.95	0.00	540.08	14.10	2.95	203.29	157.15
8450.000	65.00	0.00	0.00	531.20	670.00	640.33	0.00	540.79	9.39	2.70	255.62	213.05
8450.000	65.00	0.00	0.00	531.20	870.00	642.53	0.00	642.62	6.69	2.52	355.44	336.38
9450.000	900.00	0.00	0.00	533.20	410.00	640.16	0.00	640.34	20.85	3.40	126.76	39.79
9450.000	900.00	0.00	0.00	533.20	590.00	641.32	0.00	641.50	17.36	3.52	183.32	141.67
9450.000	900.00	0.00	0.00	533.20	670.00	642.01	0.00	642.16	17.41	3.19	230.22	160.57
9450.000	900.00	0.00	0.00	533.20	870.00	643.25	0.00	643.37	10.36	2.89	329.60	270.29

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
9505.000	120.00	0.00	0.00	635.00	410.00	640.48	0.00	640.51	24.93	2.95	133.01	52.02
9505.000	120.00	0.00	0.00	635.00	590.00	641.57	0.00	641.72	20.98	3.20	184.03	128.82
9505.000	120.00	0.00	0.00	635.00	670.00	642.21	0.00	642.37	17.29	3.15	212.05	161.15
9505.000	120.00	0.00	0.00	635.00	870.00	643.41	0.00	643.48	3.19	2.48	456.23	304.02
9605.000	100.00	0.00	0.00	635.00	410.00	640.72	0.00	640.37	25.74	3.09	132.50	30.82
9605.000	100.00	0.00	0.00	635.00	590.00	641.78	0.00	641.97	25.76	3.53	167.01	116.24
9605.000	100.00	0.00	0.00	635.00	670.00	642.38	0.00	642.58	23.25	3.58	187.21	138.94
9605.000	100.00	0.00	0.00	635.00	870.00	643.51	0.00	643.55	5.15	1.39	565.97	333.19
9606.000	3.00	642.60	641.20	635.00	410.00	640.75	0.00	640.89	25.13	3.07	133.59	31.78
9606.000	3.00	642.60	641.20	635.00	590.00	641.73	0.00	642.02	73.38	3.92	150.44	68.37
9606.000	3.00	642.60	641.20	635.00	670.00	642.35	0.00	642.54	99.77	4.36	153.76	57.03
9606.000	3.00	642.60	641.20	635.00	870.00	643.64	0.00	643.67	4.04	1.70	633.52	432.85
9635.000	25.00	0.00	0.00	635.00	410.00	640.81	0.00	640.93	11.74	2.12	165.47	119.64
9635.000	25.00	0.00	0.00	635.00	590.00	641.92	0.00	642.08	11.40	2.39	210.01	174.75
9635.000	25.00	0.00	0.00	635.00	670.00	642.57	0.00	642.71	9.98	2.39	242.39	212.10
9635.000	25.00	0.00	0.00	635.00	870.00	643.55	0.00	643.58	3.96	1.68	644.76	437.39
10100.000	570.00	0.00	0.00	635.30	410.00	642.09	0.00	642.33	79.04	4.37	93.92	46.12
10100.000	570.00	0.00	0.00	635.30	590.00	643.16	0.00	643.47	73.41	4.46	132.33	68.85
10100.000	570.00	0.00	0.00	636.30	670.00	643.64	0.00	643.93	64.39	4.36	155.65	83.59
10100.000	570.00	0.00	0.00	635.30	870.00	644.04	0.00	644.39	85.93	4.82	185.30	93.83
11050.000	1050.00	0.00	0.00	633.80	410.00	645.06	0.00	645.14	12.82	2.29	179.22	114.53
11050.000	1050.00	0.00	0.00	633.80	590.00	645.13	0.00	645.24	13.32	2.65	222.70	151.64
11050.000	1050.00	0.00	0.00	633.80	670.00	645.53	0.00	645.65	13.76	2.81	239.30	130.54
11050.000	1050.00	0.00	0.00	633.80	870.00	647.33	0.00	647.40	14.52	3.11	297.50	228.29
11150.000	1.00	643.20	640.40	633.80	410.00	645.06	0.00	645.14	12.90	2.29	179.30	114.61
11150.000	1.00	643.20	641.40	633.30	590.00	646.13	0.00	646.24	13.29	2.65	223.06	151.83
11150.000	1.00	643.20	640.40	635.80	670.00	646.53	0.00	646.65	13.71	2.00	239.61	180.93
* 11150.000	1.00	646.20	641.40	638.30	870.00	647.33	0.00	647.48	36.06	3.14	289.32	144.88
11158.000	3.00	643.20	640.40	630.80	410.00	645.07	0.00	645.15	12.73	2.29	179.59	114.95
11158.000	3.00	643.20	642.40	630.80	590.00	645.14	0.00	645.25	13.23	2.65	223.39	152.19
11158.000	3.00	643.20	643.40	630.80	670.00	645.54	0.00	646.66	13.64	2.80	239.99	131.41
* 11158.000	3.00	646.20	640.40	633.80	870.00	647.36	0.00	647.51	35.88	3.14	290.30	145.23
11159.000	1.00	0.00	0.00	633.80	410.00	645.07	0.00	645.15	12.72	2.28	179.95	114.90
11159.000	1.00	0.00	0.00	633.80	590.00	646.14	0.00	645.25	13.22	2.65	223.45	152.27
11159.000	1.00	0.00	0.00	633.80	670.00	646.54	0.00	646.57	13.63	2.80	240.07	131.49
11159.000	1.00	0.00	0.00	633.80	870.00	647.37	0.00	647.51	14.20	3.08	301.10	230.85
11135.000	25.00	0.00	0.00	633.50	410.00	645.08	0.00	645.19	12.39	2.17	160.52	116.50
11135.000	25.00	0.00	0.00	633.50	590.00	646.16	0.00	646.26	10.13	2.21	227.33	195.34
11135.000	25.00	0.00	0.00	633.50	670.00	646.53	0.00	646.59	9.13	2.21	266.15	221.80
11135.000	25.00	0.00	0.00	633.50	870.00	647.44	0.00	647.54	7.10	2.16	377.26	326.50

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	11409.000	60.00	0.00	0.00	639.00	410.00	645.16	0.00	645.27	14.39	2.73	149.79	103.09
	11409.000	60.00	0.00	0.00	639.00	590.00	645.20	0.00	645.37	16.76	3.31	173.25	144.13
	11409.000	60.00	0.00	0.00	639.00	670.00	645.50	0.00	645.79	17.85	3.55	188.76	158.56
	11409.000	60.00	0.00	0.00	639.00	870.00	647.39	0.00	647.06	21.04	4.14	210.17	139.66
	11411.000	57.00	647.20	647.20	639.00	410.00	645.27	0.00	645.40	35.38	3.00	135.37	57.52
	11411.000	57.00	647.20	647.20	639.00	590.00	645.33	0.00	646.57	74.47	3.95	149.25	68.37
	11411.000	57.00	647.20	647.20	639.00	670.00	645.72	0.00	647.03	103.71	4.46	150.07	64.25
	11411.000	57.00	647.20	647.20	639.00	870.00	647.48	0.00	648.00	183.30	5.80	150.09	64.25
	11530.000	50.00	0.00	0.00	638.70	410.00	645.42	0.00	645.49	.21	2.14	205.31	143.03
	11530.000	50.00	0.00	0.00	638.70	590.00	645.61	0.00	646.54	3.59	1.02	411.46	311.19
	11530.000	50.00	0.00	0.00	638.70	670.00	647.07	0.00	647.10	2.63	1.45	503.49	412.85
	11530.000	50.00	0.00	0.00	638.70	870.00	648.06	0.00	648.08	1.45	1.17	773.73	723.12
	12080.000	510.00	0.00	0.00	638.50	410.00	645.02	0.00	646.15	21.43	2.61	146.14	28.57
	12080.000	510.00	0.00	0.00	638.50	590.00	645.90	0.00	647.07	26.20	3.31	182.15	115.27
	12080.000	510.00	0.00	0.00	638.50	670.00	647.26	0.00	647.44	24.23	3.28	229.17	136.17
	12080.000	510.00	0.00	0.00	638.50	870.00	648.16	0.00	648.25	10.67	2.37	425.53	263.87
	12740.000	700.00	0.00	0.00	642.40	410.00	647.82	0.00	647.88	23.68	2.40	224.67	76.56
	12740.000	700.00	0.00	0.00	642.40	590.00	648.59	0.00	648.64	19.09	2.21	353.75	135.04
	12740.000	700.00	0.00	0.00	642.40	670.00	648.84	0.00	648.89	17.57	2.20	402.54	159.84
	12740.000	700.00	0.00	0.00	642.40	870.00	649.17	0.00	649.23	13.59	2.36	467.37	201.75
*	12741.000	1.00	648.30	648.30	642.40	410.00	648.31	648.31	649.16	1099.98	4.96	87.27	12.35
*	12741.000	1.00	648.30	648.30	642.40	590.00	648.98	648.98	649.41	1069.04	5.23	121.26	18.04
*	12741.000	1.00	648.30	648.30	642.40	670.00	649.08	649.08	649.49	907.59	5.00	141.49	22.24
*	12741.000	1.00	648.30	648.30	642.40	870.00	649.24	649.24	649.71	872.08	5.17	172.93	29.45
	12762.000	21.00	643.30	643.30	642.40	410.00	649.54	0.00	649.59	77.01	1.69	234.65	46.72
	12762.000	21.00	643.30	643.30	642.40	590.00	649.80	0.00	649.88	85.60	1.91	286.07	63.77
	12762.000	21.00	643.30	643.30	642.40	670.00	649.88	0.00	649.97	92.78	2.03	302.12	69.56
	12762.000	21.00	643.30	643.30	642.40	870.00	650.10	0.00	650.21	103.49	2.22	346.86	86.79
	12763.000	1.00	0.00	0.00	642.40	410.00	649.59	0.00	649.60	2.26	.76	553.79	272.47
	12763.000	1.00	0.00	0.00	642.40	590.00	649.86	0.00	649.89	3.44	.97	605.23	318.15
	12763.000	1.00	0.00	0.00	642.40	670.00	649.95	0.00	649.98	3.99	1.05	625.31	335.44
	12763.000	1.00	0.00	0.00	642.40	870.00	650.18	0.00	650.22	5.28	1.24	672.14	378.58
	12850.000	190.00	0.00	0.00	643.50	410.00	649.61	0.00	649.64	3.33	.89	371.44	224.31
	12850.000	190.00	0.00	0.00	643.50	590.00	649.90	0.00	649.94	4.74	1.11	427.01	271.07
	12850.000	190.00	0.00	0.00	643.50	670.00	650.00	0.00	650.05	5.43	1.20	445.49	287.57
	12850.000	190.00	0.00	0.00	643.50	870.00	650.24	0.00	650.31	6.37	1.39	492.23	331.38
*	13413.000	650.00	0.00	0.00	646.60	410.00	650.27	650.27	650.90	101.67	0.00	64.74	40.65
*	13413.000	650.00	0.00	0.00	646.60	590.00	650.65	650.65	651.35	103.59	0.00	87.36	56.62
*	13413.000	650.00	0.00	0.00	646.60	670.00	650.98	650.98	651.52	79.43	0.00	114.41	75.16
*	13413.000	650.00	0.00	0.00	646.60	870.00	651.39	651.39	651.74	62.51	0.00	183.52	110.04

BUTTER [illegible] CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	0.000	440.00	512.86	0.00	0.00	0.00	50.00	0.00
	0.000	635.00	513.[illegible]	1.13	0.00	0.00	50.00	0.00
	0.000	725.00	514.32	.43	0.00	0.00	50.00	0.00
	0.000	940.00	515.30	.98	0.00	0.00	50.00	0.00
	900.000	440.00	513.58	0.00	.72	0.00	23.41	300.00
	900.000	635.00	514.63	1.04	.74	0.00	32.51	300.00
	900.000	725.00	515.06	.43	.74	0.00	35.00	300.00
	900.000	940.00	516.02	.96	.72	0.00	36.30	300.00
*	2150.000	440.00	517.15	0.00	3.58	0.00	19.74	975.00
*	2150.000	635.00	518.19	1.03	3.56	0.00	35.36	975.00
*	2150.000	725.00	518.39	.21	3.34	0.00	35.74	975.00
	2150.000	940.00	519.01	.62	2.79	0.00	40.74	975.00
	2250.000	440.00	518.79	0.00	1.63	0.00	23.00	75.00
	2250.000	635.00	519.45	.66	1.26	0.00	23.00	75.00
	2250.000	725.00	519.71	.26	1.32	0.00	23.00	75.00
	2250.000	940.00	520.14	.43	1.13	0.00	23.00	75.00
	2251.000	440.00	518.79	0.00	.01	0.00	23.00	1.00
	2251.000	635.00	519.46	.66	.01	0.00	23.00	1.00
	2251.000	725.00	519.72	.26	.01	0.00	23.00	1.00
	2251.000	940.00	520.15	.43	.01	0.00	23.00	1.00
	2252.000	440.00	518.81	0.00	.02	0.00	23.00	3.50
	2252.000	635.00	519.48	.67	.02	0.00	23.00	3.50
	2252.000	725.00	519.74	.26	.03	0.00	23.00	3.50
	2252.000	940.00	520.19	.45	.04	0.00	23.00	3.50
	2253.000	440.00	518.81	0.00	.01	0.00	23.00	1.00
	2253.000	635.00	519.49	.68	.01	0.00	23.00	1.00
	2253.000	725.00	519.75	.26	.01	0.00	23.00	1.00
	2253.000	940.00	520.20	.45	.01	0.00	23.00	1.00
	2425.000	440.00	619.75	0.00	.94	0.00	22.50	200.00
	2425.000	635.00	620.60	.93	1.20	0.00	24.78	200.00
	2425.000	725.00	521.05	.38	1.31	0.00	25.65	200.00
	2425.000	940.00	521.86	.90	1.56	0.00	27.52	200.00
	2600.000	440.00	520.68	0.00	.93	0.00	19.70	175.00
	2600.000	635.00	521.66	.98	.98	0.00	19.70	175.00
	2600.000	725.00	522.05	.35	.99	0.00	19.70	175.00
	2600.000	940.00	522.36	.31	1.00	0.00	19.70	175.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2601.000	440.00	520.43	0.00	.00	0.00	19.70	1.00
	2601.000	535.00	521.35	.90	.00	0.00	19.70	1.00
	2601.000	725.00	522.05	.39	.00	0.00	19.70	1.00
	2601.000	940.00	522.46	.41	.00	0.00	19.70	1.00
	2602.000	440.00	520.79	0.00	.11	0.00	19.70	20.00
	2602.000	535.00	521.80	1.01	.13	0.00	19.70	20.00
	2602.000	725.00	522.20	.40	.15	0.00	19.70	20.00
	2602.000	940.00	523.04	.04	.18	0.00	19.70	20.00
	2603.000	440.00	620.80	0.00	.00	0.00	19.70	1.00
	2603.000	535.00	621.90	1.31	.01	0.00	19.70	1.00
	2603.000	725.00	622.21	.40	.01	0.00	19.70	1.00
	2603.000	940.00	523.05	.34	.01	0.00	19.70	1.00
*	2800.000	440.00	522.32	0.00	1.52	0.00	18.50	170.00
*	2800.000	535.00	523.11	.79	1.30	0.00	21.13	170.00
*	2800.000	725.00	523.43	.32	1.22	0.00	22.08	170.00
*	2800.000	940.00	524.11	.59	1.05	0.00	24.11	170.00
	3000.000	440.00	524.89	0.00	2.57	0.00	15.50	170.00
	3000.000	535.00	525.06	1.17	2.95	0.00	15.50	170.00
	3000.000	725.00	526.52	.46	3.09	0.00	15.50	170.00
	3000.000	940.00	527.49	.97	3.37	0.00	15.50	170.00
	3001.000	440.00	525.07	0.00	.18	0.00	24.36	5.30
	3001.000	535.00	625.35	1.20	.29	0.00	26.77	5.30
	3001.000	725.00	625.65	.52	.34	0.00	27.87	5.30
	3001.000	940.00	527.92	1.05	.43	0.00	28.80	5.30
	3002.000	440.00	525.09	0.00	.02	0.00	24.09	5.00
	3002.000	635.00	625.37	1.28	.02	0.00	26.81	5.00
	3002.000	725.00	525.38	.52	.02	0.00	27.92	5.00
	3002.000	940.00	527.96	1.03	.04	0.00	28.80	5.00
	3003.000	440.00	525.13	0.00	.04	0.00	25.39	5.60
	3003.000	635.00	526.42	1.29	.05	0.00	27.32	5.60
	3003.000	725.00	525.94	.52	.05	0.00	27.49	5.60
	3003.000	940.00	528.10	1.16	.14	0.00	27.37	5.60
	3004.000	440.00	525.15	0.00	.02	0.00	26.90	24.50
	3004.000	535.00	526.45	1.30	.03	0.00	27.33	24.50
	3004.000	725.00	526.97	.53	.04	0.00	27.50	24.50
	3004.000	940.00	528.46	1.49	.36	0.00	27.99	24.50
	3005.000	440.00	625.15	0.00	.00	0.00	32.00	11.60
	3005.000	535.00	625.46	1.31	.01	0.00	32.00	11.60
	3005.000	725.00	625.99	.53	.02	0.00	32.00	11.60
	3005.000	940.00	622.46	1.47	-.00	0.00	32.00	11.60

SECNO		CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3006.000	440.00	525.15	0.00	.01	0.00	32.00	5.00
3006.000	635.00	526.47	1.31	.01	0.00	32.00	5.00
3006.000	725.00	527.00	.53	.01	0.00	32.00	5.00
3006.000	940.00	528.43	1.48	.02	0.00	32.00	5.00
3007.000	440.00	525.17	0.00	.02	0.00	32.00	1.00
3007.000	635.00	526.47	1.31	.00	0.00	32.00	1.00
3007.000	725.00	527.00	.53	.00	0.00	32.00	1.00
3007.000	940.00	528.56	1.55	.07	0.00	32.00	1.00
3125.000	440.00	525.34	0.00	.18	0.00	32.57	85.00
3125.000	635.00	526.65	1.30	.17	0.00	46.33	85.00
3125.000	725.00	527.19	.54	.19	0.00	57.80	85.00
3125.000	940.00	528.75	1.56	.19	0.00	60.00	85.00
3250.000	440.00	525.55	0.00	.21	0.00	27.20	100.00
3250.000	635.00	526.82	1.27	.17	0.00	27.20	100.00
3250.000	725.00	527.33	.51	.14	0.00	27.20	100.00
3250.000	940.00	528.80	1.46	.05	0.00	28.60	100.00
3251.000	440.00	525.57	0.00	.01	0.00	27.20	33.00
3251.000	635.00	526.84	1.27	.02	0.00	27.20	33.00
3251.000	725.00	527.35	.51	.02	0.00	27.20	33.00
3251.000	940.00	529.25	1.91	.26	0.00	28.50	33.00
3400.000	440.00	525.62	0.00	.06	0.00	30.00	20.00
3400.000	635.00	526.90	1.28	.06	0.00	30.00	20.00
3400.000	725.00	527.42	.52	.07	0.00	30.00	20.00
3400.000	940.00	529.22	1.80	.06	0.00	30.00	20.00
3401.000	440.00	525.63	0.00	.00	0.00	30.00	1.00
3401.000	635.00	526.90	1.28	.00	0.00	30.00	1.00
3401.000	725.00	527.42	.52	.00	0.00	30.00	1.00
3401.000	940.00	529.22	1.80	.00	0.00	30.00	1.00
3402.000	440.00	526.09	0.00	.46	0.00	30.00	136.00
3402.000	635.00	527.32	1.23	.42	0.00	30.00	136.00
3402.000	725.00	527.83	.51	.41	0.00	30.00	136.00
3402.000	940.00	529.53	1.70	.31	0.00	30.00	136.00
3403.000	440.00	526.09	0.00	.00	0.00	30.00	1.00
3403.000	635.00	527.32	1.23	.00	0.00	30.00	1.00
3403.000	725.00	527.83	.51	.00	0.00	30.00	1.00
3403.000	940.00	529.53	1.70	.00	0.00	30.00	1.00
3600.000	440.00	526.21	0.00	.13	0.00	45.07	30.00
3600.000	635.00	527.43	1.25	.16	0.00	50.39	30.00
3600.000	725.00	528.00	.53	.17	0.00	52.96	30.00
3600.000	940.00	529.71	1.71	.19	0.00	75.85	30.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4000.000	440.00	527.13	0.00	.71	0.00	35.06	470.00
4000.000	635.00	528.23	1.11	.76	0.00	39.37	470.00
4000.000	725.00	528.70	.47	.70	0.00	42.00	470.00
4000.000	940.00	530.11	1.41	.40	0.00	62.23	470.00
4100.000	440.00	527.33	0.00	.20	0.00	25.00	77.00
4100.000	635.00	528.39	1.06	.16	0.00	25.00	77.00
4100.000	725.00	528.84	.44	.13	0.00	25.00	77.00
4100.000	940.00	530.15	1.31	.03	0.00	41.87	77.00
4101.000	440.00	527.34	0.00	.00	0.00	25.00	1.00
4101.000	635.00	528.40	1.06	.01	0.00	25.00	1.00
4101.000	725.00	528.84	.44	.00	0.00	25.00	1.00
4101.000	940.00	530.06	1.22	-.09	0.00	37.66	1.00
4102.000	440.00	527.38	0.00	.04	0.00	25.00	10.00
4102.000	635.00	528.44	1.06	.05	0.00	25.00	10.00
4102.000	725.00	528.89	.44	.05	0.00	25.00	10.00
4102.000	940.00	530.17	1.28	.11	0.00	25.00	10.00
4103.000	440.00	527.38	0.00	.00	0.00	25.00	1.00
4103.000	635.00	528.45	1.07	.01	0.00	25.00	1.00
4103.000	725.00	528.89	.44	.01	0.00	25.00	1.00
4103.000	940.00	530.35	1.46	.10	0.00	25.00	1.00
4200.000	440.00	527.56	0.00	.28	0.00	33.36	60.00
4200.000	635.00	528.79	1.23	.34	0.00	38.97	60.00
4200.000	725.00	529.26	.47	.37	0.00	41.11	60.00
4200.000	940.00	530.75	1.49	.40	0.00	90.42	60.00
4300.000	440.00	527.80	0.00	.14	0.00	27.40	70.00
4300.000	635.00	528.90	1.11	.11	0.00	27.40	70.00
4300.000	725.00	529.36	.46	.10	0.00	27.40	70.00
4300.000	940.00	530.75	1.39	.00	0.00	27.40	70.00
4301.000	440.00	527.74	0.00	-.05	0.00	27.40	1.00
4301.000	635.00	528.80	1.05	-.11	0.00	27.40	1.00
4301.000	725.00	529.22	.43	-.14	0.00	27.40	1.00
4301.000	940.00	530.46	1.25	-.28	0.00	27.40	1.00
4302.000	440.00	528.08	0.00	.33	0.00	27.40	60.00
4302.000	635.00	529.31	1.23	.51	0.00	27.40	60.00
4302.000	725.00	529.84	.54	.62	0.00	27.40	60.00
4302.000	940.00	531.53	1.69	1.06	0.00	27.40	60.00
4303.000	440.00	528.17	0.00	.09	0.00	27.40	1.00
4303.000	635.00	529.49	1.32	.18	0.00	27.40	1.00
4303.000	725.00	530.08	.59	.24	0.00	27.40	1.00
4303.000	940.00	532.08	2.00	.55	0.00	27.40	1.00

SECND	[illegible]	C SEL	DIF.SR	DIF/SK	DIFK S	TOP.IR	KLCH
4400.000	440.00	628.25	0.00	.08	0.00	28.33	65.00
4400.000	635.00	629.57	1.32	.19	0.00	36.91	65.00
4400.000	725.00	630.18	.61	.09	0.00	45.39	65.00
4400.000	940.00	632.22	2.04	-.14	0.00	80.48	65.00
5000.000	440.00	629.71	0.00	1.54	0.00	66.55	570.00
5000.000	535.00	630.29	1.10	1.32	0.00	71.50	570.00
5000.000	725.00	631.39	.50	1.21	0.00	74.95	570.00
5000.000	940.00	632.87	1.49	.65	0.00	260.49	570.00
5100.000	440.00	629.88	0.00	.09	0.00	25.10	105.00
5100.000	635.00	630.93	1.05	.04	0.00	25.10	105.00
5100.000	725.00	631.40	.47	.02	0.00	26.10	105.00
5100.000	940.00	632.82	1.41	-.06	0.00	26.10	105.00
5101.000	440.00	629.15	0.00	-.05	0.00	26.10	1.00
5101.000	535.00	630.51	.79	- 12	0.00	26.10	1.00
5101.000	725.00	631.24	.43	-.16	0.00	26.10	1.00
5101.000	940.00	632.45	1.21	-.37	0.00	25.10	1.00
5102.000	440.00	631.06	0.00	1.24	0.00	25.10	150.00
5102.000	635.00	633.25	2.19	2.44	0.00	25.10	150.00
5102.000	725.00	634.48	1.23	3.24	0.00	26.10	150.00
5102.000	940.00	636.26	2.38	4.42	0.00	273.94	150.00
5103.000	440.00	631.16	0.00	.10	0.00	25.10	1.00
5103.000	535.00	633.54	2.38	.29	0.00	25.10	1.00
5103.000	725.00	634.91	1.36	.42	0.00	25.10	1.00
5103.000	940.00	637.12	2.21	.25	0.00	337.59	1.00
5200.000	440.00	631.14	0.00	-.02	0.00	31.84	40.00
5200.000	535.00	633.57	2.43	.03	0.00	52.63	40.00
5200.000	725.00	634.95	1.38	.05	0.00	59.74	40.00
5200.000	940.00	637.09	2.14	-.03	0.00	79.19	40.00
6200.000	440.00	633.04	0.00	1.90	0.00	54.31	700.00
6200.000	535.00	634.57	1.53	1.00	0.00	53.21	700.00
6200.000	725.00	635.52	.95	.57	0.00	75.00	700.00
6200.000	940.00	637.39	1.87	.30	0.00	75.00	700.00
6300.000	440.00	633.27	0.00	.23	0.00	59.07	97.00
6300.000	535.00	634.70	1.43	.13	0.00	64.89	97.00
6300.000	725.00	635.61	.90	.09	0.00	67.59	97.00
6300.000	940.00	637.44	1.83	.04	0.00	70.70	97.00
6301.000	440.00	633.28	0.00	.01	0.00	59.13	6.20
6301.000	535.00	634.71	1.43	.01	0.00	64.91	6.20
6301.000	725.00	635.61	.90	.01	0.00	67.73	6.20
6301.000	940.00	637.44	1.83	.00	0.00	70.71	6.20

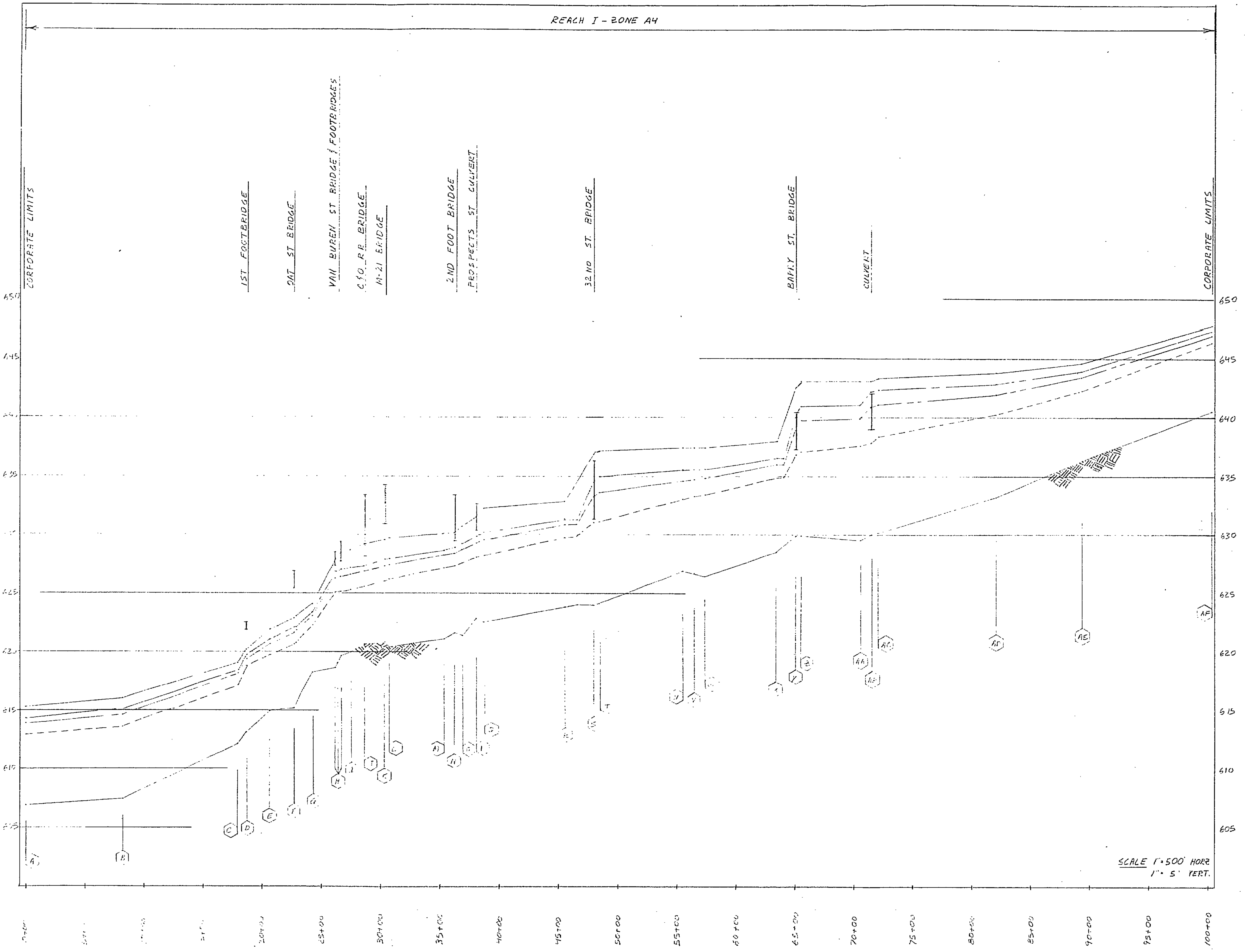
SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
6400.000	440.00	533.41	0.00	.13	0.00	49.07	97.00
6400.000	535.00	534.79	1.37	.08	0.00	66.94	97.00
6400.000	725.00	535.65	.37	.05	0.00	59.93	97.00
6400.000	940.00	537.[illegible]7	1.31	.03	0.00	73.00	97.00
7600.000	440.00	534.79	0.00	1.38	0.00	30.70	600.00
7600.000	535.00	535.90	1.18	1.19	0.00	35.53	600.00
7600.000	725.00	536.51	.53	.04	0.00	37.71	600.00
7600.000	940.00	537.93	1.42	.46	0.00	44.14	600.00
7700.000	440.00	534.93	0.00	.14	0.00	25.50	40.00
7700.000	535.00	536.07	1.14	.10	0.00	25.50	40.00
7700.000	725.00	536.58	.51	.07	0.00	25.50	40.00
7700.000	940.00	537.93	1.35	.00	0.00	25.50	40.00
7701.000	440.00	535.24	0.00	1.31	0.00	25.52	120.00
7701.000	535.00	537.59	1.45	1.02	0.00	25.50	120.00
7701.000	725.00	538.24	.54	1.56	0.00	25.50	120.00
7701.000	940.00	541.13	1.94	2.24	0.00	25.50	120.00
7800.000	440.00	535.60	0.00	.56	0.00	61.50	40.00
7800.000	535.00	535.27	1.63	.58	0.00	69.48	40.00
7800.000	725.00	538.96	.71	.75	0.00	80.00	40.00
7800.000	940.00	540.42	1.44	.25	0.00	80.00	40.00
8250.000	410.00	537.34	0.00	.75	0.00	39.79	510.00
8250.000	590.00	538.73	1.39	.46	0.00	49.35	510.00
8250.000	670.00	539.35	.62	.37	0.00	57.43	510.00
8250.000	[illegible]70.00	540.50	1.33	.26	0.00	60.15	510.00
8350.000	410.00	537.41	0.00	.37	0.00	19.30	60.00
8350.000	590.00	538.74	1.33	.01	0.00	18.30	60.00
8350.000	570.00	539.33	.59	-.03	0.00	16.80	60.00
8350.000	570.00	540.53	1.26	-.10	0.00	13.80	60.00
8351.000	410.00	537.51	0.00	.20	0.00	13.80	39.30
8351.000	590.00	539.71	2.10	.97	0.00	14.80	33.90
8351.000	670.00	540.63	.92	1.31	0.00	19.80	33.80
8351.000	370.00	542.23	1.60	1.65	0.00	18.30	33.80
8450.000	410.00	533.24	0.00	.53	0.00	35.50	65.00
8450.000	590.00	539.75	1.71	.24	0.00	54.59	65.00
8450.000	570.00	540.63	.93	.25	0.00	57.63	65.00
8450.000	670.00	542.53	1.55	.30	0.00	63.15	65.00
9450.000	410.00	540.16	0.00	1.92	0.00	45.14	900.00
9450.000	590.00	541.32	1.16	1.37	0.00	57.52	900.00
9450.000	670.00	542.31	.69	1.13	0.00	60.00	900.00
9450.000	370.00	543.25	1.24	.73	0.00	80.00	900.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	9505.000	410.00	640.[illegible]	0.00	.32	0.00	40.26	120.00
	9505.000	590.00	641.57	1.00	.25	0.00	42.39	120.00
	9505.000	670.00	642.21	.64	.20	0.00	44.43	120.00
	9505.000	870.00	643.41	1.20	.16	0.00	400.32	120.00
	9605.000	410.00	640.72	0.00	.25	0.00	32.45	100.00
	9605.000	590.00	641.78	1.06	.21	0.00	32.76	100.00
	9605.000	670.00	642.38	.60	.17	0.00	32.94	100.00
	9605.000	870.00	643.51	1.13	.10	0.00	515.65	100.00
	9606.000	410.00	640.75	0.00	.02	0.00	32.45	3.00
	9606.000	590.00	641.78	1.03	.00	0.00	32.76	3.00
	9606.000	670.00	642.35	.57	-.03	0.00	32.93	3.00
	9606.000	870.00	643.04	1.29	.13	0.00	544.01	3.00
	9635.000	410.00	640.81	0.00	.06	0.00	40.15	25.00
	9635.000	590.00	641.92	1.11	.14	0.00	40.71	25.00
	9635.000	670.00	642.57	.65	.22	0.00	85.68	25.00
	9635.000	870.00	643.65	1.08	.01	0.00	546.30	25.00
	10100.000	410.00	642.09	0.00	1.20	0.00	31.22	570.00
	10100.000	590.00	643.16	1.07	1.24	0.00	40.62	570.00
	10100.000	670.00	643.56	.48	1.37	0.00	55.91	570.00
	10100.000	870.00	644.34	.40	.39	0.00	80.30	570.00
	11050.000	410.00	645.26	0.00	2.97	0.00	40.57	1050.00
	11050.000	590.00	646.13	1.07	2.97	0.00	41.10	1050.00
	11050.000	670.00	646.53	.40	2.89	0.00	43.16	1050.00
	11050.000	870.00	647.33	.80	3.29	0.00	101.49	1050.00
	11150.000	410.00	645.06	0.00	.00	0.00	41.57	1.00
	11150.000	590.00	646.13	1.07	.00	0.00	41.10	1.00
	11150.000	670.00	646.53	.40	.00	0.00	43.06	1.00
*	11150.000	870.00	647.33	.80	.30	0.00	101.05	1.00
	11158.000	410.00	645.07	0.00	.01	0.00	40.67	8.00
	11158.000	590.00	646.14	1.07	.01	0.00	41.11	8.00
	11158.000	670.00	646.54	.40	.01	0.00	44.30	8.00
*	11158.000	870.00	647.36	.82	.03	0.00	103.00	8.00
	11159.000	410.00	645.07	0.00	.00	0.00	40.67	1.00
	11159.000	590.00	646.14	1.07	.00	0.00	41.11	1.00
	11159.000	670.00	646.54	.40	.00	0.00	44.42	1.00
	11159.000	870.00	647.37	.83	.01	0.00	103.95	1.00
	11165.000	410.00	645.08	0.00	.01	0.00	51.44	25.00
	11165.000	590.00	646.16	1.05	.02	0.00	83.49	25.00
	11165.000	670.00	646.7[illegible]	.41	.03	0.00	106.29	25.00
	11165.000	870.00	647.44	.86	.07	0.00	153.37	25.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11409.000	410.00	645.16	0.00	.20	0.00	25.90	60.00
11409.000	590.00	645.20	1.05	.04	0.00	25.90	60.00
11409.000	670.00	645.60	.39	.02	0.00	25.90	60.00
11409.000	870.00	647.39	.80	-.25	0.00	25.90	60.00
11411.000	410.00	645.27	0.00	.11	0.00	26.90	57.00
11411.000	590.00	646.33	1.06	.12	0.00	26.90	57.00
11411.000	670.00	646.72	.39	.13	0.00	26.90	57.00
11411.000	870.00	647.48	.76	.09	0.00	26.90	57.00
11530.000	410.00	645.42	0.00	.16	0.00	129.00	50.00
11530.000	590.00	645.51	1.19	.28	0.00	199.32	50.00
11530.000	670.00	647.07	.46	.35	0.00	219.41	50.00
11530.000	870.00	648.06	.79	.58	0.00	325.45	50.00
12080.000	410.00	646.02	0.00	.50	0.00	53.32	510.00
12080.000	590.00	646.70	.68	.20	0.00	81.74	510.00
12080.000	670.00	647.26	.38	.21	0.00	165.79	510.00
12080.000	870.00	648.16	.90	.12	0.00	242.00	510.00
12740.000	410.00	647.02	0.00	1.79	0.00	144.90	700.00
12740.000	590.00	647.59	.79	1.49	0.00	181.31	700.00
12740.000	670.00	648.64	.25	1.56	0.00	200.00	700.00
12740.000	870.00	649.17	.33	.59	0.00	200.00	700.00
* 12741.000	410.00	647.81	0.00	.99	0.00	200.00	1.00
* 12741.000	590.00	648.38	.17	.39	0.00	200.00	1.00
* 12741.000	670.00	649.08	.10	.24	0.00	200.00	1.00
* 12741.000	870.00	649.24	.16	.27	0.00	200.00	1.00
12762.000	410.00	649.54	0.00	.73	0.00	200.00	21.00
12762.000	590.00	649.30	.26	.32	0.00	200.00	21.00
12762.000	670.00	649.38	.05	.80	0.00	200.00	21.00
12762.000	870.00	650.10	.22	.86	0.00	200.00	21.00
12763.000	410.00	649.59	0.00	.05	0.00	200.00	1.00
12763.000	590.00	647.56	.28	.06	0.00	200.00	1.00
12763.000	670.00	649.95	.09	.07	0.00	200.00	1.00
12763.000	870.00	650.19	.23	.08	0.00	200.00	1.00
12850.000	410.00	649.61	0.00	.03	0.00	190.54	190.00
12850.000	590.00	647.93	.29	.04	0.00	191.42	190.00
12850.000	670.00	650.20	.10	.05	0.00	191.71	190.00
12850.000	870.00	650.24	.24	.06	0.00	194.17	190.00
* 13413.000	410.00	650.27	0.00	.66	0.00	54.22	650.00
* 13413.000	590.00	650.55	.37	.74	0.00	69.74	650.00
* 13413.000	670.00	650.95	.34	.98	0.00	102.74	650.00
* 13413.000	870.00	651.39	.41	1.15	0.00	242.07	650.00

SUMMARY OF ERRORS

CAUTION	SECNO	2150.000	PROFILE	1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO	2150.000	PROFILE	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO	2150.000	PROFILE	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO	2150.000	PROFILE	2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO	2150.000	PROFILE	2	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO	2150.000	PROFILE	3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO	2150.000	PROFILE	3	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO	2800.000	PROFILE	1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO	2800.000	PROFILE	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO	2800.000	PROFILE	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO	2800.000	PROFILE	2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO	2800.000	PROFILE	2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO	2800.000	PROFILE	2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO	2800.000	PROFILE	3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO	2800.000	PROFILE	3	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO	2800.000	PROFILE	3	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO	2800.000	PROFILE	4	CRITICAL DEPTH ASSUMED
CAUTION	SECNO	2800.000	PROFILE	4	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO	2800.000	PROFILE	4	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO	11150.000	PROFILE	4	BRIDGE DECK DEFINITION ERROR
CAUTION	SECNO	11150.000	PROFILE	4	BRIDGE DECK DEFINITION ERROR
CAUTION	SECNO	12741.000	PROFILE	1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO	12741.000	PROFILE	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO	12741.000	PROFILE	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO	12741.000	PROFILE	1	SLOPE TOO STEEP
CAUTION	SECNO	12741.000	PROFILE	2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO	12741.000	PROFILE	2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO	12741.000	PROFILE	2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO	12741.000	PROFILE	2	SLOPE TOO STEEP
CAUTION	SECNO	12741.000	PROFILE	3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO	12741.000	PROFILE	3	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO	12741.000	PROFILE	3	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO	12741.000	PROFILE	4	CRITICAL DEPTH ASSUMED
CAUTION	SECNO	12741.000	PROFILE	4	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO	12741.000	PROFILE	4	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO	13413.000	PROFILE	1	CRITICAL DEPTH ASSUMED
CAUTION	SECNO	13413.000	PROFILE	1	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO	13413.000	PROFILE	1	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO	13413.000	PROFILE	2	CRITICAL DEPTH ASSUMED
CAUTION	SECNO	13413.000	PROFILE	2	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO	13413.000	PROFILE	2	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO	13413.000	PROFILE	3	CRITICAL DEPTH ASSUMED
CAUTION	SECNO	13413.000	PROFILE	3	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO	13413.000	PROFILE	3	20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION	SECNO	13413.000	PROFILE	4	CRITICAL DEPTH ASSUMED
CAUTION	SECNO	13413.000	PROFILE	4	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO	13413.000	PROFILE	4	20 TRIALS ATTEMPTED TO BALANCE WSEL



ARCHITECTS
ENGINEERS
PLANNERS
SURVEYORS

GOVE ASSOCIATES, INC.

1601 Portage Street
Kalamazoo, Michigan
(616) 385-0011

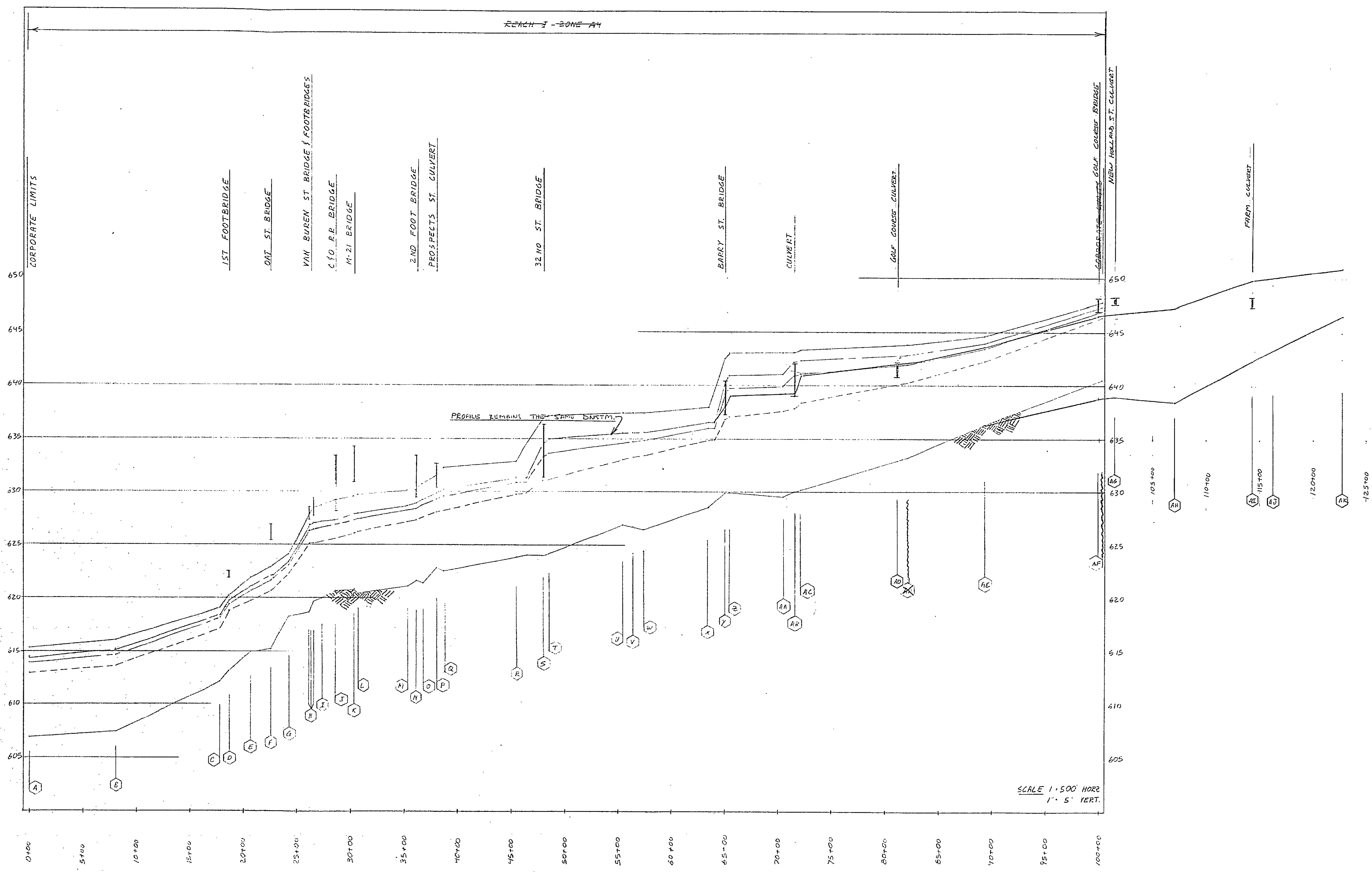
210 Mill Street
Lansing, Michigan
(517) 485-0555

FLOOD INSURANCE STUDY
CITY OF HUDSONVILLE
BUTTERMILK CREEK

LEGEND

- 10 YR. FLOOD
- 50 YR. FLOOD
- 100 YR. FLOOD
- 500 YR. FLOOD
- CROSS SECTION LOCATION
- STREAMBED

12/29/80



LEGEND

- 10 YR. FLOOD
- 50 YR. FLOOD
- 100 YR. FLOOD
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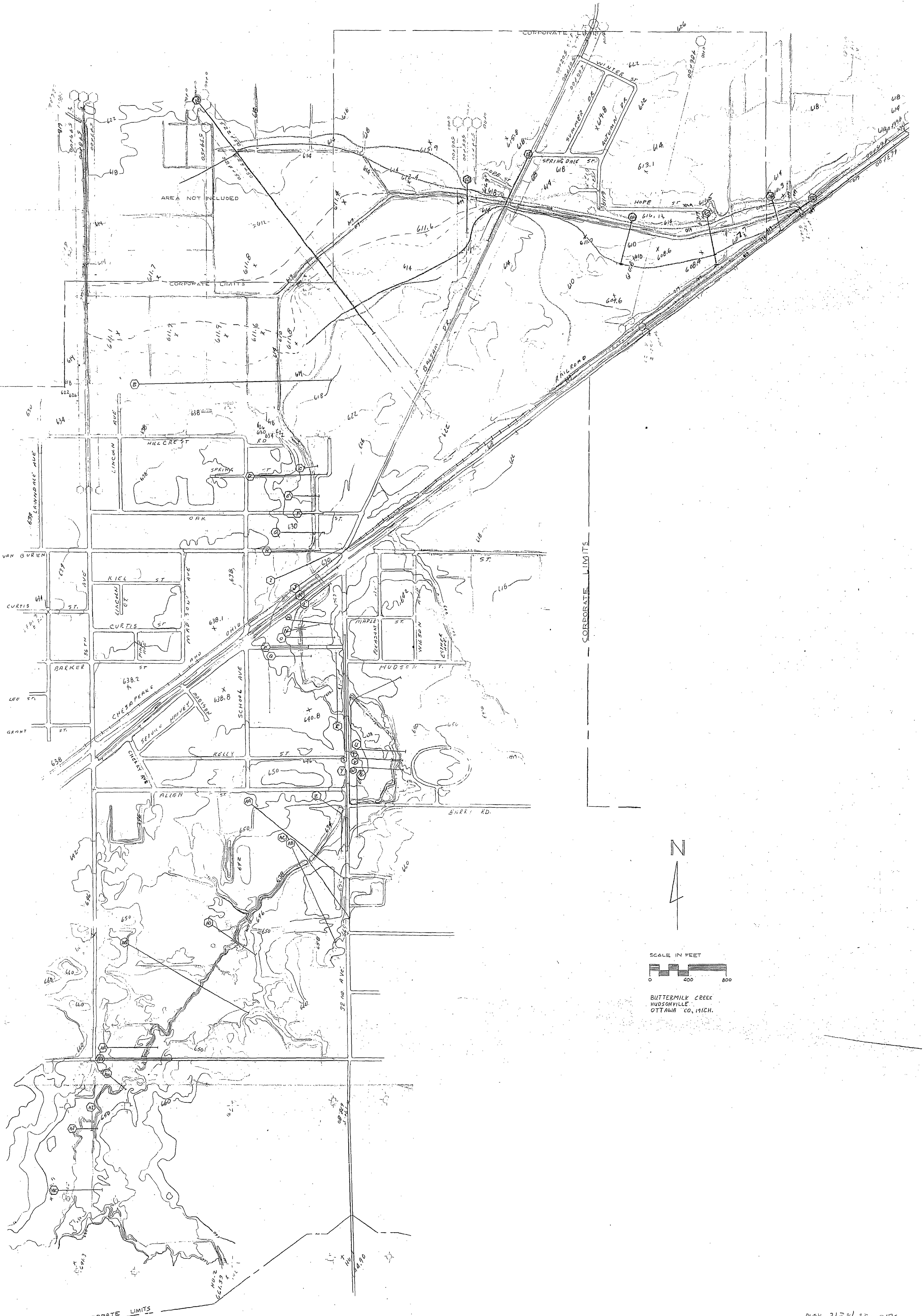
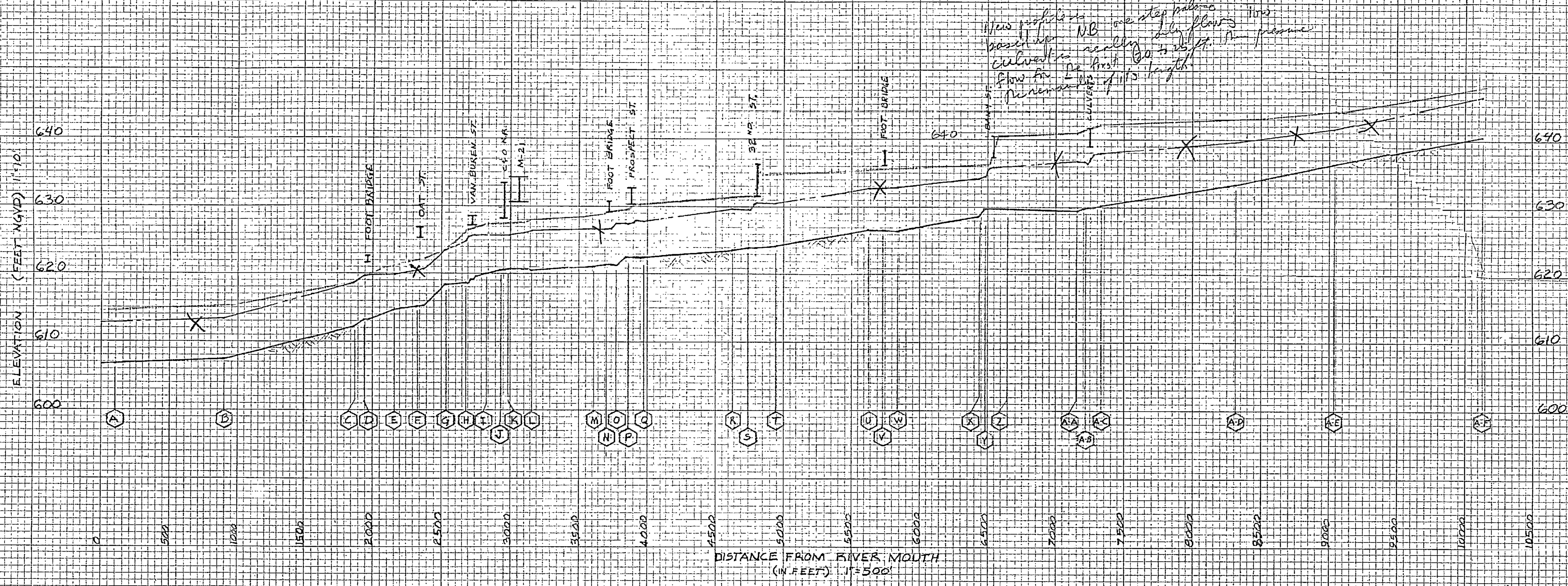
- CROSS SECTION LOCATION
- STREAMBED

ARCHITECTS ENGINEERS PLANNERS SURVEYORS	GOVE ASSOCIATES, INC. 1601 Portage Street Kalamazoo, Michigan (616) 385-0011 · 210 Mill Street Lansing, Michigan (517) 485-0555	FLOOD INSURANCE STUDY CITY OF HUDSONVILLE BUTTERMILK CREEK



RUSH 2/28/85 - REV.



BUTTERMILK CREEK AT HUDSONVILLE

100 YEAR FLOOD PROFILE

PROJECT NO. 8566

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*PROF 1

CCHV    0.300 CEHV     0.500
*SECNO 10908.000
  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS          0.0      320.0  TYPE       1  TARGET      319.999

        SECTION A

  10908.00     7.96    597.06      0.0     597.06    597.08      0.03      0.0       0.0     589.10
     590.      251.     308.       31.      275.      199.       59.        0.        0.     594.80
      0.0      0.91     1.55      0.53     0.050     0.035     0.050      0.0     589.10    180.78
  0.000150       0.       0.        0.        0         0         0      -0.00    139.22    320.00

*SECNO 12200.000

3301 HV CHANGED MORE THAN HVINS


        SECTION B  144TH AVE BRIDGE, NEW BRIDGE, TR 600.5, LC 598.9

  12200.00     3.44    596.84      0.0       0.0     597.44      0.61      0.07      0.29    600.50
     590.        0.     590.        0.        0.       94.        0.        1.        0.     600.50
      0.01      0.0     6.25       0.0     0.050     0.035     0.050     0.035    593.40    102.56
  0.005789     150.     150.      150.        2         0         0      -0.00     29.86    132.43

*SECNO 12201.000

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    600.50 MAX ELLC    598.90

  12201.00     3.44    596.84      0.0       0.0     597.45      0.61      0.01      0.00    600.50
     590.        0.     590.        0.        0.       94.        0.        1.        0.     600.50
      0.01      0.0     6.25       0.0     0.050     0.035     0.050     0.035    593.40    102.56
  0.005787       1.       1.        1.        0         0         0      -0.00     29.86    132.43

*SECNO 12202.000

3370 NORMAL BRIDGE,NRD    0 MIN ELTRD    600.50 MAX ELLC    598.90

  12202.00     3.76    597.16      0.0       0.0     597.66      0.50      0.18      0.03    600.50
     590.        0.     590.        0.        0.      104.        0.        1.        0.     600.50
      0.01      0.0     5.67       0.0     0.050     0.035     0.050     0.034    593.40    102.47
  0.004295      36.      36.       36.        2         0         0      -0.00     30.04    132.52

*SECNO 12203.000
  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


  12203.00     3.76    597.16      0.0       0.0     597.66      0.50      0.00      0.00    600.50
     590.        0.     590.        0.        0.      104.        0.        1.        0.     600.50
      0.01      0.0     5.67       0.0     0.050     0.035     0.050     0.034    593.40    102.47
  0.004279       1.       1.        1.        0         0         0      -0.00     30.04    132.52
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*SECNO 11508.000

3470 ENCROACHMENT STATIONS      220.0     320.0  TYPE      1  TARGET      100.000

           SECTION C

 11508.00      5.20   597.80     0.0       0.0    597.94     0.13      0.17      0.11   596.20
     590.       24.     495.      71.       28.     156.       57.        2.        0.   595.90
     0.02      0.85     3.18     1.25     0.050    0.035    0.050     0.034    592.60   220.00
 0.000886      100.     100.     100.         2        0        0     -0.01    100.00   320.00

CCHV     0.100 CEHV     0.300
*SECNO 12580.000

3470 ENCROACHMENT STATIONS      130.0     271.0  TYPE      1  TARGET      141.000

           SECTION D,  CHANNEL MANUFACTURED

 12580.00      4.91   599.31     0.0       0.0    599.56     0.25      1.59      0.03   598.80
     590.       12.     578.       0.       22.     143.        0.        7.        4. 100000.00
     0.11      0.52     4.05     0.0      0.050    0.035    0.050     0.035    594.40   143.13
 0.001907     1350.    1270.    1200.         3        0        0     -0.00    127.87   271.00

*SECNO 13650.000

           SECTION E, CHANNEL MANUFACTURED

 13650.00      4.96   601.26     0.0       0.0    601.50     0.24      1.93      0.00   601.30
     590.        0.     590.       0.        0.     151.        0.       11.        6.   602.00
     0.18      0.0      3.91     0.0      0.050    0.035    0.050     0.035    596.30   320.05
 0.001708      970.    1072.    1020.         2        0        0     -0.00     42.87   362.92

*SECNO 14724.000

           SECTION F, 200' D/S FROM BUTTERNUT ST. BRIDGE

 14724.00      5.30   603.60     0.0       0.0    604.01     0.42      2.47      0.05   604.00
     590.        0.     590.       0.        0.     114.        0.       15.        7.   605.00
     0.24      0.0      5.17     0.0      0.050    0.035    0.050     0.035    598.30    35.37
 0.003070     1020.    1100.    1160.         2        0        0     -0.00     31.79    67.15

CCHV     0.100 CEHV     0.300
*SECNO 14950.000
   SECNO     DEPTH    CWSEL    CRIWS    WSELK      EG       HV        HL      OLOSS   BANK ELEV
   Q         QLOB     QCH      QROB     ALOB      ACH      AROB      VOL      TWA    LEFT/RIGHT
   TIME      VLOB     VCH      VROB     XNL       XNCH     XNR       WTN      ELMIN       SSTA
   SLOPE     XLOBL    XLCH     XLOBR    ITRIAL    IDC      ICONT     CORAR    TOPWID      ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA      609.60 ELREA      609.60

           SECTION G, BUTTERNUT ST. BRIDGE, TR 610.5, LC 607.8

 14950.00      6.59   604.39     0.0       0.0    605.13     0.74      1.02      0.10   604.30
     590.        0.     590.       0.        0.      85.        0.       15.        7.   603.70
     0.25      0.0      6.91     0.0      0.050    0.035    0.050     0.035    597.80    77.00
 0.009998      210.     200.     190.         5        0        0     -0.00     34.00   111.00

*SECNO 14951.000

3370 NORMAL BRIDGE,NRD    2 MIN ELTRD   610.40 MAX ELLC   608.80
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*SECNO 14951.000

3370 NORMAL BRIDGE,NRD   2 MIN ELTRD   610.40 MAX ELLC   608.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       609.60 ELREA       609.60

 14951.00     6.60   604.40     0.0      0.0    605.14     0.74     0.01     0.00   610.40
     590.       0.     590.       0.       0.      86.       0.      15.       7.   610.50
     0.25      0.0     6.88      0.0    0.050    0.035    0.050    0.035   597.80    77.00
 0.010149       1.       1.       1.        0        0        0    -0.00    34.00   111.00

*SECNO 14952.000

3370 NORMAL BRIDGE,NRD   2 MIN ELTRD   610.40 MAX ELLC   608.80

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       610.50 ELREA       610.50

 14952.00     7.24   605.04      0.0      0.0   605.51     0.47     0.34     0.03   610.40
     590.       0.     590.       0.       0.     108.       0.      15.       7.   610.50
     0.25      0.0     5.47      0.0    0.050    0.035    0.050    0.035   597.80    77.00
 0.004920      50.      50.      50.        2        0        0    -0.00    34.00   111.00

*SECNO 14953.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       610.50 ELREA       610.50

 14953.00     7.25   605.05      0.0      0.0   605.51     0.46     0.00     0.00   604.30
     590.       0.     590.       0.       0.     109.       0.      15.       7.   603.70
     0.25      0.0     5.46      0.0    0.050    0.035    0.050    0.035   597.80    77.00
 0.004578       1.       1.       1.        0        0        0    -0.00    34.00   111.00

*SECNO 15076.000
3280 CROSS SECTION  15076.00 EXTENDED      0.06 FEET


          SECTION H, 100' U/S FROM BUTTERNUT ST. BRIDGE, MANU. FROM STA. 15050

 15076.00     6.95   605.55      0.0      0.0   605.72     0.17     0.18     0.03   605.50
     590.       0.     589.       1.       0.     177.       2.      16.       7.   605.20
     0.26     0.08     3.33     0.32    0.050    0.035    0.050    0.035   598.60    36.75
 0.000948     110.     100.     110.        0        0        0    -0.00    53.25    90.00

CCHV    0.100 CEHV    0.300
*SECNO 15800.000
3280 CROSS SECTION  15800.00 EXTENDED      0.14 FEET

   SECNO    DEPTH    CWSEL    CRIWS    WSELK     EG       HV       HL      OLOSS   BANK ELEV
     Q       QLOB     QCH      QROB     ALOB     ACH     AROB     VOL      TWA   LEFT/RIGHT
   TIME      VLOB     VCH      VROB     XNL      XNCH     XNR      WTN     ELMIN      SSTA
   SLOPE     XLOBL    XLCH     XLOBR   ITRIAL    IDC     ICONT    CORAR   TOPWID     ENDST

 15800.00     7.05   606.40      0.0      0.0   606.57     0.16     0.84     0.00   606.25
     590.       0.     589.       1.       1.     181.       2.      19.       8.   605.95
     0.32     0.19     3.26     0.49    0.050    0.045    0.050    0.036   599.35    30.13
 0.001463     740.     725.     715.        2        0        0    -0.00    59.87    90.00
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*SECNO 16420.000

        SECTION I, 200' D/S FROM RILEY ST. BRIDGE, MANU. FROM STA. 16550

  16420.00     7.50   607.60     0.0      0.0    607.82     0.22     1.24     0.02   609.10
     590.        0.     590.       0.       0.     158.        0.      21.       9.   607.90
      0.38     0.0      3.73     0.0    0.050     0.045    0.050    0.038   600.10   479.76
  0.002020     740.     725.     715.        2         0        0    -0.00    35.42   515.18

CCHV     0.300 CEHV     0.500
*SECNO 16650.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       608.80 ELREA       608.80

        SECTION J, RILEY ST. BRIDGE, TR 609.8, LC 607.9

  16650.00     6.24   607.94     0.0      0.0    608.12     0.18     0.29     0.01   602.70
     590.        0.     590.       0.       0.     174.        0.      22.       9.   603.00
      0.39     0.0      3.40     0.0    0.050     0.045    0.050    0.038   601.70   362.00
  0.001116     200.     200.     200.        0         0        0    -0.01    32.00   394.00

*SECNO 16651.000

3370 NORMAL BRIDGE,NRD    2 MIN ELTRD    609.80 MAX ELLC    607.90

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       608.80 ELREA       608.80

  16651.00     6.24   607.94     0.0      0.0    608.13     0.18     0.00     0.00   609.80
     590.        0.     590.       0.       0.     172.        0.      22.       9.   609.80
      0.39     0.0      3.43     0.0    0.050     0.045    0.050    0.038   601.70   362.00
  0.003519       1.       1.       1.        0         0        0    -1.49    32.00   394.00

*SECNO 16652.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       609.80 ELREA       609.80

  16652.00     6.49   608.09     0.0      0.0    608.27     0.18     0.14     0.00   609.80
     590.        0.     590.       0.       0.     172.        0.      22.       9.   609.80
      0.40     0.0      3.43     0.0    0.050     0.045    0.050    0.038   601.60   362.00
  0.001713      60.      60.      60.        0         0        0    -0.00    32.00   394.00

*SECNO 16653.000
    SECNO    DEPTH    CWSEL    CRIWS    WSELK      EG       HV       HL      OLOSS   BANK ELEV
    Q        QLOB     QCH      QROB     ALOB       ACH      AROB     VOL     TWA   LEFT/RIGHT
    TIME     VLOB     VCH      VROB     XNL        XNCH     XNR      WTN     ELMIN      SSTA
    SLOPE    XLOBL    XLCH     XLOBR    ITRIAL     IDC      ICONT    CORAR   TOPWID     ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA       609.80 ELREA       609.80

  16653.00     6.49   608.09     0.0      0.0    608.27     0.18     0.00     0.00   603.90
     590.        0.     590.       0.       0.     172.        0.      22.       9.   601.90
      0.40     0.0      3.42     0.0    0.050     0.045    0.050    0.038   601.60   362.00
  0.001185       1.       1.       1.        0         0        0    -0.01    32.00   394.00

*SECNO 16780.000

        SECTION K, 100' U/S FROM RILEY STREET BRIDGE

  16780.00     7.50   608.20     0.0      0.0    608.50     0.30     0.17     0.06   607.30
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            SECTION K, 100' U/S FROM RILEY STREET BRIDGE

   16780.00      7.50   608.20     0.0       0.0    608.50     0.30     0.17     0.06   607.30
      590.         6.     581.       3.        6.     130.       5.      23.       9.   607.70
       0.40      0.91     4.45     0.61     0.050    0.045    0.050    0.038   600.70   159.93
   0.002650      140.     100.      60.         2        0        0    -0.01    66.48   226.41


 CCHV     0.100 CEHV     0.300
 *SECNO 17610.000
   17610.00      8.05   610.00     0.0       0.0    610.20     0.21     1.69     0.01   608.55
      590.        25.     548.      17.       30.     145.      21.      26.      11.   608.95
       0.47      0.85     3.77     0.78     0.050    0.045    0.050    0.039   601.95   115.17
   0.001644      660.     830.     625.         2        0        0    -0.01   132.62   247.79


 *SECNO 18225.000

            SECTION L, CHANNEL MANUFACTURED

   18225.00      8.10   611.30     0.0       0.0    611.48     0.18     1.28     0.00   610.00
      590.        60.     510.      20.       52.     140.      21.      30.      13.   609.80
       0.54      1.15     3.64     0.95     0.050    0.045    0.050    0.040   603.20    68.52
   0.001510      660.     830.     625.         2        0        0    -0.00   109.99   178.51


 CCHV     0.100 CEHV     0.300
 *SECNO 18950.000
   18950.00      7.98   612.48     0.0       0.0    612.68     0.20     1.19     0.01   611.30
      590.        51.     522.      17.       45.     137.      18.      33.      14.   611.10
       0.60      1.13     3.81     0.96     0.050    0.045    0.050    0.040   604.50    70.32
   0.001708      675.     750.     680.         2        0        0    -0.00   105.80   176.12


 *SECNO 19700.000
     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     ENDST



            SECTION M

   19700.00      7.88   613.68     0.0       0.0    613.81     0.14     1.13     0.01   613.00
      590.        22.     544.      25.       28.     176.      25.      37.      16.   611.90
       0.67      0.77     3.08     1.01     0.050    0.045    0.050    0.041   605.80   208.74
   0.001358      675.     750.     680.         2        0        0    -0.00   118.89   327.63


 *SECNO 20425.000
   20425.00      7.61   614.76     0.0       0.0    614.93     0.17     1.11     0.01   614.35
      590.        10.     561.      19.       15.     165.      18.      40.      18.   613.25
       0.73      0.66     3.39     1.04     0.050    0.045    0.050    0.041   607.15   215.90
   0.001791      515.     725.     580.         2        0        0    -0.01   107.60   323.50


 *SECNO 21280.000
 3280 CROSS SECTION   21280.00 EXTENDED       0.09 FEET


            SECTION N, CHANNEL MANUFACTURED

   21280.00      7.59   616.09     0.0       0.0    616.27     0.18     1.34     0.00   616.00
      590.         0.     556.      34.        0.     159.      49.      43.      20.   615.40
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       0.79      0.01      3.50      0.70     0.050     0.045     0.050     0.041    608.50    123.52
   0.001940      515.      725.      580.         3         0         0     -0.01    166.68    290.00


 *SECNO 22005.000
 3280 CROSS SECTION   22005.00 EXTENDED        0.11 FEET

   22005.00      7.61    617.46       0.0       0.0    617.63      0.18      1.36      0.00    617.35
       590.        0.      553.       37.        0.      160.       51.       46.       22.    616.75
       0.85      0.19      3.47      0.71     0.050     0.045     0.050     0.042    609.85    122.93
   0.001889      455.      725.      495.         2         0         0     -0.01    167.07    290.00

 *SECNO 22870.000

 3470 ENCROACHMENT STATIONS         97.0      350.0  TYPE        1  TARGET      253.000

           SECTION O, CHANNEL MANUFACTURED

   22870.00      6.89    618.09       0.0       0.0    618.11      0.03      0.47      0.01    616.00
       590.       78.      311.      201.      118.      196.      223.       52.       24.    615.80
       1.00      0.66      1.59      0.90     0.050     0.045     0.050     0.042    611.20     97.00
   0.000367      455.      725.      495.         3         0         0     -0.02    253.00    350.00

 CCHV     0.300 CEHV     0.500
 *SECNO 23595.000
      SECNO     DEPTH     CWSEL     CRIWS     WSELK        EG        HV        HL     OLOSS   BANK ELEV
          Q      QLOB       QCH      QROB      ALOB       ACH      AROB       VOL       TWA  LEFT/RIGHT
       TIME      VLOB       VCH      VROB       XNL      XNCH       XNR       WTN     ELMIN       SSTA
      SLOPE     XLOBL      XLCH     XLOBR    ITRIAL       IDC     ICONT     CORAR    TOPWID      ENDST


 3470 ENCROACHMENT STATIONS         97.0      350.0  TYPE        1  TARGET      253.000
   23595.00      5.91    618.46       0.0       0.0    618.56      0.09      0.41      0.03    617.35
       590.       23.      418.      144.       35.      149.      115.       57.       27.    617.15
       1.07      0.82      2.81      1.25     0.050     0.045     0.050     0.043    612.55    128.44
   0.001646      425.      725.      405.         2         0         0     -0.02    221.56    350.00

 *SECNO 24450.000

 3470 ENCROACHMENT STATIONS       1520.0     1700.0  TYPE        1  TARGET      180.000

           SECTION P, MANUFACTURED FROM STA. 24600

   24450.00      6.12    620.02       0.0       0.0    620.32      0.30      1.66      0.10    620.20
       590.        0.      590.        0.        0.      135.        0.       60.       29.    621.50
       1.11       0.0      4.38       0.0     0.050     0.045     0.050     0.043    613.90   1580.34
   0.004024      425.      725.      405.         2         0         0     -0.00     42.01   1622.35

 CCHV     0.100 CEHV     0.300
 *SECNO 24600.000

 3470 ENCROACHMENT STATIONS       1540.0     1650.0  TYPE        1  TARGET      110.000

           SECTION Q

   24600.00      6.70    620.60       0.0       0.0    620.80      0.20      0.47      0.01    620.20
       590.        5.      585.        0.        9.      160.        0.       60.       29.    621.50
       1.12      0.58      3.65       0.0     0.050     0.045     0.050     0.043    613.90   1540.00
   0.002534      200.      150.      150.         2         0         0     -0.01     85.70   1625.70
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HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
ERROR CORR - 01,02,03
MODIFICATION - 50,51,52,53
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NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

PINE CREEK

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
10908.000	597.06	0.0	597.08	139.22	250.50	308.08	31.42	320.00	0.00	250.00	288.00	320.00
10908.000	597.16	0.0	597.18	140.08	250.02	306.93	33.05	320.00	0.00	250.00	288.00	320.00
12200.000	596.84	0.0	597.44	29.86	0.0	590.00	0.0	0.0	0.0	102.00	133.00	0.0
12200.000	596.95	0.0	597.52	29.93	0.0	590.00	0.0	0.0	0.0	102.00	133.00	0.0
12201.000	596.84	0.0	597.45	29.86	0.0	590.00	0.0	0.0	0.0	102.00	133.00	0.0
12201.000	596.96	0.0	597.52	29.93	0.0	590.00	0.0	0.0	0.0	102.00	133.00	0.0
12202.000	597.16	0.0	597.66	30.04	0.0	590.00	0.0	0.0	0.0	102.00	133.00	0.0
12202.000	597.23	0.0	597.71	30.08	0.0	590.00	0.0	0.0	0.0	102.00	133.00	0.0
12203.000	597.16	0.0	597.66	30.04	0.0	590.00	0.0	0.0	0.0	102.00	133.00	0.0
12203.000	597.24	0.0	597.71	30.08	0.0	590.00	0.0	0.0	0.0	102.00	133.00	0.0
11508.000	597.80	0.0	597.94	100.00	24.01	494.65	71.34	100.00	220.00	250.00	288.00	320.00
11508.000	597.85	0.04	597.98	100.00	25.25	492.22	72.53	100.00	220.00	250.00	288.00	320.00
12580.000	599.31	0.0	599.56	127.87	11.53	578.47	0.0	141.00	130.00	229.00	271.00	271.00
12580.000	599.31	-0.00	599.56	127.71	11.47	578.53	0.0	141.00	130.00	229.00	271.00	271.00
13650.000	601.26	0.0	601.50	42.87	0.0	590.00	0.0	0.0	0.0	320.00	365.00	0.0
13650.000	601.26	0.00	601.50	42.87	0.0	590.00	0.0	45.00	320.00	320.00	365.00	365.00
14724.000	603.60	0.0	604.01	31.79	0.0	590.00	0.0	0.0	0.0	35.00	69.00	0.0
14724.000	603.60	0.00	604.01	31.79	0.0	590.00	0.0	34.00	35.00	35.00	69.00	69.00
14950.000	604.39	0.0	605.13	34.00	0.0	590.00	0.0	0.0	0.0	77.00	111.00	0.0
14950.000	604.40	0.01	605.13	34.00	0.0	590.00	0.0	34.00	77.00	77.00	111.00	111.00
14951.000	604.40	0.0	605.14	34.00	0.0	590.00	0.0	0.0	0.0	77.00	111.00	0.0
14951.000	604.41	0.01	605.14	34.00	0.0	590.00	0.0	34.00	77.00	77.00	111.00	111.00
14952.000	605.04	0.0	605.51	34.00	0.0	590.00	0.0	0.0	0.0	77.00	111.00	0.0
14952.000	605.04	0.00	605.51	34.00	0.0	590.00	0.0	34.00	77.00	77.00	111.00	111.00
14953.000	605.05	0.0	605.51	34.00	0.0	590.00	0.0	0.0	0.0	77.00	111.00	0.0
14953.000	605.05	0.00	605.51	34.00	0.0	590.00	0.0	34.00	77.00	77.00	111.00	111.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
15076.000	605.55	0.0	605.72	53.25	0.01	589.47	0.52	0.0	0.0	41.00	82.00	0.0

						QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
15076.000	605.55	0.0	605.72	53.25	0.01	589.47	0.52	0.0	0.0	41.00	82.00	0.0
15076.000	605.55	0.00	605.73	41.00	0.0	590.00	0.0	41.00	41.00	41.00	82.00	82.00
15800.000	606.40	0.0	606.57	59.87	0.15	588.70	1.15	0.0	0.0	41.00	82.00	0.0
15800.000	606.41	0.01	606.57	61.07	0.20	588.55	1.25	0.0	0.0	41.00	82.00	0.0
16420.000	607.60	0.0	607.82	35.42	0.0	590.00	0.0	0.0	0.0	465.00	516.00	0.0
16420.000	607.60	-0.00	607.82	35.41	0.0	590.00	0.0	51.00	465.00	465.00	516.00	516.00
16650.000	607.94	0.0	608.12	32.00	0.0	590.00	0.0	0.0	0.0	362.00	394.00	0.0
16650.000	607.98	0.03	608.15	32.00	0.0	590.00	0.0	32.00	362.00	362.00	394.00	394.00
16651.000	607.94	0.0	608.13	32.00	0.0	590.00	0.0	0.0	0.0	362.00	394.00	0.0
16651.000	607.98	0.03	608.16	32.00	0.0	590.00	0.0	32.00	362.00	362.00	394.00	394.00
16652.000	608.09	0.0	608.27	32.00	0.0	590.00	0.0	0.0	0.0	362.00	394.00	0.0
16652.000	608.12	0.03	608.30	32.00	0.0	590.00	0.0	32.00	362.00	362.00	394.00	394.00
16653.000	608.09	0.0	608.27	32.00	0.0	590.00	0.0	0.0	0.0	362.00	394.00	0.0
16653.000	608.12	0.03	608.30	32.00	0.0	590.00	0.0	32.00	362.00	362.00	394.00	394.00
16780.000	608.20	0.0	608.50	66.48	5.84	581.22	2.94	0.0	0.0	180.00	207.00	0.0
16780.000	608.25	0.05	608.56	27.00	0.0	590.00	0.0	27.00	180.00	180.00	207.00	207.00
17610.000	610.00	0.0	610.20	132.62	25.38	547.86	16.76	0.0	0.0	180.00	207.00	0.0
17610.000	610.06	0.06	610.25	139.19	28.78	542.31	18.91	0.0	0.0	180.00	207.00	0.0
18225.000	611.30	0.0	611.48	109.99	59.57	509.99	20.44	0.0	0.0	125.00	150.00	0.0
18225.000	611.31	0.01	611.49	105.00	60.06	508.13	21.80	105.00	70.00	125.00	150.00	175.00
18950.000	612.48	0.0	612.68	105.80	50.68	522.11	17.21	0.0	0.0	125.00	150.00	0.0
18950.000	612.48	-0.00	612.68	105.76	50.61	522.20	17.19	0.0	0.0	125.00	150.00	0.0
19700.000	613.68	0.0	613.81	118.89	21.54	543.65	24.80	0.0	0.0	259.00	300.00	0.0
19700.000	613.67	-0.00	613.81	111.00	21.62	542.02	26.36	111.00	212.00	259.00	300.00	323.00
20425.000	614.76	0.0	614.93	107.60	10.14	561.36	18.50	0.0	0.0	259.00	300.00	0.0
20425.000	614.76	-0.00	614.93	107.44	9.99	561.59	18.42	0.0	0.0	259.00	300.00	0.0
21280.000	616.09	0.0	616.27	166.68	0.00	555.99	34.01	0.0	0.0	125.00	165.00	0.0
21280.000	616.09	-0.00	616.27	165.00	0.0	555.23	34.77	165.00	125.00	125.00	165.00	290.00
22005.000	617.46	0.0	617.63	167.07	0.02	553.41	36.57	0.0	0.0	125.00	165.00	0.0
22005.000	617.45	-0.00	617.63	167.00	0.02	553.89	36.09	0.0	0.0	125.00	165.00	0.0
22870.000	618.09	0.0	618.11	253.00	77.55	311.06	201.40	253.00	97.00	191.00	239.00	350.00
22870.000	618.09	-0.00	618.11	253.00	77.43	311.24	201.33	253.00	97.00	191.00	239.00	350.00
23595.000	618.46	0.0	618.56	221.56	28.43	417.82	143.75	253.00	97.00	191.00	239.00	350.00
23595.000	618.46	-0.00	618.56	221.51	28.39	417.95	143.66	253.00	97.00	191.00	239.00	350.00
24450.000	620.02	0.0	620.32	42.01	0.0	590.00	0.0	180.00	1520.00	1579.00	1631.00	1700.00
24450.000	620.02	0.00	620.32	42.01	0.0	590.00	0.0	180.00	1520.00	1579.00	1631.00	1700.00
24600.000	620.60	0.0	620.80	85.70	5.45	584.55	0.0	110.00	1540.00	1579.00	1631.00	1650.00
24600.000	620.60	0.00	620.81	85.71	5.47	584.53	0.0	110.00	1540.00	1579.00	1631.00	1650.00

PINE CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
10908.000	0.0	0.0	0.0	589.10	590.00	597.06	0.0	597.08	1.50	1.55	533.67	482.19
10908.000	0.0	0.0	0.0	589.10	590.00	597.16	0.0	597.18	1.40	1.51	547.62	499.46
12200.000	150.00	0.0	0.0	593.40	590.00	596.84	0.0	597.44	57.89	6.25	94.37	77.54
12200.000	150.00	0.0	0.0	593.40	590.00	596.95	0.0	597.52	51.85	6.03	97.81	81.94
12201.000	1.00	600.50	598.90	593.40	590.00	596.84	0.0	597.45	57.87	6.25	94.38	77.56
12201.000	1.00	600.50	598.90	593.40	590.00	596.96	0.0	597.52	51.83	6.03	97.81	81.95
12202.000	36.00	600.50	598.90	593.40	590.00	597.16	0.0	597.66	42.95	5.67	103.99	90.02
12202.000	36.00	600.50	598.90	593.40	590.00	597.23	0.0	597.71	40.31	5.56	106.17	92.93
12203.000	1.00	0.0	0.0	593.40	590.00	597.16	0.0	597.66	42.79	5.67	104.12	90.20
12203.000	1.00	0.0	0.0	593.40	590.00	597.24	0.0	597.71	40.18	5.55	106.28	93.08
11508.000	100.00	0.0	0.0	592.60	590.00	597.80	0.0	597.94	8.86	3.18	240.82	198.20
11508.000	100.00	0.0	0.0	592.60	590.00	597.85	0.0	597.98	8.48	3.13	245.09	202.65
12580.000	1270.00	0.0	0.0	594.40	590.00	599.31	0.0	599.56	19.07	4.05	164.99	135.11
12580.000	1270.00	0.0	0.0	594.40	590.00	599.31	0.0	599.56	19.09	4.05	164.86	135.04
13650.000	1072.00	0.0	0.0	596.30	590.00	601.26	0.0	601.50	17.08	3.91	150.83	142.76
13650.000	1072.00	0.0	0.0	596.30	590.00	601.26	0.0	601.50	17.08	3.91	150.82	142.75
14724.000	1100.00	0.0	0.0	598.30	590.00	603.60	0.0	604.01	30.70	5.17	114.08	106.49
14724.000	1100.00	0.0	0.0	598.30	590.00	603.60	0.0	604.01	30.69	5.17	114.09	106.50
14950.000	200.00	0.0	0.0	597.80	590.00	604.39	0.0	605.13	99.98	6.91	85.43	59.01
14950.000	200.00	0.0	0.0	597.80	590.00	604.40	0.0	605.13	101.11	6.88	85.72	58.67
14951.000	1.00	610.40	608.80	597.80	590.00	604.40	0.0	605.14	101.49	6.88	85.70	58.57
14951.000	1.00	610.40	608.80	597.80	590.00	604.41	0.0	605.14	100.56	6.86	85.95	58.84
14952.000	50.00	610.40	608.80	597.80	590.00	605.04	0.0	605.51	49.20	5.47	107.79	84.11
14952.000	50.00	610.40	608.80	597.80	590.00	605.04	0.0	605.51	49.22	5.47	107.78	84.09
14953.000	1.00	0.0	0.0	597.80	590.00	605.05	0.0	605.51	45.78	5.46	107.99	87.20
14953.000	1.00	0.0	0.0	597.80	590.00	605.05	0.0	605.51	47.76	5.46	108.02	85.38
15076.000	100.00	0.0	0.0	598.60	590.00	605.55	0.0	605.72	9.48	3.33	179.03	191.61
15076.000	100.00	0.0	0.0	598.60	590.00	605.55	0.0	605.73	9.58	3.32	177.47	190.58
15800.000	725.00	0.0	0.0	599.35	590.00	606.40	0.0	606.57	14.63	3.26	183.92	154.23
15800.000	725.00	0.0	0.0	599.35	590.00	606.41	0.0	606.57	14.46	3.24	184.86	155.18
16420.000	725.00	0.0	0.0	600.10	590.00	607.60	0.0	607.82	20.20	3.73	158.08	131.28
16420.000	725.00	0.0	0.0	600.10	590.00	607.60	0.0	607.82	20.22	3.73	158.01	131.19
16650.000	200.00	0.0	0.0	601.70	590.00	607.94	0.0	608.12	11.16	3.40	173.65	176.61
16650.000	200.00	0.0	0.0	601.70	590.00	607.98	0.0	608.15	13.32	3.38	174.42	161.65
16651.000	1.00	609.80	607.90	601.70	590.00	607.94	0.0	608.13	35.19	3.43	172.00	99.46
16651.000	1.00	609.80	607.90	601.70	590.00	607.98	0.0	608.16	35.19	3.43	171.99	99.46

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
[illegible]	[illegible]	0.0	0.0	601.60	590.00	608.09	0.0	608.27	17.13	3.43	172.08	142.54

[illegible]	[illegible]	0.0	0.0	601.60	590.00	608.09	0.0	608.27	17.13	3.43	172.08	142.54
16652.000	60.00	0.0	0.0	601.60	590.00	608.12	0.0	608.30	16.79	3.41	173.25	144.00
16653.000	1.00	0.0	0.0	601.60	590.00	608.09	0.0	608.27	11.85	3.42	172.28	171.40
16653.000	1.00	0.0	0.0	601.60	590.00	608.12	0.0	608.30	14.63	3.40	173.29	154.23
16780.000	100.00	0.0	0.0	600.70	590.00	608.20	0.0	608.50	26.50	4.45	141.72	114.62
16780.000	100.00	0.0	0.0	600.70	590.00	608.25	0.0	608.56	28.05	4.47	131.92	111.39
17610.000	830.00	0.0	0.0	601.95	590.00	610.00	0.0	610.20	16.44	3.77	196.44	145.51
17610.000	830.00	0.0	0.0	601.95	590.00	610.06	0.0	610.25	15.52	3.69	204.65	149.76
18225.000	830.00	0.0	0.0	603.20	590.00	611.30	0.0	611.48	15.10	3.64	213.47	151.81
18225.000	830.00	0.0	0.0	603.20	590.00	611.31	0.0	611.49	14.94	3.62	213.76	152.66
18950.000	750.00	0.0	0.0	604.50	590.00	612.48	0.0	612.68	17.08	3.81	199.87	142.77
18950.000	750.00	0.0	0.0	604.50	590.00	612.48	0.0	612.68	17.09	3.82	199.77	142.70
19700.000	750.00	0.0	0.0	605.80	590.00	613.68	0.0	613.81	13.58	3.08	228.68	160.09
19700.000	750.00	0.0	0.0	605.80	590.00	613.67	0.0	613.81	13.52	3.08	227.57	160.44
20425.000	725.00	0.0	0.0	607.15	590.00	614.76	0.0	614.93	17.91	3.39	198.64	139.43
20425.000	725.00	0.0	0.0	607.15	590.00	614.76	0.0	614.93	17.98	3.40	198.23	139.15
21280.000	725.00	0.0	0.0	608.50	590.00	616.09	0.0	616.27	19.40	3.50	207.59	133.95
21280.000	725.00	0.0	0.0	608.50	590.00	616.09	0.0	616.27	19.31	3.49	208.46	134.25
22005.000	725.00	0.0	0.0	609.85	590.00	617.46	0.0	617.63	18.89	3.47	211.03	135.74
22005.000	725.00	0.0	0.0	609.85	590.00	617.45	0.0	617.63	18.99	3.47	210.38	135.40
22870.000	725.00	0.0	0.0	611.20	590.00	618.09	0.0	618.11	3.67	1.59	536.01	308.02
22870.000	725.00	0.0	0.0	611.20	590.00	618.09	0.0	618.11	3.68	1.59	535.42	307.54
23595.000	725.00	0.0	0.0	612.55	590.00	618.46	0.0	618.56	16.46	2.81	298.24	145.42
23595.000	725.00	0.0	0.0	612.55	590.00	618.46	0.0	618.56	16.49	2.81	298.03	145.29
24450.000	725.00	0.0	0.0	613.90	590.00	620.02	0.0	620.32	40.24	4.38	134.60	93.01
24450.000	725.00	0.0	0.0	613.90	590.00	620.02	0.0	620.32	40.24	4.38	134.60	93.01
24600.000	150.00	0.0	0.0	613.90	590.00	620.60	0.0	620.80	25.34	3.65	169.57	117.21
24600.000	150.00	0.0	0.0	613.90	590.00	620.60	0.0	620.81	25.32	3.65	169.61	117.24

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 HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
 ERROR CORR -  01,02,03
 MODIFICATION -  50,51,52,53
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C
T1      HOLLAND TOWNSHIP, PROJECT NO.8553, TESTPINE
T2      PINE CREEK
T3      PINE CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        4.        0.        0.  0.0          0.0       0.0       0.     597.060     0.0

J2  NPROF     IPLOT     PREVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

       1.000     0.0     -1.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0

J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     110.000   200.000   150.000     0.0       0.0       0.0       0.0       0.0       0.0       0.0

NC      0.050     0.050     0.035     0.300     0.500     0.0       0.0       0.0       0.0       0.0
QT      5.000   320.000   510.000   590.000   740.000   590.000     0.0       0.0       0.0       0.0

        SECTION A

X1  10908.000    13.000   250.000   288.000     0.0       0.0       0.0       0.0       0.0       0.0
X3      0.0       0.0       0.0       0.0       0.0     320.000     0.0       0.0       0.0       0.0
GR    606.000     0.0     604.200    50.000   600.600   150.000   589.100   250.000   591.600   260.000
GR    591.500   270.000   592.900   280.000   593.200   284.000   594.800   283.000   596.400   350.000
GR    597.400   450.000   597.300   542.000   607.300   590.000     0.0       0.0       0.0       0.0

        SECTION B  144TH AVE BRIDGE, NEW BRIDGE, TR 600.5, LC 598.9

X1  12200.000    13.000   102.000   133.000   150.000   150.000   150.000     0.0       0.0       0.0
GR    600.500   102.000   598.900   102.000   593.400   103.500   593.400   106.000   593.600   110.000
GR    593.600   114.000   593.500   117.000   593.600   122.000   593.800   125.000   593.700   128.000
GR    593.500   131.500   598.900   133.000   600.500   133.000     0.0       0.0       0.0       0.0

X1  12201.000     0.0       0.0       0.0       1.000     1.000     1.000     0.0       0.0       0.0
X2      0.0       0.0       0.0     598.900   600.500     0.0       0.0       0.0       0.0       0.0

X1  12202.000     0.0       0.0       0.0      36.000    36.000    36.000     0.0       0.0       0.0
X2      0.0       0.0       0.0     598.900   600.500     0.0       0.0       0.0       0.0       0.0

X1  12203.000     0.0       0.0       0.0       1.000     1.000     1.000     0.0       0.0       0.0
ET      0.0       0.0       0.0       0.0       0.0       9.100     0.0       0.0     220.000   320.000

        SECTION C

X1  11508.000    13.000   250.000   288.000   100.000   100.000   100.000     0.0       0.0       0.0
X3      0.0       0.0       0.0     220.000     0.0     320.000     0.0       0.0       0.0       0.0
GR    606.000     0.0     604.200    50.000   600.600   150.000   596.200   250.000   592.700   260.000
GR    592.600   270.000   594.000   280.000   594.300   284.000   595.900   288.000   596.400   350.000
GR    597.400   450.000   597.300   542.000   607.300   590.000     0.0       0.0       0.0       0.0
NC      0.0       0.0       0.0       0.100     0.300     0.0       0.0       0.0       0.0       0.0
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GR	597.400	450.000	597.300	542.000	607.300	590.000	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.100	0.300	0.0	0.0	0.0	0.0	0.0

SECTION D, CHANNEL MANUFACTURED

X1	12580.000	12.000	229.000	271.000	1350.000	1200.000	1270.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	130.000	0.0	271.000	0.0	0.0	0.0	0.0
GR	609.000	0.0	604.000	9.000	600.000	28.000	598.800	229.000	594.900	233.000
GR	594.400	246.000	596.400	260.000	599.000	271.000	600.000	287.000	604.000	295.000
GR	608.000	325.000	609.000	337.000	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	320.000	365.000

SECTION E, CHANNEL MANUFACTURED

X1	13650.000	10.000	320.000	365.000	970.000	1020.000	1072.000	0.0	0.0	0.0
GR	609.000	0.0	603.000	10.000	604.000	40.000	601.300	320.000	597.100	324.000
GR	596.300	340.000	598.400	355.000	602.000	365.000	604.000	375.000	609.000	400.000
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	35.000	69.000

SECTION F, 200' D/S FROM BUTTERNUT ST. BRIDGE

X1	14724.000	12.000	35.000	69.000	1020.000	1160.000	1100.000	0.0	0.0	0.0
GR	609.000	0.0	604.700	11.000	604.000	35.000	599.600	39.000	598.300	47.000
GR	599.200	55.000	600.200	56.000	601.200	64.000	605.000	69.000	606.000	124.000
GR	604.900	157.000	609.000	183.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.100	0.300	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	77.000	111.000

SECTION G, BUTTERNUT ST. BRIDGE, TR 610.5, LC 607.8

X1	14950.000	14.000	77.000	111.000	210.000	190.000	200.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	609.600	609.600	0.0
GR	612.000	0.0	610.400	36.000	606.200	71.000	604.300	77.000	604.200	86.000
GR	600.000	88.000	597.800	94.000	597.900	99.000	603.700	101.000	603.700	111.000
GR	606.300	117.000	610.200	166.000	609.400	228.000	610.000	277.000	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	77.000	111.000

X1	14951.000	16.000	77.000	111.000	1.000	1.000	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	609.600	609.600	0.0
BT	2.000	77.000	610.400	608.700	111.000	610.500	608.800	0.0	0.0	0.0
GR	612.000	0.0	610.400	36.000	610.400	71.000	610.400	77.000	604.300	77.000
GR	604.200	86.000	600.000	88.000	597.800	94.000	597.900	99.000	603.700	101.000
GR	603.700	111.000	610.500	111.000	610.500	117.000	610.200	166.000	609.400	228.000
GR	610.000	277.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	77.000	111.000

X1	14952.000	0.0	0.0	0.0	50.000	50.000	50.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	0.0	0.0	0.0	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	610.500	610.500	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	77.000	111.000

X1	14953.000	14.000	77.000	111.000	1.000	1.000	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	610.500	610.500	0.0
GR	612.000	0.0	610.400	36.000	606.200	71.000	604.300	77.000	604.200	86.000
GR	600.000	88.000	597.800	94.000	597.900	99.000	603.700	101.000	603.700	111.000
GR	606.300	117.000	610.200	166.000	609.400	228.000	610.000	277.000	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	41.000	82.000

SECTION H, 100' U/S FROM BUTTERNUT ST. BRIDGE, MANU. FROM STA. 15050

X1	15076.000	8.000	41.000	82.000	110.000	110.000	100.000	0.0	0.0	0.0
GR	609.000	0.0	605.800	18.000	605.500	41.000	599.000	53.000	598.600	60.000
GR	599.800	67.000	605.200	82.000	605.500	90.000	0.0	0.0	0.0	0.0
NC	0.050	0.050	0.045	0.100	0.300	0.0	0.0	0.0	0.0	0.0

X1	15800.000	0.0	0.0	0.0	740.000	715.000	725.000	0.0	0.750	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	465.000	516.000

SECTION I, 200' D/S FROM RILEY ST. BRIDGE, MANU. FROM STA. 16550

X1	16420.000	18.000	465.000	516.000	740.000	715.000	725.000	0.0	0.0	0.0
GR	613.000	0.0	611.100	48.000	609.000	84.000	611.600	121.000	610.600	174.000
GR	609.800	254.000	608.800	336.000	609.300	413.000	609.100	465.000	606.600	479.000
GR	602.000	484.000	600.100	492.000	602.100	500.000	607.900	516.000	607.900	591.000
GR	607.900	661.000	611.100	696.000	613.000	700.000	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.300	0.500	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	362.000	394.000

SECTION J, RILEY ST. BRIDGE, TR 609.8, LC 607.9

X1	16650.000	9.000	362.000	394.000	200.000	200.000	200.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	608.800	608.800	0.0
GR	613.000	0.0	610.700	101.000	609.800	278.000	602.700	362.000	601.700	370.000
GR	602.700	378.000	603.000	394.000	611.400	478.000	613.000	510.000	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	362.000	394.000

X1	16651.000	11.000	362.000	394.000	1.000	1.000	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	608.800	608.800	0.0
BT	2.000	362.000	609.800	607.900	394.000	609.800	607.900	0.0	0.0	0.0
GR	613.000	0.0	610.700	101.000	609.800	278.000	609.800	362.000	602.700	362.000
GR	601.700	370.000	602.700	378.000	603.000	394.000	609.800	394.000	611.400	478.000
GR	613.000	510.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	362.000	394.000

X1	16652.000	12.000	362.000	394.000	60.000	60.000	60.000	0.0	0.0	0.0
X2	0.0	0.0	0.0	0.0	0.0	0.0	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	609.800	609.800	0.0
GR	613.000	0.0	610.700	101.000	609.800	278.000	609.800	362.000	603.900	362.000
GR	601.600	369.000	604.100	378.000	601.800	389.000	601.900	394.000	609.800	394.000
GR	611.400	478.000	613.000	510.000	0.0	0.0	0.0	0.0	0.0	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	362.000	394.000

X1	16653.000	10.000	362.000	394.000	1.000	1.000	1.000	0.0	0.0	0.0
X3	10.000	0.0	0.0	0.0	0.0	0.0	0.0	609.800	609.800	0.0
GR	613.000	0.0	610.700	101.000	609.800	278.000	603.900	362.000	601.600	369.000
GR	604.100	378.000	601.800	389.000	601.900	394.000	611.400	478.000	613.000	510.000
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	180.000	207.000

SECTION K, 160' U/S FROM RILEY STREET BRIDGE

X1	16780.000	12.000	180.000	207.000	140.000	60.000	100.000	0.0	0.0	0.0
GR	613.000	0.0	612.600	58.000	612.100	92.000	608.800	111.000	608.100	168.000
GR	607.300	180.000	602.100	187.000	600.700	195.000	602.500	201.000	607.700	207.000
GR	609.500	277.000	609.200	313.000	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.100	0.300	0.0	0.0	0.0	0.0	0.0

X1	17610.000	0.0	0.0	0.0	660.000	625.000	830.000	0.0	1.250	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	70.000	175.000

X1	17610.000	0.0	0.0	0.0	660.000	625.000	830.000	0.0	1.250	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	70.000	175.000

SECTION L, CHANNEL MANUFACTURED

X1	18225.000	11.000	125.000	150.000	660.000	625.000	830.000	0.0	0.0	0.0
GR	618.000	0.0	614.000	30.000	610.500	80.000	610.000	125.000	604.700	134.000
GR	603.200	140.000	604.700	146.000	609.800	150.000	612.700	205.000	614.000	270.000
GR	618.000	370.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.100	0.300	0.0	0.0	0.0	0.0	0.0
X1	18950.000	0.0	0.0	0.0	675.000	680.000	750.000	0.0	1.300	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	212.000	323.000

SECTION M

X1	19700.000	23.000	259.000	300.000	675.000	680.000	750.000	0.0	0.0	0.0
GR	618.000	0.0	618.100	40.000	620.000	60.000	619.000	85.000	618.900	111.000
GR	614.000	200.000	613.000	227.000	613.000	259.000	611.100	265.000	608.100	269.000
GR	605.800	275.000	608.000	281.000	609.100	283.000	609.800	292.000	611.000	295.000
GR	611.900	300.000	613.700	328.000	614.000	330.000	615.900	383.000	615.600	415.000
GR	615.900	466.000	616.100	509.000	618.000	549.000	0.0	0.0	0.0	0.0

R. channel 25' Rt of ℄

X1	20425.000	0.0	0.0	0.0	515.000	580.000	725.000	0.0	1.350	0.0
ET	0.0	0.0	0.0	0.0	0.0	9.100	0.0	0.0	125.000	290.000

SECTION N, CHANNEL MANUFACTURED

X1	21280.000	8.000	125.000	165.000	515.000	580.000	725.000	0.0	0.0	0.0
GR	620.000	0.0	620.000	50.000	616.000	125.000	610.700	139.000	608.500	145.000
GR	610.700	151.000	615.400	165.000	616.000	290.000	0.0	0.0	0.0	0.0

R. Channel 20' Rt of ℄

X1	22005.000	0.0	0.0	0.0	455.000	495.000	725.000	0.0	1.350	0.0

SECTION O, CHANNEL MANUFACTURED

X1	22870.000	8.000	191.000	239.000	455.000	495.000	725.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	97.000	0.0	350.000	0.0	0.0	0.0	0.0
GR	619.400	0.0	616.000	191.000	613.300	209.000	611.200	215.000	613.300	221.000
GR	615.800	239.000	616.000	300.000	620.000	630.000	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.300	0.500	0.0	0.0	0.0	0.0	0.0
X1	23595.000	0.0	0.0	0.0	425.000	405.000	725.000	0.0	1.350	0.0
X3	0.0	0.0	0.0	97.000	0.0	350.000	0.0	0.0	0.0	0.0

SECTION P, MANUFACTURED FROM STA. 24600

X1	24450.000	13.000	1579.000	1631.000	425.000	405.000	725.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	1520.000	0.0	1700.000	0.0	0.0	0.0	0.0
GR	621.000	1417.000	620.800	1505.000	620.200	1579.000	618.800	1590.000	615.200	1596.000
GR	614.600	1600.000	614.200	1604.000	613.900	1608.000	615.400	1612.000	619.800	1621.000
GR	621.500	1631.000	622.100	1714.000	623.000	1742.000	0.0	0.0	0.0	0.0
NC	0.0	0.0	0.0	0.100	0.300	0.0	0.0	0.0	0.0	0.0

SECTION Q

X1	24600.000	0.0	0.0	0.0	200.000	150.000	150.000	0.0	0.0	0.0
X3	0.0	0.0	0.0	1540.000	0.0	1650.000	0.0	0.0	0.0	0.0
EJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

*PROF 1

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  HEC2 RELEASE DATED NOV 76 UPDATED JULY1979
  ERROR CORR -  01,02,03
  MODIFICATION -  50,51,52,53
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NOTE- ASTERISK * AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

PINE CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
10908.000	0.0	0.0	0.0	589.10	320.00	596.13	0.0	596.14	0.90	1.05	407.94	336.90
10908.000	0.0	0.0	0.0	589.10	510.00	596.82	0.0	596.84	1.33	1.41	500.51	442.00
10908.000	0.0	0.0	0.0	589.10	590.00	597.06	0.0	597.08	1.50	1.55	533.67	482.19
10908.000	0.0	0.0	0.0	589.10	740.00	597.45	0.0	597.48	1.80	1.78	588.61	551.42
12200.000	150.00	0.0	0.0	593.40	320.00	596.01	0.0	596.34	43.17	4.57	69.98	48.70
12200.000	150.00	0.0	0.0	593.40	510.00	596.63	0.0	597.15	53.22	5.78	88.25	69.91
12200.000	150.00	0.0	0.0	593.40	590.00	596.84	0.0	597.44	57.89	6.25	94.37	77.54
12200.000	150.00	0.0	0.0	593.40	740.00	597.15	0.0	597.94	67.71	7.12	103.92	89.93
12201.000	1.00	600.50	598.90	593.40	320.00	596.02	0.0	596.34	43.06	4.57	70.03	48.77
12201.000	1.00	600.50	598.90	593.40	510.00	596.64	0.0	597.15	53.18	5.78	88.26	69.93
12201.000	1.00	600.50	598.90	593.40	590.00	596.84	0.0	597.45	57.87	6.25	94.38	77.56
12201.000	1.00	600.50	598.90	593.40	740.00	597.16	0.0	597.95	67.79	7.12	103.88	89.88
12202.000	36.00	600.50	598.90	593.40	320.00	596.22	0.0	596.49	33.34	4.21	76.00	55.42
12202.000	36.00	600.50	598.90	593.40	510.00	596.91	0.0	597.35	40.22	5.28	96.62	80.42
12202.000	36.00	600.50	598.90	593.40	590.00	597.16	0.0	597.66	42.95	5.67	103.99	90.02
12202.000	36.00	600.50	598.90	593.40	740.00	597.57	0.0	598.20	47.69	6.35	116.55	107.16
12203.000	1.00	0.0	0.0	593.40	320.00	596.22	0.0	596.50	33.21	4.21	76.09	55.52
12203.000	1.00	0.0	0.0	593.40	510.00	596.92	0.0	597.35	40.04	5.27	96.76	30.60
12203.000	1.00	0.0	0.0	593.40	590.00	597.16	0.0	597.66	42.79	5.67	104.12	90.20
12203.000	1.00	0.0	0.0	593.40	740.00	597.58	0.0	598.20	47.61	6.35	116.62	107.25
11508.000	100.00	0.0	0.0	592.60	320.00	596.60	0.0	596.72	10.86	2.79	130.23	97.10
11508.000	100.00	0.0	0.0	592.60	510.00	597.48	0.0	597.61	9.45	3.10	208.16	165.94
11508.000	100.00	0.0	0.0	592.60	590.00	597.80	0.0	597.94	8.86	3.18	240.82	198.20
11508.000	100.00	0.0	0.0	592.60	740.00	598.37	0.0	598.51	8.02	3.30	297.52	261.30
12580.000	1270.00	0.0	0.0	594.40	320.00	598.26	0.0	598.42	16.67	3.19	100.19	78.37
12580.000	1270.00	0.0	0.0	594.40	510.00	599.06	0.0	599.29	18.95	3.84	137.74	117.16
12580.000	1270.00	0.0	0.0	594.40	590.00	599.31	0.0	599.56	19.07	4.05	164.99	135.11
12580.000	1270.00	0.0	0.0	594.40	740.00	599.75	0.0	600.00	17.75	4.21	226.36	175.63
13650.000	1072.00	0.0	0.0	596.30	320.00	600.02	0.0	600.18	16.16	3.17	101.06	79.59
13650.000	1072.00	0.0	0.0	596.30	510.00	600.96	0.0	601.17	16.37	3.69	138.38	126.04
13650.000	1072.00	0.0	0.0	596.30	590.00	601.26	0.0	601.50	17.08	3.91	150.83	142.76
13650.000	1072.00	0.0	0.0	596.30	740.00	601.68	0.0	601.97	18.38	4.36	176.40	170.32

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
14724.000	1100.00	0.0	0.0	598.30	320.00	602.33	0.0	602.60	30.65	4.24	75.50	57.81
14724.000	1100.00	0.0	0.0	598.30	510.00	603.25	0.0	603.63	30.78	4.94	103.19	91.93
14724.000	1100.00	0.0	0.0	598.30	590.00	603.60	0.0	604.01	30.70	5.17	114.08	106.49
14724.000	1100.00	0.0	0.0	598.30	740.00	604.16	0.0	604.65	31.04	5.59	132.87	132.82
14950.000	200.00	0.0	0.0	597.80	320.00	602.91	0.0	603.42	46.51	5.75	55.68	46.92
14950.000	200.00	0.0	0.0	597.80	510.00	603.97	0.0	604.71	86.73	6.91	73.78	54.76
14950.000	200.00	0.0	0.0	597.80	590.00	604.39	0.0	605.13	99.98	6.91	85.43	59.01
14950.000	200.00	0.0	0.0	597.80	740.00	604.90	0.0	605.70	83.99	7.18	103.12	80.74
14951.000	1.00	610.40	608.80	597.80	320.00	602.91	0.0	603.43	46.39	5.74	55.73	46.98
14951.000	1.00	610.40	608.80	597.80	510.00	603.98	0.0	604.72	87.48	6.91	73.84	54.53
14951.000	1.00	610.40	608.80	597.80	590.00	604.40	0.0	605.14	101.49	6.88	85.70	58.57
14951.000	1.00	610.40	608.80	597.80	740.00	604.91	0.0	605.71	88.79	7.17	103.19	78.53
14952.000	50.00	610.40	608.80	597.80	320.00	603.20	0.0	603.64	38.18	5.35	59.81	51.78
14952.000	50.00	610.40	608.80	597.80	510.00	604.64	0.0	605.09	56.51	5.42	94.04	67.84
14952.000	50.00	610.40	608.80	597.80	590.00	605.04	0.0	605.51	49.20	5.47	107.79	84.11
14952.000	50.00	610.40	608.80	597.80	740.00	605.51	0.0	606.06	50.48	5.99	123.59	104.15
14953.000	1.00	0.0	0.0	597.80	320.00	603.20	0.0	603.65	38.10	5.35	59.86	51.84
14953.000	1.00	0.0	0.0	597.80	510.00	604.64	0.0	605.10	54.08	5.42	94.13	69.35
14953.000	1.00	0.0	0.0	597.80	590.00	605.05	0.0	605.51	45.78	5.46	107.99	87.20
14953.000	1.00	0.0	0.0	597.80	740.00	605.51	0.0	606.07	45.74	5.98	123.75	109.42
15076.000	100.00	0.0	0.0	598.60	320.00	603.73	0.0	603.86	11.03	2.96	108.22	96.37
15076.000	100.00	0.0	0.0	598.60	510.00	605.16	0.0	605.32	9.49	3.16	161.22	165.51
15076.000	100.00	0.0	0.0	598.60	590.00	605.55	0.0	605.72	9.48	3.33	179.03	191.61
15076.000	100.00	0.0	0.0	598.60	740.00	606.08	0.0	606.29	9.93	3.67	214.79	234.80
15800.000	725.00	0.0	0.0	599.35	320.00	604.68	0.0	604.80	15.45	2.78	114.99	81.40
15800.000	725.00	0.0	0.0	599.35	510.00	606.01	0.0	606.16	14.59	3.09	165.35	133.54
15800.000	725.00	0.0	0.0	599.35	590.00	606.40	0.0	606.57	14.63	3.26	183.92	154.23
15800.000	725.00	0.0	0.0	599.35	740.00	606.97	0.0	607.16	14.75	3.54	224.32	192.71
16420.000	725.00	0.0	0.0	600.10	320.00	605.90	0.0	606.05	19.06	3.11	102.95	73.30
16420.000	725.00	0.0	0.0	600.10	510.00	607.19	0.0	607.39	19.47	3.54	143.89	115.58
16420.000	725.00	0.0	0.0	600.10	590.00	607.60	0.0	607.82	20.20	3.73	158.08	131.28
16420.000	725.00	0.0	0.0	600.10	740.00	608.19	0.0	608.42	20.48	3.98	222.31	163.53
16650.000	200.00	0.0	0.0	601.70	320.00	606.24	0.0	606.36	11.52	2.69	119.15	94.28
16650.000	200.00	0.0	0.0	601.70	510.00	607.53	0.0	607.69	10.88	3.18	160.31	154.59
16650.000	200.00	0.0	0.0	601.70	590.00	607.94	0.0	608.12	11.16	3.40	173.65	176.61
16650.000	200.00	0.0	0.0	601.70	740.00	608.51	0.0	608.74	12.66	3.38	191.56	208.01
16651.000	1.00	609.80	607.90	601.70	320.00	606.25	0.0	606.36	14.91	2.69	119.08	82.87
16651.000	1.00	609.80	607.90	601.70	510.00	607.53	0.0	607.69	15.35	3.18	160.16	130.16
16651.000	1.00	609.80	607.90	601.70	590.00	607.94	0.0	608.13	35.19	3.43	172.00	99.46
16651.000	1.00	609.80	607.90	601.70	740.00	608.49	0.0	608.77	55.36	4.30	172.00	99.46
16652.000	60.00	0.0	0.0	601.60	320.00	606.34	0.0	606.46	16.77	2.76	115.99	78.14
16652.000	60.00	0.0	0.0	601.60	510.00	607.62	0.0	607.79	16.85	3.25	157.09	124.25
16652.000	60.00	0.0	0.0	601.60	590.00	608.09	0.0	608.27	17.13	3.43	172.08	142.54
16652.000	60.00	0.0	0.0	601.60	740.00	608.74	0.0	608.97	19.06	3.83	193.23	169.49

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
16653.000	1.00	0.0	0.0	601.60	320.00	606.34	0.0	606.46	12.94	2.75	116.23	88.95

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
16653.000	1.00	0.0	0.0	601.60	320.00	606.34	0.0	606.46	12.94	2.75	116.23	88.95
16653.000	1.00	0.0	0.0	601.60	510.00	607.62	0.0	607.79	11.97	3.24	157.37	147.39
16653.000	1.00	0.0	0.0	601.60	590.00	608.09	0.0	608.27	11.85	3.42	172.28	171.40
16653.000	1.00	0.0	0.0	601.60	740.00	608.75	0.0	608.97	12.69	3.83	193.34	207.73
16780.000	100.00	0.0	0.0	600.70	320.00	606.47	0.0	606.69	27.97	3.74	85.51	60.51
16780.000	100.00	0.0	0.0	600.70	510.00	607.74	0.0	608.03	23.40	4.31	119.50	95.69
16780.000	100.00	0.0	0.0	600.70	590.00	608.20	0.0	608.50	26.50	4.45	141.72	114.62
16780.000	100.00	0.0	0.0	600.70	740.00	608.88	0.0	609.17	22.67	4.50	215.11	155.42
17610.000	830.00	0.0	0.0	601.95	320.00	608.36	0.0	608.52	17.66	3.16	101.26	76.14
17610.000	830.00	0.0	0.0	601.95	510.00	609.63	0.0	609.83	17.11	3.67	155.39	123.28
17610.000	830.00	0.0	0.0	601.95	590.00	610.00	0.0	610.20	16.44	3.77	196.44	145.51
17610.000	830.00	0.0	0.0	601.95	740.00	610.49	0.0	610.69	15.76	3.91	268.49	186.39
18225.000	830.00	0.0	0.0	603.20	320.00	609.79	0.0	609.94	16.66	3.13	102.20	78.41
18225.000	830.00	0.0	0.0	603.20	510.00	610.98	0.0	611.16	15.41	3.54	180.01	129.93
18225.000	830.00	0.0	0.0	603.20	590.00	611.30	0.0	611.48	15.10	3.64	213.47	151.81
18225.000	830.00	0.0	0.0	603.20	740.00	611.75	0.0	611.94	15.51	3.88	265.31	187.92
18950.000	750.00	0.0	0.0	604.50	320.00	611.05	0.0	611.21	17.07	3.16	101.28	77.45
18950.000	750.00	0.0	0.0	604.50	510.00	612.18	0.0	612.37	17.06	3.67	169.69	123.46
18950.000	750.00	0.0	0.0	604.50	590.00	612.48	0.0	612.68	17.08	3.81	199.87	142.77
18950.000	750.00	0.0	0.0	604.50	740.00	612.93	0.0	613.14	17.26	4.04	251.61	178.14
19700.000	750.00	0.0	0.0	605.80	320.00	612.31	0.0	612.42	15.26	2.64	122.46	81.91
19700.000	750.00	0.0	0.0	605.80	510.00	613.39	0.0	613.52	13.71	2.96	196.14	137.74
19700.000	750.00	0.0	0.0	605.80	590.00	613.68	0.0	613.81	13.58	3.08	228.68	160.09
19700.000	750.00	0.0	0.0	605.80	740.00	614.12	0.0	614.27	13.38	3.27	285.21	202.34
20425.000	725.00	0.0	0.0	607.15	320.00	613.50	0.0	613.62	17.94	2.78	115.37	75.55
20425.000	725.30	0.0	0.0	607.15	510.00	614.49	0.0	614.64	17.79	3.23	170.77	120.92
20425.000	725.00	0.0	0.0	607.15	590.00	614.76	0.0	614.93	17.91	3.39	198.64	139.43
20425.000	725.00	0.0	0.0	607.15	740.00	615.18	0.0	615.37	18.13	3.65	247.59	173.79
21280.000	725.00	0.0	0.0	608.50	320.00	614.81	0.0	614.94	18.39	2.91	109.92	74.62
21280.000	725.00	0.0	0.0	608.50	510.00	615.82	0.0	616.00	19.56	3.38	166.78	115.30
21280.000	725.00	0.0	0.0	608.50	590.00	616.09	0.0	616.27	19.40	3.50	207.59	133.95
21280.000	725.00	0.0	0.0	608.50	740.00	616.48	0.0	616.66	18.47	3.64	273.86	172.19
22005.000	725.00	0.0	0.0	609.85	320.00	616.15	0.0	616.28	18.57	2.92	109.52	74.27
22005.000	725.00	0.0	0.0	609.85	510.00	617.21	0.0	617.38	18.84	3.34	171.66	117.49
22005.000	725.00	0.0	0.0	609.85	590.00	617.46	0.0	617.63	18.89	3.47	211.03	135.74
22005.000	725.00	0.0	0.0	609.85	740.00	617.79	0.0	617.98	19.43	3.71	265.99	167.88
22870.000	725.00	0.0	0.0	611.20	320.00	616.96	0.0	617.00	6.40	1.69	264.63	126.52
22870.000	725.00	0.0	0.0	611.20	510.00	617.85	0.0	617.88	3.80	1.56	476.70	261.55
22870.000	725.00	0.0	0.0	611.20	590.00	618.09	0.0	618.11	3.67	1.59	536.01	308.02
22870.000	725.30	0.0	0.0	611.20	740.00	618.43	0.0	618.46	3.77	1.70	621.07	381.04
23595.000	725.00	0.0	0.0	612.55	320.00	617.66	0.0	617.77	22.62	2.70	142.26	67.28
23595.000	725.00	0.0	0.0	612.55	510.00	618.26	0.0	618.35	17.85	2.79	253.89	120.70
23595.000	725.00	0.0	0.0	612.55	590.00	618.46	0.0	618.56	16.46	2.81	298.24	145.42
23595.000	725.00	0.0	0.0	612.55	740.00	618.79	0.0	618.89	14.88	2.86	374.87	191.84

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
24450.000	725.00	0.0	0.0	613.90	320.00	619.19	0.0	619.34	20.77	3.10	103.36	70.22
24450.000	725.00	0.0	0.0	613.90	510.00	619.83	0.0	620.08	33.96	4.03	126.47	87.52
24450.000	725.00	0.0	0.0	613.90	590.00	620.02	0.0	620.32	40.24	4.38	134.60	93.01
24450.000	725.00	0.0	0.0	613.90	740.00	620.32	0.0	620.71	51.23	5.02	148.15	103.39
24600.000	150.00	0.0	0.0	613.90	320.00	619.50	0.0	619.62	16.83	2.81	113.95	78.01
24600.000	150.00	0.0	0.0	613.90	510.00	620.33	0.0	620.51	24.12	3.45	148.77	103.85
24600.000	150.00	0.0	0.0	613.90	590.00	620.60	0.0	620.80	25.34	3.65	169.57	117.21
24600.000	150.00	0.0	0.0	613.90	740.00	621.04	0.0	621.27	26.35	3.91	208.10	144.15

PINE CREEK