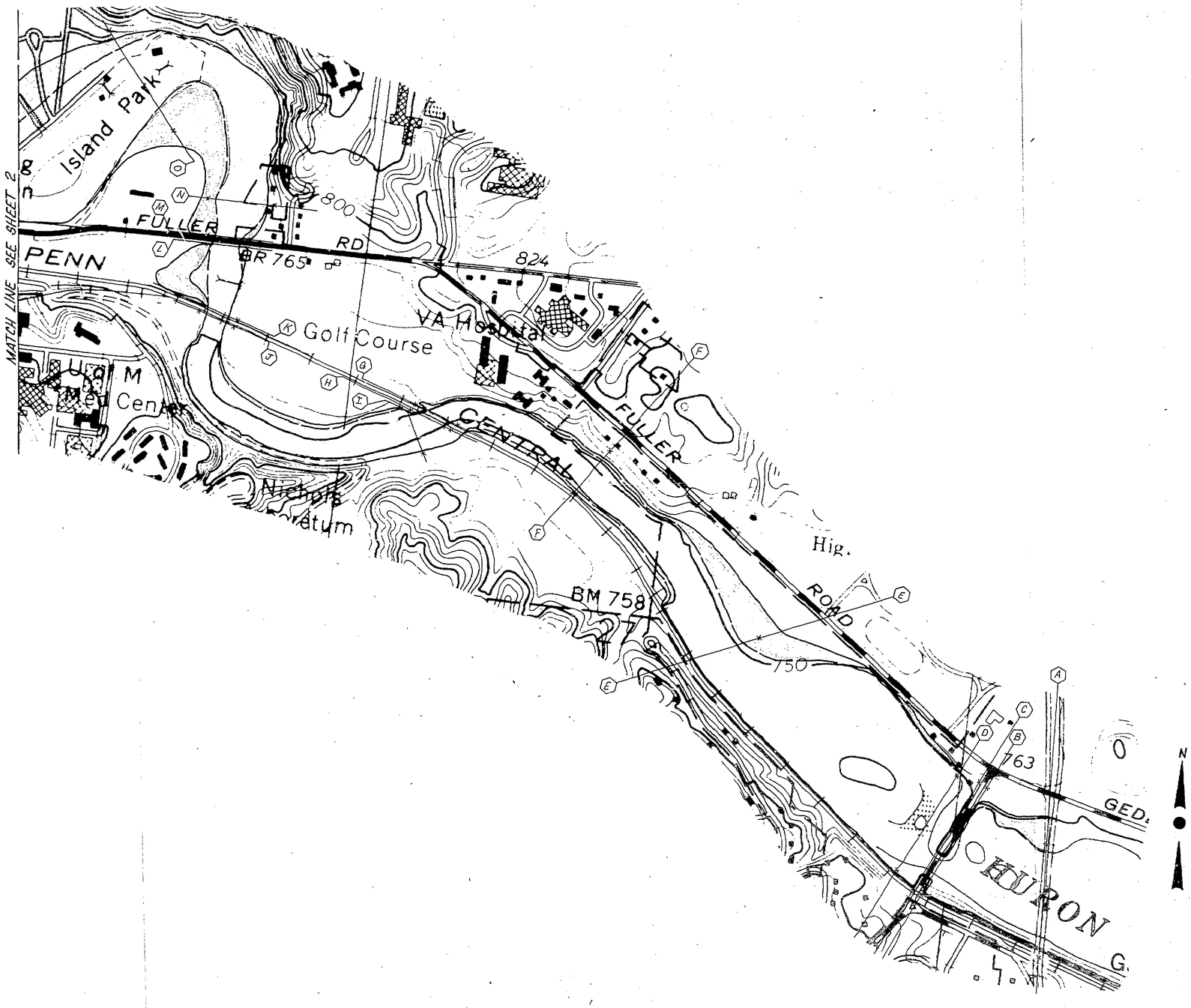
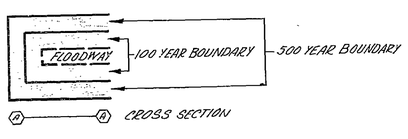


LEGEND



FLOOD MAP

RECEIVED
FEB 07 1990
WATER MANAGEMENT

CITY OF ANN ARBOR

SCALE: 1"=400'
EXHIBIT 1



LEGEND

FLOODWAY — 100 YEAR BOUNDARY — 500 YEAR BOUNDARY

A — A CROSS SECTION

FLOOD MAP

TRAVER CREEK DRAIN PROJECT

FOR

MIDWESTERN CONSULTING, INC.

ANN ARBOR, MICHIGAN

SCALE: 1" = 40' _____ 1' CONTOUR INTERVAL

EXHIBIT 1

SHEET 3 OF 6

HUD 2016-10

CAPITOL AIR SURVEYS MADISON HEIGHTS, MICHIGAN



LEGEND

FLOODWAY — 100 YEAR BOUNDARY — 500 YEAR BOUNDARY

A — A CROSS SECTION

FLOOD MAP

EXHIBIT 1

4 6

MD 2016-13



LEGEND

FLOODWAY — 100 YEAR BOUNDARY — 500 YEAR BOUNDARY

A — A CROSS SECTION

FLOOD MAP

TRAVER CREEK DRAIN PROJECT

FOR

MIDWESTERN CONSULTING, INC.

ANN ARBOR, MICHIGAN

SCALE 1" = 40' _____ 1' CONTOUR INTERVAL

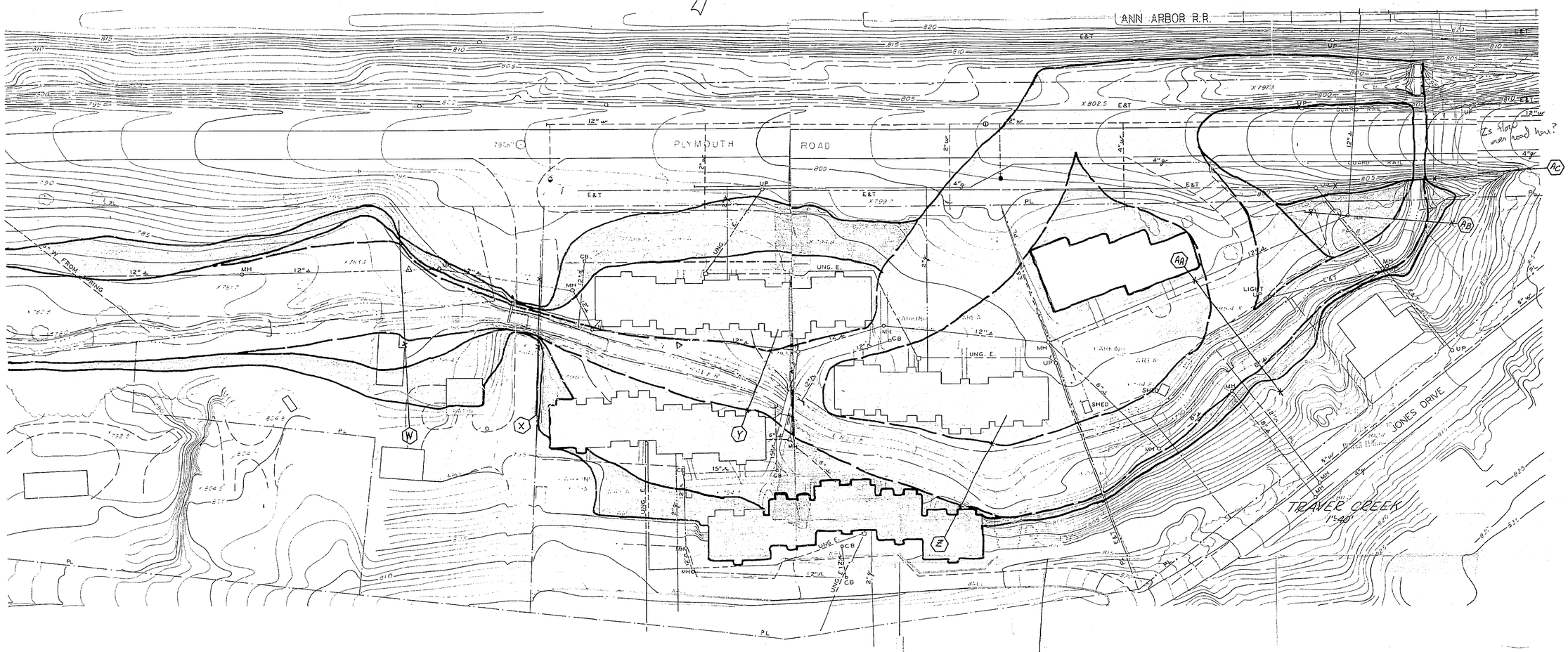
EXHIBIT 1

SHEET 5 OF 6

– Do Not use delineation
Use for XSec Ref. only BEM 10/89

HUD 2016-10

CAPITOL AIR SURVEYS MADISON HEIGHTS, MICHIGAN



Do not use delineation
Use for XSEC reference only
BEM 10/89

LEGEND

FLOODWAY — 100 YEAR BOUNDARY — 500 YEAR BOUNDARY

(A)—(R) CROSS SECTION

FLOOD MAP

TRAVER CREEK DRAIN PROJECT

FOR

MIDWESTERN CONSULTING, INC.

ANN ARBOR, MICHIGAN

SCALE: 1" = 40' _____ 1' CONTOUR INTERVAL

EXHIBIT 1

SHEET 6 OF 6

HUD 2016-1-D

CAPITOL AIR SURVEYS MADISON HEIGHTS, MICHIGAN

NORTH FIELD TWP.

TOWNSHIP OF ANN ARBOR

LEGEND

SCALE 1" = 1000'

100 and 500 Year Boundaries	
Floodway Boundary	
Cross Section	A — A
Approximate (100 Year) Flood Boundary	
100 and 500 Year Boundaries	
Base Flood Elevations	550
Elevation Reference Marks	RM7x
River Mile	M15
Zone Designations	ZONE A1
Corporate Limits	Corporate Limits

Delhi Mills

Delhi Metropolitan Park

Barton Hills Country Club

Washtenong Memorial Park

Barton Pond

Foster

Radio Tower

Wines Sch

Forsythe Jr High Sch

Gravel Pit

Delhi Road

North Delhi Road

Joy Road

Stein Road

Maple Road

Whitmore Lake Road

Bird Road

Craig Road

New York Central

Huron R.

Ann Arbor (Ann Arbor East) Quad

1.6 mi. to U.S. 23

NORTHFIELD TWP

TOWNSHIP OF ANN ARBOR

CITY OF ANN ARBOR

CITY OF ANN ARBOR

SUPERIOR TWP

PITTSFIELD

PITTSFIELD

ANN ARBOR

ANN ARBOR

ANN ARBOR TWP

PITTSFIELD TWP

Northfield

Washtenong Memorial Park

Pit

Pit

Pit

Pit

Gravel Pit

Gravel Pit

Gravel Pit

Gravel Pit

Gravel Pit

Gravel Pit

Gravel Pit

Gravel Pit

Leslie Golf Course

Golf Course

Golf Course

Huron Bridge Park

Northside Playground

Beckley Park

Fairview Cem

Riverview Park

Island Park

Gaging Station

Summit Playground

Frisinger Park

Douglas Park

Water Tank

Gallup Lake Park

Concordia Colleg

Geddes

Shopping Center

Community Park

Holy Ghost Mission Seminary

Sewage Disp

Radrick Golf Course

Clague Sch

Thurston Sch

Tappan Sch

Burns Park Sch

Bryant Sch

Mack Sch

Angell Sch

Pattengill Sch

Allen Sch

Baker Sch

St Joseph Hospital

St Francis Assisi Sch

St Thomas

Thurston Sch

Paul Sch

Univ of M Stadium

Univ of M Hospital

Univ of M Central Campus

Univ of M North Campus

Univ of M Arboretum

Univ of M Observatory

Univ of M Botanical Gardens

Courthouse

City Hall

Library

Ferry Field

Wines Field

ARBORCREST CEMETERY

FOREST HILL CEMETERY

BM 974

BM 935

BM 546

BM 879

BM 819

BM 758

BM 749

BM 838

BM 833

BM 768

BM 763

BM 765

BM 768

BM 803

BM 809

BM 835

BM 867

BM 891

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BM 1025

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BM 1055

BM 1060

BM 1065

BM 1070

BM 1075

BM 1080

BM 1085

BM 1090

BM 1095

BM 1100

BM 1105

BM 1110

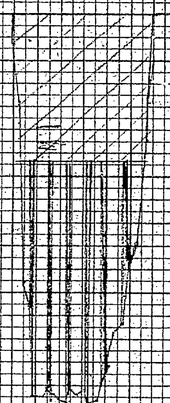
BM 1115

BM

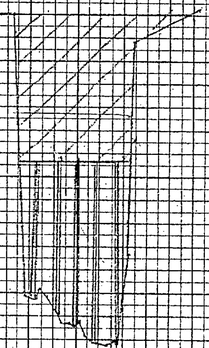
703

CITY OF MILAN E.I.S.

NORFOLK & WESTERN RAILROAD OVER SALINE RIVER



MAIN CHANNEL



MILL RACE

ELEVATION

710

670

6620

15+00

16+00

18+00

20+00

22+00

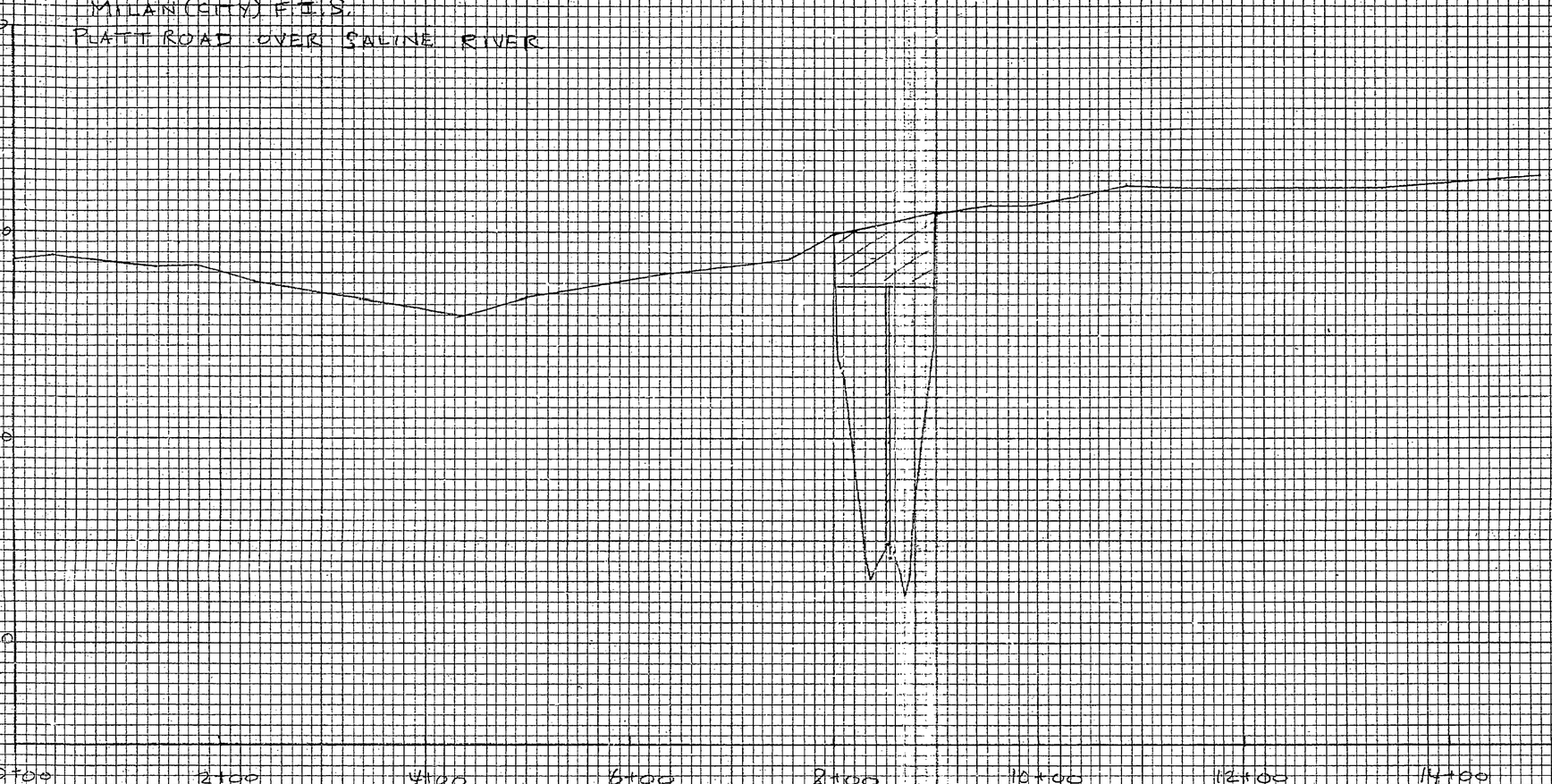
24+00

25+00

27+00

DISTANCE IN FEET

MILAN (CITY) F.I.S.
PLATT ROAD OVER SALINE RIVER

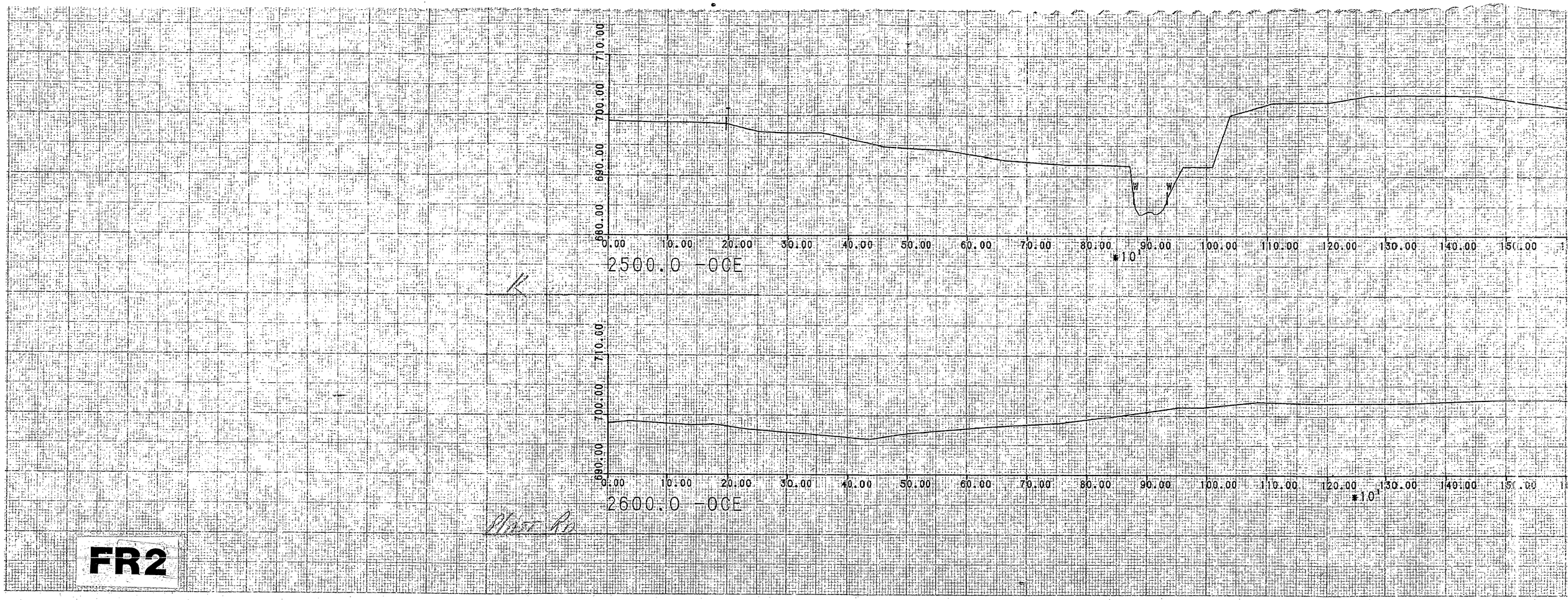


SPECIAL 10326 G
DIETZGEN

MILAN (CITY) F.I.S.

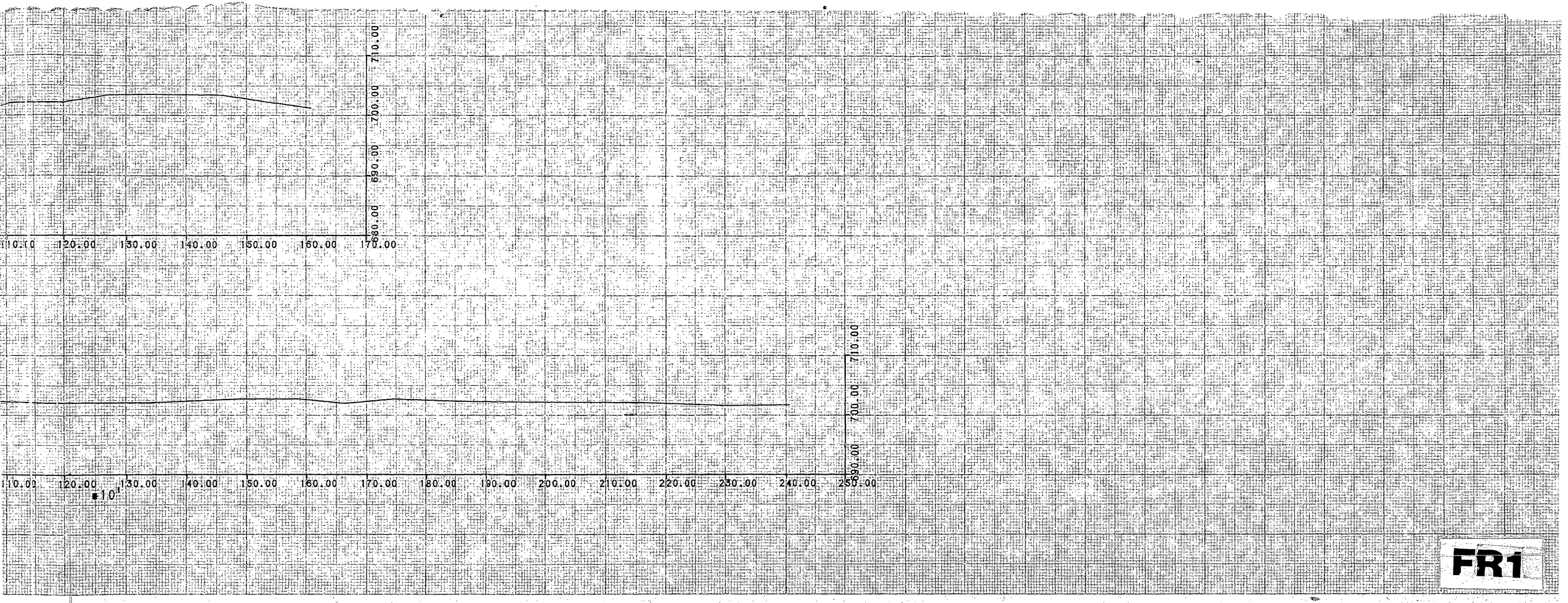
ANN ARBOR RAILROAD OVER SALINE RIVER



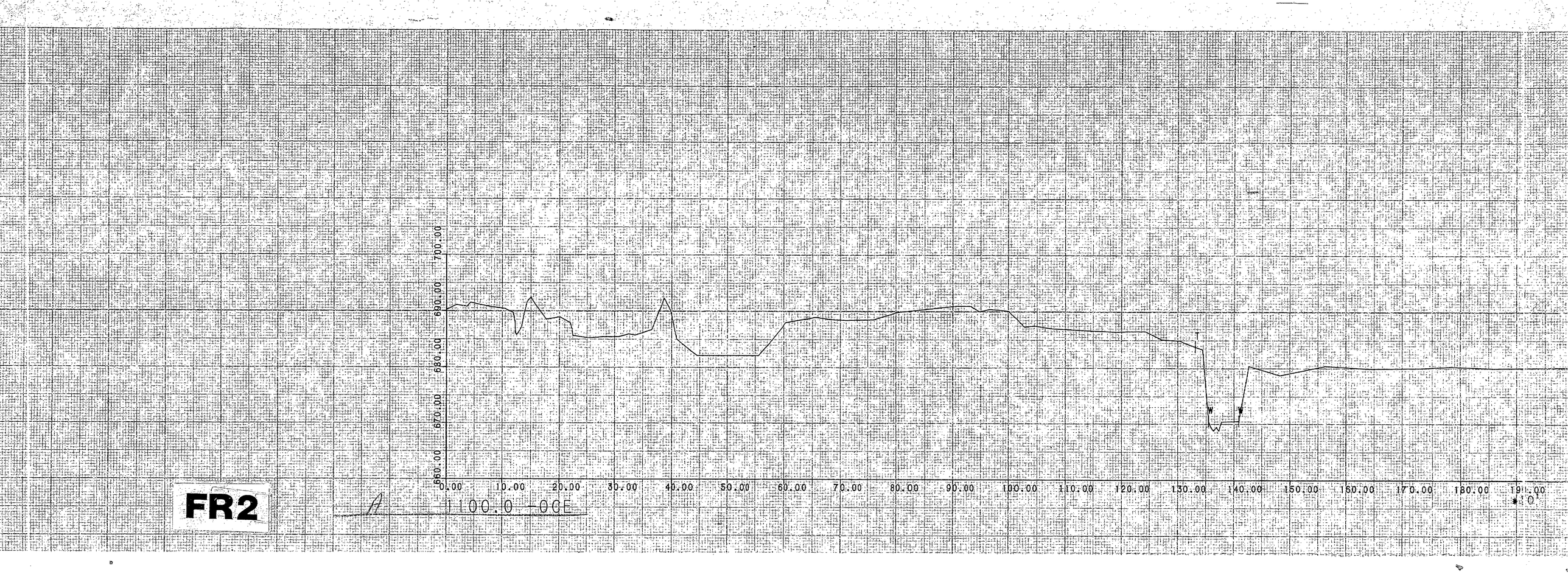


CALIFORNIA COMPUTER PRODUCTS, INC. ANAHEIM, CALIFORNIA CHART NO. 502 20 DIV./INCH MADE IN U.S.A.

CALIFORNIA COM



CALIFORNIA COMPUTER PRODUCTS, INC. ANAHEIM, CALIFORNIA CHART NO. 502 20 DIV./INCH MADE IN U.S.A. 911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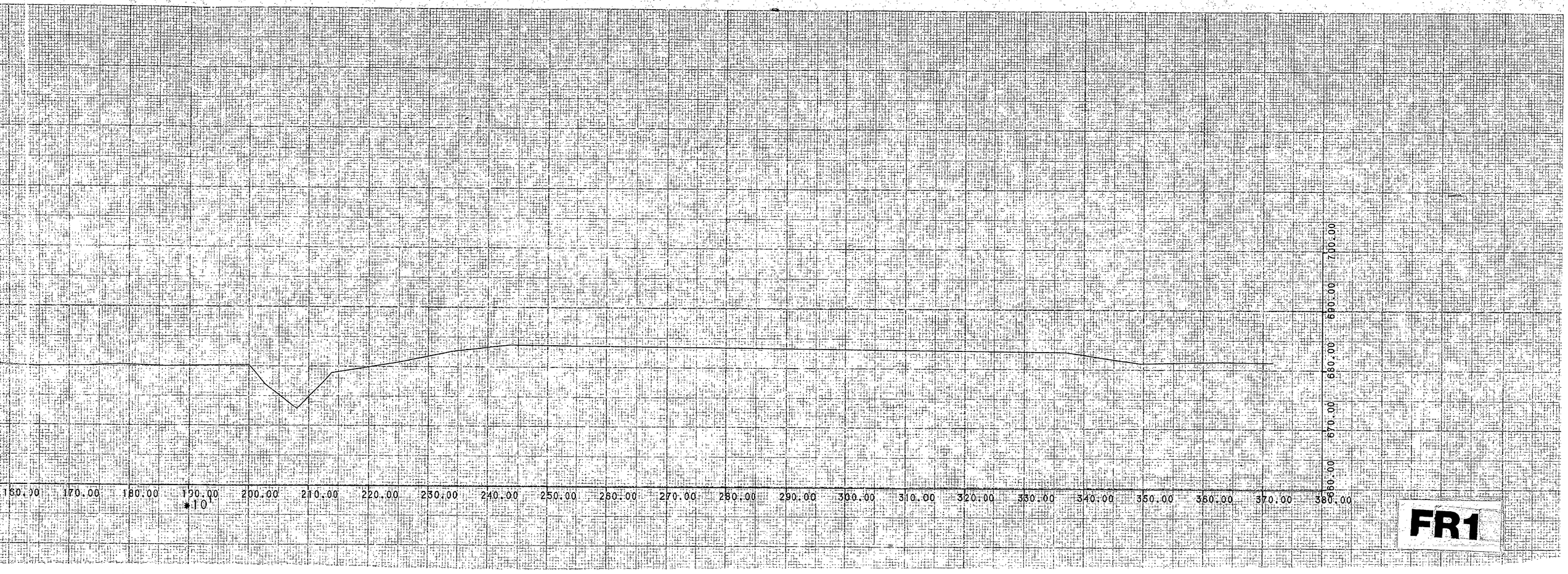
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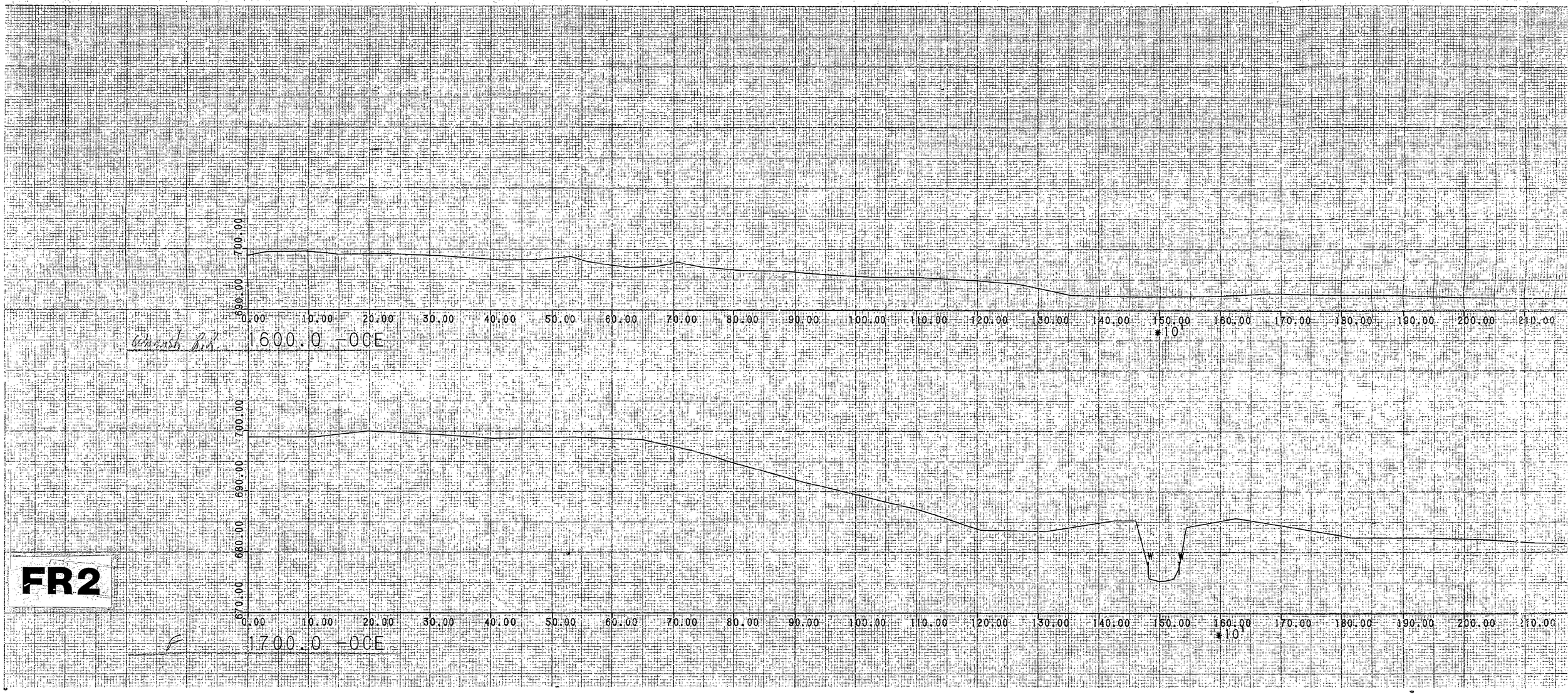
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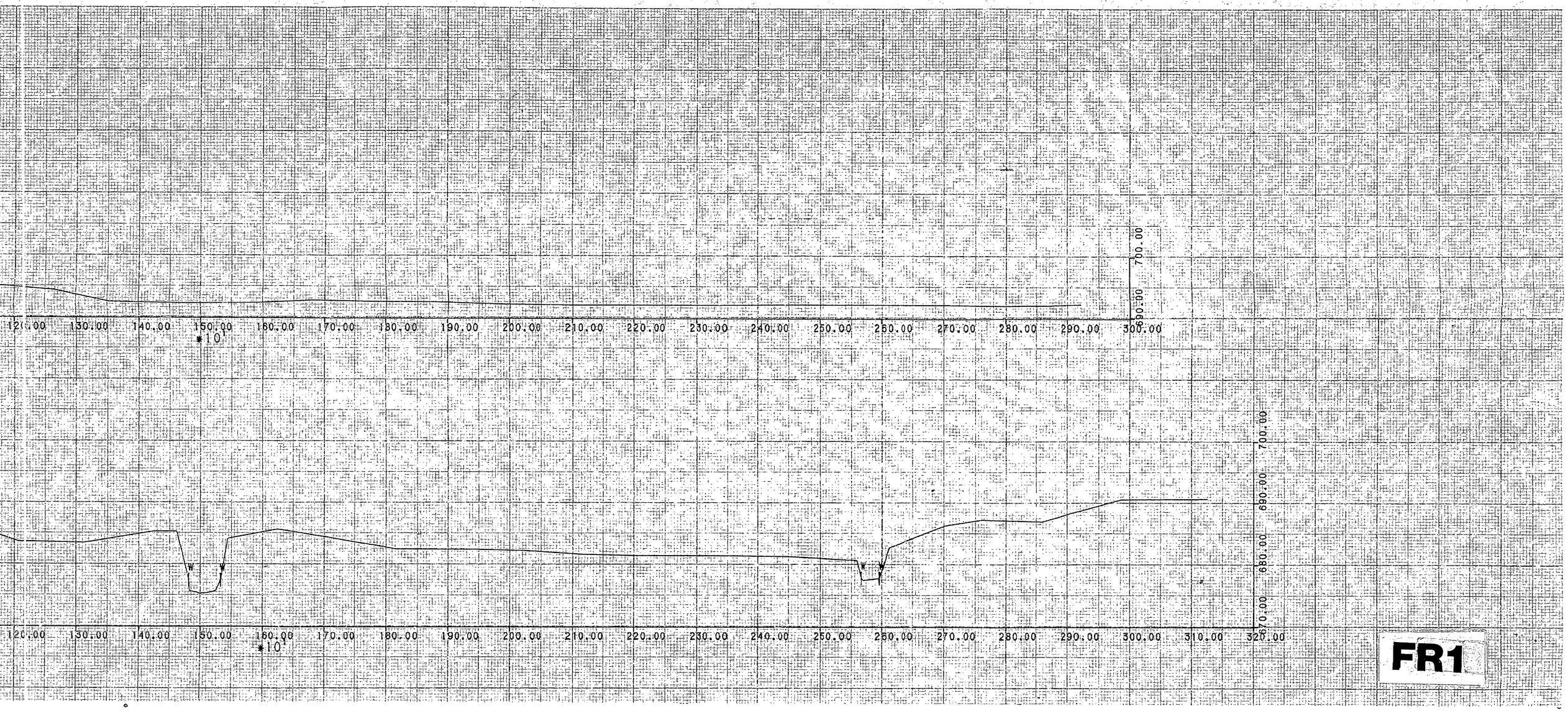
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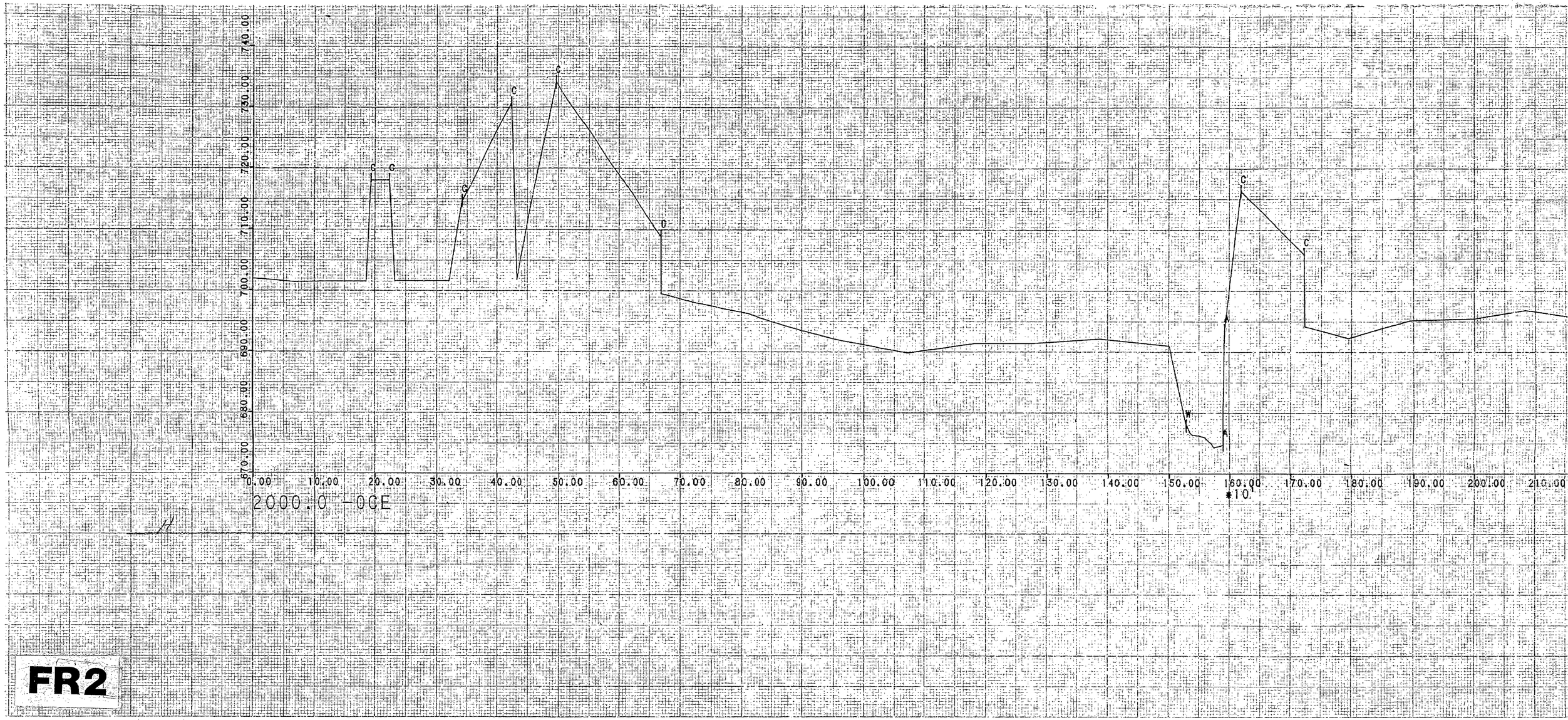
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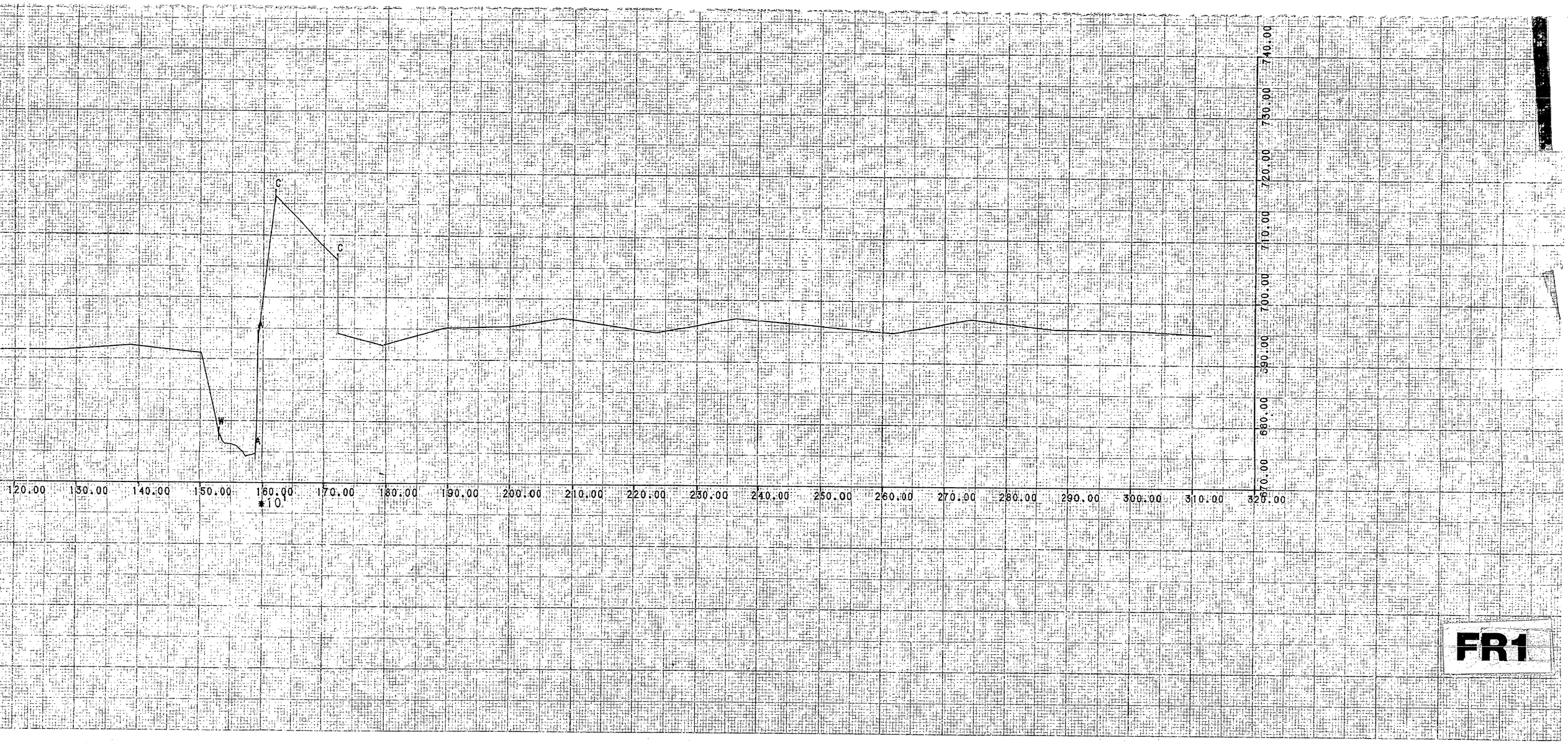
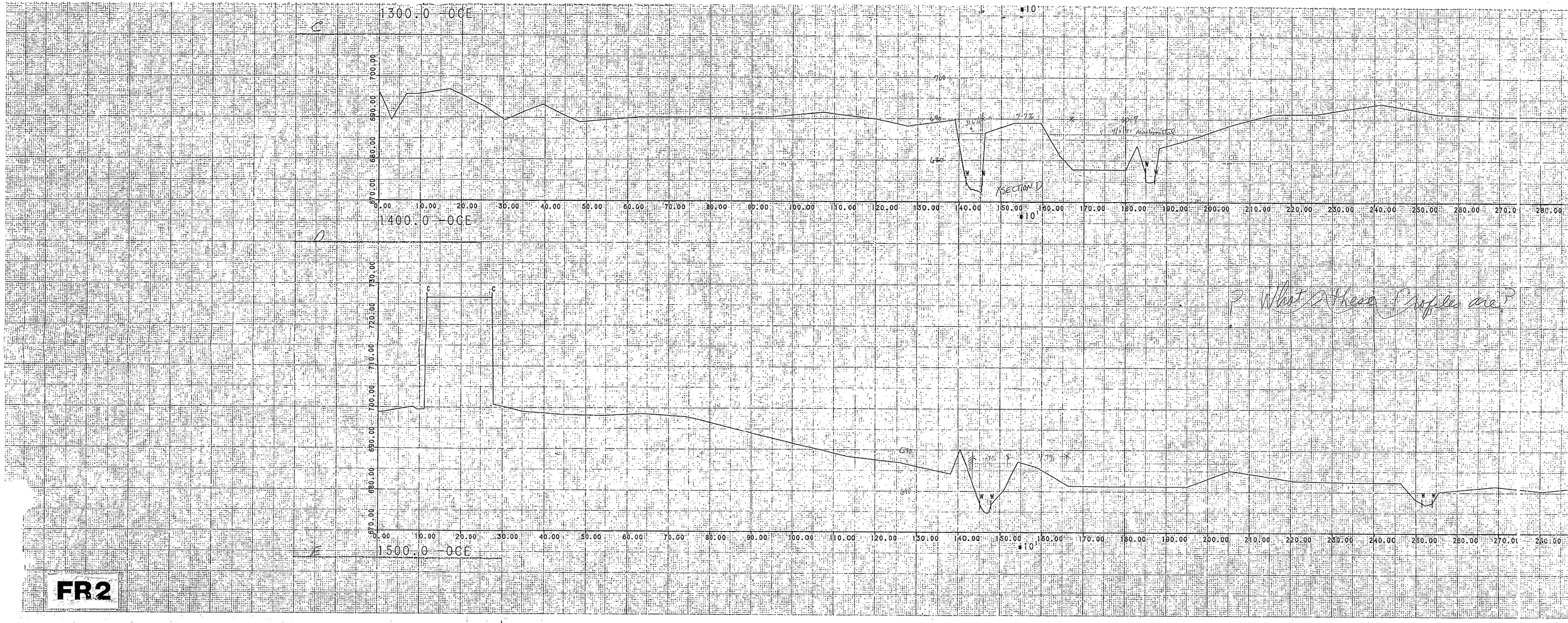


FR1

CALIFORNIA COMPUTER PRODUCTS, INC. ANAHEIM, CALIFORNIA CHART NO. 502 20 DIV./INCH MADE IN U.S.A.

CALIFORNIA COMPUTER PRODUCTS, INC. ANAHEIM, CALIFORNIA CHART NO. 502 20 DIV./INCH MADE IN U.S.A.

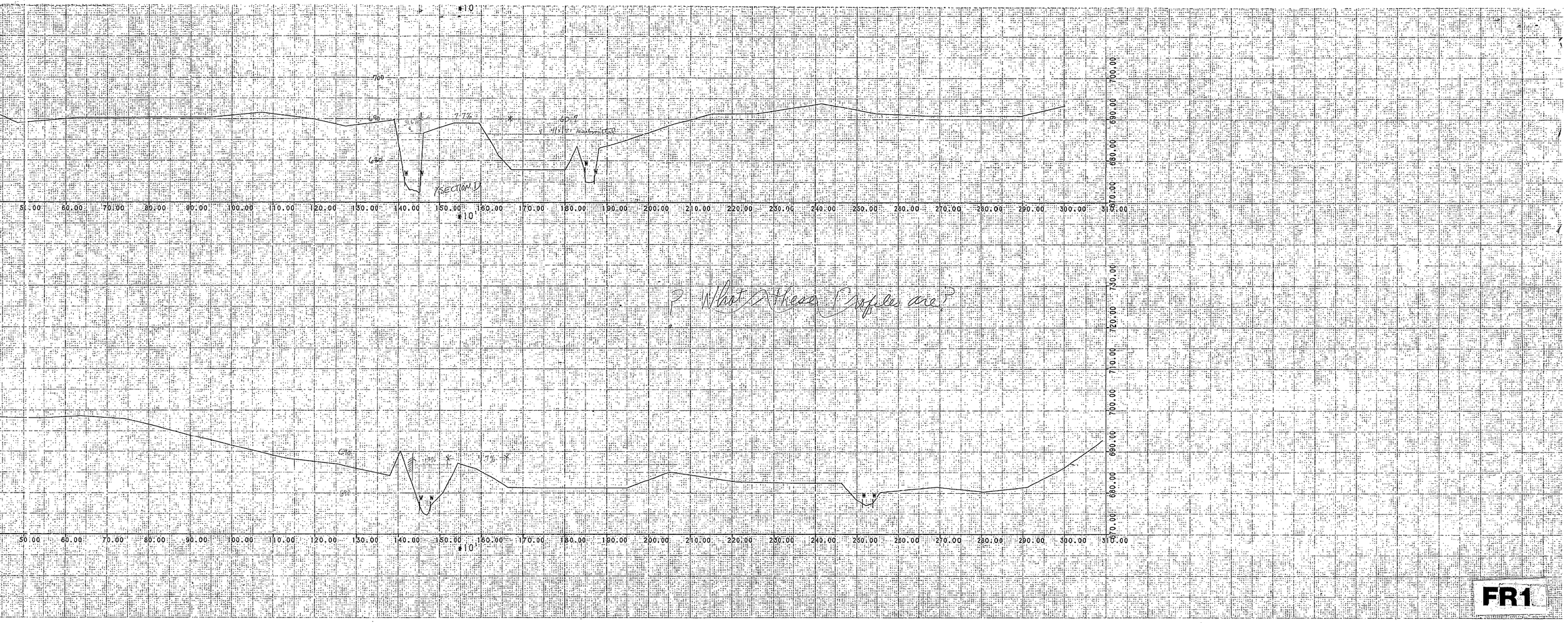


P What are these profiles are?

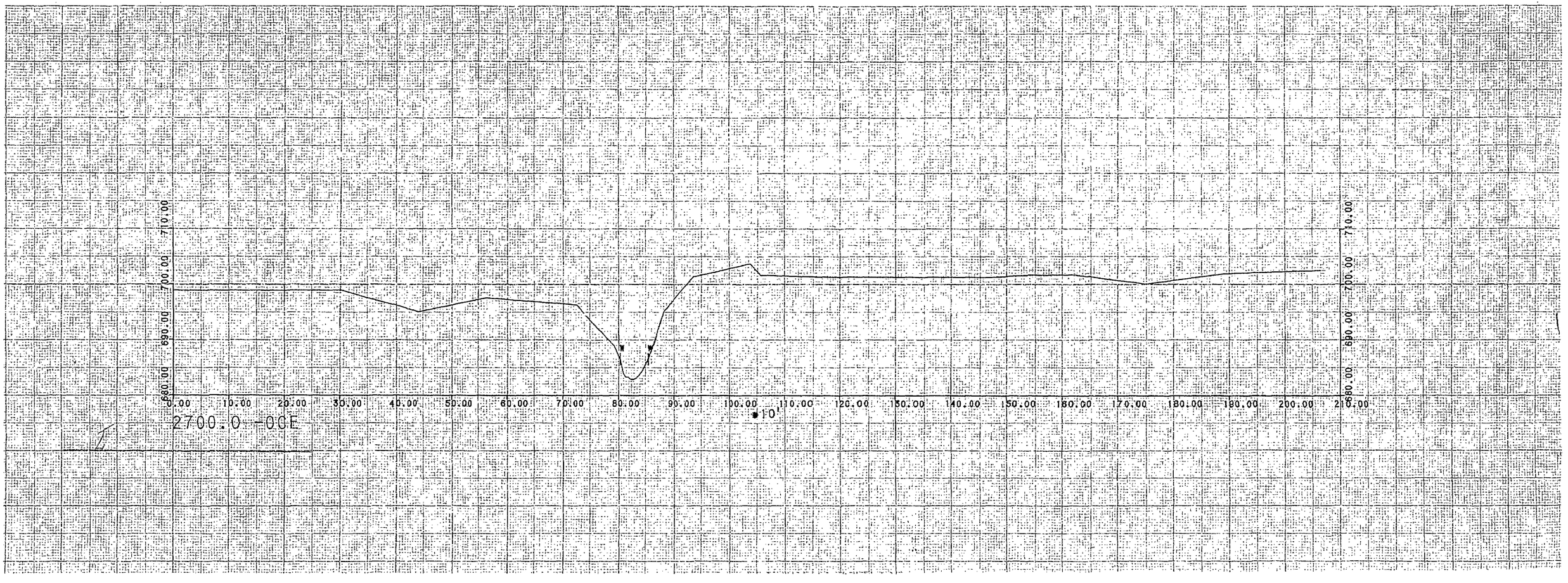
20 DIV./INCH MADE IN U.S.A. CALIFORNIA COMPUTER PRODUCTS, INC. ANAHEIM, CALIFORNIA CHART NO. 502 20 DIV./INCH MADE IN U.S.A.

CALIFORNIA COMPUTER PRODUCTS, INC. ANAHEIM, CALIFORNIA CHART NO. 502 20 DIV./INCH MADE IN U.S.A.

CALIFORNIA COMPUTER PRODUCTS, INC. ANAHEIM, CALIFORNIA CHART NO. 502



CALIFORNIA COMPUTER PRODUCTS, INC. ANAHEIM, CALIFORNIA CHART NO. 502 20 DIV./INCH MADE IN U.S.A.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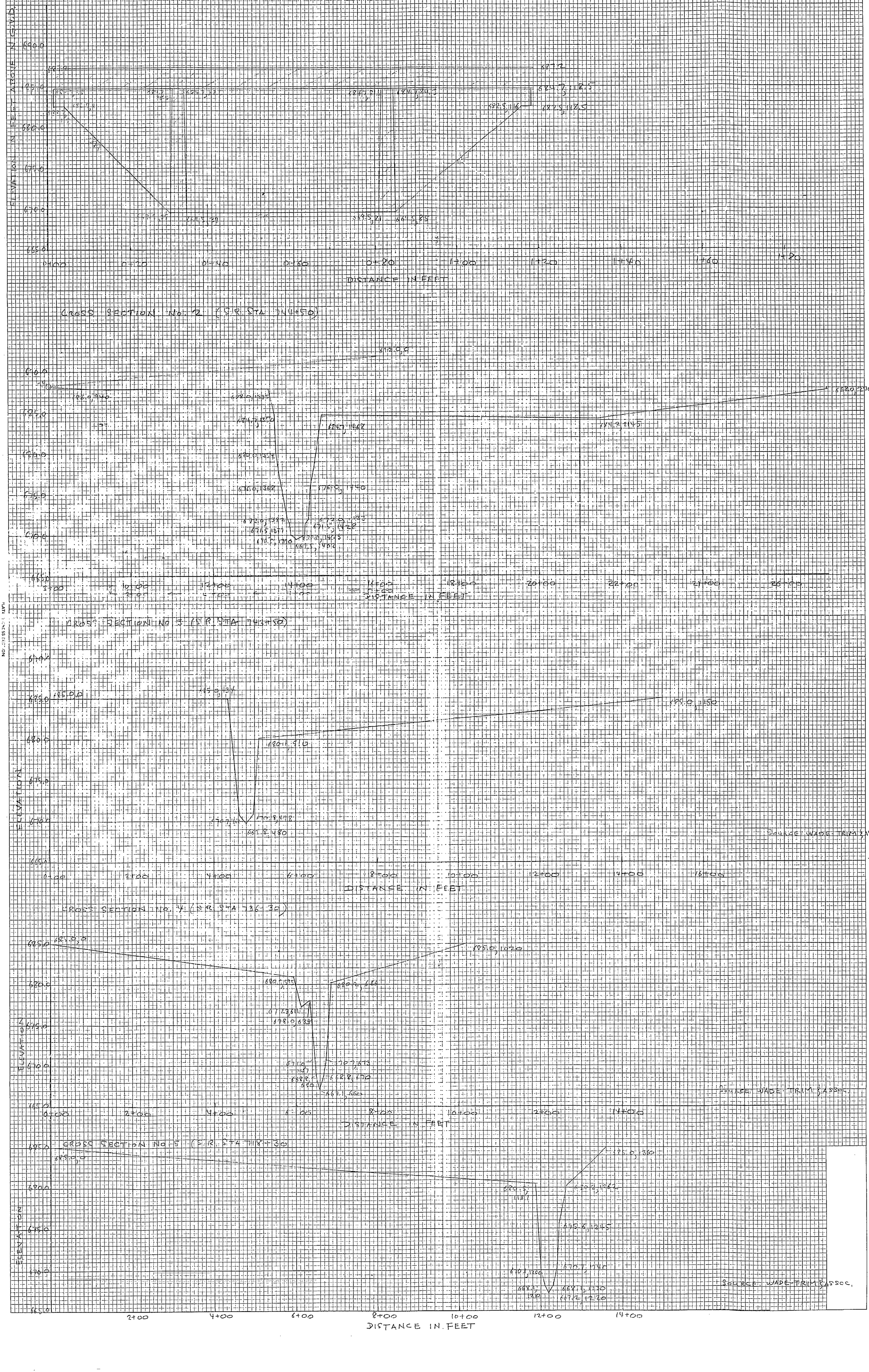
ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

CITY OF MILAN F.T.S.

US-23 BRIDGE OVER SALINE RIVER @ STA 744+50



FINAL SURVEY		BY	DATE
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	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

CITY OF MILAN

SALINE RIVER

CROSS SECTION 28

STA. 1+00 (L-3476)

CROSS SECTION B

CROSS SECTION C

CROSS SECTION D

DISTANCE IN FEET

PLATE 3 CROSS SECTION

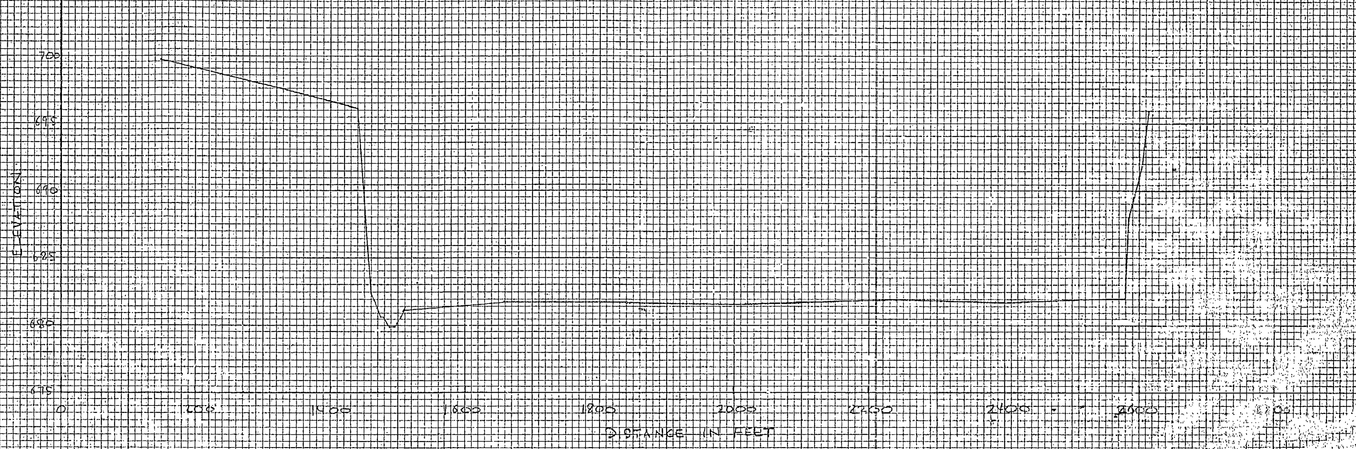
CLEAR-PRINT PAPER CO., S.F., CAL.

NO. 1300H-3

CITY OF MILAN F.I.S. (H-3970)
SALINE RIVER
CROSS SECTION UPSTEAM OF DAM



CROSS SECTION I



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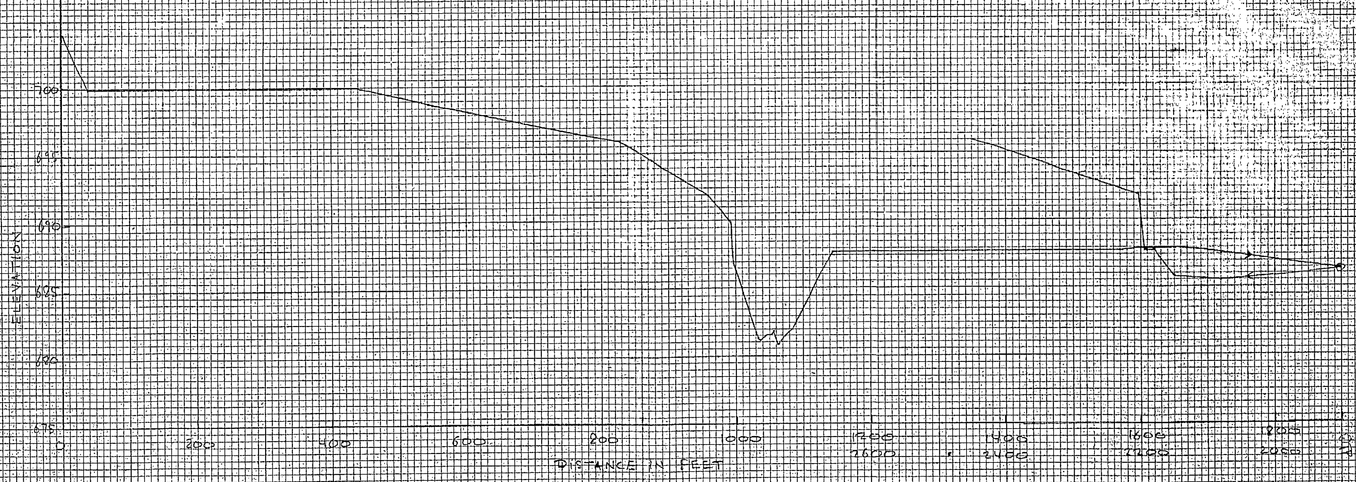

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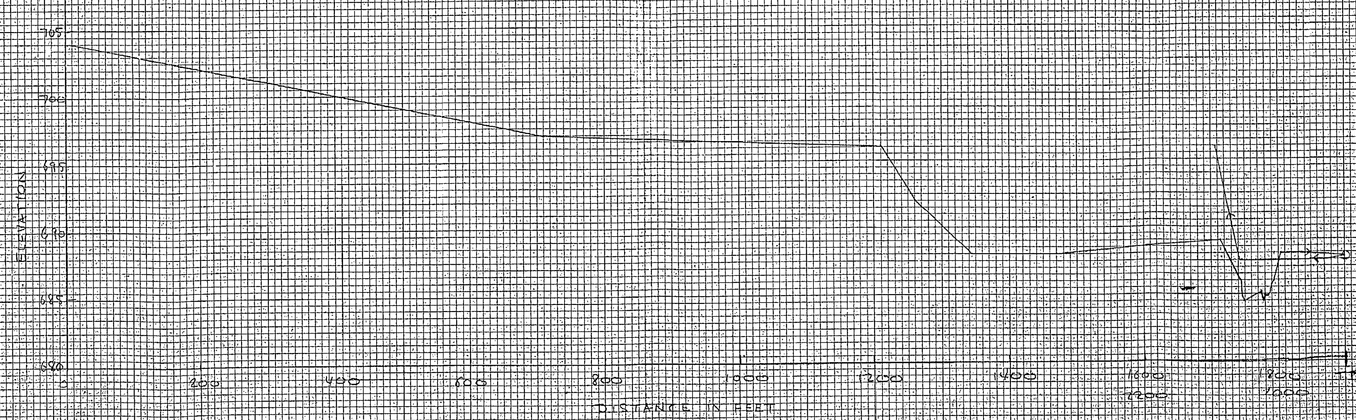
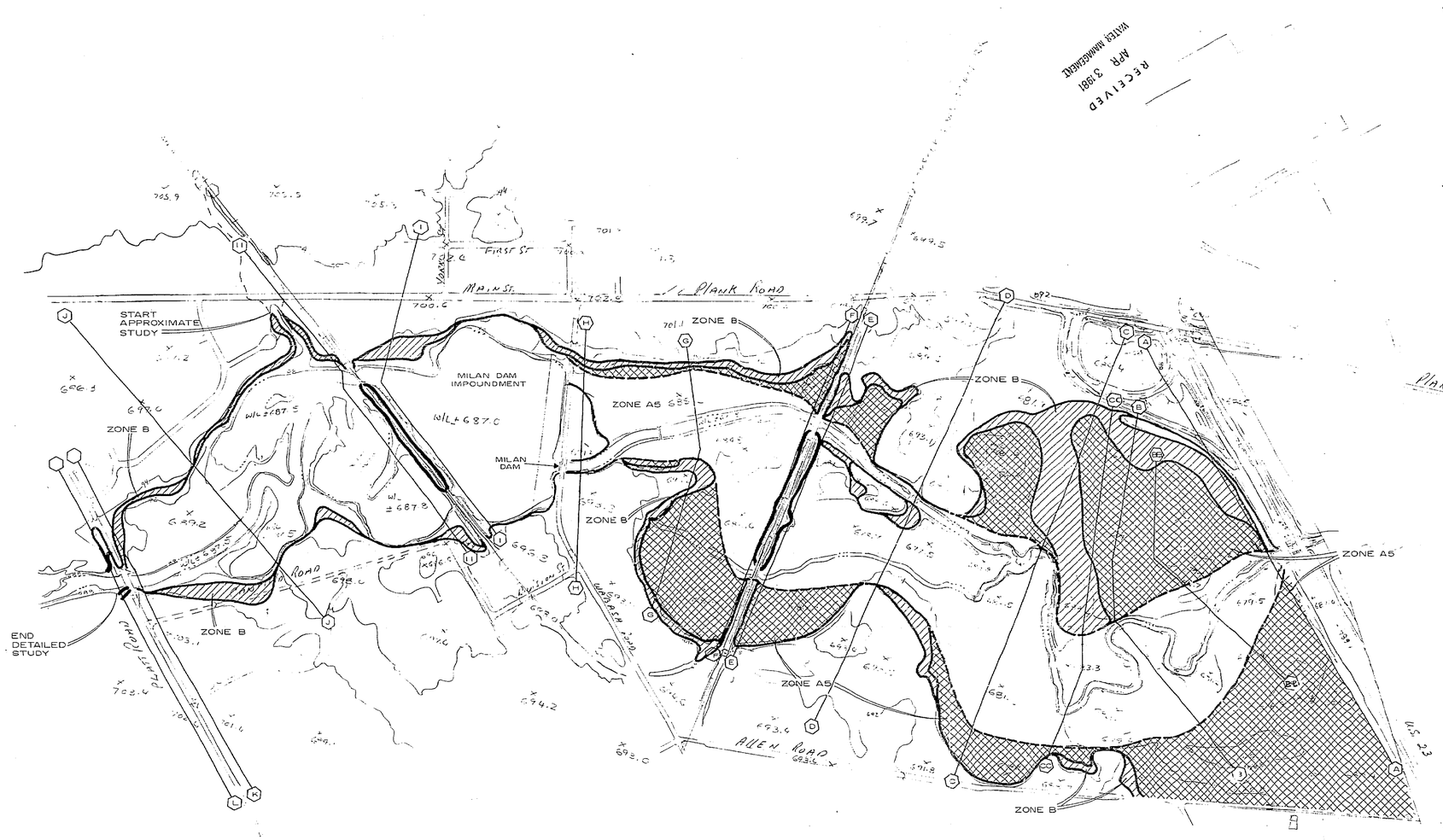


K+E 10 X 10 TO THE INCH KEUFFEL & ESSER CO.

RECEIVED
APR 3 1981
WATER MANAGEMENT

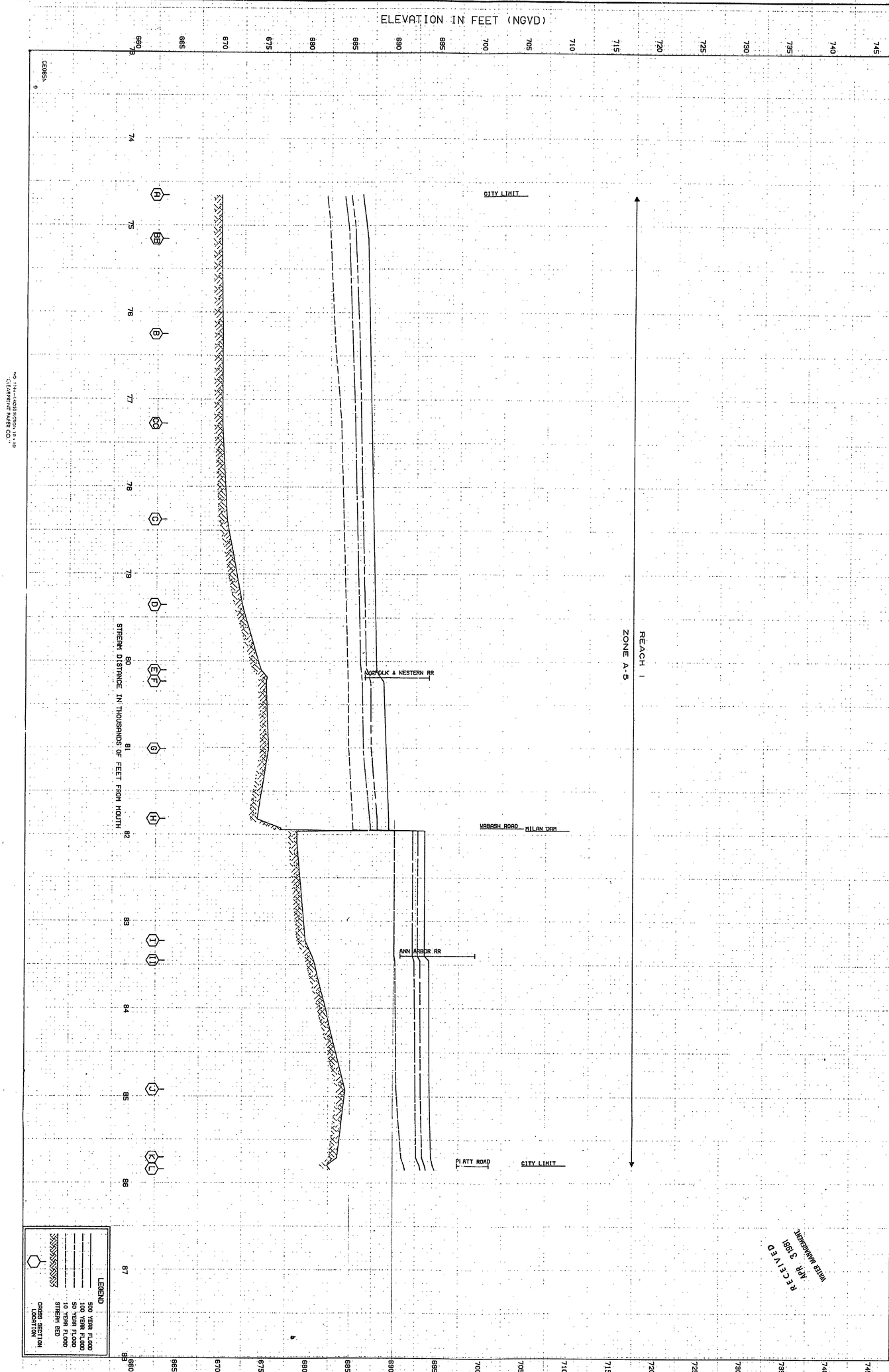


CITY OF MILAN
WASHTENAW COUNTY, MICHIGAN

FLOOD INSURANCE STUDY

FLOOD BOUNDARY AND FLOODWAY/
FLOOD INSURANCE RATE
WORK MAP

PREPARED BY
WILLIAMS & WORKS, INC.
GRAND RAPIDS, MICHIGAN



CITY OF MILAN MI

(WASHTENAW CO.)

FLOOD PROFILES

SALINE RIVER

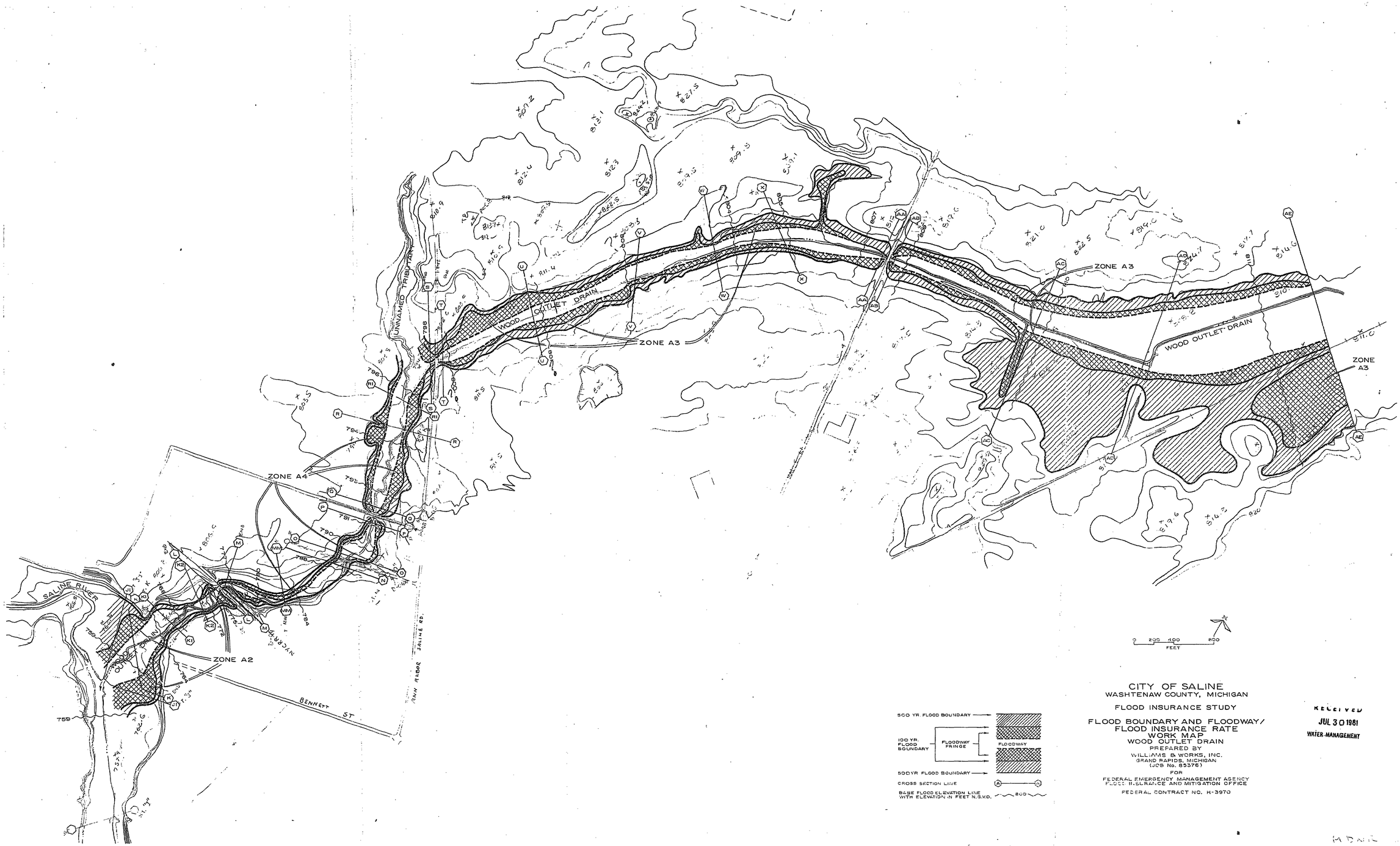
WILLIAMS & WORKS

ENGINEERS/SURVEYORS/PLANNERS/GEOLOGISTS

811 CASCADE WEST PARKWAY S.E. GRAND RAPIDS, MICHIGAN 49508

RECEIVED
APR 3 1981
WATER MANAGEMENT

KEUFFEL & ESSER CO.
CLEARPRINT PAPER CO.



5CO YR. FLOOD BOUNDARY
100 YR. FLOOD BOUNDARY
FLOODWAY FRINGE
FLOODWAY
500YR FLOOD BOUNDARY
CROSS SECTION LINE
BASE FLOOD ELEVATION LINE WITH ELEVATION IN FEET N.G.V.D.

CITY OF SALINE
WASHTENAW COUNTY, MICHIGAN

FLOOD INSURANCE STUDY

FLOOD BOUNDARY AND FLOODWAY/ FLOOD INSURANCE RATE WORK MAP
WOOD OUTLET DRAIN

PREPARED BY
WILLIAMS & WORKS, INC.
GRAND RAPIDS, MICHIGAN
(JOB No. 85376)

FOR
FEDERAL EMERGENCY MANAGEMENT AGENCY
FLOOD INSURANCE AND MITIGATION OFFICE

FEDERAL CONTRACT NO. H-3970

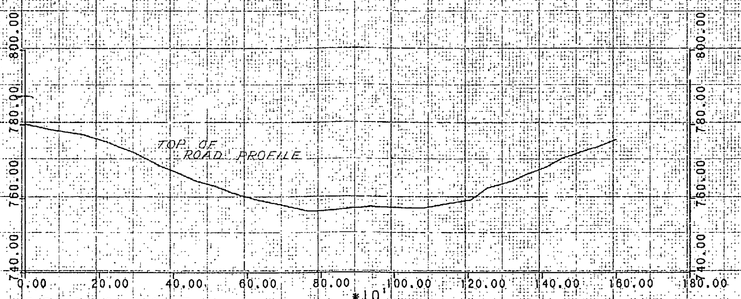
RECEIVED
JUL 30 1981
WATER MANAGEMENT

CITY OF SALINE F.I.S.
SALINE RIVER AND WOOD CREEK

100-YEAR CWSEL

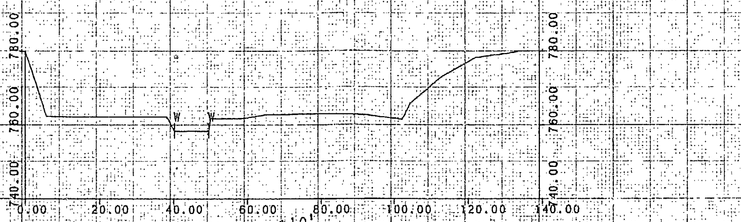
ENCROACHMENT LEFT

ENCROACHMENT RIGHT



2300.0 -OCE
CROSS SECTION AT MICHIGAN AVENUE (US 12) BRIDGE
STA 161.50

D-02



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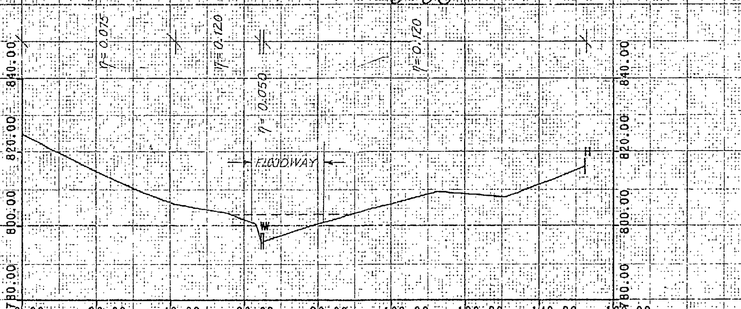
D-03



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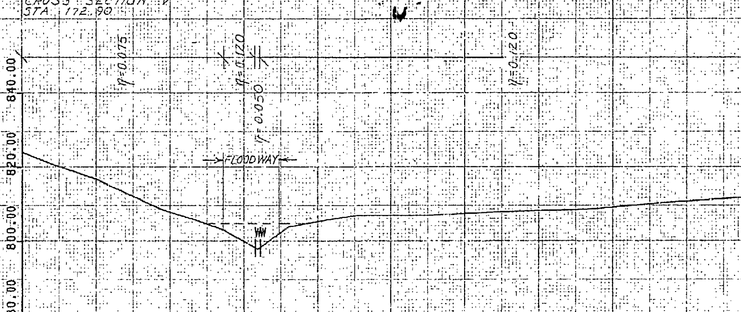
STA 172.90

V



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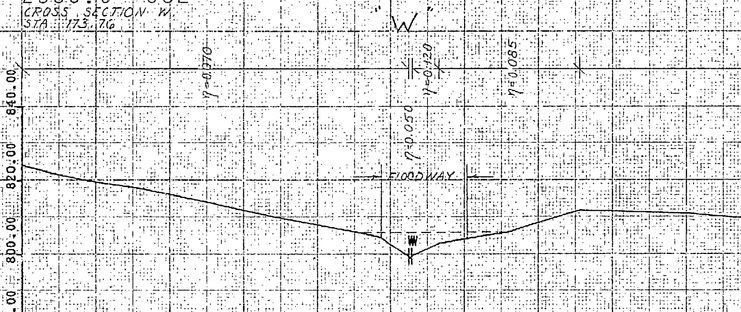
W



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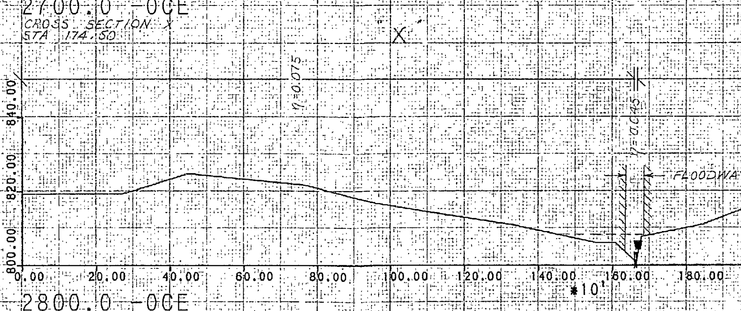
STA 174.50

X



2800.0 -OCE
CROSS SECTION AA
STA 175.52

AA

WILLIAMS & WORKS
ENGINEERS/SURVEYORS/PLANNERS/GEOLOGISTS
811 CASCADE WEST PARKWAY, S.E. GRAND RAPIDS, MICHIGAN 49506

FLOOD PROFILES

SALINE RIVER

CITY OF SALINE MI

(WASHTENAW COUNTY)

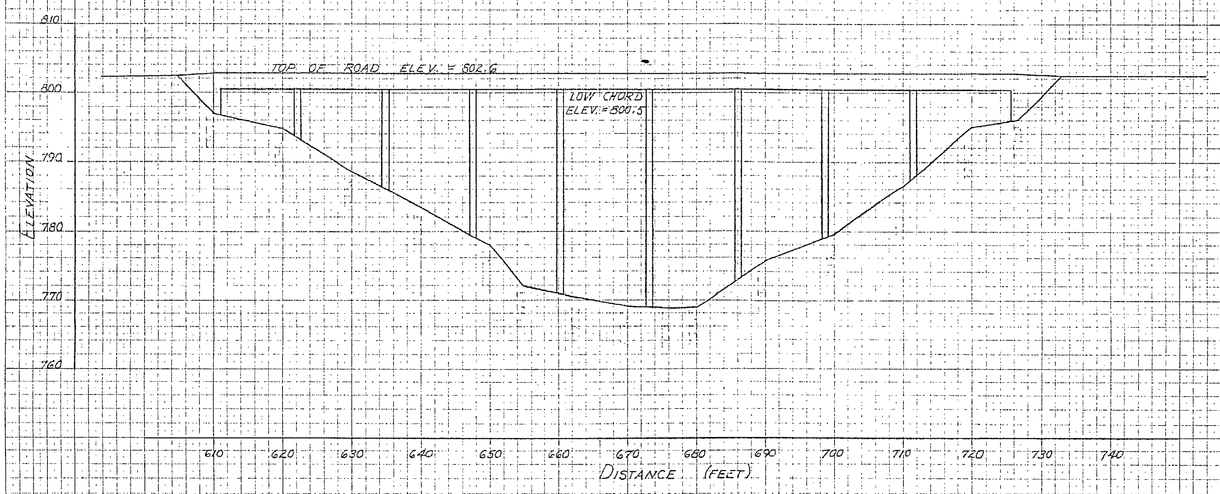
NO. 1294—CROSS SECTION 10 x 10
"CLEARPRINT PAPER CO."
MADE IN U.S.A.

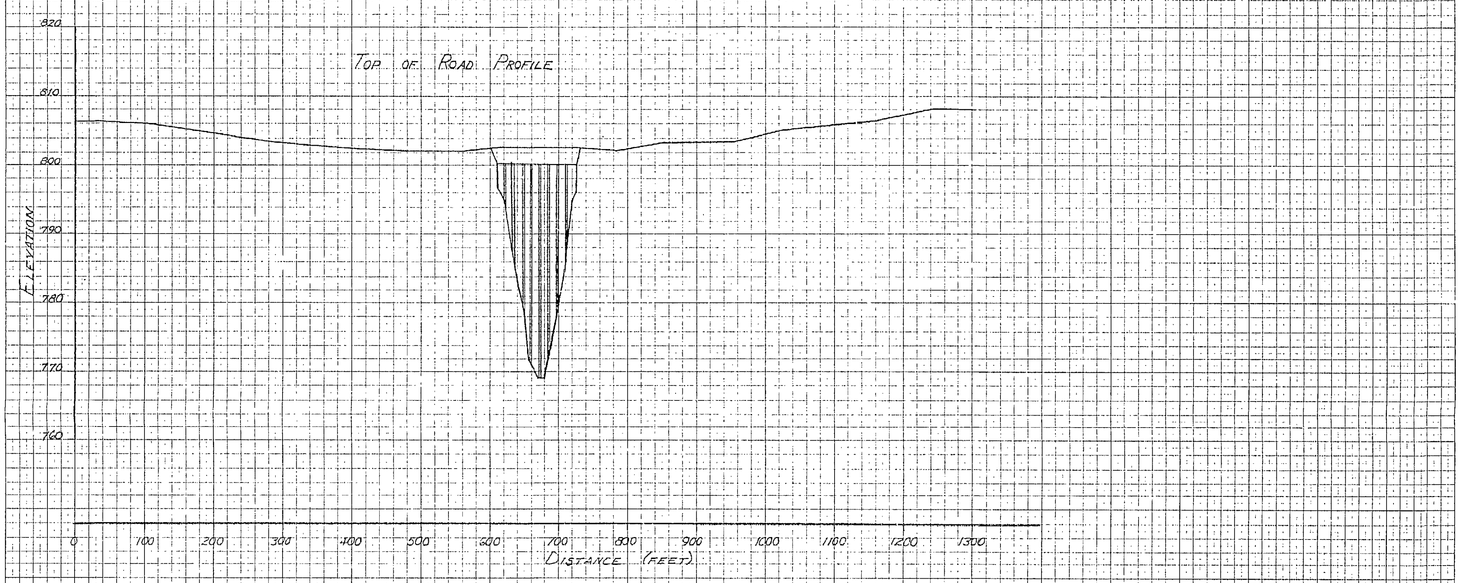
ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

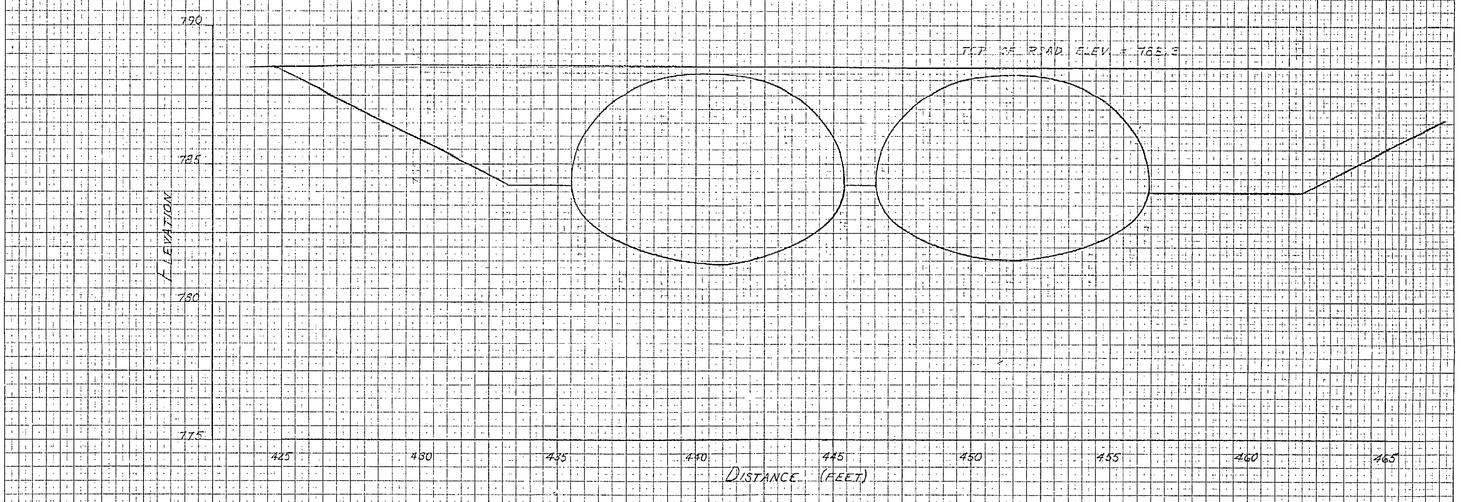
CITY OF SALINE F.I.S.
SALINE RIVER AND
WOOD CREEK

NEW YORK CENTRAL RAILROAD BRIDGE





DPW ROAD BRIDGE (LOCAL ROAD)



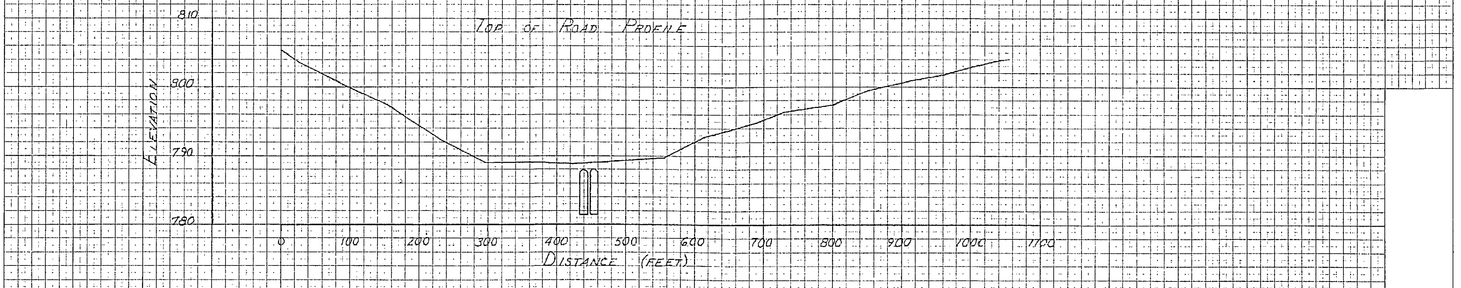


PLATE 3 CROSS SECTION
CLEARPRINT PAPER CO. - ST. CAL.

CITY OF SALINE
FLOOD INSURANCE STUDIES

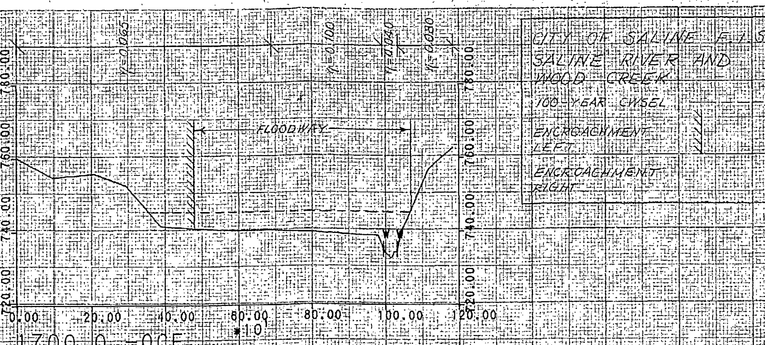
CITY OF SALINE, MI.
SALINE RIVER AND
WOOD CREEK

MONROE STREET BRIDGE

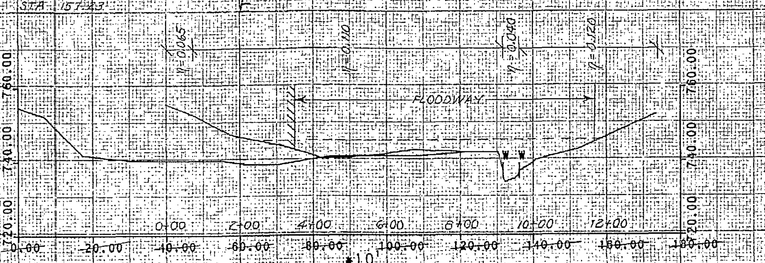
MICHIGAN AVENUE (U.S. 12) BRIDGE

PLATE 3 CROSS SECTION
CLEARPRINT PAPER CO., S.F., CAL.

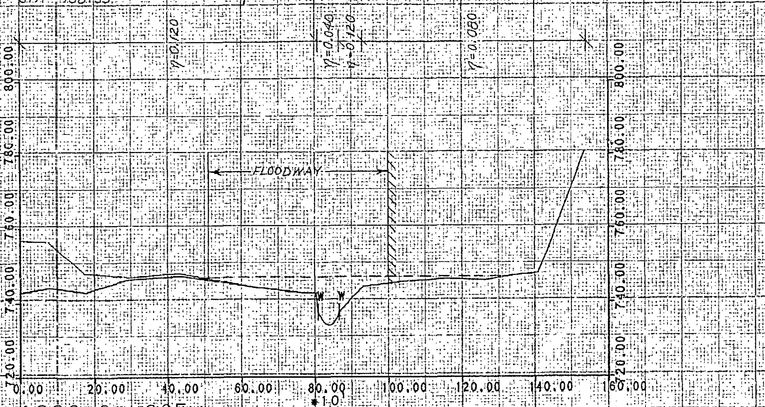
CITY OF SALINE F.I.S.
SALINE RIVER AND
WOOD CREEK
100-YEAR CHSEL
ENCROACHMENT
LEFT
ENCROACHMENT
RIGHT



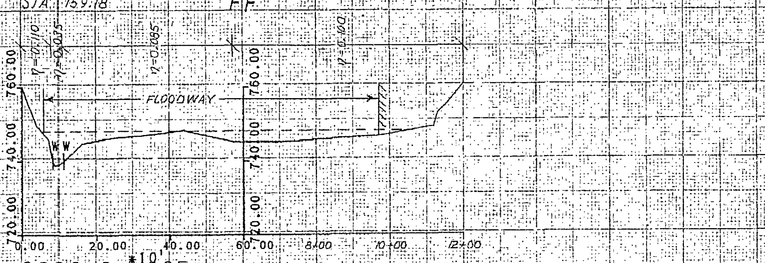
1700.0 -0CE
CROSS SECTION E
STA 157.43



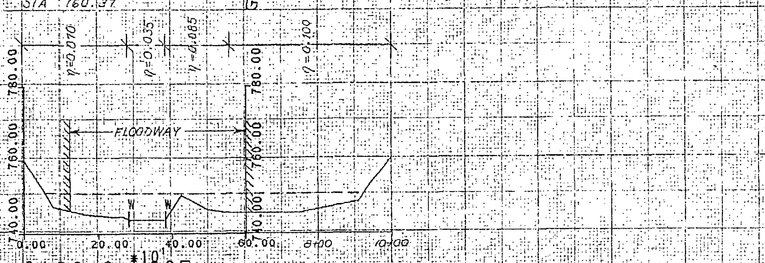
1800.0 -0CE
CROSS SECTION F
STA 158.33



1900.0 -0CE
CROSS SECTION FF
STA 159.18

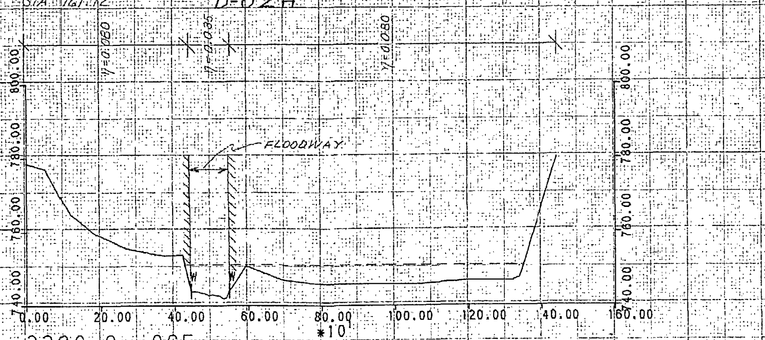


2000.0 -0CE
CROSS SECTION G
STA 160.37



2100.0 -0CE
CROSS SECTION DOZ-A
STA 161.12

D-02A



2200.0 -0CE
CROSS SECTION H
STA 161.42

ELEVATION IN FEET (NGVD)

740 745 750 755 760 765 770 775 780 785 790 795 800 805 810 815 820 825

CE216N
07/22/81

MOUTH AT SALINE RIVER

N.Y.C.RR (ABANDONED)

LOCAL ROAD

WATER WORKS ROAD

CONFLUENCE WITH UN-NAMED TRIBUTARY
5.6

ANN ARBOR-SALINE ROAD

MAPLE ROAD

LIMIT OF DETAILED STUDY

J1 K K1 K2 L M MM N O P Q R R1 S T U V W X AA AB AC AD AE

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

STREAM DISTANCE IN THOUSANDS OF FEET FROM MOUTH

740 745 750 755 760 765 770 775 780 785 790 795 800 805 810 815 820 825

LEGEND

500 YEAR FLOOD
100 YEAR FLOOD
50 YEAR FLOOD
10 YEAR FLOOD
STREAM BED
CROSS SECTION LOCATION

CITY OF SALINE

(WASHTENAW COUNTY)

FLOOD PROFILES

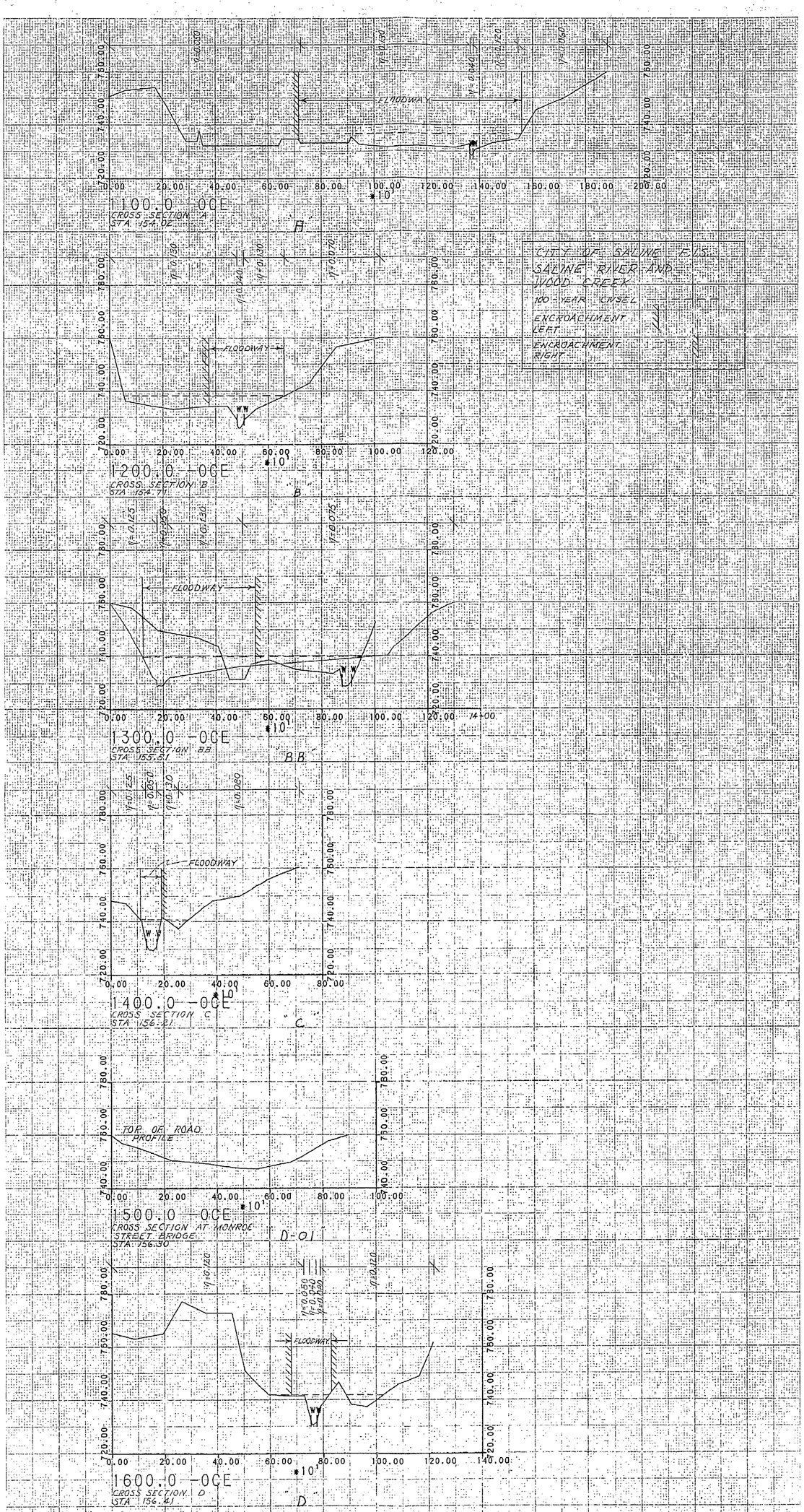
WOOD OUTLET DRAIN

WILLIAMS & WORKS
ENGINEERS/SURVEYORS/PLANNERS/GEOLOGISTS
611 CASCADE WEST PARKWAY S.E. GRAND RAPIDS, MICHIGAN 49506

RECEIVED
JUL 30 1981
WATER MANAGEMENT

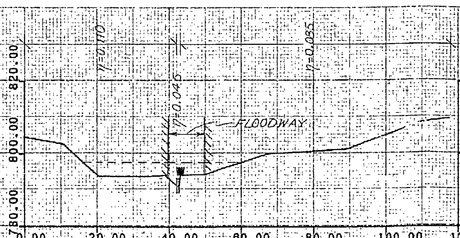
RECEIVED
JUL 30 1981
WATER MANAGEMENT

MDNR


1100.0 -OCE
CROSS SECTION A
STA 154.02
A
FLOODWAY
1200.0 -OCE
CROSS SECTION B
STA 154.71
B
FLOODWAY
W.W.
1300.0 -OCE
CROSS SECTION BB
STA 155.81
BB
FLOODWAY
W.W.
1400.0 -OCE
CROSS SECTION C
STA 156.81
C
TOP OF ROAD PROFILE
1500.0 -OCE
CROSS SECTION AT MONROE STREET BRIDGE
STA 156.90
D-01
FLOODWAY
W.W.
1600.0 -OCE
CROSS SECTION D
STA 156.41
D
CITY OF SALINE F.I.S.
SALINE RIVER AND WOLF CREEK
100-YEAR CHANEL
ENCROACHMENT LEFT
ENCROACHMENT RIGHT

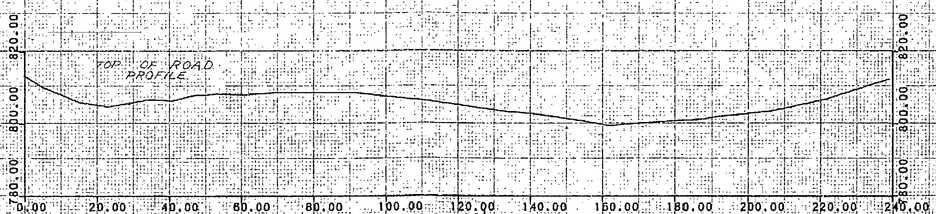
CITY OF SALINE F.I.S.
SALINE RIVER AND WOOD CREEK

100 YEAR CWSEL ——— ENCROACHMENT LEFT ENCROACHMENT RIGHT



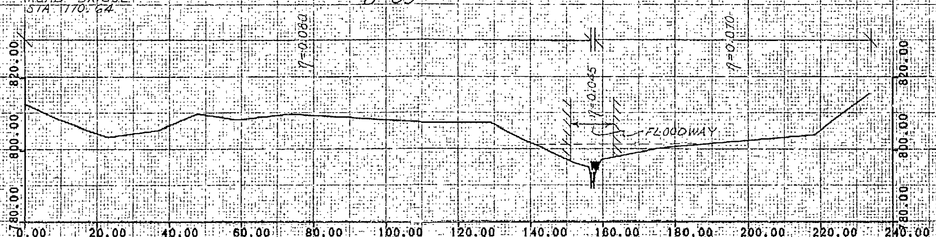
4900.0 -OCE
CROSS SECTION S
STA 170.53

"S"



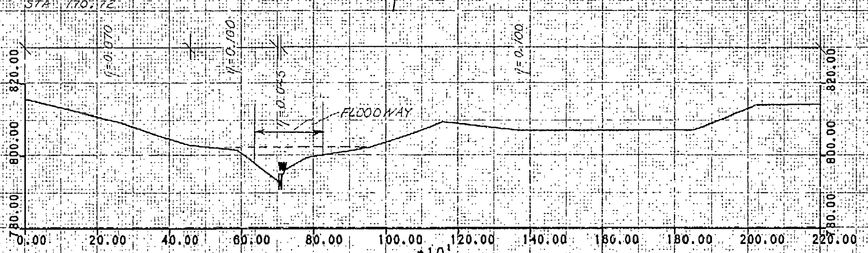
5000.0 -OCE
CROSS SECTION AT ANN ARBOR - SALINE ROAD BRIDGE
STA 170.64

D-05"



5100.0 -OCE
CROSS SECTION T
STA 170.72

"T"

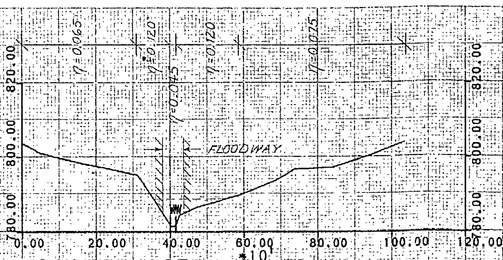


5200.0 -OCE
CROSS SECTION U
STA 171.74

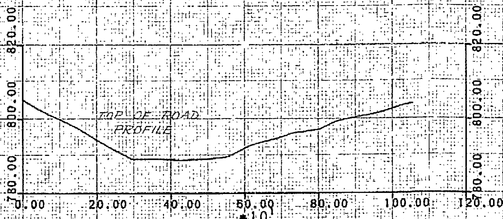
"U"

CITY OF SALINE F.I.S.
SALINE RIVER AND WOOD CREEK

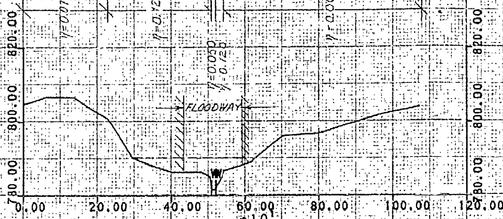
100-YEAR CWSEL
ENCROACHMENT
LEFT
ENCROACHMENT
RIGHT



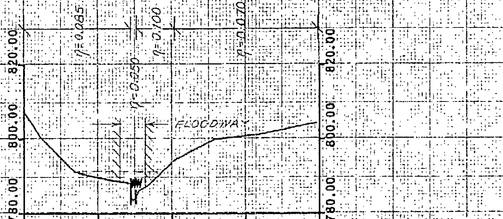
4200.0 -OGE "N"
CROSS SECTION N
STA 168.02



4300.0 -OGE "O-04A"
CROSS SECTION AT LOCAL ROAD BRIDGE
STA 168.08



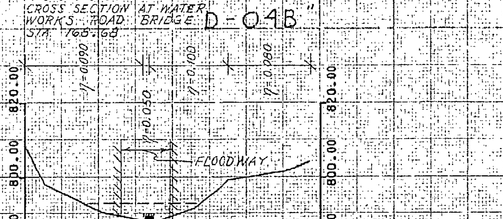
4400.0 -OGE "O"
CROSS SECTION O
STA 168.15



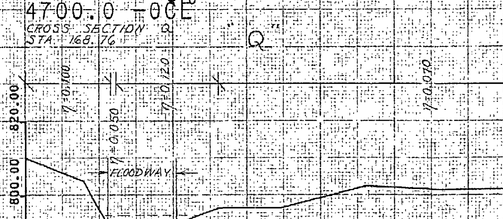
4500.0 -OGE "P"
CROSS SECTION P
STA 168.61



4600.0 -OGE "O-04B"
CROSS SECTION AT WATER WORKS ROAD BRIDGE
STA 168.69



4700.0 -OGE "Q"
CROSS SECTION Q
STA 168.76



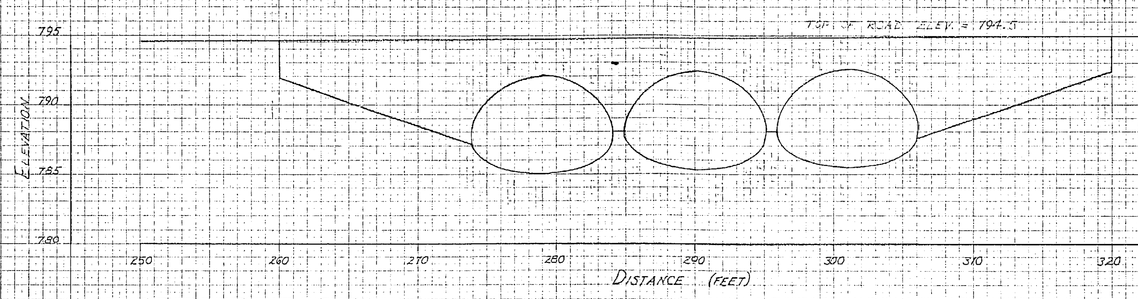
4800.0 -OGE "R"
CROSS SECTION R
STA 169.78

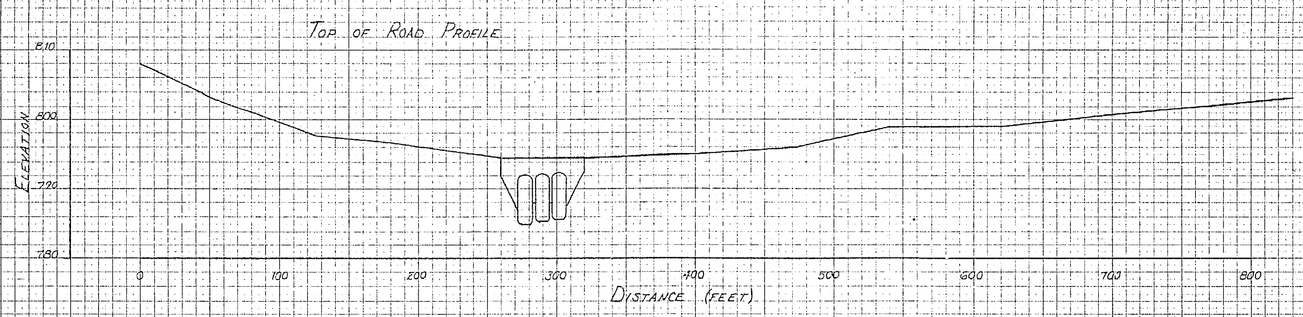
ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

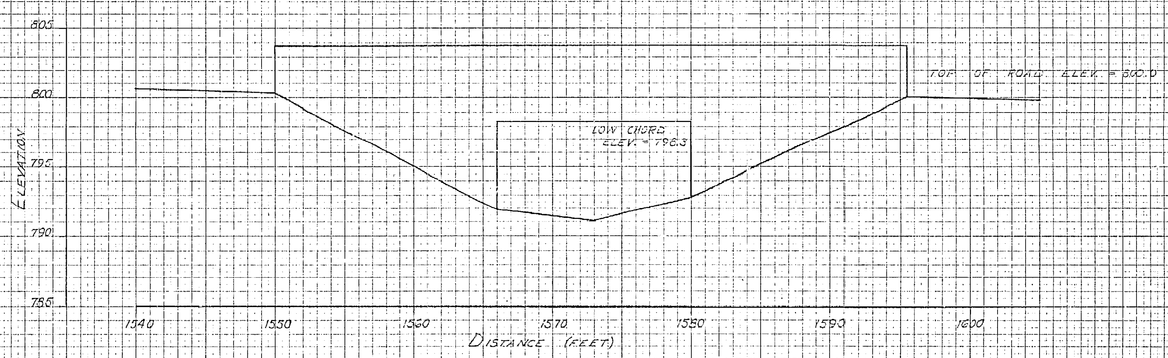
CITY OF SALINE F.I.S.
SALINE RIVER AND
WOOD CREEK

WATER WORKS ROAD BRIDGE





ANN ARBOR - SALINE ROAD BRIDGE



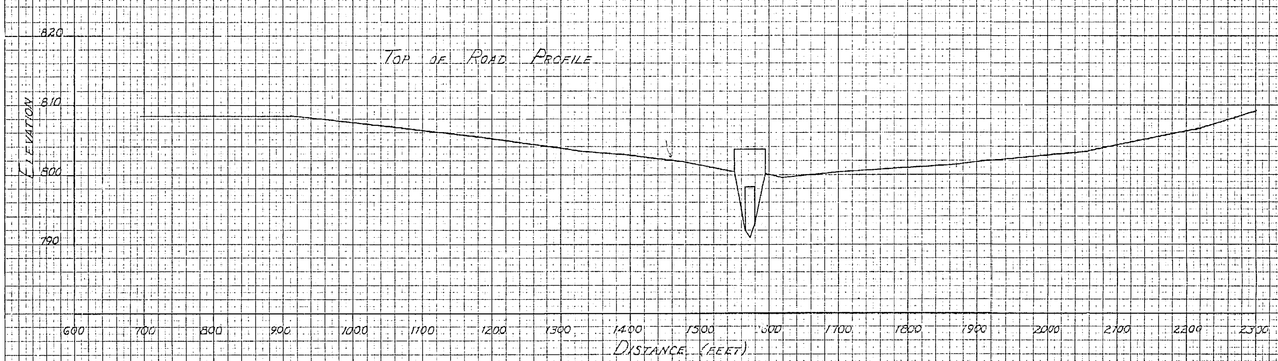


PLATE 3 CROSS SECTION
CLEARPRINT PAPER CO. S.F. CAL.

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

FINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

CITY OF SALINE F.A.S.
SALINE RIVER AND
WOOD CREEK

MAPLE ROAD BRIDGE

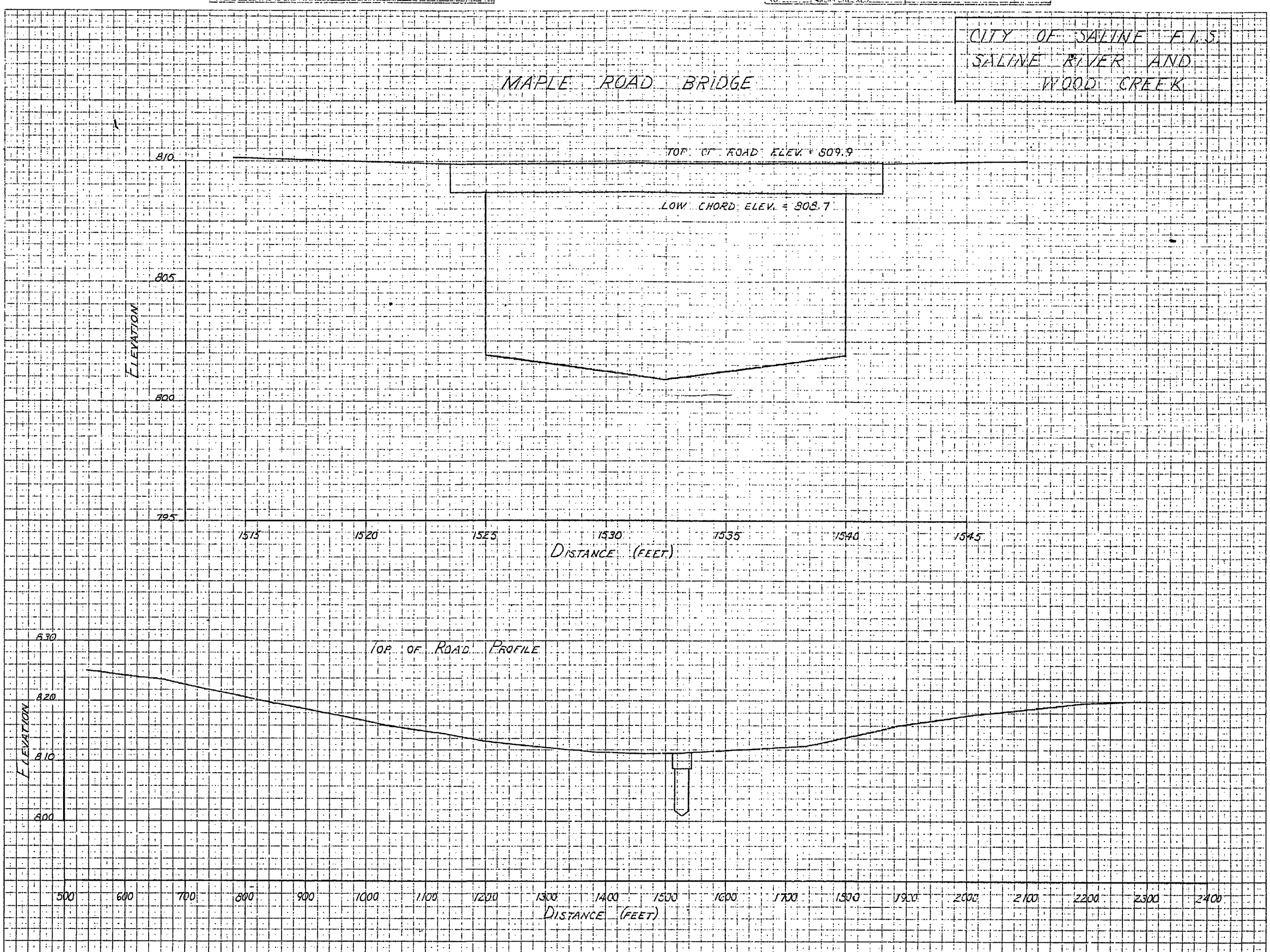


PLATE 3 CROSS SECTION
CLEARPRINT PAPER CO., S.F. CAL.

NO. 10KH 3

ELEVATION IN FEET (NGVD)

815 810 805 800 795 790 785 780 775 770 765 760 755 750 745 740 735 730

NEW YORK CENTRAL RAILROAD (ABANDONED)

ANN ARBOR-SALINE ROAD

MYER WORKS ROAD

LOCAL ROAD

CONFLUENCE OF WOOD CREEK

SALINE RIVER DAM

MICHIGAN AVENUE (US-12)

Superseded

SEE NEW PROFILE FOR WOOD CREEK (Rec'd 9/30/81)

H I J K L M MM N O P Q R S T U V W X

161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176

STREAM DISTANCE IN THOUSANDS OF FEET FROM MOUTH

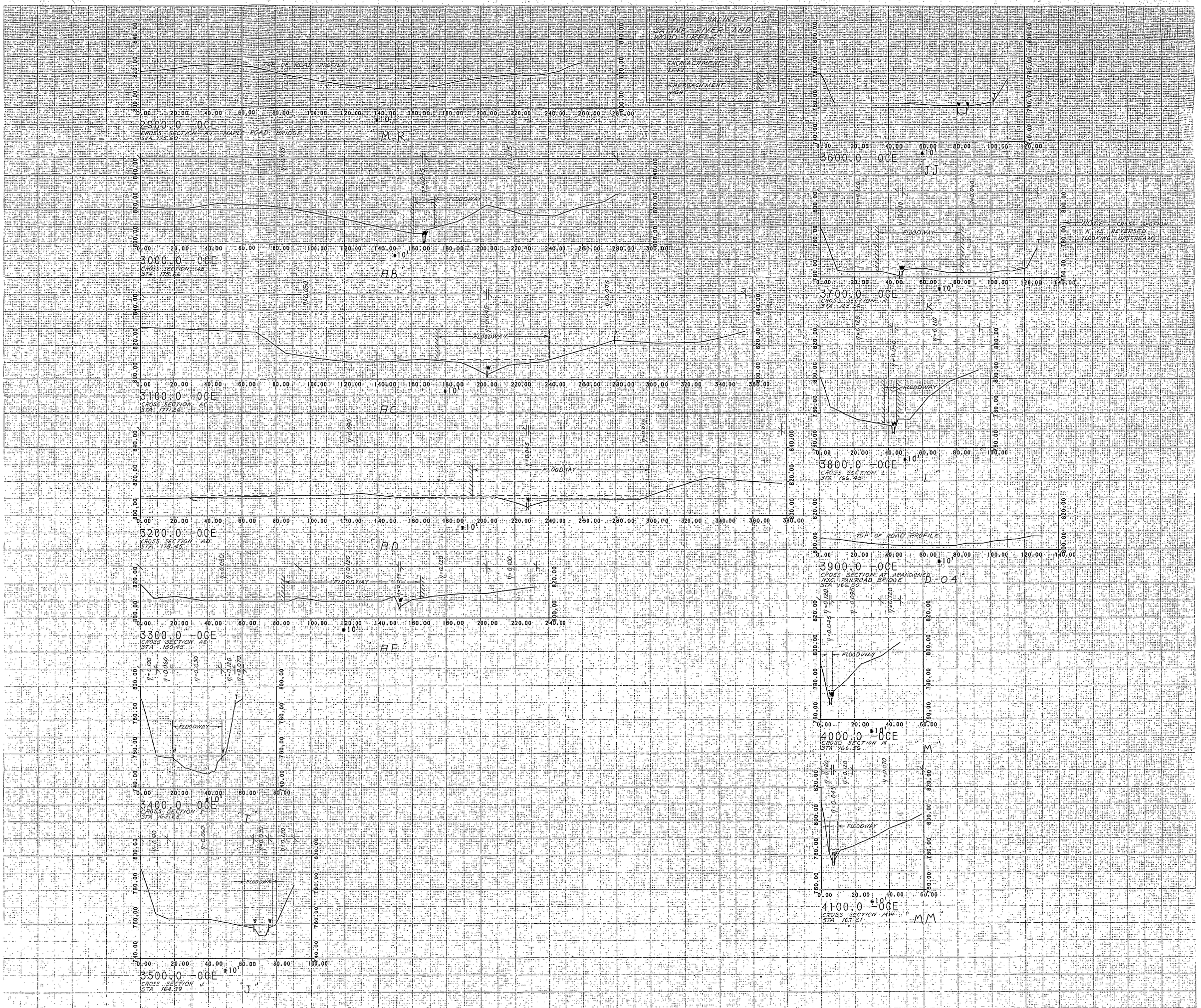
LEGEND
- 500 YEAR FLOOD
- 100 YEAR FLOOD
- 50 YEAR FLOOD
- 10 YEAR FLOOD
- STREAM BED
- CROSS SECTION LOCATION

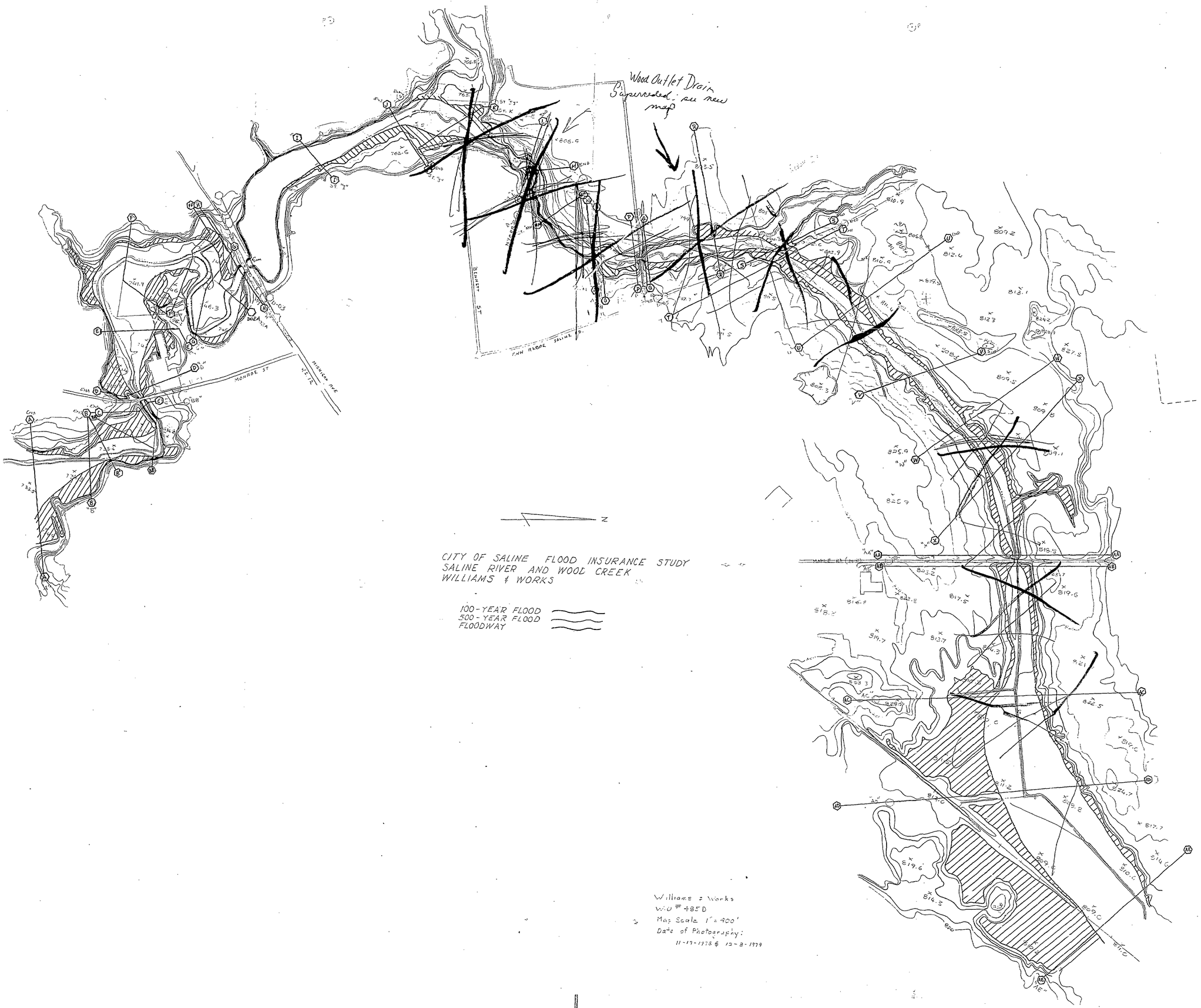
NO. 1294—CROSS SECTION 10 x 10
"CLEARPRINT PAPER CO."

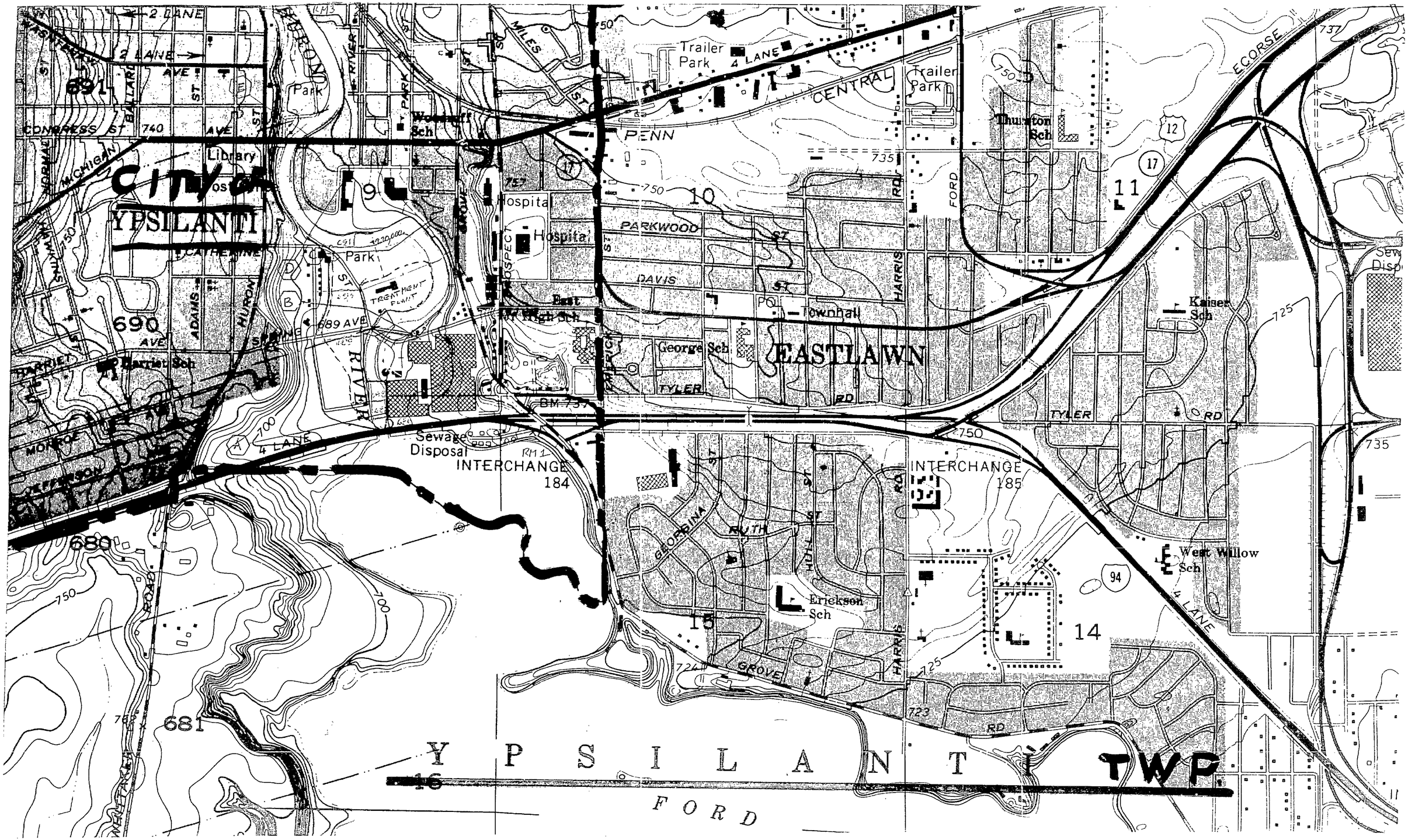
WILLIAMS & WORKS
ENGINEERS/SURVEYORS/PLANNERS/GEOLOGISTS
611 CASCADE WEST PARKWAY, S.E. GRAND RAPIDS, MICHIGAN 49508

FLOOD PROFILES
SALINE R. & WOOD CREEK
CITY OF SALINE MI
(WASHTENAW COUNTY)

NO. 1294—CROSS SECTION 10 x 10
"CLEARPRINT PAPER CO."


CITY OF SALINE F.I.S.
SALINE RIVER AND WOOD CREEK
100-YEAR CWSEL
ENCROACHMENT LEFT
ENCROACHMENT RIGHT
TOP OF ROAD PROFILE
2900.0 -0CE
CROSS SECTION AT MAPLE ROAD BRIDGE
STA 175.60
M.R.
3000.0 -0CE
CROSS SECTION AB
STA 175.66
AB
3100.0 -0CE
CROSS SECTION AC
STA 177.26
AC
3200.0 -0CE
CROSS SECTION AD
STA 178.45
AD
3300.0 -0CE
CROSS SECTION AE
STA 180.45
AE
3400.0 -0CE
CROSS SECTION I
STA 163.25
I
3500.0 -0CE
CROSS SECTION J
STA 164.39
J
3600.0 -0CE
JJ
3700.0 -0CE
CROSS SECTION K
STA 165.24
K
3800.0 -0CE
CROSS SECTION L
STA 166.45
L
3900.0 -0CE
CROSS SECTION AT ABANDONED N.Y.C. RAILROAD BRIDGE
STA 166.50
D-04
4000.0 -0CE
CROSS SECTION M
STA 166.56
M
4100.0 -0CE
CROSS SECTION MM
STA 167.21
MM
FLOODWAY
NOTE: CROSS SECTION K IS REVERSED (LOOKING UPSTREAM)

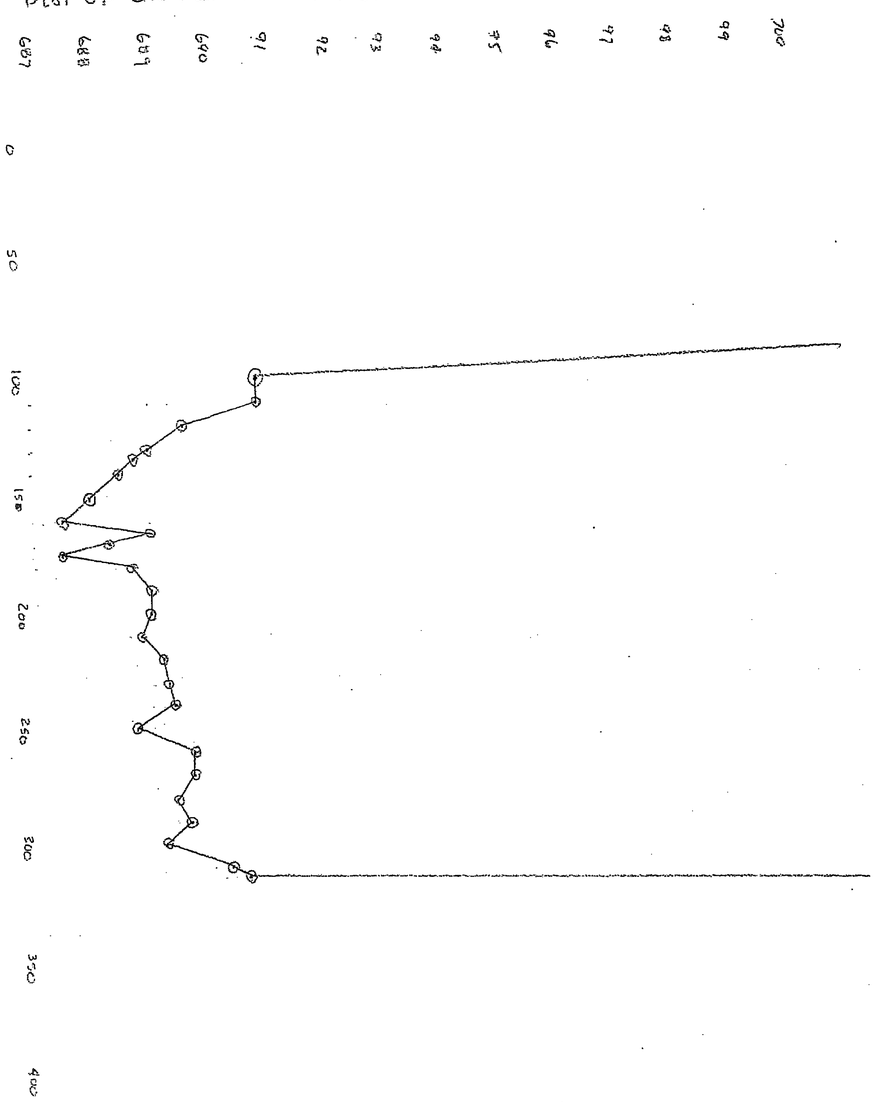

Wood Outlet Drain
Superseded: see new map
MONROE ST
MICHIGAN AVE
BENNETT ST
ANN ARBOR SALINE RD.
N
CITY OF SALINE FLOOD INSURANCE STUDY
SALINE RIVER AND WOOD CREEK
WILLIAMS & WORKS
100-YEAR FLOOD
500-YEAR FLOOD
FLOODWAY
Williams & Works
W.O. # 485D
Map Scale 1" = 400'
Date of Photography:
11-17-1978 & 12-8-1979



CITY OF
YPSILANTI
Library
Park
Woodruff Sch
Hospital
Hospital
Trailer Park
Trailer Park
Thurston Sch
PENN
CENTRAL
PARKWOOD
DAVIS
Townhall
East Jr High Sch
George Sch
EASTLAWN
TYLER
RD
Kaiser Sch
Harriet Sch
Sewage Disposal
INTERCHANGE 184
INTERCHANGE 185
West Willow Sch
Erickson Sch
GEORGINA
RUTH
GROVE
RD
HARRIS
FORD
ECORSE
4 LANE
2 LANE
CONGRESS ST
MICHIGAN
CATHERINE
ADAMS
HURON
RIVER
MONROE
JEFFERSON
HARRIET
TREATMENT PLANT
BM 737
Y P S I L A N T I TWP
FORD

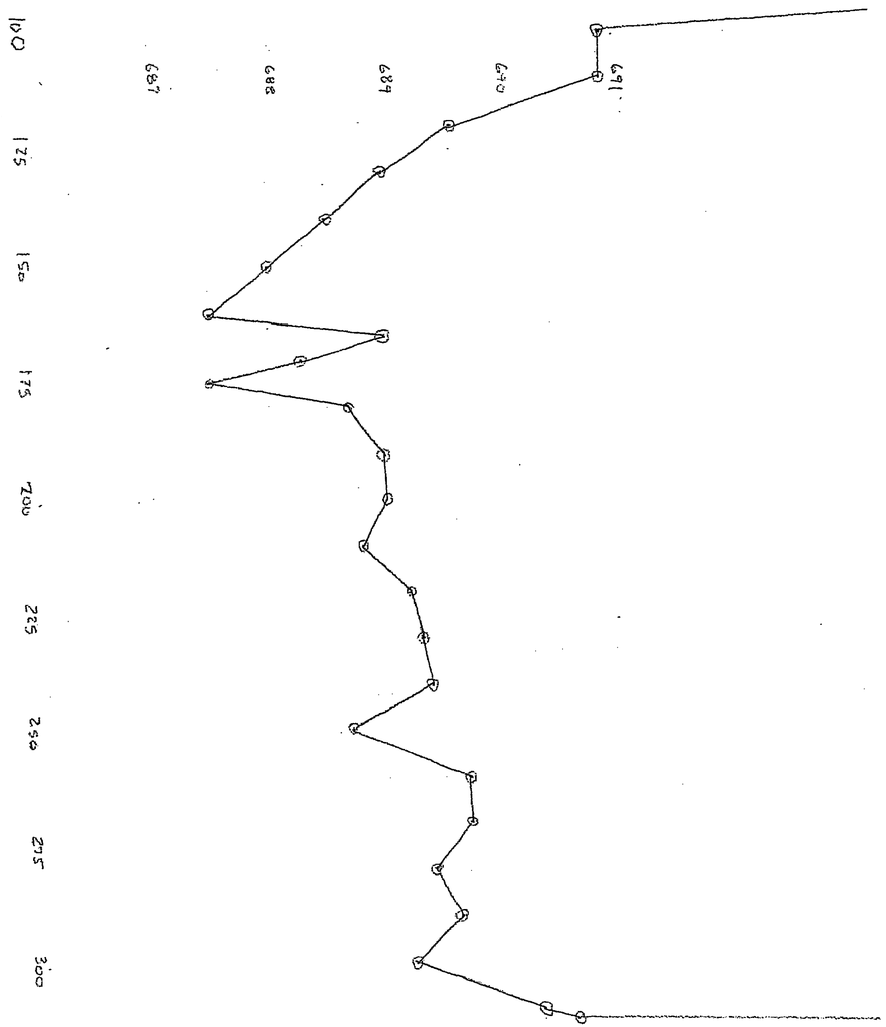
- HURON RIVER
CITY OF YPSILANTI F.I.S.
PLOT OF GR POINTS AT X1 81.00

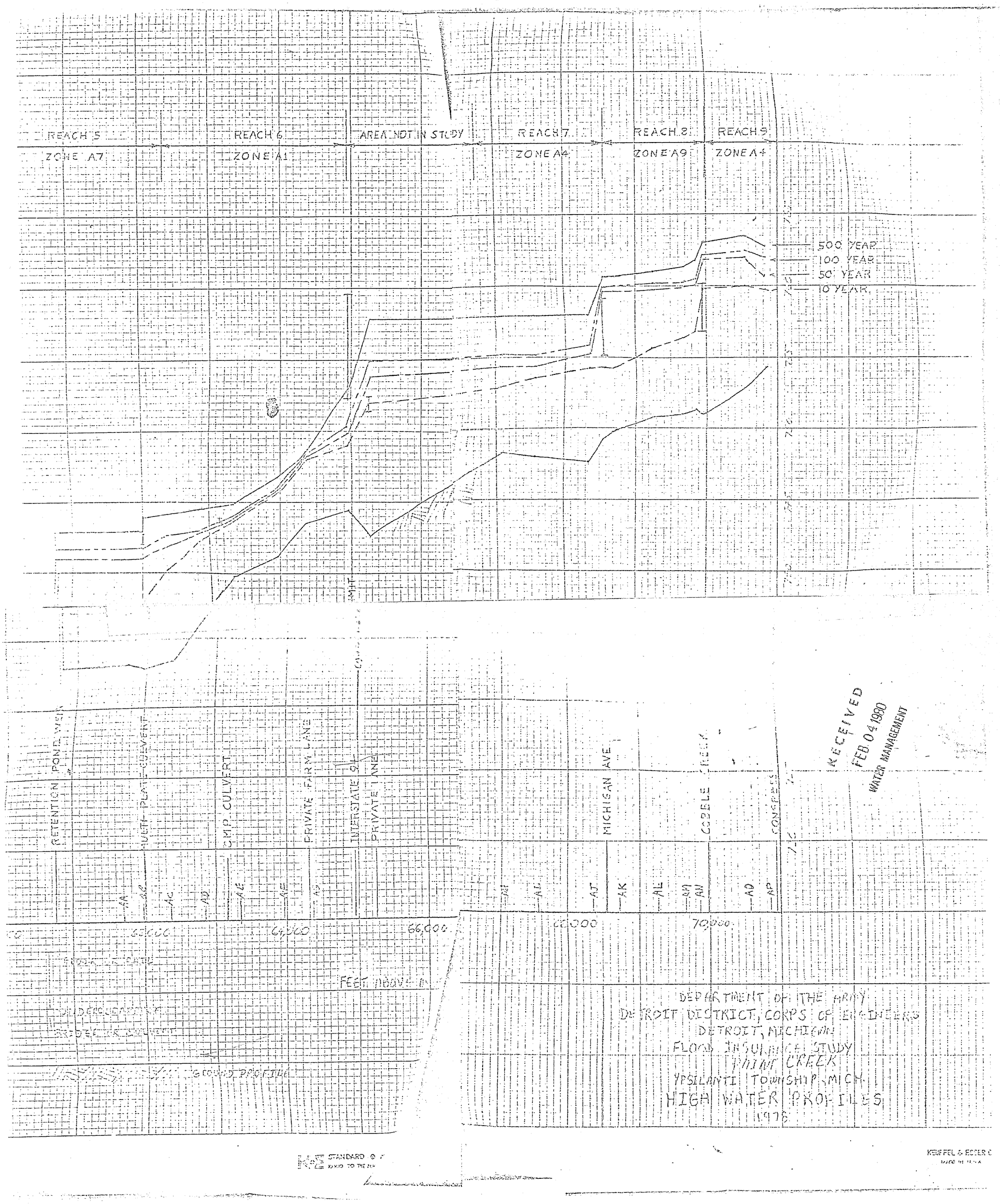
T. COLLINS
10-25-95



- HURON RIVER
CITY OF YPSILANTI F.I.S.
PLOT OF GR POINTS AT X1 81.00

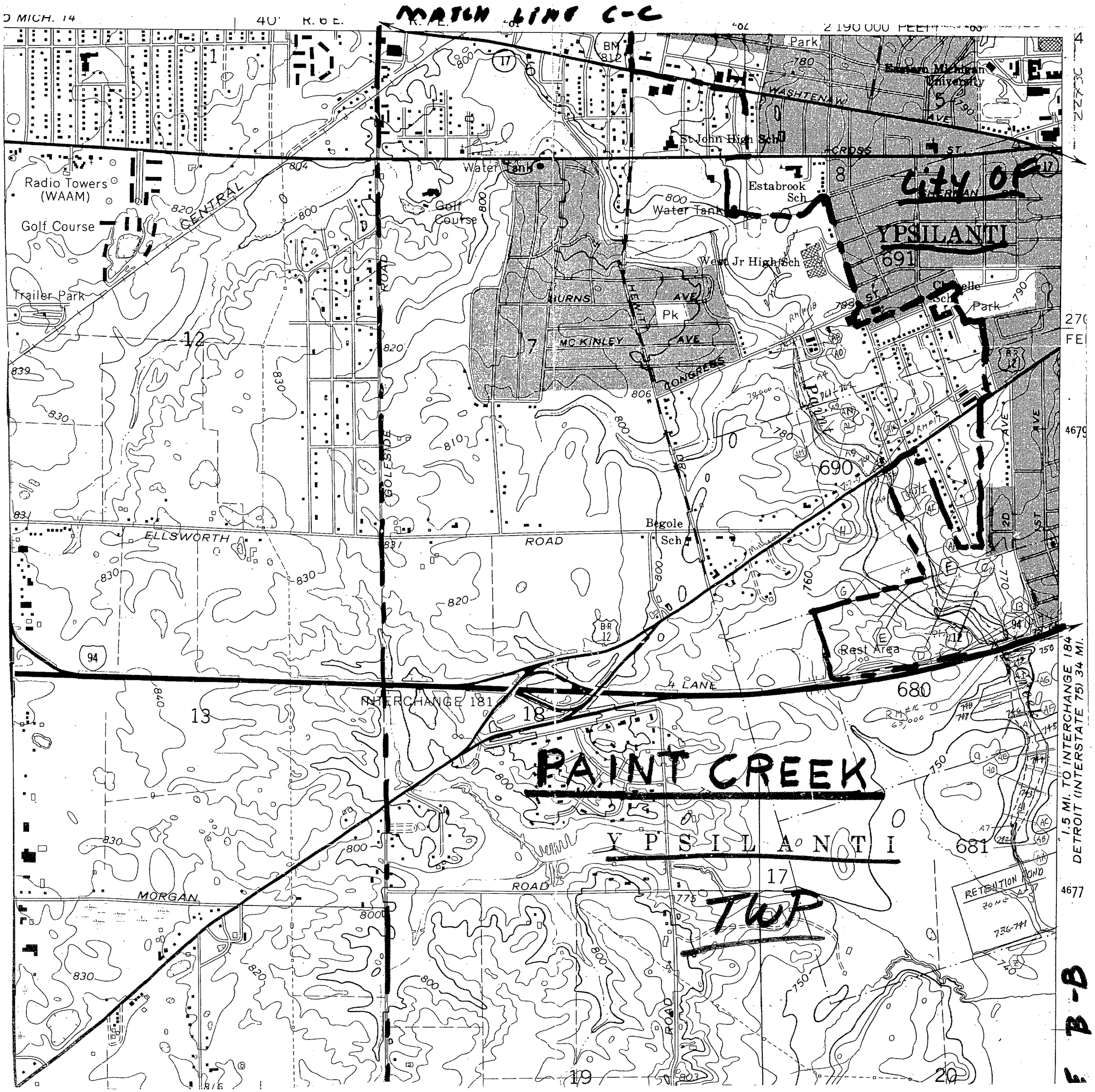
T. COLLINS
10-25-95

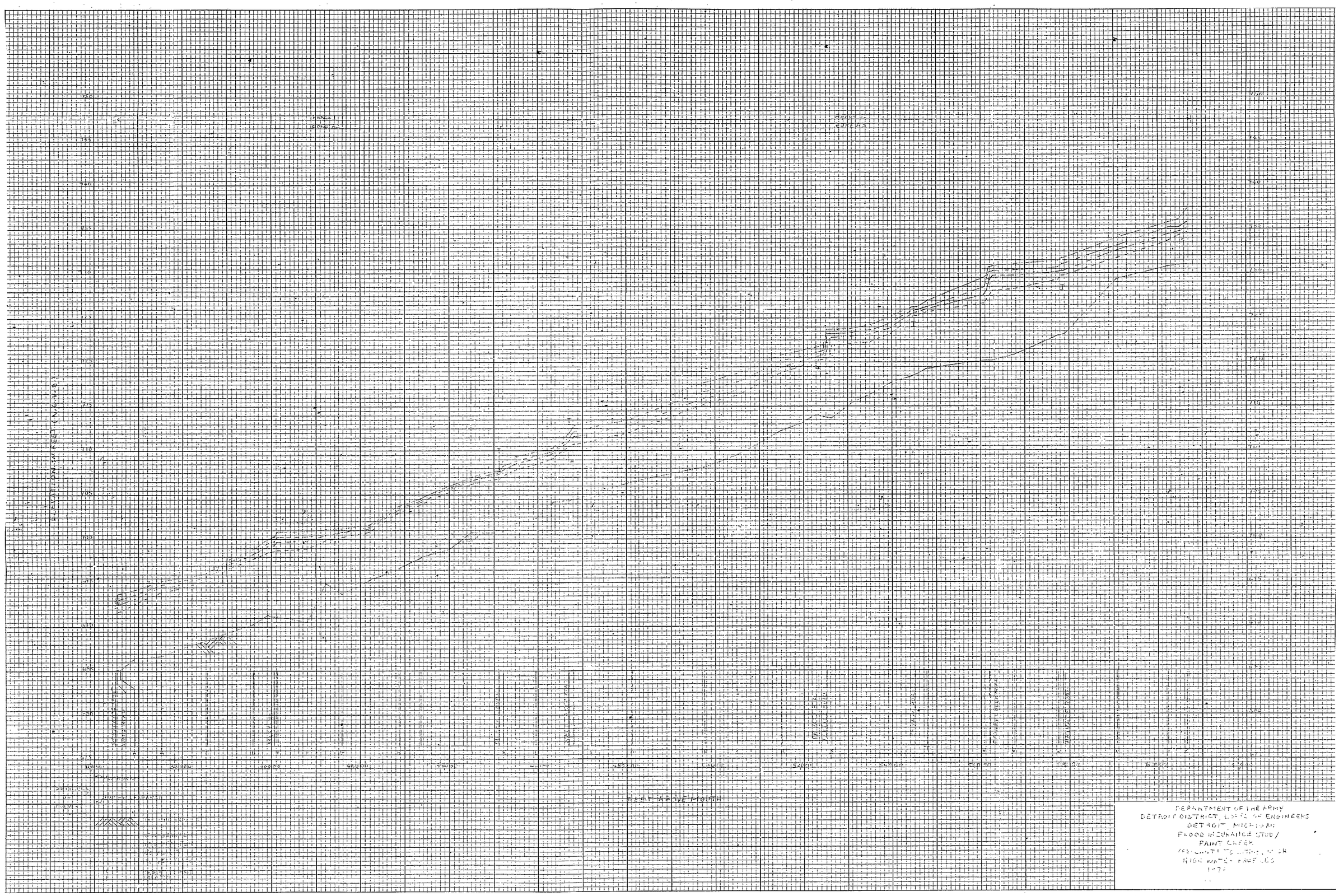




RECEIVED
FEB 04 1980
WATER MANAGEMENT

K&E STANDARD
KEUFFEL & ESSER CO.


MATCH LINE C-C
City OF
YPSILANTI
PAINT CREEK
YPSILANTI
TWP
Radio Towers (WAAM)
Golf Course
Trailer Park
CENTRAL
Water Tank
Golf Course
St John High Sch
Estabrook Sch
West Jr High Sch
Park
Eastern Michigan University
WASHTENAW AVE
CROSS ST
BURNS AVE
MC KINLEY AVE
CONGRESS
GOLFSIDE ROAD
ELLSWORTH ROAD
Begole Sch
Rest Area
4 LANE
INTERCHANGE 181
MORGAN ROAD
RETENTION POND
1.5 MI. TO INTERCHANGE 184
DETROIT (INTERSTATE 75) 34 MI.
B-B



PRINTED IN U.S.A.
ON CLOTH MADE IN U.S.A.

"PERFECT" CROSS SECTION 10X10
EUGENE DIETZGEN CO.

PRINTED IN U.S.A.
ON CLOTH MADE IN U.S.A.

RECEIVED
FEB 04 1981
Flood Insurance

K&E STANDARD © CROSS SECTION
10 X 10 TO THE INCH

KEUFFEL & ESSER CO.
MADE IN U.S.A.

ELEV IN FEET (N.G.V.D.)

770
765
760
755
750
745
740
735
730
725
720
715

500 YEAR
100 YEAR
50 YEAR
10 YEAR

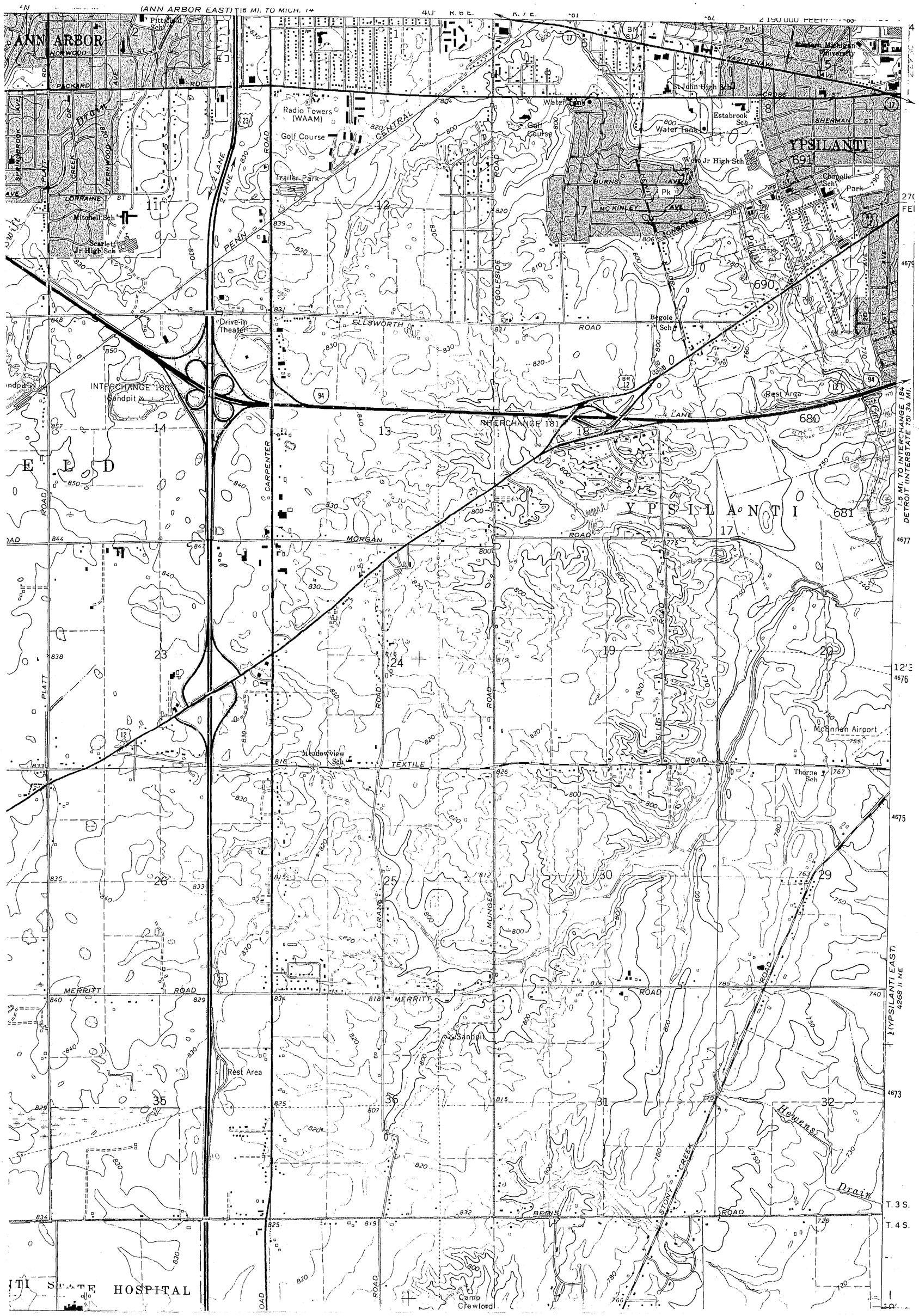
RETENTION POND WEIR
MULTI PLATE CULVERT
C.M.P. CULVERT
PRIVATE FARM LANE
INTERSTATE 94
PRIVATE LANE
MICHIGAN AVE
COBBLE CREEK
CONGRESS

AA AB AC AD AE AF AG AH/G AD/A AH/I AM AL AM AN AO AP

4000 12000 64000 62000 68000 70000

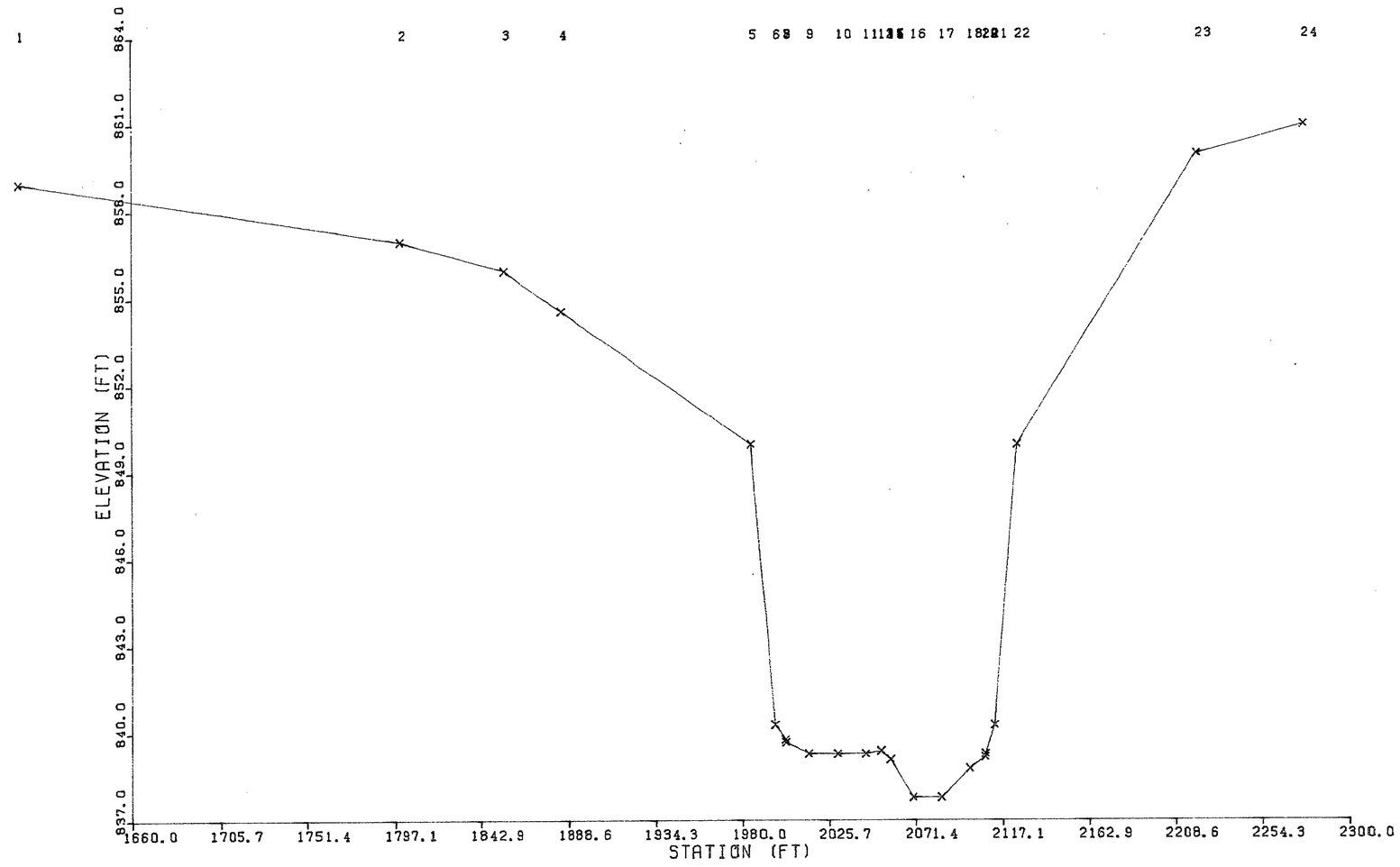
FEET ABOVE MOUTH

DEPARTMENT OF THE ARMY
DETROIT DISTRICT, CORPS OF ENGINEERS
DETROIT, MICHIGAN
FLOOD INSURANCE STUDY
PAINT CREEK
YPSILANTI
HIGH WATER PROFILES
1978


(ANN ARBOR EAST) 16 MI. TO MICH. 14
ANN ARBOR
YPSILANTI
Radio Towers (WAAM)
Golf Course
Trailer Park
Water Tank
Estabrook Sch
West Jr High Sch
St John High Sch
Chapelle Sch
Mitchell Sch
Scarlett Jr High Sch
Drive-in Theater
Begole Sch
INTERCHANGE 180
Sandpit
INTERCHANGE 181
Rest Area
YPSILANTI
McEnnan Airport
Meadowview Sch
Thorne Sch
Sandpit
Rest Area
Camp Crawford
STATE HOSPITAL
ELLSWORTH ROAD
MORGAN ROAD
TEXTILE ROAD
MERRITT ROAD
BEANS ROAD
PENN CENTRAL
CARPENTER ROAD
GOLESIDE ROAD
CRANE ROAD
MUNGER ROAD
STONY CREEK ROAD
Hewens Drain
1.5 MI. TO INTERCHANGE 184 DETROIT (INTERSTATE 75) 34 MI.
(YPSILANTI EAST) 4268 II NE
T. 3 S.
T. 4 S.

SUMMARY OF INPUT DATA		
POINT	STATION (FT)	ELEVATION (FT)
1	1600.0	859.0
2	1800.0	857.0
3	1855.0	856.0
4	1885.0	854.6
5	1985.0	850.0
6	1997.0	840.3
7	2002.4	839.8
8	2002.5	839.7
9	2015.0	839.3
10	2030.0	839.3
11	2045.0	839.3
12	2052.9	839.4
13	2053.0	839.4
14	2058.0	839.1
15	2058.1	839.1
16	2070.0	837.8
17	2085.0	837.8
18	2100.0	838.8
19	2108.0	839.2
20	2108.1	839.3
21	2113.0	840.3
22	2125.0	850.0
23	2220.0	860.0
24	2276.0	861.0

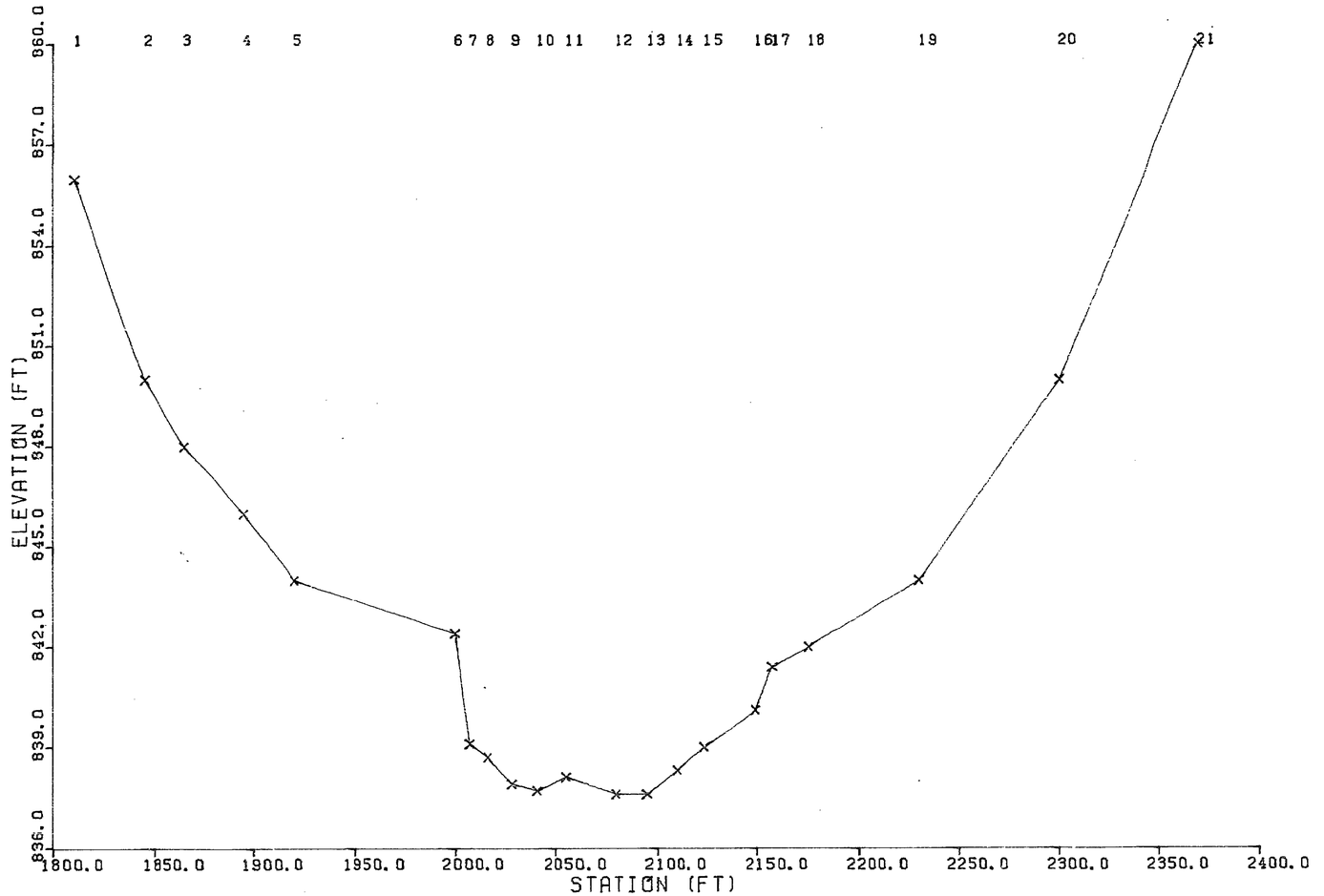
ROSS SECTION #2.4 HURON



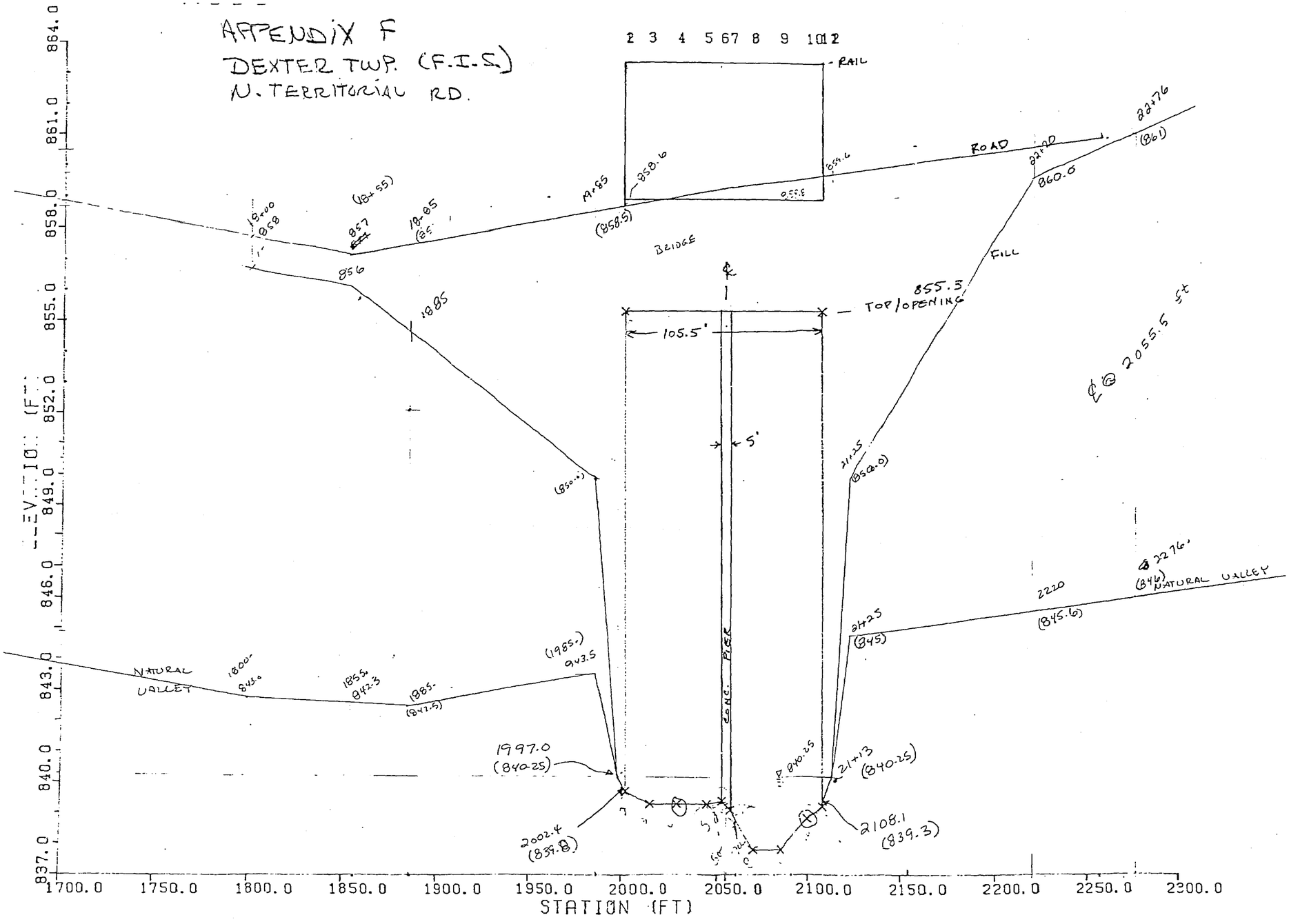
CROSS SECTION #1 HURON

SUMMARY OF INPUT DATA

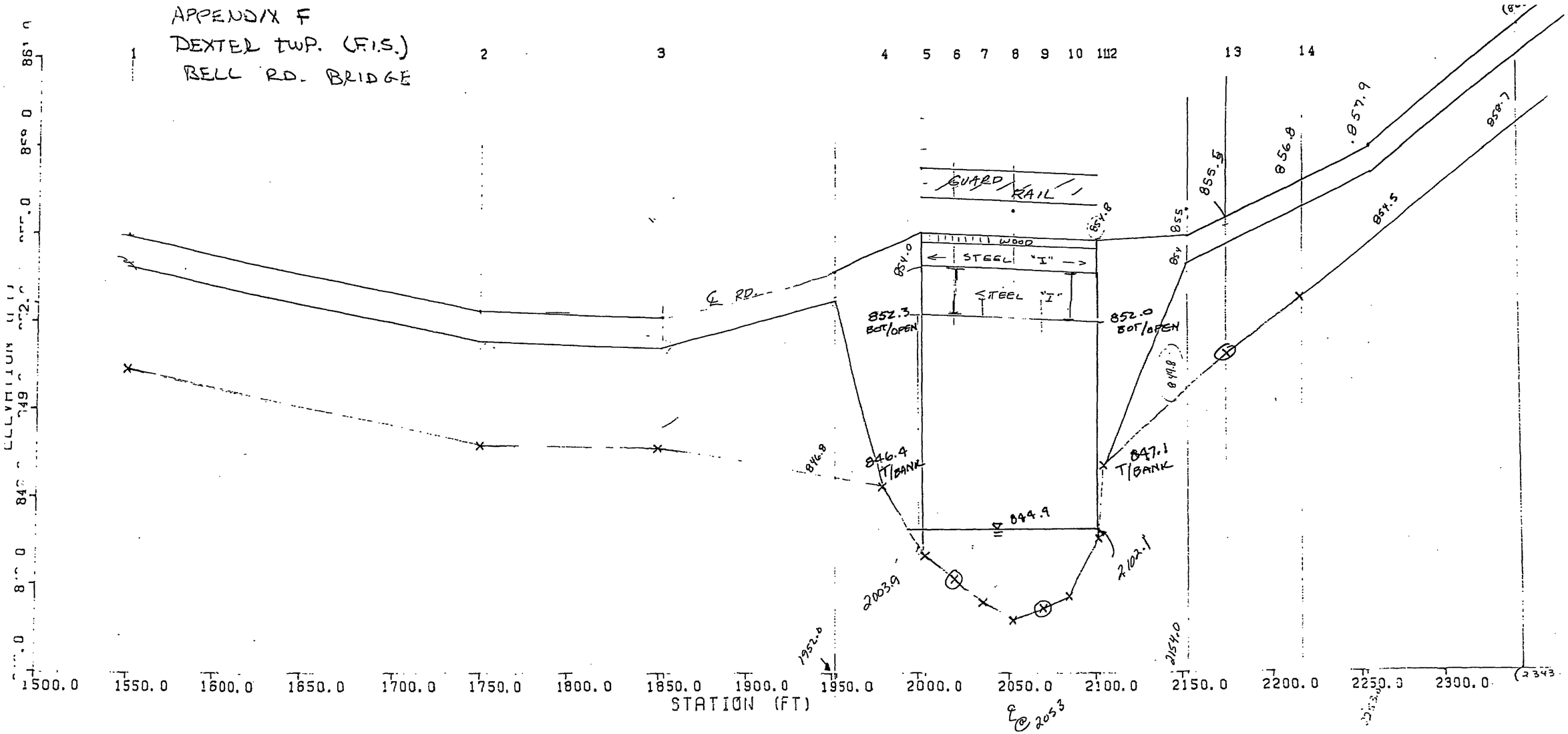
POINT	STATION (FT)	ELEVATION (FT)
1	1810.0	856.0
2	1845.0	850.0
3	1865.0	848.0
4	1895.0	846.0
5	1920.0	844.0
6	2000.0	842.4
7	2007.0	839.1
8	2016.2	838.7
9	2028.8	837.9
10	2040.5	837.7
11	2055.5	838.1
12	2079.7	837.6
13	2095.2	837.6
14	2109.9	838.3
15	2123.8	839.0
16	2149.2	840.1
17	2157.3	841.4
18	2175.0	842.0
19	2230.0	844.0
20	2300.0	850.0
21	2370.0	860.0



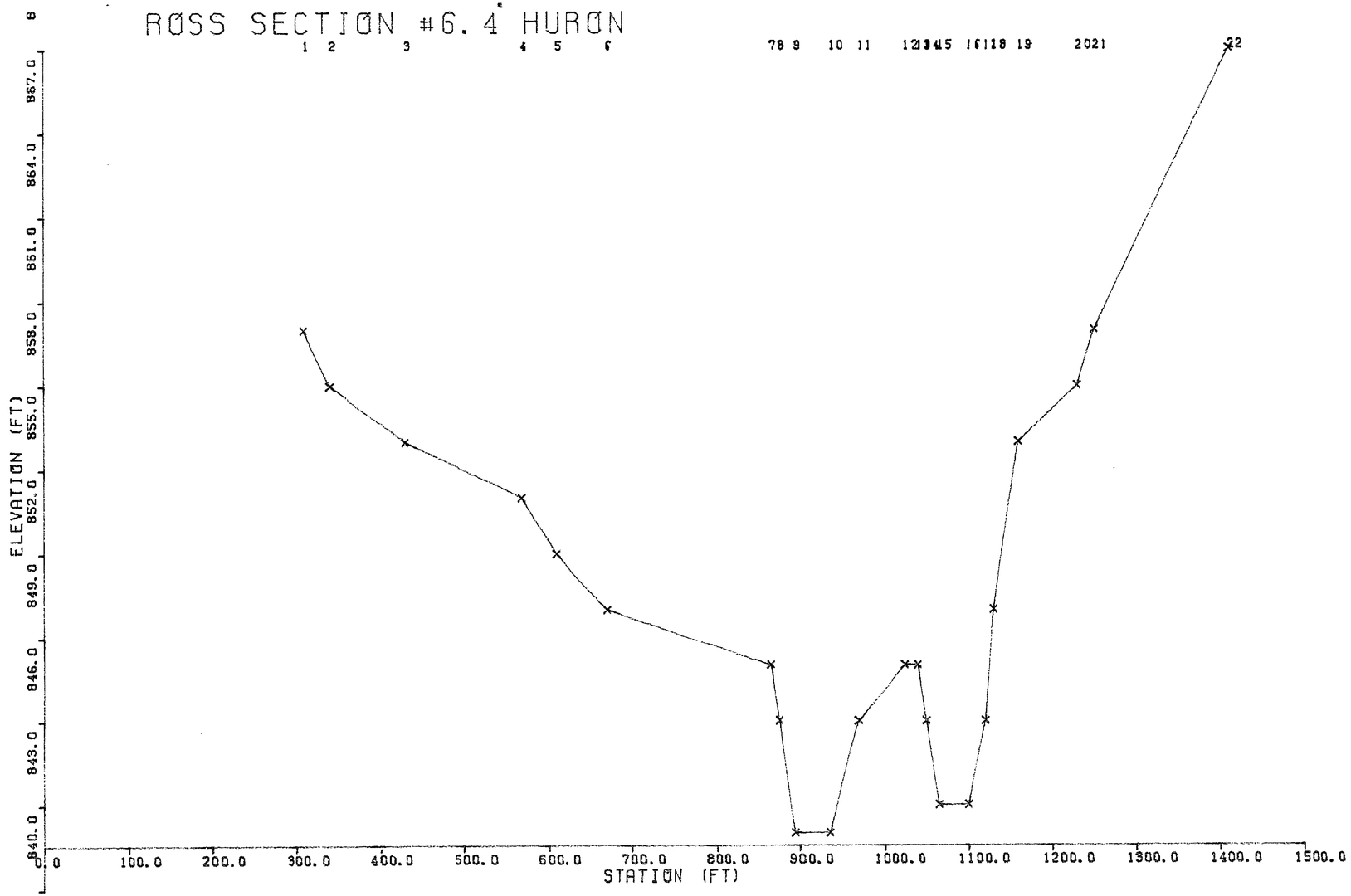
APPENDIX F
DEXTER TWP. (F.I.S.)
N. TERRITORIAL RD.



APPENDIX F
DEXTER TWP. (F.I.S.)
BELL RD. BRIDGE



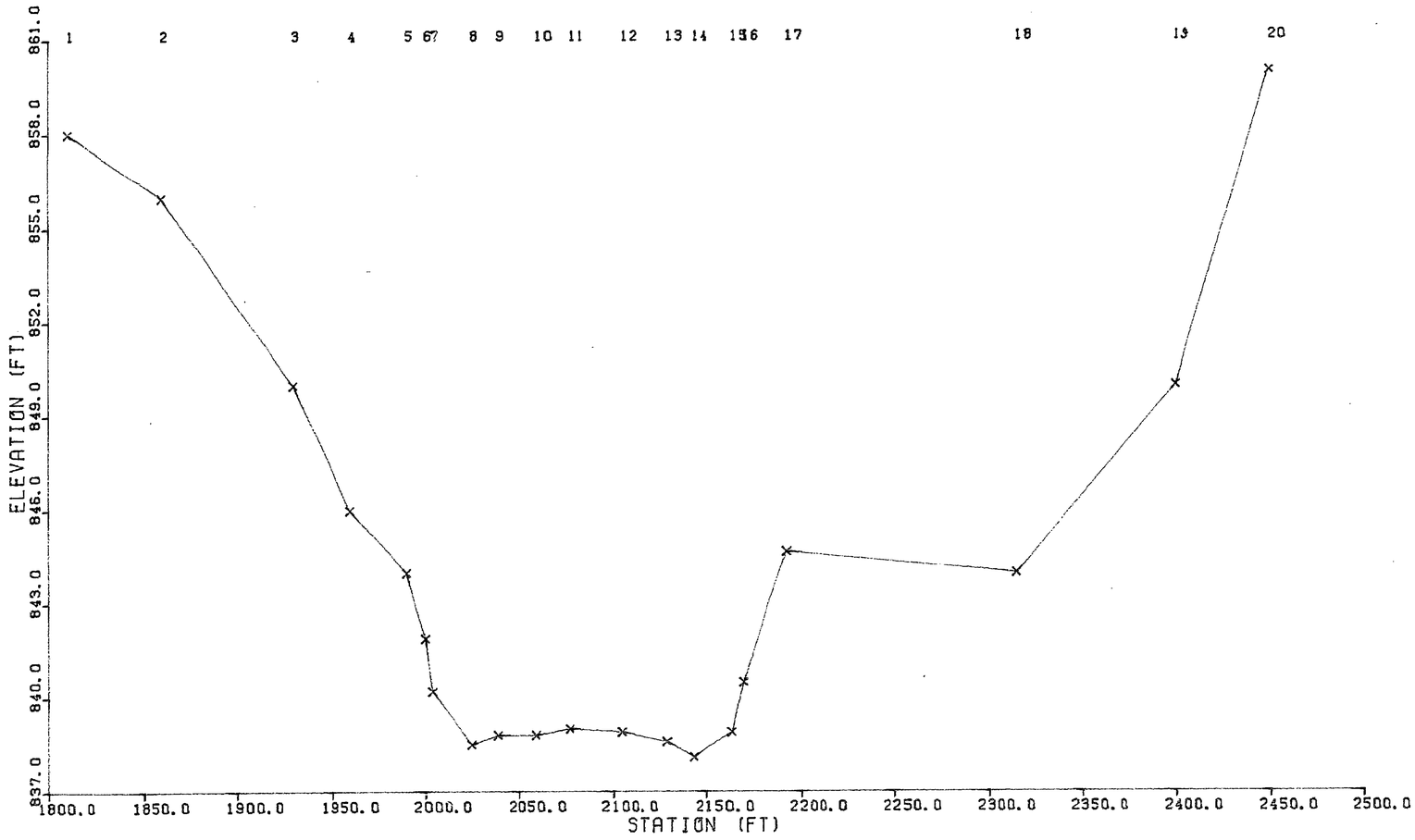
SUMMARY OF INPUT DATA		
POINT	STATION (FT)	ELEVATION (FT)
1	310.0	860.0
2	340.0	858.0
3	430.0	856.0
4	570.0	854.0
5	610.0	852.0
6	670.0	850.0
7	865.0	848.0
8	875.0	846.0
9	895.0	842.0
10	935.0	842.0
11	970.0	846.0
12	1025.0	848.0
13	1040.0	848.0
14	1050.0	846.0
15	1065.0	843.0
16	1100.0	843.0
17	1120.0	846.0
18	1130.0	850.0
19	1160.0	856.0
20	1230.0	858.0
21	1250.0	860.0
22	1410.0	870.0



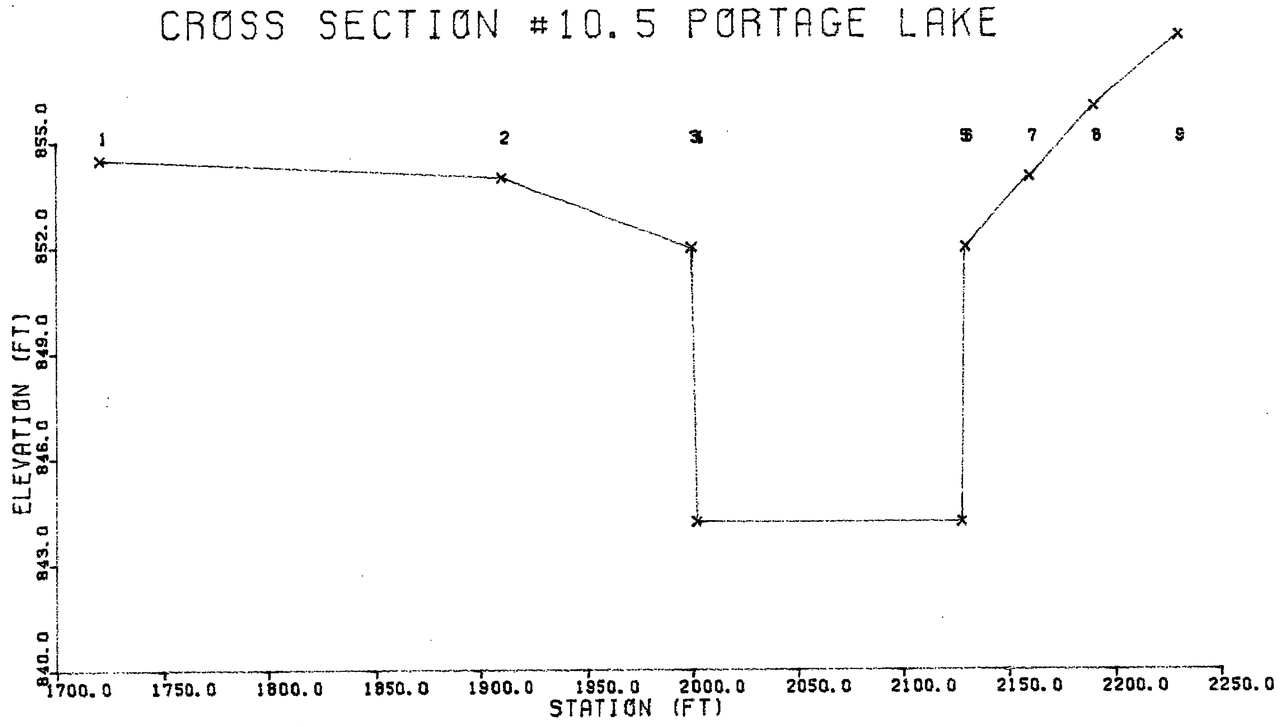
CROSS SECTION #3 HURON

SUMMARY OF INPUT DATA

POINT	STATION (FT)	ELEVATION (FT)
1	1810.0	850.0
2	1860.0	856.0
3	1930.0	850.0
4	1960.0	846.0
5	1990.0	844.0
6	2000.0	841.9
7	2003.5	840.2
8	2024.7	838.5
9	2038.1	838.8
10	2059.3	838.8
11	2076.6	839.0
12	2104.6	838.9
13	2128.9	838.6
14	2142.7	838.1
15	2163.0	838.9
16	2169.3	840.5
17	2192.7	844.7
18	2315.0	844.0
19	2400.0	850.0
20	2450.0	860.0



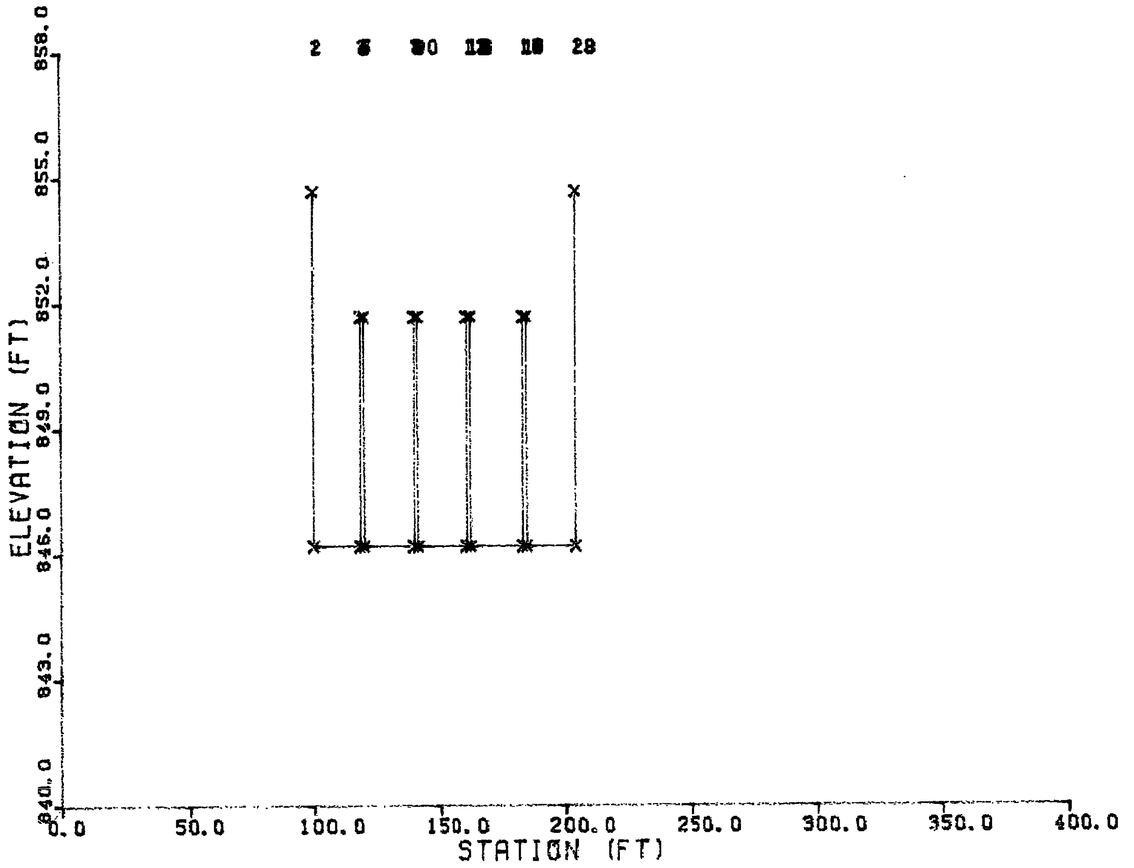
SUMMARY OF INPUT DATA		
POINT	STATION (FT)	ELEVATION (FT)
1	1720.0	854.5
2	1910.0	854.0
3	2000.0	852.0
4	2002.0	844.2
5	2128.0	844.2
6	2130.0	852.0
7	2160.0	854.0
8	2190.0	856.0
9	2290.0	858.0



SUMMARY OF INPUT DATA		
POINT	STATION (FT)	ELEVATION (FT)
1	100.0	854.7
2	100.1	846.2
3	116.0	846.2
4	118.1	851.7
5	119.5	851.7
6	119.6	846.2
7	139.6	846.2
8	139.7	851.7
9	141.1	851.7
10	141.2	846.2
11	161.2	846.2
12	161.3	851.7
13	162.7	851.7
14	162.8	846.2
15	182.8	846.2
16	182.9	851.7
17	184.3	851.7
18	184.4	846.2
19	204.0	846.2
20	204.1	854.7

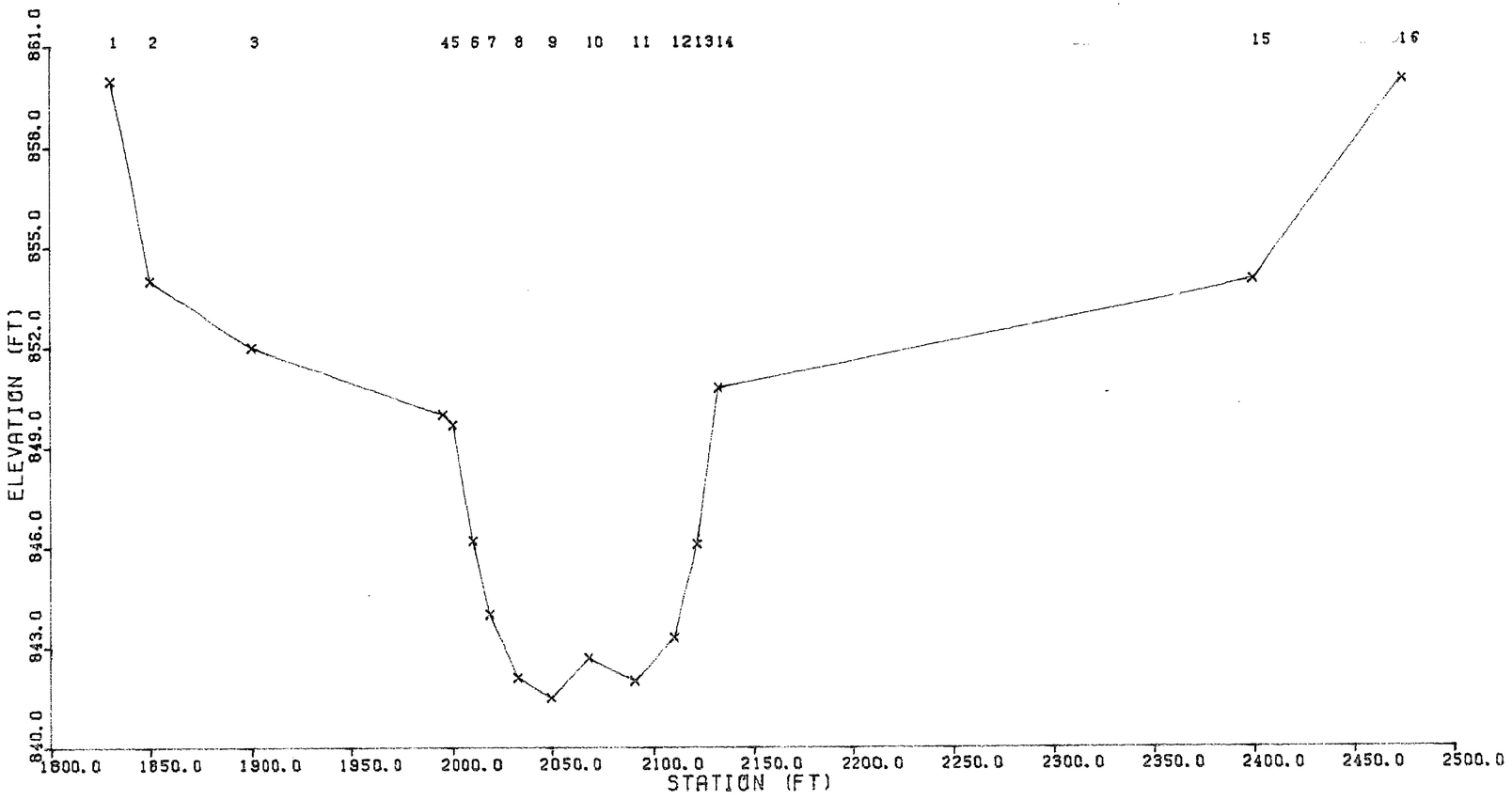
00.0

CROSS SECTION #10.3 FLOOK DAM

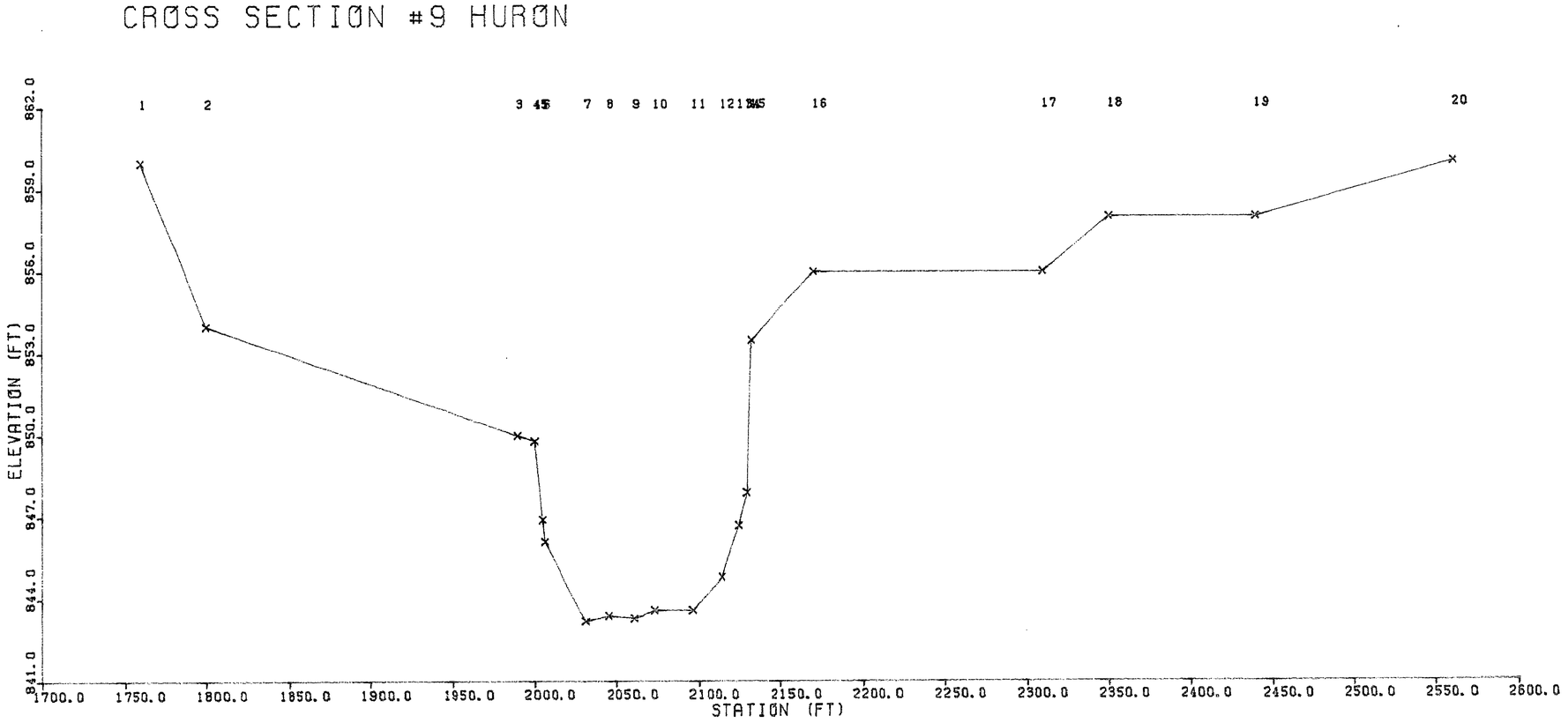


SUMMARY OF INPUT DATA		
POINT	STATION (FT)	ELEVATION (FT)
1	1830.0	860.0
2	1850.0	854.0
3	1900.0	852.0
4	1995.0	850.0
5	2000.0	849.7
6	2010.8	846.2
7	2019.0	844.0
8	2032.4	842.1
9	2049.7	841.5
10	2067.7	842.7
11	2090.8	842.0
12	2111.0	843.3
13	2121.9	846.1
14	2132.6	850.8
15	2400.0	854.0
16	2475.0	860.0

CROSS SECTION #8 HURON

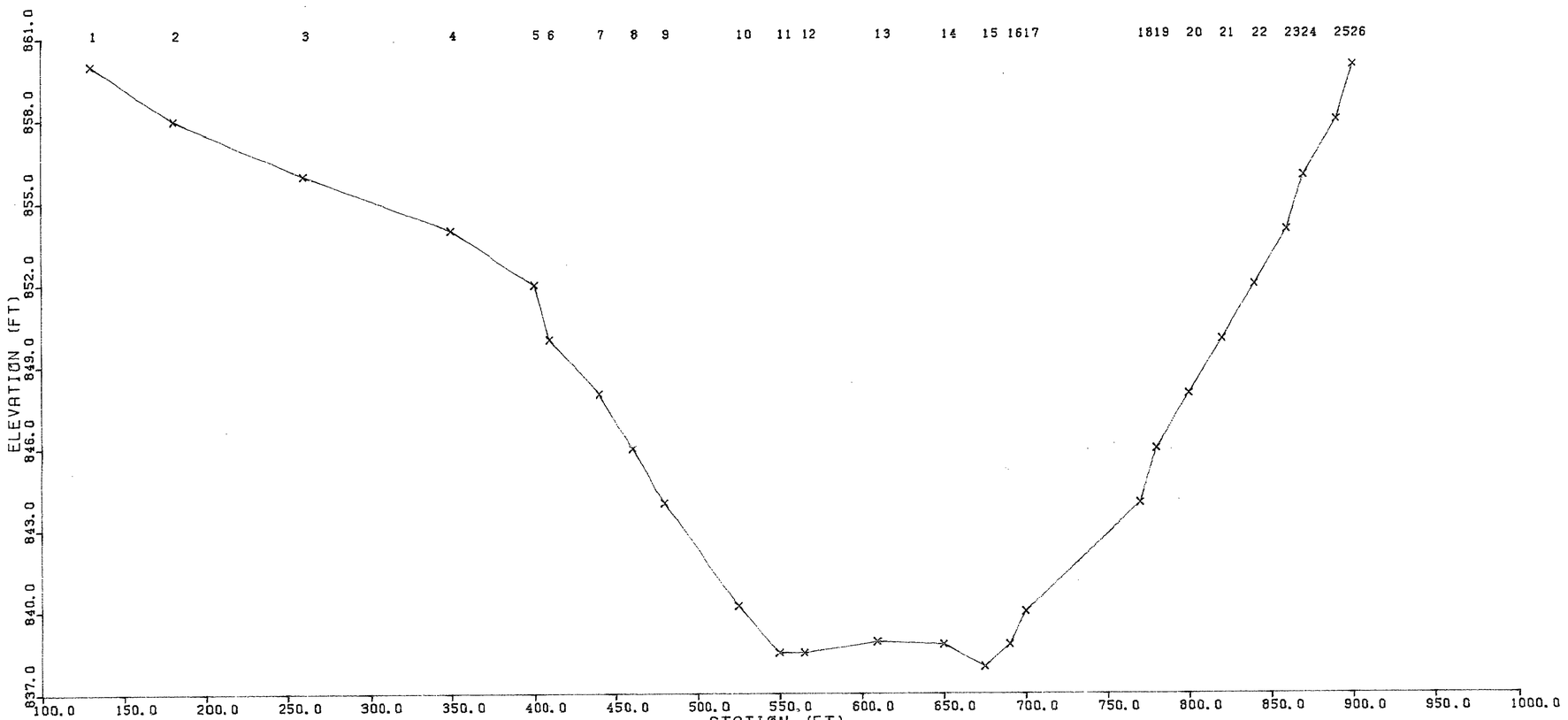


SUMMARY OF INPUT DATA		
POINT	STATION (FT)	ELEVATION (FT)
1	1760.0	860.0
2	1800.0	854.0
3	1990.0	850.0
4	2000.0	848.8
5	2004.5	846.9
6	2005.9	846.1
7	2031.0	843.2
8	2044.8	843.4
9	2061.0	843.3
10	2072.6	843.6
11	2086.2	843.6
12	2114.3	844.8
13	2124.8	846.7
14	2129.2	847.9
15	2132.3	853.5
16	2170.0	856.0
17	2310.0	856.0
18	2350.0	858.0
19	2440.0	858.0
20	2560.0	860.0



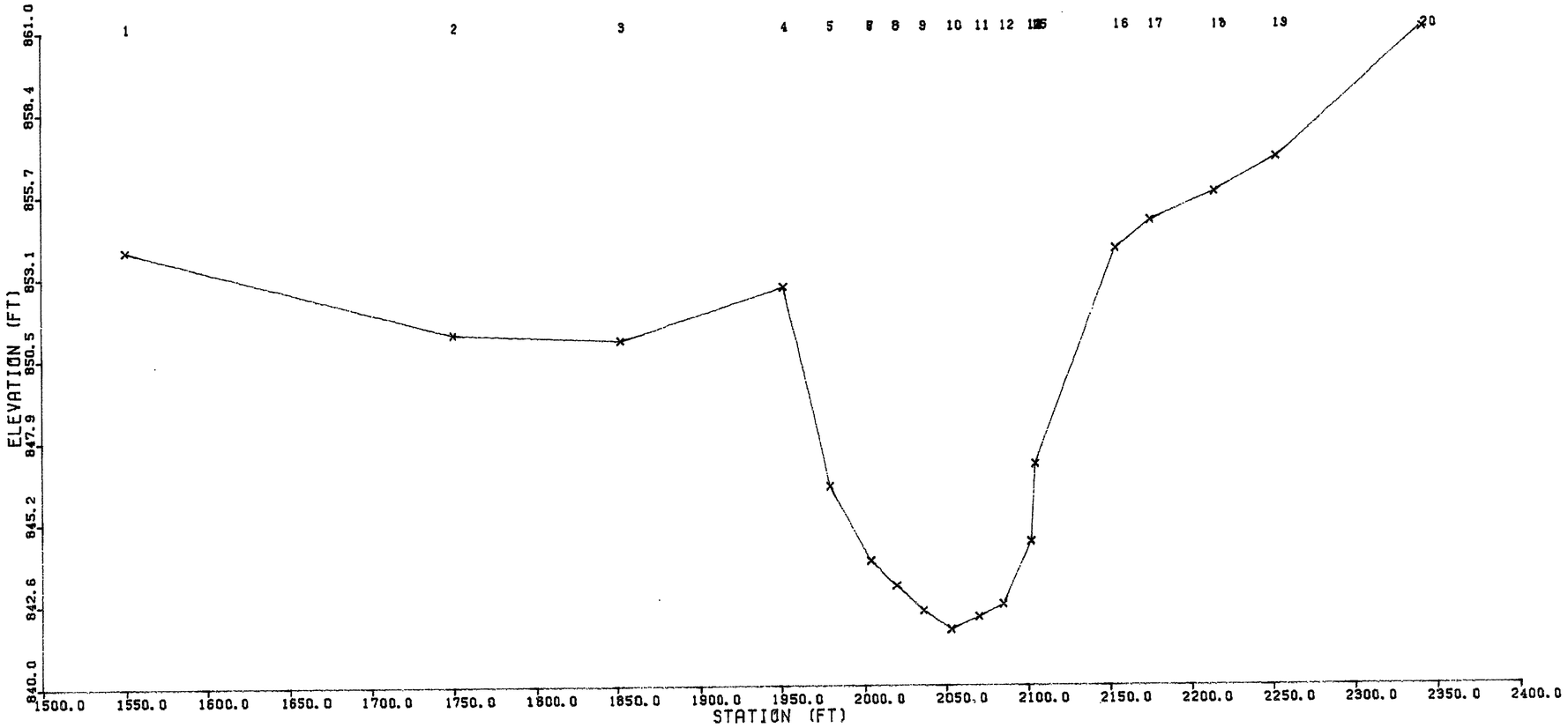
CROSS SECTION #2.5

SUMMARY OF INPUT DATA		
POINT	STATION (FT)	ELEVATION (FT)
1	130.0	860.0
2	180.0	858.0
3	260.0	856.0
4	350.0	854.0
5	400.0	852.0
6	410.0	850.0
7	440.0	848.0
8	460.0	846.0
9	480.0	844.0
10	525.0	840.2
11	550.0	838.5
12	565.0	838.5
13	610.0	838.9
14	650.0	838.8
15	675.0	838.0
16	690.0	838.8
17	700.0	840.0
18	770.0	844.0
19	780.0	846.0
20	800.0	848.0
21	820.0	850.0
22	840.0	852.0
23	860.0	854.0
24	870.0	856.0
25	890.0	858.0
26	900.0	860.0



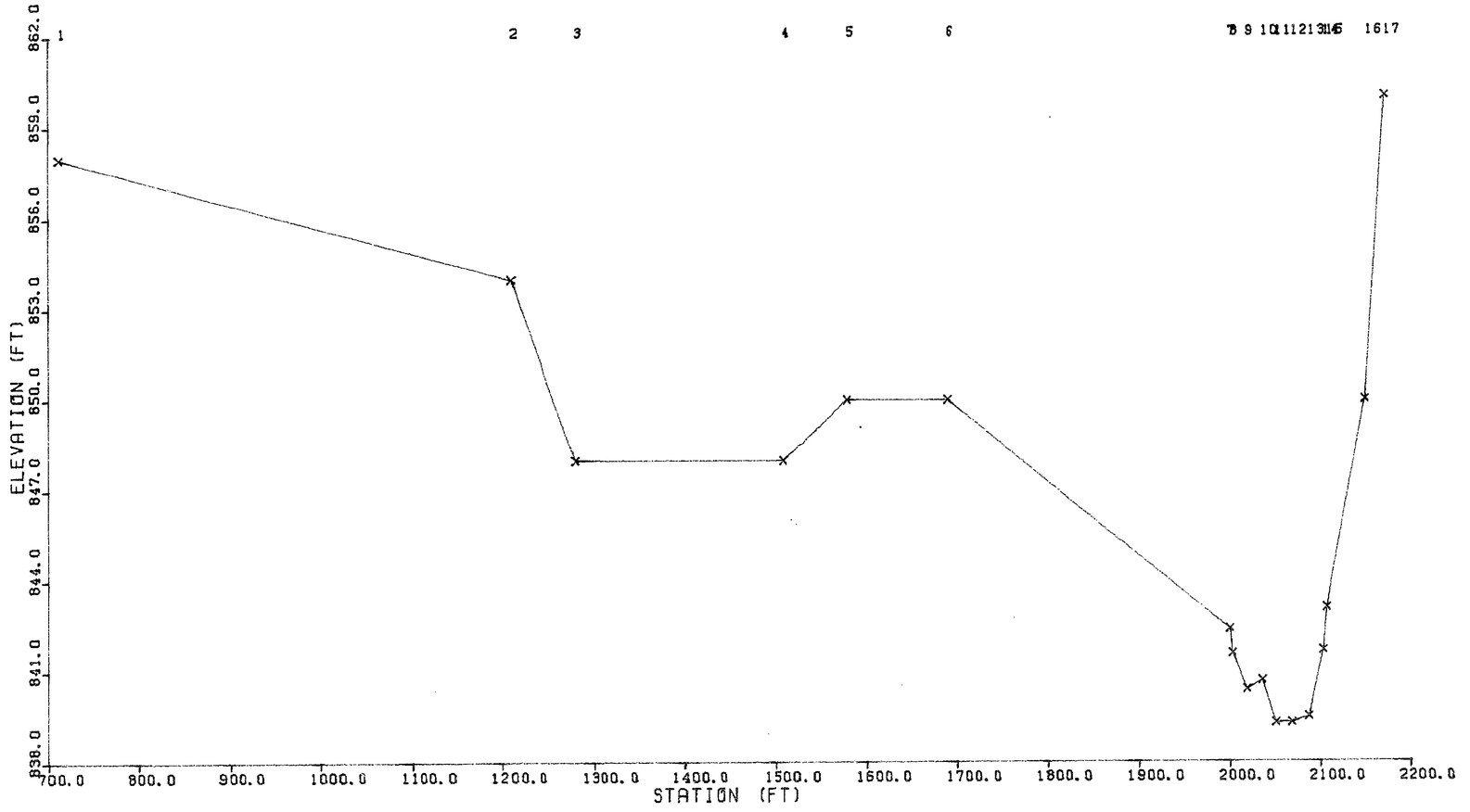
CROSS SECTION #6.36 HURON

SUMMARY OF INPUT DATA		
POINT	STATION (FT)	ELEVATION (FT)
1	1550.0	854.0
2	1750.0	851.3
3	1853.0	851.1
4	1952.0	852.8
5	1980.0	846.4
6	2003.9	844.0
7	2004.0	844.0
8	2020.0	843.2
9	2036.0	842.4
10	2053.0	841.8
11	2070.0	842.2
12	2085.0	842.6
13	2102.0	844.6
14	2102.1	844.6
15	2105.0	847.1
16	2154.0	854.0
17	2175.0	854.9
18	2215.0	855.8
19	2253.0	856.9
20	2343.0	861.0



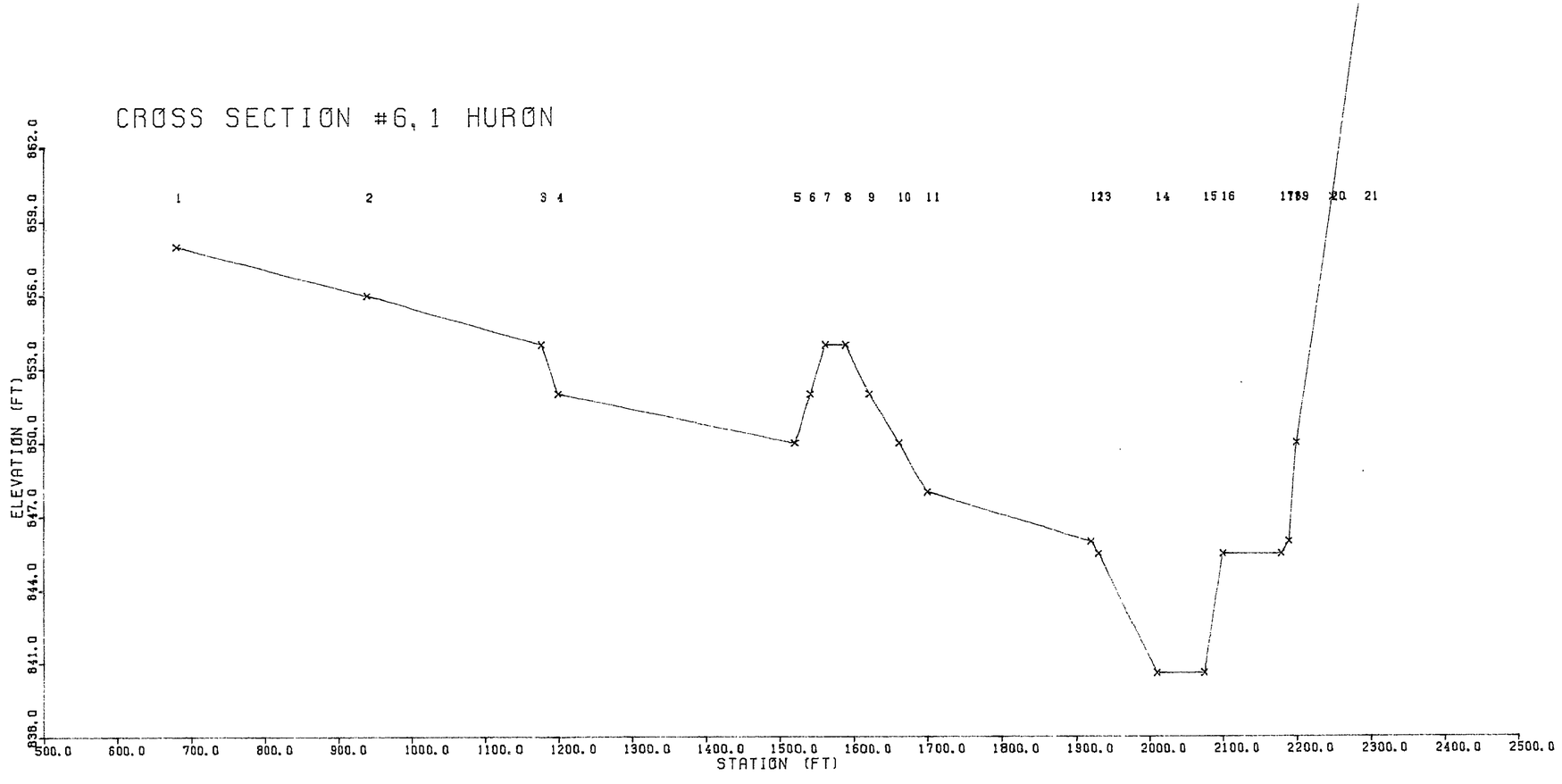
CROSS SECTION #5 HURON

SUMMARY OF INPUT DATA		
POINT	STATION (FT)	ELEVATION (FT)
1	710.0	858.0
2	1210.0	854.0
3	1280.0	848.0
4	1510.0	848.0
5	1580.0	850.0
6	1690.0	850.0
7	2000.0	842.4
8	2002.7	841.6
9	2019.5	840.4
10	2036.2	840.7
11	2051.6	839.3
12	2069.0	839.3
13	2088.1	839.5
14	2103.6	841.7
15	2107.5	843.1
16	2150.0	850.0
17	2170.0	860.0



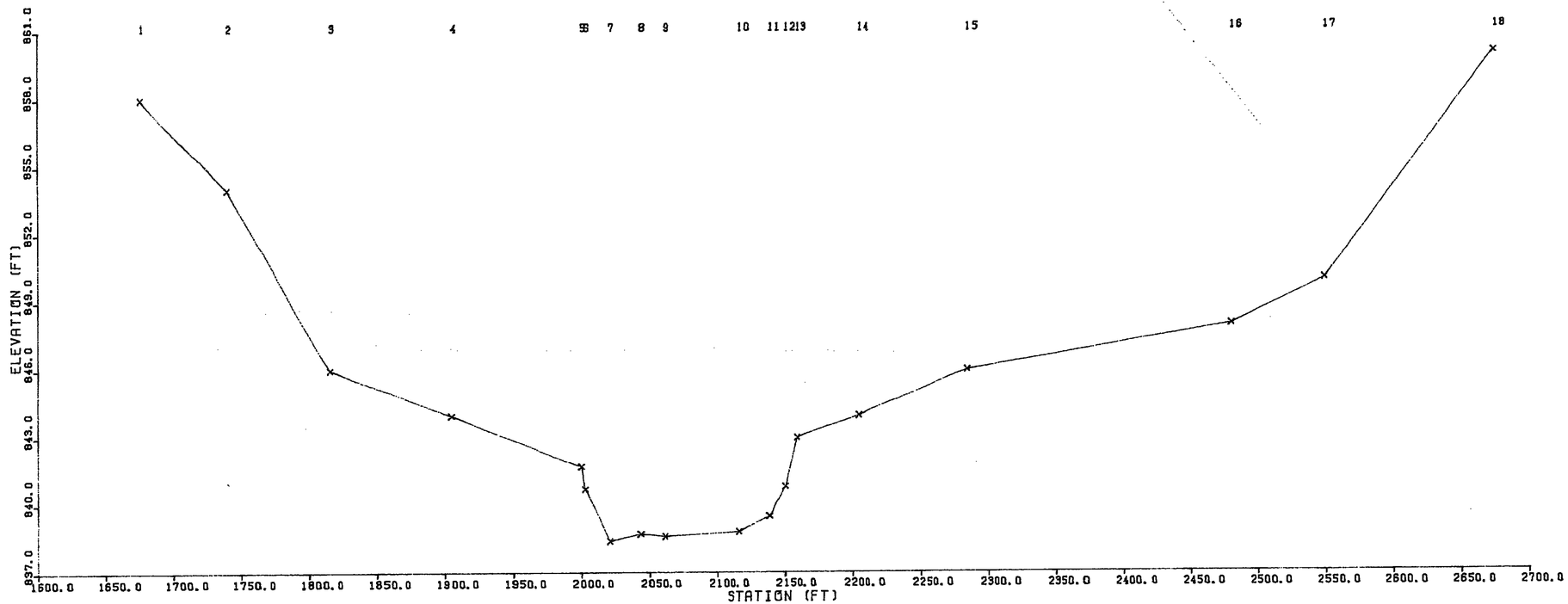
SUMMARY OF INPUT DATA

POINT	STATION (FT)	ELEVATION (FT)
1	680.0	856.0
2	940.0	856.0
3	1175.0	854.0
4	1200.0	852.0
5	1520.0	850.0
6	1540.0	852.0
7	1560.0	854.0
8	1590.0	854.0
9	1620.0	852.0
10	1660.0	850.0
11	1700.0	848.0
12	1920.0	846.0
13	1990.0	845.5
14	2010.0	840.6
15	2075.0	840.6
16	2100.0	845.5
17	2180.0	845.5
18	2190.0	846.0
19	2200.0	850.0
20	2250.0	860.0
21	2295.0	870.0



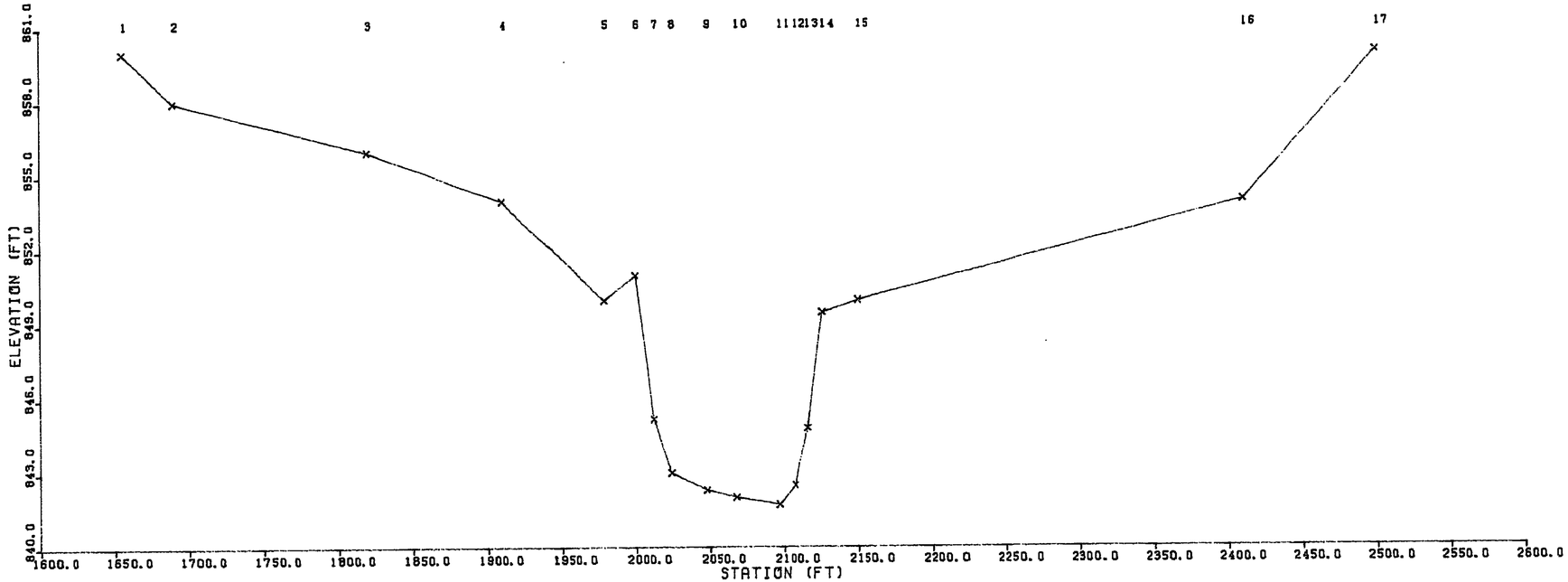
SUMMARY OF INPUT DATA		
POINT	STATION (FT)	ELEVATION (FT)
1	1675.0	858.0
2	1740.0	854.0
3	1815.0	846.0
4	1905.0	841.0
5	2000.0	841.7
6	2002.6	840.7
7	2021.7	838.4
8	2044.0	838.7
9	2061.6	838.6
10	2117.1	838.8
11	2139.3	839.5
12	2150.6	840.8
13	2159.6	843.0
14	2205.0	844.0
15	2285.0	846.0
16	2480.0	848.0
17	2550.0	850.0
18	2675.0	860.0

CROSS SECTION #4 HURON



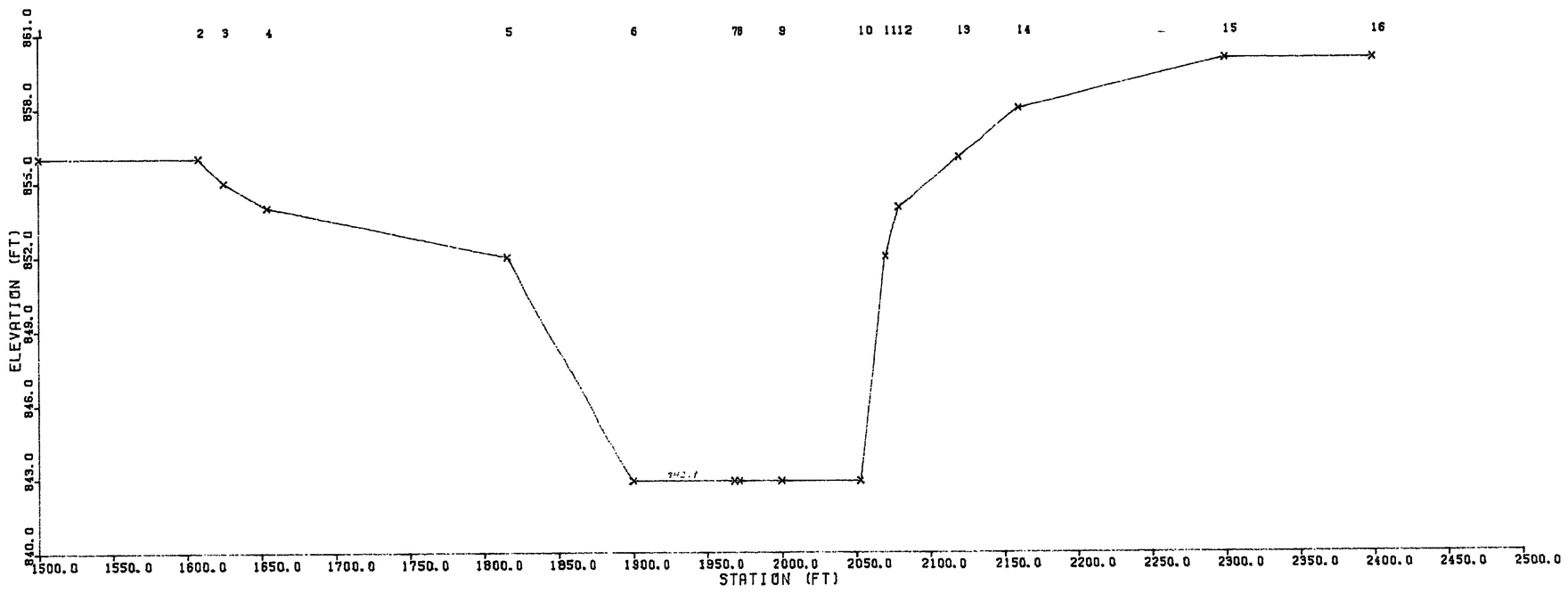
SUMMARY OF INPUT DATA		
POINT	STATION (FT)	ELEVATION (FT)
1	1655.0	860.0
2	1690.0	858.0
3	1820.0	856.0
4	1910.0	854.0
5	1980.0	850.0
6	2000.0	851.0
7	2013.2	845.2
8	2025.1	843.0
9	2047.7	842.3
10	2069.0	842.0
11	2097.0	841.7
12	2108.2	842.5
13	2117.0	844.8
14	2126.8	849.5
15	2150.0	850.0
16	2410.0	854.0
17	2500.0	860.0

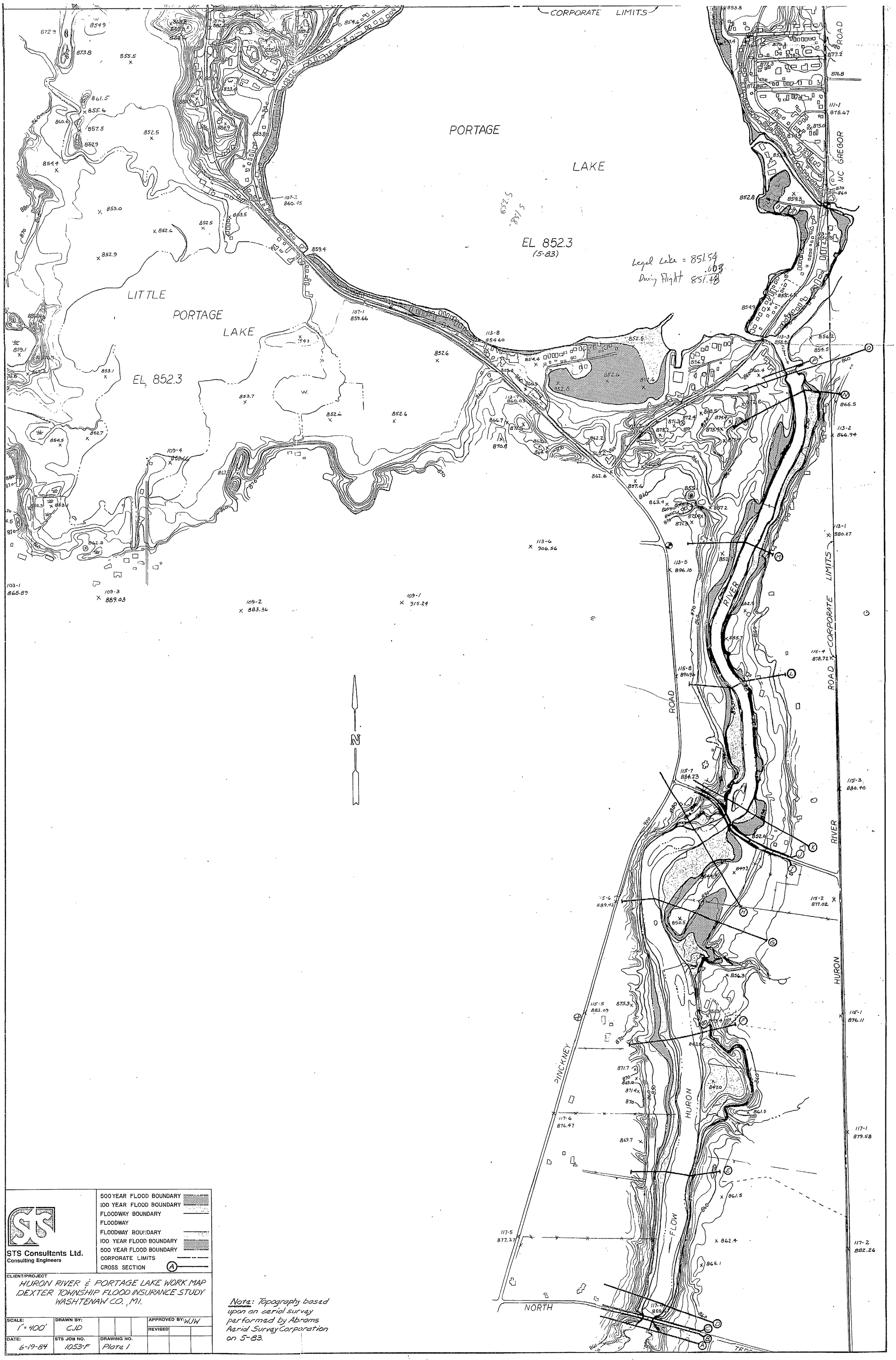
CROSS SECTION #7 HURON



SUMMARY OF INPUT DATA		
POINT	STATION (FT)	ELEVATION (FT)
1	1500.0	856.0
2	1608.0	856.0
3	1624.0	855.0
4	1654.0	854.0
5	1815.0	852.0
6	1900.0	842.9
7	1968.0	842.9
8	1972.0	842.9
9	2000.0	842.9
10	2059.0	842.9
11	2071.0	852.0
12	2080.0	854.0
13	2120.0	856.0
14	2160.0	858.0
15	2300.0	860.0
16	2400.0	860.0

CROSS SECTION #10 HURON





	500 YEAR FLOOD BOUNDARY
	100 YEAR FLOOD BOUNDARY
	FLOODWAY BOUNDARY
	FLOODWAY
	FLOODWAY BOUNDARY
	100 YEAR FLOOD BOUNDARY
	500 YEAR FLOOD BOUNDARY
	CORPORATE LIMITS
	CROSS SECTION (A)

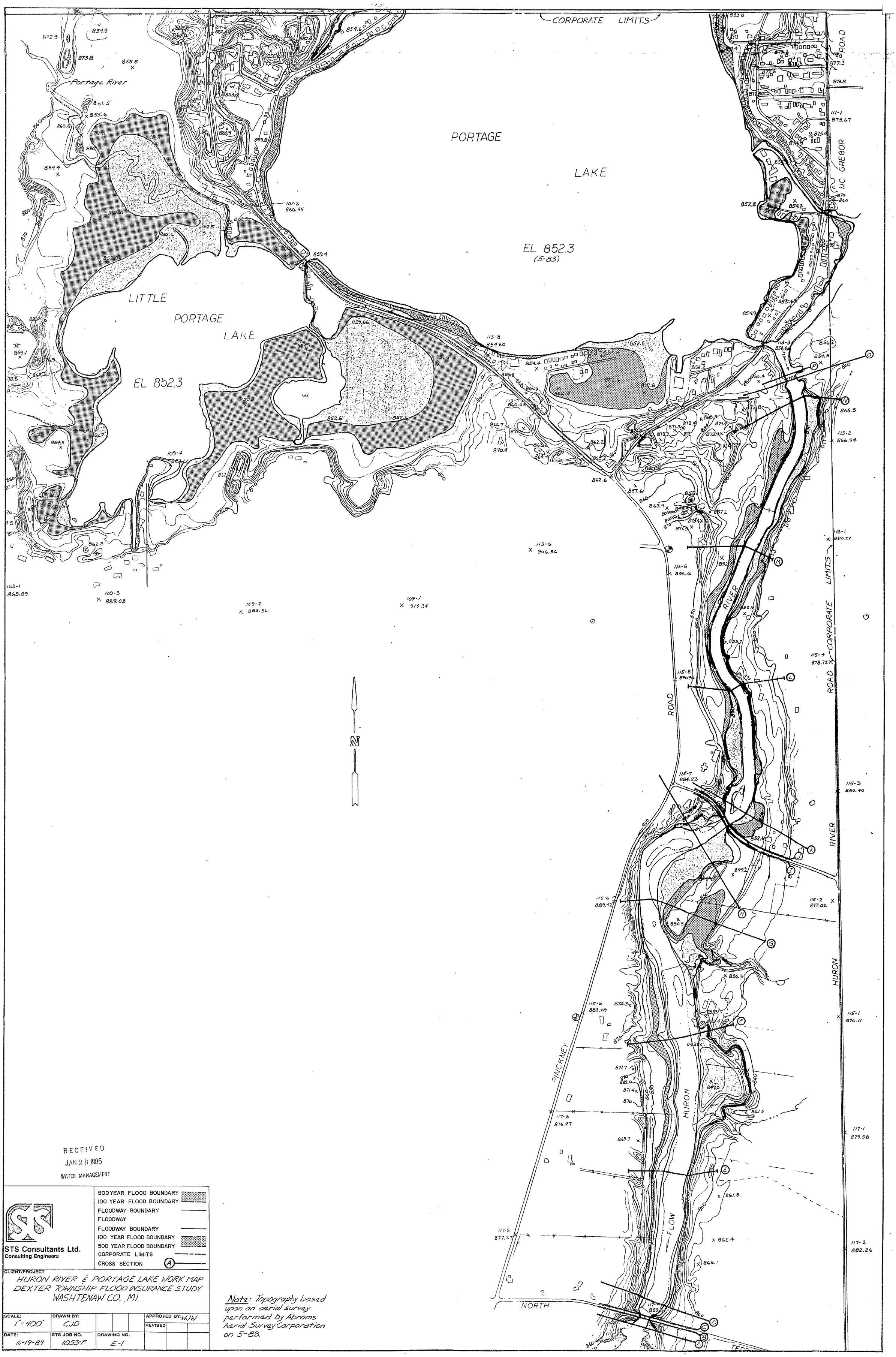
STS Consultants Ltd.
Consulting Engineers

CLIENT/PROJECT

HURON RIVER & PORTAGE LAKE WORK MAP
DEXTER TOWNSHIP FLOOD INSURANCE STUDY
WASHTENAW CO., MI.

SCALE:	DRAWN BY:					APPROVED BY: WJW
1" = 400'	CJD					REVISED
DATE:	STS JOB NO.	DRAWING NO.				
6-19-84	1053-F	Plate 1				

Note: Topography based upon an aerial survey performed by Abrams Aerial Survey Corporation on 5-83.



RECEIVED
JAN 28 1985
WATER MANAGEMENT

500 YEAR FLOOD BOUNDARY	
100 YEAR FLOOD BOUNDARY	
FLOODWAY BOUNDARY	
FLOODWAY	
FLOODWAY BOUNDARY	
100 YEAR FLOOD BOUNDARY	
500 YEAR FLOOD BOUNDARY	
CORPORATE LIMITS	
CROSS SECTION	A

STS Consultants Ltd.
Consulting Engineers

CLIENT/PROJECT

HURON RIVER & PORTAGE LAKE WORK MAP
DEXTER TOWNSHIP FLOOD INSURANCE STUDY
WASHTENAW CO., MI.

SCALE:	DRAWN BY:		APPROVED BY: WJW
1" = 400'	CJD		REVISED
DATE:	STS JOB NO.	DRAWING NO.	
6-19-84	1053-F	E-1	

Note: Topography based upon an aerial survey performed by Abrams Aerial Survey Corporation on 5-83.



RECEIVED
JAN 28 1985
WATER MANAGEMENT

500 YEAR FLOOD BOUNDARY	
100 YEAR FLOOD BOUNDARY	
FLOODWAY BOUNDARY	
FLOODWAY	
FLOODWAY BOUNDARY	
100 YEAR FLOOD BOUNDARY	
500 YEAR FLOOD BOUNDARY	
CORPORATE LIMITS	

STS Consultants Ltd.
Consulting Engineers

CLIENT/PROJECT

SILVER LAKE & LOSEE LAKE WORK MAP
DEXTER TOWNSHIP FLOOD INSURANCE STUDY
WASHTENAW COUNTY, MICHIGAN

SCALE:	DRAWN BY:		APPROVED BY: WJW
1" = 400'	CJD		REVISED
DATE:	STS JOB NO.	DRAWING NO.	
1-25-85	1053-E	E-2	

Note: Topography based upon an aerial survey performed by Abrams Aerial Survey Corporation on 5-83.



Note: Topography based upon an aerial survey performed by Abrams Aerial Survey Corporation on 5-83.

RECEIVED
JAN 28 1985
WATER MANAGEMENT

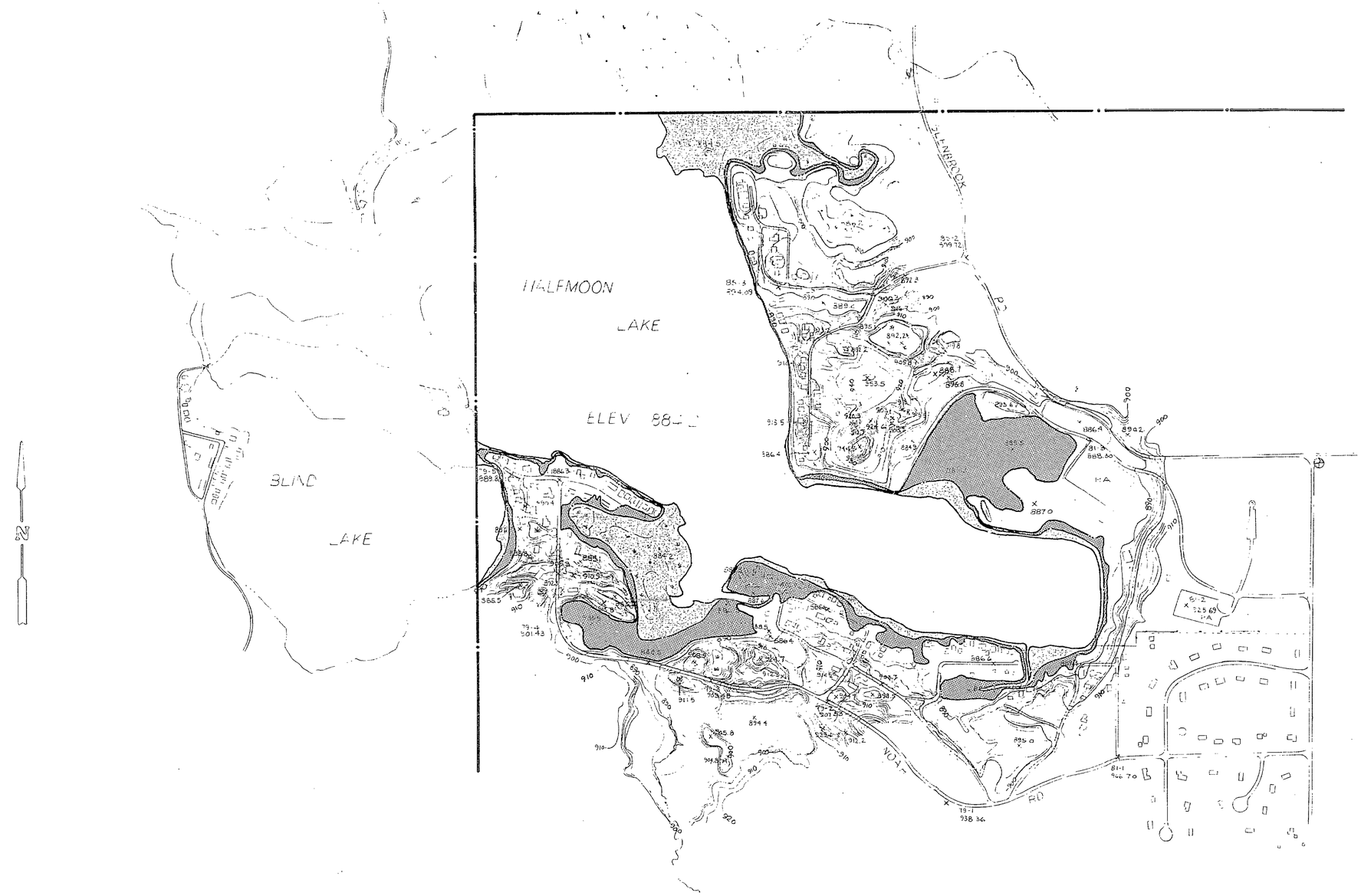
STS Consultants Ltd.
Consulting Engineers

500 YEAR FLOOD BOUNDARY	
100 YEAR FLOOD BOUNDARY	
FLOODWAY BOUNDARY	
FLOODWAY	
FLOODWAY BOUNDARY	
100 YEAR FLOOD BOUNDARY	
300 YEAR FLOOD BOUNDARY	
CORPORATE LIMITS	

CLIENT/PROJECT

NORTH LAKE WORK MAP
DEXTER TOWNSHIP FLOOD INSURANCE STUDY
WASHTENAW COUNTY, MICHIGAN

SCALE:	DRAWN BY:				APPROVED BY: WJW
1" = 400'	CJD				REVISED
DATE:	STS JOB NO.	DRAWING NO.			
1-25-85	1057-E	E-3			



RECEIVED
JAN 28 1985
WATER MANAGEMENT

Note: Topography based upon an aerial survey performed by Abrams Aerial Survey Corporation on 5-83.

STS Consultants Ltd.
Consulting Engineers

500 YEAR FLOOD BOUNDARY
100 YEAR FLOOD BOUNDARY
FLOODWAY BOUNDARY
FLOODWAY
FLOODWAY BOUNDARY
100 YEAR FLOOD BOUNDARY
500 YEAR FLOOD BOUNDARY
CORPORATE LIMITS

CLIENT/PROJECT
HALFMOON LAKE WORK MAP
DEXTER TOWNSHIP FLOOD INSURANCE STUDY
WASHTENAW COUNTY, MICHIGAN

SCALE:	DRAWN BY:				APPROVED BY: WJW
1" = 400'	CJD				REVISED
DATE:	STS JOB NO.	DRAWING NO.			
1-25-85	1057-E	E-4			

"PERFECT" CROSS SECTION
10 X 10 = ONE INCH
EUGENE DIETZGEN CO.

FLOOD PROFILES

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

TOWNSHIP OF PITTSFIELD (WASHTENAW CO.), MI.

SWIFT RUN DRAIN

ELEVATION IN FEET (MSL)

820
810
800
790
780
770
760
750
740

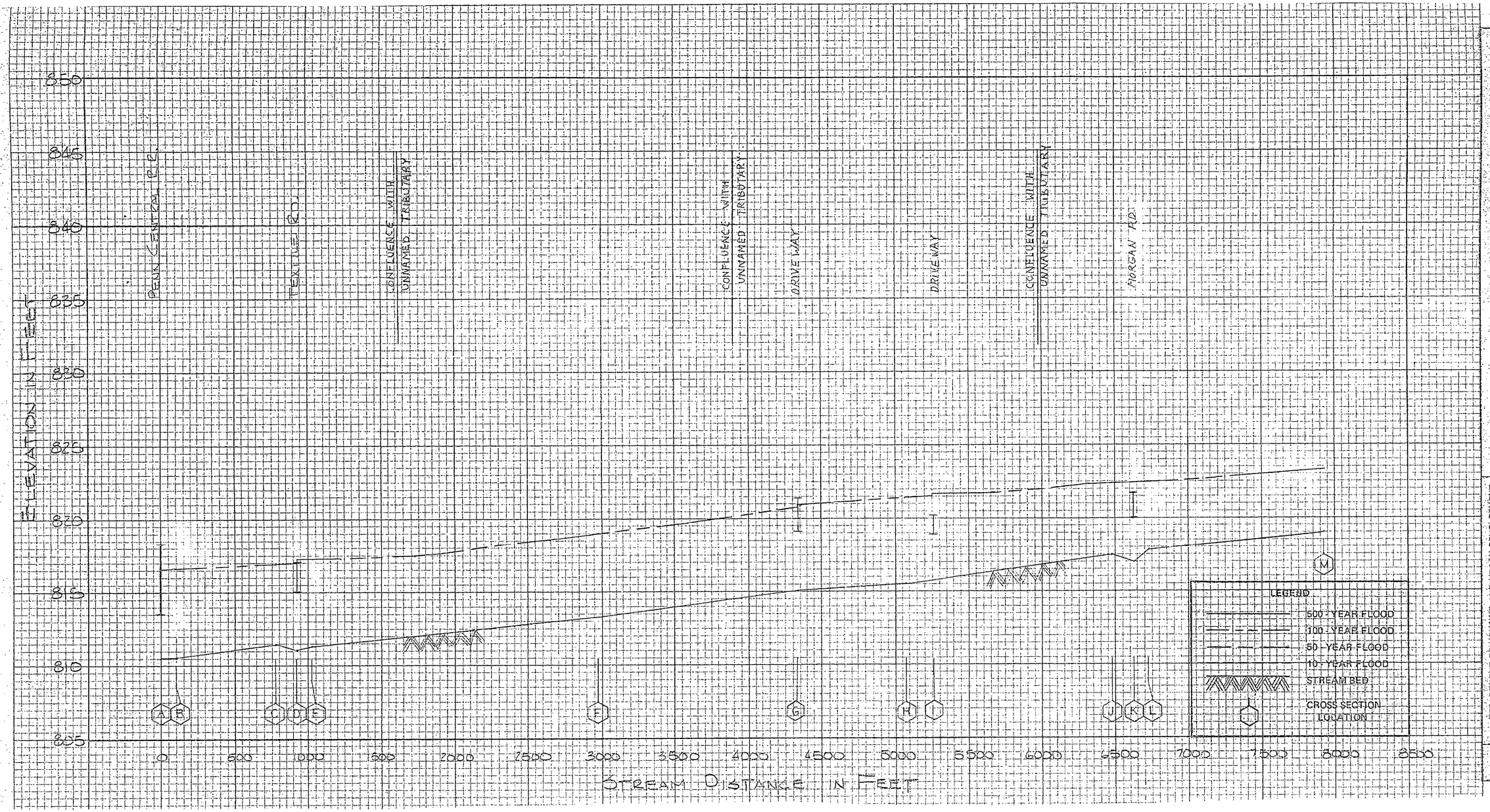
STREAM DISTANCE IN FEET

0
500
1000
1500
2000
2500

LIMIT OF DETAILED STUDY
CLARK ROAD
LIMIT OF DETAILED STUDY
HORSEBACK ROAD

A
B
C
D
E
F

LEGEND
500 - YEAR FLOOD
100 - YEAR FLOOD
50 - YEAR FLOOD
10 - YEAR FLOOD
STREAM BED
CROSS SECTION LOCATION



FLOOD PROFILES

WOOD OUTLET DRAIN

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

TOWNSHIP OF PITTSFIELD, MI
(WASHTENAW CO)

CROSS SECTION
IE INCH
TZGEN CO.
PRINTED IN U.S.A.

PRINTED IN U.S.A.

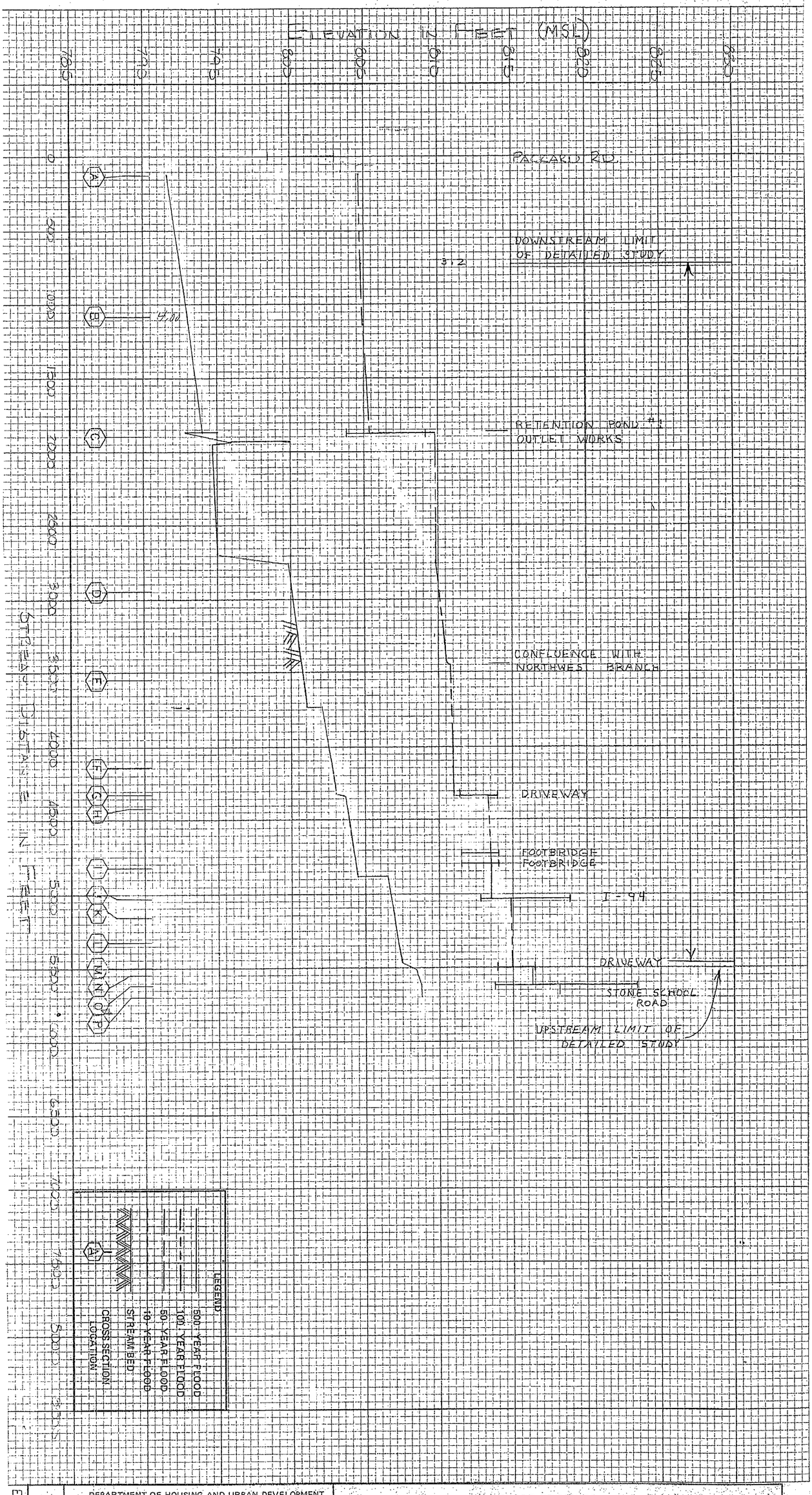
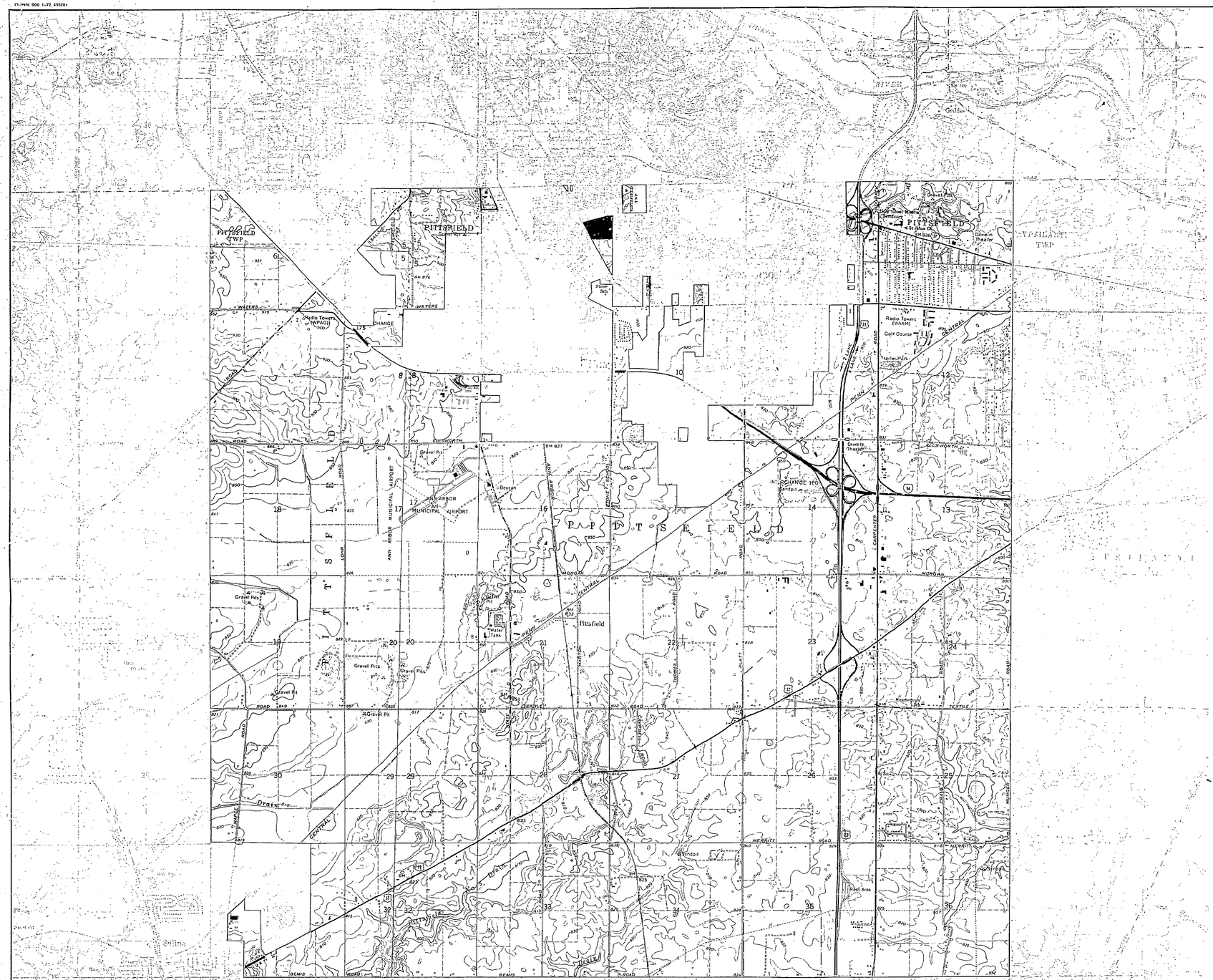


EXHIBIT 1

01P	DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT Federal Insurance Administration TOWNSHIP OF PITTSFIELD, MI (WASHTENAW CO.)	FLOOD PROFILES PITTSFIELD & ANN ARBOR DRAIN

MUNN 500 1-72 43528



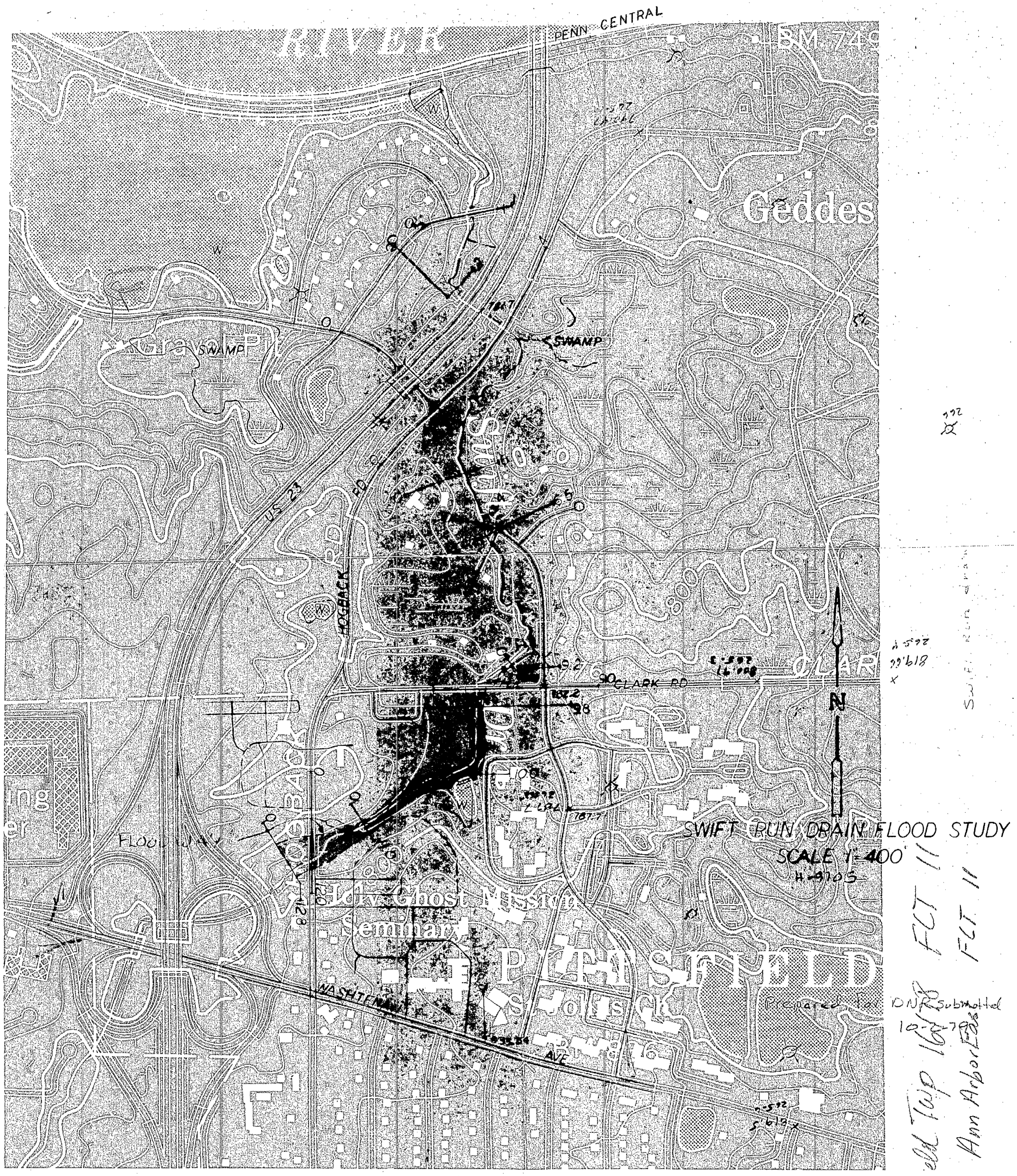
1000 0 1000 2000 3000 4000 5000 6000 7000
SCALE-FEET

AYRES, LEWIS, NORRIS & MAY, INC.
engineers - architects
JUN 5 1975
Ann Arbor, Michigan 48104

PITTSFIELD CHARTER TOWNSHIP
WASHTENAW COUNTY, MICHIGAN

AYRES, LEWIS, NORRIS & MAY, INC.
engineers architects
ANN ARBOR, MICHIGAN
SCALE: 1"=2000'

REVISION



Field Twp 16 FLT 11
Ann Arbor East FLT 11

ANN ARBOR
MUNICIPAL AIRPORT

LOHR RD

TEXTILE RD

PENN CENTRAL

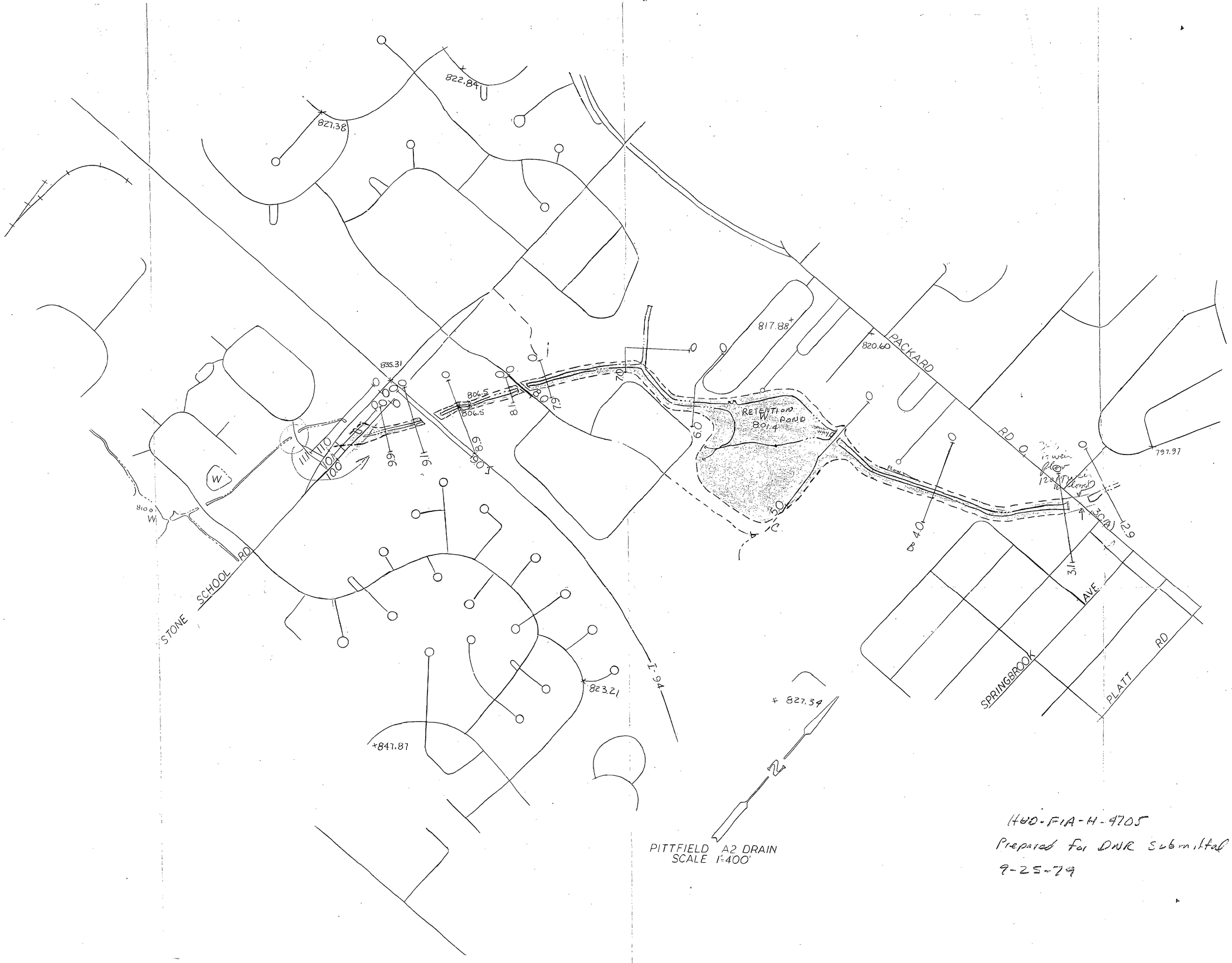
STATE ROAD

US 12

N

WOOD OUTLET DRAIN
SCALE 1"=400'
2 C.I.
REVISED MAY 15, 1979

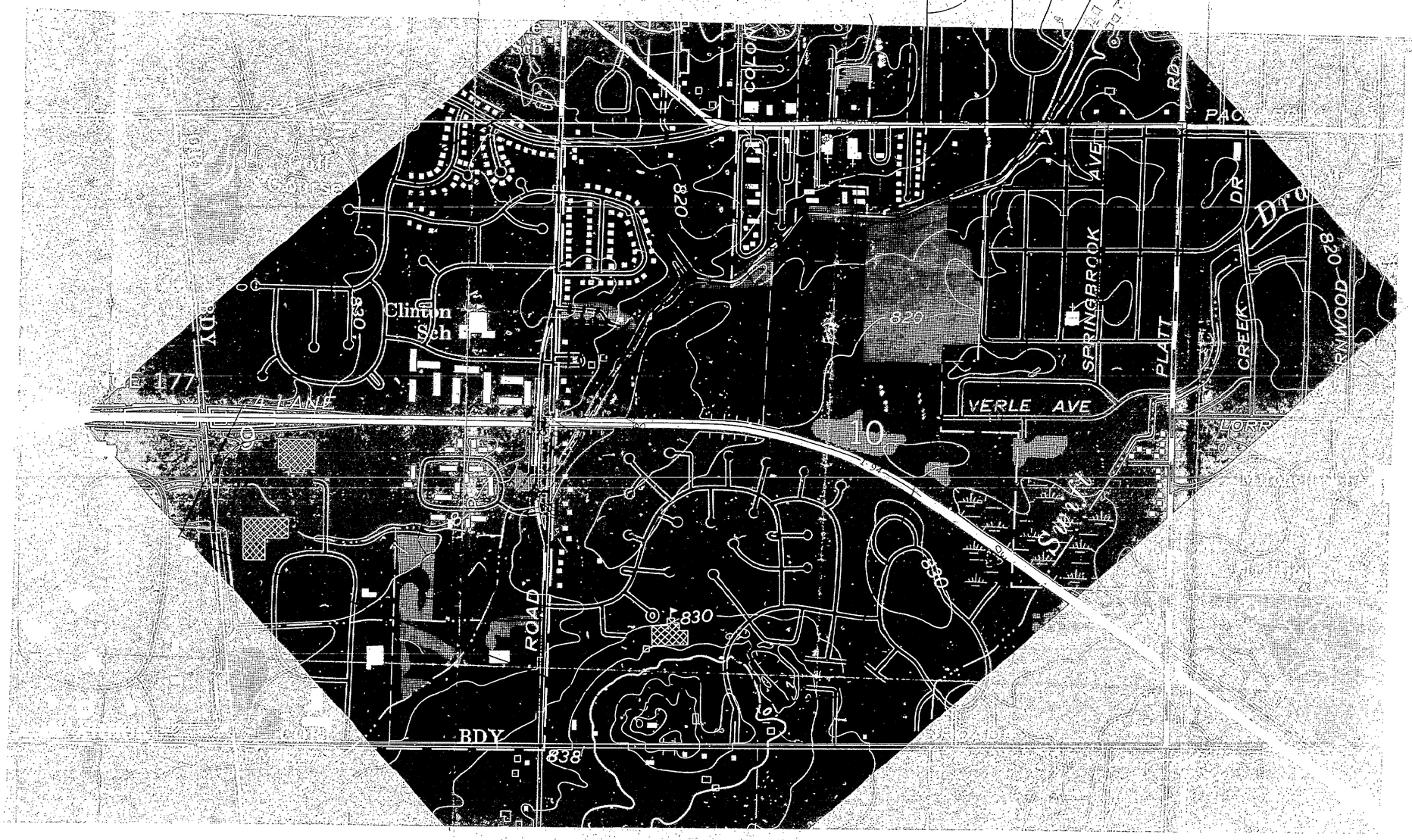
HUD-FIA H-4705
PITTSFIELD TWP.
WOOD OUTLET DRAIN
N.O. 16178



PITTFIELD A2 DRAIN
SCALE 1"=400'

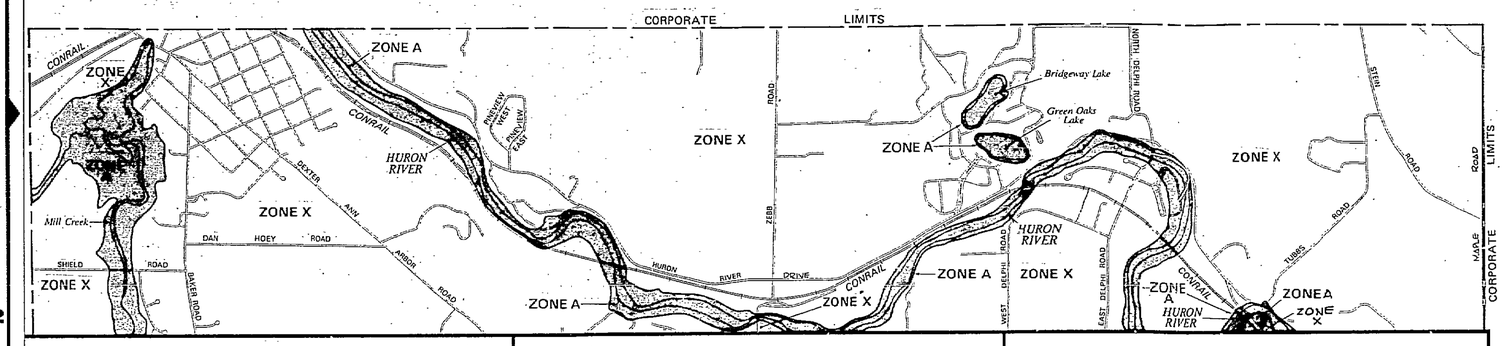
HUD-FIA-H-4705
Prepared for DNR Submittal
9-25-79

PAAD plan V28 NW



16128 Ypsilanti Dist FLT 10
FLT 10 Pittsfield Twp

RECEIVED
FEB 13 1990
WATER RESOURCES COMMISSION



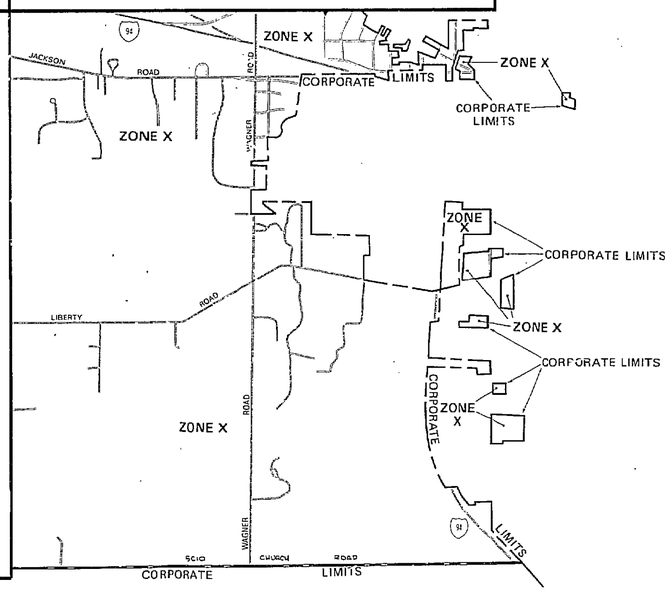
THIS AREA SHOWN ON MAP
PANEL 260537 0003

THIS AREA SHOWN ON MAP
PANEL 260537 0004

THIS AREA SHOWN ON MAP
PANEL 260537 0008

THIS AREA SHOWN ON MAP
PANEL 260537 0011

THIS AREA SHOWN ON MAP
PANEL 260537 0012



LEGEND

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FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

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OTHER AREAS

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- ZONE D — Areas in which flood hazards are undetermined.

- Flood Boundary
- Floodway Boundary
- Zone D Boundary
- Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.
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- D — D — Cross Section Line
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- RM7X — Elevation Reference Mark
- •M1.5 — River Mile

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

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For adjoining panels, see separately printed Map Index

MAP REPOSITORY

INITIAL IDENTIFICATION:
NOVEMBER 26, 1976

FLOOD HAZARD BOUNDARY MAP REVISIONS:

FLOOD INSURANCE RATE MAP EFFECTIVE:

FLOOD INSURANCE RATE MAP REVISIONS:

To determine if flood insurance is available, contact an insurance agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET
2000 0 2000

NATIONAL FLOOD INSURANCE PROGRAM

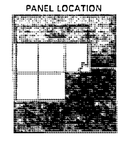
FIRM
FLOOD INSURANCE RATE MAP

TOWNSHIP OF
SCIO,
MICHIGAN
WASHTENAW COUNTY

PRELIMINARY

PANEL 25 OF 25

PANEL LOCATION



COMMUNITY-PANEL NUMBER
260537 0025 A

EFFECTIVE DATE:

Federal Emergency Management Agency

SCALE 1:24 000

1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

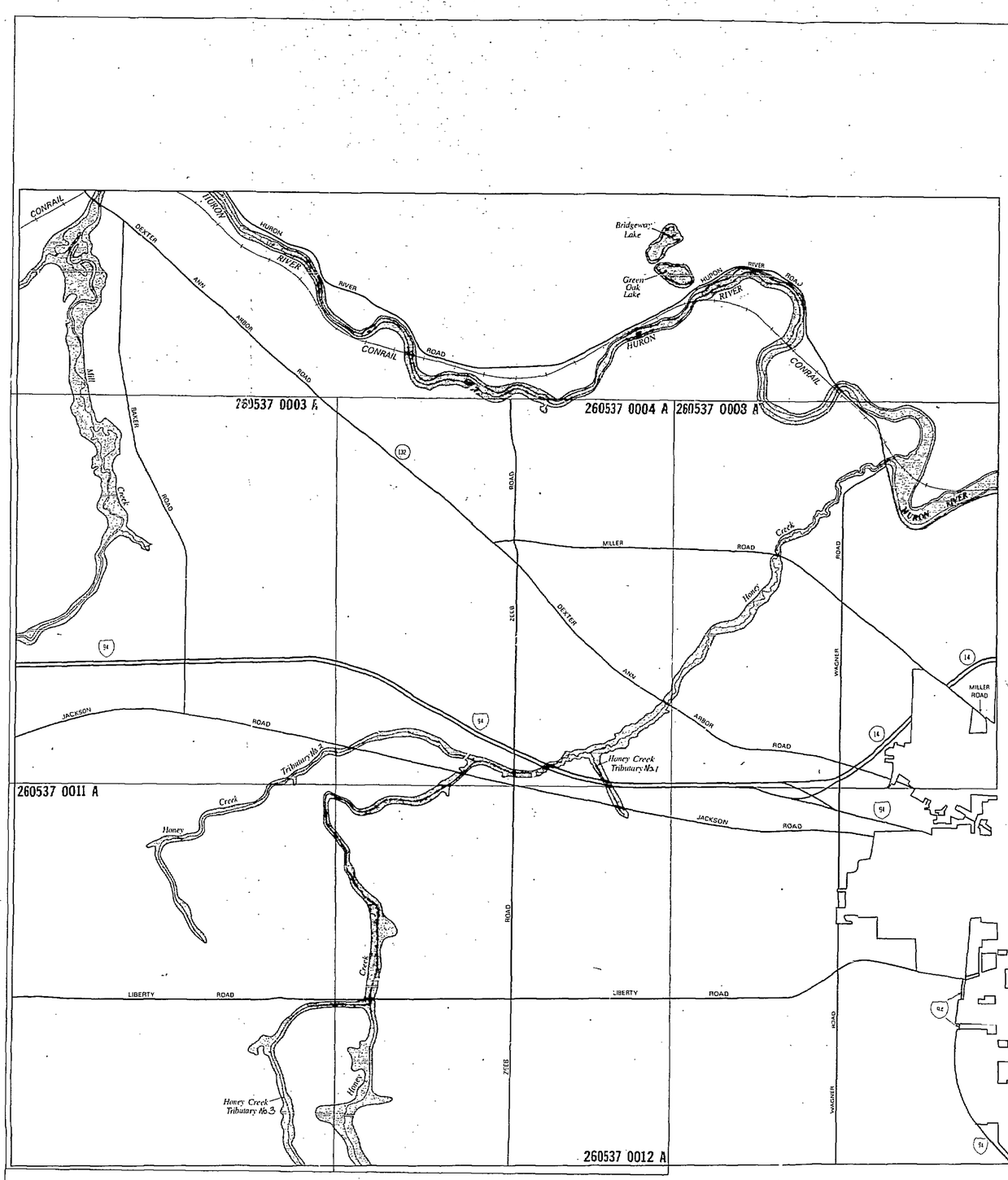
CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

FOLD FOLD FOLD FOLD FOLD

COMMUNITY-PANEL NUMBER

260537 0025 A



LEGEND

FLOOD PRONE AREAS:
FOR ORIENTATION PURPOSES ONLY

FLOOD PRONE STREET INDEX

NOTES TO USER

This index provides a list of all streets shown on the Flood Insurance Rate Map (FIRM) that are partially or totally within Special Flood Hazard Areas (SFHAs). This index should not be used as an authoritative source *for determining whether specific streets, properties, or buildings are* within an SFHA. The appropriate FIRM panel must be consulted for these purposes. This index is intended to be used only as a guide for determining which FIRM panel displays the street in question and the relative location of the street on the FIRM panel.

KEY

street name ..... panel number
BAKER STREET 0005 (A2)
grid location

NAMED STREETS

DEXTER ANN ARBOR ROAD 0004 (F5)
EAST DELPHI ROAD 0025 (D2)
HONEY RUN ROAD 0011 (F4)
HURON RIVER DRIVE ..... 0008 (D1) 0025(D2)

JACKSON ROAD 0004 (A6,C6); 0012 (E1)
LIBERTY ROAD 0012 (A1)
MARSHALL ROAD 0003 (B3)
MILLER ROAD 0008 (C3)
PARK ROAD 0012 (A2)
PRATT ROAD 0008 (A5)
SARNS-3M DRIVE 0004 (B6)
SCIO CHURCH ROAD 0011 (F6); 0012 (A6)
SHIELD ROAD 0025 (A2)
STAEBLER ROAD 0004 (A6); 0012 (A1,A2)
ZEBB ROAD 0004 (D6); 0025 (C2)

NUMBERED STREETS

INTERSTATE94 ..... 0004 (D6,E6); 0012 (E1)

MAP REPOSITORY

N

FOLD

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWNSHIP OF
SCIO,
MICHIGAN
WASHTENAW COUNTY

PRELIMINARY

MAP INDEX

PANELS PRINTED: 3, 4, 8, 11, 12, 25

COMMUNITY-PANEL NUMBERS
260537 0003-0025

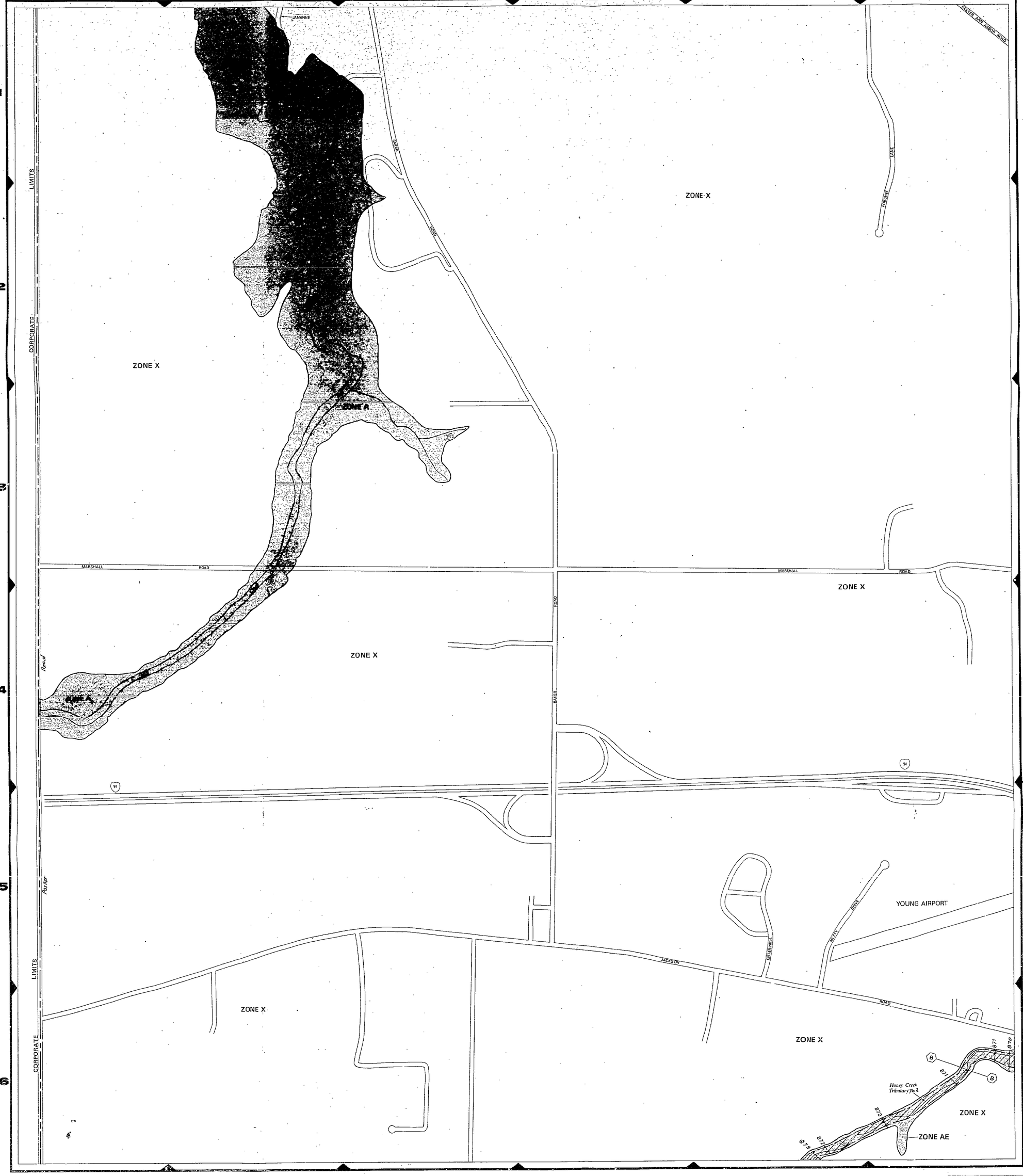
EFFECTIVE DATE:

Federal Emergency Management Agency

FOLD TRIM FOLD TRIM FOLD FOLD FOLD

TRIM | FOLD | A | B | C | D | E | F | FOLD | TRIM

1 2 3 4 5 6



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

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FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

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OTHER AREAS

- **ZONE X** — Areas determined to be outside 500-year-flood plain.
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Flood Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.

513 — Base Flood Elevation Line; Elevation in Feet*

D — D — Cross Section Line

(EL 987) — Base Flood Elevation in Feet Where *Uniform* Within Zone*

RM7X — Elevation Reference Mark

•M1.5 — River Mile

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

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MAP REPOSITORY

INITIAL IDENTIFICATION:
NOVEMBER 26, 1976

FLOOD HAZARD BOUNDARY MAP REVISIONS:

FLOOD INSURANCE RATE MAP EFFECTIVE:

FLOOD INSURANCE RATE MAP REVISIONS:

To determine if flood insurance is available, contact an insurance agent or call the National Flood Insurance Program at (800) 638-6620

N

APPROXIMATE SCALE IN FEET
500 0 500

NATIONAL FLOOD INSURANCE PROGRAM

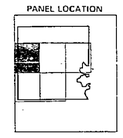
FIRM
FLOOD INSURANCE RATE MAP

TOWNSHIP OF
SCIO,
MICHIGAN
WASHTENAW COUNTY

PRELIMINARY

PANEL 3 OF 25

PANEL LOCATION



COMMUNITY-PANEL NUMBER
260537 0003 A

EFFECTIVE DATE:

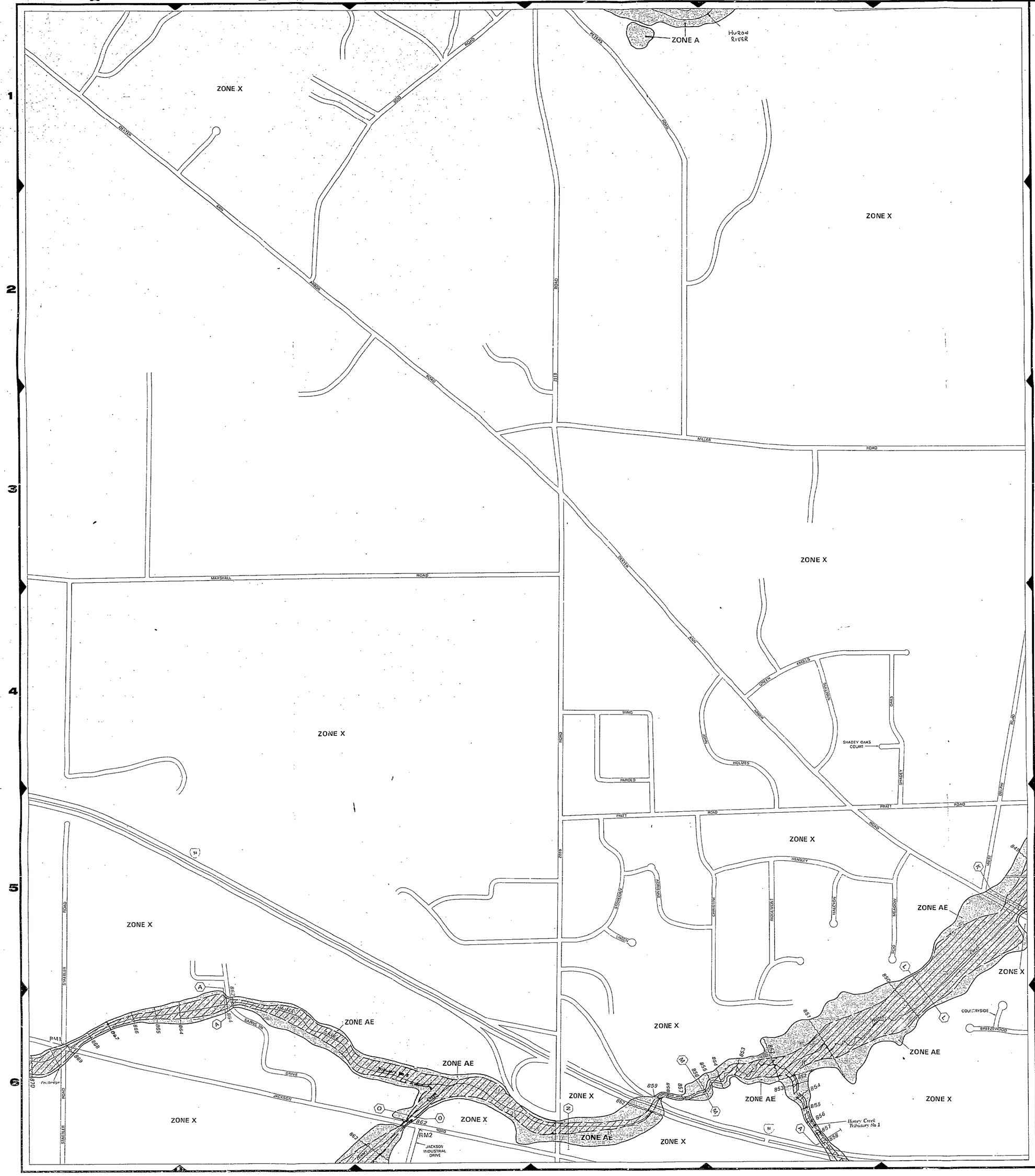
Federal Emergency Management Agency

TRIM | FOLD | FOLD | FOLD | FOLD | FOLD | TRIM

TRIM | FOLD | FOLD | FOLD | FOLD | FOLD | TRIM

A B C D E F

1 2 3 4 5 6


ZONE A
HURON RIVER
ZONE X
ZONE X
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ZONE X
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ZONE AE
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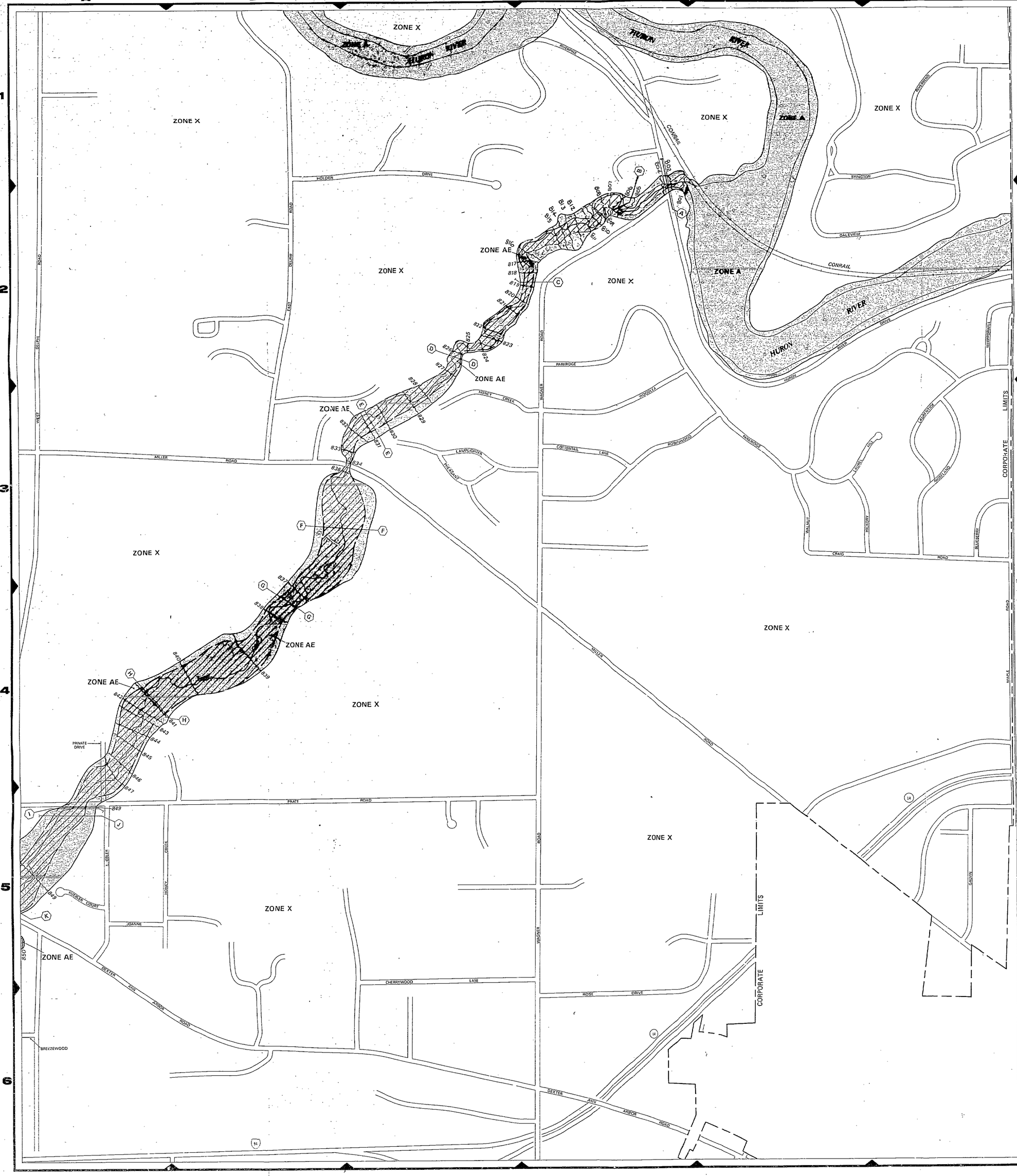

LEGEND

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RM7X — Elevation Reference Mark

•MI.5 — River Mile

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NOVEMBER 26, 1976

FLOOD HAZARD BOUNDARY MAP REVISIONS:

FLOOD INSURANCE RATE MAP EFFECTIVE:

FLOOD INSURANCE RATE MAP REVISIONS.

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APPROXIMATE SCALE IN FEET

500 0 500

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWNSHIP OF
SCIO,
MICHIGAN
WASHTENAW COUNTY

PRELIMINARY

PANEL 8 OF 25

PANEL LOCATION

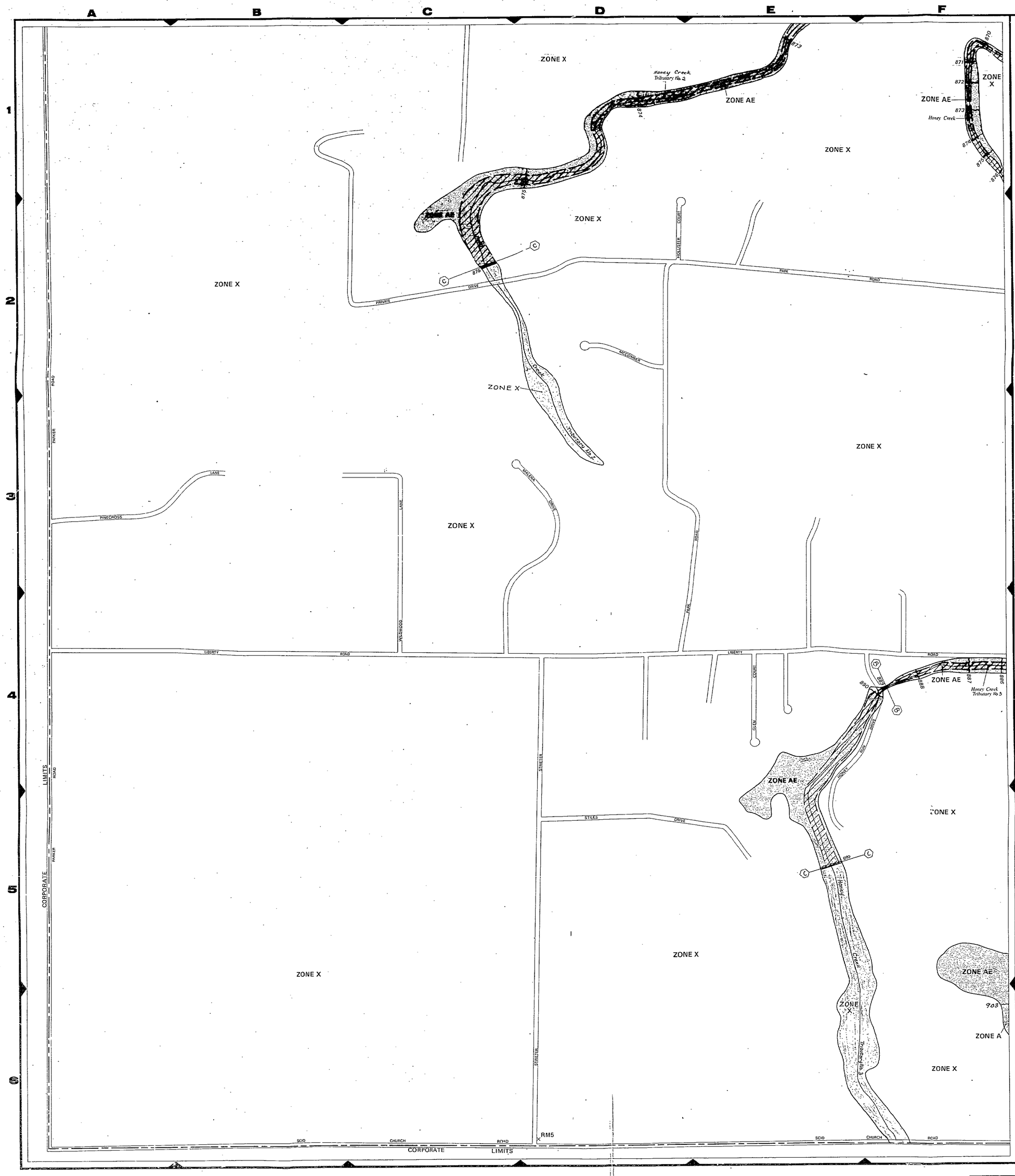
COMMUNITY-PANEL NUMBER
260537 0008 A

EFFECTIVE DATE:

Federal Emergency Management Agency

GREENHORNE & O'MARA C FRAME 0008

Scio Twp., MI
TUBE PLATE



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FLOOD INSURANCE RATE MAP REVISIONS:

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APPROXIMATE SCALE IN FEET
500 0 500

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWNSHIP OF
SCIO,
MICHIGAN
WASHTENAW COUNTY

PRELIMINARY

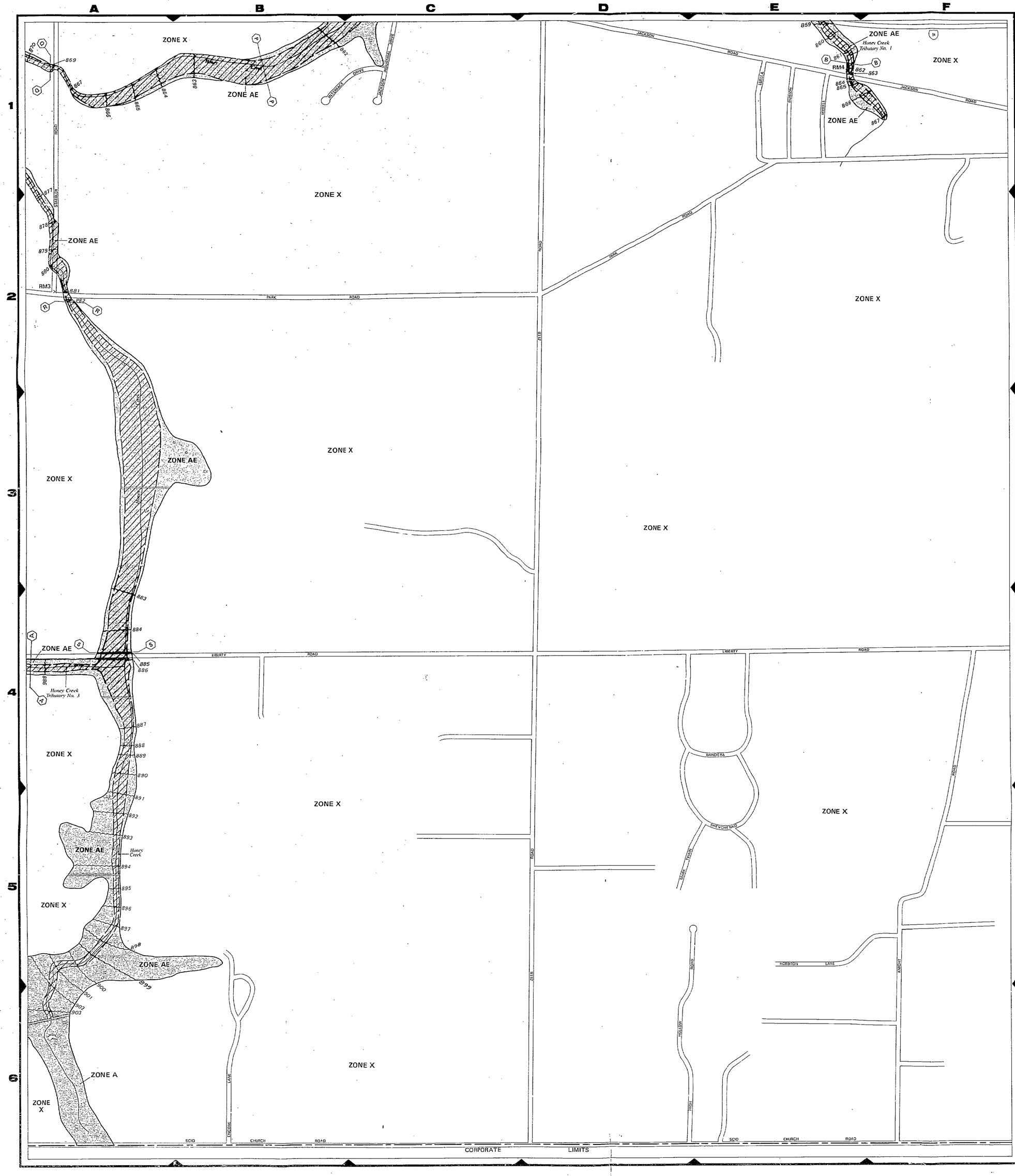
PANEL 11 OF 25

PANEL LOCATION

COMMUNITY-PANEL NUMBER
260537 0011 A

EFFECTIVE DATE:

Federal Emergency Management Agency



LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- **ZONE A** — No base flood elevations determined.
- **ZONE AE** — Base flood elevations determined.
- **ZONE AH** — Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- **ZONE AO** — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE A99** — To be protected from 100-year flood by Federal flood protection system under construction; no base elevations determined.
- **ZONE V** — Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- **ZONE VE** — Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

- **ZONE X** — Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

- **ZONE X** — Areas determined to be outside 500-year flood plain.
- **ZONE D** — Areas in which flood hazards are undetermined.

- Flood Boundary
- Floodway Boundary
- Zone D Boundary
- Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.
- 513 — Base Flood Elevation Line; Elevation in Feet*
- (D)—(D) — Cross Section Line
- (EL 987) — Base Flood Elevation in Feet Where Uniform Within Zone*
- $RM7_X$ — Elevation Reference Mark
- •M1.5 — River Mile

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas

Certain areas not in the Special Flood Hazard Areas may be protected by flood control structures

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency

Floodway widths in some areas may be too narrow to show to scale. Refer to Floodway Data Table where floodway width is shown at 1/20 inch.

Coastal base flood elevations apply only landward of the shoreline

Elevation reference marks are described in the Flood Insurance Study Report.

Corporate limits shown are current as of the date of this map. The user should contact appropriate community officials to determine if corporate limits have changed subsequent to the issuance of this map.

For adjoining panels, see separately printed Map Index.

MAP REPOSITORY

INITIAL IDENTIFICATION

FLOOD HAZARD BOUNDARY MAP REVISIONS:
NOVEMBER 26, 1976

FLOOD INSURANCE RATE MAP EFFECTIVE:

FLOOD INSURANCE RATE MAP REVISIONS:

To determine if flood insurance is available, contact an insurance agent or call the National Flood Insurance Program at (800) 638-6620

APPROXIMATE SCALE IN FEET
500 0 500

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWNSHIP OF
SCIO,
MICHIGAN
WASHTENAW COUNTY

PRELIMINARY

PANEL 12 OF 25

PANEL LOCATION

COMMUNITY-PANEL NUMBER
260537 0012 A

EFFECTIVE DATE:

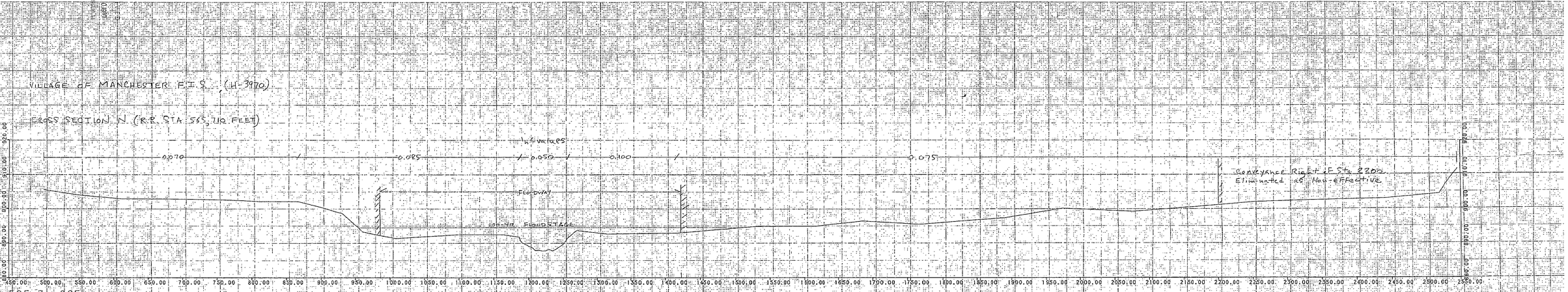
Federal Emergency Management Agency

GREENHORNE & O'MARA C FRAME

Scio Twp. MI
012

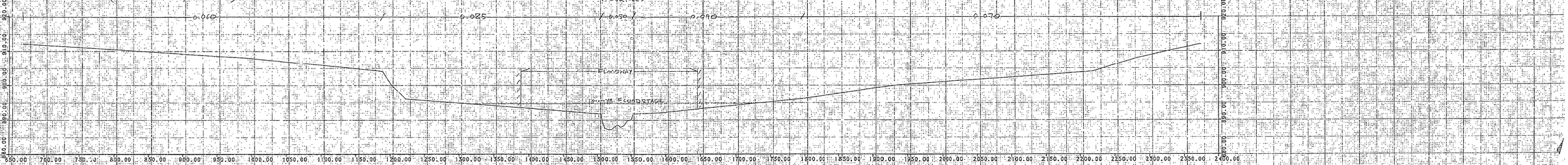
VILLAGE OF MANCHESTER F.I.S. (H-3970)

CROSS SECTION N (R.R. STA 565,710 FEET)



565.7 - OCE

CROSS SECTION O (R.R. STA 566,890 FEET)

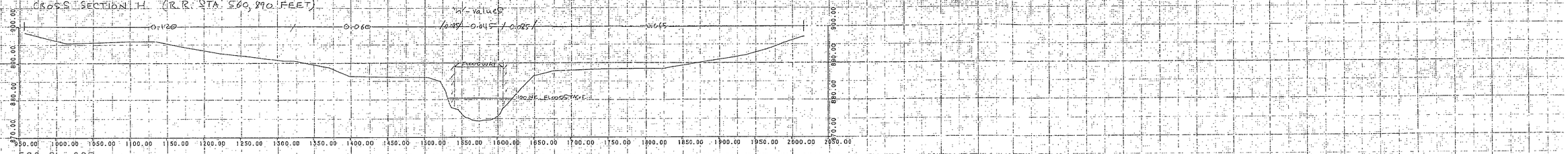


566.9 - OCE

RECEIVED
JAN 10 2000
WATER MANAGEMENT

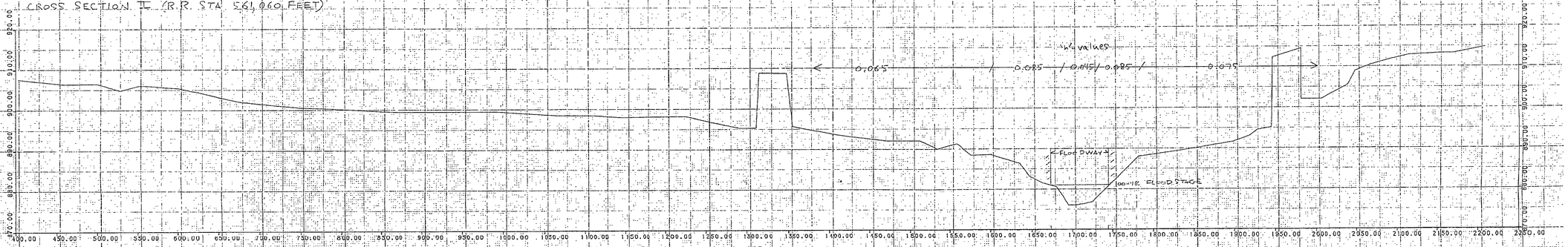
VILLAGE OF MANCHESTER F.I.S. (H-3970)

CROSS SECTION H (R.R. STA. 560,890 FEET)



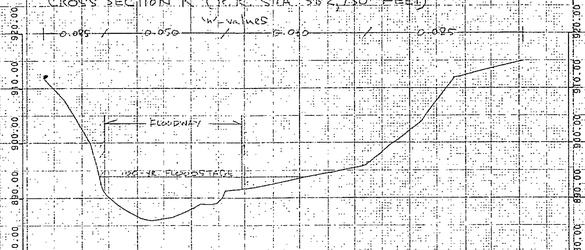
560.9 -OCE

CROSS SECTION I (R.R. STA. 561,060 FEET)



561.1 -OCE

CROSS SECTION K (R.R. STA. 562,750 FEET)

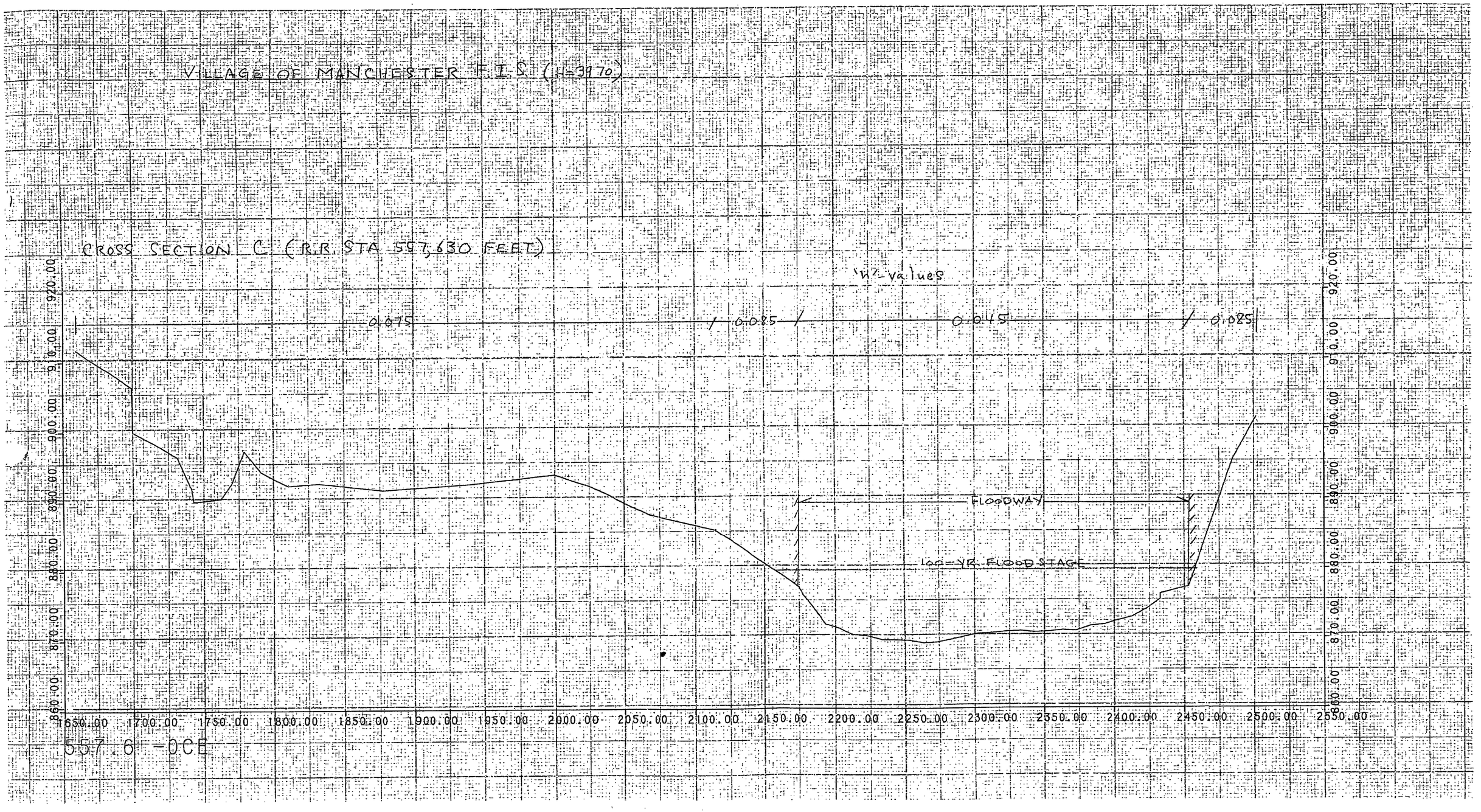


562.7 -OCE

RECEIVED
JUL 10 1980
WATER MANAGEMENT

VILLAGE OF MANCHESTER F.I.S. (H-3970)

CROSS SECTION C (R.R. STA 557,630 FEET)

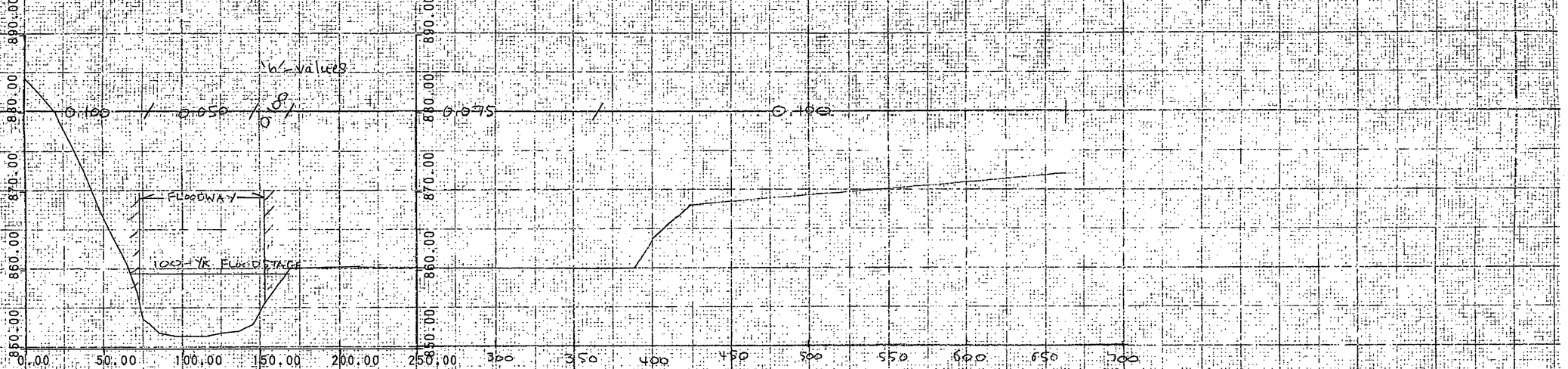


557.6 - OCE

RECEIVED
JUL 10 1980
WATER MANAGEMENT

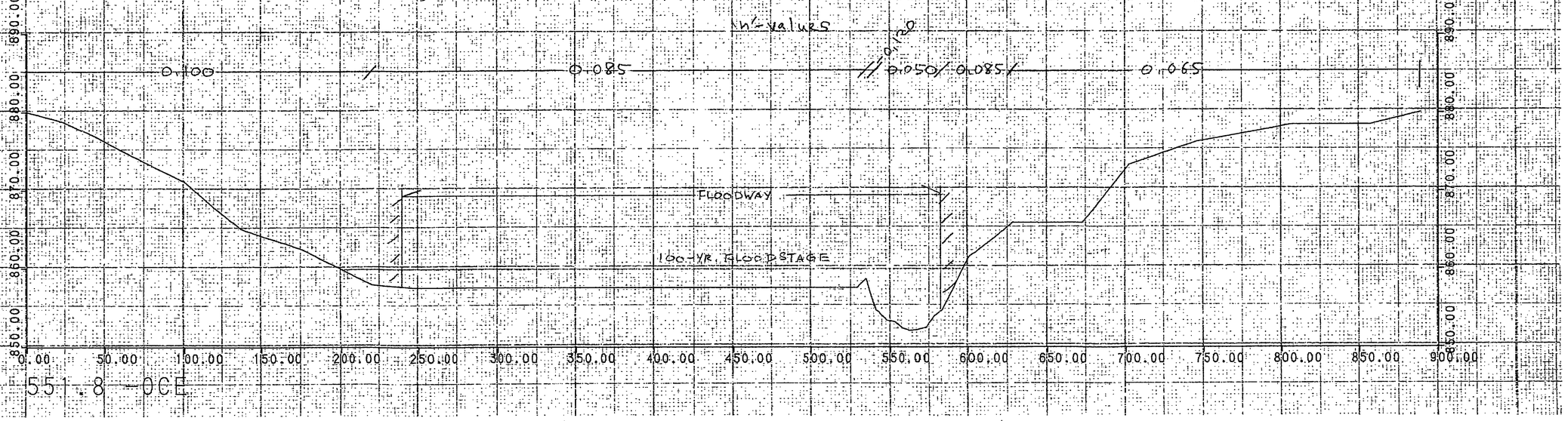
VILLAGE OF MANCHESTER FIS (H-3970)

CROSS SECTION A1 (RR STA 551, 130 FEET)

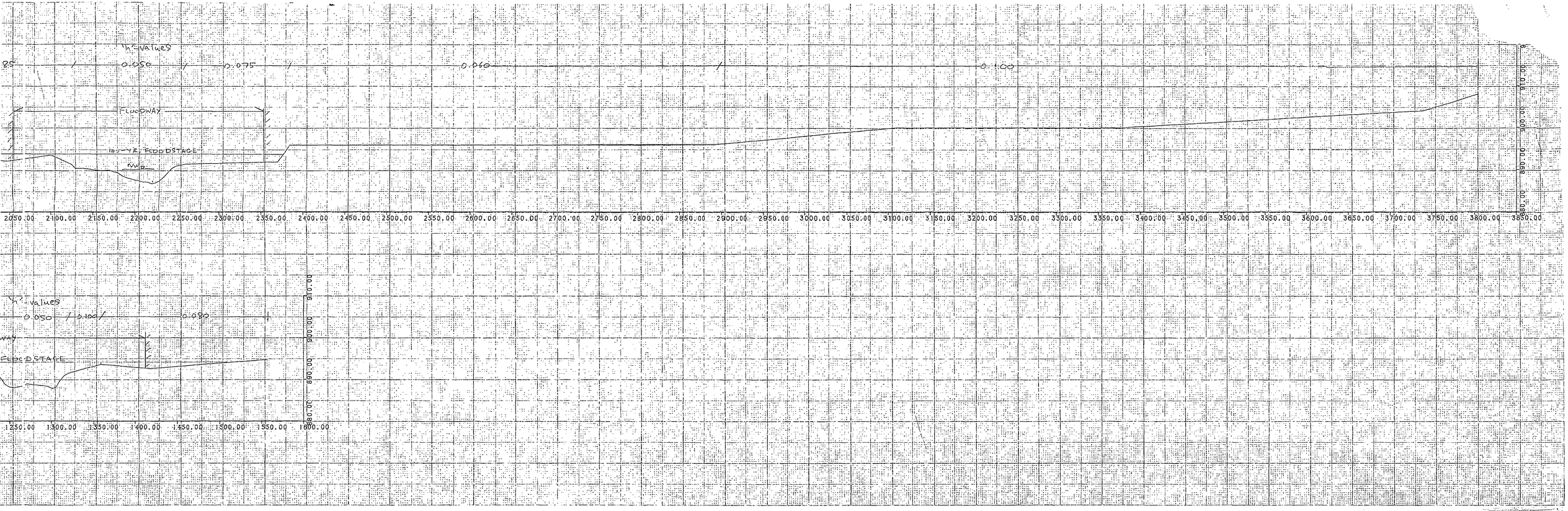


551.1-OCE

CROSS SECTION A2 (RR STA 551, 830 FEET)



551.8-OCE

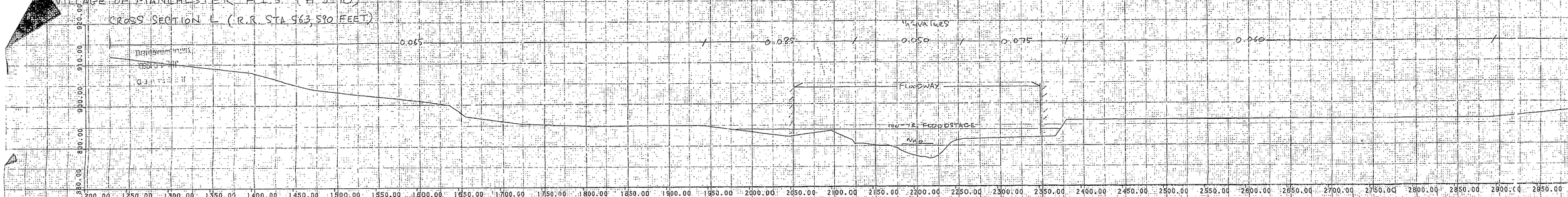


FR2

DIV./INCH MADE IN U.S.A. CALIFORNIA COMPUTER PRODUCTS, INC. ANAHEIM, CALIFORNIA CHART NO. 502 20 DIV./INCH MADE IN U.S.A. CALIFORNIA COMPUTER PRODUCTS, INC. ANAHEIM, CALIFORNIA CHART NO. 502 20 DIV./INCH MADE IN U.S.A. CALIFORNIA COMPUTER PRODUCTS, INC. ANAHEIM, CALIFORNIA CHART NO. 502 20 DIV./INCH

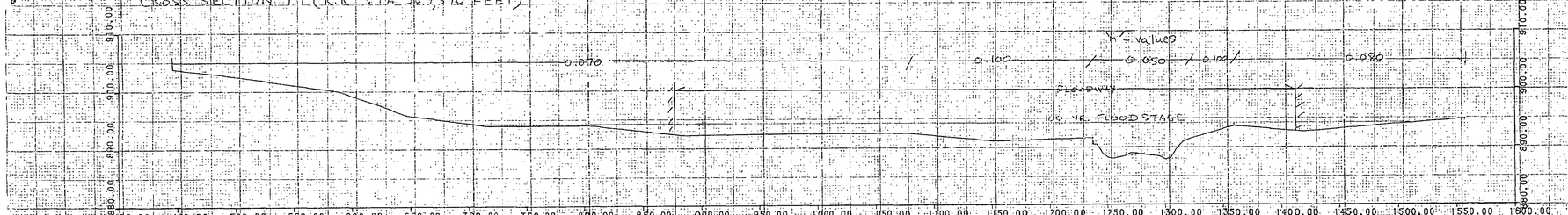
VILLAGE OF MANCHESTER FIS (H-3970)

CROSS SECTION L (R.R. STA 563,590 FEET)



563.6 - OCE

CROSS SECTION M (R.R. STA 564,570 FEET)



564.6 - OCE

FR1

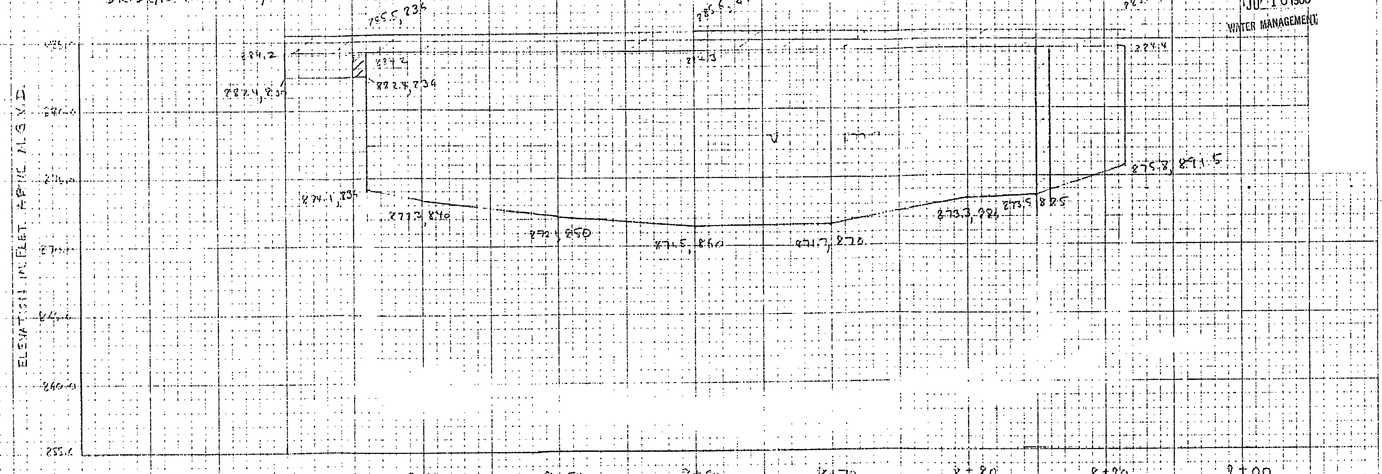
CALIFORNIA COMPUTER PRODUCTS, INC. ANAHEIM, CALIFORNIA CHART NO. 502 20 DIV./INCH MADE IN U.S.A.

MANCHESTER F.I.S.

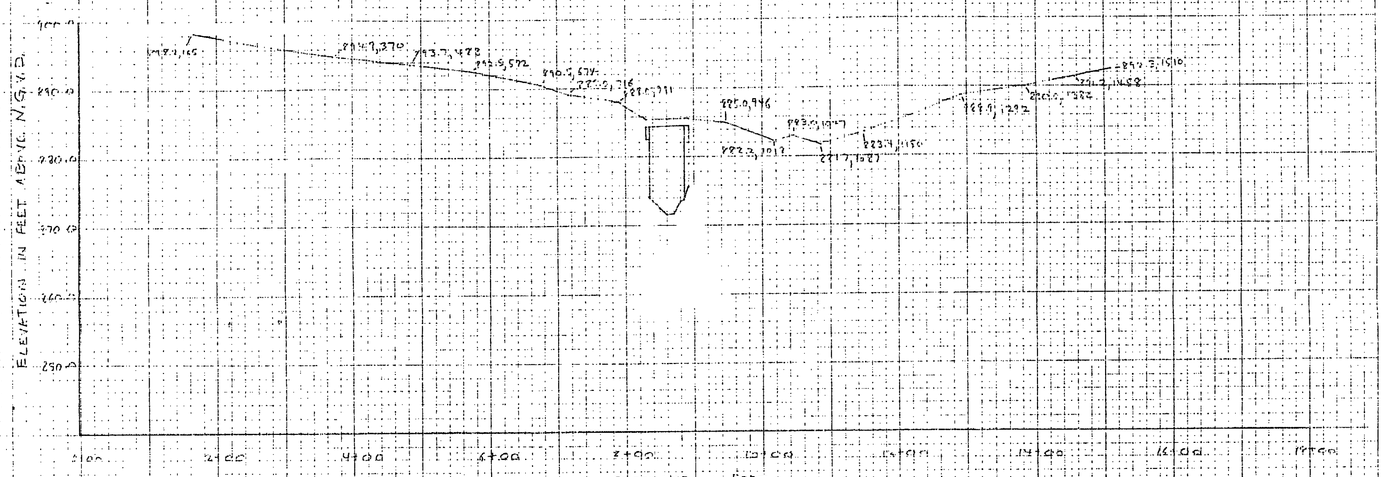
FURNACE STREET OVER RIVER RAISIN (STA 5588+70)

BRIDGE WATERWAY

RECEIVED
JUL 10 1980
WATER MANAGEMENT

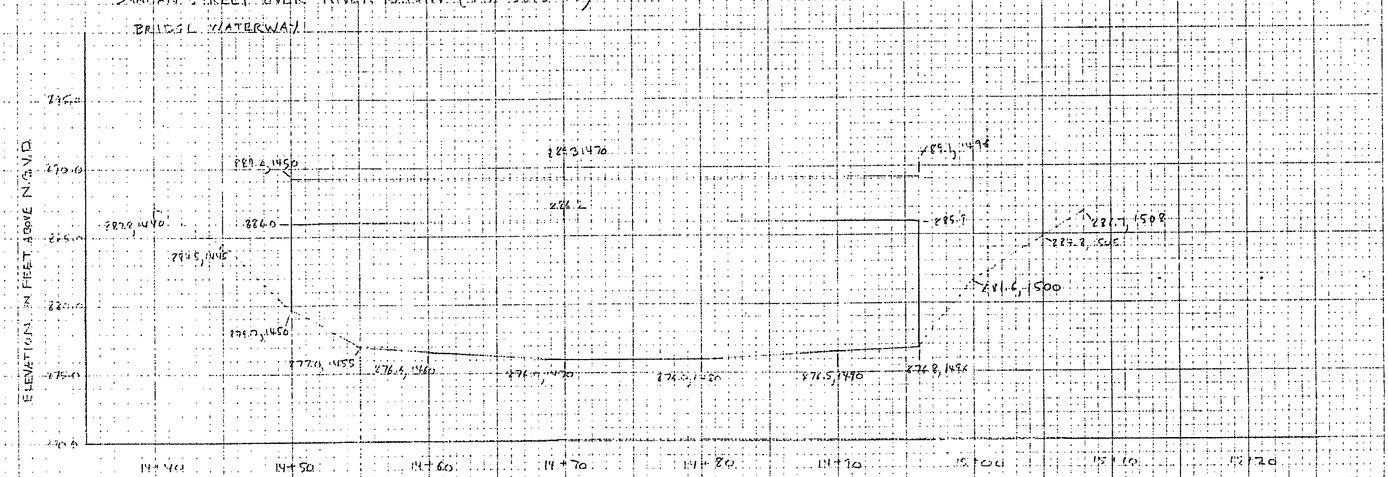


FURNACE STREET PROFILE

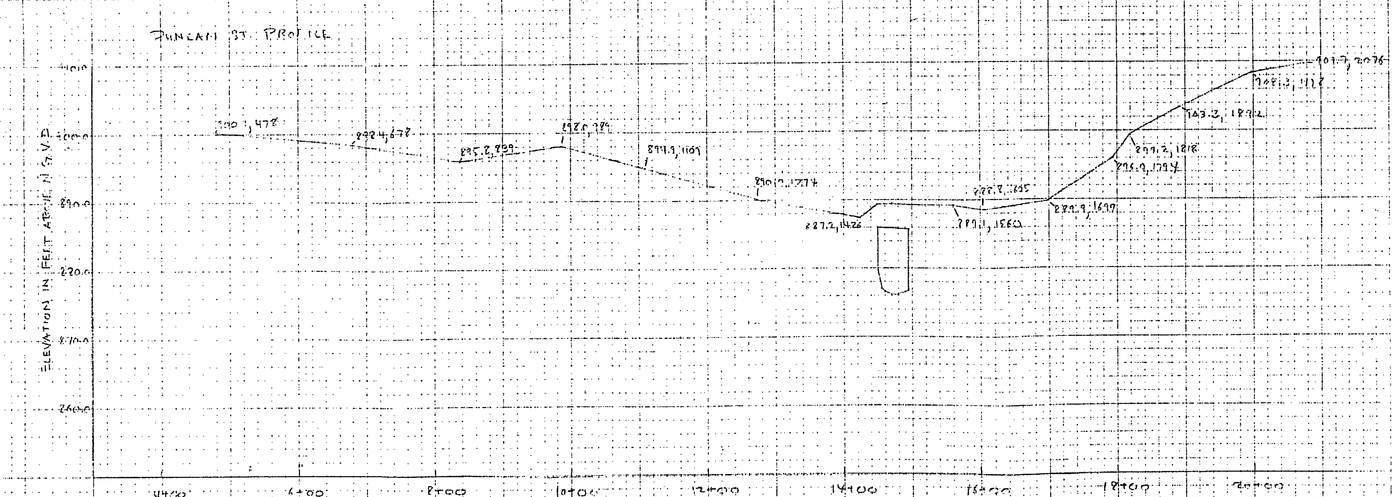


DUNCAN STREET OVER RIVER RAISIN (STA 5610+00)

BRIDGE WATERWAY



DUNCAN ST. PROFILE



VILLAGE OF MANCHESTER F.I.S. (H-3970)
-RIVER RAISIN
WORK MAP
W&W JOB #85376 6/80

Williams & Works
WO # 485B Manchester, Mich.
Mapping Scale: 1" = 400'
Contour Interval = 4'



Scale: 1"=400'

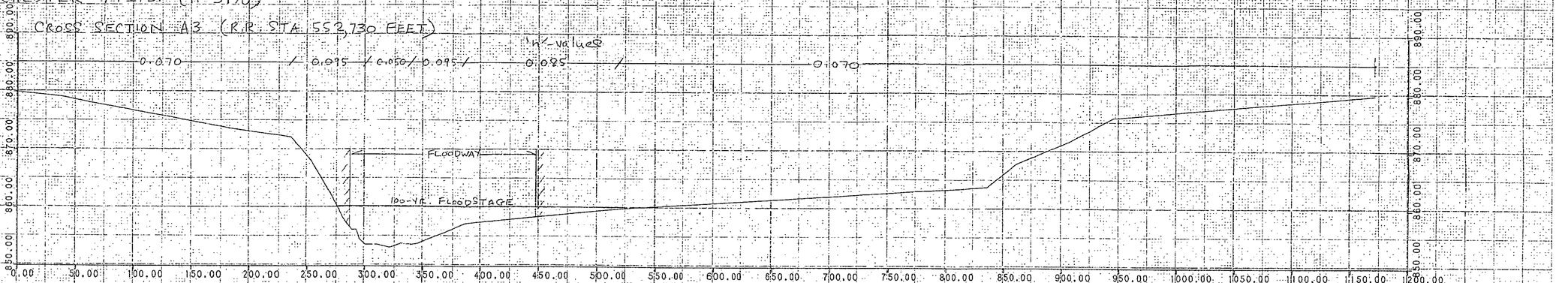
LEGEND
100-Year Floodplain
500-Year Floodplain
Floodway

RECEIVED
JUL 10 1980
WATER MANAGEMENT

VILLAGE OF MANCHESTER F.I.S. (H-3970)

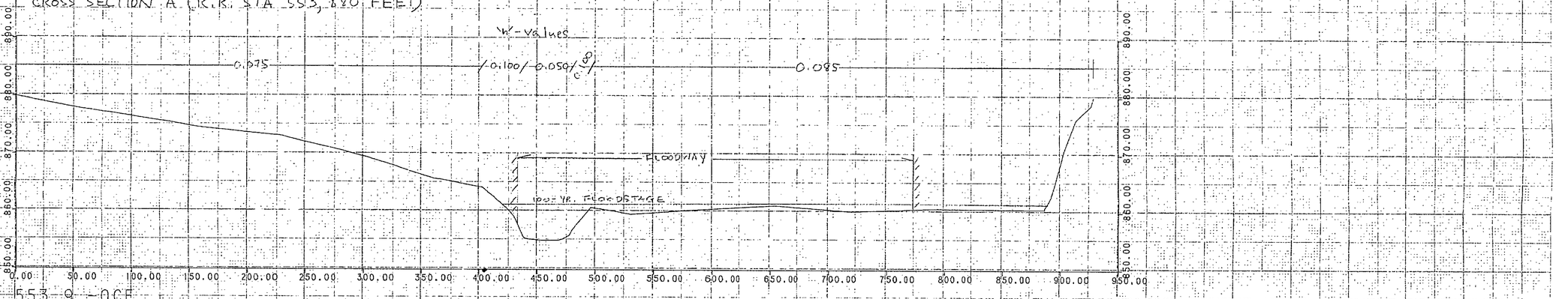
RECEIVED
JUL 10 1990
WATER MANAGEMENT

CROSS SECTION A3 (R.R. STA 552,730 FEET)



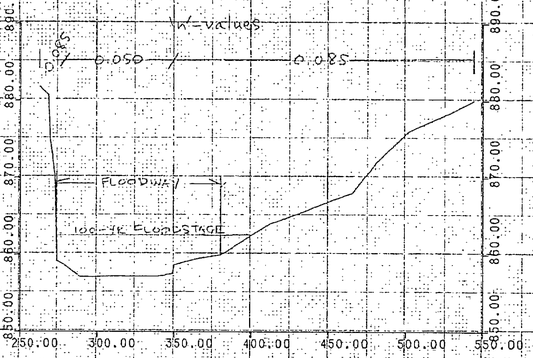
552.7 -OCE

CROSS SECTION A (R.R. STA 553,880 FEET)



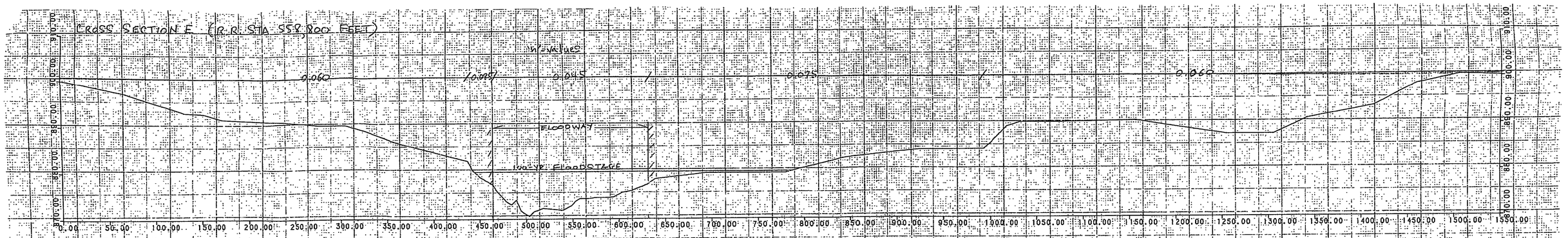
553.9 -OCE

CROSS SECTION B (R.R. STA 554,780 FEET)



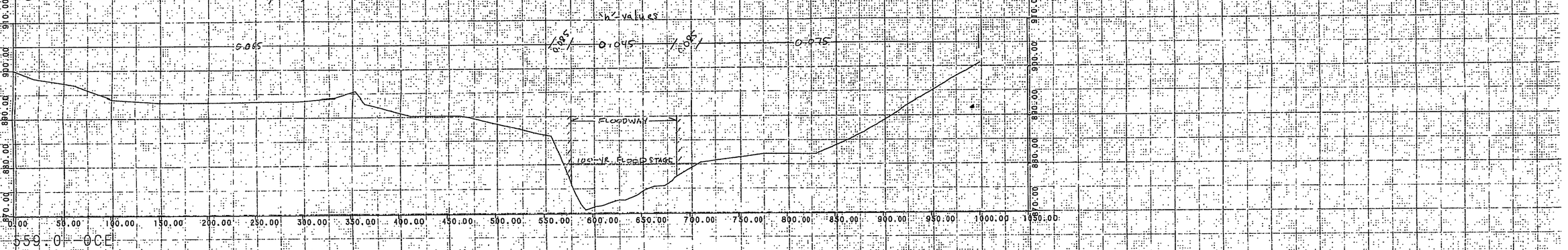
554.8 -OCE

CROSS SECTION E (R.R. STA 558,800 FEET)



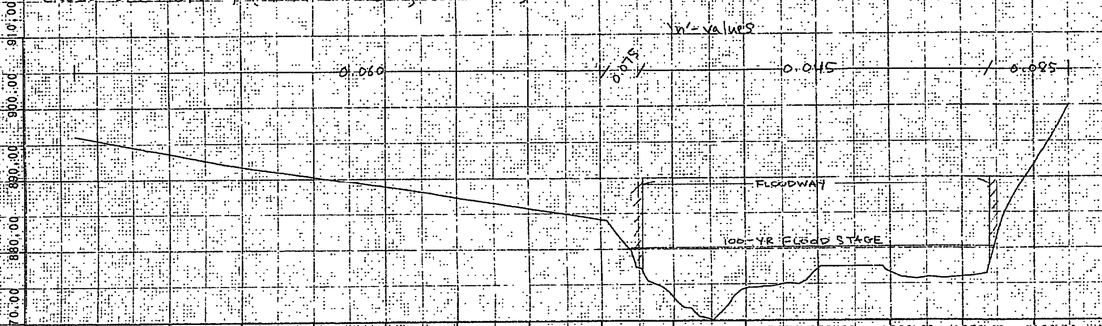
558.8 -0CE

CROSS SECTION F (R.R. STA 558,970)



559.0 -0CE

CROSS SECTION G (R.R. STA 559,630 FEET)



559.6 -0CE

VILLAGE OF MANCHESTER FIS (H-3970)

RECEIVED
JUL 10 1980
WATER MANAGEMENT

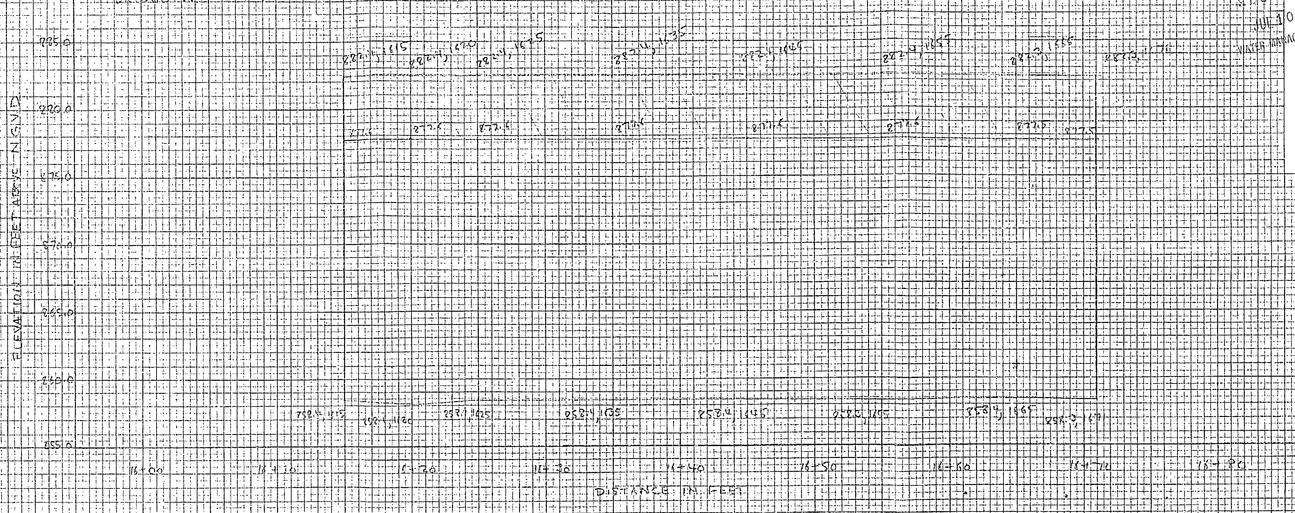
PRODUCTS, INC. ANAHEIM, CALIFORNIA CHART NO. 502 20 DIV./INCH MADE IN U.S.A.
CALIFORNIA COMPUTER PRODUCTS, INC. ANAHEIM, CALIFORNIA CHART NO. 502 20 DIV./INCH MADE IN U.S.A.
CALIFORNIA COMPUTER PRODUCTS, INC. ANAHEIM, CALIFORNIA CHART NO. 502 20 DIV./INCH MADE IN U.S.A.

MANCHESTER F.I.S.

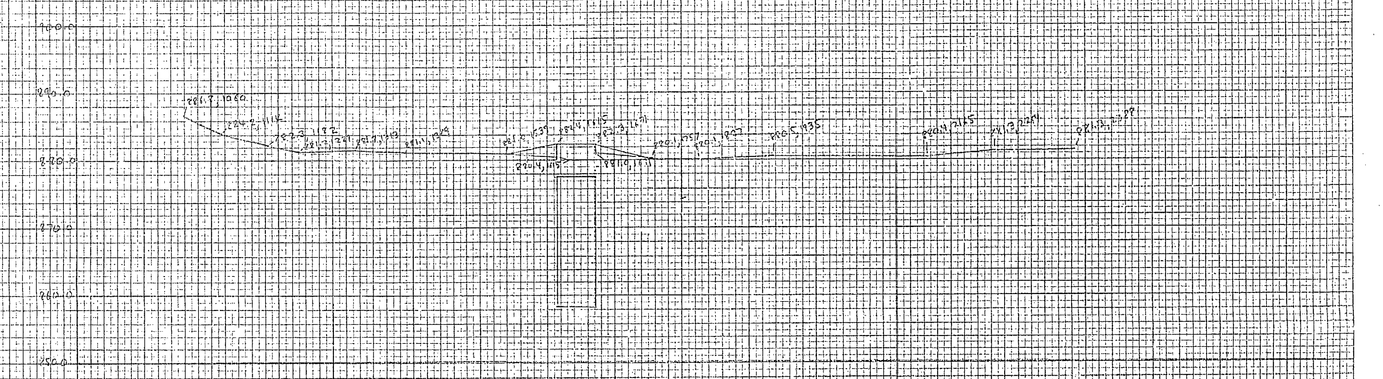
SALINE ROAD (M-52) OVER RIVER RAISIN (NEAR DAM: STA 5549+80)
-WEST

BRIDGE WATERWAY

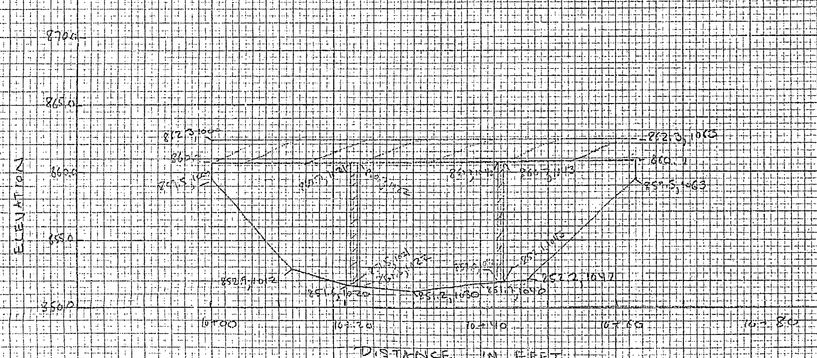
RECEIVED
JUL 10 1980
WATER MANAGEMENT

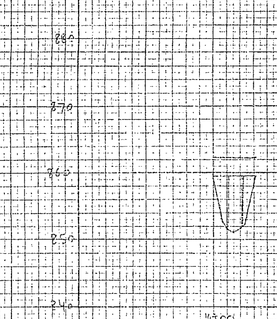


SALINE ROAD PROFILE



SALINE ROAD (M-52) OVER RIVER RAISIN (P.O.R. STUDY REACH STA 5509+70)
-EAST





NO	VREVS CHECKED		
NOTE BOOK	VREVS		
	LENGTHS		
SURVEY	PLOTTED		
ORIGINAL	SURVEYED	BY	DATE

NO	VREVS CHECKED		
NOTE BOOK	VREVS		
	LENGTHS		
SURVEY	PLOTTED		
ORIGINAL	SURVEYED	BY	DATE



PLATE 3 CROSS SECTION
CLEARPRINT PAPER CO., S.F. CAL.

NO. 1000H-3

FINAL SURVEY | NOTE BOOK NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

ORIGINAL SURVEY | NOTE BOOK NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

WILLIAMS & WORKS
ENGINEERS/SURVEYORS/PLANNERS/GEOLOGISTS
611 OBSCADE WEST PARKWAY S.E. GRAND RAPIDS, MICHIGAN 49506

FLOOD PROFILES
RIVER RAISIN

VILLAGE OF MANCHESTER MICH.
(WASHTENAW CO.)

RECEIVED
JUN 10 1980
WATER MANAGEMENT

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

YPSILANTI EAST QUADRANGLE
MICHIGAN
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 YPSILANTI 15' QUADRANGLE

YPSILANTI
EASTLAWN
WILLOW RUN
WILLOW RUN AIRPORT
UNIVERSITY OF MICHIGAN
INSTITUTE OF SCIENCE AND TECHNOLOGY
YPSILANTI
FORD LAKE
BELLEVILLE LAKE
VAN BUREN
SUMPTER
AUGUSTA
Ypsilanti Memorial Pk
Woodlawn Cem
Rawsonville
Ford Dam
Gravel Pit
Gravel Pits
Sandpit
Susterka Lake
Edgewater Heights
Lewett Drain
Brown and Rounds Drain
Throop No 1 Dr
Denton Cem
Campground
Belleville Lake
Gravel Pits
Union Udell Cem
Sewage Disposal
INTERCHANGE 183
INTERCHANGE 184
INTERCHANGE 185
INTERCHANGE 186
INTERCHANGE 187
Prospect Park
Trailer Park
Hospital
Library
Post Off
Recreation Sch
Erickson Sch
West Willow Sch
Edmonson Jr High Sch
Denton Sch
Alban Cem
Friends Ch
Larsen Airpark
Runyon Landing Strip
Schweigert Landing Strip
Radio Tower
Lincoln High Sch
St Joseph Ch
Elwell Sch
Trailer Park
Sandpit
Arbor
McEnnan
Paint Creek
Willis
Lincoln
Whittaker
Augusta Airfield
Miller Marsh
Hewens Drain
McCarthy Drain
McGraw Drain
Bird Drain
Swan Creek
Stony Creek
Head Drain
Dow and Cutler Drain
Bird Marsh Drain
Brown Branch
North Branch
West Branch
East Branch
Miller Drain
Pabalt Drain
Pere Marquette Pipeline
Huron River Drive
Ecorse 2 Lane
Hornet Road
Tyler Road
Textile Road
Merritt Road
Martz Road
Bemis Road
Judd Road
Rosbolt Road
Talladay Road
Willis Road
Harris Road
Hull Road
Bog Rd
Denton Road
Belleville Lake
Gravel Pits
Gravel Pit
Ford Dam
Sandpit
Susterka Lake
Edgewater Heights
Lewett Drain
Brown and Rounds Drain
Throop No 1 Dr
Denton Cem
Campground
Belleville Lake
Union Udell Cem
Sewage Disposal

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: ANN ARBOR - YPSILANTI

3) WATERCOURSE: HURON RIVER

4) DOCUMENT TYPE: ARGO DAM INPUT & SUMMARY OUTPUT

00BREAK00

RECEIVED
DEC 13 1976
WATER MANAGEMENT

HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58

TABLE A-10

T1 PREPARED FOR CORPS OF ENGINEERS
T2 BY FINKBEINER PETTIS & STROUT - USFC401 R4
T3 HURON RIVER AT ARGO DAM - Q = 50 YEAR

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	-0.	2.	-0.	-0.	-0.000000	-0.00	-0.0	-0.	774.000	-0.000	
NC	.050	.040	.030	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000	
QT	4.000	6497.000	7439.000	10018.000	4364.000	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	26.000	35.000	212.000	500.000	0.000	0.000	0.000	-0.000	-0.000	-0.000	
GR	777.000	166.000	776.800	192.000	776.800	200.000	773.700	212.000	771.200	220.000	
GR	768.200	230.000	765.600	240.000	765.500	250.000	763.000	260.000	762.300	270.000	
GR	761.500	280.000	762.500	290.000	762.400	300.000	762.900	310.000	765.000	320.000	
GR	765.300	330.000	765.700	340.000	765.700	350.000	765.600	360.000	765.600	370.000	
GR	765.500	380.000	765.700	390.000	765.600	400.000	765.500	410.000	765.500	420.000	
GR	765.500	430.000	765.800	440.000	766.100	450.000	766.000	460.000	765.900	470.000	
GR	766.800	480.000	771.700	490.000	773.700	500.000	776.700	515.000	776.600	575.000	
NC	.050	.040	.030	1.000	.300	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	35.000	54.000	100.000	548.000	120.000	72.000	95.000	-0.000	-0.000	-0.000	
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	800.000	800.000	-0.000	
GR	802.490	0.000	802.500	100.000	776.000	100.000	776.400	125.000	771.200	150.000	
GR	773.700	152.000	769.800	161.000	768.900	170.000	765.400	180.000	762.900	190.000	
GR	761.300	200.000	761.700	210.000	768.700	220.000	768.800	229.000	767.600	230.000	
GR	765.100	240.000	763.900	250.000	763.900	260.000	764.200	270.000	762.200	280.000	
GR	768.900	290.000	768.900	299.000	767.200	300.000	764.300	310.000	763.000	320.000	
GR	762.700	330.000	763.700	340.000	762.100	350.000	768.700	360.000	766.400	369.000	
GR	766.400	370.000	765.100	380.000	763.300	390.000	763.700	400.000	764.200	410.000	
GR	764.400	420.000	768.800	430.000	768.800	439.000	765.400	440.000	766.100	450.000	
GR	765.700	460.000	765.700	470.000	766.200	480.000	765.600	490.000	767.400	499.000	
GR	767.500	500.000	768.200	508.000	767.600	510.000	769.700	520.000	769.500	530.000	
GR	773.700	540.000	779.100	548.000	802.630	543.000	802.630	700.000	-0.000	-0.000	
SB	1.250	1.500	2.600	-0.000	370.500	56.500	10843.500	1.360	765.000	765.000	
X1	24.100	-0.000	-0.000	-0.000	10.000	10.000	10.000	-0.000	-0.000	-0.000	
X2	-0.000	-0.000	1.000	793.980	802.490	-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	802.500	802.630	-0.000	
XT	6.000	0.000	802.490	802.490	100.000	802.500	802.500	100.000	803.500	793.980	
ST	548.000	802.630	794.080	548.000	802.630	802.630	700.000	802.630	802.630	-0.000	
NC	.050	.050	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	24.000	63.000	450.000	990.000	180.000	240.000	200.000	-0.000	-0.000	-0.000	
GR	791.800	140.000	781.200	200.000	778.800	300.000	774.900	400.000	773.500	450.000	
GR	772.500	460.000	771.100	470.000	771.100	480.000	770.900	490.000	770.500	500.000	
GR	769.500	510.000	769.700	520.000	769.000	530.000	768.500	540.000	768.100	550.000	
GR	767.600	560.000	767.500	570.000	767.400	580.000	766.900	590.000	766.700	600.000	
GR	766.200	610.000	766.000	620.000	765.400	630.000	764.600	640.000	764.000	650.000	
GR	764.100	660.000	764.000	670.000	762.700	680.000	762.400	690.000	762.500	700.000	
GR	762.200	710.000	762.500	720.000	763.000	730.000	763.800	740.000	765.000	750.000	
GR	765.800	760.000	767.300	770.000	767.500	780.000	767.700	790.000	768.100	800.000	

GR	768.300	810.000	768.300	820.000	768.400	830.000	768.200	840.000	768.000	850.000
GR	767.700	860.000	767.200	870.000	767.900	880.000	766.400	890.000	766.400	900.000
GR	765.000	910.000	765.500	920.000	765.400	930.000	765.300	940.000	765.400	950.000
GR	765.600	960.000	766.100	970.000	768.300	980.000	773.500	990.000	777.200	995.000
GR	780.200	1050.000	781.500	1100.000	795.500	1270.000	-0.000	-0.000	-0.000	-0.000
NC	.050	.050	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	23.000	51.000	300.000	731.000	1870.000	1870.000	1870.000	-0.000	-0.000	-0.000
GR	837.300	90.000	802.000	246.000	777.100	300.000	773.600	301.000	771.800	311.000
GR	770.200	321.000	769.300	331.000	768.600	341.000	768.200	351.000	767.700	361.000
GR	767.300	371.000	767.300	381.000	767.200	391.000	767.200	401.000	767.200	411.000
GR	767.000	421.000	765.600	431.000	765.300	441.000	764.600	451.000	764.100	461.000
GR	764.100	471.000	764.100	481.000	764.200	491.000	764.200	501.000	764.100	511.000
GR	763.900	521.000	764.000	531.000	764.100	541.000	764.200	551.000	764.300	561.000
GR	765.000	571.000	765.800	581.000	766.100	591.000	766.500	601.000	766.800	611.000
GR	767.000	621.000	767.100	631.000	766.600	641.000	766.600	651.000	766.600	661.000
GR	766.400	671.000	766.600	681.000	766.900	691.000	767.600	701.000	768.900	711.000
GR	771.300	721.000	773.600	731.000	776.900	741.000	779.000	841.000	783.200	1041.000
GR	761.700	1151.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.070	.040	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	22.000	51.000	247.000	650.000	3000.000	3000.000	3000.000	-0.000	-0.000	-0.000
GR	787.200	200.000	773.800	247.000	769.800	250.000	772.500	260.000	771.700	270.000
GR	771.200	280.000	771.200	290.000	771.300	300.000	771.100	310.000	771.200	320.000
GR	771.200	330.000	771.200	340.000	771.100	350.000	770.800	360.000	770.000	370.000
GR	767.100	380.000	766.000	390.000	765.700	400.000	765.300	410.000	765.000	420.000
GR	765.200	430.000	765.300	440.000	765.400	450.000	765.400	460.000	766.200	470.000
GR	766.400	480.000	767.400	490.000	767.800	500.000	767.800	510.000	768.000	520.000
GR	767.300	530.000	765.600	540.000	765.300	550.000	766.200	560.000	770.400	570.000
GR	771.400	580.000	771.700	590.000	772.000	600.000	772.200	610.000	772.500	620.000
GR	772.700	630.000	773.200	640.000	773.300	650.000	781.200	660.000	783.400	740.000
GR	785.200	980.000	784.100	1080.000	785.600	1120.000	782.200	1130.000	782.700	1145.000
GR	787.700	1150.000	-0.000	-0.000	-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
X1	21.000	42.000	100.000	598.000	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	805.000	805.000	-0.000
GR	807.400	100.000	798.900	100.000	782.300	155.000	782.300	170.000	781.400	195.000
GR	780.400	200.000	773.700	294.000	773.400	300.000	770.700	310.000	772.500	317.000
GR	773.100	322.000	771.100	330.000	769.200	340.000	768.200	350.000	767.800	360.000
GR	767.100	370.000	765.300	380.000	765.200	390.000	766.100	400.000	767.200	410.000
GR	766.700	420.000	765.700	430.000	765.900	439.000	765.600	440.000	765.700	445.000
GR	765.400	450.000	767.000	460.000	767.100	470.000	766.700	480.000	766.700	490.000
GR	767.700	500.000	769.200	510.000	769.600	520.000	769.700	530.000	770.200	540.000
GR	771.400	550.000	771.200	557.000	773.000	562.000	773.700	562.000	775.200	578.000
GR	783.800	598.000	808.700	598.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SB	1.250	1.500	2.600	-0.000	110.000	15.000	5000.000	1.000	766.000	766.000
X1	20.200	-0.000	-0.000	-0.000	91.000	91.000	91.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	802.500	807.100	-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	807.000	807.000	-0.000
BT	5.000	100.000	807.500	807.500	100.000	807.500	802.500	420.000	807.100	802.000
BT	598.000	808.700	803.700	598.000	808.700	808.700	-0.000	-0.000	-0.000	-0.000
NC	.050	.040	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	20.100	-0.000	-0.000	-0.000	140.000	140.000	140.000	-0.000	-0.000	-0.000
NC	.050	.050	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	20.000	14.000	100.000	217.000	140.000	140.000	140.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	783.000	783.000	-0.000
GR	784.930	0.000	783.960	100.000	771.900	107.000	768.700	117.000	766.700	127.000
GR	767.700	136.000	765.700	140.000	764.400	147.000	765.100	157.000	765.200	167.000
GR	766.900	175.000	766.000	179.000	766.400	187.000	769.500	197.000	773.700	204.000
GR	778.700	217.000	783.900	217.000	784.340	317.000	-0.000	-0.000	-0.000	-0.000
SB	1.250	1.500	3.000	-0.000	77.000	8.000	1526.000	1.250	766.000	766.000

X1	19.100	-0.000	-0.000	-0.000	.30.000	30.000	30.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	782.300	783.960	-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	783.960	783.970	-0.000
ST	7.000	0.000	784.930	784.930	100.000	783.960	783.960	100.000	783.960	782.300
ST	180.000	783.970	782.300	217.000	783.970	782.000	217.000	783.970	783.970	317.000
ST	784.340	784.340	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	19.000	35.000	400.000	682.000	165.000	165.000	165.000	-0.000	-0.000	-0.000
GR	788.000	197.000	783.400	367.000	777.100	384.000	774.900	400.000	773.700	402.000
GR	770.100	412.000	767.600	422.000	765.500	432.000	765.000	442.000	764.700	452.000
GR	765.400	462.000	765.500	482.000	765.100	492.000	764.700	502.000	765.200	512.000
GR	766.300	522.000	766.700	532.000	767.700	542.000	767.900	552.000	764.300	562.000
GR	768.700	572.000	769.200	582.000	769.200	592.000	769.700	602.000	769.900	612.000
GR	769.600	622.000	770.500	632.000	770.700	642.000	771.200	652.000	772.300	662.000
GR	772.700	672.000	773.700	682.000	783.900	722.000	785.100	822.000	783.100	922.000
X1	18.000	18.000	100.000	213.000	165.000	165.000	165.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	785.000	785.000	-0.000
GR	791.550	0.000	791.240	100.000	771.700	100.000	769.700	110.000	765.800	120.000
GR	763.700	130.000	764.400	140.000	768.700	150.000	769.900	154.000	770.600	161.000
GR	768.300	170.000	765.100	180.000	764.900	190.000	766.800	200.000	770.700	210.000
GR	773.700	213.000	790.930	213.000	790.640	313.000	-0.000	-0.000	-0.000	-0.000
SB	1.250	1.500	2.900	-0.000	93.000	7.000	1666.000	.670	766.500	766.500
X1	17.100	-0.000	-0.000	-0.000	28.000	28.000	28.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	781.400	790.640	-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	791.240	790.930	-0.000
ST	7.000	0.000	791.550	791.550	100.000	791.240	791.240	100.000	791.240	781.900
ST	154.000	791.000	781.400	213.000	790.930	781.400	213.000	790.930	790.930	313.000
ST	790.640	790.640	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
MC	.050	.100	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	17.000	31.000	634.000	894.000	250.000	250.000	250.000	-0.000	-0.000	-0.000
GR	786.600	120.000	788.800	320.000	788.800	450.000	788.300	600.000	773.500	634.000
GR	769.700	644.000	769.500	654.000	768.500	664.000	767.300	674.000	767.100	684.000
GR	765.000	694.000	765.100	704.000	764.900	714.000	764.200	724.000	762.600	734.000
GR	762.000	744.000	761.300	754.000	763.500	764.000	764.900	774.000	765.600	784.000
GR	766.500	794.000	768.500	804.000	766.900	814.000	769.300	824.000	769.000	834.000
GR	769.000	844.000	768.500	854.000	773.500	894.000	779.200	904.000	783.800	994.000
GR	790.100	1024.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
MC	.040	.100	-0.000	.400	.600	-0.000	-0.000	-0.000	-0.000	-0.000
X1	16.000	30.000	1200.000	1400.000	1800.000	1800.000	1800.000	-0.000	-0.000	-0.000
GR	783.200	340.000	783.200	380.000	779.200	710.000	776.700	910.000	771.800	950.000
GR	775.200	1200.000	773.700	1203.000	770.700	1210.000	769.200	1220.000	768.100	1230.000
GR	765.000	1240.000	767.500	1250.000	767.500	1260.000	767.400	1270.000	767.400	1280.000
GR	767.000	1290.000	767.900	1300.000	767.900	1310.000	767.900	1320.000	767.800	1330.000
GR	768.000	1340.000	768.100	1350.000	768.100	1360.000	767.900	1370.000	767.900	1380.000
GR	769.700	1390.000	773.700	1400.000	775.800	1410.000	785.600	1470.000	791.600	1498.000
MC	.040	.100	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	15.000	31.000	204.000	429.000	1300.000	1300.000	1300.000	-0.000	-0.000	-0.000
GR	795.500	125.000	788.700	140.000	776.500	200.000	773.500	208.000	772.100	220.000
GR	772.000	230.000	771.800	240.000	771.500	250.000	771.000	260.000	769.500	270.000
GR	766.900	280.000	768.500	290.000	768.300	300.000	768.000	310.000	767.800	320.000
GR	767.700	330.000	767.500	340.000	767.600	350.000	768.000	360.000	768.200	370.000
GR	768.600	380.000	768.700	390.000	770.300	400.000	771.500	410.000	772.500	420.000
GR	773.500	429.000	774.300	439.000	777.900	580.000	782.800	790.000	783.500	930.000
GR	787.700	1330.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
MC	.040	.070	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	14.000	29.000	320.000	451.000	1400.000	1400.000	1400.000	-0.000	-0.000	-0.000
GR	791.000	190.000	779.300	270.000	776.300	300.000	773.600	320.000	771.300	330.000
GR	770.200	340.000	769.500	350.000	769.300	360.000	769.600	370.000	769.700	380.000
GR	769.800	390.000	770.000	400.000	770.400	410.000	770.600	420.000	770.900	430.000
GR	772.200	440.000	773.600	446.000	774.600	451.000	775.000	470.000	776.500	551.000

GR	777.000	575.000	778.000	590.000	779.000	610.000	780.000	630.000	781.000	660.000
GR	782.000	690.000	783.000	750.000	785.000	770.000	786.000	800.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.300	.500	-0.000	-0.000	-0.000	-0.000	-0.000
X1	13.000	20.000	100.000	223.000	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	790.000	790.000	-0.000
GR	798.500	0.000	798.500	100.000	769.700	100.000	769.000	103.000	766.600	113.000
GR	769.100	123.000	769.300	133.000	768.700	143.000	769.500	153.000	769.900	163.000
GR	769.100	169.000	770.300	173.000	769.900	183.000	770.900	193.000	773.100	203.000
GR	773.600	210.000	773.900	213.000	774.600	223.000	799.130	223.000	799.200	323.000
SB	1.250	1.500	2.700	-0.000	123.000	0.000	1006.000	0.000	770.000	770.000
X1	12.100	-0.000	-0.000	-0.000	28.000	28.000	28.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	778.780	798.500	-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	798.500	779.130	-0.000
HT	7.000	0.000	798.500	798.500	100.000	798.500	798.500	100.000	798.500	778.780
BT	163.000	799.000	778.930	223.000	799.130	779.130	223.000	799.130	799.130	323.000
ET	799.200	799.200	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
EU	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000

2 of (20)

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HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1 PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2 BY FINKBEINER PETTIS _ STROUT - USFC401 R4
T3 HURON RIVER AT ARGO DAM - Q = 100 YEAR

J1	ICHECK	INQ	NINV	IDIP	STRT	METRIC	HVINS	Q	WSEL	FQ
	-0.	3.	-0.	-0.	-0.000000	-0.00	-0.0	-0.	774.000	-0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	-0.000	-0.000	-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
G	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
26.00	12.50	774.00	0.00	774.00	774.15	.15	0.00	0.00	773.70
7439.	0.	7439.	0.	0.	2384.	0.	0.	0.	773.70
0.00	.13	3.12	.16	.050	.030	.040	0.000	761.50	210.84
.000241	0.	0.	0.	0	0	1	0.00	290.66	501.50

CCHV= 1.000 CEHV= .300

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 800.00 ELREA= 800.00

25.00	12.86	774.16	0.00	0.00	774.24	.08	.02	.07	802.50
7439.	0.	7439.	0.	0.	3250.	0.	6.	1.	802.63
.01	0.00	2.29	0.00	.050	.030	.040	.030	761.30	135.78
.000141	120.	95.	72.	2	0	1	0.00	404.89	540.68

SPECIAL BRIDGE

SS	XK	XKOR	COFC	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.60	-0.00	370.50	56.50	10843.50	1.38	765.00	765.00

CLASS A LOW FLOW

BRIDGE W.S.= 774.13 BRIDGE VELOCITY= 2.50

ECPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	774.26	.02	0.	7439.	10844.	793.98	802.49	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 802.50 ELREA= 802.63

24.10	12.88	774.18	0.00	0.00	774.26	.08	.02	0.00	802.50
7439.	0.	7439.	0.	0.	3260.	0.	7.	1.	802.63
.01	0.00	2.28	0.00	.050	.030	.040	.029	761.20	135.67
.000140	10.	10.	10.	0	0	1	0.00	405.04	540.71

CCHV= .100 CEHV= .300

24.00	12.03	774.23	0.00	0.00	774.29	.05	.02	.00	773.50
7439.	1.	7437.	0.	10.	3986.	0.	24.	3.	773.50
.04	.15	1.87	.13	.050	.030	.050	.030	762.20	423.82
.000099	180.	200.	240.	2	0	1	0.00	567.17	990.99

CCHV= .100 CEHV= .300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	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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    23.00     10.53    774.43      0.00      0.00    774.51       .08       .21       .01    777.10
    7439.        0.     7439.        0.        0.     3343.        1.      181.       25.    773.60
      .26      0.00      2.23       .18      .080      .030      .050      .030    763.90    300.76
  .000132     1870.     1870.     1870.         2         0         1      0.00    432.75    733.52

CCHV=     .100 CEHV=     .300
    22.00     10.00    775.00      0.00      0.00    775.15       .15       .62       .02    773.80
    7439.        1.     7435.        3.        3.     2399.        5.      379.       54.    773.30
      .55       .28      3.10       .62      .070      .030      .040      .030    765.00    242.60
  .000368     3000.     3000.     3000.         2         0         1      0.00    413.65    656.45

CCHV=     .100 CEHV=     .300

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       805.00 ELREA=       805.00

    21.00      9.54    775.04      0.00      0.00    775.30       .26       .12       .03    807.50
    7439.        0.     7439.        0.        0.     1827.        0.      391.       56.    808.70
      .56      0.00      4.07      0.00      .070      .030      .040      .030    765.20    275.20
  .000619      250.      250.      250.         2         0         1      0.00    301.73    576.93

SPECIAL BRIDGE

SP  XK        XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     1.25       1.50       2.60      -0.00     110.00      15.00    5000.00      1.00     766.00     766.00

CLASS A LOW FLOW

BRIDGE W.S.=     774.71  BRIDGE VELOCITY=       8.24

  EGPRS      EGLWC       H3        QWEIR       QPR        BAREA      ELLC       ELTRD      CLASS

     0.00     775.37       .08         0.      74_9.      5000.     802.50     807.10       1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       807.00 ELREA=       807.00

    20.20      9.92    775.12      0.00      0.00    775.37       .25       .07      0.00    807.50
    7439.        0.     7439.        0.        0.     1851.        0.      395.       56.    808.70
      .57      0.00      4.02      0.00      .070      .030      .040      .030    765.20    274.11
  .000597       91.       91.       91.         0         0         1      0.00    303.35    577.45

    20.10     10.01    775.21      0.00      0.00    775.45       .24       .08       .00    807.50
    7439.        0.     7439.        0.        0.     1877.        0.      401.       57.    808.70
      .58      0.00      3.96      0.00      .050      .030      .040      .030    765.20    272.91
  .000574      140.      140.      140.         0         0         1      0.00    305.09    578.01

CCHV=     .500 CEHV=     .800

3301 HV CHANGED MORE THAN HVINS

   SECNO     DEPTH     CASEL     CRIWS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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=       783.00 ELREA=       783.00
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20.00	10.72	775.12	0.00	0.00	776.53	1.40	.15	.93	783.96	
7439.	0.	7439.	0.	0.	782.	0.	405.	58.	783.90	
.56	0.00	9.51	0.00	.050	.030	.050	.030	764.40	105.13	
.002529	140.	140.	140.	2	0	1	0.00	102.58	207.70	

SPECIAL BRIDGE

SB	XR	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	-0.00	77.00	8.00	1526.00	1.25	766.00	766.00

CLASS A LOW FLOW

BRIDGE W.S.= 774.59 BRIDGE VELOCITY= 10.86

EGPRS	EGLWC	H3	QREIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	777.00	.70	0.	7439.	1526.	782.30	783.96	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 783.96 ELREA= 783.97

19.10	11.43	775.83	0.00	0.00	777.00	1.17	.47	0.00	783.96	
7439.	0.	7439.	0.	0.	855.	0.	406.	58.	783.90	
.56	0.00	9.70	0.00	.050	.030	.050	.030	764.40	104.72	
.002021	30.	30.	30.	0	0	1	0.00	104.81	209.53	

3301 HV CHANGED MORE THAN HVINS

19.00	12.88	777.58	0.00	0.00	777.70	.12	.07	.63	774.90	
7439.	13.	7409.	17.	26.	2662.	30.	413.	59.	772.70	
.60	.51	2.60	.58	.050	.030	.050	.030	764.70	362.70	
.000164	165.	165.	165.	2	0	1	0.00	314.53	697.23	

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 785.00 ELREA= 785.00

18.00	13.83	777.53	0.00	0.00	778.18	.65	.05	.42	791.24	
7439.	0.	7439.	0.	0.	1149.	0.	420.	60.	790.93	
.61	0.00	6.48	0.00	.050	.030	.050	.030	763.70	100.00	
.000915	165.	165.	165.	2	0	1	0.00	113.00	213.00	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.90	-0.00	93.00	7.00	1666.00	.67	766.50	766.50

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

CLASS A LOW FLOW

BRIDGE W.S.= 777.40 BRIDGE VELOCITY= 7.32

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	776.30	.14	0.	7439.	1666.	781.40	790.64	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 791.24 ELREA= 790.93

17.10	13.97	777.67	0.00	0.00	778.30	.63	.12	0.00	791.24
7439.	0.	7439.	0.	0.	1165.	0.	421.	60.	790.93
.61	0.00	6.39	0.00	.050	.030	.050	.030	763.70	100.00
.000876	28.	28.	28.	0	0	1	0.00	113.00	213.00

CCHV= .100 CEHV= .300

3301 HV CHANGED MORE THAN HVINS

17.00	17.01	778.31	0.00	0.00	778.41	.10	.06	.05	773.50
7439.	14.	7420.	5.	27.	2884.	20.	432.	61.	773.50
.63	.53	2.57	.26	.050	.030	.100	.030	761.30	622.95
.000110	250.	250.	250.	2	0	1	0.00	279.49	902.44

CCHV= .400 CEHV= .600

16.00	11.15	778.55	0.00	0.00	778.66	.11	.24	.01	775.20
7439.	1430.	5965.	24.	1276.	2017.	67.	562.	80.	773.70
.83	1.12	2.97	.36	.040	.030	.100	.030	767.40	762.90
.000167	1800.	1800.	1800.	2	0	1	0.00	668.17	1431.07

CCHV= .100 CEHV= .300

15.00	11.27	778.77	0.00	0.00	778.95	.19	.28	.02	773.50
7439.	52.	7190.	197.	43.	2000.	421.	649.	97.	773.50
.93	1.21	3.59	.47	.040	.030	.100	.030	767.50	188.54
.000280	1300.	1300.	1300.	2	0	1	0.00	428.39	617.23

CCHV= .100 CEHV= .300

14.00	9.89	779.19	0.00	0.00	779.66	.47	.62	.08	773.50
7439.	287.	6547.	605.	127.	1124.	461.	716.	109.	774.60
1.00	2.26	5.82	1.31	.040	.030	.070	.030	769.30	271.05
.000792	1400.	1400.	1400.	2	0	1	0.00	342.81	613.87

CCHV= .300 CEHV= .500

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 790.00 ELREA= 790.00

13.00	10.56	779.16	0.00	0.00	779.89	.73	.10	.13	796.50
7439.	0.	7439.	0.	0.	1084.	0.	720.	110.	799.13
1.01	0.00	6.86	0.00	.040	.030	.070	.030	768.60	100.00
.001226	100.	100.	100.	2	0	1	0.00	123.00	223.00

SPECIAL BRIDGE

SP	XH	XKOR	COFQ	RDLEN	BWC	BWR	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.70	-0.00	123.00	6.00	1006.00	0.00	770.00	770.00

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

XLOPE	XLOPL	XLCH	XLOBR	ITRIAL	IDC	ICOPT	COPAR	TOPWID	EXDST

PRESSURE FLOW

EGPRS	EGL.C	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
780.43	780.00	.13	0.	7439.	1006.	778.78	798.50	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 798.50 ELREA= 779.13

12.10	11.20	779.80	0.00	0.00	780.43	.64	.54	0.00	798.50
7439.	0.	7439.	0.	0.	1163.	0.	720.	110.	799.13
1.01	0.00	6.40	0.00	.040	.030	.070	.030	768.60	100.00
.000962	28.	28.	28.	2	0	1	0.00	123.00	223.00

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

HURON RIVER AT ARGO DAM

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
26.00	0.00	0.00	0.00	761.50	6497.00	774.00	0.00	774.12	290.66	1.83	0.00	0.00
26.00	0.00	0.00	0.00	761.50	7439.00	774.00	0.00	774.15	290.66	2.41	0.00	0.00
26.00	0.00	0.00	0.00	761.50	10018.00	774.80	0.00	775.03	297.76	3.21	0.00	0.00
26.00	0.00	0.00	0.00	761.50	4364.00	774.00	0.00	774.05	290.66	.83	0.00	0.00
25.00	95.00	0.00	0.00	761.30	6497.00	774.12	0.00	774.18	404.65	1.09	.01	6.13
25.00	95.00	0.00	0.00	761.30	7439.00	774.16	0.00	774.24	404.89	1.41	.01	6.14
25.00	95.00	0.00	0.00	761.30	10018.00	775.04	0.00	775.16	410.44	1.84	.01	6.79
25.00	95.00	0.00	0.00	761.30	4364.00	774.05	0.00	774.08	404.24	.51	.02	6.10
24.10	10.00	802.49	793.98	761.30	6497.00	774.14	0.00	774.20	404.76	1.08	.01	6.87
24.10	10.00	802.49	793.98	761.30	7439.00	774.18	0.00	774.26	405.04	1.40	.01	6.99
24.10	10.00	802.49	793.98	761.30	10018.00	775.07	0.00	775.19	410.66	1.81	.01	7.62
24.10	10.00	802.49	793.98	761.30	4364.00	774.06	0.00	774.09	404.28	.50	.02	6.84
24.00	200.00	0.00	0.00	762.20	6497.00	774.18	0.00	774.22	564.74	.78	.05	23.40
24.00	200.00	0.00	0.00	762.20	7439.00	774.23	0.00	774.29	567.17	.99	.04	23.55
24.00	200.00	0.00	0.00	762.20	10018.00	775.15	0.00	775.23	598.63	1.22	.04	26.34
24.00	200.00	0.00	0.00	762.20	4364.00	774.02	0.00	774.10	561.15	.37	.07	23.17
23.00	1870.00	0.00	0.00	763.90	6497.00	774.33	0.00	774.39	432.46	1.04	.31	179.33
23.00	1870.00	0.00	0.00	763.90	7439.00	774.43	0.00	774.51	432.75	1.32	.28	181.09
23.00	1870.00	0.00	0.00	763.90	10018.00	775.38	0.00	775.50	435.93	1.63	.23	204.30
23.00	1870.00	0.00	0.00	763.90	4364.00	774.15	0.00	774.18	431.83	.51	.45	176.17
22.00	3000.00	0.00	0.00	765.00	6497.00	774.79	0.00	774.92	412.16	3.15	.61	373.16
22.00	3000.00	0.00	0.00	765.00	7439.00	775.00	0.00	775.15	413.65	3.68	.55	379.15
22.00	3000.00	0.00	0.00	765.00	10018.00	776.05	0.00	776.24	421.32	3.87	.47	431.77
22.00	3000.00	0.00	0.00	765.00	4364.00	774.39	0.00	774.45	409.21	1.81	.87	361.48
21.00	250.00	0.00	0.00	765.20	6497.00	774.83	0.00	775.04	297.57	5.18	.63	384.90
21.00	250.00	0.00	0.00	765.20	7439.00	775.04	0.00	775.30	301.73	6.19	.56	391.30
21.00	250.00	0.00	0.00	765.20	10018.00	776.06	0.00	776.41	319.37	7.05	.48	446.10
21.00	250.00	0.00	0.00	765.20	4364.00	774.41	0.00	774.52	288.89	2.86	.89	372.39
20.20	91.00	807.10	802.50	765.20	6497.00	774.89	0.00	775.10	298.67	5.05	.64	388.61
20.20	91.00	807.10	802.50	765.20	7439.00	775.12	0.00	775.37	303.35	5.97	.57	395.14
20.20	91.00	807.10	802.50	765.20	10018.00	776.15	0.00	776.51	321.11	6.74	.49	450.62
20.20	91.00	807.10	802.50	765.20	4364.00	774.44	0.00	774.55	289.37	2.83	.90	375.83
20.10	140.00	0.00	0.00	765.20	6497.00	774.97	0.00	775.17	300.15	4.89	.65	394.37
20.10	140.00	0.00	0.00	765.20	7439.00	775.21	0.00	775.45	305.09	5.74	.58	401.13
20.10	140.00	0.00	0.00	765.20	10018.00	776.25	0.00	776.60	322.69	6.47	.49	457.69
20.10	140.00	0.00	0.00	765.20	4364.00	774.48	0.00	774.59	290.19	2.77	.92	381.15
20.00	140.00	0.00	0.00	764.40	6497.00	774.91	0.00	776.04	101.88	21.85	.65	398.49
20.00	140.00	0.00	0.00	764.40	7439.00	775.12	0.00	776.53	102.58	26.29	.59	405.40
20.00	140.00	0.00	0.00	764.40	10018.00	776.13	0.00	776.71	105.76	32.95	.50	462.67
20.00	140.00	0.00	0.00	764.40	4364.00	774.46	0.00	775.74	100.46	11.83	.92	384.97

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
19.10	30.00	783.96	782.30	764.40	6497.00	775.41	0.00	776.40	103.48	18.00	.65	399.03
19.10	30.00	783.96	782.30	764.40	7439.00	775.83	0.00	777.00	104.81	20.21	.58	405.97
19.10	30.00	783.96	782.30	764.40	10018.00	777.29	0.00	778.81	109.47	22.37	.50	463.33
19.10	30.00	783.96	782.30	764.40	4364.00	774.64	0.00	775.19	101.03	10.99	.92	385.47
19.00	165.00	0.00	0.00	764.70	6497.00	776.89	0.00	777.00	309.01	1.62	.67	405.27
19.00	165.00	0.00	0.00	764.70	7439.00	777.59	0.00	777.70	314.53	1.64	.60	412.69
19.00	165.00	0.00	0.00	764.70	10018.00	779.55	0.00	779.70	327.64	1.55	.51	471.56
19.00	165.00	0.00	0.00	764.70	4364.00	775.45	0.00	775.53	292.92	1.34	.95	390.74
18.00	165.00	0.00	0.00	763.70	6497.00	776.85	0.00	777.42	113.00	8.65	.68	412.00
18.00	165.00	0.00	0.00	763.70	7439.00	777.53	0.00	778.18	113.00	9.15	.61	419.98
18.00	165.00	0.00	0.00	763.70	10018.00	779.47	0.00	780.30	113.00	9.64	.52	480.46
18.00	165.00	0.00	0.00	763.70	4364.00	775.44	0.00	775.79	113.00	6.48	.96	395.35
17.10	28.00	790.64	781.40	763.70	6497.00	776.97	0.00	777.53	113.00	8.32	.68	412.70
17.10	28.00	790.64	781.40	763.70	7439.00	777.67	0.00	778.30	113.00	8.76	.61	420.72
17.10	28.00	790.64	781.40	763.70	10018.00	779.65	0.00	780.46	113.00	9.20	.52	481.35
17.10	28.00	790.64	781.40	763.70	4364.00	775.51	0.00	775.85	113.00	6.31	.96	396.94
17.00	250.00	0.00	0.00	761.30	6497.00	777.54	0.00	777.63	276.37	1.07	.71	423.61
17.00	250.00	0.00	0.00	761.30	7439.00	778.31	0.00	778.41	279.49	1.10	.63	432.48
17.00	250.00	0.00	0.00	761.30	10018.00	780.46	0.00	780.59	310.67	1.10	.55	495.54
17.00	250.00	0.00	0.00	761.30	4364.00	775.87	0.00	775.93	269.61	.87	.99	406.07
16.00	1800.00	0.00	0.00	767.40	6497.00	777.78	0.00	777.89	661.29	1.81	.90	539.15
16.00	1800.00	0.00	0.00	767.40	7439.00	778.55	0.00	778.66	668.17	1.67	.83	562.46
16.00	1800.00	0.00	0.00	767.40	10018.00	780.71	0.00	780.81	662.81	1.21	.76	672.82
16.00	1800.00	0.00	0.00	767.40	4364.00	776.08	0.00	776.18	493.58	1.95	1.19	493.47
15.00	1300.00	0.00	0.00	767.50	6497.00	778.09	0.00	778.21	392.91	2.91	1.00	614.28
15.00	1300.00	0.00	0.00	767.50	7439.00	778.77	0.00	778.96	428.39	2.80	.93	649.37
15.00	1300.00	0.00	0.00	767.50	10018.00	780.85	0.00	781.06	526.17	2.38	.86	799.48
15.00	1300.00	0.00	0.00	767.50	4364.00	776.36	0.00	776.50	315.52	2.85	1.31	546.29
14.00	1400.00	0.00	0.00	769.30	6497.00	778.48	0.00	778.94	321.34	8.53	1.08	672.66
14.00	1400.00	0.00	0.00	769.30	7439.00	779.19	0.00	779.66	342.81	7.92	1.00	716.48
14.00	1400.00	0.00	0.00	769.30	10018.00	781.19	0.00	781.64	408.54	6.14	.93	894.61
14.00	1400.00	0.00	0.00	769.30	4364.00	776.84	0.00	777.24	272.96	9.44	1.39	587.37
13.00	100.00	0.00	0.00	768.60	6497.00	778.48	0.00	779.14	123.00	12.05	1.08	675.50
13.00	100.00	0.00	0.00	768.60	7439.00	779.16	0.00	779.89	123.00	12.26	1.01	719.69
13.00	100.00	0.00	0.00	768.60	10018.00	781.05	0.00	781.95	123.00	12.07	.94	898.94
13.00	100.00	0.00	0.00	768.60	4364.00	776.91	0.00	777.37	123.00	10.80	1.40	589.43
12.10	28.00	798.50	778.78	768.60	6497.00	778.55	0.00	779.45	123.00	10.44	1.08	676.16
12.10	28.00	798.50	778.78	768.60	7439.00	779.30	0.00	780.43	123.00	9.82	1.01	720.42
12.10	28.00	798.50	778.78	768.60	10018.00	782.68	0.00	783.36	123.00	7.75	.94	899.85
12.10	28.00	798.50	778.78	768.60	4364.00	776.99	0.00	777.43	123.00	10.38	1.40	589.95

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
26.000	6497.000	774.000	0.000	0.000	0.000	290.661	0.000	0.000
26.000	7439.000	774.000	0.000	0.000	0.000	290.661	0.000	0.000
26.000	10018.000	774.800	.800	0.000	0.000	247.758	-7.097	0.000
26.000	4364.000	774.000	-.800	0.000	0.000	290.661	0.000	0.000
25.000	6497.000	774.119	0.000	.119	0.000	404.652	0.000	95.000
25.000	7439.000	774.157	.038	.157	0.000	404.893	-.241	95.000

25.000	10018.000	775.039	.882	.239	0.000	410.443	-5.791	95.000
25.000	4364.000	774.053	-.987	.053	0.000	404.237	.415	95.000
24.100	6497.000	774.136	0.000	.017	0.000	404.761	0.000	10.000
24.100	7439.000	774.180	.044	.023	0.000	405.039	-.278	10.000
24.100	10018.000	775.075	.894	.035	0.000	410.664	-5.903	10.000
24.100	4364.000	774.060	-1.014	.008	0.000	404.285	.477	10.000
24.000	6497.000	774.177	0.000	.041	0.000	564.744	0.000	200.000
24.000	7439.000	774.233	.056	.053	0.000	567.170	-2.426	200.000
24.000	10018.000	775.150	.916	.075	0.000	598.627	-33.883	200.000
24.000	4364.000	774.079	-1.071	.019	0.000	561.152	3.592	200.000
23.000	6497.000	774.332	0.000	.155	0.000	432.460	0.000	1870.000
23.000	7439.000	774.430	.098	.197	0.000	432.752	-.292	1870.000
23.000	10018.000	775.388	.958	.238	0.000	435.929	-3.469	1870.000
23.000	4364.000	774.153	-1.235	.074	0.000	431.831	.629	1870.000
22.000	6497.000	774.794	0.000	.462	0.000	412.156	0.000	3000.000
22.000	7439.000	774.998	.205	.566	0.000	413.653	-1.497	3000.000
22.000	10018.000	776.048	1.049	.660	0.000	421.319	-9.162	3000.000
22.000	4364.000	774.391	-1.657	.237	0.000	409.213	2.944	3000.000
21.000	6497.000	774.831	0.000	.038	0.000	297.570	0.000	250.000
21.000	7439.000	775.040	.208	.041	0.000	301.730	-4.160	250.000
21.000	10018.000	776.076	1.036	.029	0.000	319.367	-21.797	250.000
21.000	4364.000	774.415	-1.661	.024	0.000	288.894	8.676	250.000
20.200	6497.000	774.892	0.000	.061	0.000	298.671	0.000	91.000
20.200	7439.000	775.118	.226	.078	0.000	303.345	-4.674	91.000
20.200	10018.000	776.182	1.065	.107	0.000	321.114	-22.443	91.000
20.200	4364.000	774.443	-1.740	.028	0.000	289.369	9.302	91.000
20.100	6497.000	774.967	0.000	.075	0.000	300.153	0.000	140.000
20.100	7439.000	775.207	.240	.090	0.000	305.093	-4.940	140.000
20.100	10018.000	776.285	1.077	.102	0.000	322.691	-22.538	140.000
20.100	4364.000	774.463	-1.801	.041	0.000	290.192	9.962	140.000
20.000	6497.000	774.906	0.000	-.051	0.000	101.282	0.000	140.000
20.000	7439.000	775.125	.218	-.083	0.000	102.577	-.695	140.000
20.000	10018.000	776.126	1.001	-.159	0.000	105.762	-3.880	140.000
20.000	4364.000	774.460	-1.666	-.024	0.000	100.460	1.422	140.000
19.100	6497.000	775.407	0.000	.501	0.000	103.475	0.000	30.000
19.100	7439.000	775.828	.420	.703	0.000	104.812	-1.336	30.000
19.100	10018.000	777.291	1.464	1.165	0.000	109.467	-5.991	30.000
19.100	4364.000	774.638	-2.653	.178	0.000	101.028	2.448	30.000
19.000	6497.000	776.890	0.000	1.462	0.000	309.015	0.000	165.000
19.000	7439.000	777.578	.689	1.751	0.000	314.533	-5.518	165.000
19.000	10018.000	779.554	1.975	2.262	0.000	327.636	-18.621	165.000
19.000	4364.000	775.454	-4.099	.817	0.000	292.921	16.094	165.000
18.000	6497.000	776.849	0.000	-.040	0.000	113.000	0.000	165.000
18.000	7439.000	777.526	.677	-.053	0.000	113.000	0.000	165.000
18.000	10018.000	779.469	1.943	-.065	0.000	113.000	0.000	165.000
18.000	4364.000	775.439	-4.029	-.015	0.000	113.000	0.000	165.000
17.100	6497.000	776.970	0.000	.120	0.000	113.000	0.000	28.000
17.100	7439.000	777.667	.698	.142	0.000	113.000	0.000	28.000
17.100	10018.000	779.655	1.987	.186	0.000	113.000	0.000	28.000
17.100	4364.000	775.505	-4.149	.066	0.000	113.000	0.000	28.000
17.000	6497.000	777.540	0.000	.570	0.000	276.367	0.000	250.000
17.000	7439.000	778.311	.772	.644	0.000	279.494	-3.127	250.000
17.000	10018.000	780.461	2.150	.807	0.000	310.674	-34.307	250.000

17.000	4364.000	775.871	-4.590	.366	0.000	269.608	6.759	250.000
16.000	6497.000	777.776	0.000	.237	0.000	601.289	0.000	1800.000
16.000	7439.000	778.548	.772	.237	0.000	668.166	-66.877	1800.000
16.000	10018.000	780.714	2.166	.253	0.000	862.810	-261.522	1800.000
16.000	4364.000	776.079	-4.635	.208	0.000	493.584	107.704	1800.000
15.000	6497.000	778.024	0.000	.248	0.000	392.807	0.000	1300.000
15.000	7439.000	778.769	.745	.220	0.000	428.395	-35.578	1300.000
15.000	10018.000	780.849	2.090	.135	0.000	528.168	-135.361	1300.000
15.000	4364.000	776.361	-4.488	.262	0.000	315.522	77.285	1300.000
14.000	6497.000	778.478	0.000	.454	0.000	321.336	0.000	1400.000
14.000	7439.000	779.193	.716	.425	0.000	342.806	-21.468	1400.000
14.000	10018.000	781.188	1.994	.339	0.000	408.542	-87.204	1400.000
14.000	4364.000	776.844	-4.344	.482	0.000	272.955	48.383	1400.000
13.000	6497.000	778.481	0.000	.003	0.000	123.000	0.000	100.000
13.000	7439.000	779.159	.678	-.034	0.000	123.000	0.000	100.000
13.000	10018.000	781.047	1.687	-.141	0.000	123.000	0.000	100.000
13.000	4364.000	775.915	-4.132	.071	0.000	123.000	0.000	100.000
12.100	6497.000	778.855	0.000	.374	0.000	123.000	0.000	28.000
12.100	7439.000	779.798	.943	.638	0.000	123.000	0.000	28.000
12.100	10018.000	782.680	2.882	1.433	0.000	123.000	0.000	28.000
12.100	4364.000	776.987	-5.692	.073	0.000	123.000	0.000	28.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	105.702	0.000
2	0.000	0.000	109.828	4.126
3	0.000	0.000	123.183	17.481
4	0.000	0.000	98.092	-7.611

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: ANN ARBOR-YPSILANTI

3) WATERCOURSE: HURON RIVER

4) DOCUMENT TYPE: BARTON DAM INPUT & SUMMARY PRINTOUT

00BREAK00

RECEIVED
DEC 13 1976
WATER MANAGEMENT

HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09 TABLE A-11
MODIFICATIONS 52,53,54,55,56,57,58

T1 PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2 BY FINKBEINER,PETTIS & STROUT - USFC401.R1
T3 HURON RIVER AT BARTON DAM - Q = 50 YEAR

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	-0.	2.	-0.	-0.	-0.000000	-0.00	-0.0	-0.	798.450	-0.000	
NC	.050	.050	.030	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000	
CT	4.000	6497.000	7439.000	10018.000	4364.000	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	11.100	4.000	20.000	223.500	0.000	0.000	0.000	-0.000	-0.000	-0.000	
GR	805.000	20.000	772.500	20.000	772.500	223.500	805.000	223.500	-0.000	-0.000	
NC	.070	-0.000	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	11.000	55.000	147.000	1381.000	950.000	950.000	950.000	-0.000	-0.000	-0.000	
GR	824.500	0.000	806.100	100.000	797.800	125.000	795.400	147.000	794.400	172.000	
GR	798.900	197.000	783.200	222.000	779.300	247.000	777.200	272.000	775.800	297.000	
GR	775.400	322.000	775.600	347.000	775.000	372.000	775.600	397.000	775.800	422.000	
GR	776.600	447.000	777.500	472.000	776.900	497.000	779.400	522.000	779.600	547.000	
GR	779.800	572.000	779.900	597.000	780.000	622.000	780.200	647.000	780.400	672.000	
GR	780.800	697.000	780.800	722.000	780.500	747.000	780.900	772.000	780.900	797.000	
GR	781.000	822.000	781.000	847.000	781.400	872.000	781.500	897.000	781.800	922.000	
GR	781.400	947.000	781.900	972.000	781.400	997.000	781.900	1022.000	781.700	1047.000	
GR	781.700	1072.000	782.100	1097.000	782.400	1122.000	782.500	1147.000	782.900	1172.000	
GR	783.000	1197.000	783.800	1222.000	784.400	1247.000	784.400	1272.000	785.500	1297.000	
GR	786.500	1322.000	790.500	1347.000	794.400	1372.000	796.200	1361.000	801.400	1399.000	
NC	-0.000	-0.000	-0.000	.070	.700	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	10.000	75.000	218.000	1826.000	1100.000	1100.000	1100.000	-0.000	-0.000	-0.000	
GR	807.320	164.000	798.820	184.000	797.420	200.000	795.420	210.000	795.400	216.000	
GR	795.100	223.000	792.800	248.000	789.900	273.000	788.100	298.000	787.400	323.000	
GR	787.000	348.000	786.900	373.000	787.600	398.000	786.600	423.000	786.400	448.000	
GR	786.400	473.000	786.400	498.000	786.300	523.000	786.300	548.000	786.100	573.000	
GR	786.200	598.000	786.400	623.000	787.000	648.000	787.700	673.000	788.300	698.000	
GR	787.900	723.000	788.300	748.000	788.400	773.000	788.300	798.000	787.900	823.000	
GR	787.400	848.000	787.000	873.000	786.900	898.000	786.900	923.000	786.000	948.000	
GR	785.300	973.000	783.900	998.000	783.900	1023.000	783.900	1048.000	783.900	1073.000	
GR	783.900	1098.000	784.300	1123.000	784.300	1148.000	783.900	1173.000	783.000	1198.000	
GR	782.600	1223.000	782.400	1248.000	782.100	1273.000	781.900	1298.000	781.400	1323.000	
GR	781.400	1348.000	781.000	1373.000	780.300	1398.000	779.900	1423.000	779.400	1448.000	
GR	778.700	1473.000	778.400	1498.000	778.200	1523.000	777.900	1548.000	777.900	1573.000	
GR	778.600	1598.000	782.000	1623.000	784.000	1648.000	784.900	1673.000	790.900	1678.000	
GR	793.500	1723.000	794.500	1748.000	794.500	1773.000	793.900	1778.000	795.100	1823.000	
GR	796.000	1826.000	802.300	1846.000	802.300	1846.000	801.720	1896.000	803.200	1905.000	
NC	.070	.070	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	9.000	49.000	200.000	1132.000	1450.000	1450.000	1450.000	-0.000	-0.000	-0.000	
GR	826.700	50.000	806.500	115.000	805.100	140.000	799.500	155.000	795.300	200.000	
GR	794.500	203.000	792.300	228.000	789.800	253.000	787.900	278.000	786.200	303.000	
GR	784.700	328.000	783.100	353.000	782.200	378.000	781.700	403.000	780.900	428.000	
GR	780.800	453.000	780.700	478.000	780.700	503.000	780.800	528.000	780.800	553.000	

	781.300	576.000	781.300	803.000	781.500	628.000	781.900	653.000	781.900	678.000
GR	782.300	703.000	782.800	728.000	783.200	753.000	783.400	778.000	783.900	803.000
GR	784.300	828.000	784.800	853.000	785.900	878.000	786.900	903.000	787.400	928.000
GR	787.300	953.000	788.300	978.000	788.700	1003.000	789.200	1028.000	790.700	1053.000
GR	791.200	1078.000	791.700	1103.000	794.200	1126.000	797.300	1132.000	805.800	1143.000
GR	806.600	1178.000	804.300	1184.000	803.500	1226.000	809.800	1248.000	-0.000	-0.000
NC	-0.000	.040	-0.000	.070	.200	-0.000	-0.000	-0.000	-0.000	-0.000
GT	4.000	6497.000	7439.000	10018.000	4364.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	8.000	42.000	110.000	825.000	1950.000	1950.000	1950.000	-0.000	-1.500	-0.000
GR	838.300	0.000	829.200	28.000	800.800	90.000	796.700	110.000	795.800	115.000
GR	794.800	140.000	793.100	165.000	792.100	190.000	791.300	215.000	790.100	240.000
GR	788.900	265.000	788.400	290.000	787.700	315.000	786.900	340.000	786.300	365.000
GR	785.900	390.000	785.900	415.000	786.100	440.000	785.900	465.000	785.700	490.000
GR	785.800	515.000	785.900	540.000	786.100	565.000	786.500	590.000	786.900	615.000
GR	787.400	640.000	787.700	665.000	788.100	690.000	788.300	715.000	789.200	740.000
GR	790.100	765.000	792.300	790.000	796.000	815.000	796.700	825.000	798.700	875.000
GR	799.300	925.000	799.900	975.000	801.500	1025.000	802.500	1077.000	805.500	1100.000
GR	806.600	1135.000	809.600	1150.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.050	.050	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
X1	7.100	11.000	160.000	500.000	2850.000	2850.000	2850.000	-0.000	.300	-0.000
GR	806.000	30.000	803.000	45.000	801.000	100.000	795.000	160.000	786.000	207.000
GR	785.500	227.000	783.900	257.000	784.500	355.000	789.000	450.000	795.000	480.000
GR	805.600	500.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.500	.700	-0.000	-0.000	-0.000	-0.000	-0.000
X1	7.000	25.000	200.000	317.000	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	804.000	804.000	-0.000
GR	806.000	30.000	803.000	45.000	801.000	100.000	795.000	160.000	787.000	195.000
GR	804.000	200.000	795.000	201.000	790.600	207.000	787.400	217.000	785.500	227.000
GR	785.100	237.000	784.600	247.000	783.900	257.000	784.100	267.000	784.700	277.000
GR	785.000	287.000	786.100	297.000	788.600	307.000	791.900	317.000	804.000	317.000
GR	784.500	325.000	785.000	355.000	789.000	450.000	795.000	480.000	805.600	500.000
SH	-0.000	1.900	2.900	-0.000	90.000	-0.000	1870.000	.740	783.900	783.900
X1	6.100	-0.000	-0.000	-0.000	16.000	16.000	16.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	802.200	805.140	-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	805.310	805.140	-0.000
BT	12.000	30.000	805.000	804.000	45.000	805.000	803.000	100.000	805.980	801.000
BT	160.000	805.500	795.000	195.000	805.310	787.000	200.000	805.310	802.200	317.000
BT	805.140	502.200	325.000	805.140	784.500	355.000	805.400	785.000	450.000	805.500
BT	789.000	480.000	805.600	795.000	500.000	805.600	805.600	-0.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.500	.700	-0.000	-0.000	-0.000	-0.000	-0.000
X1	6.000	38.000	228.000	593.000	200.000	200.000	200.000	-0.000	-0.000	-0.000
GR	823.900	138.000	801.200	203.000	799.200	205.000	795.100	228.000	790.500	235.000
GR	788.900	245.000	789.400	255.000	788.300	265.000	787.200	275.000	786.100	285.000
GR	785.600	295.000	785.600	305.000	785.500	315.000	785.600	325.000	786.100	335.000
GR	786.300	345.000	786.600	355.000	787.100	365.000	787.400	375.000	787.800	385.000
GR	788.100	395.000	788.300	405.000	788.400	415.000	788.600	425.000	788.600	435.000
GR	788.600	445.000	789.600	455.000	790.100	465.000	790.700	475.000	791.300	485.000
GR	792.100	495.000	792.300	505.000	792.500	515.000	793.100	585.000	795.100	593.000
GR	797.900	615.000	799.300	640.000	800.200	664.000	-0.000	-0.000	-0.000	-0.000
X1	5.100	-0.000	-0.000	-0.000	1570.000	1570.000	1570.000	-0.000	1.100	-0.000
NC	-0.000	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	5.000	22.000	100.000	260.000	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	805.000	805.000	-0.000
GR	812.150	0.000	812.150	100.000	797.300	100.000	795.100	111.000	792.700	120.000
GR	791.000	130.000	788.800	140.000	787.000	150.000	787.200	160.000	787.100	170.000
GR	786.600	176.000	789.100	185.000	788.800	190.000	787.900	200.000	788.100	210.000
GR	787.000	220.000	786.600	230.000	787.600	240.000	790.100	250.000	792.100	260.000
GR	812.140	260.000	812.010	360.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SH	1.250	1.500	2.900	-0.000	120.000	9.000	1592.000	1.600	787.500	787.500

X1	4.100	-0.000	-0.000	-0.000	28.000	28.000	28.010	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	799.900	812.010	-0.000	-0.000	-0.000	.420	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	812.000	812.000	-0.000
BT	6.000	0.000	812.150	812.150	100.000	812.160	812.160	100.000	812.160	799.900
BT	260.000	812.140	799.900	260.000	812.140	812.140	360.000	812.010	812.010	-0.000
NC	.040	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	4.000	25.000	230.000	420.000	500.000	500.000	500.000	-0.000	-0.000	-0.000
GR	811.700	180.000	810.800	203.000	795.100	230.000	786.300	240.000	786.100	250.000
GR	785.700	260.000	785.600	270.000	785.900	280.000	786.200	290.000	786.600	300.000
GR	786.500	310.000	786.900	320.000	787.300	330.000	787.200	340.000	787.300	350.000
GR	786.700	360.000	789.400	370.000	790.700	380.000	792.800	390.000	794.100	400.000
GR	794.700	410.000	795.100	415.000	795.500	420.000	797.300	445.000	802.400	465.000
NC	.050	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	3.000	34.000	480.000	711.000	2280.000	2280.000	2280.000	-0.000	-0.000	-0.000
GR	801.900	200.000	799.400	240.000	795.400	430.000	795.300	440.000	795.400	450.000
GR	795.200	460.000	795.200	470.000	795.300	480.000	794.800	490.000	794.200	500.000
GR	793.500	510.000	792.800	520.000	792.900	530.000	792.600	540.000	792.400	550.000
GR	792.000	560.000	791.500	570.000	791.400	580.000	790.600	590.000	790.300	600.000
GR	789.900	610.000	789.500	620.000	789.200	630.000	788.300	640.000	788.900	650.000
GR	786.700	660.000	798.400	670.000	788.600	680.000	789.000	690.000	790.400	700.000
GR	794.800	710.000	795.400	711.000	802.900	730.000	803.700	795.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
X1	2.100	37.000	200.000	520.000	900.000	900.000	900.000	-0.000	-.900	-0.000
GR	820.100	160.000	801.800	195.000	798.300	200.000	795.250	210.000	792.200	220.000
GR	790.800	230.000	790.400	240.000	790.500	250.000	790.400	260.000	790.500	270.000
GR	790.500	280.000	790.400	290.000	790.300	300.000	790.700	310.000	790.400	320.000
GR	790.600	330.000	790.800	340.000	790.900	350.000	791.300	360.000	791.300	370.000
GR	791.700	380.000	791.800	390.000	792.000	400.000	792.300	410.000	792.500	420.000
GR	792.800	430.000	792.800	440.000	792.800	450.000	793.100	460.000	793.300	470.000
GR	793.500	480.000	794.900	490.000	794.900	500.000	795.500	520.000	796.600	720.000
GR	800.100	1080.000	805.600	1120.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.600	.900	-0.000	-0.000	-0.000	-0.000	-0.000
X1	2.000	18.000	100.000	213.000	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	805.000	805.000	-0.000
GR	811.900	50.000	811.890	100.000	795.300	100.000	792.800	110.000	791.200	120.000
GR	790.300	130.000	790.300	140.000	789.800	150.000	791.100	150.000	791.200	162.000
GR	789.400	170.000	789.800	180.000	789.800	190.000	791.400	200.000	794.300	210.000
GR	794.900	213.000	811.840	213.000	811.840	260.000	-0.000	-0.000	-0.000	-0.000
SR	1.650	1.500	2.800	-0.000	87.000	10.000	960.000	1.230	790.000	790.000
X1	1.100	-0.000	-0.000	-0.000	28.500	28.500	28.500	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	800.610	811.930	-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	811.900	811.840	-0.000
BT	7.000	50.000	811.900	811.900	100.000	811.890	811.890	100.000	811.890	800.610
BT	150.000	811.900	800.230	213.000	811.840	800.610	213.000	811.840	811.840	260.000
BT	811.830	811.830	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.040	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	1.000	37.000	200.000	520.000	350.000	350.000	350.000	-0.000	-0.000	-0.000
GR	820.100	160.000	801.800	195.000	798.300	200.000	795.300	210.000	792.200	220.000
GR	790.800	230.000	790.400	240.000	790.500	250.000	790.400	260.000	790.500	270.000
GR	790.500	280.000	790.400	290.000	790.300	300.000	790.700	310.000	790.400	320.000
GR	790.600	330.000	790.800	340.000	790.900	350.000	791.300	360.000	791.300	370.000
GR	791.700	380.000	791.800	390.000	792.000	400.000	792.300	410.000	792.500	420.000
GR	792.800	430.000	792.800	440.000	792.800	450.000	793.100	460.000	793.300	470.000
GR	793.500	480.000	794.900	490.000	794.900	500.000	795.500	520.000	796.600	720.000
GR	800.100	1080.000	805.600	1120.000	-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

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HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT
T2      BY FINKBEINER PETTIS _ STROUT - USFC401 R1
T3      HURON RIVER AT BARTON DAM - Q = 100 YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        -0.      3.        -0.       -0. -0.000000     -0.00     -0.0      -0.    798.800    -0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    2.000     -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000
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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
11.10	25.30	798.80	0.00	798.80	798.83	.03	0.00	0.00	805.00
7439.	0.	7439.	0.	0.	5352.	0.	0.	0.	805.00
0.00	0.00	1.39	0.00	.050	.030	.050	0.000	772.50	20.00
.000014	0.	0.	0.	0	0	1	0.00	203.50	223.50

CCHV= .200 CEHV= .400

11.00	23.84	798.84	0.00	0.00	798.84	.00	.00	.01	795.40
7439.	2.	7437.	0.	51.	21284.	12.	291.	16.	796.20
.76	.04	.35	.04	.070	.030	.050	.030	775.00	121.89
.000001	950.	950.	950.	2	0	1	0.00	1268.25	1390.13

CCHV= .070 CEHV= .200

10.00	20.94	798.84	0.00	0.00	798.84	.00	.00	.00	795.40
7439.	2.	7436.	1.	54.	21324.	13.	831.	53.	796.00
1.63	.04	.35	.05	.070	.030	.050	.030	777.90	181.94
.000002	1100.	1100.	1100.	0	0	1	0.00	1651.09	1835.03

CCHV= .100 CEHV= .300

9.00	18.14	798.84	0.00	0.00	798.84	.01	.00	.00	795.30
7439.	4.	7435.	0.	57.	12786.	2.	1401.	97.	797.30
2.33	.06	.58	.03	.070	.030	.070	.030	780.70	142.00
.000004	1450.	1450.	1450.	0	0	1	0.00	972.00	1134.00

CCHV= .070 CEHV= .200

8.00	14.65	798.85	0.00	0.00	798.86	.01	.01	.00	795.20
7439.	4.	7390.	46.	33.	8324.	231.	1681.	138.	795.20
2.94	.11	.89	.20	.070	.030	.040	.030	784.20	92.19
.000012	1950.	1950.	1950.	0	0	1	0.00	896.94	989.13

CCHV= .200 CEHV= .400

7.10	14.68	798.88	0.00	0.00	798.94	.06	.07	.02	795.30
7439.	22.	7417.	0.	64.	3794.	0.	2288.	180.	805.90
3.34	.34	1.96	0.00	.050	.030	.050	.030	784.20	124.25
.000060	2850.	2850.	2850.	0	0	1	0.00	362.50	486.75

CCHV= .500 CEHV= .700

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 804.00 ELREA= 804.00

7.00	14.89	798.79	0.00	0.00	799.20	.41	.01	.25	804.00
7439.	0.	7439.	0.	0.	1441.	0.	2294.	180.	804.00

3.35	0.00	5.16	0.00	.050	.030	.050	.030	783.90	200.58
.000438	100.	100.	100.	2	0	1	0.00	116.42	317.00

SPECIAL BRIDGE

SS	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	-0.00	1.50	2.90	-0.00	90.00	-0.00	1870.00	.74	783.90	783.90

5070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 799.204 ELLC= 802.200 PCWSE= 798.791 ELTRD= 805.140

NORMAL BRIDGE,NPD=12 MIN ELTRD= 805.14 MAX ELLC= 802.20

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 805.31 ELREA= 805.14

6.10	14.90	798.80	0.00	0.00	799.21	.41	.01	.00	804.00
7439.	0.	7439.	0.	0.	1441.	0.	2294.	180.	804.00
3.35	0.00	5.16	0.00	.050	.030	.050	.030	783.90	200.58
.000438	16.	16.	16.	0	0	1	-41.89	116.42	317.00

CCHV= .500 CEHV= .700

6.00	13.85	799.35	0.00	0.00	799.42	.06	.03	.18	795.10
7439.	22.	7380.	37.	51.	3659.	82.	2306.	181.	795.10
3.38	.44	2.02	.45	.050	.030	.050	.030	785.50	204.84
.000077	200.	200.	200.	2	0	1	0.00	435.30	640.15

5.10	12.89	799.49	0.00	0.00	799.57	.08	.14	.01	796.20
7439.	13.	7406.	20.	30.	3308.	44.	2436.	197.	796.20
3.57	.43	2.24	.45	.050	.030	.050	.030	786.60	209.53
.000109	1570.	1570.	1570.	2	0	1	0.00	414.28	623.81

CCHV= .600 CEHV= .800

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 805.00 ELREA= 805.00

5.00	12.86	799.46	0.00	0.00	799.79	.32	.02	.20	812.16
7439.	0.	7439.	0.	0.	1632.	0.	2442.	197.	812.14
3.58	0.00	4.56	0.00	.050	.030	.050	.030	786.60	100.00
.000420	100.	100.	100.	2	0	1	0.00	160.00	260.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.90	-0.00	120.00	9.00	1592.00	1.60	787.50	787.50

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

CLASS A LOW FLOW

BRIDGE W.S.= 799.42 BRIDGE VELOCITY= 4.80

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS

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     0.00    799.83      .05        0.     7439.     1592.    799.90    812.01      1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      812.00 ELREA=      812.00

     4.10    12.91   799.51     0.00     0.00   799.83      .32      .05     0.00   812.16
    7439.       0.    7439.       0.       0.    1640.       0.    2443.     198.    812.14
     3.58     0.00     4.54     0.00     .050     .030     .050     .030   786.60   100.00
  .000414      28.      28.      28.        0        0        1     0.00   160.00   260.00

CCHV=     .600 CEHV=     .800
     4.00    14.17   799.87     0.00     0.00   800.05      .18      .14      .08   795.10
    7439.      16.    7334.      89.      20.    2140.     100.    2455.     200.    795.50
     3.62      .84     3.43      .89     .040     .030     .050     .030   785.70   221.79
  .000195     500.     500.     500.        2        0        1     0.00   233.29   455.09

CCHV=     .100 CEHV=     .300
     3.00    11.78   800.38     0.00     0.00   800.51      .14      .46      .00   795.30
    7439.     772.    6644.      23.     772.    2131.      31.    2601.     219.    795.40
     3.84     1.00     3.12      .75     .050     .030     .050     .030   788.60   236.54
  .000206    2280.    2280.    2280.        2        0        1     0.00   487.06   723.61

CCHV=     .200 CEHV=     .400
     2.10    11.19   800.59     0.00     0.00   800.64      .05      .11      .02   797.40
    7439.       2.    5944.    1493.       7.    3000.    2170.    2685.     233.    794.60
     3.99      .32     1.98      .69     .050     .030     .050     .030   789.40   195.44
  .000081     900.     900.     900.        2        0        1     0.00   894.68  1090.12

CCHV=     .600 CEHV=     .800
3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      805.00 ELREA=      805.00

     2.00    11.07   800.47     0.00     0.00   801.25      .78      .02      .59   811.89
    7439.       0.    7439.       0.       0.    1048.       0.    2692.     234.    811.84
     3.99     0.00     7.10     0.00     .050     .030     .050     .030   789.40   100.00
  .001224     100.     100.     100.        2        0        1     0.00   113.00   213.00

SPECIAL BRIDGE

SB  XK       XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    1.25      1.50      2.80     -0.00     87.00     10.00     960.00    1.23      790.00    790.00

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

PRESSURE FLOW

   EGPRS     EGLWC      H3       QWEIR      QPR       BAREA     ELLC      ELTRO     CLASS

   801.86    801.48      .28        0.     7439.      960.     800.61    811.93     10.00
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OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 811.90 ELREA= 811.84

1.10	11.79	801.19	0.00	0.00	801.86	.67	.62	0.00	811.89
7439.	0.	7439.	0.	0.	1130.	0.	2692.	234.	811.84
3.99	0.00	6.58	0.00	.050	.030	.050	.030	789.40	100.00
.000965	29.	29.	29.	2	0	1	0.00	113.00	213.00

CCHV= .600 CEHV= .800

3301 HV CHANGED MORE THAN HVINS

1.00	11.96	802.26	0.00	0.00	802.30	.04	.05	.38	798.30
7439.	5.	5743.	1691.	11.	3245.	2610.	2721.	238.	795.50
4.06	.42	1.77	.65	.040	.030	.050	.030	790.30	194.12
.000058	350.	350.	350.	2	0	1	0.00	901.57	1095.70

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

HURON RIVER AT BARTON DA

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
11.10	0.00	0.00	0.00	772.50	6497.00	798.45	0.00	798.47	203.50	.11	0.00	0.00
11.10	0.00	0.00	0.00	772.50	7439.00	798.80	0.00	798.83	203.50	.14	0.00	0.00
11.10	0.00	0.00	0.00	772.50	10018.00	799.80	0.00	799.85	203.50	.22	0.00	0.00
11.10	0.00	0.00	0.00	772.50	4364.00	797.50	0.00	797.51	203.50	.05	0.00	0.00
11.00	950.00	0.00	0.00	775.00	6497.00	798.48	0.00	798.48	1265.87	.01	.85	285.29
11.00	950.00	0.00	0.00	775.00	7439.00	798.84	0.00	798.84	1268.25	.01	.76	291.14
11.00	950.00	0.00	0.00	775.00	10018.00	799.86	0.00	799.86	1274.88	.02	.59	307.56
11.00	950.00	0.00	0.00	775.00	4364.00	797.51	0.00	797.51	1257.82	.01	1.19	269.91
10.00	1100.00	0.00	0.00	777.90	6497.00	798.48	0.00	798.48	1645.93	.01	1.82	811.37
10.00	1100.00	0.00	0.00	777.90	7439.00	798.84	0.00	798.84	1651.09	.02	1.63	830.76
10.00	1100.00	0.00	0.00	777.90	10018.00	799.86	0.00	799.87	1656.75	.02	1.30	885.02
10.00	1100.00	0.00	0.00	777.90	4364.00	797.51	0.00	797.52	1631.80	.01	2.53	760.60
9.00	1450.00	0.00	0.00	780.70	6497.00	798.48	0.00	798.48	967.57	.04	2.59	1365.29
9.00	1450.00	0.00	0.00	780.70	7439.00	798.84	0.00	798.84	972.00	.04	2.33	1400.75
9.00	1450.00	0.00	0.00	780.70	10018.00	799.86	0.00	799.87	980.98	.06	1.85	1499.87
9.00	1450.00	0.00	0.00	780.70	4364.00	797.52	0.00	797.52	955.94	.02	3.60	1272.64
8.00	1950.00	0.00	0.00	784.20	6497.00	798.48	0.00	798.50	883.58	.10	3.27	1829.87
8.00	1950.00	0.00	0.00	784.20	7439.00	798.85	0.00	798.86	896.94	.12	2.94	1880.70
8.00	1950.00	0.00	0.00	784.20	10018.00	799.87	0.00	799.89	932.56	.16	2.35	2023.29
8.00	1950.00	0.00	0.00	784.20	4364.00	797.52	0.00	797.52	795.79	.06	4.51	1698.24
7.10	2850.00	0.00	0.00	784.20	6497.00	798.52	0.00	798.57	358.17	.51	3.72	2221.95
7.10	2850.00	0.00	0.00	784.20	7439.00	798.88	0.00	798.94	362.50	.60	3.34	2287.84
7.10	2850.00	0.00	0.00	784.20	10018.00	799.92	0.00	800.01	374.81	.82	2.68	2473.69
7.10	2850.00	0.00	0.00	784.20	4364.00	797.54	0.00	797.57	346.54	.31	5.12	2052.52
7.00	100.00	0.00	0.00	783.90	6497.00	798.45	0.00	798.78	116.38	3.65	3.73	2227.84
7.00	100.00	0.00	0.00	783.90	7439.00	798.79	0.00	799.20	116.42	4.38	3.35	2293.93
7.00	100.00	0.00	0.00	783.90	10018.00	799.77	0.00	800.42	116.53	6.29	2.68	2460.34
7.00	100.00	0.00	0.00	783.90	4364.00	797.50	0.00	797.68	116.28	2.12	5.13	2057.88
6.10	16.00	805.14	802.20	783.90	6497.00	798.45	0.00	798.79	116.38	3.65	3.73	2228.35
6.10	16.00	805.14	802.20	783.90	7439.00	798.80	0.00	799.21	116.42	4.38	3.35	2294.46
6.10	16.00	805.14	802.20	783.90	10018.00	799.78	0.00	800.43	116.53	6.28	2.69	2480.91
6.10	16.00	805.14	802.20	783.90	4364.00	797.51	0.00	797.68	116.28	2.12	5.13	2058.36
6.00	200.00	0.00	0.00	785.50	6497.00	798.90	0.00	798.95	426.17	.69	3.76	2239.82
6.00	200.00	0.00	0.00	785.50	7439.00	799.35	0.00	799.42	435.30	.77	3.38	2306.47
6.00	200.00	0.00	0.00	785.50	10018.00	800.66	0.00	800.74	440.12	.92	2.71	2494.49
6.00	200.00	0.00	0.00	785.50	4364.00	797.74	0.00	797.77	400.59	.48	5.17	2068.48
5.10	1570.00	0.00	0.00	786.60	6497.00	799.02	0.00	799.09	403.29	.99	3.97	2362.11
5.10	1570.00	0.00	0.00	786.60	7439.00	799.49	0.00	799.57	414.28	1.09	3.57	2435.75
5.10	1570.00	0.00	0.00	786.60	10018.00	800.82	0.00	800.92	436.64	1.24	2.88	2644.27
5.10	1570.00	0.00	0.00	786.60	4364.00	797.83	0.00	797.87	396.99	.74	5.44	2173.66

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
5.00	100.00	0.00	0.00	786.60	6497.00	799.00	0.00	799.27	160.00	3.72	3.98	2367.57
5.00	100.00	0.00	0.00	786.60	7439.00	799.46	0.00	799.79	160.00	4.20	3.58	2441.51
5.00	100.00	0.00	0.00	786.60	10018.00	800.77	0.00	801.23	160.00	5.21	2.88	2650.91
5.00	100.00	0.00	0.00	786.60	4364.00	797.82	0.00	797.98	160.00	2.52	5.45	2178.37
4.10	28.00	812.01	799.90	786.60	6497.00	799.04	0.00	799.31	160.00	3.67	3.98	2368.57
4.10	28.00	812.01	799.90	786.60	7439.00	799.51	0.00	799.83	160.00	4.14	3.58	2442.56
4.10	28.00	812.01	799.90	786.60	10018.00	801.27	0.00	801.69	160.00	4.55	2.88	2652.12
4.10	28.00	812.01	799.90	786.60	4364.00	797.84	0.00	798.00	160.00	2.51	5.45	2179.26
4.00	500.00	0.00	0.00	785.70	6497.00	799.35	0.00	799.50	230.34	1.75	4.02	2389.81
4.00	500.00	0.00	0.00	785.70	7439.00	799.87	0.00	800.05	233.29	1.95	3.62	2464.93
4.00	500.00	0.00	0.00	785.70	10018.00	801.72	0.00	801.95	243.71	2.09	2.92	2678.54
4.00	500.00	0.00	0.00	785.70	4364.00	798.03	0.00	798.12	222.92	1.24	5.51	2197.69
3.00	2280.00	0.00	0.00	788.60	6497.00	799.81	0.00	799.93	471.93	2.02	4.25	2515.38
3.00	2280.00	0.00	0.00	788.60	7439.00	800.38	0.00	800.51	487.06	2.06	3.84	2600.84
3.00	2280.00	0.00	0.00	788.60	10018.00	802.26	0.00	802.40	528.37	1.80	3.13	2851.22
3.00	2280.00	0.00	0.00	788.60	4364.00	798.37	0.00	798.46	414.84	1.81	5.79	2296.71
2.10	900.00	0.00	0.00	789.40	6497.00	800.01	0.00	800.06	889.61	.81	4.40	2590.98
2.10	900.00	0.00	0.00	789.40	7439.00	800.59	0.00	800.64	894.68	.81	3.99	2684.63
2.10	900.00	0.00	0.00	789.40	10018.00	802.47	0.00	802.52	911.75	.69	3.28	2962.44
2.10	900.00	0.00	0.00	789.40	4364.00	798.54	0.00	798.58	809.39	.78	5.94	2354.51
2.00	100.00	0.00	0.00	789.40	6497.00	799.90	0.00	800.58	113.00	11.36	4.41	2597.46
2.00	100.00	0.00	0.00	789.40	7439.00	800.47	0.00	801.25	113.00	12.24	3.99	2691.78
2.00	100.00	0.00	0.00	789.40	10018.00	802.30	0.00	803.29	113.00	12.64	3.28	2971.76
2.00	100.00	0.00	0.00	789.40	4364.00	798.48	0.00	798.91	113.00	9.02	5.95	2359.33
1.10	28.50	811.93	800.61	789.40	6497.00	800.36	0.00	800.97	113.00	9.66	4.41	2596.12
1.10	28.50	811.93	800.61	789.40	7439.00	801.19	0.00	801.86	113.00	9.65	3.99	2692.49
1.10	28.50	811.93	800.61	789.40	10018.00	804.10	0.00	804.83	113.00	7.93	3.28	2972.65
1.10	28.50	811.93	800.61	789.40	4364.00	798.61	0.00	799.03	113.00	8.52	5.95	2359.87
1.00	350.00	0.00	0.00	790.30	6497.00	801.33	0.00	801.37	893.28	.67	4.47	2622.50
1.00	350.00	0.00	0.00	790.30	7439.00	802.26	0.00	802.30	901.57	.58	4.06	2720.59
1.00	350.00	0.00	0.00	790.30	10018.00	805.26	0.00	805.29	929.10	.36	3.35	3013.10
1.00	350.00	0.00	0.00	790.30	4364.00	799.29	0.00	799.33	792.82	.85	6.01	2376.34

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH D	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
11.100	6497.000	798.450	0.000	0.000	0.000	203.500	0.000	0.000
11.100	7439.000	798.800	.350	0.000	0.000	203.500	0.000	0.000
11.100	10018.000	799.800	1.000	0.000	0.000	203.500	0.000	0.000
11.100	4364.000	797.500	-2.300	0.000	0.000	203.500	0.000	0.000
11.000	6497.000	798.478	0.000	.028	0.000	1265.872	0.000	950.000
11.000	7439.000	798.836	.358	.036	0.000	1268.247	-2.375	950.000
11.000	10018.000	799.861	1.025	.061	0.000	1274.879	-9.008	950.000
11.000	4364.000	797.514	-2.347	.014	0.000	1257.816	8.056	950.000
10.000	6497.000	798.480	0.000	.001	0.000	1645.927	0.000	1100.000
10.000	7439.000	798.838	.358	.001	0.000	1651.087	-5.160	1100.000
10.000	10018.000	799.863	1.025	.002	0.000	1656.748	-10.821	1100.000
10.000	4364.000	797.515	-2.349	.001	0.000	1631.801	14.127	1100.000
9.000	6497.000	798.481	0.000	.001	0.000	967.569	0.000	1450.000
9.000	7439.000	798.839	.358	.001	0.000	971.998	-4.430	1450.000

9.000	10018.000	799.864	1.025	.001	0.000	980.975	-13.407	1450.000	
9.000	4364.000	797.515	-2.349	.001	0.000	955.944	11.625	1450.000	
8.000	6497.000	798.487	0.000	.006	0.000	883.581	0.000	1950.000	
8.000	7439.000	798.846	.359	.007	0.000	896.941	-13.360	1950.000	
8.000	10018.000	799.875	1.028	.010	0.000	932.658	-49.077	1950.000	
8.000	4364.000	797.519	-2.355	.004	0.000	795.791	87.789	1950.000	
7.100	6497.000	798.520	0.000	.033	0.000	348.170	0.000	2850.000	
7.100	7439.000	798.884	.364	.038	0.000	342.500	-4.330	2850.000	
7.100	10018.000	799.921	1.037	.047	0.000	374.814	-16.644	2850.000	
7.100	4364.000	797.541	-2.380	.022	0.000	346.539	11.632	2850.000	
7.000	6497.000	798.445	0.000	-.075	0.000	116.383	0.000	100.000	
7.000	7439.000	798.791	.345	-.094	0.000	116.421	-.038	100.000	
7.000	10018.000	799.773	.982	-.149	0.000	116.530	-.147	100.000	
7.000	4364.000	797.502	-2.270	-.039	0.000	116.278	.105	100.000	
6.100	6497.000	798.451	0.000	.006	0.000	116.383	0.000	16.000	
6.100	7439.000	798.798	.346	.007	0.000	116.421	-.038	16.000	
6.100	10018.000	799.783	.986	.011	0.000	116.531	-.148	16.000	
6.100	4364.000	797.506	-2.278	.003	0.000	116.278	.105	16.000	
6.000	6497.000	798.900	0.000	.449	0.000	426.171	0.000	200.000	
6.000	7439.000	799.355	.455	.557	0.000	435.303	-9.132	200.000	
6.000	10018.000	800.656	1.301	.873	0.000	440.116	-13.944	200.000	
6.000	4364.000	797.743	-2.913	.237	0.000	400.587	25.584	200.000	
5.100	6497.000	799.025	0.000	.125	0.000	403.288	0.000	1570.000	
5.100	7439.000	799.493	.469	.139	0.000	414.283	-10.994	1570.000	
5.100	10018.000	800.818	1.324	.141	0.000	436.643	-33.355	1570.000	
5.100	4364.000	797.833	-2.985	.090	0.000	386.985	16.303	1570.000	
5.000	6497.000	799.001	0.000	-.024	0.000	160.000	0.000	100.000	
5.000	7439.000	799.463	.462	-.030	0.000	160.000	0.000	100.000	
5.000	10018.000	800.769	1.305	-.049	0.000	160.000	0.000	100.000	
5.000	4364.000	797.822	-2.947	-.011	0.000	160.000	0.000	100.000	
4.100	6497.000	799.040	0.000	.039	0.000	160.000	0.000	28.000	
4.100	7439.000	799.512	.471	.048	0.000	160.000	0.000	28.000	
4.100	10018.000	801.269	1.757	.500	0.000	160.000	0.000	28.000	
4.100	4364.000	797.643	-3.426	.021	0.000	160.000	0.000	28.000	
4.000	6497.000	799.348	0.000	.308	0.000	230.336	0.000	500.000	
4.000	7439.000	799.872	.524	.361	0.000	233.294	-2.958	500.000	
4.000	10018.000	801.719	1.847	.450	0.000	243.712	-13.376	500.000	
4.000	4364.000	798.034	-3.685	.191	0.000	222.923	7.413	500.000	
3.000	6497.000	799.807	0.000	.459	0.000	471.927	0.000	2280.000	
3.000	7439.000	800.377	.570	.505	0.000	487.064	-15.137	2280.000	
3.000	10018.000	802.257	1.880	.539	0.000	528.372	-56.445	2280.000	
3.000	4364.000	798.372	-3.885	.338	0.000	414.836	57.091	2280.000	
2.100	6497.000	800.009	0.000	.203	0.000	889.614	0.000	900.000	
2.100	7439.000	800.591	.582	.214	0.000	894.679	-5.065	900.000	
2.100	10018.000	802.466	1.875	.208	0.000	911.747	-22.133	900.000	
2.100	4364.000	798.538	-3.928	.166	0.000	809.386	80.228	900.000	
2.000	6497.000	799.904	0.000	-.106	0.000	113.000	0.000	100.000	
2.000	7439.000	800.465	.562	-.126	0.000	113.000	0.000	100.000	
2.000	10018.000	802.296	1.831	-.170	0.000	113.000	0.000	100.000	
2.000	4364.000	798.477	-3.820	-.061	0.000	113.000	0.000	100.000	
1.100	6497.000	800.360	0.000	.456	0.000	113.000	0.000	28.500	
1.100	7439.000	801.191	.831	.726	0.000	113.000	0.000	28.500	
1.100	10018.000	804.100	2.909	1.804	0.000	113.000	0.000	28.500	

1.100	4364.000	798.609	-5.401	.133	0.000	113.000	0.000	28.500
1.000	6497.000	801.331	0.000	.971	0.000	893.282	0.000	350.000
1.000	7439.000	802.258	.927	1.067	0.000	901.572	-9.291	350.000
1.000	10018.000	805.255	2.997	1.155	0.000	929.105	-35.823	350.000
1.000	4364.000	799.288	-5.967	.679	0.000	792.823	100.459	350.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	235.[illegible]	0.000
2	0.000	0.000	238.282	2.397
3	0.000	0.000	243.952	8.128
4	0.000	0.000	225.059	-10.765

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: ANN ARBOR - YPSILANTI

3) WATERCOURSE: HURON RIVER

4) DOCUMENT TYPE: FORD DAM INPUT & SUMMARY PRINTOUT

00BREAK00

RECEIVED
DEC 13 1976
WATER MANAGEMENT

HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58

TABLE A-6

June 1968 = 685.4 / 686.0
June 1947

T1 PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2 BY FINKBEINER, PETTIS AND STROUT, LIMITED - USFC401 R6
T3 HURON RIVER AT FORD DAM - Q = 50 YEAR

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	0.	2.	0.	0.	0.000000	-0.00	-0.0	-0.	685.500	-0.000	
NC	.060	.050	.045	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000	
QT	4.000	6597.000	9844.000	13256.000	5775.000	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	91.000	7.000	100.000	1305.000	0.000	0.000	0.000	-0.000	-0.000	-0.000	
GR	700.000	0.000	690.000	100.000	676.000	120.000	676.000	1290.000	680.000	1300.000	
GR	685.000	1305.000	690.000	1600.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	
NC	.050	.050	.045	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	90.100	6.000	35.250	141.590	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	692.000	692.000	-0.000	
GR	694.170	0.000	694.170	10.000	676.000	35.250	676.000	141.590	694.170	168.840	
GR	694.170	178.840	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	
SB	.900	1.500	2.800	-0.000	106.340	5.000	1571.000	0.000	676.000	676.000	
X1	90.000	-0.000	-0.000	-0.000	108.000	108.000	108.000	-0.000	-0.000	-0.000	
X2	-0.000	-0.000	1.000	691.500	694.170	-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	692.000	692.000	-0.000	
BT	0.000	0.000	694.170	694.170	10.000	694.170	694.170	35.250	694.170	676.000	
BT	35.250	694.170	691.500	141.590	694.170	691.500	141.590	694.170	676.000	168.840	
BT	694.170	694.170	178.840	694.170	694.170	-0.000	-0.000	-0.000	-0.000	-0.000	
NC	.050	.040	.045	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	89.000	32.000	505.000	725.000	150.000	150.000	150.000	-0.000	-0.000	-0.000	
X3	-0.000	-0.000	-0.000	500.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	
GR	700.000	0.000	688.100	0.000	688.100	500.000	686.100	505.000	684.500	510.000	
GR	677.700	520.000	677.000	530.000	676.800	540.000	677.200	550.000	677.500	560.000	
GR	678.500	570.000	678.700	580.000	678.800	590.000	678.700	600.000	679.000	610.000	
GR	678.700	620.000	678.400	630.000	678.700	640.000	678.500	650.000	678.500	660.000	
GR	678.400	670.000	680.000	680.000	681.700	690.000	682.000	700.000	682.700	710.000	
GR	684.500	720.000	685.900	725.000	687.000	1025.000	687.600	1175.000	687.400	1325.000	
GR	686.800	1450.000	700.000	1450.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	88.100	0.000	-0.000	-0.000	390.000	390.000	390.000	-0.000	-0.000	-0.000	
X3	-0.000	-0.000	-0.000	455.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	
NC	-0.000	-0.000	-0.000	.500	.700	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	88.000	25.000	300.000	422.000	50.000	50.000	50.000	-0.000	-0.000	-0.000	
X3	10.000	-0.000	-0.000	160.000	-0.000	-0.000	-0.000	647.960	689.120	-0.000	
GR	700.000	0.000	686.660	-0.000	688.650	100.000	687.920	149.000	688.160	186.000	
GR	686.160	300.000	693.500	300.000	679.300	310.000	677.000	320.000	676.900	330.000	
GR	677.100	340.000	676.800	350.000	676.700	360.000	676.100	370.000	674.700	380.000	
GR	675.800	390.000	676.400	400.000	678.400	410.000	683.300	422.000	685.900	422.000	
GR	686.200	467.000	686.700	522.000	687.500	622.000	686.200	722.000	688.830	822.000	
SB	-0.000	1.500	2.900	-0.000	1.220	0.000	1630.000	0.000	677.000	677.000	

X1	87.300	-0.000	-0.000	-0.000	10.000	10.000	10.000	-0.000	-0.000	-0.000	
X2	-0.000	-0.000	1.000	689.800	687.920	-0.000	-0.000	-0.000	-0.000	-0.000	
X3	10.000	-0.000	-0.000	100.000	-0.000	-0.000	-0.000	687.920	689.120	-0.000	
ST	14.000	0.000	688.660	688.660	100.000	688.650	688.650	149.000	687.920	687.920	
ST	186.000	688.160	688.160	300.000	691.200	688.160	300.000	691.200	689.700	360.000	
ST	691.400	689.750	422.000	691.200	689.800	422.000	691.200	685.900	467.000	569.160	
ST	685.200	522.000	689.120	686.700	622.000	689.340	687.500	722.000	689.730	685.200	
ST	822.000	688.830	688.830	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	
NC	.350	.050	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	87.200	32.000	505.000	725.000	50.000	50.000	50.000	-0.000	-2.060	-0.000	
GS	700.000	0.000	688.100	0.000	689.100	500.000	688.100	505.000	684.500	510.000	
GR	677.700	520.000	677.000	530.000	676.800	540.000	677.200	550.000	677.500	560.000	
GR	678.500	570.000	678.700	590.000	676.800	590.000	678.700	600.000	679.000	610.000	
GR	678.700	620.000	678.400	630.000	678.700	640.000	678.500	650.000	678.500	660.000	
GR	678.600	670.000	680.000	680.000	681.700	690.000	682.000	700.000	682.700	710.000	
GR	684.500	720.000	685.900	725.000	687.000	1025.000	687.800	1175.000	687.400	1325.000	
GR	688.800	1450.000	700.000	1450.000	-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	
X1	87.100	-0.000	-0.000	-0.000	530.000	530.000	530.000	-0.000	.420	-0.000	
NC	-0.000	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	87.300	28.000	400.000	520.000	50.000	50.000	50.000	-0.000	-0.000	-0.000	
X3	10.000	-0.000	-0.000	35.000	-0.000	-0.000	-0.000	689.300	686.500	-0.000	
GS	689.750	35.000	689.300	100.000	688.500	200.000	687.800	300.000	687.000	400.000	
GR	678.100	400.000	678.000	410.000	679.500	420.000	678.000	430.000	679.100	440.000	
GR	677.100	450.000	675.200	457.000	676.500	473.000	678.200	480.000	677.600	490.000	
GR	677.700	500.000	677.900	510.000	677.000	520.000	687.000	520.000	687.500	600.000	
GR	687.700	620.000	687.900	660.000	688.600	674.000	687.200	684.000	687.100	720.000	
GR	686.500	720.000	685.900	920.000	687.200	1020.000	-0.000	-0.000	-0.000	-0.000	
GR	1.250	1.500	2.800	-0.000	120.000	16.000	1440.000	0.000	674.000	674.000	
X1	86.200	-0.000	-0.000	-0.000	23.000	23.000	23.000	-0.000	-0.000	-0.000	
X2	-0.000	-0.000	1.000	690.700	686.500	-0.000	-0.000	-0.000	-0.000	-0.000	
X3	10.000	-0.000	-0.000	35.000	-0.000	-0.000	-0.000	689.300	686.500	-0.000	
ST	28.000	35.000	689.750	689.750	100.000	689.300	689.300	200.000	691.600	689.500	
ST	300.000	691.700	687.800	400.000	693.000	687.000	410.000	693.000	689.000	420.000	
T	692.850	690.000	430.000	692.900	540.700	440.000	692.650	690.000	450.000	692.800	
ST	689.000	457.000	692.700	687.000	457.000	692.700	687.000	473.000	692.500	687.000	
ST	473.000	692.500	687.000	490.000	692.300	689.000	490.000	692.200	690.130	500.000	
ST	692.200	690.700	510.000	692.100	689.900	520.000	692.000	687.000	600.000	689.100	
ST	687.500	620.000	686.500	687.700	660.000	687.900	687.900	674.000	686.600	686.500	
ST	684.000	687.200	687.200	720.000	687.100	687.100	820.000	686.500	686.500	920.000	
ST	686.900	686.900	1020.000	687.200	687.200	-0.000	-0.000	-0.000	-0.000	-0.000	
NC	.690	.100	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	86.100	24.000	300.000	502.000	50.000	50.000	50.000	-0.000	-0.000	-0.000	
GS	690.300	20.000	690.500	300.000	684.500	310.000	690.200	320.000	679.400	330.000	
GR	681.900	341.000	682.500	350.000	681.900	360.000	690.700	370.000	680.100	380.000	
GR	680.100	390.000	680.300	400.000	680.100	410.000	679.200	420.000	678.600	430.000	
GR	677.700	440.000	677.900	450.000	678.100	460.000	677.200	470.000	676.000	480.000	
GR	674.500	490.000	681.500	500.000	687.800	502.000	686.100	1020.000	-0.000	-0.000	
NC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	86.000	-0.000	-0.000	-0.000	75.000	75.000	75.000	-0.000	-0.000	-0.000	
NC	.080	.070	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	85.900	21.000	100.000	220.000	1745.000	1020.000	1745.000	-0.000	-0.000	-0.000	
GS	707.500	5.000	695.400	25.000	694.500	60.000	699.100	85.000	698.500	100.000	
GR	684.800	120.000	680.300	130.000	679.600	140.000	680.100	150.000	680.600	160.000	
GR	681.500	170.000	682.600	180.000	683.300	190.000	683.800	200.000	684.400	210.000	
GR	684.600	215.000	685.500	220.000	687.000	290.000	686.600	600.000	686.600	1400.000	
GR	700.000	1400.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	
NC	.260	.050	-0.000	.200	.410	-0.000	-0.000	-0.000	-0.000	-0.000	

X1	84.000	17.000	400.000	520.000	1450.000	1045.000	1450.000	-0.000	-0.000	-0.000
G?	691.500	80.000	693.700	270.000	692.600	400.000	685.700	413.000	694.100	420.000
G?	663.300	430.000	682.400	440.000	681.700	450.000	680.800	460.000	680.200	470.000
G?	680.000	480.000	681.800	490.000	684.600	500.000	685.700	502.000	694.600	520.000
G?	694.000	540.000	694.900	565.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
XC	-0.000	.080	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	83.100	24.000	500.000	613.000	1170.000	1170.000	1170.000	-0.000	-0.000	-0.000
X3	-0.000	-0.000	-0.000	480.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
G?	701.900	0.000	700.090	100.000	698.540	200.000	698.100	300.000	697.700	400.000
G?	697.000	490.000	685.500	500.000	682.600	503.000	680.100	513.000	678.500	523.000
G?	678.600	533.000	678.400	543.000	678.400	553.000	679.500	563.000	680.600	573.000
G?	681.500	583.000	683.600	593.000	685.100	603.000	686.600	613.000	704.000	660.000
C?	718.200	713.000	725.140	813.000	727.530	858.000	729.210	913.000	-0.000	-0.000
XC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	83.000	-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	698.100	710.000	-0.000
S?	0.000	1.500	3.000	-0.000	100.000	0.000	2200.000	0.000	640.000	680.000
X1	92.100	-0.000	-0.000	-0.000	80.500	80.500	80.500	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	706.250	696.100	-0.000	-0.000	-0.000	.850	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	698.100	710.000	-0.000
ST	23.000	0.000	701.960	701.960	100.000	700.040	700.040	200.000	698.540	698.540
ST	300.000	698.100	698.100	400.000	700.100	697.700	450.000	703.500	697.000	500.000
ST	704.650	685.500	513.000	705.000	695.000	523.000	705.600	690.500	533.000	706.000
ST	701.300	543.000	706.500	703.300	553.000	707.000	705.000	563.000	707.500	706.250
ST	573.000	704.100	703.500	583.000	706.900	701.600	593.000	709.400	699.000	603.000
ST	710.000	595.000	613.000	710.700	866.630	660.000	725.000	704.000	713.000	718.200
ST	718.200	813.000	725.140	725.140	858.000	727.530	727.530	913.000	729.210	729.210
XC	.050	.080	.050	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	82.000	18.000	175.000	305.000	100.000	100.000	100.000	-0.000	-0.000	-0.000
G?	699.900	118.000	699.900	175.000	699.800	190.000	698.700	200.000	686.600	205.000
G?	682.900	215.000	692.700	225.000	692.600	235.000	692.200	245.000	692.800	255.000
G?	682.800	265.000	683.900	275.000	685.300	285.000	686.600	290.000	693.300	305.000
G?	693.500	405.000	695.700	475.000	704.200	490.000	-0.000	-0.000	-0.000	-0.000
XC	.080	.070	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	81.000	30.000	100.000	313.000	1940.000	1940.000	1940.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	714.000	714.000	-0.000
C?	714.200	0.000	710.000	80.000	690.900	100.000	690.900	110.000	689.600	120.000
G?	689.000	130.000	688.750	133.000	688.500	140.000	688.000	150.000	687.500	160.000
G?	689.000	166.000	688.300	170.000	687.500	174.000	688.700	180.000	689.000	190.000
G?	689.000	200.000	688.800	210.000	689.200	220.000	689.300	230.000	689.400	241.000
G?	688.700	249.000	689.700	260.000	689.700	270.000	689.400	280.000	689.600	290.000
C?	689.200	300.000	690.300	310.000	690.400	313.000	710.000	333.000	717.800	413.000
SE	-0.000	1.500	2.500	-0.000	213.000	-0.000	3720.000	-0.000	689.000	690.000
X1	80.100	-0.000	-0.000	-0.000	46.000	46.000	46.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	713.100	714.200	-0.000	-0.000	-0.000	.820	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	715.900	716.100	-0.000
ST	32.000	0.000	714.200	714.200	80.000	715.500	710.000	100.000	715.900	690.900
ST	100.000	715.900	700.000	110.000	715.900	707.000	120.000	715.900	710.300	133.000
ST	715.900	713.100	140.000	715.950	711.700	150.000	715.950	709.000	160.000	715.950
ST	705.000	166.000	715.950	700.000	166.000	715.950	689.000	174.000	716.000	697.500
ST	174.000	715.000	700.000	180.000	716.000	704.000	190.000	716.000	709.000	705.000
ST	716.000	713.100	220.000	715.000	709.500	230.000	716.000	705.000	240.000	716.000
ST	695.300	241.000	716.000	689.400	249.000	716.050	688.700	250.000	716.050	696.000
ST	250.000	716.060	707.000	270.000	716.070	710.500	280.000	716.080	713.100	290.000
ST	716.080	710.800	300.000	716.090	707.700	310.000	716.100	702.000	313.000	716.100
ST	690.600	333.000	716.300	710.000	413.000	717.800	717.800	-0.000	-0.000	-0.000
XC	.100	.070	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	80.000	20.000	103.000	235.000	200.000	200.000	200.000	-0.000	-0.000	-0.000

G6	704.400	75.000	693.000	100.000	690.900	103.000	689.800	110.000	689.500	120.000
G7	689.400	130.000	689.200	140.000	688.800	150.000	688.500	140.000	687.900	170.000
G8	687.700	180.000	687.600	190.000	688.400	200.000	688.000	210.000	688.100	220.000
G9	685.900	230.000	690.900	235.000	700.800	257.000	701.900	361.000	723.300	320.000
NC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	79.000	23.000	300.000	427.000	860.000	860.000	860.000	-0.000	-0.000	-0.000
G5	706.400	80.000	707.000	115.000	703.800	265.000	696.600	279.000	694.000	300.000
G6	691.400	305.000	690.300	310.000	688.800	320.000	688.000	330.000	687.100	340.000
G7	686.700	350.000	686.800	360.000	686.900	370.000	687.300	380.000	688.000	390.000
G8	687.600	400.000	687.500	410.000	690.400	420.000	691.800	422.000	693.400	427.000
G9	697.600	432.000	708.000	454.000	713.300	470.000	-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
X1	78.000	19.000	200.000	343.000	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	710.000	710.000	-0.000
G5	715.600	100.000	710.000	160.000	689.700	200.000	689.500	203.000	688.400	213.000
G6	688.200	223.000	688.300	233.000	686.700	243.000	686.700	253.000	689.500	263.000
G8	689.800	273.000	690.400	283.000	690.600	293.000	690.600	296.000	690.500	303.000
G9	691.600	304.000	704.900	342.000	707.000	343.000	712.900	443.000	-0.000	-0.000
SS	1.250	1.300	2.700	-0.000	99.000	2.000	1822.000	1.330	689.000	699.000
X1	77.200	-0.000	-0.000	-0.000	60.000	60.000	60.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	704.900	712.900	-0.000	-0.000	-0.000	.980	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	710.000	710.000	-0.000
ST	8.000	100.000	716.900	716.900	160.000	715.500	710.000	200.000	714.700	689.700
ST	200.000	714.700	703.530	291.000	714.000	704.400	343.000	713.300	704.900	343.000
ST	713.200	707.000	443.000	712.900	712.900	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.090	.090	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
X1	77.100	-0.000	-0.000	-0.000	35.000	35.000	35.000	-0.000	-0.000	-0.000
NC	.090	.090	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
X1	77.000	18.000	200.000	314.000	35.000	35.000	35.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	715.000	715.000	-0.000
G5	715.600	100.000	715.800	180.000	692.200	200.000	690.900	210.000	687.200	220.000
G6	684.400	230.000	684.700	240.000	686.700	250.000	690.000	251.000	689.100	264.500
G7	688.400	270.000	690.600	280.000	692.200	287.000	702.400	319.000	716.500	350.000
G9	716.300	419.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SS	1.250	1.300	2.700	-0.000	69.000	7.000	1753.000	1.250	686.000	686.000
X1	76.100	-0.000	-0.000	-0.000	29.000	28.000	28.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	704.300	716.300	-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	715.000	715.000	-0.000
ST	8.000	100.000	715.800	716.800	180.000	715.800	716.300	200.000	716.600	692.200
ST	200.000	716.800	706.300	319.000	716.500	705.300	314.000	716.500	702.400	350.000
ST	715.200	716.500	419.000	716.300	716.300	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.100	.090	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	76.000	15.000	15.000	107.000	200.000	200.000	200.000	-0.000	-0.000	-0.000
G8	721.300	0.000	692.200	15.000	690.600	17.000	688.600	27.000	688.000	37.000
G9	688.500	47.000	690.000	57.000	689.200	67.000	690.000	77.000	690.800	87.000
G8	692.200	92.000	697.900	107.000	696.500	257.000	697.300	347.000	706.400	427.000
NC	.100	.070	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	75.000	26.000	210.000	345.000	2790.000	2570.000	2570.000	-0.000	-0.000	-0.000
G8	755.500	51.000	747.800	67.000	722.900	115.000	705.400	175.000	703.300	200.000
G9	697.400	205.000	696.200	210.000	694.800	212.000	692.900	220.000	692.100	230.000
G8	691.900	240.000	691.800	250.000	691.900	260.000	691.900	270.000	692.100	280.000
G9	692.600	290.000	693.100	300.000	693.600	310.000	694.100	320.000	694.500	330.000
G8	693.900	340.000	694.800	342.000	695.800	345.000	696.300	365.000	701.900	420.000
G8	706.600	430.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.080	.090	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	74.000	23.000	225.000	375.000	1000.000	1000.000	1000.000	-0.000	-0.000	-0.000
G8	727.100	60.000	705.200	75.000	709.300	160.000	705.000	200.000	692.200	225.000

GR	697.400	235.000	696.700	245.000	696.000	255.000	696.100	265.000	695.900	275.000
GR	695.800	285.000	695.900	295.000	695.800	305.000	695.300	315.000	695.400	325.000
GR	695.200	335.000	695.400	345.000	696.300	355.000	694.500	365.000	698.200	375.000
GR	712.600	405.000	714.300	480.000	717.400	565.000	-0.000	-0.000	-0.000	-0.000
XC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	73.000	47.000	500.000	639.000	200.000	200.000	200.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	718.000	716.500	-0.000
GR	749.500	0.000	746.000	100.000	740.000	200.000	731.500	300.000	724.000	400.000
GR	715.000	450.000	701.000	500.000	699.000	510.000	698.200	514.000	697.500	519.000
GR	697.500	520.000	697.000	529.000	697.000	530.000	697.000	539.000	697.000	540.000
GR	695.200	549.000	693.500	559.000	693.500	560.000	694.000	569.000	694.500	567.000
GR	695.500	564.000	695.500	573.000	695.000	575.000	694.800	574.000	694.500	576.000
GR	694.400	580.000	693.300	589.000	693.300	590.000	696.100	599.000	696.000	605.000
GR	695.000	609.000	695.300	619.000	695.300	620.000	694.500	629.000	694.500	630.000
GR	695.300	638.000	696.300	639.000	710.000	660.000	714.500	739.000	716.500	775.000
GR	721.000	900.000	725.300	975.000	725.000	1020.000	726.300	1075.000	726.800	1120.000
GR	731.100	1133.000	732.500	1300.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SC	0.000	1.500	3.000	-0.000	120.000	0.000	2140.000	0.000	695.000	695.000
X1	72.300	-0.000	-0.000	-0.000	30.000	30.000	30.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	716.000	716.500	-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	719.700	716.500	-0.000
RT	34.000	0.000	749.500	749.500	100.000	746.000	746.000	200.000	740.000	740.000
RT	300.000	731.500	731.500	400.000	724.000	724.000	450.000	721.000	715.000	500.000
RT	719.700	701.000	510.000	719.600	708.000	520.000	719.500	712.000	530.000	719.500
RT	714.000	540.000	719.400	716.000	560.000	719.300	710.000	553.000	719.300	706.300
RT	567.000	719.300	701.000	569.000	719.200	695.500	575.000	719.200	695.500	576.000
RT	719.200	705.300	580.000	719.200	700.000	590.000	719.200	713.000	585.000	719.100
RT	716.000	620.000	719.100	713.000	630.000	719.000	710.000	638.000	719.000	701.000
RT	634.000	719.000	696.300	650.000	718.900	710.000	739.000	717.500	714.300	775.000
RT	716.500	716.500	900.000	721.000	721.000	975.000	725.300	725.300	1020.000	725.000
RT	725.000	1075.000	726.300	726.300	1120.000	726.800	726.800	1133.000	731.100	731.100
RT	1300.000	732.500	732.500	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SC	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000

2 of 33 sections

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**********
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINKBEINER, PETTIS AND STROUT, LIMITED - USFC401 R6
T3      HURON RIVER AT FORD DAM - Q = 100 YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        -0.      3.        -0.       -0. -0.000000     -0.00     -0.0      -0.    686.000   -0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
     2.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000
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100 yr profile

CCHV= .100 CEHV= .300

SECNO	DEPTH	C#SEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
91.00	10.00	686.00	0.00	686.00	686.01	.01	0.00	0.00	640.00
9844.	0.	9841.	3.	0.	11869.	29.	0.	0.	676.00
0.00	0.00	.e3	.10	.060	.045	.050	0.000	676.00	105.71
.000030	0.	0.	0.	0	0	1	0.00	1255.29	1364.00

CCHV= .e00 CEHV= .800

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 692.00 ELREA= 692.00

90.10	9.73	695.73	0.00	0.00	687.14	1.41	.01	1.12	675.00
9844.	0.	9844.	0.	0.	1035.	0.	15.	2.	676.00
.00	0.00	9.51	0.00	.050	.045	.050	.045	675.00	35.25
.004210	100.	100.	100.	0	0	1	0.00	106.34	156.18

SPECIAL BRIDGE

SS	XK	XKOR	COEQ	RDLEN	BAC	BWP	BAREA	SS	ELCHU	ELCHD
	.90	1.50	2.80	-0.00	106.34	5.00	1571.00	0.00	676.00	676.00

CLASS A LOW FLOW

BRIDGE W.S.= 685.51 BRIDGE VELOCITY= 10.21

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	687.29	.21	0.	9844.	1571.	691.50	694.17	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 692.00 ELREA= 692.00

90.00	9.94	685.94	0.00	0.00	687.29	1.35	.15	0.00	676.00
9844.	0.	9844.	0.	0.	1057.	0.	17.	2.	676.00
.01	0.00	9.31	0.00	.050	.045	.050	.045	675.00	35.25
.003744	108.	108.	108.	0	0	1	0.00	106.34	156.50

CCHV= .100 CEHV= .300

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	C#SEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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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3470 ENCROACHMENT STATIONS=      500.0     1450.0  TYPE=      1  TARGET=     -500.000
    59.00     10.50    687.30      0.00      0.00    687.75       .45       .38       .09    688.10
    9844.        0.     9431.      363.        0.     1727.      253.       23.        3.    685.90
      .01      0.00      5.49      1.35      .050      .045      .040      .045    676.80    506.11
  .001301      150.      150.      150.         2         0         1      0.00    574.82   1080.93


3470 ENCROACHMENT STATIONS=      455.0     1450.0  TYPE=      1  TARGET=     -455.000
    88.10     11.20    688.00      0.00      0.00    688.32       .32       .55       .01    688.10
    9844.        0.     5903.      941.        0.     1881.      634.       42.        9.    685.90
      .04      0.00      4.73      1.46      .050      .045      .040      .045    676.80    505.13
  .001201      380.      380.      390.         2         0         1      0.00    873.80   1378.94

CCHV=     .500 CEHV=     .700

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=      160.0      822.0  TYPE=      1  TARGET=     -160.000

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=       687.95 ELREA=       689.12

    88.00     13.21    687.91      0.00      0.00    688.83       .92       .09       .42    686.16
    9844.        0.     9844.        0.        0.     1277.        0.       45.       10.    685.90
      .04      0.00      7.71      0.00      .050      .045      .040      .045    674.70    300.00
  .002630       50.       50.       50.         2         0         1      0.00    122.00    422.00


SPECIAL BRIDGE

SB  XK        XKOR       COFQ       ROLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
    -0.00      1.50       2.90      -0.00       1.22       0.00    1630.00      0.00     677.00     677.00

4070.LOW FLOW BY NORMAL BRIDGE

EGPRS=    688.756  EGLNC=    691.129  ELLC=    689.800  PCWSE=    687.906  ELTRD=    687.920

NORMAL BRIDGE.NRD=14 MIN ELTRD=  687.92 MAX ELLC=  689.80

3470 ENCROACHMENT STATIONS=      100.0      822.0  TYPE=      1  TARGET=     -100.000

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=       687.92 ELREA=       689.12

    87.30     13.24    687.94      0.00      0.00    688.84       .92       .03       .00    688.16
    9844.        0.     9844.        0.        0.     1282.        0.       45.       10.    685.90
      .04       .02      7.68      0.00      .050      .045      .040      .045    674.70    147.23
  .002598       10.       10.       10.         4         0         1    -85.34    127.84    153.07


3301 HV CHANGED MORE THAN HVINS

    87.20     14.53    689.27      0.00      0.00    689.31       .05       .02       .44    686.04
    9844.     1324.     5574.     2946.     1630.     2613.     3015.       50.       11.    683.84
      .05       .61      2.13       .98      .050      .045      .050      .045    674.74      0.00
  .000158       50.       50.       50.         3         0         1      0.00   1450.00   1450.00

CCHV=     .100 CEHV=     .300
   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

  87.10    14.19   689.35     0.00     0.00   689.41      .05      .09      .00   686.46
  9844.    1208.    5823.    2812.    1460.    2539.    2772.     135.      29.   684.26
    .13      .93     2.29     1.01     .050     .045     .050     .045   675.16     0.00
 .000199    530.     530.     530.        2        0        1     0.00  1450.00  1450.00

CCHV=    .600 CEHV=    .800
3280 CROSS SECTION     67.00 EXTENDED      2.12 FEET

3470 ENCROACHMENT STATIONS=      35.0    1020.0  TYPE=     1  TARGET=     -35.000
  87.00    14.12   689.32     0.00     0.00   689.66      .34      .02      .23   687.00
  9844.     460.    7418.    1966.     350.    1400.    1107.     141.      30.   687.00
    .14     1.32     5.30     1.78     .050     .045     .050     .045   675.20    97.66
 .001194      50.      50.      50.        2        0        1     0.00   922.34  1020.00

SPECIAL BRIDGE

SB  XK       XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    1.25     1.50      2.80      -0.00     120.00    16.00     1490.00   0.00      676.00    678.00

[illegible] FLOW IS BY WEIR AND LOW FLOW
3260 CROSS SECTION     86.20 EXTENDED      2.29 FEET

BRIDGE W.S.E.   689.40  BRIDGE VELOCITY=      4.99

EGRRS     EGLWC      H3       QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS

690.70    689.79      .08     3927.     5919.     1490.     690.70    686.50     15.00

3470 ENCROACHMENT STATIONS=      35.0    1020.0  TYPE=     1  TARGET=     -35.000
  86.20    14.28   689.48     0.00     0.00   689.79      .30      .13     0.00   687.00
  9844.     530.    7208.    2105.     403.    1421.    1192.     142.      30.   687.00
    .14     1.31     5.07     1.77     .050     .045     .050     .045   675.20    73.06
 .001075      23.      23.      23.        2        0        4     0.00   946.94  1020.00

CCHV=    .100 CEHV=    .300
3280 CROSS SECTION     86.10 EXTENDED      1.40 FEET

  86.10    12.30   689.50     0.00     0.00   689.86      .36      .06      .02   690.50
  9844.       0.    9288.     556.       0.    1859.     803.     145.      31.   687.80
    .14     0.00     4.97      .69     .080     .045     .100     .045   677.20   301.67
 .001213      50.      50.      50.        2        0        1     0.00   716.33  1020.00

CCHV=    .100 CEHV=    .300
3280 CROSS SECTION     86.00 EXTENDED      1.49 FEET

  86.00    12.40   689.60     0.00     0.00   689.95      .35      .09      .00   690.50
  9844.       0.    9243.     601.       0.    1888.     851.     150.      33.   687.80
    .14     0.00     4.90      .71     .080     .045     .100     .045   677.20   301.51
 .001163      75.      75.      75.        1        0        1     0.00   718.49  1020.00
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CCHV=    .100 CEHV=    .300
  SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       QLOSS    BANK ELEV
  Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA      LEFT/RIGHT
  TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN     SSTA
  SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID    ENDST

   85.00    11.45   691.05     0.00     0.00   691.11      .06     1.13      .03   698.50
   9844.       0.    2881.    5963.       0.     917.    5209.     277.      59.    685.50
     .35     0.00     3.14     1.34     .080     .045     .070     .049   679.60   110.88
 .000550    1745.    1745.    1020.        2        0        1     0.00  1269.12  1400.00

CCHV=    .200 CEHV=    .400

3265 DIVIDED FLOW

3280 CROSS SECTION    84.00 EXTENDED      .27 FEET

3301 HV CHANGED MORE THAN HVINS

   84.00    11.77   691.77     0.00     0.00   693.51     1.74     1.72      .67   692.60
   9844.       2.    9842.       0.       3.     929.       0.     371.      77.    694.60
     .40      .52    10.59     0.00     .060     .045     .060     .049   680.00    80.00
 .006476    1450.    1450.    1045.        2        0        1     0.00   135.84   514.27

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=    480.0     913.0  TYPE=  1  TARGET=    -480.000
   83.10    17.06   695.48     0.00     0.00   696.00      .52     2.24      .24   685.50
   9844.      71.    9619.     154.      43.    1645.     106.     407.      81.    686.60
     .45     1.64     5.85     1.45     .060     .045     .080     .048   678.40   491.33
 .000904    1170.    1170.    1170.        2        0        1     0.00   145.64   636.97

CCHV=    .100 CEHV=    .300

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=      698.10 ELREA=      710.00

   83.00    17.10   695.50     0.00     0.00   696.05      .55      .05      .01   685.50
   9844.       0.    9844.       0.       0.    1649.       0.     409.      81.    686.60
     .46     0.00     5.97     0.00     .060     .045     .080     .048   678.40   500.00
 .001042      50.      50.      50.        2        0        1     0.00   113.00   637.04

SPECIAL BRIDGE

SB  XK       XKOR     COFQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
    0.00     1.50     3.00     -0.00    100.00     0.00   2200.00     0.00   680.00   680.00

5070.LOW FLOW BY NORMAL BRIDGE

EGPPS=    0.000  EGLWC=   697.550  ELLC=   706.250  PCWSE=   695.500  ELTRD=   698.100

NORMAL BRIDGE,NRD=23 MIN ELTRD=  698.10 MAX ELLC=  706.25
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OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       698.10 ELREA=       710.00

    82.10     17.14    695.54      0.00      0.00    696.19       .65       .11       .03    685.50
    9844.        0.     9844.        0.        0.     1526.        0.      412.       81.    686.60
      .45      0.00      6.45      0.00      .050      .045      .080      .048    678.40    500.00
  .001798       81.       81.       81.         2         0         1   -128.52    113.00    637.19

CCHV=     .100 CEHV=     .300
   SECNO     DEPTH     CMSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID    ENDST

    82.00     13.44    695.64      0.00      0.00    696.47       .83       .23       .06    699.90
    9844.        0.     9393.      451.        0.     1256.      289.      416.       82.    693.30
      .46      0.00      7.48      1.56      .080      .050      .080      .048    682.20    181.32
  .003024      100.      100.      100.         2         0         1      0.00    291.63    473.15

CCHV=     .100 CEHV=     .300

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       714.00 ELREA=       714.00

    81.00     11.94    699.44      0.00      0.00    699.75       .31      3.23       .05    690.90
    9844.        0.     9844.        0.        0.     2188.        0.      499.       93.    690.60
      .55      0.00      4.50      0.00      .080      .050      .070      .049    687.50    100.00
  .001051     1940.     1940.     1940.         3         0         1      0.00    213.00    322.11

SPECIAL BRIDGE

SB  XK        XLOR      COFQ      RDLEN     BWC       BVP       BAREA     SS        ELCHU     ELCHD
    -0.00      1.50      2.80     -0.00    213.00     -0.00   3720.00     -0.00    689.00    689.00

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=     0.000  EGLWS=   701.179  ELLC=   713.100  PCUSE=   699.440  ELTRD=   714.200

NORMAL BRIDGE,NRD=32 MIN ELTRD=  714.20 MAX ELLC=  713.10

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       715.90 ELREA=       716.10

    80.10     11.94    699.44      0.00      0.00    699.84       .40       .06       .03    690.90
    9844.        0.     9844.        0.        0.     1942.        0.      501.       93.    690.60
      .59      0.00      5.07      0.00      .080      .050      .070      .049    687.50    100.00
  .001771       46.       46.       46.         2         0         1   -247.41    213.00    322.12

    80.00     12.04    699.64      0.00      0.00    700.30       .65       .38       .08    690.90
    9844.      120.     9520.      204.       71.     1446.       85.      509.       94.    690.90
      .59      1.68      6.58      2.40      .100      .050      .070      .049    687.60     85.43
  .002026      200.      200.      200.         2         0         1      0.00    169.00    254.43

CCHV=     .100 CEHV=     .300
    79.00     14.48    701.18      0.00      0.00    701.70       .52      1.39       .01    694.00
    9844.      233.     9543.       68.      144.     1632.       40.      543.       97.    693.40
      .64      1.62      5.85      1.70      .100      .050      .070      .049    686.70    270.09
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.001312	860.	860.	860.	2	0	1	0.00	169.20	439.29	

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	

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 710.00 ELREA= 710.00

78.00	13.13	701.33	0.00	0.00	702.09	.74	.31	.07	689.70	
9844.	0.	9844.	0.	0.	1421.	0.	549.	98.	707.00	
.64	0.00	6.93	0.00	.100	.050	.070	.049	684.20	200.00	
.002586	175.	175.	175.	2	0	1	0.00	133.74	333.74	

SPECIAL BRIDGE

SS	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.70	-0.00	99.00	2.00	1822.00	1.33	689.00	689.00

CLASS A LOW FLOW

BRIDGE AREA= 701.30 BRIDGE VELOCITY= 7.06

EGPRS	EGLWC	WS	QWCIR	QOR	QAREA	ELLC	ELTRD	CLASS
0.00	702.11	.04	0.	9844.	1822.	704.90	712.90	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 710.00 ELREA= 710.00

77.20	13.17	701.37	0.00	0.00	702.11	.74	.03	0.00	689.70	
9844.	0.	9844.	0.	0.	1427.	0.	551.	98.	707.00	
.65	0.00	6.90	0.00	.100	.050	.070	.049	688.20	200.00	
.002558	60.	60.	60.	0	0	1	0.00	133.85	333.85	

CCHV= .200 CEHV= .400

77.10	13.37	701.57	0.00	0.00	702.21	.64	.08	.02	689.70	
9844.	355.	9489.	0.	135.	1453.	0.	553.	98.	707.00	
.65	2.56	6.53	0.00	.080	.050	.080	.049	688.20	176.61	
.002058	35.	35.	35.	2	0	1	0.00	157.75	334.36	

CCHV= .200 CEHV= .400

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 715.00 ELREA= 715.00

77.00	17.09	701.49	0.00	0.00	702.41	.92	.09	.11	692.20	
9844.	0.	9844.	0.	0.	1278.	0.	554.	98.	702.40	
.65	0.00	7.70	0.00	.080	.050	.080	.049	684.40	200.00	
.003068	35.	35.	35.	2	0	1	0.00	116.14	316.14	

SPECIAL BRIDGE

SS	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.70	-0.00	65.00	7.00	1753.00	1.25	686.00	686.00

CLASS A LOW FLOW

BRIDGE W.S.= 701.29 BRIDGE VELOCITY= 8.35

EGPRS	EGLWC	FR3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	702.61	.24	0.	9844.	1753.	706.30	716.30	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 715.00 ELREA= 715.00

76.10	17.33	701.73	0.00	0.00	702.61	.88	.20	0.00	692.20
9844.	0.	9844.	0.	0.	1306.	0.	554.	98.	702.40
.65	0.00	7.54	0.00	.080	.050	.080	.049	684.40	200.00
.002884	28.	28.	28.	0	0	1	0.00	116.90	316.90

CCHV= .100 CEHV= .300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	VPOB	XNL	XNCH	XNP	WTN	TWA	LEFT/RIGHT
TIME	VLOB	VCH	XLOBR	ITRIAL	IDC	IMCONT	COPAR	ELMIN	SSTA
SLOPE	XLOBL	XLCH						TOPWID	ENDST
76.00	14.67	702.67	0.00	0.00	703.06	.39	.40	.05	692.20
9844.	29.	6672.	3143.	28.	1129.	1466.	564.	99.	697.90
.66	1.01	5.41	2.14	.100	.050	.080	.049	605.00	9.60
.001441	200.	200.	200.	2	0	1	0.00	384.58	394.18

CCHV= .100 CEHV= .300

75.00	13.91	705.71	0.00	0.00	706.06	.35	3.00	.00	692.20
9844.	133.	8620.	1091.	105.	1723.	487.	710.	118.	698.80
.82	1.27	5.00	2.24	.100	.050	.070	.049	691.80	173.92
.000264	2750.	2570.	2570.	3	0	1	0.00	253.86	427.78

74.00	11.64	706.84	0.00	0.00	707.35	.51	1.24	.05	696.20
9844.	302.	9415.	127.	147.	1606.	77.	757.	124.	698.20
.86	2.06	5.86	1.66	.080	.050	.090	.049	695.20	162.92
.001681	1000.	1000.	1000.	2	0	1	0.00	209.83	392.75

CCHV= .100 CEHV= .300

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 718.00 ELREA= 716.50

73.00	13.81	707.11	0.00	0.00	707.73	.62	.35	.03	701.00
9844.	0.	9844.	0.	0.	1558.	0.	765.	125.	696.30
.87	0.00	6.32	0.00	.080	.050	.090	.049	693.30	500.00
.001380	200.	200.	200.	1	0	1	0.00	139.00	655.56

SPECIAL BRIDGE

SK	XKOR	COFQ	ROLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.50	3.00	-0.00	120.00	0.00	2140.00	0.00	695.00	695.00

6070.LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 709.280 ELLC= 716.000 PCASE= 707.113 ELTRD= 716.500

NORMAL BRIDGE,NRD=34 MIN ELTRD= 716.50 MAX ELLC= 716.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 719.70 ELREA= 715.50

72.30	13.79	707.09	0.00	0.00	707.84	.76	.07	.04	701.00	
9544.	0.	9544.	0.	0.	1411.	0.	766.	125.	696.30	
.07	0.00	6.97	0.00	.080	.050	.090	.049	693.30	500.00	
.003053	30.	30.	30.	2	0	1	-233.56	139.00	695.54	

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

HURON RIVER AT FORD DAM

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10*QS	TIME	VOL
91.00	0.00	0.00	0.00	676.00	8597.00	685.50	0.00	685.51	1228.07	.27	0.00	0.00
91.00	0.00	0.00	0.00	676.00	9844.00	686.00	0.00	686.01	1258.29	.30	0.00	0.00
91.00	0.00	0.00	0.00	676.00	13256.00	689.10	0.00	689.11	1445.61	.22	0.00	0.00
91.00	0.00	0.00	0.00	676.00	5775.00	685.50	0.00	685.50	1228.07	.12	0.00	0.00
90.10	100.00	0.00	0.00	676.00	8597.00	685.28	0.00	686.45	106.34	35.93	.00	14.08
90.10	100.00	0.00	0.00	676.00	9844.00	685.73	0.00	687.14	106.34	40.16	.00	14.35
90.10	100.00	0.00	0.00	676.00	13256.00	688.82	0.00	690.28	106.34	29.20	.00	20.03
90.10	100.00	0.00	0.00	676.00	5775.00	685.40	0.00	685.92	106.34	15.50	.00	14.09
90.00	109.00	694.17	691.50	676.00	8597.00	685.43	0.00	686.57	106.34	33.94	.01	16.54
90.00	108.00	694.17	691.50	676.00	9844.00	685.94	0.00	687.29	106.34	37.44	.01	17.44
90.00	108.00	694.17	691.50	676.00	13256.00	689.00	0.00	690.42	106.34	27.68	.01	23.44
90.00	108.00	694.17	691.50	676.00	5775.00	685.44	0.00	685.95	106.34	15.30	.01	16.58
89.00	150.00	0.00	0.00	676.80	8597.00	686.57	0.00	687.03	399.76	20.08	.01	21.07
89.00	150.00	0.00	0.00	676.80	9844.00	687.30	0.00	687.75	574.82	18.01	.01	22.64
89.00	150.00	0.00	0.00	676.80	13256.00	690.55	0.00	690.78	958.00	4.78	.02	34.26
89.00	150.00	0.00	0.00	676.80	5775.00	685.93	0.00	686.18	225.57	12.39	.02	20.76
88.10	380.00	0.00	0.00	676.80	8597.00	687.32	0.00	687.66	574.68	13.58	.04	36.94
88.10	380.00	0.00	0.00	676.80	9844.00	688.00	0.00	688.32	873.80	12.01	.04	42.43
88.10	380.00	0.00	0.00	676.80	13256.00	690.74	0.00	690.8.	995.00	4.24	.06	78.93
88.10	380.00	0.00	0.00	676.80	5775.00	686.39	0.00	686.61	350.54	9.90	.05	33.80
88.00	50.00	0.00	0.00	674.70	8597.00	687.27	0.00	688.07	122.00	24.56	.04	38.77
88.00	50.00	0.00	0.00	674.70	9844.00	687.91	0.00	688.83	122.00	26.30	.04	44.61
88.00	50.00	0.00	0.00	674.70	13256.00	690.70	0.00	691.07	662.00	10.20	.06	83.20
88.00	50.00	0.00	0.00	674.70	5775.00	686.38	0.00	686.82	122.00	15.05	.05	38.33
87.30	10.00	687.92	689.80	674.70	8597.00	687.30	0.00	688.10	122.00	24.26	.04	39.05
87.30	10.00	687.92	689.80	674.70	9844.00	687.94	0.00	688.86	127.84	25.98	.04	44.90
87.30	10.00	687.92	689.80	674.70	13256.00	690.60	0.00	691.36	722.00	47.89	.06	84.45
87.30	10.00	687.92	689.80	674.70	5775.00	686.40	0.00	686.83	122.00	14.95	.05	35.58
87.20	50.00	0.00	0.00	674.74	8597.00	686.43	0.00	688.49	1450.00	1.92	.05	43.21
87.20	50.00	0.00	0.00	674.74	9844.00	689.27	0.00	689.31	1450.00	1.58	.05	49.61
87.20	50.00	0.00	0.00	674.74	13256.00	691.70	0.00	691.73	1450.00	.93	.07	91.98
87.20	50.00	0.00	0.00	674.74	5775.00	686.48	0.00	687.04	1450.00	2.19	.06	36.47
87.10	530.00	0.00	0.00	675.16	8597.00	688.54	0.00	688.60	1450.00	2.33	.12	114.01
87.10	530.00	0.00	0.00	675.16	9844.00	689.35	0.00	689.41	1450.00	1.49	.13	135.15
87.10	530.00	0.00	0.00	675.16	13256.00	691.75	0.00	691.78	1450.00	1.08	.17	219.92
87.10	530.00	0.00	0.00	675.16	5775.00	687.10	0.00	687.18	1444.82	2.69	.13	83.84
87.00	50.00	0.00	0.00	675.20	8597.00	688.48	0.00	688.94	616.85	15.97	.13	116.36
87.00	50.00	0.00	0.00	675.20	9844.00	689.32	0.00	689.66	922.34	11.94	.14	140.68
87.00	50.00	0.00	0.00	675.20	13256.00	691.74	0.00	691.89	945.00	5.40	.18	226.81
87.00	50.00	0.00	0.00	675.20	5775.00	687.06	0.00	687.46	378.64	14.63	.13	86.54

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
86.20	23.00	686.50	690.70	675.20	8597.00	688.57	0.00	689.01	619.36	15.19	.13	119.43
86.20	23.00	686.50	690.70	675.20	9844.00	689.48	0.00	689.79	946.94	10.75	.14	142.23
86.20	23.00	686.50	690.70	675.20	13256.00	691.92	0.00	692.06	985.00	4.95	.18	231.62
86.20	23.00	686.50	690.70	675.20	5775.00	687.25	0.00	687.62	495.97	13.53	.13	87.19
86.10	50.00	0.00	0.00	677.20	8597.00	688.72	0.00	689.09	717.03	13.18	.13	121.82
86.10	50.00	0.00	0.00	677.20	9844.00	689.50	0.00	689.86	716.33	12.13	.14	145.49
86.10	50.00	0.00	0.00	677.20	13256.00	691.65	0.00	692.13	1000.00	7.97	.18	237.44
86.10	50.00	0.00	0.00	677.20	5775.00	687.45	0.00	687.70	196.81	10.33	.14	88.77
86.00	75.00	0.00	0.00	677.20	8597.00	688.83	0.00	689.18	717.21	12.56	.14	125.52
86.00	75.00	0.00	0.00	677.20	9844.00	689.60	0.00	689.95	716.49	11.63	.14	150.15
86.00	75.00	0.00	0.00	677.20	13256.00	691.92	0.00	692.19	1000.00	7.78	.19	245.66
86.00	75.00	0.00	0.00	677.20	5775.00	687.54	0.00	687.77	196.99	9.94	.14	91.30
85.00	1745.00	0.00	0.00	679.60	8597.00	690.44	0.00	690.51	1288.22	6.37	.35	235.12
85.00	1745.00	0.00	0.00	679.60	9844.00	691.05	0.00	691.11	1289.12	5.50	.36	277.29
85.00	1745.00	0.00	0.00	679.60	13256.00	692.88	0.00	692.94	1291.60	3.61	.42	433.55
85.00	1745.00	0.00	0.00	679.60	5775.00	689.12	0.00	689.21	1286.31	8.65	.35	169.55
84.00	1450.00	0.00	0.00	680.00	8597.00	691.48	0.00	692.91	111.59	54.76	.39	318.02
84.00	1450.00	0.00	0.00	680.00	9844.00	691.77	0.00	693.51	145.84	64.78	.40	370.55
84.00	1450.00	0.00	0.00	680.00	13256.00	692.72	690.89	695.18	236.77	83.35	.45	559.06
84.00	1450.00	0.00	0.00	680.00	5775.00	690.72	0.00	691.50	108.61	32.98	.40	230.13
83.10	1170.00	0.00	0.00	678.40	8597.00	694.68	0.00	695.13	142.81	8.37	.45	352.63
83.10	1170.00	0.00	0.00	678.40	9844.00	695.48	0.00	696.00	145.64	9.04	.45	407.18
83.10	1170.00	0.00	0.00	678.40	13256.00	697.50	0.00	698.20	142.43	10.45	.49	602.11
83.10	1170.00	0.00	0.00	678.40	5775.00	692.76	0.00	693.33	135.93	6.33	.48	260.01
83.00	50.00	0.00	0.00	678.40	8597.00	694.71	0.00	695.18	113.00	9.49	.45	354.49
83.00	50.00	0.00	0.00	678.40	9844.00	695.50	0.00	696.05	113.00	10.42	.46	409.16
83.00	50.00	0.00	0.00	678.40	13256.00	697.51	0.00	698.28	113.00	12.55	.50	604.39
83.00	50.00	0.00	0.00	678.40	5775.00	692.78	0.00	693.07	113.00	6.93	.46	261.59
82.10	80.50	698.10	706.25	678.40	8597.00	694.76	0.00	695.30	113.00	15.81	.44	357.28
82.10	80.50	698.10	706.25	678.40	9844.00	695.54	0.00	696.19	113.00	17.98	.46	412.09
82.10	80.50	698.10	706.25	678.40	13256.00	697.51	0.00	698.48	113.00	26.41	.50	607.67
82.10	80.50	698.10	706.25	678.40	5775.00	692.83	0.00	693.14	113.00	9.87	.48	264.02
82.00	100.00	0.00	0.00	682.20	8597.00	694.78	0.00	695.60	261.91	31.99	.46	360.46
82.00	100.00	0.00	0.00	682.20	9844.00	695.64	0.00	696.47	291.83	30.24	.46	415.62
82.00	100.00	0.00	0.00	682.20	13256.00	697.97	0.00	698.75	301.15	24.18	.50	612.15
82.00	100.00	0.00	0.00	682.20	5775.00	692.77	0.00	693.40	118.23	31.56	.49	266.53
81.00	1940.00	0.00	0.00	687.50	8597.00	698.65	0.00	698.93	213.00	10.46	.59	434.52
81.00	1940.00	0.00	0.00	687.50	9844.00	699.44	0.00	699.75	213.00	10.51	.58	498.75
81.00	1940.00	0.00	0.00	687.50	13256.00	701.39	0.00	701.80	213.00	10.75	.61	719.98
81.00	1940.00	0.00	0.00	687.50	5775.00	696.56	0.00	696.77	213.00	10.74	.64	321.79

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
80.10	46.00	714.20	713.10	687.50	8597.00	698.66	0.00	699.02	213.00	17.41	.59	436.53
80.10	46.00	714.20	713.10	687.50	9844.00	699.44	0.00	699.84	213.00	17.71	.59	500.94
80.10	46.00	714.20	713.10	687.50	13256.00	701.38	0.00	701.88	213.00	18.44	.61	722.57
80.10	46.00	714.20	713.10	687.50	5775.00	696.58	0.00	696.84	213.00	17.36	.64	323.37
80.00	200.00	0.00	0.00	687.60	8597.00	698.88	0.00	699.46	165.61	19.85	.60	444.04
80.00	200.00	0.00	0.00	687.60	9844.00	699.64	0.00	700.30	169.00	20.26	.59	509.07
80.00	200.00	0.00	0.00	687.60	13256.00	701.55	0.00	702.38	240.01	21.00	.62	732.34
80.00	200.00	0.00	0.00	687.60	5775.00	696.84	0.00	697.26	156.60	19.25	.65	329.24
79.00	860.00	0.00	0.00	686.70	8597.00	700.36	0.00	700.91	165.82	12.60	.64	475.17
79.00	860.00	0.00	0.00	686.70	9844.00	701.18	0.00	701.70	169.20	13.12	.64	542.83
79.00	860.00	0.00	0.00	686.70	13256.00	703.20	0.00	703.87	177.47	14.29	.66	773.04
79.00	860.00	0.00	0.00	686.70	5775.00	698.20	0.00	698.51	156.96	11.28	.70	353.68
78.00	175.00	0.00	0.00	688.20	8597.00	700.51	0.00	701.18	131.61	25.01	.65	481.18
78.00	175.00	0.00	0.00	688.20	9844.00	701.33	0.00	702.08	133.74	25.86	.64	549.33
78.00	175.00	0.00	0.00	688.20	13256.00	703.34	0.00	704.29	138.96	27.87	.66	780.80
78.00	175.00	0.00	0.00	688.20	5775.00	698.35	0.00	698.84	125.01	23.07	.71	358.43
77.20	60.00	712.90	704.90	688.20	8597.00	700.55	0.00	701.21	131.70	24.74	.65	482.99
77.20	60.00	712.90	704.90	688.20	9844.00	701.37	0.00	702.11	133.85	25.58	.65	551.29
77.20	60.00	712.90	704.90	688.20	13256.00	703.40	0.00	704.34	139.10	27.52	.66	783.14
77.20	60.00	712.90	704.90	688.20	5775.00	698.38	0.00	698.86	124.08	22.66	.71	359.66
77.10	35.00	0.00	0.00	686.20	8597.00	700.72	0.00	701.30	153.89	20.19	.65	484.10
77.10	35.00	0.00	0.00	688.20	9844.00	701.57	0.00	702.21	157.75	20.59	.65	552.51
77.10	35.00	0.00	0.00	688.20	13256.00	703.65	0.00	704.45	167.26	21.43	.66	784.60
77.10	35.00	0.00	0.00	688.20	5775.00	698.61	0.00	698.94	143.79	19.30	.72	360.73
77.00	35.00	0.00	0.00	684.40	8597.00	700.66	0.00	701.48	113.55	29.20	.66	485.17
77.00	35.00	0.00	0.00	684.40	9844.00	701.49	0.00	702.41	116.14	30.66	.65	553.66
77.00	35.00	0.00	0.00	684.40	13256.00	703.51	0.00	704.70	119.00	32.89	.67	785.99
77.00	35.00	0.00	0.00	684.40	5775.00	698.50	0.00	699.08	106.77	25.34	.72	361.57
76.10	28.00	716.30	706.30	684.40	8597.00	700.87	0.00	701.66	114.21	27.57	.66	485.94
76.10	28.00	716.30	706.30	684.40	9844.00	701.73	0.00	702.61	116.90	28.84	.65	554.49
76.10	28.00	716.30	706.30	684.40	13256.00	703.83	0.00	704.96	119.00	30.37	.67	786.97
76.10	28.00	716.30	706.30	684.40	5775.00	698.64	0.00	699.20	107.21	24.19	.72	362.18
76.00	200.00	0.00	0.00	688.00	8597.00	701.70	0.00	702.11	375.63	16.17	.67	493.89
76.00	200.00	0.00	0.00	688.00	9844.00	702.67	0.00	703.06	384.58	14.41	.66	563.51
76.00	200.00	0.00	0.00	688.00	13256.00	705.02	0.00	705.39	406.51	11.58	.68	799.70
76.00	200.00	0.00	0.00	688.00	5775.00	699.18	0.00	699.70	352.12	24.56	.73	367.45
75.00	2570.00	0.00	0.00	691.80	8597.00	704.92	0.00	705.23	245.42	9.38	.83	623.18
75.00	2570.00	0.00	0.00	691.80	9844.00	705.71	0.00	706.06	253.65	9.64	.82	709.53
75.00	2570.00	0.00	0.00	691.80	13256.00	707.74	0.00	708.17	283.07	9.97	.82	987.95
75.00	2570.00	0.00	0.00	691.80	5775.00	702.93	0.00	703.15	221.79	8.36	.92	455.92

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
74.00	1000.00	0.00	0.00	695.20	8597.00	706.03	0.00	706.50	200.69	16.55	.88	666.58
74.00	1000.00	0.00	0.00	695.20	9844.00	706.84	0.00	707.35	209.83	16.51	.86	757.11
74.00	1000.00	0.00	0.00	695.20	13256.00	709.86	0.00	709.48	232.77	16.25	.86	1046.68
74.00	1000.00	0.00	0.00	695.20	5775.00	703.99	0.00	704.33	183.16	16.61	.98	489.56
73.00	200.00	0.00	0.00	693.30	8597.00	706.32	0.00	706.87	139.00	18.18	.89	673.72
73.00	200.00	0.00	0.00	693.30	9844.00	707.11	0.00	707.73	139.00	16.80	.87	764.89
73.00	200.00	0.00	0.00	693.30	13256.00	709.09	0.00	709.90	139.00	20.07	.87	1056.12
73.00	200.00	0.00	0.00	693.30	5775.00	704.30	0.00	704.68	139.00	16.68	.99	495.17
72.30	30.00	716.50	716.00	693.30	8597.00	706.31	0.00	706.97	139.00	29.09	.89	674.68
72.30	30.00	716.50	716.00	693.30	9844.00	707.09	0.00	707.84	139.00	30.59	.87	765.91
72.30	30.00	716.50	716.00	693.30	13256.00	709.07	0.00	710.04	139.00	38.75	.87	1057.31
72.30	30.00	716.50	716.00	693.30	5775.00	704.31	0.00	704.76	139.00	25.03	.99	495.94

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH O	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
91.000	8597.000	685.500	0.000	0.000	0.000	1228.071	0.000	0.000
91.000	9844.000	685.000	-.500	0.000	0.000	1258.286	-30.214	0.000
91.000	13256.000	689.100	3.100	0.000	0.000	1445.614	-217.543	0.000
91.000	5775.000	685.500	-3.600	0.000	0.000	1228.071	0.000	0.000
90.100	8597.000	685.275	0.000	-.225	0.000	106.340	0.000	100.000
90.100	9844.000	685.731	.456	-.269	0.000	106.340	0.000	100.000
90.100	13256.000	688.814	3.084	-.244	0.000	106.340	0.000	100.000
90.100	5775.000	685.401	-3.414	-.099	0.000	106.340	0.000	100.000
90.000	8597.000	685.432	0.000	.157	0.000	106.340	0.000	108.000
90.000	9844.000	685.939	.507	.209	0.000	106.340	0.000	108.000
90.000	13256.000	688.996	3.057	.180	0.000	106.340	0.000	108.000
90.000	5775.000	685.439	-3.557	.037	0.000	106.340	0.000	108.000
89.000	8597.000	686.567	0.000	1.134	0.000	399.756	0.000	150.000
89.000	9844.000	687.300	.734	1.361	0.000	574.819	-175.063	150.000
89.000	13256.000	690.550	3.249	1.554	0.000	949.999	-550.243	150.000
89.000	5775.000	685.931	-4.619	.492	0.000	225.573	174.183	150.000
88.100	8597.000	687.318	0.000	.752	0.000	578.679	0.000	380.000
88.100	9844.000	688.002	.684	.702	0.000	873.803	-295.124	380.000
88.100	13256.000	690.739	2.737	.190	0.000	995.000	-416.321	380.000
88.100	5775.000	686.387	-4.352	.456	0.000	350.535	228.144	380.000
88.000	8597.000	687.271	0.000	-.048	0.000	122.000	0.000	50.000
88.000	9844.000	687.906	.635	-.096	0.000	122.000	0.000	50.000
88.000	13256.000	690.700	2.793	-.040	0.000	661.999	-539.999	50.000
88.000	5775.000	686.383	-4.316	-.004	0.000	122.000	0.000	50.000
87.300	8597.000	687.304	0.000	.033	0.000	122.000	0.000	10.000
87.300	9844.000	687.943	.639	.037	0.000	127.840	-5.840	10.000
87.300	13256.000	690.603	2.661	-.096	0.000	722.000	-600.000	10.000
87.300	5775.000	686.401	-4.202	.018	0.000	122.000	0.000	10.000
87.200	8597.000	688.434	0.000	1.130	0.000	1450.000	0.000	50.000
87.200	9844.000	689.768	1.334	1.325	0.000	1450.000	0.000	50.000
87.200	13256.000	691.699	2.431	1.095	0.000	1450.000	0.000	50.000
87.200	5775.000	686.983	-4.715	.582	0.000	1450.000	0.000	50.000
87.100	8597.000	688.539	0.000	.104	0.000	1450.000	0.000	530.000
87.100	9844.000	689.354	.815	.086	0.000	1450.000	0.000	530.000

87.100	13256.000	691.749	2.395	.050	0.000	1450.000	0.000	530.000	
87.100	5775.000	687.102	-4.647	.119	0.000	1444.820	5.180	530.000	
87.000	8597.000	688.484	0.000	-.055	0.000	616.851	0.000	50.000	
87.000	9844.000	689.316	.832	-.038	0.000	922.336	-305.485	50.000	
87.000	13256.000	691.736	2.419	-.014	0.000	984.999	-368.148	50.000	
87.000	5775.000	687.064	-4.672	-.039	0.000	378.643	238.208	50.000	
86.200	8597.000	688.670	0.000	.086	0.000	619.359	0.000	23.000	
86.200	9844.000	689.483	.814	.167	0.000	946.942	-327.583	23.000	
86.200	13256.000	691.917	2.434	.192	0.000	985.001	-365.642	23.000	
86.200	5775.000	687.249	-4.669	.185	0.000	495.968	123.391	23.000	
86.100	8597.000	688.719	0.000	.149	0.000	717.032	0.000	50.000	
86.100	9844.000	689.500	.781	.017	0.000	718.334	-1.302	50.000	
86.100	13256.000	691.853	2.353	-.064	0.000	1000.001	-282.969	50.000	
86.100	5775.000	687.453	-4.400	.204	0.000	196.412	520.220	50.000	
86.000	8597.000	688.831	0.000	.112	0.000	717.209	0.000	75.000	
86.000	9844.000	689.602	.772	.102	0.000	718.490	-1.281	75.000	
86.000	13256.000	691.918	2.316	.065	0.000	1000.001	-282.792	75.000	
86.000	5775.000	687.535	-4.383	.082	0.000	196.989	520.220	75.000	
85.000	8597.000	690.436	0.000	1.606	0.000	1288.224	0.000	1745.000	
85.000	9844.000	691.049	.612	1.447	0.000	1289.118	-.895	1745.000	
85.000	13256.000	692.484	1.435	.965	0.000	1291.800	-3.576	1745.000	
85.000	5775.000	685.121	-3.763	1.585	0.000	1286.308	1.916	1745.000	
84.000	8597.000	691.482	0.000	1.045	0.000	111.569	0.000	1450.000	
84.000	9844.000	691.766	.284	.717	0.000	135.845	-24.256	1450.000	
84.000	13256.000	692.715	.950	-.168	0.000	236.773	-125.184	1450.000	
84.000	5775.000	690.718	-1.997	1.547	0.000	108.606	3.043	1450.000	
83.100	8597.000	694.681	0.000	3.199	0.000	142.805	0.000	1170.000	
83.100	9844.000	695.476	.795	3.710	0.000	145.644	-2.839	1170.000	
83.100	13256.000	697.496	2.020	4.781	0.000	162.429	-19.624	1170.000	
83.100	5775.000	692.756	-4.740	2.038	0.000	135.963	6.842	1170.000	
83.000	8597.000	694.708	0.000	.027	0.000	113.000	0.000	50.000	
83.000	9844.000	695.500	.793	.024	0.000	113.000	0.000	50.000	
83.000	13256.000	697.505	2.005	.009	0.000	113.000	0.000	50.000	
83.000	5775.000	692.783	-4.723	.027	0.000	113.000	0.000	50.000	
82.100	8597.000	694.758	0.000	.050	0.000	113.000	0.000	80.500	
82.100	9844.000	695.544	.786	.043	0.000	113.000	0.000	80.500	
82.100	13256.000	697.509	1.965	.004	0.000	113.000	0.000	80.500	
82.100	5775.000	692.830	-4.680	.047	0.000	113.000	0.000	80.500	
82.000	8597.000	694.785	0.000	.027	0.000	291.906	0.000	100.000	
82.000	9844.000	695.644	.859	.101	0.000	291.830	-29.923	100.000	
82.000	13256.000	697.971	2.327	.462	0.000	301.148	-39.242	100.000	
82.000	5775.000	692.773	-5.199	-.057	0.000	118.234	143.672	100.000	
81.000	8597.000	698.653	0.000	3.868	0.000	213.000	0.000	1940.000	
81.000	9844.000	699.440	.787	3.796	0.000	213.000	0.000	1940.000	
81.000	13256.000	701.394	1.953	3.422	0.000	213.000	0.000	1940.000	
81.000	5775.000	696.558	-4.836	3.735	0.000	213.000	0.000	1940.000	
80.100	8597.000	698.663	0.000	.010	0.000	213.000	0.000	46.000	
80.100	9844.000	699.442	.779	-.002	0.000	213.000	0.000	46.000	
80.100	13256.000	701.377	1.935	-.016	0.000	213.000	0.000	46.000	
80.100	5775.000	696.585	-4.792	.027	0.000	213.000	0.000	46.000	
80.000	8597.000	698.875	0.000	.212	0.000	165.607	0.000	200.000	
80.000	9844.000	699.643	.768	.201	0.000	168.998	-3.391	200.000	
80.000	13256.000	701.552	1.909	.175	0.000	240.012	-74.405	200.000	

80.000	5775.000	695.835	-4.717	.250	0.000	156.599	9.008	200.000
79.000	8597.000	700.357	0.000	1.482	0.000	165.822	0.000	860.000
79.000	9844.000	701.180	.822	1.537	0.000	169.195	-3.373	860.000
79.000	13256.000	703.197	2.017	1.645	0.000	177.468	-11.646	860.000
79.000	5775.000	698.197	-5.000	1.362	0.000	156.961	8.861	860.000
78.000	8597.000	700.511	0.000	.154	0.000	131.610	0.000	175.000
78.000	9844.000	701.333	.821	.153	0.000	133.742	-2.132	175.000
78.000	13256.000	703.345	2.012	.148	0.000	138.964	-7.354	175.000
78.000	5775.000	698.354	-4.991	.187	0.000	126.010	5.601	175.000
77.200	8597.000	700.547	0.000	.035	0.000	131.703	0.000	60.000
77.200	9844.000	701.373	.826	.040	0.000	133.847	-2.144	60.000
77.200	13256.000	703.398	2.024	.053	0.000	139.101	-7.398	60.000
77.200	5775.000	698.379	-5.019	.025	0.000	126.075	5.628	60.000
77.100	8597.000	700.724	0.000	.176	0.000	153.883	0.000	35.000
77.100	9844.000	701.570	.846	.197	0.000	157.748	-3.865	35.000
77.100	13256.000	703.652	2.082	.255	0.000	167.256	-13.373	35.000
77.100	5775.000	698.513	-5.140	.134	0.000	143.787	10.096	35.000
77.000	8597.000	700.664	0.000	-.060	0.000	113.554	0.000	35.000
77.000	9844.000	701.490	.826	-.040	0.000	116.145	-2.591	35.000
77.000	13256.000	703.513	2.023	-.139	0.000	119.000	-5.446	35.000
77.000	5775.000	698.500	-5.013	-.012	0.000	106.765	6.749	35.000
76.100	8597.000	700.874	0.000	.210	0.000	114.212	0.000	28.000
76.100	9844.000	701.730	.856	.240	0.000	116.897	-2.684	28.000
76.100	13256.000	703.832	2.102	.319	0.000	119.000	-4.786	28.000
76.100	5775.000	698.642	-5.190	.142	0.000	107.209	7.003	28.000
76.000	8597.000	701.705	0.000	.831	0.000	375.631	0.000	200.000
76.000	9844.000	702.666	.961	.936	0.000	384.580	-8.949	200.000
76.000	13256.000	705.021	2.355	1.140	0.000	406.507	-30.875	200.000
76.000	5775.000	699.179	-5.842	.538	0.000	352.121	23.511	200.000
75.000	8597.000	704.916	0.000	3.212	0.000	245.423	0.000	2570.000
75.000	9844.000	705.712	.795	3.046	0.000	253.861	-8.438	2570.000
75.000	13256.000	707.739	2.027	2.718	0.000	263.071	-17.644	2570.000
75.000	5775.000	702.927	-4.812	3.748	0.000	221.789	23.633	2570.000
74.000	8597.000	706.032	0.000	1.115	0.000	200.690	0.000	1000.000
74.000	9844.000	706.836	.804	1.125	0.000	209.827	-9.137	1000.000
74.000	13256.000	708.856	2.020	1.117	0.000	232.768	-32.078	1000.000
74.000	5775.000	703.987	-4.869	1.060	0.000	183.163	17.527	1000.000
73.000	8597.000	706.322	0.000	.290	0.000	139.000	0.000	200.000
73.000	9844.000	707.113	.791	.277	0.000	139.000	0.000	200.000
73.000	13256.000	709.086	1.973	.230	0.000	139.000	0.000	200.000
73.000	5775.000	704.298	-4.788	.210	0.000	139.000	0.000	200.000
72.300	8597.000	706.311	0.000	-.011	0.000	139.000	0.000	30.000
72.300	9844.000	707.089	.778	-.024	0.000	139.000	0.000	30.000
72.300	13256.000	709.017	1.927	-.069	0.000	139.000	0.000	30.000
72.300	5775.000	704.310	-4.707	.012	0.000	139.000	0.000	30.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE END	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	119.082	0.000
2	0.000	0.000	124.634	5.552
3	0.000	0.000	140.926	21.844
4	0.000	0.000	103.311	-15.771

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: ANN ARBOR - YPSILANTI

3) WATERCOURSE: HURON RIVER

4) DOCUMENT TYPE: GEDES DAM INPUT & SUMMARY PRINTOUT

00BREAK00

RECEIVED
DEC 13 1976
WATER MANAGEMENT

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HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09                    TABLE A-9
MODIFICATIONS 52,53,54,55,56,57,58
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T1 PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2 BY FINKBEINER PETTIS _ STROUT - USFC401 RS
T3 HURON RIVER AT GEDDES DAM - Q = 50 YEAR

JI	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	-0.	2.	-0.	-0.	-0.000000	-0.00	-0.0	-0.	747.500	-0.000	
NC	.040	.040	.030	.100	.300	40.000	-0.000	-0.000	-0.000	-0.000	
QT	4.000	7411.000	8485.000	11427.000	4978.000	40.000	-0.000	-0.000	-0.000	-0.000	
X1	50.000	8.000	0.000	159.370	0.000	0.000	0.000	-0.000	-0.000	-0.000	
GR	750.000	0.000	736.500	0.000	736.500	54.670	750.000	54.670	750.000	114.670	
GR	736.500	114.670	736.500	159.370	750.000	159.370	-0.000	-0.000	-0.000	-0.000	
NC	-0.000	-0.000	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	49.000	46.000	113.000	490.000	250.000	250.000	250.000	-0.000	-0.000	-0.000	
GR	766.900	80.000	751.800	100.000	747.300	113.000	744.600	120.000	743.300	130.000	
GR	742.600	140.000	742.100	150.000	741.800	160.000	741.300	170.000	740.700	180.000	
GR	740.400	190.000	739.500	200.000	739.300	210.000	738.300	220.000	737.200	230.000	
GR	736.700	240.000	737.100	250.000	736.400	260.000	735.900	270.000	735.700	280.000	
GR	735.600	290.000	735.300	300.000	735.100	310.000	733.900	320.000	733.400	330.000	
GR	733.900	340.000	733.700	350.000	733.800	360.000	734.300	370.000	735.100	380.000	
GR	735.600	390.000	736.600	400.000	738.600	410.000	738.700	420.000	738.100	430.000	
GR	738.900	440.000	740.700	450.000	743.900	460.000	744.900	470.000	745.000	480.000	
GR	744.400	490.000	750.700	490.000	751.900	530.000	750.100	550.000	751.200	555.000	
GR	751.300	566.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	48.100	-0.000	-0.000	-0.000	800.000	800.000	600.000	-0.000	-.400	-0.000	
NC	-0.000	-0.000	-0.000	.400	.600	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	48.000	44.000	273.000	490.000	200.000	200.000	200.000	-0.000	-0.000	-0.000	
GR	778.000	200.000	775.100	211.000	747.300	273.000	746.100	280.000	745.900	289.000	
GR	778.000	289.000	778.000	293.000	743.600	293.000	742.600	300.000	740.700	310.000	
GR	738.700	320.000	733.100	330.000	732.900	340.000	732.900	350.000	733.800	360.000	
GR	738.000	370.000	737.900	380.000	736.700	390.000	737.600	398.000	777.000	398.000	
GR	777.000	402.000	737.200	402.000	737.200	410.000	737.400	420.000	737.200	430.000	
GR	736.900	440.000	737.300	450.000	738.900	460.000	742.000	470.000	747.300	480.000	
GR	751.500	491.000	751.900	505.000	775.000	505.000	775.000	508.500	752.000	508.500	
GR	753.400	530.400	751.800	566.000	757.500	594.500	777.000	594.500	777.000	596.000	
GR	760.900	598.000	761.900	599.000	765.000	648.000	773.200	673.000	-0.000	-0.000	
NC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	47.000	45.000	170.000	377.000	130.000	130.000	130.000	-0.000	-0.000	-0.000	
GR	778.300	100.000	775.100	112.000	747.300	170.000	745.300	180.000	746.000	188.000	
GR	777.000	186.000	777.000	192.000	743.100	192.000	741.500	200.000	740.100	210.000	
GR	738.600	220.000	734.100	230.000	733.000	240.000	733.700	250.000	733.900	260.000	
GR	738.700	270.000	737.800	280.000	737.200	290.000	737.800	296.000	776.000	296.000	
GR	776.000	300.000	738.300	300.000	733.300	310.000	735.600	320.000	736.600	330.000	
GR	737.600	340.000	739.000	350.000	741.100	360.000	744.900	370.000	747.300	377.000	
GR	751.600	387.000	751.800	403.000	775.000	403.000	775.000	406.500	752.400	406.500	
GR	752.000	426.000	753.500	428.000	753.400	454.000	752.100	463.000	758.900	492.000	

GR	777.000	492.000	777.000	495.500	760.500	495.500	765.600	552.000	773.200	574.000
NC	-0.000	-0.000	-0.000	.400	.600	-0.000	-0.000	-0.000	-0.000	-0.000
X1	46.000	58.000	315.000	797.000	300.000	300.000	300.000	-0.000	-0.000	-0.000
GR	786.200	95.000	769.900	190.000	754.100	300.000	747.400	315.000	745.900	325.000
GR	745.500	335.000	744.600	345.000	742.900	355.000	741.400	365.000	741.100	375.000
GR	739.700	385.000	740.300	395.000	740.200	405.000	740.300	415.000	740.100	425.000
GR	739.900	435.000	738.800	445.000	738.400	455.000	738.900	465.000	739.600	475.000
GR	740.100	485.000	739.600	495.000	739.700	505.000	739.800	515.000	739.800	525.000
GR	740.100	535.000	740.000	545.000	739.700	555.000	739.200	565.000	737.900	575.000
GR	737.700	585.000	737.600	595.000	737.700	605.000	734.100	615.000	736.800	625.000
GR	736.300	635.000	735.200	645.000	735.300	655.000	735.000	665.000	735.200	675.000
GR	735.600	685.000	736.400	695.000	733.600	705.000	730.900	715.000	730.600	725.000
GR	730.800	735.000	734.000	745.000	728.500	755.000	740.100	765.000	742.300	775.000
GR	744.600	785.000	746.900	795.000	747.400	797.000	750.600	805.000	753.100	845.000
GR	753.200	870.000	751.100	882.000	756.900	891.000	-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
X1	45.000	69.000	314.000	921.000	2000.000	2000.000	2000.000	-0.000	-0.000	-0.000
GR	785.200	35.000	773.000	145.000	752.200	285.000	750.700	300.000	747.400	314.000
GR	746.700	321.000	743.600	331.000	743.000	341.000	742.600	351.000	742.400	361.000
GR	742.100	371.000	741.600	381.000	741.400	391.000	741.100	401.000	741.000	411.000
GR	740.500	421.000	740.300	431.000	739.600	441.000	739.600	451.000	738.600	461.000
GR	738.500	471.000	738.600	481.000	735.600	491.000	736.700	501.000	736.300	511.000
GR	737.500	521.000	737.300	531.000	737.000	541.000	737.300	551.000	737.400	561.000
GR	737.300	571.000	737.200	581.000	737.500	591.000	738.700	601.000	739.200	611.000
GR	739.700	621.000	740.800	631.000	741.200	641.000	741.100	651.000	741.300	661.000
GR	741.300	671.000	741.400	681.000	741.300	691.000	741.200	701.000	740.500	711.000
GR	741.200	721.000	741.400	731.000	741.400	741.000	741.800	751.000	741.300	761.000
GR	741.500	771.000	740.300	781.000	738.400	791.000	738.600	791.000	736.600	801.000
GR	738.500	811.000	738.600	821.000	738.700	831.000	738.800	841.000	738.800	851.000
GR	738.700	861.000	739.100	871.000	740.800	881.000	742.700	891.000	744.300	901.000
GR	746.400	911.000	749.600	921.000	750.300	961.000	752.500	971.000	-0.000	-0.000
NC	.100	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
DT	4.000	6982.000	7994.000	10765.000	4990.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	44.000	53.000	205.000	619.000	2240.000	2240.000	2240.000	-0.000	-0.000	-0.000
X3	-0.000	-0.000	-0.000	79.000	600.300	950.000	751.500	-0.000	-0.000	-0.000
GR	800.300	79.000	787.700	154.000	748.800	200.000	747.400	205.000	746.100	220.000
GR	744.600	230.000	744.000	240.000	743.500	250.000	742.000	260.000	740.200	270.000
GR	739.000	280.000	736.500	290.000	736.200	300.000	736.400	310.000	736.400	320.000
GR	737.200	330.000	738.300	340.000	739.500	350.000	740.100	360.000	740.600	370.000
GR	741.400	380.000	741.300	390.000	741.000	400.000	741.300	410.000	741.200	420.000
GR	741.400	430.000	741.400	440.000	741.400	450.000	741.300	460.000	741.300	470.000
GR	741.200	480.000	741.000	490.000	740.700	500.000	740.400	510.000	741.400	520.000
GR	741.100	530.000	740.700	540.000	740.700	550.000	740.800	560.000	741.100	570.000
GR	742.400	580.000	742.700	590.000	742.600	600.000	747.400	619.000	750.500	650.000
GR	751.500	750.000	751.500	950.000	752.100	1010.000	747.400	1042.000	739.000	1142.000
GR	747.400	1282.000	748.100	1292.000	751.300	1392.000	-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
X1	43.300	20.000	20.000	340.000	200.000	200.000	200.000	-0.000	-0.000	-0.000
GR	754.000	0.000	754.500	20.000	7514610	20.000	748.000	25.000	736.800	36.000
GR	736.800	62.000	748.000	73.000	751.610	78.000	754.500	78.000	754.000	103.000
GR	753.500	128.000	754.000	143.000	754.500	178.000	751.860	178.000	748.000	185.000
GR	736.800	197.000	736.800	321.000	748.000	332.000	751.860	340.000	754.500	340.000
X1	43.200	-0.000	-0.000	-0.000	10.000	10.000	10.000	-0.000	-0.000	-0.000
NC	.040	-0.000	-0.000	.500	.700	-0.000	-0.000	-0.000	-0.000	-0.000
X1	43.100	65.000	300.000	1293.000	200.000	200.000	200.000	-0.000	-1.700	-0.000
GR	754.500	103.000	751.900	150.000	749.300	240.000	747.900	300.000	742.800	323.000
GR	740.900	353.000	741.400	363.000	740.800	373.000	740.700	383.000	741.100	393.000
GR	740.600	403.000	740.600	413.000	741.800	443.000	741.200	463.000	741.300	493.000
GR	741.000	523.000	741.000	543.000	741.300	573.000	740.900	583.000	741.400	613.000
GR	740.700	633.000	740.900	663.000	741.400	693.000	741.500	703.000	741.300	713.000

GR	741.900	723.000	741.800	753.000	741.600	763.000	741.700	803.000	742.000	813.000
GR	741.800	823.000	742.200	843.000	742.400	883.000	742.600	893.000	742.300	923.000
GR	742.400	933.000	742.200	943.000	742.400	963.000	742.200	983.000	742.300	1003.000
GR	742.200	1013.000	742.400	1023.000	742.500	1033.000	742.200	1053.000	742.300	1073.000
GR	741.600	1083.000	741.000	1093.000	740.800	1103.000	740.500	1113.000	740.600	1123.000
GR	740.400	1133.000	740.300	1173.000	739.600	1183.000	739.400	1193.000	739.400	1203.000
GR	739.000	1213.000	739.700	1223.000	738.700	1233.000	739.000	1243.000	740.200	1253.000
GR	742.900	1263.000	745.100	1273.000	749.100	1293.000	751.300	1331.000	753.200	1371.000
NC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	43.000	-0.000	-0.000	-0.000	1340.000	1340.000	1340.000	-0.000	1.700	-0.000
NC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	42.300	90.000	150.000	818.000	300.000	300.000	300.000	-0.000	-0.000	-0.000
GR	756.800	100.000	754.400	140.000	752.900	150.000	747.400	152.000	745.100	160.000
GR	741.900	170.000	741.900	180.000	741.400	190.000	742.100	200.000	744.600	210.000
GR	746.000	211.900	761.800	211.000	761.800	215.600	746.400	215.600	743.000	220.000
GR	741.400	230.000	741.000	240.000	741.200	250.000	741.000	260.000	741.200	270.000
GR	741.200	280.000	741.200	290.000	741.500	300.000	741.500	310.000	741.200	320.000
GR	741.400	330.000	741.600	340.000	742.000	350.000	743.600	360.000	746.600	368.000
GR	765.500	368.000	765.500	372.600	746.100	372.600	742.100	380.000	741.800	390.000
GR	741.500	400.000	741.600	410.000	741.700	420.000	741.600	430.000	741.700	440.000
GR	741.700	450.000	741.900	460.000	741.800	470.000	741.900	480.000	741.900	490.000
GR	741.700	500.000	741.800	510.000	741.900	520.000	744.400	528.000	769.200	528.000
GR	769.200	532.600	746.300	532.600	741.200	540.000	741.200	550.000	741.700	560.000
GR	741.800	570.000	741.800	580.000	741.400	590.000	741.200	600.000	740.600	610.000
GR	740.400	620.000	740.800	630.000	741.900	640.000	743.600	650.000	744.800	660.000
GR	745.600	670.000	745.800	660.000	747.900	686.000	773.000	686.000	773.000	690.600
GR	747.400	690.600	745.800	700.000	745.100	710.000	742.300	720.000	741.400	730.000
GR	740.800	740.000	739.200	750.000	738.900	760.000	738.600	770.000	738.500	780.000
GR	739.500	790.000	741.600	800.000	744.700	810.000	747.400	818.000	753.900	838.000
GR	756.800	891.000	767.800	911.000	767.900	965.000	773.300	979.000	780.200	998.000
-X1	42.200	-0.000	-0.000	-0.000	67.500	67.500	67.500	-0.000	-0.000	-0.000
X1	42.100	22.000	225.000	913.000	840.000	840.000	840.000	-0.000	-0.000	-0.000
GR	755.000	0.000	754.000	25.000	753.000	57.000	752.000	104.000	751.000	152.000
GR	750.000	202.000	748.000	225.000	744.000	234.000	742.000	237.000	742.000	465.000
GR	748.000	495.000	748.000	690.000	744.000	700.000	742.000	720.000	739.000	725.000
GR	739.000	925.000	744.000	933.000	746.000	942.000	746.000	960.000	749.000	980.000
GR	750.000	1020.000	753.000	1033.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	42.000	29.000	700.000	807.000	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	751.400	753.000	-0.000
GR	755.500	0.000	755.000	10.000	754.000	30.000	753.000	50.000	752.000	90.000
GR	751.600	130.000	750.000	140.000	745.000	200.000	745.000	240.000	745.000	340.000
GR	745.000	550.000	744.900	700.000	742.300	710.000	740.200	720.000	739.600	730.000
GR	739.200	740.000	740.500	750.000	739.300	760.000	739.200	770.000	739.800	780.000
GR	740.400	790.000	743.700	800.000	744.600	807.000	746.000	850.000	750.000	890.000
GR	753.000	910.000	754.000	960.000	755.000	1000.000	756.000	1010.000	-0.000	-0.000
SS	-0.000	1.500	3.000	-0.000	87.000	-0.000	955.000	.830	740.000	740.000
X1	41.100	-0.000	-0.000	-0.000	13.500	13.500	13.500	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	752.300	751.400	-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	751.400	753.000	-0.000
BT	24.000	0.000	755.500	755.500	10.000	755.000	755.000	30.000	754.000	754.000
BT	50.000	753.000	753.000	90.000	752.000	752.000	130.000	751.600	751.600	140.000
BT	751.600	750.000	200.000	751.500	745.000	240.000	751.400	745.000	340.000	751.700
BT	745.000	550.000	751.800	745.000	700.000	753.470	744.900	700.000	753.470	752.300
BT	720.000	753.450	748.900	750.000	753.370	747.800	760.000	753.300	748.800	807.000
BT	753.280	752.200	807.000	753.280	744.600	860.000	753.000	746.000	890.000	753.000
BT	750.000	910.000	753.000	753.000	960.000	754.000	754.000	1000.000	755.000	755.000
BT	1010.000	756.000	756.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	41.000	33.000	650.000	870.000	200.000	200.000	200.000	-0.000	-0.000	-0.000

GR	753.700	105.000	748.500	120.000	747.600	220.000	750.200	320.000	750.000	460.000
GR	748.700	600.000	747.300	650.000	745.100	660.000	743.800	670.000	743.500	680.000
GR	743.400	690.000	742.700	700.000	742.200	710.000	740.900	720.000	740.400	730.000
GR	740.300	740.000	740.000	750.000	740.000	760.000	739.700	770.000	740.000	780.000
GR	740.200	790.000	740.400	800.000	740.600	810.000	740.900	820.000	740.300	830.000
GR	737.600	840.000	741.300	850.000	745.100	860.000	747.300	870.000	749.900	880.000
GR	751.300	913.000	755.700	958.000	756.900	1046.000	-0.000	-0.000	-0.000	-0.000
NC	.100	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	40.000	27.000	300.000	500.000	2300.000	2300.000	2300.000	-0.000	-0.000	-0.000
GR	755.100	100.000	752.900	200.000	750.500	300.000	747.500	312.000	744.000	320.000
GR	742.900	330.000	743.000	340.000	743.100	350.000	743.300	360.000	743.400	370.000
GR	743.300	380.000	743.200	390.000	743.300	400.000	743.700	410.000	743.900	420.000
GR	744.200	430.000	744.100	440.000	744.400	450.000	743.700	460.000	744.000	470.000
GR	745.900	480.000	747.500	488.000	748.200	500.000	748.000	595.000	751.500	615.000
GR	752.200	645.000	758.100	660.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.050	.050	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	39.000	26.000	210.000	350.000	1800.000	1800.000	1800.000	-0.000	-0.000	-0.000
GR	771.700	47.000	760.000	90.000	753.600	150.000	748.400	200.000	747.500	210.000
GR	745.200	220.000	745.100	230.000	744.900	240.000	744.900	250.000	744.900	260.000
GR	745.200	270.000	745.200	280.000	745.300	290.000	745.200	300.000	745.500	310.000
GR	745.600	320.000	746.000	330.000	747.200	340.000	747.500	345.000	748.400	350.000
GR	749.800	410.000	751.600	417.000	753.000	438.000	758.300	450.000	758.100	462.000
GR	762.300	494.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	38.100	-0.000	-0.000	-0.000	1300.000	1300.000	1300.000	-0.000	-0.000	-0.000
NC	.050	.060	-0.000	.500	.700	-0.000	-0.000	-0.000	-0.000	-0.000
X1	38.000	19.000	100.000	227.000	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	760.000	760.000	-0.000
GR	764.440	0.000	764.320	100.000	762.000	100.000	746.500	117.000	747.600	120.000
GR	745.100	130.000	744.300	140.000	743.600	150.000	743.600	151.200	745.300	168.000
GR	745.700	170.000	745.200	180.000	745.100	190.000	745.000	200.000	745.200	210.000
GR	748.000	220.000	748.500	227.000	764.040	227.000	763.790	327.000	-0.000	-0.000
SB	1.200	1.500	2.700	-0.000	97.000	5.000	1050.000	6.000	744.500	744.500
X1	37.100	-0.000	-0.000	-0.000	28.200	28.200	28.200	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	754.700	763.790	-0.000	-0.000	-0.000	.820	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	764.320	764.040	-0.000
BT	7.000	0.000	764.440	764.440	100.000	764.320	764.320	100.000	764.320	764.400
BT	150.000	764.150	754.700	227.000	763.040	754.600	227.000	764.040	764.040	327.000
BT	763.790	763.790	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.100	.100	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	37.000	24.000	200.000	341.000	300.000	300.000	300.000	-0.000	-0.000	-0.000
GR	759.400	91.000	760.100	101.000	754.200	121.000	753.400	191.000	750.200	198.000
GR	749.900	200.000	748.500	204.000	747.300	211.000	746.800	221.000	746.700	231.000
GR	746.700	241.000	746.700	251.000	746.700	261.000	746.800	271.000	746.700	281.000
GR	746.400	291.000	746.100	301.000	746.500	311.000	746.800	321.000	746.500	329.000
GR	751.200	341.000	750.200	391.000	749.200	405.000	757.800	491.000	-0.000	-0.000
X1	36.000	-0.000	-0.000	-0.000	2400.000	2400.000	2400.000	1.000	2.400	-0.000
NC	.100	.040	-0.000	.500	.700	-0.000	-0.000	-0.000	-0.000	-0.000
X1	35.000	17.000	100.000	215.000	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	760.000	760.000	-0.000
GR	766.050	0.000	768.260	100.000	753.100	100.000	752.600	105.000	750.700	115.000
GR	749.800	125.000	749.500	135.000	749.900	145.000	749.900	150.000	749.900	165.000
GR	749.100	175.000	748.600	185.000	750.400	195.000	752.600	205.000	754.200	215.000
GR	768.620	215.000	768.800	315.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SB	1.250	1.500	2.700	-0.000	85.000	15.000	820.000	1.670	749.500	749.500
X1	34.100	-0.000	-0.000	-0.000	28.800	28.800	28.800	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	758.800	768.050	-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	765.250	768.620	-0.000

PT	8.000	0.000	768.050	768.050	100.000	768.260	768.260	100.000	768.260	756.600
PT	150.000	768.420	758.800	165.000	766.420	758.600	215.000	768.620	758.800	215.000
PT	768.620	768.620	315.000	768.800	768.800	-0.000	-0.000	-0.000	-0.000	-0.000
MC	-0.000	-0.000	-0.000	.600	.900	-0.000	-0.000	-0.000	-0.000	-0.000
X1	34.000	18.000	200.000	315.000	300.000	300.000	300.000	-0.000	-0.000	-0.000
GR	772.400	153.000	771.400	160.000	754.100	200.000	752.600	203.000	750.500	210.000
GR	749.100	220.000	748.600	230.000	748.700	240.000	748.600	250.000	749.000	260.000
GR	749.400	270.000	749.700	280.000	750.300	290.000	751.600	300.000	752.600	303.000
GR	755.300	315.000	761.300	792.000	766.900	816.000	-0.000	-0.000	-0.000	-0.000
X1	33.000	24.000	100.000	226.000	300.000	300.000	300.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	764.000	764.000	-0.000
GR	766.350	0.000	765.720	100.000	755.800	100.000	753.000	114.000	752.700	116.000
GR	751.400	126.000	752.900	136.000	752.800	139.000	751.900	140.500	751.500	142.000
GR	751.000	146.000	750.700	156.000	750.400	166.000	750.400	176.000	750.800	184.000
GR	750.600	185.500	750.400	186.000	750.900	187.000	749.300	196.000	749.300	206.000
GR	751.600	216.000	752.800	226.000	765.120	226.000	763.180	324.000	-0.000	-0.000
SB	1.250	1.500	2.700	-0.000	106.000	6.000	1496.000	.770	750.500	750.500
X1	32.100	-0.000	-0.000	-0.000	40.800	40.800	40.800	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	763.720	763.180	-0.000	-0.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	763.720	763.180	-0.000	-0.000
PT	8.000	0.000	766.350	766.350	100.000	765.720	765.720	100.000	765.720	763.120
PT	140.500	765.550	763.500	165.500	765.120	763.200	226.000	765.120	763.060	226.000
PT	765.120	765.120	326.000	763.180	763.150	-0.000	-0.000	-0.000	-0.000	-0.000
MC	.050	.040	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	32.000	20.000	470.000	560.000	300.000	300.000	300.000	-0.000	-0.000	-0.000
GR	782.100	160.000	769.300	186.000	769.400	200.000	756.400	280.000	755.900	430.000
GR	755.300	470.000	751.000	470.000	750.400	480.000	750.100	490.000	750.400	500.000
GR	749.900	510.000	749.800	520.000	749.800	530.000	750.000	540.000	750.500	550.000
GR	755.900	560.000	755.600	580.000	759.200	603.000	759.200	703.000	770.000	703.000
MC	.070	.070	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	31.000	32.000	400.000	760.000	2060.000	2060.000	2060.000	-0.000	-0.000	-0.000
GR	775.000	0.000	763.000	90.000	760.900	359.000	759.700	390.000	758.200	400.000
GR	755.600	404.000	754.000	410.000	753.600	420.000	754.000	430.000	754.300	440.000
GR	756.600	450.000	757.900	455.000	754.100	560.000	757.600	660.000	754.600	661.000
GR	754.400	670.000	754.300	680.000	754.200	690.000	754.300	700.000	754.200	710.000
GR	754.200	720.000	754.200	730.000	754.100	740.000	754.100	750.000	753.900	760.000
GR	754.300	770.000	756.600	777.000	757.300	780.000	758.500	855.000	756.600	941.000
GR	767.100	948.000	767.900	1005.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
MC	.050	.050	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
QT	4.000	6950.000	7500.000	10100.000	4400.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	30.100	28.000	398.000	531.000	1600.000	1600.000	1600.000	-0.000	-0.000	-0.000
GR	763.300	0.000	762.200	200.000	762.000	300.000	762.000	320.000	761.000	380.000
GR	760.000	390.000	758.000	396.000	757.200	413.000	755.500	430.000	755.600	440.000
GR	755.200	450.000	755.100	462.000	755.300	462.000	755.300	468.500	755.300	470.000
GR	755.900	480.000	756.000	490.000	755.600	500.000	755.200	510.000	756.100	520.000
GR	757.200	531.000	760.000	540.000	765.000	620.000	770.000	640.000	773.000	650.000
GR	775.000	740.000	775.000	770.000	774.000	820.000	-0.000	-0.000	-0.000	-0.000
MC	-0.000	-0.000	-0.000	.300	.500	-0.000	-0.000	-0.000	-0.000	-0.000
X1	30.000	-0.000	-0.000	0.000	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	762.200	756.000	-0.000
SB	-0.000	1.500	2.900	-0.000	133.000	-0.000	870.000	-0.000	755.500	755.500
X1	29.100	-0.000	-0.000	-0.000	30.000	30.000	30.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	765.100	762.200	-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	762.200	766.000	-0.000
PT	26.000	0.000	763.300	763.300	200.000	762.200	762.200	300.000	764.490	762.000
PT	320.000	765.000	762.000	300.000	767.000	761.000	398.000	767.330	756.000	398.000
PT	767.330	760.000	413.000	767.600	763.000	430.000	767.800	765.100	440.000	768.000
PT	764.600	450.000	748.000	762.500	460.000	768.100	760.000	462.000	768.100	755.300

BT	468.500	768.100	755.300	470.000	766.100	759.000	480.000	766.100	762.000	500.000
PT	768.100	765.000	520.000	766.200	762.000	531.000	768.220	767.200	590.000	770.800
BT	760.000	620.000	772.000	765.000	640.000	772.600	770.000	650.000	773.000	773.000
BT	740.000	775.000	775.000	770.000	775.000	775.000	774.000	820.000	820.000	-0.000
NC	.050	.050	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	29.000	29.000	400.000	550.000	200.000	200.000	200.000	-0.000	-0.000	-0.000
GR	770.000	20.000	763.200	20.000	763.000	100.000	762.200	170.000	762.200	200.000
GR	762.800	250.000	764.000	300.000	763.500	337.000	762.600	400.000	757.200	415.000
GR	756.200	420.000	756.100	430.000	755.600	440.000	755.400	450.000	755.700	460.000
GR	755.700	470.000	755.500	480.000	755.700	490.000	755.700	500.000	755.700	510.000
GR	755.600	520.000	755.600	530.000	756.100	540.000	757.200	545.000	759.600	550.000
GR	762.800	600.000	766.700	620.000	770.000	650.000	789.600	690.000	-0.000	-0.000
NC	.050	.050	-0.000	.040	.100	-0.000	-0.000	-0.000	-0.000	-0.000
X1	28.100	-0.000	-0.000	-0.000	1940.000	1940.000	1940.000	-0.000	1.100	-0.000
NC	-0.000	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	25.000	24.000	365.000	469.000	300.000	300.000	300.000	-0.000	-0.000	-0.000
X2	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	775.000	775.000	-0.000
GR	776.500	200.000	775.760	300.000	776.500	360.000	758.700	360.000	758.700	365.000
GR	758.400	369.000	758.500	379.000	757.000	389.000	757.200	349.000	757.800	409.000
GR	758.000	415.000	758.200	419.000	758.200	429.000	758.600	439.000	759.700	441.000
GR	760.500	450.000	762.000	469.000	764.000	490.000	765.000	545.000	765.000	595.000
GR	766.000	775.000	767.000	805.000	770.000	825.000	777.500	835.000	-0.000	-0.000
SR	0.000	1.500	2.800	-0.000	100.000	0.000	1265.000	0.000	760.000	760.000
X1	27.100	-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	773.250	776.500	-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	776.500	776.500	-0.000
BT	20.000	200.000	776.500	776.500	300.000	775.760	775.760	360.000	776.500	776.500
PT	360.000	776.500	758.700	365.000	776.500	758.700	379.000	776.500	769.000	399.000
BT	776.500	772.500	415.000	776.500	773.250	429.000	776.500	772.500	441.000	776.500
PT	764.500	464.000	776.500	764.000	469.000	776.560	762.000	490.000	776.700	764.000
BT	535.000	777.000	765.000	595.000	777.500	765.000	775.000	777.500	766.000	805.000
BT	777.500	747.000	825.000	777.500	770.500	835.000	777.500	775.000	835.000	777.500
BT	777.500	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.050	.050	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	27.000	16.000	393.000	475.000	150.000	150.000	150.000	-0.000	-0.000	-0.000
GR	776.900	325.000	764.400	365.000	763.300	375.000	759.700	393.000	758.500	401.000
GR	758.000	413.000	757.500	423.000	757.400	433.000	757.400	443.000	757.500	453.000
GR	757.700	463.000	759.800	473.000	759.700	475.000	762.700	483.000	763.200	486.000
GR	767.300	506.000	-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

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  26.00 24800.  C          .         .         .         .         .  I  L  .  R     .V  E     .         .  M     .         .
  27.10 24900.  C          .         .         .         .         .  I  L  .  R     .W  E     .         .  M     .         .
  27.00 25000.  C          .         .         .         .         .   I  L.         .   WME   .         .        .         .
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HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1 PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2 BY FINKBEINER PETTIS _ STROUT - USFC401 R5
T3 HURON RIVER AT GEDDES DAM - Q = 100 YEAR

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-0.	3.	-0.	-0.	-0.000000	-0.00	-0.0	-0.	747.500	-0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	2.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000

CCHV= .100 CEHV= .300

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
50.00	11.00	747.50	0.00	747.50	748.44	.94	0.00	0.00	750.00
8485.	0.	8485.	0.	0.	1093.	0.	0.	0.	750.00
0.00	0.00	7.76	0.00	.040	.030	.040	0.000	736.50	0.00
.001636	0.	0.	0.	0	0	1	0.00	99.37	159.37

CCHV= .200 CEHV= .400

3301 HV CHANGED MORE THAN HVINS

49.00	15.19	748.59	0.00	0.00	748.67	.08	.06	.17	747.30
8485.	1.	8484.	0.	2.	3816.	0.	14.	1.	750.70
.03	.26	2.22	0.00	.040	.030	.040	.030	733.40	109.27
.000094	250.	250.	250.	2	0	1	0.00	380.73	490.00
49.10	15.67	748.67	0.00	0.00	748.74	.07	.07	.00	746.90
8485.	1.	8484.	0.	5.	3596.	0.	86.	8.	750.30
.14	.30	2.12	0.00	.040	.030	.040	.030	733.00	107.89
.000031	800.	800.	800.	2	0	1	0.00	382.11	490.00

CCHV= .400 CEHV= .600

3265 DIVIDED FLOW

48.00	15.72	748.62	0.00	0.00	748.89	.27	.03	.12	747.30
8485.	1.	8483.	1.	2.	2042.	2.	100.	10.	747.30
.15	.52	4.15	.53	.040	.030	.040	.030	732.90	270.05
.000392	200.	200.	200.	2	0	1	0.00	205.41	483.46

CCHV= .100 CEHV= .300

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
47.00	15.67	748.67	0.00	0.00	748.94	.27	.05	.00	747.30
8485.	1.	8483.	1.	2.	2027.	2.	105.	10.	747.30
.16	.54	4.19	.54	.040	.030	.040	.030	733.00	167.16
.000402	130.	130.	130.	1	0	1	0.00	205.00	380.16

CCHV= .400 CEHV= .600

46.00	18.42	749.02	0.00	0.00	749.07	.05	.04	.09	747.40

8485.	1.	8484.	1.	3.	4943.	3.	130.	13.	747.40	
.21	.22	1.72	.23	.040	.030	.040	.030	730.50	311.37	
.000055	300.	300.	300.	2	0	1	0.00	489.68	801.05	

CCHV= .100 CEHV= .300

45.00	12.14	749.14	0.00	0.00	749.18	.04	.11	.00	747.40
8485.	2.	8483.	0.	6.	5333.	0.	366.	38.	749.60
.56	.25	1.59	0.00	.040	.030	.040	.030	737.00	306.62
.000087	2000.	2000.	2000.	2	0	1	0.00	612.95	919.56

3470 ENCROACHMENT STATIONS= 79.0 ,950.0 TYPE= 1 TARGET= 871.000

ELEVCL= 800.30 ELENCR= 751.50

44.00	13.09	749.29	0.00	0.00	749.38	.09	.19	.01	747.40
7994.	1.	7995.	8.	6.	3385.	18.	591.	65.	747.40
.62	.19	2.36	.42	.100	.030	.040	.030	736.20	198.80
.000138	2240.	2240.	2240.	2	0	1	0.00	439.15	637.94

CCHV= .300 CEHV= .500

3265 DIVIDED FLOW

43.30	12.47	749.27	0.00	0.00	749.48	.21	.04	.06	754.50
7994.	0.	7994.	0.	0.	2165.	0.	604.	67.	754.50
.63	0.00	3.66	0.00	.100	.030	.040	.030	736.80	23.24
.000261	200.	200.	200.	2	0	1	0.00	203.46	334.63

3265 DIVIDED FLOW

43.20	12.47	749.27	0.00	0.00	749.48	.21	.00	.00	754.50
7994.	0.	7994.	0.	0.	2166.	0.	604.	67.	754.50
.64	0.00	3.66	0.00	.100	.030	.040	.030	736.80	23.24
.000261	10.	10.	10.	0	0	1	0.00	203.47	334.64

CCHV= .500 CEHV= .700

43.10	12.58	749.58	0.00	0.00	749.59	.01	.01	.10	746.20
7994.	51.	7937.	6.	228.	9546.	41.	632.	70.	747.40
.90	.22	.82	.14	.040	.030	.040	.030	737.00	171.58
.000013	200.	200.	200.	2	0	1	0.00	1159.01	1330.59

CCHV= .100 CEHV= .300

SECNO	DEPTH	C/SEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
43.00	10.90	749.60	0.00	0.00	749.61	.02	.02	.00	747.90
7994.	11.	7983.	0.	61.	7978.	2.	908.	104.	749.10
1.29	.19	1.00	.07	.040	.030	.040	.030	738.70	229.72
.000025	1340.	1340.	1340.	2	0	1	0.00	1071.66	1301.58

CCHV= .100 CEHV= .300

3265 DIVIDED FLOW

42.30	11.09	749.59	0.00	0.00	749.63	.04	.01	.01	752.90
7994.	0.	7991.	3.	0.	4871.	7.	953.	110.	747.40

```
     1.33      0.00      1.64       .34      .040      .030      .040      .030    738.50    151.20
  .000050      300.      300.      300.         1         0         1      0.00    655.16    824.76

3265 DIVIDED FLOW

    42.20     11.10    749.60      0.00      0.00    749.64       .04       .01       .00    752.90
     7994.        0.     7991.        3.        0.     4873.        7.      960.      111.     747.40
     1.34      0.00      1.64       .34      .040      .030      .040      .030    738.50    151.20
  .000080       68.       68.       68.         0         0         1      0.00    655.17    824.77

    42.10     10.67    749.67      0.00      0.00    749.70       .04       .06       .00    746.00
     7994.       18.     7905.       71.       39.     5202.      118.     1059.      125.     746.00
     1.49       .45      1.52       .60      .040      .030      .040      .030    739.00    203.91
  .000068      840.      840.      840.         0         0         1      0.00    802.80   1006.71

CCHV=    .600 CEHV=    .800

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       751.40 ELREA=       753.00

    42.00     10.26    749.46      0.00      0.00    750.60      1.14       .02       .88    744.90
     7994.        0.     7994.        0.        0.      935.        0.     1066.      126.     744.60
     1.50      0.00      8.55      0.00      .040      .030      .040      .030    739.20    700.00
  .001727      100.      100.      100.         2         0         1      0.00    107.00    807.00

SPECIAL BRIDGE

SB  XK        XKOR      COEQ      RDLEN     BWC       BUP       BAREA     SS        ELCHU     ELCHD
    -0.00      1.50      3.00     -0.00     87.00     -0.00     955.00      .83    740.00    740.00

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=     0.000  EGLWC=   751.217  ELLC=   752.300  PCWSE=   749.464  ELTRD=   751.400

NORMAL BRIDGE,NRD=24 MIN ELTRD=  751.40 MAX ELLC=  752.30

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       751.40 ELREA=       753.00

    41.10     10.26    749.46      0.00      0.00    750.80      1.34       .04       .16    744.90
     7994.        0.     7994.        0.        0.      860.        0.     1067.      126.     744.60
     1.50      0.00      9.30      0.00      .040      .030      .040      .030    739.20    700.00
  .004369       14.       14.       14.         2         0         1   -148.44    107.00    807.00

3301 HV CHANGED MORE THAN HVINS

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

    41.00     13.70    751.50      0.00      0.00    751.63       .13       .10       .73    747.30
     7994.     1227.     6723.       44.     1277.     2172.       59.     1077.      128.     747.30
     1.52       .96      3.10       .74      .040      .030      .040      .030    737.80    111.34
```

.000187	200.	200.	200.	3	0	1	0.00	803.75	915.08

CCHV= .100 CEHV= .300

40.00	9.18	752.08	0.00	0.00	752.38	.30	.70	.05	750.50
7994.	16.	7052.	926.	52.	1530.	432.	1222.	160.	748.70
1.65	.31	4.61	2.14	.100	.030	.040	.030	742.90	234.02
.0005=0	2300.	2300.	2300.	3	0	1	0.00	405.98	640.00

CCHV= .100 CEHV= .300

39.00	8.40	753.30	0.00	0.00	753.86	.56	1.40	.08	747.50
7994.	347.	6928.	700.	169.	1082.	291.	1296.	174.	748.40
1.75	2.17	6.40	2.40	.050	.030	.050	.030	744.90	152.88
.001095	1800.	1800.	1800.	2	0	1	0.00	285.60	438.68

38.10	9.65	754.55	0.00	0.00	754.93	.37	1.05	.02	747.50
7994.	477.	6661.	856.	248.	1257.	404.	1347.	183.	748.40
1.83	1.92	5.30	2.12	.050	.030	.050	.030	744.90	141.07
.000615	1300.	1300.	1300.	2	0	1	0.00	300.45	441.52

CCHV= .500 CEHV= .700

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 760.00 ELREA= 760.00

38.00	10.90	754.50	0.00	0.00	755.36	.86	.09	.34	764.32
7994.	0.	7994.	0.	0.	1071.	0.	1351.	184.	764.04
1.83	0.00	7.46	0.00	.060	.030	.060	.030	743.60	100.00
.001460	100.	100.	100.	2	0	1	0.00	127.00	227.00

SPECIAL BRIDGE

SS	XX	XNOR	COFQ	RDLEN	BNC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.70	-0.00	87.00	5.00	1040.00	2.00	744.50	744.50

PRESSURE FLOW

EGPRS	EGLWC	H3	QREIR	QPR	BAREA	ELLC	ELTRD	CLASS
755.87	755.48	.15	0.	7994.	1040.	754.70	763.79	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 764.32 ELREA= 764.04

37.10	11.52	755.12	0.00	0.00	755.87	.75	.51	0.00	764.32
7994.	0.	7994.	0.	0.	1152.	0.	1352.	184.	764.04
1.83	0.00	5.94	0.00	.060	.030	.060	.030	743.60	100.00
.001160	28.	28.	28.	2	0	1	0.00	127.00	227.00

CCHV= .100 CEHV= .300

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

37.00	9.69	755.69	0.00	0.00	756.19	.50	.29	.02	749.90
7994.	130.	7228.	635.	174.	1209.	547.	1362.	185.	751.20
1.85	.75	5.98	1.16	.100	.030	.100	.030	746.10	115.96

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.000837     300.     300.     300.        2        0        1     0.00   354.16   470.12

   36.00     9.29   757.79     0.00     0.00   758.34      .55     2.14      .01   752.30
   7994.     111.    7273.     610.     150.    1167.     510.    1466.     205.   752.60
    1.96      .74     6.23     1.20     .100     .030     .100     .030   748.50   116.95
.000952    2400.    2400.    2400.        2        0        1     0.00   350.26   467.22

CCHV=     .500 CEHV=     .700

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       760.00 ELREA=       760.00

   35.00     9.08   757.68     0.00     0.00   759.12     1.43      .16      .62   768.26
   7994.       0.    7994.       0.       0.     832.       0.    1469.     205.   768.62
    1.96     0.00     9.50     0.00     .100     .030     .040     .030   748.60   100.00
.002966     100.     100.     100.        2        0        1     0.00   115.00   215.00

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    754.20 ,NOT    757.68 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK      XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    1.25      1.50      2.70     -0.00     85.00     15.00    820.00      1.67    749.50    749.50

CLASS B LOW FLOW

BRIDGE W.S.=     756.48  BRIDGE VELOCITY=      14.02

  EGPRS     EGLWC       H3       QWEIR      QPR       BAREA     ELLC      ELTRD     CLASS

  759.90    759.99     0.00        0.     7994.      820.    758.80    768.05      2.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       768.26 ELREA=       768.62

   34.10    10.36   758.96     0.00     0.00   759.99     1.04      .88     0.00   768.26
   7994.       0.    7994.       0.       0.     979.       0.    1469.     205.   768.62
    1.97     0.00     8.17     0.00     .100     .030     .040     .030   748.60   100.00
.001776      29.      29.      29.        0        0        1     0.00   115.00   215.00

CCHV=     .600 CEHV=     .800

3301 HV CHANGED MORE THAN HVINS

   34.00    11.69   750.29     0.00     0.00   760.67      .38      .28      .40   754.10
   7994.      31.    6357.    1606.      44.    1164.     990.    1480.     208.   755.30
    1.95      .71     5.46     1.62     .100     .030     .040     .030   748.60   185.69
.000563     300.     300.     300.        3        0        1     0.00   526.02   711.71

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

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       764.00 ELREA=       764.00
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      33.00     11.15    760.45      0.00      0.00    761.22      .77       .24       .31    765.72
      7994.        0.      7994.       0.        0.      1138.       0.      1492.      210.     765.12
       2.00      0.00       7.02     0.00      .100      .030      .040      .030    749.30     100.00
    .001226       300.      300.      300.         2         0         1      0.00    126.00     226.00

 SPECIAL BRIDGE

 S#   XK        XKCR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      1.25      1.50      2.70      -0.00     106.00    6.00      1496.00   .77       750.50    750.50

 CLASS A LOW FLOW

 BRIDGE W.S.=   760.34  BRIDGE VELOCITY=   7.55

  ERRS     EGLWC      H3       QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS
     0.00   761.34     .14        0.      7994.     1496.    763.72    763.18     1.00

 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=   763.18 ELREA=   -0.00

      32.10     11.30    760.60      0.00      0.00    761.34      .74       .12       0.00   765.72
      7994.        0.      7994.       0.        0.      1157.       0.      1493.      210.     765.12
       2.00      0.00       6.91     0.00      .100      .030      .040      .030    749.30     100.00
    .001168        41.       41.       41.         0         0         1      0.00    126.00     226.00

      32.00     11.76    761.56      0.00      0.00    761.83      .27       .21       .28    755.98
      7994.     2150.     5020.      825.      1123.     998.      450.     1506.      212.     755.90
       2.02      1.92       5.03     1.83      .050      .030      .040      .030    749.80     248.17
    .000456       300.      300.      300.         2         0         1      0.00    454.83     703.00

 CCHV=    .100 CEHV=    .300
      31.00      8.96    762.56      0.00      0.00    762.69      .14       .85       .01    758.20
      7994.       147.     7960.      786.      280.     2263.      745.     1644.      242.     757.30
       2.22       .52       3.12     1.06      .070      .030      .070      .030    753.50     147.49
    .000373      2040.     2040.     2040.         2         0         1      0.00    820.01     967.50

 CCHV=    .200 CEHV=    .400
      30.10      8.18    763.28      0.00      0.00    763.80      .52       .95       .15    758.00
      7500.       535.     6144.      622.      417.     973.      308.     1736.      268.     757.20
       2.30      1.28       6.31     2.67      .050      .030      .050      .030    755.10       4.16
    .001149      1600.     1600.     1600.         2         0         1      0.00    605.50     609.66

 CCHV=    .300 CEHV=    .500
 3250 CROSS SECTION      30.00 EXTENDED        .01 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

 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=   762.20 ELREA=   766.00

      30.00      8.21    763.31      0.00      0.00    764.02      .71       .13       .09    758.00
      7500.       618.     6882.       0.       431.     977.        0.     1739.      270.     757.20
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    2.30      1.44      7.04      0.00      .050      .030      .050      .030    755.10      0.00
  .001420     100.      100.      100.         2         0         1      0.00    531.00    609.66

SPECIAL BRIDGE

SB  XK        XKCR      COFQ      RDLEN     BWC       BWR       BAREA     SS        ELCHU     ELCHD
    -0.00      1.50      2.90     -0.00    133.00     -0.00    870.00     -0.00    755.50    755.50

6070 LOW FLOW BY NORMAL BRIDGE

EGPRS=    0.000  EGLWC=   764.419  ELLC=   765.100  PCLSE=   763.310  ELTRD=   762.200

3301 HV CHANGED MORE THAN HVINS

NORMAL BRIDGE,NRD=26 MIN ELTRD=  762.20 MAX ELLC=  765.10

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     762.20 ELREA=     766.00

    29.10      7.61    762.91    761.09      0.00    764.58      1.66       .08       .48    758.00
    7500.      102.     7398.        0.       92.      710.        0.     1740.      270.    757.20
     2.30      1.25     10.42      0.00      .050      .030      .050      .030    755.10     70.18
  .006945       30.       30.       30.         6        15         1   -673.76    460.82    531.00

CCHV=    .600 CEHV=    .800

3301 HV CHANGED MORE THAN HVINS

    29.00      9.99    765.39      0.00      0.00    765.65       .26       .22       .84    762.60
    7500.     1055.     6095.      350.      924.     1361.      226.     1748.      272.    759.60
     2.32      1.14      4.48      1.55      .050      .030      .050      .030    755.40     20.00
  .000438      200.      200.      200.         3         0         1      0.00    593.25    613.25

CCHV=    .040 CEHV=    .100
    28.10      9.76    766.26      0.00      0.00    766.55       .28       .90       .00    763.70
    7500.      959.     6203.      338.      841.     1329.      213.     1857.      299.    760.70
     2.45      1.14      4.67      1.59      .050      .030      .050      .030    756.50     20.00
  .000492     1940.     1940.     1940.         3         0         1      0.00    592.13    612.13

CCHV=    .600 CEHV=    .800

3301 HV CHANGED MORE THAN HVINS

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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=     775.00 ELREA=     775.00

    28.00      9.33    766.33      0.00      0.00    767.74      1.41       .29       .90    758.70
    7500.        0.     7500.        0.        0.      787.        0.     1868.      301.    762.00
     2.46      0.00      9.53      0.00      .050      .030      .050      .030    757.00    365.00
  .002664      300.      300.      300.         2         0         1      0.00    104.00    469.00
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SPECIAL BRIDGE

SK	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	2.80	-0.00	100.00	0.00	1265.00	0.00	760.00	760.00

6070-LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 770.050 ELLC= 773.250 PCWSE= 766.327 ELTRD= 776.500

NORMAL BRIDGE,NRD=20 MIN ELTRD= 776.50 MAX ELLC= 773.25

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 776.50 ELREA= 776.56

	27.10	9.46	766.46	0.00	0.00	768.04	1.58	.17	.13	758.70
	7500.	0.	7500.	0.	0.	744.	0.	1869.	301.	762.00
	2.46	0.00	10.08	0.00	.050	.030	.050	.030	757.00	365.00
	.004152	51.	51.	51.	4	0	1	-108.79	104.00	469.00

3280 CROSS SECTION 27.00 EXTENDED .39 FEET

3301 HV CHANGED MORE THAN HVINS

	27.00	10.28	767.69	0.00	0.00	768.71	1.02	.34	.33	759.70
	7500.	430.	6791.	279.	157.	800.	115.	1872.	302.	759.70
	2.46	2.74	8.49	2.43	.060	.030	.060	.030	757.40	356.69
	.001417	150.	150.	150.	3	0	1	0.00	149.31	505.00

28.00 24800. C I L R W E M
27.10 24900. C I L R W E M
27.00 25000. C I L W E M

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

HURON RIVER AT GEDDES DA

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	IOK*S	TIME	VOL
50.00	0.00	0.00	0.00	736.50	7411.00	747.50	0.00	748.21	99.37	12.48	0.00	0.00
50.00	0.00	0.00	0.00	736.50	8485.00	747.50	0.00	748.44	99.37	16.36	0.00	0.00
50.00	0.00	0.00	0.00	736.50	11427.00	747.80	0.00	749.41	99.37	27.44	0.00	0.00
50.00	0.00	0.00	0.00	736.50	4978.00	747.50	0.00	747.82	99.37	5.63	0.00	0.00
49.00	250.00	0.00	0.00	733.40	7411.00	748.33	0.00	748.39	379.98	.78	.03	13.81
49.00	250.00	0.00	0.00	733.40	8485.00	748.59	0.00	748.67	380.73	.94	.03	14.09
49.00	250.00	0.00	0.00	733.40	11427.00	749.68	0.00	749.79	383.87	1.22	.03	15.37
49.00	250.00	0.00	0.00	733.40	4978.00	747.88	0.00	747.91	378.66	.41	.05	13.31
48.10	800.00	0.00	0.00	733.00	7411.00	748.40	0.00	748.45	381.32	.67	.15	83.75
48.10	800.00	0.00	0.00	733.00	8485.00	748.67	0.00	748.74	382.11	.81	.14	85.89
48.10	800.00	0.00	0.00	733.00	11427.00	749.78	0.00	749.88	386.78	1.05	.11	94.89
48.10	800.00	0.00	0.00	733.00	4978.00	747.91	0.00	747.94	379.92	.36	.22	79.95
46.00	200.00	0.00	0.00	732.90	7411.00	748.36	0.00	748.57	204.13	3.24	.17	97.26
48.00	200.00	0.00	0.00	732.90	8485.00	748.62	0.00	748.89	205.41	3.92	.15	99.77
48.00	200.00	0.00	0.00	732.90	11427.00	749.70	0.00	750.10	210.65	5.20	.12	110.26
48.00	200.00	0.00	0.00	732.90	4978.00	747.89	0.00	748.00	201.87	1.70	.24	92.82
47.00	130.00	0.00	0.00	733.00	7411.00	748.40	0.00	748.62	203.82	3.33	.18	103.19
47.00	130.00	0.00	0.00	733.00	8485.00	748.67	0.00	748.94	205.00	4.02	.16	105.66
47.00	130.00	0.00	0.00	733.00	11427.00	749.77	0.00	750.17	209.89	5.29	.13	117.02
47.00	130.00	0.00	0.00	733.00	4978.00	747.91	0.00	748.02	201.67	1.76	.25	98.46
46.00	300.00	0.00	0.00	730.60	7411.00	748.68	0.00	748.72	488.08	.47	.23	126.46
46.00	300.00	0.00	0.00	730.60	8485.00	749.02	0.00	749.07	489.68	.55	.21	129.89
46.00	300.00	0.00	0.00	730.60	11427.00	750.28	0.00	750.35	495.65	.67	.17	143.98
46.00	300.00	0.00	0.00	730.60	4978.00	748.05	0.00	748.07	485.10	.26	.32	120.34
45.00	2000.00	0.00	0.00	737.00	7411.00	748.78	0.00	748.82	610.32	.50	.61	353.84
45.00	2000.00	0.00	0.00	737.00	8485.00	749.14	0.00	749.18	612.95	.57	.56	366.07
45.00	2000.00	0.00	0.00	737.00	11427.00	750.43	0.00	750.48	660.41	.66	.47	413.03
45.00	2000.00	0.00	0.00	737.00	4978.00	748.11	0.00	748.13	605.37	.29	.85	331.31
44.00	2240.00	0.00	0.00	736.20	6982.00	748.92	0.00	748.99	434.51	1.24	.90	568.98
44.00	2240.00	0.00	0.00	736.20	7994.00	749.29	0.00	749.36	439.15	1.38	.82	591.00
44.00	2240.00	0.00	0.00	736.20	10765.00	750.59	0.00	750.71	462.97	1.53	.70	673.60
44.00	2240.00	0.00	0.00	736.20	4690.00	748.20	0.00	748.24	424.80	.77	1.24	527.92
43.30	200.00	0.00	0.00	736.80	6982.00	748.90	0.00	749.07	201.02	2.19	.92	581.28
43.30	200.00	0.00	0.00	736.80	7994.00	749.27	0.00	749.48	203.46	2.61	.83	603.84
43.30	200.00	0.00	0.00	736.80	10765.00	750.55	0.00	750.85	211.95	3.42	.71	668.59
43.30	200.00	0.00	0.00	736.80	4690.00	748.19	0.00	748.28	196.32	1.20	1.26	539.18
43.20	10.00	0.00	0.00	736.80	6982.00	748.91	0.00	749.08	201.03	2.19	.92	581.77
43.20	10.00	0.00	0.00	736.80	7994.00	749.27	0.00	749.48	203.47	2.61	.84	604.34
43.20	10.00	0.00	0.00	736.80	10765.00	750.55	0.00	750.85	211.97	3.42	.71	669.15
43.20	10.00	0.00	0.00	736.80	4690.00	748.19	0.00	748.28	196.33	1.20	1.26	539.64

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRITWS	EG	TOPWID	10K*S	TIME	VOL
43.10	200.00	0.00	0.00	737.00	6982.00	749.15	0.00	749.16	1137.13	.12	.99	608.27
43.10	200.00	0.00	0.00	737.00	7994.00	749.58	0.00	749.59	1159.01	.13	.90	632.12
43.10	200.00	0.00	0.00	737.00	10765.00	750.99	0.00	751.00	1224.41	.15	.77	721.40
43.10	200.00	0.00	0.00	737.00	4690.00	748.32	0.00	748.32	1093.82	.07	1.36	563.67
43.00	1340.00	0.00	0.00	738.70	6982.00	749.17	0.00	749.19	1048.83	.23	1.40	870.10
43.00	1340.00	0.00	0.00	738.70	7994.00	749.60	0.00	749.61	1071.86	.25	1.28	908.32
43.00	1340.00	0.00	0.00	738.70	10765.00	751.01	0.00	751.03	1145.12	.27	1.10	1047.58
43.00	1340.00	0.00	0.00	738.70	4690.00	748.33	0.00	748.34	1007.67	.15	1.90	797.89
42.30	300.00	0.00	0.00	738.50	6982.00	749.17	0.00	749.20	653.72	.74	1.45	912.10
42.30	300.00	0.00	0.00	738.50	7994.00	749.59	0.00	749.63	655.16	.80	1.33	952.81
42.30	300.00	0.00	0.00	738.50	10765.00	751.00	0.00	751.05	660.01	.84	1.14	1100.65
42.30	300.00	0.00	0.00	738.50	4690.00	748.33	0.00	748.35	650.82	.50	1.97	835.02
42.20	67.50	0.00	0.00	738.50	6982.00	749.17	0.00	749.21	653.73	.73	1.46	919.24
42.20	67.50	0.00	0.00	738.50	7994.00	749.60	0.00	749.64	655.17	.80	1.34	960.37
42.20	67.50	0.00	0.00	738.50	10765.00	751.00	0.00	751.06	660.02	.84	1.15	1109.65
42.20	67.50	0.00	0.00	738.50	4690.00	748.33	0.00	748.35	650.83	.50	1.99	841.30
42.10	840.00	0.00	0.00	739.00	6982.00	749.24	0.00	749.27	763.39	.63	1.63	1012.08
42.10	840.00	0.00	0.00	739.00	7994.00	749.67	0.00	749.70	802.80	.68	1.49	1059.10
42.10	840.00	0.00	0.00	739.00	10765.00	751.08	0.00	751.12	876.57	.67	1.29	1224.75
42.10	840.00	0.00	0.00	739.00	4690.00	748.38	0.00	748.39	764.54	.45	2.20	922.41
42.00	100.00	0.00	0.00	739.20	6982.00	749.07	0.00	750.02	107.00	15.32	1.63	1019.87
42.00	100.00	0.00	0.00	739.20	7994.00	749.46	0.00	750.60	107.00	17.27	1.50	1066.33
42.00	100.00	0.00	0.00	739.20	10765.00	750.79	0.00	752.35	107.00	19.71	1.29	1237.50
42.00	100.00	0.00	0.00	739.20	4690.00	748.29	0.00	748.81	107.00	9.55	2.21	928.34
41.10	13.50	751.40	752.30	739.20	6982.00	749.08	0.00	750.14	107.00	35.31	1.63	1019.14
41.10	13.50	751.40	752.30	739.20	7994.00	749.46	0.00	750.80	107.00	43.89	1.50	1066.61
41.10	13.50	751.40	752.30	739.20	10765.00	750.71	0.00	752.94	107.00	79.49	1.29	1237.80
41.10	13.50	751.40	752.30	739.20	4690.00	748.30	0.00	748.83	107.00	13.56	2.21	928.59
41.00	200.00	0.00	0.00	737.80	6982.00	750.66	0.00	750.80	784.22	2.19	1.65	1027.60
41.00	200.00	0.00	0.00	737.80	7994.00	751.50	0.00	751.63	803.75	1.87	1.52	1076.63
41.00	200.00	0.00	0.00	737.80	10765.00	754.20	0.00	754.29	837.69	1.04	1.32	1253.01
41.00	200.00	0.00	0.00	737.80	4690.00	749.05	0.00	749.17	466.50	2.25	2.23	934.65
40.00	2300.00	0.00	0.00	742.90	6982.00	751.35	0.00	751.65	349.77	6.45	1.80	1148.52
40.00	2300.00	0.00	0.00	742.90	7994.00	752.08	0.00	752.38	405.98	5.80	1.66	1222.44
40.00	2300.00	0.00	0.00	742.90	10765.00	754.49	0.00	754.75	522.99	3.64	1.48	1486.91
40.00	2300.00	0.00	0.00	742.90	4690.00	749.81	0.00	750.07	302.63	7.29	2.39	1016.15
39.00	1800.00	0.00	0.00	744.90	6982.00	752.70	0.00	753.23	274.87	11.37	1.89	1212.68
39.00	1800.00	0.00	0.00	744.90	7994.00	753.30	0.00	753.86	285.80	10.98	1.75	1295.94
39.00	1800.00	0.00	0.00	744.90	10765.00	755.23	0.00	755.79	308.37	8.41	1.57	1595.41
39.00	1800.00	0.00	0.00	744.90	4690.00	751.32	0.00	751.74	244.00	11.49	2.48	1062.99

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CPIWS	EG	TOPWID	LOKOS	TIME	VOL
38.10	1300.00	0.00	0.00	744.90	6982.00	753.96	0.00	754.31	293.60	6.10	1.97	1259.26
38.10	1300.00	0.00	0.00	744.90	7994.00	754.55	0.00	754.93	300.45	6.15	1.83	1347.45
38.10	1300.00	0.00	0.00	744.90	10765.00	756.27	0.00	756.69	320.44	5.47	1.64	1563.44
38.10	1300.00	0.00	0.00	744.90	4690.00	752.52	0.00	752.77	270.34	5.66	2.58	1097.92
38.00	100.00	0.00	0.00	743.60	6982.00	753.93	0.00	754.69	127.00	13.90	1.97	1262.40
38.00	100.00	0.00	0.00	743.60	7994.00	754.50	0.00	755.36	127.00	14.60	1.83	1350.87
38.00	100.00	0.00	0.00	743.60	10765.00	756.15	0.00	757.25	127.00	15.03	1.64	1567.72
38.00	100.00	0.00	0.00	743.60	4690.00	752.52	0.00	753.03	127.00	11.77	2.58	1100.38
37.10	28.20	763.79	754.70	743.60	6982.00	754.29	0.00	754.98	127.00	12.04	1.97	1263.06
37.10	28.20	763.79	754.70	743.60	7994.00	755.12	0.00	755.87	127.00	11.60	1.83	1351.59
37.10	28.20	763.79	754.70	743.60	10765.00	757.85	0.00	758.65	127.00	9.24	1.64	1566.62
37.10	28.20	763.79	754.70	743.60	4690.00	752.60	0.00	753.10	127.00	11.32	2.58	1100.92
37.00	300.00	0.00	0.00	746.10	6982.00	754.81	0.00	755.32	342.56	9.48	1.99	1272.26
37.00	300.00	0.00	0.00	746.10	7994.00	755.69	0.00	756.19	354.16	8.37	1.85	1362.20
37.00	300.00	0.00	0.00	746.10	10765.00	758.45	0.00	758.89	384.40	5.38	1.66	1583.96
37.00	300.00	0.00	0.00	746.10	4690.00	753.01	0.00	753.44	251.91	11.14	2.60	1107.51
36.00	2400.00	0.00	0.00	748.50	6982.00	757.13	0.00	757.65	341.34	9.91	2.11	1360.98
36.00	2400.00	0.00	0.00	748.50	7994.00	757.79	0.00	758.34	350.26	9.52	1.96	1465.71
36.00	2400.00	0.00	0.00	748.50	10765.00	759.88	0.00	760.44	377.95	7.51	1.77	1835.66
36.00	2400.00	0.00	0.00	748.50	4690.00	755.58	0.00	755.98	253.87	10.07	2.73	1168.36
35.00	100.00	0.00	0.00	748.60	6982.00	757.05	0.00	758.36	115.00	30.31	2.11	1363.68
35.00	100.00	0.00	0.00	748.60	7994.00	757.68	0.00	759.12	115.00	29.66	1.96	1468.76
35.00	100.00	0.00	0.00	748.60	10765.00	759.70	0.00	761.29	115.00	24.78	1.78	1840.85
35.00	100.00	0.00	0.00	748.60	4690.00	755.57	0.00	756.55	115.00	30.86	2.74	1170.73
34.10	28.80	768.05	758.80	748.60	6982.00	758.21	0.00	759.16	115.00	18.08	2.11	1364.23
34.10	28.80	768.05	758.80	748.60	7994.00	758.96	0.00	759.99	115.00	17.76	1.97	1469.36
34.10	28.80	768.05	758.80	748.60	10765.00	762.82	0.00	763.71	115.00	9.99	1.78	1841.67
34.10	28.80	768.05	758.80	748.60	4690.00	756.34	0.00	757.08	115.00	19.73	2.74	1170.75
34.00	300.00	0.00	0.00	748.60	6982.00	759.37	0.00	759.79	451.49	6.73	2.13	1373.34
34.00	300.00	0.00	0.00	748.60	7994.00	760.29	0.00	760.67	526.02	5.63	1.98	1480.30
34.00	300.00	0.00	0.00	748.60	10765.00	764.11	0.00	764.26	627.24	1.83	1.81	1852.11
34.00	300.00	0.00	0.00	748.60	4690.00	757.17	0.00	757.65	270.93	9.76	2.75	1176.37
33.00	300.00	0.00	0.00	749.30	6982.00	759.59	0.00	760.30	126.00	12.88	2.14	1382.92
33.00	300.00	0.00	0.00	749.30	7994.00	760.45	0.00	761.22	126.00	12.26	2.00	1491.79
33.00	300.00	0.00	0.00	749.30	10765.00	764.10	0.00	764.80	173.46	7.66	1.82	1883.23
33.00	300.00	0.00	0.00	749.30	4690.00	757.51	0.00	758.09	126.00	14.84	2.77	1182.31
32.10	40.80	763.18	763.72	749.30	6982.00	759.72	0.00	760.41	126.00	12.22	2.14	1383.90
32.10	40.80	763.18	763.72	749.30	7994.00	760.60	0.00	761.34	126.00	11.66	2.00	1492.86
32.10	40.80	763.18	763.72	749.30	10765.00	764.59	0.00	765.24	198.72	6.78	1.82	1884.79
32.10	40.80	763.18	763.72	749.30	4690.00	757.62	0.00	758.18	126.00	13.97	2.77	1183.03

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
32.00	300.00	0.00	0.00	749.80	6982.00	760.58	0.00	760.88	448.75	5.60	2.16	1394.61
32.00	300.00	0.00	0.00	749.80	7994.00	761.56	0.00	761.83	454.83	4.56	2.02	1505.70
32.00	300.00	0.00	0.00	749.80	10765.00	765.49	0.00	765.63	478.94	1.89	1.85	1905.83
32.00	300.00	0.00	0.00	749.80	4690.00	758.16	0.00	758.60	327.24	9.67	2.78	1189.73
31.00	2060.00	0.00	0.00	753.60	6982.00	761.80	0.00	761.95	718.44	4.64	2.36	1509.09
31.00	2060.00	0.00	0.00	753.60	7994.00	762.56	0.00	762.69	820.01	3.73	2.22	1644.23
31.00	2060.00	0.00	0.00	753.60	10765.00	765.88	0.00	765.96	936.65	1.28	2.12	2158.51
31.00	2060.00	0.00	0.00	753.60	4690.00	760.23	0.00	760.38	575.46	7.49	2.97	1257.96
30.10	1600.00	0.00	0.00	755.10	6550.00	762.70	0.00	763.23	497.55	12.56	2.43	1584.21
30.10	1600.00	0.00	0.00	755.10	7500.00	763.28	0.00	763.80	605.50	11.49	2.30	1735.82
30.10	1600.00	0.00	0.00	755.10	10100.00	766.12	0.00	766.36	624.50	4.30	2.24	2337.47
30.10	1600.00	0.00	0.00	755.10	4400.00	761.55	0.00	761.96	262.18	11.82	3.06	1307.30
30.00	100.00	0.00	0.00	755.10	6550.00	762.75	0.00	763.46	431.41	15.18	2.44	1587.11
30.00	100.00	0.00	0.00	755.10	7500.00	763.31	0.00	764.02	531.00	14.20	2.30	1739.38
30.00	100.00	0.00	0.00	755.10	10100.00	766.16	0.00	766.41	624.61	4.24	2.24	2345.43
30.00	100.00	0.00	0.00	755.10	4400.00	761.61	0.00	762.15	133.00	14.00	3.07	1309.27
29.10	30.00	762.20	765.10	755.10	6550.00	762.46	760.63	763.91	377.75	58.63	2.44	1587.74
29.10	30.00	762.20	765.10	755.10	7500.00	762.91	761.09	764.58	460.82	69.45	2.30	1740.14
29.10	30.00	762.20	765.10	755.10	10100.00	765.97	0.00	766.67	531.00	55.46	2.25	2347.23
29.10	30.00	762.20	765.10	755.10	4400.00	761.55	0.00	762.33	133.00	29.96	3.07	1309.74
29.00	200.00	0.00	0.00	755.40	6550.00	764.56	0.00	764.85	589.02	5.26	2.45	1593.98
29.00	200.00	0.00	0.00	755.40	7500.00	765.39	0.00	765.65	593.25	4.38	2.32	1747.72
29.00	200.00	0.00	0.00	755.40	10100.00	766.87	0.00	767.13	601.57	3.86	2.26	2359.65
29.00	200.00	0.00	0.00	755.40	4400.00	762.54	0.00	762.87	285.32	7.66	3.08	1313.52
28.10	1940.00	0.00	0.00	756.50	6550.00	765.59	0.00	765.89	588.69	5.45	2.58	1683.28
28.10	1940.00	0.00	0.00	756.50	7500.00	766.26	0.00	766.55	592.13	4.92	2.45	1856.71
28.10	1940.00	0.00	0.00	756.50	10100.00	767.65	0.00	767.93	599.21	4.48	2.39	2506.14
28.10	1940.00	0.00	0.00	756.50	4400.00	763.95	0.00	764.24	355.87	6.47	3.20	1361.27
28.00	300.00	0.00	0.00	757.00	6550.00	765.71	0.00	766.98	104.00	26.65	2.59	1692.61
28.00	300.00	0.00	0.00	757.00	7500.00	766.33	0.00	767.74	104.00	26.64	2.46	1847.63
28.00	300.00	0.00	0.00	757.00	10100.00	767.61	0.00	769.48	104.00	29.11	2.40	2520.35
28.00	300.00	0.00	0.00	757.00	4400.00	764.17	0.00	765.12	104.00	27.63	3.22	1367.06
27.10	51.00	776.50	773.25	757.00	6550.00	765.65	0.00	767.25	104.00	40.43	2.59	1693.43
27.10	51.00	776.50	773.25	757.00	7500.00	766.46	0.00	768.04	104.00	41.52	2.46	1846.52
27.10	51.00	776.50	773.25	757.00	10100.00	767.74	0.00	769.90	104.00	51.92	2.40	2521.39
27.10	51.00	776.50	773.25	757.00	4400.00	764.32	0.00	765.10	104.00	37.00	3.22	1367.72
27.00	150.00	0.00	0.00	757.40	6550.00	766.89	0.00	767.85	144.57	14.74	2.60	1696.26
27.00	150.00	0.00	0.00	757.40	7500.00	767.69	0.00	768.71	149.31	14.17	2.46	1971.65
27.00	150.00	0.00	0.00	757.40	10100.00	769.66	0.00	770.84	156.08	13.09	2.41	2525.23
27.00	150.00	0.00	0.00	757.40	4400.00	765.01	0.00	765.77	128.92	15.53	3.22	1369.98

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
50.000	7411.000	747.500	0.000	0.000	0.000	99.370	0.000	0.000
50.000	8485.000	747.500	0.000	0.000	0.000	99.370	0.000	0.000
50.000	11427.000	747.800	.300	0.000	0.000	99.370	0.000	0.000
50.000	4978.000	747.500	-.300	0.000	0.000	99.370	0.000	0.000
49.000	7411.000	748.333	0.000	.833	0.000	379.983	0.000	250.000
49.000	8485.000	748.592	.259	1.092	0.000	380.732	-.749	250.000

49.000	11427.000	749.677	1.085	1.877	0.000	383.866	-3.883	250.000	
49.000	4978.000	747.875	-1.801	.375	0.000	378.662	1.321	250.000	
48.100	7411.000	748.397	0.000	.064	0.000	381.325	0.000	800.000	
48.100	8485.000	748.670	.273	.078	0.000	382.113	-.788	800.000	
48.100	11427.000	749.779	1.109	.102	0.000	386.780	-5.455	800.000	
48.100	4978.000	747.909	-1.870	.034	0.000	379.915	1.410	800.000	
48.000	7411.000	748.359	0.000	-.038	0.000	204.134	0.000	200.000	
48.000	8485.000	748.621	.262	-.049	0.000	205.406	-1.272	200.000	
48.000	11427.000	749.702	1.041	-.077	0.000	210.647	-6.513	200.000	
48.000	4978.000	747.891	-1.811	-.018	0.000	201.865	2.269	200.000	
47.000	7411.000	748.399	0.000	.040	0.000	203.815	0.000	130.000	
47.000	8485.000	748.670	.271	.049	0.000	205.003	-1.188	130.000	
47.000	11427.000	749.767	1.098	.066	0.000	209.886	-6.071	130.000	
47.000	4978.000	747.912	-1.856	.021	0.000	201.666	2.149	130.000	
46.000	7411.000	748.683	0.000	.284	0.000	486.079	0.000	300.000	
46.000	8485.000	749.021	.339	.352	0.000	489.684	-1.605	300.000	
46.000	11427.000	750.280	1.258	.512	0.000	495.647	-7.568	300.000	
46.000	4978.000	748.054	-2.226	.143	0.000	485.100	2.979	300.000	
45.000	7411.000	748.784	0.000	.102	0.000	610.324	0.000	2000.000	
45.000	8485.000	749.140	.356	.119	0.000	612.946	-2.622	2000.000	
45.000	11427.000	750.426	1.285	.146	0.000	660.406	-50.082	2000.000	
45.000	4978.000	748.112	-2.314	.058	0.000	605.368	4.956	2000.000	
44.000	6982.000	748.921	0.000	.137	0.000	434.507	0.000	2240.000	
44.000	7994.000	749.294	.373	.154	0.000	439.147	-4.641	2240.000	
44.000	10765.000	750.595	1.300	.169	0.000	462.967	-28.461	2240.000	
44.000	4690.000	748.196	-2.399	.084	0.000	424.795	9.711	2240.000	
43.300	6982.000	748.905	0.000	-.016	0.000	201.022	0.000	200.000	
43.300	7994.000	749.271	.366	-.024	0.000	203.458	-2.436	200.000	
43.300	10765.000	750.546	1.276	-.048	0.000	211.958	-10.936	200.000	
43.300	4690.000	748.190	-2.356	-.005	0.000	196.320	4.702	200.000	
43.200	6982.000	748.907	0.000	.002	0.000	201.033	0.000	10.000	
43.200	7994.000	749.273	.366	.003	0.000	203.471	-2.438	10.000	
43.200	10765.000	750.550	1.277	.004	0.000	211.966	-10.933	10.000	
43.200	4690.000	748.192	-2.358	.001	0.000	196.326	4.707	10.000	
43.100	6982.000	749.155	0.000	.248	0.000	1137.178	0.000	200.000	
43.100	7994.000	749.576	.422	.303	0.000	1159.010	-21.832	200.000	
43.100	10765.000	750.987	1.410	.437	0.000	1224.413	-87.235	200.000	
43.100	4690.000	748.320	-2.667	.128	0.000	1093.819	43.309	200.000	
43.000	6982.000	749.173	0.000	.018	0.000	1048.833	0.000	1340.000	
43.000	7994.000	749.597	.424	.020	0.000	1071.864	-23.031	1340.000	
43.000	10765.000	751.009	1.412	.022	0.000	1145.123	-96.290	1340.000	
43.000	4690.000	748.332	-2.677	.012	0.000	1007.673	41.160	1340.000	
42.300	6982.000	749.169	0.000	-.004	0.000	653.719	0.000	300.000	
42.300	7994.000	749.591	.422	-.006	0.000	655.159	-1.440	300.000	
42.300	10765.000	750.998	1.407	-.010	0.000	660.009	-6.290	300.000	
42.300	4690.000	748.330	-2.668	-.002	0.000	650.818	2.901	300.000	
42.200	6982.000	749.174	0.000	.005	0.000	653.730	0.000	67.500	
42.200	7994.000	749.597	.423	.005	0.000	655.171	-1.441	67.500	
42.200	10765.000	751.004	1.408	.006	0.000	660.022	-6.292	67.500	
42.200	4690.000	748.334	-2.670	.003	0.000	650.826	2.904	67.500	
42.100	6982.000	749.237	0.000	.063	0.000	783.389	0.000	840.000	
42.100	7994.000	749.665	.428	.069	0.000	802.802	-19.413	840.000	
42.100	10765.000	751.077	1.412	.073	0.000	876.569	-93.180	840.000	

	42.100	4690.000	748.376	-2.701	.042	0.000	764.544	18.845	640.000
	42.000	6982.000	749.070	0.000	-.166	0.000	107.000	0.000	100.000
	42.000	7994.000	749.464	.394	-.201	0.000	107.000	0.000	100.000
	42.000	10765.000	750.795	1.331	-.282	0.000	107.000	0.000	100.000
	42.000	4690.000	748.289	-2.507	-.089	0.000	107.000	0.000	100.000
	41.100	6982.000	749.079	0.000	.009	0.000	107.000	0.000	13.500
	41.100	7994.000	749.458	.379	-.006	0.000	107.000	0.000	13.500
	41.100	10765.000	750.707	1.249	-.048	0.000	107.000	0.000	13.500
	41.100	4690.000	748.301	-2.406	.014	0.000	107.000	0.000	13.500
	41.000	6982.000	750.660	0.000	1.581	0.000	784.216	0.000	200.000
	41.000	7994.000	751.504	.844	2.046	0.000	803.748	-19.532	200.000
	41.000	10765.000	754.203	2.700	3.497	0.000	837.691	-53.476	200.000
	41.000	4690.000	749.050	-5.153	.749	0.000	466.496	317.719	200.000
	40.000	6982.000	751.354	0.000	.695	0.000	349.768	0.000	2300.000
	40.000	7994.000	752.084	.729	.580	0.000	405.980	-56.212	2300.000
	40.000	10765.000	754.488	2.404	.285	0.000	522.986	-173.218	2300.000
	40.000	4690.000	749.813	-4.675	.763	0.000	302.626	47.142	2300.000
	39.000	6982.000	752.701	0.000	1.346	0.000	274.875	0.000	1800.000
	39.000	7994.000	753.299	.598	1.216	0.000	285.797	-10.923	1800.000
	39.000	10765.000	755.233	1.934	.745	0.000	308.375	-33.500	1800.000
	39.000	4690.000	751.323	-3.910	1.510	0.000	243.999	30.876	1800.000
	38.100	6982.000	753.964	0.000	1.263	0.000	293.597	0.000	1300.000
	38.100	7994.000	754.553	.589	1.254	0.000	300.450	-6.853	1300.000
	38.100	10765.000	756.270	1.717	1.037	0.000	320.437	-26.840	1300.000
	38.100	4690.000	752.517	-3.753	1.144	0.000	270.340	23.257	1300.000
	38.000	6982.000	753.928	0.000	-.036	0.000	127.000	0.000	100.000
	38.000	7994.000	754.496	.568	-.057	0.000	127.000	0.000	100.000
	38.000	10765.000	756.155	1.658	-.115	0.000	127.000	0.000	100.000
	38.000	4690.000	752.521	-3.634	.004	0.000	127.000	0.000	100.000
	37.100	6982.000	754.285	0.000	.357	0.000	127.000	0.000	28.200
	37.100	7994.000	755.125	.840	.628	0.000	127.000	0.000	28.200
	37.100	10765.000	757.848	2.723	1.493	0.000	127.000	0.000	28.200
	37.100	4690.000	752.600	-5.248	.079	0.000	127.000	0.000	28.200
	37.000	6982.000	754.813	0.000	.528	0.000	342.558	0.000	300.000
	37.000	7994.000	755.687	.874	.562	0.000	354.159	-11.601	300.000
	37.000	10765.000	758.447	2.760	.599	0.000	344.399	-41.841	300.000
	37.000	4690.000	753.010	-5.437	.411	0.000	251.810	90.748	300.000
	36.000	6982.000	757.125	0.000	2.315	0.000	341.342	0.000	2400.000
	36.000	7994.000	757.794	.666	2.107	0.000	350.261	-8.919	2400.000
	36.000	10765.000	759.880	2.086	1.433	0.000	377.954	-36.612	2400.000
	36.000	4690.000	755.581	-4.299	2.571	0.000	253.868	87.473	2400.000
	35.000	6982.000	757.050	0.000	-.078	0.000	115.000	0.000	100.000
	35.000	7994.000	757.685	.635	-.110	0.000	115.000	0.000	100.000
	35.000	10765.000	759.697	2.012	-.183	0.000	115.000	0.000	100.000
	35.000	4690.000	755.569	-4.128	-.012	0.000	115.000	0.000	100.000
	34.100	6982.000	758.215	0.000	1.165	0.000	115.000	0.000	28.800
	34.100	7994.000	758.958	.744	1.274	0.000	115.000	0.000	28.800
	34.100	10765.000	762.824	3.865	3.127	0.000	115.000	0.000	28.800
	34.100	4690.000	756.335	-6.488	.766	0.000	115.000	0.000	28.800
	34.000	6982.000	759.373	0.000	1.158	0.000	491.485	0.000	300.000
	34.000	7994.000	760.290	.918	1.332	0.000	526.020	-74.535	300.000
	34.000	10765.000	764.112	3.822	1.288	0.000	627.237	-175.752	300.000
	34.000	4690.000	757.172	-6.940	.837	0.000	270.933	180.552	300.000

33.000	6982.000	759.586	0.000	.213	0.000	126.000	0.000	300.000	
33.000	7994.000	760.453	.867	.162	0.000	126.000	0.000	300.000	
33.000	10765.000	764.101	3.648	-.011	0.000	173.463	-47.463	300.000	
33.000	4690.000	757.508	-6.593	.336	0.000	126.000	0.000	300.000	
32.100	6982.000	759.722	0.000	.137	0.000	126.000	0.000	40.800	
32.100	7994.000	760.596	.874	.144	0.000	126.000	0.000	40.800	
32.100	10765.000	764.590	3.994	.489	0.000	198.719	-72.719	40.800	
32.100	4690.000	757.624	-6.966	.116	0.000	126.000	0.000	40.800	
32.000	6982.000	760.577	0.000	.855	0.000	448.754	0.000	300.000	
32.000	7994.000	761.563	.986	.967	0.000	454.829	-6.075	300.000	
32.000	10765.000	765.487	3.925	.898	0.000	478.936	-30.182	300.000	
32.000	4690.000	758.164	-7.324	.540	0.000	327.244	121.510	300.000	
31.000	6982.000	761.804	0.000	1.227	0.000	718.438	0.000	2060.000	
31.000	7994.000	762.556	.752	.993	0.000	820.009	-101.571	2060.000	
31.000	10765.000	765.880	3.324	.393	0.000	936.847	-218.408	2060.000	
31.000	4690.000	760.229	-5.651	2.065	0.000	575.462	142.976	2060.000	
30.100	6550.000	762.702	0.000	.898	0.000	497.554	0.000	1600.000	
30.100	7500.000	763.277	.575	.721	0.000	605.503	-107.946	1600.000	
30.100	10100.000	766.115	2.838	.235	0.000	624.498	-126.944	1600.000	
30.100	4400.000	761.548	-4.567	1.319	0.000	252.175	245.379	1600.000	
30.000	6550.000	762.752	0.000	.050	0.000	431.407	0.000	100.000	
30.000	7500.000	763.310	.558	.033	0.000	531.000	-99.593	100.000	
30.000	10100.000	766.161	2.851	.046	0.000	624.609	-193.203	100.000	
30.000	4400.000	761.614	-4.547	.066	0.000	133.000	298.407	100.000	
29.100	6550.000	762.464	0.000	-.289	0.000	377.751	0.000	30.000	
29.100	7500.000	762.914	.450	-.397	0.000	460.819	-83.068	30.000	
29.100	10100.000	765.965	3.051	-.196	0.000	531.000	-153.249	30.000	
29.100	4400.000	761.551	-4.414	-.063	0.000	133.000	244.751	30.000	
29.000	6550.000	764.561	0.000	2.097	0.000	589.021	0.000	200.000	
29.000	7500.000	765.388	.827	2.474	0.000	593.254	-4.233	200.000	
29.000	10100.000	766.872	1.484	.907	0.000	601.571	-12.550	200.000	
29.000	4400.000	762.544	-4.327	.994	0.000	285.320	303.701	200.000	
28.100	6550.000	765.591	0.000	1.030	0.000	588.689	0.000	1940.000	
28.100	7500.000	766.264	.673	.876	0.000	592.133	-3.444	1940.000	
28.100	10100.000	767.646	1.383	.775	0.000	599.214	-10.525	1940.000	
28.100	4400.000	763.945	-3.701	1.401	0.000	355.672	232.817	1940.000	
28.000	6550.000	765.706	0.000	.115	0.000	104.000	0.000	300.000	
28.000	7500.000	766.327	.621	.064	0.000	104.000	0.000	300.000	
28.000	10100.000	767.607	1.280	-.039	0.000	104.000	0.000	300.000	
28.000	4400.000	764.165	-3.442	.220	0.000	104.000	0.000	300.000	
27.100	6550.000	765.848	0.000	.142	0.000	104.000	0.000	51.000	
27.100	7500.000	766.461	.613	.134	0.000	104.000	0.000	51.000	
27.100	10100.000	767.744	1.283	.137	0.000	104.000	0.000	51.000	
27.100	4400.000	764.324	-3.420	.158	0.000	104.000	0.000	51.000	
27.000	6550.000	766.891	0.000	1.043	0.000	144.573	0.000	150.000	
27.000	7500.000	767.688	.797	1.227	0.000	149.307	-4.734	150.000	
27.000	10100.000	769.663	1.975	1.920	0.000	156.078	-11.505	150.000	
27.000	4400.000	765.007	-4.657	.683	0.000	128.920	15.653	150.000	

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	288.456	0.000

2	0.000	0.000	301.787	'13.332
3	0.000	0.000	325.659	37.204
4	0.000	0.000	237.978	-50.477

****
HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
****



1) COUNTY: WASHTENAW

2) STUDY NAME: ANN ARBOR - YPSILANTI

3) WATERCOURSE: HURON RIVER

4) DOCUMENT TYPE: HIGH WATER PROFILES





1) COUNTY: WASHTENAW

2) STUDY NAME: ANN ARBOR - YPSILANTI

3) WATERCOURSE: HURON RIVER

4) DOCUMENT TYPE: PENINSULAR DAM INPUT & SUMMARY PRINTOUT



RECEIVED
DEC 13 1976
WATER MANAGEMENT

HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58

TABLE A-7

T1 PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2 BY FINKBEINER PETTIS & STROUT - USFC401 R3
T3 HURON RIVER AT PENINSULAR DAM - Q = 50 YEAR

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	-0.	2.	-0.	-0.	-0.000000	-0.00	-0.0	-0.	717.650	-0.000	
NC	.070	.070	.045	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000	
OT	4.000	8401.000	9619.000	12954.000	5643.000	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	71.100	54.000	258.000	708.000	0.000	0.000	0.000	-0.000	-1.200	-0.000	
GR	746.500	100.000	742.600	200.000	739.200	210.000	713.900	258.000	712.100	268.000	
GR	710.600	278.000	707.700	288.000	706.300	298.000	704.900	308.000	703.900	318.000	
GR	703.500	328.000	703.300	338.000	703.200	348.000	703.500	358.000	703.600	368.000	
GR	703.400	378.000	703.200	388.000	703.400	398.000	703.300	408.000	703.200	418.000	
GR	703.400	428.000	703.600	438.000	703.800	448.000	704.700	458.000	705.000	468.000	
GR	705.100	478.000	705.200	488.000	706.100	498.000	706.700	508.000	707.400	518.000	
GR	707.900	528.000	708.400	538.000	708.800	548.000	709.000	558.000	709.100	568.000	
GR	709.100	578.000	709.200	588.000	709.200	598.000	709.200	608.000	709.100	618.000	
GR	709.100	628.000	708.900	638.000	709.100	648.000	709.200	658.000	709.300	668.000	
GR	709.800	678.000	710.900	688.000	713.900	700.000	716.500	708.000	718.100	740.000	
GR	720.300	749.000	723.300	801.000	727.100	817.000	727.200	828.000	-0.000	-0.000	
NC	.100	.040	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	71.000	-0.000	-0.000	-0.000	2025.000	2025.000	2025.000	-0.000	1.200	-0.000	
NC	.070	.070	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	70.100	42.000	258.000	706.300	700.000	700.000	700.000	-0.000	-0.000	-0.000	
GR	746.500	100.000	742.600	200.000	739.200	210.000	713.900	258.000	712.100	268.000	
GR	710.600	278.000	707.700	288.000	706.300	298.000	704.900	308.000	698.650	340.000	
GR	698.650	410.000	704.700	458.000	705.000	468.000	705.100	478.000	705.200	488.000	
GR	706.100	498.000	706.700	508.000	707.400	518.000	707.900	528.000	708.400	538.000	
GR	708.800	548.000	709.000	558.000	709.100	568.000	709.100	578.000	709.200	588.000	
GR	709.200	598.000	709.200	608.000	709.100	618.000	709.100	628.000	708.900	638.000	
GR	709.100	648.000	709.200	658.000	709.300	668.000	709.800	678.000	710.900	688.000	
GR	713.900	700.000	716.500	708.000	718.100	740.000	720.300	749.000	723.300	801.000	
GR	727.100	817.000	727.200	828.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	
NC	-0.000	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	70.000	29.000	500.000	650.000	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	726.000	726.000	-0.000	
GR	725.000	10.000	725.000	100.000	725.000	400.000	725.000	470.000	710.400	500.000	
GR	707.700	510.000	701.700	520.000	698.200	530.000	700.900	540.000	704.700	550.000	
GR	703.300	553.000	704.000	557.000	701.000	560.000	696.200	570.000	699.000	580.000	
GR	701.600	590.000	707.400	600.000	706.800	604.000	708.500	610.000	709.300	620.000	
GR	710.900	630.000	713.100	640.000	713.700	650.000	725.000	680.000	725.000	750.000	
GR	725.000	900.000	725.000	1000.000	725.000	1100.000	725.000	1130.000	-0.000	-0.000	
SB	1.250	1.500	2.800	-0.000	80.000	8.000	2010.000	1.840	700.000	700.000	
X1	69.100	-0.000	-0.000	-0.000	28.000	28.000	28.000	-0.000	-0.000	-0.000	
X2	-0.000	-0.000	1.000	718.700	725.000	-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	725.000	725.000	-0.000
BT	14.000	10.000	725.000	725.000	100.000	727.000	725.000	400.000	727.000	725.000
BT	470.000	727.000	725.000	500.000	727.000	710.400	500.000	727.000	718.700	650.000
BT	727.100	718.700	650.000	727.100	713.700	680.000	727.100	725.000	750.000	727.100
BT	725.000	900.000	727.200	725.000	1000.000	727.800	725.000	1100.000	726.300	725.000
BT	1130.000	725.000	725.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.060	.100	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	69.000	76.000	120.000	765.000	600.000	400.000	440.000	-0.000	-0.000	-0.000
GR	740.000	66.000	726.100	66.000	726.300	86.000	725.400	92.000	725.400	100.000
GR	713.900	120.000	710.900	130.000	710.100	140.000	709.300	150.000	710.100	160.000
GR	709.100	170.000	707.900	180.000	709.600	190.000	708.000	200.000	706.400	210.000
GR	706.700	220.000	706.500	230.000	706.600	240.000	706.200	250.000	706.500	260.000
GR	706.600	270.000	706.200	280.000	706.500	290.000	706.500	300.000	706.600	310.000
GR	706.600	320.000	706.600	330.000	706.700	340.000	706.900	350.000	707.100	360.000
GR	707.300	370.000	707.500	380.000	707.700	390.000	707.800	400.000	708.000	410.000
GR	708.200	420.000	708.300	430.000	708.200	440.000	708.200	450.000	708.300	460.000
GR	708.400	470.000	708.400	480.000	708.400	490.000	708.600	500.000	708.600	510.000
GR	708.700	520.000	708.800	530.000	708.800	540.000	708.900	550.000	708.900	560.000
GR	708.900	570.000	708.900	580.000	708.900	590.000	708.800	600.000	708.600	610.000
GR	708.200	620.000	707.700	630.000	707.300	640.000	707.100	650.000	706.900	660.000
GR	706.400	670.000	706.100	680.000	705.800	690.000	706.000	700.000	705.700	710.000
GR	705.700	720.000	705.800	730.000	706.600	740.000	710.400	750.000	712.100	760.000
GR	713.900	765.000	728.400	790.000	734.200	795.000	743.400	810.000	747.900	850.000
GR	756.100	893.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.050	.080	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	68.100	-0.000	-0.000	-0.000	850.000	1310.000	1100.000	-0.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.600	.900	-0.000	-0.000	-0.000	-0.000	-0.000
X1	68.000	39.000	500.000	671.000	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	720.000	720.000	-0.000
GR	722.000	0.000	722.000	100.000	721.300	200.000	715.000	220.000	705.000	230.000
GR	705.000	300.000	705.000	400.000	705.000	490.000	718.500	500.000	715.000	500.000
GR	713.300	510.000	708.700	520.000	705.200	530.000	704.300	540.000	703.700	550.000
GR	702.200	557.500	702.200	560.000	702.500	570.000	702.900	580.000	703.100	590.000
GR	702.400	600.000	701.900	610.000	701.900	615.500	701.400	620.000	703.300	630.000
GR	705.100	640.000	707.800	650.000	712.800	660.000	716.800	671.000	719.100	671.000
GR	705.000	680.000	705.000	700.000	705.000	800.000	705.000	900.000	705.000	980.000
GR	715.000	1000.000	720.000	1050.000	730.000	1100.000	743.000	1170.000	-0.000	-0.000
SS	1.250	1.500	2.900	-0.000	111.000	8.000	2164.000	1.875	703.000	703.000
X1	67.100	-0.000	-0.000	-0.000	62.000	62.000	62.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	719.100	721.200	-0.000	-0.000	-0.000	.940	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	722.500	723.300	-0.000
BT	21.000	0.000	722.000	722.000	100.000	722.000	722.000	200.000	721.300	721.300
BT	220.000	721.200	715.000	230.000	721.200	705.000	300.000	721.500	705.000	400.000
BT	722.000	705.000	490.000	722.300	705.000	500.000	722.500	718.500	557.500	722.600
BT	718.900	615.500	722.800	719.100	671.000	723.300	719.100	680.000	723.300	705.000
BT	700.000	723.300	705.000	800.000	725.000	705.000	900.000	728.000	705.000	980.000
BT	732.000	705.000	1000.000	733.000	715.000	1050.000	736.000	720.000	1100.000	739.000
BT	730.000	1170.000	743.000	743.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.040	.080	-0.000	.500	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	67.000	60.000	600.000	1070.000	290.000	200.000	200.000	-0.000	-0.000	-0.000
GR	728.000	50.000	721.000	80.000	720.900	379.000	724.100	438.000	724.100	470.000
GR	723.900	584.000	718.400	600.000	713.800	603.000	712.000	610.000	710.900	620.000
GR	710.800	630.000	710.500	640.000	710.300	650.000	710.200	660.000	710.200	670.000
GR	710.200	680.000	710.300	690.000	710.600	700.000	710.500	710.000	710.500	720.000
GR	710.400	730.000	710.200	740.000	708.800	750.000	708.600	760.000	708.600	770.000
GR	708.900	780.000	709.100	790.000	709.100	800.000	709.200	810.000	709.600	820.000
GR	709.900	830.000	709.900	840.000	710.000	850.000	709.700	860.000	709.800	870.000
GR	709.800	880.000	709.700	890.000	709.500	900.000	709.700	910.000	709.600	920.000
GR	709.500	930.000	709.500	940.000	709.200	950.000	709.000	960.000	708.200	970.000
GR	707.900	980.000	708.100	990.000	707.700	1000.000	706.900	1010.000	706.400	1020.000
GR	706.500	1030.000	707.900	1040.000	710.400	1050.000	712.300	1060.000	713.800	1065.000

GR	718.000	1070.000	718.800	1170.000	724.200	1260.000	728.500	1290.000	751.500	1405.000
NC	.040	.100	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	66.100	60.000	600.000	1180.000	660.000	660.000	660.000	-0.000	-1.300	-0.000
GR	730.000	80.000	725.000	130.000	722.900	310.000	725.700	460.000	722.900	530.000
GR	719.700	600.000	715.600	603.000	711.800	610.000	709.200	620.000	709.100	630.000
GR	710.100	640.000	710.300	650.000	710.800	660.000	711.300	670.000	711.700	680.000
GR	712.000	690.000	712.400	700.000	712.700	710.000	713.000	720.000	713.300	730.000
GR	713.400	740.000	713.700	750.000	713.500	760.000	713.200	770.000	712.700	780.000
GR	711.400	790.000	711.200	800.000	710.100	810.000	710.100	820.000	709.900	830.000
GR	709.500	840.000	709.900	850.000	710.000	860.000	710.000	870.000	710.000	880.000
GR	710.100	890.000	709.300	900.000	710.500	910.000	710.700	920.000	710.800	930.000
GR	710.800	940.000	710.800	950.000	710.700	960.000	710.900	970.000	711.000	980.000
GR	711.400	990.000	711.600	1000.000	711.700	1010.000	711.700	1020.000	711.900	1030.000
GR	711.700	1040.000	711.700	1050.000	711.700	1060.000	711.900	1070.000	712.300	1080.000
GR	713.500	1090.000	715.100	1095.000	722.000	1100.000	734.600	1127.000	780.800	1170.000
NC	.040	.050	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
X1	66.000	31.000	1000.000	1185.000	960.000	1140.000	1140.000	-0.000	-0.000	-0.000
GR	730.000	0.000	725.000	250.000	723.200	390.000	718.500	430.000	716.600	530.000
GR	717.400	650.000	716.600	885.000	714.700	1000.000	713.800	1004.000	713.400	1010.000
GR	712.800	1020.000	713.200	1030.000	713.700	1040.000	713.200	1050.000	712.900	1060.000
GR	712.100	1070.000	711.800	1080.000	711.000	1090.000	710.900	1100.000	708.700	1110.000
GR	708.100	1120.000	707.500	1130.000	707.500	1140.000	707.300	1150.000	707.300	1160.000
GR	707.100	1170.000	708.900	1180.000	713.800	1185.000	722.000	1200.000	739.400	1232.000
GR	799.100	1332.000	-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

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HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINKBEINER PETTIS _ STROUT - USFC401 R3
T3      HURON RIVER AT PENINSULAR DAM - Q = 100 YEAR

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
     -0.       3.      -0.      -0. -0.000000    -0.00    -0.0     -0.   718.050   -0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE
     2.000   -0.000   -0.000   -0.000   -0.000   -0.000   -0.000   -0.000   -0.000   -0.000
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100 yr at Peninsular

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	IOC	ICONT	CORAP	TOPWID	ENDST
71.10	16.05	718.05	0.00	718.05	718.10	.05	0.00	0.00	712.70
9619.	10.	9588.	21.	27.	5523.	65.	0.	0.	715.30
0.00	.37	1.74	.32	.070	.045	.070	0.000	702.00	247.85
.000098	0.	0.	0.	0	0	1	0.00	496.85	744.70
71.00	15.07	718.27	0.00	0.00	718.33	.06	.23	.00	713.90
9619.	5.	9608.	6.	18.	5083.	31.	250.	23.	716.50
.30	.26	1.39	.21	.100	.045	.080	.045	703.20	249.71
.000130	2025.	2025.	2025.	2	0	1	0.00	491.00	740.70
70.10	19.71	718.36	0.00	0.00	718.40	.05	.08	.00	713.90
9619.	6.	9606.	7.	19.	5607.	34.	337.	31.	716.50
.41	.32	1.71	.21	.070	.045	.070	.045	696.65	249.55
.000094	700.	700.	700.	0	0	1	0.00	491.47	741.03

> 360 ft topo plate 4

CCHV= .600 CEHV= .800

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 726.00 ELPEA= 726.00

70.00	20.12	718.32	0.00	0.00	718.67	.36	.02	.25	710.40
9619.	0.	9619.	0.	0.	2006.	0.	345.	32.	713.70
.42	0.00	4.79	0.00	.070	.045	.070	.045	698.20	500.00
.000738	100.	100.	100.	2	0	1	0.00	150.00	662.26

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.25	1.50	2.80	-0.00	80.00	9.00	2010.00	1.84	700.00	700.00

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
718.65	718.72	.05	0.	9619.	2010.	718.70	725.00	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 725.00 ELPEA= 725.00

69.10	20.30	718.50	0.00	0.00	718.85	.35	.18	0.00	710.40
9619.	0.	9619.	0.	0.	2034.	0.	347.	32.	713.70
.42	0.00	4.73	0.00	.070	.045	.070	.045	698.20	500.00
.000706	28.	28.	28.	2	0	1	0.00	150.00	662.75

CCHV= .600 CEHV= .800

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV

Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
69.00	13.38	719.08	0.00	0.00	719.11	.03	.07	.19	713.90
9619.	8.	9606.	5.	23.	7264.	23.	394.	36.	713.90
.51	.34	1.32	.20	.060	.045	.100	.045	705.70	110.99
.000064	600.	440.	400.	2	0	1	0.00	662.95	773.93
CCHV= .100 CEHV= .300									
68.10	13.45	719.15	0.00	0.00	719.18	.03	.07	.00	713.90
9619.	10.	9603.	6.	24.	7309.	24.	579.	53.	713.90
.74	.41	1.31	.25	.050	.045	.080	.045	705.70	110.87
.000062	850.	1100.	1310.	2	0	1	0.00	663.19	774.05
CCHV= .600 CEHV= .800									
OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 720.00 ELREA= 720.00									
68.00	17.22	719.12	0.00	0.00	719.39	.28	.01	.20	718.50
9619.	0.	9619.	0.	0.	2277.	0.	540.	53.	719.10
.75	0.00	4.22	0.00	.050	.045	.080	.045	701.90	500.00
.000560	100.	100.	100.	2	0	1	0.00	171.00	671.00
SPECIAL BRIDGE									
SR	XK	XKOR	CDFO	PDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.90	-0.00	111.00	8.00	2184.00	1.68	703.00	703.00
PRESSURE FLOW									
EGPRS	EGLWC	HB	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS	
719.57	719.42	.03	0.	9619.	2184.	719.10	721.20	10.00	
OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 722.50 ELREA= 723.30									
67.10	17.40	719.30	0.00	0.00	719.57	.27	.17	0.00	718.50
9619.	0.	9619.	0.	0.	2308.	0.	593.	54.	719.10
.76	0.00	4.17	0.00	.050	.045	.080	.045	701.90	500.00
.000536	62.	62.	62.	2	0	1	0.00	171.00	671.00
CCHV= .600 CEHV= .800									
67.00	13.28	719.68	0.00	0.00	719.75	.06	.06	.12	718.40
9619.	1.	9580.	38.	2.	4722.	135.	610.	55.	718.00
.79	.35	2.03	.28	.040	.045	.080	.045	706.40	596.26
.000177	290.	200.	200.	2	0	1	0.00	588.49	1184.75
CCHV= .100 CEHV= .300									
SECNO	DEPTH	CHSEL	CRIWS	YSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAP	TOPWID	ENDST
66.10	12.00	719.60	0.00	0.00	719.87	.06	.12	.00	718.40

9519.	8.	9611.	0.	22.	4836.	0.	683.	64.	720.70
.87	.30	1.99	0.00	.040	.045	.100	.045	707.80	569.27
.000179	660.	660.	660.	2	0	1	0.00	530.08	1099.35

CCHV= .200 CEHV= .400

66.00	12.98	720.08	0.00	0.00	720.24	.15	.33	.04	714.70
9519.	3227.	6359.	33.	1644.	1755.	36.	788.	80.	713.80
.98	1.96	3.62	.90	.040	.045	.080	.045	707.10	416.53
.000611	900.	1140.	1140.	2	0	1	0.00	779.95	1196.49

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

HURON RIVER AT PENINSULA

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
71.10	0.00	0.00	0.00	702.00	8401.00	717.65	0.00	717.69	494.46	.84	0.00	0.00
71.10	0.00	0.00	0.00	702.00	9619.00	718.05	0.00	718.10	496.85	.98	0.00	0.00
71.10	0.00	0.00	0.00	702.00	12954.00	719.00	0.00	719.07	502.54	1.38	0.00	0.00
71.10	0.00	0.00	0.00	702.00	5643.00	716.65	0.00	716.67	484.49	.51	0.00	0.00
71.00	2025.00	0.00	0.00	703.20	8401.00	717.84	0.00	717.89	484.29	1.13	.33	240.31
71.00	2025.00	0.00	0.00	703.20	9619.00	718.27	0.00	718.33	491.00	1.30	.30	249.81
71.00	2025.00	0.00	0.00	703.20	12954.00	719.31	0.00	719.39	497.19	1.76	.24	272.73
71.00	2025.00	0.00	0.00	703.20	5643.00	716.77	0.00	716.79	460.64	.72	.44	217.04
70.10	700.00	0.00	0.00	698.65	8401.00	717.92	0.00	717.95	485.80	.81	.45	323.59
70.10	700.00	0.00	0.00	698.65	9619.00	718.36	0.00	718.40	491.47	.94	.41	336.52
70.10	700.00	0.00	0.00	698.65	12954.00	719.43	0.00	719.50	497.38	1.29	.33	367.60
70.10	700.00	0.00	0.00	698.65	5643.00	716.82	0.00	716.84	461.72	.50	.61	292.03
70.00	100.00	0.00	0.00	698.20	8401.00	717.88	0.00	718.17	150.00	6.27	.46	332.07
70.00	100.00	0.00	0.00	698.20	9619.00	718.32	0.00	718.67	150.00	7.38	.42	345.32
70.00	100.00	0.00	0.00	698.20	12954.00	719.36	0.00	719.91	150.00	10.50	.34	377.39
70.00	100.00	0.00	0.00	698.20	5643.00	716.80	0.00	716.96	150.00	3.76	.62	299.73
69.10	28.00	725.00	718.70	698.20	8401.00	717.93	0.00	718.21	150.00	6.21	.46	333.32
69.10	28.00	725.00	718.70	698.20	9619.00	718.50	0.00	718.85	150.00	7.06	.42	346.62
69.10	28.00	725.00	718.70	698.20	12954.00	719.80	0.00	720.33	150.00	9.52	.34	378.80
69.10	28.00	725.00	718.70	698.20	5643.00	716.82	0.00	716.98	150.00	3.74	.62	300.87
69.00	440.00	0.00	0.00	705.70	8401.00	718.41	0.00	718.43	660.62	.60	.56	377.86
69.00	440.00	0.00	0.00	705.70	9619.00	719.08	0.00	719.11	662.95	.64	.51	393.85
69.00	440.00	0.00	0.00	705.70	12954.00	720.66	0.00	720.70	668.41	.75	.42	432.33
69.00	440.00	0.00	0.00	705.70	5643.00	717.09	0.00	717.10	656.05	.42	.75	340.17
68.10	1100.00	0.00	0.00	705.70	8401.00	718.48	0.00	718.50	660.85	.59	.81	551.78
68.10	1100.00	0.00	0.00	705.70	9619.00	719.15	0.00	719.18	663.19	.62	.74	579.02
68.10	1100.00	0.00	0.00	705.70	12954.00	720.74	0.00	720.78	668.69	.73	.62	644.11
68.10	1100.00	0.00	0.00	705.70	5643.00	717.14	0.00	717.15	656.20	.41	1.07	491.96
68.00	100.00	0.00	0.00	701.90	8401.00	719.45	0.00	718.68	171.00	5.02	.82	562.20
68.00	100.00	0.00	0.00	701.90	9619.00	719.12	0.00	719.39	171.00	5.60	.75	590.08
68.00	100.00	0.00	0.00	701.90	12954.00	720.77	0.00	720.79	852.20	.48	.64	667.66
68.00	100.00	0.00	0.00	701.90	5643.00	717.12	0.00	717.25	171.00	3.21	1.08	501.10
67.10	62.00	721.20	719.10	701.90	8401.00	718.47	0.00	718.71	171.00	4.99	.82	565.28
67.10	62.00	721.20	719.10	701.90	9619.00	719.30	0.00	719.57	171.00	5.36	.76	593.34
67.10	62.00	721.20	719.10	701.90	12954.00	721.21	0.00	721.58	171.00	6.34	.64	672.15
67.10	62.00	721.20	719.10	701.90	5643.00	717.13	0.00	717.27	171.00	3.20	1.09	503.86
67.00	200.00	0.00	0.00	706.40	8401.00	718.81	0.00	718.87	571.37	1.64	.85	580.24
67.00	200.00	0.00	0.00	706.40	9619.00	719.68	0.00	719.75	582.49	1.77	.78	609.80
67.00	200.00	0.00	0.00	706.40	12954.00	721.75	0.00	721.87	945.64	1.65	.67	699.07
67.00	200.00	0.00	0.00	706.40	5643.00	717.33	0.00	717.36	468.50	1.48	1.13	516.60

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CVHWS	EG	TOPWID	10K*S	TIME	VOL
66.10	660.00	0.00	0.00	707.80	8401.00	718.94	0.00	718.99	510.43	1.86	.95	646.59
66.10	660.00	0.00	0.00	707.80	9619.00	719.80	0.00	719.87	530.08	1.79	.87	633.41
66.10	660.00	0.00	0.00	707.80	12954.00	721.86	0.00	721.93	614.41	1.69	.75	792.72
66.10	660.00	0.00	0.00	707.80	5643.00	717.43	0.00	717.47	496.92	1.56	1.24	571.65
66.00	1140.00	0.00	0.00	707.10	8401.00	719.23	0.00	719.42	771.20	7.95	1.04	736.19
66.00	1140.00	0.00	0.00	707.10	9619.00	720.08	0.00	720.24	779.06	6.11	.98	788.48
66.00	1140.00	0.00	0.00	707.10	12954.00	722.10	0.00	722.22	800.81	3.80	.87	930.38
66.00	1140.00	0.00	0.00	707.10	5643.00	717.69	0.00	717.90	570.95	10.14	1.33	641.15

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
71.100	8401.000	717.650	0.000	0.000	0.000	464.459	0.000	0.000
71.100	9619.000	718.050	.400	0.000	0.000	496.855	-2.395	0.000
71.100	12954.000	719.000	.950	0.000	0.000	502.543	-8.084	0.000
71.100	5643.000	716.650	-2.350	0.000	0.000	464.494	9.965	0.000
71.000	8401.000	717.841	0.000	.191	0.000	464.288	0.000	2025.000
71.000	9619.000	718.272	.431	.222	0.000	490.996	-6.708	2025.000
71.000	12954.000	719.306	1.035	.306	0.000	497.192	-12.905	2025.000
71.000	5643.000	716.768	-2.538	.118	0.000	460.642	23.646	2025.000
70.100	8401.000	717.916	0.000	.076	0.000	485.796	0.000	700.000
70.100	9619.000	718.359	.443	.088	0.000	491.474	-5.678	700.000
70.100	12954.000	719.427	1.068	.120	0.000	497.862	-12.066	700.000
70.100	5643.000	716.816	-2.611	.047	0.000	461.718	24.078	700.000
70.000	8401.000	717.883	0.000	-.033	0.000	150.000	0.000	100.000
70.000	9619.000	718.317	.434	-.042	0.000	150.000	0.000	100.000
70.000	12954.000	719.358	1.040	-.069	0.000	150.000	0.000	100.000
70.000	5643.000	716.800	-2.558	-.016	0.000	150.000	0.000	100.000
69.100	8401.000	717.925	0.000	.042	0.000	150.000	0.000	25.000
69.100	9619.000	718.504	.578	.186	0.000	150.000	0.000	25.000
69.100	12954.000	719.801	1.297	.443	0.000	150.000	0.000	25.000
69.100	5643.000	716.821	-2.980	.021	0.000	150.000	0.000	25.000
69.000	8401.000	719.411	0.000	.486	0.000	660.624	0.000	440.000
69.000	9619.000	719.082	.671	.578	0.000	662.947	-2.323	440.000
69.000	12954.000	720.660	1.577	.859	0.000	668.410	-7.786	440.000
69.000	5643.000	717.089	-3.570	.269	0.000	656.045	4.579	440.000
68.100	8401.000	718.477	0.000	.065	0.000	660.850	0.000	1100.000
68.100	9619.000	719.152	.675	.070	0.000	663.189	-2.339	1100.000
68.100	12954.000	720.741	1.589	.082	0.000	668.693	-7.843	1100.000
68.100	5643.000	717.135	-3.606	.046	0.000	656.205	4.646	1100.000
68.000	8401.000	716.448	0.000	-.029	0.000	171.000	0.000	100.000
68.000	9619.000	719.116	.668	-.034	0.000	171.000	0.000	100.000
68.000	12954.000	720.773	1.657	.032	0.000	852.196	-681.196	100.000
68.000	5643.000	717.121	-3.653	-.015	0.000	171.000	0.000	100.000
67.100	8401.000	718.474	0.000	.027	0.000	171.000	0.000	62.000
67.100	9619.000	719.298	.824	.182	0.000	171.000	0.000	62.000
67.100	12954.000	721.209	1.911	.436	0.000	171.000	0.000	62.000
67.100	5643.000	717.135	-4.074	.014	0.000	171.000	0.000	62.000
67.000	8401.000	718.811	0.000	.336	0.000	571.371	0.000	200.000
67.000	9619.000	719.685	.874	.387	0.000	588.486	-17.115	200.000

57.000	12954.000	721.744	2.063	.539	0.000	945.640	-374.273	200.000	
57.000	5643.000	717.327	-4.421	.192	0.000	468.499	102.472	200.000	
66.100	8401.000	718.935	0.000	.125	0.000	510.430	0.000	660.000	
66.100	9619.000	719.805	.870	.120	0.000	530.081	-19.651	660.000	
66.100	12954.000	721.859	2.054	.111	0.000	614.411	-103.981	660.000	
66.100	5643.000	717.428	-4.431	.101	0.000	496.918	13.512	660.000	
66.000	8401.000	719.235	0.000	.299	0.000	771.196	0.000	1140.000	
66.000	9619.000	720.083	.848	.278	0.000	779.964	-8.769	1140.000	
66.000	12954.000	722.099	2.016	.240	0.000	800.809	-29.613	1140.000	
66.000	5643.000	717.688	-4.410	.260	0.000	570.954	200.242	1140.000	

DATA FOR LAST CROSS SECTION

PROFILE	TYPE EXC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	78.808	0.000
2	0.000	0.000	79.838	1.030
3	0.000	0.000	87.332	8.524
4	0.000	0.000	73.986	-4.822

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: ANN ARBOR - YPSILANTI

3) WATERCOURSE: HURON RIVER

4) DOCUMENT TYPE: REPORT

00BREAK00

TECHNICAL APPENDIX

TO

SPECIAL FLOOD HAZARD INFORMATION REPORT

HURON RIVER

ANN ARBOR - YPSILANTI, MICHIGAN

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TECHNICAL APPENDIX

TO

SPECIAL FLOOD HAZARD INFORMATION REPORT

HURON RIVER

ANN ARBOR - YPSILANTI, MICHIGAN

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SPECIAL FLOOD HAZARD INFORMATION REPORT

HURON RIVER, ANN ARBOR - YPSILANTI, MICHIGAN

TECHNICAL APPENDIX

PURPOSE AND AUTHORITY

1. PURPOSE

The purpose of this study is to collect and develop factual information on the past and potential future floods, for utilization by the City of Ann Arbor, Michigan, the City of Ypsilanti, Michigan, the Huron River Watershed Council, the Michigan Water Resources Commission and other local authorities in identifying and alleviating existing flood problems and avoiding or reducing future flood problems likely to be associated with development in the flood plains. From such data, future improvements in such areas may be planned at elevations high enough to avoid flood damages or may be planned at lower elevations recognizing the hazards of flooding.

2. AUTHORITY

a. General Authority. The general authority for flood plain information studies by the Corps of Engineers is Section 206, Public Law 86-645, (approved 14 July 1960), which reads:

"(a). That, in recognition of the increasing use and development of the flood plains of the rivers of the United States and of the need for information on flood hazards to serve as a guide to such development, and as a basis for avoiding future flood hazards by regulation of use by States and municipalities, the Secretary of the Army, through the Chief of Engineers, Department of the Army, is hereby authorized to compile and disseminate information on floods and flood damages, including identification of areas subject to inundation by floods of various magnitudes and frequencies, and general criteria for guidance in the use of flood plain areas; and to provide engineering advice to local interests for their use in planning to alleviate the flood hazard: Provided, that the necessary surveys and studies will be made and such information and advice will be provided for specific localities only upon the request of State or a responsible local governmental agency and upon approval by the Chief of Engineers."

"(b). The Secretary of the Army is hereby authorized to allot, from any appropriations hereafter made for flood control, sums not to exceed $1,000,000.00 in any one fiscal year for the compilation and dissemination of such information."

LOCATION AND SCOPE

3. LOCATION

The Huron River, and its tributaries drain an area of 908 square miles of the south-central part of southeastern Michigan. About 800 square miles of the drainage basin lie upstream of the Ann Arbor - Ypsilanti area. Its source is located near Big Lake in the west-central part of Oakland County with headwater elevations that approach 1,200 feet in several places. From this point it flows southwest to Commerce, Michigan and ultimately to a southeasterly course at Dexter, Michigan, in Washtenaw County. The Huron River runs approximately 130 miles as it falls approximately 446 feet to Lake Erie.

4. SCOPE

The watershed of the Huron River embraces parts of six counties including Jackson, Ingham, Washtenaw, Oakland, Livingston, Wayne, and Monroe Counties. The study portion extends from the Interstate 94 crossing at Ford Lake (mile 41.0) along the Huron River to the second Penn Central Railroad crossing upstream from the Barton Pond Dam (mile 57.5).

Field work established a bench mark system, developed river cross sections, obtained dimensions and elevations of bridges and other structures, and located highwater marks of previous floods as well as other flood related data.

Four flood profiles were developed for present conditions. These are the 500-year frequency flood, the Intermediate Regional (100-year frequency flood), the 50-year frequency and the modern day flood of record selected as the June 1968 flood reconstituted to reflect present day conditions. The extent of the 500-year frequency flood, the Intermediate Regional Flood, and the reconstituted June 1968 Flood is shown on the flood outline. Additional detailed data required

to establish the flood profiles is presented in the listed survey and field data as well as in the various tables and figures.

5. BENCH MARKS

The following bench marks were used and/or established by the U.S. Army Corps of Engineers for this study.

USC & GS V20 (Reset)

Elevation 781.047

BM 26

Square cut and painted yellow on upstream and right corner of Argo Dam.

Elevation 778.83

BM 20

Square cut and painted red on curbing on upstream and right corner of Whitmore Road bridge.

Elevation 784.766

CITY BM 67

Elevation 821.878

BM UM21

Disc in top wingwall at downstream left corner (SE) of Penn Central Railroad bridge 800 feet downstream of the Fuller Road bridge along the Huron River.

Elevation 767.373

BM 38

Disc in top wingwall at downstream left corner (NW) of Penn Central Railroad bridge located approximately 3400 feet downstream of the Fuller Road bridge along the Huron River.

Elevation 762.448

USC & GS BMZ 20

Elevation 758.187

BM 18

Square cut in downstream left corner of Penn Central Railroad located approximately 150 feet upstream of Whitmore Lake Road along the Huron River.

Elevation 789.525

BM 13

Square cut and painted red at upstream right corner of Penn Central Railroad bridge located approximately 250 feet downstream of Barton Dam along the Huron River.

Elevation 798.239

BM 7

Square cut and painted red at upstream right face of Maple Road bridge.

Elevation 803.419

BM 5

Square cut and painted red at upstream left corner on top of abutment of Penn Central Railroad bridge located 1850 feet upstream of Country Club road along the Huron River.

Elevation 810.824

BM 2

Square cut and painted red on upstream right corner on top of abutment of Penn Central Railroad bridge located 5700 feet upstream of Country Club road along the Huron River.

Elevation 808.266

BM 28

Square cut and painted red on upstream and right corner of Broadway Street bridge at the third rail post left of right end of posts.

Elevation 777.158

BM 33

Square cut and painted red on sidewall at steel rail on downstream and right side of Fuller Road bridge (SW corner).

Elevation 765.393

BM 30

U.S.G.S. disc on top of concrete footing used for mounting a gage approximately 75 feet upstream of the Wall Street bridge at gaging station on left side of river.

Elevation 760.729

BM 81

City of Ypsilanti, bench mark, square cut in bridge rail, the upstream right corner of Cross Street.

Elevation 719.664

BM CITY YPSI

Top of fire hydrant, southeast corner of Michigan Avenue and Water Street.

Elevation 701.149

BM 83

Square cut and painted red in top of curved wingwall at river face and at sixth concrete rail joint left of most right end of rail on downstream face of Michigan Avenue bridge.

Elevation 711.25

BM 73

Square cut and painted red in center and upstream face of concrete rail post of LeForge Road bridge at upstream and left side.

Elevation 722.509

BM 70 (USC & GS BM B21)

Square cut on downstream and right corner abutment (North end of East abutment) of State Route 14.

Elevation 724.034

BM 42

Square cut and painted red at upstream and right corner of abutment of Old Geddes Road bridge (West end of South abutment).

Elevation 751.635

BM 51

Square cut and painted yellow in top of concrete rail post on upstream and right corner of Dixboro Road bridge (Southwest corner).

Elevation 752.732

BM 46

Square cut and painted red on downstream end left corner of concrete bridge abutment at Penn Central Railroad over Fleming Creek (BM 46 Painted).

Elevation 746.166

BM 58

Square chipped out and painted red on left end of left wingwall (Northwest corner) of Penn Central Railroad bridge immediately upstream of Handy Lane Road and 4500 feet downstream of the Ann Arbor sewage treatment plant access road.

Elevation 745.471

BM 70 (USC & GS BM B21)

(Published 724.034)

Elevation 724.066

BM 68

Disc set in second step of south abutment on east side of Superior Road bridge (downstream and right corner).

Elevation 722.347

BM 78

Square cut and painted yellow at downstream end of wingwall at left abutment and downstream face of Forest Street bridge.

Elevation 700.73

3 PUH 1966

On road overpass at the junction of I-94 and the gravel road east of the Ypsilanti sewage treatment plant, in the top of the second step at the East headwall of the North abutment.

Elevation 736.905

797

Corner of Summit Street and Cross Street, North side of stand pipe, standard tablet.

Elevation 797.158

CITY OF ANN ARBOR BENCH MARK

Huron River Drive at Municipal Golf Course, 2.8 feet North and 16 feet East of Northwest corner of blue maintenance building, 4-inch diameter brass plate set in concrete.

Elevation 768.71

BM

2.5 feet North of Southeast railing post of bridge on North Main Street at Huron River, 4.5 feet Northwest of bridge dedication plaque.

Elevation 821.72

BM

Northwest corner of intersection of Broadway and Moore, back of sidewalk on Broadway and front of sidewalk on Moore.

Elevation 781.53

6. GAGE

In August 1948 a digital water stage recorder was installed on the left bank of the Huron River, 100 feet upstream from the Wall Street bridge in Ann Arbor, Michigan. Previous to this, flows were computed from records of operation of power plants and records of depth of flow over a dam and/or flow through under sluices. From February 1904 to December 1914 records from Geddes Dam located 4.2 miles downstream were used. From January 1914 to September 1947 records at Barton Dam located 2.6 miles upstream were used. The datum of the gage is 744.81 feet above mean sea level as established by the Michigan Department of Natural Resources. A total of sixty years of data was available to determine selected design discharges.

7. CHANNEL CROSS SECTIONS

A total of 90 cross sections in 16.4 miles of the study reach were taken during November and December 1974 to provide the basic data for hydraulic backwater computations. Typical channel cross sections are plotted in the Main Report.

8. BRIDGE AND DAM DATA

All bridges and dams from the downstream study limit (I-94 at Ford Lake), river mile 57.4, were measured and surveyed. Table A-1 contains the description of all bridges in the study area. In addition all dams, five in total, were surveyed and measured. Table A-2 contains summary information on the operation of the dams.

9. HIGHWATER MARKS

There are many highwater marks available from past flows. However, as the accuracy and credibility of the marks varies, this information must be used carefully. The June 1968 flood, the March 1962 flood, and the April 1947 flood were used to establish channel roughness coefficients and bridge coefficients used to compute the 50-year, 100-year and 500-year flood water surface profiles. Table A-3 is a summary of high water marks as were noted in the historical data search.

10. DRAINAGE AREA AND TOPOGRAPHY

The Huron River drains an area of approximately 728 square miles and 809 square miles respectively at the upstream and downstream study limits. The entire watershed drained by the Huron River is approximately 908 square miles. Across the basin, elevations range from a maximum of 1,200 feet above mean sea level (MSL) in several headwater locations to a low elevation of approximately 572 feet above mean sea level at Lake Erie. Through the study reach, flood plain elevations range from 687 MSL in Ypsilanti near Ford Lake to 785 MSL below Barton Dam. Nearby hills in the area of the study reach elevations as high as 970 feet MSL. Stream bank elevations, noting the effect of reservoir backwater, range from elevation of 800 feet MSL to 685 MSL.

11. STREAM SLOPE

The total fall within the study limits of the Huron River of 16.4 miles is 112.6 feet, with an average fall of 6.9 feet per mile. It should be noted, however, that the natural stream slope is subject to some variation due to placement of bridges and control structures along the stream. These structures greatly effect the hydraulic gradient of the stream.

12. CHANNEL DIMENSIONS

Approximate controlling channel dimensions of width, depth and capacity for the Huron River at various locations along the study reach are given in Table A-4. It is important to note that many of the cross sections are located in backwater pool areas. In these pool areas, the channel dimensions include not only the natural channel but the addition over bank areas inundated as a result of the associated control structure. The channel depth and capacity in these pools are not as meaningful in understanding the hydraulics of the stream as those sections taken above or below reservoirs. Therefore, in compiling the information presented in Table A-4, special notes are presented as necessary to describe the particular situation.

13. NOTABLE FLOODS

The greatest flood during the past 60 years as recorded by the U.S. Geological Survey gages in Ann Arbor occurred in March of 1918. This flood was of long duration and put Michigan Avenue under water. The Peninsular Paper Company dam failed as a result of breach of an upstream dam. Due to urbanization, however, the modern day floods of April 1947 have probably had a more profound effect on the community.

The last major flood experienced occurred in June of 1968. Although the discharge at the U.S.G.S. gage at Wall Street was recorded to be 4610 cfs, discharges downstream at Geddes Dam were projected to be nearly twice as large by local engineers. This phenomenon was attributed to the occurrence of coincident peak flows from the Huron River and the urbanized watersheds below the U.S.G.S. gage coming together at Geddes Dam.

14. FLOOD FREQUENCY

Water Resource Bulletin No. 15, dated December 1967, " A Uniform Technique for Determining Flood Flow Frequencies", provides the basic method, log-Pearson Type III, for determining discharge frequency relationships. Its adoption for flood frequency determination by Federal and State agencies as a basis for flood hazard solutions represents a consensus of agreement by recognized experts. The flood frequencies for the Huron River are based upon 60 years of flows recorded by the U.S.G.S. at the Huron River, Ann Arbor gage. The computations for the discharge frequency relationship are presented on Table A-5. A graphical frequency analysis was also performed and is shown on Figure 1 .

15. FUTURE FLOODS

a. The 50-year frequency flood is defined as a flood having an average frequency of occurrence in the order of once in 50 years, or

a flood that has a 2 percent chance of occurring in any one year. Table lists the peak discharges of the 50-year frequency flood along the various reaches of the Huron River.

b. The Intermediate Regional Flood is defined as a flood having an average frequency of occurrence in the order of once in 100 years, or a flood that has a 1 percent chance of occurring in any one year. Table lists the peak discharges of the Intermediate Regional Flood along the Huron River.

c. The 500-year frequency flood is defined as a flood having an average frequency of occurrence in the order of once in 500 years, or a flood that has a 0.2 percent chance of occurring in any one year. Table lists the peak discharges of the 500-year frequency flood along the various reaches of the Huron River.

16. FLOOD SEASON

Late winter and early spring provide critical ground conditions for high rates of runoff. Frozen ground combined with melting snow and intense rain have caused major floods in this area. Between the months of February and May, 88% of the yearly annual peak floods of record have occurred. Examination of climatological records show early summer as the season for high intensity rainfall as experienced during the June 1968 flood. The distribution of peak annual flood events shows the following: Jan. (2), Feb. (9), March (19), April (16), May (7), June (2), July (1), Aug. (0), Sept. (0), Oct. (1), Nov. (1), Dec. (2).

17. DURATION OF FLOODS

Two phenomenon characterize the flooding of the Huron River in the Ann Arbor-Ypsilanti area. First, a long duration flood would be expected from a large basin wide storm wherein all parts of the basin contribute to the flood flow thus causing long durations due to the attenuation throughout the basin. The second type of flooding results from extremely intense localized rainfalls in the immediate urbanized areas of Ann Arbor and Ypsilanti causing runoff coincident with flows from the entire basin on the Huron River. This second type of flooding results in short duration peaks of high magnitude.

18. VELOCITIES DURING MAJOR FLOODS

Water velocities during floods are a function of the size and shape of the cross section as well as the vegetive density of the stream, and the bed slope, all of which vary on different streams and at different locations on the same streams. During the occurrence of an Intermediate Regional Flood, velocities in the main channel of the Huron River may range over 6 feet per second in the open channel areas of the reach and over 10 feet per second through particular structures. These high velocities may cause severe erosions of stream-

banks and fill around bridge abutments with undermining a possibility. At the other extreme, inasmuch as the study area includes backwater reaches associated with dams, velocities in these pools may be less than 1 foot per second.

19. BACKWATER COMPUTATIONS AND FLOOD PROFILES

Backwater computations used to reconstruct the modern day flood of June 1968, the 500-year frequency flood, the Intermediate Regional Flood (100-year frequency), and the 50-year frequency floods are shown in Tables 6 thru 11 . The backwater computations for the June 1968 flood are based upon conditions that prevailed during the flood reconstituted to present conditions. The Hydrologic Engineering Center Computer Program 723-X6-L202A, HEC-2, "Water Surface Profiles" was used to develop the highwater profiles. The computational procedure is similar to Method 1, "Backwater Curves in River Channels", Engineering Manual 1110-2-1409, U.S. Army Corps of Engineers, 7 December 1959. This method applies Bernoulli's Theorem for the total energy at each cross section and Manning's formula for the frictional head loss between cross sections. In the program, average friction slope for a reach between two cross sections is determined in terms of the average of the conveyances at the two ends of the reach.

Energy losses caused by structures such as bridges and culverts are computed in two parts. First, the losses due to expansion and contraction of the cross section on the upstream and downstream sides of the structure are computed. Secondly, the loss through the structure itself is computed by either the normal routine or the special bridge routine. The normal routine, used for bridges without piers and culverts, applies to bridge cross sections as it would to any river cross section, with the exception that the area of the bridge below the water surface is substracted from the total area and the wetted perimeter is increased where the water surface elevations exceeds the low chord or underclearance elevation. The special bridge routine computes losses through the structure for low flow, weir flow and pressure flow or for any combination of these. The computer output data description for the backwater computations are listed in Table 12 .

Energy losses and the hydraulics of the dams were determined using the concepts and procedures presented in "Design of Small Dams", United

States Department of the Interior, Bureau of Reclamation. Discharge rating curves were generated for all the control structures located throughout the study reach.

20. FLOODWAY USED IN BACKWATER COMPUTATIONS

The floodway is that area through which the main body of water flows during the flood. The width of the floodway which includes channel plus the overbank flow is generally governed by the topography. This is particularly true in well-defined valleys. Where the overbank areas are relatively flat and large areas are inundated, many ponding areas which are ineffective in conveying flow develop. Where necessary, overbank limits were established based on reconstituted historic flood profiles including the April 1947, the March 1962, and the June 1968 flood events.

21. TRIBUTARY FLOW

Field observations, review of design information, and additional computations served as a basis for each tributary's contribution of the total flow in the River. Considerable emphasis was placed on backwater profiles generated and used to investigate historic floods and the associated flow distribution along the reach relative to the confluences of the various tributaries. Two conditions were observed regarding the contribution of the tributaries along the study reach. First, for large intensity, long duration, basin wide floods, the flow contributed by the tributaries along the reach respond much as would be expected wherein the increasing total watershed area generates a somewhat proportionately larger flow. The second phenomenon observed occurs when an extremely high intensity rainfall over an urbanized tributary coincidently matches peaks with the main stem. In this situation, the small urbanized tributary may yield much larger flows than ordinarily expected relative to the large main stream. Thus, tributary flow was investigated in considerable detail for this study reach for both the long duration basin wide flood event as well as the coincident peak flow phenomenon.

22. CLIMATE

The climate of the Huron River Basin is influenced by the Great Lakes. These large water surface areas tend to moderate temperatures by lowering them during the summer and warming them during winter. The Huron River basin lies in the pathway of storms that sweep across the Great Lakes region from the west and southwest. Hence, its climate is characterized by frequent and sometimes rapid weather changes caused by the passage of such storms.

The average yearly temperature is 48.3°F based on records at Ann Arbor. Monthly extremes in temperature range 11.4°F during January 1918 to 77.6°F during July 1955. Daily temperatures have ranged from -21°F on February 10, 1912 to 105°F on July 24, 1934. The average frost free season is from May 2 to October 17.

23. PRECIPITATION

The average annual precipitation over the basin is 30.8 inches of which 58 percent occurs from April to September. While yearly precipitation has ranged from 16.83 inches in 1963 to 44.25 inches in 1880, monthly precipitation has ranged from 0.10 inch in November 1904 to 10.70 inches in July 1902. Snowfall averages about 30 inches per year but varies considerably. Over the last forty years, annual totals have ranged from 6.5 inches in 1966 to 72 inches in 1968.

TABLE A-1

BRIDGES ACROSS THE HURON RIVER

Bridge Name	Station River Mile	Type and Description	Number of Spans	Channel to Low Steel feet	Total Clear Span feet	Elevation of Low Steel feet	Elevation of Roadway feet	Waterway Area sq. feet
I-94	41.0	Concrete girder	3	16.0	106.3	692.0	694.5	1571
Ford Walkway	41.1	Steel truss	1	15.5	122	689.7	691.9	1630
Factory Road	41.2	Concrete arch	2	15.5	104	690.7	692.5	1490
Michigan Avenue	42.1	Concrete arch	1	28.5	100	706.25	707.5	2200
Cross Street	42.5	Concrete arch	3	25.8	197	713.1	716.0	3720
Forest Avenue	42.7	Concrete	2	16.5	141	704.0	714.0	1822
Penn Central R.R.	42.8	Steel Girder	2	22.0	112	706.3	716.5	1753
Le Forge Road	43.5	Concrete Arch	2	23.0	133	716.0	719.5	2140
Penn Central R.R.	44.1	Steel Girder	3	20.5	142	718.7	727.1	2010
Superior Road	44.5	Concrete and steel	3	17.2	165	719.1	722.5	2184
Penn Central R.R.	45.2	Steel Girder	2	19.7	149	735.2	744.5	2335
Handy Lane	46.5	Wood and steel	9	18.9	80	737.9	739.3	1095
Penn Central R.R.	46.6	Steel Girder	2	17.8	107	738.6	748.0	1614
Sewage Plant Road	47.4	Steel Girder	2	16.5	106	739.5	743.3	1484
Penn Central R.R.	47.5	Steel Girder	2	15.4	102	739.4	749.5	1170
Dixboro Road	47.6	Concrete and steel	2	18.4	125	743.0	748.5	2180
U.S. Route 23	47.9	Steel Girder	5	42.2	473	775.2	783.0	1985*

*At 100 Year Flood Level

TABLE A-1 (Cont.)

BRIDGES ACROSS THE HURON RIVER

Bridge Name	Station River Mile	Type and Description	Number of Spans	Channel to Low Steel feet	Total Clear Span	Elevation of Low Steel feet	Elevation of Roadway	Waterway Area
Geddes Park (4)	48.6	Timber	1	14.81	60	751.6	754.5	620
Geddes Park (5)	48.6	Timber	3	19.3	165	756.1	758.5	2550
Huron Parkway	49.2	Steel Girder	5	20.5	898	759.0	775.0	4600*
Geddes Avenue	49.3	Steel Truss	1	8.6	107	747.8	752.2	955
Penn Central R.R.	50.4	Steel Girder	2	10.8	122	754.4	764.1	1040
Penn Central R.R.	50.9	Steel Girder	2	10.0	100	758.6	768.4	820
Fuller Road	51.1	Concrete Girder	3	13.8	120	763.1	765.5	1496
Wall Street	51.8	Concrete Arch	2	9.9	123.5	765.0	768.0	870
Broadway	52.3	Concrete Arch	2	16.3	110.0	773.3	776.5	1265
Ann Arbor R.R.	52.6	Steel Girder	7*	32.7	619	794.0	802.5	3240*
State Route 14	53.6	Concrete and Steel	4*	36.8	900	802.0	807	1770
Whitmore Lake Road	53.7	Concrete and Steel	3	17.6	109	782.0	784.0	1526
Penn Central R.R.	53.75	Steel Girder	2	17.7	106	781.4	791.0	1666
Penn Central R.R.	54.7	Steel Girder	2	10.1	117	778.8	799.0	1006
Country Club Road	56.3	Steel Truss	1	18.3	117	802.2	805.2	1870
Penn Central R.R.	56.7	Steel Girder	2	13.3	151	799.9	812.0	1592
Penn Central R.R.	57.4	Steel Girder	2	10.8	103	800.2	811.9	960

*At 100 Year Flood Level

TABLE A-2

DAMS ACROSS THE HURON RIVER

River Mile	Location	Elevation of Crest	Operation
43.6	Peninsular Dam	713.2	Uncontrolled, free discharge spillway
45.1	Superior Dam	729.5	City of Ann Arbor maintains an impoundment level of 730.5
47.6	Geddes Dam	736.5	City of Ann Arbor maintains an impoundment level of 747.5
52.6	Argo Dam	768	City of Ann Arbor maintains an impoundment level of 774.0
54.7	Barton Dam	794	City of Ann Arbor maintains an impoundment level of 797.0 from around May 1 to November 1, and a level of 794 for the winter operatio

TABLE A-3

SUMMARY OF HIGH WATER MARKS

LOCATION	SOURCE	EVENT	ELEVATION
Ford Dam (Rawsonville)	Files, Corps of Engineers, Detroit District	April 1947	686.0
Ford Dam (Rawsonville)	Log Book, The Ford Motor Company	6 April 1947	687.0
Catherine Street, Ypsilanti	Files, Corps of Engineers, Detroit District	April 1947	688.7
Water Works Dam, Ypsilanti	"	"	689.1
Footbridge, Ypsilanti	"	"	694
Michigan Avenue, Ypsilanti	"	"	695.5
Cross Street, Ypsilanti	"	"	698.8
NYC Railroad, Ypsilanti	"	"	700.9
LeForge Road, Ypsilanti	"	"	707.5
Peninsular Paper Co. Dam, Ypsilanti	"	"	716.58
Superior Dam, Ann Arbor	Operation Records, Detroit Edison	5 April 1947	734.03
Superior Dam, Ann Arbor	" (Tail Race)	5 April 1947	718.10
Geddes Dam, Ann Arbor	" (Pool)	5 April 1947	748.60
Geddes Dam, Ann Arbor	" (Tail Race)	5 April 1947	739.00
Argo Dam, Ann Arbor	" (Pool)	6 April 1947	775.00
Argo Dam, Ann Arbor	" (Tail Race)	6 April 1947	762.5
Barton Dam, Ann Arbor	" (Pool)	6 April 1947	800.54
Barton Dam, Ann Arbor	" (Tail Race)	5 April 1947	775.20
Barton Dam, Ann Arbor	Rating Curve, Corps of Engineers, Detroit Dist.	April 1947	801

TABLE A-3 (Cont.)

LOCATION	SOURCE	EVENT	ELEVATION
Ford Dam (Rawsonville)	Gaging Charts, The Ford Motor Company	26 June 1968	685.4
Factory Water Level, Ford Plant, Ypsilanti	Log Book, The Ford Motor Company	26 June 1968	686.0
Water Treatment Plant, Ypsilanti	Plant Supt., Personal Memory	June 1968	688.0
Wastewater Treatment Plant, Ann Arbor	City of Ann Arbor, Supt. of Utilities	26 June 1968	740.0*
Geddes Dam, Ann Arbor	Water Level Recorder, City of Ann Arbor	26 June 1968	751.45
Huron Parkway, Ann Arbor	City of Ann Arbor, Dept. of Streets	25 June 1968	751.3
U.S.G.S. Gaging Station	U.S.G.S., Okemos, Michigan	26 June 1968	762.31
Argo Dam, Ann Arbor	Ayres, Lewis, Norris & May	25 June 1968	775.3
Barton Dam, Ann Arbor	City of Ann Arbor, Supt. of Utilities	25 June 1968	801.7
Catherine Street, Ypsilanti	Corps of Engineers, Detroit District	March 1962	685.2
Water Works Dam, Ypsilanti	"	"	686.6
Michigan Avenue	"	"	690.6
Catherine Footbridge, Ypsilanti	"	"	689.4
Cross Avenue, Ypsilanti	"	"	691.7
M.C. Railroad, Ann Arbor	"	"	750.7
Fuller Street, Ann Arbor	"	"	751.4
Broadway Street, Ann Arbor	"	"	763.5
U.S.G.S. Gaging Station, Ann Arbor	U.S.G.S., Okemos, Michigan	"	760.36
Peninsular Paper Co. Dam	Peninsular Paper Co. Records (Pool)	March 1918	718.33
Peninsular Paper Co. Dam	Peninsular Paper Co. Records (Tail Water)	March 1918	712.58

*Occurred as the result of downstream clogging of bridge

TABLE A-4

ESTIMATED CHANNEL DIMENSIONS AND CAPACITIES

Location	Width feet	Depth feet	Bankfull Capacities cfs	Notes
D/S Michigan Ave.	113	11.5	8,765	In bank
D/S LeForge Road	217	12.3	10,940	In bank
U/S Peninsular Dam	484	14.6	8,426	See Note
D/S Superior Dam	771	12.1	8,426	See Note
U/S Superior Dam	472	19.1	8,398	See Note
D/S Geddes Dam	280	25.5	7,433	In bank
U/S Geddes Dam	380	14.9	7,433	See Note
U/S Huron Parkway	653	10.6	7,002	See Note
U.S.G.S. Gaging Station	310	7.2	4,610	In bank
U/S Argo Dam	291	12.5	6,516	See Note
D/S Barton Dam	282	7.7	4,570	In bank
U/S Barton Dam	1,266	23.5	6,516	See Note

Note: Refers to the backwater reservoir of a dam; information listed is for the 100-year flood.

942.00	F
1928.	Y
1930.00	F
1929.	Y
1820.00	F
1930.	Y
467.00	F
1931.	Y
957.00	F
1932.	Y
1300.00	F
1933.	Y
2590.00	F
1934.	Y
1160.00	F
1935.	Y
1040.00	F
1936.	Y
1960.00	F
1937.	Y
2140.00	F
1938.	Y
1920.00	F
1939.	Y
1280.00	F
1940.	Y
922.00	F
1941.	Y
2090.00	F
1942.	Y
3450.00	F
1943.	Y
3266.00	F
1914.	Y
2050.00	F
1915.	Y
3951.00	F
1916.	Y
1669.00	F
1917.	Y
5840.00	F
1918.	Y
3087.00	F
1919.	Y
2485.00	F
1920.	Y
1139.00	F
1921.	Y
3357.00	F
1922.	Y
1230.00	F
1923.	Y
1750.00	F
1924.	Y
1040.00	F
1925.	Y
2950.00	F
1926.	Y
927.00	F
1927.	

2330.00	F
1960.	Y
2900.00	F
1961.	Y
1240.00	F
1962.	Y
1260.00	F
1963.	Y
2520.00	F
1964.	Y
1410.00	F
1965.	Y
2090.00	F
1966.	Y
4610.00	F
1967.	Y
2490.00	F
1968.	Y
1480.00	F
1969.	Y
3030.00	F
1970.	Y
1350.00	F
1971.	Y
3540.00	F
1972.	Y
4240.00	F
1973.	Y
60.	L
3.294889006	M
.2281586955	D
-.1103449965	Z
.3086939139	E
197.6933403	A
654.4489407	B
2176.501236	C

1300.00	F
1944.	Y
2890.00	F
1945.	Y
1410.00	F
1946.	Y
5170.00	F
1947.	Y
3610.00	F
1948.	Y
4730.00	F
1949.	Y
2750.00	F
1950.	Y
2180.00	F
1951.	Y
1090.00	F
1952.	Y
1980.00	F
1953.	Y
2080.00	F
1954.	Y
3120.00	F
1955.	Y
1120.00	F
1956.	Y
1140.00	F
1957.	Y
3290.00	F
1958.	Y
1920.00	F
1959.	Y

556.778	F
1.01	I
.9900	J
817.696	F
1.05	I
.9500	J
999.860	F
1.11	I
.9000	J
1271.158	F
1.25	I
.8000	J
1991.010	F
2.00	I
.5000	J
3076.272	F
5.00	I
.2000	J
3841.038	F
10.00	I
.1000	J
4847.507	F
25.00	I
.0400	J
5621.507	F
50.00	I
.0200	J
6413.333	F
100.00	I
.0100	J
8338.651	F
500.00	I
.0020	J

TABLE A-5

LOG-PEARSON TYPE III FREQUENCY ANALYSIS

U.S.G.S. GAGE NO. 04174500

HURON RIVER AT ANN ARBOR, MICHIGAN

NUMBER	DATE	DISCHARGE CFS Y	LOG OF DISCHARGE X = LOG Y	X^2	X^3
1	March 13, 1914	3,266	3.514	12.348	43.392
2	February 15, 1915	2,050	3.312	10.969	36.330
3	March 27, 1916	3,951	3.597	12.938	46.539
4	April 6, 1917	1,669	3.222	10.381	33.448
5	March 14, 1918	5,840	3.766	14.183	53.412
6	April 16, 1919	3,087	3.490	12.180	42.509
7	March 16, 1920	2,485	3.395	11.526	39.131
8	March 28, 1921	1,139	3.057	9.345	28.568
9	April 18, 1922	3,357	3.526	12.433	43.838
10	March 16, 1923	1,230	3.090	9.548	29.503
11	March 5, 1924	1,750	3.243	10.517	34.107
12	February 24, 1925	1,040	3.017	9.102	27.461
13	April 9, 1926	2,950	3.470	12.041	41.782
14	January 30, 1927	927	2.967	8.803	26.119
15	December 16, 1927	942	2.974	8.845	26.304
16	February 27, 1929	1,930	3.286	10.798	35.481
17	February 27, 1930	1,820	3.260	10.628	34.646
18	March 29, 1931	467	2.669	7.124	19.013
19	May 27, 1932	957	2.981	8.886	26.490
20	May 1, 1933	1,300	3.114	9.697	30.196
21	April 4, 1934	2,590	3.413	11.649	39.757
22	March 11, 1935	1,160	3.064	9.388	28.765
23	March 16, 1936	1,040	3.017	9.102	27.462
24	June 21, 1937	1,960	3.292	10.837	35.676

TABLE A-5

LOG-PEARSON TYPE III FREQUENCY ANALYSIS

U.S.G.S. GAGE NO. 04174500

HURON RIVER AT ANN ARBOR, MICHIGAN

NUMBER	DATE	DISCHARGE CFS Y	LOG OF DISCHARGE X = LOG Y	X^2	X^3
25	February 18, 1938	2,140	3.330	11.089	36.926
26	April 19, 1939	1,920	3.283	10.778	35.384
27	April 4, 1940	1,280	3.107	9.653	29.993
28	April 20, 1941	922	2.965	8.791	26.066
29	March 17, 1942	2,090	3.320	11.022	36.594
30	May 11, 1943	3,450	3.538	12.517	44.287
31	February 27, 1944	1,300	3.114	9.697	30.196
32	May 18, 1945	2,890	3.461	11.979	41.458
33	March 9, 1946	1,410	3.149	9.916	31.226
34	April 5, 1947	5,170	3.713	13.786	51.189
35	February 15, 1949	3,610	3.558	12.659	45.042
36	April 4, 1950	4,730	3.675	13.506	49.633
37	February 19, 1951	2,750	3.439	11.827	40.672
38	April 14, 1952	2,180	3.338	11.142	37.193
39	May 3, 1953	1,090	3.037	9.223	28.011
40	March 26, 1954	1,980	3.297	10.870	35.839
41	October 15, 1954	2,080	3.318	11.009	36.528
42	April 29, 1956	3,120	3.494	12.208	42.655
43	April 25, 1957	1,120	3.049	9.296	28.345
44	December 21, 1957	1,140	3.057	9.345	28.568
45	March 6, 1959	3,290	3.517	12.369	43.503
46	March 30, 1960	1,920	3.294	10.850	35.741
47	April 25, 1961	2,330	3.367	11.337	38.171
48	March 13, 1962	2,900	3.462	11.985	41.494

TABLE A-5

LOG-PEARSON TYPE III FREQUENCY ANALYSIS

U.S.G.S. GAGE NO. 04174500

HURON RIVER AT ANN ARBOR, MICHIGAN

NUMBER	DATE	DISCHARGE CFS Y	LOG OF DISCHARGE X = LOG Y	X^2	X^3
49	March 26, 1963	1,240	3.093	9.567	29.590
50	May 8, 1964	1,260	3.100	9.610	29.791
51	March 5, 1965	2,520	3.401	11.567	39.339
52	July 12, 1966	1,410	3.149	9.916	31.226
53	April 3, 1967	2,090	3.320	11.022	36.594
54	June 26, 1968	4,610	3.664	13.425	49.189
55	January 30, 1969	2,490	3.396	11.533	39.165
56	May 25, 1970	1,480	3.170	10.049	31.855
57	February 20, 1971	3,030	3.481	12.117	42.181
58	April 16, 1972	1,350	3.130	9.797	30.664
59	November 19, 1973	3,540	3.549	12.595	44.701
60	March 9, 1974	4,240	3.627	13.155	47.714
			197.698	654.475	2176.651

MEAN = 3.295

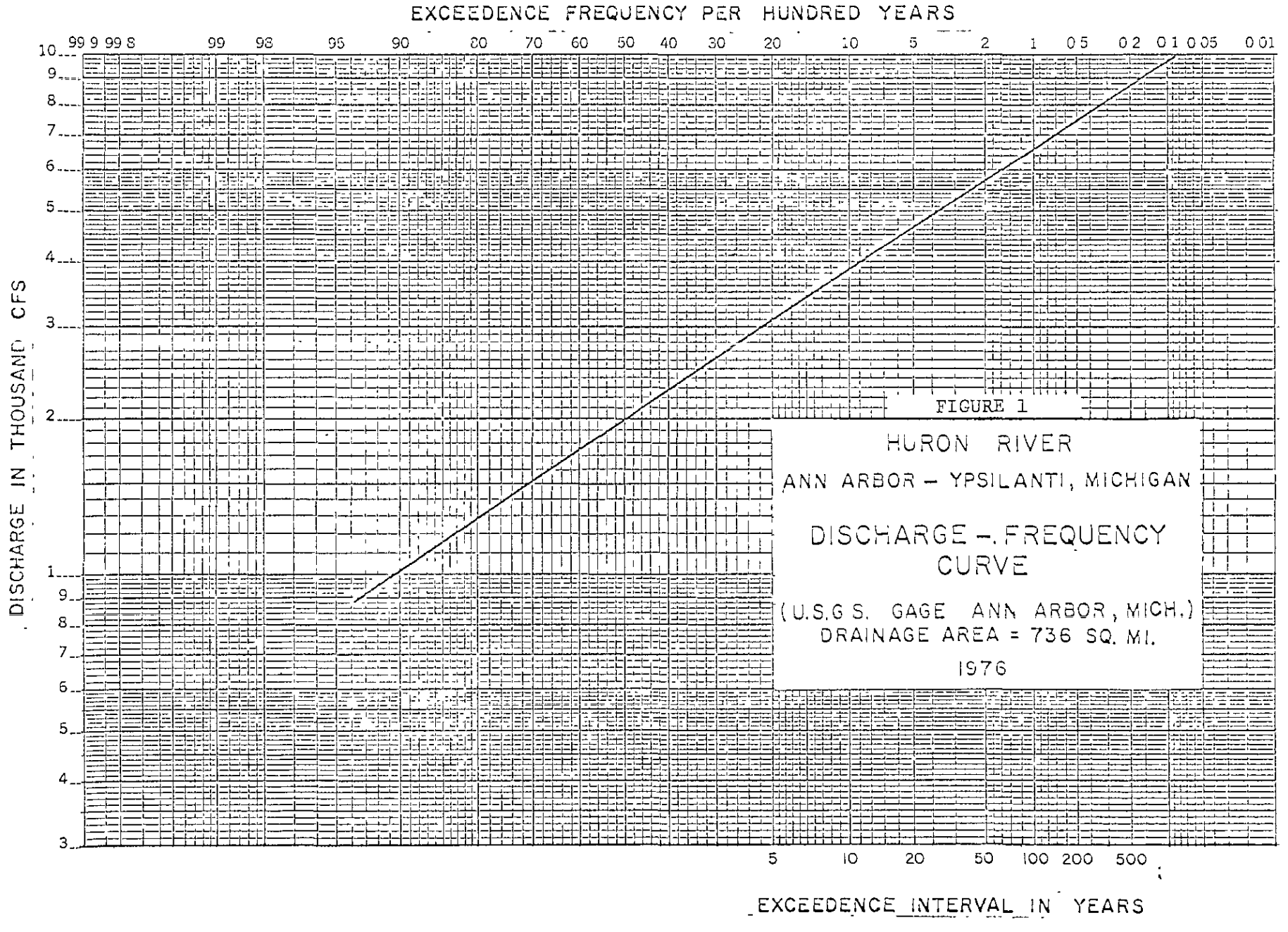
STANDARD DEVIATION = 0.223

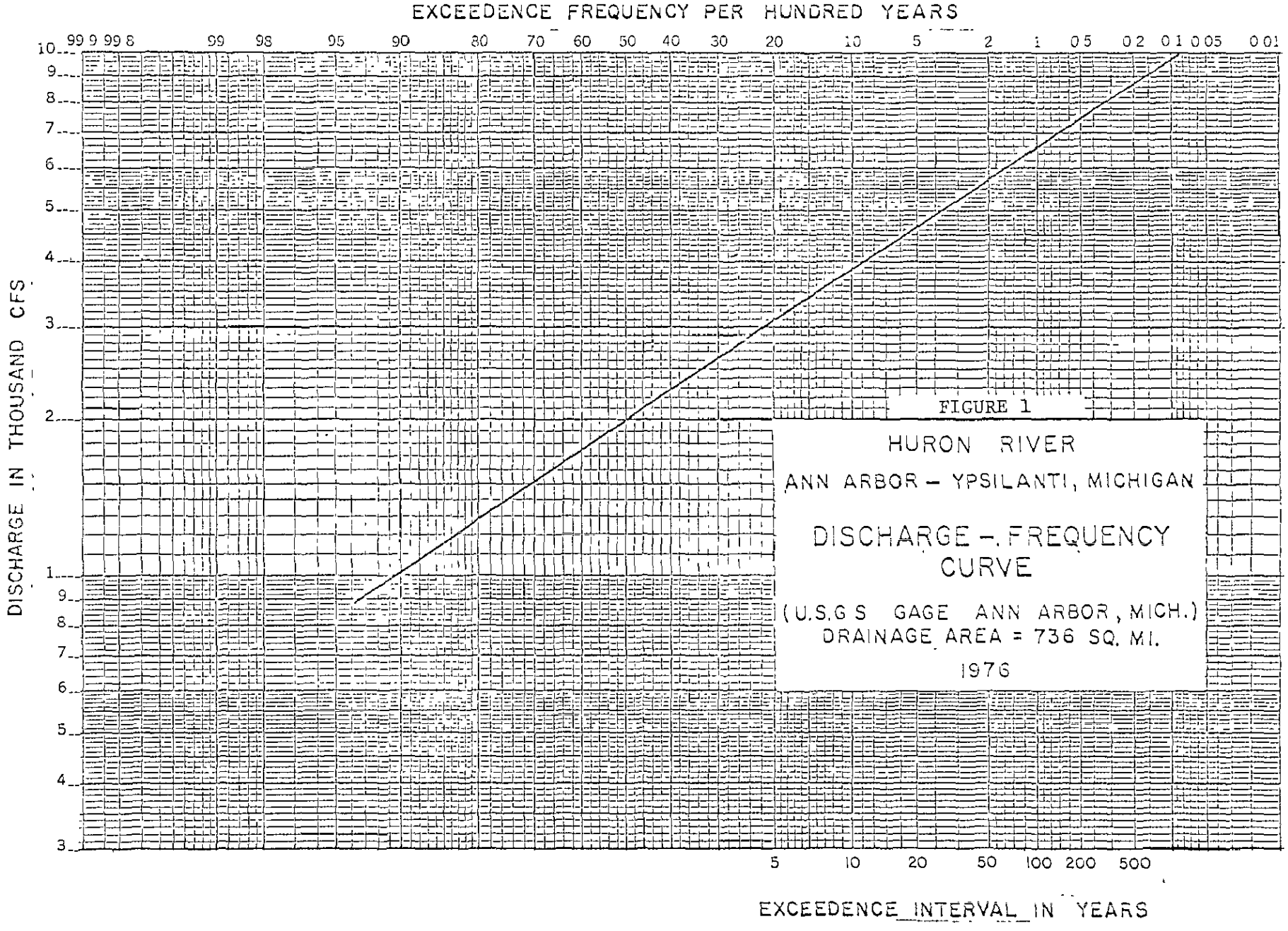
COEFFICIENT OF SKEWNESS = -0.047

50 YEAR DISCHARGE = 5720 cfs

100 YEAR DISCHARGE = 6570 cfs

500 YEAR DISCHARGE = 8650 cfs


EXCEEDENCE FREQUENCY PER HUNDRED YEARS
99 9 99 8 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0 5 0 2 0 1 0 05 0 01
10 9 8 7 6 5 4 3 2 1 9 8 7 6 5 4 3
DISCHARGE IN THOUSAND CFS
FIGURE 1
HURON RIVER
ANN ARBOR – YPSILANTI, MICHIGAN
DISCHARGE – FREQUENCY CURVE
(U.S.G.S. GAGE ANN ARBOR, MICH.)
DRAINAGE AREA = 736 SQ. MI.
1976
5 10 20 50 100 200 500
EXCEEDENCE INTERVAL IN YEARS


EXCEEDENCE FREQUENCY PER HUNDRED YEARS
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DISCHARGE IN THOUSAND CFS
10 9 8 7 6 5 4 3 2 1 9 8 7 6 5 4 3
5 10 20 50 100 200 500
EXCEEDENCE INTERVAL IN YEARS
FIGURE 1
HURON RIVER
ANN ARBOR – YPSILANTI, MICHIGAN
DISCHARGE – FREQUENCY CURVE
(U.S.G.S GAGE ANN ARBOR, MICH.)
DRAINAGE AREA = 736 SQ. MI.
1976

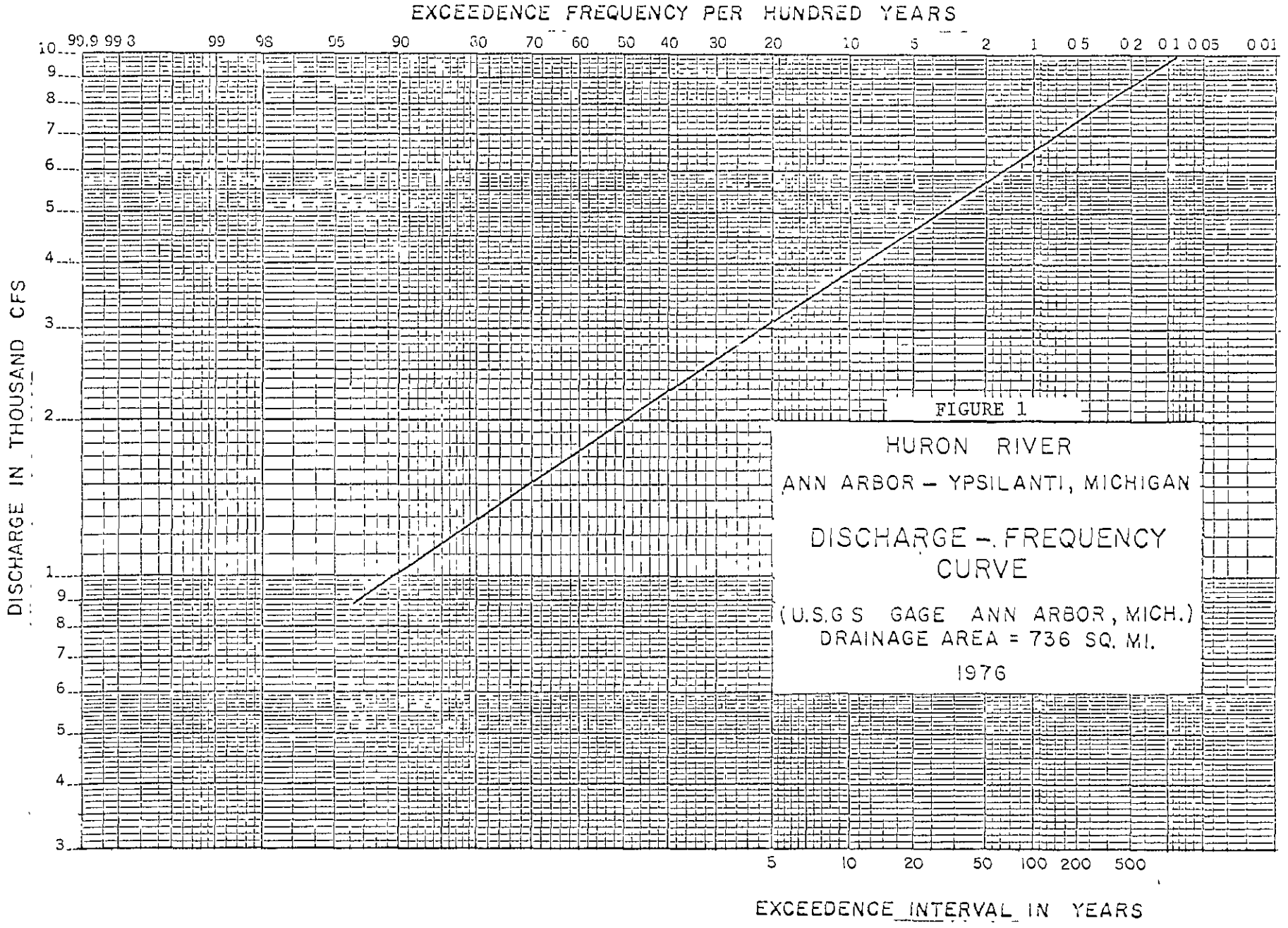
EXCEEDENCE FREQUENCY PER HUNDRED YEARS
99.9 99.3 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 0.1 0.05 0.01
DISCHARGE IN THOUSAND CFS
10 9 8 7 6 5 4 3 2 1 9 8 7 6 5 4 3
5 10 20 50 100 200 500
EXCEEDENCE INTERVAL IN YEARS
FIGURE 1
HURON RIVER
ANN ARBOR – YPSILANTI, MICHIGAN
DISCHARGE – FREQUENCY CURVE
(U.S.G.S. GAGE ANN ARBOR, MICH.)
DRAINAGE AREA = 736 SQ. MI.
1976

TABLE A-5

SUMMARY OF FLOOD DISCHARGES - HURON RIVER

RM	Location	June 1968 Flood Under Present Conditions	50-Year Frequency Flood cfs	100-Year Frequency Flood cfs	500-Year Frequency Flood cfs
41.0	I-94	7500	7507	8622	11,352
43.6	Peninsular Dam	7500	7336	8426	11,093
45.1	Superior Dam	7500	7311	8398	11,057
46.9	D/S Fleming Creek	7500	7191	8259	10,874
46.9	U/S Fleming Creek	7500	6471	7433	9,786
47.6	Geddes Dam	7500	6471	7433	9,786
48.3	U/S Pittsfield Drain	4610	6096	7002	9,219
51.8	U.S.G.S. Gaging Station	4610	5720	6570	8,650
52.6	Argo Dam	4572	5673	6516	8,579
54.7	Barton Dam	4572	5673	6516	8,579
55.8	U/S Barton Dam	4715	5840	6708	8,832

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**********
HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
**********

T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINKBEINER, PETTIS AND STROUT, LIMITED - USEC401.R6
T3      HURON RIVER AT FORD DAM - Q = 50 YEAR

J1  ICHECK      INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
            0.        2.        0.        0.  0.000000    -0.00     -0.0      -0.   686.000    -0.000

NC      .060      .050      .045      .100      .300    -0.000    -0.000    -0.000    -0.000    -0.000
QT     4.000  7631.000  8765.000 10940.000  7500.000    -0.000    -0.000    -0.000    -0.000    -0.000

X1     91.000     7.000   100.000  1305.000     0.000     0.000     0.000    -0.000    -0.000    -0.000
GR    700.000     0.000   600.000   100.000   674.000   130.000   676.000  1300.000   690.000  1300.000
GR    685.000  1305.000   690.000  1600.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000
NC      .050      .050      .045      .600      .800    -0.000    -0.000    -0.000    -0.000    -0.000

X1     90.100     6.000    35.250   141.590   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   692.000   692.000    -0.000
GR    694.170     0.000   694.170    10.000   676.000    35.250   676.000   141.590   694.170   168.840
GR    694.170   178.840    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000
SB      .900     1.500     2.800    -0.000   106.340     5.000  1571.000     0.000   676.000   676.000

X1     90.000    -0.000    -0.000    -0.000   108.000   108.000   108.000    -0.000    -0.000    -0.000
X2     -0.000    -0.000     1.000   691.500   694.170    -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   692.000   692.000    -0.000
RT      8.000     0.000   694.170   694.170    10.000   694.170   694.170    35.250   694.170   676.000
RT     35.250   694.170   691.500   141.590   694.170   691.500   141.590   694.170   676.000   168.840
RT    694.170   694.170   178.840   694.170   694.170    -0.000    -0.000    -0.000    -0.000    -0.000
NC      .050      .040      .045      .100      .300    -0.000    -0.000    -0.000    -0.000    -0.000

X1     89.000    32.000   505.000   725.000   150.000   150.000   150.000    -0.000    -0.000    -0.000
X3     -0.000    -0.000    -0.000   500.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000
GR    700.000     0.000   688.100     0.000   688.100   500.000   688.100   505.000   684.500   510.000
GR    677.700   520.000   677.000   530.000   676.800   540.000   677.200   550.000   677.500   560.000
GR    678.500   570.000   678.700   580.000   678.800   590.000   678.700   600.000   679.000   610.000
GR    678.700   620.000   678.400   630.000   678.700   640.000   678.500   650.000   678.500   660.000
GR    678.600   670.000   680.000   680.000   681.700   690.000   682.000   700.000   682.700   710.000
GR    684.500   720.000   685.900   725.000   687.000  1025.000   687.800  1175.000   687.400  1325.000
GR    688.800  1450.000   700.000  1450.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000

X1     88.100     0.000    -0.000    -0.000   390.000   390.000   390.000    -0.000    -0.000    -0.000
X3     -0.000    -0.000    -0.000   455.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000
NC     -0.000    -0.000    -0.000      .500      .700    -0.000    -0.000    -0.000    -0.000    -0.000

X1     88.000    25.000   300.000   422.000    50.000    50.000    50.000    -0.000    -0.000    -0.000
X3     10.000    -0.000    -0.000   160.000    -0.000    -0.000    -0.000   687.950   689.120    -0.000
GR    700.000     0.000   688.660     0.000   688.650   100.000   687.920   149.000   688.160   186.000
GR    688.160   300.000   683.500   300.000   679.300   310.000   677.000   320.000   676.900   330.000
GR    677.100   340.000   676.800   350.000   676.700   360.000   676.100   370.000   674.700   390.000
GR    675.800   390.000   676.400   400.000   678.400   410.000   683.300   422.000   685.900   422.000
GR    686.200   467.000   686.700   522.000   687.500   622.000   688.200   722.000   688.830   822.000
SB     -0.000     1.500     2.900    -0.000     1.220     0.000  1630.000     0.000   677.000   677.000
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X1	87.300	-0.000	-0.000	-0.000	10.000	10.000	10.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	689.800	687.920	-0.000	-0.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	100.000	-0.000	-0.000	-0.000	687.920	689.120	-0.000
BT	14.000	0.000	688.660	688.660	100.000	688.650	688.650	149.000	687.920	687.920
BT	186.000	688.160	688.160	300.000	691.200	688.160	300.000	691.200	689.700	360.000
BT	691.900	689.750	422.000	691.200	689.800	422.000	691.200	685.900	467.000	689.160
BT	686.200	522.000	689.120	686.700	622.000	689.340	687.500	722.000	689.730	688.200
BT	822.000	688.830	688.830	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.050	.050	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	87.200	32.000	505.000	725.000	50.000	50.000	50.000	-0.000	-2.060	-0.000
GR	700.000	0.000	688.100	0.000	688.100	500.000	688.100	505.000	684.500	510.000
GR	677.700	520.000	677.000	530.000	676.800	540.000	677.200	550.000	677.500	560.000
GR	678.500	570.000	678.700	580.000	678.800	590.000	678.700	600.000	679.000	610.000
GR	678.700	620.000	678.400	630.000	678.700	640.000	678.500	650.000	678.500	660.000
GR	678.600	670.000	680.000	680.000	681.700	690.000	682.000	700.000	682.700	710.000
GR	684.500	720.000	685.900	725.000	687.000	1025.000	687.800	1175.000	687.400	1325.000
GR	688.800	1450.000	700.000	1450.000	-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
X1	87.100	-0.000	-0.000	-0.000	530.000	530.000	530.000	-0.000	.420	-0.000
NC	-0.000	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	87.000	28.000	400.000	520.000	50.000	50.000	50.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	35.000	-0.000	-0.000	-0.000	689.300	686.500	-0.000
GR	689.750	35.000	689.300	100.000	688.500	200.000	687.800	300.000	687.000	400.000
GR	678.000	400.000	678.000	410.000	679.500	420.000	678.000	430.000	679.100	440.000
GR	677.100	450.000	675.200	457.000	676.500	473.000	678.200	480.000	677.600	490.000
GR	677.700	500.000	677.900	510.000	677.000	520.000	687.000	520.000	687.500	600.000
GR	687.700	620.000	687.900	660.000	688.600	674.000	687.200	684.000	687.100	720.000
GR	686.500	820.000	686.900	920.000	687.200	1020.000	-0.000	-0.000	-0.000	-0.000
SR	1.250	1.500	2.800	-0.000	120.000	16.000	1490.000	0.000	678.000	678.000
X1	86.200	-0.000	-0.000	-0.000	23.000	23.000	23.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	690.700	686.500	-0.000	-0.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	35.000	-0.000	-0.000	-0.000	689.300	686.500	-0.000
BT	28.000	35.000	689.750	689.750	100.000	689.300	689.300	200.000	691.600	688.500
BT	300.000	691.700	687.800	400.000	693.000	687.000	410.000	693.000	689.000	420.000
BT	692.950	690.000	430.000	692.900	690.700	440.000	692.850	690.000	450.000	692.800
BT	689.000	457.000	692.700	687.000	457.000	692.700	687.000	473.000	692.500	687.000
BT	473.000	692.500	687.000	680.000	692.300	689.000	490.000	692.250	690.100	500.000
BT	692.200	690.700	510.000	692.100	689.900	520.000	692.000	687.000	600.000	689.100
BT	687.500	620.000	688.900	687.700	660.000	687.900	687.900	674.000	688.600	688.600
BT	684.000	687.200	687.200	720.000	687.100	687.100	820.000	686.500	686.500	920.000
BT	686.900	686.900	1020.000	687.200	687.200	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.080	.100	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	86.100	24.000	300.000	502.000	50.000	50.000	50.000	-0.000	-0.000	-0.000
GR	690.500	20.000	690.500	300.000	684.500	310.000	680.200	320.000	679.800	330.000
GR	681.900	341.000	682.500	350.000	681.900	360.000	680.700	370.000	680.100	380.000
GR	680.100	390.000	680.300	400.000	680.100	410.000	679.200	420.000	678.600	430.000
GR	677.700	440.000	677.900	450.000	678.100	460.000	677.200	470.000	678.000	480.000
GR	679.500	490.000	681.500	500.000	687.800	502.000	688.100	1020.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	86.000	-0.000	-0.000	-0.000	75.000	75.000	75.000	-0.000	-0.000	-0.000
NC	.080	.070	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	85.000	21.000	100.000	220.000	1745.000	1020.000	1745.000	-0.000	-0.000	-0.000
GR	707.500	5.000	695.400	25.000	694.500	60.000	699.100	85.000	698.500	100.000
GR	684.800	120.000	690.300	130.000	679.600	140.000	680.100	150.000	680.600	160.000
GR	681.800	170.000	682.600	180.000	683.300	190.000	683.800	200.000	684.400	210.000
GR	684.900	215.000	685.500	220.000	687.000	290.000	686.600	600.000	686.600	1400.000
GR	700.000	1400.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.060	.060	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000

d/s side

Factory St

u/s side

X1	84.000	17.000	400.000	520.000	1450.000	1045.000	1450.000	-0.000	-0.000	-0.000
GR	691.500	80.000	693.700	270.000	692.600	400.000	685.700	413.000	684.100	420.000
GR	683.300	430.000	682.400	440.000	681.700	450.000	680.800	460.000	680.200	470.000
GR	680.000	480.000	681.800	490.000	684.600	500.000	685.700	502.000	694.600	520.000
GR	694.000	540.000	694.900	565.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	-0.000	.080	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	83.100	24.000	500.000	613.000	1170.000	1170.000	1170.000	-0.000	-0.000	-0.000
X3	-0.000	-0.000	-0.000	480.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
GR	701.960	0.000	700.090	100.000	698.540	200.000	698.100	300.000	697.700	400.000
GR	697.000	490.000	685.500	500.000	682.600	503.000	650.100	513.000	678.500	523.000
GR	678.600	533.000	678.400	543.000	678.400	553.000	679.500	563.000	680.800	573.000
GR	681.500	583.000	683.600	593.000	685.100	603.000	686.600	613.000	704.000	660.000
GR	718.200	713.000	725.140	813.000	727.530	858.000	729.210	913.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	83.000	-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	698.100	710.000	-0.000
SR	0.000	1.500	3.000	-0.000	100.000	0.000	2200.000	0.000	680.000	680.000
X1	82.100	-0.000	-0.000	-0.000	80.500	80.500	80.500	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	706.250	698.100	-0.000	-0.000	-0.000	.850	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	698.100	710.000	-0.000
RT	23.000	0.000	701.960	701.960	100.000	700.090	700.090	200.000	698.540	698.540
RT	300.000	698.100	698.100	400.000	700.100	697.700	490.000	703.500	697.000	500.000
RT	704.650	685.500	513.000	705.000	695.000	523.000	705.600	698.500	533.000	706.000
RT	701.300	543.000	706.500	703.300	553.000	707.000	705.000	563.000	707.500	706.250
RT	573.000	708.100	703.500	583.000	708.900	701.600	593.000	709.400	699.000	603.000
RT	710.000	695.000	613.000	710.700	686.600	660.000	704.000	704.000	713.000	718.200
RT	718.200	813.000	725.140	725.140	858.000	727.530	727.530	913.000	729.210	729.210
NC	.080	.080	.050	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	82.000	18.000	175.000	305.000	100.000	100.000	100.000	-0.000	-0.000	-0.000
GR	699.600	118.000	699.900	175.000	689.800	190.000	688.700	200.000	686.600	205.000
GR	682.900	215.000	682.700	225.000	682.600	235.000	682.200	245.000	682.800	255.000
GR	682.800	265.000	683.900	275.000	685.300	285.000	686.600	290.000	693.300	305.000
GR	693.600	405.000	695.700	475.000	704.200	490.000	-0.000	-0.000	-0.000	-0.000
NC	.080	.070	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	81.000	30.000	100.000	313.000	1940.000	1940.000	1940.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	714.000	714.000	-0.000
GR	714.200	0.000	710.000	80.000	690.900	100.000	690.900	110.000	689.600	120.000
GR	689.000	130.000	688.750	133.000	688.500	140.000	688.000	150.000	687.500	160.000
GR	689.000	166.000	688.300	170.000	687.500	174.000	688.700	180.000	689.000	190.000
GR	689.000	200.000	688.800	210.000	689.200	220.000	689.300	230.000	689.400	241.000
GR	688.700	249.000	689.700	260.000	689.700	270.000	689.400	280.000	689.600	290.000
GR	689.200	300.000	690.300	310.000	690.600	313.000	710.000	333.000	717.800	413.000
SR	-0.000	1.500	2.800	-0.000	213.000	-0.000	3720.000	-0.000	689.000	689.000
X1	80.100	-0.000	-0.000	-0.000	46.000	46.000	46.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	713.100	714.200	-0.000	-0.000	-0.000	.820	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	715.900	716.100	-0.000
RT	32.000	0.000	714.200	714.200	80.000	715.500	710.000	100.000	715.900	690.900
RT	100.000	715.900	700.000	110.000	715.900	707.000	120.000	715.900	710.300	133.000
RT	715.900	713.100	140.000	715.950	711.700	150.000	715.950	709.000	160.000	715.950
RT	705.000	166.000	715.950	700.000	166.000	715.950	689.000	174.000	716.000	687.500
RT	174.000	716.000	700.000	180.000	716.000	704.000	190.000	716.000	709.000	205.000
RT	716.000	713.100	220.000	716.000	709.500	230.000	716.000	706.000	240.000	716.000
RT	696.000	241.000	716.000	689.400	249.000	716.050	688.700	250.000	716.050	696.000
RT	260.000	716.060	707.000	270.000	716.070	710.500	280.000	716.080	713.100	290.000
RT	716.080	710.800	300.000	716.090	707.700	310.000	716.100	702.000	313.000	716.100
RT	690.600	333.000	716.300	710.000	413.000	717.800	717.800	-0.000	-0.000	-0.000
NC	.100	.070	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	80.000	20.000	103.000	235.000	200.000	200.000	200.000	-0.000	-0.000	-0.000

GR	704.400	75.000	693.000	100.000	690.900	103.000	689.800	110.000	689.500	120.000
GR	689.400	130.000	689.200	140.000	688.800	150.000	688.500	160.000	687.900	170.000
GR	687.700	180.000	687.600	190.000	688.400	200.000	688.000	210.000	688.100	220.000
GR	688.900	230.000	690.900	235.000	700.800	257.000	701.900	351.000	723.300	380.000
NC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	79.000	23.000	300.000	427.000	860.000	860.000	860.000	-0.000	-0.000	-0.000
GR	706.500	80.000	707.000	115.000	703.800	265.000	696.600	279.000	694.000	300.000
GR	691.800	305.000	690.300	310.000	688.800	320.000	688.000	330.000	687.100	340.000
GR	686.700	350.000	686.800	360.000	686.900	370.000	687.300	380.000	688.000	390.000
GR	687.800	400.000	687.500	410.000	690.400	420.000	691.800	422.000	693.400	427.000
GR	697.800	432.000	708.000	454.000	713.300	470.000	-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
X1	78.000	19.000	200.000	343.000	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	710.000	710.000	-0.000
GR	716.900	100.000	710.000	160.000	689.700	200.000	689.500	203.000	688.400	213.000
GR	688.200	223.000	688.300	233.000	688.700	243.000	688.700	253.000	689.500	263.000
GR	689.600	273.000	690.400	283.000	690.600	293.000	690.600	296.000	690.800	303.000
GR	691.800	309.000	704.900	343.000	707.000	343.000	712.900	443.000	-0.000	-0.000
SR	1.250	1.500	2.700	-0.000	99.000	2.000	1822.000	1.330	689.000	689.000
X1	77.200	-0.000	-0.000	-0.000	60.000	60.000	60.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	704.900	712.900	-0.000	-0.000	-0.000	.980	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	710.000	710.000	-0.000
BT	8.000	100.000	716.900	716.900	160.000	715.500	710.000	200.000	716.700	689.700
BT	200.000	714.700	703.500	293.000	714.000	704.400	343.000	713.300	704.900	343.000
BT	713.300	707.000	443.000	712.900	712.900	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.080	.080	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
X1	77.100	-0.000	-0.000	-0.000	35.000	35.000	35.000	-0.000	-0.000	-0.000
NC	.080	.080	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
X1	77.000	16.000	200.000	319.000	35.000	35.000	35.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	715.000	715.000	-0.000
GR	716.800	100.000	716.800	180.000	692.200	200.000	690.900	210.000	687.200	220.000
GR	684.400	230.000	684.700	240.000	686.700	250.000	690.000	251.000	689.100	264.500
GR	688.400	270.000	690.600	280.000	692.200	287.000	702.400	319.000	716.500	350.000
GR	716.300	419.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SR	1.250	1.500	2.700	-0.000	65.000	7.000	1753.000	1.250	686.000	686.000
X1	76.100	-0.000	-0.000	-0.000	28.000	28.000	28.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	706.300	716.300	-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	715.000	715.000	-0.000
BT	8.000	100.000	716.800	716.800	180.000	716.800	716.800	200.000	716.800	692.200
BT	200.000	716.800	706.300	319.000	716.500	706.300	319.000	716.500	702.400	350.000
BT	716.500	716.500	419.000	716.300	716.300	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.100	.080	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	76.000	15.000	15.000	107.000	200.000	200.000	200.000	-0.000	-0.000	-0.000
GR	721.300	0.000	692.200	15.000	690.600	17.000	688.600	27.000	688.000	37.000
GR	688.500	47.000	690.000	57.000	689.200	67.000	690.000	77.000	690.800	87.000
GR	692.200	92.000	697.900	107.000	696.500	257.000	697.300	347.000	706.400	427.000
NC	.100	.070	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	75.000	26.000	210.000	345.000	2790.000	2570.000	2570.000	-0.000	-0.000	-0.000
GR	755.600	51.000	747.800	67.000	722.800	115.000	705.400	175.000	703.300	200.000
GR	697.500	205.000	696.200	210.000	694.800	212.000	692.900	220.000	692.100	230.000
GR	691.900	240.000	691.800	250.000	691.900	260.000	691.900	270.000	692.100	290.000
GR	692.600	290.000	693.100	300.000	693.600	310.000	694.100	320.000	694.500	330.000
GR	693.900	340.000	694.800	342.000	696.800	345.000	698.300	365.000	701.900	420.000
GR	706.800	630.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.080	.090	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	74.000	23.000	225.000	375.000	1000.000	1000.000	1000.000	-0.000	-0.000	-0.000
GR	727.000	60.000	725.200	75.000	709.300	160.000	705.000	200.000	698.200	225.000

GR	697.400	235.000	696.700	245.000	696.000	255.000	696.100	265.000	695.900	275.000
GR	695.800	285.000	695.900	295.000	695.800	305.000	695.300	315.000	695.400	325.000
GR	695.200	335.000	695.400	345.000	696.300	355.000	696.500	365.000	698.200	375.000
GR	712.800	405.000	714.300	480.000	717.400	565.000	-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
X1	73.000	47.000	500.000	630.000	200.000	200.000	200.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	718.000	716.500	-0.000
GR	749.500	0.000	746.000	100.000	740.000	200.000	731.500	300.000	724.000	400.000
GR	715.000	450.000	701.000	500.000	699.000	510.000	698.200	514.000	697.500	519.000
GR	697.500	520.000	697.000	529.000	697.000	530.000	697.000	539.000	697.000	540.000
GR	695.200	549.000	693.500	559.000	693.500	560.000	694.000	563.000	694.500	567.000
GR	695.500	569.000	695.500	573.000	695.000	575.000	694.800	576.000	694.500	579.000
GR	694.400	580.000	693.300	589.000	693.300	590.000	696.100	599.000	696.000	605.000
GR	696.000	609.000	695.300	619.000	695.300	620.000	694.500	629.000	694.500	630.000
GR	696.300	638.000	696.300	639.000	710.000	660.000	714.500	739.000	716.500	775.000
GR	721.000	900.000	725.300	975.000	725.000	1020.000	726.300	1075.000	726.800	1120.000
GR	731.100	1133.000	732.500	1300.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SR	0.000	1.500	3.000	-0.000	120.000	0.000	2140.000	0.000	695.000	695.000
X1	72.300	-0.000	-0.000	-0.000	30.000	30.000	30.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	716.000	716.500	-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	719.700	716.500	-0.000
BT	34.000	0.000	749.500	749.500	100.000	746.000	746.000	200.000	740.000	740.000
BT	300.000	731.500	731.500	400.000	724.000	724.000	450.000	721.000	715.000	500.000
BT	719.700	701.000	510.000	719.600	708.000	520.000	719.500	712.000	530.000	719.500
BT	714.000	540.000	719.400	716.000	560.000	719.300	710.000	563.000	719.300	706.300
BT	567.000	719.300	701.000	569.000	719.200	695.500	575.000	719.200	695.500	576.000
BT	719.200	705.300	580.000	719.200	709.000	590.000	719.200	713.000	605.000	719.100
BT	716.000	620.000	719.100	713.000	630.000	719.000	710.000	638.000	719.000	701.000
BT	639.000	719.000	696.300	660.000	718.900	710.000	739.000	717.500	714.300	775.000
BT	716.500	716.500	900.000	721.000	721.000	975.000	725.300	725.300	1020.000	725.000
BT	725.000	1075.000	726.300	726.300	1120.000	726.800	726.800	1133.000	731.100	731.100
BT	1300.000	732.500	732.500	-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

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01.02.03.04.05.06.07.08
MODIFICATIONS 52.53.54.55.56.57.58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINKBEINER, PETTIS AND STROUT, LIMITED - USEC401-R6
T3      HURON RIVER AT FORD DAM - Q = 100 YEAR

J1  ICHECK    INQ      NINV     IDIR     STRT      METRIC   HVINS    Q        WSEI     FQ
        -0.      3.       -0.      -0.  -0.000000    -0.00    -0.0     -0.   686.000  -0.000
J2  NPROF     IPLOT    PRFVS    XSECV    XSECH     FN       ALLDC    IBW      CHNIM    ITRACE
        2.000    -0.000   -0.000   -0.000   -0.000    -0.000   -0.000   -0.000   -0.000   -0.000
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CCHV= .100 CEHV= .300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
91.00	10.00	686.00	0.00	686.00	686.01	.01	0.00	0.00	690.00
8765.	0.	8762.	3.	0.	11869.	29.	0.	0.	685.00
0.00	0.00	.74	.09	.060	.045	.050	0.000	676.00	105.71
.000024	0.	0.	0.	0	0	1	0.00	1258.29	1364.00

CCHV= .600 CEHV= .800

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 692.00 ELREA= 692.00

90.10	9.79	685.79	0.00	0.00	686.89	1.10	.01	.87	676.00
8765.	0.	8765.	0.	0.	1041.	0.	15.	2.	676.00
.00	0.00	8.42	0.00	.050	.045	.050	.045	676.00	35.25
.003121	100.	100.	100.	2	0	1	0.00	106.34	156.27

d/s side

SPECIAL BRIDGE I-94

SB XK	XKOR	COEO	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
.90	1.50	2.80	-0.00	106.34	5.00	1571.00	0.00	676.00	676.00

CLASS A LOW FLOW

BRIDGE W.S.= 685.64 BRIDGE VELOCITY= 8.97

EGPPS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	686.99	.13	0.	8765.	1571.	691.50	694.17	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 692.00 ELREA= 692.00

90.00	9.92	685.92	0.00	0.00	686.99	1.07	.10	0.00	676.00
8765.	0.	8765.	0.	0.	1055.	0.	17.	2.	676.00
.01	0.00	8.31	0.00	.050	.045	.050	.045	676.00	35.25
.002985	108.	108.	108.	0	0	1	0.00	106.34	156.47

CCHV= .100 CEHV= .300 } should be inserted after sta 89+00

3301 HV CHANGED MORE THAN HVINS

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

4'low Cc=.6 .6(1.07+.66−.41) = .4

3470 ENCROACHMENT STATIONS= 500.0 1450.0 TYPE= 1 TARGET= +500.000 low

* 89.00	10.18	686.98	0.00	0.00	687.39	(.41)	.33	(.07)	688.10	* u/s side I-94
8765.	0.	8604.	161.	0.	1657.	159.	22.	3.	685.90	
.02	0.00	5.19	1.01	.050	.045	.040	.045	676.80	506.56	
.001696	150.	150.	150.	2	0	1	0.00	512.88	1019.44	

⇒ Cc & Ce change

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 455.0 1450.0 TYPE= 1 TARGET= (-455.000) not used

88.10	10.83	687.63	0.00	0.00	687.94	.31	.54	.01	688.10
8765.	0.	8233.	532.	0.	1799.	401.	40.	8.	685.90
.04	0.00	4.58	1.32	.050	.045	.040	.045	676.80	505.65
.001188	380.	380.	390.	2	0	1	0.00	744.26	1345.54

CCHV= .500 CEHV= .700

3470 ENCROACHMENT STATIONS= 160.0 822.0 TYPE= 1 TARGET= =160.000

OVERBANK AREA ASSUMED NON-EFFECTIVE.FLLEA= 687.95 FLREA= 689.12

drawdown

* 88.00	12.87	(687.57)	0.00	0.00	688.35	.78	.08	.33	688.16	* d/s side
8765.	0.	8765.	0.	0.	(1236.)	0.	42.	9.	685.90	
.04	0.00	7.09	0.00	.050	.045	.040	.045	674.70	300.00	
.002318	50.	50.	50.	2	0	1	0.00	122.00	422.00	

SPECIAL BRIDGE Ford Walkway

SR	XK	XKOR	COFQ	RDLEN	RWC	RWP	RAREA	SS	FLCHU	FLCHD
	-0.00	1.50	2.90	-0.00	(1.22)	0.00	(1630.00)	0.00	677.00	677.00

bridge is 1.22 ft wide

1.22 ft wide

A = 1630

1630 = 1.22 X

1630/1.22 = X = 1336.07

← 1.22 →

6070.LOW FLOW BY NORMAL BRIDGE

EGPRS= 688.242 EGLWC= 690.650 ELLC= 689.800 PCWSF= 687.568 ELTRD= 687.920

NORMAL BRIDGE.NRD=14 MIN ELTRD= 687.92 MAX ELLC= 689.80

3470 ENCROACHMENT STATIONS= 100.0 822.0 TYPE= 1 TARGET= (-100.000) → not used

OVERBANK AREA ASSUMED NON-EFFECTIVE.FLLEA= 687.92 FLREA= 689.12

87.30	12.90	687.60	0.00	0.00	688.38	.78	.02	.00	688.16
8765.	0.	8765.	0.	0.	(1240.)	0.	42.	9.	685.90
.04	0.00	7.07	0.00	.050	.045	.040	.045	674.70	300.00
.002295	10.	10.	10.	4	0	1	-69.75	122.00	422.00

3301 HV CHANGED MORE THAN HVINS

87.20	13.97	688.71	0.00	0.00	688.76	.05	.02	.36	686.04
8765.	1007.	5335.	2423.	1354.	2493.	2619.	47.	10.	683.84
.05	.74	2.14	.93	.050	.045	.050	.045	674.74	0.00
.000169	50.	50.	50.	2	0	1	0.00	1450.00	1450.00

CCHV= .100 CEHV= .300 OK

SECNO DEPTH CWSEL CRIWS WSELK EG HV HI OLOSS BANK ELEV

Q	QLOB	QCH	QROB	ALOP	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WIN	ELMIN	SSTA
SLOPE	XLOPL	XLCH	XLOBR	ITRIAL	IOC	ICONT	CORAR	TOPWID	ENDST
87.10	13.64	688.80	0.00	0.00	688.86	.06	.10	.00	686.46
8765.	887.	5599.	2278.	1183.	2418.	2373.	122.	28.	684.26
.13	.75	2.32	.96	.050	.045	.050	.045	675.16	0.00
.000206	530.	530.	530.	2	0	1	0.00	1450.00	1450.00

CCHV= .600 CFHV= .800
3280 CROSS SECTION 87.00 EXTENDED 1.55 FEET

3470 ENCROACHMENT STATIONS= 35.0 1020.0 TYPE= 1 TARGET= -35.000

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 689.30 ELREA= 686.50

87.00	13.55	688.75	0.00	0.00	689.17	.41	.02	.29	687.00
8765.	0.	7423.	1342.	0.	1333.	826.	127.	29.	687.00
.13	0.00	5.57	1.62	.050	.045	.050	.045	675.20	400.00
.001433	50.	50.	50.	2	0	1	0.00	620.00	1020.00

SPECIAL BRIDGE Factory St

SB XK	XKOR	COEO	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.25	1.50	2.80	-0.00	120.00	16.00	1490.00	0.00	678.00	678.00

6840.FLOW IS BY WEIR AND LOW FLOW
3280 CROSS SECTION 86.20 EXTENDED 1.65 FEET

BRIDGE W.S.= 688.84 BRIDGE VELOCITY= 5.06

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	FLLC	ELTRD	CLASS
690.70	689.24	.09	3071.	5702.	1490.	690.70	686.50	15.00

3470 ENCROACHMENT STATIONS= 35.0 1020.0 TYPE= 1 TARGET= -35.000

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 689.30 ELREA= 686.50

86.20	13.65	688.85	0.00	0.00	689.24	.39	.07	0.00	687.00
8765.	0.	7331.	1434.	0.	1345.	876.	128.	29.	687.00
.14	0.00	5.45	1.64	.050	.045	.050	.045	675.20	400.00
.001359	23.	23.	23.	2	0	4	0.00	620.00	1020.00

CCHV= .100 CFHV= .300
3280 CROSS SECTION 86.10 EXTENDED .86 FEET

86.10	11.76	688.96	0.00	0.00	689.31	.35	.06	.00	690.50
8765.	0.	8491.	274.	0.	1761.	523.	131.	30.	687.80
.14	0.00	4.82	.52	.080	.045	.100	.045	677.20	302.57
.001227	50.	50.	50.	2	0	1	0.00	717.43	1020.00

CCHV= .100 CFHV= .300
3280 CROSS SECTION 86.00 EXTENDED .96 FEET

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
O	QLOB	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
86.00	11.86	689.06	0.00	0.00	689.40	.34	.09	.00	690.50
8765.	0.	8452.	313.	0.	1780.	574.	135.	31.	687.80
.14	0.00	4.75	.54	.080	.045	.100	.045	677.20	302.40
.001174	75.	75.	75.	0	0	1	0.00	717.60	1020.00
CCHV= .100 CEHV= .300									
85.00	10.97	690.57	0.00	0.00	690.64	.07	1.21	.03	698.50
8765.	0.	2747.	6018.	0.	866.	4647.	249.	57.	685.50
.36	0.00	3.17	1.30	.080	.045	.070	.049	679.60	111.58
.000600	1745.	1745.	1020.	2	0	1	0.00	1288.42	1400.00
CCHV= .200 CEHV= .400									
3265 DIVIDED FLOW									
3280 CROSS SECTION 84.00 EXTENDED .02 FEET									
3301 HV CHANGED MORE THAN HVINS									
84.00	11.52	691.52	0.00	0.00	692.99	1.47	1.79	.56	692.60
8765.	0.	8765.	0.	0.	901.	0.	334.	75.	694.60
.40	.02	9.72	0.00	.060	.045	.060	.049	680.00	80.00
.005615	1450.	1450.	1045.	2	0	1	0.00	113.47	513.77
3301 HV CHANGED MORE THAN HVINS									
3470 ENCROACHMENT STATIONS= 480.0 913.0 TYPE= 1 TARGET= -480.000									
83.10	16.39	694.79	0.00	0.00	695.25	.46	2.06	.20	685.50
8765.	57.	8588.	120.	38.	1568.	91.	369.	78.	686.60
.46	1.51	5.48	1.33	.060	.045	.080	.048	678.40	491.92
.000847	1170.	1170.	1170.	2	0	1	0.00	143.19	635.12
CCHV= .100 CEHV= .300									
OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 698.10 FLOFA= 710.00									
83.00	16.42	694.82	0.00	0.00	695.30	.48	.05	.01	685.50
8765.	0.	8765.	0.	0.	1571.	0.	371.	79.	686.60
.46	0.00	5.58	0.00	.060	.045	.080	.048	678.40	500.00
.000962	50.	50.	50.	2	0	1	0.00	113.00	635.19
SPECIAL BRIDGE Michigan									
SB XK	XKOR	COFQ	PDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.50	3.00	-0.00	100.00	0.00	2200.00	0.00	680.00	680.00
6070 LOW FLOW BY NORMAL BRIDGE									

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EGRRS=     0.000  EGLWC=   696.805  ELLC=   706.250  PCWSE=   694.816  ELTRD=   698.100
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       QLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     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=23 MIN ELTRD=  698.10 MAX ELLC=  706.25

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=      698.10 ELREA=      710.00

    82.10    16.47   694.87     0.00     0.00   695.42      .55      .10      .02   685.50
    8765.       0.    8765.       0.       0.    1468.       0.     374.      79.   686.60
      .47     0.00     5.97     0.00     .060     .045     .080     .048   678.40   500.00
  .001611      81.      81.      81.        2        0        1  -107.70   113.00   635.31

CCHV=    .100 CEHV=    .300
    82.00    12.70   694.90     0.00     0.00   695.72      .82      .22      .08   699.90
    8765.       0.    8548.     217.       0.    1165.     173.     377.      79.   693.30
      .47     0.00     7.34     1.25     .080     .050     .080     .048   682.20   182.42
  .003178     100.     100.     100.        2        0        1     0.00   265.95   448.38

CCHV=    .100 CEHV=    .300

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=      714.00 ELREA=      714.00

    81.00    11.26   698.76     0.00     0.00   699.05      .29     3.27      .05   690.90
    8765.       0.    8765.       0.       0.    2043.       0.     452.      90.   690.60
      .60     0.00     4.29     0.00     .080     .050     .070     .049   687.50   100.00
  .001044    1940.    1940.    1940.        3        0        1     0.00   213.00   321.41

SPECIAL BRIDGE

SR  XK       XKOR     COEQ     RDLEN    RWC      RWR      RAREA    SS       ELCHU    ELCHD
    -0.00     1.50     2.80     -0.00   213.00    -0.00   3720.00    -0.00   689.00   689.00

6070.LOW FLOW BY NORMAL BRIDGE

EGRRS=     0.000  EGLWC=   700.473  ELLC=   713.100  PCWSE=   698.759  ELTRD=   714.200

NORMAL BRIDGE.NRD=32 MIN ELTRD=  714.20 MAX ELLC=  713.10

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=      715.90 ELREA=      716.10

    80.10    11.27   698.77     0.00     0.00   699.13      .36      .06      .02   690.90
    8765.       0.    8765.       0.       0.    1817.       0.     454.      90.   690.60
      .60     0.00     4.82     0.00     .080     .050     .070     .049   687.50   100.00
  .001747      46.      46.      46.        2        0        1  -227.78   213.00   321.42

   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       QLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     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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        80.00     11.38    698.98      0.00      0.00    699.57       .59       .37       .07    690.90
        8765.       96.     8505.       164.       60.     1359.       73.      462.       91.    690.90
          .61      1.59      6.26      2.26      .100      .050      .070      .049    687.60     86.89
      .001993      200.      200.      200.         2         0         1      0.00    166.06    252.95

 CCHV=     .100 CEHV=     .300
        79.00     13.77    700.47      0.00      0.00    700.93       .46      1.35       .01    694.00
        8765.       182.     8533.       50.       123.     1542.       32.      493.       94.    693.40
          .65      1.48      5.53      1.57      .100      .050      .070      .049    686.70    271.48
      .001268      860.      860.      860.         2         0         1      0.00    166.28    437.76

 CCHV=     .100 CEHV=     .300
 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=      710.00 ELREA=      710.00

        78.00     12.42    700.62      0.00      0.00    701.30       .68       .30       .06    689.70
        8765.       0.     8765.       0.        0.     1327.       0.      499.       95.    707.00
          .66      0.00      6.60      0.00      .100      .050      .070      .049    688.20    200.00
      .002514      175.      175.      175.         2         0         1      0.00    131.90    331.90

 SPECIAL BRIDGE
 SB  XK        XKOR      COEQ      BDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
       1.25      1.50      2.70     -0.00     99.00      2.00   1822.00      1.33    689.00    689.00

 CLASS A LOW FLOW

 BRIDGE W.S.=     700.60 BRIDGE VELOCITY=       6.72

     EGPRS     EGLWC      H3       QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS

       0.00    701.33       .04         0.     8765.     1822.    704.90    712.90      1.00

 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=      710.00 ELREA=      710.00

        77.20     12.46    700.66      0.00      0.00    701.33       .67       .03       0.00   689.70
        8765.       0.     8765.       0.        0.     1332.       0.      501.       95.    707.00
          .66      0.00      6.58      0.00      .100      .050      .070      .049    688.20    200.00
      .002487       60.       60.       60.         0         0         1      0.00    132.00    332.00

 CCHV=     .200 CEHV=     .400
        77.10     12.64    700.84      0.00      0.00    701.43       .59       .08       .02    689.70
        8765.       298.     8467.       0.        122.     1356.       0.      502.       95.    707.00
          .66      2.43      6.25      0.00      .080      .050      .080      .049    688.20    178.05
      .002025        35.       35.       35.         2         0         1      0.00    154.41    332.46

 CCHV=     .200 CEHV=     .400
     SECNO     DEPTH     QWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
         0      QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
      TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
     SLOPE      XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID     EMOST

 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=      715.00 ELREA=      715.00
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77.00	16.38	700.78	0.00	0.00	701.61	.83	.08	.10	692.20
8765.	0.	8765.	0.	0.	1196.	0.	503.	95.	702.40
.66	0.00	7.33	0.00	.080	.050	.080	.049	684.40	200.00
.002942	35.	35.	35.	2	0	1	0.00	113.91	313.91

SPECIAL BRIDGE

SB XK	XKOR	COFQ	BDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.25	1.50	2.70	-0.00	65.00	7.00	1753.00	1.25	686.00	686.00

CLASS A LOW FLOW

BRIDGE W.S.= 700.60 BRIDGE VELOCITY= 7.88

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	701.79	.21	0.	8765.	1753.	706.30	716.30	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 715.00 ELREA= 715.00

76.10	16.59	700.99	0.00	0.00	701.79	.80	.18	0.00	692.20
8765.	0.	8765.	0.	0.	1221.	0.	504.	95.	702.40
.66	0.00	7.18	0.00	.080	.050	.080	.049	684.40	200.00
.002776	28.	28.	28.	0	0	1	0.00	114.58	314.58

CCHV= .100 CEHV= .300

76.00	13.84	701.84	0.00	0.00	702.24	.41	.41	.04	692.20
8765.	24.	6238.	2503.	24.	1053.	1231.	512.	96.	697.90
.68	1.00	5.92	2.03	.100	.050	.080	.049	688.00	10.03
.001590	200.	200.	200.	2	0	1	0.00	376.86	386.89

CCHV= .100 CEHV= .300

75.00	13.23	705.03	0.00	0.00	705.35	.32	3.09	.01	696.20
8765.	103.	7771.	891.	82.	1631.	431.	644.	115.	696.80
.84	1.26	4.77	2.07	.100	.050	.070	.049	691.80	179.44
.000942	2790.	2570.	2570.	3	0	1	0.00	246.95	426.38

74.00	10.94	706.14	0.00	0.00	706.62	.47	1.22	.05	698.20
8765.	233.	8430.	102.	120.	1502.	65.	688.	120.	698.20
.89	1.95	5.61	1.57	.080	.050	.090	.049	695.20	189.37
.001655	1000.	1000.	1000.	2	0	1	0.00	201.95	391.32

CCHV= .100 CEHV= .300

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 718.00 ELREA= 716.50

73.00	13.13	706.43	0.00	0.00	706.99	.56	.35	.03	701.00
8765.	0.	8765.	0.	0.	1464.	0.	695.	121.	696.30
.90	0.00	5.99	0.00	.080	.050	.090	.049	693.30	500.00
.001826	200.	200.	200.	2	0	1	0.00	139.00	654.53

SPECIAL BRIDGE

SB XK	XKOR	COFQ	BDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.50	3.00	-0.00	120.00	0.00	2140.00	0.00	695.00	695.00

6070 LOW FLOW BY NORMAL BRIDGE

EGRRS= 0.000 FGLWC= 708.544 ELLC= 716.000 RGWSE= 706.431 FLTRD= 716.500

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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

NORMAL BRIDGE.NRD=34 MIN FLTRD= 716.50 MAX FLLC= 716.00

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 719.70 FLREA= 716.50

72.30	13.12	706.42	0.00	0.00	707.09	.67	.07	.03	701.00
8765.	0.	8765.	0.	0.	1332.	0.	696.	121.	696.30
.90	0.00	6.58	0.00	.080	.050	.090	.049	693.30	500.00
.002930	30.	30.	30.	3	0	1	208.71	139.00	654.51

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*****************************************
HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINKBEINER PETTIS AND STROUT LIMITED - USEC401 R6
T3      HURON RIVER AT FORD DAM - Q = 1968 FLOOD
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	EQ
	-0.	5.	-0.	-0.	-0.000000	-0.00	-0.0	-0.	686.000	-0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	-0.000	-0.000	-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
0	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
91.00	10.00	686.00	0.00	686.00	686.01	.01	0.00	0.00	690.00
7500.	0.	7498.	2.	0.	11869.	29.	0.	0.	685.00
0.00	0.00	.63	.08	.060	.045	.050	0.000	676.00	105.71
.000017	0.	0.	0.	0	0	1	0.00	1258.29	1364.00

CCHV= .600 CEHV= .800

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 692.00 ELREA= 692.00

90.10	9.85	685.85	0.00	0.00	686.64	.80	.01	.63	676.00
7500.	0.	7500.	0.	0.	1047.	0.	15.	2.	676.00
.00	0.00	7.16	0.00	.050	.045	.050	.045	676.00	35.25
.002241	100.	100.	100.	2	0	1	0.00	106.34	156.36

SPECIAL BRIDGE

SB YK	XKOR	COEQ	RDLEN	BWC	BWR	BAREA	SS	ELCHU	ELCHD
.90	1.50	2.80	-0.00	106.34	6.00	1571.00	0.00	676.00	676.00

CLASS A LOW FLOW

BRIDGE W.S.= 685.75 BRIDGE VELOCITY= 7.69

EGPRS	EGLWC	H3	QWEIR	QBR	BAREA	FLLC	FLTRD	CLASS
0.00	686.71	.07	0.	7500.	1571.	691.60	686.17	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 692.00 ELREA= 692.00

90.00	9.92	685.92	0.00	0.00	686.71	.78	.06	0.00	676.00
7500.	0.	7500.	0.	0.	1055.	0.	17.	2.	676.00
.01	0.00	7.11	0.00	.050	.045	.050	.045	676.00	35.25
.002185	108.	108.	108.	0	0	1	0.00	106.34	156.47

CCHV= .100 CEHV= .300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	QLOB	QCH	QROB	ALOB	ACH	AROB	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 1450.0 TYPE= 1 TARGET= -500.000

89.00	9.88	686.68	0.00	0.00	687.02	.34	.26	.04	688.10

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      7500.       0.    7438.      62.       0.    1591.      83.      22.       3.   686.90
        .02      0.00    4.67      .75      .050     .045     .040     .045   676.80   506.97
    .001445      150.     150.     150.        2        0        1     0.00   430.55   937.53

 3470 ENCROACHMENT STATIONS=     455.0    1450.0  TYPE=      1  TARGET=    -455.000
      88.10     10.43   687.23     0.00     0.00   687.50      .27      .47      .01   688.10
      7500.       0.    7258.      242.       0.    1711.      237.      38.       7.   685.90
        .04      0.00    4.24     1.02      .050     .045     .040     .045   676.80   506.21
    .001088      380.     380.     390.        2        0        1     0.00   561.09  1067.31

 CCHV=     .500 CEHV=     .700

 3470 ENCROACHMENT STATIONS=     160.0     822.0  TYPE=      1  TARGET=    -160.000

 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=      687.95 ELREA=      689.12

      88.00     12.49   687.19     0.00     0.00   687.81      .62      .07      .24   688.16
      7500.       0.    7500.       0.       0.    1190.       0.      40.       8.   685.90
        .04      0.00    6.30     0.00      .050     .045     .040     .045   674.70   300.00
    .001918       50.      50.      50.        2        0        1     0.00   122.00   422.00


 SPECIAL BRIDGE

 SQ  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     =0.00     1.50      2.90     =0.00      1.22      0.00    1630.00     0.00    677.00    677.00


 6070.LOW FLOW BY NORMAL BRIDGE

 EGPRS=   687.686  EGLWC=   690.110  ELLC=   689.800  PCWSE=   687.193  ELTRD=   687.920

 NORMAL BRIDGE.NPD=14 MIN ELTRD=  687.92 MAX ELLC=  689.80

 3470 ENCROACHMENT STATIONS=     100.0     822.0  TYPE=      1  TARGET=    -100.000

 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=      687.92 ELREA=      689.12

      87.30     12.52   687.22     0.00     0.00   687.83      .61      .02      .00   688.16
      7500.       0.    7500.       0.       0.    1194.       0.      40.       8.   685.90
        .05      0.00    6.28     0.00      .050     .045     .040     .045   674.70   300.00
    .001998       10.      10.      10.        2        0        1   -52.84   122.00   422.00


 3301 HV CHANGED MORE THAN HVINS

      87.20     13.34   688.08     0.00     0.00   688.13      .05      .02      .28   686.04
      7500.      664.    5005.     1831.    1035.    2353.    2161.      44.       8.   683.84
        .05      .64     2.13      .85      .050     .045     .050     .045   674.74     0.00
    .000180       50.      50.      50.        2        0        1     0.00  1450.00  1450.00

 CCHV=     .100 CEHV=     .300
    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
       0      QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
     TIME     VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
    SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

      87.10     13.02   688.18     0.00     0.00   688.24      .06      .11      .00   686.46
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     7500.      550.     5268.     1681.      868.     2281.     1922.      109.       26.     684.26
       .13       .63      2.31       .87      .050      .045      .050      .045    675.16      0.00
   .000222      530.      530.      530.         2         0         1      0.00   1450.00   1450.00

CCHV=     .600 CFHV=     .800

3265 DIVIDED FLOW

3280 CROSS SECTION      87.00 EXTENDED        .93 FEET

3470 ENCROACHMENT STATIONS=       35.0     1020.0  TYPE=      1  TARGET=      -35.000

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=       689.30 ELREA=       686.50

     87.00     12.93    688.13      0.00      0.00    688.55       .42       .02       .29    687.00
     7500.        0.     6848.      652.        0.     1258.      518.      112.       27.    687.00
       .14      0.00      5.44      1.26      .050      .045      .050      .045    675.20    400.00
   .001470       50.       50.       50.         2         0         1      0.00    607.29   1020.00

SPECIAL BRIDGE

SB  XK        XKOR       COFO       RDLEN      BWC        BUR        BAREA      SS         ELCHU      ELCHD
     1.25       1.50       2.80      -0.00     120.00      16.00    1490.00      0.00     678.00     678.00

6840.FLOW IS BY WEIR AND LOW FLOW

3265 DIVIDED FLOW

3280 CROSS SECTION      86.20 EXTENDED       1.04 FEET

BRIDGE W.S.=     688.23  BRIDGE VELOCITY=       5.12

   EGRPS      EGLWC        H3        QWEIR       QPR        BAREA      ELLC       ELTRD      CLASS

   690.70     688.63       .09       2057.      5443.      1490.     690.70     686.50      15.00

3470 ENCROACHMENT STATIONS=       35.0     1020.0  TYPE=      1  TARGET=      -35.000

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=       689.30 ELREA=       686.50

     86.20     13.03    688.23      0.00      0.00    688.63       .40       .08      0.00    687.00
     7500.        0.     6765.      735.        0.     1271.      570.      113.       28.    687.00
       .14      0.00      5.32      1.29      .050      .045      .050      .045    675.20    400.00
   .001389       23.       23.       23.         2         0         4      0.00    610.17   1020.00

CCHV=     .100 CFHV=     .300
3280 CROSS SECTION      86.10 EXTENDED        .29 FEET

     86.10     11.19    688.39      0.00      0.00    688.70       .31       .06       .01    690.50
     7500.        0.     7433.       67.        0.     1648.      229.      116.       28.    687.80
       .14      0.00      4.51       .29      .080      .045      .100      .045    677.20    303.51
   .001165       50.       50.       50.         2         0         1      0.00    716.49   1020.00

CCHV=     .100 CFHV=     .300
3280 CROSS SECTION      86.00 EXTENDED        .39 FEET
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
O	OLOB	OCH	ORCB	ALOB	ACH	ARCB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VRCB	XNL	XNCH	XNR	WTN	FLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
86.00	11.29	688.49	0.00	0.00	688.79	.30	.09	.00	690.50
7500.	0.	7409.	91.	0.	1667.	279.	119.	30.	687.80
.14	0.00	4.44	.33	.080	.045	.100	.045	677.20	303.35
.001115	75.	75.	75.	0	0	1	0.00	716.65	1020.00

CCHV= .100 CEHV= .300

85.00	10.42	690.02	0.00	0.00	690.09	.07	1.27	.02	698.50
7500.	0.	2580.	4920.	0.	806.	3993.	218.	56.	685.50
.36	0.00	3.20	1.23	.080	.045	.070	.048	679.60	112.39
.000665	1745.	1745.	1020.	2	0	1	0.00	1287.61	1400.00

CCHV= .200 CEHV= .400

3301 HV CHANGED MORE THAN HVINS

84.00	11.20	691.20	0.00	0.00	692.37	1.17	1.84	.44	692.60
7500.	0.	7500.	0.	0.	865.	0.	294.	73.	694.60
.41	0.00	8.67	0.00	.060	.045	.060	.049	680.00	402.65
.004437	1450.	1450.	1045.	1	0	1	0.00	110.46	513.11

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 480.0 913.0 TYPE= 1 TARGET= -480.000

83.10	15.56	693.96	0.00	0.00	694.34	.38	1.81	.16	685.50
7500.	42.	7372.	86.	31.	1474.	73.	327.	77.	686.60
.47	1.35	5.00	1.17	.060	.045	.080	.048	678.40	492.65
.000767	1170.	1170.	1170.	2	0	1	0.00	140.22	632.87

CCHV= .100 CEHV= .300

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 698.10 FLAREA= 710.00

83.00	15.58	693.98	0.00	0.00	694.38	.40	.04	.01	685.50
7500.	0.	7500.	0.	0.	1477.	0.	329.	77.	686.60
.47	0.00	5.08	0.00	.060	.045	.080	.048	678.40	500.00
.000858	50.	50.	50.	2	0	1	0.00	113.00	632.95

SPECIAL BRIDGE

SB XK	XKOR	COEO	BDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.50	3.00	-0.00	100.00	0.00	2200.00	0.00	680.00	680.00

6070.LOW FLOW BY NORMAL BRIDGE

FGPRS= 0.000 EGLWC= 695.902 ELLC= 706.250 PCWSE= 693.985 ELTRD= 698.100

NORMAL BRIDGE,NRD=23 MIN ELTRD= 698.10 MAX ELLC= 706.25

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 698.10 ELREA= 710.00

82.10	15.63	694.03	0.00	0.00	694.48	.45	.08	.01	685.50
7500.	0.	7500.	0.	0.	1394.	0.	331.	77.	686.60
.48	0.00	5.38	0.00	.060	.045	.080	.048	678.40	500.00
.001272	81.	81.	81.	2	0	1	-88.07	113.00	633.07

CCHV= .100 CEHV= .300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
0	QLOB	OCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
82.00	11.80	694.00	0.00	0.00	694.77	.77	.19	.10	699.90
7500.	0.	7459.	41.	0.	1055.	58.	334.	78.	693.30
.48	0.00	7.07	.70	.080	.050	.080	.048	682.20	183.76
.003308	100.	100.	100.	2	0	1	0.00	234.63	418.39

CCHV= .100 CEHV= .300

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 714.00 ELREA= 714.00

81.00	10.40	697.90	0.00	0.00	698.15	.25	3.32	.05	690.90
7500.	0.	7500.	0.	0.	1858.	0.	400.	87.	690.60
.62	0.00	4.04	0.00	.080	.050	.070	.048	687.50	100.00
.001045	1940.	1940.	1940.	2	0	1	0.00	213.00	320.52

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	BDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	-0.00	1.50	2.80	-0.00	213.00	-0.00	3720.00	-0.00	689.00	689.00

6070.LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 699.581 ELLC= 713.100 PCWSE= 697.897 ELTRD= 714.200

NORMAL BRIDGE.NRD=32 MIN ELTRD= 714.20 MAX ELLC= 713.10

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 715.90 ELREA= 716.10

80.10	10.41	697.91	0.00	0.00	698.23	.32	.06	.02	690.90
7500.	0.	7500.	0.	0.	1659.	0.	402.	88.	690.60
.62	0.00	4.52	0.00	.080	.050	.070	.048	687.50	100.00
.001726	46.	46.	46.	2	0	1	-202.92	213.00	320.54

80.00	10.54	698.14	0.00	0.00	698.66	.52	.37	.06	690.90
7500.	69.	7309.	121.	48.	1248.	58.	409.	89.	690.90
.63	1.46	5.86	2.08	.100	.050	.070	.048	687.60	88.73
.001955	200.	200.	200.	2	0	1	0.00	162.35	251.08

CCHV= .100 CEHV= .300

79.00	12.87	699.57	0.00	0.00	699.98	.40	1.30	.01	694.00
7500.	127.	7340.	33.	98.	1428.	23.	438.	92.	693.40
.68	1.29	5.14	1.40	.100	.050	.070	.049	686.70	273.22

.001212	860.	860.	860.	2	0	1	0.00	162.61	435.82

CCHV= .100 CEHV= .300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
O	OLOB	OCH	OROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
	78.00	11.53	699.73	0.00	0.00	700.32	.60	.29	.06	689.70
	7500.	0.	7500.	0.	0.	1210.	0.	443.	92.	707.00
	.68	0.00	6.20	0.00	.100	.050	.070	.049	688.20	200.00
	.002426	175.	175.	175.	2	0	1	0.00	129.58	329.58

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.25	1.50	2.70	-0.00	99.00	2.00	1822.00	1.33	689.00	689.00

CLASS A LOW FLOW

BRIDGE W.S.= 699.70 BRIDGE VELOCITY= 6.30

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	700.35	.03	0.	7500.	1822.	704.90	712.90	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 710.00 ELREA= 710.00

	77.20	11.56	699.76	0.00	0.00	700.35	.59	.03	0.00	689.70
	7500.	0.	7500.	0.	0.	1214.	0.	445.	93.	707.00
	.69	0.00	6.18	0.00	.100	.050	.070	.049	688.20	200.00
	.002402	60.	60.	60.	0	0	1	0.00	129.66	329.66

CCHV= .200 CEHV= .400

	77.10	11.72	699.92	0.00	0.00	700.44	.52	.08	.01	689.70
	7500.	234.	7266.	0.	103.	1235.	0.	446.	93.	707.00
	.69	2.27	5.88	0.00	.080	.050	.080	.049	688.20	179.86
	.001984	35.	35.	35.	2	0	1	0.00	150.21	330.07

CCHV= .200 CEHV= .400

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 715.00 ELREA= 715.00

	77.00	15.48	699.88	0.00	0.00	700.61	.73	.08	.08	692.20
	7500.	0.	7500.	0.	0.	1095.	0.	447.	93.	702.40
	.69	0.00	6.85	0.00	.080	.050	.080	.049	684.40	200.00
	.002781	35.	35.	35.	2	0	1	0.00	111.09	311.09

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.25	1.50	2.70	-0.00	65.00	7.00	1753.00	1.25	686.00	686.00

CLASS A LOW FLOW

BRIDGE W.S.= 699.72 BRIDGE VELOCITY= 7.27

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	700.76	.18	0.	7500.	1753.	706.30	716.30	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 715.00 ELREA= 715.00

76.10	15.66	700.06	0.00	0.00	700.76	.70	.16	0.00	692.20
7500.	0.	7500.	0.	0.	1116.	0.	448.	93.	702.40
.69	0.00	6.72	0.00	.080	.050	.080	.049	684.40	200.00
.002636	28.	28.	28.	0	0	1	0.00	111.66	311.66

CCHV= .100 CEHV= .300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
76.00	12.79	700.79	0.00	0.00	701.23	.44	.44	.03	692.20
7500.	19.	5722.	1759.	19.	957.	942.	455.	94.	697.90
.70	1.00	5.98	1.87	.100	.050	.080	.049	688.00	10.57
.001842	200.	200.	200.	2	0	1	0.00	367.12	377.69

CCHV= .100 CEHV= .300

75.00	12.38	704.18	0.00	0.00	704.46	.28	3.22	.02	696.20
7500.	77.	6755.	668.	60.	1517.	362.	569.	112.	696.80
.87	1.28	4.45	1.84	.100	.050	.070	.049	691.80	189.50
.000906	2790.	2570.	2570.	3	0	1	0.00	235.16	424.66
74.00	10.08	705.28	0.00	0.00	705.70	.42	1.20	.04	698.20
7500.	162.	7263.	75.	92.	1373.	52.	608.	117.	698.20
.93	1.75	5.29	1.46	.080	.050	.090	.049	695.20	197.39
.001659	1000.	1000.	1000.	2	0	1	0.00	192.15	389.55

CCHV= .100 CEHV= .300

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 718.00 ELREA= 716.50

73.00	12.28	705.58	0.00	0.00	706.06	.48	.34	.02	701.00
7500.	0.	7500.	0.	0.	1346.	0.	615.	117.	696.30
.94	0.00	5.57	0.00	.080	.050	.090	.049	693.30	500.00
.001763	200.	200.	200.	2	0	1	0.00	139.00	653.22

SPECIAL BRIDGE

SB	XK	XKOB	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHL	ELCHD
0.00	1.50	3.00	-0.00	120.00	0.00	2140.00	0.00	695.00	695.00	

6070.LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 707.629 ELLC= 716.000 PCWSE= 705.580 ELTRD= 716.500

NORMAL BRIDGE.NRD=34 MIN ELTRD= 716.50 MAX ELLC= 716.00

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

HURON RIVER AT FORD DAM

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
91.00	0.00	0.00	0.00	676.00	7631.00	686.00	0.00	686.01	1258.29	.18	0.00	0.00
91.00	0.00	0.00	0.00	676.00	8765.00	686.00	0.00	686.01	1258.29	.24	0.00	0.00
91.00	0.00	0.00	0.00	676.00	10940.00	687.00	0.00	687.01	1318.71	.27	0.00	0.00
91.00	0.00	0.00	0.00	676.00	7500.00	686.00	0.00	686.01	1258.29	.17	0.00	0.00
90.10	100.00	0.00	0.00	676.00	7631.00	685.84	0.00	686.67	106.34	23.24	.00	14.86
90.10	100.00	0.00	0.00	676.00	8765.00	685.79	0.00	686.89	106.34	31.21	.00	14.85
90.10	100.00	0.00	0.00	676.00	10940.00	686.73	0.00	688.15	106.34	35.90	.00	16.45
90.10	100.00	0.00	0.00	676.00	7500.00	685.85	0.00	686.64	106.34	22.41	.00	14.86
90.00	108.00	694.17	691.50	676.00	7631.00	685.92	0.00	686.73	106.34	22.63	.01	17.46
90.00	108.00	694.17	691.50	676.00	8765.00	685.92	0.00	686.99	106.34	29.85	.01	17.45
90.00	108.00	694.17	691.50	676.00	10940.00	686.92	0.00	688.30	106.34	33.79	.01	19.30
90.00	108.00	694.17	691.50	676.00	7500.00	685.92	0.00	686.71	106.34	21.85	.01	17.47
89.00	150.00	0.00	0.00	676.80	7631.00	686.71	0.00	687.05	438.16	14.76	.02	22.18
89.00	150.00	0.00	0.00	676.80	8765.00	686.98	0.00	687.39	512.88	16.96	.02	22.39
89.00	150.00	0.00	0.00	676.80	10940.00	688.37	0.00	688.69	911.37	11.84	.02	26.19
89.00	150.00	0.00	0.00	676.80	7500.00	686.68	0.00	687.02	430.55	14.45	.02	22.17
88.10	380.00	0.00	0.00	676.80	7631.00	687.27	0.00	687.54	568.63	11.02	.04	38.17
88.10	380.00	0.00	0.00	676.80	8765.00	687.63	0.00	687.94	744.26	11.88	.04	39.99
88.10	380.00	0.00	0.00	676.80	10940.00	688.84	0.00	689.08	995.00	8.76	.04	53.28
88.10	380.00	0.00	0.00	676.80	7500.00	687.23	0.00	687.50	561.09	10.88	.04	38.00
88.00	50.00	0.00	0.00	674.70	7631.00	687.23	0.00	687.86	122.00	19.61	.04	39.99
88.00	50.00	0.00	0.00	674.70	8765.00	687.57	0.00	688.35	122.00	23.18	.04	41.96
88.00	50.00	0.00	0.00	674.70	10940.00	688.69	0.00	689.66	262.00	25.23	.05	56.01
88.00	50.00	0.00	0.00	674.70	7500.00	687.19	0.00	687.81	122.00	19.18	.04	39.80
87.30	10.00	687.92	689.80	674.70	7631.00	687.26	0.00	687.89	122.00	19.42	.04	40.26
87.30	10.00	687.92	689.80	674.70	8765.00	687.60	0.00	688.38	122.00	22.95	.04	42.24
87.30	10.00	687.92	689.80	674.70	10940.00	688.72	0.00	689.68	322.00	25.16	.05	56.35
87.30	10.00	687.92	689.80	674.70	7500.00	687.22	0.00	687.83	122.00	18.98	.05	40.08
87.20	50.00	0.00	0.00	674.74	7631.00	688.15	0.00	688.20	1450.00	1.79	.05	44.19
87.20	50.00	0.00	0.00	674.74	8765.00	688.71	0.00	688.76	1450.00	1.69	.05	46.67
87.20	50.00	0.00	0.00	674.74	10940.00	690.13	0.00	690.16	1450.00	1.26	.05	62.07
87.20	50.00	0.00	0.00	674.74	7500.00	688.08	0.00	688.13	1450.00	1.80	.05	43.95
87.10	530.00	0.00	0.00	675.16	7631.00	688.24	0.00	688.30	1450.00	2.20	.13	109.92
87.10	530.00	0.00	0.00	675.16	8765.00	688.80	0.00	688.86	1450.00	2.06	.13	122.35
87.10	530.00	0.00	0.00	675.16	10940.00	690.19	0.00	690.24	1450.00	1.50	.15	162.46
87.10	530.00	0.00	0.00	675.16	7500.00	688.18	0.00	688.24	1450.00	2.22	.13	108.55
87.00	50.00	0.00	0.00	675.20	7631.00	688.19	0.00	688.62	608.99	14.72	.13	113.92
87.00	50.00	0.00	0.00	675.20	8765.00	688.75	0.00	689.17	620.00	14.33	.13	127.02
87.00	50.00	0.00	0.00	675.20	10940.00	690.17	0.00	690.41	985.00	8.76	.15	169.15
87.00	50.00	0.00	0.00	675.20	7500.00	688.13	0.00	688.55	607.29	14.70	.14	112.48

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
A6.20	23.00	686.50	690.70	675.20	7631.00	688.29	0.00	688.69	611.79	13.92	.14	114.89
A6.20	23.00	686.50	690.70	675.20	8765.00	688.85	0.00	689.24	620.00	13.59	.14	120.17
A6.20	23.00	686.50	690.70	675.20	10940.00	690.33	0.00	690.56	985.00	7.94	.15	171.14
A6.20	23.00	686.50	690.70	675.20	7500.00	688.23	0.00	688.63	610.17	13.89	.14	113.44
A6.10	50.00	0.00	0.00	677.20	7631.00	688.45	0.00	688.77	716.58	11.76	.14	117.07
A6.10	50.00	0.00	0.00	677.20	8765.00	688.96	0.00	689.31	717.43	12.27	.14	130.76
A6.10	50.00	0.00	0.00	677.20	10940.00	690.30	0.00	690.64	719.67	10.56	.16	175.21
A6.10	50.00	0.00	0.00	677.20	7500.00	688.39	0.00	688.70	716.49	11.65	.14	115.57
A6.00	75.00	0.00	0.00	677.20	7631.00	688.55	0.00	688.85	716.74	11.25	.14	120.43
A6.00	75.00	0.00	0.00	677.20	8765.00	689.06	0.00	689.40	717.60	11.74	.14	134.75
A6.00	75.00	0.00	0.00	677.20	10940.00	690.39	0.00	690.72	719.80	10.22	.16	180.86
A6.00	75.00	0.00	0.00	677.20	7500.00	688.49	0.00	688.79	716.65	11.15	.14	118.86
A5.00	1745.00	0.00	0.00	679.60	7631.00	690.07	0.00	690.14	1287.70	6.57	.36	221.47
A5.00	1745.00	0.00	0.00	679.60	8765.00	690.57	0.00	690.64	1288.42	6.00	.36	248.87
A5.00	1745.00	0.00	0.00	679.60	10940.00	691.65	0.00	691.71	1290.00	4.71	.38	325.54
A5.00	1745.00	0.00	0.00	679.60	7500.00	690.02	0.00	690.09	1287.61	6.65	.36	219.40
A4.00	1450.00	0.00	0.00	680.00	7631.00	691.24	0.00	692.43	110.56	47.08	.40	298.19
A4.00	1450.00	0.00	0.00	680.00	8765.00	691.52	0.00	692.99	113.47	56.15	.40	334.02
A4.00	1450.00	0.00	0.00	680.00	10940.00	692.04	0.00	694.05	160.55	72.58	.42	429.08
A4.00	1450.00	0.00	0.00	680.00	7500.00	691.20	0.00	692.37	110.46	46.37	.41	294.11
A3.10	1170.00	0.00	0.00	678.40	7631.00	694.04	0.00	694.43	140.51	7.77	.47	331.23
A3.10	1170.00	0.00	0.00	678.40	8765.00	694.79	0.00	695.25	143.19	8.47	.46	368.90
A3.10	1170.00	0.00	0.00	678.40	10940.00	696.16	0.00	696.74	148.07	9.54	.47	467.59
A3.10	1170.00	0.00	0.00	678.40	7500.00	693.96	0.00	694.34	140.22	7.67	.47	326.92
A3.00	50.00	0.00	0.00	678.40	7631.00	694.07	0.00	694.47	113.00	8.71	.47	332.99
A3.00	50.00	0.00	0.00	678.40	8765.00	694.82	0.00	695.30	113.00	9.62	.46	370.78
A3.00	50.00	0.00	0.00	678.40	10940.00	696.18	0.00	696.80	113.00	11.14	.47	469.67
A3.00	50.00	0.00	0.00	678.40	7500.00	693.98	0.00	694.38	113.00	8.58	.47	328.67
A2.10	80.50	698.10	706.25	678.40	7631.00	694.11	0.00	694.57	113.00	12.95	.48	335.66
A2.10	80.50	698.10	706.25	678.40	8765.00	694.87	0.00	695.42	113.00	16.11	.47	373.58
A2.10	80.50	698.10	706.25	678.40	10940.00	696.21	0.00	696.96	113.00	21.60	.47	472.73
A2.10	80.50	698.10	706.25	678.40	7500.00	694.03	0.00	694.48	113.00	12.72	.48	331.32
A2.00	100.00	0.00	0.00	682.20	7631.00	694.09	0.00	694.87	237.57	33.12	.48	338.57
A2.00	100.00	0.00	0.00	682.20	8765.00	694.90	0.00	695.72	265.95	31.78	.47	376.81
A2.00	100.00	0.00	0.00	682.20	10940.00	696.41	0.00	697.23	296.06	28.17	.48	476.57
A2.00	100.00	0.00	0.00	682.20	7500.00	694.00	0.00	694.77	234.63	33.08	.48	334.20
A1.00	1940.00	0.00	0.00	687.50	7631.00	697.99	0.00	698.25	213.00	10.46	.61	405.62
A1.00	1940.00	0.00	0.00	687.50	8765.00	698.76	0.00	699.05	213.00	10.44	.60	452.10
A1.00	1940.00	0.00	0.00	687.50	10940.00	700.09	0.00	700.44	213.00	10.60	.59	567.81
A1.00	1940.00	0.00	0.00	687.50	7500.00	697.90	0.00	698.15	213.00	10.45	.62	400.37

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRWS	FC	TOPWID	JOKES	TIME	VOL
80.10	46.00	714.20	713.10	687.50	7631.00	698.00	0.00	698.33	213.00	17.28	.62	467.49
80.10	46.00	714.20	713.10	687.50	8765.00	698.77	0.00	699.13	213.00	17.47	.60	454.14
80.10	46.00	714.20	713.10	687.50	10940.00	700.09	0.00	700.53	213.00	17.97	.59	570.13
80.10	46.00	714.20	713.10	687.50	7500.00	697.91	0.00	698.23	213.00	17.26	.62	402.23
80.00	200.00	0.00	0.00	687.60	7631.00	698.23	0.00	698.76	162.75	19.60	.63	414.48
80.00	200.00	0.00	0.00	687.60	8765.00	698.98	0.00	699.57	166.06	19.93	.61	461.73
80.00	200.00	0.00	0.00	687.60	10940.00	700.28	0.00	700.99	171.81	20.59	.60	578.79
80.00	200.00	0.00	0.00	687.60	7500.00	698.14	0.00	698.66	162.35	19.55	.63	409.14
79.00	860.00	0.00	0.00	686.70	7631.00	699.67	0.00	700.08	163.00	12.18	.67	443.44
79.00	860.00	0.00	0.00	686.70	8765.00	700.47	0.00	700.93	166.28	12.68	.65	493.21
79.00	860.00	0.00	0.00	686.70	10940.00	701.86	0.00	702.43	171.98	13.54	.64	614.76
79.00	860.00	0.00	0.00	686.70	7500.00	699.57	0.00	699.98	162.61	12.12	.68	437.80
78.00	175.00	0.00	0.00	688.20	7631.00	699.82	0.00	700.43	129.83	24.36	.68	449.04
78.00	175.00	0.00	0.00	688.20	8765.00	700.62	0.00	701.30	131.90	25.14	.66	499.29
78.00	175.00	0.00	0.00	688.20	10940.00	702.01	0.00	702.82	135.50	26.56	.65	621.68
78.00	175.00	0.00	0.00	688.20	7500.00	699.73	0.00	700.32	129.58	24.26	.68	443.35
77.20	60.00	712.90	704.90	688.20	7631.00	699.86	0.00	700.46	129.91	24.11	.68	450.73
77.20	60.00	712.90	704.90	688.20	8765.00	700.66	0.00	701.33	132.00	24.87	.66	501.12
77.20	60.00	712.90	704.90	688.20	10940.00	702.06	0.00	702.86	135.62	26.25	.65	623.76
77.20	60.00	712.90	704.90	688.20	7500.00	699.76	0.00	700.35	129.66	24.02	.69	445.02
77.10	35.00	0.00	0.00	688.20	7631.00	700.02	0.00	700.55	150.66	19.89	.68	451.77
77.10	35.00	0.00	0.00	688.20	8765.00	700.84	0.00	701.43	154.41	20.25	.66	502.25
77.10	35.00	0.00	0.00	688.20	10940.00	702.27	0.00	702.97	160.95	20.90	.65	625.06
77.10	35.00	0.00	0.00	688.20	7500.00	699.92	0.00	700.44	150.21	19.84	.69	446.04
77.00	35.00	0.00	0.00	684.40	7631.00	699.97	0.00	700.71	111.39	27.99	.69	452.75
77.00	35.00	0.00	0.00	684.40	8765.00	700.78	0.00	701.61	113.91	29.42	.66	503.32
77.00	35.00	0.00	0.00	684.40	10940.00	702.17	0.00	703.18	118.29	31.94	.65	626.29
77.00	35.00	0.00	0.00	684.40	7500.00	699.88	0.00	700.61	111.09	27.81	.69	447.02
76.10	28.00	716.30	706.30	684.40	7631.00	700.16	0.00	700.87	111.98	26.52	.69	453.47
76.10	28.00	716.30	706.30	684.40	8765.00	700.99	0.00	701.79	114.58	27.76	.66	504.10
76.10	28.00	716.30	706.30	684.40	10940.00	702.44	0.00	703.40	119.00	29.79	.66	627.17
76.10	28.00	716.30	706.30	684.40	7500.00	700.06	0.00	700.76	111.66	26.36	.69	447.73
76.00	200.00	0.00	0.00	688.00	7631.00	700.90	0.00	701.34	368.17	18.11	.70	460.56
76.00	200.00	0.00	0.00	688.00	8765.00	701.84	0.00	702.24	376.86	15.90	.68	512.20
76.00	200.00	0.00	0.00	688.00	10940.00	703.46	0.00	703.84	391.98	13.27	.67	637.09
76.00	200.00	0.00	0.00	688.00	7500.00	700.79	0.00	701.23	367.12	18.42	.70	454.70
75.00	2570.00	0.00	0.00	691.80	7631.00	704.27	0.00	704.56	236.41	9.11	.87	576.40
75.00	2570.00	0.00	0.00	691.80	8765.00	705.03	0.00	705.35	246.95	9.42	.84	643.76
75.00	2570.00	0.00	0.00	691.80	10940.00	706.38	0.00	706.76	257.53	9.81	.82	797.34
75.00	2570.00	0.00	0.00	691.80	7500.00	704.18	0.00	704.46	235.16	9.06	.87	568.69

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10KSS	TIME	VOL
74.00	1000.00	0.00	0.00	695.20	7631.00	705.37	0.00	705.80	193.20	16.58	.92	616.52
74.00	1000.00	0.00	0.00	695.20	8765.00	706.14	0.00	706.62	201.95	16.55	.89	687.72
74.00	1000.00	0.00	0.00	695.20	10940.00	707.51	0.00	708.06	217.46	16.46	.86	848.53
74.00	1000.00	0.00	0.00	695.20	7500.00	705.28	0.00	705.70	192.15	16.59	.93	608.36
73.00	200.00	0.00	0.00	693.30	7631.00	705.67	0.00	706.16	139.00	17.69	.93	623.16
73.00	200.00	0.00	0.00	693.30	8765.00	706.43	0.00	706.99	139.00	18.26	.90	694.96
73.00	200.00	0.00	0.00	693.30	10940.00	707.77	0.00	708.45	139.00	19.24	.87	856.85
73.00	200.00	0.00	0.00	693.30	7500.00	705.58	0.00	706.06	139.00	17.63	.94	614.93
72.30	30.00	716.50	716.00	693.30	7631.00	705.67	0.00	706.26	139.00	27.30	.93	624.06
72.30	30.00	716.50	716.00	693.30	8765.00	706.42	0.00	707.09	139.00	29.30	.90	695.92
72.30	30.00	716.50	716.00	693.30	10940.00	707.74	0.00	708.57	139.00	31.76	.87	857.93
72.30	30.00	716.50	716.00	693.30	7500.00	705.58	0.00	706.16	139.00	27.15	.94	615.82

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
91.000	7631.000	686.000	0.000	0.000	0.000	1258.286	0.000	0.000
91.000	8765.000	686.000	0.000	0.000	0.000	1258.286	0.000	0.000
91.000	10940.000	687.000	1.000	0.000	0.000	1318.714	-60.429	0.000
91.000	7500.000	686.000	-1.000	0.000	0.000	1258.286	0.000	0.000
90.100	7631.000	685.842	0.000	-.158	0.000	106.340	0.000	100.000
90.100	8765.000	685.790	-.053	-.210	0.000	106.340	0.000	100.000
90.100	10940.000	686.726	.936	-.274	0.000	106.340	0.000	100.000
90.100	7500.000	685.848	-.878	-.152	0.000	106.340	0.000	100.000
90.000	7631.000	685.922	0.000	.080	0.000	106.340	0.000	108.000
90.000	8765.000	685.922	.001	.133	0.000	106.340	0.000	108.000
90.000	10940.000	686.923	1.001	.198	0.000	106.340	0.000	108.000
90.000	7500.000	685.923	-1.000	.075	0.000	106.340	0.000	108.000
89.000	7631.000	686.707	0.000	.785	0.000	438.159	0.000	150.000
89.000	8765.000	686.979	.272	1.057	0.000	512.881	-74.722	150.000
89.000	10940.000	688.368	1.388	1.445	0.000	911.371	-473.212	150.000
89.000	7500.000	686.679	-1.688	.757	0.000	430.552	7.607	150.000
88.100	7631.000	687.265	0.000	.558	0.000	568.630	0.000	380.000
88.100	8765.000	687.630	.364	.650	0.000	744.263	-175.634	380.000
88.100	10940.000	688.840	1.210	.472	0.000	995.000	-426.370	380.000
88.100	7500.000	687.226	-1.614	.546	0.000	561.091	7.538	380.000
88.000	7631.000	687.230	0.000	-.035	0.000	122.000	0.000	50.000
88.000	8765.000	687.568	.338	-.062	0.000	122.000	0.000	50.000
88.000	10940.000	688.692	1.124	-.148	0.000	262.000	-140.000	50.000
88.000	7500.000	687.193	-1.499	-.033	0.000	122.000	0.000	50.000
87.300	7631.000	687.255	0.000	.025	0.000	122.000	0.000	10.000
87.300	8765.000	687.599	.343	.030	0.000	122.000	0.000	10.000
87.300	10940.000	688.717	1.118	.025	0.000	322.000	-200.000	10.000
87.300	7500.000	687.218	-1.499	.025	0.000	122.000	0.000	10.000
87.200	7631.000	688.146	0.000	.891	0.000	1450.000	0.000	50.000
87.200	8765.000	688.712	.566	1.114	0.000	1450.000	0.000	50.000
87.200	10940.000	690.125	1.413	1.408	0.000	1450.000	0.000	50.000
87.200	7500.000	688.083	-2.042	.865	0.000	1450.000	0.000	50.000
87.100	7631.000	688.244	0.000	.097	0.000	1450.000	0.000	530.000
87.100	8765.000	688.804	.560	.092	0.000	1450.000	0.000	530.000

87.100	10940.000	690.193	1.389	.068	0.000	1450.000	0.000	530.000
87.100	7500.000	688.181	-2.012	.098	0.000	1450.000	0.000	530.000
87.000	7631.000	688.194	0.000	-.049	0.000	608.987	0.000	50.000
87.000	8765.000	688.754	.560	-.050	0.000	619.999	-11.012	50.000
87.000	10940.000	690.168	1.414	-.025	0.000	984.999	-376.012	50.000
87.000	7500.000	688.132	-2.036	-.049	0.000	607.286	1.701	50.000
86.200	7631.000	688.293	0.000	.099	0.000	611.791	0.000	23.000
86.200	8765.000	688.849	.555	.094	0.000	620.000	-8.209	23.000
86.200	10940.000	690.334	1.486	.166	0.000	985.001	-373.210	23.000
86.200	7500.000	688.233	-2.101	.102	0.000	610.165	1.626	23.000
86.100	7631.000	688.448	0.000	.155	0.000	716.580	0.000	50.000
86.100	8765.000	688.960	.512	.112	0.000	717.434	-.854	50.000
86.100	10940.000	690.301	1.341	-.033	0.000	719.669	-3.089	50.000
86.100	7500.000	688.392	-1.909	.158	0.000	716.487	.093	50.000
86.000	7631.000	688.546	0.000	.098	0.000	716.741	0.000	75.000
86.000	8765.000	689.064	.518	.103	0.000	717.596	-.855	75.000
86.000	10940.000	690.389	1.325	.088	0.000	719.799	-3.059	75.000
86.000	7500.000	688.488	-1.901	.097	0.000	716.646	.094	75.000
85.000	7631.000	690.075	0.000	1.529	0.000	1287.699	0.000	1745.000
85.000	8765.000	690.572	.497	1.509	0.000	1288.423	-.724	1745.000
85.000	10940.000	691.649	1.076	1.260	0.000	1289.995	-2.297	1745.000
85.000	7500.000	690.017	-1.632	1.528	0.000	1287.614	.085	1745.000
84.000	7631.000	691.236	0.000	1.161	0.000	110.665	0.000	1450.000
84.000	8765.000	691.519	.283	.947	0.000	113.469	-2.804	1450.000
84.000	10940.000	692.036	.517	.388	0.000	160.554	-49.890	1450.000
84.000	7500.000	691.201	-.835	1.184	0.000	110.461	.204	1450.000
83.100	7631.000	694.037	0.000	2.801	0.000	140.509	0.000	1170.000
83.100	8765.000	694.789	.752	3.270	0.000	143.192	-2.684	1170.000
83.100	10940.000	696.156	1.367	4.120	0.000	148.072	-7.564	1170.000
83.100	7500.000	693.957	-2.199	2.756	0.000	140.221	.288	1170.000
83.000	7631.000	694.065	0.000	.028	0.000	113.000	0.000	50.000
83.000	8765.000	694.816	.751	.027	0.000	113.000	0.000	50.000
83.000	10940.000	696.177	1.361	.021	0.000	113.000	0.000	50.000
83.000	7500.000	693.985	-2.192	.028	0.000	113.000	0.000	50.000
82.100	7631.000	694.114	0.000	.049	0.000	113.000	0.000	80.500
82.100	8765.000	694.865	.751	.050	0.000	113.000	0.000	80.500
82.100	10940.000	696.215	1.349	.038	0.000	113.000	0.000	80.500
82.100	7500.000	694.034	-2.181	.049	0.000	113.000	0.000	80.500
82.000	7631.000	694.086	0.000	-.028	0.000	237.573	0.000	100.000
82.000	8765.000	694.901	.815	.036	0.000	265.954	-28.381	100.000
82.000	10940.000	696.407	1.506	.192	0.000	296.060	-58.488	100.000
82.000	7500.000	694.002	-2.406	-.032	0.000	234.630	2.943	100.000
81.000	7631.000	697.989	0.000	3.903	0.000	213.000	0.000	1940.000
81.000	8765.000	698.759	.770	3.858	0.000	213.000	0.000	1940.000
81.000	10940.000	700.092	1.333	3.685	0.000	213.000	0.000	1940.000
81.000	7500.000	697.897	-2.195	3.896	0.000	213.000	0.000	1940.000
80.100	7631.000	698.004	0.000	.015	0.000	213.000	0.000	46.000
80.100	8765.000	698.768	.763	.008	0.000	213.000	0.000	46.000
80.100	10940.000	700.088	1.321	-.004	0.000	213.000	0.000	46.000
80.100	7500.000	697.913	-2.175	.016	0.000	213.000	0.000	46.000
80.000	7631.000	698.227	0.000	.223	0.000	162.746	0.000	200.000
80.000	8765.000	698.979	.751	.211	0.000	166.063	-3.317	200.000
80.000	10940.000	700.280	1.301	.191	0.000	171.808	-9.062	200.000

80.000	7500.000	698.138	-2.142	.225	0.000	162.350	.396	200.000
79.000	7631.000	699.669	0.000	1.442	0.000	162.999	0.000	860.000
79.000	8765.000	700.470	.801	1.491	0.000	166.283	-3.284	860.000
79.000	10940.000	701.860	1.390	1.580	0.000	171.984	-8.985	860.000
79.000	7500.000	699.573	-2.287	1.436	0.000	162.605	.394	860.000
78.000	7631.000	699.824	0.000	.155	0.000	129.826	0.000	175.000
78.000	8765.000	700.624	.800	.154	0.000	131.902	-2.075	175.000
78.000	10940.000	702.011	1.388	.152	0.000	135.503	-5.677	175.000
78.000	7500.000	699.728	-2.283	.155	0.000	129.577	.249	175.000
77.200	7631.000	699.856	0.000	.032	0.000	129.910	0.000	60.000
77.200	8765.000	700.660	.804	.036	0.000	131.996	-2.086	60.000
77.200	10940.000	702.056	1.396	.044	0.000	135.619	-5.709	60.000
77.200	7500.000	699.760	-2.296	.032	0.000	129.659	.250	60.000
77.100	7631.000	700.018	0.000	.161	0.000	150.659	0.000	35.000
77.100	8765.000	700.839	.822	.179	0.000	154.411	-3.753	35.000
77.100	10940.000	702.271	1.432	.215	0.000	160.949	-10.290	35.000
77.100	7500.000	699.919	-2.352	.159	0.000	150.209	.450	35.000
77.000	7631.000	699.974	0.000	-.044	0.000	111.390	0.000	35.000
77.000	8765.000	700.777	.803	-.062	0.000	113.909	-2.519	35.000
77.000	10940.000	702.173	1.396	-.098	0.000	118.288	-6.899	35.000
77.000	7500.000	699.878	-2.295	-.041	0.000	111.087	.302	35.000
76.100	7631.000	700.161	0.000	.187	0.000	111.975	0.000	28.000
76.100	8765.000	700.991	.830	.214	0.000	114.580	-2.605	28.000
76.100	10940.000	702.438	1.447	.265	0.000	119.000	-7.025	28.000
76.100	7500.000	700.061	-2.377	.183	0.000	111.663	.312	28.000
76.000	7631.000	700.903	0.000	.742	0.000	368.165	0.000	200.000
76.000	8765.000	701.837	.934	.846	0.000	376.862	-8.697	200.000
76.000	10940.000	703.461	1.624	1.022	0.000	391.978	-23.812	200.000
76.000	7500.000	700.790	-2.670	.729	0.000	367.119	1.046	200.000
75.000	7631.000	704.270	0.000	3.367	0.000	236.409	0.000	2570.000
75.000	8765.000	705.026	.756	3.189	0.000	246.946	-10.536	2570.000
75.000	10940.000	706.381	1.355	2.920	0.000	257.533	-21.124	2570.000
75.000	7500.000	704.180	-2.201	3.389	0.000	235.156	1.253	2570.000
74.000	7631.000	705.372	0.000	1.103	0.000	193.200	0.000	1000.000
74.000	8765.000	706.143	.770	1.117	0.000	201.952	-8.752	1000.000
74.000	10940.000	707.508	1.365	1.127	0.000	217.455	-24.255	1000.000
74.000	7500.000	705.280	-2.228	1.101	0.000	192.154	1.047	1000.000
73.000	7631.000	705.671	0.000	.299	0.000	139.000	0.000	200.000
73.000	8765.000	706.431	.760	.288	0.000	139.000	0.000	200.000
73.000	10940.000	707.772	1.340	.264	0.000	139.000	0.000	200.000
73.000	7500.000	705.580	-2.192	.300	0.000	139.000	0.000	200.000
72.300	7631.000	705.669	0.000	-.003	0.000	139.000	0.000	30.000
72.300	8765.000	706.419	.750	-.013	0.000	139.000	0.000	30.000
72.300	10940.000	707.735	1.317	-.037	0.000	139.000	0.000	30.000
72.300	7500.000	705.579	-2.157	-.001	0.000	139.000	0.000	30.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE	ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	117.816	0.000	
2	0.000	0.000	120.966	3.150	
3	0.000	0.000	129.228	11.412	
4	0.000	0.000	117.530	-.286	

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINKBEINER PETTIS   STROUT - USEC401 R3
T3      HURON RIVER AT PENINSULAR DAM - Q = 50 YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

        -0.       2.       -0.       -0. -0.000000    -0.00     -0.0      -0.  717.280   -0.000

NC       .070      .070      .045      .100      .300   -0.000    -0.000    -0.000    -0.000    -0.000
QT      4.000  7336.000  8426.000 10517.000  7500.000   -0.000    -0.000    -0.000    -0.000    -0.000

X1     71.100    54.000   258.000   708.000     0.000     0.000     0.000    -0.000    -1.200    -0.000
GR    746.500   100.000   742.600   200.000   739.200   210.000   713.900   258.000   712.100   268.000
GR    710.600   278.000   707.700   288.000   706.300   298.000   704.900   308.000   703.900   318.000
GR    703.500   328.000   703.300   338.000   703.200   348.000   703.500   358.000   704.600   368.000
GR    703.400   378.000   703.200   388.000   703.400   398.000   703.300   408.000   703.200   418.000
GR    703.400   428.000   703.600   438.000   703.800   448.000   704.700   458.000   705.000   468.000
GR    705.100   478.000   705.200   488.000   706.100   498.000   706.700   508.000   707.400   518.000
GR    707.900   528.000   708.400   538.000   708.800   548.000   709.000   558.000   709.100   568.000
GR    709.100   578.000   709.200   588.000   709.200   598.000   709.200   608.000   709.100   618.000
GR    709.100   628.000   708.900   638.000   709.100   648.000   709.200   658.000   709.300   668.000
GR    709.800   678.000   710.900   688.000   713.900   700.000   716.500   708.000   718.100   740.000
GR    720.300   749.000   723.300   801.000   727.100   817.000   727.200   828.000    -0.000    -0.000
NC       .100      .080    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000

X1     71.000    -0.000    -0.000    -0.000  2025.000  2025.000  2025.000    -0.000     1.200    -0.000
NC       .070      .070    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000

X1     70.100    42.000   258.000   709.000   700.000   700.000   700.000    -0.000    -0.000    -0.000
GR    746.500   100.000   742.600   200.000   739.200   210.000   713.900   258.000   712.100   268.000
GR    710.600   278.000   707.700   288.000   706.300   298.000   704.900   308.000   698.650   340.000
GR    698.650   410.000   704.700   458.000   705.000   468.000   705.100   478.000   705.200   488.000
GR    706.100   498.000   706.700   508.000   707.400   518.000   707.900   528.000   708.400   538.000
GR    708.800   548.000   709.000   558.000   709.100   568.000   709.100   578.000   709.200   588.000
GR    709.200   598.000   709.200   608.000   709.100   618.000   709.100   628.000   708.900   638.000
GR    709.100   648.000   709.200   658.000   709.300   668.000   709.800   678.000   710.900   688.000
GR    713.900   700.000   716.500   708.000   718.100   740.000   720.300   749.000   723.300   801.000
GR    727.100   817.000   727.200   828.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000
NC     -0.000    -0.000    -0.000      .600      .800    -0.000    -0.000    -0.000    -0.000    -0.000

X1     70.000    29.000   500.000   650.000   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   726.000   726.000    -0.000
GR    725.000    10.000   725.000   100.000   725.000   400.000   725.000   470.000   710.400   500.000
GR    707.700   510.000   701.700   520.000   698.200   530.000   700.900   540.000   704.700   550.000
GR    703.300   553.000   704.000   557.000   701.000   560.000   698.200   570.000   699.000   580.000
GR    701.600   590.000   707.400   600.000   706.800   604.000   708.300   610.000   709.300   620.000
GR    710.900   630.000   713.100   640.000   713.700   650.000   725.000   680.000   725.000   750.000
GR    725.000   900.000   725.000  1000.000   725.000  1100.000   725.000  1130.000    -0.000    -0.000
SA      1.250     1.500     2.800    -0.000    80.000     8.000  2010.000     1.840   700.000   700.000

X1     69.100    -0.000    -0.000    -0.000    28.000    28.000    28.000    -0.000    -0.000    -0.000
X2     -0.000    -0.000     1.000   718.700   725.000    -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   725.000   725.000    -0.000
BT     14.000    10.000   725.000   725.000   100.000   727.000   725.000   400.000   727.000   725.000
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BT	470.000	727.000	725.000	500.000	727.000	710.400	500.000	727.000	718.700	650.000
BT	727.100	718.700	650.000	727.100	713.700	680.000	727.100	725.000	750.000	727.100
BT	725.000	900.000	727.200	725.000	1000.000	727.800	725.000	1100.000	726.300	725.000
BT	1130.000	725.000	725.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.060	.100	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	69.000	76.000	120.000	765.000	600.000	400.000	440.000	-0.000	-0.000	-0.000
GP	740.000	66.000	726.100	66.000	726.300	86.000	725.400	92.000	725.400	100.000
GR	713.900	120.000	710.900	130.000	710.100	140.000	709.300	150.000	710.100	160.000
GR	708.100	170.000	707.900	180.000	709.600	190.000	708.000	200.000	706.400	210.000
GR	706.700	220.000	706.500	230.000	706.600	240.000	706.200	250.000	706.500	260.000
GR	706.500	270.000	706.200	280.000	706.500	290.000	706.500	300.000	706.600	310.000
GP	706.600	320.000	706.600	330.000	706.700	340.000	706.900	350.000	707.100	360.000
GR	707.300	370.000	707.500	380.000	707.700	390.000	707.800	400.000	708.000	410.000
GP	708.200	420.000	708.300	430.000	708.200	440.000	708.200	450.000	708.300	460.000
GP	708.400	470.000	708.400	480.000	708.400	490.000	708.600	500.000	708.600	510.000
GP	708.700	520.000	708.800	530.000	708.800	540.000	708.900	550.000	708.900	560.000
GP	708.900	570.000	708.900	580.000	708.900	590.000	708.800	600.000	708.600	610.000
GR	708.200	620.000	707.700	630.000	707.300	640.000	707.100	650.000	706.900	660.000
GR	706.400	670.000	706.100	680.000	705.800	690.000	706.000	700.000	705.700	710.000
GP	705.700	720.000	705.800	730.000	706.600	740.000	710.400	750.000	712.100	760.000
GP	713.900	765.000	728.400	790.000	734.200	795.000	743.400	810.000	747.900	850.000
GR	758.100	893.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.050	.090	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	68.100	-0.000	-0.000	-0.000	850.000	1310.000	1100.000	-0.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	68.000	39.000	500.000	671.000	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	720.000	720.000	-0.000
GR	722.000	0.000	722.000	100.000	721.300	200.000	715.000	220.000	705.000	230.000
GR	705.000	300.000	705.000	400.000	705.000	490.000	718.500	500.000	716.000	500.000
GR	713.300	510.000	708.700	520.000	705.200	530.000	704.300	540.000	703.700	550.000
GR	702.200	557.500	702.200	560.000	702.500	570.000	702.900	580.000	703.100	590.000
GP	702.800	600.000	701.900	610.000	701.900	615.500	701.900	620.000	703.300	630.000
GP	705.100	640.000	707.800	650.000	712.800	660.000	716.800	671.000	719.100	671.000
GR	705.000	680.000	705.000	700.000	705.000	800.000	705.000	900.000	705.000	980.000
GR	715.000	1000.000	720.000	1050.000	730.000	1100.000	743.000	1170.000	-0.000	-0.000
SR	1.250	1.500	2.900	-0.000	111.000	8.000	2184.000	1.875	703.000	703.000
X1	67.100	-0.000	-0.000	-0.000	62.000	62.000	62.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	719.100	721.200	-0.000	-0.000	-0.000	.980	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	722.500	723.300	-0.000
BT	21.000	0.000	722.000	722.000	100.000	722.000	722.000	200.000	721.300	721.300
BT	220.000	721.200	715.000	230.000	721.200	705.000	300.000	721.500	705.000	400.000
BT	722.000	705.000	490.000	722.300	705.000	500.000	722.500	718.500	557.500	722.600
BT	718.900	615.500	722.800	719.100	671.000	723.300	719.100	680.000	723.300	705.000
BT	700.000	723.300	705.000	800.000	725.000	705.000	900.000	728.000	705.000	980.000
BT	732.000	705.000	1000.000	733.000	715.000	1050.000	736.000	720.000	1100.000	739.000
BT	730.000	1170.000	743.000	743.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.040	.090	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	67.000	60.000	600.000	1070.000	290.000	200.000	200.000	-0.000	-0.000	-0.000
GP	728.000	60.000	721.000	80.000	720.900	379.000	724.100	438.000	724.100	470.000
GP	723.900	592.000	718.400	600.000	713.800	603.000	712.000	610.000	710.900	620.000
GP	710.800	630.000	710.500	640.000	710.300	650.000	710.200	660.000	710.200	670.000
GP	710.200	680.000	710.300	690.000	710.600	700.000	710.500	710.000	710.500	720.000
GP	710.400	730.000	710.200	740.000	708.800	750.000	708.600	760.000	708.800	770.000
GP	708.900	780.000	709.100	790.000	709.100	800.000	709.200	810.000	709.600	820.000
GR	709.900	830.000	709.900	840.000	710.000	850.000	709.700	860.000	709.800	870.000
GP	709.800	880.000	709.700	890.000	709.500	900.000	709.700	910.000	709.600	920.000
GR	709.500	930.000	709.500	940.000	709.200	950.000	709.000	960.000	708.200	970.000
GR	707.900	980.000	708.100	990.000	707.700	1000.000	706.900	1010.000	706.400	1020.000
GR	706.500	1030.000	707.900	1040.000	710.400	1050.000	712.300	1060.000	713.800	1065.000
GR	718.000	1070.000	718.800	1170.000	724.200	1260.000	724.500	1290.000	751.500	1465.000
NC	.040	.100	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000

XI	66.100	60.000	600.000	1100.000	660.000	660.000	660.000	-0.000	-1.300	-0.000
GR	730.000	80.000	725.000	130.000	722.900	310.000	725.700	440.000	722.900	530.000
GR	719.700	600.000	715.600	600.000	711.800	610.000	709.200	620.000	709.100	630.000
GR	710.100	640.000	710.300	650.000	710.900	660.000	711.300	670.000	711.700	680.000
GR	712.000	690.000	712.400	700.000	712.700	710.000	713.000	720.000	713.300	730.000
GR	713.400	740.000	713.700	750.000	713.500	760.000	713.200	770.000	712.700	780.000
GR	711.400	790.000	711.200	800.000	710.100	810.000	710.100	820.000	709.900	830.000
GR	709.800	840.000	709.800	850.000	710.000	860.000	710.000	870.000	710.000	880.000
GR	710.100	890.000	709.300	900.000	710.500	910.000	710.700	920.000	710.800	930.000
GR	710.600	940.000	710.800	950.000	710.700	960.000	710.900	970.000	711.000	980.000
GR	711.400	990.000	711.600	1000.000	711.700	1010.000	711.700	1020.000	711.900	1030.000
GR	711.700	1040.000	711.700	1050.000	711.700	1060.000	711.900	1070.000	712.300	1080.000
GR	713.500	1090.000	715.100	1096.000	722.000	1100.000	738.600	1127.000	780.800	1170.000
NC	.040	.080	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
XI	66.000	31.000	1000.000	1185.000	960.000	1140.000	1140.000	-0.000	-0.000	-0.000
GR	730.000	0.000	725.000	250.000	723.200	390.000	718.500	430.000	718.600	530.000
GR	717.400	650.000	716.600	888.000	714.700	1000.000	713.800	1004.000	713.400	1010.000
GR	712.800	1020.000	713.200	1030.000	713.700	1040.000	713.200	1050.000	712.900	1060.000
GR	712.100	1070.000	711.800	1080.000	711.000	1090.000	710.900	1100.000	708.700	1110.000
GR	708.100	1120.000	707.500	1130.000	707.500	1140.000	707.300	1150.000	707.300	1160.000
GR	707.100	1170.000	708.900	1180.000	713.800	1185.000	722.000	1200.000	739.400	1232.000
GR	799.100	1332.000	-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

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINKBEINER PETTIS   STROUT - USEC401 R3
T3      HURON RIVER AT PENINSULAR DAM - Q = 100 YEAR

J1  ICHECK    INO       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        -0.       3.       -0.       -0. -0.000000    -0.00     -0.0      -0.    717.650    -0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     IAW       CHNIM     ITRACE
        2.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000
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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	XM	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
71.10	15.65	717.65	0.00	717.65	717.69	.04	0.00	0.00	712.70
8426.	8.	8405.	13.	23.	5343.	51.	0.	0.	715.30
0.00	.33	1.57	.26	.070	.045	.070	0.000	702.00	248.61
.000084	0.	0.	0.	0	0	1	0.00	494.46	743.07
71.00	14.64	717.84	0.00	0.00	717.89	.05	.20	.00	713.90
8426.	3.	8420.	3.	15.	4889.	18.	240.	23.	716.50
.33	.23	1.72	.15	.100	.045	.080	.045	703.20	250.52
.000114	2025.	2025.	2025.	2	0	1	0.00	484.31	734.83
70.10	19.27	717.92	0.00	0.00	717.96	.04	.07	.00	713.90
8426.	4.	8419.	3.	15.	5409.	20.	324.	31.	716.50
.33	.29	1.66	.15	.070	.045	.070	.045	698.65	250.39
.000081	700.	700.	700.	0	0	1	0.00	485.83	736.22

CCHV= .600 CEHV= .800

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 726.00 FLREA= 726.00

70.00	19.68	717.88	0.00	0.00	718.18	.29	.02	.20	710.40
8426.	0.	8426.	0.	0.	1941.	0.	332.	31.	713.70
.46	0.00	4.34	0.00	.070	.045	.070	.045	698.20	500.00
.000631	100.	100.	100.	2	0	1	0.00	150.00	661.11

SPECIAL BRIDGE

SR	XK	XKOB	COFQ	ROLEN	BWC	BWR	BAREA	SS	FLCHU	FLCHD
	1.25	1.50	2.80	-0.00	80.00	8.00	2010.00	1.84	700.00	700.00

CLASS A LOW FLOW

BRIDGE W.S.= 717.84 BRIDGE VELOCITY= 4.51

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	FLTRD	CLASS
0.00	718.22	.04	0.	8426.	2010.	718.70	725.00	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 725.00 FLREA= 725.00

69.10	19.73	717.93	0.00	0.00	718.22	.29	.04	0.00	710.40
8426.	0.	8426.	0.	0.	1968.	0.	333.	31.	713.70
.46	0.00	4.33	0.00	.070	.045	.070	.045	698.20	500.00
.000624	28.	28.	28.	0	0	1	0.00	150.00	661.22

CCHV= .600 CEHV= .800

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

TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
68.00	12.72	718.42	0.00	0.00	718.44	.02	.06	.16	719.90
8426.	5.	8418.	3.	18.	6834.	18.	378.	35.	719.90
.56	.30	1.23	.18	.060	.045	.100	.045	705.70	112.15
.000060	600.	440.	400.	2	0	1	0.00	660.64	772.79

CCHV= .100 CEHV= .300

68.10	12.78	718.48	0.00	0.00	718.50	.02	.07	.00	719.90
8426.	7.	8415.	4.	18.	6877.	18.	552.	52.	719.90
.81	.36	1.22	.22	.050	.045	.080	.045	705.70	112.03
.000059	850.	1100.	1310.	2	0	1	0.00	660.87	772.90

CCHV= .600 CEHV= .800

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 720.00 ELREA= 720.00

68.00	16.55	718.45	0.00	0.00	718.69	.24	.01	.17	718.50
8426.	0.	8426.	0.	0.	2163.	0.	542.	53.	719.10
.82	0.00	3.89	0.00	.050	.045	.080	.045	701.90	500.00
.000505	100.	100.	100.	2	0	1	0.00	171.00	671.00

SPECIAL BRIDGE

SB XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHD	ELCHO
1.25	1.50	2.90	-0.00	111.00	8.00	2184.00	1.88	703.00	703.00

CLASS A LOW FLOW

BRIDGE W.S.= 718.42 BRIDGE VELOCITY= 4.14

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	718.71	.03	0.	8426.	2184.	719.10	721.20	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 722.50 ELREA= 723.30

67.10	16.58	718.48	0.00	0.00	718.71	.23	.03	0.00	718.50
8426.	0.	8426.	0.	0.	2168.	0.	565.	53.	719.10
.82	0.00	3.89	0.00	.050	.045	.080	.045	701.90	500.00
.000501	62.	62.	62.	0	0	1	0.00	171.00	671.00

CCHV= .600 CEHV= .800

67.00	12.42	718.82	0.00	0.00	718.88	.06	.06	.11	718.40
8426.	0.	8420.	6.	0.	4314.	42.	580.	55.	718.00
.85	.17	1.95	.14	.040	.045	.080	.045	706.40	598.79
.000184	290.	200.	200.	2	0	1	0.00	571.50	1170.28

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
66.10	11.14	718.94	0.00	0.00	719.00	.06	.12	.00	718.40

8426.	1.	8425.	0.	3.	4406.	0.	647.	63.	720.70
.95	.21	1.91	0.00	.040	.045	.100	.045	707.80	588.14
.000187	660.	660.	660.	2	0	1	0.00	510.59	1098.73

CCHV= .200 CEHV= .400

46.00	12.14	719.24	0.00	0.00	719.43	.19	.38	.05	714.70
8426.	2185.	6215.	25.	1157.	1599.	27.	738.	79.	713.80
1.04	1.89	3.89	.94	.040	.045	.080	.045	707.10	423.68
.000795	960.	1140.	1140.	2	0	1	0.00	771.28	1194.96

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINKBEINER PETTIS   STROUT - USEC401 R3
T3      HURON RIVER AT PENINSULAR DAM - Q = 1968 FLOOD

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

     -0,       5,       -0,      -0, -0,000000   -0,00    -0,0     -0,   717,330   -0,000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

    15,000    -0,000   -0,000   -0,000   -0,000   -0,000   -0,000   -0,000   -0,000   -0,000
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CCHV= .100 CEHV= .300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
0	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNI	XNCH	XNR	WTN	FLMIN	SSTA
SLOPF	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
71.10	15.33	717.33	0.00	717.33	717.36	.03	0.00	0.00	712.70
7500.	6.	7486.	8.	20.	5199.	40.	0.	0.	715.30
0.00	.29	1.44	.21	.070	.045	.070	0.000	702.00	248.22
.000073	0.	0.	0.	0	0	1	0.00	492.54	741.76
71.00	14.30	717.50	0.00	0.00	717.54	.04	.17	.00	713.90
7500.	2.	7496.	1.	12.	4730.	10.	233.	23.	716.50
.36	.20	1.58	.12	.100	.045	.080	.045	703.20	251.19
.000101	2025.	2025.	2025.	1	0	1	0.00	476.57	727.76
70.10	18.91	717.56	0.00	0.00	717.60	.03	.06	.00	713.90
7500.	3.	7496.	1.	13.	5250.	11.	313.	30.	716.50
.49	.25	1.43	.12	.070	.045	.070	.045	698.65	251.06
.000071	700.	700.	700.	1	0	1	0.00	478.08	729.14

CCHV= .600 CEHV= .800

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 726.00 ELREA= 726.00

70.00	19.34	717.54	0.00	0.00	717.78	.24	.02	.17	710.40
7500.	0.	7500.	0.	0.	1889.	0.	321.	31.	713.70
.50	0.00	3.97	0.00	.070	.045	.070	.045	698.20	500.00
.000546	100.	100.	100.	2	0	1	0.00	150.00	660.19

SPECIAL BRIDGE

SB XK	XKOR	COFQ	ROLEN	AWC	AWP	BAREA	SS	ELCHU	ELCHO
1.25	1.50	2.80	-0.00	80.00	8.00	2010.00	1.84	700.00	700.00

CLASS A LOW FLOW

BRIDGE W.S.= 717.50 BRIDGE VELOCITY= 4.11

FGPPS	FGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	717.82	.03	0.	7500.	2010.	718.70	725.00	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 725.00 ELREA= 725.00

69.10	19.37	717.57	0.00	0.00	717.82	.24	.03	0.00	710.40
7500.	0.	7500.	0.	0.	1895.	0.	323.	31.	713.70
.50	0.00	3.96	0.00	.070	.045	.070	.045	698.20	500.00
.000541	28.	28.	28.	0	0	1	0.00	150.00	660.28

CCHV= .600 CEHV= .800

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

TIME	VLOB	VCH	VROB	XNI	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
69.00	12.28	717.98	0.00	0.00	718.00	.02	.06	.13	719.90
7500.	4.	7494.	2.	15.	6556.	14.	366.	35.	719.90
.61	.27	1.14	.16	.060	.045	.100	.045	705.70	112.90
.000055	600.	440.	400.	2	0	1	0.00	659.15	772.04

CCHV= .100 CEHV= .300

68.10	12.34	718.04	0.00	0.00	718.06	.02	.06	.00	719.90
7500.	5.	7492.	3.	15.	6595.	15.	532.	52.	719.90
.88	.32	1.14	.20	.050	.045	.080	.045	705.70	112.79
.000054	850.	1100.	1310.	2	0	1	0.00	659.35	772.15

CCHV= .600 CEHV= .800

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 720.00 ELREA= 720.00

68.00	16.12	718.02	0.00	0.00	718.22	.20	.01	.14	718.50
7500.	0.	7500.	0.	0.	2090.	0.	542.	53.	719.10
.88	0.00	3.59	0.00	.050	.045	.080	.045	701.90	500.00
.000446	100.	100.	100.	2	0	1	0.00	171.00	471.00

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHD	ELCHD
1.25	1.50	2.90	-0.00	111.00	8.00	2184.00	1.88	703.00	703.00

CLASS A LOW FLOW

BRIDGE W.S.= 717.99 BRIDGE VELOCITY= 3.81

EGPRS	EGLWC	HX	QWEIR	QBR	BAREA	ELLC	ELTRD	CLASS
0.00	718.24	.02	0.	7500.	2184.	719.10	721.20	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 722.50 ELREA= 723.30

67.10	16.14	718.04	0.00	0.00	718.24	.20	.02	0.00	718.50
7500.	0.	7500.	0.	0.	2093.	0.	545.	53.	719.10
.89	0.00	3.58	0.00	.050	.045	.080	.045	701.90	500.00
.000443	62.	62.	62.	0	0	1	0.00	171.00	471.00

CCHV= .600 CEHV= .800

67.00	11.93	718.33	0.00	0.00	718.38	.05	.05	.09	718.40
7500.	0.	7499.	1.	0.	4086.	7.	559.	55.	718.00
.92	0.00	1.84	.07	.040	.045	.080	.045	706.40	600.05
.000175	290.	200.	200.	2	0	1	0.00	511.31	1111.35

CCHV= .100 CEHV= .300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
0	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
66.10	10.65	718.45	0.00	0.00	718.50	.05	.12	.00	718.40

7500.	0.	7500.	0.	0.	4160.	0.	622.	62.	720.70
1.02	.00	1.80	0.00	.040	.045	.100	.045	707.80	598.91
.000179	660.	660.	660.	2	0	1	0.00	499.46	1098.37

CCHV= .200 CEHV= .400

66.00	11.64	718.74	0.00	0.00	718.94	.20	.38	.06	714.70
7500.	1559.	5920.	21.	869.	1507.	22.	706.	78.	713.80
1.11	1.79	3.93	.92	.040	.045	.080	.045	707.10	427.94
.000880	960.	1140.	1140.	2	0	1	0.00	766.10	1194.04

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

HURON RIVER AT PENINSULA

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	JOKRS	TIME	VOL
71.10	0.00	0.00	0.00	702.00	7336.00	717.28	0.00	717.31	492.24	.71	0.00	0.00
71.10	0.00	0.00	0.00	702.00	8426.00	717.65	0.00	717.69	494.46	.84	0.00	0.00
71.10	0.00	0.00	0.00	702.00	10517.00	718.30	0.00	718.35	498.35	1.10	0.00	0.00
71.10	0.00	0.00	0.00	702.00	7500.00	717.33	0.00	717.36	492.54	.73	0.00	0.00
71.00	2025.00	0.00	0.00	703.20	7336.00	717.44	0.00	717.48	475.38	.98	.36	291.53
71.00	2025.00	0.00	0.00	703.20	8426.00	717.84	0.00	717.89	484.31	1.14	.33	260.32
71.00	2025.00	0.00	0.00	703.20	10517.00	718.55	0.00	718.61	492.64	1.49	.28	255.84
71.00	2025.00	0.00	0.00	703.20	7500.00	717.50	0.00	717.54	476.57	1.01	.36	292.70
70.10	700.00	0.00	0.00	698.65	7336.00	717.51	0.00	717.54	476.84	.69	.50	311.66
70.10	700.00	0.00	0.00	698.65	8426.00	717.92	0.00	717.96	485.83	.81	.45	329.61
70.10	700.00	0.00	0.00	698.65	10517.00	718.64	0.00	718.70	493.17	1.04	.39	344.76
70.10	700.00	0.00	0.00	698.65	7500.00	717.56	0.00	717.60	478.08	.71	.49	313.26
70.00	100.00	0.00	0.00	698.20	7336.00	717.48	0.00	717.72	150.00	5.30	.51	319.84
70.00	100.00	0.00	0.00	698.20	8426.00	717.88	0.00	718.18	150.00	6.31	.46	332.09
70.00	100.00	0.00	0.00	698.20	10517.00	718.59	0.00	719.00	150.00	8.26	.39	353.76
70.00	100.00	0.00	0.00	698.20	7500.00	717.54	0.00	717.78	150.00	5.46	.50	321.48
69.10	28.00	725.00	718.70	698.20	7336.00	717.52	0.00	717.75	150.00	5.25	.51	321.05
69.10	28.00	725.00	718.70	698.20	8426.00	717.93	0.00	718.22	150.00	6.24	.46	333.34
69.10	28.00	725.00	718.70	698.20	10517.00	718.64	0.00	719.23	150.00	7.80	.39	355.09
69.10	28.00	725.00	718.70	698.20	7500.00	717.57	0.00	717.82	150.00	5.41	.50	322.70
69.00	440.00	0.00	0.00	705.70	7336.00	717.91	0.00	717.93	658.90	.54	.62	363.62
69.00	440.00	0.00	0.00	705.70	8426.00	718.42	0.00	718.44	660.64	.60	.56	377.90
69.00	440.00	0.00	0.00	705.70	10517.00	719.49	0.00	719.52	664.37	.68	.48	403.95
69.00	440.00	0.00	0.00	705.70	7500.00	717.98	0.00	718.00	659.15	.55	.61	365.54
68.10	1100.00	0.00	0.00	705.70	7336.00	717.97	0.00	717.99	659.10	.53	.89	529.20
68.10	1100.00	0.00	0.00	705.70	8426.00	718.48	0.00	718.50	660.87	.59	.81	551.90
68.10	1100.00	0.00	0.00	705.70	10517.00	719.57	0.00	719.60	664.62	.66	.70	596.02
68.10	1100.00	0.00	0.00	705.70	7500.00	718.04	0.00	718.06	659.35	.54	.88	532.31
68.00	100.00	0.00	0.00	701.90	7336.00	717.95	0.00	718.14	171.00	4.35	.90	539.13
68.00	100.00	0.00	0.00	701.90	8426.00	718.45	0.00	718.69	171.00	5.05	.82	562.31
68.00	100.00	0.00	0.00	701.90	10517.00	719.52	0.00	719.84	171.00	6.07	.71	607.48
68.00	100.00	0.00	0.00	701.90	7500.00	718.02	0.00	718.22	171.00	4.46	.88	542.31
67.10	62.00	721.20	719.10	701.90	7336.00	717.97	0.00	718.16	171.00	4.32	.90	542.09
67.10	62.00	721.20	719.10	701.90	8426.00	718.48	0.00	718.71	171.00	5.01	.82	565.40
67.10	62.00	721.20	719.10	701.90	10517.00	719.76	0.00	720.06	171.00	5.74	.71	610.85
67.10	62.00	721.20	719.10	701.90	7500.00	718.04	0.00	718.24	171.00	4.43	.89	545.29
67.00	200.00	0.00	0.00	706.40	7336.00	718.25	0.00	718.30	501.16	1.73	.93	556.17
67.00	200.00	0.00	0.00	706.40	8426.00	718.82	0.00	718.88	571.50	1.84	.85	580.37
67.00	200.00	0.00	0.00	706.40	10517.00	720.20	0.00	720.26	598.47	1.78	.74	628.18
67.00	200.00	0.00	0.00	706.40	7500.00	718.33	0.00	718.38	511.31	1.75	.92	559.49

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
66.10	660.00	0.00	0.00	707.80	7336.00	718.37	0.00	718.42	498.29	1.77	1.04	618.07
66.10	660.00	0.00	0.00	707.80	8426.00	718.94	0.00	719.00	510.59	1.87	.95	644.78
66.10	660.00	0.00	0.00	707.80	10517.00	720.32	0.00	720.38	541.63	1.80	.83	706.17
66.10	660.00	0.00	0.00	707.80	7500.00	718.45	0.00	718.50	499.46	1.79	1.02	622.01
66.00	1140.00	0.00	0.00	707.10	7336.00	718.66	0.00	718.86	765.22	8.92	1.13	700.81
66.00	1140.00	0.00	0.00	707.10	8426.00	719.24	0.00	719.43	771.28	7.95	1.04	738.49
66.00	1140.00	0.00	0.00	707.10	10517.00	720.59	0.00	720.73	785.20	5.44	.93	819.36
66.00	1140.00	0.00	0.00	707.10	7500.00	718.74	0.00	718.94	766.10	8.80	1.11	706.04

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
71.100	7336.000	717.280	0.000	0.000	0.000	492.244	0.000	0.000
71.100	8426.000	717.650	.370	0.000	0.000	494.459	-2.216	0.000
71.100	10517.000	718.300	.650	0.000	0.000	498.352	-6.108	0.000
71.100	7500.000	717.330	-.970	0.000	0.000	492.543	-.299	0.000
71.000	7336.000	717.443	0.000	.163	0.000	475.377	0.000	2025.000
71.000	8426.000	717.842	.398	.192	0.000	484.312	-8.935	2025.000
71.000	10517.000	718.546	.704	.246	0.000	492.639	-17.262	2025.000
71.000	7500.000	717.498	-1.048	.168	0.000	476.571	-1.194	2025.000
70.100	7336.000	717.508	0.000	.065	0.000	476.842	0.000	700.000
70.100	8426.000	717.918	.410	.076	0.000	485.829	-8.987	700.000
70.100	10517.000	718.643	.725	.097	0.000	493.169	-16.328	700.000
70.100	7500.000	717.565	-1.078	.057	0.000	478.076	-1.234	700.000
70.000	7336.000	717.482	0.000	-.026	0.000	150.000	0.000	100.000
70.000	8426.000	717.884	.402	-.033	0.000	150.000	0.000	100.000
70.000	10517.000	718.594	.710	-.049	0.000	150.000	0.000	100.000
70.000	7500.000	717.538	-1.057	-.027	0.000	150.000	0.000	100.000
69.100	7336.000	717.515	0.000	.033	0.000	150.000	0.000	28.000
69.100	8426.000	717.927	.411	.042	0.000	150.000	0.000	28.000
69.100	10517.000	718.837	.910	.242	0.000	150.000	0.000	28.000
69.100	7500.000	717.572	-1.265	.035	0.000	150.000	0.000	28.000
69.000	7336.000	717.914	0.000	.399	0.000	658.901	0.000	440.000
69.000	8426.000	718.416	.502	.489	0.000	660.639	-1.738	440.000
69.000	10517.000	719.492	1.076	.655	0.000	664.367	-5.466	440.000
69.000	7500.000	717.985	-1.508	.412	0.000	659.148	-.245	440.000
68.100	7336.000	717.972	0.000	.059	0.000	659.104	0.000	1100.000
68.100	8426.000	718.481	.509	.066	0.000	660.867	-1.763	1100.000
68.100	10517.000	719.566	1.085	.074	0.000	664.624	-5.520	1100.000
68.100	7500.000	718.044	-1.522	.060	0.000	659.353	-.249	1100.000
68.000	7336.000	717.949	0.000	-.023	0.000	171.000	0.000	100.000
68.000	8426.000	718.452	.503	-.029	0.000	171.000	0.000	100.000
68.000	10517.000	719.525	1.073	-.041	0.000	171.000	0.000	100.000
68.000	7500.000	718.020	-1.505	-.024	0.000	171.000	0.000	100.000
67.100	7336.000	717.971	0.000	.022	0.000	171.000	0.000	62.000
67.100	8426.000	718.479	.508	.027	0.000	171.000	0.000	62.000
67.100	10517.000	719.764	1.285	.239	0.000	171.000	0.000	62.000
67.100	7500.000	718.043	-1.721	.023	0.000	171.000	0.000	62.000
67.000	7336.000	718.250	0.000	.279	0.000	501.160	0.000	200.000
67.000	8426.000	718.817	.567	.338	0.000	571.497	-70.337	200.000
67.000	10517.000	720.195	1.378	.431	0.000	598.474	-97.314	200.000
67.000	7500.000	718.331	-1.864	.288	0.000	511.309	-10.149	200.000

66.100	7336.000	718.367	0.000	.117	0.000	498.286	0.000	660.000
66.100	8426.000	718.942	.575	.125	0.000	510.585	-12.299	660.000
66.100	10517.000	720.316	1.374	.121	0.000	541.633	-43.347	660.000
66.100	7500.000	718.450	-1.866	.119	0.000	499.459	-1.173	660.000
66.000	7336.000	718.657	0.000	.289	0.000	765.218	0.000	1140.000
66.000	8426.000	719.243	.586	.300	0.000	771.276	-6.058	1140.000
66.000	10517.000	720.589	1.347	.274	0.000	785.203	-19.984	1140.000
66.000	7500.000	718.742	-1.848	.292	0.000	766.098	-.880	1140.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	77.352	0.000
2	0.000	0.000	78.815	1.463
3	0.000	0.000	80.360	3.008
4	0.000	0.000	77.547	.196

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2       BY FINKBEINER PETTIS   STROUT - USEC401 R2
T3       HURON RIVER AT SUPERIOR DAM - Q = 50 YEAR

J1  ICHECK    INO       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

        -0.       2.       -0.       -0. -0.000000    -0.00     -0.0      -0.   735.500    -0.000

NC       .040      .050      .030      .100      .300   -0.000    -0.000    -0.000    -0.000    -0.000
OT      4.000  7311.000  8398.000 10482.000  7500.000   -0.000    -0.000    -0.000    -0.000    -0.000

X1     64.100     4.000     0.000   160.120     0.000     0.000     0.000    -0.000    -0.000    -0.000
GR    740.000     0.000   717.000     0.000   717.000   160.120   740.000   160.120    -0.000    -0.000
NC       .040      .040    -0.000      .500      .700   -0.000    -0.000    -0.000    -0.000    -0.000

X1     64.000    53.000   200.000   630.000   200.000   200.000   200.000    -0.000    -0.000    -0.000
GR    742.400   125.000   738.000   150.000   737.100   200.000   730.400   205.000   722.000   210.000
GR    720.900   220.000   721.400   230.000   721.400   240.000   721.400   250.000   721.300   260.000
GR    720.600   270.000   720.600   280.000   720.800   290.000   720.600   300.000   720.100   310.000
GR    720.200   320.000   720.800   330.000   720.900   340.000   720.700   350.000   720.300   360.000
GR    720.300   370.000   719.300   380.000   718.100   390.000   717.000   400.000   719.600   410.000
GR    720.400   420.000   721.000   430.000   725.300   440.000   724.500   450.000   724.000   460.000
GR    723.700   470.000   723.800   480.000   723.900   490.000   723.900   500.000   723.600   510.000
GR    724.200   520.000   724.300   530.000   724.600   540.000   725.100   550.000   725.400   560.000
GR    725.600   570.000   726.300   580.000   727.000   590.000   727.400   600.000   727.900   610.000
GR    728.400   620.000   730.400   625.000   732.400   630.000   733.700   660.000   736.700   676.000
GR    737.000   740.000   746.400   763.000   755.200   782.000    -0.000    -0.000    -0.000    -0.000
NC     -0.000    -0.000    -0.000      .500      .800   -0.000    -0.000    -0.000    -0.000    -0.000

X1     63.000    35.000   600.000   755.000   400.000   400.000   400.000    -0.000    -0.000    -0.000
X3     10.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000   740.000   740.000    -0.000
GR    742.000    30.000   735.700   100.000   735.000   110.000   730.500   200.000   730.000   210.000
GR    721.000   250.000   721.000   300.000   721.000   400.000   721.000   500.000   721.000   600.000
GR    734.500   600.000   726.000   610.000   721.900   620.000   717.300   630.000   715.600   640.000
GR    717.300   650.000   716.000   660.000   719.400   673.000   717.900   680.000   717.500   690.000
GR    716.000   700.000   716.900   710.000   718.300   720.000   718.500   730.000   720.600   740.000
GR    726.600   750.000   726.900   755.000   735.300   755.000   723.000   756.000   723.000   860.000
GR    723.000   930.000   730.000   960.000   735.000   980.000   740.000  1060.000   746.100  1160.000
SB      1.250     1.500     2.700    -0.000   105.000     7.000  2335.000     1.430   717.000   717.000

X1     62.100    -0.000    -0.000    -0.000    28.300    28.300    28.300    -0.000    -0.000    -0.000
X2     -0.000    -0.000     1.000   735.300   742.000   -0.000    -0.000    -0.000      .707    -0.000
X3     10.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000   742.000   742.000    -0.000
BT     18.000    30.000   742.000   742.000   100.000   742.150   735.700   110.000   742.170   735.000
BT    210.000   742.600   730.000   250.000   742.800   721.000   300.000   742.950   721.000   400.000
BT    743.320   721.000   500.000   743.710   721.000   600.000   744.000   721.000   600.000   744.000
BT    734.500   755.000   745.000   735.200   756.000   745.000   723.000   860.000   745.020   723.000
BT    930.000   745.300   723.000   960.000   745.380   730.000   980.000   745.400   735.000  1060.000
BT    745.690   740.000  1160.000   746.100   746.100    -0.000    -0.000    -0.000    -0.000    -0.000
NC       .040      .045    -0.000      .600      .800   -0.000    -0.000    -0.000    -0.000    -0.000

X1     62.000    51.000   300.000   735.000   350.000   350.000   350.000    -0.000    -0.000    -0.000
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GR	755.300	116.000	745.800	201.000	733.200	285.000	732.000	300.000	729.900	304.000
GR	728.400	314.000	727.600	324.000	726.800	334.000	725.800	344.000	725.400	354.000
GR	724.800	364.000	724.400	374.000	723.800	384.000	723.400	394.000	723.200	404.000
GR	723.000	414.000	722.800	424.000	722.600	434.000	722.100	444.000	721.900	454.000
GR	721.200	464.000	720.600	474.000	720.400	484.000	720.600	494.000	720.400	504.000
GR	720.200	514.000	720.200	524.000	720.400	534.000	720.400	544.000	720.400	554.000
GR	720.500	564.000	720.600	574.000	720.800	584.000	720.900	594.000	720.800	604.000
GR	720.900	614.000	720.800	624.000	720.400	634.000	720.800	644.000	720.600	654.000
GR	720.400	664.000	720.400	674.000	720.200	684.000	721.100	694.000	722.000	704.000
GR	725.800	714.000	728.400	724.000	730.400	726.000	731.100	735.000	743.200	755.000
GR	745.200	788.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.080	.050	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
X1	61.000	71.000	200.000	886.000	1940.000	1940.000	1940.000	-0.000	-0.000	-0.000
GR	754.300	128.000	740.900	156.000	732.200	200.000	728.500	216.000	727.900	226.000
GR	727.600	236.000	727.300	246.000	727.100	256.000	726.900	266.000	726.600	276.000
GR	726.500	286.000	726.100	296.000	725.900	306.000	725.700	316.000	725.500	326.000
GR	725.400	336.000	725.100	346.000	725.000	356.000	723.700	366.000	724.300	376.000
GR	724.300	386.000	723.900	396.000	723.600	406.000	723.500	416.000	723.500	426.000
GR	723.400	436.000	723.300	446.000	723.200	456.000	723.000	466.000	722.800	476.000
GR	722.700	486.000	721.500	496.000	721.300	506.000	721.100	516.000	720.800	526.000
GR	720.500	536.000	720.500	546.000	721.500	556.000	723.400	566.000	724.100	576.000
GR	724.400	586.000	724.200	596.000	724.000	606.000	724.700	616.000	725.800	626.000
GR	726.800	636.000	727.000	646.000	727.200	656.000	727.200	666.000	727.200	676.000
GR	727.100	686.000	727.300	696.000	727.300	706.000	727.300	716.000	727.100	726.000
GR	727.000	736.000	727.200	746.000	726.900	756.000	727.100	766.000	727.100	776.000
GR	727.000	786.000	727.300	796.000	727.200	806.000	727.200	816.000	727.100	826.000
GR	727.000	836.000	733.600	886.000	733.300	911.000	735.700	926.000	739.800	1026.000
GR	742.000	1176.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.050	.100	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	60.000	51.000	400.000	835.000	2800.000	2800.000	2800.000	-0.000	-0.000	-0.000
GR	751.400	120.000	742.400	180.000	731.100	400.000	730.400	405.000	729.700	410.000
GR	729.300	420.000	729.100	430.000	728.900	440.000	728.800	450.000	728.600	460.000
GR	728.600	470.000	728.400	480.000	728.400	490.000	728.400	500.000	728.400	510.000
GR	728.200	520.000	728.300	530.000	728.100	540.000	727.800	550.000	727.500	560.000
GR	727.200	570.000	726.800	580.000	726.800	590.000	726.800	600.000	727.000	610.000
GR	727.000	620.000	726.600	630.000	726.300	640.000	726.000	650.000	725.600	660.000
GR	725.100	670.000	725.100	680.000	724.600	690.000	724.900	700.000	724.400	710.000
GR	724.400	720.000	724.400	730.000	723.700	740.000	722.800	750.000	722.200	760.000
GR	721.200	770.000	721.000	780.000	721.100	790.000	722.000	800.000	725.600	810.000
GR	729.400	820.000	740.000	835.000	735.100	850.000	739.600	882.000	739.100	932.000
GR	742.000	992.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	59.100	-0.000	-0.000	-0.000	1800.000	1800.000	1800.000	-0.000	-0.000	-0.000
NC	.070	.070	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	59.000	16.000	200.000	328.000	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	738.000	738.000	-0.000
GR	750.000	200.000	730.400	200.000	726.300	210.000	720.500	220.000	719.800	230.000
GR	720.500	240.000	722.100	250.000	722.200	260.000	721.500	270.000	719.000	280.000
GR	721.600	290.000	725.400	300.000	724.500	310.000	729.400	320.000	737.800	328.000
GR	750.000	328.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SR	1.250	1.500	2.700	-0.000	88.000	48.000	1095.000	1.180	721.000	721.000
X1	58.200	-0.000	-0.000	-0.000	12.000	12.000	12.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	737.900	738.880	-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	738.880	739.300	-0.000
RT	4.000	200.000	750.000	750.000	200.000	738.880	737.400	328.000	739.300	737.900
RT	328.000	750.000	750.000	-0.000	-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
X1	58.100	-0.000	-0.000	-0.000	20.000	20.000	20.000	-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
X1	58.000	17.000	200.000	313.000	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	-0.000	740.000	740.000
GR	747.720	100.000	747.900	200.000	729.400	200.000	728.000	210.000	722.800	220.000
GR	721.900	230.000	722.700	240.000	722.200	250.000	723.400	260.000	723.800	270.000
GR	720.800	280.000	722.400	290.000	724.400	300.000	728.400	310.000	729.300	313.000
GR	748.220	313.000	748.400	413.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SB	1.250	1.500	2.700	-0.000	87.000	6.000	1614.000	.840	722.500	722.500
X1	57.100	-0.000	-0.000	-0.000	28.000	28.000	28.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	738.590	747.720	-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	747.900	748.220	-0.000
BT	6.000	100.000	747.720	747.720	200.000	747.900	747.900	200.000	747.900	738.230
BT	313.000	748.220	738.590	313.000	748.220	748.220	413.000	748.400	748.400	-0.000
NC	.080	.100	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	57.000	33.000	600.000	820.000	290.000	200.000	200.000	-0.000	-0.000	-0.000
GR	748.000	50.000	740.000	62.000	732.000	130.000	730.300	363.000	728.500	377.000
GR	728.700	487.000	730.500	515.000	730.600	560.000	731.200	600.000	730.400	615.000
GR	730.400	620.000	729.100	630.000	729.600	640.000	729.200	650.000	728.400	660.000
GR	728.300	670.000	728.000	680.000	726.800	690.000	725.700	700.000	725.500	710.000
GR	725.000	720.000	725.100	730.000	725.500	740.000	725.700	750.000	725.700	760.000
GR	725.800	770.000	725.800	780.000	725.900	790.000	727.400	800.000	730.400	820.000
GR	732.000	820.000	740.500	920.000	744.900	930.000	-0.000	-0.000	-0.000	-0.000
NC	.050	.100	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
X1	56.000	25.000	300.000	470.000	1930.000	2400.000	2400.000	-0.000	-0.000	-0.000
GR	750.000	140.000	738.000	140.000	737.800	300.000	730.600	325.000	729.600	330.000
GR	727.100	340.000	726.900	350.000	726.800	360.000	726.600	370.000	726.300	380.000
GR	726.000	390.000	725.900	400.000	726.000	410.000	726.300	420.000	726.600	430.000
GR	727.000	440.000	727.700	450.000	729.000	460.000	730.600	466.000	732.800	470.000
GR	734.100	525.000	742.000	545.000	742.000	555.000	742.000	627.000	750.000	650.000
NC	.040	.070	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
QT	4.000	6471.000	7433.000	9277.000	7500.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	55.000	24.000	380.000	550.000	1850.000	1850.000	1850.000	-0.000	-0.000	-0.000
GR	741.100	128.000	739.900	231.000	736.400	250.000	737.400	320.000	736.400	380.000
GR	734.900	400.000	730.000	410.000	728.300	420.000	728.300	430.000	728.100	440.000
GR	728.100	450.000	727.800	460.000	727.800	470.000	728.100	480.000	727.900	490.000
GR	728.000	500.000	728.100	510.000	728.200	520.000	729.100	530.000	730.900	531.000
GR	731.700	550.000	735.200	685.000	738.100	790.000	746.400	805.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	54.000	21.000	300.000	408.000	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	742.000	742.000	-0.000
GR	743.500	0.000	740.000	0.000	736.500	200.000	735.000	280.000	725.400	300.000
GR	724.500	309.000	723.000	319.000	723.100	329.000	724.000	339.000	724.400	349.000
GR	725.600	357.000	725.600	359.000	725.300	369.000	725.900	379.000	727.000	389.000
GR	728.600	399.000	729.400	409.000	735.000	490.000	735.500	510.000	740.000	700.000
GR	746.500	900.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SB	1.250	1.500	2.800	-0.000	90.000	4.000	1484.000	.670	724.000	724.000
X1	53.200	-0.000	-0.000	-0.000	19.000	19.000	19.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	739.480	743.290	-0.000	-0.000	-0.000	.860	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	743.290	743.320	-0.000
BT	12.000	0.000	743.500	743.500	0.000	743.500	740.000	200.000	743.390	736.500
BT	280.000	743.290	735.000	300.000	743.290	725.400	300.000	743.290	739.430	349.000
BT	743.320	739.480	409.000	743.340	739.270	409.000	743.340	729.400	490.000	744.000
BT	735.000	700.000	746.500	740.000	700.000	746.500	746.500	-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
X1	53.100	19.000	390.000	508.000	35.000	35.000	35.000	-0.000	-0.000	-0.000
X3	-0.000	-0.000	-0.000	355.000	-0.000	544.000	-0.000	-0.000	-0.000	-0.000
GR	742.000	50.000	740.000	250.000	735.000	350.000	730.000	390.000	725.400	400.000
GR	724.500	409.000	723.000	419.000	723.100	429.000	724.000	439.000	724.400	449.000
GR	725.600	457.000	725.600	459.000	725.300	469.000	725.900	479.000	727.000	489.000
GR	728.600	499.000	729.400	509.000	735.000	700.000	740.000	900.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000

X1	53.000	22.000	300.000	407.000	35.000	35.000	35.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	745.000	745.000	-0.000
GR	749.160	40.000	742.000	40.000	740.000	150.000	737.500	200.000	735.000	250.000
GR	731.700	300.000	729.900	307.000	727.200	317.000	724.000	327.000	726.300	337.000
GR	727.300	342.000	729.200	347.000	729.700	357.000	729.400	367.000	727.900	377.000
GR	728.200	387.000	729.600	397.000	731.900	407.000	733.500	507.000	735.000	600.000
GR	740.000	800.000	750.000	800.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SB	1.250	1.500	2.900	-0.000	87.000	5.000	1170.000	.830	727.000	727.000
X1	52.200	-0.000	-0.000	-0.000	28.500	28.500	28.500	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	739.400	749.160	-0.000	-0.000	-0.000	.860	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	749.320	749.560	-0.000
BT	12.000	40.000	749.160	749.160	150.000	749.160	740.000	200.000	749.160	737.500
BT	250.000	749.240	735.000	300.000	749.320	731.700	300.000	749.320	739.370	407.000
BT	749.560	739.400	407.000	749.560	731.900	507.000	749.650	733.500	600.000	749.650
BT	735.000	800.000	750.000	740.000	800.000	750.000	750.000	-0.000	-0.000	-0.000
NC	.050	.090	-0.000	.400	.600	-0.000	-0.000	-0.000	-0.000	-0.000
X1	52.100	-0.000	-0.000	-0.000	100.000	100.000	100.000	-0.000	-0.000	-0.000
NC	.050	.070	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	52.000	29.000	300.000	524.000	390.000	390.000	390.000	-0.000	-0.000	-0.000
GR	764.000	100.000	752.900	185.000	738.600	281.000	737.300	300.000	729.200	300.000
GR	728.800	304.000	728.100	314.000	728.100	324.000	728.100	334.000	728.400	344.000
GR	728.600	354.000	729.000	364.000	729.600	374.000	729.800	384.000	728.800	394.000
GR	728.400	404.000	727.800	414.000	724.000	424.000	719.800	434.000	715.100	444.000
GR	715.600	454.000	719.900	464.000	725.200	474.000	727.900	484.000	729.000	494.000
GR	730.800	499.000	739.600	524.000	741.800	574.000	749.000	599.000	-0.000	-0.000
NC	.050	.070	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
X1	51.000	20.000	200.000	376.000	189.000	189.000	189.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	745.000	745.000	-0.000
GR	753.560	100.000	750.020	200.000	727.000	200.000	725.900	210.000	724.600	220.000
GR	724.600	230.000	727.400	240.000	727.500	250.000	727.500	260.000	727.900	270.000
GR	727.600	273.000	724.700	320.000	723.900	326.000	724.500	336.000	724.600	346.000
GR	724.700	356.000	724.500	366.000	729.400	376.000	746.000	476.000	750.000	510.000
SB	1.250	1.500	2.600	-0.000	176.000	51.000	2180.000	0.000	726.000	726.000
X1	50.100	-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	743.000	748.360	-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	748.360	748.360	-0.000
BT	8.000	100.000	753.560	753.560	200.000	750.020	743.000	273.000	749.040	742.500
BT	320.000	748.660	743.300	376.000	748.360	742.300	376.000	748.360	729.400	476.000
BT	750.000	746.000	510.000	750.000	750.000	-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

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINKBEINER PETTIS  STROUT - USEC401 R2
T3      HURON RIVER AT SUPERIOR DAM - Q = 100 YEAR

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        -0.       3.        -0.       -0. -0.000000     -0.00     -0.0      -0.   736.000    -0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
        2.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000
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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
64.10	19.00	736.00	0.00	736.00	736.12	.12	0.00	0.00	740.00
8398.	0.	8398.	0.	0.	3042.	0.	0.	0.	740.00
0.00	0.00	2.76	0.00	.040	.030	.050	0.000	717.00	0.00
.000081	0.	0.	0.	0	0	1	0.00	160.12	160.12

CCHV= .500 CEHV= .700

64.00	19.14	736.14	0.00	0.00	736.17	.03	.01	.04	737.10
8398.	0.	8355.	43.	0.	5701.	108.	20.	1.	732.40
.04	0.00	1.47	.39	.040	.030	.040	.030	717.00	200.72
.000029	200.	200.	200.	2	0	1	0.00	472.28	673.00

CCHV= .600 CEHV= .800

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 740.00 ELREA= 740.00

63.00	20.53	736.13	0.00	0.00	736.30	.17	.02	.11	721.00
8398.	0.	8398.	0.	0.	2572.	0.	59.	4.	735.30
.07	0.00	3.27	0.00	.040	.030	.040	.030	715.60	600.00
.000119	400.	400.	400.	2	0	1	0.00	155.00	755.00

SPECIAL BRIDGE

SB XK	XKOR	COFQ	PDLEN	BWC	BWP	BAREA	SS	FLCHU	ELCHD
1.25	1.50	2.70	-0.00	105.00	7.00	2335.00	1.43	717.00	717.00

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
736.43	736.31	.02	0.	8398.	2335.	735.30	742.00	10.00

OVERBANK APEA ASSUMED NON-EFFECTIVE,ELLEA= 742.00 FLREA= 742.00

62.10	20.67	736.27	0.00	0.00	736.43	.16	.14	0.00	721.00
8398.	0.	8398.	0.	0.	2593.	0.	60.	4.	735.30
.07	0.00	3.24	0.00	.040	.030	.040	.030	715.60	600.00
.000116	28.	28.	28.	2	0	1	0.00	155.00	755.00

CCHV= .600 CEHV= .800

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

62.00	16.30	736.50	0.00	0.00	736.53	.03	.02	.08	732.00
8398.	35.	8356.	7.	95.	6048.	24.	96.	7.	731.10
.15	.37	1.38	.28	.040	.030	.045	.030	720.20	263.01
.000023	350.	350.	350.	2	0	1	0.00	480.91	743.92

CCHV= .200 CEHV= .400

61.00	16.05	736.55	0.00	0.00	736.57	.02	.04	.00	732.20
8398.	7.	8361.	30.	48.	7456.	117.	403.	35.	733.60
.63	.14	1.12	.26	.080	.030	.050	.030	720.50	177.98
.000021	1940.	1940.	1940.	2	0	1	0.00	768.84	946.82

CCHV= .100 CEHV= .300

3265 DIVIDED FLOW

60.00	15.63	736.63	0.00	0.00	736.68	.06	.10	.01	731.10
8398.	89.	8307.	1.	297.	4364.	12.	798.	77.	740.00
1.04	.30	1.90	.10	.080	.030	.100	.030	721.00	292.50
.000068	2800.	2800.	2800.	1	0	1	0.00	553.20	860.82

3265 DIVIDED FLOW

59.10	15.75	736.75	0.00	0.00	736.80	.05	.12	.00	731.10
8398.	93.	8304.	1.	311.	4419.	14.	882.	100.	740.00
1.31	.30	1.88	.10	.080	.030	.100	.030	721.00	290.03
.000065	1800.	1800.	1800.	2	0	1	0.00	557.13	861.72

CCHV= .400 CEHV= .800

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 738.00 ELREA= 738.00

59.00	17.70	736.70	0.00	0.00	737.08	.38	.01	.26	750.00
8398.	0.	8398.	0.	0.	1696.	0.	1000.	101.	750.00
1.31	0.00	4.95	0.00	.070	.030	.070	.030	719.00	200.00
.000364	100.	100.	100.	2	0	1	0.00	126.95	326.95

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.70	-0.00	88.00	48.00	1095.00	1.18	721.00	721.00

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
738.07	737.94	.91	0.	8398.	1095.	737.90	738.88	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 738.88 ELREA= 739.30

58.20	18.74	737.74	0.00	0.00	738.07	.33	.99	0.00	750.00
8398.	0.	8398.	0.	0.	1829.	0.	1000.	101.	750.00
1.31	0.00	4.59	0.00	.070	.030	.070	.030	719.00	200.00
.000290	12.	12.	12.	2	0	1	0.00	127.94	327.94

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
58.10	18.74	737.74	0.00	0.00	738.07	.33	.01	.00	750.00
8398.	0.	8398.	0.	0.	1830.	0.	1001.	101.	750.00
1.32	0.00	4.59	0.00	.070	.030	.070	.030	719.00	200.00
.000289	20.	20.	20.	0	0	1	0.00	127.95	327.95

CCHV= .100 CEHV= .300

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 747.90 ELREA= 748.22

58.00	16.86	737.66	0.00	0.00	738.12	.45	.01	.04	747.90
8398.	0.	8398.	0.	0.	1557.	0.	1002.	101.	748.22
1.32	0.00	5.40	0.00	.070	.030	.070	.030	720.80	200.00
.000446	20.	20.	20.	2	0	1	0.00	113.00	313.00

SPECIAL BRIDGE

SR	XK	XKOR	COFO	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.70	-0.00	87.00	6.00	1614.00	.84	722.50	722.50

CLASS A LOW FLOW

BRIDGE W.S.= 737.60 BRIDGE VELOCITY= 5.94

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	738.18	.06	0.	8398.	1614.	738.59	747.72	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 747.90 ELREA= 748.22

57.10	16.93	737.73	0.00	0.00	738.18	.45	.06	0.00	747.90
8398.	0.	8398.	0.	0.	1564.	0.	1003.	101.	748.22
1.32	0.00	5.37	0.00	.070	.030	.070	.030	720.80	200.00
.000439	28.	28.	28.	0	0	1	0.00	113.00	313.00

CCHV= .600 CEHV= .800

57.00	13.39	738.39	0.00	0.00	738.45	.06	.04	.23	731.20
8398.	2770.	5554.	73.	3962.	2414.	240.	1026.	104.	732.00
1.35	.70	2.30	.30	.080	.030	.100	.030	725.00	75.67
.000090	290.	200.	200.	2	0	1	0.00	819.52	895.19

CCHV= .200 CEHV= .400

56.00	12.72	738.62	0.00	0.00	738.93	.31	.38	.10	737.80
8398.	53.	8086.	259.	114.	1769.	310.	1246.	134.	732.80
1.50	.46	4.57	.84	.050	.030	.100	.030	725.90	140.00
.000382	1930.	2400.	2400.	2	0	1	0.00	396.43	536.43

CCHV= .200 CEHV= .400

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

55.00	11.58	739.38	0.00	0.00	739.54	.17	.59	.03	736.40
7433.	374.	5965.	1094.	346.	1650.	1088.	1359.	154.	731.70
1.66	1.08	3.62	1.01	.040	.030	.070	.030	727.80	733.83
.000262	1850.	1850.	1850.	2	0	1	0.00	558.48	792.31

CCHV= .600 CEHV= .800

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 742.00 ELREA= 742.00

54.00	16.41	739.41	0.00	0.00	739.78	.37	.07	.16	725.40
7433.	0.	7433.	0.	0.	1531.	0.	1372.	156.	729.40
1.68	0.00	4.85	0.00	.040	.030	.070	.030	723.00	300.00
.000314	250.	250.	250.	2	0	1	0.00	109.00	409.00

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHO	ELCHD
1.25	1.50	2.80	-0.00	90.00	4.00	1484.00	.67	724.00	724.00

PRESSURE FLOW

EGPRS	EGLWC	HJ	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
739.99	739.81	.03	0.	7433.	1484.	739.48	743.29	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 743.29 ELREA= 743.32

53.20	16.64	739.64	0.00	0.00	739.99	.35	.22	0.00	725.40
7433.	0.	7433.	0.	0.	1557.	0.	1372.	156.	729.40
1.68	0.00	4.78	0.00	.040	.030	.070	.030	723.00	300.00
.000298	19.	19.	19.	2	0	1	0.00	109.00	409.00

CCHV= .100 CEHV= .300

3470 ENCROACHMENT STATIONS= 355.0 544.0 TYPE= 1 TARGET= 189.000

53.10	16.81	739.81	0.00	0.00	740.02	.20	.01	.02	730.00
7433.	506.	6479.	448.	267.	1697.	347.	1374.	156.	729.40
1.68	1.89	3.82	1.29	.040	.030	.070	.030	723.00	355.00
.000175	35.	35.	35.	2	0	1	0.00	189.00	544.00

CCHV= .100 CEHV= .300

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 745.00 ELREA= 745.00

53.00	15.55	739.55	0.00	0.00	740.15	.60	.01	.12	731.70
7433.	0.	7433.	0.	0.	1194.	0.	1375.	156.	731.90
1.68	0.00	6.22	0.00	.040	.030	.070	.030	724.00	300.00
.000689	35.	35.	35.	2	0	1	0.00	107.00	407.00

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHO	ELCHD
1.25	1.50	2.90	-0.00	87.00	5.00	1170.00	.83	727.00	727.00

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	ITPIAL	IDC	ICONT	CORAR	TOPWID	ENDST

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
740.49	740.23	.09	0.	7433.	1170.	739.40	749.16	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 749.32 ELREA= 749.56

52.20	15.92	739.92	0.00	0.00	740.49	.56	.34	0.00	731.70
7433.	0.	7433.	0.	0.	1235.	0.	1376.	156.	731.90
1.68	0.00	6.02	0.00	.040	.030	.070	.030	724.00	300.00
.000618	29.	29.	29.	2	0	1	0.00	107.00	407.00

CCHV= .400 CEHV= .600

52.10	16.54	740.54	0.00	0.00	740.69	.15	.03	.17	731.70
7433.	875.	4850.	1707.	672.	1301.	1978.	1382.	157.	731.90
1.69	1.30	3.73	.86	.050	.030	.080	.030	724.00	120.19
.000209	100.	100.	100.	2	0	1	0.00	679.81	800.00

CCHV= .100 CEHV= .300

52.00	25.55	740.65	0.00	0.00	740.74	.09	.05	.01	737.30
7433.	30.	7401.	2.	65.	3049.	12.	1414.	161.	739.60
1.74	.46	2.43	.12	.050	.030	.070	.030	715.10	267.25
.0000A1	390.	390.	390.	2	0	1	0.00	280.59	547.83

CCHV= .200 CEHV= .400

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 745.00 ELREA= 745.00

51.00	16.74	740.64	0.00	0.00	740.77	.13	.02	.01	750.02
7433.	0.	7433.	0.	0.	2596.	0.	1426.	162.	729.40
1.76	0.00	2.86	0.00	.050	.030	.070	.030	723.90	200.00
.000103	189.	189.	189.	2	0	1	0.00	176.00	443.74

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.60	-0.00	176.00	51.00	2180.00	0.00	726.00	726.00

CLASS A LOW FLOW

BRIDGE W.S.= 740.50 BRIDGE VELOCITY= 4.10

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	740.86	.09	0.	7433.	2180.	743.00	748.36	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 748.36 ELREA= 748.36

50.10	16.84	740.74	0.00	0.00	740.86	.13	.09	0.00	750.02
7433.	0.	7433.	0.	0.	2613.	0.	1428.	163.	729.40

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINKBEINER PETTIS   STROUT - USFC401 R2
T3      HURON RIVER AT SUPERIOR DAM - Q = 1968 FLOOD

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        -0.       5.        -0.       -0. -0.000000     -0.00     -0.0      -0.    735.600    -0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    15.000     -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000
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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
64.10	18.60	735.60	0.00	735.60	735.70	.10	0.00	0.00	740.00
7500.	0.	7500.	0.	0.	2978.	0.	0.	0.	740.00
0.00	0.00	2.52	0.00	.040	.030	.050	0.000	717.00	0.00
.000069	0.	0.	0.	0	0	1	0.00	160.12	160.12

CCHV= .500 CEHV= .700

64.00	18.71	735.71	0.00	0.00	735.74	.03	.01	.04	737.10
7500.	0.	7469.	31.	0.	5520.	91.	20.	1.	732.40
.04	0.00	1.35	.34	.040	.030	.040	.030	717.00	201.03
.000026	200.	200.	200.	2	0	1	0.00	469.70	670.74

CCHV= .600 CEHV= .800

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 740.00 ELREA= 740.00

63.00	20.11	735.71	0.00	0.00	735.85	.14	.02	.09	721.00
7500.	0.	7500.	0.	0.	2507.	0.	57.	4.	735.30
.08	0.00	2.99	0.00	.040	.030	.040	.030	715.60	600.00
.000103	400.	400.	400.	2	0	1	0.00	155.00	755.00

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	FLCHU	ELCHD
1.25	1.50	2.70	-0.00	105.00	7.00	2335.00	1.43	717.00	717.00

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	FLTPD	CLASS
735.95	735.86	.01	0.	7500.	2335.	735.30	742.00	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 742.00 ELPEA= 742.00

62.10	20.21	735.81	0.00	0.00	735.95	.14	.10	0.00	721.00
7500.	0.	7500.	0.	0.	2522.	0.	59.	4.	735.30
.08	0.00	2.97	0.00	.040	.030	.040	.030	715.60	600.00
.000101	28.	28.	28.	2	0	1	0.00	155.00	755.00

CCHV= .600 CEHV= .800

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

62.00	15.81	736.01	0.00	0.00	736.03	.03	.01	.07	732.00
7500.	25.	7470.	5.	77.	5833.	20.	93.	7.	731.10
.16	.33	1.28	.25	.040	.030	.045	.030	720.20	266.30
.000021	350.	350.	350.	2	0	1	0.00	476.81	743.11

CCHV= .200 CEHV= .400

61.00	15.55	736.05	0.00	0.00	736.07	.02	.04	.00	732.20
7500.	5.	7475.	21.	38.	7114.	90.	386.	34.	733.60
.67	.13	1.05	.23	.080	.030	.050	.030	720.50	180.50
.000020	1940.	1940.	1940.	2	0	1	0.00	754.15	934.66

CCHV= .100 CEHV= .300

3265 DIVIDED FLOW

60.00	15.12	736.12	0.00	0.00	736.17	.05	.09	.01	731.10
7500.	67.	7432.	0.	245.	4148.	5.	760.	76.	740.00
1.11	.27	1.79	.07	.080	.030	.100	.030	721.00	302.29
.000064	2800.	2800.	2800.	1	0	1	0.00	537.58	857.24

3265 DIVIDED FLOW

59.10	15.24	736.24	0.00	0.00	736.29	.05	.11	.00	731.10
7500.	70.	7429.	1.	257.	4200.	7.	943.	98.	740.00
1.39	.27	1.77	.08	.080	.030	.100	.030	721.00	299.94
.000062	1800.	1800.	1800.	2	0	1	0.00	541.33	858.10

CCHV= .600 CEHV= .800

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 738.00 ELREA= 738.00

59.00	17.20	736.20	0.00	0.00	736.52	.33	.01	.22	750.00
7500.	0.	7500.	0.	0.	1632.	0.	950.	99.	750.00
1.40	0.00	4.59	0.00	.070	.030	.070	.030	719.00	200.00
.000326	100.	100.	100.	2	0	1	0.00	126.47	326.47

SPECIAL BRIDGE

SB XK	XKOR	COFO	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
1.25	1.50	2.70	-0.00	88.00	48.00	1095.00	1.18	721.00	721.00

CLASS A LOW FLOW

BRIDGE W.S.= 734.80 BRIDGE VELOCITY= 9.66

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	737.26	.77	0.	7500.	1095.	737.90	738.88	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 738.88 FLREA= 739.30

58.20	17.97	736.97	0.00	0.00	737.26	.29	.73	0.00	750.00
7500.	0.	7500.	0.	0.	1730.	0.	951.	99.	750.00
1.40	0.00	4.33	0.00	.070	.030	.070	.030	719.00	200.00
.000273	12.	12.	12.	0	0	1	0.00	127.21	327.21

CCHV= .100 CEHV= .300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	OLOB	OCH	OROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
58.10	17.97	736.97	0.00	0.00	737.26	.29	.01	.00	750.00
7500.	0.	7500.	0.	0.	1731.	0.	951.	99.	750.00
1.40	0.00	4.33	0.00	.070	.030	.070	.030	719.00	200.00
.000273	20.	20.	20.	0	0	1	0.00	127.21	327.21

CCHV= .100 CEHV= .300

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 747.90 ELREA= 748.22

58.00	16.10	736.90	0.00	0.00	737.30	.40	.01	.03	747.90
7500.	0.	7500.	0.	0.	1470.	0.	952.	99.	748.22
1.40	0.00	5.10	0.00	.070	.030	.070	.030	720.80	200.00
.000423	20.	20.	20.	2	0	1	0.00	113.00	313.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.70	-0.00	87.00	6.00	1614.00	.84	722.50	722.50

CLASS A LOW FLOW

BRIDGE W.S.= 736.84 BRIDGE VELOCITY= 5.62

EGFRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	737.36	.06	0.	7500.	1614.	738.59	747.72	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 747.90 ELREA= 748.22

57.10	16.16	736.96	0.00	0.00	737.36	.40	.05	0.00	747.90
7500.	0.	7500.	0.	0.	1477.	0.	953.	99.	748.22
1.40	0.00	5.08	0.00	.070	.030	.070	.030	720.80	200.00
.000418	28.	28.	28.	0	0	1	0.00	113.00	313.00

CCHV= .600 CEHV= .800

57.00	12.55	737.55	0.00	0.00	737.60	.06	.04	.21	731.20
7500.	2392.	5056.	52.	3522.	2228.	181.	974.	102.	732.00
1.44	.68	2.27	.29	.080	.030	.100	.030	725.00	82.86
.000097	290.	200.	200.	2	0	1	0.00	802.38	885.24

CCHV= .200 CEHV= .400

56.00	11.91	737.81	0.00	0.00	738.11	.30	.41	.10	737.90
7500.	0.	7301.	199.	0.	1631.	257.	1170.	128.	732.80
1.59	.01	4.48	.78	.050	.030	.100	.030	725.90	295.94
.000408	1930.	2400.	2400.	2	0	1	0.00	238.44	534.38

CCHV= .200 CEHV= .400

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

55.00	10.83	738.63	0.00	0.00	738.85	.22	.73	.02	735.40
7500.	244.	6258.	998.	238.	1522.	907.	1267.	144.	731.70
1.73	1.02	4.11	1.10	.040	.030	.070	.030	727.80	237.90
.000378	1850.	1850.	1850.	2	0	1	0.00	553.05	790.96

CCHV= .600 CEHV= .800

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 742.00 ELREA= 742.00

54.00	15.68	738.68	0.00	0.00	739.10	.41	.09	.15	725.40
7500.	0.	7500.	0.	0.	1452.	0.	1279.	146.	729.40
1.74	0.00	5.16	0.00	.040	.030	.070	.030	723.00	300.00
.000379	250.	250.	250.	2	0	1	0.00	109.00	409.00

SPECIAL BRIDGE

SB	XK	XKOR	COFO	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.80	-0.00	90.00	4.00	1484.00	.67	724.00	724.00

CLASS A LOW FLOW

BRIDGE W.S.= 738.65 BRIDGE VELOCITY= 5.34

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	739.13	.04	0.	7500.	1484.	739.48	743.29	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 743.29 ELREA= 741.32

53.20	15.72	738.72	0.00	0.00	739.13	.41	.04	0.00	725.40
7500.	0.	7500.	0.	0.	1457.	0.	1279.	146.	729.40
1.74	0.00	5.15	0.00	.040	.030	.070	.030	723.00	300.00
.000376	19.	19.	19.	0	0	1	0.00	109.00	409.00

CCHV= .100 CEHV= .300

3470 ENCROACHMENT STATIONS= 355.0 544.0 TYPE= 1 TARGET= 189.000

53.10	15.92	738.92	0.00	0.00	739.16	.24	.01	.02	730.00
7500.	466.	6599.	435.	236.	1590.	315.	1281.	147.	729.40
1.75	1.98	4.15	1.38	.040	.030	.070	.030	723.00	355.00
.000225	35.	35.	35.	2	0	1	0.00	189.00	544.00

CCHV= .100 CEHV= .300

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 745.00 ELREA= 745.00

53.00	14.59	738.59	0.00	0.00	739.32	.73	.01	.15	731.70
7500.	0.	7500.	0.	0.	1092.	0.	1282.	147.	731.90
1.75	0.00	6.87	0.00	.040	.030	.070	.030	724.00	300.00
.000936	35.	35.	35.	2	0	1	0.00	107.00	407.00

SPECIAL BRIDGE

SB	XK	XKOR	COFO	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.90	-0.00	87.00	5.00	1170.00	.83	727.00	727.00

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

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	OPR	BAREA	ELLC	ELTRD	CLASS
739.55	739.43	.12	0.	7500.	1170.	739.40	749.16	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 749.32 ELREA= 749.56

52.20	14.85	738.85	0.00	0.00	739.55	.70	.22	0.00	731.70
7500.	0.	7500.	0.	0.	1120.	0.	1283.	147.	731.90
1.75	0.00	6.69	0.00	.040	.030	.070	.030	724.00	300.00
.000862	29.	29.	29.	2	0	1	0.00	107.00	407.00

CCHV= .400 CEHV= .600

52.10	15.59	739.59	0.00	0.00	739.79	.21	.05	.20	731.70
7500.	773.	5172.	1555.	523.	1199.	1608.	1288.	148.	731.90
1.76	1.48	4.31	.97	.050	.030	.080	.030	724.00	158.15
.000311	100.	100.	100.	2	0	1	0.00	625.55	783.70

CCHV= .100 CEHV= .300

52.00	24.66	739.76	0.00	0.00	739.87	.11	.06	.01	737.30
7500.	16.	7484.	0.	39.	2850.	0.	1316.	151.	739.60
1.80	.42	2.63	.04	.050	.030	.070	.030	715.10	273.21
.000103	390.	390.	390.	2	0	1	0.00	254.45	527.66

CCHV= .200 CEHV= .400

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 745.00 ELREA= 745.00

51.00	15.86	739.76	0.00	0.00	739.91	.15	.02	.02	750.02
7500.	0.	7500.	0.	0.	2440.	0.	1327.	152.	729.40
1.81	0.00	3.07	0.00	.050	.030	.070	.030	723.90	200.00
.000128	189.	189.	189.	2	0	1	0.00	176.00	438.40

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	FLCHU	FLCHD
	1.25	1.50	2.60	-0.00	176.00	51.00	2180.00	0.00	726.00	726.00

CLASS A LOW FLOW

BRIDGE W.S.= 739.59 BRIDGE VELOCITY= 4.42

EGPRS	EGLWC	H3	QWEIR	OPR	BAREA	ELLC	ELTRD	CLASS
0.00	740.01	.11	0.	7500.	2180.	743.00	748.36	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 748.36 ELREA= 748.36

50.10	15.97	739.87	0.00	0.00	740.01	.14	.11	0.00	750.02
7500.	0.	7500.	0.	0.	2460.	0.	1329.	153.	729.40
1.82	0.00	3.05	0.00	.050	.030	.070	.030	723.90	200.00
.000125	36.	36.	36.	0	0	1	0.00	176.00	439.06

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

HURON RIVER AT SUPERIOR

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
64.10	0.00	0.00	0.00	717.00	7311.00	735.50	0.00	735.59	160.12	.67	0.00	0.00
64.10	0.00	0.00	0.00	717.00	8398.00	736.00	0.00	736.12	160.12	.81	0.00	0.00
64.10	0.00	0.00	0.00	717.00	10482.00	737.00	0.00	737.17	160.12	1.08	0.00	0.00
64.10	0.00	0.00	0.00	717.00	7500.00	735.60	0.00	735.70	160.12	.69	0.00	0.00
64.00	200.00	0.00	0.00	717.00	7311.00	735.61	0.00	735.64	469.07	.25	.04	19.57
64.00	200.00	0.00	0.00	717.00	8398.00	736.14	0.00	736.17	472.28	.29	.04	20.32
64.00	200.00	0.00	0.00	717.00	10482.00	737.19	0.00	737.24	545.75	.35	.03	21.89
64.00	200.00	0.00	0.00	717.00	7500.00	735.71	0.00	735.74	469.70	.26	.04	19.72
63.00	400.00	0.00	0.00	715.60	7311.00	735.60	0.00	735.74	155.00	1.00	.08	56.53
63.00	400.00	0.00	0.00	715.60	8398.00	736.13	0.00	736.30	155.00	1.19	.07	58.81
63.00	400.00	0.00	0.00	715.60	10482.00	737.18	0.00	737.41	155.00	1.52	.06	63.54
63.00	400.00	0.00	0.00	715.60	7500.00	735.71	0.00	735.85	155.00	1.03	.08	56.98
62.10	28.30	742.00	735.30	715.60	7311.00	735.70	0.00	735.83	155.00	.98	.08	58.16
62.10	28.30	742.00	735.30	715.60	8398.00	736.27	0.00	736.43	155.00	1.16	.07	60.48
62.10	28.30	742.00	735.30	715.60	10482.00	737.43	0.00	737.65	155.00	1.46	.06	65.33
62.10	28.30	742.00	735.30	715.60	7500.00	735.81	0.00	735.95	155.00	1.01	.08	58.62
62.00	350.00	0.00	0.00	720.20	7311.00	735.89	0.00	735.91	475.83	.21	.16	91.82
62.00	350.00	0.00	0.00	720.20	8398.00	736.50	0.00	736.53	480.91	.23	.15	95.68
62.00	350.00	0.00	0.00	720.20	10482.00	737.74	0.00	737.78	491.27	.27	.13	103.67
62.00	350.00	0.00	0.00	720.20	7500.00	736.01	0.00	736.03	476.81	.21	.16	92.58
61.00	1940.00	0.00	0.00	720.50	7311.00	735.94	0.00	735.95	750.64	.20	.68	381.88
61.00	1940.00	0.00	0.00	720.50	8398.00	736.55	0.00	736.57	768.84	.21	.63	402.70
61.00	1940.00	0.00	0.00	720.50	10482.00	737.81	0.00	737.83	805.80	.23	.56	446.17
61.00	1940.00	0.00	0.00	720.50	7500.00	736.05	0.00	736.07	754.15	.20	.67	385.89
60.00	2800.00	0.00	0.00	721.00	7311.00	736.00	0.00	736.05	533.85	.64	1.12	751.03
60.00	2800.00	0.00	0.00	721.00	8398.00	736.63	0.00	736.68	553.20	.68	1.04	797.83
60.00	2800.00	0.00	0.00	721.00	10482.00	737.88	0.00	737.95	592.25	.72	.93	896.20
60.00	2800.00	0.00	0.00	721.00	7500.00	736.12	0.00	736.17	537.58	.64	1.11	759.99
59.10	1800.00	0.00	0.00	721.00	7311.00	736.12	0.00	736.17	537.57	.61	1.41	931.46
59.10	1800.00	0.00	0.00	721.00	8398.00	736.75	0.00	736.80	557.13	.65	1.31	992.38
59.10	1800.00	0.00	0.00	721.00	10482.00	738.01	0.00	738.08	596.35	.69	1.18	1120.68
59.10	1800.00	0.00	0.00	721.00	7500.00	736.24	0.00	736.29	541.33	.62	1.39	943.10
59.00	100.00	0.00	0.00	719.00	7311.00	736.08	0.00	736.39	126.36	3.19	1.42	938.37
59.00	100.00	0.00	0.00	719.00	8398.00	736.70	0.00	737.08	126.95	3.64	1.31	999.78
59.00	100.00	0.00	0.00	719.00	10482.00	737.94	0.00	738.44	128.00	4.33	1.18	1129.09
59.00	100.00	0.00	0.00	719.00	7500.00	736.20	0.00	736.52	126.47	3.26	1.40	950.10
58.20	12.00	738.88	737.90	719.00	7311.00	736.82	0.00	737.10	127.07	2.68	1.42	938.83
58.20	12.00	738.88	737.90	719.00	8398.00	737.74	0.00	738.07	127.94	2.90	1.31	1000.26
58.20	12.00	738.88	737.90	719.00	10482.00	739.57	0.00	739.98	128.00	3.12	1.18	1129.63
58.20	12.00	738.88	737.90	719.00	7500.00	736.97	0.00	737.26	127.21	2.73	1.40	950.56

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
58.10	20.00	0.00	0.00	719.00	7311.00	736.83	0.00	737.11	127.07	2.68	1.42	939.61
58.10	20.00	0.00	0.00	719.00	8398.00	737.74	0.00	738.07	127.95	2.89	1.32	1001.10
58.10	20.00	0.00	0.00	719.00	10482.00	739.58	0.00	739.98	128.00	3.12	1.18	1130.58
58.10	20.00	0.00	0.00	719.00	7500.00	736.97	0.00	737.26	127.21	2.73	1.40	951.36
58.00	20.00	0.00	0.00	720.80	7311.00	736.76	0.00	737.15	113.00	4.16	1.42	940.34
58.00	20.00	0.00	0.00	720.80	8398.00	737.66	0.00	738.12	113.00	4.46	1.32	1001.88
58.00	20.00	0.00	0.00	720.80	10482.00	739.48	0.00	740.03	113.00	4.76	1.19	1131.46
58.00	20.00	0.00	0.00	720.80	7500.00	736.90	0.00	737.30	113.00	4.23	1.40	952.09
57.10	28.00	747.72	738.59	720.80	7311.00	736.81	0.00	737.20	113.00	4.11	1.42	941.28
57.10	28.00	747.72	738.59	720.80	8398.00	737.73	0.00	738.18	113.00	4.39	1.32	1002.88
57.10	28.00	747.72	738.59	720.80	10482.00	739.95	0.00	740.47	113.00	4.35	1.19	1132.61
57.10	28.00	747.72	738.59	720.80	7500.00	736.96	0.00	737.36	113.00	4.18	1.40	953.04
57.00	200.00	0.00	0.00	725.00	7311.00	737.38	0.00	737.44	799.08	.98	1.46	961.50
57.00	200.00	0.00	0.00	725.00	8398.00	738.39	0.00	738.45	819.52	.90	1.35	1025.76
57.00	200.00	0.00	0.00	725.00	10482.00	740.72	0.00	740.78	859.59	.67	1.22	1161.85
57.00	200.00	0.00	0.00	725.00	7500.00	737.55	0.00	737.60	802.38	.97	1.44	973.68
56.00	2400.00	0.00	0.00	725.90	7311.00	737.65	0.00	737.95	233.46	4.02	1.61	1159.7
56.00	2400.00	0.00	0.00	725.90	8398.00	738.62	0.00	738.93	396.43	3.82	1.50	1246.45
56.00	2400.00	0.00	0.00	725.90	10482.00	740.86	0.00	741.15	402.12	2.80	1.38	1452.73
56.00	2400.00	0.00	0.00	725.90	7500.00	737.81	0.00	738.11	238.44	4.08	1.59	1170.07
55.00	1850.00	0.00	0.00	727.80	6471.00	738.45	0.00	738.63	551.77	3.06	1.77	1247.61
55.00	1850.00	0.00	0.00	727.80	7433.00	739.38	0.00	739.54	558.48	2.62	1.66	1358.52
55.00	1850.00	0.00	0.00	727.80	9277.00	741.45	0.00	741.59	668.06	1.75	1.56	1610.75
55.00	1850.00	0.00	0.00	727.80	7500.00	738.63	0.00	738.85	553.05	3.78	1.73	1266.80
54.00	250.00	0.00	0.00	723.00	6471.00	738.50	0.00	738.82	109.00	2.95	1.78	1259.09
54.00	250.00	0.00	0.00	723.00	7433.00	739.41	0.00	739.78	109.00	3.14	1.68	1371.76
54.00	250.00	0.00	0.00	723.00	9277.00	741.45	0.00	741.89	109.00	3.18	1.58	1628.27
54.00	250.00	0.00	0.00	723.00	7500.00	738.68	0.00	739.10	109.00	3.79	1.74	1278.63
53.20	19.00	743.29	739.48	723.00	6471.00	738.53	0.00	738.84	109.00	2.93	1.78	1259.72
53.20	19.00	743.29	739.48	723.00	7433.00	739.64	0.00	739.99	109.00	2.98	1.68	1372.44
53.20	19.00	743.29	739.48	723.00	9277.00	741.95	0.00	742.36	109.00	2.88	1.58	1629.05
53.20	19.00	743.29	739.48	723.00	7500.00	738.72	0.00	739.13	109.00	3.76	1.74	1279.26
53.10	35.00	0.00	0.00	723.00	6471.00	738.67	0.00	738.86	189.00	1.79	1.78	1261.13
53.10	35.00	0.00	0.00	723.00	7433.00	739.81	0.00	740.02	189.00	1.75	1.68	1373.99
53.10	35.00	0.00	0.00	723.00	9277.00	742.17	0.00	742.39	189.00	1.57	1.58	1630.88
53.10	35.00	0.00	0.00	723.00	7500.00	738.92	0.00	739.16	189.00	2.25	1.75	1280.71
53.00	35.00	0.00	0.00	724.00	6471.00	738.42	0.00	738.99	107.00	7.36	1.79	1262.41
53.00	35.00	0.00	0.00	724.00	7433.00	739.55	0.00	740.15	107.00	6.89	1.68	1375.40
53.00	35.00	0.00	0.00	724.00	9277.00	741.88	0.00	742.52	107.00	5.82	1.58	1632.57
53.00	35.00	0.00	0.00	724.00	7500.00	738.59	0.00	739.32	107.00	9.36	1.75	1282.01

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
52.20	28.50	749.16	739.40	724.00	6471.00	738.51	0.00	739.06	107.00	7.16	1.79	1263.11
52.20	28.50	749.16	739.40	724.00	7433.00	739.92	0.00	740.49	107.00	6.18	1.68	1376.19
52.20	28.50	749.16	739.40	724.00	9277.00	742.78	0.00	743.35	107.00	4.74	1.58	1633.54
52.20	28.50	749.16	739.40	724.00	7500.00	738.85	0.00	739.55	107.00	8.62	1.75	1282.73
52.10	100.00	0.00	0.00	724.00	6471.00	739.07	0.00	739.25	594.31	2.88	1.80	1267.81
52.10	100.00	0.00	0.00	724.00	7433.00	740.54	0.00	740.69	679.81	2.09	1.69	1382.14
52.10	100.00	0.00	0.00	724.00	9277.00	743.46	0.00	743.56	760.00	1.15	1.60	1642.33
52.10	100.00	0.00	0.00	724.00	7500.00	739.59	0.00	739.79	625.55	3.11	1.76	1287.84
52.00	390.00	0.00	0.00	715.10	6471.00	739.23	0.00	739.32	246.20	.88	1.84	1293.64
52.00	390.00	0.00	0.00	715.10	7433.00	740.65	0.00	740.74	280.59	.81	1.74	1413.82
52.00	390.00	0.00	0.00	715.10	9277.00	743.50	0.00	743.59	331.75	.65	1.64	1687.67
52.00	390.00	0.00	0.00	715.10	7500.00	739.76	0.00	739.87	254.45	1.03	1.80	1315.68
51.00	189.00	0.00	0.00	723.90	6471.00	739.23	0.00	739.35	176.00	1.08	1.86	1304.72
51.00	189.00	0.00	0.00	723.90	7433.00	740.64	0.00	740.77	176.00	1.03	1.76	1426.24
51.00	189.00	0.00	0.00	723.90	9277.00	743.48	0.00	743.62	176.00	.91	1.66	1703.10
51.00	189.00	0.00	0.00	723.90	7500.00	739.76	0.00	739.91	176.00	1.28	1.81	1327.24
50.10	36.00	748.36	743.00	723.90	6471.00	739.32	0.00	739.43	176.00	1.06	1.87	1306.66
50.10	36.00	748.36	743.00	723.90	7433.00	740.74	0.00	740.86	176.00	1.01	1.76	1428.39
50.10	36.00	748.36	743.00	723.90	9277.00	743.77	0.00	743.90	176.00	.87	1.66	1705.68
50.10	36.00	748.36	743.00	723.90	7500.00	739.87	0.00	740.01	176.00	1.25	1.82	1329.26

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
64.100	7311.000	735.500	0.000	0.000	0.000	160.120	0.000	0.000
64.100	8398.000	736.000	.500	0.000	0.000	160.120	0.000	0.000
64.100	10482.000	737.000	1.000	0.000	0.000	160.120	0.000	0.000
64.100	7500.000	735.600	-1.400	0.000	0.000	160.120	0.000	0.000
64.000	7311.000	735.609	0.000	.109	0.000	469.066	0.000	200.000
64.000	8398.000	736.137	.528	.137	0.000	472.277	-3.211	200.000
64.000	10482.000	737.195	1.059	.195	0.000	545.747	-76.682	200.000
64.000	7500.000	735.713	-1.482	.113	0.000	469.702	-.636	200.000
63.000	7311.000	735.605	0.000	-.004	0.000	155.000	0.000	400.000
63.000	8398.000	736.131	.526	-.006	0.000	155.000	0.000	400.000
63.000	10482.000	737.183	1.052	-.011	0.000	155.000	0.000	400.000
63.000	7500.000	735.709	-1.474	-.004	0.000	155.000	0.000	400.000
62.100	7311.000	735.701	0.000	.096	0.000	155.000	0.000	28.300
62.100	8398.000	736.269	.568	.138	0.000	155.000	0.000	28.300
62.100	10482.000	737.431	1.162	.248	0.000	155.000	0.000	28.300
62.100	7500.000	735.812	-1.619	.103	0.000	155.000	0.000	28.300
62.000	7311.000	735.887	0.000	.186	0.000	475.826	0.000	350.000
62.000	8398.000	736.498	.611	.229	0.000	480.912	-5.086	350.000
62.000	10482.000	737.743	1.245	.312	0.000	491.267	-15.442	350.000
62.000	7500.000	736.005	-1.738	.193	0.000	476.809	-.984	350.000
61.000	7311.000	735.936	0.000	.049	0.000	750.641	0.000	1940.000
61.000	8398.000	736.554	.618	.055	0.000	768.844	-18.202	1940.000
61.000	10482.000	737.809	1.255	.066	0.000	805.797	-55.156	1940.000
61.000	7500.000	736.055	-1.754	.050	0.000	754.155	-3.514	1940.000
60.000	7311.000	736.005	0.000	.069	0.000	533.848	0.000	2800.000
60.000	8398.000	736.627	.622	.073	0.000	553.199	-19.351	2800.000

60.000	10482.000	737.883	1.256	.074	0.000	592.251	-58.403	2800.000
60.000	7500.000	736.125	-1.758	.070	0.000	537.576	-3.728	2800.000
59.100	7311.000	736.119	0.000	.114	0.000	537.575	0.000	1800.000
59.100	8398.000	736.748	.630	.122	0.000	557.131	-19.556	1800.000
59.100	10482.000	738.011	1.263	.128	0.000	596.351	-58.776	1800.000
59.100	7500.000	736.239	-1.772	.115	0.000	541.329	-3.754	1800.000
59.000	7311.000	736.076	0.000	-.042	0.000	126.358	0.000	100.000
59.000	8398.000	736.696	.620	-.052	0.000	126.948	-.590	100.000
59.000	10482.000	737.939	1.243	-.072	0.000	128.000	-1.642	100.000
59.000	7500.000	736.196	-1.744	-.044	0.000	126.472	-.114	100.000
58.200	7311.000	736.820	0.000	.744	0.000	127.067	0.000	12.000
58.200	8398.000	737.738	.919	1.043	0.000	127.942	-.875	12.000
58.200	10482.000	739.575	1.836	1.635	0.000	128.000	-.933	12.000
58.200	7500.000	736.965	-2.609	.770	0.000	127.205	-.139	12.000
58.100	7311.000	736.826	0.000	.006	0.000	127.072	0.000	20.000
58.100	8398.000	737.745	.919	.006	0.000	127.948	-.876	20.000
58.100	10482.000	739.581	1.837	.007	0.000	128.000	-.928	20.000
58.100	7500.000	736.971	-2.610	.006	0.000	127.211	-.139	20.000
58.000	7311.000	736.755	0.000	-.070	0.000	113.000	0.000	20.000
58.000	8398.000	737.664	.909	-.080	0.000	113.000	0.000	20.000
58.000	10482.000	739.484	1.820	-.097	0.000	113.000	0.000	20.000
58.000	7500.000	736.899	-2.585	-.072	0.000	113.000	0.000	20.000
57.100	7311.000	736.811	0.000	.055	0.000	113.000	0.000	28.000
57.100	8398.000	737.729	.918	.065	0.000	113.000	0.000	28.000
57.100	10482.000	739.949	2.220	.444	0.000	113.000	0.000	28.000
57.100	7500.000	736.956	-2.992	.057	0.000	113.000	0.000	28.000
57.000	7311.000	737.382	0.000	.572	0.000	799.079	0.000	200.000
57.000	8398.000	738.391	1.009	.662	0.000	819.520	-20.441	200.000
57.000	10482.000	740.722	2.331	.774	0.000	859.590	-60.511	200.000
57.000	7500.000	737.545	-3.177	.589	0.000	802.382	-3.303	200.000
56.000	7311.000	737.648	0.000	.266	0.000	233.458	0.000	2400.000
56.000	8398.000	738.615	.967	.224	0.000	396.431	-162.973	2400.000
56.000	10482.000	740.864	2.249	.141	0.000	402.124	-168.666	2400.000
56.000	7500.000	737.805	-3.059	.260	0.000	238.438	-4.980	2400.000
55.000	6471.000	738.451	0.000	.803	0.000	551.768	0.000	1850.000
55.000	7433.000	739.379	.928	.763	0.000	558.480	-6.712	1850.000
55.000	9277.000	741.454	2.076	.591	0.000	668.062	-116.294	1850.000
55.000	7500.000	738.628	-2.826	.823	0.000	553.054	-1.286	1850.000
54.000	6471.000	738.498	0.000	.047	0.000	109.000	0.000	250.000
54.000	7433.000	739.410	.912	.032	0.000	109.000	0.000	250.000
54.000	9277.000	741.452	2.042	-.003	0.000	109.000	0.000	250.000
54.000	7500.000	738.685	-2.767	.056	0.000	109.000	0.000	250.000
53.200	6471.000	738.526	0.000	.028	0.000	109.000	0.000	19.000
53.200	7433.000	739.641	1.115	-.230	0.000	109.000	0.000	19.000
53.200	9277.000	741.954	2.313	.502	0.000	109.000	0.000	19.000
53.200	7500.000	738.723	-3.230	.039	0.000	109.000	0.000	19.000
53.100	6471.000	738.675	0.000	.149	0.000	188.999	0.000	35.000
53.100	7433.000	739.815	1.140	.174	0.000	188.999	-.000	35.000
53.100	9277.000	742.167	2.353	.214	0.000	188.999	-.000	35.000
53.100	7500.000	738.921	-3.246	.198	0.000	188.999	-.000	35.000
53.000	6471.000	738.423	0.000	-.252	0.000	107.000	0.000	35.000
53.000	7433.000	739.546	1.124	-.268	0.000	107.000	0.000	35.000
53.000	9277.000	741.883	2.336	-.285	0.000	107.000	0.000	35.000

53.000	7500.000	738.591	-3.292	-.330	0.000	107.000	0.000	35.000
52.200	6471.000	738.506	0.000	.084	0.000	107.000	0.000	28.500
52.200	7433.000	739.924	1.418	.377	0.000	107.000	0.000	28.500
52.200	9277.000	742.784	2.860	.901	0.000	107.000	0.000	28.500
52.200	7500.000	738.853	-3.932	.261	0.000	107.000	0.000	28.500
52.100	6471.000	739.069	0.000	.563	0.000	594.305	0.000	100.000
52.100	7433.000	740.540	1.471	.616	0.000	679.814	-85.509	100.000
52.100	9277.000	743.461	2.921	.676	0.000	760.000	-165.695	100.000
52.100	7500.000	739.587	-3.873	.735	0.000	625.545	-31.240	100.000
52.000	6471.000	739.232	0.000	.143	0.000	246.200	0.000	390.000
52.000	7433.000	740.649	1.416	.109	0.000	280.586	-34.386	390.000
52.000	9277.000	743.495	2.846	.034	0.000	331.748	-85.548	390.000
52.000	7500.000	739.761	-3.734	.174	0.000	254.451	-8.251	390.000
51.000	6471.000	739.232	0.000	-.000	0.000	176.000	0.000	189.000
51.000	7433.000	740.644	1.412	-.004	0.000	176.000	0.000	189.000
51.000	9277.000	743.482	2.838	-.013	0.000	176.000	0.000	189.000
51.000	7500.000	739.759	-3.723	-.002	0.000	176.000	0.000	189.000
50.100	6471.000	739.318	0.000	.086	0.000	176.000	0.000	36.000
50.100	7433.000	740.737	1.419	.093	0.000	176.000	0.000	36.000
50.100	9277.000	743.769	3.032	.287	0.000	176.000	0.000	36.000
50.100	7500.000	739.868	-3.900	.110	0.000	176.000	0.000	36.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	151.503	0.000
2	0.000	0.000	162.630	11.127
3	0.000	0.000	173.179	21.676
4	0.000	0.000	152.579	1.075

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINKBEINER PETTIS   STROUT - USEC401 R5
T3      HURON RIVER AT GEODES DAM - Q = 50 YEAR

J1  ICHECK    INQ      NINV     IDIR     STRT      METRIC   HVINS    Q        WSEL     FQ
        -0.      2.       -0.      -0. -0.000000    -0.00    -0.0     -0.   747.500   -0.000

NC      .040     .040     .030     .100     .300    -0.000   -0.000   -0.000   -0.000   -0.000
QT     4.000 6471.000 7433.000 9277.000 7500.000    -0.000   -0.000   -0.000   -0.000   -0.000

X1     50.000    8.000    0.000  159.370    0.000    0.000    0.000   -0.000   -0.000   -0.000
GR    750.000    0.000  736.500    0.000  736.500   54.670  750.000   54.670  750.000  114.670
GR    736.500  114.670  736.500  159.370  750.000  159.370   -0.000   -0.000   -0.000   -0.000
NC     -0.000   -0.000   -0.000     .200     .400   -0.000   -0.000   -0.000   -0.000   -0.000

X1     49.000   46.000  113.000  490.000  250.000  250.000  250.000   -0.000   -0.000   -0.000
GR    760.000   80.000  751.800  100.000  747.300  113.000  744.800  120.000  743.300  130.000
GR    742.600  140.000  742.100  150.000  741.800  160.000  741.300  170.000  740.700  180.000
GR    740.400  190.000  739.500  200.000  739.300  210.000  738.300  220.000  737.200  230.000
GR    736.700  240.000  737.100  250.000  736.400  260.000  735.900  270.000  735.700  280.000
GR    735.600  290.000  735.300  300.000  735.100  310.000  733.900  320.000  733.400  330.000
GR    733.900  340.000  733.700  350.000  733.900  360.000  734.300  370.000  735.100  380.000
GR    735.600  390.000  736.600  400.000  738.600  410.000  738.700  420.000  738.100  430.000
GR    738.900  440.000  740.700  450.000  743.900  460.000  744.900  470.000  745.000  480.000
GR    744.400  490.000  750.700  490.000  751.900  530.000  750.100  550.000  751.200  558.000
GR    751.300  566.000   -0.000   -0.000   -0.000   -0.000   -0.000   -0.000   -0.000   -0.000

X1     48.100   -0.000   -0.000   -0.000  800.000  800.000  800.000   -0.000   -.400    -0.000
NC     -0.000   -0.000   -0.000     .400     .600   -0.000   -0.000   -0.000   -0.000   -0.000

X1     48.000   44.000  273.000  480.000  200.000  200.000  200.000   -0.000   -0.000   -0.000
GR    778.000  200.000  775.100  211.000  747.300  273.000  746.100  280.000  745.900  289.000
GR    778.000  289.000  778.000  293.000  743.600  293.000  742.600  300.000  740.700  310.000
GR    738.700  320.000  733.100  330.000  732.900  340.000  732.900  350.000  733.800  360.000
GR    738.000  370.000  737.900  380.000  736.700  390.000  737.600  398.000  777.000  398.000
GR    777.000  402.000  737.200  402.000  737.200  410.000  737.400  420.000  737.200  430.000
GR    736.900  440.000  737.300  450.000  738.900  460.000  742.000  470.000  747.300  480.000
GR    751.500  491.000  751.900  505.000  775.000  505.000  775.000  508.500  752.000  508.500
GR    753.400  530.400  751.800  568.000  757.500  594.500  777.000  594.500  777.000  598.000
GR    760.900  598.000  761.900  599.000  765.000  648.000  773.200  673.000   -0.000   -0.000
NC     -0.000   -0.000   -0.000     .100     .300   -0.000   -0.000   -0.000   -0.000   -0.000

X1     47.000   45.000  170.000  377.000  130.000  130.000  130.000   -0.000   -0.000   -0.000
GR    778.300  100.000  775.100  112.000  747.300  170.000  745.300  180.000  746.000  188.000
GR    777.000  188.000  777.000  192.000  743.100  192.000  741.500  200.000  740.100  210.000
GR    738.800  220.000  734.100  230.000  733.000  240.000  733.700  250.000  733.900  260.000
GR    738.700  270.000  737.800  280.000  737.200  290.000  737.800  296.000  776.000  296.000
GR    776.000  300.000  738.300  300.000  733.300  310.000  735.600  320.000  736.600  330.000
GR    737.600  340.000  739.000  350.000  741.100  360.000  744.900  370.000  747.300  377.000
GR    751.600  387.000  751.800  403.000  775.000  403.000  775.000  406.500  752.400  406.500
GR    752.000  426.000  753.500  428.000  753.400  454.000  752.100  468.000  758.900  492.000
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GR	777.000	492.000	777.000	495.500	760.500	495.500	765.600	552.000	773.200	574.000
NC	-0.000	-0.000	-0.000	.400	.600	-0.000	-0.000	-0.000	-0.000	-0.000
X1	46.000	58.000	315.000	797.000	300.000	300.000	300.000	-0.000	-0.000	-0.000
GR	786.200	95.000	769.900	190.000	754.100	300.000	747.400	315.000	745.900	325.000
GR	745.500	335.000	744.600	345.000	742.900	355.000	741.400	365.000	741.100	375.000
GR	739.700	385.000	740.300	395.000	740.200	405.000	740.300	415.000	740.100	425.000
GR	739.900	435.000	738.800	445.000	738.400	455.000	738.900	465.000	739.800	475.000
GR	740.100	485.000	739.600	495.000	739.700	505.000	739.800	515.000	739.800	525.000
GR	740.100	535.000	740.000	545.000	739.700	555.000	739.200	565.000	737.900	575.000
GR	737.700	585.000	737.600	595.000	737.700	605.000	734.100	615.000	736.800	625.000
GR	736.300	635.000	735.200	645.000	735.300	655.000	735.000	665.000	735.200	675.000
GR	735.600	685.000	736.400	695.000	733.600	705.000	730.900	715.000	730.600	725.000
GR	730.800	735.000	734.000	745.000	738.500	755.000	740.100	765.000	742.300	775.000
GR	744.600	785.000	746.900	795.000	747.400	797.000	750.600	805.000	753.100	845.000
GR	753.200	870.000	751.100	882.000	756.900	891.000	-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
X1	45.000	69.000	314.000	921.000	2000.000	2000.000	2000.000	-0.000	-0.000	-0.000
GR	785.200	35.000	773.000	185.000	752.200	285.000	750.700	300.000	747.400	314.000
GR	746.700	321.000	743.600	331.000	743.000	341.000	742.600	351.000	742.400	361.000
GR	742.100	371.000	741.600	381.000	741.400	391.000	741.100	401.000	741.000	411.000
GR	740.500	421.000	740.300	431.000	739.600	441.000	739.600	451.000	738.600	461.000
GR	738.500	471.000	738.600	481.000	738.600	491.000	738.700	501.000	738.300	511.000
GR	737.500	521.000	737.300	531.000	737.000	541.000	737.300	551.000	737.400	561.000
GR	737.300	571.000	737.200	581.000	737.500	591.000	738.700	601.000	739.200	611.000
GR	739.700	621.000	740.800	631.000	741.200	641.000	741.100	651.000	741.300	661.000
GR	741.800	671.000	741.400	681.000	741.300	691.000	741.200	701.000	740.800	711.000
GP	741.200	721.000	741.400	731.000	741.400	741.000	741.800	751.000	741.300	761.000
GR	741.500	771.000	740.300	781.000	738.400	791.000	738.600	791.000	738.600	801.000
GR	738.500	811.000	739.600	821.000	738.700	831.000	738.800	841.000	738.800	851.000
GR	738.700	861.000	739.100	871.000	740.800	881.000	742.700	891.000	744.300	901.000
GR	746.400	911.000	749.600	921.000	750.300	961.000	752.500	971.000	-0.000	-0.000
NC	.100	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
OT	4.000	6096.000	7002.000	8740.000	4610.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	44.000	53.000	205.000	619.000	2240.000	2240.000	2240.000	-0.000	-0.000	-0.000
X3	-0.000	-0.000	-0.000	79.000	800.300	950.000	751.500	-0.000	-0.000	-0.000
GR	800.300	79.000	767.700	154.000	748.800	200.000	747.400	205.000	746.100	220.000
GR	744.600	230.000	744.000	240.000	743.500	250.000	742.000	260.000	740.200	270.000
GR	739.000	280.000	736.500	290.000	736.200	300.000	736.400	310.000	736.400	320.000
GR	737.200	330.000	738.300	340.000	739.600	350.000	740.100	360.000	740.600	370.000
GR	741.400	380.000	741.300	390.000	741.000	400.000	741.300	410.000	741.200	420.000
GR	741.400	430.000	741.400	440.000	741.400	450.000	741.300	460.000	741.300	470.000
GR	741.200	480.000	741.000	490.000	740.700	500.000	740.900	510.000	741.400	520.000
GR	741.100	530.000	740.700	540.000	740.700	550.000	740.800	560.000	741.100	570.000
GR	742.400	580.000	742.700	590.000	742.600	600.000	747.400	619.000	750.500	650.000
GR	751.600	750.000	751.500	950.000	752.100	1010.000	747.400	1042.000	739.000	1162.000
GR	747.400	1282.000	748.100	1292.000	751.300	1392.000	-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
X1	43.300	20.000	20.000	340.000	200.000	200.000	200.000	-0.000	-0.000	-0.000
GR	754.000	0.000	754.500	20.000	751.610	20.000	748.000	25.000	736.800	36.000
GR	736.800	62.000	748.000	73.000	751.610	78.000	754.500	78.000	754.000	103.000
GR	753.500	128.000	754.000	143.000	754.500	178.000	751.860	178.000	748.000	185.000
GR	736.800	197.000	736.800	321.000	748.000	332.000	751.860	340.000	754.500	340.000
X1	43.200	-0.000	-0.000	-0.000	10.000	10.000	10.000	-0.000	-0.000	-0.000
NC	.040	-0.000	-0.000	.500	.700	-0.000	-0.000	-0.000	-0.000	-0.000
X1	43.100	65.000	300.000	1293.000	200.000	200.000	200.000	-0.000	-1.700	-0.000
GR	754.500	103.000	751.900	150.000	749.300	240.000	747.900	300.000	742.800	323.000
GR	740.900	353.000	741.400	363.000	740.800	373.000	740.700	383.000	741.100	393.000
GR	740.600	403.000	740.600	413.000	741.800	443.000	741.200	463.000	741.300	493.000
GR	741.000	523.000	741.000	543.000	741.300	573.000	740.900	583.000	741.400	613.000
GR	740.700	633.000	740.900	663.000	741.400	693.000	741.500	703.000	741.300	713.000

GR	741.900	723.000	741.800	753.000	741.600	763.000	741.700	803.000	742.000	813.000
GR	741.800	823.000	742.200	843.000	742.400	883.000	742.600	893.000	742.300	923.000
GR	742.400	933.000	742.200	943.000	742.400	963.000	742.200	983.000	742.300	1003.000
GR	742.200	1013.000	742.400	1023.000	742.500	1033.000	742.200	1063.000	742.300	1073.000
GR	741.000	1083.000	741.000	1093.000	740.800	1103.000	740.500	1113.000	740.600	1123.000
GR	740.400	1133.000	740.300	1173.000	739.600	1183.000	739.400	1193.000	739.400	1203.000
GR	739.000	1213.000	738.700	1223.000	738.700	1233.000	739.000	1243.000	740.200	1253.000
GR	742.900	1263.000	745.100	1273.000	749.100	1293.000	751.300	1331.000	753.200	1371.000
NC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	43.000	-0.000	-0.000	-0.000	1340.000	1340.000	1340.000	-0.000	1.700	-0.000
NC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	42.300	90.000	150.000	818.000	300.000	300.000	300.000	-0.000	-0.000	-0.000
GR	756.900	100.000	754.400	140.000	752.900	150.000	747.400	152.000	745.100	160.000
GR	741.900	170.000	741.800	180.000	741.400	190.000	742.100	200.000	744.600	210.000
GR	746.000	211.000	761.800	211.000	761.800	215.600	746.400	215.600	743.000	220.000
GR	741.400	230.000	741.000	240.000	741.200	250.000	741.000	260.000	741.200	270.000
GR	741.200	280.000	741.200	290.000	741.500	300.000	741.500	310.000	741.200	320.000
GR	741.400	330.000	741.600	340.000	742.000	350.000	743.600	360.000	746.600	368.000
GR	765.500	368.000	765.500	372.600	746.100	372.600	742.100	380.000	741.800	390.000
GR	741.500	400.000	741.600	410.000	741.700	420.000	741.600	430.000	741.700	440.000
GR	741.700	450.000	741.900	460.000	741.800	470.000	741.900	480.000	741.900	490.000
GR	741.700	500.000	741.800	510.000	741.900	520.000	744.400	528.000	769.200	528.000
GR	769.200	532.600	746.300	532.600	741.200	540.000	741.200	550.000	741.700	560.000
GR	741.900	570.000	741.800	580.000	741.400	590.000	741.200	600.000	740.600	610.000
GR	740.400	620.000	740.800	630.000	741.900	640.000	743.600	650.000	744.800	660.000
GR	745.800	670.000	745.800	680.000	747.900	686.000	773.000	686.000	773.000	690.600
GR	747.900	690.600	745.800	700.000	745.100	710.000	742.300	720.000	741.400	730.000
GR	740.800	740.000	739.200	750.000	738.900	760.000	738.600	770.000	738.500	780.000
GR	739.500	790.000	741.600	800.000	744.700	810.000	747.400	818.000	753.900	838.000
GR	756.800	891.000	767.800	911.000	767.900	965.000	773.300	979.000	780.200	998.000
X1	42.200	-0.000	-0.000	-0.000	67.500	67.500	67.500	-0.000	-0.000	-0.000
X1	42.100	22.000	225.000	942.000	840.000	840.000	840.000	-0.000	-0.000	-0.000
GR	755.000	0.000	754.000	25.000	753.000	57.000	752.000	104.000	751.000	152.000
GR	750.000	202.000	746.000	225.000	744.000	234.000	742.000	237.000	742.000	485.000
GR	746.000	495.000	746.000	690.000	744.000	700.000	742.000	720.000	739.000	725.000
GR	739.000	925.000	744.000	933.000	746.000	942.000	746.000	960.000	749.000	980.000
GR	750.000	1020.000	753.000	1033.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	42.000	29.000	700.000	807.000	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	751.400	753.000	-0.000
GR	755.500	0.000	755.000	10.000	754.000	30.000	753.000	50.000	752.000	90.000
GR	751.600	130.000	750.000	140.000	745.000	200.000	745.000	240.000	745.000	340.000
GR	745.000	550.000	744.900	700.000	742.300	710.000	740.200	720.000	739.600	730.000
GR	739.200	740.000	740.600	750.000	739.300	760.000	739.200	770.000	739.800	780.000
GR	740.400	790.000	743.700	800.000	744.600	807.000	746.000	850.000	750.000	890.000
GR	753.000	910.000	754.000	960.000	755.000	1000.000	756.000	1010.000	-0.000	-0.000
SR	-0.000	1.500	3.000	-0.000	87.000	-0.000	955.000	.830	740.000	740.000
X1	41.100	-0.000	-0.000	-0.000	13.500	13.500	13.500	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	752.300	751.400	-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	751.400	753.000	-0.000
BT	24.000	0.000	755.500	755.500	10.000	755.000	755.000	30.000	754.000	754.000
BT	50.000	753.000	753.000	90.000	752.000	752.000	130.000	751.600	751.600	140.000
BT	751.600	750.000	200.000	751.500	745.000	240.000	751.400	745.000	340.000	751.700
BT	745.000	550.000	751.800	745.000	700.000	753.470	744.900	700.000	753.470	752.300
BT	720.000	753.450	748.900	750.000	753.370	747.800	780.000	753.300	748.800	807.000
BT	753.280	752.200	807.000	753.280	744.600	860.000	753.000	746.000	890.000	753.000
BT	750.000	910.000	753.000	753.000	960.000	754.000	754.000	1000.000	755.000	755.000
BT	1010.000	756.000	756.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	41.000	33.000	650.000	870.000	200.000	200.000	200.000	-0.000	-0.000	-0.000

GR	753.700	105.000	748.500	120.000	747.600	220.000	750.200	320.000	750.000	480.000
GR	748.700	600.000	747.300	650.000	745.100	660.000	743.800	670.000	743.500	680.000
GR	743.400	690.000	742.700	700.000	742.200	710.000	740.900	720.000	740.400	730.000
GR	740.300	740.000	740.000	750.000	740.000	760.000	739.700	770.000	740.000	780.000
GR	740.200	790.000	740.400	800.000	740.600	810.000	740.900	820.000	740.300	830.000
GR	737.800	840.000	741.300	850.000	745.100	860.000	747.300	870.000	749.900	880.000
GR	751.300	913.000	755.700	958.000	756.900	1046.000	-0.000	-0.000	-0.000	-0.000
NC	.100	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	40.000	27.000	300.000	500.000	2300.000	2300.000	2300.000	-0.000	-0.000	-0.000
GR	755.100	100.000	752.900	200.000	750.500	300.000	747.500	312.000	744.000	320.000
GR	742.900	330.000	743.000	340.000	743.100	350.000	743.300	360.000	743.400	370.000
GR	743.300	380.000	743.200	390.000	743.300	400.000	743.700	410.000	743.900	420.000
GR	744.200	430.000	744.100	440.000	744.400	450.000	743.700	460.000	744.000	470.000
GR	745.900	480.000	747.500	488.000	748.200	500.000	748.000	595.000	751.500	615.000
GR	752.200	645.000	758.100	660.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.050	.050	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	39.000	26.000	210.000	350.000	1800.000	1800.000	1800.000	-0.000	-0.000	-0.000
GR	771.700	47.000	760.000	90.000	753.600	150.000	748.400	200.000	747.500	210.000
GR	745.200	220.000	745.100	230.000	744.900	240.000	744.900	250.000	744.900	260.000
GR	745.200	270.000	745.200	280.000	745.300	290.000	745.200	300.000	745.500	310.000
GR	745.600	320.000	746.000	330.000	747.200	340.000	747.500	345.000	748.400	350.000
GR	749.800	410.000	751.600	417.000	753.000	438.000	758.300	450.000	758.100	482.000
GR	762.300	494.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	38.100	-0.000	-0.000	-0.000	1300.000	1300.000	1300.000	-0.000	-0.000	-0.000
NC	.060	.060	-0.000	.500	.700	-0.000	-0.000	-0.000	-0.000	-0.000
X1	38.000	19.000	100.000	227.000	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	760.000	760.000	-0.000
GR	764.440	0.000	764.320	100.000	752.000	100.000	748.500	117.000	747.600	120.000
GR	745.100	130.000	744.300	140.000	743.600	150.000	743.600	151.200	745.300	168.000
GR	745.700	170.000	745.200	180.000	745.100	190.000	745.000	200.000	745.200	210.000
GR	748.000	220.000	748.500	227.000	764.040	227.000	763.790	327.000	-0.000	-0.000
SB	1.250	1.500	2.700	-0.000	87.000	5.000	1040.000	2.000	744.500	744.500
X1	37.100	-0.000	-0.000	-0.000	28.200	28.200	28.200	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	754.700	763.790	-0.000	-0.000	-0.000	.820	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	764.320	764.040	-0.000
BT	7.000	0.000	764.440	764.440	100.000	764.320	764.320	100.000	764.320	754.400
BT	150.000	764.150	754.700	227.000	763.040	754.600	227.000	764.040	764.040	327.000
BT	763.790	763.790	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.100	.100	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	37.000	24.000	200.000	341.000	300.000	300.000	300.000	-0.000	-0.000	-0.000
GR	759.400	91.000	760.100	101.000	754.200	121.000	753.400	191.000	750.200	198.000
GR	749.900	200.000	748.500	204.000	747.300	211.000	746.800	221.000	746.700	231.000
GR	746.700	241.000	746.700	251.000	745.700	261.000	746.800	271.000	746.700	281.000
GR	746.400	291.000	746.100	301.000	746.500	311.000	746.800	321.000	748.500	329.000
GR	751.200	341.000	750.200	391.000	749.200	406.000	757.800	491.000	-0.000	-0.000
X1	36.000	-0.000	-0.000	-0.000	2400.000	2400.000	2400.000	1.000	2.400	-0.000
NC	.100	.040	-0.000	.500	.700	-0.000	-0.000	-0.000	-0.000	-0.000
X1	35.000	17.000	100.000	215.000	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	760.000	760.000	-0.000
GR	768.050	0.000	768.260	100.000	753.100	100.000	752.600	105.000	750.700	115.000
GR	749.800	125.000	749.500	135.000	749.800	145.000	749.900	150.000	749.900	165.000
GR	749.100	175.000	748.600	185.000	750.400	195.000	752.600	205.000	754.200	215.000
GR	768.620	215.000	768.800	315.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SB	1.250	1.500	2.700	-0.000	85.000	15.000	820.000	1.670	749.500	749.500
X1	34.100	-0.000	-0.000	-0.000	28.800	28.800	28.800	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	758.800	768.050	-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	768.260	768.620	-0.000

BT	8.000	0.000	768.050	768.050	100.000	768.260	768.260	100.000	768.260	758.600
BT	150.000	768.420	758.800	165.000	768.420	758.800	215.000	768.620	758.800	215.000
BT	768.620	768.620	315.000	768.800	768.800	-0.000	-0.000	-0.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	34.000	18.000	200.000	315.000	300.000	300.000	300.000	-0.000	-0.000	-0.000
GR	772.900	153.000	771.400	160.000	754.100	200.000	752.600	203.000	750.500	210.000
GR	749.100	220.000	748.600	230.000	748.700	240.000	748.600	250.000	749.000	260.000
GR	749.400	270.000	749.700	280.000	750.300	290.000	751.600	300.000	752.600	303.000
GR	755.300	315.000	761.300	792.000	766.900	816.000	-0.000	-0.000	-0.000	-0.000
X1	33.000	24.000	100.000	226.000	300.000	300.000	300.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	764.000	764.000	-0.000
GR	766.350	0.000	765.720	100.000	755.800	100.000	753.000	114.000	752.700	116.000
GR	751.900	126.000	752.800	136.000	752.800	139.000	751.900	140.500	751.500	142.000
GR	751.000	146.000	750.700	156.000	750.400	166.000	750.400	176.000	750.800	184.000
GR	750.800	185.500	750.400	186.000	750.900	187.000	749.300	196.000	749.300	206.000
GR	751.600	216.000	752.800	226.000	765.120	226.000	763.180	326.000	-0.000	-0.000
SB	1.250	1.500	2.700	-0.000	106.000	6.000	1496.000	.770	750.500	750.500
X1	32.100	-0.000	-0.000	-0.000	40.800	40.800	40.800	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	763.720	763.180	-0.000	-0.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	763.720	763.180	-0.000	-0.000
BT	8.000	0.000	766.350	766.350	100.000	765.720	765.720	100.000	765.720	763.120
BT	140.500	765.580	763.500	185.500	765.120	763.200	226.000	765.120	763.060	226.000
BT	765.120	765.120	326.000	763.180	763.180	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.050	.040	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	32.000	20.000	470.000	560.000	300.000	300.000	300.000	-0.000	-0.000	-0.000
GR	782.100	160.000	769.300	188.000	769.400	200.000	756.400	280.000	755.900	430.000
GR	755.900	470.000	751.000	470.000	750.400	480.000	750.100	490.000	750.400	500.000
GR	749.900	510.000	749.800	520.000	749.800	530.000	750.000	540.000	750.500	550.000
GR	755.900	560.000	755.600	580.000	759.200	603.000	759.200	703.000	770.000	703.000
NC	.070	.070	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	31.000	32.000	400.000	780.000	2060.000	2060.000	2060.000	-0.000	-0.000	-0.000
GR	770.000	0.000	763.000	90.000	760.900	359.000	759.700	390.000	758.200	400.000
GR	755.600	404.000	754.000	410.000	753.600	420.000	754.000	430.000	754.300	440.000
GR	755.600	450.000	757.900	455.000	759.100	580.000	757.600	660.000	754.600	661.000
GR	754.400	670.000	754.300	680.000	754.200	690.000	754.300	700.000	754.200	710.000
GR	754.200	720.000	754.200	730.000	754.100	740.000	754.100	750.000	753.900	760.000
GR	754.300	770.000	755.600	777.000	757.300	780.000	758.500	855.000	758.600	941.000
GR	767.100	998.000	767.900	1005.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.050	.050	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
QT	4.000	5720.000	6570.000	8200.000	4610.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	30.100	28.000	398.000	531.000	1600.000	1600.000	1600.000	-0.000	-0.000	-0.000
GR	763.300	0.000	762.200	200.000	762.000	300.000	762.000	320.000	761.000	380.000
GR	760.000	390.000	758.000	398.000	757.200	413.000	755.500	430.000	755.600	440.000
GR	755.200	450.000	755.100	462.000	755.300	467.000	755.300	468.500	755.300	470.000
GR	755.900	480.000	756.000	490.000	755.600	500.000	755.200	510.000	756.100	520.000
GR	757.200	531.000	760.000	590.000	765.000	620.000	770.000	640.000	773.000	650.000
GR	775.000	740.000	775.000	770.000	774.000	820.000	-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
X1	30.000	-0.000	-0.000	0.000	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	762.200	766.000	-0.000
SB	-0.000	1.500	2.900	-0.000	133.000	-0.000	870.000	-0.000	755.500	755.500
X1	29.100	-0.000	-0.000	-0.000	30.000	30.000	30.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	765.100	762.200	-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	762.200	766.000	-0.000
BT	26.000	0.000	763.300	763.300	200.000	762.200	762.200	300.000	764.480	762.000
BT	320.000	765.000	762.000	380.000	767.000	761.000	398.000	767.330	758.000	398.000
BT	767.330	760.000	413.000	767.600	763.000	430.000	767.800	765.100	440.000	768.000
BT	764.200	450.000	768.000	762.500	460.000	768.100	760.000	462.000	768.100	755.300

BT	468.500	768.100	755.300	470.000	768.100	759.000	480.000	768.100	762.000	500.000
BT	768.100	765.000	520.000	768.200	762.000	531.000	768.220	757.200	590.000	770.800
BT	760.000	620.000	772.000	765.000	640.000	772.600	770.000	650.000	773.000	773.000
BT	740.000	775.000	775.000	770.000	775.000	775.000	774.000	820.000	820.000	-0.000
NC	.050	.050	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	29.000	29.000	400.000	550.000	200.000	200.000	200.000	-0.000	-0.000	-0.000
GR	770.000	20.000	763.200	20.000	763.000	100.000	762.200	170.000	762.200	200.000
GR	762.800	250.000	764.000	300.000	763.500	337.000	762.600	400.000	757.200	415.000
GR	756.800	420.000	756.100	430.000	755.600	440.000	755.400	450.000	755.700	460.000
GR	755.700	470.000	755.500	480.000	755.700	490.000	755.700	500.000	755.700	510.000
GR	755.600	520.000	755.600	530.000	756.100	540.000	757.200	545.000	759.600	550.000
GR	762.800	600.000	766.700	620.000	770.000	650.000	789.600	690.000	-0.000	-0.000
NC	.050	.050	-0.000	.040	.100	-0.000	-0.000	-0.000	-0.000	-0.000
X1	28.100	-0.000	-0.000	-0.000	1940.000	1940.000	1940.000	-0.000	1.100	-0.000
NC	-0.000	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	28.000	24.000	365.000	469.000	300.000	300.000	300.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	775.000	775.000	-0.000
GR	776.500	200.000	775.760	300.000	776.500	360.000	758.700	360.000	758.700	365.000
GR	758.400	369.000	758.500	379.000	757.000	389.000	757.200	399.000	757.800	409.000
GR	758.000	415.000	758.200	419.000	758.200	429.000	758.600	439.000	759.700	441.000
GR	760.500	450.000	762.000	469.000	764.000	490.000	765.000	535.000	765.000	595.000
GR	766.000	775.000	767.000	805.000	770.000	825.000	777.500	835.000	-0.000	-0.000
SB	0.000	1.500	2.800	-0.000	100.000	0.000	1265.000	0.000	760.000	760.000
X1	27.100	-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	773.250	776.500	-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	776.500	776.500	-0.000
BT	20.000	200.000	776.500	776.500	300.000	775.760	775.760	360.000	776.500	776.500
BT	360.000	776.500	758.700	365.000	776.500	758.700	379.000	776.500	749.000	399.000
BT	776.500	772.500	415.000	776.500	773.250	429.000	776.500	772.500	441.000	776.500
BT	769.500	469.000	776.500	764.000	469.000	776.560	762.000	490.000	776.700	764.000
BT	535.000	777.000	765.000	595.000	777.500	765.000	775.000	777.500	766.000	805.000
BT	777.500	767.000	825.000	777.500	770.500	835.000	777.500	775.000	835.000	777.500
BT	777.500	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.060	.060	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	27.000	16.000	393.000	475.000	150.000	150.000	150.000	-0.000	-0.000	-0.000
GR	776.900	325.000	764.400	368.000	763.300	375.000	759.700	393.000	758.500	401.000
GR	758.000	413.000	757.500	423.000	757.400	433.000	757.400	443.000	757.600	453.000
GR	757.700	463.000	758.800	473.000	759.700	475.000	762.700	483.000	763.200	486.000
GR	767.300	506.000	-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

```
28.00 24800.  C          .          .          .          .          .  I  L  .  R     W  E      .          .  M      .          .
27.10 24900.  C          .          .          .          .          .  I  L  .  R     W  E      .          .  M      .          .
27.00 25000.  C          .          .          .          .          .  I   L.        . W EM     .          .          .          .

*****************************************
HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
*****************************************


T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINKPEINEP PETTIS   STROUT - USFC401 R5
T3      HURON RIVER AT GEDDES DAM - Q = 100 YEAR

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -0.       3.       -0.       -0. -0.000000     -0.00      -0.0      -0.   747.500    -0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     2.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000
```

CCHV= .100 CEHV= .300

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	IOC	ICONT	CORAR	TOPWID	ENDST
50.00	11.00	747.50	0.00	747.50	748.22	.72	0.00	0.00	750.00
7433.	0.	7433.	0.	0.	1093.	0.	0.	0.	750.00
0.00	0.00	6.80	0.00	.040	.030	.040	0.000	736.50	0.00
.001256	0.	0.	0.	0	0	1	0.00	98.37	159.37

CCHV= .200 CEHV= .400

3301 HV CHANGED MORE THAN HVINS

49.00	14.94	748.34	0.00	0.00	748.40	.06	.05	.13	747.30
7433.	0.	7433.	0.	2.	3720.	0.	14.	1.	750.70
.03	.20	2.00	0.00	.040	.030	.040	.030	733.40	110.00
.000078	250.	250.	250.	2	0	1	0.00	380.00	490.00
48.10	15.40	748.40	0.00	0.00	748.46	.06	.06	.00	744.90
7433.	1.	7432.	0.	3.	3995.	0.	84.	8.	750.30
.15	.24	1.91	0.00	.040	.030	.040	.030	733.00	108.66
.000067	800.	800.	800.	2	0	1	0.00	381.34	490.00

CCHV= .400 CEHV= .600

3265 DIVIDED FLOW

48.00	15.46	748.36	0.00	0.00	748.58	.22	.03	.10	747.30
7433.	1.	7432.	1.	1.	1991.	1.	97.	10.	747.30
.17	.41	3.73	.42	.040	.030	.040	.030	732.90	270.63
.000325	200.	200.	200.	2	0	1	0.00	204.16	482.79

CCHV= .100 CEHV= .300

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	IOC	ICONT	CORAR	TOPWID	ENDST
47.00	15.40	748.40	0.00	0.00	748.62	.22	.04	.00	747.30
7433.	1.	7432.	1.	1.	1974.	1.	103.	10.	747.30
.18	.43	3.76	.43	.040	.030	.040	.030	733.00	167.71
.000335	130.	130.	130.	1	0	1	0.00	203.84	379.55

CCHV= .400 CEHV= .600

46.00	18.09	748.69	0.00	0.00	748.73	.04	.03	.07	747.40

7433.	0.	7432.	0.	2.	4782.	2.	127.	13.	747.40
.23	.18	1.55	.18	.040	.030	.040	.030	730.60	312.11
.000047	300.	300.	300.	2	0	1	0.00	488.11	800.22

CCHV= .100 CEHV= .300

45.00	11.79	748.79	0.00	0.00	748.82	.03	.10	.00	747.40
7433.	1.	7432.	0.	4.	5121.	0.	354.	38.	749.60
.61	.20	1.45	0.00	.040	.030	.040	.030	737.00	308.10
.000050	2000.	2000.	2000.	2	0	1	0.00	610.38	918.47

3470 ENCROACHMENT STATIONS= 79.0 950.0 TYPE= 1 TARGET= 871.000 Not used

ELENCL= 800.30 ELENCR= 751.50

44.00	12.73	748.93	0.00	0.00	749.00	.07	.17	.01	747.40
7002.	1.	6997.	4.	4.	3234.	12.	569.	65.	747.40
.90	.14	2.16	.34	.100	.030	.040	.030	736.20	199.69
.000124	2240.	2240.	2240.	2	0	1	0.00	434.60	634.29

CCHV= .300 CEHV= .500

3265 DIVIDED FLOW

43.30	12.11	748.91	0.00	0.00	749.08	.17	.03	.05	754.50
7002.	0.	7002.	0.	0.	2113.	0.	582.	66.	754.50
.92	0.00	3.31	0.00	.100	.030	.040	.030	736.80	23.74
.000220	200.	200.	200.	2	0	1	0.00	201.07	333.89

3265 DIVIDED FLOW

43.20	12.11	748.91	0.00	0.00	749.08	.17	.00	.00	754.50
7002.	0.	7002.	0.	0.	2113.	0.	582.	66.	754.50
.92	0.00	3.31	0.00	.100	.030	.040	.030	736.80	23.73
.000220	10.	10.	10.	0	0	1	0.00	201.08	333.89

CCHV= .500 CEHV= .700

43.10	12.16	749.16	0.00	0.00	749.17	.01	.01	.08	746.20
7002.	35.	6964.	3.	178.	9235.	27.	609.	69.	747.40
.99	.19	.75	.12	.040	.030	.040	.030	737.00	185.89
.000012	200.	200.	200.	2	0	1	0.00	1137.56	1323.45

CCHV= .100 CEHV= .300

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

43.00	10.48	749.18	0.00	0.00	749.19	.01	.02	.00	747.90
7002.	5.	6997.	0.	35.	7566.	0.	871.	103.	749.10
1.39	.13	.92	.00	.040	.030	.040	.030	738.70	245.07
.000023	1340.	1340.	1340.	2	0	1	0.00	1049.33	1294.41

CCHV= .100 CEHV= .300

3265 DIVIDED FLOW

42.30	10.68	749.18	0.00	0.00	749.21	.04	.01	.01	752.90
7002.	0.	7001.	1.	0.	4605.	5.	913.	109.	747.40

1.45	0.00	1.52	.29	.040	.030	.040	.030	738.50	151.35
.000074	300.	300.	300.	0	0	1	0.00	653.75	823.50

3265 DIVIDED FLOW

42.20	10.68	749.18	0.00	0.00	749.22	.04	.00	.00	752.90
7002.	0.	7001.	1.	0.	4607.	5.	920.	110.	747.40
1.46	0.00	1.52	.29	.040	.030	.040	.030	738.50	151.35
.000074	68.	68.	68.	0	0	1	0.00	653.76	823.51

42.10	10.24	749.24	0.00	0.00	749.28	.03	.06	.00	746.00
7002.	12.	6937.	53.	30.	4904.	95.	1011.	124.	746.00
1.63	.40	1.41	.56	.040	.030	.040	.030	739.00	206.30
.000063	840.	840.	840.	0	0	1	0.00	783.78	990.08

CCHV= .600 CEHV= .800

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 751.40 ELREA= 753.00

42.00	9.88	749.08	0.00	0.00	750.03	.95	.02	.74	744.90
7002.	0.	7002.	0.	0.	893.	0.	1020.	125.	744.60
1.63	0.00	7.84	0.00	.040	.030	.040	.030	739.20	700.00
.001536	100.	100.	100.	2	0	1	0.00	107.00	807.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	-0.00	1.50	3.00	-0.00	87.00	-0.00	955.00	.83	740.00	740.00

6070-LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 750.672 ELLC= 752.300 PCWSE= 749.078 ELTRD= 751.400

NORMAL BRIDGE,NRD=24 MIN ELTRD= 751.40 MAX ELLC= 752.30

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 751.40 ELREA= 753.00

41.10	9.89	749.09	0.00	0.00	750.15	1.06	.03	.09	744.90
7002.	0.	7002.	0.	0.	846.	0.	1020.	125.	744.60
1.63	0.00	8.28	0.00	.040	.030	.040	.030	739.20	700.00
.003547	14.	14.	14.	2	0	1	-114.42	107.00	807.00

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

41.00	12.88	750.68	0.00	0.00	750.82	.14	.11	.55	747.30
7002.	705.	6277.	20.	834.	1990.	28.	1029.	127.	747.30
1.65	.85	3.15	.73	.040	.030	.040	.030	737.80	113.71

.000218	200.	200.	200.	2	0	1	0.00	784.65	898.36

CCHV=	.100	CEHV=	.300						
40.00	8.47	751.37	0.00	0.00	751.66	.30	.80	.05	750.50
7002.	3.	6311.	688.	16.	1387.	343.	1150.	157.	748.20
1.80	.22	4.55	2.01	.100	.030	.040	.030	742.90	263.81
.000644	2300.	2300.	2300.	3	0	1	0.00	350.44	614.25

CCHV=	.100	CEHV=	.300						
39.00	7.81	752.71	0.00	0.00	753.24	.53	1.51	.07	747.50
7002.	284.	6179.	540.	137.	1000.	240.	1214.	170.	748.40
1.89	2.07	6.18	2.25	.050	.030	.050	.030	744.90	158.53
.001136	1800.	1800.	1800.	2	0	1	0.00	275.16	433.69

38.10	9.08	753.98	0.00	0.00	754.32	.34	1.06	.02	747.50
7002.	372.	5940.	691.	210.	1177.	352.	1261.	178.	748.40
1.97	1.77	5.05	1.96	.050	.030	.050	.030	744.90	146.48
.000610	1300.	1300.	1300.	2	0	1	0.00	293.73	440.21

CCHV= .500 CEHV= .700

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 760.00 ELREA= 760.00

38.00	10.34	753.94	0.00	0.00	754.70	.76	.09	.29	764.32
7002.	0.	7002.	0.	0.	1001.	0.	1264.	179.	764.04
1.97	0.00	7.00	0.00	.060	.030	.060	.030	743.60	100.00
.001392	100.	100.	100.	2	0	1	0.00	127.00	227.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.70	-0.00	87.00	5.00	1040.00	2.00	744.50	744.50

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
755.00	754.81	.13	0.	7002.	1040.	754.70	763.79	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 764.32 ELREA= 764.04

37.10	10.70	754.30	0.00	0.00	755.00	.69	.30	0.00	764.32
7002.	0.	7002.	0.	0.	1047.	0.	1265.	179.	764.04
1.97	0.00	6.68	0.00	.060	.030	.060	.030	743.60	100.00
.001203	28.	28.	28.	2	0	1	0.00	127.00	227.00

CCHV= .100 CEHV= .300

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
O	OLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
37.00	8.73	754.83	0.00	0.00	755.33	.50	.32	.02	748.90
7002.	65.	6447.	490.	104.	1088.	440.	1274.	180.	751.20
1.99	.63	5.93	1.11	.100	.030	.100	.030	746.10	118.86

.000946	300.	300.	300.	2	0	1	0.00	342.78	461.65

36.00	8.64	757.14	0.00	0.00	757.66	.52	2.32	.00	752.30
7002.	60.	6460.	482.	96.	1075.	429.	1363.	199.	753.60
2.10	.63	6.01	1.12	.100	.030	.100	.030	748.50	119.19
.000990	2400.	2400.	2400.	2	0	1	0.00	341.52	460.70

CCHV= .500 CEHV= .700

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 760.00 ELREA= 760.00

35.00	8.46	757.06	0.00	0.00	758.38	1.32	.16	.56	768.26
7002.	0.	7002.	0.	0.	761.	0.	1366.	200.	768.62
2.11	0.00	9.20	0.00	.100	.030	.040	.030	748.60	100.00
.003030	100.	100.	100.	2	0	1	0.00	115.00	215.00

SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS 753.81 ,NOT 757.06 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB	XK	XKOR	CDFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.70	-0.00	85.00	15.00	820.00	1.67	749.50	749.50

CLASS B LOW FLOW

BRIDGE W.S.= 755.92 BRIDGE VELOCITY= 13.51

EGRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
758.76	759.18	0.00	0.	7002.	820.	758.80	768.05	2.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 768.26 ELREA= 768.62

34.10	9.63	758.23	0.00	0.00	759.18	.95	.80	0.00	768.26
7002.	0.	7002.	0.	0.	895.	0.	1366.	200.	768.62
2.11	0.00	7.82	0.00	.100	.030	.040	.030	748.60	100.00
.001808	29.	29.	29.	0	0	1	0.00	115.00	215.00

CCHV= .600 CEHV= .800

3301 HV CHANGED MORE THAN HVINS

34.00	10.79	759.39	0.00	0.00	759.81	.42	.31	.32	754.10
7002.	23.	5944.	1035.	32.	1062.	667.	1375.	202.	755.30
2.12	.70	5.60	1.55	.100	.030	.040	.030	748.60	187.75
.000670	300.	300.	300.	2	0	1	0.00	453.01	640.76

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 764.00 FLREA= 764.00

33.00	10.30	759.60	0.00	0.00	760.32	.72	.27	.24	765.72	
7002.	0.	7002.	0.	0.	1031.	0.	1385.	204.	765.12	
2.14	0.00	6.79	0.00	.100	.030	.040	.030	749.30	100.00	Fuller D/S
.001286	300.	300.	300.	2	0	1	0.00	126.00	226.00	

SPECIAL BRIDGE Fuller Rd.

SB	XK	XKOR	COFO	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHO
	1.25	1.50	2.70	-0.00	106.00	6.00	1496.00	.77	750.50	750.50

CLASS A LOW FLOW

BRIDGE W.S.= 759.50 BRIDGE VELOCITY= 7.28

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	760.43	.14	0.	7002.	1496.	763.72	763.18	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 763.18 ELREA= -0.00

32.10	10.44	759.74	0.00	0.00	760.43	.69	.11	0.00	765.72	
7002.	0.	7002.	0.	0.	1049.	0.	1386.	204.	765.12	
2.14	0.00	6.68	0.00	.100	.030	.040	.030	749.30	100.00	
.001220	41.	41.	41.	0	0	1	0.00	126.00	226.00	
32.00	10.80	760.60	0.00	0.00	760.90	.31	.24	.23	755.90	Fuller U/S
7002.	1702.	4763.	537.	911.	911.	311.	1397.	206.	755.90	
2.16	1.87	5.23	1.72	.050	.030	.040	.030	749.80	254.12	
.000557	300.	300.	300.	2	0	1	0.00	448.88	703.00	

CCHV= .100 CEHV= .300

31.00	8.22	761.82	0.00	0.00	761.96	.14	1.04	.02	758.20
7002.	69.	6298.	635.	129.	1982.	609.	1512.	234.	757.30
2.35	.53	3.18	1.04	.070	.030	.070	.030	753.60	242.14
.000462	2060.	2060.	2060.	2	0	1	0.00	720.40	962.54

CCHV= .200 CEHV= .400

30.10	7.61	762.71	0.00	0.00	763.24	.53	1.13	.16	758.00
6570.	269.	5617.	684.	224.	898.	265.	1587.	256.	757.20
2.43	1.20	6.26	2.58	.050	.030	.050	.030	755.10	106.68
.001255	1600.	1600.	1600.	2	0	1	0.00	499.60	606.28

CCHV= .300 CEHV= .500

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 762.20 ELREA= 766.00

30.00	7.66	762.76	0.00	0.00	763.47	.71	.14	.09	758.00	Wall St d/s
6570.	317.	6253.	0.	239.	905.	0.	1590.	257.	757.20	
2.44	1.33	6.91	0.00	.050	.030	.050	.030	755.10	97.67	
.001517	100.	100.	100.	2	0	1	0.00	433.33	604.28	

SPECIAL BRIDGE Wall St.

SB	XK	XKOR	COFO	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHO
	-0.00	1.50	2.90	-0.00	133.00	-0.00	870.00	-0.00	755.50	755.50

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 763.870 ELLC= 765.100 PCWSE= 762.763 ELTRD= 762.200

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
20.10	7.37	762.47	760.64	0.00	763.92	1.45	.08	.37	758.00
6570.	12.	6558.	0.	20.	678.	0.	1591.	257.	757.20
2.44	.59	9.67	0.00	.050	.030	.050	.030	755.10	151.72
.005878	30.	30.	30.	4	15	1	-552.83	379.28	531.00

NORMAL BRIDGE,NRD=26 MIN ELTRD= 762.20 MAX ELLC= 765.10

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 762.20 ELREA= 766.00

20.10	7.37	762.47	760.64	0.00	763.92	1.45	.08	.37	758.00
6570.	12.	6558.	0.	20.	678.	0.	1591.	257.	757.20
2.44	.59	9.67	0.00	.050	.030	.050	.030	755.10	151.72
.005878	30.	30.	30.	4	15	1	-552.83	379.28	531.00

CCHV= .600 CEHV= .800

3301 HV CHANGED MORE THAN HVINS

20.00	9.10	764.58	0.00	0.00	764.97	.38	.35	.70	762.60
6570.	602.	5705.	263.	617.	1240.	177.	1597.	260.	759.60
2.45	.98	4.60	1.49	.050	.030	.050	.030	755.40	20.00
.000523	200.	200.	200.	3	0	1	0.00	589.11	609.11

Wall St. D/S

CCHV= .040 CEHV= .100

28.10	9.10	765.60	0.00	0.00	765.90	.30	1.04	.00	763.70
6570.	574.	5737.	259.	591.	1230.	173.	1687.	286.	760.70
2.58	.97	4.66	1.50	.050	.030	.050	.030	756.50	20.00
.000544	1940.	1940.	1940.	3	0	1	0.00	588.76	608.76

CCHV= .600 CEHV= .800

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 775.00 ELREA= 775.00

28.00	8.72	765.72	0.00	0.00	767.00	1.28	.31	.79	758.70
6570.	0.	6570.	0.	0.	724.	0.	1696.	288.	762.00
2.59	0.00	9.08	0.00	.050	.030	.050	.030	757.00	365.00
.002685	300.	300.	300.	2	0	1	0.00	104.00	469.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	2.80	-0.00	100.00	0.00	1265.00	0.00	760.00	760.00

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 769.344 ELLC= 773.250 PCWSE= 765.719 ELTRD= 776.500

NORMAL BRIDGE,NRD=20 MIN ELTRD= 776.50 MAX ELLC= 773.25

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 776.50 ELREA= 776.56

27.10	8.86	765.86	0.00	0.00	767.26	1.40	.17	.10	758.70
6570.	0.	6570.	0.	0.	691.	0.	1697.	288.	762.00
2.59	0.00	9.50	0.00	.050	.030	.050	.030	757.00	365.00
.004046	51.	51.	51.	4	0	1	-86.28	104.00	469.00

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
27.00	9.51	766.91	0.00	0.00	767.87	.96	.34	.26	759.70
6570.	335.	6026.	208.	130.	736.	91.	1700.	289.	759.70
2.59	2.59	8.19	2.28	.060	.030	.060	.030	757.40	359.37
.001473	150.	150.	150.	3	0	1	0.00	144.71	504.09

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      29.00 24800.  C          .         .         .         .         .  I  L  .  R     .  W  E  .         .  M     .         .
      27.10 24900.  C          .         .         .         .         .  I  L  .  R     .  W  E  .         .  M     .         .
      27.00 25000.  C          .         .         .         .         .  I  L  .        .  M  W  E.         .        .         .
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**********************************************
HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEER - DETROIT DISTRICT
T2      BY FINKBEINER PETTIS AND STROUT - USFC401 R5
T3      HURON RIVER AT GEDDES DAM Q = 1968 FLOOD
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J1	ICHECK	INQ	NINV	IDIR	STRT	MFTRIC	HVINS	Q	WSFL	FQ
	-0.	5.	-0.	-0.	-0.000000	-0.00	-0.0	-0.	747.500	-0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITPACE
	15.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000

CCHV= .100 CEHV= .300

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
50.00	11.00	747.50	0.00	747.50	748.23	.73	0.00	0.00	750.00
7500.	0.	7500.	0.	0.	1093.	0.	0.	0.	750.00
0.00	0.00	6.86	0.00	.040	.030	.040	0.000	736.50	0.00
.001279	0.	0.	0.	0	0	1	0.00	99.37	159.37

CCHV= .200 CEHV= .400

3301 HV CHANGED MORE THAN HVINS

49.00	14.95	748.35	0.00	0.00	748.42	.06	.05	.13	747.30
7500.	0.	7500.	0.	2.	3726.	0.	14.	1.	750.70
.03	.21	2.01	0.00	.040	.030	.040	.030	733.40	109.96
.000080	250.	250.	250.	2	0	1	0.00	380.04	490.00
48.10	15.42	748.42	0.00	0.00	748.48	.06	.06	.00	746.90
7500.	1.	7499.	0.	3.	3901.	0.	84.	8.	750.30
.15	.25	1.92	0.00	.040	.030	.040	.030	733.00	108.61
.000068	800.	800.	800.	2	0	1	0.00	381.39	490.00

CCHV= .400 CEHV= .600

3265 DIVIDED FLOW

48.00	15.48	748.38	0.00	0.00	748.60	.22	.03	.10	747.30
7500.	1.	7499.	1.	1.	1994.	2.	97.	10.	747.30
.16	.42	3.76	.43	.040	.030	.040	.030	732.90	270.59
.000330	200.	200.	200.	2	0	1	0.00	204.23	482.83

CCHV= .100 CEHV= .300

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
47.00	15.42	748.42	0.00	0.00	748.64	.22	.04	.00	747.30
7500.	1.	7499.	1.	1.	1977.	1.	103.	10.	747.30
.17	.43	3.79	.44	.040	.030	.040	.030	733.00	167.68
.000339	130.	130.	130.	1	0	1	0.00	203.91	379.59

CCHV= .400 CEHV= .600

46.00	18.11	748.71	0.00	0.00	748.75	.04	.03	.07	747.40

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    7500.       0.    7499.       0.       2.    4792.       2.     127.      13.    747.40
      .23      .18     1.56      .18     .040     .030     .040     .030   730.60   312.07
  .000047     300.     300.     300.        2        0        1     0.00   488.21   800.27

CCHV=     .100 CEHV=     .300
    45.00    11.81   748.81     0.00     0.00   748.85      .03      .10      .00   747.40
    7500.       1.    7499.       0.       4.    5134.       0.     355.      38.    749.60
      .61      .21     1.46     0.00     .040     .030     .040     .030   737.00   308.01
  .000050    2000.    2000.    2000.        2        0        1     0.00   610.53   918.54

3470 ENCROACHMENT STATIONS=      79.0      950.0  TYPE=      1  TARGET=      871.000
 ELENCL=     800.30  ELENCR=     751.50
    44.00    12.73   748.93     0.00     0.00   748.96      .03      .12      .00   747.40
    4610.       0.    4607.       3.       4.    3231.      12.     570.      65.    747.40
     1.04      .09     1.43      .23     .100     .030     .040     .030   736.20   199.70
  .000054    2240.    2240.    2240.        0        0        1     0.00   434.52   634.22

CCHV=     .300 CEHV=     .500

3265 DIVIDED FLOW

    43.30    12.12   748.92     0.00     0.00   749.00      .07      .01      .02   754.50
    4610.       0.    4610.       0.       0.    2117.       0.     583.      66.    754.50
     1.07     0.00     2.18     0.00     .100     .030     .040     .030   736.80    23.71
  .000095     200.     200.     200.        0        0        1     0.00   201.21   333.93

3265 DIVIDED FLOW

    43.20    12.12   748.92     0.00     0.00   749.00      .07      .00      .00   754.50
    4610.       0.    4610.       0.       0.    2117.       0.     583.      66.    754.50
     1.07     0.00     2.18     0.00     .100     .030     .040     .030   736.80    23.71
  .000095      10.      10.      10.        0        0        1     0.00   201.21   333.93

CCHV=     .500 CEHV=     .700
    43.10    12.03   749.03     0.00     0.00   749.04      .00      .00      .03   746.20
    4610.      21.    4588.       2.     163.    9105.      23.     609.      69.    747.40
     1.18      .13      .50      .08     .040     .030     .040     .030   737.00   190.45
  .000005     200.     200.     200.        2        0        1     0.00  1130.73  1321.18

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

    43.00    10.34   749.04     0.00     0.00   749.05      .01      .01      .00   747.90
    4610.       2.    4608.       0.      28.    7425.       0.     867.     103.    749.10
     1.78      .08      .62     0.00     .040     .030     .040     .030   738.70   251.15
  .000011    1340.    1340.    1340.        2        0        1     0.00  1041.55  1292.70

CCHV=     .100 CEHV=     .300

3265 DIVIDED FLOW

    42.30    10.54   749.04     0.00     0.00   749.05      .02      .01      .00   752.90
    4610.       0.    4609.       1.       0.    4511.       4.     908.     109.    747.40
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    1.86     0.00     1.02      .18     .040     .030     .040     .030   738.50   151.40
 .000034     300.     300.     300.        0        0        1     0.00   653.25   823.05


3265 DIVIDED FLOW

   42.20    10.54   749.04     0.00     0.00   749.06      .02      .00      .00   752.90
   4610.       0.    4609.       1.       0.    4512.       4.     915.     110.    747.40
    1.88     0.00     1.02      .18     .040     .030     .040     .030   738.50   151.40
 .000034      68.      68.      68.        0        0        1     0.00   653.26   823.06

   42.10    10.07   749.07     0.00     0.00   749.08      .01      .03      .00   746.00
   4610.       7.    4570.      32.      27.    4775.      87.    1006.     123.    746.00
    2.13      .27      .96      .37     .040     .030     .040     .030   739.00   207.33
 .000030     840.     840.     840.        0        0        1     0.00   775.57   982.90

CCHV=    .600 CEHV=    .800

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      751.40 ELREA=      753.00

   42.00     9.80   749.00     0.00     0.00   749.42      .42      .01      .33   744.90
   4610.       0.    4610.       0.       0.     885.       0.    1012.     124.    744.60
    2.13     0.00     5.21     0.00     .040     .030     .040     .030   739.20   700.00
 .000688     100.     100.     100.        2        0        1     0.00   107.00   807.00


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        FLCHU     FLCHD
    -0.00      1.50      3.00     -0.00     87.00     -0.00     955.00      .83     740.00    740.00

6070,LOW FLOW BY NORMAL BRIDGE

EGPPS=     0.000  EGLWC=   750.147  ELLC=   752.300  PCWSE=   748.996  ELTRD=   751.400

NORMAL BRIDGE,NRD=24 MIN ELTRD=  751.40 MAX ELLC=  752.30

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      751.40 ELREA=      753.00

   41.10     9.80   749.00     0.00     0.00   749.47      .46      .01      .03   744.90
   4610.       0.    4610.       0.       0.     843.       0.    1013.     124.    744.60
    2.13     0.00     5.47     0.00     .040     .030     .040     .030   739.20   700.00
 .001556      14.      14.      14.        2        0        1  -106.61   107.00   807.00


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

   41.00    11.87   749.67     0.00     0.00   749.76      .09      .07      .22   747.30
   4610.     212.    4392.       6.     374.    1769.      11.    1020.     126.    747.30
    2.16      .57     2.48      .51     .040     .030     .040     .030   737.80   116.62
 .000158     200.     200.     200.        2        0        1     0.00   551.78   879.12
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CCHV= .100 CEHV= .300

40.00	7.31	750.21	0.00	0.00	750.41	.20	.62	.03	750.50
4610.	0.	4311.	299.	0.	1156.	214.	1113.	149.	748.20
2.34	0.00	3.73	1.40	.100	.030	.040	.030	742.90	301.16
.000548	2300.	2300.	2300.	2	0	1	0.00	306.46	607.62

CCHV= .100 CEHV= .300

39.00	6.51	751.41	0.00	0.00	751.80	.39	1.33	.06	747.50
4610.	131.	4242.	237.	78.	817.	144.	1162.	160.	748.40
2.44	1.67	5.19	1.65	.050	.030	.050	.030	744.90	171.07
.001049	1800.	1800.	1800.	2	0	1	0.00	245.18	416.26

38.10	7.62	752.52	0.00	0.00	752.77	.25	.96	.01	747.50
4610.	179.	4092.	339.	127.	973.	224.	1198.	168.	748.40
2.53	1.40	4.21	1.51	.050	.030	.050	.030	744.90	160.37
.000546	1300.	1300.	1300.	2	0	1	0.00	270.45	430.82

CCHV= .500 CEHV= .700

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 760.00 ELREA= 760.00

38.00	8.93	752.53	0.00	0.00	753.01	.49	.08	.17	764.32
4610.	0.	4610.	0.	0.	821.	0.	1200.	168.	764.04
2.53	0.00	5.62	0.00	.060	.030	.060	.030	743.60	100.00
.001134	100.	100.	100.	2	0	1	0.00	127.00	227.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	RAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.70	-0.00	87.00	5.00	1040.00	2.00	744.50	744.50

CLASS A LOW FLOW

BRIDGE W.S.= 752.47 BRIDGE VELOCITY= 5.91

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	753.08	.07	0.	4610.	1040.	754.70	763.79	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 764.32 ELREA= 764.04

37.10	9.00	752.60	0.00	0.00	753.08	.48	.06	0.00	764.32
4610.	0.	4610.	0.	0.	830.	0.	1201.	168.	764.04
2.54	0.00	5.55	0.00	.060	.030	.060	.030	743.60	100.00
.001093	28.	28.	28.	0	0	1	0.00	127.00	227.00

CCHV= .100 CEHV= .300

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

37.00	6.90	753.00	0.00	0.00	753.41	.42	.33	.01	749.90
4610.	11.	4395.	205.	14.	829.	235.	1207.	170.	751.20
2.55	.75	5.30	.87	.100	.030	.100	.030	746.10	191.88
.001086	300.	300.	300.	2	0	1	0.00	251.63	443.51

```
      36.00      7.03    755.53      0.00      0.00    755.92      .40      2.51      .00    752.30
      4610.       11.      4384.      214.       16.      848.      249.      1268.      183.    753.60
       2.69       .74      5.17       .86       .100     .030      .100      .030    748.50    191.60
    .001005    2400.     2400.     2400.         2         0         1      0.00    253.19    444.80

 CCHV=    .500 CEHV=    .700

 3301 HV CHANGED MORE THAN HVINS

 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=      760.00 FLREA=      760.00

      35.00      6.92    755.52      0.00      0.00    756.49      .97       .16      .40    768.26
      4610.         0.      4610.        0.        0.      583.        0.      1270.      184.    768.62
       2.69      0.00      7.91      0.00      .100     .030      .040      .030    748.60    100.00
    .003085      100.      100.      100.         2         0         1      0.00    115.00    215.00

 SPECIAL BRIDGE

 5227 DOWNSTREAM ELEV IS    752.76 .NOT    755.52 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

 SR  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      1.25      1.50      2.70     -0.00     85.00     15.00     820.00     1.67    749.50    749.50

 CLASS A LOW FLOW

 BRIDGE W.S.=    754.42  BRIDGE VELOCITY=     11.98

  EGPRS     EGLWC      H3        QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS

      0.00    757.00      0.00         0.      4610.      820.    758.80    768.05      2.00

 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=      768.26 FLREA=      768.62

      34.10      7.66    756.26      0.00      0.00    757.00      .74       .51      0.00    768.26
      4610.         0.      4610.        0.        0.      669.        0.      1270.      184.    768.62
       2.69      0.00      6.89      0.00      .100     .030      .040      .030    748.60    100.00
    .001983        29.       29.       29.         0         0         1      0.00    115.00    215.00

 CCHV=    .600 CEHV=    .800
      34.00      8.49    757.09      0.00      0.00    757.57      .47       .41      .16    754.10
      4610.         6.      4465.      139.       10.      797.      128.      1275.      185.    755.30
       2.71       .58      5.61      1.08      .100     .030      .040      .030    748.60    193.08
    .000985      300.      300.      300.         2         0         1      0.00    264.50    457.58

      SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS     BANK ELEV
      Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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=      764.00 ELREA=      764.00

      33.00      8.13    757.43      0.00      0.00    758.01      .57       .36      .08    765.72
      4610.         0.      4610.        0.        0.      758.        0.      1281.      187.    765.12
       2.72      0.00      6.08      0.00      .100     .030      .040      .030    749.30    100.00
    .001492      300.      300.      300.         2         0         1      0.00    126.00    226.00
```

SPECIAL BRIDGE

SR	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.70	-0.00	106.00	6.00	1496.00	.77	750.50	750.50

CLASS A LOW FLOW

BRIDGE W.S.= 757.35 BRIDGE VELOCITY= 6.39

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	758.10	.11	0.	4610.	1496.	763.72	763.18	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 763.18 ELREA= -0.00

32.10	8.25	757.55	0.00	0.00	758.10	.55	.09	0.00	765.72
4610.	0.	4610.	0.	0.	772.	0.	1282.	187.	765.12
2.72	0.00	5.97	0.00	.100	.030	.040	.030	749.30	100.00
.001404	41.	41.	41.	0	0	1	0.00	126.00	226.00
32.00	8.28	758.08	0.00	0.00	758.52	.44	.35	.07	755.90
4610.	561.	3927.	121.	385.	683.	66.	1289.	188.	755.90
2.74	1.46	5.75	1.84	.050	.030	.040	.030	749.80	269.69
.000987	300.	300.	300.	2	0	1	0.00	326.13	595.82

CCHV= .100 CEHV= .300

31.00	6.58	760.18	0.00	0.00	760.32	.15	1.78	.03	758.20
4610.	9.	4311.	290.	15.	1360.	319.	1355.	210.	757.30
2.93	.58	3.17	.91	.070	.030	.070	.030	753.60	377.74
.000760	2060.	2060.	2060.	2	0	1	0.00	573.81	951.56

CCHV= .200 CEHV= .400

30.10	6.45	761.55	0.00	0.00	762.00	.44	1.56	.12	758.00
4610.	56.	4164.	390.	41.	745.	182.	1404.	225.	757.20
3.01	1.38	5.59	2.14	.050	.030	.050	.030	755.10	346.30
.001286	1600.	1600.	1600.	1	0	1	0.00	253.07	599.37

CCHV= .300 CEHV= .500

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 762.20 ELREA= 766.00

30.00	6.53	761.63	0.00	0.00	762.21	.58	.14	.07	758.00
4610.	0.	4610.	0.	0.	753.	0.	1406.	225.	757.20
3.02	0.00	6.12	0.00	.050	.030	.050	.030	755.10	398.00
.001527	100.	100.	100.	2	0	1	0.00	133.00	531.00

SPECIAL BRIDGE

SR	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	-0.00	1.50	2.90	-0.00	133.00	-0.00	870.00	-0.00	755.50	755.50

6070.LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 762.533 ELLC= 765.100 PCWSE= 761.626 ELTRD= 762.200

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
O	QLOB	QCH	QROB	ALOB	ACH	AROB	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.NPD=26 MIN ELTRD= 762.20 MAX ELLC= 765.10

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 762.20 ELREA= 766.00

29.10	6.46	761.56	0.00	0.00	762.41	.85	.06	.14	758.00
4610.	0.	4610.	0.	0.	622.	0.	1407.	225.	757.20
3.02	0.00	7.41	0.00	.050	.030	.050	.030	755.10	398.00
.003280	30.	30.	30.	2	0	1	-295.81	133.00	531.00

CCHV= .600 CEHV= .800

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

29.00	7.26	762.66	0.00	0.00	763.00	.34	.28	.31	762.60
4610.	13.	4516.	81.	32.	953.	73.	1411.	226.	759.60
3.03	.39	4.74	1.11	.050	.030	.050	.030	755.40	129.81
.000791	200.	200.	200.	2	0	1	0.00	310.41	597.80

CCHV= .040 CEHV= .100

3265 DIVIDED FLOW

28.10	7.59	764.09	0.00	0.00	764.39	.30	1.39	.00	763.70
4610.	40.	4470.	100.	82.	1002.	90.	1460.	242.	760.70
3.15	.49	4.46	1.12	.050	.030	.050	.030	756.50	100.77
.000653	1940.	1940.	1940.	3	0	1	0.00	385.55	600.98

CCHV= .600 CEHV= .800

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 775.00 ELREA= 775.00

29.00	7.31	764.31	0.00	0.00	765.30	.99	.36	.55	758.70
4610.	0.	4610.	0.	0.	577.	0.	1466.	243.	762.00
3.16	0.00	7.99	0.00	.050	.030	.050	.030	757.00	365.00
.002773	300.	300.	300.	0	0	1	0.00	104.00	469.00

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	1.50	2.80	-0.00	100.00	0.00	1265.00	0.00	760.00	760.00

6070.LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 767.725 ELLC= 773.250 PCWSE= 764.308 ELTRD= 776.500

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
O	QLOB	QCH	QROB	ALOB	ACH	AROB	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=20 MIN ELTRD= 776.50 MAX ELLC= 773.25									
OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 776.50 ELREA= 776.56									
27.10	7.47	764.47	0.00	0.00	765.49	1.02	.16	.02	758.70
4610.	0.	4610.	0.	0.	569.	0.	1467.	244.	762.00
3.17	0.00	8.10	0.00	.050	.030	.050	.030	757.00	365.00
.003769	51.	51.	51.	3	0	1	-33.78	104.00	469.00
27.00	7.79	765.19	0.00	0.00	765.97	.79	.35	.14	759.70
4610.	165.	4350.	95.	77.	595.	48.	1469.	244.	759.70
3.17	2.14	7.31	1.98	.060	.030	.060	.030	757.40	365.29
.001559	150.	150.	150.	2	0	1	0.00	130.41	495.70

28.00 24800. C . . . . . I L . P W.E . . M . .
27.10 24900. C . . . . . I L . R W.E . . M . .
27.00 25000. C . . . . . I L. W E M . . . .

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

HURON RIVER AT GEDDES DA

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
50.00	0.00	0.00	0.00	736.50	6471.00	747.50	0.00	748.04	99.37	9.52	0.00	0.00
50.00	0.00	0.00	0.00	736.50	7433.00	747.50	0.00	748.22	99.37	12.56	0.00	0.00
50.00	0.00	0.00	0.00	736.50	9277.00	747.50	0.00	748.62	99.37	19.56	0.00	0.00
50.00	0.00	0.00	0.00	736.50	7500.00	747.50	0.00	748.23	99.37	12.79	0.00	0.00
49.00	250.00	0.00	0.00	733.40	6471.00	748.13	0.00	748.18	379.41	.64	.04	13.59
49.00	250.00	0.00	0.00	733.40	7433.00	748.34	0.00	748.40	380.00	.78	.03	13.82
49.00	250.00	0.00	0.00	733.40	9277.00	748.81	0.00	748.89	381.35	1.05	.03	14.33
49.00	250.00	0.00	0.00	733.40	7500.00	748.35	0.00	748.42	380.04	.80	.03	13.83
48.10	800.00	0.00	0.00	733.00	6471.00	748.19	0.00	748.23	380.72	.55	.17	82.10
48.10	800.00	0.00	0.00	733.00	7433.00	748.40	0.00	748.46	381.34	.67	.15	83.79
48.10	800.00	0.00	0.00	733.00	9277.00	748.89	0.00	748.97	382.76	.90	.13	87.66
48.10	800.00	0.00	0.00	733.00	7500.00	748.42	0.00	748.48	381.39	.68	.15	83.91
48.00	200.00	0.00	0.00	732.90	6471.00	748.16	0.00	748.33	203.16	2.63	.19	95.35
48.00	200.00	0.00	0.00	732.90	7433.00	748.36	0.00	748.58	204.16	3.25	.17	97.31
48.00	200.00	0.00	0.00	732.90	9277.00	748.84	0.00	749.14	206.45	4.39	.14	101.84
48.00	200.00	0.00	0.00	732.90	7500.00	748.38	0.00	748.60	204.23	3.30	.16	97.46
47.00	130.00	0.00	0.00	733.00	6471.00	748.19	0.00	748.36	202.90	2.72	.20	101.14
47.00	130.00	0.00	0.00	733.00	7433.00	748.40	0.00	748.62	203.84	3.35	.18	103.24
47.00	130.00	0.00	0.00	733.00	9277.00	748.89	0.00	749.20	206.02	4.48	.15	108.06
47.00	130.00	0.00	0.00	733.00	7500.00	748.42	0.00	748.64	203.91	3.39	.17	103.39
46.00	300.00	0.00	0.00	730.60	6471.00	748.42	0.00	748.45	486.81	.39	.26	123.82
46.00	300.00	0.00	0.00	730.60	7433.00	748.69	0.00	748.73	488.11	.47	.23	126.53
46.00	300.00	0.00	0.00	730.60	9277.00	749.29	0.00	749.34	490.97	.60	.19	132.71
46.00	300.00	0.00	0.00	730.60	7500.00	748.71	0.00	748.75	488.21	.47	.23	126.73
45.00	2000.00	0.00	0.00	737.00	6471.00	748.50	0.00	748.53	608.24	.42	.68	344.25
45.00	2000.00	0.00	0.00	737.00	7433.00	748.79	0.00	748.82	610.38	.50	.61	354.07
45.00	2000.00	0.00	0.00	737.00	9277.00	749.42	0.00	749.47	615.02	.61	.52	375.91
45.00	2000.00	0.00	0.00	737.00	7500.00	748.81	0.00	748.85	610.53	.50	.61	354.80
44.00	2240.00	0.00	0.00	736.20	6096.00	748.62	0.00	748.68	430.55	1.07	1.00	551.60
44.00	2240.00	0.00	0.00	736.20	7002.00	748.93	0.00	749.00	434.60	1.24	.90	569.41
44.00	2240.00	0.00	0.00	736.20	8740.00	749.59	0.00	749.68	442.78	1.47	.77	608.61
44.00	2240.00	0.00	0.00	736.20	4610.00	748.93	0.00	748.96	434.52	.54	1.04	570.40
43.30	200.00	0.00	0.00	736.80	6096.00	748.61	0.00	748.75	199.05	1.81	1.02	563.46
43.30	200.00	0.00	0.00	736.80	7002.00	748.91	0.00	749.08	201.07	2.20	.92	581.72
43.30	200.00	0.00	0.00	736.80	8740.00	749.56	0.00	749.79	205.36	2.89	.79	621.88
43.30	200.00	0.00	0.00	736.80	4610.00	748.92	0.00	749.00	201.21	.95	1.07	582.71
43.20	10.00	0.00	0.00	736.80	6096.00	748.61	0.00	748.75	199.06	1.81	1.02	543.93
43.20	10.00	0.00	0.00	736.80	7002.00	748.91	0.00	749.08	201.08	2.20	.92	562.21
43.20	10.00	0.00	0.00	736.80	8740.00	749.56	0.00	749.80	205.38	2.89	.79	602.39
43.20	10.00	0.00	0.00	736.80	4610.00	748.92	0.00	749.00	201.21	.95	1.07	563.20

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
43.10	200.00	0.00	0.00	737.00	6096.00	748.81	0.00	748.82	1119.23	.10	1.10	589.40
43.10	200.00	0.00	0.00	737.00	7002.00	749.14	0.00	749.17	1137.56	.12	.99	604.73
43.10	200.00	0.00	0.00	737.00	8740.00	749.90	0.00	749.91	1177.11	.14	.85	651.18
43.10	200.00	0.00	0.00	737.00	4610.00	749.03	0.00	749.04	1130.73	.05	1.18	609.39
43.00	1340.00	0.00	0.00	738.70	6096.00	748.83	0.00	748.84	1031.32	.21	1.54	839.70
43.00	1340.00	0.00	0.00	738.70	7002.00	749.18	0.00	749.19	1049.33	.23	1.39	870.84
43.00	1340.00	0.00	0.00	738.70	8740.00	749.92	0.00	749.94	1088.88	.27	1.21	938.70
43.00	1340.00	0.00	0.00	738.70	4610.00	749.04	0.00	749.05	1041.55	.11	1.78	866.93
42.30	300.00	0.00	0.00	738.50	6096.00	748.82	0.00	748.85	652.52	.66	1.60	879.68
42.30	300.00	0.00	0.00	738.50	7002.00	749.18	0.00	749.21	653.75	.74	1.45	912.89
42.30	300.00	0.00	0.00	738.50	8740.00	749.92	0.00	749.96	656.29	.84	1.26	985.15
42.30	300.00	0.00	0.00	738.50	4610.00	749.04	0.00	749.05	653.25	.34	1.86	908.14
42.20	67.50	0.00	0.00	738.50	6096.00	748.83	0.00	748.86	652.53	.66	1.61	886.46
42.20	67.50	0.00	0.00	738.50	7002.00	749.18	0.00	749.22	653.76	.74	1.46	920.04
42.20	67.50	0.00	0.00	738.50	8740.00	749.93	0.00	749.97	656.30	.83	1.27	993.04
42.20	67.50	0.00	0.00	738.50	4610.00	749.04	0.00	749.06	653.26	.34	1.88	915.14
42.10	840.00	0.00	0.00	739.00	6096.00	748.88	0.00	748.91	770.87	.58	1.79	974.46
42.10	840.00	0.00	0.00	739.00	7002.00	749.24	0.00	749.28	783.78	.63	1.63	1013.00
42.10	840.00	0.00	0.00	739.00	8740.00	750.00	0.00	750.03	817.92	.69	1.42	1096.43
42.10	840.00	0.00	0.00	739.00	4610.00	749.07	0.00	749.08	775.57	.30	2.13	1005.83
42.00	100.00	0.00	0.00	739.20	6096.00	748.75	0.00	749.53	107.00	13.29	1.80	980.90
42.00	100.00	0.00	0.00	739.20	7002.00	749.08	0.00	750.03	107.00	15.36	1.63	1019.80
42.00	100.00	0.00	0.00	739.20	8740.00	749.77	0.00	751.04	107.00	18.45	1.42	1104.00
42.00	100.00	0.00	0.00	739.20	4610.00	749.00	0.00	749.42	107.00	6.88	2.13	1012.46
41.10	13.50	751.40	752.30	739.20	6096.00	748.76	0.00	749.59	107.00	24.24	1.80	981.16
41.10	13.50	751.40	752.30	739.20	7002.00	749.09	0.00	750.15	107.00	35.47	1.63	1020.07
41.10	13.50	751.40	752.30	739.20	8740.00	749.75	0.00	751.31	107.00	50.38	1.42	1104.28
41.10	13.50	751.40	752.30	739.20	4610.00	749.00	0.00	749.47	107.00	15.56	2.13	1012.73
41.00	200.00	0.00	0.00	737.80	6096.00	749.98	0.00	750.12	595.90	2.37	1.82	988.42
41.00	200.00	0.00	0.00	737.80	7002.00	750.68	0.00	750.82	794.65	2.18	1.65	1028.56
41.00	200.00	0.00	0.00	737.80	8740.00	752.16	0.00	752.28	812.33	1.63	1.44	1115.55
41.00	200.00	0.00	0.00	737.80	4610.00	749.67	0.00	749.76	551.78	1.58	2.16	1019.60
40.00	2300.00	0.00	0.00	742.90	6096.00	750.75	0.00	751.03	320.92	6.94	1.97	1090.52
40.00	2300.00	0.00	0.00	742.90	7002.00	751.37	0.00	751.66	350.44	6.44	1.80	1149.95
40.00	2300.00	0.00	0.00	742.90	8740.00	752.65	0.00	752.95	435.84	5.27	1.59	1281.67
40.00	2300.00	0.00	0.00	742.90	4610.00	750.21	0.00	750.41	306.46	5.48	2.34	1112.61
39.00	1800.00	0.00	0.00	744.90	6096.00	752.18	0.00	752.68	262.11	11.52	2.06	1147.78
39.00	1800.00	0.00	0.00	744.90	7002.00	752.71	0.00	753.24	275.16	11.36	1.89	1214.48
39.00	1800.00	0.00	0.00	744.90	8740.00	753.76	0.00	754.33	291.20	10.52	1.67	1362.87
39.00	1800.00	0.00	0.00	744.90	4610.00	751.41	0.00	751.80	245.18	10.49	2.44	1162.38

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
38.10	1300.00	0.00	0.00	744.90	6096.00	753.43	0.00	753.75	287.37	5.99	2.14	1189.78
38.10	1300.00	0.00	0.00	744.90	7002.00	753.98	0.00	754.32	293.73	6.10	1.97	1260.96
38.10	1300.00	0.00	0.00	744.90	8740.00	754.98	0.00	755.38	305.47	6.13	1.75	1418.30
38.10	1300.00	0.00	0.00	744.90	4610.00	752.52	0.00	752.77	270.45	5.46	2.53	1197.65
38.00	100.00	0.00	0.00	743.60	6096.00	753.41	0.00	754.07	127.00	13.15	2.15	1192.67
38.00	100.00	0.00	0.00	743.60	7002.00	753.94	0.00	754.70	127.00	13.92	1.97	1264.10
38.00	100.00	0.00	0.00	743.60	8740.00	754.91	0.00	755.85	127.00	14.99	1.75	1421.94
38.00	100.00	0.00	0.00	743.60	4610.00	752.53	0.00	753.01	127.00	11.74	2.53	1200.11
37.10	28.20	763.79	754.70	743.60	6096.00	753.52	0.00	754.17	127.00	12.54	2.15	1193.27
37.10	28.20	763.79	754.70	743.60	7002.00	754.30	0.00	755.00	127.00	12.03	1.97	1264.77
37.10	28.20	763.79	754.70	743.60	8740.00	755.78	0.00	756.56	127.00	11.14	1.75	1422.70
37.10	28.20	763.79	754.70	743.60	4610.00	752.60	0.00	753.08	127.00	10.93	2.54	1200.65
37.00	300.00	0.00	0.00	746.10	6096.00	754.03	0.00	754.53	317.64	10.68	2.16	1201.23
37.00	300.00	0.00	0.00	746.10	7002.00	754.83	0.00	755.33	342.78	9.46	1.99	1273.99
37.00	300.00	0.00	0.00	746.10	8740.00	756.36	0.00	756.86	363.10	7.56	1.77	1434.43
37.00	300.00	0.00	0.00	746.10	4610.00	753.00	0.00	753.41	251.63	10.86	2.55	1207.22
36.00	2400.00	0.00	0.00	748.50	6096.00	756.54	0.00	757.02	328.44	10.09	2.29	1277.27
36.00	2400.00	0.00	0.00	748.50	7002.00	757.14	0.00	757.66	341.52	9.90	2.10	1362.99
36.00	2400.00	0.00	0.00	748.50	8740.00	758.30	0.00	758.82	367.21	9.13	1.88	1549.55
36.00	2400.00	0.00	0.00	748.50	4610.00	755.53	0.00	755.92	253.19	10.05	2.69	1267.59
35.00	100.00	0.00	0.00	748.60	6096.00	756.49	0.00	757.68	115.00	30.70	2.29	1279.67
35.00	100.00	0.00	0.00	748.60	7002.00	757.06	0.00	758.38	115.00	30.30	2.11	1365.70
35.00	100.00	0.00	0.00	748.60	8740.00	758.17	0.00	759.67	115.00	28.84	1.88	1552.87
35.00	100.00	0.00	0.00	748.60	4610.00	755.52	0.00	756.49	115.00	30.85	2.69	1269.53
34.10	28.80	768.05	758.80	748.60	6096.00	757.52	0.00	758.39	115.00	18.53	2.29	1280.17
34.10	28.80	768.05	758.80	748.60	7002.00	758.23	0.00	759.18	115.00	18.08	2.11	1366.25
34.10	28.80	768.05	758.80	748.60	8740.00	759.79	0.00	760.82	115.00	15.83	1.89	1553.52
34.10	28.80	768.05	758.80	748.60	4610.00	756.26	0.00	757.00	115.00	19.83	2.69	1269.94
34.00	300.00	0.00	0.00	748.60	6096.00	758.54	0.00	758.99	382.67	7.89	2.71	1287.80
34.00	300.00	0.00	0.00	748.60	7002.00	759.39	0.00	759.81	453.01	6.70	2.12	1375.40
34.00	300.00	0.00	0.00	748.60	8740.00	761.16	0.00	761.47	596.92	4.49	1.91	1566.46
34.00	300.00	0.00	0.00	748.60	4610.00	757.09	0.00	757.57	264.50	9.85	2.71	1275.47
33.00	300.00	0.00	0.00	749.30	6096.00	758.80	0.00	759.47	126.00	13.55	2.32	1295.83
33.00	300.00	0.00	0.00	749.30	7002.00	759.60	0.00	760.32	126.00	12.86	2.14	1385.02
33.00	300.00	0.00	0.00	749.30	8740.00	761.27	0.00	762.04	126.00	11.16	1.92	1579.98
33.00	300.00	0.00	0.00	749.30	4610.00	757.43	0.00	758.01	126.00	14.92	2.72	1281.30
32.10	40.80	763.18	763.72	749.30	6096.00	758.93	0.00	759.57	126.00	12.82	2.32	1296.71
32.10	40.80	763.18	763.72	749.30	7002.00	759.74	0.00	760.43	126.00	12.20	2.14	1385.99
32.10	40.80	763.18	763.72	749.30	8740.00	761.41	0.00	762.15	126.00	10.68	1.92	1581.15
32.10	40.80	763.18	763.72	749.30	4610.00	757.55	0.00	758.10	126.00	14.04	2.72	1282.01

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
32.00	300.00	0.00	0.00	749.80	6096.00	759.67	0.00	760.02	443.12	6.91	2.34	1305.88
32.00	300.00	0.00	0.00	749.80	7002.00	760.60	0.00	760.90	449.88	5.57	2.16	1396.95
32.00	300.00	0.00	0.00	749.80	8740.00	762.41	0.00	762.64	460.02	3.78	1.94	1595.67
32.00	300.00	0.00	0.00	749.80	4610.00	758.08	0.00	758.52	326.13	9.87	2.74	1288.58
31.00	2060.00	0.00	0.00	753.60	6096.00	761.17	0.00	761.32	633.38	5.60	2.53	1400.42
31.00	2060.00	0.00	0.00	753.60	7002.00	761.82	0.00	761.96	720.40	4.62	2.35	1511.69
31.00	2060.00	0.00	0.00	753.60	8740.00	763.22	0.00	763.35	884.78	3.02	2.15	1756.89
31.00	2060.00	0.00	0.00	753.60	4610.00	760.18	0.00	760.32	573.81	7.60	2.93	1355.43
30.10	1600.00	0.00	0.00	755.10	5720.00	762.24	0.00	762.75	411.03	12.81	2.61	1463.87
30.10	1600.00	0.00	0.00	755.10	6570.00	762.71	0.00	763.24	499.60	12.55	2.43	1587.10
30.10	1600.00	0.00	0.00	755.10	8200.00	763.80	0.00	764.27	612.80	9.92	2.24	1864.90
30.10	1600.00	0.00	0.00	755.10	4610.00	761.55	0.00	762.00	253.07	12.86	3.01	1404.30
30.00	100.00	0.00	0.00	755.10	5720.00	762.30	0.00	762.96	350.03	15.15	2.61	1466.32
30.00	100.00	0.00	0.00	755.10	6570.00	762.76	0.00	763.47	433.33	15.17	2.44	1590.00
30.00	100.00	0.00	0.00	755.10	8200.00	763.82	0.00	764.47	531.00	12.44	2.24	1869.14
30.00	100.00	0.00	0.00	755.10	4610.00	761.63	0.00	762.21	133.00	15.27	3.02	1406.27
29.10	30.00	762.20	765.10	755.10	5720.00	762.16	0.00	763.25	133.00	43.63	2.61	1466.89
29.10	30.00	762.20	765.10	755.10	6570.00	762.47	760.64	763.92	379.28	58.78	2.44	1590.64
29.10	30.00	762.20	765.10	755.10	8200.00	763.38	761.63	765.07	531.00	77.36	2.24	1870.04
29.10	30.00	762.20	765.10	755.10	4610.00	761.56	0.00	762.41	133.00	32.60	3.02	1406.75
29.00	200.00	0.00	0.00	755.40	5720.00	763.63	0.00	763.97	541.73	6.90	2.63	1471.88
29.00	200.00	0.00	0.00	755.40	6570.00	764.58	0.00	764.87	589.11	5.23	2.45	1596.91
29.00	200.00	0.00	0.00	755.40	8200.00	765.91	0.00	766.15	595.93	4.01	2.26	1878.63
29.00	200.00	0.00	0.00	755.40	4610.00	762.66	0.00	763.00	310.41	7.91	3.03	1410.60
28.10	1940.00	0.00	0.00	756.50	5720.00	764.92	0.00	765.24	564.88	6.16	2.75	1540.52
28.10	1940.00	0.00	0.00	756.50	6570.00	765.60	0.00	765.90	588.76	5.44	2.58	1686.62
28.10	1940.00	0.00	0.00	756.50	8200.00	766.72	0.00	766.99	594.45	4.64	2.39	2000.48
28.10	1940.00	0.00	0.00	756.50	4610.00	764.09	0.00	764.39	385.55	6.53	3.15	1460.30
28.00	300.00	0.00	0.00	757.00	5720.00	765.09	0.00	766.26	104.00	27.69	2.76	1548.27
28.00	300.00	0.00	0.00	757.00	6570.00	765.72	0.00	767.00	104.00	26.85	2.59	1695.98
28.00	300.00	0.00	0.00	757.00	8200.00	766.75	0.00	768.26	104.00	26.74	2.40	2012.47
28.00	300.00	0.00	0.00	757.00	4610.00	764.31	0.00	765.30	104.00	27.73	3.16	1466.33
27.10	51.00	776.50	773.25	757.00	5720.00	765.25	0.00	766.50	104.00	39.97	2.76	1549.03
27.10	51.00	776.50	773.25	757.00	6570.00	765.86	0.00	767.26	104.00	40.46	2.59	1696.81
27.10	51.00	776.50	773.25	757.00	8200.00	766.87	0.00	768.59	104.00	42.52	2.40	2013.41
27.10	51.00	776.50	773.25	757.00	4610.00	764.47	0.00	765.49	104.00	37.69	3.17	1467.00
27.00	150.00	0.00	0.00	757.40	5720.00	766.16	0.00	767.06	138.57	15.22	2.77	1551.60
27.00	150.00	0.00	0.00	757.40	6570.00	766.91	0.00	767.87	144.71	14.73	2.59	1699.65
27.00	150.00	0.00	0.00	757.40	8200.00	768.25	0.00	769.32	151.25	13.79	2.41	2016.75
27.00	150.00	0.00	0.00	757.40	4610.00	765.19	0.00	765.97	130.41	15.59	3.17	1469.22

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH O	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
50.000	6471.000	747.500	0.000	0.000	0.000	99.370	0.000	0.000
50.000	7433.000	747.500	0.000	0.000	0.000	99.370	0.000	0.000
50.000	9277.000	747.500	0.000	0.000	0.000	99.370	0.000	0.000
50.000	7500.000	747.500	0.000	0.000	0.000	99.370	0.000	0.000
49.000	6471.000	748.134	0.000	.634	0.000	379.411	0.000	250.000
49.000	7433.000	748.337	.203	.837	0.000	379.997	-.586	250.000

49.000	9277.000	748.806	.468	1.306	0.000	381.350	-1.939	250.000
49.000	7500.000	748.353	-.453	.853	0.000	380.041	-.630	250.000
48.100	6471.000	748.187	0.000	.052	0.000	380.718	0.000	800.000
48.100	7433.000	748.402	.215	.065	0.000	381.340	-.622	800.000
48.100	9277.000	748.893	.491	.087	0.000	382.758	-2.040	800.000
48.100	7500.000	748.418	-.475	.066	0.000	381.386	-.669	800.000
48.000	6471.000	748.157	0.000	-.030	0.000	203.156	0.000	200.000
48.000	7433.000	748.364	.207	-.038	0.000	204.158	-1.003	200.000
48.000	9277.000	748.836	.472	-.057	0.000	206.449	-3.294	200.000
48.000	7500.000	748.379	-.457	-.039	0.000	204.233	-1.077	200.000
47.000	6471.000	748.189	0.000	.032	0.000	202.898	0.000	130.000
47.000	7433.000	748.404	.215	.040	0.000	203.838	-.940	130.000
47.000	9277.000	748.891	.487	.055	0.000	206.020	-3.123	130.000
47.000	7500.000	748.420	-.471	.041	0.000	203.908	-1.010	130.000
46.000	6471.000	748.416	0.000	.226	0.000	486.814	0.000	300.000
46.000	7433.000	748.689	.273	.285	0.000	488.110	-1.295	300.000
46.000	9277.000	749.292	.603	.401	0.000	490.967	-4.153	300.000
46.000	7500.000	748.709	-.583	.290	0.000	488.205	-1.391	300.000
45.000	6471.000	748.501	0.000	.095	0.000	608.236	0.000	2000.000
45.000	7433.000	748.791	.290	.102	0.000	610.375	-2.139	2000.000
45.000	9277.000	749.422	.631	.130	0.000	615.023	-6.787	2000.000
45.000	7500.000	748.813	-.610	.103	0.000	610.532	-2.296	2000.000
44.000	6096.000	748.619	0.000	.118	0.000	430.546	0.000	2240.000
44.000	7002.000	748.929	.309	.137	0.000	434.598	-4.052	2240.000
44.000	8740.000	749.586	.658	.164	0.000	442.778	-12.232	2240.000
44.000	4610.000	748.930	-.656	.118	0.000	434.518	-3.971	2240.000
43.300	6096.000	748.608	0.000	-.011	0.000	199.047	0.000	200.000
43.300	7002.000	748.912	.304	-.017	0.000	201.070	-2.023	200.000
43.300	8740.000	749.557	.645	-.030	0.000	205.362	-6.315	200.000
43.300	4610.000	748.923	-.634	-.007	0.000	201.207	-2.160	200.000
43.200	6096.000	749.610	0.000	.002	0.000	199.056	0.000	10.000
43.200	7002.000	748.914	.304	.002	0.000	201.081	-2.025	10.000
43.200	8740.000	749.560	.646	.003	0.000	205.376	-6.320	10.000
43.200	4610.000	748.924	-.636	.001	0.000	201.212	-2.155	10.000
43.100	6096.000	748.810	0.000	.200	0.000	1119.235	0.000	200.000
43.100	7002.000	749.163	.353	.249	0.000	1137.559	-18.324	200.000
43.100	8740.000	749.903	.740	.343	0.000	1177.111	-57.876	200.000
43.100	4610.000	749.031	-.872	.107	0.000	1130.728	-11.493	200.000
43.000	6096.000	748.826	0.000	.016	0.000	1031.324	0.000	1340.000
43.000	7002.000	749.182	.355	.019	0.000	1049.335	-18.011	1340.000
43.000	8740.000	749.925	.743	.022	0.000	1088.876	-57.553	1340.000
43.000	4610.000	749.040	-.885	.008	0.000	1041.552	-10.229	1340.000
42.300	6096.000	748.823	0.000	-.003	0.000	652.523	0.000	300.000
42.300	7002.000	749.177	.354	-.004	0.000	653.748	-1.225	300.000
42.300	8740.000	749.918	.741	-.007	0.000	656.285	-3.762	300.000
42.300	4610.000	749.038	-.880	-.002	0.000	653.251	-.728	300.000
42.200	6096.000	748.827	0.000	.004	0.000	652.533	0.000	67.500
42.200	7002.000	749.182	.355	.005	0.000	653.759	-1.226	67.500
42.200	8740.000	749.923	.741	.006	0.000	656.298	-3.765	67.500
42.200	4610.000	749.040	-.883	.002	0.000	653.256	-.723	67.500
42.100	6096.000	748.884	0.000	.056	0.000	770.872	0.000	840.000
42.100	7002.000	749.245	.361	.063	0.000	783.777	-12.905	840.000
42.100	8740.000	749.995	.750	.072	0.000	817.920	-47.048	840.000

42.100	4610.000	749.069	-.926	.029	0.000	775.566	-4.694	840.000
42.000	6096.000	748.748	0.000	-.136	0.000	107.000	0.000	100.000
42.000	7002.000	749.078	.330	-.167	0.000	107.000	0.000	100.000
42.000	8740.000	749.769	.691	-.226	0.000	107.000	0.000	100.000
42.000	4610.000	748.996	-.773	-.073	0.000	107.000	0.000	100.000
41.100	6096.000	748.762	0.000	.014	0.000	107.000	0.000	13.500
41.100	7002.000	749.086	.324	.008	0.000	107.000	0.000	13.500
41.100	8740.000	749.748	.662	-.021	0.000	107.000	0.000	13.500
41.100	4610.000	749.001	-.747	.005	0.000	107.000	0.000	13.500
41.000	6096.000	749.977	0.000	1.215	0.000	595.896	0.000	200.000
41.000	7002.000	750.676	.699	1.590	0.000	784.648	-188.752	200.000
41.000	8740.000	752.159	1.483	2.411	0.000	812.333	-216.436	200.000
41.000	4610.000	749.670	-2.488	.669	0.000	551.775	44.121	200.000
40.000	6096.000	750.746	0.000	.769	0.000	320.918	0.000	2300.000
40.000	7002.000	751.369	.623	.692	0.000	350.435	-29.518	2300.000
40.000	8740.000	752.653	1.284	.494	0.000	435.844	-114.926	2300.000
40.000	4610.000	750.208	-2.445	.537	0.000	306.458	14.460	2300.000
39.000	6096.000	752.183	0.000	1.438	0.000	262.111	0.000	1800.000
39.000	7002.000	752.712	.529	1.344	0.000	275.164	-13.052	1800.000
39.000	8740.000	753.757	1.045	1.104	0.000	291.202	-29.090	1800.000
39.000	4610.000	751.409	-2.349	1.201	0.000	245.182	16.929	1800.000
38.100	6096.000	753.432	0.000	1.249	0.000	287.366	0.000	1300.000
38.100	7002.000	753.976	.544	1.264	0.000	293.735	-6.369	1300.000
38.100	8740.000	754.984	1.008	1.227	0.000	305.467	-18.101	1300.000
38.100	4610.000	752.522	-2.462	1.113	0.000	270.453	16.913	1300.000
38.000	6096.000	753.413	0.000	-.019	0.000	127.000	0.000	100.000
38.000	7002.000	753.940	.527	-.037	0.000	127.000	0.000	100.000
38.000	8740.000	754.912	.972	-.072	0.000	127.000	0.000	100.000
38.000	4610.000	752.525	-2.387	.003	0.000	127.000	0.000	100.000
37.100	6096.000	753.523	0.000	.110	0.000	127.000	0.000	28.200
37.100	7002.000	754.301	.778	.362	0.000	127.000	0.000	28.200
37.100	8740.000	755.779	1.478	.867	0.000	127.000	0.000	28.200
37.100	4610.000	752.600	-3.179	.075	0.000	127.000	0.000	28.200
37.000	6096.000	754.027	0.000	.504	0.000	317.642	0.000	300.000
37.000	7002.000	754.830	.802	.528	0.000	342.783	-25.141	300.000
37.000	8740.000	756.360	1.531	.581	0.000	363.100	-45.458	300.000
37.000	4610.000	752.996	-3.365	.396	0.000	251.630	66.012	300.000
36.000	6096.000	756.539	0.000	2.512	0.000	328.442	0.000	2400.000
36.000	7002.000	757.141	.602	2.311	0.000	341.517	-13.074	2400.000
36.000	8740.000	758.303	1.162	1.942	0.000	357.010	-28.568	2400.000
36.000	4610.000	755.525	-2.777	2.530	0.000	253.195	75.248	2400.000
35.000	6096.000	756.488	0.000	-.052	0.000	115.000	0.000	100.000
35.000	7002.000	757.062	.574	-.079	0.000	115.000	0.000	100.000
35.000	8740.000	758.171	1.108	-.132	0.000	115.000	0.000	100.000
35.000	4610.000	755.516	-2.655	-.010	0.000	115.000	0.000	100.000
34.100	6096.000	757.523	0.000	1.035	0.000	115.000	0.000	28.800
34.100	7002.000	758.230	.707	1.167	0.000	115.000	0.000	28.800
34.100	8740.000	759.789	1.559	1.618	0.000	115.000	0.000	28.800
34.100	4610.000	756.263	-3.526	.748	0.000	115.000	0.000	28.800
34.000	6096.000	758.535	0.000	1.012	0.000	382.668	0.000	300.000
34.000	7002.000	759.391	.856	1.162	0.000	453.009	-70.341	300.000
34.000	8740.000	761.157	1.766	1.368	0.000	596.921	-214.253	300.000
34.000	4610.000	757.093	-4.064	.830	0.000	264.503	118.165	300.000

33.000	6096.000	758.798	0.000	.242	0.000	126.000	0.000	300.000
33.000	7002.000	759.603	.805	.212	0.000	126.000	0.000	300.000
33.000	8740.000	761.268	1.665	.111	0.000	126.000	0.000	300.000
33.000	4610.000	757.433	-3.835	.339	0.000	126.000	0.000	300.000
32.100	6096.000	758.928	0.000	.130	0.000	126.000	0.000	40.800
32.100	7002.000	759.740	.812	.137	0.000	126.000	0.000	40.800
32.100	8740.000	761.406	1.666	.138	0.000	126.000	0.000	40.800
32.100	4610.000	757.548	-3.858	.115	0.000	126.000	0.000	40.800
32.000	6096.000	759.666	0.000	.738	0.000	443.125	0.000	300.000
32.000	7002.000	760.597	.931	.857	0.000	448.878	-5.753	300.000
32.000	8740.000	762.407	1.810	1.001	0.000	460.016	-16.891	300.000
32.000	4610.000	758.075	-4.332	.528	0.000	326.133	116.991	300.000
31.000	6096.000	761.174	0.000	1.508	0.000	633.381	0.000	2060.000
31.000	7002.000	761.819	.645	1.222	0.000	720.405	-87.024	2060.000
31.000	8740.000	763.222	1.403	.815	0.000	884.778	-251.397	2060.000
31.000	4610.000	760.178	-3.044	2.102	0.000	573.813	59.568	2060.000
30.100	5720.000	762.242	0.000	1.068	0.000	411.033	0.000	1600.000
30.100	6570.000	762.713	.472	.894	0.000	499.601	-88.568	1600.000
30.100	8200.000	763.800	1.087	.578	0.000	612.900	-201.767	1600.000
30.100	4610.000	761.554	-2.246	1.377	0.000	253.075	157.958	1600.000
30.000	5720.000	762.305	0.000	.063	0.000	350.027	0.000	100.000
30.000	6570.000	762.763	.458	.050	0.000	433.332	-83.305	100.000
30.000	8200.000	763.821	1.058	.021	0.000	531.000	-180.973	100.000
30.000	4610.000	761.628	-2.192	.071	0.000	133.000	217.027	100.000
29.100	5720.000	762.163	0.000	-.142	0.000	133.000	0.000	30.000
29.100	6570.000	762.472	.309	-.291	0.000	379.277	-246.277	30.000
29.100	8200.000	763.375	.903	-.446	0.000	531.000	-398.000	30.000
29.100	4610.000	761.555	-1.820	-.071	0.000	133.000	0.000	30.000
29.000	5720.000	763.627	0.000	1.464	0.000	541.730	0.000	200.000
29.000	6570.000	764.578	.951	2.106	0.000	589.111	-47.380	200.000
29.000	8200.000	765.909	1.330	2.534	0.000	595.929	-54.199	200.000
29.000	4610.000	762.655	-3.254	1.100	0.000	310.411	231.319	200.000
28.100	5720.000	764.922	0.000	1.295	0.000	564.879	0.000	1940.000
28.100	6570.000	765.605	.682	1.027	0.000	588.761	-23.882	1940.000
28.100	8200.000	766.715	1.110	.807	0.000	594.447	-29.568	1940.000
28.100	4610.000	764.090	-2.625	1.435	0.000	385.555	179.324	1940.000
28.000	5720.000	765.093	0.000	.170	0.000	104.000	0.000	300.000
28.000	6570.000	765.719	.627	.114	0.000	104.000	0.000	300.000
28.000	8200.000	766.746	1.026	.030	0.000	104.000	0.000	300.000
28.000	4610.000	764.308	-2.438	.217	0.000	104.000	0.000	300.000
27.100	5720.000	765.245	0.000	.152	0.000	104.000	0.000	51.000
27.100	6570.000	765.861	.616	.142	0.000	104.000	0.000	51.000
27.100	8200.000	766.875	1.014	.129	0.000	104.000	0.000	51.000
27.100	4610.000	764.466	-2.409	.158	0.000	104.000	0.000	51.000
27.000	5720.000	766.160	0.000	.915	0.000	138.570	0.000	150.000
27.000	6570.000	766.908	.748	1.047	0.000	144.712	-6.142	150.000
27.000	8200.000	768.253	1.345	1.378	0.000	151.245	-12.675	150.000
27.000	4610.000	765.185	-3.068	.719	0.000	130.409	8.161	150.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	270.481	0.000

2	0.000	0.000	288.700	18.219
3	0.000	0.000	309.078	38.597
4	0.000	0.000	244.008	-26.473

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS
T2      BY FINKBEINER PETTIS  STROUT - USEC401 R4
T3      HURON RIVER AT ARGO DAM - Q = 50 YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        -0.       2.        -0.       -0. -0.000000     -0.00     -0.0      -0.   774.000    -0.000

NC       .050      .040      .030      .100      .300   -0.000    -0.000    -0.000    -0.000    -0.000
QT      4.000  5673.000  6516.000  8133.000  4572.000   -0.000    -0.000    -0.000    -0.000    -0.000

X1     26.000    35.000   212.000   500.000     0.000     0.000     0.000    -0.000    -0.000    -0.000
GP    777.000   166.000   776.800   192.000   776.800   200.000   773.700   212.000   771.200   220.000
GR    768.200   230.000   765.600   240.000   765.500   250.000   763.000   260.000   762.300   270.000
GP    761.500   280.000   762.500   290.000   762.400   300.000   762.900   310.000   765.000   320.000
GR    765.300   330.000   765.700   340.000   765.700   350.000   765.600   360.000   765.600   370.000
GR    765.500   380.000   765.700   390.000   765.600   400.000   765.500   410.000   765.500   420.000
GR    765.500   430.000   765.800   440.000   766.100   450.000   766.000   460.000   765.900   470.000
GR    766.800   480.000   771.700   490.000   773.700   500.000   776.700   515.000   776.600   575.000
NC       .050      .040      .030     1.000      .300   -0.000    -0.000    -0.000    -0.000    -0.000

X1     25.000    54.000   100.000   548.000   120.000    72.000    95.000    -0.000    -0.000    -0.000
X3     10.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000   800.000   800.000    -0.000
GR    802.490     0.000   802.500   100.000   776.000   100.000   776.400   125.000   771.200   150.000
GR    773.700   152.000   769.800   161.000   768.900   170.000   765.400   180.000   762.900   190.000
GR    761.300   200.000   761.700   210.000   768.700   220.000   768.800   229.000   767.600   230.000
GR    765.100   240.000   763.900   250.000   763.900   260.000   764.200   270.000   762.200   280.000
GR    768.900   290.000   768.900   299.000   767.200   300.000   764.300   310.000   763.000   320.000
GR    762.700   330.000   763.700   340.000   762.100   350.000   768.700   360.000   768.400   369.000
GR    766.400   370.000   765.100   380.000   763.300   390.000   763.700   400.000   764.200   410.000
GR    764.400   420.000   768.800   430.000   768.800   439.000   765.400   440.000   766.100   450.000
GR    765.700   460.000   765.700   470.000   766.200   480.000   766.600   490.000   767.400   499.000
GR    767.500   500.000   768.200   508.000   767.600   510.000   768.700   520.000   769.500   530.000
GR    773.700   540.000   779.100   548.000   802.630   548.000   802.630   700.000    -0.000    -0.000
SB      1.250     1.500     2.600    -0.000   370.500    56.500 10843.500     1.380   765.000   765.000

X1     24.100    -0.000    -0.000    -0.000    10.000    10.000    10.000    -0.000    -0.000    -0.000
X2     -0.000    -0.000     1.000   793.980   802.490    -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   802.500   802.630    -0.000
BT      6.000     0.000   802.490   802.490   100.000   802.500   802.500   100.000   802.500   793.980
BT    548.000   802.630   794.080   548.000   802.630   802.630   700.000   802.630   802.630    -0.000
NC       .050      .050    -0.000      .100      .300    -0.000    -0.000    -0.000    -0.000    -0.000

X1     24.000    63.000   450.000   990.000   180.000   240.000   200.000    -0.000    -0.000    -0.000
GR    791.800   140.000   781.200   200.000   778.800   300.000   774.900   400.000   773.500   450.000
GR    772.500   460.000   771.100   470.000   771.100   480.000   770.900   490.000   770.500   500.000
GR    769.600   510.000   769.700   520.000   769.000   530.000   768.500   540.000   768.100   550.000
GR    767.800   560.000   767.500   570.000   767.400   580.000   766.900   590.000   766.700   600.000
GR    766.200   610.000   766.000   620.000   765.400   630.000   764.600   640.000   764.000   650.000
GR    764.100   660.000   764.000   670.000   762.700   680.000   762.400   690.000   762.500   700.000
GR    762.200   710.000   762.500   720.000   763.000   730.000   763.800   740.000   765.000   750.000
GR    765.800   760.000   767.300   770.000   767.500   780.000   767.700   790.000   768.100   800.000
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GR	768.300	810.000	768.300	820.000	768.400	830.000	768.200	840.000	768.000	850.000
GR	767.700	860.000	767.200	870.000	767.900	880.000	766.400	890.000	766.400	900.000
GR	766.000	910.000	765.500	920.000	765.400	930.000	765.300	940.000	765.400	950.000
GR	765.600	960.000	766.100	970.000	768.300	980.000	773.500	990.000	777.200	995.000
GR	780.200	1050.000	781.500	1100.000	795.500	1270.000	-0.000	-0.000	-0.000	-0.000
NC	.080	.050	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	23.000	51.000	300.000	731.000	1870.000	1870.000	1870.000	-0.000	-0.000	-0.000
GR	837.300	98.000	802.000	248.000	777.100	300.000	773.600	301.000	771.800	311.000
GR	770.200	321.000	769.300	331.000	768.600	341.000	768.200	351.000	767.700	361.000
GR	767.300	371.000	767.300	381.000	767.200	391.000	767.200	401.000	767.200	411.000
GR	767.000	421.000	766.600	431.000	765.300	441.000	764.600	451.000	764.100	461.000
GR	764.100	471.000	764.100	481.000	764.200	491.000	764.200	501.000	764.100	511.000
GR	763.900	521.000	764.000	531.000	764.100	541.000	764.200	551.000	764.300	561.000
GP	765.000	571.000	765.800	581.000	766.100	591.000	766.500	601.000	766.800	611.000
GR	767.000	621.000	767.100	631.000	766.600	641.000	766.600	651.000	766.600	661.000
GR	766.400	671.000	766.600	681.000	766.900	691.000	767.600	701.000	768.900	711.000
GR	771.300	721.000	773.600	731.000	776.900	741.000	779.000	841.000	783.200	1041.000
GR	781.700	1151.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.070	.040	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	22.000	51.000	247.000	650.000	3000.000	3000.000	3000.000	-0.000	-0.000	-0.000
GR	787.200	200.000	773.800	247.000	769.800	250.000	772.500	260.000	771.700	270.000
GR	771.200	280.000	771.200	290.000	771.300	300.000	771.100	310.000	771.200	320.000
GR	771.200	330.000	771.200	340.000	771.100	350.000	770.800	360.000	770.000	370.000
GP	767.100	380.000	766.000	390.000	765.700	400.000	765.300	410.000	765.000	420.000
GR	765.200	430.000	765.300	440.000	765.400	450.000	765.400	460.000	766.200	470.000
GR	766.800	480.000	767.400	490.000	767.800	500.000	767.800	510.000	768.000	520.000
GP	767.300	530.000	765.600	540.000	765.300	550.000	766.200	560.000	770.400	570.000
GR	771.400	580.000	771.700	590.000	772.000	600.000	772.200	610.000	772.500	620.000
GR	772.700	630.000	773.200	640.000	773.300	650.000	781.200	680.000	783.400	740.000
GR	786.200	980.000	788.100	1080.000	786.600	1120.000	782.200	1130.000	782.700	1145.000
GP	787.700	1150.000	-0.000	-0.000	-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
X1	21.000	42.000	100.000	598.000	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	805.000	805.000	-0.000
GP	807.500	100.000	798.900	100.000	782.300	155.000	782.300	170.000	781.400	195.000
GR	780.400	200.000	773.700	294.000	773.400	300.000	770.700	310.000	772.500	317.000
GR	773.100	322.000	771.100	330.000	769.200	340.000	768.200	350.000	767.800	360.000
GR	767.100	370.000	765.300	380.000	765.200	390.000	766.100	400.000	767.200	410.000
GP	766.700	420.000	765.700	430.000	765.900	439.000	765.600	440.000	765.700	445.000
GR	765.400	450.000	767.000	460.000	767.100	470.000	766.700	480.000	766.700	490.000
GP	767.700	500.000	769.200	510.000	769.600	520.000	769.700	530.000	770.200	540.000
GR	771.400	550.000	771.200	557.000	773.000	562.000	773.700	568.000	775.200	578.000
GR	783.800	598.000	808.700	598.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SB	1.250	1.500	2.600	-0.000	110.000	15.000	5000.000	1.000	766.000	766.000
X1	20.200	-0.000	-0.000	-0.000	91.000	91.000	91.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	802.500	807.100	-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	807.000	807.000	-0.000
BT	5.000	100.000	807.500	807.500	100.000	807.500	802.500	420.000	807.100	802.000
BT	598.000	808.700	803.700	598.000	808.700	808.700	-0.000	-0.000	-0.000	-0.000
NC	.050	.040	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	20.100	-0.000	-0.000	-0.000	140.000	140.000	140.000	-0.000	-0.000	-0.000
NC	.050	.050	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	20.000	18.000	100.000	217.000	140.000	140.000	140.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	783.000	783.000	-0.000
GR	784.930	0.000	783.960	100.000	771.900	107.000	768.700	117.000	766.700	127.000
GP	767.700	136.000	765.700	140.000	764.400	147.000	765.100	157.000	765.200	167.000
GR	766.900	175.000	766.000	179.000	766.400	187.000	769.500	197.000	773.700	204.000
GR	778.700	217.000	783.900	217.000	784.340	317.000	-0.000	-0.000	-0.000	-0.000
SB	1.250	1.500	3.000	-0.000	77.000	8.000	1526.000	1.250	766.000	766.000

X1	19.100	-0.000	-0.000	-0.000	30.000	30.000	30.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	782.300	783.960	-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	783.960	783.970	-0.000
BT	7.000	0.000	784.930	784.930	100.000	783.960	783.960	100.000	783.960	782.300
BT	180.000	783.970	782.300	217.000	783.970	782.000	217.000	783.970	783.970	317.000
BT	784.340	784.340	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	19.000	35.000	400.000	682.000	165.000	165.000	165.000	-0.000	-0.000	-0.000
GR	788.000	197.000	783.400	367.000	777.100	384.000	774.900	400.000	773.700	402.000
GR	770.100	412.000	767.600	422.000	765.500	432.000	765.000	442.000	764.700	452.000
GR	765.400	462.000	765.500	482.000	765.100	492.000	764.700	502.000	765.200	512.000
GR	766.300	522.000	766.700	532.000	767.700	542.000	767.900	552.000	768.300	562.000
GR	768.700	572.000	769.200	582.000	769.200	592.000	769.700	602.000	769.900	612.000
GR	769.800	622.000	770.500	632.000	770.700	642.000	771.200	652.000	772.300	662.000
GR	772.700	672.000	773.700	682.000	783.900	722.000	785.100	822.000	783.100	922.000
X1	18.000	18.000	100.000	213.000	165.000	165.000	165.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	785.000	785.000	-0.000
GR	791.550	0.000	791.240	100.000	771.700	100.000	769.700	110.000	765.800	120.000
GR	763.700	130.000	764.400	140.000	768.700	150.000	769.900	154.000	770.600	161.000
GR	768.300	170.000	765.100	180.000	764.900	190.000	766.800	200.000	770.700	210.000
GR	773.700	213.000	790.930	213.000	790.640	313.000	-0.000	-0.000	-0.000	-0.000
SB	1.250	1.500	2.900	-0.000	93.000	7.000	1666.000	.670	766.500	766.500
X1	17.100	-0.000	-0.000	-0.000	28.000	28.000	28.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	781.400	790.640	-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	791.240	790.930	-0.000
BT	7.000	0.000	791.550	791.550	100.000	791.240	791.240	100.000	791.240	781.900
BT	154.000	791.000	781.400	213.000	790.930	781.400	213.000	790.930	790.930	313.000
BT	790.640	790.640	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.050	.100	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	17.000	31.000	634.000	894.000	250.000	250.000	250.000	-0.000	-0.000	-0.000
GR	788.800	120.000	788.800	320.000	788.800	450.000	788.300	600.000	773.500	634.000
GR	769.700	644.000	769.500	654.000	768.500	664.000	767.300	674.000	767.100	684.000
GR	765.000	694.000	765.100	704.000	764.900	714.000	764.200	724.000	762.600	734.000
GR	762.000	744.000	761.300	754.000	763.500	764.000	764.900	774.000	765.600	784.000
GR	766.800	794.000	768.500	804.000	768.900	814.000	769.300	824.000	769.000	834.000
GR	769.000	844.000	768.500	854.000	773.500	894.000	779.200	904.000	783.800	994.000
GR	790.100	1024.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.040	.100	-0.000	.400	.600	-0.000	-0.000	-0.000	-0.000	-0.000
X1	16.000	30.000	1200.000	1400.000	1800.000	1800.000	1800.000	-0.000	-0.000	-0.000
GR	783.200	340.000	783.200	380.000	779.200	710.000	776.700	910.000	773.800	950.000
GR	775.200	1200.000	773.700	1203.000	770.700	1210.000	769.200	1220.000	768.100	1230.000
GR	768.000	1240.000	767.600	1250.000	767.500	1260.000	767.400	1270.000	767.400	1280.000
GR	767.600	1290.000	767.900	1300.000	767.900	1310.000	767.900	1320.000	767.800	1330.000
GR	768.000	1340.000	768.100	1350.000	768.100	1360.000	767.900	1370.000	767.900	1380.000
GR	769.700	1390.000	773.700	1400.000	775.800	1410.000	783.600	1470.000	791.600	1498.000
NC	.040	.100	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	15.000	31.000	209.000	429.000	1300.000	1300.000	1300.000	-0.000	-0.000	-0.000
GR	796.500	125.000	788.700	140.000	776.500	200.000	773.500	208.000	772.100	220.000
GR	772.000	230.000	771.800	240.000	771.500	250.000	771.000	260.000	769.500	270.000
GR	768.900	280.000	768.500	290.000	768.300	300.000	768.000	310.000	767.800	320.000
GR	767.700	330.000	767.500	340.000	767.600	350.000	768.000	360.000	768.200	370.000
GR	768.600	380.000	768.700	390.000	770.300	400.000	771.500	410.000	772.500	420.000
GR	773.500	429.000	774.300	430.000	777.900	580.000	782.800	790.000	783.500	930.000
GP	787.700	1330.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.040	.070	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	14.000	29.000	320.000	451.000	1400.000	1400.000	1400.000	-0.000	-0.000	-0.000
GR	791.000	190.000	779.300	270.000	776.300	300.000	773.600	320.000	771.300	330.000
GR	770.200	340.000	769.500	350.000	769.300	360.000	769.600	370.000	769.700	380.000
GR	769.800	390.000	770.000	400.000	770.400	410.000	770.600	420.000	770.900	430.000
GR	772.200	440.000	773.600	446.000	774.600	451.000	775.000	470.000	776.500	551.000

GR	777.000	575.000	778.000	590.000	779.000	610.000	780.000	630.000	781.000	660.000
GR	782.000	690.000	783.000	750.000	785.000	770.000	786.000	800.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.300	.500	-0.000	-0.000	-0.000	-0.000	-0.000
X1	13.000	20.000	100.000	223.000	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	790.000	790.000	-0.000
GP	798.500	0.000	798.500	100.000	769.700	100.000	769.000	103.000	768.600	113.000
GP	769.100	123.000	769.300	133.000	768.700	143.000	769.500	153.000	769.900	163.000
GR	769.100	169.000	770.300	173.000	769.900	183.000	770.900	193.000	773.100	203.000
GR	773.600	210.000	773.900	213.000	774.600	223.000	799.130	223.000	799.200	323.000
SB	1.250	1.500	2.700	-0.000	123.000	6.000	1006.000	0.000	770.000	770.000
X1	12.100	-0.000	-0.000	-0.000	28.000	28.000	28.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	778.780	798.500	-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	798.500	779.130	-0.000
BT	7.000	0.000	798.500	798.500	100.000	798.500	798.500	100.000	798.500	778.780
BT	163.000	799.000	778.930	223.000	799.130	779.130	223.000	799.130	799.130	323.000
BT	799.200	799.200	-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

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINKBEINER PETTIS   STROUT - USEC401 R4
T3      HURON RIVER AT ARGO DAM - Q = 100 YEAR

J1  ICHECK     INO       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        -0.      3.        -0.       -0. -0.000000     -0.00     -0.0      -0.    774.000   -0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     IBW       CHNIM     ITRACE
      2.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000
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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
26.00	12.50	774.00	0.00	774.00	774.12	.12	0.00	0.00	773.70
6516.	0.	6516.	0.	0.	2384.	0.	0.	0.	773.70
0.00	.11	2.73	.14	.050	.030	.040	0.000	761.50	210.84
.000185	0.	0.	0.	0	0	1	0.00	290.66	501.50

CCHV= 1.000 CEHV= .300

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 800.00 ELREA= 800.00

25.00	12.82	774.12	0.00	0.00	774.18	.06	.01	.05	802.50
6516.	0.	6516.	0.	0.	3235.	0.	6.	1.	802.63
.01	0.00	2.01	0.00	.050	.030	.040	.030	761.30	135.96
.000110	120.	95.	72.	2	0	1	0.00	404.66	540.62

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.60	-0.00	370.50	56.50	10843.50	1.38	765.00	765.00

CLASS A LOW FLOW

BRIDGE W.S.= 774.10 BRIDGE VELOCITY= 2.19

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	774.20	.02	0.	6516.	10844.	793.98	802.49	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 802.50 ELREA= 802.63

24.10	12.84	774.14	0.00	0.00	774.20	.06	.02	0.00	802.50
6516.	0.	6516.	0.	0.	3242.	0.	7.	1.	802.63
.01	0.00	2.01	0.00	.050	.030	.040	.029	761.30	135.88
.000109	10.	10.	10.	0	0	1	0.00	404.77	540.65

CCHV= .100 CEHV= .300

24.00	11.98	774.18	0.00	0.00	774.22	.04	.02	.00	773.50
6516.	1.	6515.	0.	8.	3951.	0.	23.	3.	773.50
.05	.13	1.65	.11	.050	.030	.050	.030	762.20	426.12
.00078	180.	200.	240.	1	0	1	0.00	564.78	990.90

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

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      23.00     10.43    774.33     0.00     0.00    774.39      .06      .17      .01    777.10
      6516.        0.     6516.        0.       0.     3306.       1.     179.      24.    773.60
        .31      0.00      1.97      .15     .080      .030     .050     .030   763.90    300.79
   .000105      1870.     1870.     1870.        0         0        1     0.00   432.47    733.25

 CCHV=    .100 CEHV=    .300
      22.00      9.80    774.80     0.00     0.00    774.92      .12      .51      .02    773.80
      6516.        0.     6513.        2.       2.     2318.       4.     373.      54.    773.30
        .61       .23      2.81      .53     .070      .030     .040     .030   765.00    243.50
   .000316      3000.     3000.     3000.        2         0        1     0.00   412.19    655.69

 CCHV=    .100 CEHV=    .300

 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      805.00 ELREA=      805.00

      21.00      9.64    774.84     0.00     0.00    775.05      .21      .10      .03    807.50
      6516.        0.     6516.        0.       0.     1768.       0.     385.      56.    808.70
        .63      0.00      3.69      0.00     .070      .030     .040     .030   765.20    277.96
   .000520       250.      250.      250.        1         0        1     0.00   297.65    575.62


 SPECIAL BRIDGE

 SB   XK        XKOR      COEQ      RDLEN     BWC       BWP       BAREA      SS       ELCHU     ELCHD
       1.25      1.50      2.60     -0.00    110.00     15.00   5000.00      1.00     766.00    766.00

 CLASS A LOW FLOW

 BRIDGE W.S.=    774.58  BRIDGE VELOCITY=      7.33

   EGPRS     EGLWC      H3       QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS

     0.00    775.10      .06         0.     6516.     5000.    802.50    807.10      1.00


 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      807.00 ELREA=      807.00

      20.20      9.70    774.90     0.00     0.00    775.10      .21      .06     0.00    807.50
      6516.        0.     6516.        0.       0.     1784.       0.     389.      56.    808.70
        .63      0.00      3.65      0.00     .070      .030     .040     .030   765.20    277.21
   .000507        91.       91.       91.        0         0        1     0.00   298.76    575.98

      20.10      9.77    774.97     0.00     0.00    775.17      .20      .07      .00    807.50
      6516.        0.     6516.        0.       0.     1806.       0.     395.      57.    808.70
        .65      0.00      3.61      0.00     .050      .030     .040     .030   765.20    276.21
   .000491       140.      140.      140.        0         0        1     0.00   300.25    576.46

 CCHV=    .600 CEHV=    .800

 3301 HV CHANGED MORE THAN HVINS

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
   0         QLOB      QCH       QROB      ALOB      ACH       AROB      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=      783.00 ELREA=      783.00
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20.00	10.51	774.91	0.00	0.00	776.05	1.14	.13	.75	783.96	
6516.	0.	6516.	0.	0.	760.	0.	399.	58.	783.90	
.65	0.00	8.57	0.00	.050	.030	.050	.030	764.40	105.25	
.002194	140.	140.	140.	2	0	1	0.00	101.90	207.15	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	-0.00	77.00	8.00	1526.00	1.25	766.00	766.00

CLASS A LOW FLOW

BRIDGE W.S.= 774.54 BRIDGE VELOCITY= 9.57

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	776.41	.50	0.	6516.	1526.	782.30	783.96	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 783.96 ELREA= 783.97

19.10	11.02	775.42	0.00	0.00	776.41	1.00	.36	0.00	783.96
6516.	0.	6516.	0.	0.	812.	0.	399.	58.	783.90
.65	0.00	8.02	0.00	.050	.030	.050	.030	764.40	104.96
.001805	30.	30.	30.	0	0	1	0.00	103.50	208.46

3301 HV CHANGED MORE THAN HVINS

19.00	12.20	776.90	0.00	0.00	777.01	.11	.06	.53	774.90
6516.	6.	6500.	10.	15.	2452.	20.	405.	59.	773.70
.67	.38	2.65	.51	.050	.030	.050	.030	764.70	385.41
.000162	165.	165.	165.	2	0	1	0.00	309.17	694.57

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 785.00 ELREA= 785.00

18.00	13.16	776.86	0.00	0.00	777.43	.57	.05	.37	791.24
6516.	0.	6516.	0.	0.	1074.	0.	412.	59.	790.93
.68	0.00	6.07	0.00	.050	.030	.050	.030	763.70	100.00
.000867	165.	165.	165.	2	0	1	0.00	113.00	213.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.90	-0.00	93.00	7.00	1666.00	.67	766.50	766.50

CLASS A LOW FLOW

BRIDGE W.S.= 776.75 BRIDGE VELOCITY= 6.85

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	777.54	.12	0.	6516.	1666.	781.40	790.64	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 791.24 ELREA= 790.93

17.10	13.28	776.98	0.00	0.00	777.54	.56	.11	0.00	791.24	
6516.	0.	6516.	0.	0.	1088.	0.	413.	60.	790.93	
.68	0.00	5.99	0.00	.050	.030	.050	.030	763.70	100.00	
.000833	28.	28.	28.	0	0	1	0.00	113.00	213.00	

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
17.00	16.26	777.56	0.00	0.00	777.65	.09	.06	.05	773.50	
6516.	9.	6504.	3.	19.	2687.	14.	424.	61.	773.50	
.71	.47	2.42	.22	.050	.030	.100	.030	761.30	624.68	
.000107	250.	250.	250.	2	0	1	0.00	276.43	901.11	

CCHV= .400 CEHV= .600

16.00	10.39	777.79	0.00	0.00	777.91	.12	.25	.01	775.20
6516.	1020.	5480.	16.	972.	1868.	46.	540.	79.	773.70
.90	1.05	2.93	.34	.040	.030	.100	.030	767.40	822.67
.000181	1800.	1800.	1800.	2	0	1	0.00	602.65	1425.32

CCHV= .100 CEHV= .300

15.00	10.54	778.04	0.00	0.00	778.22	.18	.29	.02	773.50
6516.	34.	6365.	117.	30.	1839.	295.	615.	94.	773.50
1.00	1.13	3.46	.40	.040	.030	.100	.030	767.50	192.43
.000291	1300.	1300.	1300.	2	0	1	0.00	393.52	585.95

CCHV= .100 CEHV= .300

14.00	9.19	778.49	0.00	0.00	778.95	.46	.65	.08	773.60
6516.	205.	5890.	421.	95.	1033.	351.	674.	105.	774.60
1.08	2.16	5.70	1.20	.040	.030	.070	.030	769.30	278.08
.000851	1400.	1400.	1400.	2	0	1	0.00	321.77	599.85

CCHV= .300 CEHV= .500

OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA= 790.00 ELREA= 790.00

13.00	9.89	778.49	0.00	0.00	779.15	.66	.10	.10	798.50	
6516.	0.	6516.	0.	0.	1002.	0.	676.	106.	799.13	
1.08	0.00	6.50	0.00	.040	.030	.070	.030	768.60	100.00	
.001206	100.	100.	100.	2	0	1	0.00	123.00	223.00	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	ROLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.70	-0.00	123.00	6.00	1006.00	0.00	770.00	770.00

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
779.47	779.25	.11	0.	6516.	1006.	778.78	798.50	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 798.50 ELREA= 779.13

12.10	10.27	778.87	0.00	0.00	779.47	.60	.32	0.00	798.50
6516.	0.	6516.	0.	0.	1049.	0.	677.	106.	799.13
1.08	0.00	6.21	0.00	.040	.030	.070	.030	768.60	100.00
.001043	28.	28.	28.	2	0	1	0.00	123.00	223.00

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**********************************************
HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINKBEINER PETTIS  STROUT - USEC401 R4
T3      HURON RIVER AT ARGO DAM - Q = 1968 FLOOD
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J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	-0.	5.	-0.	-0.	-0.000000	-0.00	-0.0	-0.	774.000	-0.000

J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15.000	-0.000	-0.000	-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
26.00	12.50	774.00	1.00	774.00	774.06	.06	0.00	0.00	773.70
4572.	0.	4572.	0.	0.	2384.	0.	0.	0.	773.70
0.00	.08	1.92	.10	.050	.030	.040	0.000	761.50	210.84
.000091	0.	0.	0.	0	0	1	0.00	290.66	501.50

CCHV= 1.000 CEHV= .300

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 800.00 ELREA= 800.00

25.00	12.76	774.06	0.00	0.00	774.09	.03	.01	.03	802.50
4572.	0.	4572.	0.	0.	3210.	0.	6.	1.	802.63
.02	0.00	1.42	0.00	.050	.030	.040	.030	761.30	136.26
.000055	120.	95.	72.	2	0	1	0.00	404.27	540.53

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.60	-0.00	370.50	56.50	10843.50	1.38	765.00	765.00

CLASS A LOW FLOW

BRIDGE W.S.= 774.05 BRIDGE VELOCITY= 1.55

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	774.10	.01	0.	4572.	10844.	793.98	802.49	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 802.50 ELREA= 802.63

24.10	12.77	774.07	0.00	0.00	774.10	.03	.01	0.00	802.50
4572.	0.	4572.	0.	0.	3214.	0.	7.	1.	802.63
.02	0.00	1.42	0.00	.050	.030	.040	.029	761.30	136.22
.000055	10.	10.	10.	0	0	1	0.00	404.32	540.54

CCHV= .100 CEHV= .300

24.00	11.89	774.09	0.00	0.00	774.11	.02	.01	.00	773.50
4572.	0.	4571.	0.	6.	3902.	0.	23.	3.	773.50
.07	.08	1.17	.07	.050	.030	.050	.030	762.20	429.37
.000040	180.	200.	240.	0	0	1	0.00	561.41	990.78

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

23.00	10.27	774.17	0.00	0.00	774.20	.03	.09	.00	777.10
4572.	0.	4572.	0.	0.	3230.	0.	176.	24.	773.60
.43	0.00	1.42	.09	.080	.030	.050	.030	763.90	300.84
.000056	1870.	1870.	1870.	0	0	1	0.00	431.88	732.72

CCHV= .100 CEHV= .300

22.00	9.43	774.43	0.00	0.00	774.49	.07	.28	.01	773.80
4572.	0.	4571.	1.	1.	2169.	2.	362.	53.	773.30
.83	.13	2.11	.35	.070	.030	.040	.030	765.00	244.81
.000195	3000.	3000.	3000.	2	0	1	0.00	409.47	654.27

CCHV= .100 CEHV= .300

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 805.00 ELREA= 805.00

21.00	9.25	774.45	0.00	0.00	774.57	.12	.06	.01	807.50
4572.	0.	4572.	0.	0.	1655.	0.	373.	55.	808.70
.86	0.00	2.76	0.00	.070	.030	.040	.030	765.20	283.38
.000308	250.	250.	250.	0	0	1	0.00	289.66	573.05

SPECIAL BRIDGE

SR	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.60	-0.00	110.00	15.00	5000.00	1.00	766.00	766.00

CLASS A LOW FLOW

BRIDGE W.S.= 774.33 BRIDGE VELOCITY= 5.31

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	774.60	.03	0.	4572.	5000.	802.50	807.10	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 807.00 ELREA= 807.00

20.20	9.28	774.48	0.00	0.00	774.60	.12	.03	0.00	807.50
4572.	0.	4572.	0.	0.	1662.	0.	377.	56.	808.70
.86	0.00	2.75	0.00	.070	.030	.040	.030	765.20	283.03
.000304	91.	91.	91.	0	0	1	0.00	290.18	573.21

20.10	9.33	774.53	0.00	0.00	774.64	.12	.04	.00	807.50
4572.	0.	4572.	0.	0.	1674.	0.	382.	57.	808.70
.88	0.00	2.73	0.00	.050	.030	.040	.030	765.20	282.43
.000298	140.	140.	140.	0	0	1	0.00	291.07	573.50

CCHV= .600 CEHV= .800

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

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 783.00 ELREA= 783.00

20.00	10.10	774.50	0.00	0.00	775.13	.63	.08	.41	783.96	
4572.	0.	4572.	0.	0.	719.	0.	386.	58.	783.90	
.88	0.00	6.36	0.00	.050	.030	.050	.030	764.40	105.49	
.001277	140.	140.	140.	2	0	1	0.00	100.59	206.08	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	3.00	-0.00	77.00	8.00	1526.00	1.25	766.00	766.00

CLASS A LOW FLOW

BRIDGE W.S.= 774.34 BRIDGE VELOCITY= 6.90

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	775.29	.20	0.	4572.	1526.	782.30	783.96	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 783.96 ELREA= 783.97

19.10	10.30	774.70	0.00	0.00	775.29	.59	.17	0.00	783.96
4572.	0.	4572.	0.	0.	739.	0.	387.	58.	783.90
.89	0.00	6.19	0.00	.050	.030	.050	.030	764.40	105.37
.001175	30.	30.	30.	0	0	1	0.00	101.23	206.60

3301 HV CHANGED MORE THAN HVINS

19.00	10.88	775.58	0.00	0.00	775.66	.08	.05	.31	774.90
4572.	0.	4569.	2.	2.	2078.	7.	392.	58.	773.70
.91	.17	2.20	.33	.050	.030	.050	.030	764.70	395.03
.000139	165.	165.	165.	2	0	1	0.00	294.35	689.38

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 785.00 ELREA= 785.00

18.00	11.86	775.56	0.00	0.00	775.94	.38	.04	.24	791.24
4572.	0.	4572.	0.	0.	927.	0.	398.	59.	790.93
.92	0.00	4.93	0.00	.050	.030	.050	.030	763.70	100.00
.000677	165.	165.	165.	2	0	1	0.00	113.00	213.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.90	-0.00	93.00	7.00	1666.00	.67	766.50	766.50

CLASS A LOW FLOW

BRIDGE W.S.= 775.49 BRIDGE VELOCITY= 5.52

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	776.01	.07	0.	4572.	1666.	781.40	790.64	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 791.24 ELREA= 790.93

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    17.10    11.94   775.64     0.00     0.00   776.01      .37      .07     0.00   791.24
     4572.       0.    4572.       0.       0.     935.       0.     398.      59.    790.93
      .92     0.00     4.89     0.00     .050     .030     .050     .030   763.70   100.00
  .000659      28.      28.      28.        0        0        1     0.00   113.00   213.00

CCHV=    .100 CEHV=    .300
    SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       QLOSS   BANK ELEV
    Q        QLOB     QCH      QROB     ALOB     ACH      ABOB     VOL      TWA     LEFT/RIGHT
    TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN     SSTA
    SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IOC      ICONT    CORAR    TOPWID    ENDST

    17.00    14.72   776.02     0.00     0.00   776.09      .06      .05      .03   773.50
     4572.       2.    4569.       1.       7.    2289.       6.     408.      60.    773.50
      .95      .31     2.00      .15     .050     .030     .100     .030   761.30   628.20
  .000090     250.     250.     250.        2        0        1     0.00   270.23   898.43

CCHV=    .400 CEHV=    .600
    16.00     8.84   776.24     0.00     0.00   776.34      .11      .23      .03   775.20
     4572.     351.    4217.       4.     475.    1557.      16.     497.      76.    773.70
     1.15      .74     2.71      .26     .040     .030     .100     .030   767.40   916.37
  .000196    1800.    1800.    1800.        2        0        1     0.00   497.00  1413.37

CCHV=    .100 CEHV=    .300
    15.00     9.02   776.52     0.00     0.00   776.66      .14      .31      .01   773.50
     4572.      10.    4533.      29.      12.    1503.     105.     552.      88.    773.50
     1.27      .80     3.02      .27     .040     .030     .100     .030   767.50   199.90
  .000288    1300.    1300.    1300.        2        0        1     0.00   322.63   522.52

CCHV=    .100 CEHV=    .300
    14.00     7.70   777.00     0.00     0.00   777.41      .41      .67      .08   773.60
     4572.      77.    4371.     125.      44.     838.     150.     595.      98.    774.60
     1.35     1.76     5.22      .83     .040     .030     .070     .030   769.30   292.96
  .000941    1400.    1400.    1400.        2        0        1     0.00   282.11   575.07

CCHV=    .300 CEHV=    .500

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      790.00 ELREA=      790.00

    13.00     8.47   777.07     0.00     0.00   777.55      .48      .10      .03   798.50
     4572.       0.    4572.       0.       0.     827.       0.     597.      99.    799.13
     1.35     0.00     5.53     0.00     .040     .030     .070     .030   768.60   100.00
  .001098     100.     100.     100.        0        0        1     0.00   123.00   223.00

SPECIAL BRIDGE

SB  XK       XKOR     COFQ     RDLEN    BWC      BWP      BAREA    SS       ELCHU    ELCHD
     1.25     1.50     2.70    -0.00   123.00     6.00  1006.00     0.00   770.00   770.00

CLASS A LOW FLOW

BRIDGE W.S.=    777.02  BRIDGE VELOCITY=      5.57

  EGPRS    EGLWC     H3       QWEIR    QPR      BAREA    ELLC     ELTPD    CLASS

     0.00   777.61     .08        0.    4572.    1006.   778.78   798.50     1.00
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OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 798.50 ELREA= 779.13

12.10	8.55	777.15	0.00	0.00	777.61	.46	.07	0.00	798.50	
4572.	0.	4572.	0.	0.	837.	0.	597.	99.	799.13	
1.35	0.00	5.46	0.00	.040	.030	.070	.030	768.60	100.00	
.001056	28.	28.	28.	0	0	1	0.00	123.00	223.00	

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

HURON RIVER AT ARGO DAM

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TORWID	10K*S	TIME	VOL
26.00	0.00	0.00	0.00	761.50	5673.00	774.00	0.00	774.09	290.66	1.40	0.00	0.00
26.00	0.00	0.00	0.00	761.50	6516.00	774.00	0.00	774.12	290.66	1.85	0.00	0.00
26.00	0.00	0.00	0.00	761.50	8133.00	774.00	0.00	774.18	290.66	2.87	0.00	0.00
26.00	0.00	0.00	0.00	761.50	4572.00	774.00	0.00	774.06	290.66	.91	0.00	0.00
25.00	95.00	0.00	0.00	761.30	5673.00	774.09	0.00	774.14	404.47	.84	.01	6.11
25.00	95.00	0.00	0.00	761.30	6516.00	774.12	0.00	774.18	404.66	1.10	.01	6.13
25.00	95.00	0.00	0.00	761.30	8133.00	774.19	0.00	774.29	405.10	1.66	.01	6.16
25.00	95.00	0.00	0.00	761.30	4572.00	774.06	0.00	774.09	404.27	.55	.02	6.10
24.10	10.00	802.49	793.98	761.30	5673.00	774.10	0.00	774.15	404.55	.84	.02	6.86
24.10	10.00	802.49	793.98	761.30	6516.00	774.14	0.00	774.20	404.77	1.09	.01	6.87
24.10	10.00	802.49	793.98	761.30	8133.00	774.22	0.00	774.31	405.27	1.65	.01	6.91
24.10	10.00	802.49	793.98	761.30	4572.00	774.07	0.00	774.10	404.32	.55	.02	6.84
24.00	200.00	0.00	0.00	762.20	5673.00	774.13	0.00	774.17	563.25	.61	.06	23.30
24.00	200.00	0.00	0.00	762.20	6516.00	774.18	0.00	774.22	564.78	.79	.05	23.40
24.00	200.00	0.00	0.00	762.20	8133.00	774.28	0.00	774.34	568.90	1.16	.04	23.66
24.00	200.00	0.00	0.00	762.20	4572.00	774.09	0.00	774.11	561.41	.40	.07	23.19
23.00	1870.00	0.00	0.00	763.90	5673.00	774.26	0.00	774.30	432.20	.82	.35	179.01
23.00	1870.00	0.00	0.00	763.90	6516.00	774.33	0.00	774.39	432.47	1.05	.31	179.37
23.00	1870.00	0.00	0.00	763.90	8133.00	774.51	0.00	774.60	433.01	1.52	.25	182.51
23.00	1870.00	0.00	0.00	763.90	4572.00	774.17	0.00	774.20	431.88	.56	.43	176.41
22.00	3000.00	0.00	0.00	765.00	5673.00	774.63	0.00	774.73	410.94	2.65	.69	368.29
22.00	3000.00	0.00	0.00	765.00	6516.00	774.80	0.00	774.92	412.19	3.16	.61	373.28
22.00	3000.00	0.00	0.00	765.00	8133.00	775.16	0.00	775.32	414.80	4.03	.51	383.98
22.00	3000.00	0.00	0.00	765.00	4572.00	774.43	0.00	774.49	409.47	1.95	.83	362.43
21.00	250.00	0.00	0.00	765.20	5673.00	774.66	0.00	774.83	293.98	4.29	.71	379.68
21.00	250.00	0.00	0.00	765.20	6516.00	774.84	0.00	775.05	297.65	5.20	.63	385.03
21.00	250.00	0.00	0.00	765.20	8133.00	775.20	0.00	775.49	305.01	6.88	.52	396.45
21.00	250.00	0.00	0.00	765.20	4572.00	774.45	0.00	774.57	289.66	3.08	.86	373.41
20.20	91.00	807.10	802.50	765.20	5673.00	774.71	0.00	774.87	294.84	4.20	.71	383.28
20.20	91.00	807.10	802.50	765.20	6516.00	774.90	0.00	775.10	298.76	5.07	.63	388.74
20.20	91.00	807.10	802.50	765.20	8133.00	775.29	0.00	775.57	306.51	6.59	.53	400.40
20.20	91.00	807.10	802.50	765.20	4572.00	774.48	0.00	774.60	290.18	3.04	.86	376.87
20.10	140.00	0.00	0.00	765.20	5673.00	774.77	0.00	774.93	296.07	4.09	.73	388.86
20.10	140.00	0.00	0.00	765.20	6516.00	774.97	0.00	775.17	300.25	4.91	.65	394.50
20.10	140.00	0.00	0.00	765.20	8133.00	775.39	0.00	775.66	308.06	6.31	.54	406.56
20.10	140.00	0.00	0.00	765.20	4572.00	774.53	0.00	774.64	291.07	2.98	.88	382.23
20.00	140.00	0.00	0.00	764.40	5673.00	774.72	0.00	775.63	101.30	17.92	.73	392.85
20.00	140.00	0.00	0.00	764.40	6516.00	774.91	0.00	776.05	101.90	21.94	.65	398.63
20.00	140.00	0.00	0.00	764.40	8133.00	775.29	0.00	776.90	103.10	29.51	.54	410.95
20.00	140.00	0.00	0.00	764.40	4572.00	774.50	0.00	775.13	100.59	12.77	.88	386.08

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHAPGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
19.10	30.00	783.96	782.30	764.40	5673.00	775.08	0.00	775.90	102.43	15.57	.73	393.38
19.10	30.00	783.96	782.30	764.40	6516.00	775.42	0.00	776.41	103.50	18.05	.65	399.17
19.10	30.00	783.96	782.30	764.40	8133.00	776.16	0.00	777.46	105.88	21.45	.54	411.53
19.10	30.00	783.96	782.30	764.40	4572.00	774.70	0.00	775.29	101.23	11.75	.89	386.58
19.00	165.00	0.00	0.00	764.70	5673.00	776.31	0.00	776.40	302.48	1.56	.75	399.21
19.00	165.00	0.00	0.00	764.70	6516.00	776.90	0.00	777.01	309.17	1.62	.67	405.42
19.00	165.00	0.00	0.00	764.70	8133.00	778.09	0.00	778.22	317.95	1.63	.56	418.64
19.00	165.00	0.00	0.00	764.70	4572.00	775.58	0.00	775.66	294.35	1.39	.91	391.94
18.00	165.00	0.00	0.00	763.70	5673.00	776.28	0.00	776.77	113.00	8.02	.76	405.48
18.00	165.00	0.00	0.00	763.70	6516.00	776.86	0.00	777.43	113.00	8.67	.68	412.16
18.00	165.00	0.00	0.00	763.70	8133.00	778.03	0.00	778.74	113.00	9.40	.57	426.34
18.00	165.00	0.00	0.00	763.70	4572.00	775.56	0.00	775.94	113.00	6.77	.92	397.64
17.10	28.00	790.64	781.40	763.70	5673.00	776.38	0.00	776.86	113.00	7.74	.76	406.14
17.10	28.00	790.64	781.40	763.70	6516.00	776.98	0.00	777.54	113.00	8.33	.68	412.85
17.10	28.00	790.64	781.40	763.70	8133.00	778.19	0.00	778.87	113.00	8.99	.57	427.12
17.10	28.00	790.64	781.40	763.70	4572.00	775.64	0.00	776.01	113.00	6.59	.92	398.24
17.00	250.00	0.00	0.00	761.30	5673.00	776.88	0.00	776.95	273.68	1.02	.79	416.33
17.00	250.00	0.00	0.00	761.30	6516.00	777.56	0.00	777.65	276.43	1.07	.71	423.78
17.00	250.00	0.00	0.00	761.30	8133.00	778.88	0.00	778.99	281.80	1.11	.59	438.50
17.00	250.00	0.00	0.00	761.30	4572.00	776.02	0.00	776.09	270.23	.90	.95	407.53
16.00	1800.00	0.00	0.00	767.40	5673.00	777.11	0.00	777.22	542.60	1.92	.98	520.19
16.00	1800.00	0.00	0.00	767.40	6516.00	777.79	0.00	777.91	602.65	1.81	.90	539.61
16.00	1800.00	0.00	0.00	767.40	8133.00	779.12	0.00	779.23	718.88	1.55	.79	581.07
16.00	1800.00	0.00	0.00	767.40	4572.00	776.24	0.00	776.34	497.00	1.96	1.15	497.41
15.00	1300.00	0.00	0.00	767.50	5673.00	777.38	0.00	777.54	362.46	2.95	1.09	585.96
15.00	1300.00	0.00	0.00	767.50	6516.00	778.04	0.00	778.22	393.52	2.91	1.00	614.97
15.00	1300.00	0.00	0.00	767.50	8133.00	779.31	0.00	779.51	454.40	2.71	.89	677.56
15.00	1300.00	0.00	0.00	767.50	4572.00	776.52	0.00	776.66	322.63	2.88	1.27	552.16
14.00	1400.00	0.00	0.00	769.30	5673.00	777.85	0.00	778.29	303.23	9.00	1.17	637.25
14.00	1400.00	0.00	0.00	769.30	6516.00	778.49	0.00	778.95	321.77	8.51	1.08	673.52
14.00	1400.00	0.00	0.00	769.30	8133.00	779.72	0.00	780.19	357.18	7.46	.96	751.48
14.00	1400.00	0.00	0.00	769.30	4572.00	777.00	0.00	777.41	282.11	9.41	1.35	594.78
13.00	100.00	0.00	0.00	768.60	5673.00	777.88	0.00	778.46	123.00	11.72	1.17	639.79
13.00	100.00	0.00	0.00	768.60	6516.00	778.49	0.00	779.15	123.00	12.06	1.08	676.36
13.00	100.00	0.00	0.00	768.60	8133.00	779.65	0.00	780.44	123.00	12.33	.97	754.96
13.00	100.00	0.00	0.00	768.60	4572.00	777.07	0.00	777.55	123.00	10.98	1.35	596.91
12.10	28.00	798.50	778.78	768.60	5673.00	777.98	0.00	778.55	123.00	11.24	1.17	640.39
12.10	28.00	798.50	778.78	768.60	6516.00	778.87	0.00	779.47	123.00	10.43	1.08	677.02
12.10	28.00	798.50	778.78	768.60	8133.00	780.52	0.00	781.18	123.00	9.31	.97	755.74
12.10	28.00	798.50	778.78	768.60	4572.00	777.15	0.00	777.61	123.00	10.56	1.35	597.44

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH Q	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
26.000	5673.000	774.000	0.000	0.000	0.000	290.661	0.000	0.000
26.000	6516.000	774.000	0.000	0.000	0.000	290.661	0.000	0.000
26.000	8133.000	774.000	0.000	0.000	0.000	290.661	0.000	0.000
26.000	4572.000	774.000	0.000	0.000	0.000	290.661	0.000	0.000
25.000	5673.000	774.090	0.000	.090	0.000	404.471	0.000	95.000
25.000	6516.000	774.119	.030	.119	0.000	404.657	-.186	95.000

25.000	8133.000	774.189	.070	.189	0.000	405.095	-.624	95.000
25.000	4572.000	774.058	-.131	.058	0.000	404.270	.201	95.000
24.100	5673.000	774.103	0.000	.013	0.000	404.553	0.000	10.000
24.100	6516.000	774.137	.034	.018	0.000	404.767	-.214	10.000
24.100	8133.000	774.217	.080	.028	0.000	405.271	-.718	10.000
24.100	4572.000	774.066	-.151	.008	0.000	404.322	.231	10.000
24.000	5673.000	774.134	0.000	.031	0.000	563.247	0.000	200.000
24.000	6516.000	774.178	.044	.041	0.000	564.781	-1.534	200.000
24.000	8133.000	774.280	.102	.063	0.000	568.901	-5.654	200.000
24.000	4572.000	774.087	-.193	.021	0.000	561.411	1.836	200.000
23.000	5673.000	774.256	0.000	.121	0.000	432.196	0.000	1870.000
23.000	6516.000	774.334	.078	.156	0.000	432.467	-.271	1870.000
23.000	8133.000	774.509	.175	.229	0.000	433.015	-.819	1870.000
23.000	4572.000	774.168	-.341	.081	0.000	431.880	.316	1870.000
22.000	5673.000	774.627	0.000	.371	0.000	410.939	0.000	3000.000
22.000	6516.000	774.798	.171	.464	0.000	412.185	-1.246	3000.000
22.000	8133.000	775.155	.358	.646	0.000	414.797	-3.857	3000.000
22.000	4572.000	774.426	-.729	.258	0.000	409.469	1.471	3000.000
21.000	5673.000	774.660	0.000	.033	0.000	293.979	0.000	250.000
21.000	6516.000	774.836	.175	.038	0.000	297.655	-3.675	250.000
21.000	8133.000	775.198	.363	.043	0.000	305.007	-11.028	250.000
21.000	4572.000	774.451	-.747	.026	0.000	289.665	4.315	250.000
20.200	5673.000	774.707	0.000	.047	0.000	294.841	0.000	91.000
20.200	6516.000	774.896	.189	.061	0.000	298.762	-3.921	91.000
20.200	8133.000	775.290	.393	.092	0.000	306.513	-11.672	91.000
20.200	4572.000	774.482	-.808	.031	0.000	290.182	4.660	91.000
20.100	5673.000	774.769	0.000	.062	0.000	296.071	0.000	140.000
20.100	6516.000	774.972	.203	.075	0.000	300.250	-4.179	140.000
20.100	8133.000	775.389	.418	.100	0.000	308.055	-11.984	140.000
20.100	4572.000	774.526	-.863	.044	0.000	291.069	5.003	140.000
20.000	5673.000	774.725	0.000	-.044	0.000	101.303	0.000	140.000
20.000	6516.000	774.911	.186	-.061	0.000	101.896	-.592	140.000
20.000	8133.000	775.288	.377	-.101	0.000	103.096	-1.792	140.000
20.000	4572.000	774.499	-.789	-.027	0.000	100.587	.717	140.000
19.100	5673.000	775.078	0.000	.354	0.000	102.428	0.000	30.000
19.100	6516.000	775.416	.337	.505	0.000	103.501	-1.072	30.000
19.100	8133.000	776.162	.747	.874	0.000	105.875	-3.447	30.000
19.100	4572.000	774.701	-1.461	.201	0.000	101.228	1.201	30.000
19.000	5673.000	776.307	0.000	1.229	0.000	302.484	0.000	165.000
19.000	6516.000	776.903	.596	1.488	0.000	309.168	-6.684	165.000
19.000	8133.000	778.093	1.190	1.931	0.000	317.947	-15.463	165.000
19.000	4572.000	775.582	-2.511	.881	0.000	294.352	8.133	165.000
18.000	5673.000	776.278	0.000	-.030	0.000	113.000	0.000	165.000
18.000	6516.000	776.863	.585	-.041	0.000	113.000	0.000	165.000
18.000	8133.000	778.031	1.169	-.062	0.000	113.000	0.000	165.000
18.000	4572.000	775.565	-2.466	-.017	0.000	113.000	0.000	165.000
17.100	5673.000	776.378	0.000	.100	0.000	113.000	0.000	28.000
17.100	6516.000	776.984	.606	.121	0.000	113.000	0.000	28.000
17.100	8133.000	778.187	1.203	.156	0.000	113.000	0.000	28.000
17.100	4572.000	775.636	-2.551	.071	0.000	113.000	0.000	28.000
17.000	5673.000	776.875	0.000	.497	0.000	273.675	0.000	250.000
17.000	6516.000	777.555	.680	.571	0.000	276.430	-2.754	250.000
17.000	8133.000	778.881	1.326	.694	0.000	281.802	-8.127	250.000

17.000	4572.000	776.025	-2.856	.388	0.000	270.229	3.446	250.000
16.000	5673.000	777.107	0.000	.232	0.000	542.604	0.000	1800.000
16.000	6516.000	777.792	.685	.237	0.000	602.650	-60.046	1800.000
16.000	8133.000	779.116	1.324	.235	0.000	718.883	-176.279	1800.000
16.000	4572.000	776.238	-2.878	.213	0.000	496.996	45.608	1800.000
15.000	5673.000	777.376	0.000	.269	0.000	362.464	0.000	1300.000
15.000	6516.000	778.039	.663	.247	0.000	393.523	-31.058	1300.000
15.000	8133.000	779.313	1.274	.197	0.000	454.400	-91.936	1300.000
15.000	4572.000	776.521	-2.793	.283	0.000	322.626	39.838	1300.000
14.000	5673.000	777.849	0.000	.473	0.000	303.230	0.000	1400.000
14.000	6516.000	778.492	.643	.453	0.000	321.771	-18.541	1400.000
14.000	8133.000	779.717	1.224	.403	0.000	357.184	-53.954	1400.000
14.000	4572.000	777.004	-2.712	.484	0.000	282.112	21.118	1400.000
13.000	5673.000	777.883	0.000	.034	0.000	123.000	0.000	100.000
13.000	6516.000	778.495	.612	.003	0.000	123.000	0.000	100.000
13.000	8133.000	779.654	1.159	-.063	0.000	123.000	0.000	100.000
13.000	4572.000	777.071	-2.583	.067	0.000	123.000	0.000	100.000
12.100	5673.000	777.981	0.000	.099	0.000	123.000	0.000	28.000
12.100	6516.000	778.873	.892	.378	0.000	123.000	0.000	28.000
12.100	8133.000	780.521	1.647	.867	0.000	123.000	0.000	28.000
12.100	4572.000	777.148	-3.373	.077	0.000	123.000	0.000	28.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA=ACRES	TOP WIDTH AREA>DIFF
1	0.000	0.000	102.137	0.000
2	0.000	0.000	105.786	3.649
3	0.000	0.000	112.887	10.750
4	0.000	0.000	98.638	-3.499

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINKBEINER PETTIS  STROUT - USEC401 R1
T3      HURON RIVER AT BARTON DAM - Q = 50 YEAR

J1  ICHECK    INQ      NINV     IDIR     STRT      METRIC   HVINS    Q        WSEL     FQ

        -0.      2.       -0.      -0.  -0.000000  -0.00    -0.0     -0.   798.100  -0.000

NC       .050     .050     .030     .100     .300  -0.000   -0.000   -0.000   -0.000   -0.000
QT      4.000 5673.000 6516.000 8133.000 4572.000  -0.000   -0.000   -0.000   -0.000   -0.000

X1     11.100   4.000   20.000  223.500   0.000   0.000    0.000   -0.000   -0.000   -0.000
GR    805.000  20.000  772.500   20.000 772.500  223.500  805.000  223.500   -0.000   -0.000
NC       .070    -0.000   -0.000     .200     .400  -0.000   -0.000   -0.000   -0.000   -0.000

X1     11.000  55.000  147.000 1381.000 950.000 950.000  950.000   -0.000   -0.000   -0.000
GR    824.500   0.000  806.100  100.000 797.800  125.000  795.400  147.000  794.400  172.000
GR    789.900 197.000  783.200  222.000 779.300  247.000  777.200  272.000  775.800  297.000
GR    775.400 322.000  775.600  347.000 775.000  372.000  775.600  397.000  775.800  422.000
GR    776.600 447.000  777.500  472.000 778.900  497.000  779.400  522.000  779.600  547.000
GR    779.800 572.000  779.800  597.000 780.000  622.000  780.200  647.000  780.400  672.000
GR    780.800 697.000  780.800  722.000 780.500  747.000  780.900  772.000  780.900  797.000
GR    781.000 822.000  781.000  847.000 781.400  872.000  781.500  897.000  781.800  922.000
GR    781.400 947.000  781.900  972.000 781.400  997.000  781.900 1022.000  781.700 1047.000
GR    781.700 1072.000 782.100 1097.000 782.400 1122.000  782.500 1147.000  782.900 1172.000
GR    783.000 1197.000 783.800 1222.000 784.400 1247.000  784.400 1272.000  785.500 1297.000
GR    786.500 1322.000 790.500 1347.000 794.400 1372.000  796.200 1381.000  801.400 1399.000
NC      -0.000   -0.000   -0.000     .070     .200  -0.000   -0.000   -0.000   -0.000   -0.000

X1     10.000  75.000  218.000 1826.000 1100.000 1100.000 1100.000   -0.000   -0.000   -0.000
GR    807.320 164.000  798.820  184.000 797.420  200.000  796.420  210.000  795.400  218.000
GR    795.100 223.000  792.800  248.000 789.900  273.000  788.100  298.000  787.400  323.000
GR    787.000 348.000  786.900  373.000 787.600  398.000  786.600  423.000  786.400  448.000
GR    786.400 473.000  786.400  498.000 786.300  523.000  786.300  548.000  786.100  573.000
GR    786.200 598.000  786.400  623.000 787.000  648.000  787.700  673.000  788.300  698.000
GR    787.900 723.000  788.300  748.000 788.400  773.000  788.300  798.000  787.900  823.000
GR    787.400 848.000  787.000  873.000 786.900  898.000  786.900  923.000  786.000  948.000
GR    785.300 973.000  783.900  998.000 783.900 1023.000  783.900 1048.000  783.900 1073.000
GR    783.900 1098.000 784.300 1123.000 784.300 1148.000  783.900 1173.000  783.000 1198.000
GP    782.600 1223.000 782.400 1248.000 782.100 1273.000  781.900 1298.000  781.400 1323.000
GR    781.400 1348.000 781.000 1373.000 780.300 1398.000  779.900 1423.000  779.400 1448.000
GR    778.700 1473.000 778.400 1498.000 778.200 1523.000  777.900 1548.000  777.900 1573.000
GR    778.600 1598.000 782.000 1623.000 784.000 1648.000  784.900 1673.000  790.900 1678.000
GR    793.500 1723.000 794.500 1748.000 794.500 1773.000  793.900 1778.000  795.100 1823.000
GR    796.000 1826.000 802.300 1846.000 802.300 1846.000  801.700 1896.000  803.200 1905.000
NC       .070     .070   -0.000     .100     .300  -0.000   -0.000   -0.000   -0.000   -0.000

X1      9.000  49.000  200.000 1132.000 1450.000 1450.000 1450.000   -0.000   -0.000   -0.000
GR    826.700  50.000  806.500  115.000 808.100  140.000  799.500  155.000  795.300  200.000
GR    794.500 203.000  792.300  228.000 789.800  253.000  787.900  278.000  786.200  303.000
GR    784.700 328.000  783.100  353.000 782.200  378.000  781.700  403.000  780.900  428.000
GR    780.800 453.000  780.700  478.000 780.700  503.000  780.800  528.000  780.800  553.000
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GR	781.300	578.000	781.300	603.000	781.500	628.000	781.900	653.000	781.900	678.000
GR	782.300	703.000	782.800	728.000	783.200	753.000	783.400	778.000	783.900	803.000
GR	784.300	828.000	784.800	853.000	785.900	878.000	786.900	903.000	787.400	928.000
GR	787.300	953.000	788.300	978.000	788.700	1003.000	789.200	1028.000	790.700	1053.000
GR	791.200	1078.000	791.700	1103.000	794.200	1128.000	797.300	1152.000	805.800	1143.000
GR	806.600	1178.000	804.300	1186.000	803.500	1226.000	809.800	1248.000	-0.000	-0.000
NC	-0.000	.040	-0.000	.070	.200	-0.000	-0.000	-0.000	-0.000	-0.000
QT	4.000	5840.000	6708.000	8373.000	4715.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	8.000	42.000	110.000	825.000	1950.000	1950.000	1950.000	-0.000	-1.500	-0.000
GR	838.300	0.000	829.200	20.000	800.800	90.000	796.700	110.000	795.800	115.000
GR	794.800	140.000	793.100	165.000	792.100	190.000	791.300	215.000	790.100	240.000
GR	788.900	265.000	788.400	290.000	787.700	315.000	786.900	340.000	786.300	365.000
GP	785.900	390.000	785.900	415.000	786.100	440.000	785.900	465.000	785.700	490.000
GP	785.800	515.000	785.900	540.000	786.100	565.000	786.500	590.000	786.900	615.000
GR	787.400	640.000	787.700	665.000	788.100	690.000	788.300	715.000	789.200	740.000
GR	790.100	765.000	792.300	790.000	796.000	815.000	796.700	825.000	798.700	875.000
GP	799.500	925.000	799.900	975.000	801.500	1025.000	802.500	1077.000	805.500	1100.000
GR	806.600	1135.000	809.600	1150.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.050	.050	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
X1	7.100	11.000	160.000	500.000	2850.000	2850.000	2850.000	-0.000	.300	-0.000
GR	806.000	30.000	803.000	45.000	801.000	100.000	795.000	160.000	786.000	207.000
GR	785.500	227.000	783.900	257.000	784.500	355.000	789.000	450.000	795.000	480.000
GP	805.600	500.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.500	.700	-0.000	-0.000	-0.000	-0.000	-0.000
X1	7.000	25.000	200.000	317.000	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	804.000	804.000	-0.000
GP	806.000	30.000	803.000	45.000	801.000	100.000	795.000	160.000	787.000	195.000
GR	804.000	200.000	795.000	201.000	790.600	207.000	787.400	217.000	785.500	227.000
GR	785.100	237.000	784.600	247.000	783.900	257.000	784.100	267.000	784.700	277.000
GR	785.000	287.000	786.100	297.000	788.600	307.000	791.900	317.000	804.000	317.000
GR	784.500	325.000	785.000	355.000	789.000	450.000	795.000	480.000	805.600	500.000
SR	-0.000	1.500	2.900	-0.000	90.000	-0.000	1870.000	.740	783.900	783.900
X1	6.100	-0.000	-0.000	-0.000	16.000	16.000	16.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	802.200	805.140	-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	805.310	805.140	-0.000
BT	12.000	30.000	806.000	806.000	45.000	806.000	803.000	100.000	805.980	801.000
BT	160.000	805.500	795.000	195.000	805.310	787.000	200.000	805.310	802.200	317.000
BT	805.140	802.200	325.000	805.140	784.500	355.000	805.400	785.000	450.000	805.500
BT	789.000	480.000	805.600	795.000	500.000	805.600	805.600	-0.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.500	.700	-0.000	-0.000	-0.000	-0.000	-0.000
X1	6.000	38.000	228.000	593.000	200.000	200.000	200.000	-0.000	-0.000	-0.000
GR	823.900	138.000	801.200	203.000	799.200	205.000	795.100	228.000	790.500	235.000
GP	788.900	245.000	788.400	255.000	788.300	265.000	787.200	275.000	786.100	285.000
GP	785.600	295.000	786.600	305.000	785.500	315.000	785.600	325.000	786.100	335.000
GR	786.300	345.000	786.600	355.000	787.100	365.000	787.400	375.000	787.800	385.000
GR	788.100	395.000	788.300	405.000	788.400	415.000	788.600	425.000	788.600	435.000
GP	788.600	445.000	789.600	455.000	790.100	465.000	790.700	475.000	791.300	485.000
GR	792.100	495.000	792.300	505.000	792.500	515.000	793.100	585.000	795.100	593.000
GP	797.900	615.000	799.300	640.000	808.200	664.000	-0.000	-0.000	-0.000	-0.000
X1	5.100	-0.000	-0.000	-0.000	1570.000	1570.000	1570.000	-0.000	1.100	-0.000
NC	-0.000	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	5.000	22.000	100.000	260.000	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	805.000	805.000	-0.000
GP	812.150	0.000	812.160	100.000	797.300	100.000	795.100	111.000	792.700	120.000
GP	791.000	130.000	788.800	140.000	787.000	150.000	787.200	160.000	787.100	170.000
GR	786.600	176.000	789.100	185.000	788.800	190.000	787.900	200.000	788.100	210.000
GR	787.600	220.000	796.600	230.000	787.600	240.000	790.100	250.000	792.100	260.000
GR	812.140	260.000	812.010	360.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SB	1.250	1.500	2.900	-0.000	120.000	9.000	1592.000	1.600	787.500	787.500

X1	4.100	-0.000	-0.000	-0.000	28.000	28.000	28.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	799.900	812.010	-0.000	-0.000	-0.000	.420	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	812.000	812.000	-0.000
RT	6.000	0.000	812.150	812.150	100.000	812.160	812.160	100.000	812.160	799.900
BT	260.000	812.140	799.900	260.000	812.140	812.140	360.000	812.010	812.010	-0.000
NC	.040	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	4.000	25.000	230.000	420.000	500.000	500.000	500.000	-0.000	-0.000	-0.000
GR	811.700	180.000	810.800	203.000	795.100	230.000	786.300	240.000	786.100	250.000
GR	785.700	260.000	785.800	270.000	785.900	280.000	786.200	290.000	786.600	300.000
GR	786.600	310.000	786.900	320.000	787.300	330.000	787.200	340.000	787.300	350.000
GR	788.700	360.000	789.400	370.000	790.700	380.000	792.800	390.000	794.100	400.000
GR	794.700	410.000	795.100	415.000	795.500	420.000	797.300	445.000	802.400	465.000
NC	.050	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	3.000	34.000	480.000	711.000	2280.000	2280.000	2280.000	-0.000	-0.000	-0.000
GR	801.900	200.000	799.400	260.000	795.400	430.000	795.300	440.000	795.400	450.000
GR	795.200	460.000	795.200	470.000	795.300	480.000	794.800	490.000	794.700	500.000
GR	793.500	510.000	792.800	520.000	792.900	530.000	792.600	540.000	792.400	550.000
GR	792.000	560.000	791.500	570.000	791.400	580.000	790.600	590.000	790.300	600.000
GR	789.900	610.000	789.500	620.000	789.200	630.000	789.300	640.000	788.900	650.000
GR	788.700	660.000	788.600	670.000	788.600	680.000	789.000	690.000	790.400	700.000
GR	794.800	710.000	795.400	711.000	802.900	730.000	803.700	745.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
X1	2.100	37.000	200.000	520.000	900.000	900.000	900.000	-0.000	-.900	-0.000
GR	820.100	160.000	801.800	195.000	798.300	200.000	795.250	210.000	792.200	220.000
GR	790.800	230.000	790.400	240.000	790.500	250.000	790.400	260.000	790.500	270.000
GR	790.500	280.000	790.400	290.000	790.300	300.000	790.700	310.000	790.400	320.000
GR	790.600	330.000	790.800	340.000	790.900	350.000	791.300	360.000	791.300	370.000
GR	791.700	380.000	791.800	390.000	792.000	400.000	792.300	410.000	792.500	420.000
GR	792.800	430.000	792.800	440.000	792.800	450.000	793.100	460.000	793.300	470.000
GR	793.500	480.000	794.900	490.000	794.900	500.000	795.500	520.000	796.800	720.000
GR	800.100	1080.000	805.600	1120.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	-0.000	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	2.000	18.000	100.000	213.000	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	805.000	805.000	-0.000
GR	811.900	50.000	811.890	100.000	795.300	100.000	792.800	110.000	791.200	120.000
GR	790.400	130.000	790.300	140.000	789.800	150.000	791.100	150.000	791.200	162.000
GR	789.400	170.000	789.800	180.000	789.800	190.000	791.600	200.000	794.300	210.000
GR	794.900	213.000	811.840	213.000	811.840	260.000	-0.000	-0.000	-0.000	-0.000
SB	1.250	1.500	2.800	-0.000	87.000	10.000	960.000	1.230	790.000	790.000
X1	1.100	-0.000	-0.000	-0.000	28.500	28.500	28.500	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	800.610	811.930	-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	811.900	811.840	-0.000
RT	7.000	50.000	811.900	811.900	100.000	811.890	811.890	100.000	811.890	800.610
BT	150.000	811.900	800.230	213.000	811.840	800.610	213.000	811.840	811.840	260.000
BT	811.830	811.830	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
NC	.040	-0.000	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	1.000	37.000	200.000	520.000	350.000	350.000	350.000	-0.000	-0.000	-0.000
GR	820.100	160.000	801.800	195.000	798.300	200.000	795.300	210.000	792.200	220.000
GR	790.800	230.000	790.400	240.000	790.500	250.000	790.400	260.000	790.500	270.000
GR	790.500	280.000	790.400	290.000	790.300	300.000	790.700	310.000	790.400	320.000
GR	790.600	330.000	790.800	340.000	790.900	350.000	791.300	360.000	791.300	370.000
GR	791.700	380.000	791.800	390.000	792.000	400.000	792.300	410.000	792.500	420.000
GR	792.800	430.000	792.800	440.000	792.800	450.000	793.100	460.000	793.300	470.000
GR	793.500	480.000	794.900	490.000	794.900	500.000	795.500	520.000	796.800	720.000
GR	800.100	1080.000	805.600	1120.000	-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

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT
T2      BY FINKBEINER PETTIS   STROUT - USFC401 R1
T3      HUPON RIVER AT BARTON DAM - Q = 100 YEAR

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        -0.       3.       -0.       -0. -0.000000     -0.00     -0.0      -0.   798.450    -0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      2.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000
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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	IOC	ICONT	CORAR	TOPWID	ENDST
11.10	25.95	798.45	0.00	798.45	798.47	.02	0.00	0.00	805.00
6516.	0.	6516.	0.	0.	5281.	0.	0.	0.	805.00
0.00	0.00	1.23	0.00	.050	.030	.050	0.000	772.50	20.00
.000011	0.	0.	0.	0	0	1	0.00	203.50	223.50

CCHV= .200 CEHV= .400

11.00	23.48	798.48	0.00	0.00	798.48	.00	.00	.00	795.40
6516.	1.	6514.	0.	42.	20831.	9.	285.	16.	796.20
.84	.03	.31	.03	.070	.030	.050	.030	775.00	122.98
.000001	950.	950.	950.	1	0	1	0.00	1265.87	1388.86

CCHV= .070 CEHV= .200

10.00	20.58	798.48	0.00	0.00	798.48	.00	.00	.00	795.40
6516.	2.	6514.	0.	42.	20732.	10.	811.	53.	796.00
1.82	.04	.31	.04	.070	.030	.050	.030	777.90	187.93
.000001	1100.	1100.	1100.	0	0	1	0.00	1645.93	1833.86

CCHV= .100 CEHV= .300

9.00	17.78	798.48	0.00	0.00	798.49	.00	.00	.00	795.30
6516.	3.	6513.	0.	54.	12442.	1.	1365.	96.	797.30
2.59	.05	.52	.02	.070	.030	.070	.030	780.70	165.95
.000004	1450.	1450.	1450.	0	0	1	0.00	967.57	1133.52

CCHV= .070 CEHV= .200

8.00	14.29	798.49	0.00	0.00	798.50	.01	.01	.00	795.20
6708.	3.	6675.	30.	26.	8060.	172.	1830.	138.	795.20
3.24	.10	.83	.18	.070	.030	.040	.030	784.20	93.99
.000011	1950.	1950.	1950.	0	0	1	0.00	883.59	977.58

CCHV= .200 CEHV= .400

7.10	14.32	798.52	0.00	0.00	798.57	.05	.06	.02	795.30
6708.	15.	6693.	0.	52.	3676.	0.	2222.	178.	805.90
3.68	.30	1.82	0.00	.050	.030	.050	.030	784.20	127.87
.000054	2850.	2850.	2850.	1	0	1	0.00	358.19	486.06

CCHV= .500 CEHV= .700

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	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

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 804.00 ELREA= 804.00

7.00	14.54	798.44	0.00	0.00	798.80	.36	.01	.21	804.00
6708.	0.	6708.	0.	0.	1401.	0.	2228.	179.	804.00

3.68	0.00	4.79	0.00	.050	.030	.050	.030	783.90	200.62
.000389	100.	100.	100.	2	0	1	0.00	116.38	317.00

SPECIAL BRIDGE

SR	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	-0.00	1.50	2.90	-0.00	90.00	-0.00	1870.00	.74	783.90	783.90

6070.LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 798.799 ELLC= 802.200 PCWSE= 798.443 ELTRD= 805.140

NORMAL BRIDGE.NRD=12 MIN ELTRD= 805.14 MAX ELLC= 802.20

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 805.31 FLREA= 805.14

6.10	14.55	798.45	0.00	0.00	798.80	.36	.01	.00	804.00
6708.	0.	6708.	0.	0.	1401.	0.	2228.	179.	804.00
3.69	0.00	4.79	0.00	.050	.030	.050	.030	783.90	200.62
.000389	16.	16.	16.	0	0	1	-39.88	116.38	317.00

CCHV= .500 CEHV= .700

6.00	13.43	798.93	0.00	0.00	798.98	.06	.03	.15	795.10
6708.	16.	6666.	26.	41.	3503.	63.	2240.	180.	795.10
3.71	.39	1.90	.41	.050	.030	.050	.030	785.50	206.53
.000073	200.	200.	200.	2	0	1	0.00	426.82	633.35

5.10	12.46	799.06	0.00	0.00	799.13	.07	.14	.01	796.20
6708.	9.	6687.	12.	23.	3150.	32.	2363.	195.	796.20
3.92	.38	2.12	.39	.050	.030	.050	.030	786.60	211.96
.000105	1570.	1570.	1570.	2	0	1	0.00	404.10	616.06

CCHV= .600 CEHV= .800

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 805.00 FLREA= 805.00

5.00	12.43	799.03	0.00	0.00	799.32	.29	.02	.17	812.16
6708.	0.	6708.	0.	0.	1563.	0.	2368.	196.	812.14
3.93	0.00	4.29	0.00	.050	.030	.050	.030	786.60	100.00
.000392	100.	100.	100.	2	0	1	0.00	160.00	260.00

SPECIAL BRIDGE

SR	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.90	-0.00	120.00	9.00	1592.00	1.60	787.50	787.50

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

CLASS A LOW FLOW

BRIDGE W.S.= 798.99 BRIDGE VELOCITY= 4.51

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS

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     0.00    799.36       .04        0.     6708.     1592.    799.90    812.01      1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       812.00 ELREA=       812.00

     4.10    12.48   799.08     0.00     0.00   799.36      .28      .04     0.00   812.16
    6708.       0.    6708.       0.       0.    1570.       0.    2369.     196.   812.14
     3.93     0.00     4.27     0.00     .050     .030     .050     .030   786.60   100.00
  .000387      28.      28.      28.        0        0        1     0.00   160.00   260.00

CCHV=     .600 CEHV=     .800
     4.00    13.70   799.40     0.00     0.00   799.56      .16      .13      .07   795.10
    6708.      12.    6630.      66.      16.    2050.      84.    2390.     198.   795.50
     3.97      .76     3.23      .79     .040     .030     .050     .030   785.70   222.60
  .000184     500.     500.     500.        2        0        1     0.00   230.64   453.24

CCHV=     .100 CEHV=     .300
     3.00    11.28   799.88     0.00     0.00   800.01      .13      .45      .00   795.30
    6708.     604.    6086.      18.     654.    2016.      25.    2517.     217.   795.40
     4.20      .92     3.02      .70     .050     .030     .050     .030   788.60   248.45
  .000208    2280.    2280.    2280.        2        0        1     0.00   473.90   722.35

CCHV=     .200 CEHV=     .400
     2.10    10.69   800.09     0.00     0.00   800.14      .05      .11      .02   797.40
    6708.       1.    5492.    1215.       5.    2840.    1886.    2594.     231.   794.60
     4.34      .29     1.93      .64     .050     .030     .050     .030   789.40   196.16
  .000083     900.     900.     900.        2        0        1     0.00   890.32  1086.48

CCMV-     .600 CEHV=     .800

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       805.00 ELREA=       805.00

     2.00    10.58   799.98     0.00     0.00   800.69      .71      .02      .53   811.89
    6708.       0.    6708.       0.       0.     993.       0.    2601.     232.   811.84
     4.35     0.00     6.76     0.00     .050     .030     .050     .030   789.40   100.00
  .001178     100.     100.     100.        2        0        1     0.00   113.00   213.00

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.50      2.80     -0.00     87.00     10.00     960.00     1.23     790.00    790.00

   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

PRESSURE FLOW

   EGPRS     EGLWC       H3       QWEIR      QPR       BAREA     ELLC      ELTRD     CLASS

   801.12    800.90      .25        0.     6708.      960.     800.61    811.93     10.00
```

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 811.90 ELREA= 811.84

1.10	11.08	800.48	0.00	0.00	801.12	.63	.43	0.00	811.89
6708.	0.	6708.	0.	0.	1050.	0.	2601.	232.	811.84
4.35	0.00	6.39	0.00	.050	.030	.050	.030	789.40	100.00
.000988	29.	29.	29.	2	0	1	0.00	113.00	213.00

CCHV= .600 CEHV= .800

3301 HV CHANGED MORE THAN HVINS

1.00	11.19	801.49	0.00	0.00	801.53	.04	.06	.36	798.30
6708.	3.	5359.	1346.	7.	2999.	2170.	2626.	236.	795.50
4.41	.36	1.79	.62	.040	.030	.050	.030	790.30	195.44
.000066	350.	350.	350.	2	0	1	0.00	894.67	1090.11

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**********************************************
HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58
**********************************************

T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINK&FINEP PETTIS  STROUT - USEC401 R1
T3      HURON RIVER AT BARTON DAM - Q = 1968 FLOOD

J1  ICHECK    INQ      NINV     IDIR     STRT      METRIC   HVINS    Q        WSEL     FQ
        -0.      5.       -0.      -0. -0.000000   -0.00    -0.0     -0.    797.600  -0.000
J2  NPROF     IPLOT    PRFVS    XSECV    XSECH     FN       ALLDC    IBW      CHNIM    ITRACE
      15.000   -0.000   -0.000   -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	OLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT	
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA	
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST	
	11.10	25.10	797.60	0.00	797.60	797.61	.01	0.00	0.00	805.00
	4572.	0.	4572.	0.	0.	5108.	0.	0.	0.	805.00
	0.00	0.00	.90	0.00	.050	.030	.050	0.000	772.50	20.00
	.000006	0.	0.	0.	0	0	1	0.00	203.50	223.50
CCHV=	.200	CEHV=	.400							
	11.00	22.62	797.62	0.00	0.00	797.62	.00	.00	.00	795.40
	4572.	0.	4572.	0.	22.	19765.	3.	272.	16.	796.20
	1.14	.02	.23	.02	.070	.030	.050	.030	775.00	126.78
	.000001	950.	950.	950.	0	0	1	0.00	1259.08	1385.87
CCHV=	.070	CEHV=	.200							
	10.00	19.72	797.62	0.00	0.00	797.62	.00	.00	.00	795.40
	4572.	0.	4571.	0.	21.	19338.	4.	766.	52.	796.00
	2.43	.02	.24	.02	.070	.030	.050	.030	777.90	197.84
	.000001	1100.	1100.	1100.	0	0	1	0.00	1633.27	1831.11
CCHV=	.100	CEHV=	.300							
	9.00	16.92	797.62	0.00	0.00	797.62	.00	.00	.00	795.30
	4572.	1.	4571.	0.	29.	11634.	0.	1282.	96.	797.30
	3.46	.03	.39	.00	.070	.030	.070	.030	780.70	175.25
	.000002	1450.	1450.	1450.	0	0	1	0.00	957.15	1132.40
CCHV=	.070	CEHV=	.200							
	8.00	13.42	797.62	0.00	0.00	797.63	.01	.01	.00	795.20
	4715.	1.	4705.	9.	14.	7439.	76.	1712.	135.	795.20
	4.32	.06	.63	.12	.070	.030	.040	.030	784.20	98.23
	.000007	1950.	1950.	1950.	0	0	1	0.00	802.59	900.82
CCHV=	.200	CEHV=	.400							
	7.10	13.45	797.65	0.00	0.00	797.68	.03	.04	.01	795.30
	4715.	5.	4710.	0.	27.	3390.	0.	2070.	173.	805.90
	4.89	.19	1.39	0.00	.050	.030	.050	.030	784.20	136.64
	.000035	2850.	2850.	2850.	1	0	1	0.00	347.77	484.41
CCHV=	.500	CEHV=	.700							
SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV	
Q	OLOB	QCH	QROB	ALOB	ACH	AROB	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=					804.00	ELREA=		804.00		
	7.00	13.70	797.60	0.00	0.00	797.80	.20	.01	.12	804.00
	4715.	0.	4715.	0.	0.	1303.	0.	2075.	173.	804.00

4.90	0.00	3.62	0.00	.050	.030	.050	.030	783.90	200.71
.000241	100.	100.	100.	2	0	1	0.00	116.29	317.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	-0.00	1.50	2.90	-0.00	90.00	-0.00	1870.00	.74	783.90	783.90

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 797.804 ELLC= 802.200 PCWSE= 797.600 ELTRD= 805.140

NORMAL BRIDGE,NRD=12 MIN ELTRD= 805.14 MAX ELLC= 802.20

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 805.31 ELREA= 805.14

6.10	13.70	797.60	0.00	0.00	797.81	.20	.00	.00	804.00
4715.	0.	4715.	0.	0.	1303.	0.	2076.	173.	804.00
4.90	0.00	3.62	0.00	.050	.030	.050	.030	783.90	200.71
.000241	16.	16.	16.	0	0	1	-35.20	116.29	317.00

CCHV= .500 CEHV= .700

6.00	12.38	797.88	0.00	0.00	797.91	.04	.02	.08	795.10
4715.	6.	4701.	8.	22.	3119.	30.	2084.	174.	795.10
4.93	.27	1.51	.27	.050	.030	.050	.030	785.50	212.43
.000053	200.	200.	200.	2	0	1	0.00	402.39	614.81

5.10	11.38	797.98	0.00	0.00	798.02	.05	.10	.01	796.20
4715.	2.	4710.	3.	9.	2754.	12.	2193.	189.	796.20
5.19	.24	1.71	.25	.050	.030	.050	.030	786.60	218.04
.000091	1570.	1570.	1570.	2	0	1	0.00	388.91	606.95

CCHV= .600 CEHV= .800

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 805.00 ELREA= 805.00

5.00	11.36	797.96	0.00	0.00	798.14	.18	.01	.11	812.16
4715.	0.	4715.	0.	0.	1393.	0.	2198.	189.	812.14
5.20	0.00	3.38	0.00	.050	.030	.050	.030	786.60	100.00
.000279	100.	100.	100.	1	0	1	0.00	160.00	260.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.90	-0.00	120.00	9.00	1592.00	1.60	787.50	787.50

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

CLASS A LOW FLOW

BRIDGE W.S.= 797.94 BRIDGE VELOCITY= 3.54

EGPRS	EGLWC	H3	QWEIR	QBR	BAREA	ELLC	ELTRD	CLASS

0.00	798.16	.02	0.	4715.	1592.	799.90	812.01	1.00	

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 812.00 ELREA= 812.00

4.10	11.39	797.99	0.00	0.00	798.16	.18	.02	0.00	812.16
4715.	0.	4715.	0.	0.	1396.	0.	2199.	189.	812.14
5.20	0.00	3.38	0.00	.050	.030	.050	.030	786.60	100.00
.000278	28.	28.	28.	0	0	1	0.00	160.00	260.00

CCHV= .600 CEHV= .800

4.00	12.50	798.20	0.00	0.00	798.30	.10	.09	.05	795.10
4715.	4.	4687.	23.	8.	1822.	47.	2218.	192.	795.50
5.25	.53	2.57	.50	.040	.030	.050	.030	785.70	224.67
.000136	500.	500.	500.	2	0	1	0.00	223.87	448.53

CCHV= .100 CEHV= .300

3.00	9.97	798.57	0.00	0.00	798.67	.10	.36	.00	795.30
4715.	268.	4440.	7.	377.	1713.	13.	2322.	209.	795.40
5.51	.71	2.59	.53	.050	.030	.050	.030	788.60	295.29
.000191	2280.	2280.	2280.	2	0	1	0.00	423.74	719.03

CCHV= .200 CEHV= .400

2.10	9.35	798.75	0.00	0.00	798.79	.04	.11	.01	797.40
4715.	0.	4132.	583.	1.	2409.	1141.	2390.	221.	794.60
5.67	.18	1.71	.51	.050	.030	.050	.030	789.40	198.08
.000082	900.	900.	900.	2	0	1	0.00	832.49	1030.56

CCHV= .600 CEHV= .800

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 805.00 ELREA= 805.00

2.00	9.28	798.68	0.00	0.00	799.16	.48	.02	.35	811.89
4715.	0.	4715.	0.	0.	846.	0.	2385.	223.	811.84
5.67	0.00	5.58	0.00	.050	.030	.050	.030	789.40	100.00
.000966	100.	100.	100.	2	0	1	0.00	113.00	213.00

SPECIAL BRIDGE

SB	XK	XKOR	COEQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.80	-0.00	87.00	10.00	960.00	1.23	790.00	790.00

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	CORAP	TOPWID	EMOST

CLASS A LOW FLOW

BRIDGE W.S.= 798.54 BRIDGE VELOCITY= 6.31

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	ELLC	ELTRD	CLASS
0.00	799.29	.15	0.	4715.	960.	800.61	811.93	1.00

OVERBANK APFA ASSUMED NON-EFFECTIVE,ELLEA= 811.90 ELRFA= 811.84

1.10	9.43	798.83	0.00	0.00	799.29	.46	.13	0.00	811.89
4715.	0.	4715.	0.	0.	863.	0.	2396.	223.	811.84
5.67	0.00	5.47	0.00	.050	.030	.050	.030	789.40	100.00
.000907	29.	29.	29.	0	0	1	0.00	113.00	213.00

CCHV= .600 CEHV= .800

1.00	9.27	799.57	0.00	0.00	799.62	.04	.07	.25	798.30
4715.	0.	4146.	569.	1.	2386.	1105.	2403.	226.	795.50
5.74	.22	1.74	.52	.040	.030	.050	.030	790.30	198.19
.000085	350.	350.	350.	2	0	1	0.00	824.49	1022.67

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

HURON RIVER AT BARTON DA

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	FG	TOPWID	10K*S	TIME	VOL
11.10	0.00	0.00	0.00	772.50	5673.00	798.10	0.00	798.12	203.50	.09	0.00	0.00
11.10	0.00	0.00	0.00	772.50	6516.00	798.45	0.00	798.47	203.50	.11	0.00	0.00
11.10	0.00	0.00	0.00	772.50	8133.00	799.10	0.00	799.14	203.50	.16	0.00	0.00
11.10	0.00	0.00	0.00	772.50	4572.00	797.60	0.00	797.61	203.50	.06	0.00	0.00
11.00	950.00	0.00	0.00	775.00	5673.00	798.12	0.00	798.12	1263.58	.01	.95	279.63
11.00	950.00	0.00	0.00	775.00	6516.00	798.48	0.00	798.48	1265.87	.01	.84	285.29
11.00	950.00	0.00	0.00	775.00	8133.00	799.14	0.00	799.14	1270.23	.01	.70	296.04
11.00	950.00	0.00	0.00	775.00	4572.00	797.62	0.00	797.62	1259.08	.01	1.14	271.51
10.00	1100.00	0.00	0.00	777.90	5673.00	798.12	0.00	798.12	1640.74	.01	2.04	792.68
10.00	1100.00	0.00	0.00	777.90	6516.00	798.48	0.00	798.48	1645.99	.01	1.82	811.38
10.00	1100.00	0.00	0.00	777.90	8133.00	799.14	0.00	799.15	1652.79	.02	1.52	846.98
10.00	1100.00	0.00	0.00	777.90	4572.00	797.62	0.00	797.62	1633.27	.01	2.43	765.88
9.00	1450.00	0.00	0.00	780.70	5673.00	798.12	0.00	798.13	963.30	.03	2.90	1331.17
9.00	1450.00	0.00	0.00	780.70	6516.00	798.48	0.00	798.49	967.57	.04	2.59	1365.31
9.00	1450.00	0.00	0.00	780.70	8133.00	799.15	0.00	799.15	975.69	.05	2.17	1430.40
9.00	1450.00	0.00	0.00	780.70	4572.00	797.62	0.00	797.62	957.15	.02	3.46	1282.26
8.00	1950.00	0.00	0.00	784.20	5840.00	798.13	0.00	798.14	844.99	.09	3.62	1781.14
8.00	1950.00	0.00	0.00	784.20	6708.00	798.49	0.00	798.50	883.59	.11	3.24	1829.89
8.00	1950.00	0.00	0.00	784.20	8373.00	799.15	0.00	799.17	908.07	.14	2.73	1923.28
8.00	1950.00	0.00	0.00	784.20	4715.00	797.62	0.00	797.63	802.59	.07	4.32	1711.81
7.10	2850.00	0.00	0.00	784.20	5840.00	798.16	0.00	798.20	353.90	.46	4.11	2158.92
7.10	2850.00	0.00	0.00	784.20	6708.00	798.52	0.00	798.57	358.19	.54	3.68	2222.00
7.10	2850.00	0.00	0.00	784.20	8373.00	799.20	0.00	799.27	366.20	.70	3.10	2343.23
7.10	2850.00	0.00	0.00	784.20	4715.00	797.65	0.00	797.68	347.77	.35	4.89	2069.91
7.00	100.00	0.00	0.00	783.90	5840.00	798.10	0.00	798.38	116.34	3.23	4.11	2164.61
7.00	100.00	0.00	0.00	783.90	6708.00	798.44	0.00	798.80	116.38	3.89	3.68	2227.88
7.00	100.00	0.00	0.00	783.90	8373.00	799.08	0.00	799.58	116.45	5.17	3.11	2349.48
7.00	100.00	0.00	0.00	783.90	4715.00	797.60	0.00	797.80	116.29	2.41	4.90	2075.33
6.10	16.00	805.14	802.20	783.90	5840.00	798.10	0.00	798.39	116.34	3.23	4.12	2165.11
6.10	16.00	805.14	802.20	783.90	6708.00	798.45	0.00	798.80	116.38	3.89	3.69	2228.40
6.10	16.00	805.14	802.20	783.90	8373.00	799.09	0.00	799.59	116.45	5.17	3.11	2350.03
6.10	16.00	805.14	802.20	783.90	4715.00	797.60	0.00	797.81	116.29	2.41	4.90	2075.81
6.00	200.00	0.00	0.00	785.50	5840.00	798.49	0.00	798.53	416.45	.65	4.15	2176.08
6.00	200.00	0.00	0.00	785.50	6708.00	798.93	0.00	798.98	426.82	.73	3.71	2239.89
6.00	200.00	0.00	0.00	785.50	8373.00	799.77	0.00	799.84	436.82	.85	3.14	2362.53
6.00	200.00	0.00	0.00	785.50	4715.00	797.88	0.00	797.91	402.39	.53	4.93	2086.08
5.10	1570.00	0.00	0.00	786.60	5840.00	798.60	0.00	798.66	397.37	.95	4.37	2292.20
5.10	1570.00	0.00	0.00	786.60	6708.00	799.06	0.00	799.13	404.10	1.05	3.92	2362.65
5.10	1570.00	0.00	0.00	786.60	8373.00	799.92	0.00	800.01	424.23	1.18	3.32	2498.25
5.10	1570.00	0.00	0.00	786.60	4715.00	797.98	0.00	798.02	388.91	.81	5.19	2193.24

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	FG	TOPWID	JOKES	TIME	VOL
5.00	100.00	0.00	0.00	786.60	5840.00	798.58	0.00	798.82	160.00	3.45	4.38	2297.38
5.00	100.00	0.00	0.00	786.60	6708.00	799.03	0.00	799.32	160.00	3.92	3.93	2368.13
5.00	100.00	0.00	0.00	786.60	8373.00	799.88	0.00	800.26	160.00	4.69	3.32	2504.28
5.00	100.00	0.00	0.00	786.60	4715.00	797.96	0.00	798.14	160.00	2.79	5.20	2198.03
4.10	28.00	812.01	799.90	786.60	5840.00	798.62	0.00	798.85	160.00	3.41	4.38	2298.34
4.10	28.00	812.01	799.90	786.60	6708.00	799.08	0.00	799.36	160.00	3.87	3.93	2369.13
4.10	28.00	812.01	799.90	786.60	8373.00	800.17	0.00	800.53	160.00	4.31	3.32	2505.39
4.10	28.00	812.01	799.90	786.60	4715.00	797.99	0.00	798.16	160.00	2.78	5.20	2198.93
4.00	500.00	0.00	0.00	785.70	5840.00	798.90	0.00	799.03	227.78	1.64	4.43	2318.60
4.00	500.00	0.00	0.00	785.70	6708.00	799.40	0.00	799.56	230.64	1.84	3.97	2390.48
4.00	500.00	0.00	0.00	785.70	8373.00	800.56	0.00	800.76	237.18	2.01	3.36	2529.30
4.00	500.00	0.00	0.00	785.70	4715.00	798.20	0.00	798.30	223.87	1.36	5.25	2217.71
3.00	2280.00	0.00	0.00	788.60	5840.00	799.33	0.00	799.45	467.96	2.03	4.66	2435.64
3.00	2280.00	0.00	0.00	788.60	6708.00	799.88	0.00	800.01	473.90	2.08	4.20	2517.29
3.00	2280.00	0.00	0.00	788.60	8373.00	801.08	0.00	801.22	505.70	1.96	3.58	2678.57
3.00	2280.00	0.00	0.00	788.60	4715.00	798.57	0.00	798.67	423.74	1.91	5.51	2321.87
2.10	900.00	0.00	0.00	789.40	5840.00	799.53	0.00	799.57	885.42	.83	4.81	2504.53
2.10	900.00	0.00	0.00	789.40	6708.00	800.09	0.00	800.14	890.32	.83	4.34	2594.00
2.10	900.00	0.00	0.00	789.40	8373.00	801.22	0.00	801.26	900.26	.76	3.73	2772.46
2.10	900.00	0.00	0.00	789.40	4715.00	798.75	0.00	798.79	832.49	.82	5.67	2380.30
2.00	100.00	0.00	0.00	789.40	5840.00	799.43	0.00	800.05	113.00	10.93	4.82	2510.45
2.00	100.00	0.00	0.00	789.40	6708.00	799.98	0.00	800.69	113.00	11.78	4.35	2600.57
2.00	100.00	0.00	0.00	789.40	8373.00	801.15	0.00	802.01	113.00	12.41	3.73	2780.41
2.00	100.00	0.00	0.00	789.40	4715.00	798.68	0.00	799.16	113.00	9.66	5.67	2385.35
1.10	28.50	811.93	800.61	789.40	5840.00	799.64	0.00	800.22	113.00	10.12	4.82	2511.07
1.10	28.50	811.93	800.61	789.40	6708.00	800.48	0.00	801.12	113.00	9.88	4.35	2601.24
1.10	28.50	811.93	800.61	789.40	8373.00	802.22	0.00	802.92	113.00	9.01	3.73	2781.19
1.10	28.50	811.93	800.61	789.40	4715.00	798.83	0.00	799.29	113.00	9.07	5.67	2385.90
1.00	350.00	0.00	0.00	790.30	5840.00	800.57	0.00	800.61	886.64	.78	4.88	2532.39
1.00	350.00	0.00	0.00	790.30	6708.00	801.49	0.00	801.53	894.67	.66	4.41	2626.25
1.00	350.00	0.00	0.00	790.30	8373.00	803.33	0.00	803.36	911.41	.49	3.80	2813.46
1.00	350.00	0.00	0.00	790.30	4715.00	799.57	0.00	799.62	824.49	.85	5.74	2403.40

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH O	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	T.W. DIFF	LENGTH
11.100	5673.000	798.100	0.000	0.000	0.000	203.500	0.000	0.000
11.100	6516.000	798.450	.350	0.000	0.000	203.500	0.000	0.000
11.100	8133.000	799.100	.650	0.000	0.000	203.500	0.000	0.000
11.100	4572.000	797.600	-1.500	0.000	0.000	203.500	0.000	0.000
11.000	5673.000	798.122	0.000	.022	0.000	1263.579	0.000	950.000
11.000	6516.000	798.479	.356	.029	0.000	1265.873	-2.293	950.000
11.000	8133.000	799.142	.664	.042	0.000	1270.228	-6.649	950.000
11.000	4572.000	797.615	-1.527	.015	0.000	1259.084	4.495	950.000
10.000	5673.000	798.123	0.000	.001	0.000	1640.737	0.000	1100.000
10.000	6516.000	798.480	.357	.001	0.000	1645.929	-5.193	1100.000
10.000	8133.000	799.144	.664	.002	0.000	1652.786	-12.049	1100.000
10.000	4572.000	797.616	-1.528	.001	0.000	1633.271	7.465	1100.000
9.000	5673.000	798.124	0.000	.001	0.000	963.297	0.000	1450.000
9.000	6516.000	798.481	.357	.001	0.000	967.571	-4.274	1450.000

9.000	8133.000	799.145	.664	.001	0.000	975.691	-12.394	1450.000	
9.000	4572.000	797.617	-1.529	.001	0.000	957.154	6.143	1450.000	
8.000	5840.000	798.130	0.000	.005	0.000	844.989	0.000	1950.000	
8.000	6708.000	798.487	.358	.006	0.000	883.588	-38.598	1950.000	
8.000	8373.000	799.153	.666	.008	0.000	908.074	-63.084	1950.000	
8.000	4715.000	797.621	-1.532	.004	0.000	802.594	42.395	1950.000	
7.100	5840.000	798.160	0.000	.031	0.000	353.899	0.000	2850.000	
7.100	6708.000	798.523	.362	.035	0.000	358.191	-4.292	2850.000	
7.100	8373.000	799.196	.673	.043	0.000	366.203	-12.304	2850.000	
7.100	4715.000	797.645	-1.551	.024	0.000	347.766	6.133	2850.000	
7.000	5840.000	798.097	0.000	-.064	0.000	116.344	0.000	100.000	
7.000	6708.000	798.443	.346	-.080	0.000	116.383	-.038	100.000	
7.000	8373.000	799.082	.639	-.114	0.000	116.454	-.109	100.000	
7.000	4715.000	797.600	-1.481	-.045	0.000	116.289	.055	100.000	
6.100	5840.000	798.102	0.000	.005	0.000	116.344	0.000	16.000	
6.100	6708.000	798.449	.347	.006	0.000	116.383	-.038	16.000	
6.100	8373.000	799.090	.641	.008	0.000	116.454	-.109	16.000	
6.100	4715.000	797.604	-1.486	.004	0.000	116.289	.055	16.000	
6.000	5840.000	798.486	0.000	.384	0.000	416.451	0.000	200.000	
6.000	6708.000	798.928	.442	.479	0.000	426.825	-10.374	200.000	
6.000	8373.000	799.766	.838	.676	0.000	436.823	-20.373	200.000	
6.000	4715.000	797.876	-1.889	.272	0.000	402.390	14.061	200.000	
5.100	5840.000	798.604	0.000	.118	0.000	397.375	0.000	1570.000	
5.100	6708.000	799.059	.455	.132	0.000	404.099	-6.724	1570.000	
5.100	8373.000	799.917	.858	.152	0.000	424.234	-26.859	1570.000	
5.100	4715.000	797.976	-1.942	.099	0.000	388.910	8.464	1570.000	
5.000	5840.000	798.585	0.000	-.019	0.000	160.000	0.000	100.000	
5.000	6708.000	799.034	.450	-.025	0.000	160.000	0.000	100.000	
5.000	8373.000	799.881	.846	-.037	0.000	160.000	0.000	100.000	
5.000	4715.000	797.963	-1.918	-.013	0.000	160.000	0.000	100.000	
4.100	5840.000	798.618	0.000	.034	0.000	160.000	0.000	28.000	
4.100	6708.000	799.076	.458	.042	0.000	160.000	0.000	28.000	
4.100	8373.000	800.167	1.091	.287	0.000	160.000	0.000	28.000	
4.100	4715.000	797.987	-2.181	.024	0.000	160.000	0.000	28.000	
4.000	5840.000	798.895	0.000	.277	0.000	227.782	0.000	500.000	
4.000	6708.000	799.402	.506	.325	0.000	230.639	-2.857	500.000	
4.000	8373.000	800.561	1.159	.394	0.000	237.180	-9.398	500.000	
4.000	4715.000	798.201	-2.360	.214	0.000	223.867	3.916	500.000	
3.000	5840.000	799.330	0.000	.434	0.000	457.963	0.000	2280.000	
3.000	6708.000	799.881	.552	.480	0.000	473.899	-15.936	2280.000	
3.000	8373.000	801.080	1.199	.519	0.000	505.700	-47.737	2280.000	
3.000	4715.000	798.570	-2.510	.368	0.000	423.737	34.226	2280.000	
2.100	5840.000	799.528	0.000	.198	0.000	885.421	0.000	900.000	
2.100	6708.000	800.091	.563	.210	0.000	890.323	-4.901	900.000	
2.100	8373.000	801.292	1.201	.212	0.000	900.962	-15.540	900.000	
2.100	4715.000	798.747	-2.545	.177	0.000	832.487	52.935	900.000	
2.000	5840.000	799.435	0.000	-.093	0.000	113.000	0.000	100.000	
2.000	6708.000	799.980	.545	-.111	0.000	113.000	0.000	100.000	
2.000	8373.000	801.149	1.170	-.142	0.000	113.000	0.000	100.000	
2.000	4715.000	798.678	-2.471	-.069	0.000	113.000	0.000	100.000	
1.100	5840.000	799.639	0.000	.204	0.000	113.000	0.000	28.500	
1.100	6708.000	800.483	.844	.504	0.000	113.000	0.000	28.500	
1.100	8373.000	802.220	1.737	1.071	0.000	113.000	0.000	28.500	

1.100	4715.000	798.829	-3.391	.151	0.000	113.000	0.000	28.500
1.000	5840.000	800.567	0.000	.928	0.000	886.637	0.000	350.000
1.000	6708.000	801.490	.923	1.007	0.000	894.670	-8.033	350.000
1.000	8373.000	803.329	1.839	1.108	0.000	911.408	-24.771	350.000
1.000	4715.000	799.574	-3.754	.745	0.000	824.487	62.149	350.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	232.204	0.000
2	0.000	0.000	235.950	3.746
3	0.000	0.000	240.339	8.135
4	0.000	0.000	226.417	-5.787

TABLE A-12

OUTPUT DATA DESCRIPTION

All variables discussed below apply to the cross section identified by SECNO.

VARIABLE	DESCRIPTION
SECNO	Identifying cross section number. Equal to the number in first field of Card X1.
WSEL	Assumed water surface elevation.
CWSEL	Computed water surface elevation.
CRIWS	Critical water surface elevation.
WSELK	Known water surface elevation from high water mark.
EG	Mean energy gradient elevation across the entire cross section which is equal to the computed water surface elevation CWSEL plus the mean velocity head HV.
HV	Mean velocity head across the entire cross section.
HL	Energy loss due to friction.
OTHER LOSS	Energy loss due to minor losses such as transition losses.
Q	Total flow in the cross section.
QLOB	Amount of flow in the left overbank.
QCH	Amount of flow in the channel.
QROB	Amount of flow in the right overbank.
ALOB	Cross section area of the left overbank.
ACH	Cross section area of the channel.
AROB	Cross section area of the right overbank.
VOL	Cumulative volume of water in the river since the first cross section.

TABLE A-12 (Continued)

VARIABLE	DESCRIPTION
TWA	Cumulative top width of the river since the first cross section.
TIME	Travel time from the first cross section to the present cross section in hours.
VLOB	Mean velocity in the left overbank.
VCH	Mean velocity in the channel.
VROB	Mean velocity in the right overbank.
XNL	Manning's "n" for the left overbank area.
XNCH	Manning's "n" for the channel area.
XNR	Manning's "n" for the right overbank area.
WTN	Weighted value of Manning's "n" for the channel based on the distance between cross sections and channel flow from the first cross section. Used when computing Manning's "n" from high water marks.
ELMIN	Minimum elevation in the cross section.
SLOPE	Slope of the energy grade line.
XLOBL	Distance in the left overbank between the previous cross section and the current cross section.
XLCH	Distance in the channel between the previous cross section and the current cross section.
XLOBR	Distance in the right overbank between the previous cross section and the current cross section.
ITRIAL	Number of trials required to balance the assumed and computed water surface elevations.
IDC	Number of trials required to determine critical depth.
ICONT	Number of trials to determine the water surface elevation by the slope area method or the number of trials to balance the energy gradient in the special bridge routine.

TABLE A-12 (Continued)

VARIABLE	DESCRIPTION
CORAR	Area of the bridge deck subtracted from the total cross sectional area in the normal bridge routine.
TOPWID	Cross section width at the assumed water surface elevation.
EGPRS	The energy grade line elevation computed assuming pressure flow.
EGLWC	The energy grade line elevation computed assuming low flow control.
H3	Drop in water surface elevation from upstream to downstream sides of the bridge computed using Yarnell's dquation assuming Class A low flow.
QWEIR	Total weir flow at the bridge.
QPR	Total pressure flow at the bridge.
BAREA	Net area of the bridge opening below the low chord. Equals BAREA entered on Card SB.
ELLC	Elevation of the bridge low chord. Equals ELLC entered on Card X2 if BT cards are not used, otherwise it equals the maximum low chord in the BT table.
ELTRD	Elevation of the top of roadway. Equals ELTRD entered on Card X2 if BT cards are not used, otherwise it equals the minimum top of roadway in the BT table.
CLASS	The controlling type of flow is identified using the following coded values for this variable: 1. Low Flow - Class A 2. Low Flow - Class B 3. Low Flow - Class C 10. Pressure Flow Alone 11. Weir Flow (Overbank) and Class A Low Flor (Bridge) 12. Weir Flow (Overbank) and Class B Low Flow (Bridge) 13. Weir Flow (Overbank) and Class C Low Flow (Bridge) 30. Weir Pressure Flow (Bridge)

TABLE A-13

SUMMARY OF FLOOD PROFILE ELEVATIONS - HURON RIVER

Station	Location	June 1968 Flood Under Present Conditions	50-Year Frequency Flood		100-Year Frequency Flood		500-Year Frequency Flood
	D/S I-94	686.0	686.0		686.0		687.0
	U/S I-94	686.7	686.7	.3	687.0	1.4	688.4
41.08	D/S Ford Walkway	687.2	687.3	.3	687.6	1.2	688.8
41.09	U/S Ford Walkway	688.1	688.1	.6	688.7	1.4	690.1
41.20	D/S Factory Road	688.2	688.2	.6	688.8	1.4	690.2
41.21	U/S Factory Road	688.4	688.4	.6	689.0	1.3	690.3
41.08	D/S Michigan Avenue	694.0	694.1	.7	694.8	1.4	696.2
41.09	J/S Michigan Avenue	694.0	694.1	.8	694.9	1.3	696.2
41.47	D/S Cross Street	697.9	698.0	.8	698.8	1.3	700.1
41.48	U/S Cross Street	698.0	698.0	.8	698.8	1.3	700.1
41.74	D/S Forest Avenue	699.7	699.8	.8	700.6	1.4	702.0
41.76	U/S Penn Central R.R.	700.8	700.9	.9	701.8	1.7	703.5
43.51	D/S LeForge Road	705.6	705.7	.7	706.4	1.4	707.8
43.61	U/S Peninsular Dam	717.3	717.3	.4	717.7	0.6	718.3
44.14	D/S Penn Central R.R.	717.5	717.5	.4	717.9	0.7	718.6
44.15	U/S Penn Central R.R.	718.0	717.9	.5	718.4	1.1	719.5
44.45	D/S Superior Road	718.0	718.0	.5	718.5	1.0	719.5
44.46	U/S Superior Road	718.3	718.2	.3	718.5	1.7	720.2

SUMMARY OF FLOOD PROFILE ELEVATIONS - HURON RIVER

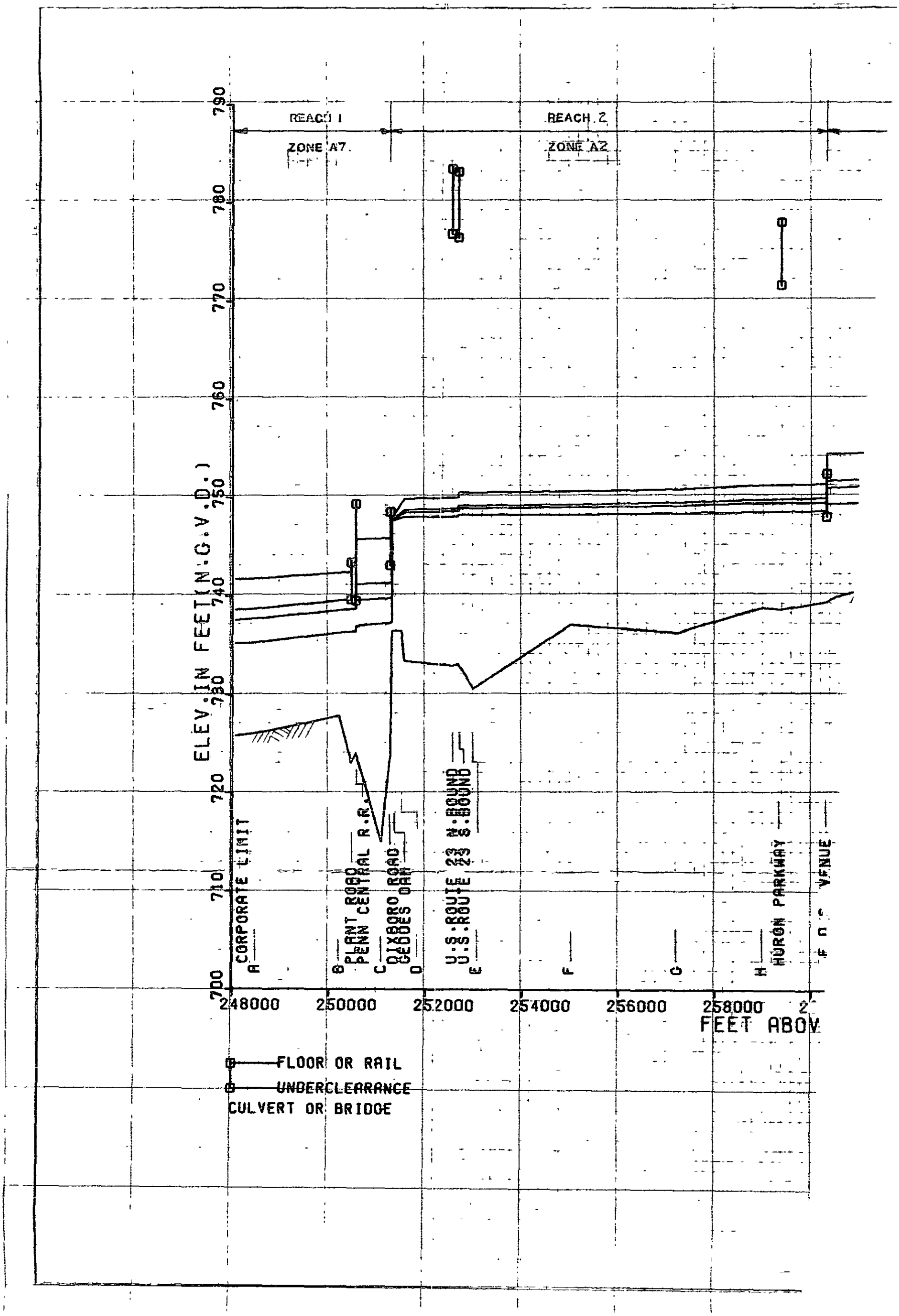
Station	Location	June 1968 Flood Under Present Conditions	50-Year Frequency Flood		100-Year Frequency Flood		500-Year Frequency Flood
45.07	U/S Superior Dam	735.6	735.5	.5	736.0	1.0	737.0
45.20	D/S Penn Central R.R.	735.7	735.6	.5	736.1	1.1	737.2
45.21	U/S Penn Central R.R.	736.0	735.9	.6	736.5	1.2	737.7
46.52	D/S Handy Lane	736.2	736.1	.6	736.7	1.2	737.9
46.59	U/S Penn Central	737.5	737.4	1.0	738.4	2.3	740.7
47.43	D/S Sewage Plant Road	738.7	738.5	9	739.4	2.0	741.4
47.46	U/S Penn Central R.R.	739.6	739.1	1.4	740.5	3.0	743.5
47.59	D/S Dixboro Road	739.8	739.2	1.4	740.6	2.9	743.5
47.60	U/S Geddes Dam	747.5	747.5	0	747.5	0	747.5
47.86	D/S U.S. Route 23	748.4	748.2	.2	748.4	.5	748.9
47.88	U/S U.S. Route 23	748.7	748.4	.3	748.7	.6	749.3
49.14	D/S Huron Parkway	749.0	748.8	.4	749.2	.7	749.9
49.15	U/S Huron Parkway	749.1	748.9	.7	749.2	.8	750.0
49.32	D/S Geddes Avenue	749.1	748.9	.3	749.2	.8	750.0
49.33	U/S Geddes Avenue	749.7	750.0	.7	750.7	1.50	752.2
50.41	D/S Penn Central R.R.	752.5	753.4	.5	753.9	1.0	754.9
50.42	U/S Penn Central R.R.	753.0	754.0	.8	754.8	1.6	756.4

SUMMARY OF FLOOD PROFILE ELEVATIONS - HURON RIVER

Station	Location	June 1968 Flood Under Present Conditions	50-Year Frequency Flood		100-Year Frequency Flood		500-Year Frequency Flood
50.92	D/S Penn Central R.R.	755.5	756.5	.6	757.1	1.2	758.3
50.93	U/S Penn Central R.R.	757.1	759.4	.8	761.2	0	761.2
51.05	D/S Fuller Road	757.4	758.8		759.6	1.7	761.3
51.06	U/S Fuller Road	758.1	759.7		760.6	1.8	762.4
51.81	D/S Wall Street	761.6	762.3		762.8	1.0	763.8
51.82	U/S Wall Street	762.7	763.6		764.6	1.3	765.9
51.28	D/S Broadway	764.3	765.1		765.7	1.0	766.7
51.29	U/S Broadway	765.2	766.2		766.9	1.4	768.3
52.59	U/S Argo Dam	774.0	774.0		774.0	0	774.0
52.62	U/S Ann Arbor R.R.	774.1	774.1		774.1	.1	774.2
53.62	D/S State Route 14	774.5	774.7		774.8	.4	775.2
53.63	U/S State Route 14	774.5	774.8		775.0	.4	775.4
53.67	D/S Whitmore Lake Rd.	774.5	774.8		775.0	.4	775.4
53.68	U/S Whitmore Lake Rd.	775.6	776.3		776.9	1.2	778.1
53.75	D/S Penn Central R.R.	775.6	776.3		776.9	1.2	778.1
53.76	U/S Penn Central R.R.	776.0	776.9		777.6	1.3	778.9
54.61	D/S Penn Central R.R.	777.1	777.9		778.5	1.2	779.7
54.62	U/S Penn Central R.R.	777.2	778.0		778.9	1.6	780.5
54.72	U/S Barton Dam	797.6	798.1		798.4	.7	799.1

SUMMARY OF FLOOD PROFILE ELEVATIONS - HURON RIVER

Station	Location	June 1968 Flood Under Present Conditions	50-Year Frequency Flood	100-Year Frequency Flood	500-Year Frequency Flood
56.29	D/S Country Club Rd.	797.6	798.2	798.5	799.2
56.30	U/S Country Club Rd.	797.9	798.5	798.9	799.8
56.65	D/S Penn Central R.R.	798.0	798.6	799.1	799.1
56.66	U/S Penn Central R.R.	798.2	798.9	799.4	800.6
57.37	D/S Penn Central R.R.	798.7	799.5	800.1	801.3
57.38	U/S Penn Central R.R.	799.6	800.6	801.5	803.3



REACH 1
ZONE A7
REACH 2
ZONE A2
ELEV. IN FEET (N.G.V.D.)
790
780
770
760
750
740
730
720
710
700
CORPORATE LIMIT
PLANT ROAD
PENN CENTRAL R.R.
DIXBORO ROAD
GEDDES DAM
U.S. ROUTE 23 N. BOUND
U.S. ROUTE 23 S. BOUND
HURON PARKWAY
A
B
C
D
E
F
G
H
248000
250000
252000
254000
256000
258000
FEET ABOV
FLOOR OR RAIL
UNDERCLEARANCE
CULVERT OR BRIDGE

REACH 4

ZONE AG

REACH 3

ZONE AS

AREA NOT IN STUDY

AREA NOT IN STUDY

500 YEAR FLOOD

100 YEAR FLOOD

50 YEAR FLOOD

10 YEAR FLOOD

STREAM BED

M — HURON PARKWAY

DEXTER AVENUE

J

K

CORPORATE LIMIT

FULLER ROAD-CORPORATE LIMIT

CORPORATE LIMIT

CROSS SECTION LOCATION

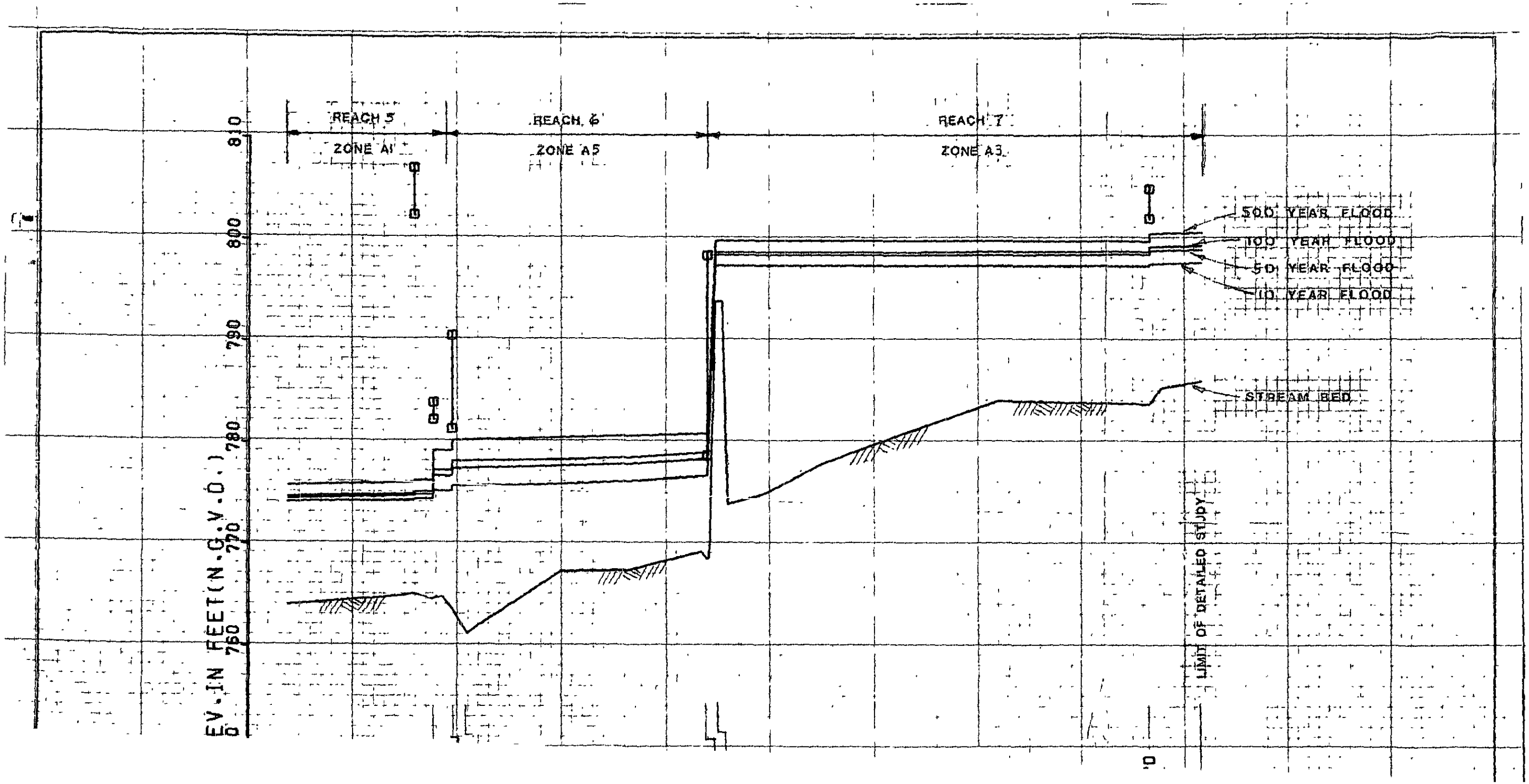
0 260 262000 264000 266000 268000 270000 272000

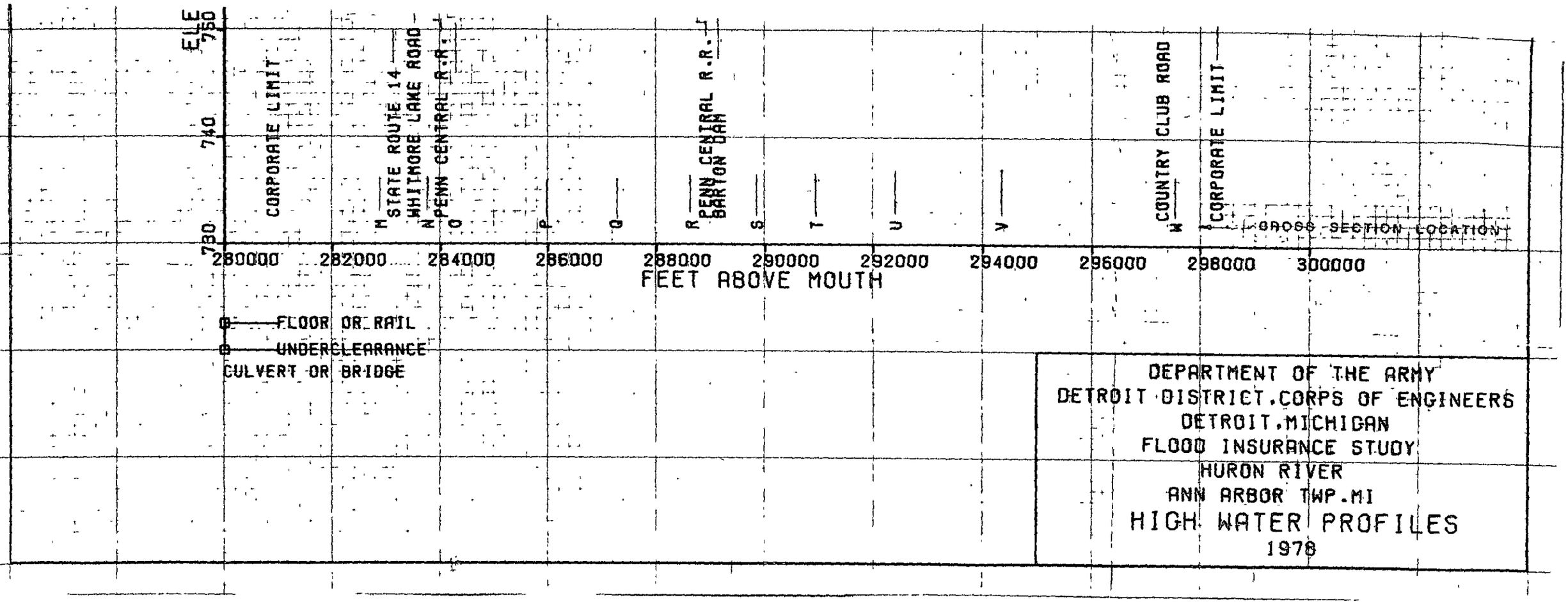
T ABOVE UTH

DEPARTMENT OF THE ARMY
DETROIT DISTRICT CORPS OF ENGINEERS
DETROIT, MICHIGAN
FLOOD INSURANCE STUDY
HURON RIVER
ANN ARBOR TWP, MI

HIGH WATER PROFILES

1978


REACH 5
ZONE A1
REACH 6
ZONE A5
REACH 7
ZONE A3
810
800
790
780
770
760
EL. IN FEET (N.G.V.D.)
500 YEAR FLOOD
100 YEAR FLOOD
50 YEAR FLOOD
10 YEAR FLOOD
STREAM BED
LIMIT OF DETAILED STUDY


ELE
760
740
730
CORPORATE LIMIT
STATE ROUTE 14
WHITMORE LAKE ROAD
PENN CENTRAL R.R.
M
N
O
P
Q
R
PENN CENTRAL R.R.
BARTON DAM
S
T
U
V
COUNTRY CLUB ROAD
W
CORPORATE LIMIT
CROSS SECTION LOCATION
280000
282000
284000
286000
288000
290000
292000
294000
296000
298000
300000
FEET ABOVE MOUTH
FLOOR OR RAIL
UNDERCLEARANCE
CULVERT OR BRIDGE
DEPARTMENT OF THE ARMY
DETROIT DISTRICT, CORPS OF ENGINEERS
DETROIT, MICHIGAN
FLOOD INSURANCE STUDY
HURON RIVER
ANN ARBOR TWP. MI
HIGH WATER PROFILES
1978



1) COUNTY: WASHTENAW

2) STUDY NAME: ANN ARBOR - YPSILANTI

3) WATERCOURSE: HURON RIVER

4) DOCUMENT TYPE: SUPERIOR DAM INPUTS SUMMARY PRINTOUT.



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HEC2 VERSION UPDATED JAN 1976
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09                    TABLE A-8
MODIFICATIONS 52,53,54,55,56,57,58
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T1 PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2 BY FINKBEINER PETTIS & STROUT - USFC401 R2
T3 HURON RIVER AT SUPERIOR DAM - Q = 50 YEAR

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ	
	-0.	2.	-0.	-0.	-0.000000	-0.00	-0.0	-0.	733.800	-0.000	
NC	.040	.050	.030	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000	
QT	4.000	8373.000	9587.000	12911.000	5624.000	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	64.100	4.000	0.000	160.120	0.000	0.000	0.000	-0.000	-0.000	-0.000	
GR	740.000	0.000	717.000	0.000	717.000	160.120	740.000	160.120	-0.000	-0.000	
NC	.040	.040	-0.000	.500	.700	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	64.000	53.000	200.000	630.000	200.000	200.000	200.000	-0.000	-0.000	-0.000	
GR	742.400	125.000	738.000	150.000	737.100	200.000	730.400	205.000	722.000	210.000	
GR	720.900	220.000	721.400	230.000	721.400	240.000	721.400	250.000	721.300	260.000	
GR	720.000	270.000	720.600	280.000	720.800	290.000	720.600	300.000	720.100	310.000	
GR	720.200	320.000	720.800	330.000	720.900	340.000	720.700	350.000	720.300	360.000	
GR	720.300	370.000	719.300	380.000	718.100	390.000	717.000	400.000	719.600	410.000	
GR	720.400	420.000	721.000	430.000	725.300	440.000	724.500	450.000	724.000	460.000	
GR	723.700	470.000	723.800	480.000	723.900	490.000	723.900	500.000	723.600	510.000	
GR	724.200	520.000	724.300	530.000	724.600	540.000	725.100	550.000	725.400	560.000	
GR	725.600	570.000	726.300	580.000	727.000	590.000	727.400	600.000	727.900	610.000	
GR	728.400	620.000	730.400	625.000	732.400	630.000	733.700	660.000	736.700	676.000	
GR	737.000	740.000	746.400	763.000	755.200	783.000	-0.000	-0.000	-0.000	-0.000	
NC	-0.000	-0.000	-0.000	.500	.800	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	63.000	35.000	600.000	755.000	400.000	400.000	400.000	-0.000	-0.000	-0.000	
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	740.000	740.000	-0.000	
GR	742.000	30.000	735.700	100.000	735.000	110.000	730.500	200.000	730.000	210.000	
GR	721.000	250.000	721.000	300.000	721.000	400.000	721.000	500.000	721.000	600.000	
GR	734.500	600.000	726.000	610.000	721.900	620.000	717.300	630.000	715.600	640.000	
GR	717.300	650.000	716.900	660.000	719.400	673.000	717.900	680.000	717.500	690.000	
GR	716.000	700.000	715.400	710.000	718.300	720.000	718.500	730.000	720.600	740.000	
GR	726.500	750.000	726.900	755.000	735.300	755.000	723.000	756.000	723.000	860.000	
GR	723.000	930.000	730.000	960.000	735.000	980.000	740.000	1060.000	746.100	1160.000	
SB	1.250	1.500	2.700	-0.000	105.000	7.000	2335.000	1.430	717.000	717.000	
X1	62.100	-0.000	-0.000	-0.000	28.300	28.300	28.300	-0.000	-0.000	-0.000	
X2	-0.000	-0.000	1.000	735.300	742.000	-0.000	-0.000	-0.000	.707	-0.000	
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	742.000	742.000	-0.000	
BT	18.000	30.000	742.000	742.000	100.000	742.150	735.700	110.000	742.170	735.000	
BT	210.000	742.600	730.000	250.000	742.800	721.000	300.000	742.950	721.000	400.000	
BT	743.320	721.000	500.000	743.710	721.000	600.000	744.000	721.000	600.000	744.000	
BT	734.500	755.000	745.000	735.200	756.000	745.000	722.000	860.000	745.020	723.000	
BT	930.000	745.300	723.000	960.000	745.360	730.000	990.000	745.400	735.000	1060.000	
BT	745.690	740.000	1160.000	746.100	746.100	-0.000	-0.000	-0.000	-0.000	-0.000	
NC	.040	.045	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000	
X1	62.000	51.000	300.000	735.000	350.000	350.000	350.000	-0.000	-0.000	-0.000	

GR	755.300	116.000	745.800	201.000	733.200	285.000	732.000	300.000	729.900	304.000
GR	728.400	314.000	727.500	324.000	726.800	334.000	726.800	344.000	725.400	354.000
GR	724.500	364.000	724.400	374.000	723.800	384.000	723.400	394.000	723.200	404.000
GR	723.000	414.000	722.800	424.000	722.600	434.000	722.100	444.000	721.900	454.000
GR	721.200	464.000	720.600	474.000	720.400	484.000	720.600	494.000	720.400	504.000
GR	720.200	514.000	720.200	524.000	720.400	534.000	720.400	544.000	720.400	554.000
GR	720.300	564.000	720.600	574.000	720.800	584.000	720.900	594.000	720.800	604.000
GR	720.400	614.000	720.800	624.000	720.400	634.000	720.600	644.000	720.600	654.000
GR	720.400	664.000	720.400	674.000	720.200	684.000	721.100	694.000	722.000	704.000
GR	725.500	714.000	725.400	724.000	730.400	726.000	731.100	735.000	743.200	755.000
GR	745.200	786.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
C	.050	.050	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
X1	61.000	71.000	200.000	886.000	1940.000	1940.000	1940.000	-0.000	-0.000	-0.000
GR	754.300	126.000	740.900	156.000	732.200	200.000	728.500	216.000	727.900	226.000
GR	727.600	236.000	727.300	246.000	727.100	256.000	726.900	266.000	726.600	276.000
GR	726.500	286.000	726.100	296.000	725.900	306.000	725.700	316.000	725.500	326.000
GR	725.400	336.000	725.100	346.000	725.000	356.000	724.700	366.000	724.300	376.000
GR	724.300	386.000	723.900	396.000	723.600	406.000	723.500	416.000	723.500	426.000
GR	723.400	436.000	723.300	446.000	723.200	456.000	723.000	466.000	722.900	476.000
GR	722.700	486.000	721.500	496.000	721.300	506.000	721.100	516.000	720.900	526.000
GR	720.500	536.000	720.500	546.000	721.500	556.000	723.400	566.000	724.100	576.000
GR	724.400	586.000	724.200	596.000	724.000	606.000	724.700	616.000	725.800	626.000
GR	726.800	636.000	727.000	646.000	727.200	656.000	727.200	666.000	727.200	676.000
GR	727.100	686.000	727.300	696.000	727.300	706.000	727.300	716.000	727.100	726.000
GR	727.000	736.000	727.200	746.000	726.900	756.000	727.100	766.000	727.100	776.000
GR	727.000	786.000	727.300	796.000	727.200	806.000	727.200	816.000	727.100	826.000
GR	727.000	836.000	733.000	886.000	733.300	911.000	735.700	926.000	739.800	1026.000
GR	742.000	1176.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
C	.050	.100	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	60.000	51.000	400.000	935.000	2800.000	2800.000	2800.000	-0.000	-0.000	-0.000
GR	751.400	120.000	742.400	180.000	731.100	400.000	730.400	405.000	729.700	410.000
GR	729.300	420.000	729.100	430.000	728.900	440.000	728.800	450.000	728.600	460.000
GR	728.500	470.000	728.400	480.000	728.400	490.000	728.400	500.000	728.400	510.000
GR	728.200	520.000	728.300	530.000	728.100	540.000	727.600	550.000	727.500	560.000
GR	727.200	570.000	726.800	580.000	726.600	590.000	726.600	600.000	727.000	610.000
GR	727.000	620.000	726.900	630.000	726.300	640.000	726.000	650.000	725.600	660.000
GR	725.100	670.000	725.100	680.000	724.600	690.000	724.900	700.000	724.400	710.000
GR	724.400	720.000	724.400	730.000	723.700	740.000	722.600	750.000	722.200	760.000
GR	721.200	770.000	721.000	780.000	721.100	790.000	722.000	800.000	725.600	810.000
GR	727.400	820.000	740.000	835.000	735.100	850.000	739.600	882.000	739.100	932.000
GR	742.000	992.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	59.100	-0.000	-0.000	-0.000	1800.000	1800.000	1800.000	-0.000	-0.000	-0.000
C	.070	.070	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	59.000	15.000	400.000	52.000	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	738.000	736.000	-0.000
GR	750.000	50.000	740.000	180.000	730.400	400.000	726.300	410.000	720.500	420.000
GR	719.300	430.000	720.000	440.000	722.100	450.000	722.200	460.000	721.500	470.000
GR	719.000	480.000	724.000	490.000	722.000	495.000	725.400	500.000	724.500	510.000
GR	737.900	528.000	730.400	528.000	736.000	740.000	742.000	1590.000	-0.000	-0.000
S2	1.200	1.200	2.700	-0.000	88.000	44.000	1095.000	1.180	719.300	719.300
X1	58.200	-0.000	-0.000	-0.000	12.000	12.000	12.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	737.900	738.880	-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	738.880	740.000	-0.000
PT	9.000	50.000	750.000	750.000	180.000	740.000	740.000	300.000	739.000	735.000
PT	400.000	739.440	730.400	400.000	724.950	737.400	528.000	740.000	737.900	528.000
PT	740.300	730.400	740.000	741.000	736.000	1590.000	742.000	742.000	-0.000	-0.000
PC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	58.100	-0.000	-0.000	-0.000	20.000	20.000	20.000	-0.000	-0.000	-0.000
PC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000

X1	58.000	17.000	200.000	313.000	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	740.000	740.000	-0.000
GR	747.720	100.000	747.900	200.000	729.400	200.000	728.000	210.000	722.800	220.000
GR	721.900	230.000	722.700	240.000	722.200	250.000	723.400	260.000	723.500	270.000
GR	720.600	280.000	722.400	290.000	724.400	300.000	728.400	310.000	729.300	313.000
GR	748.220	313.000	748.400	413.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SR	1.250	1.500	2.700	-0.000	87.000	6.000	1614.000	.840	722.500	722.500
X1	57.100	-0.000	-0.000	-0.000	28.000	28.000	28.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	738.591	747.720	-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	747.900	748.220	-0.000
RT	5.300	100.000	747.720	747.720	200.000	747.900	747.900	200.000	747.900	738.230
RT	313.000	748.220	738.590	313.000	748.220	748.220	413.000	748.400	748.400	-0.000
C	.000	.100	-0.000	.600	.800	-0.000	-0.000	-0.000	-0.000	-0.000
X1	57.000	33.000	600.000	820.000	290.000	200.000	200.000	-0.000	-0.000	-0.000
GR	745.000	50.000	740.000	62.000	732.000	130.000	730.300	363.000	728.500	377.000
GR	728.730	487.000	730.500	515.000	730.600	560.000	731.200	600.000	730.400	615.000
GR	730.400	620.000	729.100	630.000	729.600	640.000	729.200	650.000	728.400	660.000
GR	725.300	670.000	728.000	680.000	726.800	690.000	726.700	700.000	725.500	710.000
GR	725.600	720.000	725.100	730.000	725.500	740.000	725.700	750.000	725.700	760.000
GR	725.800	770.000	725.400	780.000	725.900	790.000	727.400	800.000	730.400	820.000
GR	732.600	820.000	740.500	920.000	744.900	930.000	-0.000	-0.000	-0.000	-0.000
C	.000	.100	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
X1	55.000	25.000	300.000	470.000	1930.000	2400.000	2400.000	-0.000	-0.000	-0.000
GR	750.000	140.000	739.000	140.000	737.800	300.000	730.600	325.000	729.600	330.000
GR	727.100	340.000	726.900	350.000	726.800	360.000	726.600	370.000	726.300	380.000
GR	725.300	390.000	725.900	400.000	726.000	410.000	726.300	420.000	725.600	430.000
GR	727.000	440.000	727.700	450.000	729.000	460.000	730.600	466.000	732.600	470.000
GR	734.100	525.000	742.000	545.000	742.000	555.000	742.000	627.000	750.000	640.000
C	.000	.300	-0.000	.300	.400	-0.000	-0.000	-0.000	-0.000	-0.000
RT	.300	7411.000	8485.000	11427.000	4978.000	-0.000	-0.000	-0.000	-0.000	-0.000
X1	55.000	24.000	300.000	550.000	1850.000	1850.000	1850.000	-0.000	-0.000	-0.000
GR	741.100	128.000	739.900	231.000	736.400	250.000	737.400	320.000	736.400	330.000
GR	734.900	400.000	730.000	410.000	726.300	420.000	728.300	430.000	726.100	440.000
GR	726.100	450.000	727.800	460.000	727.800	470.000	728.100	480.000	727.900	490.000
GR	729.000	500.000	728.100	510.000	728.200	520.000	729.100	530.000	730.900	531.000
GR	731.700	550.000	735.200	685.000	738.100	790.000	746.400	805.000	-0.000	-0.000
C	-0.000	-0.000	-0.000	.600	.900	-0.000	-0.000	-0.000	-0.000	-0.000
X1	54.000	21.000	300.000	400.000	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	742.000	742.000	-0.000
GR	743.500	0.000	746.000	0.000	736.500	200.000	735.000	280.000	725.400	300.000
GR	724.500	309.000	723.000	319.000	723.100	329.000	724.000	339.000	724.400	349.000
GR	725.600	357.000	725.600	359.000	725.300	369.000	726.900	379.000	727.000	389.000
GR	729.000	399.000	729.400	409.000	735.300	490.000	736.500	510.000	740.000	700.000
GR	746.900	900.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SR	1.250	1.500	2.700	-0.000	90.000	4.000	1424.000	.870	724.000	724.000
X1	53.200	-0.000	-0.000	-0.000	19.000	19.000	19.000	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	739.480	743.290	-0.000	-0.000	-0.000	.860	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	743.290	743.320	-0.000
RT	12.000	0.000	743.500	743.500	0.000	743.500	749.000	200.000	743.340	735.500
RT	250.000	743.290	735.000	300.000	743.290	725.400	300.000	743.290	739.430	349.000
RT	743.320	739.480	409.000	743.340	739.270	409.000	743.340	729.400	490.000	744.000
RT	735.000	700.000	746.500	740.000	700.000	746.500	746.500	-0.000	-0.000	-0.000
C	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	53.100	19.000	340.000	509.000	35.000	35.000	35.000	-0.000	-0.000	-0.000
X3	-0.000	-0.000	-0.000	355.000	-0.000	544.000	-0.000	-0.000	-0.000	-0.000
GR	742.000	50.000	740.000	250.000	735.000	350.000	730.000	390.000	725.400	402.000
GR	724.500	409.000	723.000	419.000	723.100	429.000	724.000	439.000	724.400	449.000
GR	725.600	457.000	725.600	459.000	725.300	469.000	725.900	479.000	727.000	489.000
GR	728.900	499.000	729.400	509.000	735.000	700.000	740.000	900.000	-0.000	-0.000

XC	-0.000	-0.000	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	53.300	22.000	300.000	407.000	35.000	35.000	35.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	745.000	745.000	-0.000
GT	749.160	40.000	742.000	40.000	740.000	150.000	737.500	200.000	735.000	250.000
GP	731.700	300.000	729.900	307.000	727.200	317.000	724.000	327.000	726.300	337.000
GS	727.300	342.000	729.200	347.000	729.700	357.000	729.400	367.000	727.900	377.000
GP	728.200	387.000	729.600	397.000	731.900	407.000	733.500	507.000	735.000	600.000
GT	740.000	800.000	750.000	800.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
SP	1.250	1.000	2.000	-0.000	87.000	5.000	1170.000	.930	727.000	727.000
X1	52.200	-0.000	-0.000	-0.000	28.610	24.500	28.500	-0.000	-0.000	-0.000
X2	-0.000	-0.000	1.000	739.400	749.160	-0.000	-0.000	-0.000	.650	-0.000
XC	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	749.320	749.560	-0.000
GT	12.000	40.000	749.160	749.160	150.000	749.160	740.000	200.000	749.160	737.500
GP	250.000	744.240	735.000	300.000	749.320	731.700	300.000	749.320	734.370	407.000
GS	749.560	739.400	407.000	749.560	731.900	507.000	749.650	733.500	600.000	745.650
GT	735.100	800.000	750.000	740.000	800.000	750.000	750.000	-0.000	-0.000	-0.000
XC	.650	.050	-0.000	.400	.600	-0.000	-0.000	-0.000	-0.000	-0.000
X1	52.100	-0.000	-0.000	-0.000	100.000	100.000	100.000	-0.000	-0.000	-0.000
XC	.050	.070	-0.000	.100	.300	-0.000	-0.000	-0.000	-0.000	-0.000
X1	54.000	25.000	300.000	524.000	300.000	300.000	340.000	-0.000	-0.000	-0.000
GP	754.300	100.000	752.900	145.000	736.600	281.000	737.300	300.000	729.200	300.000
GM	728.800	304.000	728.100	314.000	728.100	324.000	728.100	334.000	728.400	344.000
GS	728.500	354.000	729.000	344.000	729.600	374.000	729.800	384.000	728.800	394.000
GP	728.400	404.000	727.800	414.000	724.000	424.000	719.800	434.000	715.100	444.000
GS	715.000	454.000	719.900	464.000	725.200	474.000	727.900	484.000	729.000	494.000
GT	730.000	449.000	729.600	524.000	741.800	574.000	749.000	599.000	-0.000	-0.000
XC	.050	.070	-0.000	.200	.400	-0.000	-0.000	-0.000	-0.000	-0.000
X1	51.000	20.000	200.000	376.000	189.000	189.000	189.000	-0.000	-0.000	-0.000
X3	10.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	745.000	745.000	-0.000
GT	753.560	100.000	750.020	200.000	727.000	200.000	725.900	210.000	724.600	220.000
GP	724.600	230.000	727.400	240.000	727.500	250.000	727.500	260.000	727.400	270.000
GS	727.400	273.000	724.700	320.000	723.900	326.000	724.500	336.000	724.600	346.000
GM	724.700	356.000	724.500	366.000	729.400	376.000	746.000	476.000	750.000	510.000
SP	1.250	1.000	2.000	-0.000	176.000	51.000	2180.000	0.000	724.000	724.000
X1	50.100	-0.000	-0.000	-0.000	36.000	36.000	36.000	-0.000	-0.000	-0.000
X2	-0.020	-0.000	1.000	742.000	748.360	-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	748.360	748.360	-0.000
GT	8.000	100.000	753.560	753.560	200.000	750.020	743.000	273.000	746.040	742.500
GP	320.000	746.660	743.300	376.000	748.360	742.300	376.000	748.360	729.400	476.000
GT	750.000	746.000	510.000	750.000	750.000	-0.000	-0.000	-0.000	-0.000	-0.000
GJ	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000

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HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
MODIFICATIONS 52,53,54,55,56,57,58
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T1      PREPARED FOR CORPS OF ENGINEERS - DETROIT DISTRICT
T2      BY FINK-EINER PETTIS _ STROUT - USEC401 R2
T3      HURON RIVER AT SUPERIOR DAM - Q = 100 YEAR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
          -0.       3.        -0.       -0.  -0.000000    -0.00     -0.0      -0.   734.400    -0.000
J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
        2.000     -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000    -0.000
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100 yr
1100 ft above Superior

CCHV= .100 CEHV= .300

SECNO	DEPTH	C SEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOEL	XLCH	XLOER	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
64.10	17.40	734.40	0.00	734.40	734.58	.18	0.00	0.00	740.00
9587.	0.	9587.	0.	0.	2786.	0.	0.	0.	740.00
0.00	0.00	3.44	0.00	.040	.030	.050	0.000	717.00	0.00
.000134	0.	0.	0.	0	0	1	0.00	160.12	160.12

CCHV= .500 CEHV= .700

94.00	17.61	734.61	0.00	0.00	734.66	.06	.02	.06	737.10
9587.	0.	9569.	18.	0.	5045.	49.	18.	1.	732.40
.03	0.00	1.90	.36	.040	.030	.040	.030	717.00	201.86
.000056	200.	200.	200.	2	0	1	0.00	462.99	664.85

CCHV= .900 CEHV= .900

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 740.00 ELPEA= 740.00

84.00	19.01	734.61	0.00	0.00	734.87	.26	.04	.16	721.00
9587.	0.	9587.	0.	0.	2336.	0.	52.	4.	735.30
.06	0.00	4.10	0.00	.040	.030	.040	.030	715.60	600.00
.000210	400.	400.	400.	2	0	1	0.00	155.00	755.00

SPECIAL BRIDGE

SS	XK	XKOR	COFQ	HDLEN	H*C	SWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.70	-0.00	105.00	7.00	2335.00	1.43	717.00	717.00

CLASS A LOW FLOW

BRIDGE W.S.= 734.57 BRIDGE VELOCITY= 4.43

EGPRS	EGLOC	H3	QWEIR	QBR	BAREA	ELLC	ELTRD	CLASS
0.00	734.90	.03	0.	9587.	2335.	735.30	742.00	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 742.00 ELPEA= 742.00

62.10	19.04	734.64	0.00	0.00	734.90	.26	.03	0.00	721.00
9587.	0.	9587.	0.	0.	2340.	0.	54.	4.	735.30
.06	0.01	4.10	0.00	.040	.030	.040	.030	715.60	600.00
.000209	26.	26.	26.	0	0	1	0.00	155.00	755.00

CCHV= .900 CEHV= .900

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

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   62.00     14.80    735.00      0.00      0.00    735.05       .05       .03       .13    732.00
    9587.       19.     9564.        4.       47.     5398.       13.       85.        7.    731.10
      .11       .40      1.77       .31      .040      .030      .045      .030    720.20    272.98
 .000045      350.      350.      350.         2         0         1      0.00    468.48    741.45

CCHV=     .200 CEHV=     .400
   61.00     14.61    735.11      0.00      0.00    735.14       .03       .09       .00    732.20
    9587.        3.     9570.       13.       21.     6464.       52.      352.       34.    733.60
      .45       .16      1.48       .26      .080      .030      .050      .030    720.50    185.29
 .000045     1940.     1940.     1940.         2         0         1      0.00    737.01    922.30

CCHV=     .100 CEHV=     .300

3265 DIVIDED FLOW

   60.00     14.27    735.27      0.00      0.00    735.37       .10       .21       .02    731.10
    9587.       61.     9526.        0.      169.     3785.        0.      689.       74.    740.00
      .79       .36      2.52       .02      .080      .030      .100      .030    721.00    318.80
 .000143     2800.     2800.     2800.         2         0         1      0.00    511.24    851.21

3265 DIVIDED FLOW

   59.10     14.52    735.52      0.00      0.00    735.61       .09       .25       .00    731.10
    9587.       68.     9519.        0.      190.     3992.        1.      855.       95.    740.00
      .99       .35      2.45       .06      .060      .030      .100      .030    721.00    313.91
 .000130     1800.     1800.     1800.         2         0         1      0.00    519.05    853.00

CCHV=     .400 CEHV=     .600

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      738.00 ELOEA=      738.00

   59.00     16.44    735.44      0.00      0.00    736.06       .62       .03       .42    730.40
    9587.        0.     9587.        0.        0.     1515.        0.      862.       96.    730.40
     1.00      0.00      5.33      0.00      .070      .030      .070      .030    719.00    400.00
 .000693      100.      100.      100.         2         0         1      0.00    124.70    718.86

SPECIAL BRIDGE

SS  XK        XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
    1.25       1.50       2.70       -0.00      88.00      48.00    1095.00      1.18      719.30     719.30

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

CLASS A LOW FLOW

BRIDGE W.S.=     733.10  BRIDGE VELOCITY=     12.34

   EGPRS     EGLWC      H3        QWEIR      QPR       BAREA     ELLC      ELTRD     CLASS
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   0.00    737.62      1.70        0.     9587.     1095.    737.90    738.88      1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       738.88 ELREA=       740.00

   58.20    18.14   737.14     0.00     0.00   737.62      .48     1.55     0.00   730.40
   9587.       0.    9587.       0.       0.    1729.       0.     862.      96.   730.40
    1.00     0.00     5.55     0.00     .070     .030     .070     .030   719.00   400.00
 .000471      12.      12.      12.        0        0        1     0.00   126.98   526.98

CCHV=    .100 CEHV=     .300

3265 DIVIDED FLOW

   55.10    18.35   737.35     0.00     0.00   737.64      .29      .01      .02   730.40
   9587.     481.    4225.     881.     553.    1755.    1008.     863.      96.   730.40
    1.00      .87     4.69      .87     .070     .030     .070     .030   719.00   240.76
 .000315      20.      20.      20.        2        0        1     0.00   689.57   931.07

CCHV=    .100 CEHV=     .300

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       740.00 ELREA=       740.00

   56.00    16.32   737.12     0.00     0.00   737.75      .64      .01      .10   747.90
   9587.       0.    9587.       0.       0.    1495.       0.     865.      96.   748.22
    1.00     0.00     6.41     0.00     .070     .030     .070     .030   720.80   200.00
 .000656      20.      20.      20.        2        0        1     0.00   113.00   313.00

SPECIAL BRIDGE

SR   XF       XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.50      2.70     -0.00     67.00      6.00   1614.00      .84    722.50    722.50

CLASS A LOW FLOW

BRIDGE W.S.=     737.01  BRIDGE VELOCITY=      7.09

  EGPRS     EGLWC      HB       QWEIR     QPR       BAREA     ELLC      ELTRD     CLASS

   0.00    737.85      .11        0.     9587.     1614.    738.59    747.72      1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=       747.90 ELREA=       748.22

   57.10    16.42   737.22     0.00     0.00   737.85      .63      .10     0.00   747.90
   9587.       0.    9587.       0.       0.    1506.       0.     866.      96.   748.22
    1.00     0.00     6.36     0.00     .070     .030     .070     .030   720.80   200.00
 .000642      28.      28.      28.        0        0        1     0.00   113.00   313.00

CCHV=    .600 CEHV=     .800

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     XLOBP    ITRIAL   IDC      ICONT    CORAR    TOPWID   ENDST
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      57.00     12.15    738.15     0.00     0.00    738.23      .08      .05      .33    731.20
       9587.     3139.    6373.      79.     3439.    2352.     223.      888.      99.    732.00
        1.03       .82     2.70      .35      .080     .030      .100      .030   725.00     77.58
    .000127      240.     200.      200.        2        0         1     0.00   814.74    892.42

 CCHV=    .200 CEHV=    .400
      56.00     12.58    738.48     0.00     0.00    738.90      .42      .53      .14    737.80
       9587.       44.    9254.      289.      92.    1745.      301.     1102.      129.    732.80
        1.16       .47     5.30      .96      .050     .030      .100      .030   725.90    140.00
    .000523     1930.    2400.     2400.        2        0         1     0.00   396.08    536.08

 CCHV=    .200 CEHV=    .400
      55.00     11.70    739.50     0.00     0.00    739.70      .21      .76      .04    736.40
       8495.      450.    8766.     1206.      364.    1670.     1117.     1215.      149.    731.70
        1.31      1.24     4.05     1.13      .040     .030      .070      .030   727.80    233.14
    .000325     1650.    1650.     1650.        2        0         1     0.00   559.34    792.52

 CCHV=    .600 CEHV=    .800

 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=     742.00 ELREA=     742.00

      54.00     14.53    739.53     0.00     0.00    740.00      .47      .09      .21    725.40
       8495.        0.    8495.        0.       0.    1545.        0.     1229.      151.    729.40
        1.32      0.00     5.49     0.00      .040     .030      .070      .030   723.00    300.00
    .000396      250.     250.      250.        2        0         1     0.00   109.00    409.00

 SPECIAL EXIDGE

 SE  XE        XWOR      COFQ      PQLEN     HWC       BWP       BAREA      SS       ELCHD     ELCHD
       1.25      1.50      2.80     -0.00     90.00      4.00    1484.00      .47    724.00    724.00

 PRESSURE FLOW

    EGPRS     EGLRC       H3       QWEIR      QPR       BAREA     ELLC      ELTRD     CLASS
    740.30    740.04       .04         0.     8485.     1494.    739.48    743.29     10.00

 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=     743.29 ELREA=     743.32

      53.20     16.85    739.85     0.00     0.00    740.30      .45      .29     0.00    725.40
       8485.        0.    8485.        0.       0.    1579.        0.     1229.      151.    729.40
        1.32      0.00     5.37     0.00      .040     .030      .070      .030   723.00    300.00
    .000371       19.      19.       19.        2        0         1     0.00   109.00    409.00

 CCHV=    .100 CEHV=    .300
 3260 CROSS SECTION     53.10 EXTENDED      .07 FEET

    SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS   BANK ELEV
    2         QLOB      QCH       QROB      ALOB      ACH       AROB      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=     355.0     544.0  TYPE=     1  TARGET=     189.000
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53.10	17.07	740.07	0.00	0.00	740.32	.25	.01	.02	730.00	
8485.	590.	7377.	517.	276.	1727.	366.	1239.	151.	729.40	
1.32	2.14	4.27	1.45	.040	.030	.070	.030	723.00	355.00	
.000214	35.	35.	35.	2	0	1	0.00	149.00	544.00	

CCHV= .100 CEHV= .300

3301 HV CHANGED MORE THAN HVINS

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 745.00 ELREA= 745.00

53.00	15.73	738.73	0.00	0.00	740.49	.76	.01	.15	731.70
8485.	0.	8485.	0.	0.	1214.	0.	1232.	151.	731.90
1.32	0.00	6.99	0.00	.040	.030	.070	.030	724.00	300.00
.000681	35.	35.	35.	2	0	1	0.00	107.00	407.00

SPECIAL B ICCE

SK	XK	XKOR	CCFO	HOLEN	B/C	B/P	BAREA	SS	ELCHD	ELCHD
	1.25	1.50	2.90	-0.00	87.00	5.00	1170.00	.63	727.00	727.00

PRESSURE FLOW

ELPRS	EGLWC	HB	QWEIR	QBR	BAREA	ELLC	ELTRD	CLASS
740.00	740.00	.12	0.	8485.	1170.	739.40	749.16	10.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 749.32 ELREA= 749.56

52.60	16.26	740.26	0.00	0.00	740.95	.69	.47	0.00	731.70
8485.	0.	8485.	0.	0.	1271.	0.	1233.	151.	731.90
1.32	0.00	6.67	0.00	.040	.030	.070	.030	724.00	300.00
.000733	29.	29.	29.	2	0	1	0.00	107.00	407.00

CCHV= .200 CEHV= .600

3301 HV CHANGED MORE THAN HVINS

52.10	17.04	741.04	0.00	0.00	741.21	.16	.04	.21	731.70
8485.	1007.	5377.	2041.	770.	1355.	2176.	1239.	152.	731.90
1.33	1.39	3.97	.94	.050	.030	.080	.030	724.00	92.40
.000224	100.	100.	100.	2	0	1	0.00	707.60	800.00

CCHV= .100 CEHV= .300

52.00	26.05	741.15	0.00	0.00	741.26	.11	.05	.01	737.30
8485.	45.	8435.	5.	83.	3162.	27.	1273.	157.	729.60
1.37	.55	2.67	.17	.050	.030	.070	.030	716.10	260.85
.000043	390.	390.	390.	2	0	1	0.00	295.47	559.32

CCHV= .200 CEHV= .400

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	PL	QLOSS	BANK ELEV
0	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	VTN	ELMIN	SSTA
SLOPE	ALOBL	ALCH	ALOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	EPOST

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 745.00 ELREA= 745.00

51.00	17.25	741.15	0.00	0.00	741.30	.16	.02	.02	750.02
8485.	0.	8485.	0.	0.	2685.	0.	1286.	158.	729.40
1.39	0.00	3.16	0.00	.050	.030	.070	.030	723.90	200.00
.000121	189.	189.	189.	2	0	1	0.00	176.00	446.76

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BHP	BAREA	SS	ELCHU	ELCHD
	1.25	1.50	2.60	-0.00	176.00	51.00	2180.00	0.00	726.00	726.00

CLASS A LOW FLOW

BRIDGE L.S.= 740.96 BRIDGE VELOCITY= 4.54

EGPRS	EGLWC	HS	QWEIR	QPR	BAREA	ELLC	ELTRU	CLASS
0.00	741.42	.12	0.	8435.	2180.	743.00	748.36	1.00

OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 748.36 ELREA= 748.36

50.10	17.35	741.26	0.00	0.00	741.42	.15	.11	0.00	750.02
8485.	0.	8485.	0.	0.	2705.	0.	1288.	158.	729.40
1.39	0.00	3.14	0.00	.050	.030	.070	.030	723.90	200.00
.000118	36.	36.	36.	0	0	1	0.00	176.00	447.46

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

POMEROY RIVER AT SUPERIOR

SECTION NAME	CHANNEL LENGTH	MIN EL OF BOUNDARY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	ICRCS	TIME	VOL
64.10	0.00	0.00	0.00	717.00	8373.00	733.80	0.00	733.95	160.12	1.18	0.00	0.00
64.10	0.00	0.00	0.00	717.00	9587.00	734.40	0.00	734.58	160.12	1.39	0.00	0.00
64.10	0.00	0.00	0.00	717.00	12911.00	735.80	0.00	736.09	160.12	1.99	0.00	0.00
64.10	0.00	0.00	0.00	717.00	5624.00	732.30	0.00	732.38	160.12	.71	0.00	0.00
64.00	200.00	0.00	0.00	717.00	8373.00	733.97	0.00	734.02	459.10	.52	.03	17.20
64.00	200.00	0.00	0.00	717.00	9587.00	734.61	0.00	734.66	462.99	.56	.03	18.09
64.00	200.00	0.00	0.00	717.00	12911.00	736.13	0.00	736.21	472.25	.68	.02	20.24
64.00	200.00	0.00	0.00	717.00	5624.00	732.39	0.00	732.42	426.45	.39	.04	15.03
63.00	400.00	0.00	0.00	715.60	8373.00	733.97	0.00	734.19	155.00	1.83	.06	49.51
63.00	400.00	0.00	0.00	715.60	9587.00	734.61	0.00	734.87	155.00	2.10	.06	52.21
63.00	400.00	0.00	0.00	715.60	12911.00	736.12	0.00	736.51	155.00	2.82	.05	58.71
63.00	400.00	0.00	0.00	715.60	5624.00	732.40	0.00	732.52	155.00	1.19	.04	43.00
62.10	26.30	742.00	735.30	715.60	8372.00	733.99	0.00	734.21	155.00	1.83	.06	50.56
62.10	26.30	742.00	735.30	715.60	9587.00	734.64	0.00	734.90	155.00	2.09	.05	53.73
62.10	26.30	742.00	735.30	715.60	12911.00	736.45	0.00	736.83	155.00	2.64	.05	60.40
62.10	26.30	742.00	735.30	715.60	5624.00	732.41	0.00	732.53	155.00	1.19	.04	44.30
62.00	350.00	0.00	0.00	720.20	8373.00	734.30	0.00	734.34	442.62	.42	.12	80.57
62.00	350.00	0.00	0.00	720.20	9587.00	735.00	0.00	735.05	458.48	.45	.11	85.06
62.00	350.00	0.00	0.00	720.20	12911.00	736.99	0.00	737.05	484.97	.49	.10	96.65
62.00	350.00	0.00	0.00	720.20	5624.00	732.58	0.00	732.61	444.74	.32	.16	69.76
61.00	1940.00	0.00	0.00	720.50	8373.00	734.40	0.00	734.43	729.97	.45	.51	324.77
61.00	1940.00	0.00	0.00	720.50	9587.00	735.11	0.00	735.14	737.01	.45	.48	352.15
61.00	1940.00	0.00	0.00	720.50	12911.00	737.10	0.00	737.14	745.03	.43	.43	418.44
61.00	1940.00	0.00	0.00	720.50	5624.00	732.66	0.00	732.68	691.19	.42	.62	273.24
60.00	2800.00	0.00	0.00	721.00	8373.00	734.56	0.00	734.65	494.73	1.44	.83	637.60
60.00	2800.00	0.00	0.00	721.00	9587.00	735.27	0.00	735.37	511.24	1.43	.79	684.34
60.00	2800.00	0.00	0.00	721.00	12911.00	737.25	0.00	737.36	572.37	1.32	.71	836.46
60.00	2800.00	0.00	0.00	721.00	5624.00	732.63	0.00	732.69	454.45	1.44	1.09	516.17
59.10	1800.00	0.00	0.00	721.00	8373.00	734.82	0.00	734.90	500.00	1.30	1.05	795.09
59.10	1800.00	0.00	0.00	721.00	9587.00	735.52	0.00	735.61	519.05	1.30	.99	855.41
59.10	1800.00	0.00	0.00	721.00	12911.00	737.48	0.00	737.59	579.86	1.22	.90	1045.76
59.10	1800.00	0.00	0.00	721.00	5624.00	733.07	0.00	733.13	463.63	1.27	1.25	633.92
59.00	100.00	0.00	0.00	719.00	8373.00	734.75	0.00	735.28	123.77	6.29	1.06	795.01
59.00	100.00	0.00	0.00	719.00	9587.00	735.44	0.00	736.06	124.70	6.93	1.00	861.63
59.00	100.00	0.00	0.00	719.00	12911.00	737.36	0.00	738.20	127.27	8.15	.90	1054.72
59.00	100.00	0.00	0.00	719.00	5624.00	733.04	0.00	733.37	121.47	4.55	1.25	637.73
58.20	12.00	738.88	737.90	719.00	8373.00	735.18	0.00	736.60	125.69	4.44	1.06	795.42
58.20	12.10	738.88	737.90	719.00	9587.00	737.14	0.00	737.62	126.98	4.71	1.00	862.24
58.20	12.00	738.88	737.90	719.00	12911.00	741.71	0.00	740.17	341.34	3.89	.90	1057.39
58.20	12.00	738.88	737.90	719.00	5624.00	733.68	0.00	734.16	122.59	3.58	1.26	638.08

SECTION NO-ES	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRWS	EG	TOPWID	10K*S	TIME	VOL
58.10	20.00	0.00	0.00	719.00	8373.00	736.32	0.00	736.62	519.06	3.36	1.06	796.41
58.10	20.00	0.00	0.00	719.00	9587.00	737.35	0.00	737.64	689.57	3.19	1.00	863.44
58.10	20.00	0.00	0.00	719.00	12911.00	739.95	0.00	740.20	1118.21	2.50	.91	1059.39
58.10	20.00	0.00	0.00	719.00	5624.00	733.42	0.00	734.17	335.44	3.23	1.26	636.78
58.00	20.00	0.00	0.00	720.80	8373.00	736.14	0.00	736.71	113.00	6.35	1.06	797.35
58.00	20.00	0.00	0.00	720.20	9587.00	737.12	0.00	737.75	113.00	6.58	1.00	864.54
58.00	20.00	0.00	0.00	720.80	12911.00	739.65	0.00	740.38	113.00	7.12	.91	1061.09
58.00	20.00	0.00	0.00	720.80	5624.00	733.63	0.00	734.22	113.00	5.48	1.26	639.43
57.10	20.00	747.72	738.59	720.80	8373.00	736.23	0.00	736.79	113.00	6.20	1.06	794.24
57.10	20.00	747.72	738.59	720.80	9587.00	737.22	0.00	737.85	113.00	6.42	1.00	865.51
57.10	20.00	747.72	738.59	720.80	12911.00	740.29	0.00	741.04	113.00	6.20	.91	1052.26
57.10	20.00	747.72	738.59	720.80	5624.00	733.89	0.00	734.27	113.00	5.38	1.26	640.15
57.00	200.00	0.00	0.00	725.00	8373.00	737.06	0.00	737.14	792.53	1.46	1.09	817.55
57.00	200.00	0.00	0.00	725.00	9587.00	738.15	0.00	738.23	814.74	1.27	1.03	887.66
57.00	200.00	0.00	0.00	725.00	12911.00	741.42	0.00	741.49	862.24	.94	.94	1093.37
57.00	200.00	0.00	0.00	725.00	5624.00	734.44	0.00	734.52	739.39	2.25	1.24	652.68
56.00	2400.00	0.00	0.00	725.90	8373.00	737.46	0.00	737.87	232.33	5.71	1.21	1002.40
56.00	2400.00	0.00	0.00	725.90	9587.00	738.48	0.00	738.90	396.08	5.23	1.16	1102.35
56.00	2400.00	0.00	0.00	725.90	12911.00	741.59	0.00	741.96	403.47	3.40	1.07	1405.27
56.00	2400.00	0.00	0.00	725.90	5624.00	735.11	0.00	735.45	218.23	6.38	1.43	774.92
55.00	1450.00	0.00	0.00	727.80	7411.00	738.55	0.00	738.77	552.49	3.43	1.36	1096.50
55.00	1450.00	0.00	0.00	727.80	8465.00	739.53	0.00	739.70	554.34	3.25	1.30	1214.46
55.00	1450.00	0.00	0.00	727.80	11427.00	742.32	0.00	742.47	559.62	1.94	1.25	1582.70
55.00	1450.00	0.00	0.00	727.80	4978.00	736.33	0.00	736.56	346.91	5.41	1.56	834.92
54.00	250.00	0.00	0.00	723.00	7411.00	738.41	0.00	738.82	109.00	3.77	1.37	1106.17
54.00	250.00	0.00	0.00	723.00	8465.00	739.53	0.00	740.00	109.00	3.58	1.32	1225.14
54.00	250.00	0.00	0.00	723.00	11427.00	742.36	0.00	742.52	772.50	1.47	1.27	1612.31
54.00	250.00	0.00	0.00	723.00	4978.00	736.42	0.00	736.69	109.00	3.04	1.58	842.71
53.20	14.00	743.29	739.48	723.00	7411.00	738.65	0.00	738.85	109.00	3.74	1.37	1106.81
53.20	14.00	743.29	739.48	723.00	8465.00	739.65	0.00	740.30	109.00	3.71	1.32	1225.82
53.20	14.00	743.29	739.48	723.00	11427.00	743.57	0.00	743.64	603.99	1.01	1.27	1614.66
53.20	14.00	743.29	739.48	723.00	4978.00	736.44	0.00	736.71	109.00	3.02	1.58	843.24
53.10	35.00	0.00	0.00	723.00	7411.00	738.84	0.00	739.08	189.00	2.25	1.37	1119.24
53.10	35.00	0.00	0.00	723.00	8465.00	740.07	0.00	740.32	189.00	2.14	1.32	1238.40
53.10	35.00	0.00	0.00	723.00	11427.00	743.46	0.00	743.75	189.00	1.82	1.28	1618.61
53.10	35.00	0.00	0.00	723.00	4978.00	736.56	0.00	736.73	189.00	2.02	1.58	844.40
53.00	35.00	0.00	0.00	724.00	7411.00	738.51	0.00	739.24	107.00	9.37	1.38	1111.53
53.00	35.00	0.00	0.00	724.00	8465.00	739.73	0.00	740.49	107.00	8.51	1.32	1231.84
53.00	35.00	0.00	0.00	724.00	11427.00	743.10	0.00	743.92	107.00	6.71	1.28	1620.45
53.00	35.00	0.00	0.00	724.00	4978.00	736.31	0.00	736.85	107.00	9.38	1.58	845.43

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	CRIWS	EG	TOPWID	10K*S	TIME	VOL
52.20	26.50	749.16	739.40	724.00	7411.00	738.63	0.00	739.34	107.00	9.02	1.35	1112.24
52.20	26.50	749.16	739.40	724.00	8485.00	740.26	0.00	740.96	107.00	7.33	1.32	1232.65
52.20	26.50	749.16	739.40	724.00	11427.00	744.65	0.00	745.32	107.00	4.89	1.28	1621.54
52.20	26.50	749.16	739.40	724.00	4978.00	736.40	0.00	736.92	107.00	9.06	1.59	845.98
52.10	100.00	0.00	0.00	724.00	7411.00	739.38	0.00	739.59	612.95	3.31	1.38	1117.16
52.10	100.00	0.00	0.00	724.00	8485.00	741.04	0.00	741.21	707.50	2.24	1.33	1239.04
52.10	100.00	0.00	0.00	724.00	11427.00	745.44	0.00	745.57	740.00	.45	1.25	1632.32
52.10	100.00	0.00	0.00	724.00	4978.00	736.64	0.00	737.10	460.62	4.86	1.59	849.08
52.00	390.00	0.00	0.00	715.10	7411.00	739.56	0.00	739.67	249.36	1.06	1.43	1144.21
52.00	390.00	0.00	0.00	715.10	8485.00	741.15	0.00	741.26	645.47	.93	1.37	1272.45
52.00	390.00	0.00	0.00	715.10	11427.00	745.50	0.00	745.61	352.19	.65	1.33	1667.62
52.00	390.00	0.00	0.00	715.10	4978.00	737.11	0.00	737.18	216.94	.94	1.64	867.45
51.00	149.00	0.00	0.00	723.90	7411.00	739.56	0.00	739.71	176.00	1.31	1.44	1155.59
51.00	149.00	0.00	0.00	723.90	8485.00	741.15	0.00	741.30	176.00	1.21	1.39	1284.87
51.00	149.00	0.00	0.00	723.90	11427.00	745.49	0.00	745.64	272.95	.88	1.25	1707.00
51.00	149.00	0.00	0.00	723.90	4978.00	737.12	0.00	737.21	176.00	1.12	1.66	878.65
50.10	36.00	748.36	743.00	723.90	7411.00	739.67	0.00	739.82	176.00	1.28	1.45	1157.59
50.10	36.00	748.36	743.00	723.90	8485.00	741.26	0.00	741.42	176.00	1.16	1.39	1288.19
50.10	36.00	748.36	743.00	723.90	11427.00	745.87	0.00	746.13	176.00	.91	1.35	1710.20
50.10	36.00	748.36	743.00	723.90	4978.00	737.19	0.00	737.28	176.00	1.10	1.67	878.28

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH C	CWSEL DIFF EACH SECTION	CWSEL-WSELK	TOPWID	VEL DIFF	CONVEY
64.100	8373.000	733.600	0.000	0.000	0.000	160.120	0.000	0.000
64.100	9587.000	734.400	.800	0.000	0.000	160.120	0.000	0.000
64.100	12911.000	735.800	1.400	0.000	0.000	160.120	0.000	0.000
64.100	5624.000	732.300	-3.500	0.000	0.000	160.120	0.000	0.000
64.000	8373.000	733.969	0.000	.369	0.000	457.099	0.000	200.000
64.000	9587.000	734.609	.640	.209	0.000	442.949	-3.490	200.000
64.000	12911.000	736.132	1.523	.332	0.000	472.251	-13.152	200.000
64.000	5624.000	732.389	-3.743	.089	0.000	426.457	32.642	200.000
63.000	8373.000	733.970	0.000	.001	0.000	155.000	0.000	400.000
63.000	9587.000	734.607	.636	-.002	0.000	155.000	0.000	400.000
63.000	12911.000	736.119	1.512	-.014	0.000	155.000	0.000	400.000
63.000	5624.000	732.395	-3.724	.006	0.000	155.000	0.000	400.000
62.100	8373.000	733.993	0.000	.023	0.000	155.000	0.000	25.300
62.100	9587.000	734.635	.642	.028	0.000	155.000	0.000	25.300
62.100	12911.000	736.454	1.819	.306	0.000	155.000	0.000	25.300
62.100	5624.000	732.408	-4.046	.012	0.000	155.000	0.000	25.300
62.000	8373.000	734.300	0.000	.307	0.000	462.624	0.000	350.000
62.000	9587.000	735.004	.703	.369	0.000	488.477	-5.852	350.000
62.000	12911.000	736.986	1.983	.532	0.000	484.973	-22.349	350.000
62.000	5624.000	732.583	-4.403	.175	0.000	444.740	17.884	350.000
61.000	8373.000	734.398	0.000	.097	0.000	729.977	0.000	1940.000
61.000	9587.000	735.108	.711	.105	0.000	737.012	-4.036	1940.000
61.000	12911.000	737.103	1.995	.117	0.000	745.030	-56.056	1940.000
61.000	5624.000	732.659	-4.444	.076	0.000	681.195	47.780	1940.000
60.000	8373.000	734.563	0.000	.166	0.000	454.732	0.000	2800.000
60.000	9587.000	735.271	.707	.162	0.000	511.241	-16.509	2800.000

[illegible]	12411.000	737.246	1.975	.142	0.000	572.370	-77.636	2800.000	
[illegible]	5624.000	732.826	-4.420	.167	0.000	458.448	36.344	2800.000	
59.100	8373.000	734.815	0.000	.252	0.000	499.995	0.000	1800.000	
59.100	9587.000	735.522	.707	.251	0.000	519.049	-19.054	1800.000	
59.100	12911.000	737.480	1.958	.235	0.000	579.859	-79.864	1800.000	
59.100	5624.000	733.074	-4.406	.248	0.000	463.627	36.368	1800.000	
59.000	8373.000	734.750	0.000	-.065	0.000	123.768	0.000	100.000	
59.000	9587.000	735.441	.692	-.081	0.000	124.697	-.929	100.000	
59.000	12911.000	737.360	1.919	-.120	0.000	127.275	-3.506	100.000	
59.000	5624.000	733.042	-4.318	-.032	0.000	121.474	2.296	100.000	
58.200	8373.000	736.178	0.000	1.426	0.000	125.647	0.000	12.000	
58.200	9587.000	737.139	.961	1.498	0.000	126.978	-1.241	12.000	
58.200	12911.000	739.710	2.571	2.350	0.000	341.340	-215.653	12.000	
58.200	5624.000	733.576	-5.933	.935	0.000	122.595	3.042	12.000	
58.100	8373.000	736.321	0.000	.143	0.000	519.063	0.000	20.000	
58.100	9587.000	737.345	1.027	.209	0.000	649.566	-170.502	20.000	
58.100	12911.000	739.948	2.600	.239	0.000	1118.210	-599.147	20.000	
58.100	5624.000	733.918	-5.870	.042	0.000	338.443	182.621	20.000	
58.000	8373.000	736.141	0.000	-.130	0.000	113.000	0.000	20.000	
58.000	9587.000	737.116	.975	-.232	0.000	113.000	0.000	20.000	
58.000	12911.000	739.554	2.438	-.394	0.000	113.000	0.000	20.000	
58.000	5624.000	733.829	-5.726	-.090	0.000	113.000	0.000	20.000	
57.100	8373.000	736.234	0.000	.093	0.000	113.000	0.000	28.000	
57.100	9587.000	737.221	.987	.195	0.000	113.000	0.000	28.000	
57.100	12911.000	740.291	3.070	.737	0.000	113.000	0.000	28.000	
57.100	5624.000	733.489	-6.803	.040	0.000	113.000	0.000	28.000	
57.000	8373.000	737.054	0.000	1.824	0.000	742.526	0.000	200.000	
57.000	9587.000	738.154	1.098	.933	0.000	814.740	-22.214	200.000	
57.000	12911.000	741.423	3.268	1.131	0.000	862.235	-69.709	200.000	
57.000	5624.000	734.435	-6.967	.547	0.000	739.387	53.139	200.000	
56.000	8373.000	737.440	0.000	.402	0.000	232.334	0.000	2400.000	
56.000	9587.000	738.477	1.037	.323	0.000	346.084	-143.750	2400.000	
56.000	12911.000	741.590	3.113	.154	0.000	403.665	-171.532	2400.000	
56.000	5624.000	735.112	-6.478	.677	0.000	218.231	14.102	2400.000	
55.000	7411.000	738.550	0.000	1.090	0.000	562.486	0.000	1850.000	
55.000	8485.000	739.497	.947	1.019	0.000	569.335	-6.850	1850.000	
55.000	11427.000	742.316	2.819	.725	0.000	659.619	-117.133	1850.000	
55.000	4978.000	736.328	-5.988	1.216	0.000	344.910	207.576	1850.000	
54.000	7411.000	738.605	0.000	.055	0.000	109.000	0.000	250.000	
54.000	8485.000	739.534	.928	.038	0.000	109.000	0.000	250.000	
54.000	11427.000	742.356	2.822	.040	0.000	772.501	-663.501	250.000	
54.000	4978.000	736.422	-5.935	.044	0.000	109.000	0.000	250.000	
53.200	7411.000	738.645	0.000	.035	0.000	109.000	0.000	19.000	
53.200	8485.000	739.647	1.001	.313	0.000	109.000	0.000	19.000	
53.200	11427.000	743.575	3.927	1.215	0.000	809.990	-700.990	19.000	
53.200	4978.000	736.445	-7.130	.023	0.000	109.000	0.000	19.000	
53.100	7411.000	738.841	0.000	.195	0.000	186.999	0.000	35.000	
53.100	8485.000	740.072	1.231	.274	0.000	186.999	.000	35.000	
53.100	11427.000	743.465	3.393	1.110	0.000	186.999	.000	35.000	
53.100	4978.000	736.556	-6.908	.112	0.000	186.999	.000	35.000	
53.000	7411.000	738.514	0.000	-.327	0.000	107.000	0.000	35.000	
53.000	8485.000	739.731	1.217	-.340	0.000	107.000	0.000	35.000	
53.000	11427.000	743.100	3.369	-.365	0.000	107.000	0.000	35.000	

[illegible]	4976.000	736.314	-6.786	-.242	0.000	107.000	0.000	35.000
52.200	7411.000	736.635	0.000	.121	0.000	107.000	0.000	28.500
52.200	8485.000	740.265	1.630	.533	0.000	107.000	0.000	28.500
52.200	11427.000	744.653	4.348	1.563	0.000	107.000	0.000	28.500
52.200	4976.000	736.401	-6.282	.087	0.000	107.000	0.000	28.500
52.100	7411.000	739.377	0.000	.742	0.000	612.951	0.000	100.000
52.100	8485.000	741.043	1.666	.779	0.000	707.601	-94.650	100.000
52.100	11427.000	745.486	4.443	.893	0.000	760.000	-147.049	100.000
52.100	4976.000	736.841	-6.645	.440	0.000	460.615	152.332	100.000
52.000	7411.000	739.563	0.000	.186	0.000	249.362	0.000	390.000
52.000	8485.000	741.154	1.591	.111	0.000	296.467	-46.196	390.000
52.000	11427.000	745.502	4.348	.015	0.000	352.186	-102.724	390.000
52.000	4976.000	737.110	-6.392	.256	0.000	216.940	32.421	390.000
51.900	7411.000	739.562	0.000	-.001	0.000	176.000	0.000	189.000
51.900	8485.000	741.147	1.585	-.007	0.000	176.000	0.000	189.000
51.900	11427.000	745.494	4.347	-.008	0.000	272.952	-96.952	189.000
51.900	4976.000	737.115	-6.379	.005	0.000	176.000	0.000	189.000
50.100	7411.000	739.672	0.000	.111	0.000	176.000	0.000	36.000
50.100	8485.000	741.262	1.590	.115	0.000	176.000	0.000	36.000
50.100	11427.000	745.972	4.709	.478	0.000	176.000	0.000	36.000
50.100	4976.000	737.167	-6.785	.072	0.000	176.000	0.000	36.000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE E.C	TARGET	TOP WIDTH AREA-ACRES	TOP WIDTH AREA-DIFF
1	0.000	0.000	147.105	0.000
2	0.000	0.000	157.941	10.736
3	0.000	0.000	173.572	26.467
4	0.000	0.000	132.761	-14.344

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: City & Twp of Ypsilanti

3) WATERCOURSE: Paint Creek

4) DOCUMENT TYPE: FIS

00BREAK00

THIS RUN EXECUTED 28 MAR 79 10.10.01

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
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PAINT CREEK #1
CROSS SECTIONAL PLOTS
FROM RETENTION POND TO I-94.

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C
T1      YPSILANTI TOWNSHIP  FIS
T2      PAINT CREEK
T3      100 YR  FLOW

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
       -0.       4.        -0.        -0. -0.               -0.        -0.        -0.     741.800     -0.

J2  NPROF      IPLOT      PRFVS      XSECV      XSECH      FN         ALLDC      IBW        CHNIM      ITRACE
    -1.000     1.000     -1.000      -0.        -0.        -0.        -0.        -0.        -0.        -0.

NC      .040       .040       .040       .300       .500       -0.        -0.        -0.        -0.        -0.
QT     4.000    469.000    589.000    643.000   1269.000       -0.        -0.        -0.        -0.        -0.

                V/S END OF RETENTION POND (OPHM 0+80)

X1  27149.000      8.000    265.000    335.000    961.000    961.000    961.000      -0.        -0.        -0.
X3         -0.      -0.        -0.    265.000    742.000    335.000    742.000      -0.        -0.        -0.
GR     740.200     65.000    741.500    165.000    742.000    265.000    733.100    294.000    733.100    306.000
GR     742.100    335.000    742.300    435.000    740.700    535.000      -0.        -0.        -0.        -0.

                70FT U/S END OF RETENTION POND (OPHM 1+50)

X1  27219.000      8.000    265.000    335.000     70.000     70.000     70.000      -0.        -0.        -0.
X3         -0.      -0.        -0.    265.000    742.500    335.000    742.500      -0.        -0.        -0.
GR     741.700     65.000    742.600    165.000    742.500    265.000    732.500    293.000    732.500    307.000
GR     743.000    335.000    742.700    435.000    740.400    535.000      -0.        -0.        -0.        -0.

                50FT D/S MULTIPLATE CULVERT (R OPHM 3+50)

X1  27375.000      8.000    270.000    330.000    156.000    156.000    156.000      -0.        -0.        -0.
X3         -0.      -0.        -0.    279.800    742.500    320.300    742.500      -0.        -0.        -0.
GR     743.100     70.000    742.900    170.000    742.600    270.000    732.700    293.000    732.700    307.000
GR     743.200    330.000    742.400    430.000    742.700    530.000      -0.        -0.        -0.        -0.

                12FT D/S MULTIPLATE CULVERT (R OPHM 3+50)

X1  27413.000      8.000    270.000    330.000     38.000     38.000     38.000      -0.        -0.        -0.
X3         -0.      -0.        -0.    249.200    742.500    310.700    742.500      -0.        -0.        -0.
GR     743.100     70.000    742.900    170.000    742.600    270.000    732.800    293.000    732.800    307.000
GR     743.200    330.000    742.400    430.000    742.700    530.000      -0.        -0.        -0.        -0.

                9FT D/S MULTIPLATE CULVERT (R OPHM 3+50)

X1  27416.000       -0.        -0.        -0.       3.000      3.000      3.000      -0.        -0.        -0.
X3         -0.      -0.        -0.    290.000    742.500    310.000    742.500       0         -0.        -0.
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6FT D/S MULTIPLATE CULVERT (OPHM 3+50)

X1	27419.000	-0.	-0.	-0.	3.000	3.000	3.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	290.800	742.500	309.300	742.500	-0.	-0.	-0.

2FT D/S MULTIPLATE CMP CULVERT (R OPHM 3+50)

X1	27423.000	-0.	-0.	-0.	4.000	4.000	4.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	292.000	742.500	308.000	742.500	-0.	-0.	-0.
NC	.040	.040	.031	-0.	-0.	-0.	-0.	-0.	-0.	-0.

1FT D/S MULTIPLATE CMP CULVERT (R COE VS-19A)

X1	27424.000	27.000	232.500	248.000	1.000	1.000	1.000	-0.	-0.	-0.
X3	10.000	-0.	-0.	-0.	-0.	-0.	-0.	742.600	742.600	-0.
GR	742.800	0.	742.400	50.000	742.300	100.000	742.100	150.000	742.600	200.000
GR	742.600	232.500	735.500	232.500	734.400	233.000	733.800	234.000	733.500	235.000
GR	733.300	236.000	733.200	236.500	732.900	238.000	732.800	239.500	732.800	240.000
GR	732.800	241.000	732.900	242.500	733.200	244.000	733.600	245.500	733.800	246.500
GR	734.400	247.500	735.500	248.000	742.700	248.000	742.700	250.000	742.700	300.000
GR	742.600	350.000	742.300	400.000	-0.	-0.	-0.	-0.	-0.	-0.

D/S FACE 9 3 X15 4 MULTIPLATE CMP CULVERT (COE VS19A)

X1	27425.000	-0.	-0.	-0.	1.000	1.000	1.000	-0.	-0.	-0.
BT	25.000	0.	742.800	-0.	50.000	742.400	-0.	100.000	742.300	-0.
BT	150.000	742.100	-0.	200.000	742.600	-0.	232.500	742.700	0.	232.500
BT	742.700	735.500	233.000	742.700	737.000	234.000	742.700	738.800	235.000	742.700
BT	739.900	236.500	742.700	741.000	238.000	742.700	741.700	239.500	742.700	742.000
BT	241.000	742.700	742.000	242.500	742.700	741.700	244.000	742.700	741.000	245.500
BT	742.700	739.900	246.500	742.700	738.800	247.500	742.700	737.000	248.000	742.700
BT	735.500	248.000	742.700	0.	250.000	742.700	0.	300.000	742.700	-0.
BT	350.000	742.600	0.	400.000	742.300	-0.	-0.	-0.	-0.	-0.

U/S FACE 9 3 X15 4 MULTIPLATE CMP CULVERT (R COE VS19A)

X1	27455.000	-0.	-0.	-0.	30.000	30.000	30.000	-0.	-0.	-0.
X2	-0.	-0.	-0.	-0.	-0.	-0.	1.000	-0.	-0.	-0.
NC	.040	.040	.040	-0.	-0.	-0.	-0.	-0.	-0.	-0.

1FT U/S MULTIPLATE CMP CULVERT (R COE VS-19A)

X1	27456.000	-0.	-0.	-0.	1.000	1.000	1.000	-0.	-0.	-0.
X3	10.000	-0.	-0.	-0.	-0.	-0.	-0.	742.600	742.600	-0.

2FT U/S MULTIPLATE CULVERT (R OPHM 3+92)

X1	27457.000	8.000	270.000	330.000	1.000	1.000	1.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	290.300	743.200	309.800	743.200	-0.	-0.	-0.
GR	743.500	70.000	742.600	170.000	742.300	270.000	732.800	293.000	732.800	307.000
GR	743.200	330.000	742.500	430.000	743.200	530.000	-0.	-0.	-0.	-0.

5FT U/S MULTIPLATE CULVERT (R OPHM 3+92)

X1	27458.000	8.000	270.000	330.000	3.000	3.000	3.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	287.300	743.200	312.800	743.200	-0.	-0.	-0.
GR	743.500	70.000	742.600	170.000	742.300	270.000	733.000	293.000	733.000	307.000

GR	743.200	330.000	742.500	430.000	743.200	530.000	-0.	-0.	-0.	-0.

8FT U/S MULTIPLATE CULVERT (OPHM 3+92)

X1	27461.000	8.000	270.000	330.000	3.000	3.000	3.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	284.300	743.200	315.800	743.200	-0.	-0.	-0.
GR	743.500	70.000	742.600	170.000	742.300	270.000	733.200	293.000	733.200	307.000
GR	743.200	330.000	742.500	430.000	743.200	530.000	-0.	-0.	-0.	-0.
NC	.040	.040	.060	-0.	-0.	-0.	-0.	-0.	-0.	-0.

14FT U/S MULTIPLATE CULVERT (R OPHM 3+92)

X1	27467.000	8.000	270.000	330.000	6.000	6.000	6.000	-0.	.100	-0.
X3	-0.	-0.	-0.	278.300	743.200	321.800	743.200	-0.	-0.	-0.
GR	743.500	70.000	742.600	170.000	742.300	270.000	733.300	293.000	733.300	307.000
GR	743.200	330.000	742.500	430.000	743.200	530.000	-0.	-0.	-0.	-0.

20FT U/S MULTIPLATE CULVERT (R OPHM 3+92)

X1	27473.000	8.000	270.000	330.000	6.000	6.000	6.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	272.300	743.200	327.800	743.200	-0.	-0.	-0.
GR	743.500	70.000	742.600	170.000	742.300	270.000	733.500	293.000	733.500	307.000
GR	743.200	330.000	742.500	430.000	743.200	530.000	-0.	-0.	-0.	-0.

36FT U/S MULTIPLATE CULVERT (OPHM 4+22)

X1	27489.000	10.000	270.000	330.000	16.000	16.000	16.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	256.000	743.500	344.000	743.500	-0.	-0.	-0.
GR	745.800	0.	743.600	70.000	743.100	170.000	742.000	270.000	733.600	293.000
GR	733.600	307.000	743.000	330.000	742.500	430.000	742.900	530.000	750.000	600.000
NC	.040	.040	.080	-0.	-0.	-0.	-0.	-0.	-0.	-0.

364FT U/S MULTIPLATE CULVERT (OPHM 7+50)

X1	27819.000	10.000	293.000	307.000	310.000	340.000	328.000	-0.	-0.	-0.
GR	750.000	43.000	747.100	93.000	744.900	193.000	739.800	293.000	733.900	296.000
GR	733.900	304.000	738.300	307.000	742.100	407.000	746.000	507.000	750.000	530.000

879FT U/S MULTIPLATE CULVERT (OPHM 12+50)

X1	28319.000	10.000	292.000	308.000	500.000	500.000	500.000	-0.	-0.	-0.
GR	750.000	42.000	744.700	92.000	744.100	192.000	739.600	292.000	736.700	295.000
GR	736.700	305.000	741.700	308.000	742.800	408.000	744.600	508.000	750.000	733.000

50 FT D/S 5FT DIA CMP (R OPHM 15+40)

X1	28559.000	10.000	370.000	390.000	240.000	240.000	240.000	-0.	-0.	-0.
GR	750.000	0.	743.500	170.000	742.800	270.000	741.300	370.000	738.500	376.000
GR	738.500	384.000	741.700	390.000	743.700	490.000	744.900	590.000	750.000	630.000
NC	.030	.030	.040	-0.	-0.	-0.	-0.	-0.	-0.	-0.

1FT D/S 5FT DIA CMP (R OPHM 15+40)

X1	28608.000	17.000	377.500	382.500	49.000	49.000	49.000	-0.	-0.	-0.
X3	10.000	-0.	-0.	-0.	-0.	-0.	-0.	741.700	741.700	-0.
GR	750.000	0.	743.500	170.000	742.800	270.000	741.300	370.000	741.300	377.500
GR	740.600	377.500	739.600	378.000	739.000	379.000	738.800	380.000	739.000	381.000
GR	739.600	382.000	740.600	382.500	741.300	382.500	741.700	390.000	743.700	90.000

GR	744.900	590.000	750.000	630.000	-0.	-0.	-0.	-0.	-0.	-0.
NC	.030	.030	.024	-0.	-0.	-0.	-0.	-0.	-0.	-0.

D/S FACE FARM LANE 5FT DIA CMP (OPHM 15+40)

X1	28609.000	-0.	-0.	-0.	1.000	1.000	1.000	-0.	-0.	-0.
BT	15.000	0.	750.000	0.	170.000	743.500	0.	270.000	742.800	0.
BT	370.000	741.300	0.	377.500	743.100	741.300	378.000	743.500	743.000	379.000
BT	743.600	743.600	380.000	743.800	743.800	381.000	743.600	743.600	382.000	743.500
BT	743.000	382.500	743.100	742.000	390.000	741.700	0.	490.000	743.700	0.
BT	590.000	744.900	0.	630.000	750.000	0.	-0.	-0.	-0.	-0.

U/S FACE FARM LANE 5FT DIA CMP (R OPHM 15+40)

X1	28627.000	-0.	-0.	-0.	18.000	18.000	18.000	-0.	-0.	-0.
X2	-0.	-0.	-0.	-0.	-0.	-0.	1.000	-0.	-0.	-0.
NC	.030	.030	.040	-0.	-0.	-0.	-0.	-0.	-0.	-0.

1FT U/S 5FT DIA CMP (R OPHM 15+40)

X1	28628.000	-0.	-0.	-0.	1.000	1.000	1.000	-0.	-0.	-0.
NC	.040	.040	.080	-0.	-0.	-0.	-0.	-0.	-0.	-0.

50FT U/S 5FT DIA CMP (R OPHM 15+40)

X1	28677.000	10.000	370.000	390.000	50.000	50.000	50.000	-0.	-0.	-0.
GR	750.000	0.	743.500	170.000	742.800	270.000	741.300	370.000	738.900	376.000
GR	738.900	384.000	741.700	390.000	743.700	490.000	744.900	590.000	750.000	630.000

191FT U/S 5FT DIA CMP (OPHM 17+50)

X1	28819.000	11.000	400.000	416.000	180.000	100.000	142.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	220.000	-0.	-0.	650.000	-0.	-0.	-0.
GR	746.000	0.	744.500	100.000	743.500	200.000	743.000	300.000	742.600	400.000
GR	739.900	404.000	739.900	412.000	742.500	416.000	744.200	516.000	744.700	616.000
GR	750.000	650.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

391FT U/S 5FT DIA CMP (R OPHM 17+50)

X1	29019.000	-0.	-0.	-0.	200.000	200.000	200.000	-0.	.700	-0.
X3	-0.	-0.	-0.	300.000	-0.	600.000	-0.	-0.	-0.	-0.

591FT U/S 5FT DIA CMP (R OPHM 17+50)

X1	29219.000	-0.	-0.	-0.	200.000	200.000	200.000	-0.	.700	-0.
X3	-0.	-0.	-0.	350.000	-0.	550.000	-0.	-0.	-0.	-0.

692FT U/S 5FT DIA CMP (OPHM 22+50)

X1	29319.000	10.000	293.000	307.000	100.000	100.000	100.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	250.000	-0.	530.000	-0.	-0.	-0.	-0.
GR	747.900	93.000	747.300	193.000	746.900	253.000	744.300	293.000	741.800	295.000
GR	741.800	305.000	744.700	307.000	743.800	407.000	744.800	507.000	750.000	607.000

792FT U/S 5FT DIA CMP (COE VS-22)

X1	29419.000	15.000	200.000	215.000	100.000	100.000	100.000	-0.	-0.	-0.

X3	-0.	-0.	-0.	150.000	-0.	400.000	-0.	-0.	-0.	-0.
GR	-746.600	0.	746.600	50.000	746.600	100.000	746.500	150.000	744.100	200.000
GR	741.900	203.000	741.200	205.000	741.300	210.000	741.900	211.000	744.900	215.000
GR	744.500	250.000	744.200	300.000	744.400	350.000	744.600	400.000	750.000	570.000

926FT U/S 5FT DIA CMP (R COE VS-22)

X1	29553.000	13.000	200.000	215.000	134.000	134.000	134.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	130.000	-0.	370.000	-0.	-0.	-0.	-0.
GR	747.500	0.	747.100	50.000	746.900	100.000	746.800	150.000	745.500	200.000
GR	742.800	203.000	742.100	205.000	742.200	210.000	742.800	211.000	744.900	215.000
GR	745.500	350.000	745.500	400.000	746.000	600.000	-0.	-0.	-0.	-0.

50FT D/S PRIVATE FARM LANE (R OPHMC 26+73)

X1	29684.000	10.000	500.000	516.000	131.000	131.000	131.000	-0.	-.400	-0.
X3	-0.	-0.	-0.	380.000	-0.	650.000	-0.	-0.	-0.	-0.
GR	750.000	0.	748.400	300.000	747.300	400.000	746.700	500.000	743.300	503.000
GR	743.300	513.000	746.700	516.000	746.900	616.000	746.700	716.000	750.000	1456.000
NC	.040	.040	.120	-0.	-0.	-0.	-0.	-0.	-0.	-0.

D/S FACE OF PRIVATE FARM LANE (R OPHM. 26+73)CONC SLAB W/HEADWALL

X1	29734.000	12.000	500.000	516.000	50.000	50.000	50.000	-0.	-.100	-0.
X3	-0.	-0.	-0.	350.000	-0.	645.000	-0.	-0.	-0.	-0.
GR	750.000	0.	748.400	300.000	747.300	400.000	747.900	500.000	747.400	500.000
GR	743.300	503.000	743.300	513.000	747.400	516.000	747.900	516.000	746.900	616.000
GR	746.700	716.000	750.000	1456.000	-0.	-0.	-0.	-0.	-0.	-0.
SB	-0.	1.760	1.490	-0.	10.000	-0.	41.000	-0.	738.800	738.800

U/S FACE OF PRIVATE FARM LANE (OPHM 26+73)

X1	29742.000	-0.	-0.	-0.	8.000	8.000	8.000	-0.	-0.	-0.
X2	-0.	-0.	1.000	747.400	746.700	-0.	-0.	-0.	-0.	-0.
X3	-0.	-0.	-0.	342.000	-0.	643.000	-0.	-0.	-0.	-0.
BT	10.000	0.	750.000	-0.	300.000	748.400	-0.	400.000	747.300	-0.
BT	500.000	747.900	-0.	500.000	747.900	747.400	516.000	747.900	747.400	516.000
BT	747.900	-0.	616.000	746.900	-0.	716.000	746.700	-0.	1456.000	750.000
BT	0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
NC	.040	.040	.080	-0.	-0.	-0.	-0.	-0.	-0.	-0.

50FT U/S PRIVATE FARM LANE (R OPHM 26+73)

X1	29792.000	10.000	500.000	518.000	50.000	50.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	290.000	-0.	630.000	-0.	-0.	-0.	-0.
GR	750.000	0.	747.700	300.000	746.900	400.000	746.900	500.000	743.400	504.000
GR	743.400	514.000	746.800	518.000	746.500	618.000	746.500	718.000	750.000	1454.000

77FT U/S PRIVATE FARM LANE (OPHM 27+50)

X1	29819.000	10.000	250.000	268.000	27.000	27.000	27.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	0.	-0.	369.000	-0.	-0.	-0.	-0.
GR	750.000	5.000	747.700	50.000	746.900	150.000	746.900	250.000	743.500	254.000
GR	743.500	264.000	746.800	268.000	746.500	369.000	746.500	468.000	750.000	1350.000

185FT U/S PRIVATE FARM LANE (R OPHM 27+50)

X1	29937.000	10.000	250.000	268.000	118.000	118.000	118.000	-0.	.200	-0.
X3	-0.	-0.	-0.	70.000	-0.	330 000	-0.	-0.	-0	-0.

GR	750.000	5.000	747.700	50.000	746.900	150.000	746.900	250.000	743.700	254.000
GR	-743.700	264.000	746.800	268.000	746.500	369.000	746.500	468.000	750.000	1350.000

293FT U/S PRIVATE FARM LANE (R OPHM 27+50)

X1	30055.000	10.000	250.000	268.000	118.000	118.000	118.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	150.000	-0.	325.000	-0.	-0.	-0.	-0.
GR	750.500	0.	748.200	50.000	747.400	139.000	747.400	250.000	744.000	254.000
GR	744.000	264.000	747.300	268.000	749.400	334.000	750.500	350.000	750.500	800.000

411FT U/S PRIVATE FARM LANE (R OPHM 27+50)

X1	30173.000	9.000	250.000	268.000	118.000	118.000	118.000	-0.	.200	-0.
X3	-0.	-0.	-0.	190.000	-0.	310.000	-0.	-0.	-0.	-0.
GR	750.500	0.	748.200	50.000	747.400	219.000	747.400	250.000	744.000	254.000
GR	744.000	264.000	747.300	268.000	750.000	310.000	751.000	600.000	-0.	-0.
NC	.030	.030	.060	-0.	-0.	-0.	-0.	-0.	-0.	-0.

50FT D/S I-94 CONCRETE BOX CULVERT (COE VS-23)

X1	30241.000	13.000	350.000	368.000	68.000	68.000	68.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	342.500	-0.	375.500	-0.	-0.	-0.	-0.
GR	755.600	0.	754.500	100.000	752.700	200.000	750.900	300.000	750.000	330.000
GR	747.600	342.500	747.500	350.000	744.300	354.000	744.300	364.000	747.600	368.000
GR	747.700	378.500	750.000	420.000	760.000	1050.000	-0.	-0.	-0.	-0.

28FT D/S I-94 CONC BOX CULVERT (R)

X1	30263.000	14.000	350.000	368.000	22.000	22.000	22.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	348.000	-0.	370.000	-0.	-0.	-0.	-0.
GR	755.600	0.	754.500	100.000	752.700	200.000	750.900	300.000	750.000	330.000
GR	747.600	348.000	747.500	350.000	744.300	354.000	744.300	364.000	747.600	368.000
GR	747.600	370.000	750.000	500.000	750.200	520.000	755.000	960.000	-0.	-0.

16FT D/S I-94 CONC BOX CULVERT (R)

X1	30275.000	-0.	-0.	-0.	12.000	12.000	12.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	351.000	-0.	367.000	-0.	-0.	-0.	-0.

12FT D/S I-94 CONC BOX CULVERT (R)

X1	30279.000	14.000	350.000	368.000	4.000	4.000	4.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	352.000	-0.	366.000	-0.	-0.	-0.	-0.
GR	755.600	0.	754.500	100.000	752.700	200.000	750.900	300.000	750.000	330.000
GR	747.500	350.000	745.900	352.000	744.300	354.000	744.300	364.000	745.900	366.000
GR	747.600	368.000	750.000	500.000	750.200	520.000	755.000	960.000	-0.	-0.

8FT D/S I-94 CONC BOX CULVERT (R)

X1	30283.000	-0.	-0.	-0.	4.000	4.000	4.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	353.000	-0.	365.000	-0.	-0.	-0.	-0.

6FT D/S I-94 CONC BOX CULVERT (R)

X1	30285.000	-0.	-0.	-0.	2.000	2.000	2.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	353.500	-0.	364.500	-0.	-0.	-0.	-0.

4FT D/S I-94 CONC BOX CULVERT (R)

X1	30287.000	7.000	350.000	368.000	2.000	2.000	2.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	354.000	-0.	364.000	-0.	-0.	-0.	-0.
GR	750.000	0.	747.500	350.000	744.300	354.000	744.300	364.000	747.600	368.000
GR	750.000	500.000	755.000	960.000	-0.	-0.	-0.	-0.	-0.	-0.
NC	.030	.030	.022	-0.	-0.	-0.	-0.	-0.	-0.	-0.

D/S FACE OF I-94 CONC BOX CULVERT 8FTX8FT W/CONC HEADWALLS

(COE VS-23)

X1	30291.000	24.000	192.000	200.000	4.000	4.000	4.000	-0.	-0.	-0.
X3	10.000	-0.	-0.	-0.	-0.	-0.	-0.	756.500	756.500	-0.
GR	760.900	0.	760.200	100.000	759.600	192.000	744.400	192.000	744.400	195.000
GR	744.400	200.000	759.600	200.000	759.000	300.000	758.700	400.000	758.200	500.000
GR	757.900	600.000	757.400	700.000	756.500	760.000	756.600	800.000	757.200	1000.000
GR	757.700	1200.000	758.200	1400.000	758.700	1600.000	759.300	1800.000	759.800	2000.000
GR	761.000	2200.000	762.200	2400.000	763.500	2600.000	765.000	2840.000	-0.	-0.
EJ	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

*PROF 1

CCHV= .300 CEHV= .500

*SECNO 27149.000

3280 CROSS SECTION 27149.00 EXTENDED 1.10 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
27149.00	8.70	741.80	0.	741.80	741.85	.05	0.	0.	742.00
643.	0.	643.	0.	0.	350.	0.	0.	0.	742.10
0.	0.	1.84	0.	.040	.040	.040	0.	733.10	265.65
.000292	961.	961.	961.	0	0	0	0.	68.38	334.03

3470 ENCROACHMENT STATIONS= 265.0 335.0 TYPE= 1 TARGET= 70.000
ELENCL= 742.00 ELENCR= 742.00

V/S END OF RETENTION POND (OPHM 0+80)

*SECNO 27219.000

3280 CROSS SECTION 27219.00 EXTENDED 1.42 FEET

27219.00	9.32	741.82	0.	0.	741.87	.05	.02	.00	742.50
643.	0.	643.	0.	0.	368.	0.	1.	0.	743.00
.01	0.	1.75	0.	.040	.040	.040	.039	732.50	266.90
.000234	70.	70.	70.	0	0	0	0.	64.95	331.85

3470 ENCROACHMENT STATIONS= 265.0 335.0 TYPE= 1 TARGET= 70.000
ELENCL= 742.50 ELENCR= 742.50

70FT U/S END OF RETENTION POND (OPHM 1+50)

*SECNO 27375.000

3470 ENCROACHMENT STATIONS= 279.8 320.3 TYPE= 1 TARGET= 40.500
ELENCL= 742.50 ELENCR= 742.50

50FT D/S MULTIPLATE CULVERT (R OPHM 3+50)

27375.00	9.15	741.85	0.	0.	741.93	.07	.04	.01	742.60
643.	0.	643.	0.	0.	293.	0.	2.	0.	743.20
.03	0.	2.19	0.	.040	.040	.040	.040	732.70	279.80
.000326	156.	156.	156.	1	0	0	0.	40.50	320.30

*SECNO 27413.000

3470 ENCROACHMENT STATIONS= 289.2 310.7 TYPE= 1 TARGET= 21.500
ELENCL= 742.50 ELENCR= 742.50

12FT D/S MULTIPLATE CULVERT (R OPHM 3+50)

27413.00	9.02	741.82	0.	0.	742.00	.18	.02	.05	742.60
643.	0.	643.	0.	0.	188.	0.	2.	0.	743.20

.03	0.	3.42	0.	.040	.040	.040	.040	732.80	289.20
.000972	38.	38.	38.	2	0	0	0.	21.50	310.70

*SECNO 27416.000

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

3470 ENCROACHMENT STATIONS= 290.0 310.0 TYPE= 1 TARGET= 20.000
ELENCL= 742.50 ELENCR= 742.50

9FT D/S MULTIPLATE CULVERT (R OPHM 3+50)

27416.00	9.01	741.81	0.	0.	742.02	.21	.00	.01	742.60
643.	0.	643.	0.	0.	176.	0.	2.	0.	743.20
.03	0.	3.65	0.	.040	.040	.040	.039	732.80	290.00
.001155	3.	3.	3.	1	0	0	0.	20.00	310.00

*SECNO 27419.000

3470 ENCROACHMENT STATIONS= 290.8 309.3 TYPE= 1 TARGET= 18.500
ELENCL= 742.50 ELENCR= 742.50

6FT D/S MULTIPLATE CULVERT (OPHM 3+50)

27419.00	9.00	741.80	0.	0.	742.04	.24	.00	.02	742.60
643.	0.	643.	0.	0.	164.	0.	2.	0.	743.20
.03	0.	3.91	0.	.040	.040	.040	.039	732.80	290.80
.001406	3.	3.	3.	1	0	0	0.	18.50	309.30

*SECNO 27423.000

3470 ENCROACHMENT STATIONS= 292.0 308.0 TYPE= 1 TARGET= 16.000
ELENCL= 742.50 ELENCR= 742.50

2FT D/S MULTIPLATE CMP CULVERT (R OPHM 3+50)

27423.00	8.97	741.77	0.	0.	742.08	.31	.01	.04	742.60
643.	0.	643.	0.	0.	143.	0.	2.	0.	743.20
.03	0.	4.49	0.	.040	.040	.040	.039	732.80	292.00
.002091	4.	4.	4.	2	0	0	0.	16.00	308.00

*SECNO 27424.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 742.60 ELREA= 742.60

1FT D/S MULTIPLATE CMP CULVERT (R COE VS-19A)

27424.00	8.94	741.74	0.	0.	742.12	.38	.00	.03	742.60
643.	0.	643.	0.	0.	129.	0.	2.	0.	742.70
.03	0.	4.97	0.	.040	.031	.040	.039	732.80	232.50
.001527	1.	1.	1.	2	0	0	0.	15.50	248.00

*SECNO 27425.000

3370 NORMAL BRIDGE,NRD= 25 MIN ELTRD= 742.10 MAX FLLC= 742.00

D/S FACE 9 3 X15 4 MULTIPLATE CMP CULVERT (COE VS19A)

27425.00	8.84	741.64	0.	0.	742.22	.57	.00	.09	742.60
643.	0.	643.	0.	0.	106.	0.	2.	0.	742.70
.03	0.	6.07	0.	.040	.031	.040	.039	732.80	232.50
.004194	1.	1.	1.	2	0	0	-22.02	15.50	248.00

*SECNO 27455.000

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= 25 MIN ELTRD= 742.10 MAX ELLC= 742.00

U/S FACE 9 3 X15 4 MULTIPLATE CMP CULVERT (R COE VS19A)

27455.00	8.98	741.78	0.	0.	742.35	.57	.13	.00	742.60
643.	0.	643.	0.	0.	107.	0.	2.	0.	742.70
.04	0.	6.04	0.	.040	.031	.040	.038	732.80	232.50
.004588	30.	30.	30.	2	0	0	-23.59	15.50	248.00

*SECNO 27456.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLFA= 742.60 ELREA= 742.60

1FT U/S MULTIPLATE CMP CULVERT (R COE VS-19A)

27456.00	9.26	742.06	0.	0.	742.41	.36	.00	.06	742.60
643.	0.	643.	0.	0.	134.	0.	2.	0.	742.70
.04	0.	4.78	0.	.040	.040	.040	.038	732.80	232.50
.002303	1.	1.	1.	2	0	0	0.	15.50	248.00

*SECNO 27457.000

3470 ENCROACHMENT STATIONS= 290.3 309.8 TYPE= 1 TARGET= 19.500
ELENCL= 743.20 ELENCR= 743.20

2FT U/S MULTIPLATE CULVERT (R OPHM 3+92)

27457.00	9.47	742.27	0.	0.	742.46	.20	.00	.05	743.20
643.	0.	643.	0.	0.	181.	0.	2.	0.	743.20
.04	0.	3.55	0.	.040	.040	.040	.038	732.80	290.30
.001076	1.	1.	1.	2	0	0	0.	19.50	309.80

*SECNO 27458.000

3470 ENCROACHMENT STATIONS= 287.3 312.8 TYPE= 1 TARGET= 25.500
ELENCL= 743.20 ELENCR= 743.20

5FT U/S MULTIPLATE CULVERT (R OPHM 3+92)

27458.00	9.36	742.36	0.	0.	742.49	.13	.00	.02	743.20
643.	0.	643.	0.	0.	225.	0.	2.	0.	743.20
.04	0.	2.86	0.	.040	.040	.040	.038	733.00	287.30
.000601	3.	3.	3.	2	0	0	0.	25.50	312.80

*SECNO 27461.000

3470 ENCROACHMENT STATIONS= 284.3 315.8 TYPE= 1 TARGET= 31.500
ELENCL= 743.20 ELENCR= 743.20

8FT U/S MULTIPLATE CULVERT (OPHM 3+92)

27461.00	9.20	742.40	0.	0.	742.50	.10	.00	.01	743.20
643.	0.	643.	0.	0.	258.	0.	2.	0.	743.20
.04	0.	2.49	0.	.040	.040	.040	.038	733.20	284.30
.000426	3.	3.	3.	2	0	0	0.	31.50	315.80

*SECNO 27467.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 278.3 321.8 TYPE= 1 TARGET= 43.500
ELENCL= 743.20 ELENCR= 743.20

14FT U/S MULTIPLATE CULVERT (R OPHM 3+92)

27467.00	9.04	742.44	0.	0.	742.51	.07	.00	.01	743.30
643.	0.	643.	0.	0.	304.	0.	2.	0.	743.30
.04	0.	2.12	0.	.040	.060	.040	.038	733.40	278.30
.000691	6.	6.	6.	2	0	0	0.	43.50	321.80

*SECNO 27473.000

3470 ENCROACHMENT STATIONS= 272.3 327.8 TYPE= 1 TARGET= 55.500
ELENCL= 743.20 ELENCR= 743.20

20FT U/S MULTIPLATE CULVERT (R OPHM 3+92)

27473.00	8.95	742.45	0.	0.	742.52	.06	.00	.00	743.20
643.	0.	643.	0.	0.	323.	0.	2.	0.	743.20
.04	0.	1.99	0.	.040	.060	.040	.038	733.50	272.30
.000681	6.	6.	6.	1	0	0	0.	55.50	327.80

*SECNO 27489.000

3470 ENCROACHMENT STATIONS= 256.0 344.0 TYPE= 1 TARGET= 88.000
ELENCL= 743.50 ELENCR= 743.50

36FT U/S MULTIPLATE CULVERT (OPHM 4+22)

27489.00	8.87	742.47	0.	0.	742.53	.06	.01	.00	742.00
643.	3.	640.	0.	5.	328.	0.	2.	0.	743.00
.04	.51	1.95	0.	.040	.060	.040	.039	733.60	256.00
.000676	16.	16.	16.	0	0	0	0.	72.69	328.69

*SECNO 27819.000

364FT U/S MULTIPLATE CULVERT (OPHM 7+50)

27819.00	8.80	742.70	0.	0.	742.74	.03	.20	.01	739.80
643.	92.	146.	405.	82.	108.	254.	5.	1.	738.30
.10	1.13	1.35	1.59	.040	.080	.040	058	733.90	236.20

.000559	310.	328.	340.	1	0	0	0.	186.10	422.30

*SECNO 28319.000

879FT U/S MULTIPLATE CULVERT (OPHM 12+50)

28319.00	6.44	743.14	0.	0.	743.21	.07	.46	.02	739.60
643.	317.	195.	130.	139.	91.	93.	10.	4.	741.70
.17	2.28	2.14	1.41	.040	.080	.040	.067	736.70	213.26
.001753	500.	500.	500.	2	0	0	0.	213.80	427.06

*SECNO 28559.000

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	XNP	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

50 FT D/S 5FT DIA CMP (R OPHM 15+40)

28559.00	5.08	743.58	0.	0.	743.63	.05	.42	.01	741.30
643.	352.	160.	131.	197.	84.	89.	12.	5.	741.70
.21	1.79	1.91	1.48	.040	.080	.040	.069	738.50	167.79
.001714	240.	240.	240.	2	0	0	0.	316.42	484.22

*SECNO 28608.000

1FT D/S 5FT DIA CMP (R OPHM 15+40)

28608.00	4.84	743.64	0.	0.	743.69	.05	.06	.00	741.30
643.	417.	47.	178.	226.	22.	110.	12.	5.	741.30
.22	1.84	2.18	1.62	.030	.040	.030	.068	738.80	166.27
.000912	49.	49.	49.	2	0	0	0.	320.86	487.13

*SECNO 28609.000

3370 NORMAL BRIDGE,NRD= 15 MIN ELTRD= 741.30 MAX ELLC= 743.80

D/S FACE FARM LANE 5FT DIA CMP (OPHM 15+40)

28609.00	4.84	743.64	0.	0.	743.70	.05	.00	.00	741.30
643.	421.	47.	175.	220.	20.	106.	12.	5.	741.30
.22	1.91	2.35	1.64	.030	.024	.030	.068	738.80	166.24
.001049	1.	1.	1.	0	0	0	-12.35	320.96	487.19

*SECNO 28627.000

3370 NORMAL BRIDGE,NRD= 15 MIN ELTRD= 741.30 MAX ELLC= 743.80

U/S FACE FARM LANE 5FT DIA CMP (R OPHM 15+40)

28627.00	4.86	743.66	0.	0.	743.72	.05	.02	.00	741.30
643.	421.	47.	175.	223.	20.	108.	12.	6.	741.30
.22	1.89	2.31	1.62	.030	.024	.030	.068	738.80	165.84
.001010	18.	18.	18.	0	0	0	-12.35	322.12	487.96

*SECNO 28628.000

1FT U/S 5FT DIA CMP (R OPHM 15+40)

28628.00	4.87	743.67	0.	0.	743.72	.05	.00	.00	741.30
643.	418.	47.	178.	231.	22.	113.	12.	6.	741.30
.22	1.81	2.14	1.59	.030	.040	.030	.068	738.80	165.73
.000869	1.	1.	1.	0	0	0	0.	322.42	488.16

*SECNO 28677.000

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
SLOPF	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

50FT U/S 5FT DIA CMP (R OPHM 15+40)

28677.00	4.83	743.73	0.	0.	743.77	.04	.05	.00	741.30
643.	370.	133.	140.	226.	81.	103.	13.	6.	741.70
.23	1.64	1.64	1.36	.040	.080	.040	.068	738.90	164.12
.001304	50.	50.	50.	1	0	0	0.	327.94	492.06

*SECNO 28819.000

3470 ENCROACHMENT STATIONS= 220.0 650.0 TYPE= 1 TARGET= -220.000

191FT U/S 5FT DIA CMP (OPHM 17+50)

28819.00	4.12	744.02	0.	0.	744.09	.07	.30	.01	742.60
643.	404.	122.	116.	187.	55.	68.	14.	7.	742.50
.25	2.16	2.21	1.72	.040	.080	.040	.068	739.90	220.00
.003078	180.	142.	100.	2	0	0	0.	285.35	505.35

*SECNO 29019.000

3470 ENCROACHMENT STATIONS= 300.0 600.0 TYPE= 1 TARGET= 300.000

391FT U/S 5FT DIA CMP (R OPHM 17+50)

29019.00	4.14	744.74	0.	0.	744.84	.11	.74	.02	743.30
643.	350.	149.	144.	123.	56.	69.	15.	8.	743.20
.27	2.84	2.68	2.08	.040	.080	.040	.070	740.60	300.00
.004483	200.	200.	200.	2	0	0	0.	206.19	506.19

*SECNO 29219.000

3470 ENCROACHMENT STATIONS= 350.0 550.0 TYPE= 1 TARGET= 200.000

591FT U/S 5FT DIA CMP (R OPHM 17+50)

29219.00	4.35	745.65	0.	0.	745.79	.13	.93	.01	744.00
643.	260.	170.	213.	77.	59.	89.	16.	9.	743.90
.29	3.37	2.88	2.38	.040	.080	.040	.071	741.30	350.00
.004808	200.	200.	200.	1	0	0	0.	174.49	524.49

*SECNO 29319.000

3470 ENCROACHMENT STATIONS= 250.0 530.0 TYPE= 1 TARGET= 280.000

692FT U/S 5FT DIA CMP (OPHM 22+50)

29319.00	4.16	745.96	0.	0.	746.00	.04	.18	.03	744.30	
643.	21.	65.	556.	21.	53.	350.	17.	10.	744.70	
.31	1.01	1.23	1.59	.040	.080	.040	.071	741.80	267.48	
.000951	100.	100.	100.	2	0	0	0.	261.80	529.28	

*SECNO 29419.000

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	FLMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

3470 ENCROACHMENT STATIONS= 150.0 400.0 TYPE= 1 TARGET= 250.000

792FT U/S 5FT DIA CMP (COE VS-22)

29419.00	4.86	746.06	0.	0.	746.10	.04	.10	.00	744.10	
643.	49.	80.	513.	40.	57.	299.	18.	10.	744.90	
.32	1.23	1.40	1.72	.040	.080	.040	.071	741.20	159.20	
.001130	100.	100.	100.	2	0	0	0.	240.80	400.00	

*SECNO 29553.000

3280 CROSS SECTION 29553.00 EXTENDED .31 FEET

3470 ENCROACHMENT STATIONS= 130.0 370.0 TYPE= 1 TARGET= 240.000

926FT U/S 5FT DIA CMP (R COE VS-22)

29553.00	4.21	746.31	0.	0.	746.44	.13	.29	.04	745.50	
643.	19.	138.	486.	13.	49.	166.	19.	11.	744.90	
.34	1.53	2.84	2.93	.040	.080	.040	.072	742.10	168.94	
.005672	134.	134.	134.	2	0	0	0.	201.06	370.00	

*SECNO 29684.000

3470 ENCROACHMENT STATIONS= 380.0 650.0 TYPE= 1 TARGET= 270.000

50FT D/S PRIVATE FARM LANE (R OPHMC 26+73)

29684.00	4.29	747.19	0.	0.	747.33	.14	.89	.00	746.30	
643.	143.	208.	292.	62.	58.	103.	20.	12.	746.30	
.35	2.29	3.56	2.83	.040	.080	.040	.072	742.90	380.00	
.008251	131.	131.	131.	2	0	0	0.	270.00	650.00	

*SECNO 29734.000

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 350.0 645.0 TYPE= 1 TARGET= 295.000

D/S FACE OF PRIVATE FARM LANE (R OPHM 26+73)CONC SLAB W/HEADWALL

29734.00	4.58	747.78	0.	0.	747.99	.22	.63	.04	747.80	
643.	103.	223.	317.	43.	61.	77.	20.	12.	747.80	
.35	2.40	3.66	4.11	.040	.120	.040	.073	743.20	350.00	
.021292	50.	50.	50.	3	0	0	0.	289.23	645.00	

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	-0.	1.76	1.49	-0.	10.00	-0.	41.00	-0.	738.80	738.80

*SECNO 29742.000

PRESS FLOW BECAUSE EGLWC OF 2689.52 EXCEEDS 1.5 DEPTH
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWFIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
754.50	2689.52	0.	517.	121.	41.	86.	747.40	746.70

3470 ENCROACHMENT STATIONS= 342.0 643.0 TYPE= 1 TARGET= 301.000

U/S FACE OF PRIVATE FARM LANE (OPHM 26+73)

29742.00	4.63	747.83	0.	0.	748.02	.18	.02	0.	747.80
643.	122.	206.	315.	52.	62.	82.	20.	12.	747.80
.35	2.33	3.32	3.82	.040	.120	.040	.073	743.20	342.05
.017224	8.	8.	8.	3	0	6	0.	300.95	643.00

*SECNO 29792.000

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

3470 ENCROACHMENT STATIONS= 290.0 630.0 TYPE= 1 TARGET= 340.000

50FT U/S PRIVATF FARM LANE (R OPHM 26+73)

29792.00	4.76	748.16	0.	0.	748.20	.03	.13	.05	746.90
643.	274.	99.	270.	217.	72.	172.	20.	12.	746.80
.36	1.26	1.38	1.57	.040	.080	.040	.073	743.40	290.00
.001036	50.	50.	50.	3	0	0	0.	340.00	630.00

*SECNO 29819.000

3470 ENCROACHMENT STATIONS= .0 369.0 TYPE= 1 TARGET= 368.999

77FT U/S PRIVATE FARM LANE (OPHM 27+50)

29819.00	4.69	748.19	0.	0.	748.23	.03	.03	.00	746.90
643.	291.	100.	252.	221.	71.	156.	20.	12.	746.80
.37	1.32	1.41	1.62	.040	.080	.040	.073	743.50	40.38
.001092	27.	27.	27.	2	0	0	0.	328.62	369.00

*SECNO 29937.000

3470 ENCROACHMENT STATIONS= 70.0 330.0 TYPE= 1 TARGET= 260.000

185FT U/S PRIVATE FARM LANE (R OPHM 27+50)

29937.00	4.45	748.35	0.	0.	748.40	.05	.16	.01	747.10
63.	343	121	179.	199.	67	89.	22.	13.	747.00

.39	1.73	1.79	2.01	.040	.080	.040	.074	743.90	70.00
.001850	118.	118.	118.	2	0	0	0.	260.00	330.00

*SECNO 30055.000

3470 ENCROACHMENT STATIONS= 150.0 325.0 TYPE= 1 TARGET= 175.000

293FT U/S PRIVATE FARM LANE (R OPHM 27+50)

30055.00	4.64	748.64	0.	0.	748.78	.13	.34	.04	747.40
643.	376.	210.	57.	124.	70.	28.	22.	14.	747.30
.40	3.02	2.99	2.02	.040	.080	.040	.074	744.00	150.00
.005007	118.	118.	118.	2	0	0	0.	160.27	310.27

*SECNO 30173.000

3470 ENCROACHMENT STATIONS= 190.0 310.0 TYPE= 1 TARGET= 120.000

411FT U/S PRIVATE FARM LANE (R OPHM 27+50)

30173.00	5.02	749.22	0.	0.	749.40	.17	.60	.02	747.60
643.	340.	248.	55.	95.	77.	23.	23.	14.	747.50
.41	3.57	3.22	2.40	.040	.080	.040	.074	744.20	190.00
.005126	118.	118.	118.	2	0	0	0.	104.77	294.77

*SECNO 30241.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 342.5 375.5 TYPE= 1 TARGET= 33.000

50FT D/S I-94 CONCRETE BOX CULVERT (COE VS-23)

30241.00	5.19	749.49	0.	0.	750.03	.54	.45	.18	747.50
643.	90.	468.	84.	15.	80.	14.	23.	14.	747.60
.41	6.23	5.83	6.08	.030	.060	.030	.074	744.30	342.50
.008839	68.	68.	68.	2	0	0	0.	33.00	375.50

*SECNO 30263.000

3470 ENCROACHMENT STATIONS= 348.0 370.0 TYPE= 1 TARGET= 22.000

28FT D/S I-94 CONC BOX CULVERT (R)

30263.00	5.30	749.60	0.	0.	750.39	.79	.24	.12	747.50
643.	24.	597.	23.	4.	82.	4.	23.	14.	747.60
.41	5.79	7.24	5.69	.030	.060	.030	.074	744.30	348.00
.013226	22.	22.	22.	2	0	0	0.	22.00	370.00

*SECNO 30275.000

3470 ENCROACHMENT STATIONS= 351.0 367.0 TYPE= 1 TARGET= 16.000

16FT D/S I-94 CONC BOX CULVERT (R)

30275.00	5.38	749.68	0.	0.	750.71	1.04	.20	.12100000.00	
643	0.	643.	0.	0.	79	0.	23.	1' 100000 00	

.41	0.	8.17	0.	.030	.060	.030	.073	744.30	351.00
.021841	12.	12.	12.	2	0	0	0.	16.00	367.00

*SECNO 30279.000

3470 FNCROACHMENT STATIONS= 352.0 366.0 TYPE= 1 TARGET= 14.000

12FT D/S I-94 CONC BOX CULVERT (R)

30279.00	5.37	749.67	0.	0.	750.91	1.24	.10	.10100000.00	
643.	0.	643.	0.	0.	72.	0.	23.	14. 100000.00	
.41	0.	8.92	0.	.030	.060	.030	.073	744.30	352.00
.027956	4.	4.	4.	2	0	0	0.	14.00	366.00

*SECNO 30283.000

3470 FNCROACHMENT STATIONS= 353.0 365.0 TYPE= 1 TARGET= 12.000

8FT D/S I-94 CONC BOX CULVERT (R)

30283.00	5.32	749.62	0.	0.	751.23	1.62	.13	.19100000.00	
643.	0.	643.	0.	0.	63.	0.	23.	14. 100000.00	
.41	0.	10.20	0.	.030	.060	.030	.073	744.30	353.00
.040667	4.	4.	4.	2	0	0	0.	12.00	365.00

*SECNO 30285.000

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= 353.5 364.5 TYPE= 1 TARGET= 11.000

6FT D/S I-94 CONC BOX CULVERT (R)

30285.00	5.25	749.55	0.	0.	751.49	1.94	.09	.16100000.00	
643.	0.	643.	0.	0.	58.	0.	23.	14. 100000.00	
.41	0.	11.17	0.	.030	.060	.030	.073	744.30	353.50
.052959	2.	2.	2.	2	0	0	0.	11.00	364.50

*SECNO 30287.000

3301 HV CHANGED MORE THAN HVINS

3470 FNCROACHMENT STATIONS= 354.0 364.0 TYPE= 1 TARGET= 10.000

4FT D/S I-94 CONC BOX CULVERT (R)

30287.00	5.12	749.42	749.34	0.	751.87	2.44	.12	.25100000.00	
643.	0.	643.	0.	0.	51.	0.	23.	14. 100000.00	
.41	0.	12.54	0.	.030	.060	.030	.073	744.30	354.00
.074834	2.	2.	2.	4	8	0	0.	10.00	364.00

*SECNO 30291.000

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

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

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,FLLEA= 756.50 ELREA= 756.50

D/S FACE OF I-94 CONC BOX CULVERT 8FTX8FT W/CONC HEADWALLS

(COE VS-23)

30291.00	5.85	750.25	750.25	0.	753.18	2.93	.10	.25	759.60	
643.	0.	643.	0.	0.	47.	0.	23.	14.	759.60	
.41	0.	13.75	0.	.030	.022	.030	.073	744.40	192.00	
.013070	4.	4.	4.	20	8	0	0.	8.00	200.00	

THIS RUN EXECUTED 14 FEB 79 14.33.17

****
HEC2 RELEASE DATED NOV 76 UPDATED AUG1977
ERROR CORR - 01,02
MODIFICATION - 50,51,52,53
****

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

10 YR FLOW

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	FG	10K*S	VCH	AREA	01K
27149.000	961.00	0.	0.	733.10	469.00	737.00	0.	737.37	50.90	4.88	96.08	5.73
27149.000	961.00	0.	0.	733.10	589.00	741.00	0.	741.06	3.80	1.98	297.03	3 2.08
27149.000	961.00	0.	0.	733.10	643.00	741.80	0.	741.85	2.92	1.84	349.66	3 6.00
27149.000	961.00	0.	0.	733.10	1269.00	742.90	0.	742.94	11.26	1.69	1076.45	3 8.12
27219.000	70.00	0.	0.	732.50	469.00	737.44	0.	737.63	18.45	3.45	135.95	1 9.19
27219.000	70.00	0.	0.	732.50	589.00	741.03	0.	741.09	2.91	1.85	318.09	3 5.49
27219.000	70.00	0.	0.	732.50	643.00	741.82	0.	741.87	2.34	1.75	367.93	4 0.24
27219.000	70.00	0.	0.	732.50	1269.00	743.00	0.	743.07	24.78	2.14	737.18	2 4.92
27375.000	156.00	0.	0.	732.70	469.00	737.73	0.	737.94	20.12	3.68	127.43	1 4.56
27375.000	156.00	0.	0.	732.70	589.00	741.07	0.	741.15	3.84	2.25	261.47	3 0.76
27375.000	156.00	0.	0.	732.70	643.00	741.85	0.	741.93	3.26	2.19	293.10	3 6.13
27375.000	156.00	0.	0.	732.70	1269.00	743.18	0.	743.33	9.03	3.30	506.30	4 2.21
27413.000	38.00	0.	0.	732.80	469.00	737.76	0.	738.10	29.91	4.67	100.42	5.76
27413.000	38.00	0.	0.	732.80	589.00	741.04	0.	741.23	10.51	3.44	171.04	1 1.67
27413.000	38.00	0.	0.	732.80	643.00	741.82	0.	742.00	9.72	3.42	187.76	2 6.22
27413.000	38.00	0.	0.	732.80	1269.00	743.17	0.	743.46	34.44	4.63	383.35	2 6.25
27416.000	3.00	0.	0.	732.80	469.00	737.75	0.	738.13	34.14	4.93	95.19	0.27
27416.000	3.00	0.	0.	732.80	589.00	741.03	0.	741.24	12.43	3.66	160.83	1 7.08
27416.000	3.00	0.	0.	732.80	643.00	741.81	0.	742.02	11.55	3.65	176.38	1 9.20
27416.000	3.00	0.	0.	732.80	1269.00	743.17	0.	743.48	40.23	4.80	373.22	2 0.08
27419.000	3.00	0.	0.	732.80	469.00	737.73	0.	738.16	40.58	5.27	89.02	3.62
27419.000	3.00	0.	0.	732.80	589.00	741.02	0.	741.26	15.07	3.93	150.02	1 1.74
27419.000	3.00	0.	0.	732.80	643.00	741.80	0.	742.04	14.06	3.91	164.40	1 1.47
27419.000	3.00	0.	0.	732.80	1269.00	743.18	0.	743.50	47.38	4.98	363.43	1 4.35
27423.000	4.00	0.	0.	732.80	469.00	737.68	0.	738.25	58.41	6.04	77.71	1.37
27423.000	4.00	0.	0.	732.80	589.00	740.99	0.	741.31	22.29	4.51	130.62	1 4.76
27423.000	4.00	0.	0.	732.80	643.00	741.77	0.	742.08	20.91	4.49	143.05	1 0.61
27423.000	4.00	0.	0.	732.80	1269.00	743.18	743.14	743.54	64.88	5.35	342.64	1 7.54
27424.000	1.00	0.	0.	732.80	469.00	737.57	0.	738.38	52.81	7.24	64.75	4.54
27424.000	1.00	0.	0.	732.80	589.00	740.96	0.	741.35	16.54	5.02	117.28	1 4.81
27424.000	1.00	0.	0.	732.80	643.00	741.74	0.	742.12	15.27	4.97	129.37	1 4.55
27424.000	1.00	0.	0.	732.80	1269.00	743.14	0.	743.58	20.69	6.17	404.78	2 9.00

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	01K
27425.000	1.00	742.10	742.00	732.80	469.00	737.54	0.	738.42	64.65	7.50	62.54	8.33
27425.000	1.00	742.10	742.00	732.80	589.00	740.89	0.	741.42	36.18	5.82	101.14	7.92
27425.000	1.00	742.10	742.00	732.80	643.00	741.64	0.	742.22	41.94	6.07	105.94	9.29
27425.000	1.00	742.10	742.00	732.80	1269.00	743.57	0.	743.69	24.08	3.68	541.53	2 8.62
27455.000	30.00	742.10	742.00	732.80	469.00	737.86	0.	738.62	53.67	7.01	66.86	4.02
27455.000	30.00	742.10	742.00	732.80	589.00	741.01	0.	741.53	38.02	5.77	102.14	5.53
27455.000	30.00	742.10	742.00	732.80	643.00	741.78	0.	742.35	45.88	6.04	106.52	4.93
27455.000	30.00	742.10	742.00	732.80	1269.00	743.66	0.	743.76	21.00	3.46	568.02	2 6.90
27456.000	1.00	0.	0.	732.80	469.00	737.99	0.	738.66	67.20	6.58	71.27	7.21
27456.000	1.00	0.	0.	732.80	589.00	741.21	0.	741.58	25.23	4.86	121.28	1 7.27
27456.000	1.00	0.	0.	732.80	643.00	742.06	0.	742.41	23.03	4.78	134.41	1 3.99
27456.000	1.00	0.	0.	732.80	1269.00	743.65	0.	743.77	12.40	3.83	608.78	3 0.36
27457.000	1.00	0.	0.	732.80	469.00	738.48	0.	738.77	23.95	4.36	107.60	5.84
27457.000	1.00	0.	0.	732.80	589.00	741.43	0.	741.63	11.61	3.57	165.08	1 2.89
27457.000	1.00	0.	0.	732.80	643.00	742.27	0.	742.46	10.76	3.55	181.38	1 6.04
27457.000	1.00	0.	0.	732.80	1269.00	743.53	738.04	743.90	49.44	5.16	335.64	1 0.48
27458.000	3.00	0.	0.	733.00	469.00	738.60	0.	738.81	15.51	3.64	128.81	1 9.07
27458.000	3.00	0.	0.	733.00	589.00	741.52	0.	741.65	6.65	2.90	203.33	2 8.45
27458.000	3.00	0.	0.	733.00	643.00	742.36	0.	742.49	6.01	2.86	224.65	2 2.25
27458.000	3.00	0.	0.	733.00	1269.00	743.78	0.	743.96	17.57	3.71	498.70	3 2.75
27461.000	3.00	0.	0.	733.20	469.00	738.65	0.	738.82	13.67	3.36	139.73	1 6.87
27461.000	3.00	0.	0.	733.20	589.00	741.56	0.	741.66	4.87	2.54	231.67	2 6.96
27461.000	3.00	0.	0.	733.20	643.00	742.40	0.	742.50	4.26	2.49	258.04	3 1.36
27461.000	3.00	0.	0.	733.20	1269.00	743.84	0.	743.98	11.11	3.29	560.79	3 0.76
27467.000	6.00	0.	0.	733.40	469.00	738.66	0.	738.83	35.62	3.33	140.92	8.58
27467.000	6.00	0.	0.	733.40	589.00	741.60	0.	741.68	8.51	2.20	267.31	2 1.96
27467.000	6.00	0.	0.	733.40	643.00	742.44	0.	742.51	6.91	2.12	303.80	2 4.55
27467.000	6.00	0.	0.	733.40	1269.00	743.89	0.	744.00	13.76	2.82	598.10	3 2.10
27473.000	6.00	0.	0.	733.50	469.00	738.68	0.	738.86	37.16	3.37	139.27	6.94
27473.000	6.00	0.	0.	733.50	589.00	741.61	0.	741.68	8.98	2.13	277.14	1 6.53
27473.000	6.00	0.	0.	733.50	643.00	742.45	0.	742.52	6.81	1.99	323.44	2 6.46
27473.000	6.00	0.	0.	733.50	1269.00	743.93	0.	744.01	9.03	2.51	685.31	4 2.30
27489.000	16.00	0.	0.	733.60	469.00	738.75	0.	738.92	37.00	3.34	140.46	7.10
27489.000	16.00	0.	0.	733.60	589.00	741.63	0.	741.70	9.03	2.11	279.41	1 6.01
27489.000	16.00	0.	0.	733.60	643.00	742.47	0.	742.53	6.74	1.95	337.42	2 7.72
27489.000	16.00	0.	0.	733.60	1269.00	743.99	0.	744.03	5.10	1.97	887.04	5 2.18
27819.000	328.00	0.	0.	733.90	469.00	740.38	0.	740.57	70.24	3.77	135.17	5.96
27819.000	328.00	0.	0.	733.90	589.00	741.99	0.	742.04	11.85	1.85	324.00	1 1.07
27819.000	328.00	0.	0.	733.90	643.00	742.70	0.	742.74	5.59	1.35	444.17	2 2.02
27819.000	328.00	0.	0.	733.90	1269.00	744.15	0.	744.19	4.72	1.39	762.10	5 4.26
28319.000	500.00	0.	0.	736.70	469.00	742.54	0.	742.63	26.29	2.43	209.72	1.48
28319.000	500.00	0.	0.	736.70	589.00	742.82	0.	742.91	26.08	2.51	257.81	1 5.34
28319.000	500.00	0.	0.	736.70	643.00	743.14	0.	743.21	17.53	2.14	323.28	1 3.56
28319.000	500.00	0.	0.	736.70	1269.00	744.47	0.	744.52	9.27	1.79	683.70	4 6.88

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SECNO	XLCH	ELTRD	ELLC	FLMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	01K
28559.000	240.00	0.	0.	738.50	469.00	743.18	0.	743.24	23.81	2.10	253.92	6.12
28559.000	240.00	0.	0.	738.50	589.00	743.42	0.	743.48	20.88	2.05	319.86	1 8.89
28559.000	240.00	0.	0.	738.50	643.00	743.58	0.	743.63	17.14	1.91	369.39	1 5.31
28559.000	240.00	0.	0.	738.50	1269.00	744.69	0.	744.73	7.91	1.51	781.34	4 1.27
28608.000	49.00	0.	0.	738.80	469.00	743.26	0.	743.32	12.82	2.43	244.98	1 0.99
28608.000	49.00	0.	0.	738.80	589.00	743.50	0.	743.55	11.06	2.35	311.56	1 7.08
28608.000	49.00	0.	0.	738.80	643.00	743.64	0.	743.69	9.12	2.18	358.45	2 2.87
28608.000	49.00	0.	0.	738.80	1269.00	744.72	0.	744.76	4.20	1.72	766.85	6 8.95
28609.000	1.00	741.30	743.80	738.80	469.00	743.26	0.	743.33	14.46	3.46	233.81	1 3.32
28609.000	1.00	741.30	743.80	738.80	589.00	743.49	0.	743.56	12.24	3.27	300.30	1 8.34
28609.000	1.00	741.30	743.80	738.80	643.00	743.64	0.	743.70	10.49	2.35	346.52	1 8.50
28609.000	1.00	741.30	743.80	738.80	1269.00	744.71	0.	744.76	4.56	1.67	751.45	5 4.45
28627.000	18.00	741.30	743.80	738.80	469.00	743.29	0.	743.36	13.81	3.39	238.19	1 6.21
28627.000	18.00	741.30	743.80	738.80	589.00	743.52	0.	743.58	11.97	2.97	305.06	1 0.22
28627.000	18.00	741.30	743.80	738.80	643.00	743.66	0.	743.72	10.10	2.31	351.45	2 2.36
28627.000	18.00	741.30	743.80	738.80	1269.00	744.72	0.	744.77	4.51	1.66	754.42	5 7.74
28628.000	1.00	0.	0.	738.80	469.00	743.31	0.	743.36	11.23	2.30	258.19	1 9.96
28628.000	1.00	0.	0.	738.80	589.00	743.53	0.	743.59	10.19	2.26	321.65	1 4.51
28628.000	1.00	0.	0.	738.80	643.00	743.67	0.	743.72	8.69	2.14	365.06	2 8.15
28628.000	1.00	0.	0.	738.80	1269.00	744.73	0.	744.77	4.20	1.72	767.29	6 9.44
28677.000	50.00	0.	0.	738.90	469.00	743.39	0.	743.43	15.04	1.67	305.91	1 0.92
28677.000	50.00	0.	0.	738.90	589.00	743.61	0.	743.65	14.24	1.69	371.98	1 6.11
28677.000	50.00	0.	0.	738.90	643.00	743.73	0.	743.77	13.04	1.64	409.00	1 8.07
28677.000	50.00	0.	0.	738.90	1269.00	744.76	0.	744.80	7.35	1.43	801.59	4 8.03
28819.000	142.00	0.	0.	739.90	469.00	743.74	0.	743.80	38.92	2.35	232.59	5.17
28819.000	142.00	0.	0.	739.90	589.00	743.92	0.	743.99	33.98	2.28	283.59	1 1.04
28819.000	142.00	0.	0.	739.90	643.00	744.02	0.	744.09	30.78	2.21	310.59	1 5.90
28819.000	142.00	0.	0.	739.90	1269.00	744.90	0.	744.97	15.85	1.85	616.37	3 8.79
29019.000	200.00	0.	0.	740.60	469.00	744.53	0.	744.61	40.79	2.45	206.98	3.44
29019.000	200.00	0.	0.	740.60	589.00	744.67	0.	744.78	43.65	2.61	235.88	9.15
29019.000	200.00	0.	0.	740.60	643.00	744.74	0.	744.84	44.83	2.68	248.00	6.03
29019.000	200.00	0.	0.	740.60	1269.00	745.35	0.	745.51	43.80	2.95	400.14	1 1.74
29219.000	200.00	0.	0.	741.30	469.00	745.38	0.	745.49	46.55	2.70	182.98	8.74
29219.000	200.00	0.	0.	741.30	589.00	745.58	0.	745.70	47.95	2.84	212.71	5.06
29219.000	200.00	0.	0.	741.30	643.00	745.65	0.	745.79	48.08	2.88	225.43	2.74
29219.000	200.00	0.	0.	741.30	1269.00	746.27	0.	746.49	51.41	3.31	348.87	1 6.98
29319.000	100.00	0.	0.	741.80	469.00	745.67	0.	745.69	9.44	1.16	348.06	1 2.63
29319.000	100.00	0.	0.	741.80	589.00	745.88	0.	745.91	9.41	1.21	402.19	1 2.02
29319.000	100.00	0.	0.	741.80	643.00	745.96	0.	746.00	9.51	1.23	423.65	2 8.46
29319.000	100.00	0.	0.	741.80	1269.00	746.67	0.	746.74	11.31	1.51	614.42	3 7.36
29419.000	100.00	0.	0.	741.20	469.00	745.77	0.	745.80	11.22	1.33	326.09	1 0.02
29419.000	100.00	0.	0.	741.20	589.00	745.98	0.	746.02	11.19	1.38	376.09	1 6.07
29419.000	100.00	0.	0.	741.20	643.00	746.06	0.	746.10	11.30	1.40	396.06	1 1.32
29419.000	100.00	0.	0.	741.20	1269.00	746.79	0.	746.87	13.13	1.70	575.83	3 0.24

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SECNO	XLCH	FLTRD	FLLC	FLMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	01K
29553.000	134.00	0.	0.	742.10	469.00	746.03	0.	746.15	69.78	2.97	173.00	6.15
29553.000	134.00	0.	0.	742.10	589.00	746.23	0.	746.35	59.66	2.86	210.90	6.25
29553.000	134.00	0.	0.	742.10	643.00	746.31	0.	746.44	56.72	2.84	226.82	5.38
29553.000	134.00	0.	0.	742.10	1269.00	747.03	0.	747.21	43.30	2.83	385.30	1 2.85
29684.000	131.00	0.	0.	742.90	469.00	747.03	0.	747.15	83.51	3.47	179.13	1.32
29684.000	131.00	0.	0.	742.90	589.00	747.14	0.	747.28	83.58	3.55	210.14	4.42
29684.000	131.00	0.	0.	742.90	643.00	747.19	0.	747.33	82.51	3.56	224.00	0.79
29684.000	131.00	0.	0.	742.90	1269.00	747.72	0.	747.91	67.06	3.51	368.18	1 4.96
29734.000	50.00	0.	0.	743.20	469.00	747.62	0.	747.81	210.74	3.58	139.35	2.31
29734.000	50.00	0.	0.	743.20	589.00	747.73	0.	747.94	212.60	3.64	168.67	0.40
29734.000	50.00	0.	0.	743.20	643.00	747.78	0.	747.99	212.92	3.66	181.07	4.07
29734.000	50.00	0.	0.	743.20	1269.00	748.18	0.	748.47	172.43	3.52	299.94	6.64
29742.000	8.00	746.70	747.40	743.20	469.00	747.66	0.	747.83	187.48	3.39	147.11	4.25
29742.000	8.00	746.70	747.40	743.20	589.00	747.79	0.	747.96	178.99	3.36	181.84	4.02
29742.000	8.00	746.70	747.40	743.20	643.00	747.83	0.	748.02	172.24	3.32	196.60	8.99
29742.000	8.00	746.70	747.40	743.20	1269.00	748.24	0.	748.50	145.51	3.26	317.68	1 5.20
29792.000	50.00	0.	0.	743.40	469.00	747.97	0.	748.00	8.89	1.24	396.21	1 7.28
29792.000	50.00	0.	0.	743.40	589.00	748.11	0.	748.14	9.88	1.33	442.82	1 7.41
29792.000	50.00	0.	0.	743.40	643.00	748.16	0.	748.20	10.36	1.38	460.90	1 9.76
29792.000	50.00	0.	0.	743.40	1269.00	748.67	0.	748.73	14.66	1.77	629.29	3 1.41
29819.000	27.00	0.	0.	743.50	469.00	748.00	0.	748.02	9.42	1.27	384.01	1 2.77
29819.000	27.00	0.	0.	743.50	589.00	748.14	0.	748.17	10.43	1.36	429.62	1 2.40
29819.000	27.00	0.	0.	743.50	643.00	748.19	0.	748.23	10.92	1.41	447.50	1 4.61
29819.000	27.00	0.	0.	743.50	1269.00	748.71	0.	748.77	15.07	1.80	618.41	3 6.93
29937.000	118.00	0.	0.	743.90	469.00	748.14	0.	748.17	16.97	1.65	300.78	1 3.86
29937.000	118.00	0.	0.	743.90	589.00	748.29	0.	748.34	17.98	1.74	340.13	1 8.90
29937.000	118.00	0.	0.	743.90	643.00	748.35	0.	748.40	18.50	1.79	355.78	1 9.48
29937.000	118.00	0.	0.	743.90	1269.00	748.91	0.	749.01	23.24	2.20	500.92	2 3.23
30055.000	118.00	0.	0.	744.00	469.00	748.41	0.	748.52	45.55	2.74	186.95	9.49
30055.000	118.00	0.	0.	744.00	589.00	748.58	0.	748.70	48.72	2.92	212.51	4.38
30055.000	118.00	0.	0.	744.00	643.00	748.64	0.	748.78	50.07	2.99	223.11	0.87
30055.000	118.00	0.	0.	744.00	1269.00	749.25	0.	749.50	60.62	3.63	325.85	1 2.99
30173.000	118.00	0.	0.	744.20	469.00	748.94	0.	749.06	45.15	2.89	165.97	9.80
30173.000	118.00	0.	0.	744.20	589.00	749.14	0.	749.30	49.47	3.12	186.69	3.74
30173.000	118.00	0.	0.	744.20	643.00	749.22	0.	749.40	51.26	3.22	195.30	9.81
30173.000	118.00	0.	0.	744.20	1269.00	749.96	0.	750.31	68.01	4.12	276.56	1 3.88
30241.000	68.00	0.	0.	744.30	469.00	749.19	0.	749.54	63.98	4.73	98.90	8.63
30241.000	68.00	0.	0.	744.30	589.00	749.40	0.	749.88	80.67	5.50	105.98	5.58
30241.000	68.00	0.	0.	744.30	643.00	749.49	0.	750.03	88.39	5.83	108.77	8.39
30241.000	68.00	0.	0.	744.30	1269.00	750.11	0.	751.62	195.48	9.46	129.54	0.76
30263.000	22.00	0.	0.	744.30	469.00	749.28	0.	749.78	90.71	5.72	83.48	9.24
30263.000	22.00	0.	0.	744.30	589.00	749.51	0.	750.20	118.97	6.78	88.48	4.00
30263.000	22.00	0.	0.	744.30	643.00	749.60	0.	750.39	132.26	7.24	90.45	5.91
30263.000	22.00	0.	0.	744.30	1269.00	750.26	750.18	752.55	320.68	12.35	105.05	0.86

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	01K
	30275.000	12.00	0.	0.	744.30	469.00	749.35	0.	749.98	141.10	6.39	73.42	9.48
	30275.000	12.00	0.	0.	744.30	589.00	749.58	0.	750.49	193.28	7.63	77.22	2.37
	30275.000	12.00	0.	0.	744.30	643.00	749.68	0.	750.71	218.41	8.17	78.71	3.51
*	30275.000	12.00	0.	0.	744.30	1269.00	750.53	750.53	753.46	546.72	13.73	92.43	4.27
	30279.000	4.00	0.	0.	744.30	469.00	749.35	0.	750.10	177.73	6.95	67.51	5.18
	30279.000	4.00	0.	0.	744.30	589.00	749.58	0.	750.66	246.22	8.32	70.78	7.54
	30279.000	4.00	0.	0.	744.30	643.00	749.67	0.	750.91	279.56	8.92	72.05	8.46
*	30279.000	4.00	0.	0.	744.30	1269.00	750.85	750.85	754.04	626.41	14.35	88.44	0.70
	30283.000	4.00	0.	0.	744.30	469.00	749.33	0.	750.29	252.39	7.88	59.54	9.52
	30283.000	4.00	0.	0.	744.30	589.00	749.54	0.	750.94	355.36	9.49	62.10	1.24
	30283.000	4.00	0.	0.	744.30	643.00	749.62	0.	751.23	406.67	10.20	63.04	1.89
*	30283.000	4.00	0.	0.	744.30	1269.00	751.37	751.37	754.91	741.48	15.09	84.07	6.60
	30285.000	2.00	0.	0.	744.30	469.00	749.30	0.	750.44	321.92	8.56	54.77	6.14
	30285.000	2.00	0.	0.	744.30	589.00	749.49	0.	751.15	459.32	10.36	56.86	7.48
	30285.000	2.00	0.	0.	744.30	643.00	749.55	0.	751.49	529.59	11.17	57.57	7.94
*	30285.000	2.00	0.	0.	744.30	1269.00	751.74	751.74	755.49	828.85	15.55	81.63	4.08
	30287.000	2.00	0.	0.	744.30	469.00	749.24	0.	750.64	438.89	9.49	49.43	2.39
	30287.000	2.00	0.	0.	744.30	589.00	749.39	0.	751.47	640.07	11.57	50.90	3.28
	30287.000	2.00	0.	0.	744.30	643.00	749.42	749.34	751.87	748.34	12.54	51.26	3.51
*	30287.000	2.00	0.	0.	744.30	1269.00	752.21	752.21	756.21	948.21	16.05	79.09	1.21
*	30291.000	4.00	0.	0.	744.40	469.00	749.14	749.14	751.52	119.30	12.36	37.93	2.94
*	30291.000	4.00	0.	0.	744.40	589.00	749.90	749.90	752.68	127.96	13.38	44.03	2.07
*	30291.000	4.00	0.	0.	744.40	643.00	750.25	750.25	753.18	130.70	13.75	46.77	6.24
*	30291.000	4.00	0.	0.	744.40	1269.00	753.61	753.61	758.22	165.75	17.23	73.66	8.57

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10 YR FLOW

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
27149.000	469.00	737.00	0.	0.	0.	37.27	961.00
27149.000	589.00	741.00	4.00	0.	0.	63.20	961.00
27149.000	643.00	741.80	.80	0.	0.	68.38	961.00
27149.000	1269.00	742.90	1.10	0.	0.	470.00	961.00
27219.000	469.00	737.44	0.	.44	0.	41.02	70.00
27219.000	589.00	741.03	3.59	.03	0.	60.61	70.00
27219.000	643.00	741.82	.79	.02	0.	64.95	70.00
27219.000	1269.00	743.00	1.17	.10	0.	469.68	70.00
27375.000	469.00	737.73	0.	.29	0.	36.69	156.00
27375.000	589.00	741.07	3.34	.04	0.	40.50	156.00
27375.000	643.00	741.85	.78	.03	0.	40.50	156.00
27375.000	1269.00	743.18	1.32	.18	0.	456.30	156.00
27413.000	469.00	737.76	0.	.03	0.	21.50	38.00
27413.000	589.00	741.04	3.28	-.03	0.	21.50	38.00
27413.000	643.00	741.82	.78	-.03	0.	21.50	38.00
27413.000	1269.00	743.17	1.35	-.01	0.	455.04	38.00
27416.000	469.00	737.75	0.	-.01	0.	20.00	3.00
27416.000	589.00	741.03	3.29	-.01	0.	20.00	3.00
27416.000	643.00	741.81	.78	-.01	0.	20.00	3.00
27416.000	1269.00	743.17	1.36	.00	0.	455.95	3.00
27419.000	469.00	737.73	0.	-.02	0.	18.50	3.00
27419.000	589.00	741.02	3.29	-.01	0.	18.50	3.00
27419.000	643.00	741.80	.78	-.01	0.	18.50	3.00
27419.000	1269.00	743.18	1.38	.00	0.	457.18	3.00
27423.000	469.00	737.68	0.	-.05	0.	16.00	4.00
27423.000	589.00	740.99	3.31	-.03	0.	16.00	4.00
27423.000	643.00	741.77	.78	-.03	0.	16.00	4.00
27423.000	1269.00	743.18	1.41	.00	0.	457.98	4.00
27424.000	469.00	737.57	0.	-.12	0.	15.50	1.00
27424.000	589.00	740.96	3.39	-.04	0.	15.50	1.00
27424.000	643.00	741.74	.78	-.03	0.	15.50	1.00
27424.000	1269.00	743.14	1.41	-.04	0.	400.00	1.00
27425.000	469.00	737.54	0.	-.02	0.	15.50	1.00
27425.000	589.00	740.89	3.35	-.07	0.	15.50	1.00
27425.000	643.00	741.64	.75	-.09	0.	15.50	1.00
27425.000	1269.00	743.57	1.93	.43	0.	400.00	1.00
27455.000	469.00	737.86	0.	.32	0.	15.50	30.00
27455.000	589.00	741.01	3.15	.12	0.	15.50	30.00
27455.000	643.00	741.78	.77	.14	0.	15.50	30.00
27455.000	1269.00	743.66	1.87	.08	0.	400.00	30.00
27456.000	469.00	737.99	0.	.12	0.	15.50	1.00
27456.000	589.00	741.21	3.23	.20	0.	15.50	1.00
27456.000	643.00	742.06	.85	.28	0.	15.50	1.00
27456.000	1269.00	743.65	1.59	-.01	0.	400.00	1.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
27457.000	469.00	738.48	0.	.49	0.	19.50	1.00
27457.000	589.00	741.43	2.95	.22	0.	19.50	1.00
27457.000	643.00	742.27	.84	.21	0.	19.50	1.00
27457.000	1269.00	743.53	1.26	-.12	0.	460.00	1.00
27458.000	469.00	738.60	0.	.12	0.	25.50	3.00
27458.000	589.00	741.52	2.92	.09	0.	25.50	3.00
27458.000	643.00	742.36	.84	.09	0.	25.50	3.00
27458.000	1269.00	743.78	1.42	.26	0.	460.00	3.00
27461.000	469.00	738.65	0.	.04	0.	31.50	3.00
27461.000	589.00	741.56	2.92	.04	0.	31.50	3.00
27461.000	643.00	742.40	.84	.04	0.	31.50	3.00
27461.000	1269.00	743.84	1.43	.05	0.	460.00	3.00
27467.000	469.00	738.66	0.	.02	0.	39.64	6.00
27467.000	589.00	741.60	2.94	.04	0.	43.50	6.00
27467.000	643.00	742.44	.84	.04	0.	43.50	6.00
27467.000	1269.00	743.89	1.45	.05	0.	460.00	6.00
27473.000	469.00	738.68	0.	.02	0.	39.81	6.00
27473.000	589.00	741.61	2.93	.01	0.	53.92	6.00
27473.000	643.00	742.45	.84	.01	0.	55.50	6.00
27473.000	1269.00	743.93	1.47	.04	0.	460.00	6.00
27489.000	469.00	738.75	0.	.06	0.	40.65	16.00
27489.000	589.00	741.63	2.88	.02	0.	55.62	16.00
27489.000	643.00	742.47	.84	.01	0.	101.00	16.00
27489.000	1269.00	743.99	1.52	.06	0.	483.07	16.00
27819.000	469.00	740.38	0.	1.63	0.	79.92	328.00
27819.000	589.00	741.99	1.61	.36	0.	154.05	328.00
27819.000	643.00	742.70	.71	.23	0.	186.09	328.00
27819.000	1269.00	744.15	1.45	.16	0.	251.80	328.00
28319.000	469.00	742.54	0.	2.16	0.	157.71	500.00
28319.000	589.00	742.82	.28	.83	0.	188.47	500.00
28319.000	643.00	743.14	.33	.44	0.	213.79	500.00
28319.000	1269.00	744.47	1.32	.32	0.	369.45	500.00
28559.000	469.00	743.18	0.	.64	0.	248.48	240.00
28559.000	589.00	743.42	.24	.61	0.	295.25	240.00
28559.000	643.00	743.58	.16	.44	0.	316.42	240.00
28559.000	1269.00	744.69	1.10	.22	0.	433.42	240.00
28608.000	469.00	743.26	0.	.08	0.	263.95	49.00
28608.000	589.00	743.50	.23	.07	0.	308.79	49.00
28608.000	643.00	743.64	.15	.06	0.	320.85	49.00
28608.000	1269.00	744.72	1.07	.03	0.	437.19	49.00
28609.000	469.00	743.26	0.	-.01	0.	264.55	1.00
28609.000	589.00	743.49	.24	-.00	0.	309.47	1.00
28609.000	643.00	743.64	.15	-.00	0.	320.95	1.00
28609.000	1269.00	744.71	1.07	-.00	0.	436.43	1.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
28627.000	469.00	743.29	0.	.03	0.	267.75	18.00
28627.000	589.00	743.52	.23	.03	0.	310.96	18.00
28627.000	643.00	743.66	.14	.02	0.	322.12	18.00
28627.000	1269.00	744.72	1.06	.01	0.	437.17	18.00
28628.000	469.00	743.31	0.	.02	0.	273.43	1.00
28628.000	589.00	743.53	.22	.01	0.	312.00	1.00
28628.000	643.00	743.67	.14	.01	0.	322.42	1.00
28628.000	1269.00	744.73	1.06	.00	0.	437.30	1.00
28677.000	469.00	743.39	0.	.08	0.	289.75	50.00
28677.000	589.00	743.61	.22	.08	0.	318.38	50.00
28677.000	643.00	743.73	.12	.07	0.	327.94	50.00
28677.000	1269.00	744.76	1.02	.03	0.	439.90	50.00
28819.000	469.00	743.74	0.	.34	0.	268.79	142.00
28819.000	589.00	743.92	.19	.31	0.	279.73	142.00
28819.000	643.00	744.02	.10	.28	0.	285.35	142.00
28819.000	1269.00	744.90	.88	.15	0.	397.30	142.00
29019.000	469.00	744.53	0.	.79	0.	194.14	200.00
29019.000	589.00	744.67	.15	.75	0.	202.70	200.00
29019.000	643.00	744.74	.06	.72	0.	206.19	200.00
29019.000	1269.00	745.35	.61	.45	0.	300.00	200.00
29219.000	469.00	745.38	0.	.86	0.	153.01	200.00
29219.000	589.00	745.58	.19	.90	0.	164.04	200.00
29219.000	643.00	745.65	.07	.92	0.	174.49	200.00
29219.000	1269.00	746.27	.62	.92	0.	200.00	200.00
29319.000	469.00	745.67	0.	.28	0.	251.61	100.00
29319.000	589.00	745.88	.21	.30	0.	258.95	100.00
29319.000	643.00	745.96	.08	.31	0.	261.80	100.00
29319.000	1269.00	746.67	.71	.40	0.	273.47	100.00
29419.000	469.00	745.77	0.	.10	0.	234.67	100.00
29419.000	589.00	745.98	.21	.10	0.	239.06	100.00
29419.000	643.00	746.06	.08	.10	0.	240.80	100.00
29419.000	1269.00	746.79	.73	.12	0.	250.00	100.00
29553.000	469.00	746.03	0.	.26	0.	190.48	134.00
29553.000	589.00	746.23	.20	.25	0.	197.99	134.00
29553.000	643.00	746.31	.08	.25	0.	201.06	134.00
29553.000	1269.00	747.03	.72	.24	0.	240.00	134.00
29684.000	469.00	747.03	0.	.99	0.	260.88	131.00
29684.000	589.00	747.14	.12	.91	0.	270.00	131.00
29684.000	643.00	747.19	.05	.88	0.	270.00	131.00
29684.000	1269.00	747.72	.53	.69	0.	270.00	131.00
29734.000	469.00	747.62	0.	.59	0.	235.14	50.00
29734.000	589.00	747.73	.11	.59	0.	276.15	50.00
29734.000	643.00	747.78	.04	.59	0.	289.23	50.00
29734.000	1269.00	748.18	.40	.45	0.	295.00	50.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	29742.000	469.00	747.66	0.	.04	0.	247.30	8.00
	29742.000	589.00	747.79	.13	.05	0.	293.24	8.00
	29742.000	643.00	747.83	.05	.06	0.	300.95	8.00
	29742.000	1269.00	748.24	.40	.06	0.	301.00	8.00
	29792.000	469.00	747.97	0.	.32	0.	340.00	50.00
	29792.000	589.00	748.11	.14	.33	0.	340.00	50.00
	29792.000	643.00	748.16	.05	.33	0.	340.00	50.00
	29792.000	1269.00	748.67	.50	.43	0.	340.00	50.00
	29819.000	469.00	748.00	0.	.02	0.	324.82	27.00
	29819.000	589.00	748.14	.14	.03	0.	327.56	27.00
	29819.000	643.00	748.19	.05	.03	0.	328.62	27.00
	29819.000	1269.00	748.71	.51	.04	0.	338.64	27.00
	29937.000	469.00	748.14	0.	.14	0.	260.00	118.00
	29937.000	589.00	748.29	.15	.15	0.	260.00	118.00
	29937.000	643.00	748.35	.06	.16	0.	260.00	118.00
	29937.000	1269.00	748.91	.56	.20	0.	260.00	118.00
	30055.000	469.00	748.41	0.	.28	0.	153.01	118.00
	30055.000	589.00	748.58	.16	.29	0.	158.17	118.00
	30055.000	643.00	748.64	.07	.30	0.	160.27	118.00
	30055.000	1269.00	749.25	.61	.35	0.	175.00	118.00
	30173.000	469.00	748.94	0.	.52	0.	100.32	118.00
	30173.000	589.00	749.14	.20	.56	0.	103.49	118.00
	30173.000	643.00	749.22	.08	.58	0.	104.77	118.00
	30173.000	1269.00	749.96	.74	.71	0.	116.21	118.00
	30241.000	469.00	749.19	0.	.25	0.	33.00	68.00
	30241.000	589.00	749.40	.21	.26	0.	33.00	68.00
	30241.000	643.00	749.49	.08	.26	0.	33.00	68.00
	30241.000	1269.00	750.11	.63	.15	0.	33.00	68.00
	30263.000	469.00	749.28	0.	.09	0.	22.00	22.00
	30263.000	589.00	749.51	.23	.11	0.	22.00	22.00
	30263.000	643.00	749.60	.09	.11	0.	22.00	22.00
	30263.000	1269.00	750.26	.66	.15	0.	22.00	22.00
	30275.000	469.00	749.35	0.	.06	0.	16.00	12.00
	30275.000	589.00	749.58	.24	.08	0.	16.00	12.00
	30275.000	643.00	749.68	.09	.08	0.	16.00	12.00
*	30275.000	1269.00	750.53	.86	.27	0.	16.00	12.00
	30279.000	469.00	749.35	0.	.01	0.	14.00	4.00
	30279.000	589.00	749.58	.23	.00	0.	14.00	4.00
	30279.000	643.00	749.67	.09	-.00	0.	14.00	4.00
*	30279.000	1269.00	750.85	1.17	.31	0.	14.00	4.00
	30283.000	469.00	749.33	0.	-.02	0.	12.00	4.00
	30283.000	589.00	749.54	.21	-.04	0.	12.00	4.00
	30283.000	643.00	749.62	.08	-.06	0.	12.00	4.00
*	30283.000	1269.00	751.37	1.75	.53	0.	12.00	4.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	30285.000	469.00	749.30	0.	-.03	0.	11.00	2.00
	30285.000	589.00	749.49	.19	-.05	0.	11.00	2.00
	30285.000	643.00	749.55	.06	-.07	0.	11.00	2.00
*	30285.000	1269.00	751.74	2.19	.37	0.	11.00	2.00
	30287.000	469.00	749.24	0.	-.06	0.	10.00	2.00
	30287.000	589.00	749.39	.15	-.10	0.	10.00	2.00
	30287.000	643.00	749.42	.04	-.13	0.	10.00	2.00
*	30287.000	1269.00	752.21	2.79	.47	0.	10.00	2.00
*	30291.000	469.00	749.14	0.	-.10	0.	8.00	4.00
*	30291.000	589.00	749.90	.76	.52	0.	8.00	4.00
*	30291.000	643.00	750.25	.34	.82	0.	8.00	4.00
*	30291.000	1269.00	753.61	3.36	1.40	0.	8.00	4.00

SUMMARY OF ERRORS

CAUTION SECNO=30275.000 PROFILE= 4 CRITICAL DEPTH A SUMED
CAUTION SECNO=30275.000 PROFILE= 4 MINIMUM SPECIFIC ENERGY

CAUTION SECNO=30279.000 PROFILE= 4 CRITICAL DEPTH A SUMED
CAUTION SECNO=30279.000 PROFILE= 4 MINIMUM SPECIFIC ENERGY

CAUTION SECNO=30283.000 PROFILE= 4 CRITICAL DEPTH A SUMED
CAUTION SECNO=30283.000 PROFILE= 4 MINIMUM SPECIFIC ENERGY

CAUTION SECNO=30285.000 PROFILE= 4 CRITICAL DEPTH A SUMED
CAUTION SECNO=30285.000 PROFILE= 4 MINIMUM SPECIFIC ENERGY

CAUTION SECNO=30287.000 PROFILE= 4 CRITICAL DEPTH A SUMED
CAUTION SECNO=30287.000 PROFILE= 4 MINIMUM SPECIFIC ENERGY

CAUTION SECNO=30291.000 PROFILE= 1 CRITICAL DEPTH A SUMED
CAUTION SECNO=30291.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY
CAUTION SECNO=30291.000 PROFILE= 2 CRITICAL DEPTH A SUMED
CAUTION SECNO=30291.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=30291.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=30291.000 PROFILE= 3 CRITICAL DEPTH A SUMED
CAUTION SECNO=30291.000 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=30291.000 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO=30291.000 PROFILE= 4 CRITICAL DEPTH A SUMED
CAUTION SECNO=30291.000 PROFILE= 4 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=30291.000 PROFILE= 4 20 TRIALS ATTEMPTED TO BALANCE WSEL

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THIS RUN EXECUTED 28 MAR 79 13.57.21

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
*****************************************************
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PAINT CREEK #2
CROSS SECTIONAL PLOTS
FROM I-94 TO MICHIGAN AVE

```
C
T1      YPSILANTI TOWNSHIP  FIS
T2      PAINT CREEK
T3      100 YR  FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      -0.       4.       -0.       -0. -0.          -0.       -0.       -0.   754.900    -0.

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     -1.000    1.000    -1.000    -0.       -0.       -0.       -0.       -0.       -0.       -0.

NC       .030      .040      .030      .300      .500      -0.       -0.       -0.       -0.       -0.
QT      4.000   469.000   589.000   643.000  1269.000      -0.       -0.       -0.       -0.       -0.

                 1FT U/S I-94 CONC BOX CULVERT (R COE VS-24)

X1  30549.000    17.000   583.000   610.000     1.000     1.000     1.000     -0.       -0.       -0.
X3     -0.       -0.       -0.       420.000    -0.      1230.000    -0.       -0.       -0.       -0.
GR    760.000     0.      755.000    90.000   751.500   460.000   750.000   515.000   749.700   560.000
GR    747.100   583.000   745.300   584.000   744.400   585.000   744.800   590.000   745.300   592.000
GR    746.900   595.000   747.200   603.000   749.600   610.000   751.000   765.000   752.100   810.000
GR    754.100   910.000   760.000  1550.000    -0.       -0.       -0.       -0.       -0.       -0.

                 50FT U/S I-94 CONC BOX CULVERT (R COE VS-24)

X1  30598.000    17.000   583.000   610.000    49.000    49.000    49.000    -0.       -0.       -0.
X3     -0.       -0.       -0.       433.000    -0.      1100.000    -0.       -0.       -0.       -0.
GR    760.000     0.      755.000    80.000   751.500   450.000   750.100   532.000   749.700   550.000
GR    747.100   583.000   745.500   584.000   744.600   585.000   745.000   590.000   745.500   592.000
GR    747.100   595.000   747.400   603.000   749.600   610.000   751.000   765.000   752.100   810.000
GR    754.100   910.000   760.000  1100.000    -0.       -0.       -0.       -0.       -0.       -0.

                 100FT U/S I-94 CONC BOX  CULVERT (COE VS-24)

X1  30648.000    17.000   583.000   610.000    50.000    50.000    50.000    -0.       -0.       -0.
X3     -0.       -0.       -0.       450.000    -0.       800.000    -0.       -0.       -0.       -0.
GR    760.000     0.      755.000    90.000   751.500   460.000   750.000   515.000   749.700   560.000
GR    747.100   583.000   745.800   584.000   744.900   585.000   745.300   590.000   745.800   592.000
GR    747.400   595.000   747.700   603.000   749.600   610.000   751.000   765.000   752.100   810.000
GR    754.100   910.000   760.000  1100.000    -0.       -0.       -0.       -0.       -0.       -0.

                 13FT D/S PRIVATE WOOD BRIDGE (OPHM 36+33)

X1  30690.000    11.000   582.000   618.000    42.000    42.000    42.000    -0.       -0.       -0.
X3     -0.       -0.       -0.       480.000    -0.       850.000    -0.       -0.       -0.       -0.
GR    7[illegible]0.[illegible]0     0.      7[illegible]000    110[illegible]0     7[illegible]00     3[illegible]0     7[illegible]0.[illegible]00     8[illegible]00     7[illegible]9 00     58[illegible].000
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QT	746.000	913.000	746.000	607.000	750.500	618.000	752.600	718.000	756.300	818.000
GR	760.000	900.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

1FT D/S PRIVATE WOOD BRIDGE (R COE VS-24A)

X1	30702.000	20.000	582.000	618.000	12.000	12.000	12.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	475.000	-0.	850.000	-0.	-0.	-0.	-0.
GR	760.000	0.	755.000	110.000	754.400	443.000	752.100	518.000	749.400	568.000
GR	752.600	582.000	749.100	582.000	747.300	586.000	746.000	593.000	745.800	598.000
GR	745.700	603.000	746.000	607.000	747.800	610.000	750.000	618.000	752.400	618.000
GR	749.800	668.000	751.900	718.000	755.200	768.000	757.300	818.000	760.000	850.000

D/S FACE OF PRIVATE WOOD BRIDGE (VS-24A)

X1	30703.000	-0.	-0.	-0.	1.000	1.000	1.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	475.000	-0.	850.000	-0.	-0.	-0.	-0.
BT	14.000	0.	760.000	0.	110.000	755.000	0.	443.000	754.400	0.
BT	518.000	752.100	0.	568.000	749.400	0.	582.000	752.600	0.	582.000
BT	752.600	751.400	618.000	752.400	751.400	618.000	752.400	0.	668.000	749.800
BT	0.	718.000	751.900	0.	768.000	755.200	0.	818.000	757.300	0.
BT	850.000	760.000	0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

U/S FACE PRIVATE WOOD BRIDGE (R COE VS-24A)

X1	30710.000	-0.	-0.	-0.	7.000	7.000	7.000	-0.	-0.	-0.
X2	-0.	-0.	-0.	-0.	-0.	-0.	1.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	475.000	-0.	850.000	-0.	-0.	-0.	-0.

1FT U/S PRIVATE WOOD BRIDGE (R COE VS-24A)

X1	30711.000	-0.	-0.	-0.	1.000	1.000	1.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	475.000	-0.	850.000	-0.	-0.	-0.	-0.
QT	4.000	488.000	647.000	727.000	1381.000	-0.	-0.	-0.	-0.	-0.

50FT U/S PRIVATE WOOD BRIDGE (R COE VS-24A)

X1	30760.000	11.000	582.000	618.000	50.000	50.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	472.000	-0.	850.000	-0.	-0.	-0.	-0.
GR	760.000	0.	755.000	110.000	752.600	382.000	750.500	482.000	749.000	582.000
GR	746.000	593.000	746.000	607.000	750.500	618.000	752.600	718.000	756.300	818.000
GR	760.000	900.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

450FT U/S PRIVATE WOOD BRIDGE (OPHM 40+55)

X1	31160.000	10.000	325.000	363.000	410.000	350.000	400.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	239.000	-0.	650.000	-0.	-0.	-0.	-0.
GR	760.000	0.	753.200	125.000	751.500	225.000	749.200	325.000	746.800	337.000
GR	746.800	351.000	754.300	363.000	751.500	463.000	752.900	563.000	760.000	650.000
QT	4.000	525.000	778.000	926.000	1688.000	-0.	-0.	-0.	-0.	-0.

880FT U/S PRIVATE WOOD BRIDGE (COE VS-2S)

X1	31590.000	13.000	350.000	450.000	450.000	410.000	430.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	320.000	-0.	650.000	-0.	-0.	-0.	-0.
GR	760.000	0.	750.500	250.000	750.000	350.000	748.700	388.000	748.500	395.000
GR	747.600	400.000	746.500	405.000	746.700	410.000	748.800	413.000	755.100	450.000
GR	760.100	550.000	766.700	650.000	770.000	770.000	-0.	-0.	-0.	-0.

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1500FT U/S PRIVATE WOOD BRIDGE (U HM 47+10)

X1	32015.000	11.000	225.000	277.000	325.000	450.000	425.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	125.000	-0.	850.000	-0.	-0.	-0.	-0.
GR	760.000	0.	758.300	25.000	754.300	125.000	751.600	225.000	747.900	243.000
GR	747.900	259.000	754.100	277.000	752.200	377.000	751.800	477.000	760.000	700.000
GR	770.000	850.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
QT	4.000	544.000	865.000	1064.000	1911.000	-0.	-0.	-0.	-0.	-0.

1465FT U/S PRIVATE WOOD BRIDGE (COE VS-26)

X1	32175.000	13.000	219.000	270.000	160.000	160.000	160.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	100.000	-0.	770.000	-0.	-0.	-0.	-0.
GR	760.000	0.	758.000	70.000	752.200	170.000	752.200	219.000	747.800	235.000
GR	747.000	240.000	747.100	243.000	748.800	248.000	752.200	270.000	751.800	370.000
GR	752.100	470.000	760.000	840.000	770.000	1020.000	-0.	-0.	-0.	-0.

1795FT U/S PRIVATE WOOD BRIDGE (OPHM 54+10)

X1	32505.000	12.000	400.000	454.000	330.000	430.000	330.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	240.000	-0.	1290.000	-0.	-0.	-0.	-0.
GR	770.000	0.	756.100	200.000	753.000	300.000	753.100	400.000	748.400	420.000
GR	748.400	434.000	753.100	454.000	753.100	554.000	753.100	654.000	753.800	1130.000
GR	760.000	1290.000	770.000	1630.000	-0.	-0.	-0.	-0.	-0.	-0.
QT	4.000	563.000	1016.000	1323.000	2496.000	-0.	-0.	-0.	-0.	-0.

2270FT U/S PRIVATE WOOD BRIDGE (COE VS-27)

X1	32985.000	12.000	490.000	550.000	490.000	470.000	480.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	260.000	-0.	970.000	-0.	-0.	-0.	-0.
GR	760.000	0.	754.000	350.000	754.700	450.000	753.900	490.000	749.400	510.000
GR	748.200	518.000	748.000	520.000	750.000	526.000	753.300	550.000	753.400	650.000
GR	753.700	750.000	760.000	970.000	-0.	-0.	-0.	-0.	-0.	-0.

2695FT U/S PRIVATE WOOD BRIDGE (OPHM 63+00)

X1	33410.000	9.000	200.000	262.000	350.000	450.000	425.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	40.000	-0.	412.000	-0.	-0.	-0.	-0.
GR	760.000	0.	757.700	100.000	757.200	200.000	748.900	223.000	748.900	239.000
GR	754.100	262.000	755.200	362.000	760.000	412.000	770.000	492.000	-0.	-0.

3170FT U/S PRIVATE WOOD BRIDGE (OPHM 67+05)

X1	33815.000	8.000	250.000	308.000	350.000	415.000	405.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	90.000	-0.	358.000	-0.	-0.	-0.	-0.
GR	760.000	0.	757.400	50.000	757.700	150.000	757.200	250.000	747.700	265.000
GR	747.700	293.000	756.600	308.000	759.400	408.000	-0.	-0.	-0.	-0.
NC	.040	.040	.040	-0.	-0.	-0.	-0.	-0.	-0.	-0.
QT	4.000	585.000	1075.000	1407.000	2663.000	-0.	-0.	-0.	-0.	-0.

50FT D/S MICHIGAN AVENUE (R COE VS-28)

X1	33907.000	9.000	190.000	242.000	130.000	70.000	92.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	145.000	-0.	346.000	-0.	-0.	-0.	-0.
GR	759.600	0.	759.200	100.000	759.300	190.000	749.400	202.000	749.400	230.000
GR	759.600	242.000	759.600	250.000	759.600	300.000	760.300	400.000	-0.	-0.
NH	7.000	.040	200.000	.200	206.000	.015	214.800	.200	219.200	.015
NH	228.000	.200	232.000	.040	400.000	-0.	-0.	-0.	-0.	-0.

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D/S FACE OF MICHIGAN AVENUE CONC CULVERT (CDE V=20)

TWIN 68 IN BY 136 IN RCP W/CONC WINGWALLS

X1	33957.000	26.000	200.000	232.000	50.000	50.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	178.000	-0.	400.000	-0.	-0.	-0.	-0.
GR	759.600	0.	759.200	100.000	759.300	150.000	759.300	200.000	751.800	206.000
GR	751.000	206.400	750.500	207.000	749.900	208.000	749.400	209.800	749.400	211.000
GR	749.900	212.800	751.000	214.400	751.800	214.800	751.800	219.200	751.000	219.600
GR	750.400	220.400	749.900	221.200	749.400	223.000	749.400	224.200	749.900	226.000
GR	750.400	227.000	751.000	227.600	751.800	228.000	759.400	232.000	759.600	300.000
GR	760.300	400.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
EJ	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

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*PROF 1

CCHV= .300 CEHV= .500

*SECNO 30549.000

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
30549.00	10.50	754.90	0.	754.90	754.90	.00	0.	0.	747.10
643.	270.	116.	257.	733.	225.	1078.	0.	0.	749.60
0.	.37	.51	.24	.030	.030	.040	0.	744.40	420.00
.000007	1.	1.	1.	0	0	0	0.	576.78	996.78

3470 ENCROACHMENT STATIONS= 420.0 1230.0 TYPE= 1 TARGET= 810.000

1FT U/S I-94 CONC BOX CULVERT (R COE VS-24)

*SECNO 30598.000

30598.00	10.30	754.90	0.	0.	754.90	.00	.00	.00	747.10
643.	267.	114.	261.	697.	220.	1054.	2.	1.	749.60
.04	.38	.52	.25	.030	.030	.040	.029	744.60	433.00
.000007	49.	49.	49.	0	0	0	0.	502.77	935.77

3470 ENCROACHMENT STATIONS= 433.0 1100.0 TYPE= 1 TARGET= 667.000

50FT U/S I-94 CONC BOX CULVERT (R COE VS-24)

*SECNO 30648.000

30648.00	10.00	754.90	0.	0.	754.90	.00	.00	.00	747.10
643.	273.	121.	249.	639.	213.	835.	4.	1.	749.60
.07	.43	.57	.30	.030	.030	.040	.029	744.90	450.00
.000009	50.	50.	50.	0	0	0	0.	350.00	800.00

3470 ENCROACHMENT STATIONS= 450.0 800.0 TYPE= 1 TARGET= 350.000

100FT U/S I-94 CONC BOX CULVERT (COE VS-24)

*SECNO 30690.000

30690.00	8.90	754.90	0.	0.	754.91	.01	.00	.00	749.00
643.	307.	212.	123.	524.	279.	407.	6.	1.	750.50
.09	.59	.76	.30	.030	.030	.040	.029	746.00	480.00
.000016	42.	42.	42.	0	0	0	0.	300.18	780.18

3470 ENCROACHMENT STATIONS= 480.0 850.0 TYPE= 1 TARGET= 370.000

13FT D/S PRIVATE WOOD BRIDGE (OPHM 36+33)

*SECNO 30702.000

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
SLOP	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST

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3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

1FT D/S PRIVATE WOOD BRIDGE (R COE VS-24A)

30702.00	9.20	754.90	0.	0.	754.91	.01	.00	.00	752.60
643.	201.	245.	197.	354.	283.	461.	6.	1.	752.40
.10	.57	.86	.43	.030	.030	.040	.029	745.70	475.00
.000025	12.	12.	12.	0	0	0	0.	288.45	763.45

*SECNO 30703.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 749.40 MAX ELLC= 751.40

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

D/S FACE OF PRIVATE WOOD BRIDGE (VS-24A)

30703.00	9.20	754.90	0.	0.	754.91	.01	.00	.00	752.60
643.	260.	128.	255.	354.	244.	461.	6.	1.	752.40
.10	.74	.53	.55	.030	.030	.040	.029	745.70	475.00
.000041	1.	1.	1.	0	0	0	-39.60	288.44	763.44

*SECNO 30710.000

3370 NORMAL BRIDGE,NRD= 14 MIN ELTRD= 749.40 MAX ELLC= 751.40

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

U/S FACE PRIVATE WOOD BRIDGE (R COE VS-24A)

30710.00	9.20	754.90	0.	0.	754.91	.01	.00	.00	752.60
643.	260.	128.	255.	354.	244.	461.	6.	2.	752.40
.10	.74	.52	.55	.030	.030	.040	.029	745.70	475.00
.000041	7.	7.	7.	0	0	0	-39.60	288.46	763.46

*SECNO 30711.000

3470 ENCROACHMENT STATIONS= 475.0 850.0 TYPE= 1 TARGET= 375.000

1FT U/S PRIVATE WOOD BRIDGE (R COE VS-24A)

30711.00	9.20	754.90	0.	0.	754.91	.01	.00	.00	752.60
643.	201.	245.	197.	354.	284.	461.	6.	2.	752.40
.10	.57	.86	.43	.030	.030	.040	.029	745.70	475.00
.000025	1.	1.	1.	0	0	0	0.	288.46	763.46

*SECNO 30760.000

3470 ENCROACHMENT STATIONS= 472.0 850.0 TYPE= 1 TARGET= 378.000

50FT U/S PRIVATE WOOD BRIDGE (R COE VS-24A)

30760.00	8.90	754.90	0.	0.	754.91	.01	.00	.00	749.00
727.	356.	234.	136.	558.	279.	407.	8.	2.	750.50
.12	.64	.84	.34	.030	.030	.040	.029	746.00	472.00
.000020	50.	50.	50.	0	0	0	0.	308.21	780.21

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*SECNO 31160.000

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=		239.0		650.0 TYPE=		1 TARGET=		411.000	
450FT U/S PRIVATE WOOD BRIDGE (OPHM 40+55)									
31160.00	8.11	754.91	0.	0.	754.92	.01	.01	.00	749.20
727.	311.	234.	183.	406.	249.	497.	18.	5.	754.30
.28	.76	.94	.37	.030	.030	.040	.030	746.80	239.00
.000032	410.	400.	350.	0	0	0	0.	348.62	587.62

*SECNO 31590.000

3470 ENCROACHMENT STATIONS=		320.0		650.0 TYPE=		1 TARGET=		330.000	
880FT U/S PRIVATE WOOD BRIDGE (COE V8-25)									
31590.00	8.42	754.92	0.	0.	754.95	.03	.02	.01	750.00
926.	189.	737.	0.	145.	503.	0.	27.	7.	755.10
.36	1.30	1.47	0.	.030	.030	.040	.030	746.50	320.00
.000102	450.	430.	410.	0	0	0	0.	128.95	448.95

FIS "B"

*SECNO 32015.000

3470 ENCROACHMENT STATIONS=		125.0		850.0 TYPE=		1 TARGET=		725.000	
1305FT U/S PRIVATE WOOD BRIDGE (OPHM 49+10)									
32015.00	7.08	754.98	0.	0.	755.00	.02	.04	.00	751.60
926.	152.	394.	380.	203.	279.	619.	35.	10.	754.10
.48	.75	1.41	.61	.030	.030	.040	.030	747.90	125.00
.000090	325.	425.	450.	2	0	0	0.	438.52	563.52

*SECNO 32175.000

3470 ENCROACHMENT STATIONS=		100.0		770.0 TYPE=		1 TARGET=		670.000	
1465FT U/S PRIVATE WOOD BRIDGE (COE V8-26)									
32175.00	8.00	755.00	0.	0.	755.01	.02	.01	.00	752.20
1064.	163.	382.	519.	204.	276.	801.	40.	11.	752.20
.52	.80	1.39	.65	.030	.030	.040	.030	747.00	121.78
.000085	160.	160.	160.	0	0	0	0.	483.89	605.67

FIS "C"

*SECNO 32505.000

3470 ENCROACHMENT STATIONS=		240.0		1290.0 TYPE=		1 TARGET=		1050.000	
1795FT U/S PRIVATE WOOD BRIDGE (OPHM 54+10)									
32505.00	6.64	755.04	0.	0.	755.05	.01	.03	.00	753.10
1064.	173.	339.	553.	264.	264.	1157.	53.	18.	753.10
.66	.65	1.28	.48	.030	.030	.040	.029	748.40	240.00
.000083	330.	330.	430.	0	0	0	0.	921.72	1161.72

FIS "D"

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*SECNO 32985.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
32985.00	7.09	755.09	0.	0.	755.18	.09	.09	.04	753.90
1323.	129.	768.	427.	138.	252.	359.	67.	26.	753.30
.72	.93	3.05	1.19	.030	.030	.040	.029	748.00	286.95
.000575	490.	480.	470.	1	0	0	0.	511.27	798.22

3470 ENCROACHMENT STATIONS= 260.0 970.0 TYPE= 1 TARGET= 710.000

2270FT U/S PRIVATE WOOD BRIDGE (COE VS-27)

FISE

*SECNO 33410.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
33410.00	6.42	755.32	0.	0.	755.69	.37	.37	.14	757.20
1323.	0.	1249.	74.	0.	248.	67.	72.	29.	754.10
.75	0.	5.04	1.11	.030	.030	.040	.030	748.90	205.21
.001511	350.	425.	450.	2	0	0	0.	158.05	363.26

3470 ENCROACHMENT STATIONS= 40.0 412.0 TYPE= 1 TARGET= 372.000

2695FT U/S PRIVATE WOOD BRIDGE (OPHM 63+00)

*SECNO 33815.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
33815.00	8.17	755.87	0.	0.	756.11	.24	.37	.04	757.20
1323.	0.	1323.	0.	0.	338.	0.	75.	30.	756.60
.77	0.	3.92	0.	.030	.030	.040	.030	747.70	252.10
.000615	350.	405.	415.	2	0	0	0.	54.66	306.77

3470 ENCROACHMENT STATIONS= 90.0 358.0 TYPE= 1 TARGET= 268.000

3170FT U/S PRIVATE WOOD BRIDGE (OPHM 67+05)

*SECNO 33907.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
33907.00	6.41	755.81	0.	0.	756.40	.59	.11	.18	759.30
1407.	0.	1407.	0.	0.	228.	0.	75.	30.	759.60
.78	0.	6.16	0.	.040	.040	.040	.030	749.40	194.23
.003429	130.	92.	70.	2	0	0	0.	43.31	237.54

3470 ENCROACHMENT STATIONS= 145.0 346.0 TYPE= 1 TARGET= 201.000

50FT D/S MICHIGAN AVENUE (R COE VS-28)

1490 NH CARD USED

*SECNO 33957.000

3301 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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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7180 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 178.0 400.0 TYPE= 1 TARGET= 222.000

D/S FACE OF MICHIGAN AVENUE CONC CULVERT (COE V8-28)

TWIN 68 IN BY 136 IN RCP W/CONC WINGWALLS

33957.00	5.95	755.35	755.35	0.	757.59	2.23	.16	.82	759.30	
1407.	0.	1407.	0.	0.	117.	0.	76.	30.	759.40	
.78	0.	12.00	0.	.040	.198	.040	.030	749.40	203.16	
.003143	50.	50.	50.	4	11	0	0.	26.71	229.87	

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THIS RUN EXECUTED 14 FEB 79 14.39.38

****
HEC2 RELEASE DATED NOV 76 UPDATED AUG1977
ERROR CORR - 01,02
MODIFICATION - 50,51,52,53
****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER IND CATES MESSAGE IN SUMMARY OF ERRORS LIST

10 YR FLOW

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	01K
*	30549.000	1.00	0.	0.	744.40	469.00	751.70	0.	751.72	1.01	1.40	578.79	4 5.80
*	30549.000	1.00	0.	0.	744.40	589.00	753.90	0.	753.90	.13	.65	1512.83	16 4.16
*	30549.000	1.00	0.	0.	744.40	643.00	754.90	0.	754.90	.07	.51	2036.54	24 8.78
*	30549.000	1.00	0.	0.	744.40	1269.00	757.70	0.	757.70	.05	.51	4053.83	57 1.60
	30598.000	49.00	0.	0.	744.60	469.00	751.71	0.	751.72	1.02	1.38	579.60	4 4.92
	30598.000	49.00	0.	0.	744.60	589.00	753.90	0.	753.90	.14	.65	1485.24	15 1.47
	30598.000	49.00	0.	0.	744.60	643.00	754.90	0.	754.90	.07	.52	1971.41	23 1.34
	30598.000	49.00	0.	0.	744.60	1269.00	757.70	0.	757.70	.06	.55	3505.35	53 9.57
	30648.000	50.00	0.	0.	744.90	469.00	751.71	0.	751.73	1.11	1.40	570.40	4 5.58
	30648.000	50.00	0.	0.	744.90	589.00	753.90	0.	753.90	.16	.68	1336.65	14 0.95
	30648.000	50.00	0.	0.	744.90	643.00	754.90	0.	754.90	.09	.57	1686.43	21 3.60
	30648.000	50.00	0.	0.	744.90	1269.00	757.70	0.	757.70	.08	.66	2666.29	44 6.61
	30690.000	42.00	0.	0.	746.00	469.00	751.71	0.	751.74	1.51	1.63	398.59	3 2.28
	30690.000	42.00	0.	0.	746.00	589.00	753.90	0.	753.91	.28	.91	923.21	11 6.57
	30690.000	42.00	0.	0.	746.00	643.00	754.90	0.	754.91	.16	.76	1209.62	16 3.45
	30690.000	42.00	0.	0.	746.00	1269.00	757.70	0.	757.71	.13	.84	2150.98	35 0.75
	30702.000	12.00	0.	0.	745.70	469.00	751.70	0.	751.76	2.95	2.16	307.35	2 2.96
	30702.000	12.00	0.	0.	745.70	589.00	753.90	0.	753.91	.47	1.09	817.41	8 9.95
	30702.000	12.00	0.	0.	745.70	643.00	754.90	0.	754.91	.25	.86	1098.19	12 2.89
	30702.000	12.00	0.	0.	745.70	1269.00	757.70	0.	757.71	.18	.90	1991.02	30 4.28
	30703.000	1.00	749.40	751.40	745.70	469.00	751.71	0.	751.76	6.36	2.00	296.31	1 6.02
	30703.000	1.00	749.40	751.40	745.70	589.00	753.90	0.	753.91	.90	.70	777.49	6 9.76
	30703.000	1.00	749.40	751.40	745.70	643.00	754.90	0.	754.91	.41	.53	1058.47	9 9.80
	30703.000	1.00	749.40	751.40	745.70	1269.00	757.70	0.	757.71	.25	.51	1951.37	25 1.69
	30710.000	7.00	749.40	751.40	745.70	469.00	751.72	0.	751.76	6.31	1.99	297.64	1 6.77
	30710.000	7.00	749.40	751.40	745.70	589.00	753.90	0.	753.91	.90	.70	778.27	6 0.72
	30710.000	7.00	749.40	751.40	745.70	643.00	754.90	0.	754.91	.41	.52	1058.80	10 0.29
	30710.000	7.00	749.40	751.40	745.70	1269.00	757.70	0.	757.71	.25	.51	1951.49	25 1.94
	30711.000	1.00	0.	0.	745.70	469.00	751.71	0.	751.77	2.92	2.15	309.36	2 4.69
	30711.000	1.00	0.	0.	745.70	589.00	753.90	0.	753.91	.47	1.09	817.94	8 0.71
	30711.000	1.00	0.	0.	745.70	643.00	754.90	0.	754.91	.25	.86	1098.43	12 3.30
	30711.000	1.00	0.	0.	745.70	1269.00	757.70	0.	757.71	.18	.89	1991.11	30 4.48

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	01K
	30760.000	50.00	0.	0.	746.00	488.00	751.76	0.	751.79	1.51	1.65	416.18	3 7.22
	30760.000	50.00	0.	0.	746.00	647.00	753.90	0.	753.91	.32	.98	950.14	11 3.91
	30760.000	50.00	0.	0.	746.00	727.00	754.90	0.	754.91	.20	.84	1244.09	16 3.09
	30760.000	50.00	0.	0.	746.00	1381.00	757.70	0.	757.71	.15	.90	2207.57	35 2.26
	31160.000	400.00	0.	0.	746.80	488.00	751.83	0.	751.89	3.41	2.24	284.84	2 4.23
	31160.000	400.00	0.	0.	746.80	647.00	753.92	0.	753.93	.61	1.18	815.11	8 0.89
	31160.000	400.00	0.	0.	746.80	727.00	754.91	0.	754.92	.32	.94	1151.39	12 7.77
	31160.000	400.00	0.	0.	746.80	1381.00	757.71	0.	757.71	.19	.92	2174.10	31 9.29
	31590.000	430.00	0.	0.	746.50	525.00	751.99	0.	752.04	3.50	1.87	295.70	2 0.69
	31590.000	430.00	0.	0.	746.50	778.00	753.95	0.	753.98	1.36	1.53	524.42	6 7.56
	31590.000	430.00	0.	0.	746.50	926.00	754.92	0.	754.95	1.02	1.47	648.15	9 6.10
	31590.000	430.00	0.	0.	746.50	1688.00	757.70	0.	757.75	.77	1.70	1079.34	19 0.83
	32015.000	425.00	0.	0.	747.90	525.00	752.17	0.	752.38	13.42	3.70	163.28	1 3.34
	32015.000	425.00	0.	0.	747.90	778.00	754.02	0.	754.05	2.09	1.90	692.76	5 7.71
	32015.000	425.00	0.	0.	747.90	926.00	754.98	0.	755.00	.90	1.41	1101.16	9 7.92
	32015.000	425.00	0.	0.	747.90	1688.00	757.77	0.	757.78	.31	1.10	2427.49	30 6.70
	32175.000	160.00	0.	0.	747.00	544.00	752.45	0.	752.59	10.33	3.17	258.94	1 9.22
	32175.000	160.00	0.	0.	747.00	865.00	754.06	0.	754.09	1.68	1.72	852.76	6 6.84
	32175.000	160.00	0.	0.	747.00	1064.00	755.00	0.	755.01	.85	1.39	1281.24	11 3.96
	32175.000	160.00	0.	0.	747.00	1911.00	757.77	0.	757.78	.30	1.09	2852.63	34 6.27
	32505.000	330.00	0.	0.	748.40	544.00	752.82	0.	753.04	14.80	3.75	145.19	1 1.39
	32505.000	330.00	0.	0.	748.40	865.00	754.13	0.	754.17	3.01	2.13	873.32	4 8.18
	32505.000	330.00	0.	0.	748.40	1064.00	755.04	0.	755.05	.83	1.28	1684.82	11 6.94
	32505.000	330.00	0.	0.	748.40	1911.00	757.79	0.	757.79	.16	.75	4320.52	48 6.25
	32985.000	480.00	0.	0.	748.00	563.00	753.54	0.	753.72	13.24	3.48	181.26	1 4.70
	32985.000	480.00	0.	0.	748.00	1016.00	754.33	0.	754.51	11.88	3.85	405.39	2 4.74
	32985.000	480.00	0.	0.	748.00	1323.00	755.09	0.	755.18	5.75	3.05	749.51	5 1.71
	32985.000	480.00	0.	0.	748.00	2496.00	757.79	0.	757.82	.92	1.70	2334.14	25 8.94
	33410.000	425.00	0.	0.	748.90	563.00	754.02	0.	754.18	8.65	3.10	176.32	1 1.48
	33410.000	425.00	0.	0.	748.90	1016.00	754.81	0.	755.13	14.04	4.56	242.58	2 1.16
	33410.000	425.00	0.	0.	748.90	1323.00	755.32	0.	755.69	15.11	5.04	314.92	3 0.35
	33410.000	425.00	0.	0.	748.90	2496.00	757.77	0.	758.01	7.25	4.48	773.07	9 7.09
	33815.000	405.00	0.	0.	747.70	563.00	754.30	0.	754.37	2.44	2.20	255.80	3 0.70
	33815.000	405.00	0.	0.	747.70	1016.00	755.31	0.	755.48	4.69	3.30	308.14	4 9.21
	33815.000	405.00	0.	0.	747.70	1323.00	755.87	0.	756.11	6.15	3.92	337.59	5 3.35
	33815.000	405.00	0.	0.	747.70	2496.00	757.99	0.	758.40	7.93	5.23	570.68	8 6.45
	33907.000	92.00	0.	0.	749.40	585.00	754.28	0.	754.48	15.18	3.54	165.28	1 0.16
	33907.000	92.00	0.	0.	749.40	1075.00	755.27	0.	755.70	27.10	5.23	205.67	2 6.49
	33907.000	92.00	0.	0.	749.40	1407.00	755.81	0.	756.40	34.29	6.16	228.45	2 0.26
	33907.000	92.00	0.	0.	749.40	2663.00	757.81	0.	758.89	47.02	8.32	320.01	3 8.37
	33957.000	50.00	0.	0.	749.40	585.00	754.08	0.	754.83	13.61	6.92	84.50	1 8.58
	33957.000	50.00	0.	0.	749.40	1075.00	754.75	0.	756.49	27.44	10.59	101.55	2 5.23
*	33957.000	50.00	0.	0.	749.40	1407.00	755.35	755.35	757.59	31.43	12.00	117.30	2 0.95
*	33957.000	50.00	0.	0.	749.40	2663.00	757.81	757.81	760.96	31.40	14.26	186.81	4 5.27

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10 YR FLOW

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	30549.000	469.00	751.70	0.	0.	0.	354.78	1.00
*	30549.000	589.00	753.90	2.20	0.	0.	480.00	1.00
*	30549.000	643.00	754.90	1.00	0.	0.	576.78	1.00
*	30549.000	1269.00	757.70	2.80	0.	0.	810.00	1.00
	30598.000	469.00	751.71	0.	.01	0.	360.84	49.00
	30598.000	589.00	753.90	2.19	.00	0.	467.03	49.00
	30598.000	643.00	754.90	1.00	.00	0.	502.77	49.00
	30598.000	1269.00	757.70	2.80	.00	0.	592.94	49.00
	30648.000	469.00	751.71	0.	.01	0.	344.08	50.00
	30648.000	589.00	753.90	2.19	.00	0.	350.00	50.00
	30648.000	643.00	754.90	1.00	.00	0.	350.00	50.00
	30648.000	1269.00	757.70	2.80	-.00	0.	350.00	50.00
	30690.000	469.00	751.71	0.	-.00	0.	195.87	42.00
	30690.000	589.00	753.90	2.19	-.00	0.	273.18	42.00
	30690.000	643.00	754.90	1.00	-.00	0.	300.18	42.00
	30690.000	1269.00	757.70	2.80	-.00	0.	369.02	42.00
	30702.000	469.00	751.70	0.	-.01	0.	170.74	12.00
	30702.000	589.00	753.90	2.20	-.00	0.	273.30	12.00
	30702.000	643.00	754.90	1.00	-.00	0.	288.45	12.00
	30702.000	1269.00	757.70	2.80	-.00	0.	347.72	12.00
	30703.000	469.00	751.71	0.	.01	0.	170.71	1.00
	30703.000	589.00	753.90	2.19	.00	0.	273.28	1.00
	30703.000	643.00	754.90	1.00	.00	0.	288.44	1.00
	30703.000	1269.00	757.70	2.80	.00	0.	347.72	1.00
	30710.000	469.00	751.72	0.	.01	0.	171.36	7.00
	30710.000	589.00	753.90	2.19	.00	0.	273.33	7.00
	30710.000	643.00	754.90	1.00	.00	0.	288.46	7.00
	30710.000	1269.00	757.70	2.80	.00	0.	347.73	7.00
	30711.000	469.00	751.71	0.	-.00	0.	171.52	1.00
	30711.000	589.00	753.90	2.19	-.00	0.	273.33	1.00
	30711.000	643.00	754.90	1.00	-.00	0.	288.46	1.00
	30711.000	1269.00	757.70	2.80	-.00	0.	347.73	1.00
	30760.000	488.00	751.76	0.	.05	0.	205.93	50.00
	30760.000	647.00	753.90	2.15	.00	0.	281.25	50.00
	30760.000	727.00	754.90	1.00	.00	0.	308.21	50.00
	30760.000	1381.00	757.70	2.80	.00	0.	377.02	50.00
	31160.000	488.00	751.83	0.	.07	0.	156.28	400.00
	31160.000	647.00	753.92	2.09	.01	0.	322.32	400.00
	31160.000	727.00	754.91	.99	.01	0.	348.62	400.00
	31160.000	1381.00	757.71	2.80	.01	0.	382.89	400.00
	31590.000	525.00	751.99	0.	.16	0.	111.75	430.00
	31590.000	778.00	753.95	1.96	.03	0.	123.18	430.00
	31590.000	926.00	754.92	.97	.01	0.	128.95	430.00
	31590.000	1688.00	757.70	2.78	-.00	0.	182.26	430.00

A

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH	
	32015.000	525.00	752.17	0.	.18	0.	169.96	425.00	
	32015.000	778.00	754.02	1.85	.07	0.	397.25	425.00	
	32015.000	926.00	754.98	.96	.06	0.	438.52	425.00	
	32015.000	1688.00	757.77	2.78	.06	0.	514.23	425.00	
	32175.000	544.00	752.45	0.	.28	0.	321.15	160.00	
	32175.000	865.00	754.06	1.61	.04	0.	423.36	160.00	C
	32175.000	1064.00	755.00	.94	.02	0.	483.89	160.00	
	32175.000	1911.00	757.77	2.77	.01	0.	635.75	160.00	
	32505.000	544.00	752.82	0.	.37	0.	51.65	330.00	
	32505.000	865.00	754.13	1.31	.07	0.	874.85	330.00	
	32505.000	1064.00	755.04	.90	.04	0.	921.72	330.00	D
	32505.000	1911.00	757.79	2.75	.01	0.	992.77	330.00	
	32985.000	563.00	753.54	0.	.71	0.	204.25	480.00	
	32985.000	1016.00	754.33	.79	.20	0.	370.11	480.00	E
	32985.000	1323.00	755.09	.76	.05	0.	511.27	480.00	
	32985.000	2496.00	757.79	2.71	.01	0.	633.08	480.00	
	33410.000	563.00	754.02	0.	.48	0.	52.85	425.00	
	33410.000	1016.00	754.81	.79	.48	0.	120.38	425.00	
	33410.000	1323.00	755.32	.51	.23	0.	158.05	425.00	
	33410.000	2496.00	757.77	2.45	-.02	0.	291.79	425.00	
	33815.000	563.00	754.30	0.	.28	0.	49.54	405.00	
	33815.000	1016.00	755.31	1.02	.50	0.	52.88	405.00	
	33815.000	1323.00	755.87	.55	.55	0.	54.66	405.00	
	33815.000	2496.00	757.99	2.12	.22	0.	267.72	405.00	
	33907.000	585.00	754.28	0.	-.01	0.	39.67	92.00	
	33907.000	1075.00	755.27	.99	-.04	0.	42.03	92.00	
	33907.000	1407.00	755.81	.53	-.06	0.	43.31	92.00	
	33907.000	2663.00	757.81	2.00	-.18	0.	48.09	92.00	
	33957.000	585.00	754.08	0.	-.20	0.	25.03	50.00	
	33957.000	1075.00	754.75	.67	-.52	0.	25.92	50.00	
★	33957.000	1407.00	755.35	.60	-.45	0.	26.71	50.00	
★	33957.000	2663.00	757.81	2.45	-.01	0.	29.96	50.00	

SUMMARY OF ERRORS

NOTE	SECNO=30549.000	PROFILE= 1	WSEL BASED ON X5 CARD
NOTE	SECNO=30549.000	PROFILE= 2	WSFL BASED ON X5 CARD
NOTE	SECNO=30549.000	PROFILE= 3	WSEL BASED ON X5 CARD
NOTE	SECNO=30549.000	PROFILE= 4	WSEL BASED ON X5 CARD
CAUTION	SECNO=33957.000	PROFILE= 3	CRITICAL DEPTH A SUMED
CAUTION	SECNO=33957.000	PROFILE= 3	MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=33957.000	PROFILE= 4	CRITICAL DEPTH A SUMED
CAUTION	SECNO=33957.000	PROFILE= 4	PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION	SECNO=33957.000	PROFILE= 4	20 TRIALS ATTEMP ED TO BALANCE WSEL

PRINTED IN U.S.A.

THIS RUN EXECUTED 27 MAR 79 14.04.25

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
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PAINT CREEK #3
CROSS SECTIONAL PLOTS
FROM MICHIGAN AVE. TO CONGRESS ST.

```
C
T1      YPSILANTI TOWNSHIP  FIS
T2      PAINT CREEK
T3      100 YR  FLOW

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       -0.       4.        -0.       -0.  -0.          -0.       -0.       -0.   760.200     -0.

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
    -1.000     -0.       -1.000    -0.       -0.       -0.       -0.       -0.       -0.       -0.

NC      .040      .040      .030      .300      .500      -0.       -0.       -0.       -0.       -0.
QT     4.000   585.000  1075.000  1407.000  2663.000      -0.       -0.       -0.       -0.       -0.

                    1 FT U/S MICHIGAN AVENUE (R COE VS-28)

X1  34044.000     9.000   190.000   242.000     1.000     1.000     1.000     -0.       -0.     1.000
X3         -0.      -0.       -0.   200.000       -0.   400.000       -0.       -0.       -0.       -0.
GR    759.600       0.   759.200   100.000   759.300   190.000   749.400   202.000   749.400   230.000
GR    759.600   242.000   759.600   250.000   759.600   300.000   760.300   400.000       -0.       -0.

                    50 FT U/S MICHIGAN AVENUE (R COE VS-29)

X1  34093.000    14.000    42.000    89.000    65.000    30.000    50.000     -0.       -0.       -0.
X3         -0.      -0.       -0.     5.000   760.100   395.000   760.100     -0.       -0.       -0.
GR    758.700       0.   758.700     9.000   756.900    42.000   752.600    42.000   750.400    47.000
GR    750.400    52.000   749.600    57.000   749.400    62.000   750.200    63.000   751.200    72.000
GR    757.400    89.000   757.600   142.000   758.800   242.000   760.000   260.000       -0.       -0.
NC       .040      .040      .030      -0.       -0.       -0.       -0.       -0.       -0.       -0.

                    100 FT U/S MICHIGAN AVENUE (COE VS-29)

X1  34143.000    14.000   100.000   130.000    50.000    50.000    50.000     -0.       -0.     1.000
X3         -0.      -0.       -0.     5.000   760.100   395.000   760.100     -0.       -0.       -0.
GR    758.700       0.   758.700    67.000   756.900   100.000   752.600   100.000   750.400   105.000
GR    750.400   110.000   749.900   115.000   749.900   120.000   750.200   121.000   751.200   127.000
GR    757.400   130.000   757.600   180.000   758.800   280.000   760.000   400.000       -0.       -0.
QT      4.000   657.000  1189.000  1472.000  2711.000      -0.       -0.       -0.       -0.       -0.

                    636FT  U/S MICHIGAN AVENUE (OPHM 75+10)

X1  34679.000     8.000   269.000   331.000   530.000   500.000   536.000     -0.       -0.     1.000
X3         -0.      -0.       -0.   125.000       -0.   479.000       -0.       -0.       -0.       -0.
GR    762.900    69.000   760.900   169.000   759.500   269.000   750.800   293.000   750.800   307.000
GR    757.800   331.000   760.100   431.000   762.500   531.000       -0.       -0.       -0.       -0.
NC       .030      .040      .030      -0.       -0.       -0.       -0.       -0.       -0.       -0.
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1016FT U/S MICHIGAN AVENUE (OPHM 78+90)

X1	35059.000	8.000	272.000	328.000	360.000	410.000	380.000	-0.	-0.	1.000
X3	-0.	-0.	-0.	155.000	-0.	415.000	-0.	-0.	-0.	-0.
GR	765.200	72.000	761.500	172.000	759.900	272.000	751.000	295.000	751.000	305.000
GR	758.000	328.000	761.000	428.000	770.000	528.000	-0.	-0.	-0.	-0.

1122FT U/S MICHIGAN AVENUE (OPHM 79+95)

X1	35164.000	9.000	272.000	328.000	180.000	120.000	105.000	-0.	-0.	1.000
X3	-0.	-0.	-0.	185.000	-0.	400.000	-0.	-0.	-0.	-0.
GR	764.700	72.000	760.500	172.000	758.800	272.000	751.000	294.000	751.000	306.000
GR	758.300	328.000	760.600	428.000	762.200	528.000	770.000	600.000	-0.	-0.
NC	.030	.030	.030	-0.	-0.	-0.	-0.	-0.	-0.	-0.

1233FT U/S MICHIGAN AVENUE (OPHM 81+07)

X1	35276.000	8.000	270.000	330.000	112.000	112.000	112.000	-0.	-0.	1.000
X3	-0.	-0.	-0.	210.000	-0.	400.000	-0.	-0.	-0.	-0.
GR	766.300	70.000	762.800	170.000	760.600	270.000	751.400	290.000	751.400	310.000
GR	758.600	330.000	762.100	430.000	765.000	530.000	-0.	-0.	-0.	-0.

50FT D/S COBBLE CREEK APTS DRIVE (R COE VS-30)

X1	35326.000	8.000	200.000	270.000	50.000	50.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	150.000	-0.	340.000	-0.	-0.	-0.	-0.
GR	764.300	0.	762.100	100.000	760.200	200.000	751.600	226.000	751.200	250.000
GR	760.100	270.000	761.600	300.000	764.100	366.000	-0.	-0.	-0.	-0.
NH	7.000	.040	200.000	.200	204.600	.033	213.200	.200	216.200	.033
NH	224.800	.200	230.000	.040	366.000	-0.	-0.	-0.	-0.	-0.

D/S FACE OF COBBLE CREEK APTS DRIVE (COE VS-30)

TWIN 5.92FT BY 8.58FT MULTI-PLATE CMP CULVERT W/WOOD WINGWALLS

X1	35376.000	30.000	200.000	230.000	50.000	50.000	50.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	130.000	-0.	320.000	-0.	-0.	-0.	-0.
GR	764.300	0.	762.100	100.000	760.200	200.000	752.800	200.000	752.400	204.600
GR	751.800	204.900	751.400	205.900	751.200	206.900	751.100	207.900	751.000	208.900
GR	751.100	209.900	751.200	210.900	750.400	211.900	751.800	212.900	752.400	213.200
GR	752.400	216.200	751.800	216.500	751.400	217.500	751.200	218.500	751.100	219.500
GR	751.000	220.500	751.100	221.500	751.200	222.500	751.400	223.500	751.800	224.500
GR	752.400	224.800	754.500	230.000	760.000	230.000	761.600	300.000	764.100	366.000
SB	1.250	2.580	3.040	0.	30.000	3.000	80.000	-0.	-0.	-0.
NH	7.000	.040	200.000	.200	204.600	.033	213.200	.200	216.200	.033
NH	224.800	.200	230.000	.040	366.000	-0.	-0.	-0.	-0.	-0.

U/S FACE OF COBBLE CREEK APTS DRIVE (R COE VS-30)

TWIN 5.92FT BY 8.58FT MULTI-PLATE CMP CULVERT W/WOOD WINGWALLS

X1	35414.000	30.000	200.000	230.000	38.000	38.000	38.000	-0.	-0.	1.000
X2	-0.	-0.	1.000	756.900	760.200	-0.	-0.	-0.	-0.	-0.
X3	-0.	-0.	-0.	130.000	-0.	320.000	-0.	-0.	-0.	-0.
BT	34.000	0.	764.300	0.	100.000	762.100	0.	200.000	760.200	0.
BT	200.000	760.200	752.800	204.600	760.200	752.400	204.600	760.200	753.400	204.900
BT	760.200	754.400	205.900	760.200	755.700	206.900	760.200	756.400	207.900	760.200
BT	756.800	208.900	760.200	756.900	209.900	760.200	756.800	210.900	760.200	756.400
BT	211.900	760.200	755.700	212.900	760.200	754.400	213.200	760.200	753.400	213.200

BT	760.200	752.400	216.200	760.200	752.400	216.200	760.200	753.400	216.500	760.200
BT	754.400	217.500	760.200	755.700	218.500	760.200	756.400	219.500	760.200	756.800
BT	220.500	760.200	756.900	221.500	760.200	756.800	222.500	760.200	756.400	223.500
BT	760.200	755.700	224.500	760.200	754.400	224.800	760.200	753.400	224.800	760.200
BT	752.400	230.000	760.100	754.500	230.000	760.100	0.	300.000	761.600	0.
BT	366.000	764.100	0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
GR	764.300	0.	762.100	100.000	760.200	200.000	752.800	200.000	752.400	204.600
GR	751.800	204.900	751.400	205.900	751.200	206.900	751.100	207.900	751.000	208.900
GR	751.100	209.900	751.200	210.900	750.400	211.900	751.800	212.900	752.400	213.200
GR	752.400	216.200	751.800	216.500	751.400	217.500	751.200	218.500	751.100	219.500
GR	751.000	220.500	751.100	221.500	751.200	222.500	751.400	223.500	751.800	224.500
GR	752.400	224.800	754.500	230.000	760.000	230.000	761.600	300.000	764.100	366.000
NC	.030	.030	.030	-0.	-0.	-0.	-0.	-0.	-0.	-0.

50FT U/S COBBLE CREEK APTS DRIVE (OPHM 82+87)

X1	35464.000	7.000	269.000	331.000	50.000	50.000	50.000	-0.	-0.	1.000
X3	-0.	-0.	-0.	220.000	-0.	410.000	-0.	-0.	-0.	-0.
GR	762.200	169.000	760.100	269.000	752.100	292.000	752.100	308.000	761.300	331.000
GR	761.400	431.000	763.400	531.000	-0.	-0.	-0.	-0.	-0.	-0.
NC	.040	.030	.030	-0.	-0.	-0.	-0.	-0.	-0.	-0.

759FT U/S COBBLE CREEK APTS DRIVE (OPHM 89+10)

X1	36087.000	8.000	255.000	345.000	623.000	623.000	623.000	-0.	-0.	1.000
X3	-0.	-0.	-0.	225.000	-0.	365.000	-0.	-0.	-0.	-0.
GR	765.000	55.000	765.700	155.000	762.400	255.000	752.900	292.000	752.900	308.000
GR	762.800	345.000	762.800	445.000	766.300	545.000	-0.	-0.	-0.	-0.
QT	4.000	535.000	980.000	1315.000	2250.000	-0.	-0.	-0.	-0.	-0.

819FT U/S COBBLE CREEK APTS DRIVE (OPHM 89+70)

X1	36147.000	8.000	260.000	340.000	60.000	60.000	60.000	-0.	-0.	1.000
X3	-0.	-0.	-0.	245.000	-0.	365.000	-0.	-0.	-0.	-0.
GR	766.600	60.000	765.800	160.000	753.200	260.000	753.200	290.000	753.700	310.000
GR	763.000	340.000	763.100	440.000	764.100	540.000	-0.	-0.	-0.	-0.

75FT D/S 11FT DIA ENCLOSURE OF PAINT CREEK (COE VS-31)

X1	36312.000	12.000	124.000	200.000	165.000	165.000	165.000	-0.	-0.	1.000
X3	-0.	-0.	-0.	137.000	-0.	187.000	-0.	-0.	-0.	-0.
GR	768.200	0.	764.900	100.000	764.300	124.000	754.600	154.000	754.200	160.000
GR	754.600	164.000	755.200	170.000	755.800	172.000	764.100	200.000	765.800	245.000
GR	765.400	345.000	771.800	400.000	-0.	-0.	-0.	-0.	-0.	-0.

24FT D/S 11FT DIA ENCLOSURE OF PAINT CREEK (R COE VS-31)

X1	36363.000	12.000	124.000	200.000	27.000	27.000	27.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	134.500	-0.	169.500	-0.	-0.	-0.	-0.
GR	768.200	0.	764.900	100.000	764.300	124.000	754.200	154.000	753.800	160.000
GR	754.200	164.000	754.800	170.000	755.400	172.000	764.100	200.000	765.800	245.000
GR	765.400	345.000	771.800	400.000	-0.	-0.	-0.	-0.	-0.	-0.

12FT D/S 11FT DIA ENCLOSURE OF PAINT CREEK (R COE VS-31)

X1	36375.000	12.000	124.000	200.000	12.000	12.000	12.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	143.500	-0.	160.500	-0.	-0.	-0.	-0.
GR	768.200	0.	764.900	100.000	764.300	124.000	753.800	154.000	753.400	160.000
GR	753.800	164.000	754.400	170.000	755.000	172.000	764.100	200.000	765.800	245.000
GR	765.400	345.000	771.800	400.000	-0.	-0.	-0.	-0.	-0.	-0.

NC	.040	.040	.020	-0.	-0.	0.	-0.	-0.	-0.	0.

4FT D/S 11FT DIA ENCLOSURE OF PAINT CREEK (R COE VS-31)

X1	36383.000	12.000	124.000	200.000	8.000	8.000	8.000	-0.	-0.	-0.
X3	-0.	-0.	-0.	145.500	-0.	158.500	-0.	-0.	-0.	-0.
GR	768.200	0.	764.900	100.000	764.300	124.000	753.700	154.000	753.300	160.000
GR	753.700	164.000	754.300	170.000	754.900	172.000	764.100	200.000	765.800	245.000
GR	765.400	345.000	771.800	400.000	-0.	-0.	-0.	-0.	-0.	-0.
NC	.030	.030	.013	-0.	-0.	-0.	-0.	-0.	-0.	-0.

D/S FACE OF PAINT CREEK ENCLOSURE AT CONGRESS 11FT DIA RCP

X1	36387.000	14.000	124.000	135.000	4.000	4.000	4.000	-0.	-0.	1.000
GR	768.200	0.	764.900	100.000	764.300	124.000	757.400	124.000	754.700	125.500
GR	753.400	127.500	753.200	129.500	753.400	131.500	754.700	133.500	757.400	135.000
GR	764.100	135.000	765.800	180.000	765.400	280.000	771.800	315.000	-0.	-0.
EJ	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.

*PROF 1

CCHV= .300 CEHV= .500

*SECNO 34044.000

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
34044.00	10.80	760.20	0.	760.20	760.39	.19	0.	0.	100000.00
1407.	0.	1381.	26.	0.	391.	61.	0.	0.	759.60
0.	0.	3.53	.43	.040	.030	.040	0.	749.40	200.00
.000377	1.	1.	1.	0	0	0	0.	185.71	385.71

3470 ENCROACHMENT STATIONS= 200.0 400.0 TYPE= 1 TARGET= 200.000

1 FT U/S MICHIGAN AVENUE (R COE VS-28)

*SECNO 34093.000

3280 CROSS SECTION 34093.00 EXTENDED .37 FEET

3470 ENCROACHMENT STATIONS= 5.0 395.0 TYPE= 1 TARGET= 390.000
ELENCL= 760.10 ELENCR= 760.10

50 FT U/S MICHIGAN AVENUE (R COE VS-29)

34093.00	10.97	760.37	0.	0.	760.44	.07	.01	.04	756.90
1407.	82.	993.	332.	93.	401.	386.	1.	0.	757.40
.01	.88	2.48	.86	.040	.030	.040	.031	749.40	0.
.000169	65.	50.	30.	2	0	0	0.	260.00	260.00

*SECNO 34143.000

3280 CROSS SECTION 34143.00 EXTENDED .38 FEET

3470 ENCROACHMENT STATIONS= 5.0 395.0 TYPE= 1 TARGET= 390.000
FLENCL= 760.10 ELENCR= 760.10

100 FT U/S MICHIGAN AVENUE (COE VS-29)

34143.00	10.47	760.37	0.	0.	760.45	.08	.01	.00	756.90
1407.	172.	801.	434.	191.	285.	479.	2.	1.	757.40
.01	.90	2.82	.90	.040	.030	.040	.030	749.90	0.
.000227	50.	50.	50.	0	0	0	0.	400.00	400.00

*SECNO 34679.000

3470 ENCROACHMENT STATIONS= 125.0 479.0 TYPE= 1 TARGET= 354.000

636FT U/S MICHIGAN AVENUE (OPHM 75+10)

34679.00	9.69	760.49	0.	0.	760.63	.14	.15	.03	759.50
1472.	15.	1315.	142.	35.	412.	156.	11.	4.	757.80
.06	.43	3.19	.91	.040	.030	.040	.030	750.80	198.75

.000350	530.	536.	500.	1	0	0	0.	248.22	446.98

*SECNO 35059.000

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= 155.0 415.0 TYPE= 1 TARGET= 260.000

1016FT U/S MICHIGAN AVENUE (OPHM 78+90)

35059.00	9.62	760.62	0.	0.	760.82	.20	.16	.03	759.90
1472.	9.	1346.	117.	16.	356.	114.	16.	6.	758.00
.09	.58	3.78	1.02	.030	.030	.040	.030	751.00	226.96
.000527	360.	380.	410.	2	0	0	0.	188.04	415.00

*SECNO 35164.000

3470 ENCROACHMENT STATIONS= 185.0 400.0 TYPE= 1 TARGET= 215.000

1122FT U/S MICHIGAN AVENUE (OPHM 79+95)

35164.00	9.75	760.75	0.	0.	760.89	.14	.05	.02	758.80
1472.	112.	1247.	113.	105.	380.	116.	17.	7.	758.30
.10	1.07	3.29	.97	.030	.030	.040	.030	751.00	185.00
.000363	180.	105.	120.	2	0	0	0.	215.00	400.00

*SECNO 35276.000

3470 ENCROACHMENT STATIONS= 210.0 400.0 TYPE= 1 TARGET= 190.000

1233FT U/S MICHIGAN AVENUE (OPHM 81+07)

35276.00	9.37	760.77	0.	0.	760.95	.18	.04	.02	760.60
1472.	0.	1399.	73.	1.	398.	67.	19.	7.	758.60
.11	.20	3.51	1.09	.030	.030	.030	.030	751.40	262.23
.000432	112.	112.	112.	2	0	0	0.	129.79	392.02

*SECNO 35326.000

3470 ENCROACHMENT STATIONS= 150.0 340.0 TYPE= 1 TARGET= 190.000

50FT D/S COBBLE CREEK APTS DRIVE (R COE VS-30)

35326.00	9.62	760.82	0.	0.	760.98	.16	.02	.01	760.20
1472.	4.	1465.	2.	10.	458.	5.	19.	8.	760.10
.12	.43	3.20	.48	.030	.030	.030	.030	751.20	167.24
.000363	50.	50.	50.	2	0	0	0.	117.21	284.45

1490 NH CARD USED

*SECNO 35376.000

3470 ENCROACHMENT STATIONS= 130.0 320.0 TYPE= 1 TARGET= 190.000

D/S FACE OF COBBLE CREEK APTS DRIVE (COE VS-30)

TWIN 5.92FT BY 8.58FT MULTI-PLATE CMP CULVERT W/WOOD WINGWALLS

35376.00	10.30	760.70	0.	0.	761.18	.48	.04	.16	760.20	
1472.	4.	1458.	9.	7.	262.	11.	20.	8.	760.00	
.12	.68	5.57	.86	.040	.193	.040	.030	750.40	173.71	
.002150	50.	50.	50.	2	0	0	0.	86.90	260.61	

SPECIAL BRIDGE

5070,VARIABLE FLCHU OR ELCHD ON CARD SB NOT SPECIFIED

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BARFA	SS	ELCHU	ELCHD
	1.25	2.58	3.04	0.	30.00	3.00	80.00	-0.	750.40	750.40

1490 NH CARD USED

*SECNO 35414.000

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	QWFIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
774.26	761.31	.13	977.	497.	80.	176.	756.90	760.20

27 x 5.5

148.5

3470 ENCROACHMENT STATIONS= 130.0 320.0 TYPE= 1 TARGET= 190.000

U/S FACE OF COBBLE CREEK APTS DRIVE (R COE VS-30)

TWIN 5.92FT BY 8.58FT MULTI-PLATE CMP CULVERT W/WOOD WINGWALLS

35414.00	11.61	762.01	0.	0.	762.25	.23	1.07	0.	760.20
1472.	105.	1251.	116.	81.	301.	87.	20.	8.	760.00
.12	1.30	4.15	1.33	.040	.193	.040	.030	750.40	130.00
.001019	38.	38.	38.	2	0	6	0.	181.00	311.00

*SECNO 35464.000

3470 ENCROACHMENT STATIONS= 220.0 410.0 TYPE= 1 TARGET= 190.000

50FT U/S COBBLE CREEK APTS DRIVE (OPHM 82+87)

35464.00	10.06	762.16	0.	0.	762.30	.14	.03	.03	760.10
1472.	89.	1332.	51.	76.	426.	65.	21.	8.	761.30
.13	1.18	3.13	.78	.030	.030	.030	.030	752.10	220.00
.000326	50.	50.	50.	2	0	0	0.	190.00	410.00

*SECNO 36087.000

3470 ENCROACHMENT STATIONS= 225.0 365.0 TYPE= 1 TARGET= 140.000

759FT U/S COBBLE CREEK APTS DRIVE (OPHM 89+10)

36087.00	9.48	762.38	0.	0.	762.52	.14	.22	.00	762.40
1472.	0.	1472.	0.	0.	495.	0.	28.	10.	762.80
.19	0.	2.98	0.	.040	.030	.030	.030	752.90	255.07
.000376	623.	623.	623.	2	0	0	0.	88.37	343.44

*SECNO 36147.000

3470 ENCROACHMENT STATIONS= 245.0 365.0 TYPE= 1 TARGET= 120.000

819FT U/S COBBLE CREEK APTS DRIVE (OPHM 89+70)

36147.00	9.31	762.51	0.	0.	762.56	.05	.01	.03	753.20	
1215.	143.	1072.	0.	125.	586.	0.	29.	10.	763.00	
.20	1.14	1.83	0.	.040	.030	.030	.030	753.20	245.00	
.000096	60.	60.	60.	2	0	0	0.	93.41	338.41	

*SECNO 36312.000

3470 ENCROACHMENT STATIONS= 137.0 187.0 TYPE= 1 TARGET= 50.000

75FT D/S 11FT DIA ENCLOSURE OF PAINT CREEK (COE VS-31)

36312.00	8.23	762.43	0.	0.	762.70	.27	.03	.11100000.00		
1215.	0.	1215.	0.	0.	292.	0.	31.	10.	100000.00	
.21	0.	4.16	0.	.040	.030	.030	.030	754.20	137.00	
.000784	165.	165.	165.	2	0	0	0.	50.00	187.00	

*SECNO 36363.000

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= 134.5 169.5 TYPE= 1 TARGET= 35.000

24FT D/S 11FT DIA ENCLOSURE OF PAINT CREEK (R COE VS-31)

36363.00	8.56	762.36	0.	0.	762.83	.46	.03	.10100000.00		
1215.	0.	1215.	0.	0.	222.	0.	31.	10.	100000.00	
.21	0.	5.47	0.	.040	.030	.030	.030	753.80	134.50	
.001464	27.	27.	27.	2	0	0	0.	35.00	169.50	

*SECNO 36375.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 143.5 160.5 TYPE= 1 TARGET= 17.000

12FT D/S 11FT DIA ENCLOSURE OF PAINT CREEK (R COE VS-31)

36375.00	8.41	761.81	0.	0.	763.45	1.64	.03	.59100000.00		
1215.	0.	1215.	0.	0.	118.	0.	31.	10.	100000.00	
.21	0.	10.26	0.	.040	.030	.030	.030	753.40	143.50	
.006988	12.	12.	12.	2	0	0	0.	17.00	160.50	

*SECNO 36383.000

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
36383.00	7.67	761.07	761.07	0.	764.34	3.27	.06	.82	100000.00
1215.	0.	1215.	0.	0.	84.	0.	31.	10.	100000.00
.21	0.	14.51	0.	.040	.020	.040	.030	753.40	145.50
.007847	8.	8.	8.	3	11	0	0.	13.00	158.50

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 145.5 158.5 TYPE= 1 TARGET= 13.000

4FT D/S 11FT DIA ENCLOSURE OF PAINT CREEK (R COE VS-31)

*SECNO 36387.000

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

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

D/S FACE OF PAINT CREEK ENCLOSURE AT CONGRESS 11FT DIA RCP

36387.00	8.33	761.53	761.53	0.	765.18	3.65	.02	.19	764.30
1215.	0.	1215.	0.	0.	79.	0.	31.	10.	764.10
.21	0.	15.33	0.	.030	.013	.030	.030	753.20	124.00
.003499	4.	4.	4.	20	8	0	0.	11.00	135.00

THIS RUN EXECUTED 14 FEB 79 14.39.34

****
HEC2 RELEASE DATED NOV 76 UPDATED AUG1977
ERROR CORR - 01,02
MODIFICATION - 50,51,52,53
****

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

10 YR FLOW

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	01K
*	34044.000	1.00	0.	0.	749.40	585.00	755.78	0.	755.90	3.85	2.74	213.69	2 8.30
*	34044.000	1.00	0.	0.	749.40	1075.00	759.58	0.	759.71	2.83	2.95	364.71	6 8.90
*	34044.000	1.00	0.	0.	749.40	1407.00	760.20	0.	760.39	3.77	3.53	451.26	7 4.59
*	34044.000	1.00	0.	0.	749.40	2663.00	761.30	0.	761.70	7.72	5.38	670.55	9 8.59
	34093.000	50.00	0.	0.	749.40	585.00	755.79	0.	755.94	6.12	3.08	189.63	2 6.51
	34093.000	50.00	0.	0.	749.40	1075.00	759.68	0.	759.75	1.62	2.29	704.19	8 4.86
	34093.000	50.00	0.	0.	749.40	1407.00	760.37	0.	760.44	1.69	2.48	879.95	10 1.08
	34093.000	50.00	0.	0.	749.40	2663.00	761.68	0.	761.80	2.64	3.41	1222.46	16 7.75
	34143.000	50.00	0.	0.	749.90	585.00	755.78	0.	756.02	9.83	3.98	147.06	1 6.58
	34143.000	50.00	0.	0.	749.90	1075.00	759.68	0.	759.77	2.54	2.83	683.89	6 4.62
	34143.000	50.00	0.	0.	749.90	1407.00	760.37	0.	760.45	2.27	2.82	954.53	9 4.33
	34143.000	50.00	0.	0.	749.90	2663.00	761.74	0.	761.83	2.67	3.34	1497.44	16 9.98
	34679.000	536.00	0.	0.	750.80	657.00	756.37	0.	756.59	11.09	3.78	173.98	1 7.27
	34679.000	536.00	0.	0.	750.80	1189.00	759.82	0.	759.95	3.65	3.04	462.69	6 2.33
	34679.000	536.00	0.	0.	750.80	1472.00	760.49	0.	760.63	3.50	3.19	602.92	7 6.44
	34679.000	536.00	0.	0.	750.80	2711.00	761.86	0.	762.06	4.34	4.03	1037.18	13 1.03
	35059.000	380.00	0.	0.	751.00	657.00	756.81	0.	757.09	13.81	4.17	157.37	1 6.79
	35059.000	380.00	0.	0.	751.00	1189.00	759.96	0.	760.15	5.40	3.56	382.88	5 1.43
	35059.000	380.00	0.	0.	751.00	1472.00	760.62	0.	760.82	5.27	3.78	486.60	6 1.31
	35059.000	380.00	0.	0.	751.00	2711.00	762.02	0.	762.30	6.49	4.79	805.52	10 4.16
	35164.000	105.00	0.	0.	751.00	657.00	757.01	0.	757.23	10.04	3.70	177.63	2 7.39
	35164.000	105.00	0.	0.	751.00	1189.00	760.05	0.	760.21	4.10	3.25	453.89	5 7.11
	35164.000	105.00	0.	0.	751.00	1472.00	760.75	0.	760.89	3.63	3.29	601.12	7 2.13
	35164.000	105.00	0.	0.	751.00	2711.00	762.19	0.	762.39	4.44	4.13	911.08	12 6.42
	35276.000	112.00	0.	0.	751.40	657.00	757.16	0.	757.33	7.43	3.33	197.02	2 1.07
	35276.000	112.00	0.	0.	751.40	1189.00	760.10	0.	760.26	4.14	3.24	390.64	5 4.55
	35276.000	112.00	0.	0.	751.40	1472.00	760.77	0.	760.95	4.32	3.51	466.24	7 7.81
	35276.000	112.00	0.	0.	751.40	2711.00	762.19	0.	762.50	6.07	4.74	705.44	11 0.34
	35326.000	50.00	0.	0.	751.20	657.00	757.25	0.	757.38	5.17	2.86	229.85	2 8.84
	35326.000	50.00	0.	0.	751.20	1189.00	760.15	0.	760.28	3.42	2.89	410.84	6 3.06
	35326.000	50.00	0.	0.	751.20	1472.00	760.82	0.	760.98	3.63	3.20	472.98	7 2.23
	35326.000	50.00	0.	0.	751.20	2711.00	762.23	0.	762.53	5.67	4.55	678.81	11 8.20

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	01K
	35376.000	50.00	0.	0.	750.40	657.00	757.23	0.	757.50	20.42	4.16	157.75	1 5.38
	35376.000	50.00	0.	0.	750.40	1189.00	760.07	0.	760.44	18.07	4.89	243.08	2 9.71
	35376.000	50.00	0.	0.	750.40	1472.00	760.70	0.	761.18	21.50	5.57	279.24	3 7.43
	35376.000	50.00	0.	0.	750.40	2711.00	762.05	0.	762.82	33.68	7.56	476.25	4 7.14
	35414.000	38.00	760.20	756.90	750.40	657.00	759.81	0.	759.93	6.10	2.79	235.18	2 6.00
	35414.000	38.00	760.20	756.90	750.40	1189.00	761.71	0.	761.90	8.18	3.65	415.97	4 5.80
	35414.000	38.00	760.20	756.90	750.40	1472.00	762.01	0.	762.25	10.19	4.15	469.53	4 1.18
	35414.000	38.00	760.20	756.90	750.40	2711.00	762.79	0.	763.24	20.13	6.09	614.82	6 4.24
	35464.000	50.00	0.	0.	752.10	657.00	759.88	0.	759.96	2.69	2.29	286.73	4 0.37
	35464.000	50.00	0.	0.	752.10	1189.00	761.84	0.	761.95	2.68	2.75	504.84	7 6.37
	35464.000	50.00	0.	0.	752.10	1472.00	762.16	0.	762.30	3.26	3.13	566.81	8 5.78
	35464.000	50.00	0.	0.	752.10	2711.00	763.05	0.	763.34	6.03	4.61	736.50	11 4.42
	36087.000	623.00	0.	0.	752.90	657.00	760.06	0.	760.13	2.63	2.12	310.11	4 4.84
	36087.000	623.00	0.	0.	752.90	1189.00	762.02	0.	762.12	2.93	2.57	463.37	6 4.94
	36087.000	623.00	0.	0.	752.90	1472.00	762.38	0.	762.52	3.76	2.98	494.78	7 8.91
	36087.000	623.00	0.	0.	752.90	2711.00	763.44	0.	763.76	7.17	4.56	618.48	10 2.25
	36147.000	60.00	0.	0.	753.20	535.00	760.13	0.	760.15	.53	1.15	498.07	7 5.05
	36147.000	60.00	0.	0.	753.20	980.00	762.12	0.	762.15	.73	1.56	674.65	11 0.30
	36147.000	60.00	0.	0.	753.20	1215.00	762.51	0.	762.56	.96	1.83	710.99	12 2.09
	36147.000	60.00	0.	0.	753.20	2250.00	763.72	0.	763.85	2.03	2.91	843.87	15 8.97
	36312.000	165.00	0.	0.	754.20	535.00	759.88	0.	760.46	38.21	6.14	87.10	6.55
	36312.000	165.00	0.	0.	754.20	980.00	761.79	0.	762.56	36.73	7.04	139.22	1 1.70
	36312.000	165.00	0.	0.	754.20	1215.00	762.05	0.	763.11	48.35	8.23	147.58	1 4.74
*	36312.000	165.00	0.	0.	754.20	2250.00	762.84	762.84	765.48	108.97	13.02	172.83	2 5.54
	36363.000	27.00	0.	0.	753.80	535.00	760.44	0.	760.62	8.17	3.45	155.15	1 7.17
	36363.000	27.00	0.	0.	753.80	980.00	762.45	0.	762.74	9.13	4.35	225.40	3 4.33
	36363.000	27.00	0.	0.	753.80	1215.00	762.98	0.	763.36	11.16	4.99	243.61	3 3.64
	36363.000	27.00	0.	0.	753.80	2250.00	765.41	0.	766.14	16.08	6.84	328.83	5 1.05
	36375.000	12.00	0.	0.	753.40	535.00	760.29	0.	760.81	26.90	5.79	92.37	1 3.15
	36375.000	12.00	0.	0.	753.40	980.00	762.13	0.	763.10	40.38	7.92	123.69	1 4.22
	36375.000	12.00	0.	0.	753.40	1215.00	762.52	0.	763.87	53.83	9.32	130.39	1 5.61
	36375.000	12.00	0.	0.	753.40	2250.00	764.29	0.	767.34	106.58	14.03	160.37	2 7.95
	36383.000	8.00	0.	0.	753.40	535.00	760.13	0.	761.00	23.20	7.48	71.54	1 1.07
	36383.000	8.00	0.	0.	753.40	980.00	761.79	0.	763.51	38.57	10.53	93.07	1 7.79
	36383.000	8.00	0.	0.	753.40	1215.00	761.98	0.	764.49	55.27	12.71	95.59	1 3.43
*	36383.000	8.00	0.	0.	753.40	2250.00	764.37	764.37	769.27	91.93	17.76	126.66	2 4.67
	36387.000	4.00	0.	0.	753.20	535.00	760.01	0.	761.14	12.41	8.56	62.51	1 1.86
	36387.000	4.00	0.	0.	753.20	980.00	761.45	0.	763.87	23.39	12.50	78.41	2 2.63
*	36387.000	4.00	0.	0.	753.20	1215.00	761.55	761.55	765.18	34.75	15.29	79.49	2 6.11
*	36387.000	4.00	0.	0.	753.20	2250.00	767.09	767.09	768.12	9.38	10.12	525.17	7 4.63

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10 YR FLOW

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	34044.000	585.00	755.78	0.	0.	-.02	37.51	1.00
*	34044.000	1075.00	759.58	3.80	0.	-.02	41.98	1.00
*	34044.000	1407.00	760.20	.62	0.	0.	185.71	1.00
*	34044.000	2663.00	761.30	1.10	0.	0.	200.00	1.00
	34093.000	585.00	755.79	0.	.01	0.	42.60	50.00
	34093.000	1075.00	759.68	3.89	.10	0.	250.21	50.00
	34093.000	1407.00	760.37	.69	.17	0.	260.00	50.00
	34093.000	2663.00	761.68	1.32	.38	0.	260.00	50.00
	34143.000	585.00	755.78	0.	-.01	0.	29.21	50.00
	34143.000	1075.00	759.68	3.90	-.00	0.	363.51	50.00
	34143.000	1407.00	760.37	.70	.01	0.	400.00	50.00
	34143.000	2663.00	761.74	1.36	.06	0.	400.00	50.00
	34679.000	657.00	756.37	0.	.59	0.	48.47	536.00
	34679.000	1189.00	759.82	3.45	.14	0.	172.34	536.00
	34679.000	1472.00	760.49	.67	.11	0.	248.22	536.00
	34679.000	2711.00	761.86	1.37	.12	0.	354.00	536.00
	35059.000	657.00	756.81	0.	.44	0.	44.13	380.00
	35059.000	1189.00	759.96	3.14	.14	0.	124.96	380.00
	35059.000	1472.00	760.62	.66	.13	0.	188.04	380.00
	35059.000	2711.00	762.02	1.40	.16	0.	256.99	380.00
	35164.000	657.00	757.01	0.	.20	0.	47.08	105.00
	35164.000	1189.00	760.05	3.04	.10	0.	201.78	105.00
	35164.000	1472.00	760.75	.69	.13	0.	215.00	105.00
	35164.000	2711.00	762.19	1.44	.17	0.	215.00	105.00
	35276.000	657.00	757.16	0.	.15	0.	48.49	112.00
	35276.000	1189.00	760.10	2.94	.04	0.	101.84	112.00
	35276.000	1472.00	760.77	.67	.03	0.	129.79	112.00
	35276.000	2711.00	762.19	1.42	.01	0.	190.00	112.00
	35326.000	657.00	757.25	0.	.09	0.	54.68	50.00
	35326.000	1189.00	760.15	2.90	.06	0.	70.95	50.00
	35326.000	1472.00	760.82	.67	.05	0.	117.21	50.00
	35326.000	2711.00	762.23	1.40	.03	0.	166.37	50.00
	35376.000	657.00	757.23	0.	-.03	0.	30.00	50.00
	35376.000	1189.00	760.07	2.84	-.09	0.	32.92	50.00
	35376.000	1472.00	760.70	.63	-.12	0.	86.90	50.00
	35376.000	2711.00	762.05	1.35	-.17	0.	181.97	50.00
	35414.000	657.00	759.81	0.	2.58	0.	30.00	38.00
	35414.000	1189.00	761.71	1.91	1.65	0.	173.01	38.00
	35414.000	1472.00	762.01	.30	1.32	0.	181.00	38.00
	35414.000	2711.00	762.79	.77	.74	0.	190.00	38.00
	35464.000	657.00	759.88	0.	.07	0.	57.78	50.00
	35464.000	1189.00	761.84	1.96	.12	0.	190.00	50.00
	35464.000	1472.00	762.16	.33	.15	0.	190.00	50.00
	35464.000	2711.00	763.05	.89	.27	0.	190.00	50.00

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	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	36087.000	657.00	760.06	0.	.18	0.	70.64	623.00
	36087.000	1189.00	762.02	1.96	.18	0.	85.61	623.00
	36087.000	1472.00	762.38	.36	.22	0.	88.37	623.00
	36087.000	2711.00	763.44	1.06	.39	0.	140.00	623.00
	36147.000	535.00	760.13	0.	.07	0.	85.75	60.00
	36147.000	980.00	762.12	1.99	.10	0.	92.15	60.00
	36147.000	1215.00	762.51	.39	.13	0.	93.41	60.00
	36147.000	2250.00	763.72	1.22	.28	0.	120.00	60.00
	36312.000	535.00	759.88	0.	-.26	0.	24.32	165.00
	36312.000	980.00	761.79	1.91	-.33	0.	30.23	165.00
	36312.000	1215.00	762.05	.27	-.45	0.	31.08	165.00
*	36312.000	2250.00	762.84	.79	-.88	0.	33.49	165.00
	36363.000	535.00	760.44	0.	.56	0.	34.04	27.00
	36363.000	980.00	762.45	2.01	.66	0.	35.00	27.00
	36363.000	1215.00	762.98	.53	.92	0.	35.00	27.00
	36363.000	2250.00	765.41	2.43	2.57	0.	35.00	27.00
	36375.000	535.00	760.29	0.	-.15	0.	17.00	12.00
	36375.000	980.00	762.13	1.84	-.32	0.	17.00	12.00
	36375.000	1215.00	762.52	.39	-.46	0.	17.00	12.00
	36375.000	2250.00	764.29	1.77	-1.12	0.	17.00	12.00
	36383.000	535.00	760.13	0.	-.15	0.	13.00	8.00
	36383.000	980.00	761.79	1.65	-.34	0.	13.00	8.00
	36383.000	1215.00	761.98	.20	-.54	0.	13.00	8.00
*	36383.000	2250.00	764.37	2.39	.09	0.	13.00	8.00
	36387.000	535.00	760.01	0.	-.13	0.	11.00	4.00
	36387.000	980.00	761.45	1.44	-.34	0.	11.00	4.00
*	36387.000	1215.00	761.55	.10	-.43	0.	11.00	4.00
*	36387.000	2250.00	767.09	5.54	2.71	0.	255.49	4.00

SUMMARY OF ERRORS

NOTE SECNO=34044.000 PROFILE= 1 WSEL BASED ON X5 CARD
NOTE SECNO=34044.000 PROFILE= 2 WSEL BASED ON X5 CARD
NOTE SECNO=34044.000 PROFILE= 3 WSEL BASED ON X5 CARD
NOTE SECNO=34044.000 PROFILE= 4 WSEL BASED ON X5 CARD

CAUTION SECNO=36312.000 PROFILE= 4 CRITICAL DEPTH A SUMED
CAUTION SECNO=36312.000 PROFILE= 4 MINIMUM SPECIFIC ENERGY

CAUTION SECNO=36383.000 PROFILE= 4 CRITICAL DEPTH A SUMED
CAUTION SECNO=36383.000 PROFILE= 4 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO=36383.000 PROFILE= 4 20 TRIALS ATTEMP ED TO BALANCE WSEL

CAUTION SECNO=36387.000 PROFILE= 3 CRITICAL DEPTH A SUMED
CAUTION SECNO=36387.000 PROFILE= 3 MINIMUM SPECIFIC ENERGY
CAUTION SECNO=36387.000 PROFILE= 4 CRITICAL DEPTH A SUMED
CAUTION SECNO=36387.000 PROFILE= 4 20 TRIALS ATTEMP ED TO BALANCE WSEL

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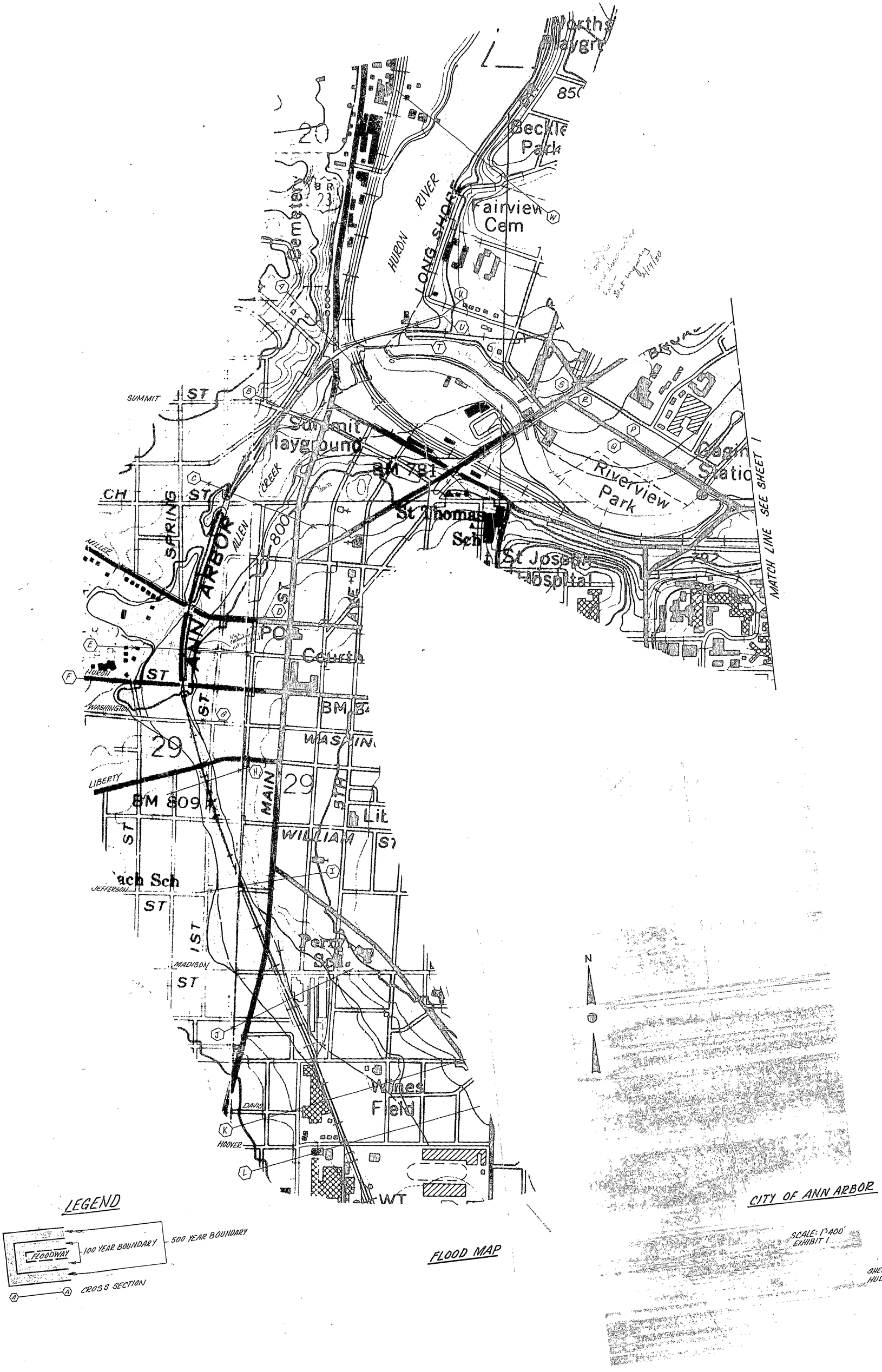
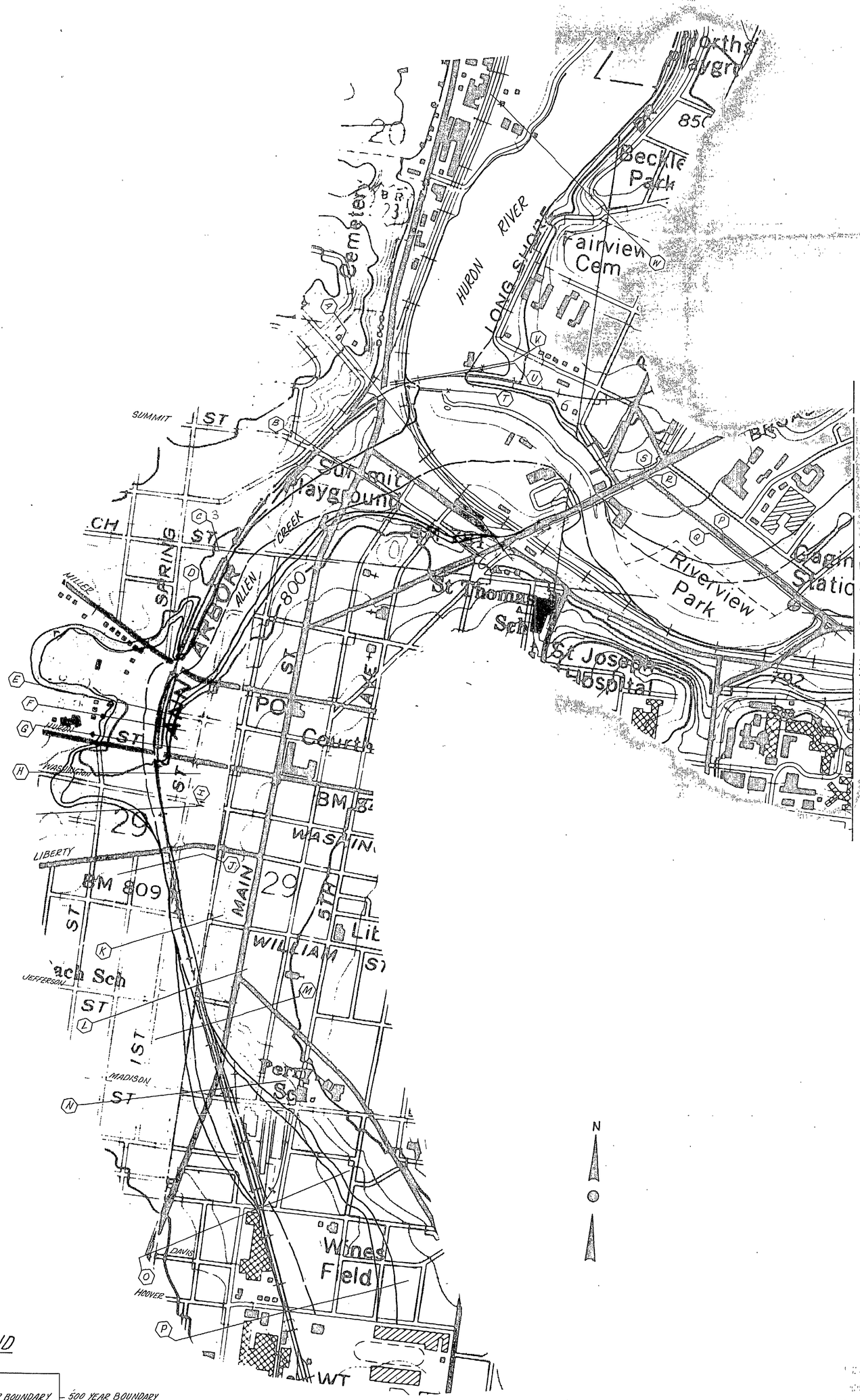


Fairview Cem
HURON RIVER
LONG SHORE
Cemetery
SUMMIT ST
Summit Playground
BM 781
CH ST
SPRING ST
ALLEN CREEK
ANN ARBOR
St Thomas Sch
St Joseph Hospital
Riverview Park
MATCH LINE SEE SHEET 1
MILLER
HURON ST
WASHINGTON ST
LIBERTY
BM 809
MAIN ST
WILLIAM ST
JEFFERSON ST
MADISON ST
DAVIS
HOOVER
Wines Field
N
LEGEND
FLOODWAY
100 YEAR BOUNDARY
500 YEAR BOUNDARY
CROSS SECTION
FLOOD MAP
CITY OF ANN ARBOR
SCALE: 1"=400'
EXHIBIT 1



LEGEND

FLOODWAY — 100 YEAR BOUNDARY — 500 YEAR BOUNDARY

A — A CROSS SECTION

FLOOD MAP

CITY OF ANN ARBOR

SCALE: 1"=400'
EXHIBIT 1

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF ANN ARBOR

3) WATERCOURSE: ALLEN CREEK

4) DOCUMENT TYPE: RATING CURVES & PIPE X-SECS.

00BREAK00

CITY OF ANN ARBOR

ALLEN CREEK DRAIN

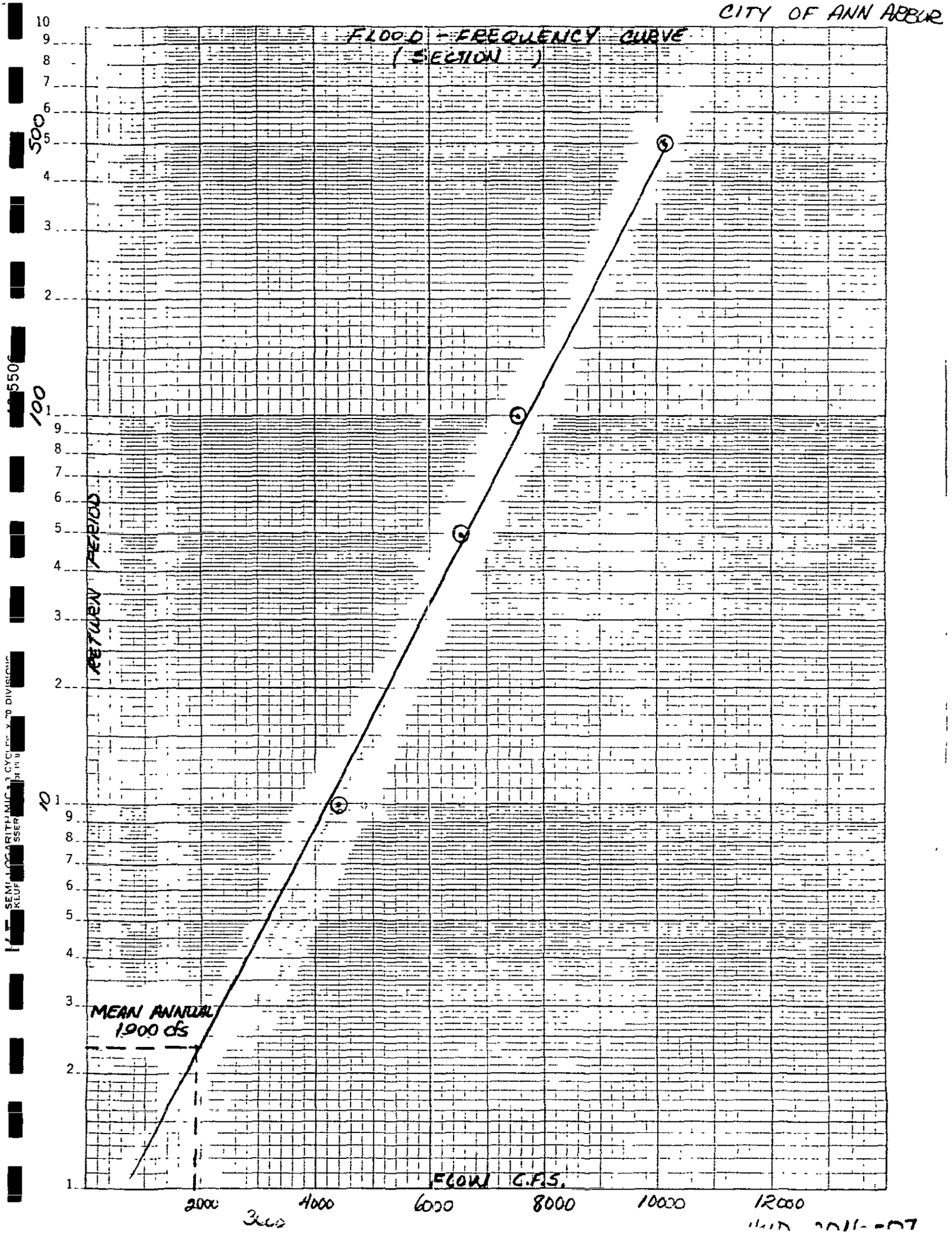
EXHIBIT 5

RATING CURVES

AND

PIPE CROSS-SECTION SKETCHES

HURON RIVER
CITY OF ANN ARBOR

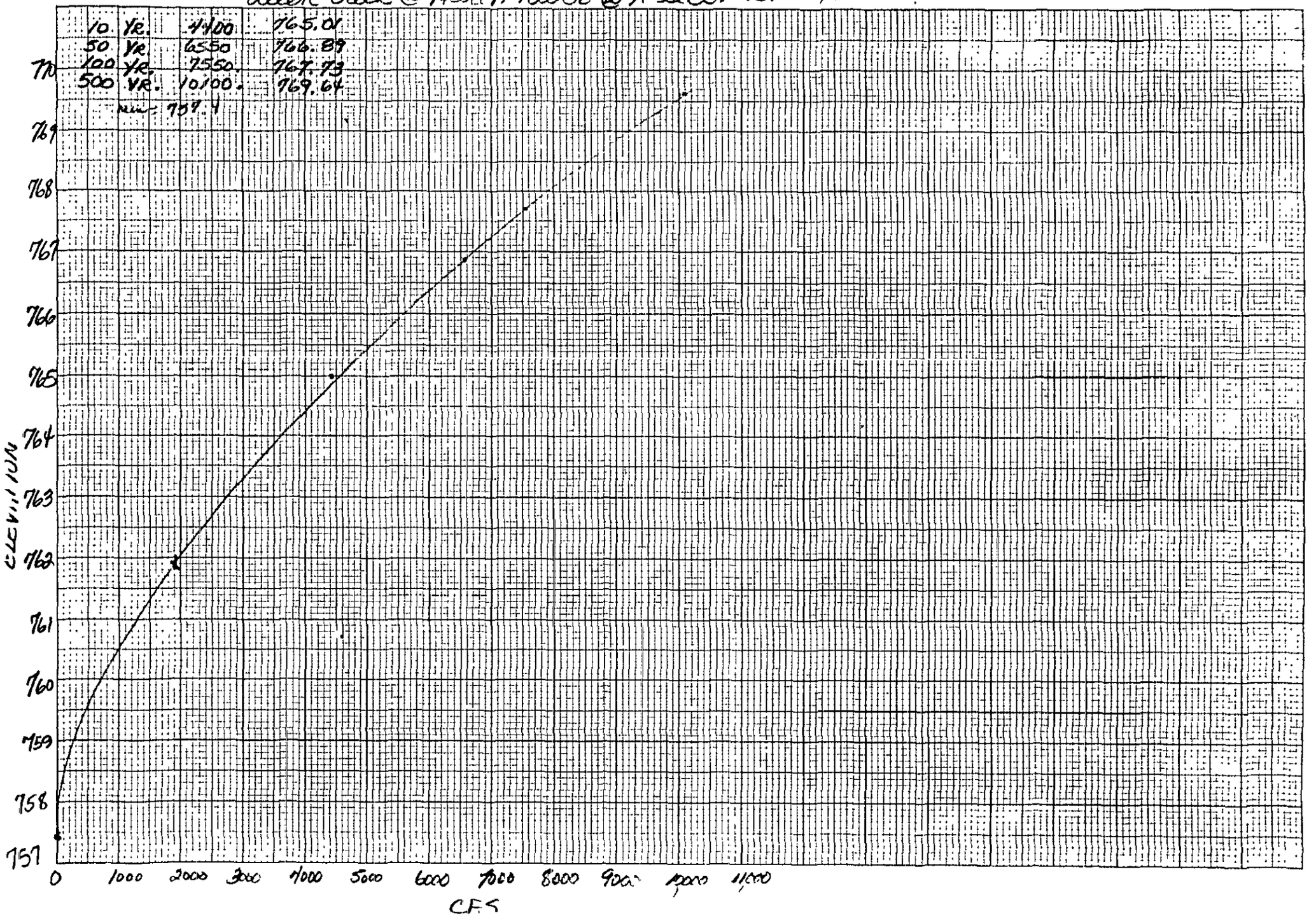


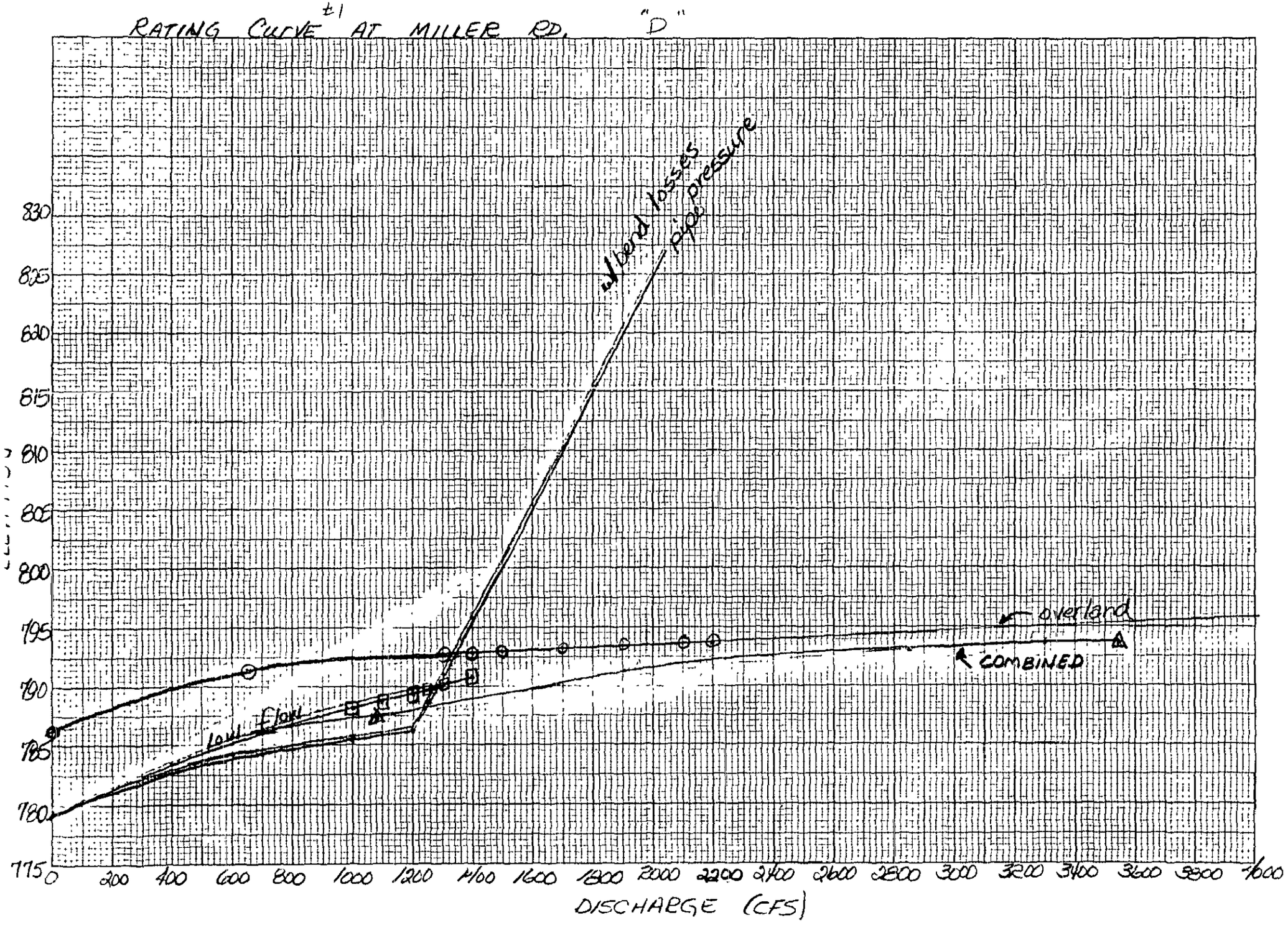
K•E 10 X 10 TO ½ INCH 7 X 10 INCHES KEUFFEL & ESSER CO MADE IN U.S.A.
46 1320

Allen Creek @ Huron River @ X-sec. #27 A

10 Yr.	4400	765.01
50 Yr.	6550	766.89
100 Yr.	7550	767.73
500 Yr.	10,100	769.64

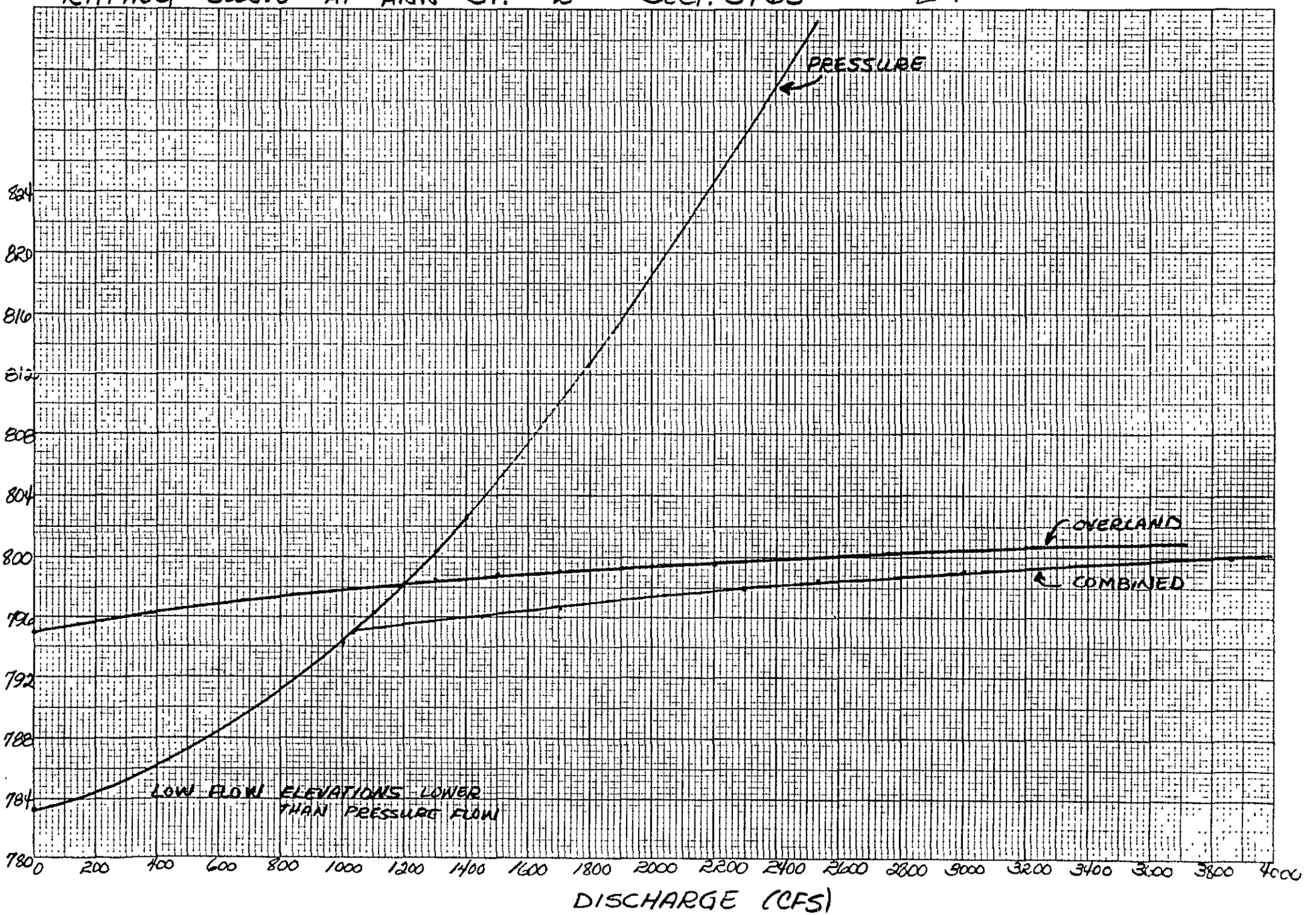
min = 759.4




RATING CURVE ±1 AT MILLER RD. "D"
Bend losses
pipe pressure
overland
COMBINED
low flow
830
825
820
815
810
805
800
795
790
785
780
775
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
2800
3000
3200
3400
3600
3800
4000
DISCHARGE (CFS)

K·E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO MADE IN U.S.A.

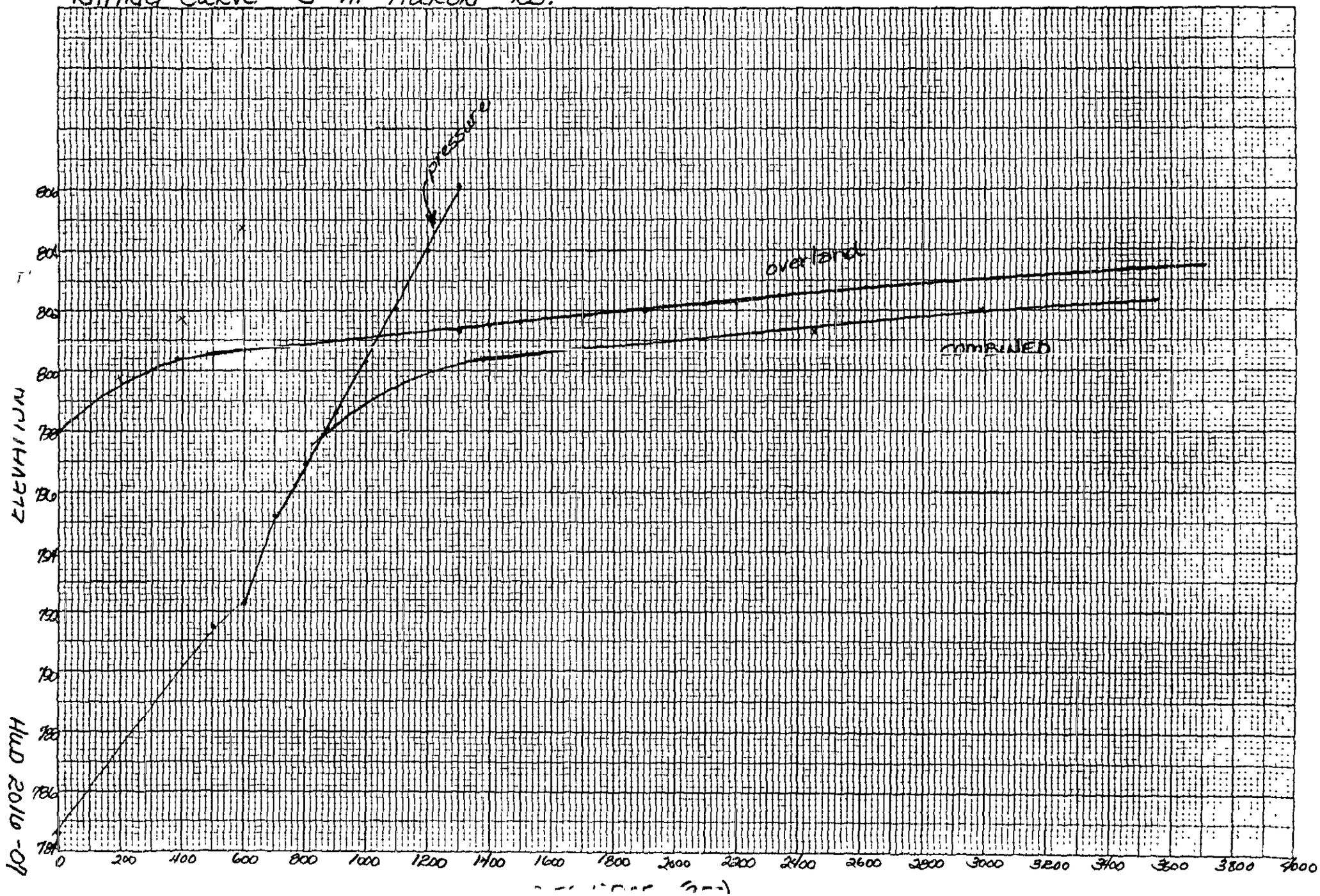
RATING CURVE AT ANN ST. #2 SECT. 3465 "E?"



K•E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO MADE IN U.S.A.

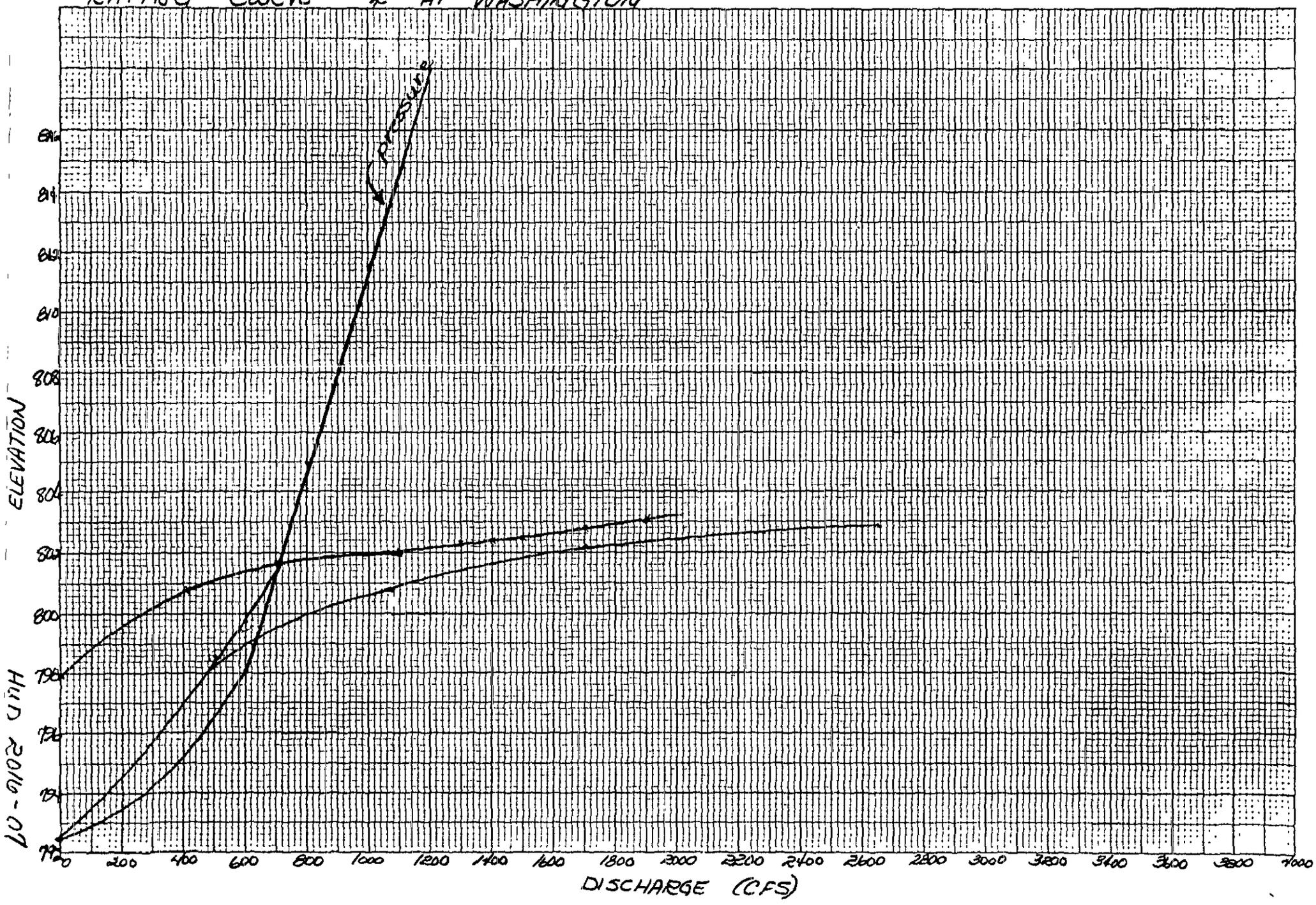
"F"

RATING CURVE #3 AT HURON RD.



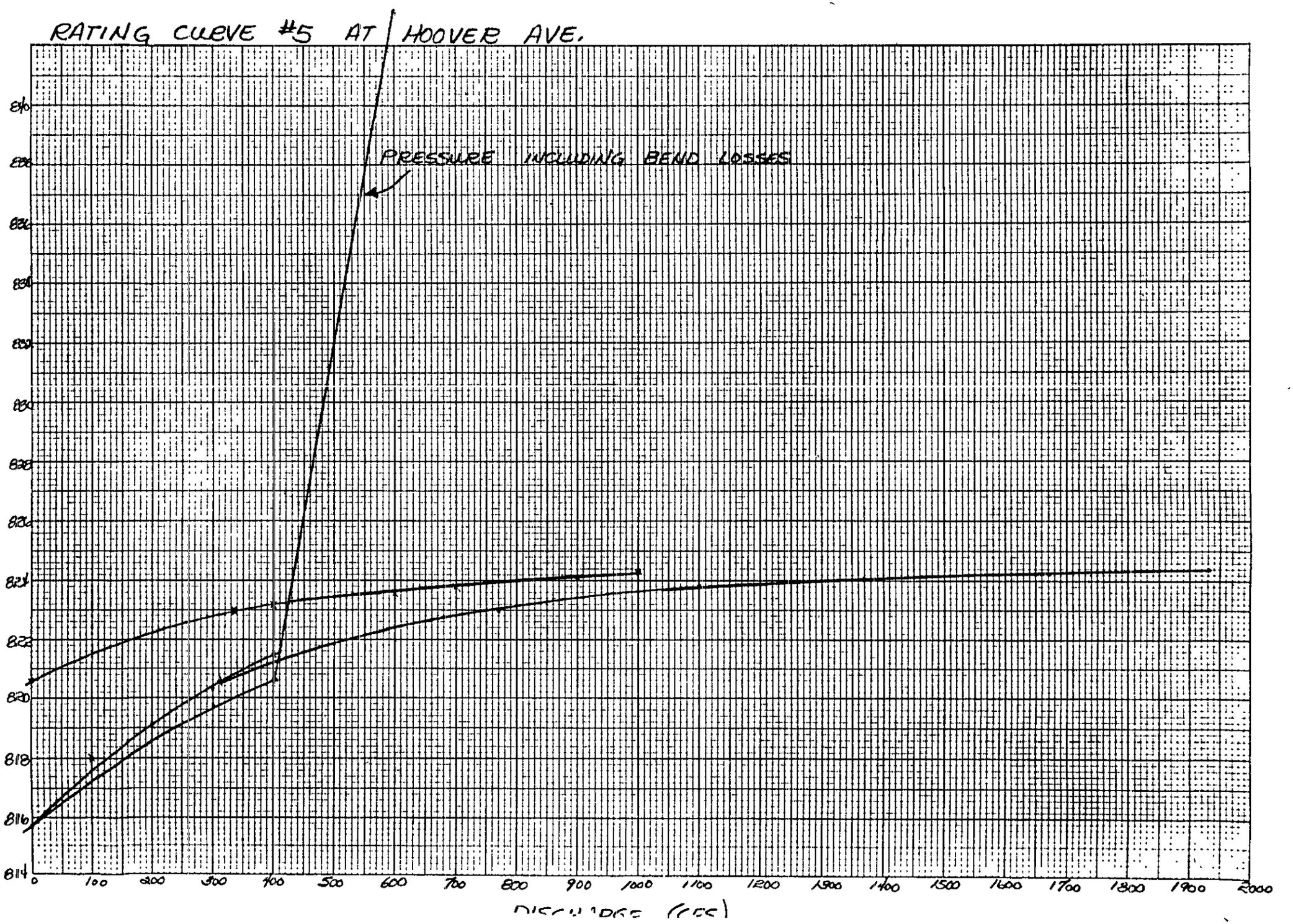
K&E 10 X 10 TO THE INCH 5 X 10 INCHES KEUFFEL & ESSER CO MADE IN U.S.A.

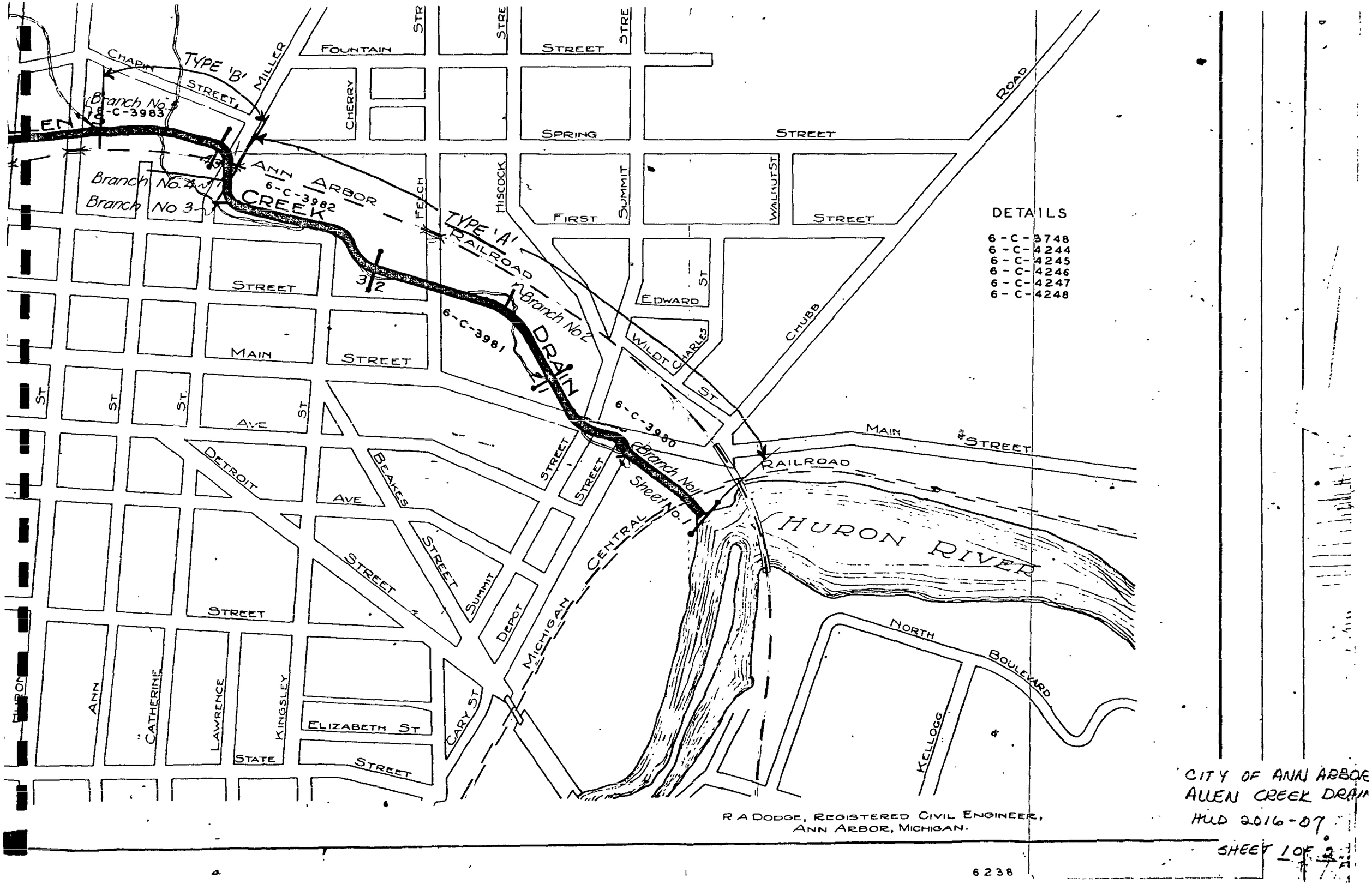
RATING CURVE #1 AT WASHINGTON



K•E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO MADE IN U.S.A.

RATING CURVE #5 AT HOOVER AVE.

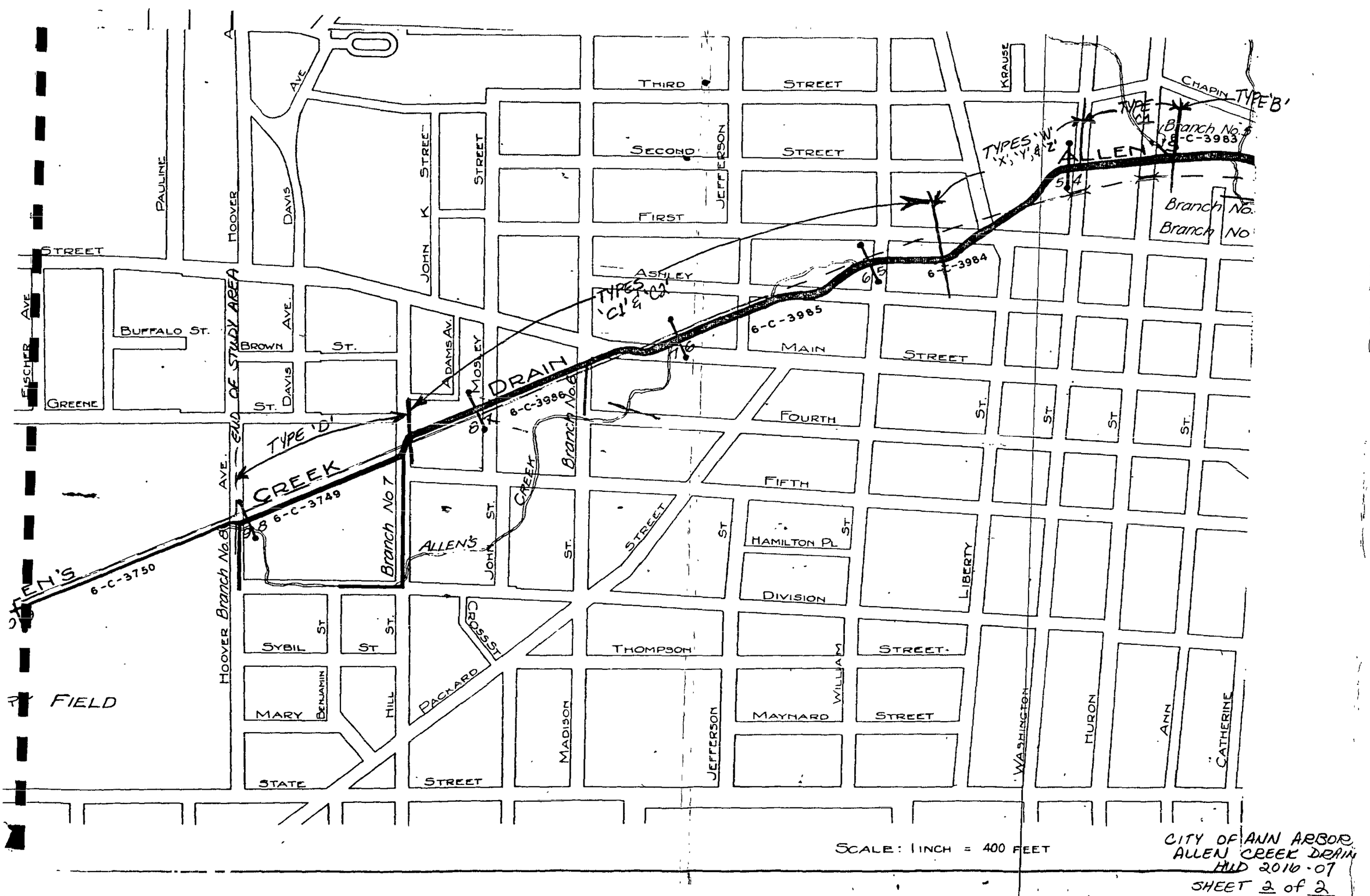




R A Dodge, Registered Civil Engineer,
Ann Arbor, Michigan.

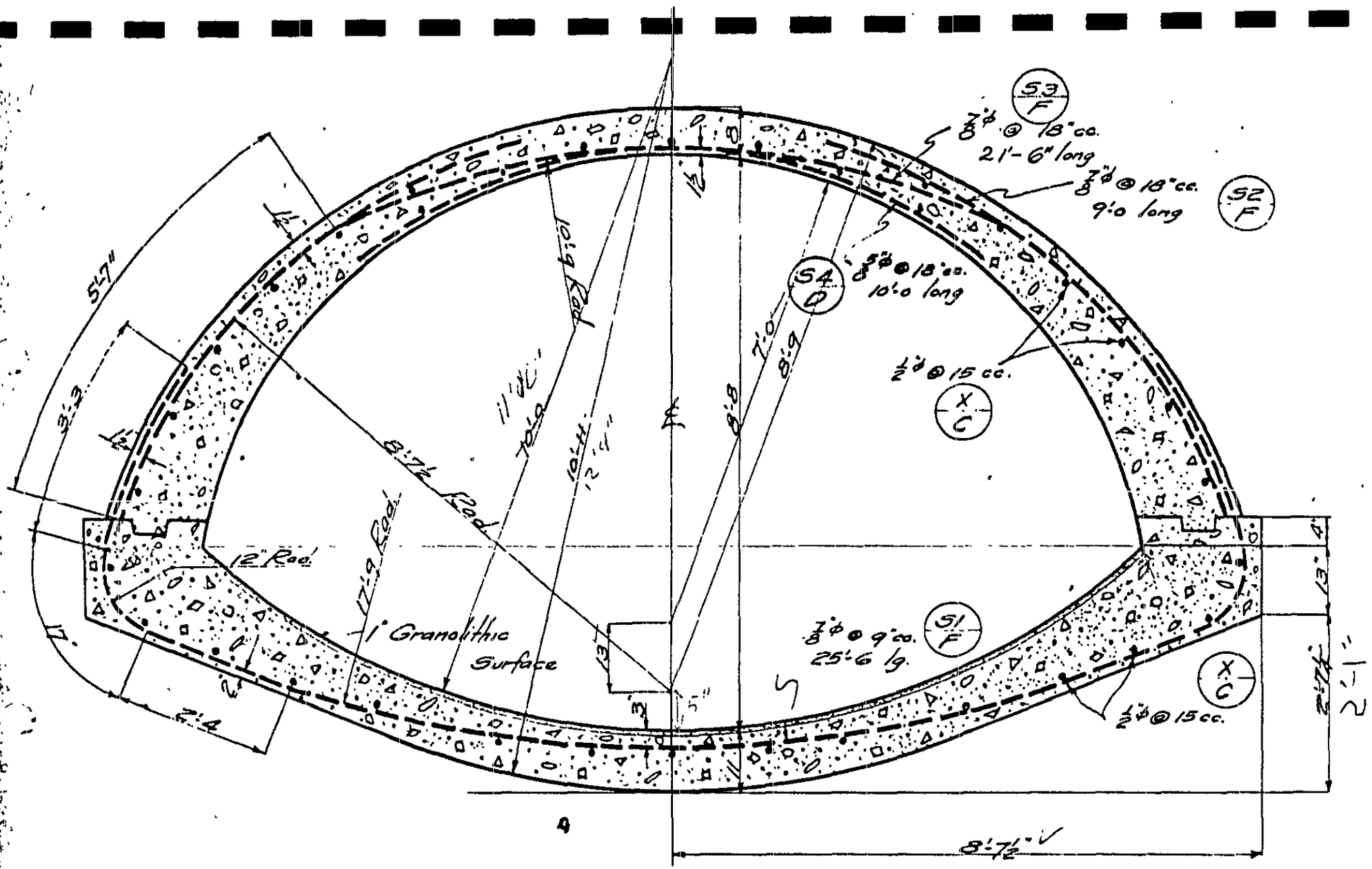
6238

CITY OF ANN ARBOR
ALLEN CREEK DRAIN
HUD 2016-07
SHEET 1 OF 2



SCALE: 1 INCH = 400 FEET

CITY OF ANN ARBOR
ALLEN CREEK DRAIN
HUD 2016-07
SHEET 2 of 2



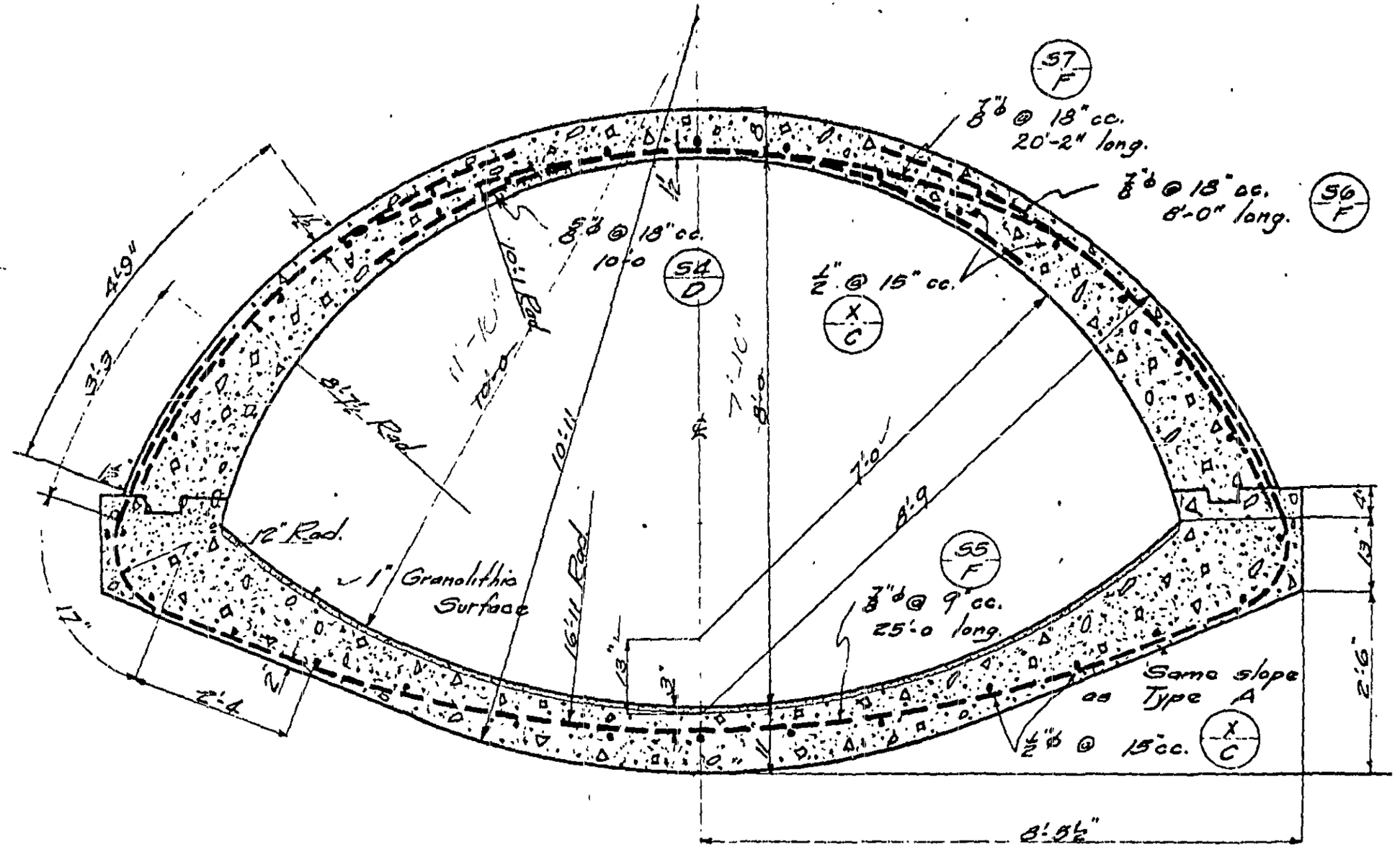
TYPE A

1.51 Cu. Yd. of Concrete per Lineal Foot
Scale: 1" = 2'

Scale on sht 1" = 2'

S9

CITY OF ANN ARBOR
ALLEN CREEK DRAIN
HUD 2016-07

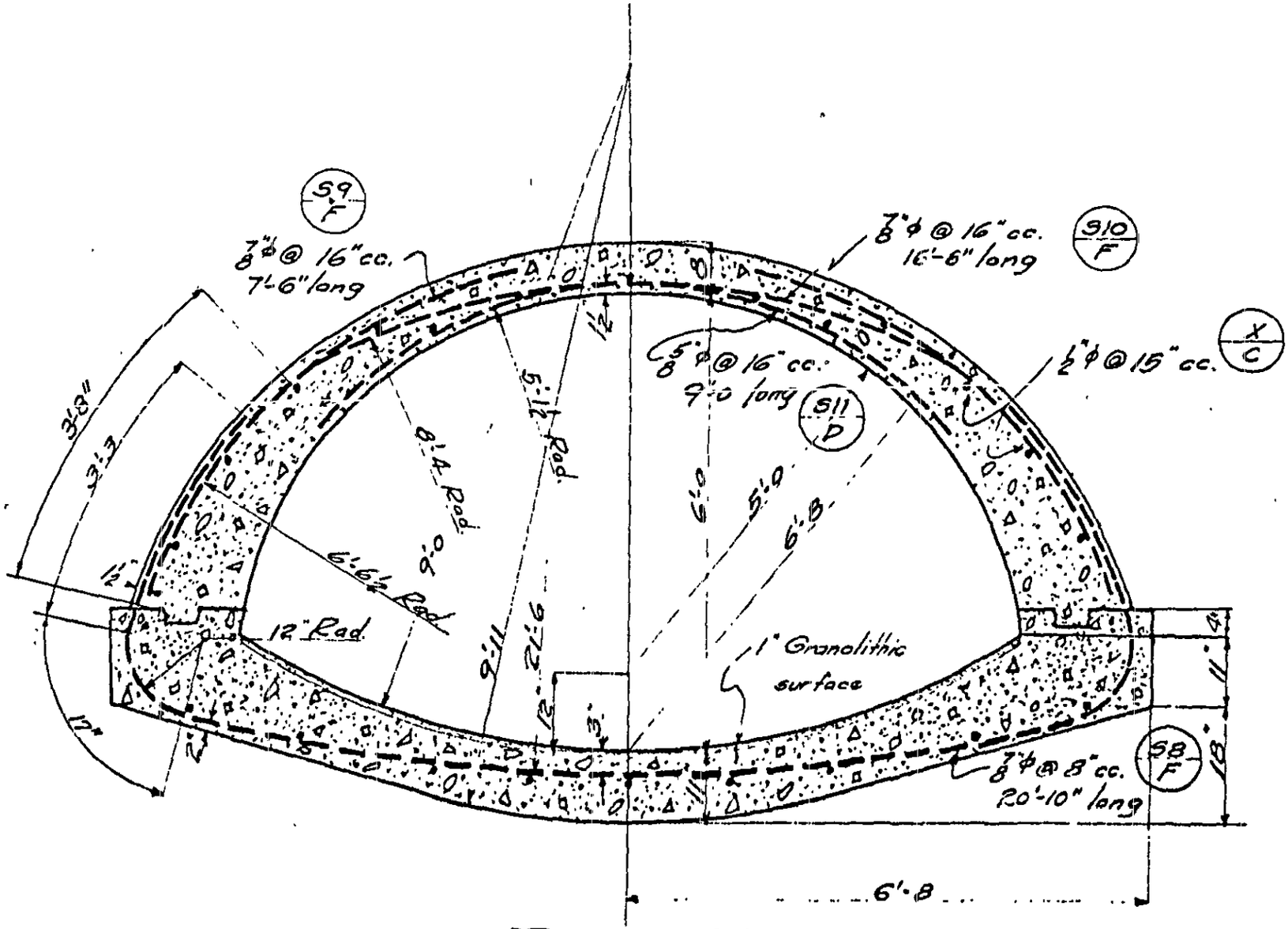


TYPE B

1.42 Cu. Yd. of Concrete per Lineal Foot

Scale: 1" = 2'

CITY OF ANN ARBOR
ALLEN CREEK DRAIN
HRD 2016-07

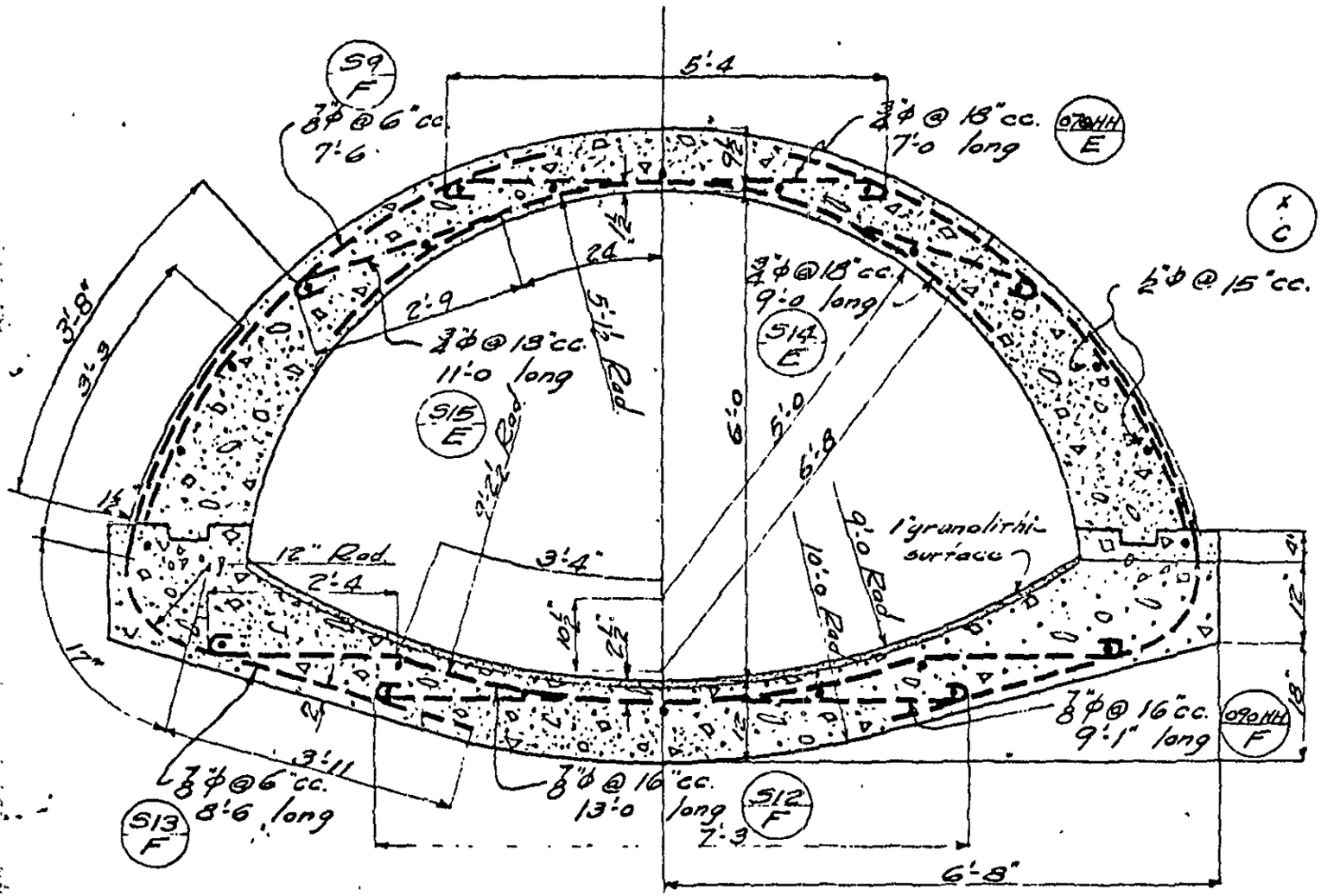


TYPE C1

1.11 Cu. Yd. Concrete per Lineal Foot
Scale: 1" = 2'

CITY OF ANN ARBOR
ALLEN CREEK DRAIN

1.51 Cu. Yd. of Concrete per Lineal Foot



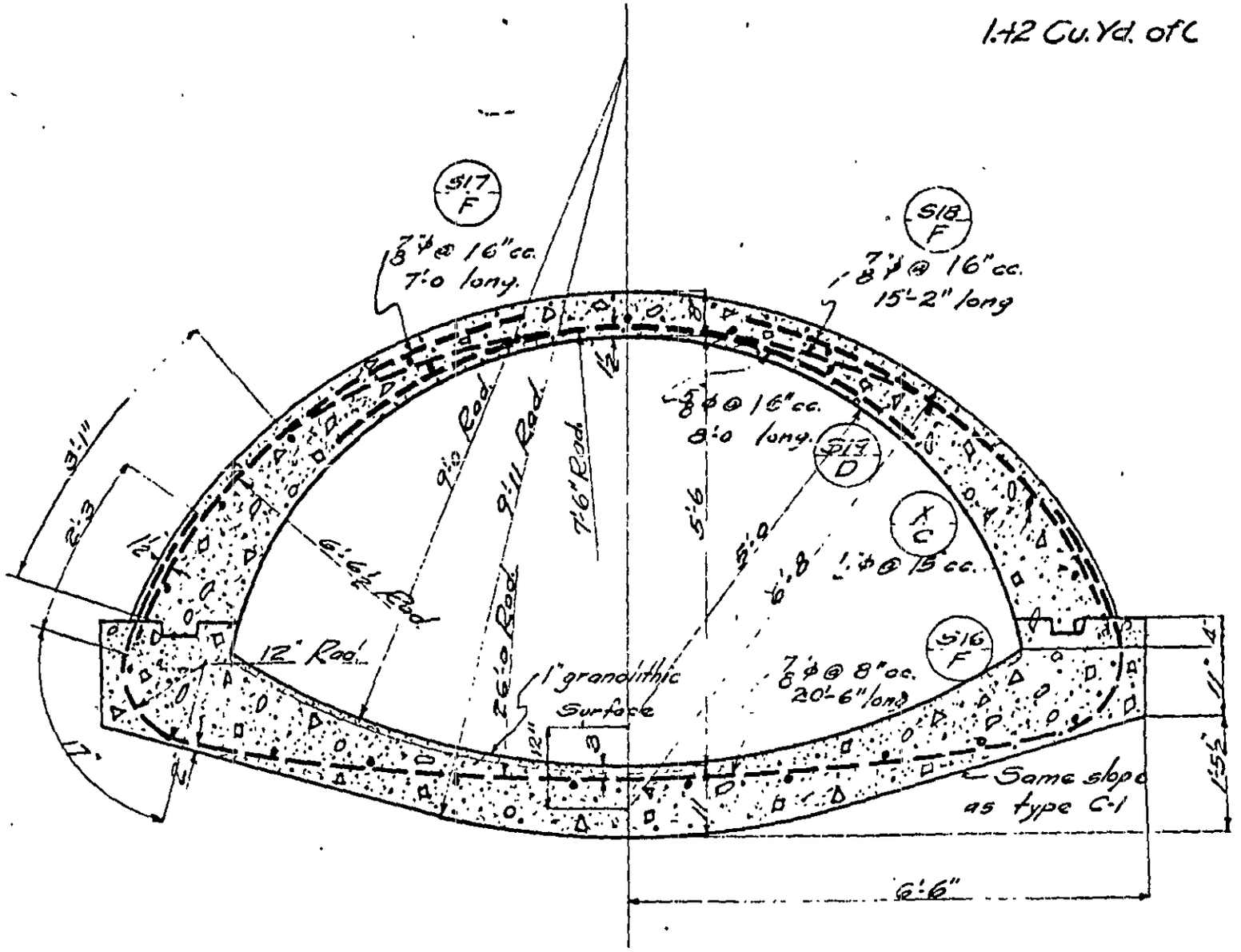
TYPE C2

1.21 Cu. Yd. Concrete per Lineal Foot

Scale: 1" = 2'



CITY OF ANN ARBOR
ALLEN CREEK DRAIN
HUD 2016-04



TYPE D

1.01 Cu.Yd. Concrete per Lineal Foot

Scale: 1" = 2'

CITY OF ANN ARBOR
ALLEN CREEK DRAIN

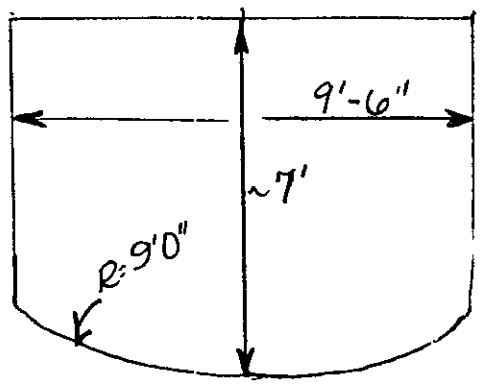
Wade, Trim & Associates, Inc.
Civil Engineers • Land Surveyors

WORK SHEET

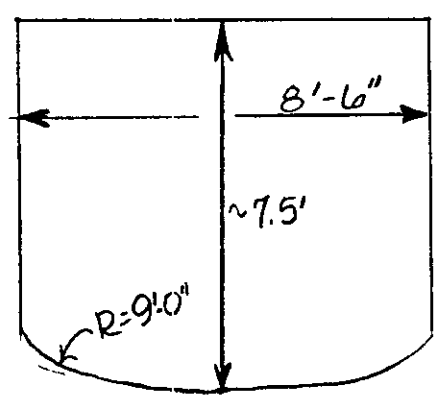
25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

REFERENCE

CROSS SECTION 'W'



CROSS SECTION 'X'



SUBJECT	BY	CHK.	SHEET NO.	File Code No (Job No) Owner • Project • Suffix
ALLEN CREEK DRAIN CITY OF ANN ARBOR	AM		____ OF ____	HUD • 2016 • 07
	DATE	DATE		

Wade Trim & Associates, Inc.
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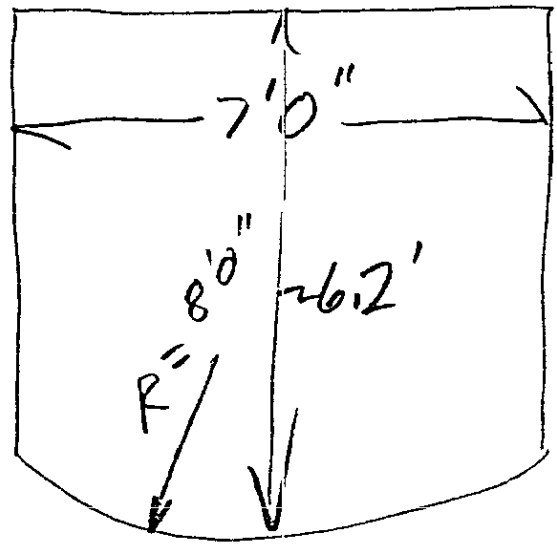
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48160

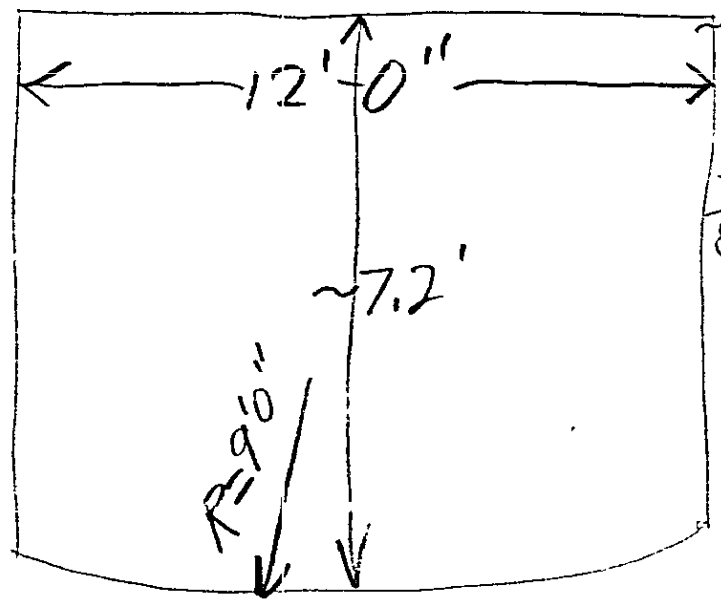
REFERENCE

X. Sect 'Y'



~6.2'
7
A= 43.4

X. Sect 'Z'



~7.2'
12
144
72-
86.4 =A

SUBJECT	BY	CHK.	SHEET NO.	File Code No (Job No.) Owner Project Suffix
Allen Creek Drain City of Ann Arbor	DATE	DATE	___OF___	AAD • 2016 • 07

ALLEN CREEK - BEND LOSS CALCULATIONS

REFERENCE

TYPE A PIPE

3 bends ~ 45° diameter of equiv. pipe = 15'
R = 120, 126, 400

from KING'S HANDBOOK pg. 6-23 — Kings Handbook 6-23

when $R/d \geq 4$ for a smooth pipe
$K_b = 0.08$

for 90° bends
$h_b = K_b \, V^2/2g$

(for 45° x 0.70
for 22.5° bends mult. x 0.42)

for the 100 Yr. flow = 1100 cfs Thru pipe

$V = 1100/89.7 = 12.3$ fps

$h_b = 0.08(0.70)(12.3)^2/64.4$
$= 0.13$

∴ elev. difference for 1st segment = 0.13 x 3 = 0.39'

2nd segment (Miller to Ann.)
TYPE 'B' dia. equiv. pipe = 10'
R = 50'

$K_b = 0.08$ same as before

77° — mult. by 0.92

$V = \frac{1220}{80.25} = 15.2$

$h_b = 0.92(0.08)\left(\frac{(15.2)^2}{64.4}\right)$
$h_b = 0.26$

SUBJECT	BY	CHK	SHEET NO.	File Code No (Job No) Owner Project Suffix
ALLEN CREEK - ANN ARBOR	AM		1 OF 3	HUD • 2016 • 07
	DATE 9/4/79	DATE		

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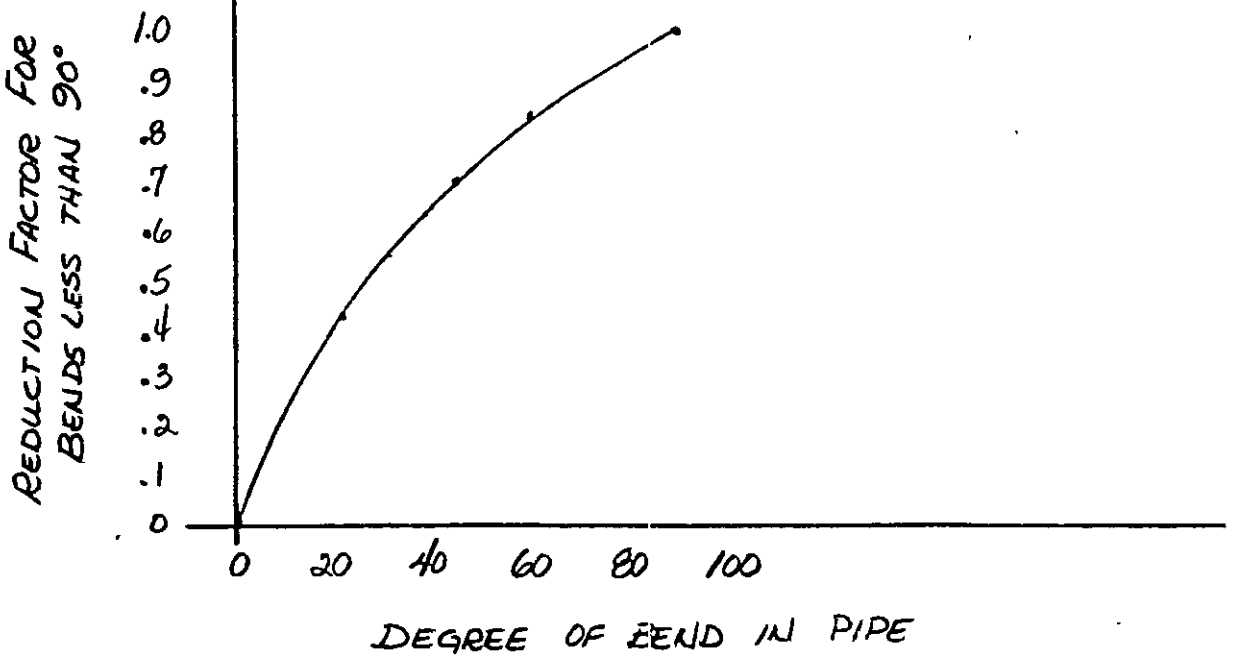
25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

REFERENCE



SUBJECT	BY	CHK.	SHEET NO.	File Code No (Job No.) Owner Project Suffix
Allen Creek - Ann Arbor	DATE 9/4/79	DATE	2 OF 3	HUD • 2016 • 07

Allen Creek - Bend Loss Calculations Q = 440 cfs REFERENCE

5th segment

(1) Washington to Liberty d = 7 R/d = 1 K_b = 0.23
31° sharp between X and Y
V = Q/A = 10.1

$h_b = K_b V^2/2g$
$= 0.55 \times 0.23 \left(\frac{10^2}{64.4}\right)$
h = 0.196

(2) at Hill
38° 27' C1 d = 7.5 R/d = 27/7.5 = 3.6 K_b = 0.12
$= 0.63 \times 0.12 \times \frac{9.6^2}{64.4}$ V = 440/45.66 = 9.6
h = 0.108

(3) Liberty to William
39° 66' C1 d = 7.5 R/d = 66/7.5 = 8.8 K_b = 0.08
$= 0.64 \times 0.08 \times \frac{9.6^2}{64.4}$
h = 0.073

(4) Ashley bet. William & Jefferson
47° 28' C1 d = 7.5 28/7.5 = 3.7 K_b = 0.12
$0.72 \times 0.12 \times 9.6^2/64.4$
h = 0.124

(5) S. Main by Madison
27° 51' C2 d = 7.5 R/d = 51/7.5 = 6.8 K_b = 0.08

$0.52 \times 0.08 \times 9.6^2/64.4$
h = 0.060

total = 0.56'

SUBJECT	BY	CHK.	SHEET NO.	File Code No (Job No) Owner Project Suffix
Allen Creek - Ann Arbor	DATE 7/17/79	DATE	3 OF 3	HUD • 2016 • 07

CITY OF ANN ARBOR

ALLEN CREEK DRAIN

EXHIBIT 6

WATER SURFACE PROFILES

CITY OF ANN ARBOR

ALLEN CREEK DRAIN

EXHIBIT 7

HEC-2 COMPUTER PRINTOUTS

(Contained in 11" x 15" folder)



1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF ANN ARBOR

3) WATERCOURSE: ALLEN CREEK

4) DOCUMENT TYPE: REPORT



CITY OF ANN ARBOR
FLOOD INSURANCE STUDY
HYDRAULIC ANALYSIS

III ALLEN CREEK

HUD 2016-07
Rev. 3/28/80

STATE DNR Copy

RECEIVED
APR 05 1980
WATER MANAGEMENT

III. ALLEN CREEK DRAIN (DETAILED)

Detailed studies of the Allen Creek were performed from its confluence with the Huron River to Hoover Street. The Allen Creek Drain within the study reach is entirely enclosed. Plans incidate that the Creek was enclosed in 1925. Cross section information was obtained from the construction plans of the enclosure (Reference 3). A total of 8 cross sections to determine ground elevations were field surveyed and completed in July, 1978. Field cross section data were supplemented by U.S.G.S. Quad Maps of the study area which consist of 10 foot interval contour data (References 4 and 5). The flood plain of the Allen Creek Drain within the study reach is comprised of houses, warehouses, trees and a railroad easement.

Cross section locations are shown in Exhibit 1 (Sheet 2). Table 3 cross references section designations by showing which computer section number corresponds to each cross section letter shown on Exhibit 1.

Table 4 lists discharges that have been approved by the Michigan Department of Natural Resources (MDNR) for this Creek.

A. Method of Analysis

The Allen Creek enclosure is not adequate to handle the floods analyzed in this report; therefore, a combination of pipe flow and overland flow occurs. Since the HEC-2 computer program is not set up to handle this type of divided flow condition in one step, the following analysis was performed:

1. Pressure flow stage/discharge rating curves were developed for the enclosure using the special bridge routine. These rating curves were developed for every location that the design flows change which represent major intersections of storm water inflow to the enclosure; therefore, the enclosure was analyzed in four segments (Exhibit 5, Pages 25 - 37).

2. Low flow stage/discharge rating curves were developed for the enclosure using the normal bridge routine (Exhibit 5, Page 25 B). Review of the results of the first segment indicate that the enclosure will flow full for all storms analyzed; therefore, a low flow rating curve was developed only for segment one.

3. Stage/discharge rating curves were developed for overland flow over the Allen Creek enclosure (Exhibit 5, Pages 25 - 37).

   Overland flow cross sections were obtained from a combination of two foot interval topographic maps (Exhibit 5, Pages 45 - 50 A) and actual survey data. The resulting floodway is well defined by existing development along the enclosure.

4. The controlling rating curve for the enclosure (worst condition of low flow versus pressure flow) was then combined with the overland flow rating curves to form a total rating curve for the system (Exhibit 5, Pages 25 - 37) at the upstream end of each segment.

5. The 10, 50, 100 and 500 year flow rates were applied to the rating curves developed in Step 4 to determine flood elevations.

Initially, each segment of this diversion analysis was done independently. Starting conditions for each segment were based on the rating curve for the segment immediately downstream. Flow distributions for overland flow and enclosure flow were obtained from these initial runs. The four overland flow segments were then joined together to form one continuous HEC-2 model and the resulting refined elevations (Exhibit 7) were compared with the various rating curves to ensure the accuracy of the model.

HEC-2 printouts are presented as Exhibit 7 (Exhibit 7 is contained in the 11" x 15" folder enclosed with this report).

B. Variables and Coefficients

Roughness coefficients (Mannings "n") were estimated by field inspection. The roughness value for the enclosed concrete channel was estimated at 0.015; the roughness value for the overbank area varied between .05 and 0.13. These values are indicative of summer month conditions and are consistent with roughness values recommended and used in engineering practice. Contraction and expansion coefficients are .1 and .3, respectively, for overland flow and .3 and .5, respectively, for enclosure flow.

Loss coefficients for pressure flow for each of the four segments varied between 1.5 and 17.78 (Exhibit 5, Pages 4 - 24). These losses include bend, friction, contraction, expansion, entrance, exit and junction (Exhibit 5, Pages 1 B - 3).

C. High Water Marks

The only documented high water data which exists for the Allen Creek Drain consist of a report prepared in 1974 by McNamee, Porter & Seeley for the Washtenaw County Drain Commission (Reference 6). Map 4 of that report shows the extent of flooding during the 1968 storm which was estimated at approximately a 100 year flood. Our analysis indicated a flood plain consistent with the 1974 report.

D. Starting Conditions

The starting water surface elevation used at the downstream section of the study was the mean annual Huron River level. A storm frequency/ discharge rating curve was developed for the Huron River to determine the mean annual flow (2.33 year recurrence interval) of 1900 cfs. This flow was then applied to the stage/discharge rating curve to obtain the mean annual elevation of 761.9 (Exhibit 12).

E. Special Problems

The Allen Creek Drain enclosure is inadequate to handle flow rates evaluated in this study, thereby causing a divided flow condition as discussed in paragraph A.

F. General

Computed water-surface elevations were developed to an accuracy of 0.5 foot for floods of the selected recurrence intervals.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). This datum is equivalent to the U.S. Geological Survey (USGS) datum.

The hydraulic analyses for this study are based only on the effects of flow unobstructed by ice or debris. The flood elevations are considered valid only if hydraulic structures, in general, remain unobstructed and do not fail.

TABLE 3

CITY OF ANN ARBOR

ALLEN CREEK DRAIN

CROSS SECTION	HEC-2 COMPUTER NO.	LOCATION/ DESCRIPTION
A	0	@ Huron River
B	2	@ W. Summit
C	3	@ Felch
D	4	@ Miller Road
E	5	@ Ann Street (400' U/S of Miller)
F	6	250' D/S of Huron
G	7	50' D/S of Huron
H	8	200' U/S of Huron
I	9	100' U/S of Washington
J	10	100' U/S of Liberty
K	11	100' U/S of William
L	12	100' D/S of Jefferson
M	13	215' U/S of Jefferson
N	14	100' D/S of Madison
O	17	@ Hill
P	19	@ Hoover

Note:

D/S = Downstream

U/S = Upstream

TABLE 4

CITY OF ANN ARBOR

ALLEN CREEK FLOOD ELEVATIONS

LOCATION	SELECTED FREQUENCIES 10 YEAR	50 YEAR	100 YEAR	500 YEAR
	Q=1900 cfs	Q=2850 cfs	Q=3300 cfs	Q=4600 cfs
@ Huron River	778.0	778.0	778.0	778.3
@ Miller Road	795.5	797.1	797.4	799.0
	Q=1700 cfs	Q=2530 cfs	Q=3000 cfs	Q=4200 cfs
@ Ann Street	797.8	800.2	800.7	803.2
	Q=1380 cfs	Q=2100 cfs	Q=2450 cfs	Q=3450 cfs
50' D/S of Huron	799.1	801.4	802.0	804.3
	Q=1070 cfs	Q=1620 cfs	Q=1880 cfs	Q=2650 cfs
100' U/S of Washington	802.3	803.8	804.4	806.2
	Q= 770 cfs	Q=1170 cfs	Q=1370 cfs	Q=1930 cfs
100' U/S of Liberty	~~807.9~~ 808.2	~~808.5~~ 808.9	~~808~~.7 809.1	~~809.4~~ 809.6
100' D/S of Jefferson	810.9	812.1	812.6	813.7
100' D/S of Madison	817.0	817.8	818.2	819.1
@ Hill	822.1	823.0	823.5	824.6
@ Hoover	825.2	825.6	825.8	826.3

(Corrections in Red
Received 9/2/80
Corrections due to
DNR letter of 6/5/80
& WA/sis of Sections
I-K

REFERENCES

1. U.S. Army Corps of Engineers (1976), Special Flood Hazard Information Report: Huron River, Ann Arbor to Ypsilanti and Vicinity, for Department of Natural Resources and Huron River Watershed Commission.

2. U.S. Army Corps of Engineers (1973), Hydrologic Engineering Center, HEC-2 Water Surface Profile User's Manual.

3. As built construction plans and typical pipe cross sections of the Allen Creek Drain supplied by Washtenaw County Drain Commissioner's Office.

4. U.S. Geological Survey Topographical Maps - Ann Arbor West Quadrangle, Washtenaw County, Michigan, 7.5 Minute Series, 1965.

5. U.S. Geological Survey Topographical Maps - Ann Arbor East Quadrangle, Washtenaw County, Michigan, 7.5 Minute Series, Photorevised 1973.

6. McNamee, Porter & Seeley, Allen's Creek Drain: Analysis and Preliminary Alternatives for Relief, February, 1974.

7. Midwestern Consultants, Traver Creek Drainage Area Study, City of Ann Arbor, Michigan, 1975.

8. Morris, Henry M., and Wiggert, James M., Applied Hydraulics in Engineering, 2nd Edition, New York: The Ronald Press Company, 1972.

9. Brater, Ernest F., and King, Horrace W., Handbook of Hydraulics, 5th Edition, New York: McGraw-Hill, 1963.

CITY OF ANN ARBOR

HURON RIVER, ALLEN CREEK AND TRAVER CREEK

EXHIBIT 1

FLOODWAY AND FLOODPLAIN MAP

HUD 2016-07

CITY OF ANN ARBOR

ALLEN CREEK DRAIN

EXHIBIT 5

RATING CURVES

AND

PIPE CROSS-SECTION SKETCHES

REFERENCE

Allen Creek Diversion Analysis

The attached diversion analysis includes the following:

1. Head loss equations and references (Pgs. 1B-3)
2. Segment #1 Loss Calculations (Pgs. 4-8)
3. Segment #2 Loss Calculations (Pgs. 9-11)
4. Segment #3 Loss Calculations (Pgs. 12-14)
5. Segment #4 Loss Calculations (Pgs. 15-24)
6. Allen Creek Rating Curves (Pgs. 25-37)
7. Enclosure Types (Pgs. 38-44)
8. Overland Flow cross section locations (pgs 45-50).
9. Segment locations (Pgs. 50B + 50C)

Exhibit #5

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No / Owner / Project / Suffix)
Allen Cr.—Ann Arbor	DATE 3/11/80	DATE	1A OF 50 C	HUD° 2016° 07

FORM 25 0
(313) 291-5400

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Civil Engineers • Land Surveyors
WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

REFERENCE

Procedures Used in Pressure Flow Calculations for the Allen Creek Enclosure

Head Loss Coefficients: (XKOR)

Bend Losses

Kings Handbook Pg 6-23

For 90° Bends:

$$h_b = K_b \, U^2/2g$$

When $R/d \geq 4$ for smooth pipe $K_b = .08$

R = Radius of Bend
d = Pipe Diameter

For 45° Bends, $K_b = .7$ (K_b for 90°)
For 22.5° Bends, $K_b = .42$ (K_b for 90°)
For 60° Bends, $K_b = .83$ (K_b for 90°)

Friction Losses

$$K_f = \frac{29.1 \; n^2 \; L}{R^{4/3}}$$

HEC-2 Manual

Some of the segments of the pipe enclosure are made up of varying types of pipe. Friction coefficients are calculated for each type of pipe and the summation of K_f values within a given segment is applied to a pipe area which is the weighted average for the segment.

Exhibit #5

FORM 25-0
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REFERENCE

Exit Losses

This loss will only be experienced by the most downstream segment (#1) and is equal to:

$$H_L = K_{exit} \frac{U^2}{2g} = 1.0 \quad \frac{U^2}{2g}$$

HEC-2 Manual

Entrance Losses

This loss will only be experienced by the most upstream segment (#4) and is dependant upon entrance conditions. The entrance loss coefficient will be obtained from a Bureau of Public Rds Table in "Hydraulics of Bridge Waterways". 1963

Junction Losses

$$K_j = \left[1 + 2\frac{A_M}{A_B}\cos\theta\right]\left(\frac{Q_B}{Q_M}\right)^2$$

A_M + Q_M = Main Pipe characteristics
A_B + Q_B = Branch Pipe characteristics
θ = Angle of convergence

Wiggert, J.M., & Martin, H.M., "Applied Hydraulics in Eng.", 1972, pgs 103-114.

EXHIBIT #5

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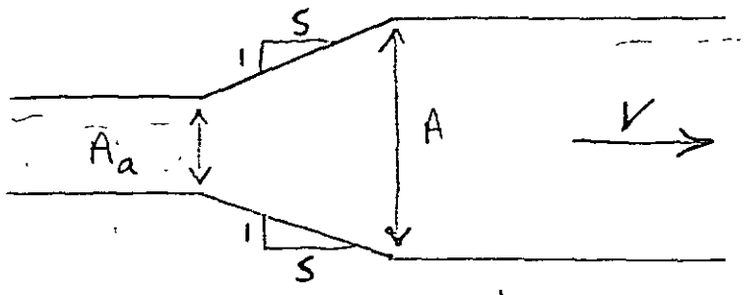
REFERENCE

Expansion Losses

This loss coefficient is applied where pipe transitions occur since there are many changes in pipe dimension along the enclosure.



Transition Section

$$H_{expansion} = K_{exp.} \frac{U^2}{2g}$$

Wigger, Morris, "Applied Hydraulics in Engineering", 1972, pg 110.

For S = 3:1 to 20:1 -

$$K_{exp.} = \left[\frac{1}{8} + \frac{7(20-S)}{136}\right]\left(\frac{A}{A_a} - 1\right)^2$$

For S < 3:1 -

$$K_{exp.} = \left(\frac{A}{A_a} - 1\right)^2$$

Minimum Value (20:1 + Greater) -

$$\frac{1}{8}\left(\frac{A}{A_a} - 1\right)^2$$

Exhibit #5

FORM 25-0

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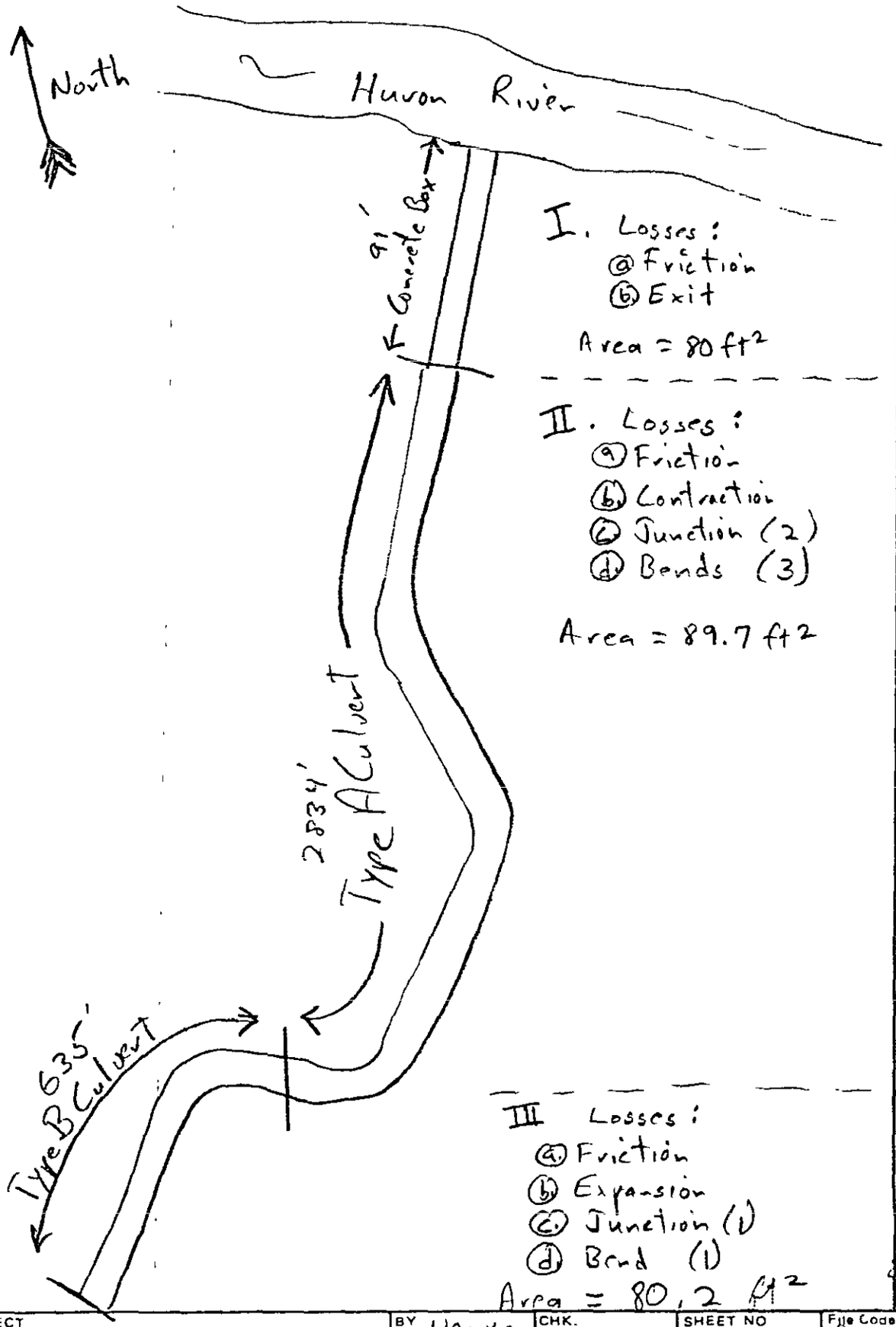
REFERENCE

Segment #1 Plan View (Enclosure)



I. Losses:
- (a) Friction
- (b) Exit

Area = 80 ft²

II. Losses:
- (a) Friction
- (b) Contraction
- (c) Junction (2)
- (d) Bends (3)

Area = 89.7 ft²

III Losses:
- (a) Friction
- (b) Expansion
- (c) Junction (1)
- (d) Bend (1)

Area = 80.2 ft²

Exhibit # 5

SUBJECT	BY	CHK.	SHEET NO	File Code No (Job No) Owner Project Suffix
Allen Creek Ann Arbor	Weaver		4 OF 50	1149 • 2016 • 07
	DATE 3/3/89	DATE		

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REFERENCE

SB Card Values for Segment #1

Segment Characteristics:

I. 91' of Concrete Culvert

Area = 80 ft² reasonable ✓
n = .016
W.P. = 36'
R_H = 2.2 $R_H^{2/3} = 2.9$

Loss Coeff. = $K_{exit} + K_{fr.}$

$$K_{fr.} = \frac{29.1\, n^2 L}{R^{4/3}} = \underline{\underline{.23}}$$ ✓

$K_{exit} = \underline{\underline{1.0}}$

II. 2834' of Type A Culvert

Area = 89.7 ft²
W.P. = 35.6
R = 2.52 $R^{4/3} = 3.4$
n = .015

Loss Coeff. = $K_{contraction} + K_{fr.} + K_{junction} + K_{BENDS}$

(a.) $K_f = \frac{29.1\, n^2 L}{R^{4/3}} = \underline{\underline{5.5}}$

(b.) $K_{cont.} = \left(\frac{A}{A_c} - 1\right)^2$ Where A_c = Contraction Area

$\therefore K_{cont.} = \left(\frac{89.7}{80} - 1\right)^2 = \underline{\underline{.015}}$ ✓

(c.) $K_{junction}$:

There are 2 junctions along the length of the Type A culvert as follows:

Morris & Wiggert, "Applied Hydr. in Engineering", Pg 111, 1972.

Exhibit #5

SUBJECT	BY	CHK	SHEET NO	File Code No. (Job No.) Owner Project Suffix
[illegible]	DATE [illegible]	DATE	5 OF 50	[illegible]

REFERENCE

(C.1) 30" Concrete ϕ @ Slope = 3.15 %, Convergence
$\theta = 45^\circ$, $Q_B = \frac{1.486}{.015}(7.1)\left(\frac{7.1}{9.4}\right)^{2/3}(.0315)^{1/2} = 63$ cfs

$\therefore K_j = \left(1 + 2\frac{A_M}{A_B}\cos\theta\right)\left(\frac{Q_B}{Q_M}\right)^2$

$\therefore K_j = \left[1 + 2\frac{89.7}{4.9}\cos 45^\circ\right]\left(\frac{63}{1400}\right)^2 = .09$

$Q_M \approx 1100$ cfs
From Prelim. Comp. Runs

(C.2) 36" Concrete ϕ @ Slope = .13 % + Convergence
$\theta = 50^\circ$, $Q_B = \frac{1.486}{.015}(7.1)\left(\frac{7.1}{9.4}\right)^{2/3}(.0013)^{1/2} = 21$ cfs

$\therefore K_j = \left[1 + 2\frac{89.7}{7.1}\cos 50^\circ\right]\left(\frac{21}{1400}\right)^2 = .01$

(D.) K_{Bends}:

(D.1) Type A Pipe in this segment has 3 bends @ 45°. Diameter of Equivalent pipe = 10.5'.
$R = 120,\ 120 + 9400$
$\therefore R/d >> 4$

Thus $K_b = (.08)\ .7$ for each

$+ K_{b\ Total} = 3\ (.08)\ .7 = .17$

III. 635' of Type B Culvert

Area = 80.2 ft²
n = .015
W.P. = 34.1
$R_H = 2.35$ $R_H^{4/3} = 3.13$

Exhibit 5

SUBJECT	BY	CHK.	SHEET NO	File Code No. (Job No / Owner / Project / Suffix)
	DATE	DATE	6 OF 50	

REFERENCE

Friction :

(a) $K_f = \frac{29.1\ n^2\ L}{R^{4/3}} =$

$K_f = \frac{29.1(.015)^2\ 635}{3.13} = \underline{1.33}$

(b) Expansion Loss : (Transition is Gradual)

$\therefore K_{exp} = \frac{1}{8}\left(\frac{A}{A_a} - 1\right)^2$

$K_{exp} = \frac{1}{8}\left(\frac{89.7}{80.2} - 1\right)^2 = \underline{.002}$

(c) Junction Loss :
Branch is 66" ϕ Concrete Pipe
$Q_B \approx 260$ cfs
$Q_m \approx 1400$ cfs

$K_j = \left[1 + 2\frac{A_m}{A_B}\cos\theta\right]\left(\frac{Q_B}{Q_m}\right)^2$

$K_j = \left[1 + 2\left(\frac{80.2}{23.8}\right)\cos 45^\circ\right]\left(\frac{260}{1400}\right)^2$

$\therefore K_j = \underline{.200}$

(d) Bend Loss :
dian of Equiv Pipe = 10' Radius Bend = 50'
$\therefore R/d > 4$ & $K_b = .08$ for 90° Bend

Bend is 77° ∴ Multiply by .92 to Obtain adjusted K_b
$K_b = (.92)(.08)$

$K_b = \underline{.074}$

Exhibit #5

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
Allen Cr. - Ann Arbor - Segment 1	Wenger		7 OF 50	HUD-2016-07
	DATE 3/3/86	DATE		

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WORK SHEET

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TAYLOR, MICHIGAN 48180

REFERENCE

Total XKOR losses for Segment #1 :

$$XKOR = \sum k_{friction} + \sum k_{EXIT} + \sum k_{ENT.} + \sum k_{BENDS} + \sum k_{JUNCTIONS} + \sum k_{EXPANSION} + \sum k_{CONTRACTION}$$

∴ XKOR = 8.61

Weighted Area for SB Card :

$$Area_{WTD} = \frac{(635\,ft)\,80.2\,ft^2 + (2834\,ft)\,89.7\,ft^2 + (91\,ft.)\,80.1\,ft^2}{3560}$$

$Area_{WTD.} = 87.8\,ft^2$ recommended

Bottom Width for Low Flow Channel : (SB Card)

10.9'

Side Slope :

0

Invert U/S :

783.4

Invert D/S :

761.3

Exhibit #5

SUBJECT	BY	CHK	SHEET NO.	File Code No (Job No.) Owner Project Suffix
Allen Cr. - Ann Arbor Segment #1	DATE 2/13/20	DATE	52 OF 50	HUD • 2016 • 07

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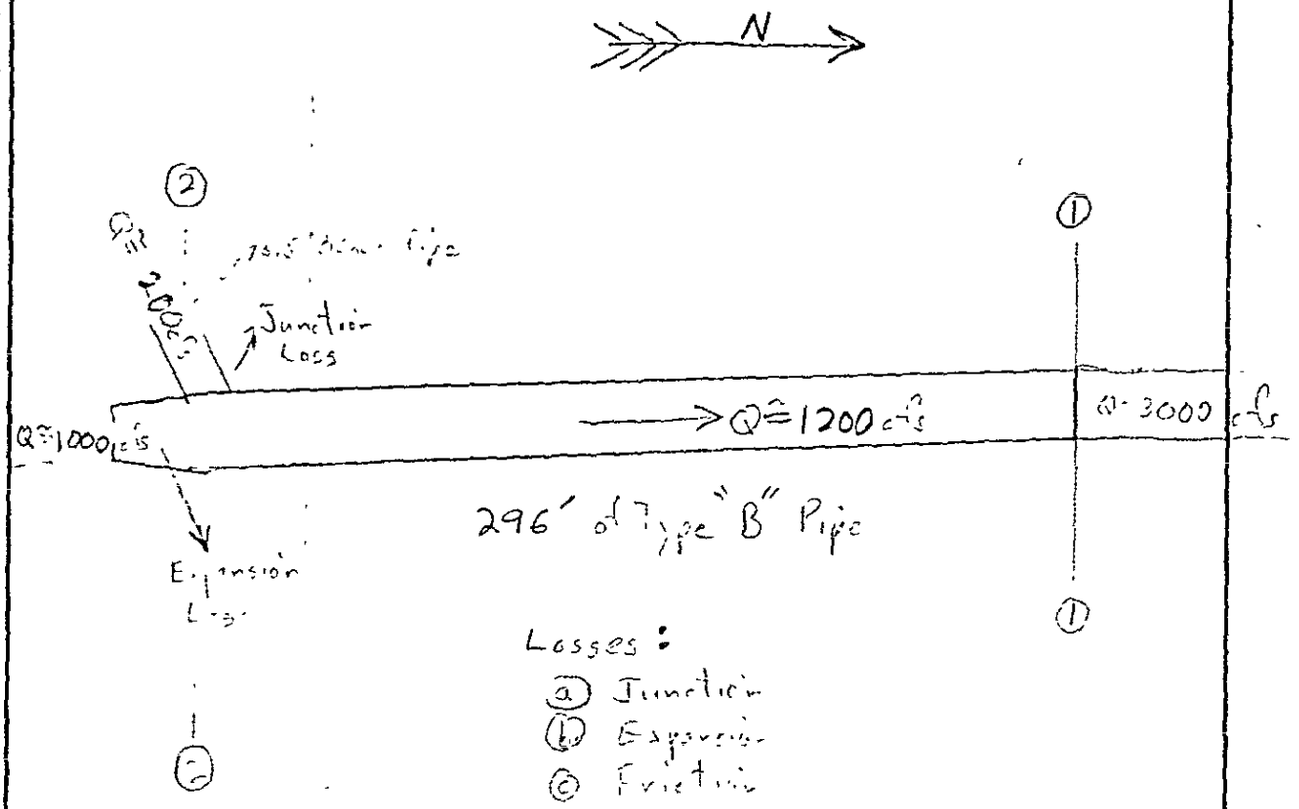
WORK SHEET
25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

REFERENCE

Segment #2 Plan View (Enclosure)



Losses:
- (a) Junction
- (b) Expansion
- (c) Friction

Area - 70.2 ft²

Section Locations:

#1 : Between Huron St. + Miller St.
#2 ≈ 100' D/S Huron St.

Note:
Starting Conditions for all storms are taken from Segment #1 Computer Runs.

Exhibit #5

SUBJECT	BY	CHK	SHEET NO.	File Code No. (Job No.) Owner Project Suffix
	DATE	DATE	OF 50	

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REFERENCE

SB Card Values for Segment #2

296' of Concrete Culvert
Area = 80.2 ft²
n = .015
$R_H = 2.35$ $R_H^{4/3} = 3.13$

Losses:

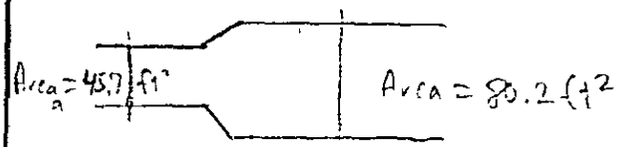
(a) Junction -
Branch Pipe is 55' ϕ
Area Branch = 24 ft²
Q_{Branch} = 200cfs
Main Pipe Area = 80.2 ft²
Main Pipe Flow = 1200cfs
Angle of Convergence θ = 45°

$$\therefore K_j = \left[1 + 2\frac{A_M}{A_B}\cos\theta\right]\left(\frac{Q_B}{Q_M}\right)^2$$

$$K_j = \left[1 + 2\left(\frac{80.2}{24}\right)\cos 45^\circ\right]\left(\frac{200}{1200}\right)^2$$

$$\therefore K_j = \underline{\underline{.16}}$$

(b) Expansion -



$$\boxed{K_{exp} = \left(\frac{A}{A_{approach}} - 1\right)^2}$$

Transition is ≈ 2:1

$$\therefore K_{exp} = \left(\frac{80.2}{45.7} - 1\right)^2 = \underline{\underline{.57}}$$

Exhibit #5

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
Allen Cr. - A. A. Lov F.J.S	DATE [illegible]	DATE	16 OF 50	1110° 2[illegible]° 07

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Sample #2 cont'd

REFERENCE

© Friction Loss —

$$K_f = \frac{29.1\ n^2\ L}{R^{4/3}}$$

$$\therefore K_f = \frac{29.1\ (.015)^2\ 296}{3.13} = .62$$

Total XKOR Value = $K_f + K_j + K_{Exp}$

$= .62 + .16 + .57 = 1.35$ ← use

Use 1.5 min. as suggested by HEC-2 Manual

P not applicable in this case

BArea = [illegible] sandbar

BWC = 10.02 ft.

Side Slope = 0

Invert U/S = 1991.65

Invert D/S = 1988.14

Exhibit #5

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No.) Owner Project Suffix
	DATE	DATE	11 OF 50	

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WORK SHEET

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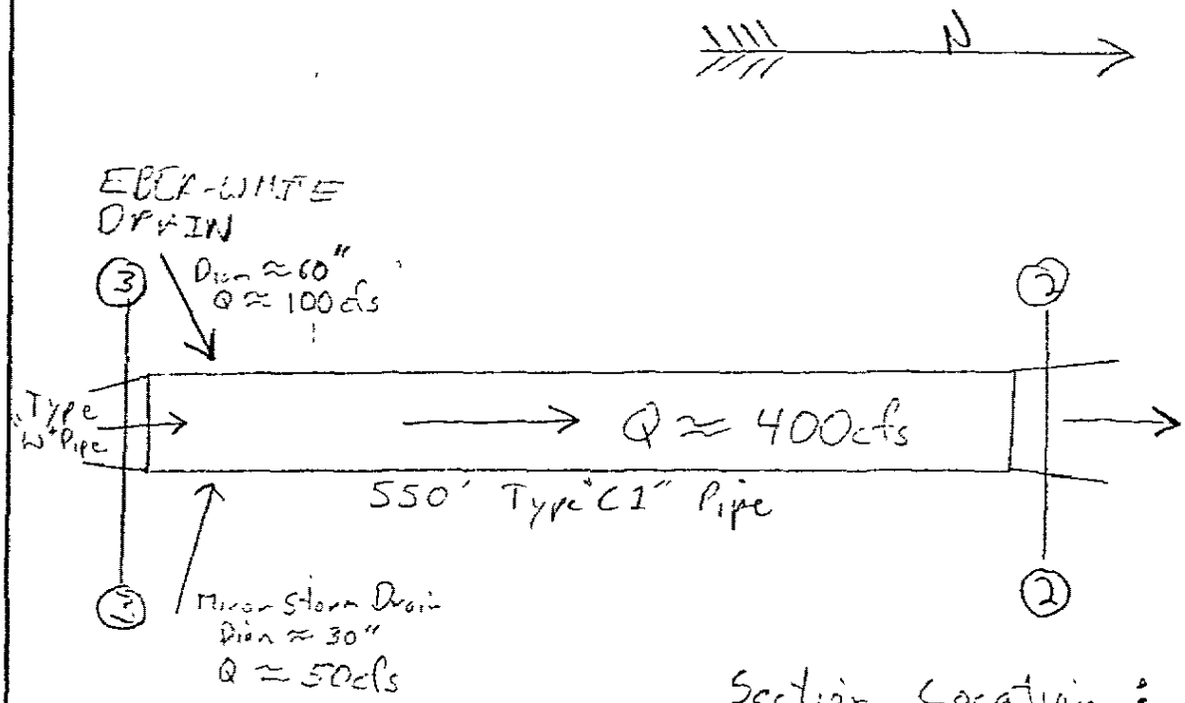
REFERENCE

Segment #3 Plan View (Enclosure)



Section Location:

#2 ≈ 100' D/S Huron St.

#3 ≈ 100' U/S Washington Ave.

Losses:

(a) Friction
(b) Junction (2)
(c) Contraction At Inlet

(Note: Expansion loss D/S taken into "Pressure" in Segment #2 Calculations)

Segment #3	Frequency			
	10 YR	50 YR	100 YR	500 YR
Starting Elevations (ft)	799.06	801.42	802.3	804.27
Starting Pressure Flowrates (cfs)	500	380	370	470
Starting Overland Flowrates (cfs)	880	1720	2080	2980

Exhibit #5

SUBJECT	BY	CHK	SHEET NO	File Code No. Job No. Owner Project Suffix
M.C. Enclosure - Funtion	DATE 3/2/93	DATE	12 OF 50	1105 • 2 • 1 • 0

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TAYLOR, MICHIGAN 48180

REFERENCE

SB Card Values for Segment #3

550' of Concrete Pipe
Area = 45.7 ft²
n = .015
R_H = 1.77 $R_H^{4/3}$ = 2.14

Losses:

(a.) Friction –

$$K_f = \frac{29.1\ n^2 L}{R^{4/3}}$$

$$K_f = \frac{29.1\ (.015)^2\ 550}{2.14} = \underline{\underline{1.68}}$$

(b) Junction –

1. Branch Pipe is 60"
Q_B = 100 cfs
Q_M = 400 cfs
Angle of Convergence = 45°
A_B = 19.6 ft²
A_M = 45.7 ft²

2. Branch Pipe is 30"
Q_B = 50 cfs
Q_M = 400 cfs
Angle of Convergence = 45°
A_B 4.9 ft²
A_M = 45.7 ft²

$$\therefore K_J = \left[1 + 2\ \frac{A_M}{A_B} \cos\theta\right] \left(\frac{Q_B}{Q_M}\right)^2 \text{(Branch Pipe)}$$

Exhibit #5

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
Alle. Cr. Enclosure Ann Arbor	DATE 3/5/80	DATE	12 OF 50	1[illegible]° 2016° 07

REFERENCE

Segment #3 (cont'd)

$$\therefore K_j = \left[1 + 2\left(\frac{45.1}{19.6}\right)\cos 45^\circ\right]\left(\frac{100}{400}\right)^2 +$$

$$\left[1 + 2\left(\frac{45.7}{4.9}\right)\cos 45^\circ\right]\left(\frac{50}{400}\right)^2$$

$$K_j = \underline{.49}$$

© Contraction @ Inlet:

$A_c = 45.7\,ft^2$ ← Flow $A = 66.5\,ft^2$

Transition is Abrupt

$$K_{cont.} = \left(\frac{A}{A_c} - 1\right)^2$$

$$\therefore K_{cont.} = \left(\frac{66.5}{45.7} - 1\right)^2 = \underline{.21}$$

TOTAL ΣKOR Value = $K_f + K_j + K_{cont}$

$\Sigma KOR = 2.38$

B Area = 45.7
BWC = 7.6 ft
Side Slope = 0
Invert U/S = 791.9
Invert D/S = 784.65

Exhibit #5

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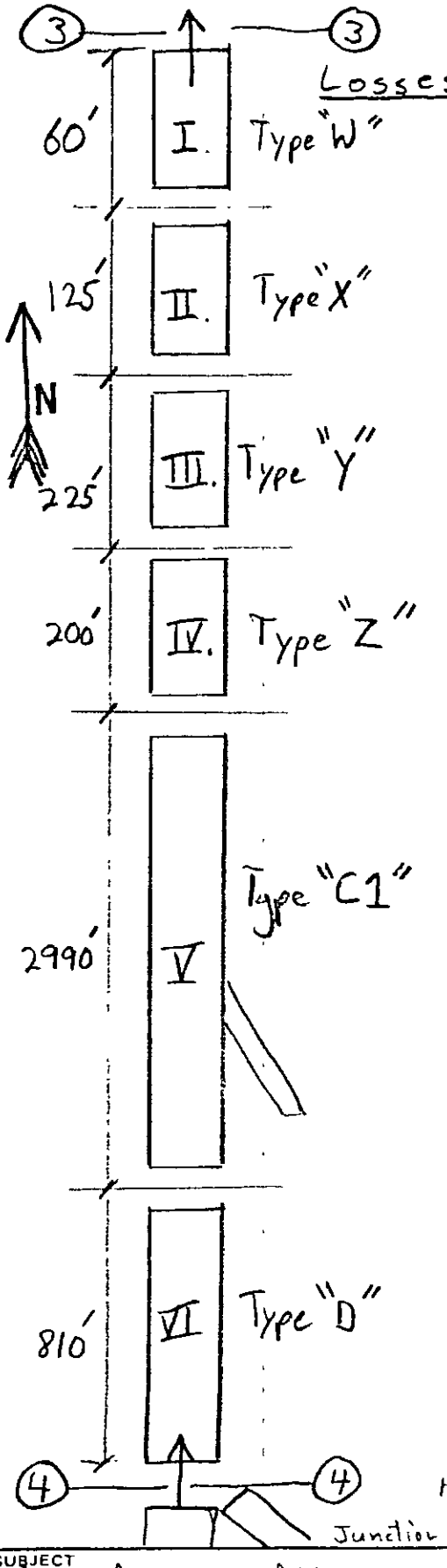
REFERENCE

Segment #4 Plan View



HEC-2 SECNO 4325, 4330 } 100' u/s Washington Ave.

Losses:

(a) Transition ("X" to "W").
(b) Bend Losses (1).
(c) Friction Losses.

(a) Transition ("Y" to "X").
(b) Bend Losses (1).
(c) Friction Losses.

(a) Transition ("Z" to "Y")
(b) Friction Losses.

(a) Transition ("C1" to "Z")
(b) Friction Losses.

(a) Junction Loss (1) $\Theta = 40°$, 36'Ø pipe, .32
(b) Friction Losses.
(c) Transition Loss ("D" to "C1")
(d) Bend Losses (4)

(a) Junction Loss (1)
(b) Friction Losses.

HEC-2 SECNO 8732 } Hoover Ave.

Exhibit #5

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
Ann Arbor - Allen Creek	W. Weaver		15 OF 50	HUD 2016 07
	DATE 3/7/80	DATE		

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WORK SHEET

25185 GODDARD ROAD
TAYLOR, MICHIGAN 48180

REFERENCE

Starting Conditions for Segment #4

SEGMENT #4	Frequency			
	10 YR.	50 YR.	100 YR.	500 YR.
Enclosure Pressure Flow	420 cfs	340 cfs	320 cfs	300 cfs
Overland Flowrate	650 cfs	1280 cfs	1560 cfs	2350 cfs
Elevation	801.8'	803.35'	804.0'	805.7'

Exhibit #5

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
Allen Cr. – Ann Arbor	D Weaver		16 OF 50	HUD•2016•07
	DATE 3/7/80	DATE		

REFERENCE

SB Card Values (Loss Calcs.) for Segment #6

I. 60' of Type "W" Pipe
Area = 66.5 ft²
n = .015
R_H = 2.02 $R_H^{4/3}$ = 2.55

(a.) Transition Loss:

A_a = 63.8 ft² → A = 66.5 ft² (Expansion is abrupt)

$$K_{exp} = \left(\frac{A}{A_a} - 1\right)^2 = \left(\frac{66.5}{63.8} - 1\right)^2$$

$K_{exp.}$ = .002

(b.) Bend Loss:

Diam. of Equivalent Pipe = 9'
R = Large
∴ R/d is Large + K_b = .23 for 90°

for 31°, K_b = .54 (.23) = .124

(c) Friction Loss:

$$K_f = \frac{29.1\,(n)^2 L}{R^{4/3}} = \frac{29.1\ (.015)^2\ 60}{2.55}$$

∴ K_f = .154

Exhibit # 5

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
Allen Cr. - Ann Arbor FIS	DATE 7/17/20	DATE	17 OF 50	HUD • 2016 • 07

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WORK SHEET

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REFERENCE

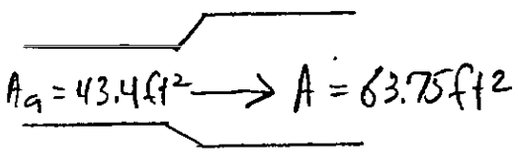
II. 125' of Type "X" Pipe

Area = 63.75 ft^2

$n = .015$

$R_H = 1.99 \quad R_H^{4/3} = 2.5$

(a) Transition Loss:



Transition is Abrupt

$$K_{Expansion} = \left(\frac{A}{A_a} - 1\right)^2$$

$$\therefore K_{exp} = \left(\frac{63.75}{43.4} - 1\right)^2$$

$$K_{exp} = \underline{\underline{.22}}$$

(b) Bend Loss: (31° Bend)

$d = 7$ Bend is sharp $R/d \approx 1$

$\therefore K_b$ at $90° = .23$ +

K_b @ $31° = .55(.23) = \underline{\underline{.13}}$

(c) Friction Loss:

$$K_f = \frac{29.1 n^2 L}{R^{4/3}} = \frac{29.1(.015)^2 125}{2.5}$$

$$K_f = \underline{\underline{.33}}$$

Exhibit #5

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
Allen Cr - Ann Arbor	W Weaver		18 OF 50	HUD 2016 07
	DATE 3/7/80	DATE		

REFERENCE

III. 225' of Type "Y" Pipe

Area = 43.4 ft²

$n = .015$

$R_H = 1.64$ $\quad R_H^{4/3} = 1.94$

(a) Transition Loss "Z" to "Y"

$A = 86.4\,ft^2 \longrightarrow A_c = 43.4\,ft^2$ $\quad \left(\frac{A}{A_c} - 1\right)^2 = K_{cont.}$

Morris Wiggert, "Applied Hydr in Engineering", Pg 111, 1972.

Abrupt Transition

$\therefore K_{cont} = \left(\frac{86.4}{43.4} - 1\right)^2$

$K_{cont} = \underline{.98}$

(b) Friction Loss:

$$K_f = \frac{29.1\ n^2 L}{R^{4/3}}$$

$$K_f = \frac{29.1\ (.015)^2\ 225}{1.94}$$

$K_f = \underline{.76}$

Exhibit # 5

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
Allen Cr. - Ann Arbor	DATE 3/7/90	DATE	19 OF 50	HUD • 2015 • 07

REFERENCE

IV. 200' of Type "Z" Pipe

$A = 86.4\ ft^2$ $\quad n = .015$

$R_H = 2.25$ $\quad K_H^{4/3} = 2.95$

(a) Transition Loss: "CI" to "Z"

$A_a = 45.7\ ft^2 \rightarrow A = 86.4\ ft^2$

Expansion is Abrupt

$$K_{exp} = \left(\frac{A}{A_a} - 1\right)^2$$

$$K_{exp} = \left(\frac{86.4}{45.7} - 1\right)^2$$

$$K_{exp} = .79$$

(b) Friction Loss:

$$K_f = \frac{29.1\ n^2 L}{R^{4/3}}$$

$$K_f = \frac{29.1\ (.015)^2\ 200}{2.95}$$

$$K_f = .444$$

Exhibit # 5

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
Ile. Co. - Ann Arbor FIS.	DATE	DATE	20 OF 50	HUD 2016 07

REFERENCE

V. 2990' of Type "C 1" Pipe

$A_{req} = 45.7\ ft^2$ $\quad n = .015$

$R_H = 1.77$ $\quad R_H^{4/3} = 2.14$

(4) Junction Loss:

Angle of Convergence $\Theta = 40°$

Branch is 36" w/ $A_{req} = 7.07\ ft^2$ @ .32%

$Q_B \cong 33\ cfs$

$Q_{main} \cong 300\ cfs$

$A_{main} = 45.7\ ft^2$

$$K_j = \left[1 + 2\,\frac{A_m}{A_B}\cos\Theta\right]\left(\frac{Q_B}{Q_M}\right)^2$$

$$\therefore K_j = \left[1 + 2\left(\frac{45.7}{7.07}\right)\cos 40°\right]\left(\frac{33}{300}\right)^2$$

$$K_j = \underline{.132}$$

(6) Friction Loss:

$$K_f = \frac{29.1\ n^2 L}{R^{4/3}}$$

$$K_f = \frac{29.1\ (.015)^2\ 2990}{2.14}$$

$$K_f = \underline{9.15}$$

Exhibit 5

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
Allen Cr. - Ann Arbor	DATE 3/7/90	DATE	21 OF 50	HUD • 2015 • 07

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REFERENCE

V. (cont'd.)

(c) Transition Loss : ("D" + "C1")

$A_a = 41.14 ft^2 \longrightarrow A = 45.7 ft^2$

Transition is Abrupt

$$K_{exp} = \left(\frac{A}{A_a} - 1\right)^2$$

$$K_{exp} = \left(\frac{45.7}{41.14} - 1\right)^2$$

$K_{exp} = \underline{\underline{.012}}$

(d) Bend Losses : (4)

Hill St.	38°	R/d ≈ 3.6	$K_b \approx .12$ for 90°
Lib. to William	39°	R/d ≈ 8.8	$K_b \approx .08$ for 90°
Ashley	47°	R/d ≈ 3.7	$K_b \approx .12$ for 90°
S. Main	27°	R/d ≈ 6.8	$K_b \approx .08$ for 90°

$\therefore K_b = (.12)\,.63 + .08(.64) + .12(.72) + .08(.52)$

$K_b = \underline{\underline{.255}}$

Exhibit #5

REFERENCE

VI. 810' of Type "D" Pipe

$A_{area} = 41.14 \text{ ft}^2$

$n = .015$

$R_H = 1.66 \quad R_H^{4/3} = 1.96$

(a) Junction Loss:

Angle of Convergence = 20°

Branch is ≈ 55.2' E.M.@ .3%

$A_{MAIN} = 41.14 \text{ ft}^2$

$A_{BR} \cong 30 \text{ ft}^2$

$Q_{BR} \cong 100 \text{ cfs}$

$Q_{main} = 150 \text{ cfs}$

$$K_j = \left[1 + 2\frac{A_m}{A_B}\cos\theta\right]\left(\frac{Q_B}{Q_m}\right)^2$$

$$K_j = \left[1 + 2\left(\frac{41.14}{30}\right)\cos 20\right]\left(\frac{100}{150}\right)^2$$

$$\therefore K_j = \underline{1.59}$$

(b) Friction Loss:

$$K_f = \frac{29.1 \; n^2 L}{R^{4/3}}$$

$$K_f = \frac{29.1\,(.015)^2\,810}{1.96}$$

$$K_f = \underline{2.706}$$

Exhibit # 5

SUBJECT	BY	CHK.	SHEET NO	File Code No (Job No) Owner Project Suffix
Allen Cr. — Ann Arbor	DATE 2/11/86	DATE	23 OF 50	HUD-2516-07

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WORK SHEET

REFERENCE

Segment #4 SB Card Summary

Total ΣKOR = Σ of all loss coefficients

∴ **ΣKOR = 17.78**

Weighted Area = $\frac{60(16.5)+(63.75)125+225(43.4)+200(86.4)+2990(45.7)+(411)810}{4410}$

Avg. Weighted Area = 47.4 ft²

B Area = 47.4
BWC = 8.7'
Side Slope = 0
Invert u/s = 815.69
Invert o/s = 1791.89

Exhibit # 5

SUBJECT	BY	CHK	SHEET NO	File Code No (Job No) Owner Project Suffix
Allen Co. - Ann Arbor FIS	DATE 3/7/96	DATE	24 OF 50	HUD 2016 07

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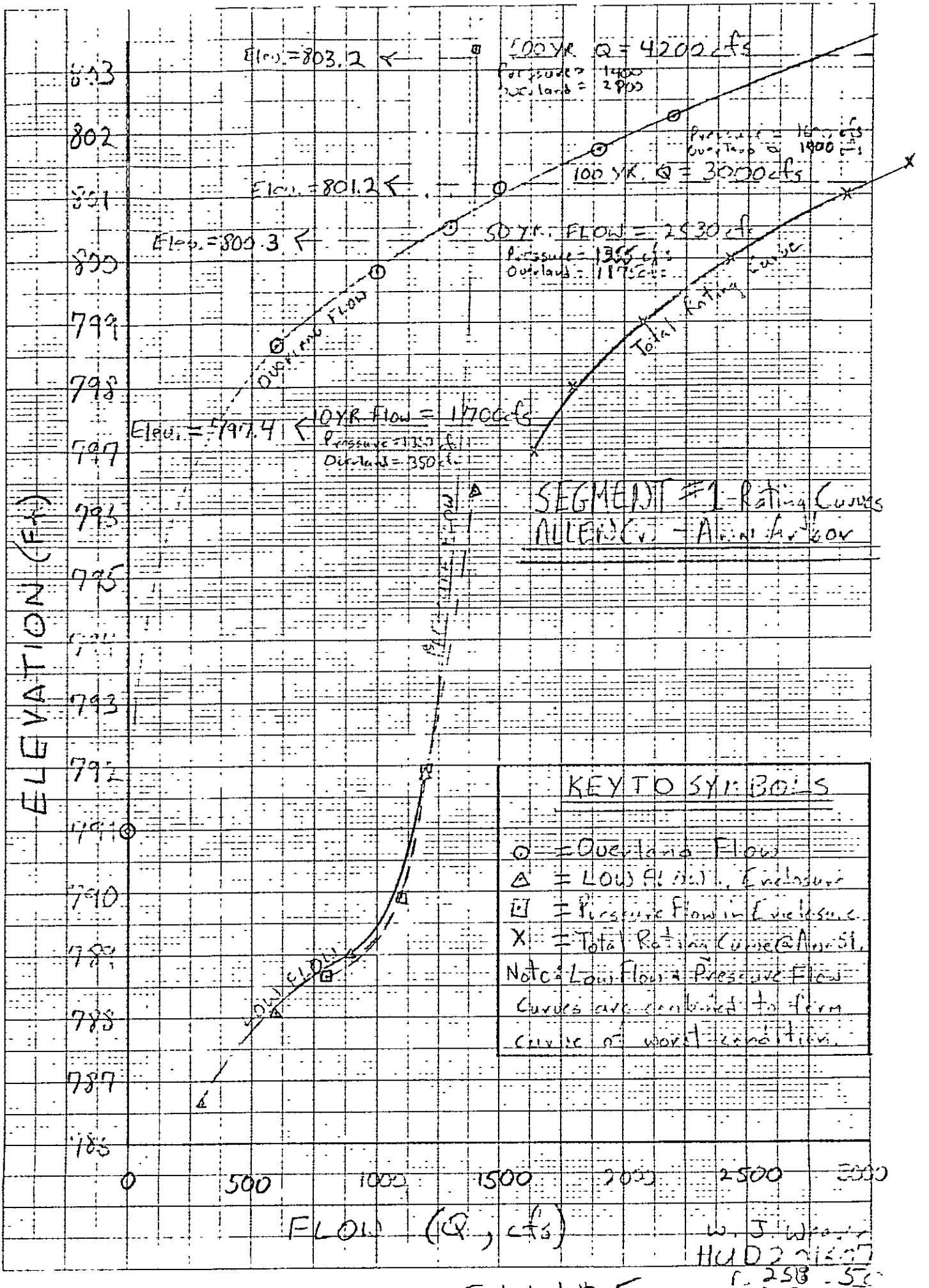
REFERENCE

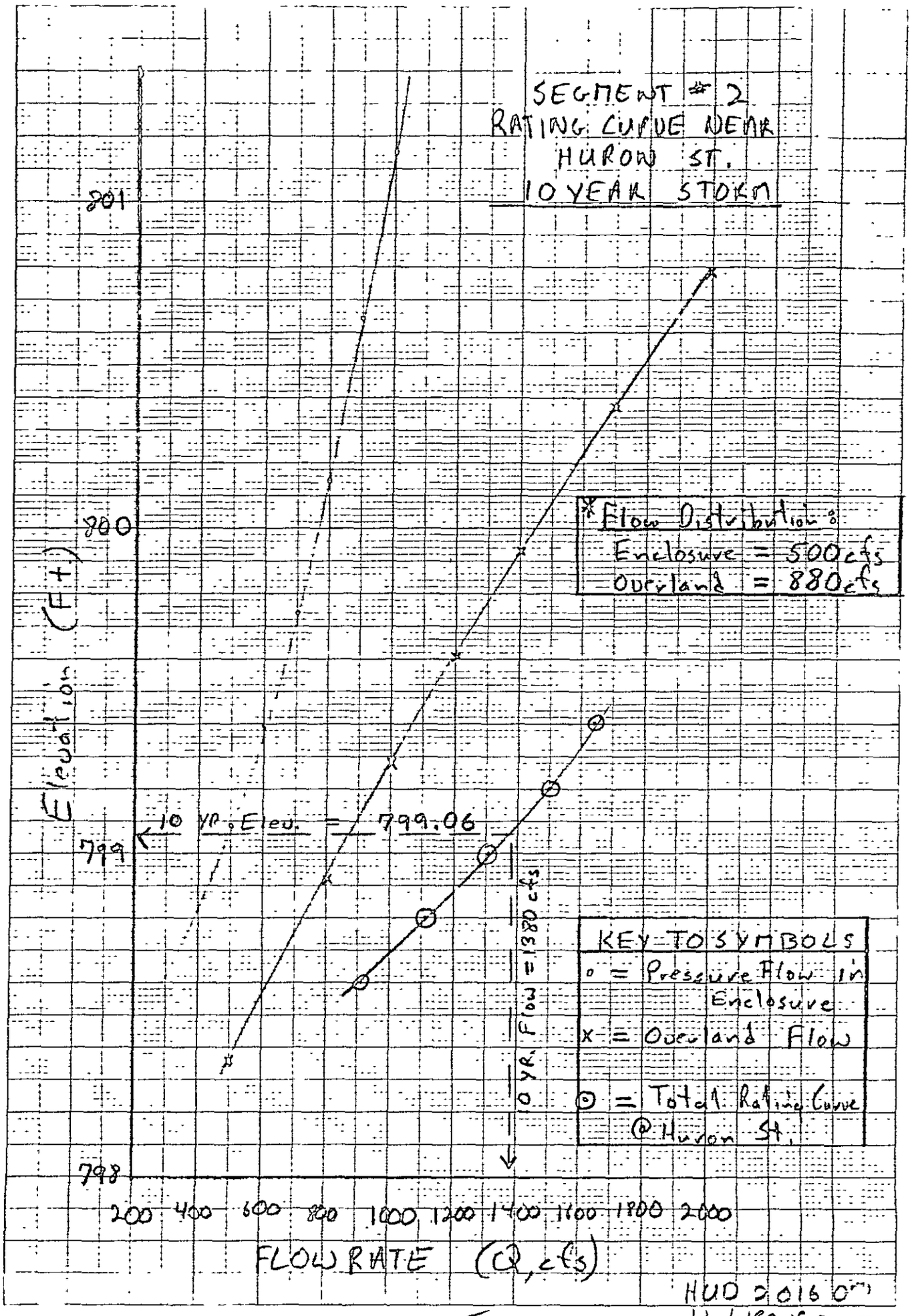
Rating Curve Summary

The rating curves on the following pages represent initial computer runs (HEC-2) made for the four segments of the Allen Creek. These rating curves were used to determine the distribution of flow between the Allen Creek Enclosure and Overland flow. After all flow distributions were determined, the four overland flow segments were joined and a final "refined" computer run was made to determine exact flood elevations for the entire length of Allen Creek. These refined elevations were then rechecked against the rating curves to insure that any elevation differences between the curves and the final run would not affect the pressure flow quantities in the enclosure.



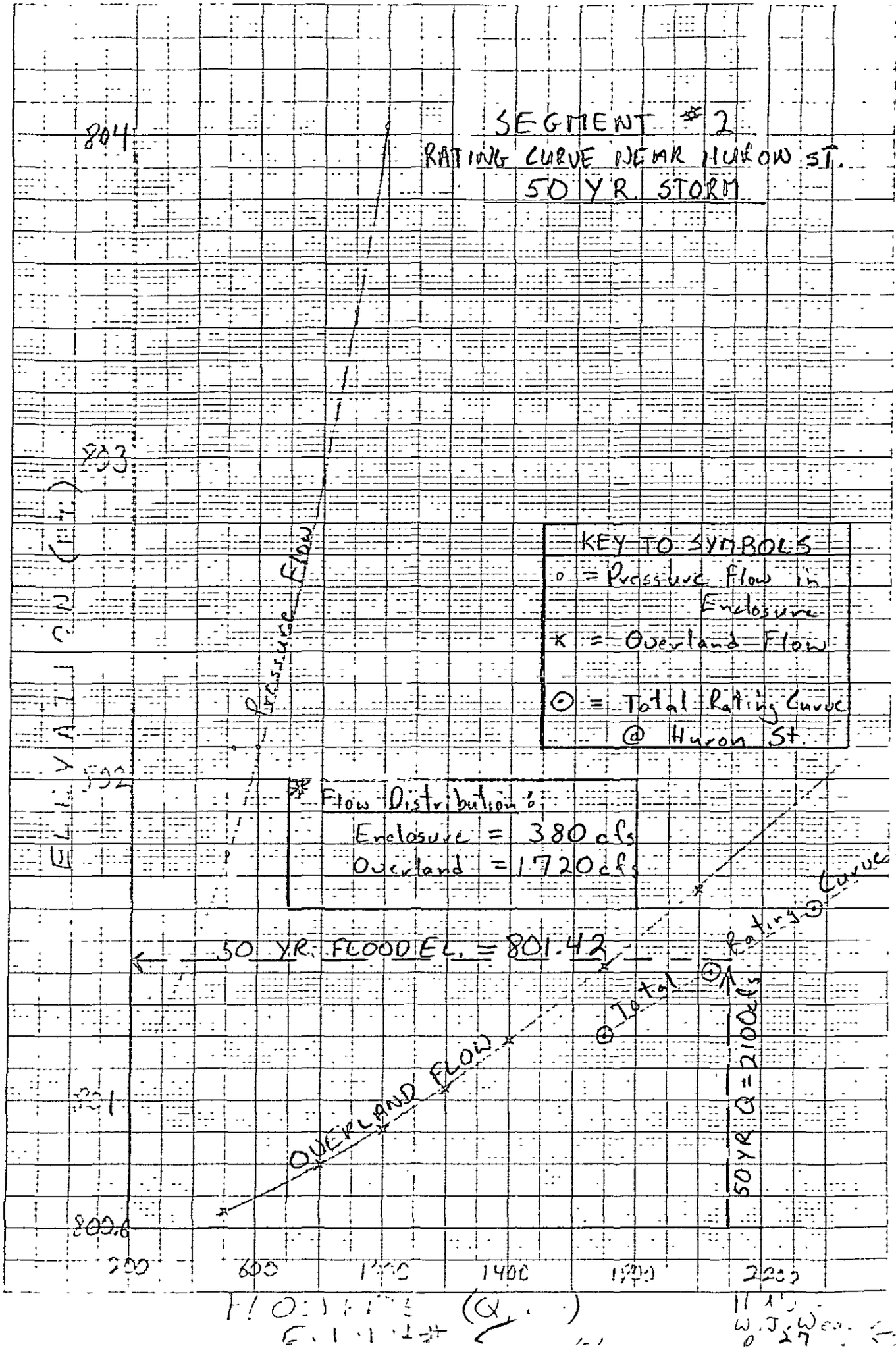
Elev. = 803.2
500 YR. Q = 4200 cfs
Pressure = 1400
Overland = 2800
Pressure = 1600 cfs
Overland = 1900 cfs
100 YR. Q = 3000 cfs
Elev. = 801.2
Elev. = 800.3
50 YR. FLOW = 2530 cfs
Pressure = 1355 cfs
Overland = 1175 cfs
Overland Flow
Total Rating Curve
Elev. = 797.4
10 YR Flow = 1700 cfs
Pressure = 1350 cfs
Overland = 350 cfs
SEGMENT #1 Rating Curves
ALLEN Cr. - Ann Arbor
Low Flow
KEY TO SYMBOLS
⊙ = Overland Flow
△ = Low Flow in Enclosure
⊡ = Pressure Flow in Enclosure
X = Total Rating Curve @ Ann St.
Note: Low Flow & Pressure Flow Curves are combined to form curve of worst condition.
ELEVATION (Ft)
FLOW (Q, cfs)
0
500
1000
1500
2000
2500
3000

Exhibit # 5



HUD 2016 OM
W Weaver
Pg 26 of 50

Exhibit # 5 2/5/80


SEGMENT # 2
RATING CURVE NEAR HURON ST.
50 YR. STORM
804
803
802
801
800.6
KEY TO SYMBOLS
o = Pressure Flow in Enclosure
x = Overland Flow
⊙ = Total Rating Curve @ Huron St.
Flow Distribution:
Enclosure = 380 cfs
Overland = 1720 cfs
50 YR. FLOOD EL. = 801.42
OVERLAND FLOW
Curve ⊙
50 YR Q = 2100 cfs
200
600
1400
2200

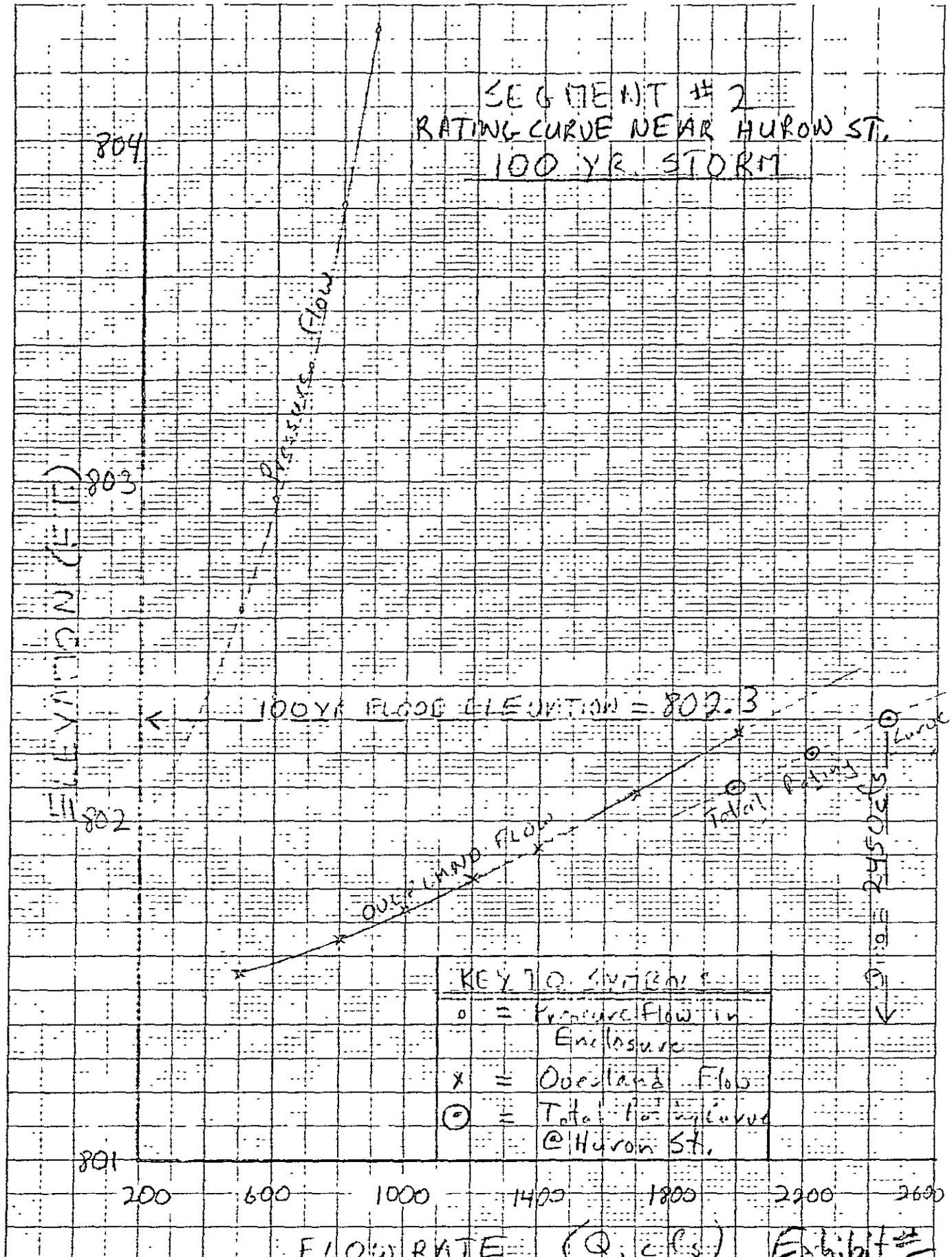


Exhibit # 5

* Flow Distribution:
Overland = 2080 cfs
Enclosure = 370 cfs

HUD 2016 07
W. J. Lieaver
Pg 28 - 50

SEGMENT # 2
RATING CURVE NEAR HURON ST.
500 YEAR STORM

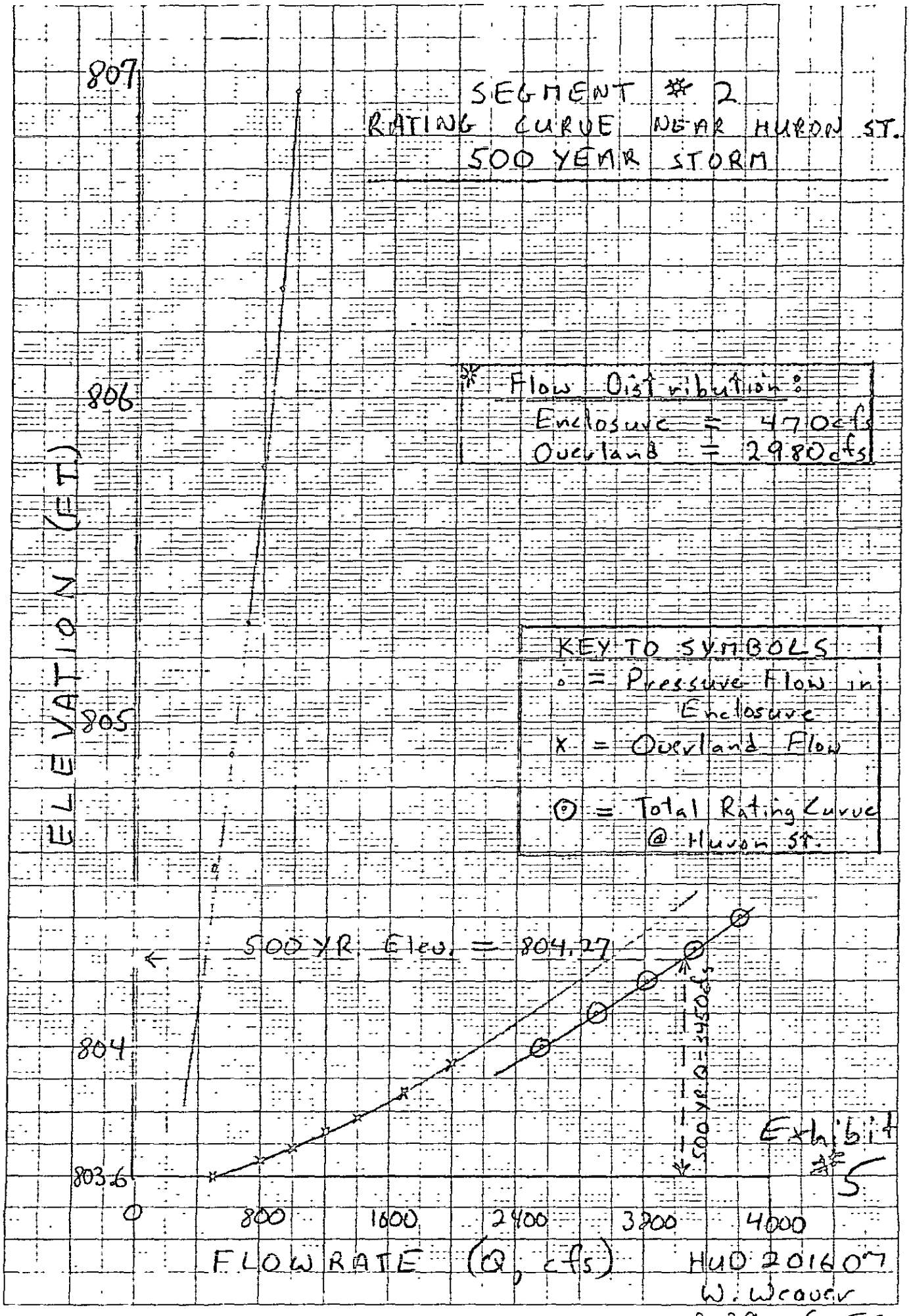


Exhibit # 5

HUD 20160?
W. Weaver
Pg 29 of 502

3/5/80

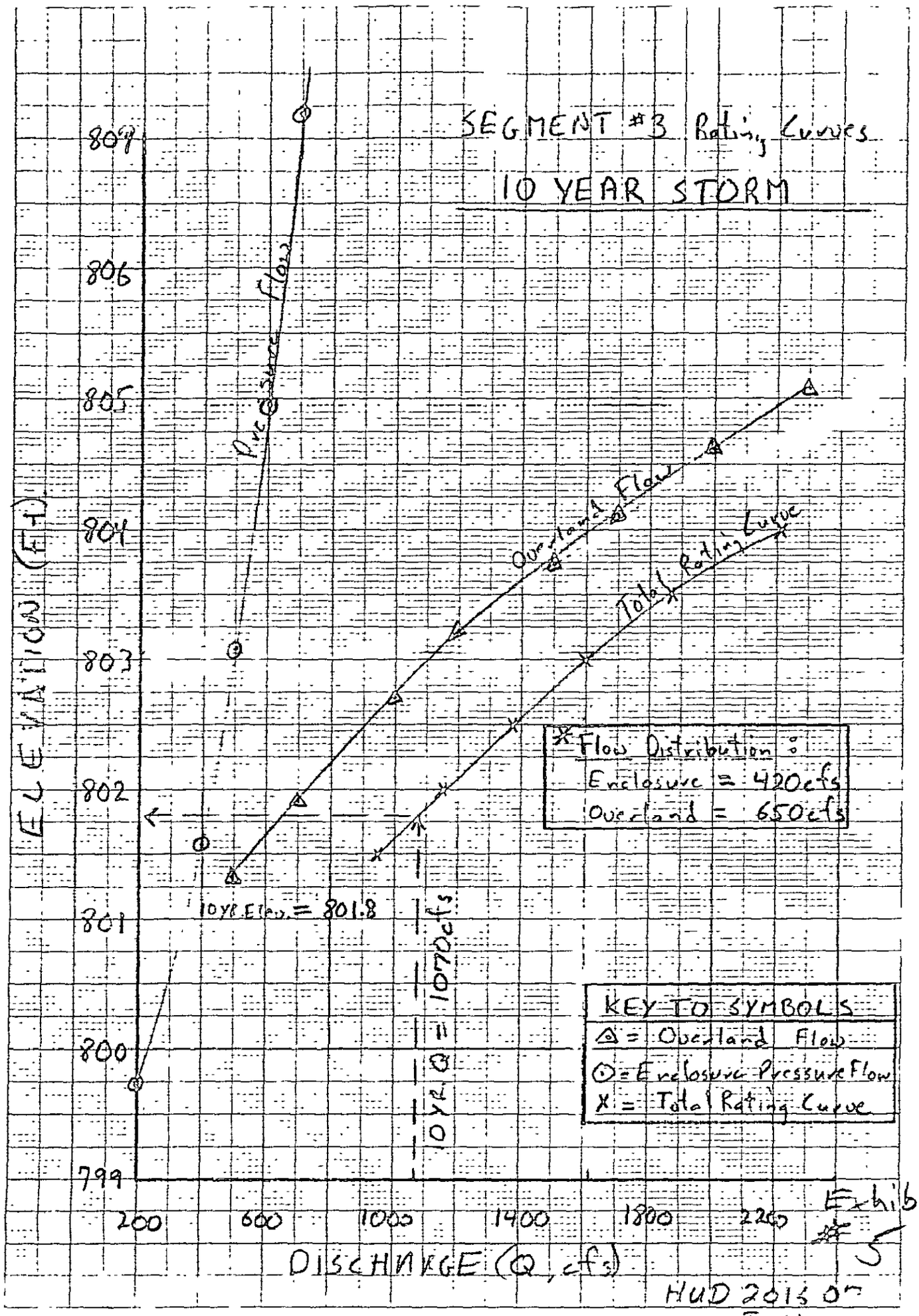


Exhibit #5

HUD 2016 07

W. J. Weaver

A M I FTC 2/7/20

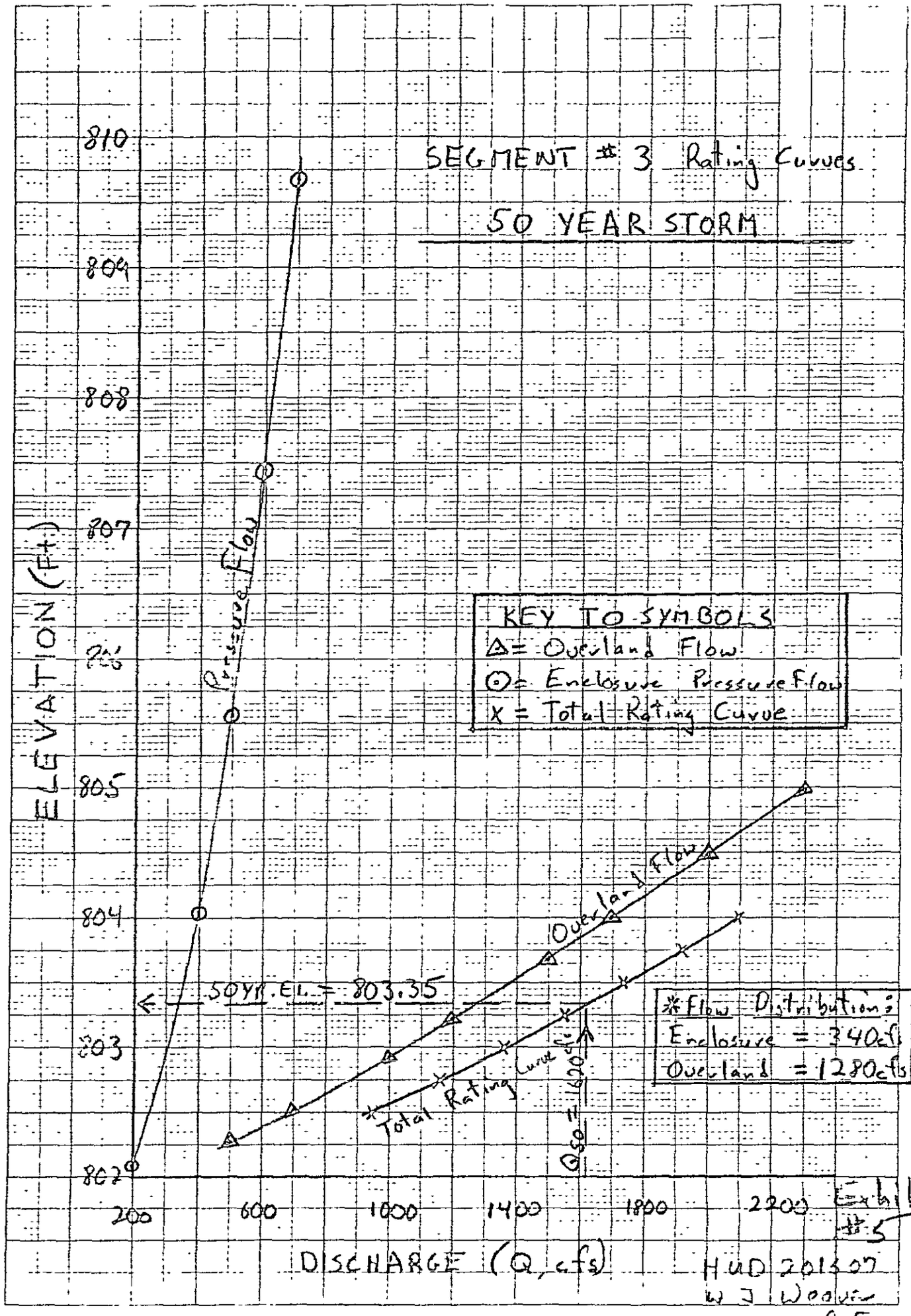
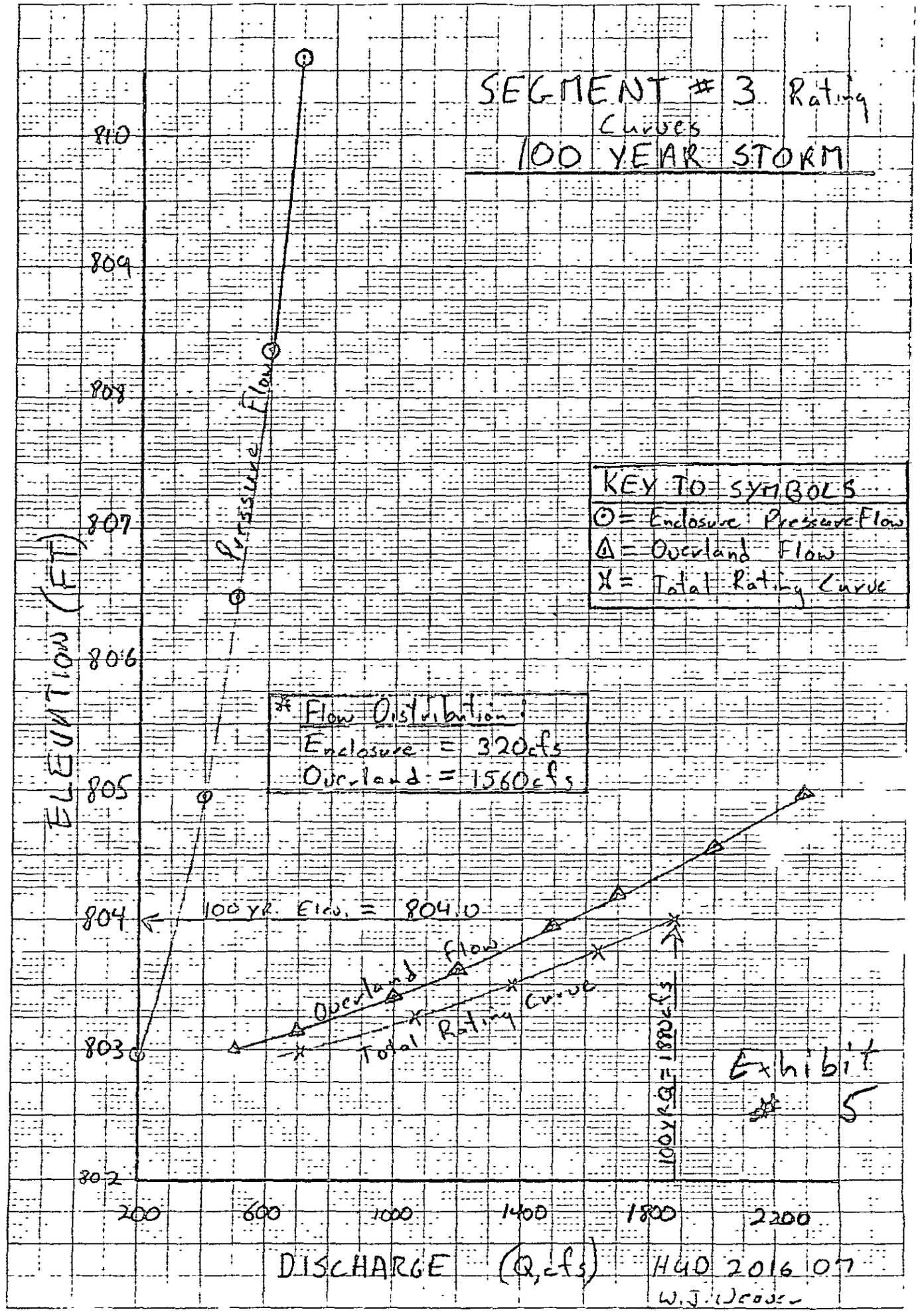


Exhibit #5

HUD 201507
W J Woolver

Ann Arbor F.I.S. 3/7/80 Pg. 31 of 5



Ann Arbor F.I.S. 3/7/16 Pg 32 of 50

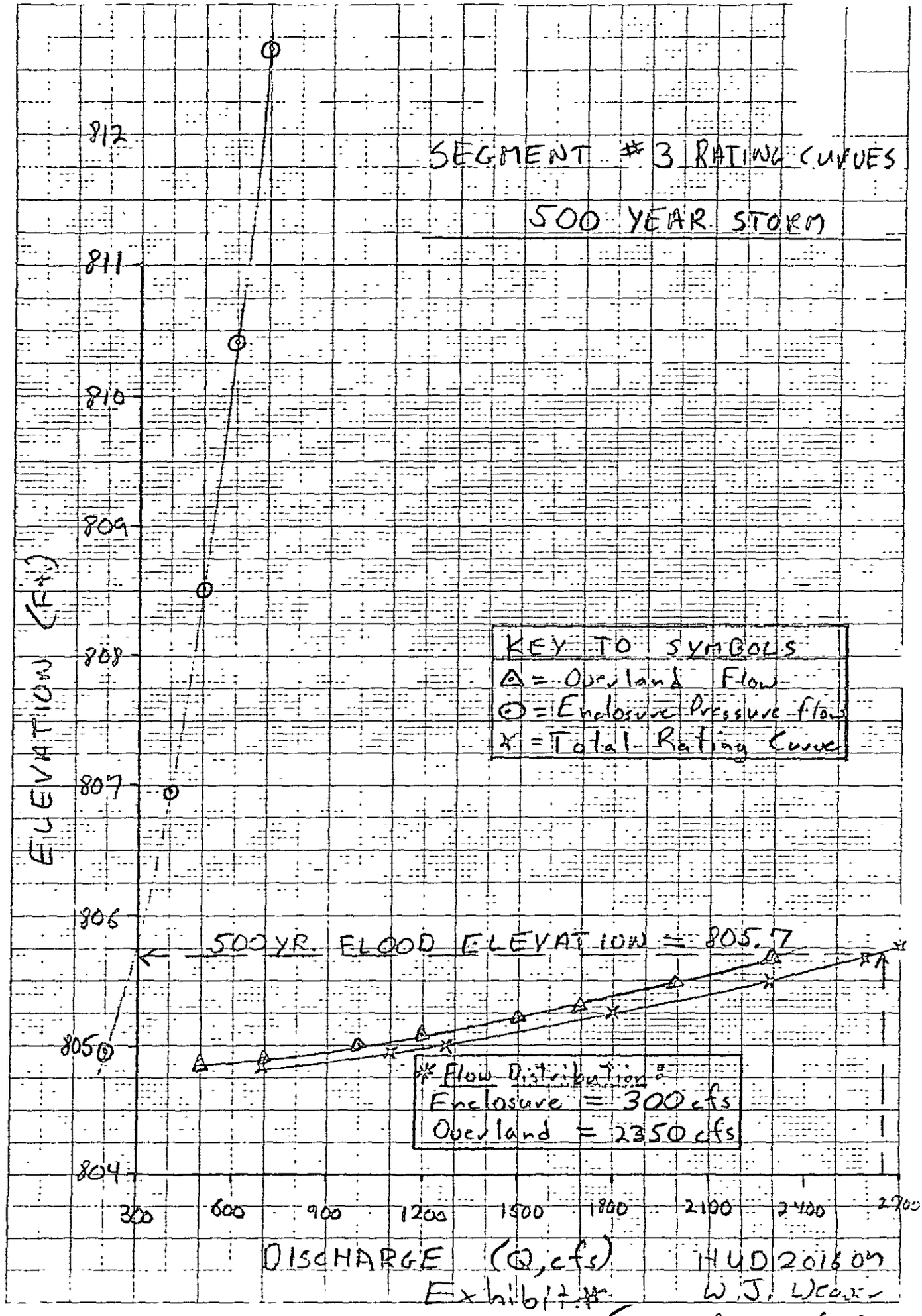
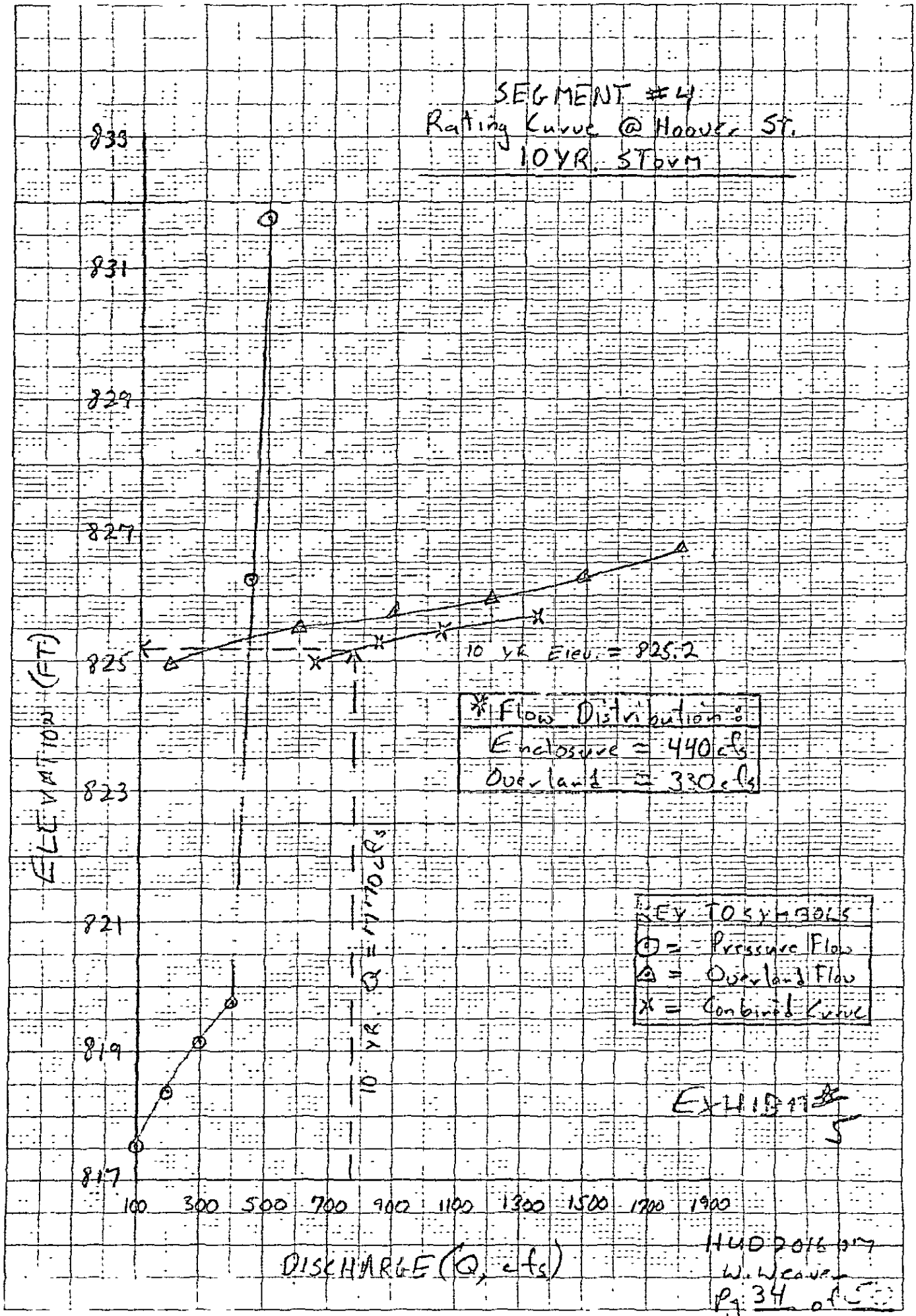
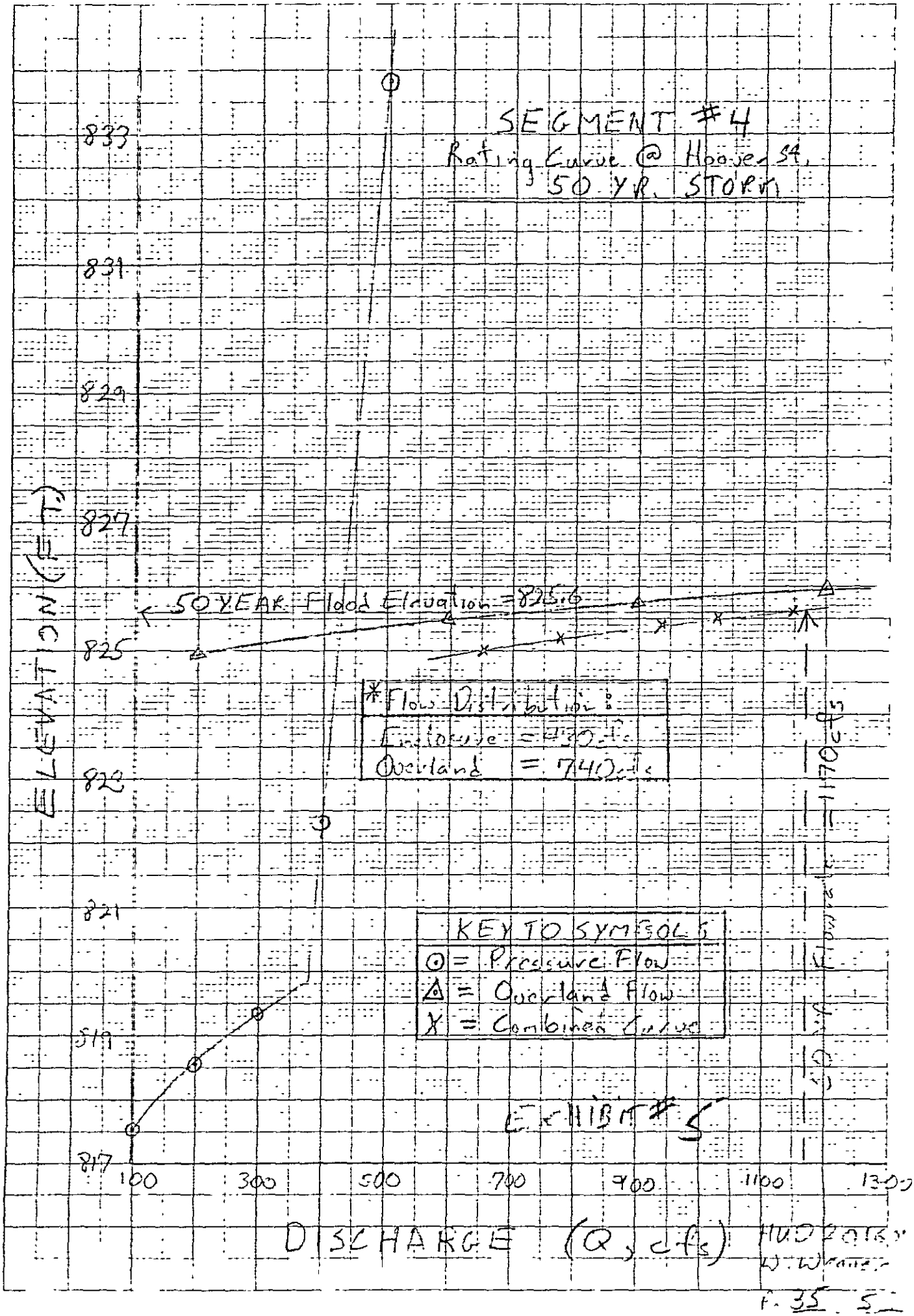
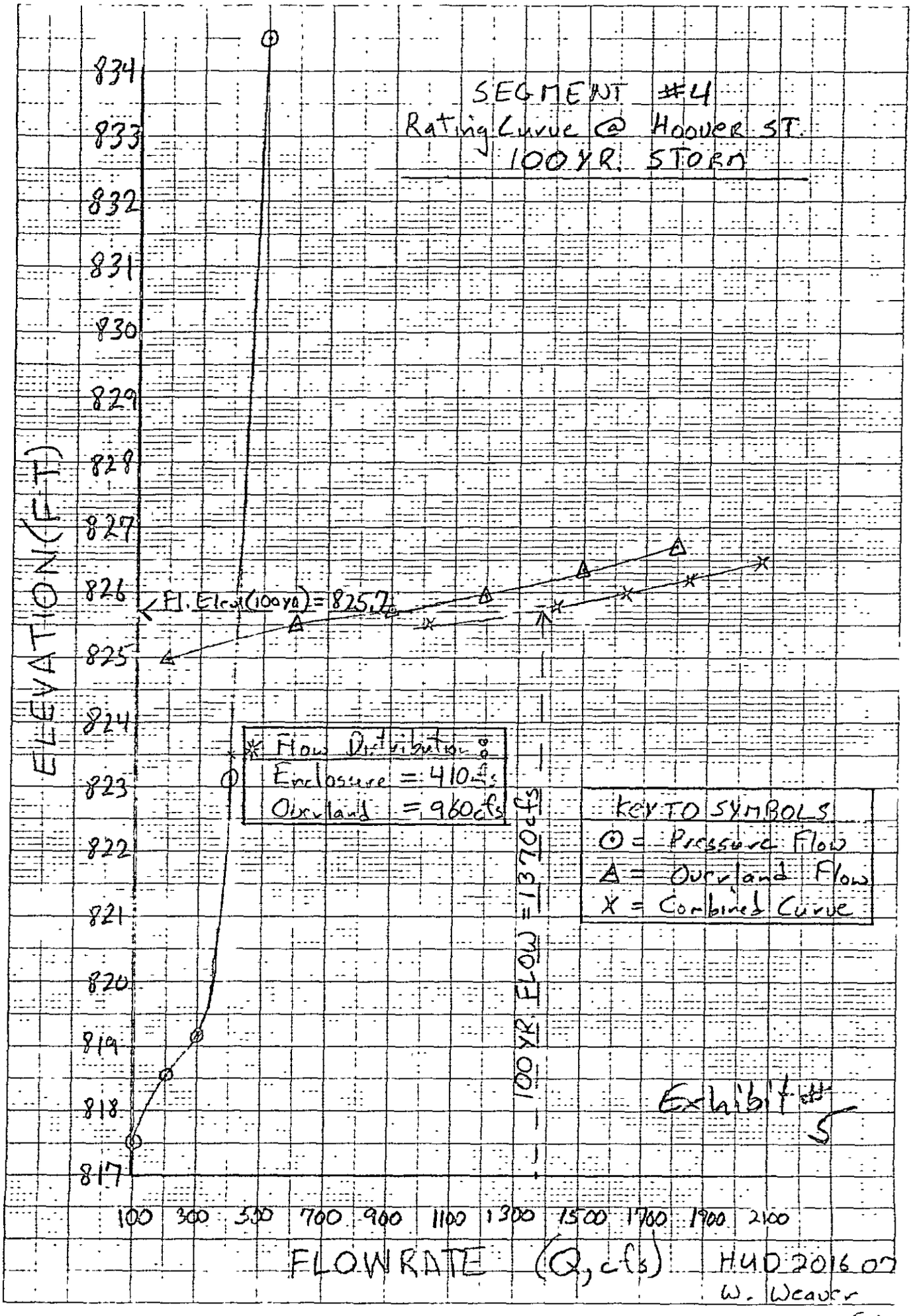


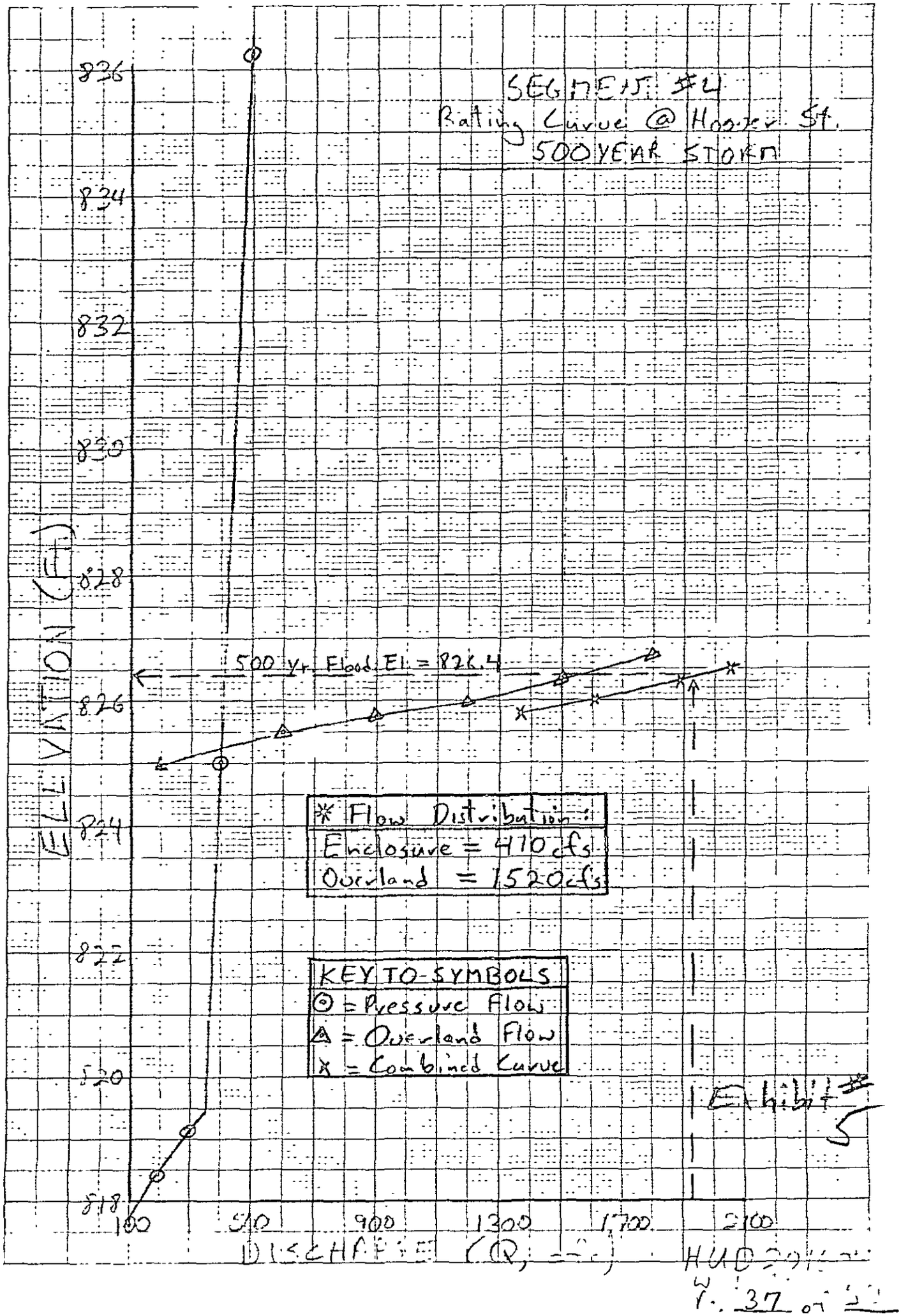
Exhibit #5

Ann Arbor F.I.S. 3/7/20 Pg 33 of ---


SEGMENT #4
Rating Curve @ Hoover St.
10YR. STORM
839
831
829
827
825
823
821
819
817
ELEVATION (FT)
10 yr Elev. = 825.2
* Flow Distribution
Enclosure = 440 cfs
Overland = 330 cfs
KEY TO SYMBOLS
⊙ = Pressure Flow
△ = Overland Flow
× = Combined Curve
Q = 770 cfs
10 YR
EXHIBIT 5
100 300 500 700 900 1100 1300 1500 1700 1900
DISCHARGE (Q, cfs)
HUD 2016-07
W. Weaver
Pg: 34 of 50


SEGMENT #4
Rating Curve @ Hoover St.
50 YR. STORM
ELEVATION (ft)
833
831
829
827
825
823
821
819
817
50 YEAR Flood Elevation = 826.6
* Flow Distribution:
Culvert = 260 cfs
Overland = 740 cfs
KEY TO SYMBOLS
⊙ = Pressure Flow
△ = Overland Flow
X = Combined Flow
100
300
500
700
900
1100
1300
DISCHARGE (Q, cfs)
EXHIBIT # 5


SEGMENT #4
Rating Curve @ Hoover ST.
100 YR. STORM
ELEVATION (FT)
834
833
832
831
830
829
828
827
826
825
824
823
822
821
820
819
818
817
Fl. Elev (100 yr) = 825.7
* Flow Distribution
Enclosure = 410 cfs
Overland = 960 cfs
100 YR. FLOW = 1370 cfs
KEY TO SYMBOLS
⊙ = Pressure Flow
Δ = Overland Flow
X = Combined Curve
100
300
500
700
900
1100
1300
1500
1700
1900
2100
FLOWRATE (Q, cfs)
Exhibit #5
HUD 2016.07
W. Weaver
3/11/80
Pg 36 of 51


SEGMENT #4
Rating Curve @ Hooper St.
500 YEAR STORM
826
824
832
830
828
826
824
822
820
818
ELEVATION (FT)
500 yr. Flood El. = 826.4
* Flow Distribution:
Enclosure = 410 cfs
Overland = 1520 cfs
KEY TO SYMBOLS
⊙ = Pressure Flow
△ = Overland Flow
x = Combined Curve
100
500
900
1300
1700
2100
DISCHARGE (CFS)
Exhibit 5

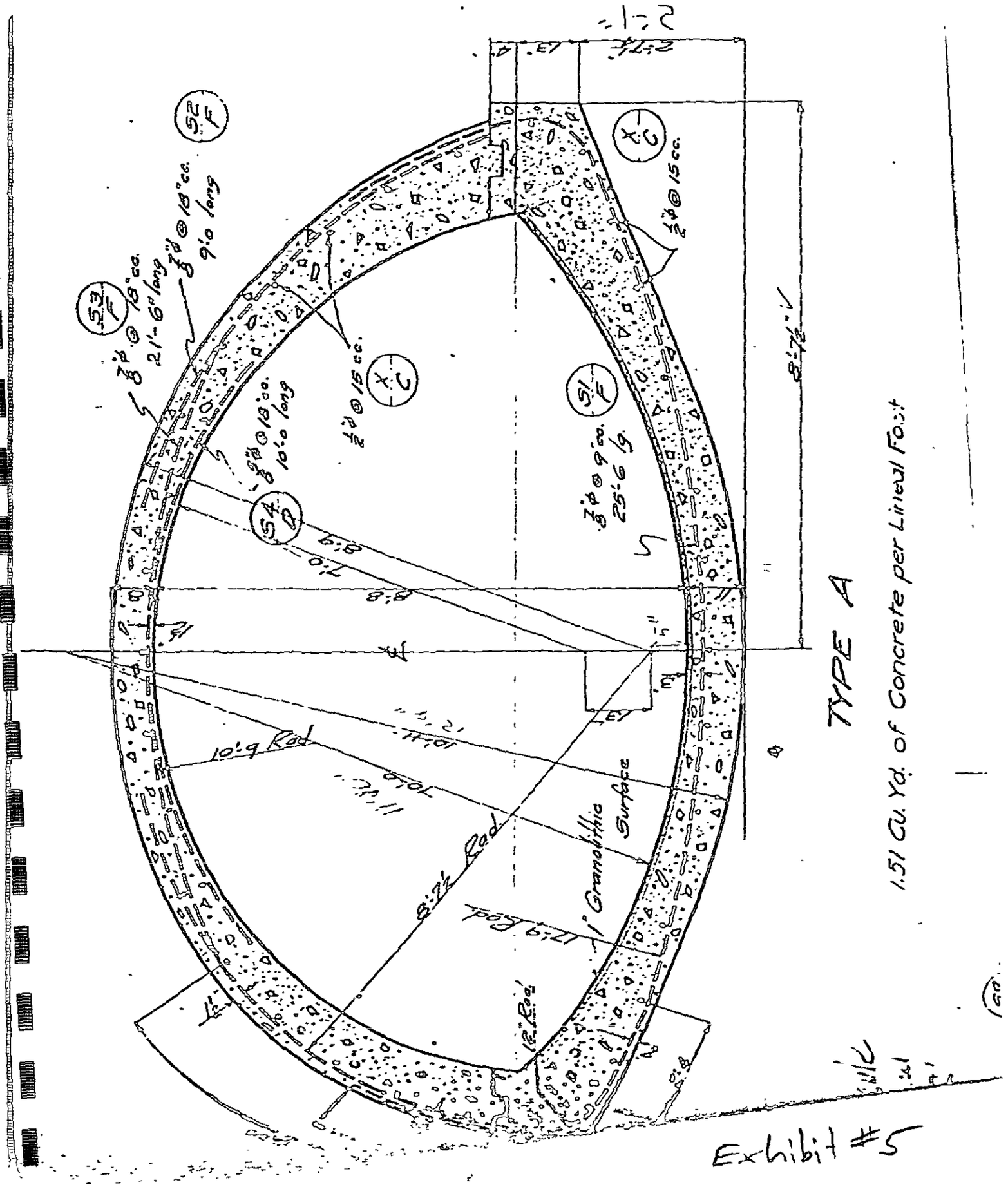
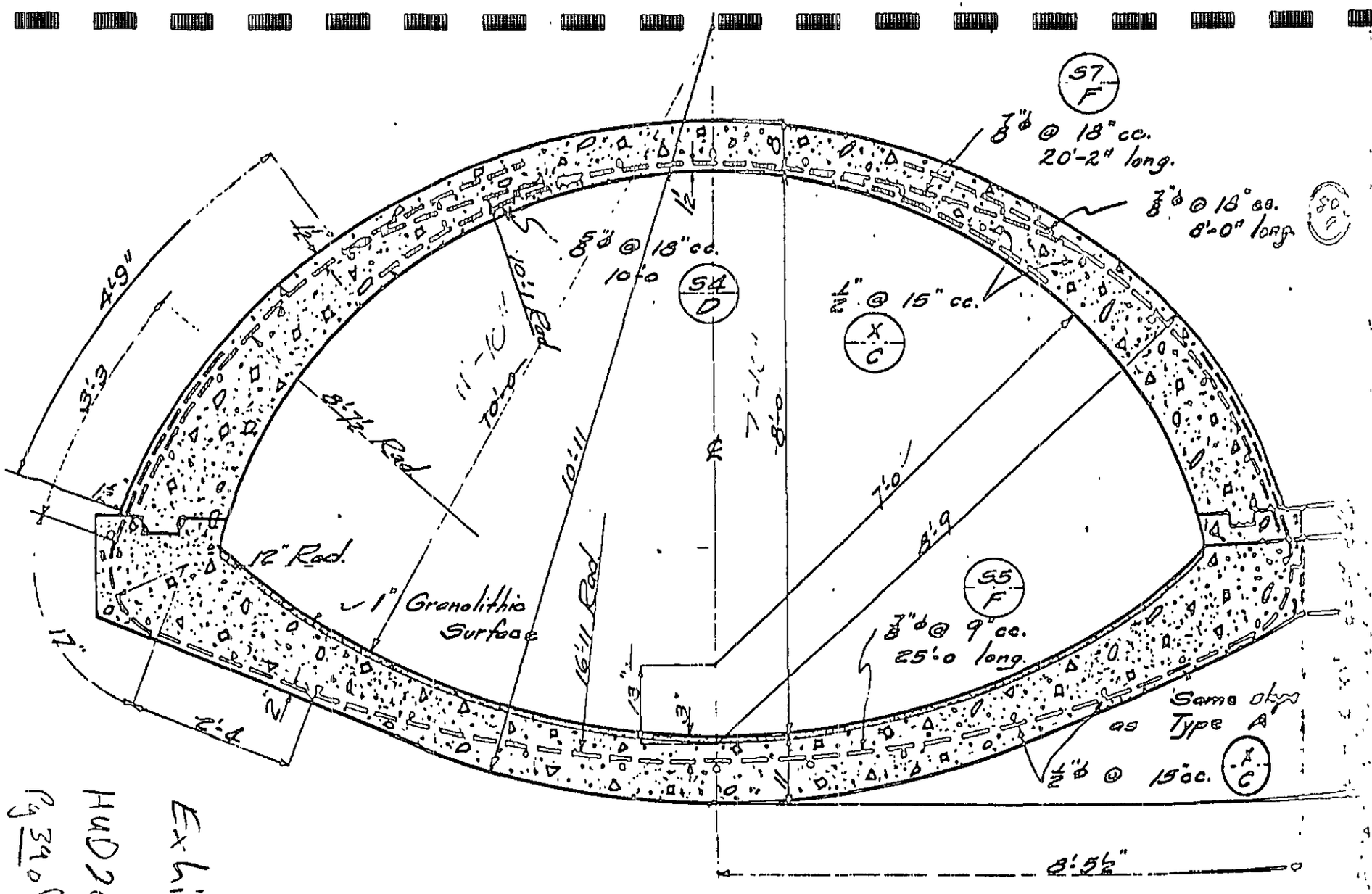


Exhibit #5

HUD 201607

Pg 38 of 50



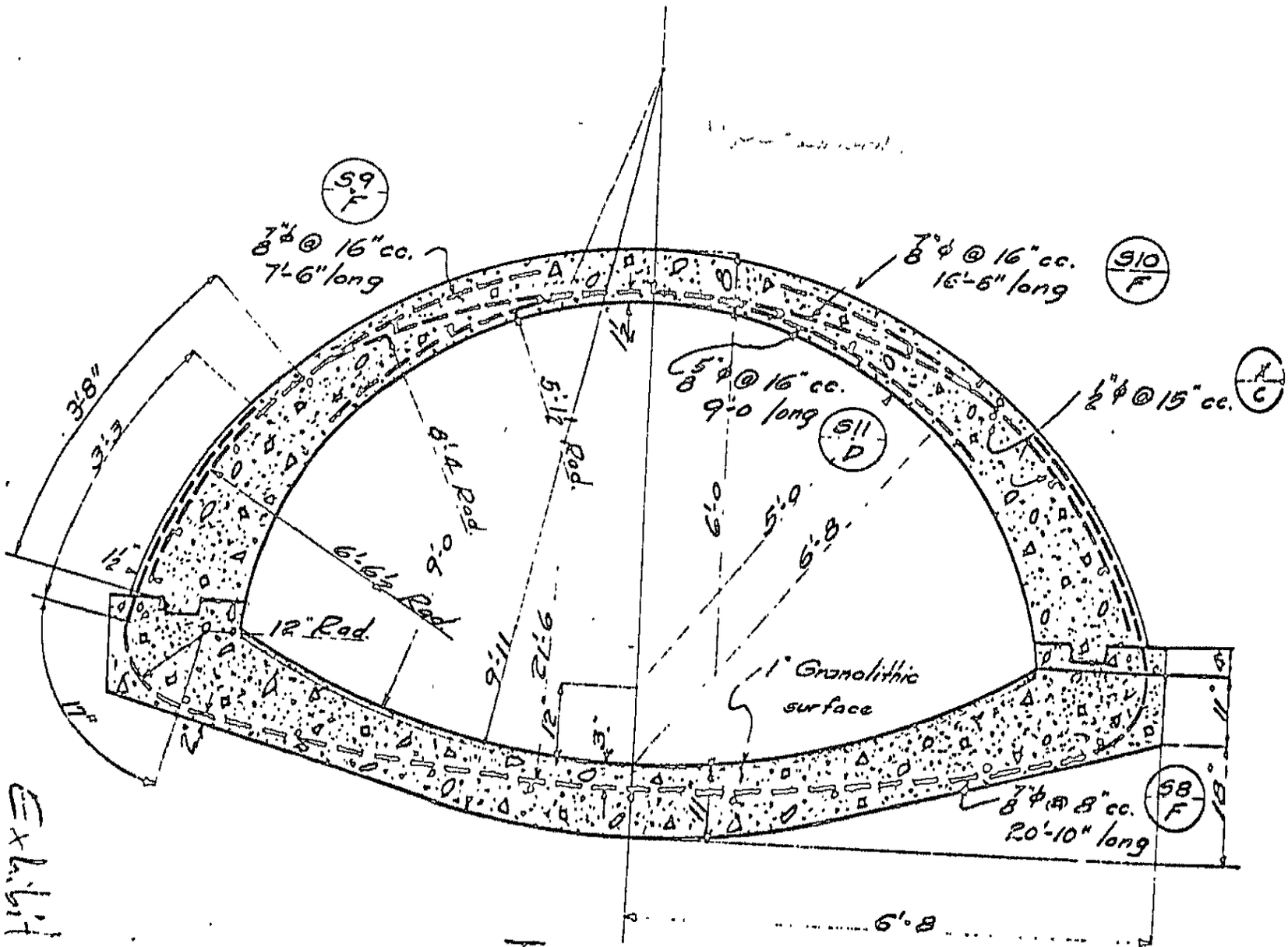
TYPE B

1.42 Cu. Yd. of Concrete per Lineal Foot

Exhibit S

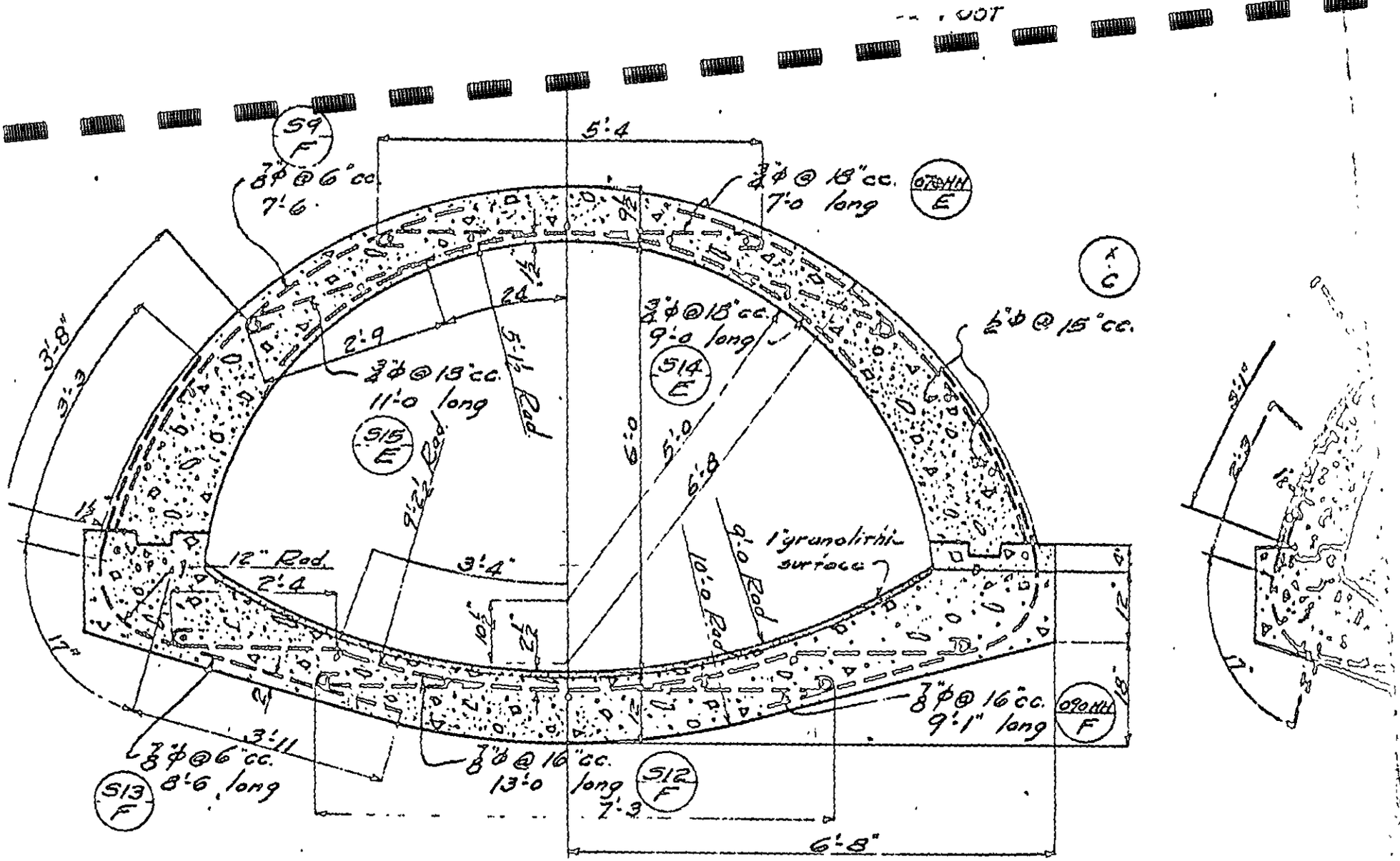
HUD 20160

Pg 390 / 50



TYPE C1

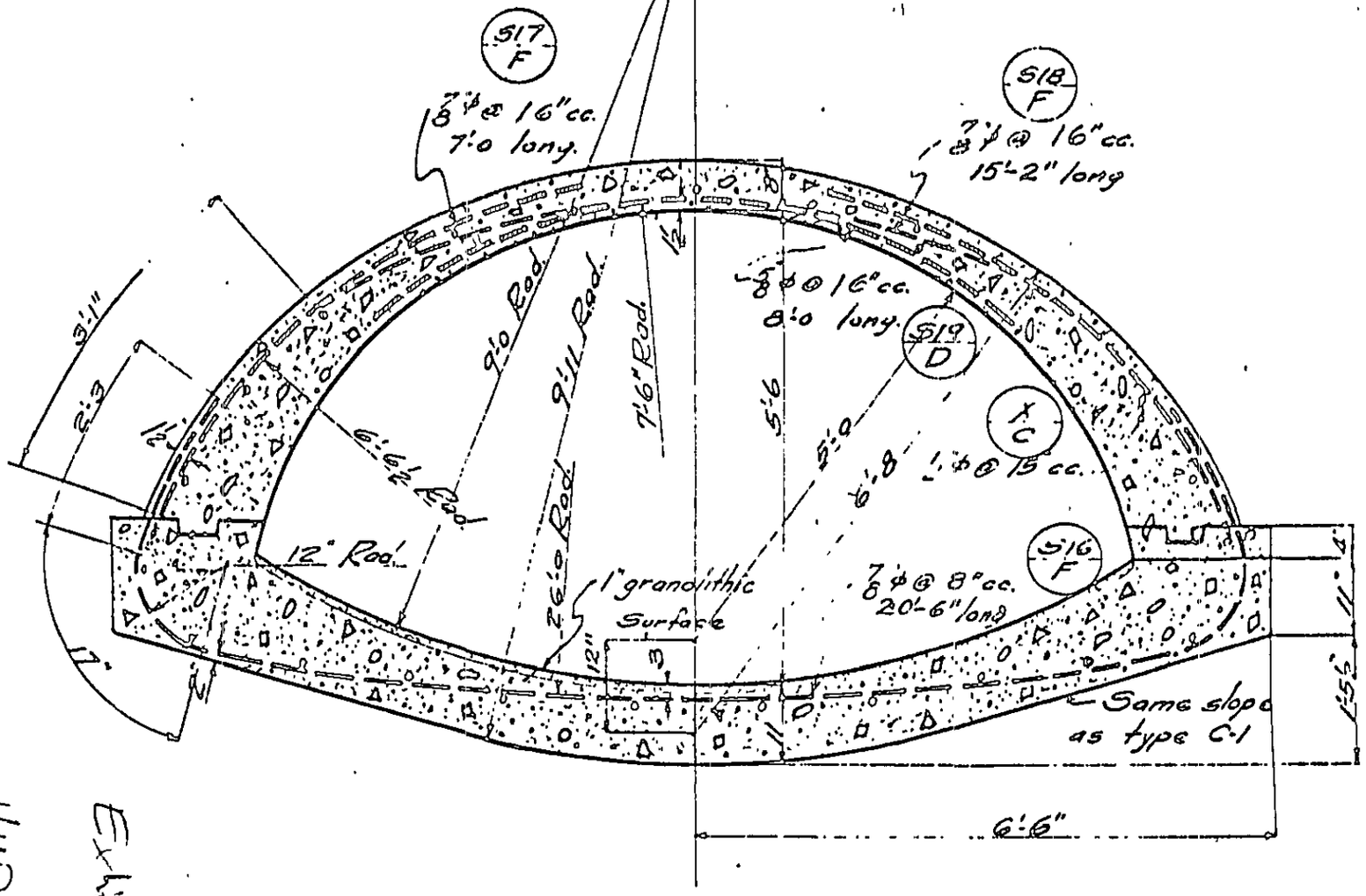
1.11 Cu. Yd. Concrete per Lineal Foot



TYPE C2

1.21 Cu. Yd. Concrete per Lineal Foot

1.42 Cu. Yd. of Concrete per



TYPE D

1.01 Cu. Yd. Concrete per Lineal Foot

Exhibit #5

HUD 2016-07

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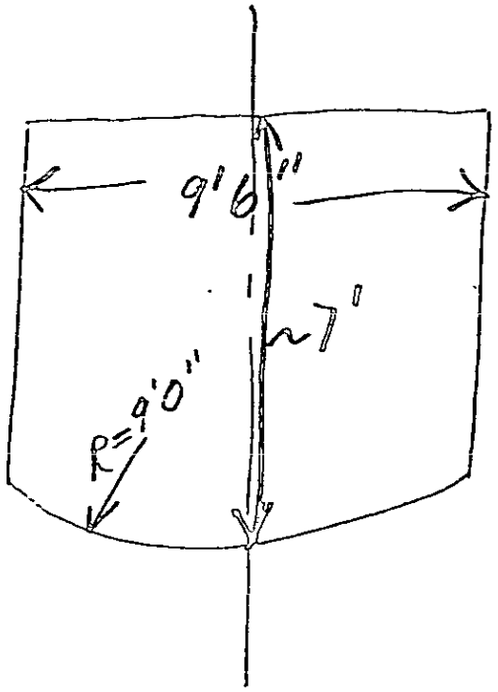
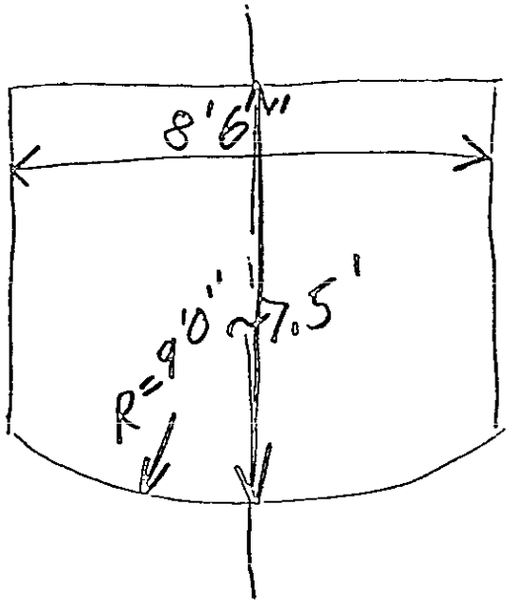
x. sect 'w'



3
1.5
7
A≈66.5

x. sect 'x'

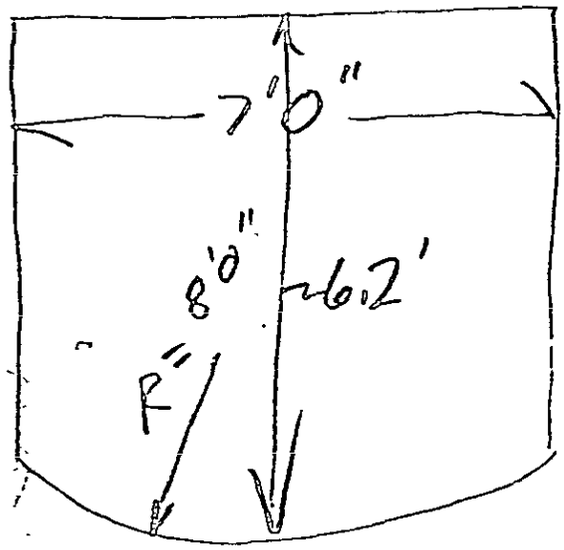


3
8.5
7.5
425
595
63.75

Exhibit # 5

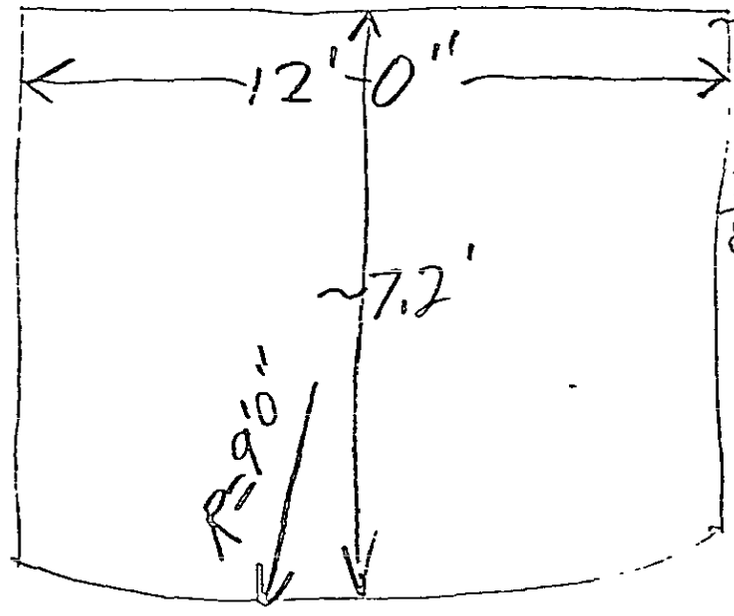
SUBJECT	BY	CHK.	SHEET NO.	File Code No (Job No.) Owner Project Suffix
	DATE	DATE	43 OF 50	HUD°201K°01

X. Sect 'Y'



~6.2'
7
A= 43.4

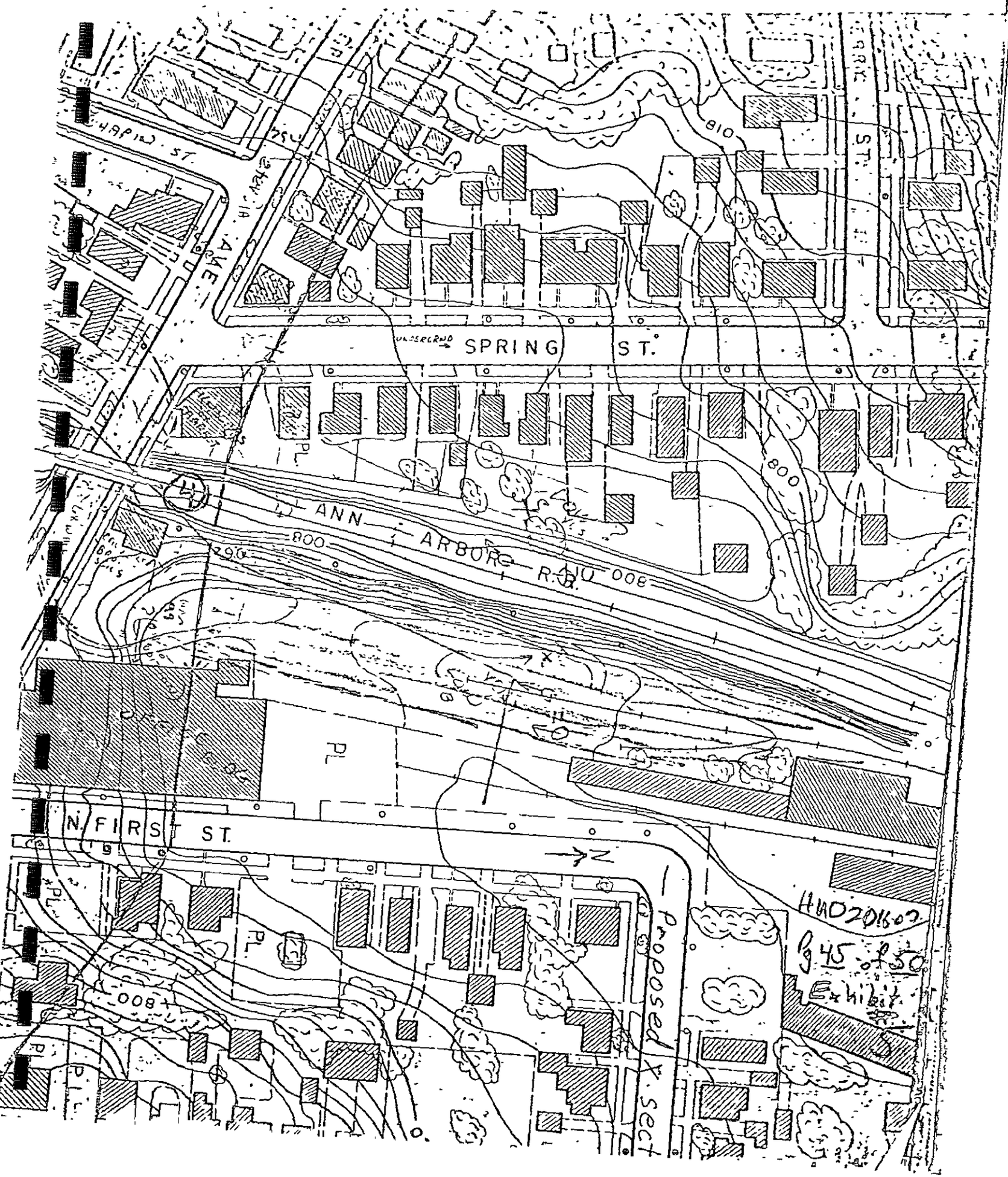
X. Sect '2'



7.2
12
144
72-
86.4 = A

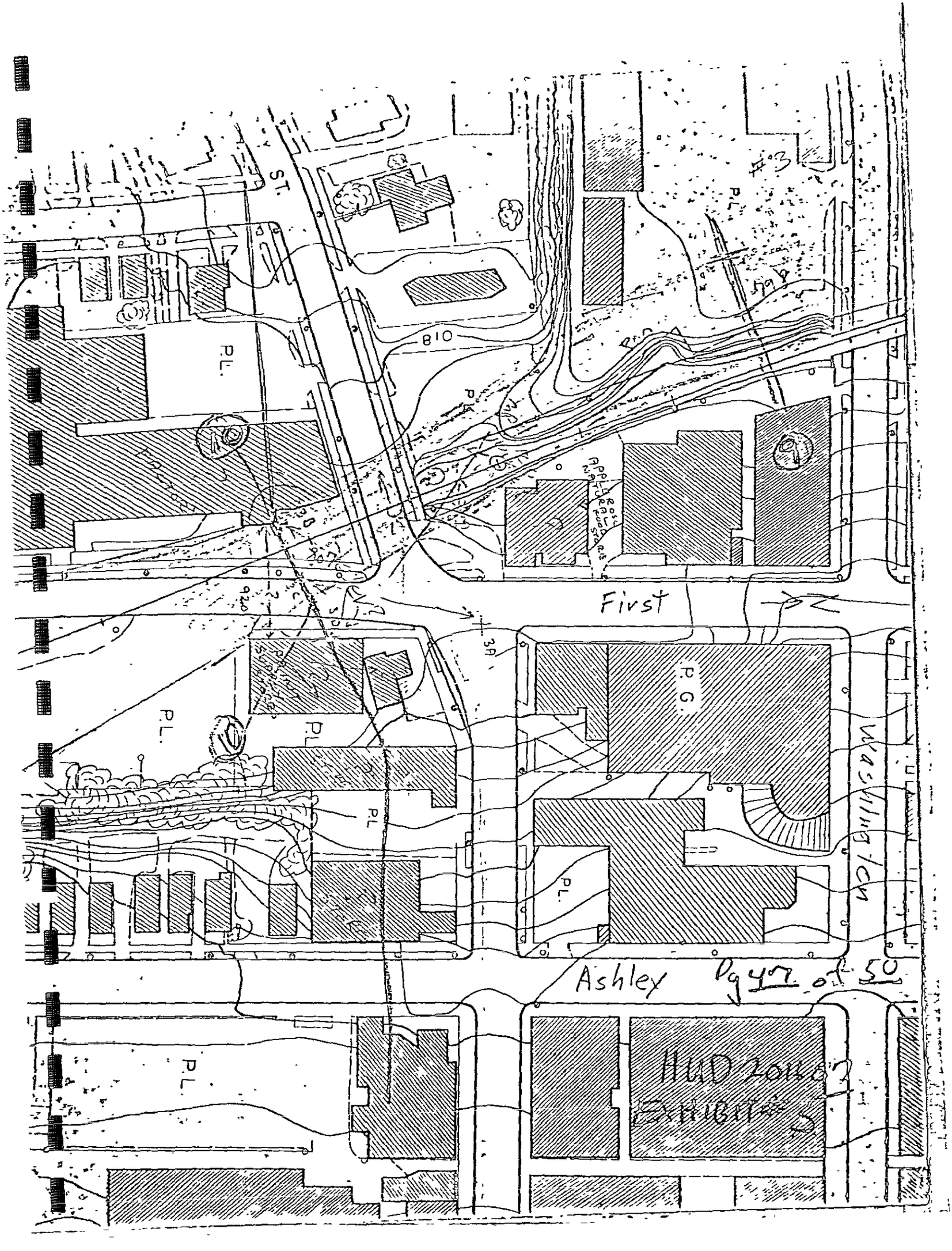
Exhibit 5

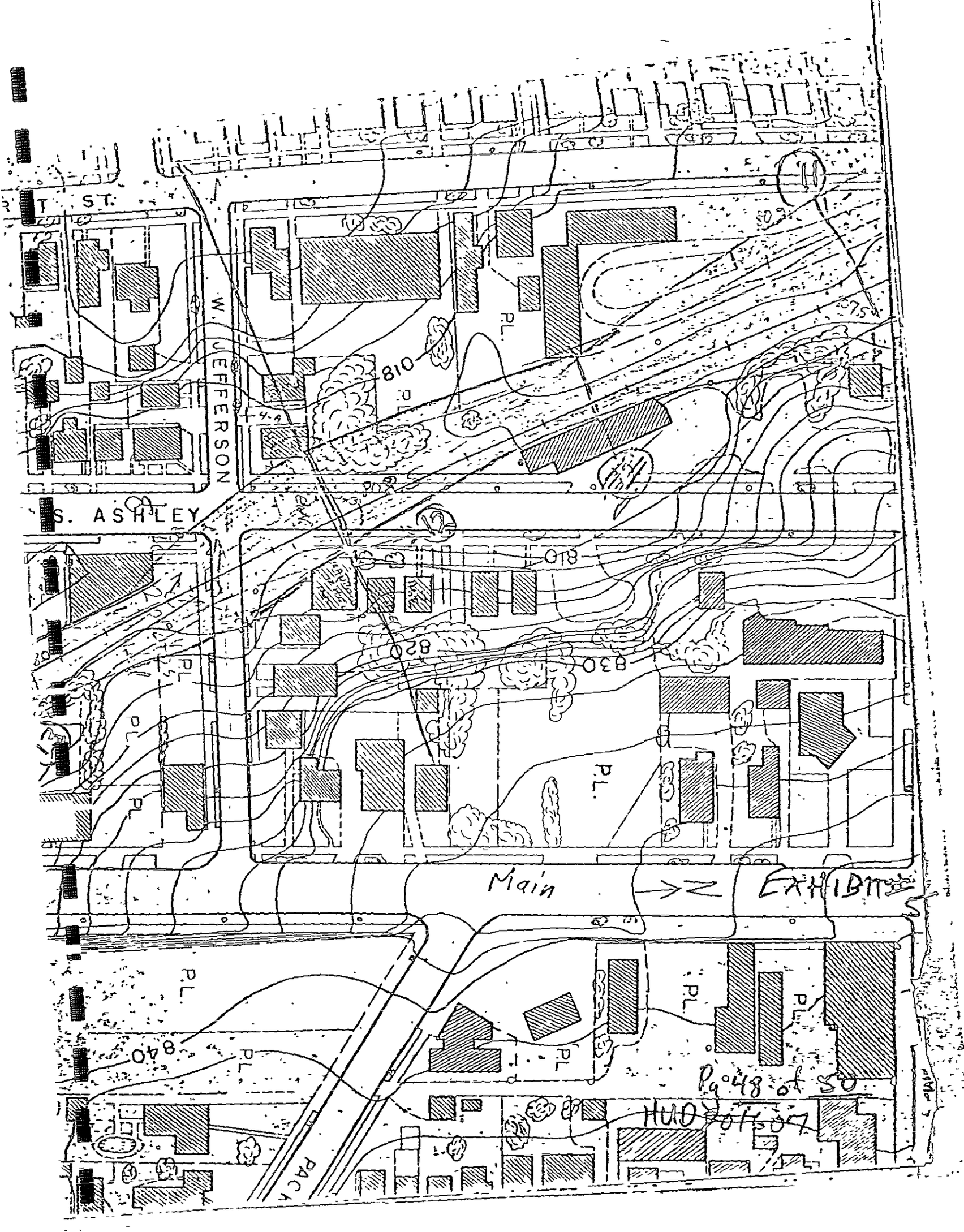
SUBJECT	BY	CHK.	SHEET NO. 16	File Code No. (Job No.) Owner Project, Suffix



HAPIN ST.
AVE
SPRING ST.
UNDERGRND
810
800
ANN ARBOR R.R.
PL
N. FIRST ST.
Proposed X sect
HUD201602
Pg 45 of 50
Exhibit

W. WASHINGTON
W. HURON ST.
Ann Arbor
PL
796
791
798
800
820
018
#7
#6
#3
elev. 10'
Flag
Hydrant
Exhibit 5

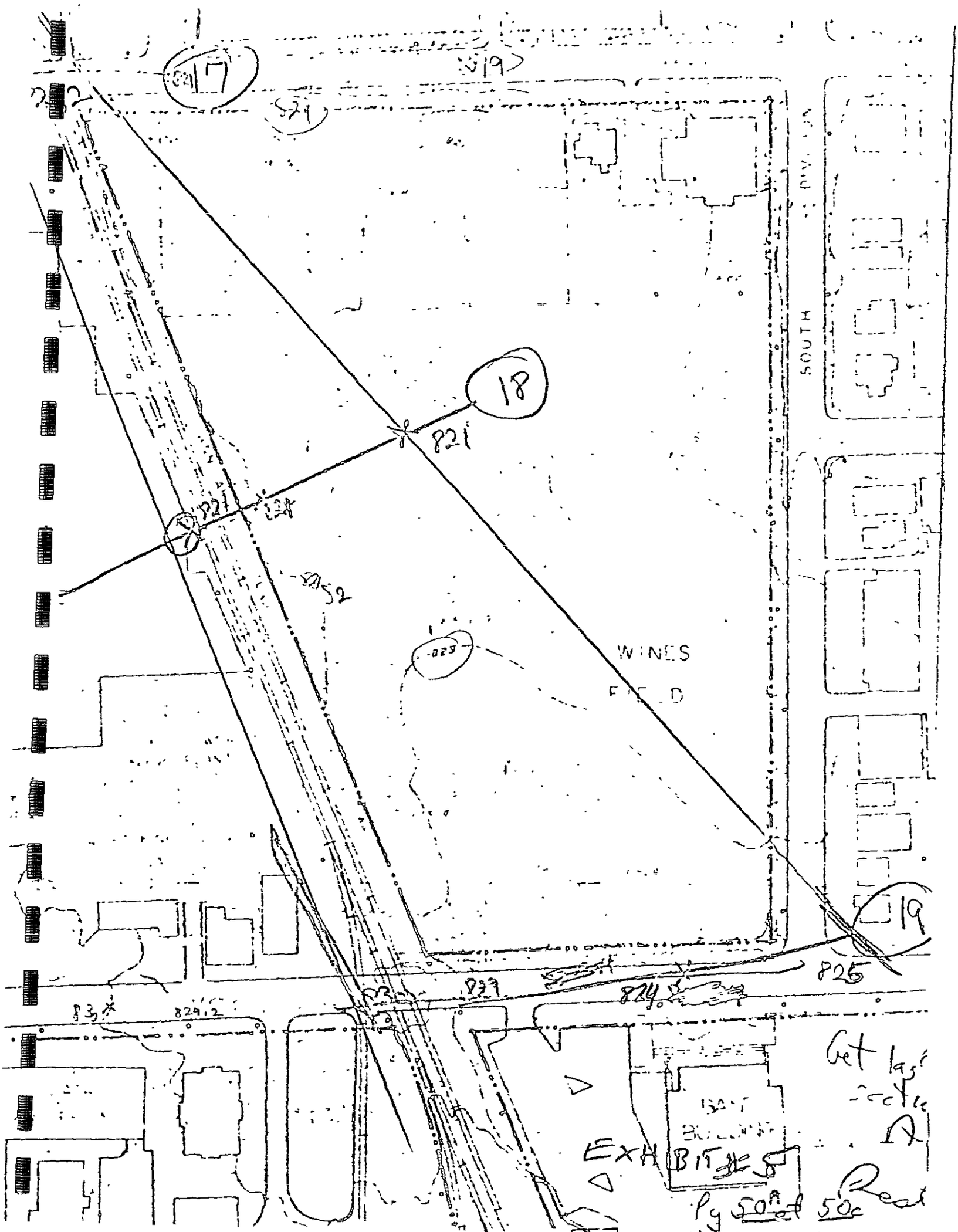

ST.
P.L.
810
First
P.G.
Washington
Ashley
HUD 2011-02
EXHIBIT 5



T ST.
W. JEFFERSON
S. ASHLEY
810
820
830
840
P.L.
Main
EXHIBIT
Pg 48 of 50
HUD 01607

Page of 30

EXHIBIT # 5


17
18
19
821
821
821
WINES
FIELD
SOUTH
825
824
829
829.2
83
EXHIBIT #5
Pg 50A of 50c

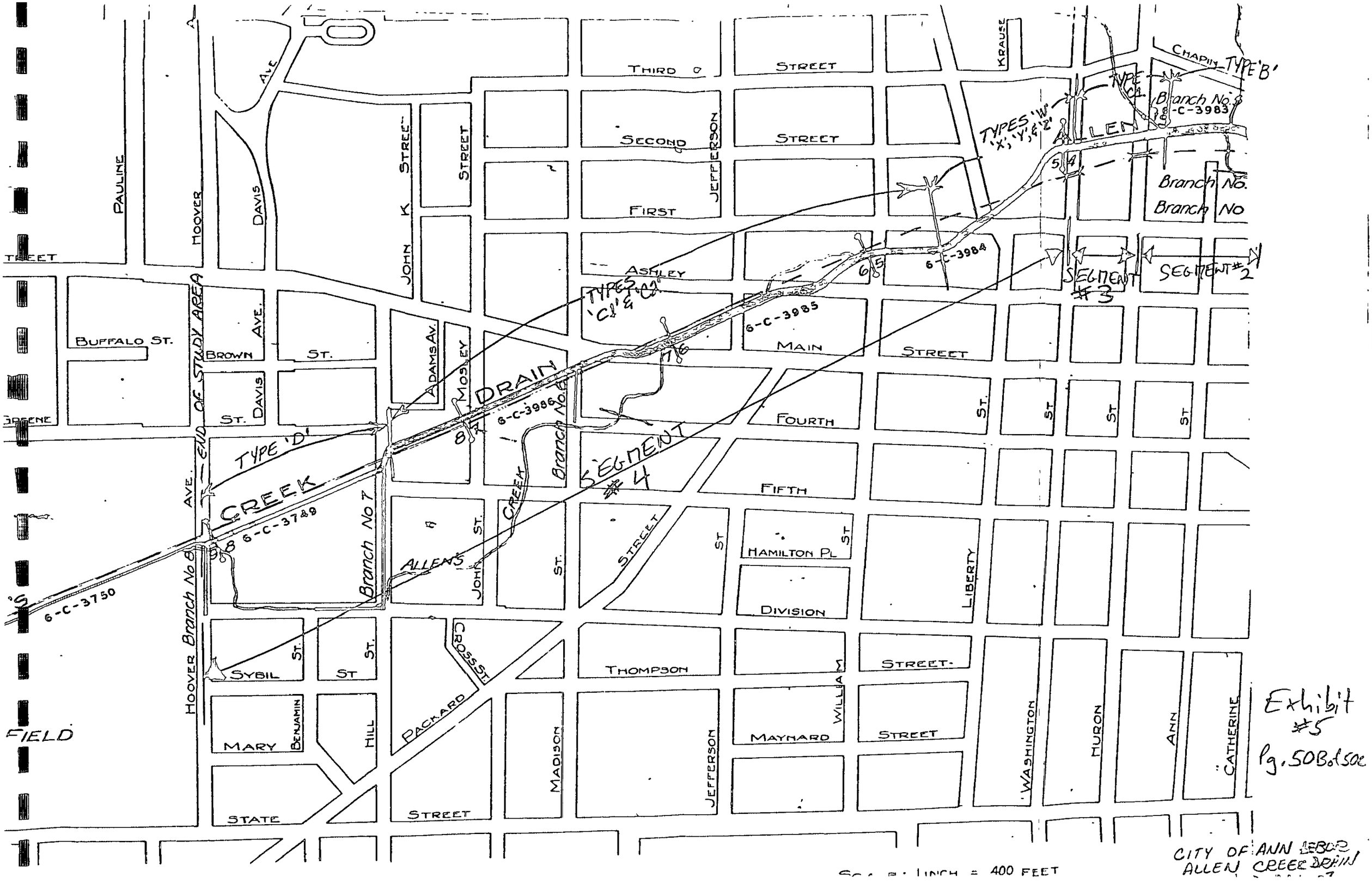
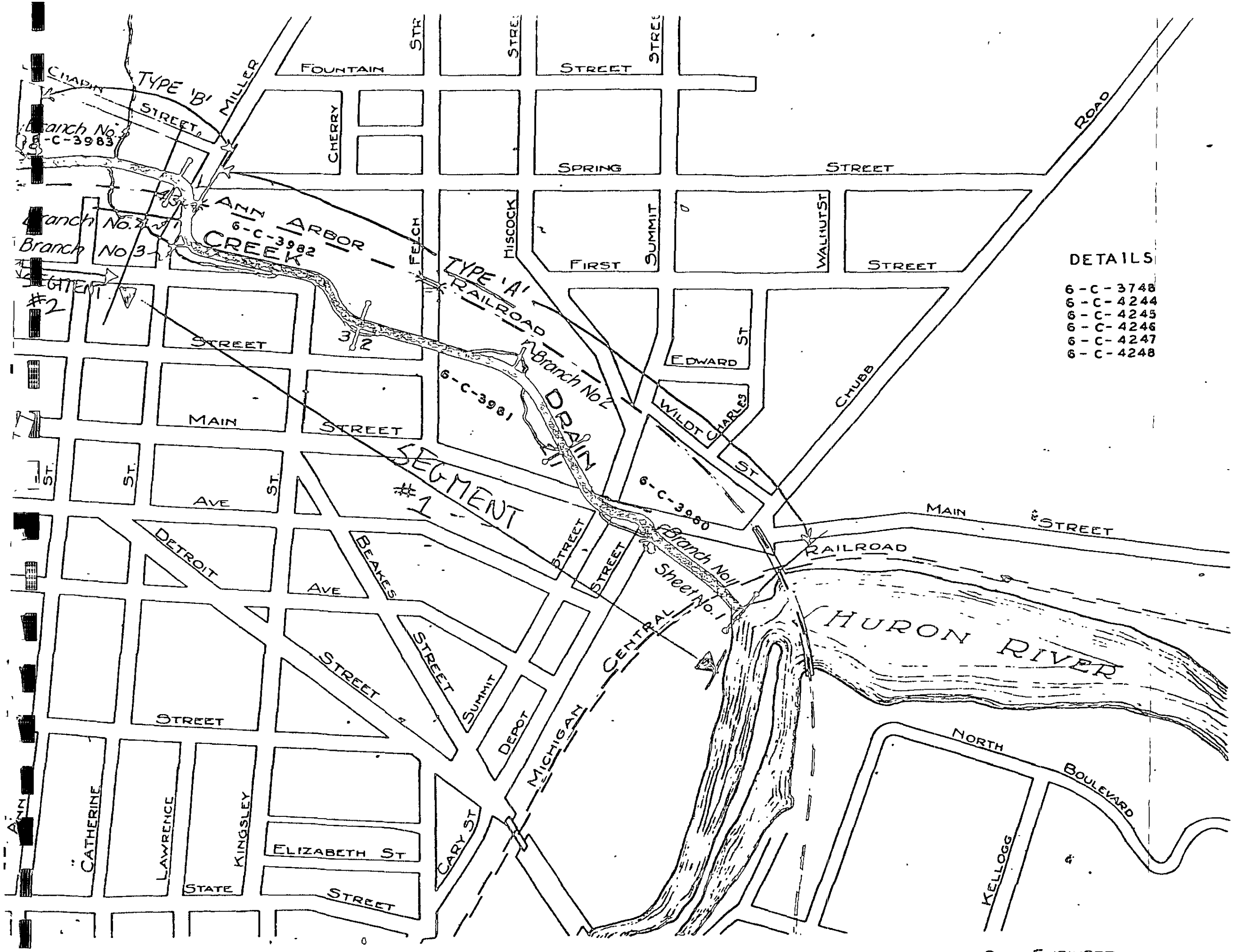


Exhibit #5
Pg. 50B of 50C

CITY OF ANN ARBOR
ALLEN CREEK DRAIN

SCALE: 1 INCH = 400 FEET



R A DODGE, REGISTERED CIVIL ENGINEER,
ANN ARBOR, MICHIGAN.

Exhibit #5
pg 50 of 50

CITY OF ANN ARBOR
ALLEN CREEK DRAIN
HUD 2016-87

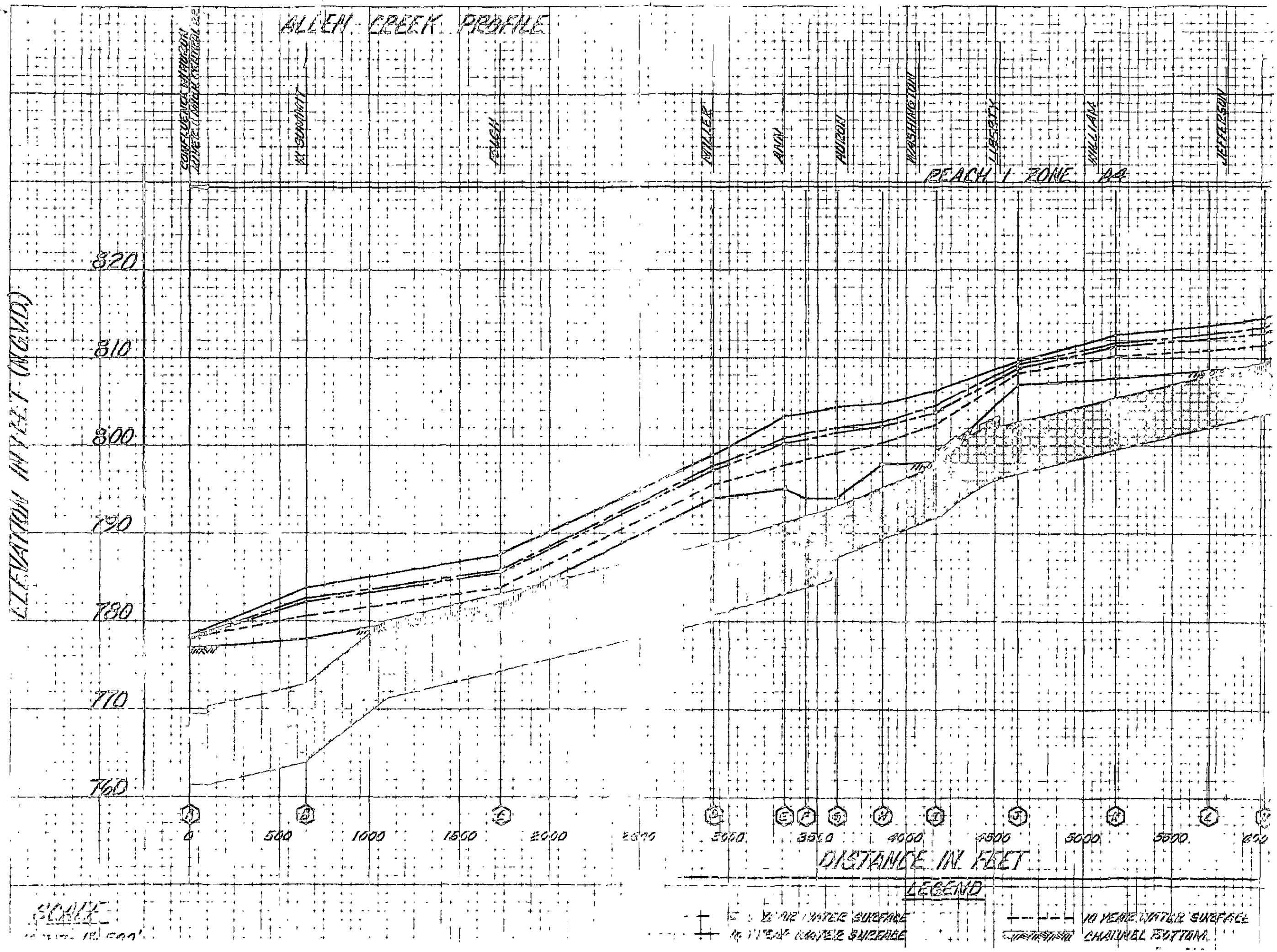
CITY OF ANN ARBOR

ALLEN CREEK DRAIN

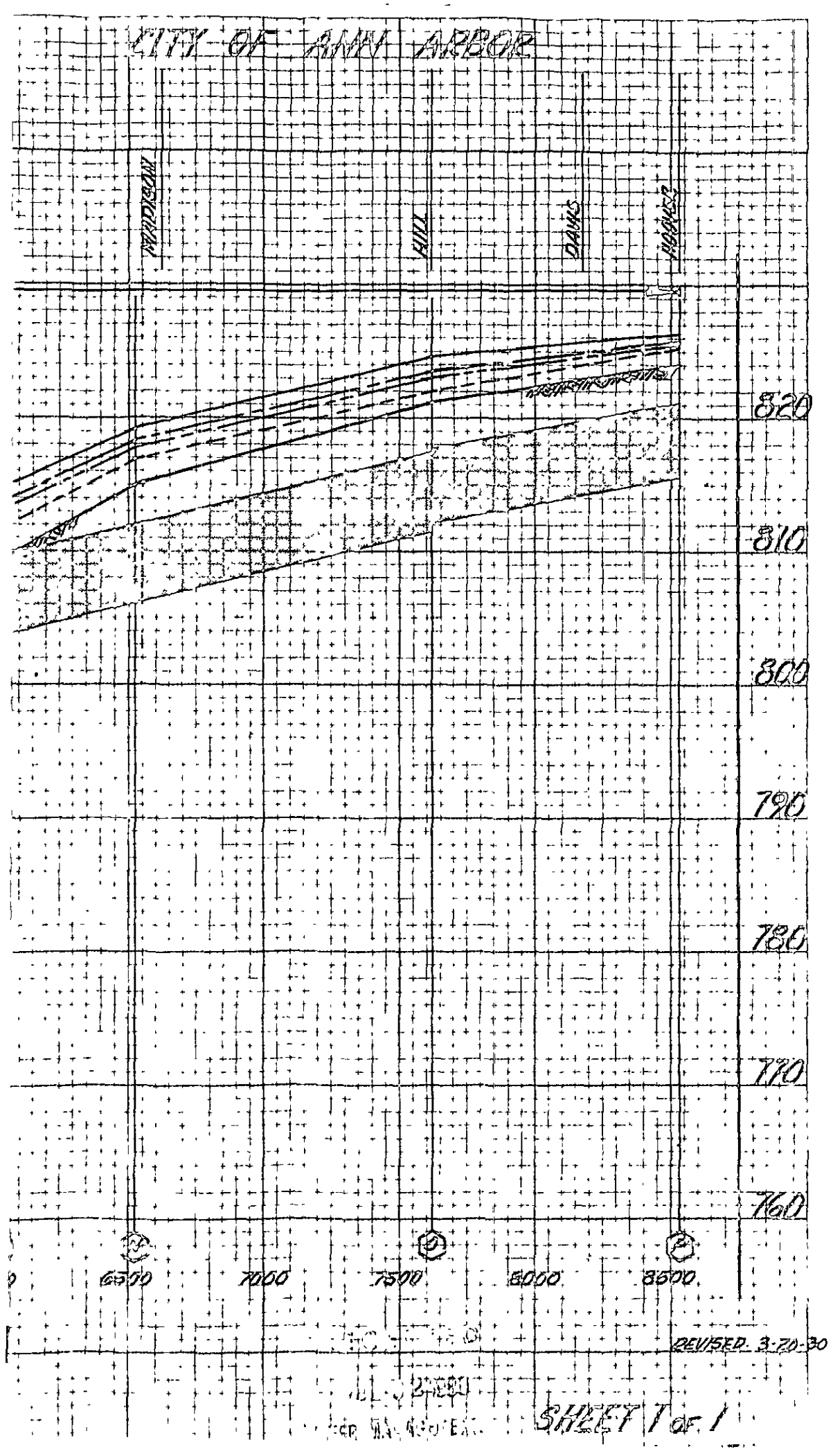
EXHIBIT 6

WATER SURFACE PROFILES

HUD 2016-07



ALLEN CREEK PROFILE
CONFLUENCE W/HURON RIVER (MICH CENTRAL RR)
W. SUMMIT
FOLCH
MILLER
ANN
HURON
WASHINGTON
LIBERTY
WILLIAM
JEFFERSON
REACH 1 ZONE A4
ELEVATION IN FEET (N.G.V.D.)
820
810
800
790
780
770
760
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
DISTANCE IN FEET
LEGEND
10 YEAR WATER SURFACE
CHANNEL BOTTOM
SCALE


CITY OF ANN ARBOR
MADISON
HILL
DAVIS
HOOVER
820
810
800
790
780
770
760
6500
7000
7500
8000
8500
REVISED 3-20-30
SHEET 1 OF 1

CITY OF ANN ARBOR

ALLEN CREEK DRAIN

EXHIBIT 7

HEC-2 COMPUTER PRINTOUTS

(Contained in 11" x 15" folder)

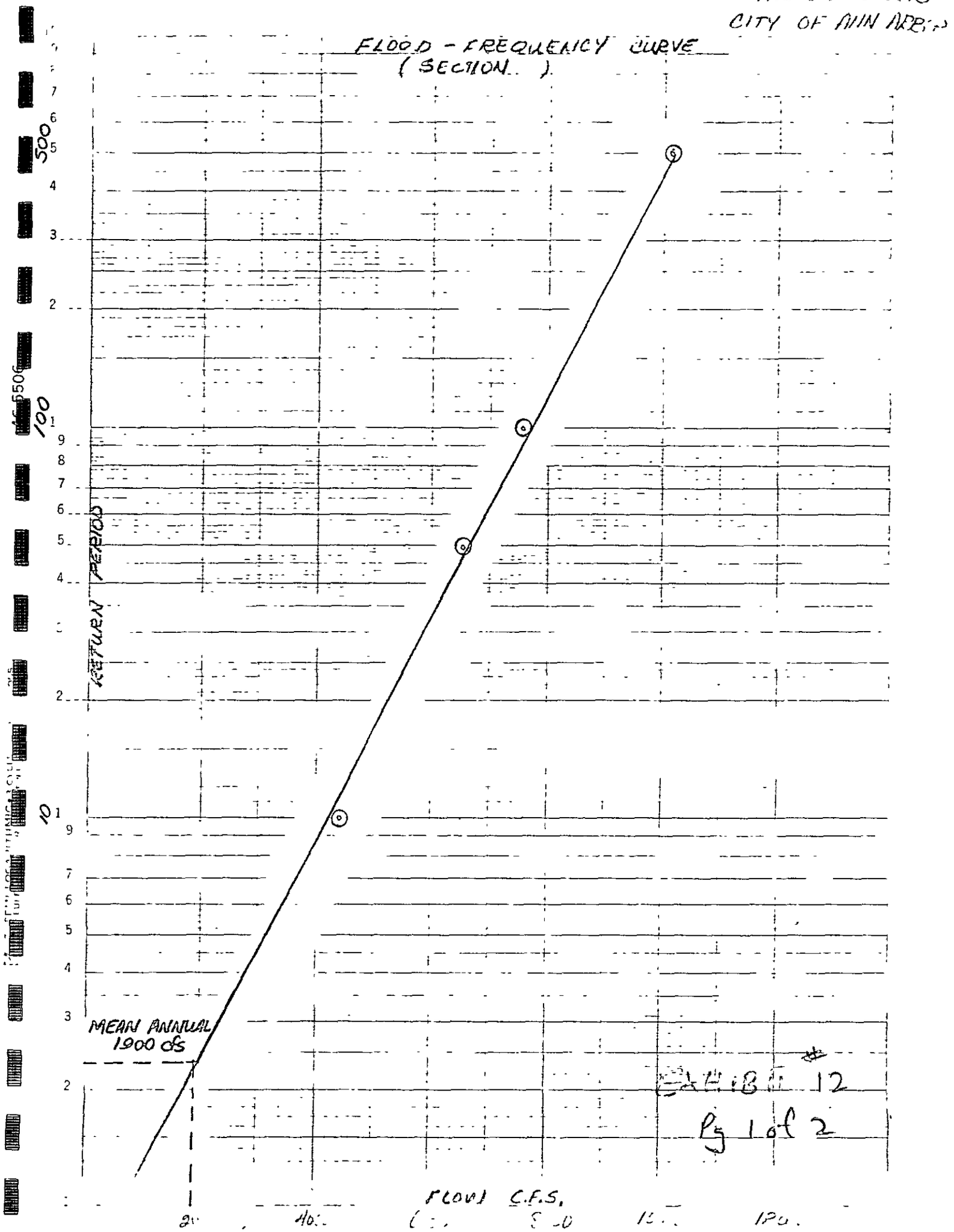
CITY OF ANN ARBOR

ALLEN CREEK DRAIN

EXHIBIT 12

Allen Creek Starting Condition

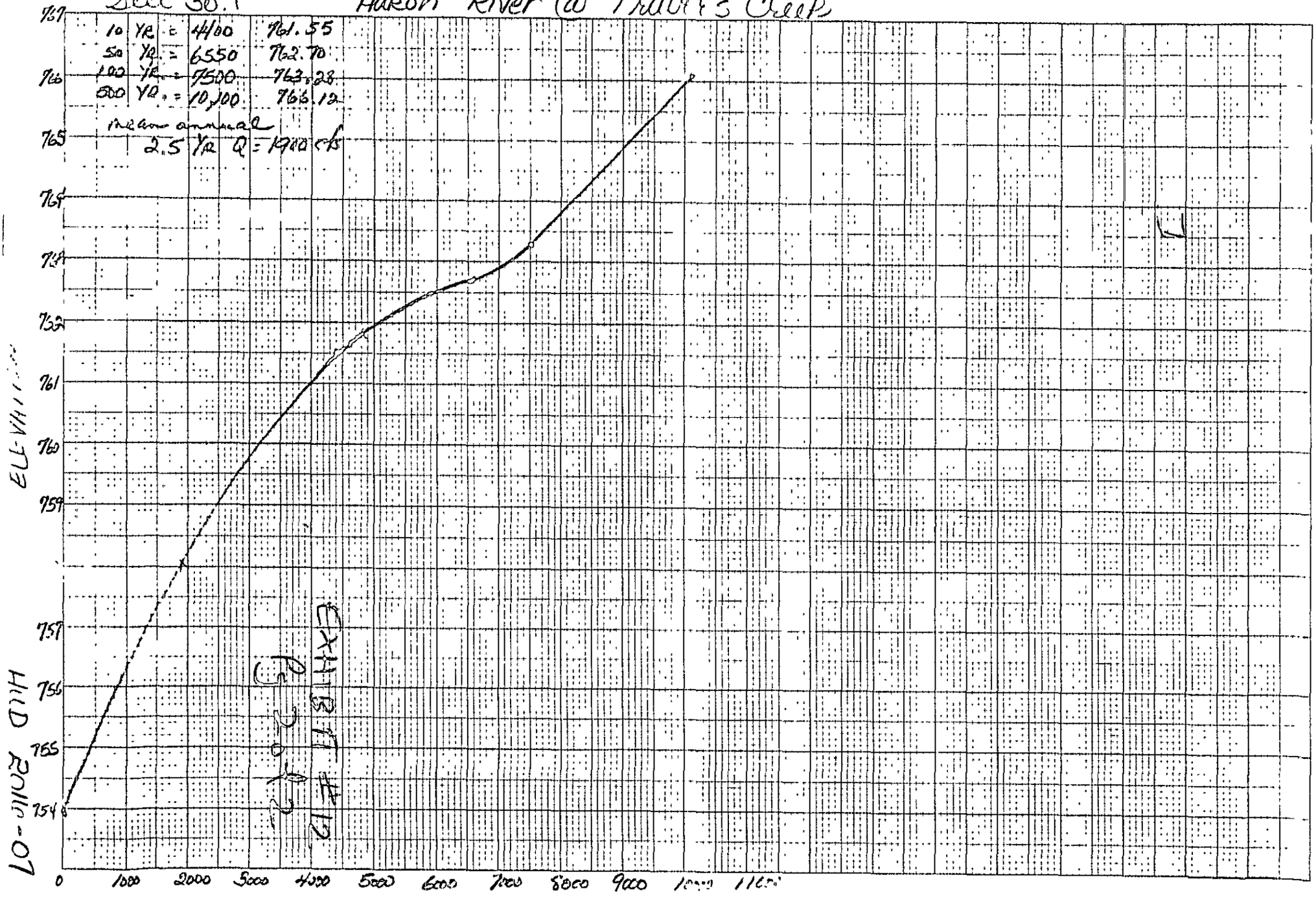
CITY OF ANN ARBOR

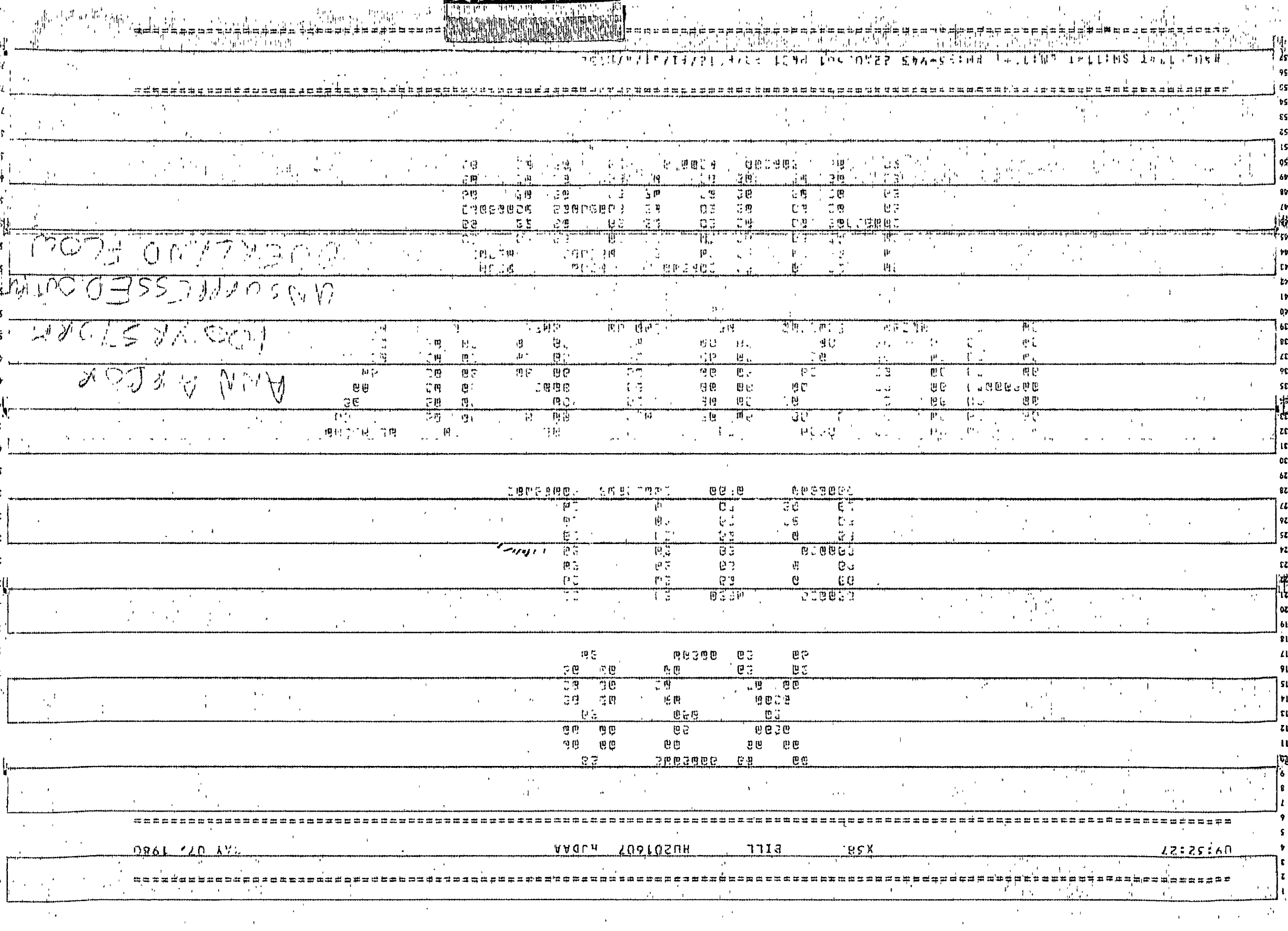


HUD 2016-07

K•E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.
46 1320

Sec 30.1 Huron River @ Traver's Creek





FORM 1411-GR-PRINTED BY ROTARY MANIFOLD FORMS.

PRINTED IN U.S.A.

```
JOBID=HU201607          USER=BILL                PROJECT=HUDAA                BILLING=HUDDA                RON=XU038
================================================================================================================

09:24:34                                JOB INTRODUCED FROM                                          MAY 07, 1980
                                          CDC1 JCL

================================================================================================================

09:28:10  START OF TRANSLATION

          $JOB HU201607,USER=BILL,PROJECT=HUDAA;
          $INPUT HEC2;
          RECORD COUNT: 123
          $ENDINPUT;
           VALUES WTAPAK;
           SEND 'START OF HEC=2 EXECUTION';
           STEP HEC=2,WTAENGLM,OPTIONS='FILE=A 91,FILE=B 92,FILE=C 93,FILE=D 94,
                                        FILE=E 95,FILE=F 96';
           ALC FILE=A,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=A,FILE=A,TEMPRY,DVC=MS/M400,MD=61;
           ALC FILE=B,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=B,FILE=B,TEMPRY,DVC=MS/M400,MD=61;
           ALC FILE=C,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=C,FILE=C,TEMPRY,DVC=MS/M400,MD=61;
           ALC FILE=D,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=D,FILE=D,TEMPRY,DVC=MS/M400,MD=61;
           ALC FILE=E,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=E,FILE=E,TEMPRY,DVC=MS/M400,MD=61;
           ALC FILE=F,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=F,FILE=F,TEMPRY,DVC=MS/M400,MD=61;
           ASG FILE=HEC2,FILESTAT=IN;
           ENDSTEP;
          SENDJOB;

          RECORD COUNT :    145

09:28:51  END OF TRANSLATION
```

```
JOBID=HU201607          USER=BILL                PROJECT=HUDAA                BILLING=HUDDA                ROX=X0038

MCT  : CARTER SAYS, MEL# STOP INFLATION--BUY PEANUTS'


09:28:13                                    JOB EXECUTION LISTING                                    MAY 07, 1980


          START OF WEC=2 EXECUTION
          STEP 1
          LOAD MODULE = WEC=2 (79/2 /22 23:58) PREINITIALIZED
          LIBRARY = WTAENGLM
09:28:23  STEP STARTED XPRTY=9
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000038.FILE=B
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000038.FILE=C
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000038.FILE=D
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000038.FILE=A
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000038.FILE=E
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000038.FILE=F
          TASK MAIN J=03 P=00 COMPLETED
          DUF01.IFN=FILE=B       REMEMBER REUSE=        0
          DUF01.IFN=FILE=C       REMEMBER REUSE=        0
          DUF01.IFN=FILE=D       REMEMBER REUSE=        0
          DUF01.IFN=FILE=A       REMEMBER REUSE=        0
          DUF01.IFN=FILE=E       REMEMBER REUSE=        0
          DUF01.IFN=FILE=F       REMEMBER REUSE=        0     UNLOCK BUFFER=        0     CREATE BUFFER=        22
          TEMPORARY  FILES USED=    228 TRACKS
          HPRD      ON  L64RV4 :  NB  OF  IO  CONNECTS=        1
          FILE=B    ON  WTAPAK :  NB  OF  IO  CONNECTS=       133
          FILE=C    ON  WTAPAK :  NB  OF  IO  CONNECTS=        57
          HPPR      ON  L64RV4 :  NB  OF  IO  CONNECTS=        25
          FILE=D    ON  WTAPAK :  NB  OF  IO  CONNECTS=        67
          FILE=A    ON  WTAPAK :  NB  OF  IO  CONNECTS=       117
          FILE=E    ON  WTAPAK :  NB  OF  IO  CONNECTS=       151
          FILE=F    ON  WTAPAK :  NB  OF  IO  CONNECTS=        3[illegible]
          CPU          1.631                          PROG MISSING SEGTS      365    STACKOV      64
          ELAPSED      3.735                          SYS  MISSING SEGTS      995
          LINES          979   LIMIT      NOLIM       BACKING STORE         507936
          CARDS            0   LIMIT      NOLIM       BUFFER SIZE            13840    OPSIZE      2272
09:32:07  STEP COMPLETED


          START     09:28:13   LINES        979
          STOP      09:32:09   CARDS          0
          CPU          1.631
          ELAPSE       3.932
09:32:09  RESULT:  JOB COMPLETED
```

```
*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

C
T1ANN ARBOR FLOOD INSURANCE STUDY        3/17/80        W.J. WEAVER
T2 OVERLAND FLOW   100 YR. STORM
T3      ALLEN CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        4.        0.        0.  0.000000      0.00       0.0        0.   778.000     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    15.000

QT      4.000   450.000  1400.000  1700.000  3200.000     0.000     0.000     0.000     0.000     0.000
NC      0.130     0.130     0.130     0.100     0.300     0.000     0.000     0.000     0.000     0.000

        SECT. ALONG R.R. AT HURON RIVER

X1      0.000     7.000  1200.000  1300.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    810.000     1.000   778.520   300.000   778.000   300.000   777.000  1200.000   777.000  1300.000
GR    790.000  1000.000   800.000  2100.000     0.000     0.000     0.000     0.000     0.000     0.000

        SECT. AT W. SUMMIT

X1      2.000    12.000   602.000   887.000   650.000   650.000   650.000     0.000     0.000     0.000
GR   1000.000   300.000   801.800   500.000   793.200   577.000   779.400   602.000   778.000   887.000
GR    782.100  1014.000   732.500  1044.000   784.700  1079.000   794.700  1166.000   798.400  1226.000
GR    804.400  1372.000  1000.000  1420.000     0.000     0.000     0.000     0.000     0.000     0.000

X1      2.100     4.000     1.000   350.000   270.000   270.000   270.000     0.000     0.000     0.000
GR    790.000     0.000   779.000     1.000   779.000   350.000   790.000   351.000     0.000     0.000

X1      2.200     4.000     1.000   300.000   270.000   270.000   270.000     0.000     0.000     0.000
GR    790.000     0.000   780.000     1.000   780.000   300.000   790.000   301.000     0.000     0.000
QT      4.000   350.000  1175.000  1400.000  2800.000     0.000     0.000     0.000     0.000     0.000

X1      2.300     4.000     1.000   225.000   270.000   270.000   270.000     0.000     0.000     0.000
GR    790.000     0.000   781.000     1.000   781.000   225.000   790.000   226.000     0.000     0.000
NC      0.100     0.100     0.100     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

SECT. AT RELCH ST.

X1	3.000	4.000	1.000	150.000	270.000	270.000	270.000	0.000	0.000	0.000
GR	810.000	0.000	782.000	1.000	782.000	150.000	810.000	151.000	0.000	0.000
X1	3.100	4.000	1.000	142.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	783.000	1.000	783.000	142.000	800.000	143.000	0.000	0.000
X1	3.200	4.000	1.000	134.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	784.000	1.000	784.000	134.000	800.000	135.000	0.000	0.000
NC	0.060	0.060	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3.300	4.000	1.000	126.000	198.000	198.000	198.000	0.000	0.000	0.000
GR	800.000	0.000	786.000	1.000	786.000	126.000	800.000	127.000	0.000	0.000
X1	3.400	4.000	1.000	118.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	787.000	1.000	787.000	118.000	800.000	119.000	0.000	0.000
X1	3.500	4.000	1.000	110.000	198.000	198.000	198.000	0.000	0.000	0.000
GR	800.000	0.000	789.000	1.000	789.000	110.000	800.000	111.000	0.000	0.000
X1	3.600	4.000	1.000	102.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	790.000	1.000	790.000	102.000	800.000	103.000	0.000	0.000
X1	3.700	4.000	1.000	93.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	791.000	1.000	791.000	93.000	800.000	94.000	0.000	0.000
X1	3.800	4.000	1.000	84.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	792.000	1.000	792.000	84.000	800.000	85.000	0.000	0.000
X1	3.900	4.000	1.000	75.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	793.000	1.000	793.000	75.000	800.000	76.000	0.000	0.000

SECT. AT MILLER RD.

X1	4.000	4.000	1.000	68.000	101.000	101.000	101.000	0.000	0.000	0.000
GR	810.000	0.000	794.000	1.000	794.000	68.000	810.000	69.000	0.000	0.000
NC	0.130	0.130	0.130	0.100	0.300	0.000	0.000	0.000	0.000	0.000

WEST FORK MILLER DRAIN CONFLUENCE - BETWEEN MILLER ST. & HERON ST.

X1	5.000	4.000	1.000	100.000	400.000	400.000	400.000	0.000	0.000	0.000
GR	810.000	0.000	795.000	1.000	795.000	100.000	810.000	101.000	0.000	0.000
NC	0.120	0.120	0.120	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6.000	800.000	1720.000	2060.000	2990.000	0.000	0.000	0.000	0.000	0.000

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200 FEET DOWNSTREAM OF W. HURON ST.										
X1	6.000	8.000	1.000	110.000	116.000	116.000	116.000	0.000	0.000	0.000
GR	820.000	0.000	795.500	1.000	794.000	40.000	794.000	75.000	796.000	90.000
GR	798.000	95.000	800.000	100.000	820.000	101.000	0.000	0.000	0.000	0.000
NC	0.080	0.080	0.080	0.100	0.300	0.000	0.000	0.000	0.000	0.000
IMMEDIATELY DOWNSTREAM OF W. HURON ST.										
X1	7.000	7.000	1.000	80.000	160.000	130.000	190.000	0.000	0.000	0.000
GR	820.000	0.000	795.000	1.000	794.000	55.000	794.000	50.000	796.000	70.000
GR	798.000	80.000	820.000	81.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	650.000	1280.000	1560.000	2350.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LOCATED BETWEEN HURON ST & WASHINGTON AVE.										
X1	8.000	8.000	1.000	28.000	250.000	250.000	250.000	0.000	0.000	0.000
GR	820.000	0.000	798.000	1.000	798.000	50.000	800.000	61.000	802.000	66.000
GR	804.000	72.000	806.000	80.000	820.000	85.000	0.000	0.000	0.000	0.000
NC	0.080	0.080	0.080	0.100	0.300	0.000	0.000	0.000	0.000	0.000
U/S LIMIT OF SEGMENT #3 LOCATED 100 FT. U/S OF WASHINGTON AVE.										
X1	9.000	8.000	1.000	80.000	300.000	300.000	300.000	0.000	0.000	0.000
GR	820.000	0.000	798.000	1.000	798.000	50.000	800.000	61.000	802.000	66.000
GR	804.000	72.000	806.000	80.000	820.000	85.000	0.000	0.000	0.000	0.000
QT	6.000	330.000	740.000	960.000	1520.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100' U/S OF LIBERTY ST.										
X1	10.000	6.000	1.000	75.000	465.000	465.000	465.000	0.000	0.000	0.000
GR	900.000	0.000	807.000	1.000	807.000	75.000	900.000	76.000	0.000	0.000
100' U/S OF WILLIAM ST.										
X1	11.000	6.000	1.000	130.000	550.000	550.000	550.000	0.000	0.000	0.000
GR	900.000	0.000	809.000	1.000	808.000	68.000	807.500	95.000	806.000	130.000
GR	900.000	131.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.070	0.070	0.070	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100' U/S OF JEFFERSON.										
X1	12.000	6.000	1.000	100.000	530.000	530.000	530.000	0.000	0.000	0.000
GR	900.000	0.000	808.500	1.000	808.500	70.000	810.000	90.000	810.000	100.000
GR	900.000	111.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000

See Revised Road Secs 9-11

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215' U/S OF JEFFERSON.										
X1	13.000	4.000	1.000	55.000	315.000	315.000	315.000	0.000	0.000	0.000
GR	900.000	0.000	809.000	1.000	809.000	55.000	900.000	56.000	0.000	0.000
X1	13.900	4.000	1.000	55.000	250.000	250.000	250.000	0.000	0.000	0.000
GR	900.000	0.000	812.000	1.000	812.000	55.000	900.000	56.000	0.000	0.000
100' D/S OF E. MADISON.										
X1	14.000	4.000	1.000	55.000	250.000	250.000	250.000	0.000	0.000	0.000
GR	900.000	0.000	815.000	1.000	815.000	55.000	900.000	56.000	0.000	0.000
X1	15.000	4.000	1.000	55.000	410.000	410.000	410.000	0.000	0.000	0.000
GR	900.000	0.000	816.000	1.000	816.000	55.000	900.000	56.000	0.000	0.000
X1	16.000	4.000	1.000	60.000	280.000	280.000	280.000	0.000	0.000	0.000
GR	900.000	0.000	817.000	1.000	817.000	60.000	900.000	61.000	0.000	0.000
HILL STREET										
X1	17.000	4.000	1.000	90.000	400.000	400.000	400.000	0.000	0.000	0.000
GR	900.000	0.000	821.200	1.000	821.200	90.000	900.000	91.000	0.000	0.000
RC	0.050	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18.000	4.000	1.000	200.000	430.000	430.000	430.000	0.000	0.000	0.000
GR	900.000	0.000	821.000	1.000	821.000	200.000	900.000	201.000	0.000	0.000
X1	18.300	4.000	1.000	200.000	163.000	163.000	163.000	1.000	0.000	0.000
GR	900.000	0.000	822.000	1.000	822.000	200.000	900.000	201.000	0.000	0.000
X1	18.600	4.000	1.000	200.000	163.000	163.000	163.000	0.000	0.000	0.000
GR	900.000	0.000	823.200	1.000	823.200	200.000	900.000	201.000	0.000	0.000
U/S LIMIT OF SEGMENT #6 @ HOOVER ST.										
X1	19.000	6.000	1.000	450.000	164.000	164.000	164.000	0.000	0.000	0.000
GR	900.000	0.000	830.100	1.000	829.000	90.000	824.300	300.000	825.000	450.000
GP	900.000	451.000	0.000	0.000	0.000	2.000	0.001	0.000	0.000	0.000
EJ	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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*PROF 1

CCHV=   0.100 CEHV=   0.300
*SECNO ****
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WIN       ELMIN      SSTA
   SLOPE     XLOBL     XLCK      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID     ENDST


        SECT. ALONG R.R. AT HURON RIVER

     0.00      1.00    778.00      0.00    778.00    778.23      0.23      0.00      0.00    777.00
    1700.     1127.      511.       62.      350.      100.       19.        0.        0.    777.00
     0.00      3.22      5.11      3.22     0.130     0.130     0.130     0.000    777.00    500.00
 0.199949        0.        0.        0.         0         0         0      0.00    838.46   1338.46


FLOW DISTRIBUTION FOR SECNO=      0.00          CWSEL=    778.00

STA=      500.     1200.     1300.     1338.
  PER Q=      66.3      30.1       3.6
   AREA=     350.0     100.0      19.2
    VEL=       3.2       3.1       3.2

*SECNO 2.000

        SECT. AT W. SUMMIT

     2.00      4.58    782.56      0.00      0.00    782.58      0.02      4.33      0.02    779.40
    1700.        6.      1390.      304.        9.     1101.      327.       14.       10.    778.00
     0.15      0.64      1.26      0.93     0.130     0.130     0.130     0.130    778.00    596.27
 0.002016      650.      650.      650.        10         0         0      0.00    448.71   1044.98

                                                                                  Skewed actual <360

FLOW DISTRIBUTION FOR SECNO=      2.00          CWSEL=    782.56

STA=      596.      602.      887.     1014.     1044.
  PER Q=       0.3      81.6      17.8       0.1
   AREA=       9.1    1100.5     319.0       7.8
    VEL=       0.6       1.3       0.9       0.2

*SECNO 2.100
     2.10      4.06    783.06      0.00      0.00    783.06      0.02      0.50      0.00    779.00
    1700.        0.      1700.        0.        1.     1417.        1.       23.       12.    779.00
     0.21      0.15      1.20      0.15     0.130     0.130     0.130     0.130    779.00      0.63
 0.001700      270.      270.      270.         5         0         0      0.00    349.74    350.37


FLOW DISTRIBUTION FOR SECNO=      2.10          CWSEL=    783.06

STA=        1.        1.      350.      350.
  PER Q=       0.0     100.0       0.0
   AREA=       0.7    1417.1       0.7
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      VEL=      0.2       1.2       0.2

 *SECNO 2.200
       2.20      3.67    783.67      0.00      0.00    783.71      0.04      0.62      0.00    780.00
       1700.        0.     1700.        0.        1.     1097.        1.        31.       14.    780.00
       0.26      0.21      1.55      0.21     0.130     0.130     0.130     0.130    780.00      0.63
   0.003249       270.      270.      270.         2         0         0      0.00    299.73    300.37


 FLOW DISTRIBUTION FOR SECNO=       2.20          CWSEL=    783.67

 STA=          1.        1.      300.      300.
   PER Q=      0.0     100.0       0.0
   AREA=       0.7    1096.7       0.7
    VEL=       0.2       1.5       0.2

 *SECNO 2.300
    SECNO     DEPTH     CWSEL     CRITWS    WSELK     EG        HV        HL        OLOSS     BANK ELEV
      2       ELOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
     TIME     VLOB      VCH       VROB      XNL       XNCH      XNR       CTN       ELMIN       SSTA
     SLOPE    XLOBL     XLCH      XLOBR     ITRIAL    IHZ       ICONT     CORAR     TOPWID      ENDST


       2.30      3.63    784.63      0.00      0.00    784.68      0.05      0.97      0.00    781.00
       1400.        0.     1400.        0.        1.     813.        1.        37.       16.    781.00
       0.30      0.25      1.72      0.25     0.130     0.130     0.130     0.130    781.00      0.60
   0.004070       270.      270.      270.         2         0         0      0.00    224.81    225.60


 FLOW DISTRIBUTION FOR SECNO=       2.30          CWSEL=    784.63

 STA=          1.        1.      225.      225.
   PER Q=      0.0     100.0       0.0
   AREA=       0.7     812.8       0.7
    VEL=       0.2       1.7       0.2

 *SECNO 3.000

       SECT. AT CELCH ST.

       3.00      3.78    785.78      0.00      0.00    785.88      0.10      1.19      0.11    782.00
       1400.        0.     1400.        0.        0.     563.        0.        41.       17.    782.00
       0.33      0.47      2.49      0.17     0.100     0.105     0.100     3.125    782.00      0.58
   0.004751       270.      270.      270.         2         3         0      0.00    149.27    150.14


 FLOW DISTRIBUTION FOR SECNO=       3.00          CWSEL=    785.78

 STA=          1.        1.       150.      150.
   PER Q=      0.0     100.0       0.0
   AREA=       0.3     963.2       0.3
    VEL=       0.2       2.5       0.2

 *SECNO 3.100
       3.10      3.33    786.55      0.00      0.00    786.69      0.14      0.83      0.01    783.0
       1400.        0.     1400.        0.        0.     472.        0.        44.       17.    785.30
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0.34	0.28	2.96	0.28	0.100	0.100	0.100	0.124	783.00	0.80	
0.007933	99.	99.	99.	2	0	0	0.00	141.39	142.20	

FLOW DISTRIBUTION FOR SECNO= 3.10 CWSEL= 786.35

STA=	1.	1.	142. 142.
PER Q=	0.0	100.0	0.0
AREA=	0.3	472.4	0.3
VEL=	0.3	3.0	0.3

*SECNO 3.200

3.20	3.22	787.22	0.00	0.00	787.38	0.17	0.89	0.01	764.00	
1600.	0.	1400.	0.	0.	428.	0.	43.	18.	784.00	
0.35	0.32	3.27	0.32	0.100	0.100	0.100	0.122	784.00	0.80	
0.010216	99.	99.	99.	2	0	0	0.00	133.40	134.20	

FLOW DISTRIBUTION FOR SECNO= 3.20 CWSEL= 787.22

STA=	1.	1.	134. 134.
PER Q=	0.0	100.0	0.0
AREA=	0.3	427.7	0.3
VEL=	0.3	3.3	0.3

*SECNO 3.300

3.30	2.78	788.78	0.00	0.00	789.04	0.25	1.63	0.03	786.00	
1400.	0.	1400.	0.	0.	348.	0.	45.	18.	786.00	
0.37	0.44	4.02	0.44	0.060	0.060	0.060	0.116	786.00	0.80	
0.006767	198.	198.	198.	2	0	0	0.00	125.40	126.20	

FLOW DISTRIBUTION FOR SECNO= 3.30 CWSEL= 788.79

STA=	1.	1.	125. 126.
PER Q=	0.0	100.0	0.0
AREA=	0.5	347.6	0.5
VEL=	0.4	4.8	2.4

*SECNO 3.400

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	BL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	LTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IN2	ICONT	CORAR	TOPWID	ENDST
3.40	2.54	789.54	0.00	0.00	789.88	0.34	0.82	0.03	787.00	
1400.	0.	1400.	0.	0.	297.	0.	45.	18.	787.00	
0.37	0.34	4.79	0.34	0.060	0.060	0.060	0.114	787.00	0.80	
0.010438	99.	99.	99.	2	0	0	0.00	137.39	138.20	

FLOW DISTRIBUTION FOR SECNO= 3.40 CWSEL= 789.54

STA=	1.	1.	118. 118.
PER Q=	0.0	100.0	0.0

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AREA=	0.2	297.2	0.2							
VEL=	0.5	4.7	0.5							

*SECNO 3.500

3.50	2.62	791.62	0.00	0.00	791.99	0.37	2.10	0.01	789.00
1400.	0.	1400.	0.	0.	286.	0.	47.	19.	789.00
0.38	0.62	4.89	0.62	0.060	0.060	0.060	0.109	789.00	0.76
0.010762	198.	198.	198.	2	0	0	0.00	109.48	110.24

FLOW DISTRIBUTION FOR SECNO= 3.50 CWSEL= 791.62

STA=	1.	1.	110.	110.
PER Q=	0.0	100.0	0.0	
AREA=	0.3	283.2	0.3	
VEL=	0.6	4.9	0.6	

*SECNO 3.600

3.60	2.70	792.70	0.00	0.00	793.11	0.41	1.11	0.01	790.00
1400.	0.	1399.	0.	0.	271.	0.	46.	19.	790.00
0.39	0.70	5.16	0.70	0.060	0.060	0.060	0.107	790.00	0.73
0.011608	99.	99.	99.	1	0	0	0.00	101.54	102.27

FLOW DISTRIBUTION FOR SECNO= 3.60 CWSEL= 792.70

STA=	1.	1.	102.	102.
PER Q=	0.0	100.0	0.0	
AREA=	0.4	271.4	0.4	
VEL=	0.7	5.2	0.7	

*SECNO 3.700

3.70	2.83	793.53	0.00	0.00	794.26	0.43	1.16	0.01	791.00
1400.	0.	1399.	0.	0.	260.	0.	48.	19.	791.00
0.39	0.78	5.38	0.78	0.060	0.060	0.060	0.106	791.00	0.69
0.011776	99.	99.	99.	2	0	0	0.00	92.63	93.31

FLOW DISTRIBUTION FOR SECNO= 3.70 CWSEL= 793.53

STA=	1.	1.	95.	95.
PER Q=	0.0	100.0	0.0	
AREA=	0.4	250.3	0.4	
VEL=	0.8	5.4	0.8	

*SECNO 3.800

3.80	2.98	794.98	0.00	0.00	795.47	0.49	1.18	0.01	792.00
1400.	0.	1399.	0.	1.	248.	1.	49.	20.	792.00
0.40	0.88	5.66	0.88	0.060	0.060	0.060	0.104	792.00	0.63
0.012073	99.	99.	99.	3	0	0	0.00	83.75	84.37

FLOW DISTRIBUTION FOR SECNO= 3.80 CWSEL= 794.98

STA=	1.	1.	84.	84.
PER Q=	0.0	99.8	0.0	

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AREA=	0.6	247.9	0.6						
VEL=	0.9	5.6	0.9						

*SECNO 3.900

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XRL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IH2	ICONT	CONAR	TOPWID	ENDST
3.90	3.16	796.16	0.00	0.00	796.71	0.56	1.22	0.02	793.00
1400.	1.	1399.	1.	1.	234.	1.	49.	20.	793.00
0.40	1.02	3.93	1.02	0.060	0.060	0.060	0.102	793.00	0.53
0.012602	99.	99.	99.	0	0	0	0.00	74.60	75.45

FLOW DISTRIBUTION FOR SECNO= 3.90 CWSEL= 796.16

STA=	1.	1.	75.	75.
PER Q=	0.1	99.9	0.1	
AREA=	0.7	233.7	0.7	
VEL=	1.0	6.0	1.0	

*SECNO 4.000

SECT. AT MILLER RD.

4.00	3.38	797.38	0.00	0.00	797.97	0.59	1.25	0.01	794.00
1400.	0.	1400.	0.	0.	227.	0.	50.	20.	796.00
0.41	0.61	6.16	0.61	0.060	0.060	0.060	0.101	794.00	0.79
0.012161	101.	101.	101.	1	0	0	2.03	67.42	68.21

FLOW DISTRIBUTION FOR SECNO= 4.00 CWSEL= 797.38

STA=	1.	1.	68.	68.
PER Q=	0.3	100.2	0.0	
AREA=	0.4	227.1	2.4	
VEL=	0.3	6.2	0.6	

CCHV= 0.100 CEHV= 0.300

*SECNO 5.000

WEST PARK/MILLER DRAIN CONFLUENCE - BETWEEN MILLER ST. & HURON ST.

5.00	5.73	800.73	0.00	0.00	800.82	0.09	2.80	0.05	795.00
1400.	0.	1399.	0.	1.	567.	1.	54.	21.	795.00
0.45	0.26	2.47	0.26	0.130	0.130	0.130	0.104	795.00	0.62
0.004545	400.	400.	400.	3	0	0	0.00	99.76	100.38

FLOW DISTRIBUTION FOR SECNO= 5.00 CWSEL= 800.73

STA=	1.	1.	100.	100.
PER Q=	0.3	100.1	0.0	
AREA=	1.1	567.2	1.1	

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     VEL=       0.3       2.5       0.3

*SECNO 6.000

          200 FEET DOWNSTREAM OF W. HURON ST.

      6.00      7.29    801.29      0.00      0.00    801.46      0.17      0.62      0.02    795.50
     2080.        0.     2080.        0.        0.      638.      639.       56.       21.    870.00
      0.46      0.00      3.26      0.00     0.120     0.120     0.120     0.105    794.00      0.76
  0.005958      116.      116.      116.         2         0         0      0.00     99.30    100.06

FLOW DISTRIBUTION FOR SECNO=       6.00          CWSEL=     801.29

STA=        1.        1.
  PER Q=       0.0
   AREA=       0.7
    VEL=       0.2

CCHV=   0.100 CEHV=   0.300
*SECNO 7.000

          IMMEDIATELY DOWNSTREAM OF W. HURON ST.

      7.00      7.98    801.98      0.00      0.00    802.20      0.21      0.72      0.01    795.00
     2080.        0.     2080.        0.        1.      564.        0.       60.       21.    798.00
      0.48      0.27      3.69      0.20     0.080     0.080     0.080     0.104    794.00      0.72
  0.002885      180.      180.      180.         2         0         0      0.00     79.46     80.18

FLOW DISTRIBUTION FOR SECNO=       7.00          CWSEL=     801.98

STA=        1.        1.       80.       80.
  PER Q=       0.0     100.0       0.0
   AREA=       1.0     563.8       0.4
    VEL=       0.3       3.7       0.2

*SECNO 8.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        NL        CLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN    SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID   ENDST

          LOCATED BETWEEN HURON ST & WASHINGTON AVE.

      8.00      4.71    802.71      0.00      0.00    803.19      0.48      0.91      0.08    798.00
     1560.        0.     1560.        0.        0.      281.      281.       63.       22.    870.00
      0.49      0.00      5.55      0.00     0.050     0.050     0.050     0.102    798.00      0.79
  0.005242      250.      250.      250.         2         0         0      0.00     67.35     68.13

FLOW DISTRIBUTION FOR SECNO=       8.00          CWSEL=     802.71

STA=        1.        1.
```

```
PER Q=      0.0
 AREA=      0.5
  VEL=      0.5

CCHV=   0.100 CEHV=   0.300
*SECNO 9.000

        U/S LIMIT OF SEGMENT #3 LOCATED 100 FT. U/S OF WASHINGTON AVE.

     9.00      6.44    804.44      0.00      0.00    804.68      0.23      1.46      0.02    798.00
    1560.        0.     1560.        0.        1.      402.        0.       66.       22.    806.00
     0.51      0.35      3.88      0.00     0.080     0.080     0.080     0.099    798.00      0.71
 0.004558      300.      300.      300.         2         0         0      0.00     73.05     73.76

FLOW DISTRIBUTION FOR SECNO=      9.00          CWSEL=    804.44

STA=        1.        1.       80.
  PER Q=      0.0     100.0
   AREA=      0.9     401.6
    VEL=      0.3       3.9

*SECNO 10.000

3301 HV CHANGED MORE THAN HVINS

   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        BLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID      ENDST

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

        100' U/S OF LIBERTY ST.

    10.00      1.73    808.73    808.73      0.00    809.60      0.07      3.06      0.19    807.00
     960.        0.      960.        0.        0.      128.        0.       69.       23.    807.00
     0.53      0.05      7.50      0.05     0.060     0.060     0.060     0.095    807.00      0.98
 0.044246      465.      465.      465.        20        14         0      0.00     74.04     75.02

FLOW DISTRIBUTION FOR SECNO=     10.00          CWSEL=    808.73

STA=        1.       75.
  PER Q=     100.0
   AREA=     127.9
    VEL=       7.5

*SECNO 11.000

3301 HV CHANGED MORE THAN HVINS
```

See Revised Run
Rev. 9-11

100' U/S OF WILLIAM ST.

11.00	4.20	811.73	0.00	0.00	811.77	0.07	2.09	C.08	809.00
960.	0.	960.	0.	0.	460.	0.	73.	24.	808.00
0.60	0.01	2.09	0.01	0.060	0.060	0.060	0.091	807.50	0.97
0.001303	550.	550.	550.	7	0	0	0.00	129.07	130.04

FLOW DISTRIBUTION FOR SECNO= 11.00 CWSEL= 811.70

STA= 1. 130.
PER Q= 100.0
AREA= 460.1
VEL= 2.1

*SECNO 12.000

100' D/S OF JEFFERSON.

12.00	4.10	812.60	0.00	0.00	812.70	0.10	0.92	0.01	808.50
960.	0.	960.	0.	0.	376.	0.	76.	26.	810.00
0.66	0.01	2.55	0.31	0.070	0.070	0.070	0.069	808.50	0.96
0.002435	530.	530.	530.	4	0	0	0.00	99.36	100.32

FLOW DISTRIBUTION FOR SECNO= 12.00 CWSEL= 812.60

STA= 1. 1. 100. 100.
PER Q= 0.0 100.0 0.0
AREA= 0.1 376.3 0.4
VEL= 0.0 2.6 0.3

*SECNO 13.000

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	XLOB	XLCH	XLOBR	ITRIAL	IHZ	ICONT	CORIR	TOPWID	ENDST

215' U/S OF JEFFERSON.

13.00	4.42	813.42	0.00	0.00	813.67	0.25	0.93	C.04	809.00
960.	0.	960.	0.	0.	239.	0.	60.	26.	809.00
0.66	0.13	4.32	0.13	0.060	0.060	0.060	0.063	809.00	0.95
0.003626	315.	315.	315.	2	0	0	0.00	54.10	55.05

FLOW DISTRIBUTION FOR SECNO= 13.00 CWSEL= 813.42

STA= 1. 1. 55. 55.
PER Q= 0.0 100.0 0.0
AREA= 0.1 236.9 0.1
VEL= 0.1 4.0 0.1

*SECNO 13.500

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	13.50	2.86	814.84	0.00	0.00	815.45	0.61	1.66	0.11	812.00
	960.	0.	960.	0.	0.	153.	0.	81.	27.	812.00
	0.69	0.03	6.27	0.03	0.060	0.060	0.060	0.086	812.00	0.97
	0.015972	250.	250.	250.	3	0	0	0.00	54.06	55.03

FLOW DISTRIBUTION FOR SECNO= 13.50 CWSEL= 814.84

STA=	1.	1.	55.	55.
PER Q=	0.0	100.0	0.0	
AREA=	0.0	153.1	0.0	
VEL=	0.0	6.3	0.0	

*SECNO 14.000

100' D/S OF E. MADISON.

14.00	3.21	818.21	0.00	0.00	818.69	0.48	3.23	0.01	815.00
960.	0.	960.	0.	0.	173.	0.	82.	27.	815.00
0.70	0.03	5.55	0.03	0.060	0.060	0.060	0.085	815.00	0.96
0.010643	250.	250.	250.	3	0	0	0.00	54.08	55.04

FLOW DISTRIBUTION FOR SECNO= 14.00 CWSEL= 818.21

STA=	1.	1.	55.	55.
PER Q=	0.0	100.0	0.0	
AREA=	0.1	172.9	0.1	
VEL=	0.0	5.6	0.0	

*SECNO 15.000

15.00	4.63	820.63	0.00	0.00	820.64	0.25	2.15	0.02	816.00
960.	0.	960.	0.	0.	250.	0.	84.	27.	816.00
0.73	0.13	3.84	0.13	0.060	0.060	0.060	0.084	816.00	0.96
0.003110	410.	410.	410.	4	0	0	0.00	54.11	55.06

FLOW DISTRIBUTION FOR SECNO= 15.00 CWSEL= 820.63

STA=	1.	1.	55.	55.
PER Q=	0.0	100.0	0.0	
AREA=	0.1	250.1	0.1	
VEL=	0.1	3.8	0.1	

*SECNO 16.000

16.00	4.50	821.50	0.00	0.00	821.70	0.20	0.84	0.00	817.00
960.	0.	960.	0.	0.	265.	0.	86.	28.	817.00
0.76	0.12	3.62	0.12	0.060	0.060	0.060	0.083	817.00	0.95
0.002877	280.	280.	280.	3	0	0	0.00	59.11	60.05

FLOW DISTRIBUTION FOR SECNO= 16.00 CWSEL= 821.50

STA=	1.	1.	60.	60.
PER Q=	0.0	100.0	0.0	
AREA=	0.1	265.3	0.1	

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     VEL=       0.1       3.6       0.1

  *SECNO 17.000
     SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        ULOSS     BANK ELEV
     Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
     TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
     SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID      ENDST

          HILL STREET

     17.00      2.28    823.48      0.00      0.00    823.82      0.35      2.00      0.04    821.20
      960.        0.      960.        0.        0.      203.        0.       88.       28.    821.20
      0.78      0.03      4.73      0.03     0.060     0.060     0.060     0.082    821.20      0.97
  0.012119      400.      400.      400.         2         0         0      0.00     89.06     90.03

  FLOW DISTRIBUTION FOR SECNO=      17.00          CWSEL=     823.48

  STA=        1.       90.
    PER Q=     100.0
     AREA=     203.1
      VEL=       4.7

  *SECNO 18.000
     18.00      3.37    824.37      0.00      0.00    824.41      0.03      0.55      0.03    821.00
      960.        0.      960.        0.        0.      672.        0.       93.       30.    821.00
      0.86      0.01      1.43      0.01     0.050     0.050     0.050     0.080    821.00      0.96
  0.000457      430.      430.      430.         4         0         0      0.00    199.09    200.04

  FLOW DISTRIBUTION FOR SECNO=      18.00          CWSEL=     824.37

  STA=        1.      200.
    PER Q=     100.0
     AREA=     671.6
      VEL=       1.4

  *SECNO 18.300
     18.30      2.47    824.47      0.00      0.00    824.53      0.06      0.12      0.01    822.00
      960.        0.      960.        0.        0.      492.        0.       95.       31.    822.00
      0.89      0.01      1.93      0.01     0.050     0.050     0.050     0.079    822.00      0.97
  0.001291      163.      163.      163.         2         0         0      0.00    199.06    200.03

  FLOW DISTRIBUTION FOR SECNO=      18.30          CWSEL=     824.47

  STA=        1.      200.
    PER Q=     100.0
     AREA=     491.8
      VEL=       2.0

  *SECNO 18.600
     18.60      1.77    824.77      0.00      0.00    824.89      0.11      0.34      0.02    823.00
      960.        0.      960.        0.        0.      553.        0.       96.       31.    823.00
```

0.90	0.02	2.72	0.02	0.050	0.050	0.050	0.079	823.00	0.93
0.003908	163.	163.	163.	2	0	0	0.00	199.05	200.02

FLOW DISTRIBUTION FOR SECNO= 18.60 CWSEL= 824.77

STA= 1. 200.
PER Q= 100.0
AREA= 352.8
VEL= 2.7

*SECNO 19.000

U/S LIMIT OF SEGMENT #4 @ HOOVER ST.

19.00	1.77	825.77	0.00	0.00	825.99	0.22	1.07	0.03	830.10
960.	0.	960.	0.	0.	257.	0.	97.	32.	825.00
0.91	0.00	3.73	0.03	0.050	0.050	0.050	0.078	824.00	225.44
0.013121	164.	164.	164.	3	0	0	0.00	224.57	450.01

FLOW DISTRIBUTION FOR SECNO= 19.00 CWSEL= 825.77

STA= 225. 450.
PER Q= 100.0
AREA= 257.4
VEL= 3.7

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****
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
****

NOTE- ASTERISX (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

ALLEN CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CHSEL	CRIWS	EG	TOK*S	VCH	AREA	.OTK
0.000	0.00	0.00	0.00	777.00	1700.00	778.00	0.00	778.23	1999.49	5.11	469.23	38.02
2.000	650.00	0.00	0.00	778.00	1700.00	782.56	0.00	782.58	20.16	1.26	1436.43	378.65
2.100	270.00	0.00	0.00	779.00	1700.00	783.05	0.00	783.08	17.00	1.20	1418.63	412.37
2.200	270.00	0.00	0.00	780.00	1700.00	783.67	0.00	783.71	32.49	1.55	1098.07	298.23
2.300	270.00	0.00	0.00	781.00	1400.00	784.63	0.00	784.68	40.70	1.72	814.23	219.44
3.000	270.00	0.00	0.00	782.00	1400.00	785.75	0.00	785.80	47.51	2.49	563.73	203.12
3.100	99.00	0.00	0.00	783.00	1400.00	786.35	0.00	786.49	79.38	2.96	473.02	157.10
3.200	99.00	0.00	0.00	784.00	1400.00	787.22	0.00	787.36	102.16	3.27	428.38	138.51
3.300	198.00	0.00	0.00	786.00	1400.00	788.78	0.00	789.04	67.47	4.02	348.36	170.46
3.400	99.00	0.00	0.00	787.00	1400.00	789.54	0.00	789.66	106.36	4.71	297.65	137.03
3.500	198.00	0.00	0.00	789.00	1400.00	791.62	0.00	791.99	107.62	4.89	286.83	134.95
3.600	99.00	0.00	0.00	790.00	1400.00	792.70	0.00	793.11	116.08	5.16	272.09	129.94
3.700	99.00	0.00	0.00	791.00	1400.00	793.83	0.00	794.28	117.76	5.38	261.17	129.01
3.800	99.00	0.00	0.00	792.00	1400.00	794.98	0.00	795.47	120.73	5.64	249.00	127.42
3.900	99.00	0.00	0.00	793.00	1400.00	796.16	0.00	796.71	126.12	5.96	235.11	124.71
4.000	131.00	0.00	0.00	794.00	1400.00	797.36	0.00	797.97	121.51	6.16	227.61	126.93
5.000	400.00	0.00	0.00	795.00	1400.00	800.73	0.00	800.82	45.45	2.47	569.36	207.67
5.050	118.00	0.00	0.00	794.00	2080.00	801.29	0.00	801.48	59.53	3.28	1276.32	269.46

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7.000	180.00	0.00	0.00	796.00	2380.00	801.98	0.00	802.20	26.85	3.69	565.10	387.23
8.000	250.00	0.00	0.00	798.00	1560.00	802.71	0.00	803.19	52.42	5.55	562.44	215.46

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
9.000	300.00	0.00	0.00	798.00	1560.00	804.44	0.00	804.68	45.58	3.88	402.55	231.06
10.000	465.00	0.00	0.00	807.00	960.00	808.73	808.73	809.60	442.46	7.50	127.96	45.64
11.000	560.00	0.00	0.00	807.50	960.00	811.70	0.00	811.77	13.03	2.09	460.20	265.98
12.000	530.00	0.00	0.00	808.50	960.00	812.60	0.00	812.70	24.35	2.55	376.85	194.56
13.000	315.00	0.00	0.00	809.00	960.00	813.42	0.00	813.67	36.26	4.02	239.09	159.44
13.500	250.00	0.00	0.00	812.00	960.00	814.84	0.00	815.45	159.72	6.27	153.19	75.96
14.000	250.00	0.00	0.00	815.00	960.00	818.21	0.00	818.69	106.43	5.55	173.05	93.05
15.000	410.00	0.00	0.00	816.00	960.00	820.63	0.00	820.86	31.10	3.84	250.39	172.16
16.000	280.00	0.00	0.00	817.00	960.00	821.50	0.00	821.70	28.77	3.62	265.50	178.97
17.000	400.00	0.00	0.00	821.20	960.00	823.48	0.00	823.82	121.19	4.73	203.18	87.20
18.000	430.00	0.00	0.00	821.00	960.00	824.37	0.00	824.41	4.57	1.43	671.77	449.13
18.300	163.00	0.00	0.00	822.00	960.00	824.47	0.00	824.53	12.91	1.95	491.89	267.20
18.600	163.00	0.00	0.00	823.00	960.00	824.77	0.00	824.89	39.08	2.72	352.81	153.57
19.000	164.00	0.00	0.00	824.00	960.00	825.77	0.00	825.99	131.21	3.73	257.45	83.81

See revised [illegible] 9-11 [illegible]

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ALLEN CREEK

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	1700.00	778.00	0.00	0.00	0.00	838.46	0.00
2.000	1700.00	782.56	0.00	4.56	0.00	448.71	650.00
2.100	1700.00	783.06	0.00	0.50	0.00	349.74	270.00
2.200	1700.00	783.67	0.00	0.61	0.00	299.73	270.00
2.300	1400.00	784.63	0.00	0.96	0.00	224.81	270.00
3.000	1400.00	785.78	0.00	1.15	0.00	149.27	270.00
3.100	1400.00	786.35	0.00	0.57	0.00	141.39	99.00
3.200	1400.00	787.22	0.00	0.87	0.00	133.40	99.00
3.300	1400.00	788.78	0.00	1.57	0.00	125.40	198.00
3.400	1400.00	789.54	0.00	0.76	0.00	117.39	99.00
3.500	1400.00	791.62	0.00	2.08	0.00	109.48	198.00
3.600	1400.00	792.73	0.00	1.06	0.00	101.34	99.00
3.700	1400.00	793.83	0.00	1.13	0.00	92.63	99.00
3.800	1400.00	794.98	0.00	1.15	0.00	83.75	99.00
3.900	1400.00	796.16	0.00	1.18	0.00	74.90	99.00
4.000	1400.00	797.38	0.00	1.23	0.00	67.42	101.00
5.000	1400.00	800.73	0.00	3.35	0.00	99.76	400.00
6.000	2080.00	801.29	0.00	0.57	0.00	99.30	116.00
7.000	2080.00	801.98	0.00	0.69	0.00	79.46	100.00
8.000	1560.00	802.71	0.00	0.72	0.00	67.35	250.00
9.000	1560.00	804.46	0.00	1.75	0.00	73.05	300.00
10.000	960.00	808.73	0.00	4.29	0.00	74.04	465.00
11.000	960.00	811.70	0.00	2.98	0.00	129.07	550.00
12.000	960.00	812.60	0.00	0.90	0.00	99.36	530.00

See Revised Rev Sec 9-11

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13.000	960.00	813.42	0.00	0.82	0.00	54.10	315.00
13.500	960.00	814.84	0.00	1.41	0.00	54.06	250.00
14.000	960.00	818.21	0.00	3.37	0.00	54.08	250.00

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SECNO	Q	CHSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
15.000	960.00	820.63	0.00	2.42	0.00	54.11	410.00
16.000	960.00	821.50	0.00	0.87	0.00	59.11	280.00
17.000	960.00	823.48	0.00	1.98	0.00	89.06	400.00
18.000	960.00	824.37	0.00	0.90	0.00	199.09	430.00
18.300	960.00	824.47	0.00	0.10	0.00	199.06	163.00
18.600	960.00	824.77	0.00	0.30	0.00	199.05	163.00
19.000	960.00	825.77	0.00	1.00	0.00	224.57	164.00

SUMMARY OF ERRORS

CAUTION SECNO= 10.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

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06:56:52 X109 ANITA HU201607 HUDAA MAR 04, 1980

SEGMENT #1

PRESSURE FLOW

ALLEN CREEK

ANN ARBOR F.I.S.

Segment #1 pressure flow
10,50,100 & 500 yr.

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FORM 14H GB PRINTED BY ROTARY MANIFOLD FORMS.

```
JOBID=HU201607          USER=ANITA          PROJECT=HUDAA          BILLING=LJDDA          NO:=XQICS

06:18:49                    JOE INTRODUCED FROM                    MAR 04, 1983
                                  CON1 JCL

06:19:14  START OF TRANSLATION

          $JOB HU201607,USER=ANITA,PROJECT=HUDAA;
          $INPUT HEC02;
          RECORD COUNT: 56
          $ENDCMPIL;
          VALUES WTAPAK,WTAPAK;
          SEND 'START OF HEC02 EXECUTION';
          STEP HEC02,WTAENGLM,OPTIONS='FILE#A 91,FILE#B 92,FILE#C 93,FILE#D 94,
                                       FILE#E 95,FILE#F 96';
          ALC FILE#A,SIZE=2,UNIT=CYL,INCRSIZE=1;
          ASG FILE#A,FILE#A,TEMPRY,DVC=MS/M400,MD=B2;
          ALC FILE#B,SIZE=2,UNIT=CYL,INCRSIZE=1;
          ASG FILE#B,FILE#B,TEMPRY,DVC=MS/M400,MD=B2;
          ALC FILE#C,SIZE=2,UNIT=CYL,INCRSIZE=1;
          ASG FILE#C,FILE#C,TEMPRY,DVC=MS/M400,MD=B2;
          ALC FILE#D,SIZE=2,UNIT=CYL,INCRSIZE=1;
          ASG FILE#D,FILE#D,TEMPRY,DVC=MS/M400,MD=B2;
          ALC FILE#E,SIZE=2,UNIT=CYL,INCRSIZE=1;
          ASG FILE#E,FILE#E,TEMPRY,DVC=MS/M400,MD=B2;
          ALC FILE#F,SIZE=2,UNIT=CYL,INCRSIZE=1;
          ASG FILE#F,FILE#F,TEMPRY,DVC=MS/M400,MD=B2;
          ASG HEC02,HEC02,FILESTAT=INP;
          SEND 'HEC02 - HEADER SCRAPS PROCESS';
          $SYSOUT HDR,"D=&13PRT,DVC=PR1
          DEFINE "HDR1,
          PRINTER=(FORMHT=66,HOF=1,FF1=$40)"
          END=TBP;
          $EOJ00J07

          RECORD COUNT :     62

06:19:15  END OF TRANSLATION
```

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```
JOBID=HU201507        USER=ARITA        PROJECT=HUDAA        BILLING=HUDDA        RON=X0109

06:31:43                    JOB EXECUTION LISTING                    MAR 04, 1980

          START OF RECORD EXECUTION
          STEP 1
          THIS JOB NEEDS 3-PART PAPER
          LOAD MODULE = RECORD (79/2 /22 23:58) PREINITIALIZED
          LIBRARY = $SYSLIB
06:31:46  STEP STARTED %ERTY=9.
          FRU4.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: $000109.FILEOB
          FRU4.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: $000109.FILEOC
          FRU4.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: $000109.FILEOD
          FRU4.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: $000109.FILEOA
          FRU4.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EF.: $000109.FILEOE
          FRU4.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EF.: $000109.FILEOF
          TAS: MODE J=0 F=00 DOUBLE=0
          DUFO1.IFN=FILEOB       REMEMBER REUSE=       0
          DUFO1.IFN=FILEOC       REMEMBER REUSE=       0
          DUFO1.IFN=FILEOD       REMEMBER REUSE=       0
          DUFO1.IFN=FILEOA       REMEMBER REUSE=       0
          DUFO1.IFN=FILEOE       REMEMBER REUSE=       0
          DUFO1.IFN=FILEOF       REMEMBER REUSE=       0    BLOCK AHEAD=       0    CREATE BUFFER=      37
          TEMPORARY  FILES USED=    226 TRACKS
          FILEOB     ON  WTAPAK :  NB  OF  IO  CONNECTS=        135
          FILEOC     ON  WTAPAK :  NB  OF  IO  CONNECTS=        120
          FILEOD     ON  WTAPAK :  NB  OF  IO  CONNECTS=         13
          FILEOA     ON  WTAPAK :  NB  OF  IO  CONNECTS=          3
          FILEOE     ON  WTAPAK :  NB  OF  IO  CONNECTS=          7
          FILEOF     ON  WTAPAK :  NB  OF  IO  CONNECTS=         49
          FILEOH     ON  WTAPAK :  NB  OF  IO  CONNECTS=         79
          FILEOG     ON  WTAPAK :  NB  OF  IO  CONNECTS=         30
          CPU        1.357                    PROC MISSING $2C73      367  STACKED      41
          ELAPSED    3.500                    SYS MISSING $7678       390
          LINES         391  LIMIT      NOLIM     BAC INC STACK          30720
          CARDS           0  LIMIT      NOLIM     BUFFER SIZE            13040  CPSIZE     2272
06:35:16  STEP COMPLETED


          START     06:31:43   LINES          391
          STOP      06:35:16   CARDS            3
          CPU          1.357
          ELAPSE       3.500
06:35:16  RESULT:  JOB COMPLETED
```

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50,50,52
*****************************************************

C
T1PRESSURE FLOW RATING CURVE FOR SEGMENT #1
T2ANN ARBOR FLOOD INSURANCE STUDY
T3      ALLEN CREEK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       2.       0.       0.  0.000000     0.00      0.0      0.   761.900    0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBP      CHNIM    ITRACE

     1.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000

BT     6.000  300.000 1000.000 1100.000 1200.000 1400.000 1500.000    0.000    0.000    0.000
VC     0.150    0.150    0.300    0.300    0.500    0.000    0.000    0.000    0.000    0.000

       1' D/S OF CULVERT UNDER R.R. TRACKS

X1     1.000    5.000  539.000  549.000    0.000    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  900.000  900.000    0.000
GR   900.000    0.000  900.000  538.900  761.300  539.000  761.300  549.000  761.300  549.100
GR   900.000  700.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
SB     0.000    8.510    2.600    0.000   10.900    0.000   87.800    0.000  783.400  761.300

       2-SECT. AT LOCATION WHERE E.PARK-MILLER STORM SEWER ENTERS ALLEN CREEK

X1  3469.000   13.000  537.100  550.900 3469.000 3469.000 3469.000    0.000    0.000    0.000
X2     0.001    0.000    1.000  791.400  900.000    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 1100.000 1100.000    0.000
BT    13.000    0.000  900.000    0.000  537.000  900.000    0.000  537.100  900.000  786.100
BT   538.000  900.000  708.600  540.000  900.000  790.200  542.000  900.000  791.000  546.000
BT   900.000  791.400  546.000  900.000  791.000  548.000  900.000  790.200  560.000  930.000
BT   708.600  550.900  900.000  786.100  551.000  900.000    0.000  900.000  900.000    0.000
GR   900.000    0.000  900.000  537.000  786.100  537.100  785.000  538.000  784.200  540.000
GR   783.600  542.000  783.400  544.000  783.600  546.000  784.200  548.000  785.000  550.000
GR   786.100  550.900  900.000  551.000  900.000  790.200    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

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	VOB	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WT	ELMIN	BSTA
SLOPE	XLOBL	XLFL	FLOBR	STRAIL	TAR	ICONV	CPRAF	TOP.ID	EBST

3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 930.30 ELREA= 900.00

1' D/S OF CULVERT UNDER R.R. TRACKS

1.00	5.62	767.12	767.42	761.80	776.05	2.93	0.30	5.00	761.30
800.	0.	500.	0.	0.	58.	0.	0.	0.	761.30
0.50	1.00	15.54	5.00	0.150	0.015	0.155	0.300	765.30	539.00
0.002228	0.	0.	0.	0	23	0	0.00	10.00	549.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BLC	BWP	BAREA	SS	ELCHO	ELCHD
	0.00	9.61	2.60	0.00	10.00	0.00	87.80	0.00	785.40	761.30

*SECNO 3469.000

6370.10' D.S. OF RAILROAD BRIDGE

ESPRS= 0.000 EGL.C= 791.294 ELLC= 791.400 PCHSE= 767.125 ELTRD= 900.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOB	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WT	ELMIN	BSTA
SLOPE	XLOBL	XLFL	FLOBR	STRAIL	TAR	ICONV	CPRAF	TOP.ID	EBST

3370 NORMAL DEPTH,HNR= 19 (IN SLTR)= 905.00 MAX ELL= 791.40

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1160.00 ELREA= 1100.00

X-SECT. AT LOCATION WHERE ..PARK-MILLER STORM SEWER ENTERS ALLEN CREEK

3469.00	5.29	788.69	788.69	0.00	791.40	2.72	10.60	0.06	796.10
900.	0.	600.	0.	0.	60.	0.	0.	0.	796.10
0.07	5.00	13.83	0.00	0.150	0.015	0.150	0.015	765.40	539.10
0.004345	3465.	3460.	1245.	20	72	2.142	41.62	10.00	550.00

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50,51,52
*****************************************************

T1PRESSURE FLOW RATING CURVE FOR SEGMENT #1
T2ANN ARBOR FLOOD INSURANCE STUDY
T3      ALLEN CREEK

J1  ICHECK    INM     NINV     IDIM     STIT     METRIC    HVINS     [illegible]     [illegible]     PL

      0.        3.       0.       0.  0.000000     0.00      0.0       0.   761.900    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
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```
*PROF: 2

CCHV=   0.300 CEHV=   0.500
*SECNO 1.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        WL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XWL       XWCH      XWR       WTR       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IM2       ICONT     CODE      TOLWID    ENLST

3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      900.00 ELREA=      900.00

        1' D/S OF CULVERT UNDER R.R. TRACKS

     1.30      6.75    768.05    760.06    761.90    771.46      3.41      0.00      0.00    761.30
   1000.        0.      1000.        0.        0.       67.        0.        0.        0.    761.30
     0.00      0.00     14.62      0.00     0.150     0.015     0.15      0.00    761.30    549.00
 0.002255        0.        0.        0.         0        31         0      0.00     10.00    549.00

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BSC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      8.61      2.60      0.00     10.90      0.00     87.80      0.00    783.40    761.30

*SECNO 3469.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=   785.390  EGLOC=   792.454  ELLC=   791.400  PCWSE=   768.046  ELTRD=   900.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        WL        OLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA       LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XWL       XWCH      XWR       WTR       ELMIN     SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IM2       ICONT     CODE      TOLWID    ENLST

3370 NORMAL BRIDGE,NRD= 13 [illegible] ELTRD=  902.00 MAX ELLC=  791.40

3685 2U TRIANS ATTEMPTED [illegible]
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1100.00 ELREA=     1100.00

        X-SECT. AT LOCATION WHERE W.PARK-MILLER STORM SEWER ENTERS ALLEN CREEK

  3469.00      6.55    789.76    789.76      0.00    792.78      3.02     10.24      0.12    786.10
   1000.        0.      1000.        0.        0.       72.        0.        0.        0.    786.10
     0.07      0.00     10.90      0.00     0.000     0.013     0.150     0.015    783.40    557.10
 0.004026      3469.     3469.     3465.        30         9         0     -5.01      3.20    550.90
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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50,51,52
*****************************************************

T1PRESSURE FLOW RATING CURVE FOR SEGMENT #1
T2ANN ARBOR FLOOD INSURANCE STUDY
T3      ALLEN CREEK

J1  ICHECK    INP     UTLV     IDIR     STRT     METRIC   [illegible]    IC      HSEL     FQ

      0.       4.       0.       0.  0.000000     0.00      0.0       0.   761.900    0.000

J2  NPROF    IPLOT    PRPUS    XSECV    XSECH     FN      ALLDC     IDC     [illegible]    ITRACE

    3.000    0.000   -3.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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```
*PROF 3

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       XTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     TRIAL     TH2       TCONT     COMAR     TORMID     ENDST

3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      900.00 ELREA=      900.00

        1' D/S OF CULVERT UNDER R.R. TRACKS

     1.00      7.19    760.49    768.49    761.90    772.12      3.64      0.00      0.00    761.30
    1100.        0.      1100.        0.        0.       72.        0.        0.        0.    761.30
     0.00      0.00     15.30      0.00     0.150     0.015     0.150     0.005    761.30    549.00
 0.002269        0.        0.        0.         0        31         0      0.00     10.00    549.00

SPECIAL BRIDGE

SB  XK        XKOR      COFD      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      8.61      2.60      0.00     10.90      0.00     87.30      0.00    783.40    761.30

*SECNO 3469.000

6070,LOW BLOW BY NORTH BRIDGE

EGPRS=   789.474  EGLWC=   793.003  ELLC=   791.400  FCWSE=   768.489  ELTRD=   900.000
   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       XTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     TRIAL     TH2       TCONT     COMAR     TORMID     ENDST

3870 NORMAL BRIDGE,XRD= 13 MIN ELTRD= 900.00 MAX ELLC= 791.40

3685 20 TRIALS ATTEMPTED USELWCMSE
3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1100.00 ELREA=     1100.00

        X-SECT. AT LOCATION WHERE W.PARK-MILLER STORM SEWER ENTERS ALLEY CREEK

  3469.00      6.52    789.92    789.92      0.00    793.41      3.49     10.81      0.04    786.10
    1100.        0.      1100.        0.        0.       75.        0.        0.        0.    786.10
     0.00      0.00     14.95      0.00     0.150     0.015     0.150     0.015    783.40    537.10
 0.036542      3469.     3469.     3469.        20        10         0      -3.77     13.40    550.00
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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50,51,58
*****************************************************

T1PRESSURE FLOW RATING CURVE FOR SEGMENT #1
T2ANN ARBOR FLOOD INSURANCE STUDY
T3      ALLEN CREEK

J1  ICHECK    INQ      NINA     NDIS     STRT     METRIC    HVINS     [illegible]     SEL     [illegible]

      0.       5.       0.       0.  0.000000     0.00      0.0       0.   761.900    0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH     FN      ALLDC     IDM      CHNIM     ITRACE

     4.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*PROF 4

CCHV= 0.300 CEHV= 0.500
*SECNO 1.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
R	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	THA	LEFT/RIGHT
TIME	WLOB	VCH	VROB	XNL	XNCH	XNR	HTN	ELMIN	SSTA
SLOPE	XLOB	XLCH	XLOBR	ITRIAL	IHP	ICONT	CORAP	TOPWID	ENDST

3720 CRITICAL DEPTH ASSUMED

3493 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 900.00 ELMEA= 900.00

1' D/S OF CULVERT UNDER R.R. TRACKS

11.00	7.62	768.92	768.92	768.92	772.77	3.85	0.00	0.00	761.30
1200.	0.	1200.	0.	0.	76.	0.	0.	0.	761.30
0.00	0.00	15.79	0.00	0.150	0.015	0.150	0.000	761.30	549.00
0.002287	0.	0.	0.	0	31	0	0.00	10.00	549.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCRU	ELCHD
	0.00	8.61	2.60	0.00	10.90	0.00	87.80	0.00	763.40	761.30

*SECNO 3469.000

3301 HV CHANGED TOOE INAN HVIN

PRESSURE FLOW

ECHRB	EGLUC	HD	QHEIR	QRR	BAREA	TRAPEZOID AREA	ELLC	ELTRB
793.09	793.55	0.00	0.	1200.	88.	87.	791.40	900.00

3493 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1100.00 ELMEA= 1100.00

X-SECT. AT LOCATION WHERE W.PARK-MILLER STORM SEWER ENTERS ALLEN CREEK

3469.00	8.53	791.83	0.00	0.00	793.89	1.97	21.13	0.00	786.10
1200.	0.	1200.	0.	0.	107.	0.	7.	1.	786.10
0.09	0.00	11.26	0.00	0.150	0.013	0.150	0.016	783.40	532.10
0.001472	3469.	3469.	3469.	4	0	5	0.00	13.80	550.90

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

T1PRESSURE FLOW RATING CURVE FOR SEGMENT #1
T2ANN ARBOR FLOOD INSURANCE STUDY
T3      ALLEN GREEN

J1  ISNECK    IMP      NTRV     XDIR     STRT     METRIC   KTHS     B        HS       EO

       0.       6.       0.       0.  0.000000     0.00      0.0       0.  761.900    0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH     FN      ALLDC     IDC      CHNIM    ITRACE

     5.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*PROF 5

CCHV= 0.300 CEHV= 0.500
*SECNO 1.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	DLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TSA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	NTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IHP	ICONT	CORAR	TSPHIO	ENDST

3720 CRITICAL DEPTH ASSUMED

3695 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 900.00 ELREA= 900.00

1' D/S OF CULVERT UNDER R.R. TRACKS

1.00	8.44	769.76	769.76	761.90	774.01	4.25	0.00	0.00	761.30
1400.	0.	1400.	0.	0.	85.	0.	0.	0.	761.30
0.00	0.00	16.53	0.00	0.150	0.013	0.150	0.000	761.30	539.00
0.002319	0.	0.	0.	0	31	0	0.00	10.00	549.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	3.61	2.60	0.00	10.90	0.00	87.80	0.00	783.40	761.30

*SECNO 3469.000

3301 HV CHANGED MORE THAN HRTHS

PRESSURE FLOW

EGPRS	FGLRS	HB	QBIT	CPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
803.75	794.59	0.00	0.	1400.	88.	67.	791.40	900.00

3695 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 1100.00 ELREA= 1100.00

X-SECT. AT LOCATION WHERE W.PARK-MILLER STORY SEWER ENTERS ALLEN CREEK

3469.00	19.92	803.32	0.00	0.00	803.75	0.44	29.74	0.00	786.10
1400.	0.	1400.	0.	0.	264.	0.	16.	0.	766.10
0.00	0.00	3.39	0.00	0.150	0.013	0.150	0.015	783.40	527.40
0.000174	3469.	3469.	3469.	2	0	0	0.00	13.80	550.90

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FORM 1411-GB PRINTED BY ROTARY MANIFOLD FORMS.

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50,51,52
*****************************************************

T1PRESSURE FLOW RATING CURVE FOR SEGMENT #1
T2ANN ARBOR FLOOD INSURANCE STUDY
T3      ALLEN CREEK

J1  ICHECK    INS      NTOP     IDIR     STRT     METRIC   HMINS    G        SKI      FG

      0.       7.       0.       0.  0.000000     0.00      0.0      0.   761.900    0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IZU      CHNIM    ITRACE

    15.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*PROF 6

CCHV=   0.300 CEHV=   0.500
*SECNO 1.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EQ        HV        HL        QLOSS     BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VCL       TEA       LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       EL IN     SSTA
   SHORE     XLOBL     XCHL      XLOWR     ITRIAL    IM2       XCONT     CCHAR     TOPWID    ENGST

3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=      900.00 ELREA=      900.00

        1' D/S OF CULVERT UNDER R.R. TRACKS

     1.00      8.87    770.17    770.17    761.90    774.61      4.44      0.00      0.00    761.30
    1500.        0.     1500.        0.        0.       39.        0.        0.        0.    761.30
     0.00      0.00     14.91      0.00     0.150     0.015     0.150     0.000    761.30    589.00
 0.002337        0.        0.        0.         0        31         0      0.00     10.00    549.00

SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BVC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      8.61      2.60      0.00     10.90      0.00     87.80      0.00    785.40    761.30

*SECNO 3469.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

 EGPRS      ESLUC      HI        ORBIN     DFT       BAREA     TRAPEZOID     ELLC      ELTRD
                                                                 AREA
  809.19    795.09      0.00        0.     1500.       88.       87.        791.40    900.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA=     1100.00 ELREA=     1100.00

        X-SECT. AT LOCATION WHERE W.PARK-WILLEY STORE SELER ELTERS ALLEN CREEK

  3469.00     25.49    803.89      0.00      0.00    809.19      0.50     34.50      0.00    786.10
    1800.        0.     1500.        0.        0.      361.        0.        17.        1.    786.10
     0.22      0.00      4.40      0.00     0.150     0.015     0.150     0.000    785.40    827.80
 0.000105    3469.     3469.     3469.         2         0         0      0.00     13.80    550.90
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HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - SJ-51352
****

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

ALLEN CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	TOPWID	VCH	AREA	.01K
	1.000	0.00	0.00	0.00	760.30	800.00	767.13	767.13	770.05	22.26	13.29	58.55	169.46
*	1.000	0.00	0.00	0.00	761.30	1000.00	768.03	768.03	771.46	22.55	14.62	67.46	210.59
*	1.000	0.00	0.00	0.00	761.30	1100.00	768.49	768.49	772.12	22.69	15.30	71.89	230.91
*	1.000	0.00	0.00	0.00	761.30	1200.00	768.92	768.92	772.77	22.87	15.75	76.19	250.93
*	1.000	0.00	0.00	0.00	761.30	1400.00	769.76	769.76	774.01	23.19	16.55	84.61	290.78
*	1.000	0.00	0.00	0.00	761.30	1600.00	770.47	770.47	774.61	23.37	16.91	88.69	310.46
	3469.000	3469.00	900.00	791.40	783.40	800.00	788.69	788.69	791.40	42.48	13.23	60.47	122.74
*	3469.000	3469.00	900.00	791.40	783.40	1000.00	789.76	789.76	792.78	40.26	13.95	71.66	157.61
*	3469.000	3469.00	900.00	791.40	783.40	1100.00	789.92	789.92	793.41	45.42	14.99	73.40	163.21
	3469.000	3469.00	900.00	791.40	783.40	1200.00	791.93	0.00	793.69	14.72	11.36	106.59	512.79
	3469.000	3469.00	900.00	791.40	783.40	1400.00	803.32	0.00	804.73	1.74	5.31	263.77	1060.05
	3469.000	3469.00	900.00	791.40	783.40	1500.00	806.39	0.00	809.19	1.03	6.60	340.69	1460.59

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FORM 3431-GM PRINTED BY ROTARY MANIFOLD FORMS

ALLEN CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFNOK	DIFKWS	TOPWID	ALCH
*	1.030	800.00	767.13	0.00	0.00	5.22	13.00	1.00
*	1.000	1000.00	768.05	0.00	0.00	6.15	10.00	0.00
*	1.000	1100.00	768.49	0.00	0.00	6.59	10.00	0.00
*	1.000	1200.00	768.92	0.00	0.00	7.02	10.00	0.00
*	1.000	1400.00	769.74	0.00	0.00	7.86	10.00	0.00
*	1.000	1500.00	770.17	0.00	0.00	8.27	10.00	0.00
*	3469.000	800.00	788.69	0.00	21.56	0.00	13.80	3469.00
*	3469.000	1000.00	789.76	0.00	21.71	0.00	13.80	3469.00
*	3469.000	1100.00	789.92	0.00	21.44	0.00	13.80	3469.00
	3469.000	1200.00	791.95	0.00	23.01	0.00	13.80	3469.00
	3469.000	1400.00	803.82	0.00	31.36	0.00	13.80	3469.00
	3469.000	1500.00	808.89	0.00	38.72	0.00	13.80	3469.00

SUMMARY OF ERRORS

CAUTION SECNO= 1.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 5 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 6 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 3469.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 3469.000 PROFILE= 1 PROBABLE NEGATIVE SPECIFIC ENERGY
CAUTION SECNO= 3469.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 3469.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 3469.000 PROFILE= 2 PROBABLE NEGATIVE SPECIFIC ENERGY
CAUTION SECNO= 3469.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 3469.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 3469.000 PROFILE= 3 PROBABLE NEGATIVE SPECIFIC ENERGY
CAUTION SECNO= 3469.000 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL

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FORM 1411-CO-PRINTED ON ROTARY MANIFOLD FORMS.

SEGMENT #1

FLOWFOW - ENCLOSURE

MULTI-PROFILE

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**************************************************
*  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977    *
*  ERROR CORR -  01                              *
*  VERSION JAN. 1 50231133                       *
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T1 FLOW CALCULATIONS FOR ALLEN CREEK ENCLOSURE-SEGMENT #1.
T2 ANN ARBOR FLOOD INSURANCE STUDY. STARTING 100 YEAR FLOW FOR HURON RIVER.

T3	ALLEN CREEK		3/3/80	W.J. WEAVER	

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.000000	0.00	2.0	0.	761.900	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	ESTART	NUMSEC	********REQUESTED SECTION OMITTED********								
	-10.000	-10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
QT	5.000	300.000	600.000	900.000	1200.000	1400.000	0.000	0.000	0.000	0.000	0.000
NC	0.015	0.015	0.015	0.300	0.500	0.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	339.000	549.300	0.000	0.000	0.500	0.300	0.000	0.000	0.000
X3	10.400	0.000	0.000	0.000	0.000	0.000	0.000	930.000	900.000	0.000	
GR	900.000	0.000	900.000	538.900	761.300	549.000	761.300	549.000	761.300	549.100	
G3	900.000	700.000	0.000	0.300	0.000	0.000	0.000	0.000	0.000	0.000	

* * * *

AT FELCH RD. TYPE A HORSESHOE CULVERT

X1	2915.000	0.000	0.000	0.000	1169.000	1169.000	1169.000	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

D/S END OF TYPE A HORSESHOE CULVERT JUST D/S OF MILLER AVE.

X1	2917.000	0.000	0.000	0.000	4.000	4.000	4.000	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	2920.000	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	1100.000	1100.000	0.000

TRANSITION AREA

X1	2924.000	13.000	537.100	550.900	4.000	4.000	4.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	1100.000	1100.000	0.000
BR	1100.000	0.000	1100.000	537.000	782.700	537.100	782.600	538.300	782.400	540.000
BR	785.200	542.900	786.000	546.000	786.200	546.000	786.800	548.000	787.600	550.000
BT	782.700	550.900	1100.000	551.000	1100.000	786.000	0.000	0.000	0.000	0.000

1' OUTSIDE BRIDGE

X1	2925.000	13.000	537.100	550.900	1.000	1.000	1.000	0.000	0.000	0.000
BT	13.000	0.000	1100.000	0.000	537.000	1100.000	0.000	537.100	1100.000	782.700
BT	938.000	1100.000	785.200	540.000	1100.000	786.000	542.000	1100.000	787.600	544.000
BT	1100.000	788.000	546.000	1100.000	787.600	548.000	1100.000	736.809	550.000	1100.000
BT	785.200	550.900	1100.000	782.700	551.000	1100.000	0.000	700.000	1100.000	0.000
BR	1100.000	0.000	1100.000	537.000	782.700	537.100	781.600	538.300	782.400	540.000
BR	785.200	542.900	786.000	546.000	786.200	546.000	786.800	548.000	787.600	550.000
BT	782.700	550.900	1100.000	551.000	1100.000	700.000	0.000	0.000	0.000	0.000

D/S END OF TYPE A HORSESHOE CULVERT JUST D/S OF MILLER AVE.

X	5509.000	0.000	0.000	0.000	540.000	540.000	540.000	0.000	0.000	0.000
BR	0.000	0.000	0.000	0.000	0.000	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	1100.000	1100.000	0.000
EC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  [illegible]
*****************************************************

T1LOW FLOW CALCULATIONS FOR ALLEN CREEK ENCLOSURE-SEGMENT #1.
T2ANN ARBOR FLOOD INSURANCE STUDY. START IS MEAN ANNUAL EL. FROM HURON RIVER
T3      ALLEN CREEK                    5/3/80     W.A. WEAVER

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       5.       0.       0.  0.000000    0.00      0.0      0.   761.920   0.000

J2  XPROP    XPLOT    PRFVS    XSECV    XSECH    FN       ALDC     IBH      CHNIB    ITRACE

     2.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*****************************************************
 HEC2 RELEASE DATED NOV 70 UPDATED FEB 1977
 ERROR CORR -  U1
 MODIFICATION -  50251.52
*****************************************************

T1 OW FLOW CALCULATIONS FOR ALLEN CREEK ENCLOSURE-SEGMENT L1.
T2 ANN ARBOR FLOOD INSURANCE STUDY. START IS MEAN ANNUAL EL. FROM HURON RIVER
T3      ALLEN CREEK                    3/3/80      M.J. BEAVER

J1  ICHECK    ING       NINV      IDIR      STRT      METRIC    HVINS     Q         USEL      FG

      0.        0.        0.        0.  0.000000      0.00      0.0       0.   745.900     0.000

J2  NPROF     IPLOT     PRFMS     XSECV     XSECH     FN        ALLDC     IBW       CHMIN     ITRACE

     3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*****************************************************
 HEC2 RELEASE DATED NOV 70 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50,51,52
*****************************************************

T3LOW FLOW CALCULATIONS FOR ALLEN CREEK ENCLOSURE-SEGMENT 11.
T2ANN ARBOR FLOOD INSURANCE STUDY. START IS MEAN ANNUAL EL. FROM HURON RIVER
T3      ALLEN CREEK                    3/5/80      D.J. WEAVER

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        5.        0.        0.  0.000500      0.00       1.0        0.   761.950     0.000

J2  NRPROF    IPLOT     PRFVS     XSECV     XSEAR     FN        ALLMC     IBW       CHORD     ITRACE

    6.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS.

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*****************************************************
 HEC4 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR -  07
 MODIFICATION -  50,51,52
*****************************************************

TILOU FLO. CALCULATIONS FOR ALLEN CREEK ENCLOSURE-SEGMENT 07.
TEANN ARBOR FLOOD INSURANCE STUDY. START IS MEAN ANNUAL LL. FROM HURON RIVER
TO      ALLEN CREEK                    5/3/80      W.L. HEAVER

JT  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        6.        0.        0.  0.000000      0.00      0.0       0.   769.900     0.000

IP  NPROF     IPLOT     PRINT     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRCS

    75.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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FORM 1411-GB PRINTED BY ROTARY MANIFOLD FORMS.

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HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50.11.15

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

ALLEN CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	LCH	RCH	ELTRD	ELLC	ELMIN	Q	CWSE	CRIWS	EG	IHRAS	VCH	AREA	CLR
*	1.000	0.00	0.00	0.00	761.30	300.00	764.33	764.33	765.85	24.15	9.90	30.30	61.05
*	1.000	0.00	0.00	0.00	761.30	600.00	766.10	766.10	768.53	22.61	12.51	47.98	126.18
*	1.000	0.00	0.00	0.00	761.30	900.00	767.31	767.31	770.77	22.25	14.26	63.10	190.61
*	1.000	0.00	0.00	0.00	761.30	1200.00	768.92	768.92	772.77	22.67	15.75	76.19	250.43
	1.000	0.00	0.00	0.00	761.30	1400.00	769.76	769.76	774.01	24.19	16.55	84.61	290.72
	91.000	89.00	0.00	0.00	761.30	300.00	765.73	0.00	766.24	5.03	5.90	55.31	133.61
	91.000	89.00	0.00	0.00	761.30	600.00	768.18	0.00	769.13	3.51	6.90	103.55	320.36
	91.000	89.00	0.00	0.00	761.30	900.00	770.04	0.00	771.56	2.73	7.39	145.64	562.84
	91.000	89.00	0.00	0.00	761.30	1200.00	771.00	0.00	773.73	2.43	7.37	192.76	799.46
	91.000	89.00	0.00	0.00	761.30	1400.00	771.54	0.00	773.10	2.02	7.31	234.32	986.37
	111.000	20.00	900.00	770.00	761.30	300.00	765.69	0.00	766.31	9.14	6.52	47.45	99.23
	111.000	20.00	900.00	770.00	761.30	600.00	768.35	0.00	769.28	9.09	7.76	77.35	199.09
	111.000	20.00	900.00	770.00	761.30	900.00	770.59	0.00	772.03	8.96	8.20	97.71	315.92
	111.000	20.00	900.00	770.00	761.30	1200.00	771.95	0.00	774.64	42.57	33.56	87.70	188.92
	111.000	20.00	900.00	770.00	761.30	1400.00	772.75	0.00	775.71	37.50	35.26	97.71	183.92
*	840.000	535.00	900.00	772.70	764.00	300.00	767.27	767.27	768.56	32.20	9.11	32.92	52.87
*	840.000	535.00	900.00	772.70	764.00	600.00	768.76	768.76	770.81	26.41	11.47	52.32	116.75
	840.000	535.00	900.00	772.70	764.00	900.00	771.56	0.00	773.29	18.21	11.20	85.55	212.00
	840.000	535.00	900.00	772.70	764.00	1200.00	774.21	0.00	777.12	42.37	33.06	87.70	188.92
	840.000	535.00	900.00	772.70	764.00	1400.00	775.06	771.42	773.61	37.91	35.96	97.70	183.92
*	1740.000	1090.00	900.00	779.90	771.20	300.00	774.47	774.47	775.76	32.20	9.11	32.92	52.87
*	1740.000	1090.00	900.00	779.90	771.20	600.00	775.96	775.96	778.01	26.41	11.47	52.32	116.75
*	1740.000	1090.00	900.00	779.90	771.20	900.00	776.52	776.52	779.95	23.34	14.27	83.00	241.70
*	1740.000	1090.00	900.00	779.90	771.20	1200.00	778.34	778.36	781.99	36.52	15.23	78.55	204.23
	1740.000	1090.00	900.00	779.90	771.20	1400.00	779.21	779.63	780.07	37.94	15.96	87.70	183.92
*	2415.000	1765.00	900.00	787.90	779.20	300.00	782.47	782.47	783.76	32.20	9.11	32.92	52.87
*	2415.000	1765.00	900.00	787.90	779.20	600.00	783.96	783.96	786.01	26.41	11.47	52.32	116.75
*	2415.000	1765.00	900.00	787.90	779.20	900.00	784.52	784.52	787.95	23.34	14.27	83.00	241.70
*	2415.000	1765.00	900.00	787.90	779.20	1200.00	786.34	786.36	789.99	36.52	15.23	78.55	204.23
	2415.000	1765.00	900.00	787.90	779.20	1400.00	787.21	787.63	788.07	37.94	15.96	87.70	183.92

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	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	2919.000	4.00	900.00	787.90	779.20	300.00	783.03	0.00	783.90	17.46	7.48	40.10	71.81
*	2919.000	4.00	900.00	787.90	779.20	600.00	784.77	785.96	786.20	18.35	9.58	62.64	140.05
	2919.000	4.00	900.00	787.90	779.20	900.00	786.12	0.00	788.29	21.53	11.82	76.15	195.95
	2919.000	4.00	900.00	787.90	779.20	1200.00	786.90	786.56	790.12	35.84	14.40	83.31	197.70
	2919.000	4.00	900.00	787.90	779.20	1400.00	789.03	786.62	792.98	57.94	15.96	87.70	183.92
	2920.000	1.00	0.00	0.00	779.20	300.00	783.20	0.00	783.94	14.39	6.87	43.64	79.09
	2920.000	1.00	0.00	0.00	779.20	600.00	785.21	0.00	786.30	11.57	8.37	71.70	175.38
	2920.000	1.00	0.00	0.00	779.20	900.00	787.56	0.00	788.58	9.36	8.94	101.80	294.22
	2920.000	1.00	0.00	0.00	779.20	1200.00	789.37	0.00	790.70	8.33	9.23	130.05	415.63
	2920.000	1.00	0.00	0.00	779.20	1400.00	792.95	0.00	793.89	4.66	7.77	180.11	648.65
*	2924.000	4.00	0.00	0.00	780.00	300.00	783.24	783.24	784.47	31.10	8.93	33.58	53.80
	2924.000	4.00	0.00	0.00	780.00	600.00	784.69	0.00	786.64	27.83	10.51	56.54	113.73
	2924.000	4.00	0.00	0.00	780.00	900.00	787.18	0.00	788.79	14.51	10.26	87.70	236.30
	2924.000	4.00	0.00	0.00	780.00	1200.00	789.29	0.00	790.87	11.59	10.35	115.99	352.54
	2924.000	4.00	0.00	0.00	780.00	1400.00	792.88	0.00	793.97	5.81	8.40	166.61	580.86
*	2925.000	1.00	1100.00	788.00	780.00	300.00	783.22	783.22	784.51	32.07	9.12	32.89	52.98
	2925.000	1.00	1100.00	788.00	780.00	600.00	784.77	786.73	786.77	29.51	11.34	52.90	109.90
	2925.000	1.00	1100.00	788.00	780.00	900.00	786.65	0.00	789.18	25.35	12.04	74.75	166.13
	2925.000	1.00	1100.00	788.00	780.00	1200.00	788.29	786.74	791.75	57.11	14.99	80.04	150.79
	2925.000	1.00	1100.00	788.00	780.00	1400.00	791.05	787.22	795.80	77.74	17.49	80.04	158.79
*	3469.000	540.00	1100.00	791.40	783.40	300.00	786.63	786.63	787.89	32.14	9.03	33.24	52.92
*	3469.000	540.00	1100.00	791.40	783.40	600.00	788.09	788.09	790.10	34.01	11.36	52.80	102.88
*	3469.000	540.00	1100.00	791.40	783.40	900.00	789.01	789.01	792.10	54.33	14.08	63.90	122.11
	3469.000	540.00	1100.00	791.40	783.40	1200.00	791.06	790.04	795.14	65.11	14.52	82.63	140.72
	3469.000	540.00	1100.00	791.40	783.40	1400.00	796.37	790.49	800.62	96.54	16.54	84.66	142.49

PRINTED IN U.S.A.
FORM 741-CB PRINTED BY ROTARY MANIFOLD FORMS

ALLEN CREEK

SUMMARY PRINTOUT TABLE 150

	SECNO	C	C SEL	DIFWSP	DIFWSH	PEAKQ	TOPWT	AREA
*	1.000	300.00	764.33	0.00	0.00	2.43	10.00	0.00
*	1.000	600.00	766.10	0.00	0.00	4.20	10.00	0.00
*	1.000	900.00	767.31	0.00	0.00	5.71	10.00	0.00
*	1.000	1200.00	768.32	0.00	0.00	7.02	10.00	0.00
*	1.000	1500.00	769.20	0.00	0.00	7.86	10.00	0.00
	91.000	300.00	765.73	0.00	1.40	0.00	14.91	89.00
	91.000	600.00	768.46	0.00	2.38	0.00	17.91	89.00
	91.000	900.00	770.34	0.00	3.23	0.00	19.66	89.00
	91.000	1200.00	772.00	0.00	4.05	0.00	22.64	89.00
	91.000	1500.00	773.49	0.00	4.69	0.00	24.37	89.00
	111.000	300.00	765.69	0.00	-0.04	0.00	14.00	20.00
	111.000	600.00	768.35	0.00	-0.13	0.00	14.01	20.00
	111.000	900.00	770.39	0.00	-0.45	0.00	14.01	20.00
	111.000	1200.00	772.53	0.00	-1.07	0.00	14.01	20.00
	111.000	1500.00	774.76	0.00	-1.59	0.00	14.01	20.00
*	646.000	300.00	767.27	0.00	1.58	0.00	14.00	535.00
*	646.000	600.00	768.76	0.00	0.42	0.00	14.00	535.00
	646.000	900.00	771.34	0.00	0.93	0.00	14.01	535.00
	646.000	1200.00	774.21	0.00	2.28	0.00	14.01	535.00
	646.000	1500.00	775.86	0.00	3.10	0.00	14.01	535.00
*	1726.000	300.00	774.47	0.00	7.20	0.00	14.00	1330.00
*	1726.000	600.00	775.96	0.00	7.20	0.00	14.00	1330.00
*	1726.000	900.00	776.94	0.00	5.63	0.00	14.00	1330.00
*	1726.000	1200.00	774.13	0.00	4.19	0.00	14.01	1330.00
	1726.000	1500.00	772.11	0.00	6.24	0.00	14.01	1330.00
*	2915.000	300.00	784.47	0.00	3.00	0.00	14.00	1159.00
*	2915.000	600.00	785.96	0.00	3.00	0.00	14.00	1159.00
*	2915.000	900.00	784.52	0.00	4.00	0.00	14.00	1159.00
*	2915.000	1200.00	786.16	0.00	4.12	0.00	14.01	1159.00
	2915.000	1500.00	789.10	0.00	5.65	0.00	14.01	1159.00
	2919.000	300.00	783.03	0.00	2.56	0.00	14.00	4.00
*	2919.000	600.00	784.77	0.00	2.81	0.00	14.00	4.00
	2919.000	900.00	786.13	0.00	1.30	0.00	14.00	4.00
	2919.000	1200.00	786.92	0.00	0.54	0.00	14.00	4.00
	2919.000	1500.00	788.43	0.00	2.02	0.00	14.01	4.00
	2920.000	300.00	783.20	0.00	0.18	0.00	14.00	1.00
	2920.000	600.00	785.21	0.00	2.44	0.00	14.00	1.00
	2920.000	900.00	787.34	0.00	1.64	0.00	14.00	1.00
	2920.000	1200.00	789.37	0.00	2.47	0.00	14.00	1.00
	2920.000	1500.00	792.98	0.00	5.93	0.00	14.01	1.00
*	2924.000	300.00	783.24	0.00	0.03	0.00	13.80	4.00
	2924.000	600.00	784.89	0.00	-0.32	0.00	13.80	4.00
	2924.000	900.00	787.16	0.00	-0.21	0.00	14.00	4.00
	2924.000	1200.00	789.21	0.00	-0.17	0.00	13.96	4.00
	2924.000	1500.00	792.80	0.00	-0.08	0.00	13.98	4.00

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FORM 1411-CO-PRINTED BY ROTARY MANIFOLD FORMS.

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	2925.000	300.00	783.22	0.00	-0.02	0.00	13.80	1.00
	2925.000	600.00	785.77	0.00	-0.12	0.00	13.80	1.00
	2925.000	900.00	788.85	0.00	-0.31	0.00	13.80	1.00
	2925.000	1200.00	788.29	0.00	-0.91	0.00	13.80	1.00
	2925.000	1400.00	791.05	0.00	-1.33	0.00	13.81	1.00
*	3469.000	300.00	786.63	0.00	3.41	0.00	13.80	540.00
*	3469.000	600.00	790.39	0.00	5.32	0.00	13.80	540.00
*	3469.000	900.00	789.91	0.00	2.76	0.00	13.80	540.00
*	3469.000	1200.00	791.34	0.00	5.37	0.00	13.80	540.00
	3469.000	1400.00	796.37	0.00	5.32	0.00	13.80	540.00

SUMMARY OF ERRORS

CAUTION SECNO= 1.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1.000 PROFILE= 5 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 646.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 646.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 646.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 646.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 646.000 PROFILE= 2 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 1726.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1726.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 1726.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 1726.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1726.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 1726.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 1726.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1726.000 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 1726.000 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 1726.000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 1726.000 PROFILE= 4 MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 2915.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 2915.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 2915.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 2915.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 2915.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 2915.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 2915.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 2915.000 PROFILE= 3 MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 2915.000 PROFILE= 4 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 2915.000 PROFILE= 4 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 2915.000 PROFILE= 4 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 2919.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 2924.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 2924.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 2924.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 2925.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 2925.000 PROFILE= 1 MINIMUM SPECIFIC ENERGY

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 CAUTION   SECNO= 3469.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
 CAUTION   SECNO= 3469.000   PROFILE= 1   PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION   SECNO= 3469.000   PROFILE= 1   20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION   SECNO= 3469.000   PROFILE= 2   CRITICAL DEPTH ASSUMED
 CAUTION   SECNO= 3469.000   PROFILE= 2   PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION   SECNO= 3469.000   PROFILE= 2   20 TRIALS ATTEMPTED TO BALANCE WSEL
 CAUTION   SECNO= 3469.000   PROFILE= 3   CRITICAL DEPTH ASSUMED
 CAUTION   SECNO= 3469.000   PROFILE= 3   MINIMUM SPECIFIC ENERGY
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FORM 1431-GO PRINTED BY ROTARY-MANIFOLD FORMS.

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**************************************************
     HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
     ERROR CORR -  01
     MODIFICATION -  50,51,52
**************************************************

     C  8015880158 4        1924      44JATBILL                          d=aa
     T1ANN ARBOR F.I.S.          REANALYSIS FOR DNR COMMENTS AT XSEC J.
     T210  YEAR STORM             TEST      W.J. WEAVER  6/6/80
     T3         ALLEN CREEK              OVERLAND FLOW

     J1  ICHECK     INQ      NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
              0.       2.        0.        0.  0.000000      0.00      C.0       0.   802.320   0.000

     J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     IBW       CHNIM     ITRACE
           1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

     QT      4.000   650.000  1280.000  1560.000  2350.000     C.000     0.000     0.000     0.000     0.000
     NC      0.080     0.080     0.080     0.100     0.300     C.000     0.000     0.000     0.000     0.000

               U/S LIMIT OF SEGMENT #3 LOCATED 100' U/S OF WASHINGTON AVE.

     X1      9.000     8.000     1.000    80.000   300.000   300.000   300.000     0.000     0.000     0.000
     GR    820.000     0.000   798.000     1.000   798.000    50.000   800.000    61.000   802.000    66.000
     GR    804.000    72.000   806.000    80.000   820.000    89.000     0.000     0.000     0.000     0.000
     QT      4.000   330.000   740.000   960.000  1520.000     C.000     0.000     0.000     0.000     0.000
     NC      0.060     0.060     0.060     0.000     0.000     C.000     0.000     0.000     0.000     0.000

     X1      9.200     0.000     0.000     0.000   116.000   116.000   116.000     0.000     3.000     0.000

     X1      9.500     0.000     0.000     0.300   116.000   116.000   116.000     0.000     1.500     0.000

     X1      9.700     4.000     1.000    75.000   117.000   117.000   117.000     0.000     0.000     0.000
     GR    900.000     0.000   804.000     1.000   804.000    75.000   900.000    76.000     0.000     0.000

     X1      9.800     0.000     0.000     0.000    58.000    58.000    58.000     0.000     1.500     0.000

               100' D/S OF LIBERTY STREET

     X1     10.000     4.000     1.000    75.000    58.000    58.000    58.000     0.000     0.000     0.000
     GR    900.000     0.000   807.000     1.000   807.000    78.000   900.000    76.000     0.000     0.000

               100 FEET UPSTREAM OF WILLIX ST.

     X1     11.000     6.000     1.000   130.000   550.000   550.000   550.000     0.000     0.000     0.000
     GR    900.000     0.000   809.000     1.000   808.000    58.000   807.500    95.000   808.000   130.000
     GR    900.000   131.000     0.000     1.000     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
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Revised Run
Mod Creek Sec's 9-11

PRINTED IN U.S.A.

FORM 1631-02 PRINTED BY NORTH WESTERN FORMS

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CCHV=   0.100 CEHV=   0.300
*SECNO 9.000
   SECNO     DEPTH     CNSEL     CRIWS     WSELK     EG        HV        HL        DLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID     ENDST

        U/S LIMIT OF SEGMENT #3 LOCATED 100' U/S OF WASHINGTON AVE.

      9.00      4.32    802.32      0.00    802.32    802.42      0.10      0.00      0.00    798.00
      650.        0.      650.        0.        0.      255.        0.        0.        0.    806.00
      0.00      0.22      2.55      0.00     0.080     0.080     0.080     0.000    798.00      0.80
  0.003143      300.      300.      300.         0         0         0      0.00     66.16     66.96

*SECNO 9.200
      9.20      1.77    802.77      0.00      0.00    802.95      0.19      0.51      0.03    801.00
      330.        0.      330.        0.        0.       95.        0.        0.        0.    809.00
      0.01      0.03      3.47      0.00     0.060     0.060     0.060     0.059    801.00      0.92
  0.010350      116.      116.      116.         2         0         0      0.00     58.79     59.71

*SECNO 9.500
      9.50      1.63    804.13      0.00      0.00    804.35      0.23      1.39      0.01    802.50
      330.        0.      330.        0.        0.       86.        0.        1.        0.    810.50
      0.02      0.03      3.82      0.00     0.060     0.060     0.060     0.059    802.50      0.93
  0.013995      116.      116.      116.         2         0         0      0.00     57.96     58.89

*SECNO 9.700
      9.70      1.49    805.49      0.00      0.00    805.63      0.14      1.27      0.01    804.00
      330.        0.      330.        0.        0.      110.        0.        1.        0.    804.00
      0.03      0.02      3.00      0.02     0.060     0.060     0.060     0.059    804.00      0.98
  0.008614      117.      117.      117.         2         0         0      0.00     74.03     75.02

*SECNO 9.800
   SECNO     DEPTH     CNSEL     CRIWS     WSELK     EG        HV        HL        DLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID     ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      9.80      0.85    806.35    806.35      0.00    806.78      0.43      1.03      0.09    805.50
      330.        0.      330.        0.        0.       63.        0.        1.        1.    805.50
      0.03      0.06      5.24      0.06     0.060     0.060     0.060     0.059    805.50      0.99
  0.055338       58.       58.       58.         3        11         0      0.00     74.02     75.01

*SECNO 10.000

        100' U/S OF LIBERTY STREET

     10.00      1.22    808.22      0.00      0.00    808.42      0.21      1.63      0.02    807.00
      330.        0.      330.        0.        0.       90.        0.        1.        1.    807.00
      0.04      0.03      3.67      0.03     0.060     0.060     0.060     0.059    807.00      0.99
  0.016890       58.       58.       58.         4         0         0      0.00     74.03     75.01
```

*SECNO 11.000

100 FEET UPSTREAM OF WILLIAM ST.

11.00	2.56	810.06	0.00	0.00	810.09	0.03	1.65	0.02	809.00
330.	0.	330.	0.	0.	248.	0.	3.	2.	808.00
0.15	0.01	1.33	0.01	0.060	0.060	0.060	0.060	807.50	0.99
0.001201	550.	550.	550.	6	0	0	0.00	129.03	130.02

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FORM 121, DIFFERENTIED-BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1    ANN ARBOR
T2    50 YEAR
T3     ALLEN CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        3.        0.        0.  0.000000      0.00       0.0        0.   803.840     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
```

*PROF 2

CCHV= 0.100 CEHV= 0.300

*SECNO 9.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IH2	ICONT	CORAR	TOPWID	ENDST
			U/S LIMIT OF SEGMENT #3 LOCATED 100' U/S OF WASHINGTON AVE.						
9.00	5.84	803.84	0.00	803.84	804.04	0.20	0.00	0.00	798.00
1280.	0.	1280.	0.	1.	359.	0.	0.	0.	806.00
0.00	0.32	3.57	0.00	0.080	0.080	0.080	0.000	798.00	0.73
0.004287	300.	300.	300.	0	0	0	0.00	70.79	71.52

*SECNO 9.200

9.20	3.36	804.36	0.00	0.00	804.59	0.23	0.54	0.01	801.00
740.	0.	740.	0.	0.	193.	0.	1.	0.	809.00
0.01	0.33	3.83	0.00	0.060	0.060	0.060	0.059	801.00	0.85
0.005485	116.	116.	116.	2	0	0	0.00	63.55	64.40

*SECNO 9.500

9.50	2.67	805.17	0.00	0.00	805.55	0.38	0.91	0.05	802.50
740.	0.	740.	0.	0.	150.	0.	1.	0.	810.50
0.01	0.42	4.94	0.00	0.060	0.060	0.060	0.059	802.50	0.88
0.012268	116.	116.	116.	2	0	0	0.00	61.80	62.68

*SECNO 9.700

9.70	2.46	806.46	0.00	0.00	806.72	0.26	1.16	0.01	804.00
740.	0.	740.	0.	0.	182.	0.	2.	1.	804.00
0.02	0.02	4.07	0.02	0.060	0.060	0.060	0.059	804.00	0.97
0.008134	117.	117.	117.	2	0	0	0.00	74.05	75.03

*SECNO 9.800

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IH2	ICONT	CORAR	TOPWID	ENDST
9.80	1.57	807.07	0.00	0.00	807.71	0.64	0.87	0.11	805.50
740.	0.	740.	0.	0.	115.	0.	2.	1.	805.50
0.03	0.05	6.41	0.05	0.060	0.060	0.060	0.059	805.50	0.98
0.037001	58.	58.	58.	1	0	0	0.00	74.03	75.02

*SECNO 10.000

100' U/S OF LIBERTY STREET

10.00	1.85	807.85	0.00	0.00	809.31	0.45	1.58	0.02	807.00
740.	0.	740.	0.	0.	137.	0.	2.	1.	807.00
0.03	0.04	5.45	0.04	0.060	0.060	0.060	0.059	807.00	0.98
0.020915	58.	58.	58.	3	0	0	0.00	74.04	75.02

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*SECNO 11.000

100 FEET UPSTREAM OF WILLIAM ST.

1	11.00	3.67	811.17	0.00	0.00	811.22	0.06	1.88	0.04	809.00
2	740.	0.	740.	0.	0.	390.	0.	5.	2.	808.00
3	0.11	0.01	1.90	0.01	0.060	0.060	0.080	0.060	807.50	0.98
4	0.001338	550.	550.	550.	7	0	0	0.00	129.06	130.03

PRINTED IN U.S.A.

FORM 18 (1.69) PRINTED BY ROTARY MANIFOLD FORMS.

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**************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
   ERROR CORR. - 01
   MODIFICATION -  50,51,52
**************************************************

   T1   ANN ARBOR
   T2   100 YEAR STORM
   T3     ALLEN CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.      4.        0.        0.  0.000000      0.00      0.0       0.    804.440     0.000
J2  APROF     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
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FORM 1811-03 PRINTED BY ROTARY MANIFOLD-FORMS
PRINTED IN U.S.A.

*PROF 5

CCHV= 0.100 CEHV= 0.300

*SECNO 9.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IH2	ICONT	CORAR	TOPWID	ENDST

U/S LIMIT OF SEGMENT #3 LOCATED 100' U/S OF WASHINGTON AVE.

9.00	6.44	804.44	0.00	804.44	804.67	0.23	0.00	0.00	798.00
1560.	0.	1560.	0.	1.	402.	0.	0.	0.	806.00
0.00	0.35	3.88	0.00	0.080	0.080	0.080	0.000	798.00	0.71
0.004558	300.	300.	300.	0	0	0	0.00	73.05	73.76

*SECNO 9.200

9.20	3.97	804.97	0.00	0.00	805.24	0.27	0.55	0.01	801.00
960.	0.	960.	0.	0.	252.	0.	1.	0.	809.00
0.01	0.36	4.14	0.00	0.060	0.060	0.060	0.059	801.00	0.82
0.005170	116.	116.	116.	0	0	0	0.00	65.10	65.92

*SECNO 9.500

9.50	3.20	805.70	0.00	0.00	806.13	0.43	0.04	0.05	802.50
960.	0.	960.	0.	0.	183.	0.	1.	0.	810.50
0.01	0.45	5.25	0.00	0.060	0.060	0.060	0.059	802.50	0.85
0.010942	116.	116.	116.	2	0	0	0.00	63.15	64.00

*SECNO 9.700

9.70	2.91	806.91	0.00	0.00	807.22	0.31	1.08	0.01	804.00
960.	0.	960.	0.	0.	215.	0.	2.	1.	804.00
0.02	0.02	4.47	0.02	0.060	0.060	0.060	0.059	804.00	0.97
0.007841	117.	117.	117.	2	0	0	0.00	74.06	75.03

*SECNO 9.800

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IH2	ICONT	CORAR	TOPWID	ENDST

9.80	1.94	807.44	0.00	0.00	808.13	0.69	0.80	0.11	805.50
960.	0.	960.	0.	0.	144.	0.	2.	1.	805.50
0.02	0.04	6.67	0.04	0.060	0.060	0.060	0.059	805.50	0.98
0.029918	58.	58.	58.	1	0	0	0.00	74.04	75.02

*SECNO 10.000

100' U/S OF LIBERTY STREET

10.00	2.08	809.08	0.00	0.00	809.69	0.61	1.55	0.01	807.00
960.	0.	960.	0.	0.	154.	0.	2.	1.	807.00
0.03	0.04	8.24	0.04	0.060	0.060	0.060	0.059	807.00	0.98
0.023984	58.	58.	58.	1	0	0	0.00	74.04	75.02

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*SECNO 11.000

3301 HV CHANGED MORE THAN HVINS

100 FEET UPSTREAM OF WILLIAM ST.

11.00	4.14	811.64	0.00	0.00	811.71	0.07	1.98	0.05	809.00
960.	0.	960.	0.	0.	452.	0.	6.	2.	808.00
0.10	0.01	2.12	0.01	0.060	0.060	0.060	0.060	807.50	0.97
0.001381	550.	550.	550.	5	0	0	0.00	129.07	130.04

PRINTED IN U.S.A.
FORM 1411-GB PRINTED BY ROTARY MANIFOLD FORMS

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**************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
    ERROR CORR -  01
    MODIFICATION -  50,51,52
**************************************************

    T1   ANNARBOR
    T2   500 YEAR STORM
    T3    ALLEN CREEK

    J1  ICHECK    INQ      NINV     IDIR     STRT.    METRIC   HVINS    Q        WSEL     FQ
          0.      5.       0.       0.    0.000000    0.00     0.0      0.     806.150   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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FORM 1411-GS PRINTED BY ROTARY MANIFOLD FORMS

*PROF 4

CCHV= 0.100 CEHV= 0.300

*SECNO 9.000

SECNO	DEPTH	CWSEL	CRIWS	USELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IH2	ICONT	CORAR	TOPWID	ENDST
		U/S LIMIT OF SEGMENT #3 LOCATED 100' U/S OF WASHINGTON AVE.							
9.00	8.15	806.15	0.00	806.15	806.45	0.30	0.00	0.00	798.00
2350.	1.	2349.	0.	2.	532.	0.	0.	0.	806.00
0.00	0.41	4.42	0.01	0.060	0.060	0.060	0.000	798.00	0.63
0.004534	300.	300.	300.	0	0	0	0.00	79.42	80.05

*SECNO 9.200

9.20	5.64	806.64	0.00	0.00	806.94	0.30	0.49	0.00	801.00
1520.	0.	1520.	0.	1.	345.	0.	1.	0.	809.00
0.01	0.39	4.41	0.00	0.060	0.060	0.060	0.059	801.00	0.74
0.003832	116.	116.	116.	2	0	0	0.00	70.18	70.93

*SECNO 9.500

9.50	4.63	807.13	0.00	0.00	807.60	0.47	0.61	0.05	802.50
1520.	0.	1520.	0.	0.	275.	0.	2.	0.	810.50
0.01	0.48	5.52	0.00	0.060	0.060	0.060	0.059	802.50	0.79
0.007620	116.	116.	116.	0	0	0	0.00	67.09	67.88

*SECNO 9.700

9.70	4.04	808.04	0.00	0.00	808.44	0.40	0.83	0.01	804.00
1520.	0.	1520.	0.	0.	299.	0.	3.	1.	804.00
0.02	0.02	5.09	0.02	0.060	0.060	0.060	0.059	804.00	0.96
0.006569	117.	117.	117.	2	0	0	0.00	74.08	75.04

*SECNO 9.800

SECNO	DEPTH	CWSEL	CRIWS	USELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IH2	ICONT	CORAR	TOPWID	ENDST
9.80	2.88	808.38	0.00	0.00	809.17	0.79	0.62	0.12	805.50
1520.	0.	1520.	0.	0.	213.	0.	3.	1.	805.50
0.02	0.04	7.12	0.04	0.060	0.060	0.060	0.059	805.50	0.97
0.020131	58.	58.	58.	2	0	0	0.00	74.06	75.03

*SECNO 10.000

		100' U/S OF LIBERTY STREET							
10.00	2.63	809.63	0.00	0.00	810.58	0.95	1.36	0.05	807.00
1520.	0.	1520.	0.	0.	194.	0.	3.	1.	807.00
0.02	0.04	7.12	0.04	0.060	0.060	0.060	0.059	807.00	0.97
0.027505	58.	58.	58.	3	0	0	0.00	74.06	75.03

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*SECNO 11.000

3301 HV CHANGED MORE THAN HVINS

100 FEET UPSTREAM OF WILLIAM ST.

11.00	5.18	812.68	0.00	0.00	812.79	0.10	2.13	0.08	809.00
1520.	0.	1520.	0.	0.	585.	0.	8.	2.	808.00
0.08	0.01	2.60	0.08	0.060	0.060	0.060	0.060	807.50	0.96
0.001464	550.	550.	550.	5	0	0	0.00	129.09	130.05

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****
HEC2 RELEASE DATED NOV 75 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,52
****

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

ALLEN CREEK OVE

SUMMARY PRINTOUT TABLE 150

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	9.000	300.00	0.00	0.00	798.00	650.00	802.32	0.00	802.42	31.43	2.55	255.38	115.94
	9.000	300.00	0.00	0.00	798.00	1280.00	803.84	0.00	804.04	42.87	3.57	359.46	195.50
	9.000	300.00	0.00	0.00	798.00	1560.00	804.44	0.00	804.67	45.58	3.88	402.57	231.07
	9.000	300.00	0.00	0.00	798.00	2350.00	806.15	0.00	806.45	45.34	4.42	533.36	349.00
	9.200	116.00	0.00	0.00	801.00	330.00	802.77	0.00	802.95	103.50	3.47	95.19	32.44
	9.200	116.00	0.00	0.00	801.00	740.00	804.36	0.00	804.59	54.85	3.83	193.22	99.92
	9.200	116.00	0.00	0.00	801.00	960.00	804.97	0.00	805.24	51.70	4.14	232.31	133.52
	9.200	116.00	0.00	0.00	801.00	1520.00	806.64	0.00	806.94	38.32	4.41	345.56	245.54
	9.500	116.00	0.00	0.00	802.50	330.00	804.13	0.00	804.35	139.95	3.82	86.45	27.90
	9.500	116.00	0.00	0.00	802.50	740.00	805.17	0.00	805.55	122.68	4.94	149.95	66.81
	9.500	116.00	0.00	0.00	802.50	960.00	805.70	0.00	806.13	109.42	5.25	183.11	91.77
	9.500	116.00	0.00	0.00	802.50	1520.00	807.13	0.00	807.60	76.20	5.52	275.91	174.13
	9.700	117.00	0.00	0.00	804.00	330.00	805.49	0.00	805.63	86.14	3.00	110.16	35.56
	9.700	117.00	0.00	0.00	804.00	740.00	806.46	0.00	806.72	81.34	4.07	181.96	82.05
	9.700	117.00	0.00	0.00	804.00	960.00	806.91	0.00	807.22	78.41	4.47	215.08	108.42
	9.700	117.00	0.00	0.00	804.00	1520.00	808.04	0.00	808.44	65.69	5.09	298.86	187.55
*	9.800	58.00	0.00	0.00	805.50	330.00	806.35	806.35	806.78	553.38	5.24	63.04	14.03
	9.800	58.00	0.00	0.00	805.50	740.00	807.07	0.00	807.71	370.01	6.41	115.49	38.47
	9.800	58.00	0.00	0.00	805.50	960.00	807.44	0.00	808.13	299.18	6.67	143.90	55.50
	9.800	58.00	0.00	0.00	805.50	1520.00	808.38	0.00	809.17	201.31	7.12	213.54	107.13
	10.000	58.00	0.00	0.00	807.00	330.00	808.22	0.00	808.42	168.90	3.67	90.00	25.39
	10.000	58.00	0.00	0.00	807.00	740.00	808.85	0.00	809.31	209.15	5.40	137.05	51.17
	10.000	58.00	0.00	0.00	807.00	960.00	809.08	0.00	809.69	239.84	6.24	153.77	61.99
	10.000	58.00	0.00	0.00	807.00	1520.00	809.63	0.00	810.58	275.05	7.82	194.45	91.65
	11.000	550.00	0.00	0.00	807.50	330.00	810.06	0.00	810.09	12.01	1.33	248.44	95.22
	11.000	550.00	0.00	0.00	807.50	740.00	811.17	0.00	811.22	13.38	1.90	390.46	202.28
	11.000	550.00	0.00	0.00	807.50	960.00	811.64	0.00	811.71	13.81	2.12	452.22	258.35
	11.000	550.00	0.00	0.00	807.50	1520.00	812.68	0.00	812.79	14.64	2.60	585.46	397.24

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ALLEN CREEK OVE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
9.000	650.00	802.32	0.00	0.00	0.00	66.16	300.00
9.000	1280.00	803.84	0.00	0.00	0.00	70.79	300.00
9.000	1560.00	804.44	0.00	0.00	0.00	73.05	300.00
9.000	2350.00	806.15	0.00	0.00	0.00	79.42	300.00
9.200	330.00	802.77	0.00	0.45	0.00	58.79	116.00
9.200	740.00	804.36	0.00	0.52	0.00	63.55	116.00
9.200	960.00	804.97	0.00	0.53	0.00	65.10	116.00
9.200	1520.00	806.64	0.00	0.49	0.00	70.18	116.00
9.500	330.00	804.13	0.00	1.36	0.00	57.96	116.00
9.500	740.00	805.17	0.00	0.81	0.00	61.80	116.00
9.500	960.00	805.70	0.00	0.73	0.00	63.15	116.00
9.500	1520.00	807.13	0.00	0.49	0.00	67.09	116.00
9.700	330.00	805.49	0.00	1.36	0.00	74.03	117.00
9.700	740.00	806.46	0.00	1.29	0.00	74.05	117.00
9.700	960.00	806.91	0.00	1.21	0.00	74.06	117.00
9.700	1520.00	808.04	0.00	0.90	0.00	74.08	117.00
9.800	330.00	806.35	0.00	0.86	0.00	74.02	58.00
9.800	740.00	807.07	0.00	0.61	0.00	74.03	58.00
9.800	960.00	807.44	0.00	0.53	0.00	74.04	58.00
9.800	1520.00	808.38	0.00	0.35	0.00	74.06	58.00
10.000	330.00	808.22	0.00	1.86	0.00	74.03	58.00
10.000	740.00	808.85	0.00	1.78	0.00	74.04	58.00
10.000	960.00	809.08	0.00	1.64	0.00	74.04	58.00
10.000	1520.00	809.63	0.00	1.24	0.00	74.06	58.00
11.000	330.00	810.06	0.00	1.85	0.00	129.03	550.00
11.000	740.00	811.17	0.00	2.31	0.00	129.06	550.00
11.000	960.00	811.67	0.00	2.56	0.00	129.07	550.00
11.000	1520.00	812.68	0.00	3.06	0.00	129.09	550.00

SUMMARY OF ERRORS

CAUTION SECNO= 9.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 9.800 PROFILE= 1 MINIMUM SPECIFIC ENERGY

PRINTED IN U.S.A.

FORM 3411-GB PRINTED BY ROTARY MANIFOLD FORMS.

13:05:45 X60 ANITA HU2U1607 HUJAA MAR 17, 1980

RECEIVED
AIR FORCE ROOM
WATER MANAGEMENT

FORM 1411 GB PRINTED BY ROTARY MANIFOLD FORMS.
PRINTED IN U.S.A.

```
JOBID=HU201607          USER=ANITA                PROJECT=HUDAA                BILLING=HUDDA                ROJ=X0060
```

```
13:00:27                                  JOB INTRODUCED FROM                                    MAR 17, 1980
                                                  CD01 JCL
```

```
13:00:50  START OF TRANSLATION

          $JOB HU201607,USER=ANITA,PROJECT=HUDAA;
          $INPUT HEC2;
          RECORD COUNT: 140
          $END INPUT;
           VALUES WTAPAK,WTAPAK;
           SEND 'START OF HEC=2 EXECUTION';
           STEP HEC=2,WTAENGLM,OPTIONS='FILE=A 91,FILE=B 92,FILE=C 93,FILE=D 94,
                                        FILE=E 95,FILE=F 96';
           ALC FILE=A,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=A,FILE=A,TEMPRY,DVC=MS/M400,MD=&1;
           ALC FILE=B,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=B,FILE=B,TEMPRY,DVC=MS/M400,MD=&2;
           ALC FILE=C,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=C,FILE=C,TEMPRY,DVC=MS/M400,MD=&2;
           ALC FILE=D,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=D,FILE=D,TEMPRY,DVC=MS/M400,MD=&2;
           ALC FILE=E,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=E,FILE=E,TEMPRY,DVC=MS/M400,MD=&2;
           ALC FILE=F,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=F,FILE=F,TEMPRY,DVC=MS/M400,MD=&2;
           ASG H=HO,HEC2,FILESTAT=IN;
          DEFINE HEC2;
           PRINTER=(FORMHT=66,HOF=1,FF1=64);
           ENDSTEP;
          $END JOB;

          RECORD COUNT:   184

13:00:51  END OF TRANSLATION
```

```
JOBID=RU201657          USER=ANITA          PROJECT=HUDAA          BILLING=HUDDA          RQN=XQ060
MOT  ; TLINK SEG1,5

13:00:52                                JOB EXECUTION LISTING                                MAR 17, 1980

          START OF HEOPX EXECUTION
          STEP 1
          LOAD MODULE = HEOPX=2 (79/2 /22 23:58) PROGRAM INITIALIZED
          LIBRARY = LTAENGLM
13:00:56  STEP STARTED XPRTY=9
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000060.FILE=B
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000060.FILE=C
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000060.FILE=D
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000060.FILE=A
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000060.FILE=E
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000060.FILE=F
          TASK MAIN J=02 P=00 COMPLETED
          DUF01.IFN=FILE=B        REMEMBER REUSE=      0
          DUF01.IFN=FILE=C        REMEMBER REUSE=      0
          DUF01.IFN=FILE=D        REMEMBER REUSE=      0
          DUF01.IFN=FILE=A        REMEMBER REUSE=      0
          DUF01.IFN=FILE=E        REMEMBER REUSE=      0
          DUF01.IFN=FILE=F        REMEMBER REUSE=      0    UNLOCK BUFFER=      0    CREATE BUFFER=     32
          TEMPORARY FILES USED=    23  RECORD
          FILE=B     ON  WTAPAK  : NB  OF  10  CONNECTS=      133
          FILE=C     ON  WTAPAK  : NB  OF  10  CONNECTS=      154
          HOPR       ON  L64RV4  : NB  OF  10  CONNECTS=       31
          HORD       ON  L64RV4  : NB  OF  10  CONNECTS=       12
          FILE=D     ON  WTAPAK  : NB  OF  10  CONNECTS=       91
          FILE=A     ON  WTAPAK  : NB  OF  10  CONNECTS=      213
          FILE=E     ON  WTAPAK  : NB  OF  10  CONNECTS=      722
          FILE=F     ON  WTAPAK  : NB  OF  10  CONNECTS=       91
          CPU          2.821                    PROG MISSING SEGTS      203   STACKOV      73
          ELAPSED      4.658                    SYS MISSING SEGTS       880
          LINES         1045   LIMIT    32000   BACKING STORE        448064
          CARDS            0   LIMIT    10000   BUFFER SIZE           13040   LPSIZE      2272
13:05:35  STEP COMPLETED

          START     13:00:52   LINES       1045
          STOP      13:05:38   CARDS          3
          CPU          2.921
          ELAPSE       4.767
13:05:38  RESULT:   JOB COMPLETED
```

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*****************************************************
  HEC2 RELEASE DATED NOV 75 UPDATED FEB 1977
  ERROR CORR + 01
  MODIFICATION + 50,51,52
*****************************************************

C
T1ANN ARBOR FLOOD INSURANCE STUDY        5/17/80        W.J. BEAVER
T2FULTI PROFILE RUN
T3      ALLEN CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     O         WSEL      FQ

      0.        2.        0.        0.  0.000000      0.00       0.0       0.   778.000     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

    150.000   201.000     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      4.000   450.000  1400.000  1700.000  3200.000     0.000     0.000     0.000     0.000     0.000
NC      0.130     0.130     0.130     0.100     0.300     0.000     0.000     0.000     0.000     0.000

        SECT. A 300 M.R. AT HURON RIVER

X1      0.000     7.000  1270.000  1500.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    810.000     1.000   773.820   300.000   778.000   500.000   777.000  1200.000   777.000  1300.000
GR    790.000  1800.000   800.000  2100.000     0.000     0.000     0.000     0.000     0.000     0.000

        SECT. AT M. SOUTH

X1      2.000    12.000   602.000   887.000   650.000   650.000   650.000     0.000     0.000     0.000
GR   1000.000   300.000   801.800   500.000   793.200   577.000   779.400   602.000   778.000   887.000
GR    782.100  1074.000   782.500  1044.000   784.700  1079.000   794.700  1166.000   798.400  1226.000
GR    804.400  1372.000  1000.000  1420.000     0.000     0.000     0.000     0.000     0.000     0.000

X1      2.100     4.000     1.000   350.000   270.000   270.000   270.000     0.000     0.000     0.000
GR    790.000     0.000   779.000     1.000   779.000   350.000   790.000   350.000     0.000     0.000

X1      2.200     4.000     1.000   500.000   270.000   270.000   270.000     0.000     0.000     0.000
GR    797.000     0.000   700.000     1.000   700.000   300.000   790.000   300.000     0.000     0.000
QT      4.000   350.000  1175.000  1400.000  2000.000     0.000     0.000     0.000     0.000     0.000

X1      2.300     4.000     1.000   225.000   270.000   270.000   270.000     0.000     0.000     0.000
GR    790.000     0.000   781.000     1.000   781.000   225.000   790.000   225.000     0.000     0.000
NC      0.100     0.100     0.100     0.000     0.000     0.000     0.000     0.000     0.000     0.000

        SECT. AT ELLEN ST.
```

X1	3.000	4.000	1.000	150.000	270.000	270.000	270.000	0.000	0.000	0.000
GR	810.000	0.000	782.000	1.000	782.000	150.000	810.000	151.000	0.000	0.000
X1	3.100	4.000	1.000	142.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	783.000	1.000	783.000	142.000	800.000	143.000	0.000	0.000
X1	3.200	4.000	1.000	134.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	784.000	1.000	784.000	134.000	800.000	135.000	0.000	0.000
NC	0.060	0.060	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3.300	4.000	1.000	126.000	198.000	198.000	198.000	0.000	0.000	0.000
GR	800.000	0.000	786.000	1.000	786.000	126.000	800.000	127.000	0.000	0.000
X1	3.400	4.000	1.000	118.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	787.000	1.000	787.000	118.000	800.000	119.000	0.000	0.000
X1	3.500	4.000	1.000	110.000	198.000	198.000	198.000	0.000	0.000	0.000
GR	800.000	0.000	789.000	1.000	789.000	110.000	800.000	111.000	0.000	0.000
X1	3.600	4.000	1.000	102.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	790.000	1.000	790.000	102.000	800.000	103.000	0.000	0.000
X2	3.700	4.000	1.000	93.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	791.000	1.000	791.000	93.000	800.000	94.000	0.000	0.000
X2	3.800	4.000	1.000	84.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	792.000	1.000	792.000	84.000	800.000	85.000	0.000	0.000
X1	3.900	4.000	1.000	75.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	793.000	1.000	793.000	75.000	800.000	76.000	0.000	0.000

SECT. AT [illegible]

X1	4.000	4.000	1.000	68.000	101.000	101.000	101.000	0.000	0.000	0.000
GR	810.000	0.000	794.000	1.000	794.000	68.000	810.000	69.000	0.000	0.000
NC	0.130	0.130	0.130	0.100	0.300	0.000	0.000	0.000	0.000	0.000

WEST PARK MILLER DRAIN CONFLUENCE - BETWEEN MILLER ST. & HURON ST.

X1	5.000	4.000	1.000	100.000	400.000	400.000	400.000	0.000	0.000	0.000
GR	810.000	0.000	795.000	1.000	795.000	100.000	810.000	101.000	0.000	0.000
NC	0.120	0.120	0.120	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OT	4.000	800.000	1720.000	2080.000	2080.000	0.000	0.000	0.000	0.000	0.000

200 FEET DOWNSTREAM OF W. HURON ST.

X1	6.000	8.000	1.000	116.000	116.000	116.000	116.000	0.000	0.000	0.000
GR	820.000	0.000	795.000	1.000	794.000	90.000	794.000	75.000	796.000	90.000
GR	798.000	95.000	800.000	100.000	820.000	101.000	0.000	0.000	0.000	0.000
NC	0.080	0.080	0.080	0.100	0.300	0.000	0.000	0.000	0.000	0.000

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IMMEDIATELY DOWNSTREAM OF W. HURON ST.

X1	7.000	7.000	1.000	80.000	180.000	180.000	180.000	0.000	0.000	0.000
GR	820.000	0.000	793.000	1.000	794.000	95.000	794.000	50.000	796.000	70.000
GR	798.000	80.000	620.000	31.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	683.000	1280.000	1560.000	2350.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

LOCATED OCTOBER 1980 AT S. WASHINGTON AVE.

X1	8.000	8.000	1.000	25.000	230.000	280.000	280.000	0.000	0.000	0.000
GR	820.000	0.000	798.000	1.000	798.000	50.000	800.000	61.000	802.000	66.000
GR	804.000	72.000	806.000	85.000	820.000	85.000	0.000	0.000	0.000	0.000
NC	0.050	0.080	0.080	0.100	0.300	0.000	0.000	0.000	0.000	0.000

W/S LIMIT OF SEWERS 93 LOCATED 100 FT. U/S OF W. WASHINGTON AVE.

X1	9.000	8.000	1.000	80.000	300.000	300.000	300.000	0.000	0.000	0.000
GR	820.000	0.000	798.000	1.000	798.000	50.000	800.000	61.000	802.000	66.000
GR	804.000	72.000	806.000	85.000	820.000	85.000	0.000	0.000	0.000	0.000
QT	4.000	683.000	1280.000	1560.000	2350.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

100' U/S OF LIBERTY ST.

X1	10.000	4.000	1.000	75.000	465.000	465.000	465.000	0.000	0.000	0.000
GR	900.000	0.000	807.000	1.000	807.000	85.000	807.000	76.000	0.000	0.000

100' U/S OF WILLIAM ST.

X1	11.000	4.000	1.000	125.000	550.000	550.000	550.000	0.000	0.000	0.000
GR	900.000	0.000	808.500	1.000	808.500	70.000	810.000	90.000	810.000	100.000
GR	900.000	111.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.080	0.080	0.080	0.200	0.000	0.000	0.000	0.000	0.000

130' U/S OF JEFFERSON.

X1	12.000	4.000	1.000	100.000	530.000	530.000	530.000	0.000	0.000	0.000
GR	900.000	0.000	808.500	1.000	808.500	70.000	810.000	90.000	810.000	100.000
GR	900.000	111.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.080	0.080	0.080	0.200	0.000	0.000	0.000	0.000	0.000

215' U/S OF JEFFERSON.

X1	13.000	4.000	1.000	55.000	315.000	315.000	315.000	0.000	0.000	0.000
GR	900.000	0.000	650.000	1.000	650.000	85.000	900.000	56.000	0.000	0.000

X1	13.500	4.000	1.000	55.000	290.000	250.000	250.000	0.000	0.000	0.000
GR	900.000	0.000	812.000	1.000	812.000	85.000	900.000	56.000	0.000	0.000

300' U/S OF JEFFERSON.

X1	14.000	4.000	1.000	55.000	250.000	260.000	250.000	0.000	0.000	0.000
GR	900.000	0.000	815.000	1.000	815.000	55.000	900.000	56.000	0.000	0.000

See revised Run dec's 9-11

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X1	15.000	4.000	1.000	55.000	410.000	410.000	410.000	0.000	0.000	0.000
GR	900.000	0.000	816.000	1.000	816.000	55.000	900.000	56.000	0.000	0.000
X1	16.000	4.000	1.000	60.000	200.000	200.000	200.000	0.000	0.000	0.000
GR	900.000	0.000	817.000	1.000	817.000	60.000	900.000	61.000	0.000	0.000

HILL STREET

X1	17.000	4.000	1.000	90.000	400.000	400.000	400.000	0.000	0.000	0.000
GR	900.000	0.000	821.200	1.000	821.200	90.000	900.000	91.000	0.000	0.000
NC	0.050	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	18.000	4.000	1.000	200.000	430.000	430.000	430.000	0.000	0.000	0.000
GR	900.000	0.000	821.000	1.000	821.000	200.000	900.000	201.000	0.000	0.000
X1	18.300	4.000	1.000	200.000	163.000	163.000	163.000	0.000	0.000	0.000
GR	900.000	0.000	822.000	1.000	822.000	200.000	900.000	201.000	0.000	0.000
X1	18.300	4.000	1.000	200.000	163.000	163.000	163.000	0.000	0.000	0.000
GR	900.000	0.000	823.000	1.000	823.000	200.000	900.000	201.000	0.000	0.000

U/S LIMIT OF SEGMENT #4 & ROOVER ST.

X1	19.000	4.000	1.000	450.000	164.000	164.000	164.000	0.000	0.000	0.000
GR	900.000	0.000	330.100	1.000	329.000	90.000	824.000	300.000	825.000	450.000
GR	900.000	451.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
EC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 53.31.52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY        3/17/80        W.J. WEAVER
T2MULTI PROFILE RUN
T3      ALLEN CREEK

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        5.        0.        0.  0.000000      0.00      0.0        0.   778.000     0.000

J2  NPROF     IPLOT     PRFMS     XSECH     XSECH     FN        ALLOC     ZRM       CHNIM     ITRACE

      2.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS.
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  CODIFICATION -  30-51-[illegible]
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY        3/17/00        [illegible] HEAVER
T2MULTI PROFILE RUN
T3        ALLEN CREEK

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

       5.        4.        0.        0.  0.000000      0.00       5.0        0.   778.000     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
```

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*****************************************************
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 30.31.32
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY        3/17/80        W.J. BEAVER
T2MULTI PROFILE RUN
T3      ALLEN CREEK

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
       0.       5.       3.       0.  0.000000    0.00     0.0      0.   778.000    0.000

J2  XNCF     XPLOT    PRFVS    XSFCV    XSECH     FN      ALLDC    IBW      CHIM     XTRACE
     15.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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****

HEC2 RELEASE DATED NOV 76 UPDATED FEB 197
ERROR CORR - 07
MODIFICATIO - 30.31.5

****

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS .IST

ALLEN CREEK

SUMMARY PRINTOUT TABLE 150

STA	AREA	LEFT	RIGHT	EL MIN	Q	W SEC	COORS	EG	IHRS	VEL	AREA	
0.000	0.00	0.00	0.00	777.00	450.00	778.00	0.00	778.02	14..10	1.35	469.25	
0.000	0.00	0.00	0.00	777.00	1400.00	779.00	0.00	778.16	1556.06	4.21	469.25	
1.000	0.00	0.00	0.00	777.00	1700.00	779.00	0.00	778.23	1993.43	5.31	469.25	
1.000	0.00	0.00	0.00	777.00	3200.00	779.25	779.25	778.04	2137.84	6.20	643.50	
2.000	650.00	0.00	0.00	778.00	450.00	780.56	0.00	781.57	18.13	0.74	633.66	193.65
2.000	650.00	0.00	0.00	778.00	1400.00	782.21	0.00	782.25	19.57	1.17	1279.75	516.45
2.000	650.00	0.00	0.00	778.00	1700.00	782.50	0.00	782.53	20.16	1.26	1436.43	576.65
2.000	650.00	0.00	0.00	778.00	3200.00	784.24	0.00	783.85	24.65	1.69	2026.68	864.71
2.100	270.30	0.30	0.00	779.30	450.00	780.95	0.00	781.33	15.13	1.65	690.11	124.27
2.100	270.30	0.00	0.30	779.30	1400.00	782.69	0.00	782.70	15.91	1.09	1287.75	350.97
2.100	270.30	0.30	0.00	779.00	1700.00	783.08	0.00	783.14	17.00	1.20	1418.53	412.37
2.100	270.30	0.30	0.30	779.30	3200.00	784.47	0.00	784.32	22.28	1.66	1912.42	678.07
2.200	270.30	0.30	0.30	780.30	450.00	781.52	0.00	781.56	10.57	0.97	464.[illegible]	[illegible]
2.200	270.30	0.30	0.30	780.30	1400.00	[illegible]	[illegible]	782.36	12.26	1.52	923.19	[illegible]
2.200	270.30	0.30	0.00	780.30	1700.00	783.57	0.00	783.71	12.49	1.55	1094.[illegible]	[illegible]
2.200	270.30	0.30	0.30	780.30	3200.00	785.31	0.00	785.27	15.79	2.05	1559.7[illegible]	534.[illegible]
2.300	270.30	0.30	0.00	781.30	450.00	782.41	0.00	782.[illegible]	10.89	0.97	464.[illegible]	59.20
2.300	270.30	0.30	0.00	781.30	1400.00	[illegible]	0.00	784.20	11.95	1.65	720.[illegible]	164.[illegible]
2.300	270.30	0.30	0.00	781.30	1700.00	[illegible]	0.00	785.02	10.20	1.76	610.[illegible]	219.66
2.300	270.00	0.00	0.00	781.00	2800.00	786.26	0.00	786.37	46.61	2.67	1165.[illegible]	410.[illegible]
3.000	270.00	0.00	0.00	782.00	450.00	783.69	0.00	783.72	43.30	1.39	252.[illegible]	53.[illegible]
3.000	270.00	0.00	0.00	782.00	1175.00	785.41	0.00	785.[illegible]	47.26	2.31	464.[illegible]	171.[illegible]
3.000	270.00	0.00	0.00	782.00	1430.00	786.75	0.00	786.80	47.51	2.49	5[illegible].23	209.[illegible]
3.000	270.00	0.00	0.00	782.00	2850.00	787.15	0.00	787.25	32.82	3.56	800.44	305.[illegible]
3.100	99.00	0.00	0.00	783.00	450.00	784.32	0.00	784.33	110.51	1.81	104.27	33.29
3.100	99.00	0.00	0.00	783.00	1175.00	785.99	0.00	786.11	21.84	2.79	421.[illegible]	129.[illegible]
3.100	99.00	0.00	0.00	783.00	1430.00	[illegible]	0.00	786.69	29.33	[illegible]	473.[illegible]	157.[illegible]
3.100	99.00	0.00	0.00	783.00	2850.00	788.17	0.00	788.27	76.23	[illegible]	720.[illegible]	325.[illegible]
3.200	99.00	0.00	0.00	784.00	450.00	785.39	0.00	785.44	135.15	1.90	184.72	34.91
3.200	99.00	0.00	0.00	784.00	1175.00	788.80	0.00	787.03	104.09	3.07	383.41	114.17
3.200	99.00	0.00	0.00	784.00	1400.00	787.22	0.00	787.38	102.16	3.27	428.36	138.54
3.200	99.00	0.00	0.00	784.00	2850.00	788.85	0.00	789.25	76.91	4.24	660.[illegible]	284.44

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FORM 1411-OU-PRINTED BY NOTARY SHERFOLD FORMS.

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	3.300	198.00	0.00	0.00	786.00	350.00	787.16	0.00	787.25	78.78	2.42	144.63	39.43
1	3.300	198.00	0.00	0.00	786.00	1175.00	788.49	0.00	789.71	89.04	3.73	311.39	141.41
2	3.300	198.00	0.00	0.00	786.00	1400.00	788.78	0.00	789.04	87.47	4.08	346.36	176.45
3	3.300	198.00	0.00	0.00	786.00	2300.00	790.36	0.00	790.77	90.60	5.14	455.76	359.09
4													
5	3.400	99.00	0.00	0.00	787.00	350.00	788.07	0.00	788.19	115.44	2.79	125.60	32.56
6	3.400	99.00	0.00	0.00	787.00	1175.00	789.27	0.00	789.37	106.76	4.42	266.10	113.72
7	3.400	99.00	0.00	0.00	787.00	1400.00	789.54	0.00	789.66	104.36	4.71	297.65	137.23
8	3.400	99.00	0.00	0.00	787.00	2300.00	791.05	0.00	791.15	92.75	6.00	447.05	290.75
9													
10	3.500	193.00	0.00	0.00	789.00	350.00	790.18	0.00	790.29	97.76	2.73	128.39	35.47
11	3.500	193.00	0.00	0.00	789.00	1175.00	791.37	0.00	791.69	106.54	4.55	258.91	113.81
12	3.500	193.00	0.00	0.00	789.00	1400.00	791.62	0.00	791.99	107.62	4.89	296.83	134.95
13	3.500	193.00	0.00	0.00	789.00	2300.00	793.09	0.00	793.59	114.35	6.54	429.41	264.10
14													
15	3.600	99.00	0.00	0.00	790.00	350.00	791.09	0.00	791.36	111.08	2.56	119.38	33.41
16	3.600	99.00	0.00	0.00	790.00	1175.00	792.44	0.00	792.79	113.66	4.78	246.43	110.21
17	3.600	99.00	0.00	0.00	790.00	1400.00	792.79	0.00	793.11	116.08	5.16	272.09	129.94
18	3.600	99.00	0.00	0.00	790.00	2300.00	794.38	0.00	794.76	119.93	6.87	408.83	265.62
19													
20	3.700	99.00	0.00	0.00	791.00	350.00	792.27	0.00	792.47	106.64	3.00	116.86	33.60
21	3.700	99.00	0.00	0.00	791.00	1175.00	793.46	0.00	793.69	117.69	5.01	235.70	108.35
22	3.700	99.00	0.00	0.00	791.00	1400.00	793.93	0.00	794.28	117.76	5.36	261.17	129.01
23	3.700	99.00	0.00	0.00	791.00	2600.00	795.20	0.00	796.07	127.22	7.26	387.36	248.25
24													
25	3.800	99.00	0.00	0.00	792.00	350.00	793.34	0.00	793.49	101.30	3.11	110.90	33.26
26	3.800	99.00	0.00	0.00	792.00	1175.00	794.70	0.00	795.13	113.77	5.24	235.17	107.58
27	3.800	99.00	0.00	0.00	792.00	1400.00	795.06	0.00	795.47	120.75	5.64	275.00	127.42
28	3.800	99.00	0.00	0.00	792.00	2300.00	796.41	0.00	797.32	130.77	7.63	369.19	244.66
29													
30	3.900	99.00	0.00	0.00	793.00	350.00	794.43	0.00	794.60	101.31	3.31	105.91	33.17
31	3.900	99.00	0.00	0.00	793.00	1175.00	795.80	0.00	795.93	112.64	5.44	215.25	102.32
32	3.900	99.00	0.00	0.00	793.00	1400.00	796.15	0.00	796.31	120.12	5.92	245.11	124.11
33	3.900	99.00	0.00	0.00	793.00	2300.00	797.51	0.00	797.64	131.00	8.11	367.80	236.24
34													
35	4.000	201.00	0.00	0.00	794.00	350.00	795.33	0.00	795.71	104.59	3.42	102.43	33.59
36	4.000	201.00	0.00	0.00	794.00	1175.00	797.06	0.00	797.37	119.24	5.71	206.23	107.60
37	4.000	201.00	0.00	0.00	794.00	1400.00	797.61	0.00	797.97	121.61	6.16	227.81	126.45
38	4.000	201.00	0.00	0.00	794.00	2300.00	799.94	0.00	800.27	135.62	8.38	325.54	241.50
39													
40	5.000	400.00	0.00	0.00	795.00	350.00	797.30	0.00	797.63	90.85	1.44	277.87	63.02
41	5.000	400.00	0.00	0.00	795.00	1175.00	800.33	0.00	800.71	93.38	2.27	519.79	178.51
42	5.000	400.00	0.00	0.00	795.00	1400.00	800.74	0.00	801.12	95.49	2.47	569.36	207.07
43	5.000	400.00	0.00	0.00	795.00	2300.00	802.35	0.00	802.67	104.22	3.13	819.35	379.92
44													
45	6.000	116.00	0.00	0.00	796.00	350.00	797.30	0.00	797.62	98.87	2.56	296.35	104.16
46	6.000	116.00	0.00	0.00	796.00	1720.00	800.71	0.00	800.90	91.53	2.94	1170.77	234.21
47	6.000	116.00	0.00	0.00	796.00	2080.00	801.29	0.00	801.46	89.51	3.26	1276.32	269.40
48	6.000	116.00	0.00	0.00	796.00	2980.00	803.29	0.00	803.47	92.3	3.97	1771.85	457.66
49													
50	7.200	100.00	0.00	0.00	797.00	850.00	798.[illegible]	0.00	798.24	99.19	2.60	339.21	165.70
51	7.200	100.00	0.00	0.00	797.00	1250.00	[illegible]	0.00	801.57	[illegible]	3.33	515.24	335.71
52	7.200	100.00	0.00	0.00	797.00	2030.00	801.90	0.00	802.26	98.65	3.69	865.15	367.45
53	7.200	100.00	0.00	0.00	797.00	2990.00	804.29	0.00	804.54	93.87	3.99	748.71	617.70
54													
55													
56													
57													

PRINTED IN U.S.A.
FORM 1411-GB PRINTED BY ROTARY MANIFOLD FORMS.

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CNSEL	CRIKS	EG	TUK*S	VCH	AREA	.01K
	8.000	250.00	0.00	0.00	798.00	650.00	800.59	0.00	800.59	153.89	5.66	229.87	52.40
1	8.000	290.00	0.00	0.00	798.00	1280.00	802.59	0.00	802.53	57.46	3.33	466.21	166.65
2	8.000	250.00	0.00	0.00	798.00	1560.00	802.71	0.00	803.19	52.42	5.55	562.46	213.46
3	8.000	250.00	0.00	0.00	798.00	2350.00	802.32	0.00	803.28	43.27	5.47	859.55	407.45
4													
5	9.000	300.00	0.00	0.00	798.00	650.00	802.32	0.00	802.42	31.59	2.55	255.06	115.72
6	9.000	300.00	0.00	0.00	798.00	1280.00	803.34	0.00	804.04	42.95	3.57	359.24	195.32
7	9.000	300.00	0.00	0.00	798.00	1560.00	804.71	0.00	804.80	45.54	3.88	402.55	231.09
8	9.000	300.00	0.00	0.00	798.00	2350.00	804.15	1.01	808.45	45.18	4.41	535.92	349.41
9													
10	10.000	465.00	0.00	0.00	807.00	650.00	807.85	807.85	808.28	560.31	5.23	62.81	13.94
11	10.000	465.00	0.00	0.00	807.00	960.00	808.45	808.45	809.19	470.12	6.39	107.48	34.83
12	10.000	465.00	0.00	0.00	807.00	960.00	808.71	808.73	809.60	442.46	7.50	127.96	45.84
13	10.000	465.00	0.00	0.00	807.00	1520.00	809.37	809.38	810.54	390.50	8.68	175.11	76.01
14													
15	11.000	55.00	0.00	0.00	807.50	650.00	811.13	0.00	811.13	10.82	1.49	260.38	100.53
16	11.000	550.00	0.00	0.00	807.50	740.00	811.23	0.00	811.29	12.47	1.86	398.89	209.56
17	11.000	550.00	0.00	0.00	807.50	960.00	811.70	0.00	811.77	13.93	2.09	460.20	265.96
18	11.000	550.00	1.00	0.00	807.50	1520.00	812.73	0.00	812.85	14.06	2.57	592.62	405.37
19													
20	12.000	330.00	0.00	0.00	808.50	650.00	812.96	0.00	813.05	21.07	1.59	257.19	71.89
21	12.000	330.00	0.00	0.00	808.50	740.00	813.10	0.00	813.18	22.35	2.27	326.36	153.14
22	12.000	330.00	0.00	0.00	808.50	960.00	813.62	0.00	813.70	24.35	2.55	376.05	194.56
23	12.000	330.00	0.00	0.00	808.50	1520.00	813.69	0.00	813.86	26.39	3.14	484.95	295.91
24													
25	13.000	315.00	0.00	0.00	809.00	650.00	813.59	0.00	813.68	25.53	2.36	159.91	65.31
26	13.000	315.00	0.00	0.00	809.00	740.00	813.69	0.00	813.80	33.16	3.53	210.01	126.47
27	13.000	315.00	0.00	0.00	809.00	960.00	813.93	0.00	813.97	30.26	4.02	239.09	159.44
28	13.000	315.00	0.00	0.00	809.00	1520.00	814.56	0.00	814.96	42.44	5.06	300.53	233.35
29													
30	13.500	250.00	0.00	0.00	812.00	330.00	813.05	813.05	813.50	525.06	5.65	56.46	14.40
31	13.500	290.00	0.00	0.00	812.00	740.00	813.23	0.00	813.35	193.33	5.99	183.70	53.17
32	13.500	250.00	0.00	0.00	812.00	960.00	813.63	0.00	813.75	159.72	6.27	195.16	75.06
33	13.500	250.00	0.00	0.00	812.00	1520.00	813.71	0.00	813.77	120.15	7.02	253.60	135.33
34													
35	14.000	250.00	0.00	0.00	813.00	330.00	813.97	0.00	817.12	65.60	3.10	106.34	41.35
36	14.000	250.00	0.00	0.00	813.00	740.00	817.82	0.00	818.19	96.67	4.86	152.35	75.26
37	14.000	250.00	0.00	0.00	813.00	960.00	818.47	0.00	818.67	110.43	5.35	179.05	93.05
38	14.000	250.00	0.00	0.00	813.00	1520.00	819.05	0.00	819.22	111.36	6.49	220.49	130.73
39													
40	15.000	410.00	0.00	0.00	816.00	330.00	818.63	0.00	818.68	25.20	2.35	140.33	65.65
41	15.000	410.00	0.00	0.00	816.00	740.00	820.02	0.00	820.20	29.33	3.40	217.96	136.65
42	15.000	410.00	0.00	0.00	816.00	960.00	820.63	0.00	820.86	31.10	3.86	250.39	172.16
43	15.000	410.00	0.00	0.00	816.00	1520.00	821.91	0.00	822.45	34.02	4.76	319.51	250.50
44													
45	16.000	280.00	0.00	0.00	817.00	330.00	819.36	0.00	819.46	28.26	2.27	139.17	61.03
46	16.000	280.00	0.00	0.00	817.00	740.00	820.85	0.00	821.02	28.61	3.26	227.46	138.34
47	16.000	280.00	0.00	0.00	817.00	960.00	821.50	0.00	821.70	28.77	3.62	265.30	178.97
48	16.000	280.00	0.00	0.00	817.00	1520.00	822.86	0.00	823.16	29.84	4.40	346.02	278.17
49													
50	17.000	400.00	0.00	0.00	821.20	330.00	822.96	0.00	822.35	307.20	4.30	70.79	17.22
51	17.000	400.00	0.00	0.00	821.20	740.00	823.00	0.00	823.33	169.68	6.63	159.38	58.45
52	17.000	400.00	0.00	0.00	821.20	960.00	823.46	0.00	823.82	121.19	6.73	203.18	87.20
53	17.000	400.00	0.00	0.00	821.20	1520.00	824.63	0.00	825.01	91.58	6.99	304.89	171.47
54													
55													
56													
57													

See revised drawing

PRINTED IN U.S.A.

FORM 141-GR-PRINTED BY ROTARY MANIFOLD FORMS

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	TOK*S	VCH	AREA	.01K
18.000	430.00	0.00	0.00	821.00	330.00	822.89	0.00	822.91	3.72	0.88	376.57	171.19
18.000	430.00	0.00	0.00	821.00	740.00	823.80	0.00	823.93	4.47	1.29	578.30	349.51
18.000	430.00	0.00	0.00	821.00	960.00	824.37	0.00	824.41	4.57	1.43	671.77	449.11
18.000	430.00	0.00	0.00	821.00	1520.00	825.91	0.00	825.94	4.39	1.73	895.46	725.17
18.300	163.00	0.00	0.00	822.00	330.00	823.01	0.00	823.05	30.91	1.65	199.45	59.36
18.300	163.00	0.00	0.00	822.00	740.00	824.00	0.00	824.06	15.58	1.86	397.66	187.47
18.300	163.00	0.00	0.00	822.00	960.00	824.47	0.00	824.53	12.55	1.95	491.89	267.20
18.500	163.00	0.00	0.00	822.00	1520.00	825.98	0.00	825.05	9.47	2.13	712.50	495.42
18.600	163.00	0.00	0.00	823.00	330.00	823.75	0.00	823.83	80.79	2.21	149.50	36.72
18.600	163.00	0.00	0.00	823.00	740.00	824.39	0.00	824.50	52.31	2.68	276.52	102.32
18.600	163.00	0.00	0.00	823.00	960.00	824.77	0.00	824.89	39.08	2.72	352.81	153.57
18.600	163.00	0.00	0.00	823.00	1520.00	825.77	0.00	825.89	22.12	2.76	551.38	323.19
19.000	164.00	0.00	0.00	824.00	330.00	825.23	0.00	825.31	101.64	2.38	140.23	32.93
19.000	164.00	0.00	0.00	824.00	740.00	825.61	0.00	825.78	124.09	3.35	221.17	66.43
19.000	164.00	0.00	0.00	824.00	960.00	825.77	0.00	825.99	131.21	3.73	257.45	83.61
19.000	164.00	0.00	0.00	824.00	1520.00	826.34	0.00	826.58	91.60	3.86	393.57	158.82

Est.?

ALLEN CREEK

SUMMARY PRINTOUT TABLE 150

SECTN	Q	CWSEL	DEPSO	CVSNS	DISTRS	TOPWID	ALPH
0.000	450.00	778.00	0.00	0.00	0.00	338.46	0.00
0.000	1400.00	778.00	0.00	0.00	0.00	838.46	0.00
0.000	1700.00	778.00	0.00	0.00	0.00	838.46	0.00
0.000	3200.00	784.25	0.00	0.00	2.25	907.69	0.00
2.000	450.00	760.56	0.00	2.56	0.00	366.47	650.00
2.000	1400.00	782.21	0.00	4.21	0.00	424.68	650.00
2.000	1700.00	782.56	0.00	4.56	0.00	443.71	650.00
2.000	3200.00	783.09	0.00	5.00	0.00	471.42	650.00
2.100	450.00	760.93	0.00	2.48	0.00	349.33	270.00
2.100	1400.00	782.69	0.00	4.48	0.00	349.67	270.00
2.100	1700.00	783.06	0.00	0.50	0.00	349.74	270.00
2.100	3200.00	784.47	0.00	0.62	0.00	350.00	270.00
2.200	450.00	761.55	0.00	2.57	0.00	299.51	270.00
2.200	1400.00	783.77	0.00	4.48	0.00	299.91	270.00
2.200	1700.00	785.67	0.00	0.61	0.00	299.73	270.00
2.200	3200.00	785.21	0.00	0.74	0.00	300.04	270.00
2.300	450.00	762.61	0.00	1.05	0.00	225.36	270.00
2.300	1175.00	784.24	0.00	0.97	0.00	225.72	270.00
2.300	1400.00	786.33	0.00	0.96	0.00	225.91	270.00
2.300	2800.00	786.28	0.00	1.07	0.00	225.17	270.00
3.000	450.00	733.69	0.00	1.04	0.00	169.12	270.00
3.000	1175.00	785.11	0.00	1.17	0.00	149.26	270.00
3.000	1400.00	786.74	0.00	1.15	0.00	149.27	270.00
3.000	2800.00	787.83	0.00	1.27	0.00	149.30	270.00
3.100	450.00	734.32	0.00	1.65	0.00	141.16	99.00
3.100	1175.00	785.99	0.00	1.59	0.00	141.35	99.00
3.100	1400.00	786.53	0.00	1.57	0.00	141.31	99.00
3.100	2800.00	788.13	0.00	1.56	0.00	141.40	99.00
3.200	450.00	735.39	0.00	1.07	0.00	133.17	99.00
3.200	1175.00	786.80	0.00	1.89	0.00	133.36	99.00
3.200	1400.00	787.23	0.00	1.87	0.00	133.40	99.00
3.200	2800.00	788.93	0.00	1.81	0.00	133.62	99.00
3.300	450.00	736.13	0.00	0.77	0.00	124.17	198.00
3.300	1175.00	788.49	0.00	1.61	0.00	125.36	198.00
3.300	1400.00	788.78	0.00	1.57	0.00	125.40	198.00
3.300	2800.00	790.36	0.00	1.41	0.00	125.62	198.00
3.400	450.00	736.07	0.00	0.91	0.00	117.17	99.00
3.400	1175.00	787.87	0.00	0.76	0.00	117.38	99.00
3.400	1400.00	789.54	0.00	0.76	0.00	117.39	99.00
3.400	2800.00	790.99	0.00	0.63	0.00	117.61	99.00
3.500	450.00	738.18	0.00	2.70	0.00	106.21	198.00
3.500	1175.00	788.37	0.00	2.10	0.00	109.43	198.00
3.500	1400.00	789.82	0.00	2.08	0.00	109.51	198.00
3.500	2800.00	792.93	0.00	1.94	0.00	109.71	198.00

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FORM 1311-G PRINTED BY ROTARY MANIFOLD FORMS.

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
3.600	350.00	791.19	0.00	1.02	0.00	101.24	99.00
3.600	1175.00	792.64	0.00	1.07	0.00	101.49	99.00
3.600	1400.00	792.70	0.00	1.08	0.00	101.54	99.00
3.600	2800.00	794.03	0.00	1.10	0.00	101.81	99.00
3.700	350.00	792.27	0.00	1.07	0.00	92.28	99.00
3.700	1175.00	793.56	0.00	1.12	0.00	92.57	99.00
3.700	1400.00	793.60	0.00	1.13	0.00	92.63	99.00
3.700	2800.00	795.20	0.00	1.16	0.00	92.93	99.00
3.800	350.00	793.34	0.00	1.07	0.00	83.33	99.00
3.800	1175.00	794.70	0.00	1.15	0.00	83.68	99.00
3.800	1400.00	794.98	0.00	1.15	0.00	83.75	99.00
3.800	2800.00	796.41	0.00	1.22	0.00	84.10	99.00
3.900	350.00	794.43	0.00	1.09	0.00	74.41	99.00
3.900	1175.00	795.86	0.00	1.16	0.00	74.82	99.00
3.900	1400.00	796.16	0.00	1.18	0.00	74.90	99.00
3.900	2800.00	797.66	0.00	1.25	0.00	75.33	99.00
4.000	330.00	795.53	0.00	1.10	0.00	67.19	101.00
4.000	1175.00	797.06	0.00	1.20	0.00	67.36	101.00
4.000	1400.00	797.38	0.00	1.23	0.00	67.42	101.00
4.000	2800.00	798.98	0.00	1.33	0.00	67.62	101.00
5.000	330.00	797.00	0.00	2.27	0.00	99.37	400.00
5.000	1175.00	800.23	0.00	3.17	0.00	99.70	400.00
5.000	1400.00	800.73	0.00	3.35	0.00	99.7[illegible]	400.00
5.000	2300.00	803.23	0.00	4.25	0.00	100.10	400.00
6.000	880.00	79[illegible].38	0.00	0.56	0.00	93.06	116.00
6.000	1720.00	80[illegible].78	0.00	[illegible]	0.00	99.[illegible]	116.00
6.000	2000.00	801.29	0.00	0.57	0.00	99.[illegible]	116.00
6.000	2900.00	80[illegible].73	0.00	[illegible]	0.00	[illegible]	116.00
7.000	880.00	799.14	0.00	0.76	0.00	79.22	180.00
7.000	1720.00	801.39	0.00	0.63	0.00	79.41	180.00
7.000	2000.00	80[illegible]	0.00	0.65	0.00	79.[illegible]	180.00
7.000	2900.00	804.29	0.00	0.5[illegible]	0.00	79.[illegible]	180.00
8.000	650.00	800.09	0.00	0.96	0.00	60.34	250.00
8.000	1280.00	802.09	0.00	0.70	0.00	65.46	250.00
8.000	1560.00	802.71	0.00	0.72	0.00	67.35	250.00
8.000	2350.00	804.02	0.00	0.52	0.00	74.30	250.00
9.000	650.00	802.32	0.00	2.23	0.00	66.14	300.00
9.000	1280.00	803.84	0.00	1.75	0.00	70.78	300.00
9.000	1560.00	804.44	0.00	1.73	0.00	73.05	300.00
9.000	2350.00	806.15	0.00	1.34	0.00	79.63	300.00
10.000	330.00	807.85	0.00	5.53	0.00	74.02	465.00
10.000	740.00	808.45	0.00	4.61	0.00	74.05	465.00
10.000	960.00	808.73	0.00	4.29	0.00	74.04	465.00
10.000	1920.00	809.37	0.00	3.22	0.00	74.05	465.00

See Revised Form Rev. 9-11

FORM 1411-GB PRINTED BY ROTARY MANIFOLD FORMS. PRINTED IN U.S.A.

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
11.000	330.00	810.13	0.00	2.28	0.00	129.04	550.00
11.000	740.00	811.23	0.00	2.79	0.00	129.06	550.00
11.000	960.00	811.70	0.00	2.98	0.00	129.07	550.00
11.000	1520.00	812.23	0.00	3.35	0.00	129.09	530.00
12.000	330.00	810.90	0.00	0.77	0.00	99.14	530.00
12.000	740.00	812.10	0.00	0.86	0.00	99.30	530.00
12.000	960.00	812.60	0.00	0.90	0.00	99.36	530.00
12.000	1520.00	813.69	0.00	0.96	0.00	99.51	530.00
13.000	330.00	811.59	0.00	0.70	0.00	54.06	315.00
13.000	740.00	812.89	0.00	0.79	0.00	54.09	315.00
13.000	960.00	813.42	0.00	0.82	0.00	54.10	315.00
13.000	1520.00	814.36	0.00	0.87	0.00	54.12	315.00
13.500	330.00	813.05	0.00	1.45	0.00	54.02	250.00
13.500	740.00	814.29	0.00	1.41	0.00	54.05	250.00
13.500	960.00	814.84	0.00	1.41	0.00	54.06	250.00
13.500	1520.00	816.00	0.00	1.44	0.00	54.09	250.00
14.000	330.00	816.97	0.00	3.92	0.00	54.05	250.00
14.000	740.00	817.02	0.00	3.93	0.00	54.07	250.00
14.000	960.00	818.21	0.00	3.37	0.00	54.08	250.00
14.000	1520.00	819.09	0.00	3.09	0.00	54.10	250.00
15.000	330.00	816.60	0.00	1.63	0.00	54.06	410.00
15.000	740.00	820.02	0.00	2.21	0.00	54.10	410.00
15.000	960.00	820.68	0.00	2.42	0.00	54.12	410.00
15.000	1520.00	821.90	0.00	2.81	0.00	54.16	410.00
16.000	330.00	819.36	0.00	0.76	0.00	59.04	280.00
16.000	740.00	820.53	0.00	0.81	0.00	59.07	280.00
16.000	960.00	821.50	0.00	0.87	0.00	59.11	280.00
16.000	1520.00	822.[illegible]	0.00	0.9[illegible]	0.00	59.1[illegible]	280.00
17.000	330.00	822.00	0.00	2.71	0.00	89.02	400.00
17.000	740.00	823.00	0.00	2.14	0.00	89.05	400.00
17.000	960.00	823.4[illegible]	0.00	0.99	0.00	89.06	400.00
17.000	1520.00	824.[illegible]	0.00	.77	0.00	89.09	400.00
18.000	330.00	822.89	0.00	0.83	0.00	199.05	430.00
18.000	740.00	823.90	0.00	0.90	0.00	199.07	430.00
18.000	960.00	824.37	0.00	0.90	0.00	199.09	430.00
18.000	1520.00	825.5[illegible]	0.00	0.07	0.00	199.11	430.00
18.300	330.00	823.81	0.00	0.11	0.00	199.03	163.00
18.300	740.00	824.00	0.00	0.10	0.00	199.05	163.00
18.300	960.00	824.47	0.00	0.10	0.00	199.06	163.00
18.300	1520.00	825.58	0.00	0.08	0.00	199.09	163.00
18.600	330.00	823.75	0.00	0.75	0.00	199.02	163.00
18.600	740.00	824.35	0.00	0.68	0.00	199.04	163.00
18.600	960.00	824.77	0.00	0.30	0.00	199.05	163.00
18.600	1520.00	825.77	0.00	0.19	0.00	199.07	163.00

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SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
19.000	330.00	825.23	0.00	1.47	0.00	201.45	164.00
19.000	740.00	825.61	0.00	1.22	0.00	217.97	164.00
19.000	960.00	825.77	0.00	1.20	0.00	224.97	164.00
19.000	1520.00	826.34	0.00	0.57	0.00	248.73	164.00

SUMMARY OF ERRORS

CAUTION SECNO= 0.000 PROFILE= 4 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 10.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 10.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 10.000 PROFILE= 3 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 10.000 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 10.000 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 13.500 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 13.500 PROFILE= 1 MINIMUM SPECIFIC ENERGY

PRINTED IN U.S.A.
FORM 1411-GB PRINTED BY ROTARY MANIFOLD FORMS,

FLOOD INSURANCE ZONE DATA FOR ALLEN CREEK

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION NUMBER	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD ANDS 10%	2%	0.2%
0.000	0.	0.0	0.0	0.2
2.000	600.	-2.0	-0.4	1.3
2.100	920.	-2.1	-0.4	1.4
2.200	1190.	-2.1	-0.4	1.5
2.300	1460.	-2.0	-0.4	1.7
3.000	1730.	-2.1	-0.4	1.8
3.100	1829.	-2.2	-0.4	1.8
3.200	1923.	-1.8	-0.3	1.7
3.300	2126.	-1.6	-0.3	1.6
3.400	2225.	-1.5	-0.3	1.4
3.500	2423.	-1.4	-0.2	1.3
3.600	2522.	-1.5	-0.3	1.3
3.700	2621.	-1.6	-0.3	1.4
3.800	2720.	-1.6	-0.3	1.4
3.900	2819.	-1.7	-0.3	1.5
4.000	2920.	-1.9	-0.3	1.6
5.000	3320.	-2.9	-0.5	2.5
6.000	3456.	-2.9	-0.5	2.5
7.000	3616.	-2.8	-0.6	2.3
8.000	3866.	-2.6	-0.6	2.1
9.000	4166.	-2.1	-0.6	1.7
10.000	4631.	-0.9	-0.3	0.6
11.000	5181.	-1.6	-0.3	1.0
12.000	5711.	-1.7	-0.5	1.1
13.000	6326.	-1.8	-0.5	1.1
13.500	6476.	-1.8	-0.5	1.0
14.000	6526.	-1.2	-0.6	0.9
15.000	6936.	-2.0	-0.5	1.3
16.000	7216.	-2.1	-0.6	1.6
17.000	7516.	-1.6	-0.3	1.1
18.000	8046.	-1.3	-0.5	1.1
18.300	8209.	-1.3	-0.3	1.1
18.600	8372.	-1.0	-0.4	1.0
19.000	8536.	-0.5	-0.2	0.6
WEIGHTED AVG FOR REACH		-1.7	-0.4	1.3

FHF FOR THE REACH = 0.5 WITH 69.4% OF THE REACH WITHIN 0.5 FEET
ZONE FOR THE REACH = A 3

CONTINUOUS FLOOD HAZARD FACTORS BY EVEN INCREMENTS

IND. NO.	TOTAL LENGTH	AVG ELEVATION DATA 10%	2%	0.2%	WTD. AVG.	RMF	PERCENT WITHIN
	0.				SEC.		0.000
	100.	778.2	778.4	-0.2	-0.2	205	100

2	200.	778.6	779.1	-0.5	-0.3	005	100.
3	300.	779.0	779.8	-0.8	-0.5	005	100.
4	400.	779.4	780.5	-1.1	-0.6	005	100.
5	500.	779.8	781.2	-1.4	-0.8	010	80.
6	600.	780.2	781.9	-1.7	-0.9	010	67.
	650.				SEC.		2.300
7	700.	780.5	782.6	-1.9	-1.1	010	67.
8	800.	780.7	782.7	-2.0	-1.2	010	38.
9	900.	780.9	782.9	-2.1	-1.3	015	33.
	920.				SEC.		2.100
10	1000.	781.0	783.1	-2.1	-1.4	015	30.
11	1100.	781.3	783.5	-2.1	-1.4	015	36.
	1180.				SEC.		2.300
12	1200.	781.5	783.6	-2.1	-1.5	015	33.
13	1300.	781.8	783.9	-2.1	-1.5	015	38.
14	1400.	782.2	784.2	-2.1	-1.6	015	50.
	1460.				SEC.		2.300
15	1500.	782.6	784.6	-2.0	-1.6	015	67.
16	1600.	783.0	785.0	-2.0	-1.6	015	75.
17	1700.	783.4	785.4	-2.1	-1.7	015	76.
	1730.				SEC.		3.000
18	1800.	783.9	785.9	-2.1	-1.7	015	78.
	1829.				SEC.		3.100
19	1900.	784.8	786.8	-2.0	-1.7	015	79.
	1926.				SEC.		3.200
20	2000.	785.6	787.4	-1.8	-1.7	015	80.
21	2100.	786.5	788.2	-1.7	-1.2	015	81.
	2126.				SEC.		3.300
22	2200.	787.4	789.0	-1.6	-1.7	015	82.
	2225.				SEC.		3.400
23	2300.	788.4	790.0	-1.5	-1.7	015	83.
24	2400.	789.4	790.9	-1.5	-1.7	015	85.
	2423.				SEC.		3.500
25	2500.	790.5	791.9	-1.5	-1.7	015	84.
	2523.				SEC.		3.600
26	2600.	791.5	792.8	-1.5	-1.7	015	85.
	2622				SEC.		3.700
27	2700.	792.6	794.2	-1.6	-1.7	015	85.
	2720.				SEC.		3.800
28	2800.	793.7	795.3	-1.7	-1.7	015	86.
	2819.				SEC.		3.900
29	2900.	794.3	796.0	-1.6	-1.7	015	85.
	2920.				SEC.		4.000
30	3000.	795.6	797.6	-1.9	-1.7	015	87.
31	3100.	796.3	798.5	-2.2	-1.7	015	84.
32	3200.	796.8	799.3	-2.5	-1.7	015	84.
33	3300.	797.4	800.1	-2.7	-1.7	015	82.
	3320.				SEC.		5.000
34	3400.	797.9	800.8	-2.9	-1.8	020	72.
	3436.				SEC.		6.000
35	3500.	798.4	801.3	-2.9	-1.8	020	77.
36	3600.	798.9	801.7	-2.9	-1.8	020	75.
	3616.				SEC.		7.000
37	3700.	799.3	802.1	-2.8	-1.8	020	73.
38	3800.	799.7	802.4	-2.7	-1.8	020	68.
	3866.				SEC.		8.000
39	3900.	800.1	802.7	-2.6	-1.8	020	67.
40	4000.	800.2	803.2	-2.5	-1.8	020	65.
41	4100.	801.3	803.0	-2.3	-1.8	020	66.
	4166.				SEC.		9.000
42	4200.	801.3	804.4	-2.1	-1.8	020	72.
43	4300.	803.3	805.2	-1.9	-1.8	020	67.
44	4400.	804.5	806.1	-1.6	-1.8	020	68.
45	4500.	805.7	807.1	-1.4	-1.8	020	67.

NEGLECT (AFFECTED BY HURON RIVER

LIMITS = 1.3 → 2.3

81-15 = 81% ?

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46	4600.	806.9	808.0	-1.1	-1.9	020	65.
	4631.				SEC.	10.000	
47	4700.	807.8	808.8	-1.0	-1.9	020	66.
48	4800.	808.3	809.4	-1.0	-1.9	020	67.
49	4900.	808.4	809.9	-1.2	-1.3	020	66.
50	5000.	809.3	810.5	-1.3	-1.9	020	66.
51	5000.	809.4	810.8	-1.4	-1.3	020	66.
	5181.				SEC.	11.000	
52	5200.	810.0	811.5	-1.5	-1.8	020	65.
53	5300.	810.2	811.8	-1.6	-1.8	020	66.
54	5400.	810.4	812.0	-1.6	-1.8	020	67.
55	5500.	810.5	812.2	-1.6	-1.8	020	65.
56	5600.	810.7	812.4	-1.7	-1.8	020	66.
57	5700.	810.8	812.5	-1.7	-1.8	020	67.
	5711.				SEC.	12.000	
58	5800.	811.0	812.7	-1.7	-1.8	020	67.
59	5900.	811.2	813.0	-1.8	-1.8	020	68.
60	6000.	811.4	813.2	-1.8	-1.8	020	68.
	6024.				SEC.	13.000	
61	6100.	811.8	813.6	-1.8	-1.8	020	69.
62	6200.	812.3	814.1	-1.8	-1.8	020	69.
	6276.				SEC.	13.500	
63	6300.	813.0	814.8	-1.8	-1.8	020	71.
64	6400.	814.2	815.8	-1.6	-1.8	020	70.
65	6500.	815.8	817.4	-1.6	-1.8	020	7[illegible]
	6526.				SEC.	14.000	
66	6600.	816.9	818.5	-1.3	-1.8	020	71.
67	6700.	817.5	818.9	-1.5	-1.8	020	73.
68	6800.	817.9	819.4	-1.7	-1.8	020	74.
69	6900.	818.3	820.1	-1.9	-1.8	020	74.
	6936.				SEC.	15.000	
70	7000.	818.6	820.6	-2.0	-1.8	020	73.
71	7100.	816.9	821.0	-2.1	-1.8	020	73.
72	7200.	819.2	821.3	-2.1	-1.8	020	74.
	7210.				SEC.	16.000	
73	7300.	819.5	821.7	-2.1	-1.8	020	75.
74	7400.	820.1	822.2	-2.1	-1.8	020	75.
75	7500.	820.9	822.7	-1.7	-1.8	020	75.
76	7600.	821.5	823.1	-1.5	-1.8	020	75.
	7626.				SEC.	17.000	
77	7700.	822.1	823.5	-1.4	-1.8	020	75.
78	7800.	822.3	823.8	-1.4	-1.8	020	75.
79	7900.	822.5	824.0	-1.5	-1.8	020	77.
80	8000.	822.7	824.2	-1.5	-1.8	020	78.
	8046.				SEC.	18.000	
81	8100.	822.9	824.3	-1.5	-1.8	020	78
82	8200.	823.0	824.5	-1.5	-1.8	020	78
	8209.				SEC.	18.300	
83	8300.	823.8	824.8	-1.3	-1.8	020	77.
	8372.				SEC.	18.600	
84	8400.	823.7	824.8	-1.1	-1.8	020	77.
85	8500.	824.5	825.2	-0.8	-1.7	015	74.
	8536.				SEC.	19.000	

THIS REACH CAN BE EQUIVALENCED TO INC NO. 70 SET FIN REQUIREMENTS
INPUT 20N WHERE N IS THE NUMBER OF REACHES AND THEN INPUT THE END
OF EACH REACH BY INC NO. FOR EXAMPLE 202, 38, 85
A NEGATIVE INC NO. WILL SUPPRESS INTERMEDIATE INC OUTPUT.

PRINTED IN U.S.A.
FORM 1411-09 PRINTED BY ROTARY MANIFOLD FORMS

75:10:50 X64 AKITA HU201657 HUDAA MAR 03, 1980

OVERLAND FLOW

ANEW CREEK

ANN ARBOR FTS

FORM 1411-GD-PRINTED BY ROTARY MANIFOLD FORMS.
PRINTED IN U.S.A.

```
JOBID=HU201607          USER=ANITA                PROJECT=HUDAA                BILLING=HUDDA                 RON=X0064
```

```
13:05:22                                  JOB INTRODUCED FROM                                    MAR 03, 1980
                                                  CDC1 JCL
```

```
13:05:39  START OF TRANSLATION

          $JOB HU201607,USER=ANITA,PROJECT=HUDAA;
          $INPUT HEC2;
          RECORD COUNT: 83
          $PROGINPUT;
           VALUES WTAPAK,WTAPAK;
           SEND 'START OF HEC=2 EXECUTION';
           STEP HEC=2,WTAENGLM,OPTIONS='FILE=A 91,FILE=B 92,FILE=C 93,FILE=D 94,
                                        FILE=E 95,FILE=F 96';
           ALC FILE=A,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=A,FILE=A,TEMPRY,DVC=MS/M400,MD=&1;
           ALC FILE=B,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=B,FILE=B,TEMPRY,DVC=MS/M400,MD=&2;
           ALC FILE=C,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=C,FILE=C,TEMPRY,DVC=MS/M400,MD=&3;
           ALC FILE=D,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=D,FILE=D,TEMPRY,DVC=MS/M400,MD=&2;
           ALC FILE=E,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=E,FILE=E,TEMPRY,DVC=MS/M400,MD=&2;
           ALC FILE=F,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=F,FILE=F,TEMPRY,DVC=MS/M400,MD=&3;
           ASG WORD,HEC2,FILESTAT=IN;
          SEND 'THIS JOB NEEDS 3-PART PAPER';
          $SYSOUT H=PR,MD=I15PRT,DVC=PR;
          DEFINE H=PR,
           PRINTER=(FORMAT=65,KOZ=1,FFS=64);
           ENDSTEP;
          $ENDJOB;

          RECORD COUNT :    111

13:05:41  END OF TRANSLATION
```

```
JOBID=HU201607          USER=ANITA          PROJECT=MUDAA          BILLING=MUDDA          ROY=X0064
```

```
13:05:42                                JOB EXECUTION LISTING                                  MAR 03, 1980

          START OF HEC02 EXECUTION
          STEP 1
          THIS JOB NEEDS 3-PART PAPER
          LOAD MODULE = HEC02 (79/2 /22 23:58) PREINITIALIZED
          LIBRARY = STAEVOL
13:05:47  STEP STARTED XPRTY=9
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000064.FILE=F
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000064.FILE=C
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000064.FILE=D
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000064.FILE=A
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000064.FILE=E
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000064.FILE=F
          TASK MAIN=[illegible] COMPLETED
          DUF01.IFN=FILE=B        REMEMBER REUSE=        0
          DUF01.IFN=FILE=C        REMEMBER REUSE=        0
          DUF01.IFN=FILE=D        REMEMBER REUSE=        0
          DUF01.IFN=FILE=A        REMEMBER REUSE=        0
          DUF01.IFN=FILE=B        REMEMBER REUSE=        0
          DUF01.IFN=FILE=E        REMEMBER REUSE=        0     BLOCK BUFFER=        [illegible]     CREATE BUFFER=        37
          TEMPORARY  FILES USED=    228 TRACKS
          FILE=B     ON  WTAPAK :  NB  OF  IO  CONNECTS=        133
          FILE=C     ON  WTAPAK :  NB  OF  IO  CONNECTS=        150
          [illegible]     ON  [illegible] :  NB  OF  IO  CONNECTS=        [illegible]
          [illegible]     ON  [illegible] :  NB  OF  IO  CONNECTS=        [illegible]
          FILE=D     ON  WTAPAK :  NB  OF  IO  CONNECTS=        [illegible]
          FILE=A     ON  WTAPAK :  NB  OF  IO  CONNECTS=        162
          FILE=B     ON  WTAPAK :  NB  OF  IO  CONNECTS=        379
          FILE=E     ON  WTAPAK :  NB  OF  IO  CONNECTS=        [illegible]
          CPU        2.[illegible]                    PROG MISSING SECTS        [illegible]    STACKOV        [illegible]
          ELAPSED    4.[illegible]                    SYS  MISSING SECTS        [illegible]
          LINES      [illegible]    LIMIT    NOLIM    BACKING FILE        [illegible]
          CARDS         0    LIMIT    NOLIM    BUFFER SIZE        13840    CPSIZE        [illegible]
13:10:10  STEP COMPLETED

          START    13:05:42   LINES        [illegible]
          STOP     13:10:12   CARDS        0
          CPU        2.105
          ELAPSE     4.496
13:10:12  RESULTS  JOB COMPLETED
```

```
*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

C
T1CITY OF ANN ARBOR EIS HUD 2016-07 ALLEN CREEK
T2 OVERLAND FLOW SEGMENT#1 FROM HURON RIVER TO ANN ST.
T3       ALLEN CREEK-ANN ARBOR

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        2.        0.        0.  0.000000      0.00       0.0        0.   761.900     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH      FN       ALLDC     IBW       CHAIN     ITRACE

     1.000     0.000    -1.000     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
BT      6.000   600.000  1002.000  1300.000  1600.000  1900.000  2200.000     0.000     0.000     0.000
NC      0.130     0.130     0.130     0.100     0.300     0.000     0.000     0.000     0.000     0.000

        SECT. ALONG RR. AT HURON RIVER

X1      0.000     7.000  1200.000  1300.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    810.000     7.000   778.320   300.000   778.000   500.000   777.000  1200.000   777.000  1300.000
GR    790.000  1800.000   800.000  2100.000     0.000     0.000     0.000     0.000     0.000     0.000

        SECT. AT [illegible] SUMMIT

X1      2.000    12.000   602.000   687.000   650.000   650.000   650.000     0.000     0.000     0.000
GR   1000.000   300.000   801.300   500.000   793.200   577.000   779.400   602.000   778.000   887.000
GR    782.100  1014.000   702.500  1044.000   784.700  1079.300   794.700  1166.000   798.400  1225.000
GR    804.400  1378.000  1000.000  1420.300     0.000     0.000     0.000     0.000     0.000     0.000

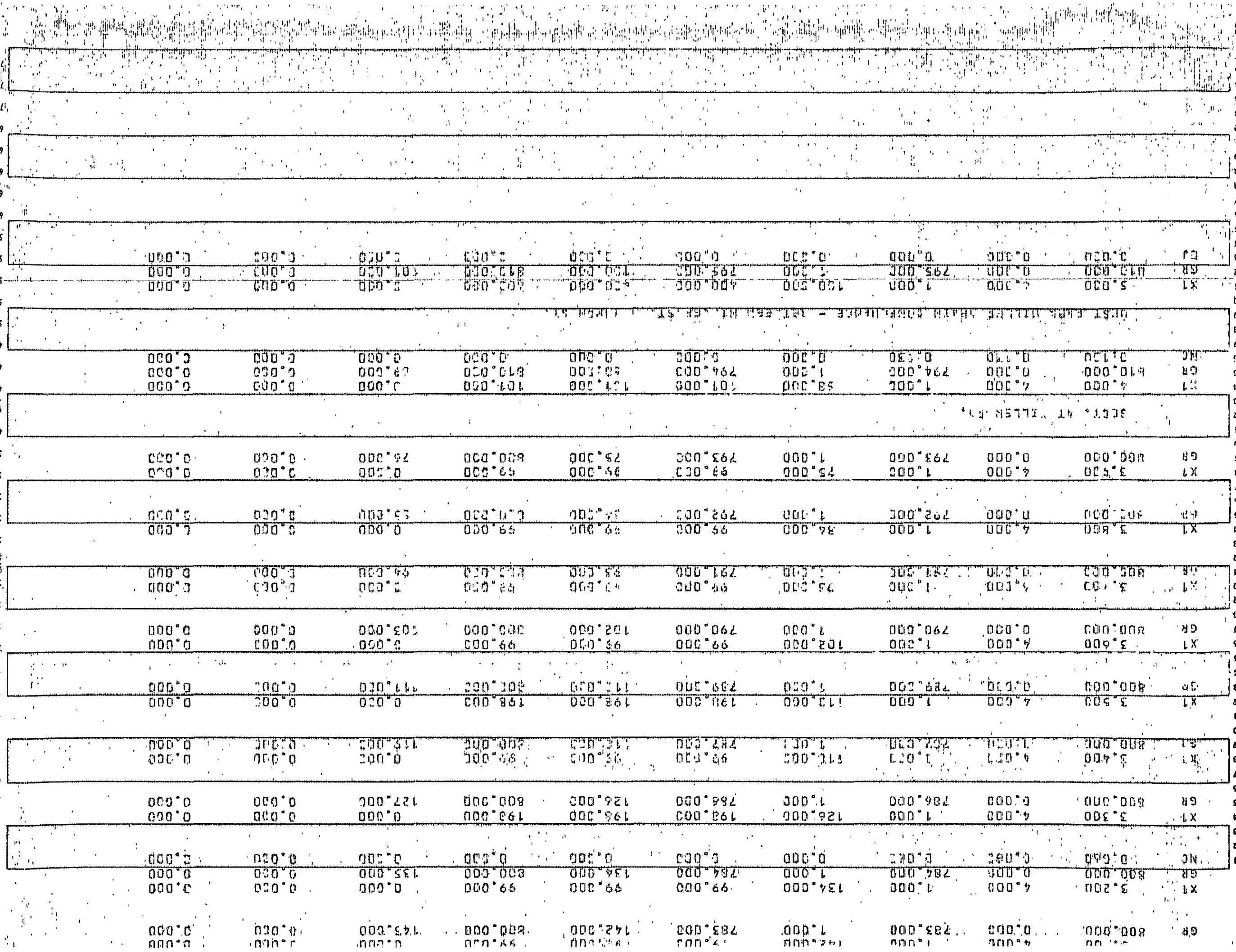
X1      2.100     4.000     1.000   350.000   270.000   270.000   270.000     0.000     0.000     0.000
GR    790.000     0.000   779.000     1.000   779.000   350.000   790.000   351.000     0.000     0.000

X1      2.200     4.000     1.000   300.000   270.000   270.000   270.000     0.000     0.000     0.000
GR    790.000     0.000   780.000     1.000   780.000   300.000   780.000   301.000     0.000     0.000

X1      2.300     4.000     1.000   225.000   270.000   270.000   270.000     0.000     0.000     0.000
GR    790.000     0.000   781.000     1.000   781.000   225.000   790.000   226.000     0.000     0.000
NC      0.100     0.100     0.100     0.000     0.000     0.000     0.000     0.000     0.000     0.000

        SECT. AT FELCH ST.

X1      3.000     4.000     1.000   150.000   270.000   270.000   270.000     0.000     0.000     0.000
GR    810.000     0.000   782.000     1.000   782.000   150.000   810.000   151.000     0.000     0.000
```



	[illegible]	4.000	1.000	142.000	[illegible]	[illegible]	99.000	0.000	0.000	0.000
GR	800.000	0.000	783.000	1.000	783.000	142.000	800.000	143.000	0.000	0.000
X1	3.200	4.000	1.000	134.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	784.000	1.000	784.000	134.000	800.000	135.000	0.000	0.000
NC	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3.300	4.000	1.000	126.000	198.000	198.000	198.000	0.000	0.000	0.000
GR	800.000	0.000	786.000	1.000	786.000	126.000	800.000	127.000	0.000	0.000
X1	3.400	4.000	1.000	110.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	787.000	1.000	787.000	110.000	800.000	119.000	0.000	0.000
X1	3.500	4.000	1.000	113.000	198.000	198.000	198.000	0.000	0.000	0.000
GR	800.000	0.000	789.000	1.000	789.000	113.000	800.000	111.000	0.000	0.000
X1	3.600	4.000	1.000	102.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	790.000	1.000	790.000	102.000	800.000	103.000	0.000	0.000
X1	3.700	4.000	1.000	93.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	791.000	1.000	791.000	93.000	800.000	94.000	0.000	0.000
X1	3.800	4.000	1.000	84.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	792.000	1.000	792.000	84.000	800.000	85.000	0.000	0.000
X1	3.900	4.000	1.000	75.000	99.000	99.000	99.000	0.000	0.000	0.000
GR	800.000	0.000	793.000	1.000	793.000	75.000	800.000	76.000	0.000	0.000

SECT. AT MILLER ST.

X1	4.000	4.000	1.000	58.000	101.000	101.000	101.000	0.000	0.000	0.000
GR	810.000	0.000	794.000	1.000	794.000	58.000	810.000	69.000	0.000	0.000
NC	0.130	0.130	0.130	0.000	0.000	0.000	0.000	0.000	0.000	0.000

DUST CARB MILLER DRAIN CONFLUENCE - BETWEEN MI. GR ST. [illegible]

X1	5.000	4.000	1.000	100.000	400.000	400.000	400.000	0.000	0.000	0.000
GR	810.000	0.000	795.000	1.000	795.000	100.000	810.000	101.000	0.000	0.000
NC	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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FORM 1411-GB PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

T1CITY OF ANN ARBOR FIS  HUD 2016-07 ALLEN CREEK
T2 100 YR. ENCROACHMENT RUN
T3      ALLEN CREEK-ANN ARBOR

J1  ICHECK    INQ       MINN      IDIR      STRT      METRIC    HVINS     H         RAM       FN
       0.        3.        0.        0.  0.000000      0.00       0.0        0.   761.900     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHAIN     STRACE
     2.000     3.000    -1.000     3.000     0.000     0.000     0.000     0.000     0.000     0.000
```

PRINTED IN U.S.A.
FORM 1411-GD PRINTED BY ROTARY MANIFOLD FORMS.

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

T1CITY OF ANN ARBOR FIS  HUD 2016-07 ALLEN CREEK
T2 OVERLAND FLOW
T3      ALLEN CREEK-ANN ARBOR

J1  ICHECK    INQ     NUMM     IDST     STRT     METRIC   HRINS    G        SSEL     FC

       0.       4.       0.       0.  0.000000     0.00      0.0       0.   761.900    0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

     3.000    3.000   -7.000    0.000    0.000    0.300    0.000    0.000    0.000    0.000
```

FORM 1411-CD PRINTED BY ROTARY MANIFOLD FORMS. PRINTED IN U.S.A.

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 30,31,32
*****************************************************

T1CITY OF ANN ARBOR FIS  HUD 2016-07 ALLEN CREEK
T2 OVERLAND FLOW
T3      ALLEN CREEK-ANN ARBOR

J1  ICHSCK    INQ      MINU     IDIR     STIT     METRIC   HVINS    [illegible]      BEL      FR

       0.       5.       0.       0.  0.000000     0.00      0.0       0.   761.900    0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECK     FN       ALLDC    CBN      CHNIM     ITRACE

     4.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

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**************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
**************************************************

T1CITY OF ANN ARBOR FIS  HUD 2016-07 ALLEN CREEK
T2RATING CURVE
T3       ALLEN CREEK-ANN ARBOR
J1  ICHECK    INQ      NINQ      IDIR      STRT      METRIC    NMINS     0         PFM       FA
       0.        6.        0.        0.  0.000000      0.00       2.0        0.   761.900     0.000
J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIN     STRADE
     5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS.
PRINTED IN U.S.A.

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,53
*****************************************************

T1CITY OF ANN ARBOR FIS  HUD 2016-07 ALLEN CREEK
T2 OVERLAND FLOW
T3       ALLEN CREEK-ANN ARBOR

J1  ICHECK    INP      MTNV     IDIT     STRT     METRIC   HVINS    [illegible]    [illegible]    FE
       0.       7.       0.       0.  0.000000     0.00      0.0       0.  761.900    0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHMIN    ITRACE
    15.000    7.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

FORM 1411-GD-PRINTED BY ROTARY MANIFOLD FORMS. PRINTED IN U.S.A.

****
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 5G.51.9E
****

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

ALLEY CREEK-ANN ARBOR

SUMMARY PRINTOUT TABLE 150

	SECNO	XLOB	ELTRD	ELLC	ELMIN	Q	CHSEL	CRIWS	E.G	VCHK	AREA	.01K
	3.000	0.00	0.00	0.00	777.00	600.00	778.00	0.00	778.43	249.37	1.66	469.23	36.02
	3.000	0.00	0.00	0.00	777.00	1000.00	778.00	0.00	778.08	691.87	3.01	469.23	36.02
	3.000	0.00	0.00	0.00	777.00	1300.00	778.00	0.00	778.14	1169.25	3.99	469.23	36.02
	3.000	0.00	0.00	0.00	777.00	1600.00	778.00	0.00	778.21	1771.18	4.89	469.23	36.02
	3.000	0.00	0.00	0.00	777.00	1900.00	778.02	778.02	778.29	2215.19	5.45	487.31	40.36
	3.000	0.00	0.00	0.00	777.00	2200.00	778.09	778.09	778.37	2232.47	5.67	534.13	46.56
	2.300	650.00	0.00	0.00	776.00	600.00	780.91	0.00	780.92	17.87	0.82	764.24	141.92
	2.300	650.00	0.00	0.00	776.00	1000.00	781.64	0.00	781.65	18.36	1.01	1047.62	232.02
	2.300	650.00	0.00	0.00	776.00	1300.00	782.07	0.00	782.09	19.32	1.13	1226.44	295.79
	2.300	650.00	0.00	0.00	776.00	1600.00	782.44	0.00	782.46	19.95	1.25	1389.38	354.26
	2.300	650.00	0.00	0.00	776.00	1900.00	782.77	0.00	782.79	20.72	1.35	1540.26	417.49
	2.300	650.00	0.00	0.00	776.00	2200.00	783.04	0.00	783.07	21.73	1.42	1687.66	472.30
	2.100	270.00	0.00	0.00	779.00	600.00	781.33	0.00	781.34	15.47	0.74	814.03	163.51
	2.100	270.00	0.00	0.00	779.00	1000.00	782.08	0.00	782.10	14.66	0.93	1078.37	261.19
	2.100	270.00	0.00	0.00	779.00	1300.00	782.54	0.00	782.56	15.81	1.00	1297.39	325.65
	2.100	270.00	0.00	0.00	779.00	1600.00	782.91	0.00	782.96	16.83	1.15	1576.79	398.32
	2.100	270.00	0.00	0.00	779.00	1900.00	783.25	0.00	783.31	17.71	1.27	1682.39	451.39
	2.100	270.00	0.00	0.00	779.00	2200.00	783.54	0.00	783.62	18.92	1.37	1603.60	505.72
	2.200	270.00	0.00	0.00	780.00	600.00	781.85	0.00	781.91	36.97	1.06	565.22	98.68
	2.200	270.00	0.00	0.00	780.00	1000.00	782.65	0.00	782.67	35.53	1.26	792.37	173.22
	2.200	270.00	0.00	0.00	780.00	1300.00	783.12	0.00	783.15	36.47	1.34	936.34	226.13
	2.200	270.00	0.00	0.00	780.00	1600.00	783.50	0.00	783.57	37.52	1.41	1050.36	280.63
	2.200	270.00	0.00	0.00	780.00	1900.00	783.81	0.00	783.95	38.79	1.62	1170.74	331.80
	2.200	270.00	0.00	0.00	780.00	2200.00	784.24	0.00	784.29	43.49	1.75	1270.43	380.15
	2.300	270.00	0.00	0.00	781.00	600.00	783.97	0.00	783.97	50.57	1.31	458.53	84.37
	2.300	270.00	0.00	0.00	781.00	1000.00	783.78	0.00	783.79	52.56	1.48	676.02	157.94
	2.300	270.00	0.00	0.00	781.00	1300.00	784.27	0.00	784.28	53.05	1.61	814.57	178.55
	2.300	270.00	0.00	0.00	781.00	1600.00	784.69	0.00	784.69	53.64	1.97	812.97	218.86
	2.300	270.00	0.00	0.00	781.00	1900.00	785.04	0.00	785.08	53.94	2.12	898.68	256.69
	2.300	270.00	0.00	0.00	781.00	2200.00	785.36	0.00	785.44	54.66	2.25	977.79	297.56

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FORM 1411.08 PRINTED BY ROTARY MANIFOLD FORMS.

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	TOKAS	VCH	AREA	.01K
3.000	270.00	0.00	0.00	782.00	600.00	784.32	0.00	784.36	44.93	1.74	344.68	89.51
3.000	270.00	0.00	0.00	782.00	1000.00	785.08	0.00	785.16	47.87	2.18	459.56	144.53
3.000	270.00	0.00	0.00	782.00	1300.00	785.57	0.00	785.66	49.72	2.45	531.89	184.37
3.000	270.00	0.00	0.00	782.00	1600.00	786.02	0.00	786.12	51.27	2.68	596.97	223.65
3.000	270.00	0.00	0.00	782.00	1900.00	786.43	0.00	786.53	52.62	2.90	656.75	261.93
3.000	270.00	0.00	0.00	782.00	2200.00	786.82	0.00	786.92	53.88	3.09	712.13	299.72
3.100	99.00	0.00	0.00	783.00	600.00	784.92	0.00	784.99	93.84	2.22	270.37	61.94
3.100	99.00	0.00	0.00	783.00	1000.00	785.68	0.00	785.79	85.30	2.65	378.02	108.22
3.100	99.00	0.00	0.00	783.00	1300.00	786.17	0.00	786.32	82.67	2.91	446.86	142.90
3.100	99.00	0.00	0.00	783.00	1600.00	786.60	0.00	786.74	81.19	3.15	507.03	177.60
3.100	99.00	0.00	0.00	783.00	1900.00	787.01	0.00	787.18	80.30	3.36	560.22	212.05
3.100	99.00	0.00	0.00	783.00	2200.00	787.38	0.00	787.58	79.86	3.56	619.35	246.15
3.200	99.00	0.00	0.00	784.00	600.00	785.90	0.00	785.99	107.97	2.37	253.27	57.74
3.200	99.00	0.00	0.00	784.00	1000.00	786.66	0.00	786.73	105.95	2.80	356.17	97.15
3.200	99.00	0.00	0.00	784.00	1300.00	787.06	0.00	787.22	103.99	3.17	407.54	127.48
3.200	99.00	0.00	0.00	784.00	1600.00	787.46	0.00	787.57	102.44	3.45	463.79	158.05
3.200	99.00	0.00	0.00	784.00	1900.00	787.87	0.00	788.09	101.23	3.69	516.09	188.84
3.200	99.00	0.00	0.00	784.00	2200.00	788.24	0.00	788.48	100.39	3.90	565.04	219.58
3.300	198.00	0.00	0.00	786.00	600.00	787.61	0.00	787.76	74.12	2.93	203.59	69.60
3.300	198.00	0.00	0.00	786.00	1000.00	788.44	0.00	788.66	70.19	3.55	281.24	119.37
3.300	198.00	0.00	0.00	786.00	1300.00	789.01	0.00	789.19	68.19	3.92	332.16	157.66
3.300	198.00	0.00	0.00	786.00	1600.00	789.53	0.00	789.71	66.36	4.22	379.35	196.41
3.300	198.00	0.00	0.00	786.00	1900.00	789.99	0.00	790.20	64.77	4.49	423.70	236.09
3.300	198.00	0.00	0.00	786.00	2200.00	790.42	0.00	790.67	63.38	4.73	465.77	276.35
3.400	99.00	0.00	0.00	787.00	600.00	786.49	0.00	786.67	112.12	3.45	175.15	56.66
3.400	99.00	0.00	0.00	787.00	1000.00	789.16	0.00	789.32	109.05	4.27	260.41	95.77
3.400	99.00	0.00	0.00	787.00	1300.00	789.42	0.00	789.75	105.43	4.59	283.86	126.61
3.400	99.00	0.00	0.00	787.00	1600.00	789.77	0.00	790.15	102.48	4.94	324.31	158.05
3.400	99.00	0.00	0.00	787.00	1900.00	790.09	0.00	790.52	99.80	5.25	362.48	190.19
3.400	99.00	0.00	0.00	787.00	2200.00	790.46	0.00	790.85	97.37	5.53	398.32	222.24
3.500	198.00	0.00	0.00	789.00	600.00	788.31	0.00	788.47	114.34	3.49	174.66	56.64
3.500	198.00	0.00	0.00	789.00	1000.00	791.16	0.00	791.44	105.17	4.25	235.95	97.51
3.500	198.00	0.00	0.00	789.00	1300.00	791.51	0.00	791.66	100.83	4.74	274.94	125.77
3.500	198.00	0.00	0.00	789.00	1600.00	791.85	0.00	792.25	98.89	5.08	309.71	153.33
3.500	198.00	0.00	0.00	789.00	1900.00	792.16	0.00	792.61	96.79	5.37	342.10	180.90
3.500	198.00	0.00	0.00	789.00	2200.00	792.41	0.00	792.91	95.20	5.62	371.03	208.35
3.600	99.00	0.00	0.00	790.00	600.00	791.60	0.00	791.84	108.22	3.61	166.52	57.41
3.600	99.00	0.00	0.00	790.00	1000.00	792.21	0.00	792.58	110.45	4.45	224.96	94.72
3.600	99.00	0.00	0.00	790.00	1300.00	792.58	0.00	792.97	110.62	5.00	260.53	120.90
3.600	99.00	0.00	0.00	790.00	1600.00	792.91	0.00	793.37	110.72	5.44	295.12	146.74
3.600	99.00	0.00	0.00	790.00	1900.00	793.22	0.00	793.75	110.60	5.84	326.35	172.61
3.600	99.00	0.00	0.00	790.00	2200.00	793.51	0.00	794.11	110.53	6.21	356.67	198.63
3.700	99.00	0.00	0.00	791.00	600.00	792.75	0.00	792.95	112.87	3.78	158.90	56.48
3.700	99.00	0.00	0.00	791.00	1000.00	793.32	0.00	793.66	116.53	4.68	213.98	92.64
3.700	99.00	0.00	0.00	791.00	1300.00	793.71	0.00	794.13	117.32	5.22	251.06	120.03
3.700	99.00	0.00	0.00	791.00	1600.00	794.03	0.00	794.56	118.68	5.72	280.00	146.52
3.700	99.00	0.00	0.00	791.00	1900.00	794.37	0.00	794.95	122.53	6.15	312.16	171.63
3.700	99.00	0.00	0.00	791.00	2200.00	794.66	0.00	795.32	124.19	6.54	337.41	197.41

FORM 1411-GR PRINTED BY ROTARY MANIFOLD FORMS, PRINTED IN U.S.A.

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCR	AREA	.01K
3.800	99.00	0.00	0.00	792.00	600.00	793.83	0.00	794.07	113.18	3.94	152.46	56.40
3.800	99.00	0.00	0.00	792.00	1000.00	794.46	0.00	794.83	118.28	4.90	204.59	91.95
3.800	99.00	0.00	0.00	792.00	1300.00	794.85	0.00	795.32	119.95	5.47	238.60	118.70
3.800	99.00	0.00	0.00	792.00	1600.00	795.22	0.00	795.78	122.51	5.90	260.68	146.58
3.800	99.00	0.00	0.00	792.00	1900.00	795.55	0.00	796.19	124.98	6.44	296.21	169.96
3.800	99.00	0.00	0.00	792.00	2200.00	795.86	0.00	796.59	127.11	6.87	321.64	195.14
3.900	99.00	0.00	0.00	793.00	600.00	794.94	0.00	795.21	113.22	4.15	144.97	55.90
3.900	99.00	0.00	0.00	793.00	1000.00	795.61	0.00	796.03	120.52	5.16	194.54	91.09
3.900	99.00	0.00	0.00	793.00	1300.00	796.03	0.00	796.55	124.93	5.79	225.42	116.31
3.900	99.00	0.00	0.00	793.00	1600.00	796.41	0.00	797.03	126.66	6.32	254.43	142.17
3.900	99.00	0.00	0.00	793.00	1900.00	796.76	0.00	797.48	129.27	6.81	260.54	167.11
3.900	99.00	0.00	0.00	793.00	2200.00	797.08	0.00	797.90	132.69	7.28	304.10	190.99
4.000	101.00	0.00	0.00	794.00	600.00	796.08	0.00	796.37	112.69	4.29	140.03	56.52
4.000	101.00	0.00	0.00	794.00	1000.00	796.79	0.00	797.23	117.05	5.33	186.22	92.44
4.000	101.00	0.00	0.00	794.00	1300.00	797.24	0.00	797.80	120.53	5.97	210.44	118.41
4.000	101.00	0.00	0.00	794.00	1600.00	797.64	0.00	798.31	123.76	6.54	245.57	143.82
4.000	101.00	0.00	0.00	794.00	1900.00	798.01	0.00	798.79	127.51	7.06	269.91	168.26
4.000	101.00	0.00	0.00	794.00	2200.00	798.36	0.00	799.24	129.52	7.52	293.43	193.31
5.000	400.00	0.00	0.00	795.00	600.00	798.69	0.00	798.74	35.70	1.64	367.45	100.30
5.000	400.00	0.00	0.00	795.00	1000.00	799.81	0.00	799.38	41.46	2.10	477.98	155.30
5.000	400.00	0.00	0.00	795.00	1300.00	800.51	0.00	800.30	44.55	2.36	547.81	194.70
5.000	400.00	0.00	0.00	795.00	1600.00	801.14	0.00	801.25	47.13	2.63	610.31	233.06
5.000	400.00	0.00	0.00	795.00	1900.00	801.72	0.00	801.85	49.16	2.85	668.36	271.00
5.000	400.00	0.00	0.00	795.00	2200.00	802.25	0.00	802.40	51.10	3.06	721.60	307.75

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FORM 1411-GB-PRINTED BY ROTARY MANIFOLD FORMS

ALLEN CREEK-ANN ARBOR

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	ALCH
0.000	600.00	778.00	0.00	0.00	16.10	838.46	0.00
0.000	1000.00	778.00	0.00	0.00	16.10	838.46	0.00
0.000	1300.00	778.00	0.00	0.00	16.10	838.46	0.00
0.000	1600.00	778.00	0.00	0.00	16.10	838.46	0.00
0.000	1900.00	778.02	0.00	0.00	16.12	864.53	0.00
0.000	2200.00	778.05	0.00	0.00	16.15	863.04	0.00
2.000	600.00	780.91	0.00	2.91	0.00	377.97	650.00
2.000	1000.00	781.64	0.00	3.64	0.00	401.60	650.00
2.000	1300.00	782.07	0.00	4.07	0.00	416.14	650.00
2.000	1600.00	782.44	0.00	4.44	0.00	443.60	650.00
2.000	1900.00	782.77	0.00	4.75	0.00	452.40	650.00
2.000	2200.00	783.04	0.00	4.97	0.00	457.[illegible]	650.00
2.100	600.00	781.33	0.00	0.42	0.00	349.42	270.00
2.100	1000.00	782.08	0.00	0.45	0.00	349.56	270.00
2.100	1300.00	782.54	0.00	0.47	0.00	349.64	270.00
2.100	1600.00	782.93	0.00	0.49	0.00	349.72	270.00
2.100	1900.00	783.29	0.00	0.52	0.00	349.78	270.00
2.100	2200.00	783.59	0.00	0.55	0.00	349.83	270.00
2.200	600.00	781.89	0.00	0.56	0.00	299.38	270.00
2.200	1000.00	782.65	0.00	0.55	0.00	299.56	270.00
2.200	1300.00	783.12	0.00	0.58	0.00	299.62	270.00
2.200	1600.00	783.54	0.00	0.60	0.00	299.71	270.00
2.200	1900.00	783.91	0.00	0.62	0.00	299.78	270.00
2.200	2200.00	784.24	0.00	0.65	0.00	299.85	270.00
2.300	600.00	783.[illegible]	0.00	1.10	0.00	224.65	270.00
2.300	1000.00	783.[illegible]	0.00	1.10	0.00	224.[illegible]	270.00
2.300	1300.00	784.[illegible]	0.00	1.09	0.00	224.[illegible]	270.00
2.300	1600.00	784.63	0.00	1.09	0.00	224.81	270.00
2.300	1900.00	785.01	0.00	1.10	0.00	224.89	270.00
2.300	2200.00	785.36	0.00	1.12	0.00	224.97	270.00
3.000	600.00	784.32	0.00	1.27	0.00	149.17	270.00
3.000	1000.00	785.[illegible]	0.00	1.32	0.00	149.22	270.00
3.000	1300.00	785.57	0.00	1.36	0.00	149.25	270.00
3.000	1600.00	786.00	0.00	1.38	0.00	149.29	270.00
3.000	1900.00	786.40	0.00	1.40	0.00	149.32	270.00
3.000	2200.00	786.78	0.00	1.42	0.00	149.36	270.00
3.100	600.00	785.92	0.00	0.60	0.00	141.2[illegible]	99.00
3.100	1000.00	785.68	0.00	0.60	0.00	141.32	99.00
3.100	1300.00	786.17	0.00	0.60	0.00	141.37	99.00
3.100	1600.00	786.60	0.00	0.60	0.00	141.42	99.00
3.100	1900.00	787.01	0.00	0.60	0.00	141.47	99.00
3.100	2200.00	787.38	0.00	0.61	0.00	141.52	99.00

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FORM 1411-38-PRINTED BY ROTARY MANIFOLD FORMS

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKUS	TOPWID	XLCH
3.200	600.00	785.90	0.00	0.99	0.00	133.24	99.00
3.200	1000.00	786.60	0.00	0.92	0.00	133.33	99.00
3.200	1300.00	787.06	0.00	0.90	0.00	133.38	99.00
3.200	1500.00	787.35	0.00	0.88	0.00	133.44	99.00
3.200	1900.00	787.87	0.00	0.86	0.00	133.48	99.00
3.200	2300.00	788.34	0.00	0.86	0.00	133.53	99.00
3.300	600.00	787.63	0.00	1.72	0.00	125.25	198.00
3.300	1000.00	788.24	0.00	1.64	0.00	125.32	198.00
3.300	1300.00	788.65	0.00	1.59	0.00	125.38	198.00
3.300	1600.00	789.03	0.00	1.55	0.00	125.43	198.00
3.300	1900.00	789.36	0.00	1.51	0.00	125.48	198.00
3.300	2200.00	789.72	0.00	1.48	0.00	125.53	198.00
3.400	600.00	788.49	0.00	2.86	0.00	117.23	99.00
3.400	1000.00	789.05	0.00	2.80	0.00	117.32	99.00
3.400	1300.00	789.46	0.00	2.77	0.00	117.37	99.00
3.400	1600.00	789.77	0.00	2.74	0.00	117.42	99.00
3.400	1900.00	790.09	0.00	2.71	0.00	117.45	99.00
3.400	2200.00	790.40	0.00	2.68	0.00	117.52	99.00
3.500	600.00	790.10	0.00	2.12	0.00	109.29	198.00
3.500	1000.00	791.13	0.00	2.11	0.00	109.34	198.00
3.500	1300.00	791.54	0.00	2.09	0.00	109.41	198.00
3.500	1600.00	791.83	0.00	2.07	0.00	109.52	198.00
3.500	1900.00	792.13	0.00	2.04	0.00	109.57	198.00
3.500	2200.00	792.41	0.00	2.01	0.00	109.62	198.00
3.600	600.00	791.14	0.00	1.03	0.00	101.03	99.00
3.600	1000.00	792.21	0.00	1.05	0.00	101.44	99.00
3.600	1300.00	792.50	0.00	1.07	0.00	101.51	99.00
3.600	1600.00	792.91	0.00	1.08	0.00	101.58	99.00
3.600	1900.00	793.22	0.00	1.09	0.00	101.64	99.00
3.600	2200.00	793.51	0.00	1.10	0.00	101.70	99.00
3.700	600.00	792.73	0.00	1.00	0.00	92.40	99.00
3.700	1000.00	793.32	0.00	1.11	0.00	92.52	99.00
3.700	1300.00	793.71	0.00	1.13	0.00	92.60	99.00
3.700	1600.00	794.03	0.00	1.14	0.00	92.67	99.00
3.700	1900.00	794.37	0.00	1.14	0.00	92.75	99.00
3.700	2200.00	794.68	0.00	1.15	0.00	92.81	99.00
3.800	600.00	793.03	0.00	1.11	0.00	83.46	99.00
3.800	1000.00	794.46	0.00	1.14	0.00	83.61	99.00
3.800	1300.00	794.85	0.00	1.14	0.00	83.72	99.00
3.800	1600.00	795.22	0.00	1.17	0.00	83.81	99.00
3.800	1900.00	795.55	0.00	1.16	0.00	83.89	99.00
3.800	2200.00	795.86	0.00	1.20	0.00	83.96	99.00
3.900	600.00	794.94	0.00	1.11	0.00	74.56	99.00
3.900	1000.00	795.61	0.00	1.15	0.00	76.75	99.00
3.900	1300.00	796.03	0.00	1.17	0.00	74.87	99.00
3.900	1600.00	796.41	0.00	1.19	0.00	74.95	99.00
3.900	1900.00	796.76	0.00	1.21	0.00	75.11	99.00
3.900	2200.00	797.08	0.00	1.22	0.00	75.16	99.00

PRINTED IN U.S.A.
FORM 1411-09-PRINTED BY HOTARY MANIFOLD FORMS.

SECNO	Q	CHSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4.000	600.00	796.08	0.00	1.14	0.00	67.26	101.00
4.000	1000.00	796.79	0.00	1.18	0.00	67.35	101.00
4.000	1300.00	797.24	0.00	1.22	0.00	67.41	101.00
4.000	1600.00	797.64	0.00	1.23	0.00	67.46	101.00
4.000	1900.00	798.01	0.00	1.26	0.00	67.50	101.00
4.000	2200.00	798.30	0.00	1.28	0.00	67.55	101.00
5.000	600.00	798.69	0.00	2.61	0.00	99.49	400.00
5.000	1000.00	799.81	0.00	3.02	0.00	99.64	400.00
5.000	1300.00	800.31	0.00	3.27	0.00	99.74	400.00
5.000	1600.00	801.14	0.00	3.49	0.00	99.82	400.00
5.000	1900.00	801.72	0.00	3.71	0.00	99.91	400.00
5.000	2200.00	802.25	0.00	3.89	0.00	99.97	400.00

SUMMARY OF ERRORS

CAUTION SECNO= 0.000 PROFILE= 5 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 0.000 PROFILE= 6 CRITICAL DEPTH ASSUMED

FORM 141-GB-PRINTED BY ROTARY MANIFOLD FORMS
PRINTED IN U.S.A.

09:25:37 X217 AXITA KU201607 HUDAA MAR 05, 1980

SEGMENT #2

100 YR

OVERLAND FLOW

FROM 11AT SN:11AT LK:11AT FL:E5-9?5 22AU0561 2

Segment #2 100yr
overland

PRINTED IN U.S.A.
FORM 1411-00-PRINTED BY ROTARY MANIFOLD FORMS.

```
J0010=HU201607          USER=ANITA                PROJECT=HUDAA                BILLING=HUDDA                DON=X0217
=====================================================================================================================

09:17:40                                  JOB INTRODUCED FROM                                          MAR 05, 1980
                                                  CDC1 JCL

=====================================================================================================================

09:18:09  START OF TRANSLATION

          $JOB HU201607,USER=ANITA,PROJECT=HUDAA;
          $INPUT HEC2;
          RECORD COUNT: 53
          $ENDINPUT;
           VALUES WTAPAK,WTAPAK;
           SEND 'START OF HEC=2 EXECUTION';
           STEP HEC=2,MTABSOL,OPTIONS="FILE=A 91,FILE=B 92,FILE=C 93,FILE=D 94,
                                       FILE=E 95,FILE=F 96";
           ALC FILE=A,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=A,FILE=A,TEMPRY,DVC=MS/M400,MD=81;
           ALC FILE=B,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=B,FILE=B,TEMPRY,DVC=MS/M400,MD=82;
           ALC FILE=C,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=C,FILE=C,TEMPRY,DVC=MS/M400,MD=82;
           ALC FILE=D,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=D,FILE=D,TEMPRY,DVC=MS/M400,MD=82;
           ALC FILE=E,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=E,FILE=E,TEMPRY,DVC=MS/M400,MD=82;
           ALC FILE=F,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=F,FILE=F,TEMPRY,DVC=MS/M400,MD=82;
           ASG [illegible],FILE=[illegible];
          SEND 'THIS JOB NEEDS 3-PART PAPER';
          $SYSOUT [illegible],MD=I13PRT,DVC=PR;
          DEFINE [illegible],
            [illegible]INTERF(FORMAT=50,HOF=[illegible],FF1=[illegible]);
           ENDSTEP;
          [illegible]

          RECORD COUNT :    53

09:[illegible]  END OF TRANSLATION
```

```
JOBID=HJ201607          USER=ANITA          PROJECT=HUDAA          BILLING=HUDDA          ROM=X0217
MOT  : TERMINALS DOWN FROM 10 AM TO 12 NOON - DUE TO PAYROLL

==========================================================================================

09:21:00                                  JOB EXECUTION LISTING                          MAR 05, 1980

==========================================================================================
          START OF HEC=2 EXECUTION
          STEP 1
          THIS JOB NEEDS 3-PART PAPER
          LOAD MODULE = HEC=2 (79/2 /22 23:58) PREINITIALIZED
          LIBRARY = WTAEMOLD
09:21:03  STEP STARTED XPRTY=0
          FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000217.FILE=B
          FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000217.FILE=C
          FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000217.FILE=D
          FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000217.FILE=A
          FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000217.FILE=E
          FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000217.FILE=F
          TASK MAIN J=01 R=00 COMPLETED
          DUF01.IFN=FILE=B        REMEMBER REUSE=        0
          DUF01.IFN=FILE=F        REMEMBER REUSE=        0
          DUF01.IFN=FILE=C        REMEMBER REUSE=        0
          DUF01.IFN=FILE=D        REMEMBER REUSE=        0
          DUF01.IFN=FILE=A        REMEMBER REUSE=        0
          DUF01.IFN=FILE=E        REMEMBER REUSE=        0    BULSCH BUFFER=        3    CREATE BUFFER=        40
          TEMPORARY  FILES USED=   221 TRACKS
          FILE=B     ON  WTAPAK :  NB  OF  IO  CONNECTS=        133
          BORD       ON  L64SV4 :  NB  OF  IO  CONNECTS=          6
          FILE=F     ON  WTAPAK :  NB  OF  IO  CONNECTS=         30
          FILE=C     ON  WTAPAK :  NB  OF  IO  CONNECTS=         62
          NUPR       ON  L64SV4 :  NB  OF  IO  CONNECTS=         16
          FILE=D     ON  WTAPAK :  NB  OF  IO  CONNECTS=         70
          FILE=A     ON  WTAPAK :  NB  OF  IO  CONNECTS=         99
          FILE=E     ON  WTAPAK :  NB  OF  IO  CONNECTS=        109
          CPU          1.163                        PROG MISSING SECTS      576   STACKOV      99
          ELAPSED      3.894                        SYS  MISSING SECTS     1009
          LINES          361   LIMIT     NOLIM      BACKING STORE        507936
          CARDS            0   LIMIT     NOLIM      BUFFER SIZE           13840   LPSIZE     2272
09:24:57  STEP COMPLETED

          START    09:21:00   LINES       341
          STOP     09:25:00   CARDS         0
          CPU          1.163
          ELAPSE       4.002
09:25:00  RESULT:  JOB COMPLETED
```

```
*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

C
T1ANN ARBOR FLOOD INS. STUDY.   SEGMENT #2      OVERLAND FLOW
T2100 YEAR STORM
T3      ALLEN CREEK      3/4/80    J.BEAVER

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        2.        0.        0.  0.000500      0.00       0.0        0.   801.200     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH      FN      ALLDC      ILP      CHNIP     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NT      5.000  1650.000  1650.000  1650.000  1650.000  1650.000  1650.000  1650.000  1650.000     0.000
J5  LPRNT    NPRSEC                 ********REQUESTED SECTION NUMBERS********

    -10.000   -10.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC      0.130     0.130     0.130     0.100     0.300     0.000     0.000     0.000     0.000     0.000

        WEST PARK MILLER DRAIN CONFLUENCE - BETWEEN MILLER ST. & HURON ST.

XT      5.000     4.000     1.000   100.000   400.000   400.000   400.000     0.000     0.000     0.000
GR    610.000     0.000   795.000     1.000   795.000   100.000   110.000   101.000     0.000     0.000
DT      8.000   500.000   800.000  1000.000  1200.000  1400.000  1700.000  2000.000  2100.000     0.000
NC      0.130     0.120     0.100     0.000     0.000     0.000     0.000     0.000     0.000     0.000

        200 FEET DOWNSTREAM OF W. HURON ST.

XT      6.000     0.000     1.000   110.000   116.000   116.000   116.000     0.000     0.000     0.000
GR    820.000     0.000   795.000     1.000   794.000    45.000   794.000    75.000   790.000    70.000
DT    798.000    95.000   800.000   100.000   820.000   101.000     0.000     0.000     0.000     0.000
NC      0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

        IMMEDIATELY DOWNSTREAM OF W. HURON ST.

XT      7.000     7.000     1.000    80.000   180.000   180.000   180.000     0.000     0.000     0.000
GR    820.000     0.000   795.000     1.000   794.000    45.000   794.000    80.000   796.000    70.000
GR    798.000    80.000   820.000    81.000     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
```

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
*****************************************************

T1ANN ARBOR FLOOD INS. STUDY.   SEGMENT #2      OVERLAND FLOW
T2TUO YEAR STORM
T3      ALLEN CREEK      3/4/80   H.J.WEAVER
J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC    HVINS     Q        WSEL     FQ
       0.       3.       0.       0.  0.000000     0.00      0.0       0.   801.200    0.000
J2  NPROF    IPLOT    PRFVS    KSECV    KSECA     FN       ALLDC     IBW      CUNIM    ITRACE
     2.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

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FORM 1411-00 PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
*****************************************************

T1ANN ARBOR FLOOD INS. STUDY.   SEGMENT #2      OVERLAND FLOW
T2100 YEAR STORM
T3.     ALLEN CREEK      3/4/80   A.J.WEAVER

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
       0.       4.       0.       0.  3.000000     0.00      0.0      0.   861.200    0.000

J2  NPROF    IPLOT    PMFVS    XSECV    XSECH     FN      ALLOC    CQM      CHNIM    STRACS
      3.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1ANN ARBOR FLOOD INS. STUDY.   SEGMENT 02      OVERLAND FLOW
T2100 YEAR STORM
T3      ALLEN CREEK      3/6/80   W.J.WEAVER

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FC
       0.       5.       0.       0.  0.000000     0.00     0.0      0.   801.200    0.000

J2  UPROP    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CINIM    ITRACE
     4.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

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FORM 1411-GD PRINTED BY ROTARY MANIFOLD FORMS

```
*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
*****************************************************

T1ANN ARBOR FLOOD INS. STUDY.   SEGMENT #2      OVERLAND FLOW
T2TUO YEAR STORM
T3      ALLEN CREEK      3/4/80   H.J.WEAVER

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    PVINS     Q         WSEL      FQ
       0.        5.        0.        0.  0.000000      0.00       0.0        0.   601.200     0.000

J2  NPROF     IPLOT     PRFVS     XSECH     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE
      5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

```
*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1ANN ARBOR FLOOD INS. STUDY.   SEGMENT #2      OVERLAND FLOW
T2100 YEAR STORM
T3      ALLEN CREEK      3/4/80   W.J.WEAVER
J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
       0.       7.       0.       0.  0.000000     0.00     0.0      0.   801.200    0.000
J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBH      CHNIM    ITRACE
     0.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

FORM 1411-GD-PRINTED BY ROTARY MANIFOLD FORMS
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - U1
  MODIFICATION - 50,51,52
*****************************************************

T1ANN ARBOR FLOOD INS. STUDY.   SEGMENT #2      OVERLAND FLOW
T2100 YEAR STORM
T3      ALLEN CREEK      3/4/80   W.J.WEAVER

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   NVINS    Q        WSEL     FQ
      0.       8.       0.       0.  0.000000     0.00     0.0      0.   801.200   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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****
NEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CODE = 01
MODIFICATION - 50,51,52
****

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

GLEN CREEK 8/4/80

SUMMARY PRINTOUT TABLE 150

SEED	RLCK	BETO	ELLC	ELCON	Q	CWSEL	CKING	SG	TOKAS	VCH	AREA	QDIK
5.000	400.00	0.00	0.00	795.00	1650.00	801.20	0.00	801.31	48.51	2.69	616.36	236.90
5.000	400.00	0.00	0.00	795.00	1650.00	801.20	0.00	801.31	48.51	2.69	616.36	236.90
5.000	400.00	0.00	0.00	795.00	1650.00	801.20	0.00	801.31	48.51	2.69	616.36	236.90
5.000	400.00	0.00	0.00	795.00	1650.00	801.20	0.00	801.31	48.51	2.69	616.36	236.90
5.000	400.00	0.00	0.00	795.00	1650.00	801.20	0.00	801.31	48.51	2.69	616.36	236.90
5.000	400.00	0.00	0.00	795.00	1650.00	801.20	0.00	801.31	48.51	2.69	616.36	236.90
5.000	400.00	0.00	0.00	795.00	1650.00	801.20	0.00	801.31	48.51	2.69	616.36	236.90
6.000	116.00	0.00	0.00	794.00	500.00	801.51	0.00	801.52	2.09	0.76	1319.43	264.40
6.200	116.00	0.00	0.00	794.00	800.00	801.55	0.00	801.57	7.74	2.81	1327.57	267.25
6.400	116.00	0.00	0.00	794.00	1050.00	801.59	0.00	801.61	11.96	4.30	1332.94	269.14
6.600	116.00	0.00	0.00	794.00	1350.00	801.63	0.00	801.66	16.99	6.09	1338.67	271.09
6.800	116.00	0.00	0.00	794.00	1600.00	801.68	0.00	801.70	22.84	8.03	1343.70	272.96
6.900	116.00	0.00	0.00	794.00	1700.00	801.69	0.00	801.72	33.03	2.52	1351.79	295.00
6.900	116.00	0.00	0.00	794.00	2000.00	801.72	0.00	801.06	44.68	2.94	1361.38	299.21
7.000	100.00	0.00	0.00	794.00	900.00	801.53	0.00	801.57	2.09	0.94	550.77	346.95
7.000	100.00	0.00	0.00	794.00	900.00	801.65	0.00	801.69	5.01	1.77	560.04	357.79
7.000	100.00	0.00	0.00	794.00	1000.00	801.74	0.00	801.79	7.31	1.84	565.24	364.68
7.000	100.00	0.00	0.00	794.00	1200.00	801.85	0.00	801.90	10.36	2.18	552.33	372.05
7.000	100.00	0.00	0.00	794.00	1400.00	801.92	0.00	802.02	13.46	2.50	560.17	361.63
7.000	100.00	0.00	0.00	794.00	1700.00	802.02	0.00	802.27	18.01	2.97	572.77	395.99
7.000	100.00	0.00	0.00	794.00	2000.00	802.26	0.00	802.50	23.52	3.62	586.32	412.27

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FORM 1411.0C PRINTED BY ROTARY MANIFOLD FORMS.

ALLEN CREEK 3/4/80

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CHSEL	DIFNSP	DIFWSX	DIFKUS	TOPWID	XLCH
5.000	1650.00	801.20	0.00	0.00	0.00	99.83	400.00
5.000	1650.00	801.20	0.00	0.00	0.00	99.83	400.00
5.000	1650.00	801.20	0.00	0.00	0.00	99.83	400.00
5.000	1650.00	801.20	0.00	0.00	0.00	99.83	400.00
5.000	1650.00	801.20	0.00	0.00	0.00	99.83	400.00
5.000	1650.00	801.20	0.00	0.00	0.00	99.83	400.00
5.000	1650.00	801.20	0.00	0.00	0.00	99.83	400.00
6.000	500.00	801.61	0.00	0.31	0.00	99.32	116.00
6.000	800.00	801.55	0.00	0.35	0.00	99.32	116.00
6.000	1000.00	801.59	0.00	0.39	0.00	99.33	116.00
6.000	1200.00	801.61	0.00	0.42	0.00	99.33	116.00
6.000	1400.00	801.63	0.00	0.45	0.00	99.33	116.00
6.000	1700.00	801.67	0.00	0.47	0.00	99.34	116.00
6.000	2000.00	801.72	0.00	0.52	0.00	99.34	116.00
7.000	500.00	801.55	0.00	0.06	0.00	79.42	160.00
7.000	800.00	801.66	0.00	0.10	0.00	79.43	160.00
7.000	1000.00	801.74	0.00	0.16	0.00	79.44	160.00
7.000	1200.00	801.63	0.00	0.22	0.00	79.45	160.00
7.000	1400.00	801.92	0.00	0.29	0.00	79.46	160.00
7.000	1700.00	802.01	0.00	0.41	0.00	79.47	160.00
7.000	2000.00	802.2	0.00	0.56	0.00	79.48	160.00

SUMMARY OF ERRORS

PRINTED IN U.S.A.

FORM 1411-GB PRINTED BY ROTARY MANIFOLD FORMS

09:07:33 X213 ANITA HU201607 KJDAA MAR 05, 1980

```
JOBID=HU201607          USER=ANITA          PROJECT=HUDAA          BILLING=HUDDA          RON=X0213
```

```
09:03:07                                  JOB INTRODUCED FROM                                  MAR 05, 1980
                                                  CD01 JCL
```

```
09:03:22  START OF TRANSLATION

          $JOB HU201607,USER=ANITA,PROJECT=HUDAA;
          $INPUT HEC2;
          RECORD COUNT: 00
          $ENDINPUT;
           VALUES WTAPAK,WTAPAK;
           SEND 'START OF HEC=2 EXECUTION';
           STEP HEC=2,MTAEWBLM,OPTIONS='FILE=A $3,FILE=B $2,FILE=C $3,FILE=D $4,
                                        FILE=E $3,FILE=F $6';
           ALC FILE=A,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=A,FILE=A,TEMPRY,DVC=MS/M400,MD=81;
           ALC FILE=B,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=B,FILE=B,TEMPRY,DVC=MS/M400,MD=82;
           ALC FILE=C,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=C,FILE=C,TEMPRY,DVC=MS/M400,MD=82;
           ALC FILE=D,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=D,FILE=D,TEMPRY,DVC=MS/M400,MD=82;
           ALC FILE=E,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=E,FILE=E,TEMPRY,DVC=MS/M400,MD=82;
           ALC FILE=F,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=F,FILE=F,TEMPRY,DVC=MS/M400,MD=82;
           ASG WIRE,HEC2,FILESTAT=[illegible];
          SEND 'THIS JOB NEEDS 3-PART PAPER';
          $SYSOUT H=PR,MD=I13PR7,DVC=PR;
          DEFINE H=PR,
           PRINTER=(FORMAT=60,MIF=1,CPI=64);
           ENDSTEP;
          $ENDJOB;

          RECORD COUNT :     37

09:03:23  END OF TRANSLATION
```

```
JOBID=HU20?607          USER=ANITA          PROJECT=HUDAA          BILLING=HUDDA          RON=X0213
MOT  : TERMINALS DOWN FROM 10 AM TO 12 NOON - DUE TO PAYROLL

09:03:24                                  JOB EXECUTION LISTING                                  MAR 05, 1980

          START OF HEC=2 EXECUTION
          STEP 1
          THIS JOB NEEDS 3-PART PAPER
          LOAD MODULE = HEC=2 (79/2 /22 23:58) PREINITIALIZED
          LIBRARY = WIAGNSLM
09:03:28  STEP STARTED XPRTY=0
          FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: ;000213.FILE=B
          FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: ;000213.FILE=C
          FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: ;000213.FILE=D
          FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: ;000213.FILE=A
          FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: ;000213.FILE=E
          FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: ;000213.FILE=F
          TASK MAIN J=02 P=00 COMPLETED
          DUF01.IFN=FILE=B        REMEMBER REUSE=        0
          DUF01.IFN=FILE=C        REMEMBER REUSE=        0
          DUF01.IFN=FILE=D        REMEMBER REUSE=        0
          DUF01.IFN=FILE=A        REMEMBER REUSE=        0
          DUF01.IFN=FILE=E        REMEMBER REUSE=        0
          DUF01.IFN=FILE=F        REMEMBER REUSE=        0    UNLOCK BUFFER=        0    CREATE BUFFER=        40
          TEMPORARY  FILE=USED=   220 TRACKS
          FILE=B     ON  UTAPAK :  NB  OF  IO  CONNECTS=        153
          FILE=C     ON  UTAPAK :  NB  OF  IO  CONNECTS=        142
          KERR       ON  LOADV4 :  NB  OF  IO  CONNECTS=         20
          KERR       ON  LOADV4 :  NB  OF  IO  CONNECTS=          6
          FILE=D     ON  UTAPAK :  NB  OF  IO  CONNECTS=         70
          FILE=A     ON  UTAPAK :  NB  OF  IO  CONNECTS=        107
          FILE=E     ON  UTAPAK :  NB  OF  IO  CONNECTS=        109
          FILE=F     ON  UTAPAK :  NB  OF  IO  CONNECTS=         30
          CPU          1.425                          PROG MISSING SEGTS      625   STACKOV      94
          ELAPSED      3.753                          SYS  MISSING SEGTS     1476
          LINES          671   LIMIT      NOLIM       MACHINE STORE        668064
          CARDS            0   LIMIT      NOLIM       BUFFER SIZE           13062   CPSIZE     2272
09:07:13  STEP COMPLETED

          START    09:03:24   LINES        671
          STOP     09:07:15   CARDS          0
          CPU          1.425
          ELAPSE       3.839
09:07:16  RESULT:  JOB COMPLETED
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**************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
    ERROR CORR. -  01
    MODIFICATION -  50,51,52
**************************************************

C
T1ANN ARBOR FLOOD INSURANCE STUDY.   SEGMENT #2  PRESSURE FLOW.
T2100 YEAR STORM
T3      ALLEN CASE;    8/4/80   W.W. CLEAVER

J1  ICHECK     INQ        NINV       IDIR       STRT      METRIC     HVINS      Q          WSEL       FQ
          0.         2.         0.         0.  0.000001     0.02       0.1        1.     801.200     0.000

J2  SPROF      PLOT       FICHE      XSECV      XSECH      FN         ALSO       IBW        CHWIN      ITRACE

      1.000      0.000     -1.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

GR      1.000   1350.000   1950.000   1350.000   1350.000   1350.000   1350.000   1350.000   1350.000      0.000
X2      0.015      0.015      0.015      0.300      0.500      0.000      0.300      0.000      0.000      0.000

X1   3469.000     13.000    337.100    550.900      0.000      0.000      0.000      0.000      0.000      0.000
GR   1300.000      0.000   1300.000    537.000    786.100    937.100    785.000    538.000    784.200    540.000
GR    785.600    942.000    783.600    544.000    753.600    536.000    702.200    540.000    785.000    550.000
GR    784.100    550.000   1300.000    551.000   1350.000    700.000      0.000      0.000      0.000      0.000
GR      1.000    300.000    600.000    700.000    800.000    900.000   1300.000   1100.000   1200.000      0.000

      D/S END OF SEGMENT SET 1. J.PARK MILLER S.S. @ MURRAY WASHINGTON

X1   3469.000      0.000      0.020      0.000      0.100      0.100      0.100      0.000      0.000      0.000
X2     10.000      0.000      2.020      0.000      0.220      0.000      0.300   1500.000   1300.000      0.000
GR      0.000      1.900      3.600      0.000     10.200      0.000     30.200      0.000    784.850    783.400

      D/S END OF SEGMENT LOCATED JUST DOWNSTREAM OF MAIN ST. AND W.S.R.R.

X1   3465.000      0.000      2.000      0.000    250.000    800.000    296.300      0.000      1.500      0.000
X2      0.000      0.000      1.020    792.650   1350.000      0.000      0.300      0.000      0.000      0.000
X3     10.000      0.000      2.020      0.000      0.000      0.000      0.300   1500.000   1350.000      0.000
GR     13.300      0.000   1300.000      0.000    537.000   1500.000      0.300    537.200   1350.000    786.100
GR    540.200   1300.000    788.600    540.300    536.000    790.200    542.200   1310.000    787.000    544.000
GR   1330.300    791.400    544.000   1300.300    791.000    540.000   1350.200    750.200    550.000   1350.300
GR    738.600    550.900   1300.000    736.100    551.000   1350.200      0.100    730.300   1350.000      0.000
GR      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
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*PROF [illegible]

CCHV= 0.300 CEHV= 0.500

*SECNO 3469.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	BLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VCL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SOTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IH2	ICONT	CORAR	TOPWID	ENDST

3469.00	17.80	801.20	0.00	801.20	801.71	0.51	0.00	0.00	786.10
1350.	0.	1350.	0.	0.	235.	0.	0.	0.	786.10
0.00	0.01	5.75	0.01	0.015	0.015	0.015	0.000	783.40	537.10
0.000089	0.	0.	0.	0	0	0	0.00	13.81	550.90

*SECNO 3469.100

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 1300.00 ELREA= 1300.00

D/S END OF SEGMENT BETW. W.PARK MILLER S.S. & MURRAY WASHINGTON

3469.10	18.37	801.70	0.00	0.00	801.05	0.07	0.00	0.13	786.10
500.	0.	500.	0.	0.	243.	0.	0.	0.	786.10
0.00	0.00	2.06	0.00	0.015	0.015	0.015	0.001	783.40	537.10
0.000026	0.	0.	0.	2	0	0	0.00	13.80	550.90

SPECIAL BRIDGE 1.35 is reasonable

SB	XK	XKOR	COFQ	BOLEN	B.C	BHP	BAREA	SS	ELCHU	ELCHD
	0.00	1.00	2.60	0.00	10.20	0.00	80.20	0.00	784.65	783.40

*SECNO 3765.000

PIPES FLOW BECAUSE [illegible] EXCEEDS 1.5 DEPTH

PRESSURE FLOW

ESPRS	SGLNC	HS	QPEOP	LFR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
802.65	803.12	1.00	0.	500.	50.	92.	782.65	1300.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 1300.00 ELREA= 1300.00

D/S END OF SEGMENT LOCATED JUST DOWNSTREAM OF HURON STREET.END TYPE B.

3765.00	17.97	802.42	0.00	0.00	802.69	0.07	0.34	0.00	787.35
300.	0.	500.	0.	0.	237.	0.	2.	0.	787.35
0.04	0.00	2.11	0.00	0.015	0.015	0.015	0.015	784.65	537.90
0.000089	296.	296.	296.	2	0	0	0.00	13.80	550.90

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50,51,52
*****************************************************

T1 ANN ARBOR FLOOD INSURANCE STUDY.   SEGMENT #2  PRESSURE FLOW.
T2 100 YEAR STORM
T3      ALLEN CREEK      3/4/80   W.J.WEAVER

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
       0        3.       0.       0.  0.000000     0.00     0.0      0.   801.200   0.000

JE  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHAIN    ETRACE
     2.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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FORM 1411-GD-PRINTED BY ROTARY MANIFOLD FORMS

*PROF 2

CCHV= 0.300 CEHV= 0.500

*SECNO 3469.000

	SECNO	DEPTH	CWSEL	CRWS	∗SELK	EG	HV	HL	QLOSS	BANK ELEV
	Q	SLOB	CCH	QROO	A_OB	ACH	ARDB	VOL	THA	LEFT/RIGHT
	TIME	VLOB	VCH	VEOB	XNL	XLCH	XNR	VTL	ELUCH	SSTA
	SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IN2	ICONT	CORAR	TOPWID	ENDST
	3469.00	17.30	801.20	0.00	801.20	801.71	0.51	0.00	C.00	736.10
	1350.	0.	1590.	0.	0.	235.	C.	0.	0.	786.10
	0.00	0.01	5.76	0.00	0.015	0.015	0.013	C.000	783.40	537.10
	0.000089	0.	0.	0.	0	0	0	0.00	13.81	550.90

*SECNO 3469.100

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 1350.00 E.REA= 1350.00

D/S END OF SEGMENT BETH. W.PARK MILLER S.S. & MURRAY WASHINGTON

3469.00	14.35	791.74	0.00	0.00	801.04	0.10	C.00	0.13	786.10
600.	C.	600.	0.	0.	262.	0.	0.	0.	764.13
0.00	0.00	2.43	0.00	0.015	0.015	0.015	0.001	783.40	537.10
0.000040	0.	0.	0.	2	0	0	0.00	13.80	550.90

SPECIAL BRIDGE

SS	KK	XTOP	COFS	RDLEN	BSC	ESP	SAREA	SS	ELCHU	ELCHD
	0.00	1.53	2.60	0.00	13.20	0.00	10.20	0.00	796.65	763.40

*SECNO 3765.000

*DESS FLOW TOCAUSE CALC OF 302.09 PROCED.TAS DESN

PRESSURE FLOW

ESPRS	ELUS	AS	QLEIF	OPR	BAREA	TRAPEZOID AREA	ELLC	ELTO
803.05	801.00	1.11	0.	230.	30.	82.	792.65	1300.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELLEA= 1305.00 ELTEA= 1305.00

U/S END OF SEGMENT LOCATED JUST DOWNSTREAM OF HURON STREET.END TYPE B.

3763.00	16.30	802.99	0.00	0.00	803.05	0.10	1.21	0.00	737.35
300.	0.	600.	0.	0.	2.2.	0.	2.	0.	767.35
0.03	0.00	2.60	0.00	0.015	0.045	0.015	0.015	734.65	537.10
0.000040	236.	256.	226.	2	0	0	0.01	13.80	550.90

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FORM 1411.03 PRINTED BY ROTARY MANIFOLD FORMS.

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

TRAMM ARBOR FLOOD INSURANCE STUDY.   SEGMENT #2  PRESSURE FLOW.
T3100 YEAR STORM
T3      ALLEN CREEK      3/4/80   W.J.WEAVER

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   NVINS    Q        WSEL     FQ
       0.       4.       0.       0.  0.000000     0.00     0.0      0.   801.200    0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIC    ITRACE
      3.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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FORM 1411 3D—PRINTED BY ROTARY MANIFOLD FORMS

*PROF 3

CCHV= 0.300 CEHV= 0.500

*SECNO 3469.000

SECNO	DEPTH	CHSEL	CRIWS	LSELK	EG	HV	HL	CLOSS	BANK ELEV
R	QLOB	QCH	QROB	ALOB	ACH	AROB	WOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	KSCH	XNR	WTL	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IW2	ICONT	CORAR	TOPWID	ENDST
3469.00	17.30	801.20	0.00	801.20	801.71	0.51	0.00	0.00	786.10
1350.	0.	1350.	0.	0.	235.	0.	0.	0.	786.10
0.00	0.01	5.75	0.01	0.015	0.015	0.015	0.000	781.60	537.10
0.000089	0.	0.	0.	0	0	0	0.00	13.81	550.90

*SECNO 3469.100

3425 OVERBANK AREA ASSUMED NON-EFFECTIVE.FLEA= 1350.00 FLARE= 1350.00

D/S END OF SEGMENT BETW. N.PARK MILLER S.S. & MURRAY WASHINGTON

3469.10	17.30	801.70	0.00	0.00	801.83	0.13	0.00	0.13	786.10
700.	0.	700.	0.	0.	241.	0.	0.	0.	786.10
0.00	0.30	2.93	0.00	0.015	0.013	0.015	0.001	783.40	537.10
0.000055	0.	0.	0.	2	0	0	0.00	13.80	550.90

SPECIAL BRIDGE

SE	XC	XNOR	COPC	ROLEN	BHC	BKP	EAREA	SS	ELCHU	ELCHD
	3.00	2.50	2.60	0.00	13.80	0.00	60.20	0.00	786.65	783.40

*SECNO 3765.000

PASSAGE SECT

ESPRS	SGLAD	KJ	QBYP	CPB	HAREA	TWPRZOID	ELLC	ELTRD
						41.60		
803.47	803.03	0.65	0.	700.	530.	82.	792.65	1300.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.FLEA= 1305.00 FLARE= 1300.00

U/S END OF SEGMENT LOCATED JUST DOWNSTREAM OF ULTON STREET,EXP TYPE B.

3765.00	18.70	803.55	0.00	0.00	803.47	0.12	1.64	0.00	787.35
700.	0.	700.	0.	0.	242.	0.	2.	0.	787.55
0.03	1.00	2.53	0.00	0.015	0.015	0.015	0.016	786.65	537.10
0.000052	296.	265.	296.	2	0	2	0.00	13.80	550.90

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 04
 MODIFICATION - 50,51,52
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T1ANN ARBOR FLOOD INSURANCE STUDY.   SEGMENT #2  PRESSURE FLOW.
T2100 YEAR STORM
T3      ALLEN CREEK      3/4/80   W.J.WEAVER

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       5.       0.       0.  0.000000     0.00     0.0      0.   801.200   0.000

J2  XPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IDU      CHNIM    ITRACE

     4.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*PROF 4

CCHV= 0.300 CEHV= 0.500

*SECNO 3469.000

SECNO	DEPTH	EWSEL	CHINS	WSELK	EG	HV	EL	QLOSS	CALK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	T-H	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XSL	XNCH	XNR	WTD	ELMIN	STA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IN2	ICONT	CORAR	TOPWID	ENDST
3469.00	17.80	800.20	0.00	801.20	801.71	0.51	0.00	0.00	786.10
1352.	0.	1352.	0.	0.	235.	0.	0.	0.	786.10
0.20	0.01	5.76	0.01	0.015	0.013	0.015	0.000	703.40	557.10
0.000089	0.	0.	0.	0	0	0	0.00	13.31	550.90

*SECNO 3469.100

BASS OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLE= 1300.00 ELREA= 1300.00

D/S END OF SEGMENT BETW. 2.PARK MILLER S.S. & MURRAY WASHINGTON

3469.10	13.25	801.69	0.00	0.00	801.62	0.17	0.00	0.10	786.10
660.	0.	300.	0.	0.	241.	0.	0.	0.	786.10
0.00	0.00	3.32	0.00	0.015	0.013	0.015	0.001	733.40	557.10
0.000072	0.	0.	0.	2	0	0	0.00	13.80	550.90

SPECIAL BRIDGE

SE	XKOR	CORO	RDLEN	BHC	BHP	BAREA	SS	CLCHV	ELCRO
LC	1.50	2.00	0.00	10.20	0.20	80.20	0.00	784.65	783.40

*SECNO 3765.000

EXPANSION FLOW

EGPRS	EK.HC	W3	ZUC33	QPR	BAREA	TRAPEZOID AREA	ELLE	ELTRD
803.96	802.37	0.00	0.	800.	50.	83.	782.65	1300.00

TABS OVERBANK AREA ASSUMED NON-EFFECTIVE,ELREA= 1300.00 ELREA= 1300.00

U/S END OF SEGMENT LOCATED JUST DOWNSTREAM OF HURON STREET,END TYPE 6.

3765.00	9.16	803.81	0.00	0.00	803.96	0.15	2.15	0.00	787.35
120.	0.	800.	0.	0.	253.	0.	2.	0.	787.35
0.03	0.00	3.16	0.00	0.015	0.013	0.015	0.015	784.65	557.10
1.300063	800.	296.	296.	2	0	0	0.00	13.80	550.90

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  31
  MODIFICATION -  50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY.   SEGMENT #2  PRESSURE FLOW.
T2100 YEAR STORM
T3      ALLEN CREEK       3/4/80   W.J.WEAVER
J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        6.        0.        0.  0.000000      0.00       0.0        0.   601.200     0.000
J2  NPROF     IPLOT     PRFWS     KSECV     KSECH     FN        ALLOC     IP        CHNIM     ITRACE
     5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*PROF 5

CCHV= 0.350 CEHV= 0.500

*SECNO 3469.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	.HV	EL	DLOSS	BANK ELEV
Q	QLOB	QCH	QTOB	ALOB	ACH	AROB	VOL	T.A	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XN	XNCH	XNR	STN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IN2	ICONT	CORAR	TOPWID	ENDST
3469.00	17.80	801.20	0.00	851.20	801.71	3.51	0.00	0.00	736.10
1350.	0.	1350.	0.	0.	235.	0.	0.	0.	784.10
0.00	0.31	3.76	0.01	3.015	0.015	0.015	0.000	783.40	537.10
0.000089	0.	0.	0.	0	0	0	0.00	13.81	550.90

*SECNO 3469.100

*595 OVERBANK AREA ASSUMED NON-EFFECTIVE-ELLEA= 1300.00 ELREA= 1900.00

D/S END OF SEGMENT BETW. H.PARK MILLER S.S. & MURRAY WASHINGTON

3469.10	13.13	801.55	0.00	0.00	801.85	0.22	0.00	0.09	786.10
900.	0.	900.	0.	0.	360.	0.	0.	0.	786.10
0.00	0.00	3.75	0.00	0.015	0.015	0.015	0.001	783.40	537.10
0.000092	0.	0.	0.	2	0	0	0.00	13.80	550.90

SPECIAL BRIDGE

SQ	XK	XKOR	COFQ	RDLEN	BUC	DSP	BAREA	SS	ELCHU	ELCHD
	0.50	1.50	2.60	0.00	10.20	0.00	00.20	0.00	784.65	783.40

*SECNO 3469.000
BRIDGE

EGPRS	ESLOP	WS	QWEXP	QBR	RADBR	TRAPEZOID AREA	ELBR	ELTBR
804.32	805.05	0.00	0.	921.	30.	32.	792.00	1303.00

*595 OVERBANK AREA ASSUMED NON-EFFECTIVE-ELLEA= 1300.00 ELREA= 1900.00

U/S END OF SEGMENT LOCATED JUST DOWNSTREAM OF HURON STREET.BND TYPE 3.

3765.00	19.68	806.33	0.00	0.00	807.52	3.19	2.71	0.30	787.35
900.	0.	900.	0.	2.	261.	0.	2.	0.	787.35
0.02	0.00	3.45	0.00	0.015	0.015	0.015	0.015	784.65	537.10
0.000074	296.	296.	296.	2	0	0	0.00	13.50	550.90

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY.   SEGMENT #2  PRESSURE FLOW.
T2100 YEAR STOR
T3      ALLEN CREEK      3/4/80   W.J.WEAVER
J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
       0.       7.       0.       0.  0.000000     0.00     0.0      0.   801.200   0.000
J2  NPROF    NPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IDM      CHXIM    ITRACE
     6.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*PROF 6

CCHV= 0.300 CEHV= 0.500

*SECNO 3469.000

SECNO	DEPTH	C-SEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	CCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTS	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IHZ	ICONT	CORAR	TOPWID	ENDST
3469.00	17.40	801.20	0.00	801.20	801.71	0.57	0.00	0.00	786.10
1350.	0.	1350.	0.	0.	235.	0.	0.	0.	786.10
0.00	0.01	5.76	0.01	0.015	0.015	0.015	0.000	783.60	537.10
0.000089	0.	0.	0.	0	0	0	0.00	13.81	550.90

*SECNO 3469.100

3493 OVERBANK AREA ASSIGNED NON-EFFECTIVE/ELLEP= 1300.00 ELMIN= 1300.00

D/S END OF SEGMENT DETH, W.PARK MILLER S.S. & MURRAY WASHINGTON

3469.10	18.12	801.82	0.00	0.00	801.79	0.27	0.00	0.07	786.10
1300.	0.	1300.	0.	0.	239.	0.	0.	0.	786.10
0.00	0.00	6.19	0.00	0.015	0.015	0.015	0.001	783.40	537.10
0.000115	0.	0.	0.	2	0	0	0.00	13.80	550.90

SPECIAL BRIDGE

SS	YR	XKOR	COTE	BOLEN	SNC	SNP	BAREA	SS	ELCHO	ELCHD
	0.00	1.50	2.67	0.20	10.20	0.00	80.20	0.00	784.65	765.42

*3830.0 3765.000

DEBRIDGE BLDG

FSTOP	EGL	HT	O.BIR	CPR	BAREA	TRAPEZOID AREA	ELLC	E.TRA
805.14	803.04	0.00	0.	1000.	80.	882.	792.65	1300.00

3495 OVERBANK AREA ASSIGNED NON-EFFECTIVE/ELLEP= 1300.00 ELMIN= 1300.00

U/S END OF SEGMENT LOCATED JUST OUTSIDE OF HURON STREET.END TYPE B.

3765.00	20.27	804.92	0.00	0.00	803.14	0.22	0.35	0.00	787.35
1070.	0.	1000.	0.	0.	269.	0.	0.	0.	787.35
0.00	0.00	3.72	0.00	0.015	0.015	0.015	0.005	784.65	537.10
0.000045	296.	296.	296.	2	2	0	0.00	13.80	550.90

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FORM 1411-GO PRINTED BY ROTARY MANIFOLD FORMS.

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*****************************************************
  HECK RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR + 01
  MODIFICATION - 50,51,52
*****************************************************

TIANN ARBOR FLOOD INSURANCE STUDY.   SEGMENT 42  PRESSURE FLOW.
T2100 YEAR STORM
T3      ALLEN CREEK      3/4/00   W.J.WEAVER
J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FG
       0.        8.        0.        0.  0.000000      0.00       0.0        0.   601.200     0.000
J2  XPROF     IPLOT     PREVS     XSECH     XSECH     FN        ALLDC     IBW       CHNIW     ITHNCZ
    15.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

FORM 141LBD PRINTED BY ROTARY MANIFOLD FORMS
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*PROF 7

CCHV=   0.300 CEHV=   0.500
*SECNO 3469.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        GLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA      LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XL        XMCH      XMR       WTW       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IH2       ICONT     CORAR     TOPWID      ENDST

  3469.00    17.80    801.20      0.00    801.20    801.71      0.51      0.00      0.00    786.10
    1350.       0.     1350.        0.        0.      235.        0.        0.        0.    786.10
     0.00      0.01      5.76      0.01     0.015     0.015     0.015     0.000    783.40    537.10
 0.000089        0.        0.        0.         0         0         0      0.00     13.01    550.90

*SECNO 3469.100

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1300.00 ELREA=     1300.00

        D/S END OF SEGMENT BETW. W.PARK MILLER S.S. & MURRAY WASHINGTON

  3469.10    18.04    801.44      0.00      0.00    801.77      0.33      0.00      0.05    786.10
    1100.       0.     1100.        0.        0.      238.        0.        0.        0.    786.10
     0.00      0.00      4.62      0.00     0.015     0.015     0.015     0.001    783.40    537.10
 0.000140        0.        0.        0.         2         0         0      0.00     13.80    550.90

SPECIAL BRIDGE

SD   NK        XKOR      COFD      BOLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     0.00      1.50      2.60      0.30     10.20      0.00     80.23      0.00    784.65    783.40

*SECNO 3765.000
PRESSURE FLOW

 EGPRS      ESLNC      HS        QUSIR     QPR       BAREA     TRAPEZOID     ELLC      ELTRD
                                                                AREA
  803.02     803.02     0.00        0.     1100.      80.       32.       792.65    780.10

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1300.00 ELREA=     1300.00

        D/S END OF SEGMENT LOCATED JUST DOWNSTREAM OF HURON STREET,END TYPE 5.

  3765.00    20.93    805.58      0.00      0.00    805.82      0.24      6.05      0.00    787.35
    1100.       0.     1100.        0.        0.      278.        0.        2.        0.    787.35
     0.02      0.00      3.98      0.00     0.015     0.015     0.015     0.015    784.65    537.10
 0.000094      276.      296.      296.         2         0         0      0.00     13.80    550.90
```

****
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 51,59,52
****

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

ALLEN CREEK 3/6/80

SUMMARY PRINTOUT TABLE 150

SECNO	XLOB	ELTRD	ELLC	ELMIN	Q	CHSEL	CRITS	FR	TOPWS	VCH	AREA	.01K
3469.000	0.00	0.00	0.00	783.40	1350.00	801.20	0.00	801.71	0.89	5.76	234.61	1431.30
3469.000	0.00	0.00	0.00	783.40	1350.00	801.20	0.00	801.71	0.89	5.76	234.61	1431.30
3469.000	0.00	0.00	0.00	783.40	1350.00	801.20	0.00	801.71	0.89	5.76	234.61	1431.30
3469.000	0.00	0.00	0.00	783.40	1350.00	801.20	0.00	801.71	0.89	5.76	234.61	1431.30
3469.000	0.00	0.00	0.00	783.40	1350.00	801.20	0.00	801.71	0.89	5.76	234.61	1431.30
3469.000	0.00	0.00	0.00	783.40	1350.00	801.20	0.00	801.71	0.89	5.76	234.61	1431.30
3469.100	0.10	0.00	0.00	783.40	900.00	801.78	0.00	801.85	0.28	2.06	242.62	952.98
3469.100	0.10	0.00	0.00	783.40	900.00	801.74	0.00	801.84	0.32	2.63	238.09	950.35
3469.100	0.10	0.00	0.00	783.40	900.00	801.70	0.00	801.83	0.35	2.90	241.46	967.16
3469.100	0.10	0.00	0.00	783.40	900.00	801.65	0.00	801.82	0.38	3.32	240.72	963.64
3469.100	0.10	0.00	0.00	783.40	900.00	801.53	0.00	801.80	0.42	3.75	239.88	959.16
3469.100	0.10	0.00	0.00	783.40	1000.00	801.52	0.00	801.79	1.15	4.19	230.91	934.31
3469.100	0.10	0.00	0.00	783.40	1100.00	801.46	0.00	801.77	1.45	4.62	237.04	926.93
3765.000	295.00	300.00	792.65	784.65	900.00	802.52	0.00	802.69	0.32	2.41	236.90	926.10
3765.000	296.00	301.00	792.65	784.65	900.00	802.55	0.00	802.75	0.32	2.41	241.96	947.37
3765.000	296.00	300.00	792.65	784.65	900.00	803.35	0.00	803.52	0.52	2.58	246.97	975.02
3765.000	295.00	300.00	792.65	784.65	900.00	803.01	0.00	803.96	0.69	3.16	253.32	1007.21
3765.000	296.00	301.00	792.65	784.65	900.00	804.33	0.00	804.92	0.74	3.46	260.55	1044.05
3765.000	296.00	300.00	792.65	784.65	900.00	804.92	0.00	805.74	0.75	3.72	268.07	1085.65
3765.000	296.00	301.00	792.65	784.65	900.00	804.59	0.00	805.62	0.94	3.90	292.69	1181.98

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ALLEN CREEK 3/4/80

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CUSEL	DIFWSP	DIFWSX	DIFKUS	TOPWID	ALOB
3469.000	1350.00	801.20	0.00	0.00	0.00	13.81	0.00
3469.000	1350.00	801.20	0.00	0.00	0.00	13.81	0.00
3469.000	1350.00	801.20	0.00	0.00	0.00	13.81	0.00
3469.000	1350.00	801.20	0.00	0.00	0.00	13.81	0.00
3469.000	1350.00	801.20	0.00	0.00	0.00	13.81	0.00
3469.000	1350.00	801.20	0.00	0.00	0.00	13.81	0.00
3469.000	1350.00	801.20	0.00	0.00	0.00	13.81	0.00
3469.100	500.00	801.78	0.00	0.56	0.00	13.80	0.10
3469.100	600.00	801.74	0.00	0.54	0.00	13.80	0.10
3469.100	700.00	801.70	0.00	0.50	0.00	13.80	0.10
3469.100	800.00	801.65	0.00	0.45	0.00	13.80	0.10
3469.100	900.00	801.58	0.00	0.38	0.00	13.80	0.10
3469.100	1000.00	801.52	0.00	0.32	0.00	13.80	0.10
3469.100	1100.00	801.44	0.00	0.24	0.00	13.80	0.10
3765.000	500.00	802.92	0.00	0.84	0.00	13.80	296.00
3765.000	600.00	802.57	0.00	0.49	0.00	13.80	296.00
3765.000	700.00	803.35	0.00	1.65	0.00	13.80	296.00
3765.000	800.00	803.81	0.00	2.16	0.00	13.80	296.00
3765.000	900.00	804.33	0.00	2.73	0.00	13.80	296.00
3765.000	1000.00	804.92	0.00	3.41	0.00	13.80	296.00
3765.000	1100.00	805.58	0.00	4.14	0.00	13.80	296.00

SUMMARY OF ERRORS

PRINTED IN U.S.A.
FORM 1811-RE-PRINTED BY ROYARY MANIFOLD FORMS.

13:26:56 X392 AMITA HU2Q1607 HUDAR KAR 06, 1980

100 YR

OVERLAND FLOW

SEGMENT #3

PRINTED IN U.S.A.
FORM 141-GB PRINTED BY ROTARY MANIFOLD FORMS

```
JOBID=HU201607          USER=ANITA                PROJECT=HUDAA                BILLING=HUDDA                RON=X0392
```

```
13:09:35                                  JOB INTRODUCED FROM                                    MAR 06, 1980
                                                CDD1 JCL
```

```
13:09:51  START OF TRANSLATION

          $JOB HU201607,USER=ANITA,PROJECT=HUDAA;
          $INPUT MEC2;
          RECORD COUNT: 64
          $END INPUT;
           VALUES WTAPAK,UTAPAK;
           SEND 'START OF MEC#2 EXECUTION';
           STEP MEC#2,WTA=NULM,OPTIONS='FILE#A 91,FILE#B 92,FILE#C 93,FILE#D 94,
                                        FILE#E 95,FILE#F 96';
           ALC FILE#A,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE#A,FILE#A,TEMPRY,DVC=MS/M400,MD=&1;
           ALC FILE#B,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE#B,FILE#B,TEMPRY,DVC=MS/M400,MD=&2;
           ALC FILE#C,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE#C,FILE#C,TEMPRY,DVC=MS/M400,MD=&2;
           ALC FILE#D,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE#D,FILE#D,TEMPRY,DVC=MS/M400,MD=&2;
           ALC FILE#E,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE#E,FILE#E,TEMPRY,DVC=MS/M400,MD=&2;
           ALC FILE#F,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE#F,FILE#F,TEMPRY,DVC=MS/M400,MD=&2;
           ASG HUMD,MEC2,FILESTAT=IN;
          SEND 'THIS [illegible] PAPER';
          $SYSOUT H=PR,MD=[illegible],DVC=PR;
          DEFINE H=PR,
           PRINTER=(FORMAT=60,MOF=1,PF1=64);
           ENDSTEP;
          $ENDJOB;

          RECORD COUNT :     70

13:09:53  END OF TRANSLATION
```

```
JOBID=HU201607          USER=ALITA          PROJECT=HUDAA          BILLING=HUDDA          ROL=>0392
BOT  : TRINX SUMMER

13:09:54                    JOB EXECUTION LISTING                    JAN 30, 1980

        START OF HEC=2 EXECUTION
        STEP 1
        THIS JOB USES THIRTY PASS
        LOAD MODULE = HEC=2 (79/2 /22 23:58) PREINITIALIZED
        LIBRARY = UTAENGLB
13:09:59  STEP STARTED XPRTY=9
        FP02.    2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: >000392.FILE=E
        FP03.    2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: >000392.FILE=C
        FP05.    2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: >000392.FILE=B
        FP06.    2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: >000392.FILE=A
        FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: >000392.FILE=E
        FP08.    2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: >000392.FILE=F
        TASK MAIN J=03 P=DU COMPLETED
        DUFO1,IFN=FILE=D      REMEMBER REUSE=      0
        DUFO3,IFN=FILE=C      REMEMBER REUSE=      0
        DUFO1,IFN=FILE=D      REMEMBER REUSE=      0
        DUFO2,IFN=FILE=A      REMEMBER REUSE=      0
        DUFO1,IFN=FILE=E      REMEMBER REUSE=      0
        DUFO1,IFN=FILE=F      REMEMBER REUSE=      0   DBLOCK BUFFERS=      3   CREATE BUFFER=      3
        TEMPORARY FILES USED= 22d TRACKS.
        FILE=D    ON  UTAPAK : NO  OF  10  CONTACTS=      >25
        FILE=C    ON  UTAPAK : NO  OF  10  CONTACTS=      >50
        TEMP      ON  L66704 : NO  OF  10  CONTACTS=       15
        LIME      ON  L66704 : NO  OF  10  CONTACTS=        6
        FILE=D    ON  UTAPAK : NO  OF  30  CONTACTS=       75
        FILE=A    ON  UTAPAK : NO  OF  30  CONTACTS=      106
        FILE=E    ON  UTAPAK : NO  OF  30  CONTACTS=      >75
        FILE=F    ON  UTAPAK : NO  OF  30  CONTACTS=       32
        CPU          1.19s                PROG MISSING SECTS      508   STACKS      100
        ELAPSED      3.37s                SYS MISSING SECTS      1490
        LINES          376   LIMIT    NOLIM    PASSING STORE      >6A85A
        CARDS            0   LIMIT    NOLIM    BUFFER SIZE         13440   CPU SIZE     2272
13:13:21  STEP COMPLETED

        START   13:09.54   LINES      376
        STOP    13:13:22   CARDS        0
        CPU        1.19s
        ELAPSE     3.46s
13:13:23  RESULT: JOB COMPLETED
```

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**********************************************************
  HEC2 RELEASE DATED NOV 75 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50.51.52
**********************************************************

C
TTANN ARBOR FLOOD INSURANCE STUDY. SEGMENT #3.  CUBERLAND FLOW.
T2100 YEAR STORM                                    N.J. MEAVER  3/5/80
T3       ALLEN CREEK   #3

J1  ICHECK     INQ       NEWM      IDIR      STRT      METRIC    HVINS     Q          WSEL      FB
          0.        2.        0.        0.  0.000002     1.00       0.0        0.     802.300     0.000

J2  NPROF      IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBH       CHNIM     ITRACE
      1.000     0.000    -1.000     0.300     0.300     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     8.000  2080.000  2080.000  2080.000  2080.000  2080.000  2080.000  2080.000  2080.000     0.000
NC     0.080     0.080     0.080     0.100     0.300     0.000     0.000     0.000     0.000     0.000

          U/S LIMIT OF SEGMENT #3 LOCATED E/E OF HURON ST. (SECTION F)

X1     7.000     7.000     1.000    80.000   130.000   180.000   190.000     0.000     0.000     0.000
GR   820.000     0.000   795.000     1.000   784.000    35.000   794.000    50.000   795.000    70.000
GR   790.000    30.000   823.000    61.000     0.000     0.000     0.000     0.000     0.000     0.000
GR     0.000   500.000   700.000  1300.000  1330.000  1500.000  1700.000  2300.000  2401.000  2.1000
GR     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

          LOCATED BETWEEN HURON ST & WASHINGTON AVE.

X1     4.000     0.000     1.000    26.000   250.000   255.000   250.300     0.000     0.000     0.000
GR   820.000     0.000   798.000     1.000   793.000    50.000   800.300    61.000   802.000    66.000
GR   804.000    72.000   806.000    30.000   823.000    65.000     0.000     0.000     0.000     0.000

          D/S LIMIT OF SEGMENT #3 LOCATED 100 FT. U/S OF WASHINGTON AVE.

X1     3.000     0.000     1.000    30.000   305.000   300.000   350.000     0.000     0.000     0.000
GR   820.000     0.000   798.000     1.000   793.000    50.000   800.300    61.000   802.000    66.000
GR   804.000    72.000   806.000    30.000   823.000    65.000     0.000     0.000     0.000     0.000
GR     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CODE -  01
  MODIFICATION -  50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY. SEGMENT 03.  OVERLAND FLOW.
T2100 YEAR STORM                          U.S. WEAVER  3/5/80
T3      ALLEN CREEK   03

J1  ICHECK    INQ       MINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        5.        0.        0.  0.000000      0.00      0.0       0.   302.300     0.000

J2  SPACE     SPLOT     PRECR     XSECV     XSECH     FN        ALLOC     IPV       CHNIZ     MITRACE

     2.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY. SEGMENT #3.  OVERLAND FLOW.
T2100 YEAR STORM                          W.J. WEAVER  3/5/80
T3       ALLEN CREEK   D3

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC    HVINS     Q        WSEL     FQ
      0.       4.       0.       0.  0.001000     0.00      0.0       0.   002.500   0.000

J2  NPROF     IPLOT    PRINTS   XSECV    XSECH     FN      ALLDC     IOW      CNNIN    ITOLCE
     3.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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FORM 1411-GB PRINTED BY ROTARY MANIFOLD FORMS
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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 31
 MODIFICATION - 50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY. SEGMENT 03. OVERLAND FLOW.
T2100 YEAR STORM                          W.J. BEAVER 3/5/80
T3      ALLEN CREEK   #3

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        5.        0.        0.  0.000000      0.00       0.0       0.   802.303     0.000

J2  NRDF     IPLOT     PRFVS     XSECV     XSECH      FN       ALLDC     XBW       CHNIM     STRACE

     6.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

FORM 1411-03 PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR. - 01
  MODIFICATION - 50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY. SEGMENT #3. OVERLAND FLOW.
T2100 YEAR STORM                    W.J. HEAVER  3/5/80
T3      ALLEN CREEK  03

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         USEL      FQ

      0.        0.        0.        0.  0.000000      0.00      0.0       0.   802.300     0.000

J2  NPROF     XPLOT     PRFVS     XDEC      XSECD     FK        ALLOC     ID.       CHNIT     ITRACE

     5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50,51,52
*****************************************************

T1ANN 40230 FLOOD INSURANCE STUDY. SEGMENT 43. OVERLAND FLOW.
T2100 YEAR STORM                    W.J. WEAVER  3/3/80
T3      ALLEN CREEK   03

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       7.       0.       0.  0.003000     0.00     0.0      0.   802.302   0.030

J2  XPRCP    IPLOT    PRFVS    XSECH    XSECH     FN      ALLOC    ZON     CMNIN    ITRACE

    6.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

PRINTED IN U.S.A.
FORM 141-U3 PRINTED BY ROTARY MANIFOLD FORMS

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY. SEGMENT #3.  OVERLAND FLOW.
T2100 YEAR STORM                          W.J. HEAVER  3/5/80
T3       ALLEN CREEK   #3

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0.       3.       0.       0.  0.000000    0.00     0.0      0.   802.300    0.000

J2  NPROF     IPLOT    PRFWS    XSECV    XSECH    FN       ALLDC    IDC      CHNIM    ITRACE

     7.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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FORM 1411-GB-PRINTED BY ROTARY MANIFOLD FORMS.

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY. SEGMENT #3.  OVERLAND FLOW.
T2100 YEAR STORM                          W.J. WEAVER  3/5/80
T3      ALLEN CREEK  #3

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FD
       0.       9.       0.       0.  0.000000     0.00      0.0      0.  002.300    0.000

J2  XPRLE    IPLOT    PRFVS    XSECH    XSECH    FN       ALLDC    IBW      CHNOM    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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PRINTED IN U.S.A.
FORM 1411-GB PRINTED BY ROTARY MANIFOLD FORMS

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RECE RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 01
MODIFICATION - 50,51,53

****

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

ALLEN CREEK #3

SUMMARY PRINTOUT TABLE 150

SECNO	W.S.	ELTRD	ELLE	ELMIN	Q	CWSEL	CRITW	EG	VCH	AREA	TOPK
7.000	180.00	0.00	0.00	794.00	2080.00	802.30	0.00	802.49	24.98	3.53	590.19	416.20
7.000	180.00	0.00	0.00	794.00	2080.00	802.30	0.00	802.49	24.98	3.53	590.19	416.20
7.000	180.00	0.00	0.00	794.00	2080.00	802.30	0.00	802.49	24.98	3.53	590.19	416.20
7.000	180.00	0.00	0.00	794.00	2080.00	802.30	0.00	802.49	24.98	3.53	590.19	416.20
7.000	180.00	0.00	0.00	794.00	2080.00	802.30	0.00	802.49	24.98	3.53	590.19	416.20
7.000	180.00	0.00	0.00	794.00	2080.00	802.30	0.00	802.49	24.98	3.53	590.19	416.20
7.000	180.00	0.00	0.00	794.00	2080.00	802.30	0.00	802.49	24.98	3.53	590.19	416.20
6.000	250.00	0.00	0.00	790.00	930.00	802.26	0.00	802.98	4.64	1.72	505.43	227.79
6.000	250.00	0.00	0.00	790.00	930.00	802.26	0.00	802.97	9.35	2.39	545.22	228.90
6.000	250.00	0.00	0.00	790.00	1080.00	802.30	0.00	803.06	14.05	3.42	565.68	229.26
6.000	250.00	0.00	0.00	790.00	1200.00	802.30	0.00	803.16	27.12	4.09	587.60	230.61
6.000	250.00	0.00	0.00	790.00	1530.00	802.32	0.00	803.38	41.56	5.00	591.28	232.62
6.000	250.00	0.00	0.00	790.00	1730.00	802.32	0.00	803.44	57.41	7.78	591.28	232.62
6.000	250.00	0.00	0.00	790.00	2060.00	802.33	0.00	803.64	73.92	6.77	591.28	232.62
6.000	250.00	0.00	0.00	790.00	2080.00	802.32	0.00	803.64	77.7	7.75	591.28	232.62
9.000	300.00	0.00	0.00	790.00	920.00	802.26	0.20	803.05	4.37	1.65	301.60	239.26
9.000	300.00	0.00	0.00	790.00	990.00	802.15	0.20	803.22	7.78	2.25	341.05	251.03
9.000	300.00	0.00	0.00	790.00	1010.00	802.40	0.20	803.54	13.42	3.12	323.5	272.98
9.000	300.00	0.00	0.00	790.00	1230.00	802.67	0.20	803.86	16.9	3.8	323.07	291.43
9.000	300.00	0.00	0.00	790.00	950.00	802.95	0.20	804.21	11.61	4.1	366.14	322.75
9.000	300.00	0.00	0.00	790.00	1700.00	804.19	0.20	804.56	24.17	4.43	384.32	373.19
9.000	300.00	0.00	0.00	790.00	2000.00	804.42	0.00	804.94	27.30	4.54	437.29	382.03
9.000	300.00	0.00	0.00	790.00	2080.00	804.93	0.00	805.39	29.67	5.22	441.27	422.67

FORM 1811-G; PRINTED BY ROTARY MANIFOLD FORMS.

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ALLEN CREEK #3

SUMMARY PRINTOUT TABLE 150

SECNO	D	C.SEL	DIFWSP	DIFUGR	DIFKWS	TOFUID	XLOC
7.000	2030.00	802.30	0.00	0.00	0.00	79.49	180.00
7.000	2080.00	802.30	0.00	0.00	0.00	79.49	180.00
7.000	2330.00	802.30	0.00	0.00	0.00	79.49	180.00
7.000	2080.00	802.30	0.00	0.00	0.00	79.49	180.00
7.000	2080.00	802.30	0.00	0.00	0.00	79.49	180.00
7.000	2080.00	802.30	0.00	0.00	0.00	79.49	180.00
7.000	2080.00	802.30	0.00	0.00	0.00	79.49	180.00
7.000	2080.00	802.30	0.00	0.00	0.00	79.49	180.00
8.000	500.00	802.08	0.00	0.56	0.00	67.01	250.00
8.000	700.00	802.08	0.00	0.56	0.00	67.06	250.00
8.000	1000.00	802.86	0.00	0.58	0.00	67.87	250.00
8.000	1200.00	802.90	0.00	0.60	0.00	67.91	250.00
8.000	1500.00	802.92	0.00	0.62	0.00	68.00	250.00
8.000	1700.00	802.92	0.00	0.62	0.00	68.00	250.00
8.000	2000.00	802.92	0.00	0.62	0.00	68.00	250.00
8.000	2300.00	802.92	0.00	0.62	0.00	68.00	250.00
9.000	500.00	803.00	0.00	0.14	0.00	68.24	300.00
9.000	700.00	803.15	0.00	0.27	0.00	68.67	300.00
9.000	1000.00	803.43	0.00	0.52	0.00	69.44	300.00
9.000	1200.00	803.61	0.00	0.71	0.00	70.03	300.00
9.000	1500.00	803.95	0.00	1.03	0.00	71.11	300.00
9.000	1700.00	804.19	0.00	1.27	0.00	72.01	300.00
9.000	2000.00	804.57	0.00	1.65	0.00	73.50	300.00
9.000	2300.00	804.96	0.00	2.03	0.00	75.17	300.00

SUMMARY OF ERRORS

PRINTED IN U.S.A.

FORM 1411.08 PRINTED BY KOPPY MANIFOLD FORMS

14:05:00 X398 ANITA HU2D1607 HUDAA MAR 06, 1980

SEGMENT # 3

100 YEAR STORM

Pressure Flow

```
JOBID=HU201607          USER=ANITA          PROJECT=HUDAA          BILLING=HUDDA          RUN=X0396

13:57:47                                  JOB INTRODUCED FROM                                  MAR 06, 1980
                                                  CDU1 JCL

13:58:03  START OF TRANSLATION

          $JOB HU201607,USER=ANITA,PROJECT=HUDAA;
          $INPUT HEC2;
          RECORD COUNT: 68
          $ENDINPUT;
           VALUES WTAPA1,WTAPA2;
           SEND 'START OF HEC=2 EXECUTION';
           STEP HEC=2,WTAENGLM,OPTIONS='FILE=A 91,FILE=B 92,FILE=C 93,FILE=D 94,
                                        FILE=E 95,FILE=F 96';
           ALC FILE=A,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=A,FILE=A,TEMPRY,DVC=MS/M400,MD=82;
           ALC FILE=B,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=B,FILE=B,TEMPRY,DVC=MS/M400,MD=82;
           ALC FILE=C,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=C,FILE=C,TEMPRY,DVC=MS/M400,MD=82;
           ALC FILE=D,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=D,FILE=D,TEMPRY,DVC=MS/M400,MD=82;
           ALC FILE=E,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=E,FILE=E,TEMPRY,DVC=MS/M400,MD=82;
           ALC FILE=F,SIZE=2,UNIT=CYL,INCRSIZE=1;
           ASG FILE=F,FILE=F,TEMPRY,DVC=MS/M400,MD=82;
           ASG H=PD,HEC2,FILE=STAT=[illegible];
          DEFINE H=PR,
           PRINTER=(FORMAT=68,NDF=1,PF1=64);
           ENDSTEP;
          $ENDJOB;

          RECORD COUNT :    92

13:58:06  END OF TRANSLATION
```

```
=JOID=HU201607        USER=ANITA        PROJECT=HUDAA        BILLING=HUDOA        RON=X0398

MOT ... : THINK SUMMER

13:58:06                    JOB EXECUTION LISTING                    MAR 06, 1980

          START OF HEC=2 EXECUTION
          STEP 1
          LOAD MODULE = HEC=2 (79/2 /22 23:50) PREINITIALIZED
          LIBRARY = "TAPE.ML"
 13:58:17 STEP STARTED ABRTY=0
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: DTAPAK FOR EFN: ;000390.FILE=B
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: DTAPAK FOR EFN: ;000390.FILE=C
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: DTAPAK FOR EFN: ;000390.FILE=D
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: DTAPAK FOR EFN: ;000390.FILE=E
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: DTAPAK FOR EFN: ;000390.FILE=F
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: DTAPAK FOR EFN: ;000390.FILE=G
          TASK MAIN J=03 P=00 COMPLETED
          DUFO1.IFN=FILE=2      REMEMBER REUSE=      0
          DUFO1.IFN=FILE=B      REMEMBER REUSE=      0
          DUFO1.IFN=FILE=F      REMEMBER REUSE=      0
          DUFO1.IFN=FILE=C      REMEMBER REUSE=      0
          DUFO1.IFN=FILE=D      REMEMBER REUSE=      0
          DUFO1.IFN=FILE=A      REMEMBER REUSE=      0   UNLOCK BUFFER=      0   CREATE BUFFER=      0
          TEMPORARY  FILES USED=    226 TRACKS
          FILE=1    ON  DTAPAK :  NB  OF  IO  CONNECTS=      119
          FILE=B    ON  DTAPAK :  NB  OF  IO  CONNECTS=      120
          FILE=F    ON  DTAPAK :  NB  OF  IO  CONNECTS=        2
          FILE=B    ON  DTAPAK :  NB  OF  IO  CONNECTS=       11
          HSPN      ON  L34RV4 :  NB  OF  IO  CONNECTS=       23
          HUID      ON  L34RV4 :  NB  OF  IO  CONNECTS=        4
          FILEHD    ON  DTAPAK :  NB  OF  IO  CONNECTS=       75
          FILEHA    ON  DTAPAK :  NB  OF  IO  CONNECTS=       24
          CPU          1.899                    PROG FIELDS START      709   STACKS      47
          ELAPSED      4.683                    SYS FIELDS START      1240
          LINES          709   LIMIT     NOLIM      BACKING STORE      547DCB
          CARDS            0   LIMIT     NOLIM      BUFFER SIZE         13640   CP3125      2272
 14:02:40 STEP COMPLETED

          START     13:58:05   LINES        709
          STOP      14:02:42   CARDS          0
          CPU          1.899
          ELAPSE       4.562
 14:02:42 RESULT: JOB COMPLETED
```

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FORM 1411-GD-PRINTED BY ROTARY MANIFOLD FORMS.

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR -  01
 MODIFICATION -  50,51,52
*****************************************************

C
T1ANN ARBOR FLOOD INSURANCE STUDY.  SEGMENT #3. PRESSURE FLOW
T2100 YEAR STORM                          W.J. WEAVER  3/5/80
T3      ALLEN CREEK   #3

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        2.        0.        0.  0.000000      0.00       0.0       0.   802.300     0.000

J2  XPROF     IPLOT     PRFVS     XSSQV     XSECH     FN        ALLOC     IBL       CHSIZ     ITRACE

     1.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC      0.000   370.000   370.000   370.000   370.000   370.000   370.000   370.000   370.000     0.000
NC      0.015     0.015     0.015     0.300     0.300     0.000     0.000     0.000     0.000     0.000

        D/S END OF SEGMENT BETW. MURRAY WASHINGTON & EBER WHITE S.S.

X1   3745.000    13.000   537.100   550.900   296.000   296.000   296.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000  1300.000  1300.000     0.000
GR   1300.000     0.000  1300.000   537.000   786.100   537.100   785.000   550.000   784.200   540.000
GR    780.400   542.000   783.400   544.000   783.600   546.000   784.200   543.000   785.000   550.000
GR    786.100   550.900  1300.000   551.000  1300.000   730.000     0.000     0.000     0.000     0.000
QT      0.000   200.000   400.000   500.000   600.000   700.000   800.000   900.000  1000.000     0.000

        UPSTREAM END OF SEGMENT NUMBER 2.  WASHINGTON AVENUE.

X1   3775.000     9.000     1.000    11.200    10.000    10.000    10.000     0.000     0.000     0.000
X3     10.000     0.000     0.000     0.000     0.000     0.000     0.000  1300.000  1300.000     0.000
GR   1300.000     0.000   783.100     1.000   787.100     2.100   786.700     4.100   736.600     6.100
GR    786.700     0.100   757.100    10.100   780.100    11.200  1300.000    12.000     0.000     0.000
SO      0.000     2.000     3.000     0.000     7.600     8.000    45.700     0.000   781.900   786.600

X1   4323.000     0.000     0.000     0.000   550.000   550.000   550.000     0.000     5.300     0.000
X2      0.000     0.000     1.000   797.900  1300.000     0.000     0.000     0.000     0.000     0.000
X3     10.000     0.000     2.000     0.000     0.000     0.000     0.000  1300.000  1300.000     0.000
BT      9.000     0.000  1300.000     0.000     0.000  1300.000   780.100     2.100  1300.000   790.000
BT      4.100  1300.000   792.000     6.100   500.000   792.600     0.100  1300.000   792.000    10.100
BT   1300.000   790.800    11.200  1300.000   788.100    12.000  1300.000     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

CCHV=   0.300 CEHV=   0.500
*SECNO 3765.000
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       CLOSS    BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      IWA      LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XWL      XNCH     XNR      WTN      ELMIN      SST
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IN2      ICONT    CORAR    TOPWID     ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1300.00 ELREA=     1300.00

        D/S END OF SEGMENT BETW. MURRAY WASHINGTON & EBER WHITE S.S.

  3765.00    18.90   802.30     0.00   802.30   802.33     0.03     0.00     0.00   786.10
     370.       0.     370.       0.       0.     250.       0.       0.       0.   786.10
     0.00     0.00     1.40     0.00    0.015    0.015    0.015    0.000   783.40   537.10
 0.000016     295.     296.     296.        0        0        0     0.00    12.00   550.90

*SECNO 3775.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1300.00 ELREA=     1300.00

        UPSTREAM END OF SEGMENT NUMBER 3.  WASHINGTON AVENUE.

  3775.00    15.71   802.31     0.00     0.00   802.34     0.03     0.00     0.00   786.10
     250.       0.     200.       0.       0.     157.       0.       0.       0.   786.10
     0.00     0.00     1.28     0.00    0.015    0.015    0.015    0.016   783.60     1.00
 0.000016      10.      10.      10.        1        0        0     0.00    10.20    11.20

SPECIAL BRIDGE

SB   XK       XNOB     COFF     ROLER    ELC      DOP      BAREA    SS       ELCMU    ELCNC
     0.00     2.38     3.00     0.00     2.63     0.00     45.70    0.00     791.90   786.60

*SECNO 4325.000
 PRESS FLOW BECAUSE EGL. C OF    807.66  EXCEEDS 1.5 DEPTH
PRESSURE FLOW

 EGPRS     EGLNC     SB       QUEIR     QPR      BAREA    TRAPEZOID     ELLC     ELTRD
                                                          AREA
  803.02    807.66     0.00       0.     200.      46.      46.      797.90   1300.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1300.00 ELREA=     1300.00

  4325.00    11.07   802.97     0.00     0.00   803.02     0.05     0.60     0.20   793.40
     200.       0.     200.       0.       0.     109.       0.       0.       0.   793.40
     0.09     0.00     1.83     0.00    0.015    0.015    0.015    0.015   791.90     1.00
 0.000256     550.     550.     550.        2        0        0     0.00    10.20    11.20
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**************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION -  50,51,52
**************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY.  SEGMENT #3. PRESSURE FLOW
T2100 YEAR STORM                    H.J. HEAVER  3/5/80
T3      ALLEN CREEK   #3

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
       0.       3.       0.       0.  0.000000     0.00      0.0       0.  802.300    0.000

J2  IPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLOC    IBW      CHNIM    ITRACE
     2.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
```

FORM 1411-GB PRINTED BY ROTARY MANIFOLD FORMS

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```
*PROF 2

CCHV=   0.300 CEHV=   0.500
*SECNO 3765.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTR       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IHE       ICONT     CORAR     TOPWID      ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1300.00 ELREA=     1300.00

        D/S END OF SEGMENT BETW. MURRAY WASHINGTON & EBER WHITE S.S.

  3765.00     18.90    802.30      0.00    802.30    802.33      0.03      0.00      0.00    786.10
     370.        0.      370.        0.        0.      250.        0.        0.        0.    786.10
     0.00      0.03      1.40      0.00     0.015     0.015     0.015     0.003    703.40    537.10
 0.000014      296.      296.      296.        0         0         0      0.00     13.00    550.90

*SECNO 3775.000
3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1300.00 ELREA=     1300.00

        UPSTREAM END OF SEGMENT NUMBER 3.  WASHINGTON AVENUE.

  3775.00     18.67    802.27      0.00      0.00    802.37      0.10      0.05      0.03    788.10
      0.        0.      400.        0.        0.      100.        0.        0.        0.    788.10
      1.00      0.03      2.56      0.00     0.015     0.015     0.015     0.014    706.60      1.00
 0.000057       10.       10.       10.         2         0         0      0.00     10.20     11.20

SPECIAL BRIDGE

 SB XX        XIOB      SOFO      RDLEN     BWC       BWP       BAREA     SB        ELCHU     ELCLD
     0.00      2.30      3.00      0.00      [illegible]  0.00      45.70     0.00    791.90    786.60

*SECNO 4325.000
 PRESS FLOW BECAUSE ELWC OF    307.67  EXCEEDS 1.5 DEPTH
PRESSURE FLOW

 CORRS     ELWC      IS        SWEIR     CPD       BAREA     TRAPEZOID     ELLC      ELTRD
                                                             AREA
  305.00    307.67      0.00        0.      400.       46.       46.      797.90    1300.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1300.00 ELREA=     1300.00

  4325.00     12.05    804.93      0.00      0.00    805.10      0.10      2.73      0.00    793.40
     400.        0.      400.        0.        0.      190.        0.        0.        0.    793.40
     0.05      0.00      5.09      0.00     0.015     0.015     0.015     0.015    791.90      1.00
 0.000092      550.      550.      550.         2         0         0      0.00     10.20     11.20
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY.  SEGMENT #3. PRESSURE FLOW
T2100 YEAR STORM                    W.J. WEAVER  3/5/80
T3      ALLEN CREEK   #3

J1  ICHECK    INQ      NINN     IDXR     STRT     METRIC   HVINS    0.       HSEL     FQ

      0.       4.       0.       0.  0.000000     0.00     0.0      0.    602.300   0.000

J2  WPROF    IPLOT    PRFMS    XSECV    XSECH     FN      ALLDC    CBW      CHWIN    ITRACE

    3.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*PROF 3

CONV=  0.300 CEHV=   0.500
*SECNO 3765.000
    SECNO      DEPTH      CHSEL      CRIWS      WSELK      EG         HV         HL         QLOSS      BANK ELEV
      0        QLOB       QCH        QROB       ALOB       ACH        AROB       VOL        TIME       LEFT/RIGHT
     TIME      VLOB       VCH        VROB       XNL        XNCH       XNR        ITH        ELMIN      SSTA
    SLOPE      HLOSS      XNCH       SLOBR      ITRIAL     IBS        ICONT      CORAR      TOPWID     ELDST

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1300.00 ELREA=     1300.00

        D/S END OF SEGMENT BETW. MURRAY WASHINGTON & EDER WHITE S.S.

   3765.00     18.90     802.30      0.00     802.30     802.33      0.03      0.00      0.00     786.10
       370.        0.       375.        0.        0.       250.        0.        0.        0.     786.10
      0.00       0.00      1.40       0.00      0.015      0.015      0.015     0.005    790.40    537.10
  0.000018        295.      295.       294.       0          0          3       0.00     15.80     550.90

*SECNO 3775.000
 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1300.00 ELREA=     1300.00

        UPSTREAM END OF SEGMENT NUMBER 3.  WASHINGTON AVENUE.

   3775.00     19.44     802.24      0.00       0.00     800.40      0.16      0.00      0.06     785.10
       50.        0.       500.        0.         0.       136.        5.        0.        0.     138.10
      0.35       0.00      3.21       0.00      0.015      0.015      0.015     0.014    786.60      1.00
  0.000090        10.       10.        13.        2          0          3       0.00     10.20      11.20

 SPECIAL BRIDGE

  BS   XK        XKOB       CDTO       RDLEN      B.C        EMP        BARLN      SS         ELCHJ      ELCHO
              0.00       2.36       2.00       0.00       7.00       0.00      45.70      0.00     791.90     786.60

 *SECNO 3335.700
  *AGES FLOW EXCHANGE REACHED AT    802.70  EXCEEDS 1.5 DEPTH
 PREVIOUS PLE

  EGPRS      EGLEC      HS         AREAO      APR        BAREA      TRAPEZOID AREA      ELLC       ELTRD
   806.86     807.70      0.00        0.        520.        46.          46.          797.90     1300.00

 3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=     1300.40 ELREA=     1300.00

   3325.00     14.53     804.32      0.00       0.00     804.66      0.16      0.26      0.02     795.45
       500.        0.       500.        0.         0.       715.        3.        2.        0.     793.40
      0.35       0.00      1.45       0.00      0.015      0.015      0.015     0.015    791.90      1.00
  0.000138        355.      550.       550.       2          0          3       0.00     10.20      11.20
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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY.  SEGMENT #3. PRESSURE FLOW
T2100 YEAR STORM                    W.J. WEAVER  3/5/80
T3      ALLEN CREEK   #3

J1  ICHECK    INQ     NINV    IDIR     STRT     METRIC    HVINS     Q       USEL     FQ

      0.       5.       0.       0.  0.000000    0.00      0.0       0.   002.300   0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH     FN      ALLDC     IBH      CHNIM    ITRACE

    4.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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1*PROF 6

CCHV= 0.300 CEHV= 0.500
*SECNO 3765.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	SLOS	ACH	GROB	ALOB	ACH	AROB	VCH	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTH	ELMIN	ESTA
SLOPE	WLOB	HCH	XLOBR	ITRIAL	IHE	ICONT	CONAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1300.00 ELREA= 1300.00

D/S END OF SEGMENT BET.J. MURRAY WASHINGTON & EBER WHITE S.S.

3765.00	18.90	802.30	0.00	802.30	802.33	0.03	0.00	0.00	786.10
370.	0.	370.	0.	0.	250.	0.	0.	0.	786.10
0.00	0.00	0.68	1.00	0.015	0.015	0.015	0.000	788.40	537.10
0.000174	296.	296.	296.	0	0	2	0.00	15.00	530.00

*SECNO 3775.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1300.00 ELREA= 1300.00

UPSTREAM END OF SEGMENT NUMBER 3. WASHINGTON AVENUE.

3775.00	15.60	803.20	0.00	0.00	802.43	0.23	0.00	0.10	758.10
500.	0.	500.	0.	0.	350.	0.	0.	0.	788.10
1.00	0.00	1.15	0.00	0.015	0.015	0.015	0.214	788.60	1.00
0.000130	10.	10.	10.	2	2	0	0.00	10.20	11.20

BRIDGE

SO	XC	KROR	COVD	IOLSW	AUC	BHP	DAREA	SK	ELCHK	ELCND
	0.00	2.53	3.60	0.20	7.60	0.00	45.70	0.00	791.93	786.60

*SECNO 4325.000
PRESSURE FLOW

ESPRS	EGLHC	KS	AMEIO	AOB	BAREA	TRAPEZOID AREA	ELLO	ELTRD
820.57	807.73	0.00	0.	820.	44.	46.	797.90	1300.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1300.00 ELREA= 1300.00

4325.00	10.47	809.27	0.00	0.00	808.57	0.21	0.14	0.30	793.60
900.	0.	900.	0.	0.	864.	0.	2.	0.	793.60
0.96	0.30	1.41	1.00	0.015	0.015	0.015	0.014	791.30	1.00
0.000174	550.	550.	550.	2	0	2	0.00	10.20	11.20

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  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY.  SEGMENT #3. PRESSURE FLOW
T2100 YEAR STORM                    W.J. WEAVER  3/5/80
T3      ALLEN CREEK   33

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   MVINS    Q        USEL     FQ

      0.       6.       0.       0.  0.000000     0.00      0.0      0.   802.300    0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH     FN      ALLDC     IBC      CHXIN    ITRACE

    5.000    0.000    -.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*PROF 5

CCHV= 0.300 CEHV= 0.300

*SECNO 3765.000

SECNO	DEPTH	CHSEL	CRIWS	WSELK	EG	HV	LL	BLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SST4
SLOPE	XLOBL	XLOBH	XLOBR	IPRIAL	IN2	IOONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1300.00 ELREA= 1300.00

D/S END OF SEGMENT BETW. MURRAY WASHINGTON & EBER WHITE S.S.

3765.00	18.90	802.30	0.00	802.30	802.33	0.03	0.00	0.00	786.10
370.	0.	370.	0.	0.	250.	0.	0.	0.	786.10
0.00	0.00	1.49	0.00	0.015	0.015	0.015	0.000	783.40	537.10
0.000[illegible]	296.	296.	296.	0	0	0	0.00	13.80	550.90

*SECNO 3775.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1300.00 ELREA= 1300.00

UPSTREAM END OF SEGMENT NUMBER 3. WASHINGTON AVENUE.

3775.00	15.06	802.16	0.00	0.00	802.40	0.22	0.00	0.14	788.10
700.	0.	700.	0.	0.	153.	0.	0.	0.	788.10
0.00	0.00	4.51	0.00	0.015	0.015	0.015	0.014	786.60	1.00
0.000179	10.	10.	10.	2	0	3	0.00	10.20	11.20

SPECIAL BRIDGE

SB	XK	XKOM	COPQ	HDLEN	BWC	UMP	DAREA	SS	ELCLU	ELCHD
	0.00	2.36	0.00	0.00	7.60	0.00	45.70	0.00	799.50	786.60

*SECNO 4325.000
PRESSURE FLOW

EFRMS	EGLWC	H3	QWEIR	QPR	DAREA	TRAPEZOID AREA	ELLC	ELTRD
810.03	307.78	0.00	0.	700.	40.	40.	797.90	1300.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1300.00 ELREA= 1300.00

4325.00	11.7[illegible]	810.61	0.00	0.00	810.[illegible]	0.22	0.35	0.00	79[illegible].40
700.	0.	700.	0.	0.	137.	0.	0.	0.	795.40
0.[illegible]	0.[illegible]	1.74	0.01	0.015	0.015	0.015	0.01[illegible]	79[illegible].5[illegible]	1.00
0.000112	550.	550.	550.	2	0	0	0.00	10.20	11.20

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*****************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CORR - 01
 MODIFICATION - 50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY.  SEGMENT #3. PRESSURE FLOW
T2100 YEAR STORM                    W.J. WEAVER  3/5/80
73      ALLEN CREEK  #3

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
      0.       7.       0.       0.  0.000000     0.00      0.0      0.   802.300    0.000

J2  NPROF     IPLOT    PRFVS    XSECV    XSEOH    FN       ALLDC    IBW      CHNIM    ITRACE
    0.000    0.000   -0.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*PROF 6

CCHV=   0.300 CEHV=   0.500
*SECNO 3765.000
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        CLOSS   BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XML       XNCH      XNR       OTH       ELMIN      SSTA
   SLOPE     XLOBL     XLCH      XLOBR     CTRIAL    IN2       ILGHT     CORAR     TOPWID     ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      1300.00 ELREA=      1300.00

        D/S END OF SEGMENT BETW. MURRAY WASHINGTON & EBER WHITE S.S.

  3765.00    18.90   802.30     0.00   802.30   802.33     0.03     0.00     0.00   786.10
     370.       0.     370.       0.       0.     200.       0.       0.       0.   786.10
     0.00     0.00     1.46     0.00    0.015    0.015    0.015    0.000   703.40   537.10
 0.000014     296.     295.     298.        0        0        0     0.00    13.00   530.90

*SECNO 3775.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      1300.00 ELREA=      1300.00

        UPSTREAM END OF SEGMENT NUMBER 3.  WASHINGTON AVENUE.

  3775.00    15.51   802.41     0.00     0.00   802.33     0.42     0.00     0.19   786.10
     800.       0.     800.       0.       0.     199.       0.       0.       0.   786.10
     0.00     0.00     5.17     0.00    0.015    0.015    0.015    0.014   786.60     1.00
 0.000235      10.      10.      10.        2        0        0     0.00    10.20    11.20

SPECIAL BRIDGE

SB  XK        XKOR      CDPC      RDLEN     DWC       ELP       BAREA     SS        ELCHU     ELCHD
    0.00      2.30      3.00      0.00      7.60      0.00     45.75     1.00    791.90    786.60

*SECNO 4323.000
PRESSURE FLOW

 EGPRS     EGLWC     H3        QWEIR     QFR       BAREA     TRAPEZOID     ELLC      ELTRD
                                                                AREA
  313.43    807.63     0.00        0.      800.      46.       46.       797.90    1300.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      1300.00 ELREA=      1300.00

  4325.00    21.32   813.22     0.00     0.00   813.43     0.22    10.91     0.00   793.40
     800.       0.     800.       0.       0.     214.       0.       2.       0.   793.40
     0.06     0.00     1.74     0.00    0.015    0.015    0.015    0.015   791.90     1.00
 0.000106     550.     550.     550.        2        0        0     0.00    10.20    11.20
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  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  CODIFICATION -  50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY.  SEGMENT #3. PRESSURE FLOW
T2100 YEAR STORM                          W.J. WEAVER  3/5/80
T3      ALLEN CREEK   03

J1  ICHECK    INQ      NINT     IDIR     STRT     METRIC    HVINS     Q        WSEL     FQ

      0.       5.       0.       0.  0.000000     0.00      0.0       0.   002.300   0.000

J2  NPROF    IPLOT    PRFVS    XSECV    XSECN     FN       ALLDC     IBH      CHNIM    ITRACE

    0.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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*PROF 7

CCHV= 0.300 CEHV= 0.500
*SECNO 3765.000

SECNO	DEPTH	CHSEL	CRIMS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	LTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	IERIAL	IM2	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1300.00 ELREA= 1300.00

D/S END OF SEGMENT BETW. MURRAY WASHINGTON & EBER WHITE S.S.

3765.00	18.90	802.33	0.00	802.30	802.33	0.03	0.00	0.00	786.10
370.	0.	370.	0.	0.	280.	0.	0.	0.	786.10
0.00	0.00	1.43	0.00	0.015	0.015	0.015	0.000	783.40	537.10
0.000094	295.	290.	296.	0	0	0	0.00	13.00	550.90

*SECNO 3775.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1300.00 ELREA= 1300.00

UPSTREAM END OF SEGMENT NUMBER 3. WASHINGTON AVENUE.

3775.00	15.45	802.35	0.00	0.00	802.50	0.53	0.00	0.25	780.10
900.	0.	900.	0.	0.	154.	0.	0.	0.	788.10
0.00	0.00	5.34	0.00	0.015	0.015	0.015	0.014	788.60	1.00
0.000301	10.	10.	10.	2	0	0	0.00	10.20	11.20

SPECIAL BRIDGE

SB	XK	XKOR	COPU	RDLEN	BOC	BUP	BAREA	SS	ELCHU	ELCHD
	0.00	2.38	3.00	0.00	7.60	0.00	45.70	0.00	797.90	786.60

*SECNO 4325.000
PRESSURE FLOW

SGPRS	ESLWC	U3	RHEIN	OAR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
876.39	807.38	0.00	0.	900.	43.	46.[illegible]	797.90	1300.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1300.00 ELREA= 1300.00

4325.00	26.27	816.17	0.00	0.00	816.38	0.21	13.30	0.00	793.40
900.	0.	900.	0.	0.	244.	0.	0.	0.	793.40
0.00	0.00	1.43	0.00	0.015	0.015	0.015	0.015	791.90	1.00
0.000098	550.	550.	550.	2	0	0	0.00	10.20	11.20

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

TIANN ARBOR FLOOD INSURANCE STUDY.  SEGMENT #3. PRESSURE FLOW
T2100 YEAR STORM                          W.J. HEAVER  3/5/80
T3       ALLEN CREEK   03

J1  ICHECK    INE      [illegible]     IDIR     STRT     METRIC    HVINS     Q        HSEL     FQ

       0.        9.        0.        0.  0.000000     0.00      0.0       0.   802.300    0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN       ALLDC     IBW      CHNIM     ITRACE

     15.000    0.000    -7.000     0.000     0.000    0.000     0.000    0.000     0.000     0.000
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*PROF 8

CCHV= 0.300 CEHV= 0.500

*SECNO 3765.000

SECNO	DEPTH	CHSEL	CHWS	WSELK	EG	KV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TRA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	NLCH	XLOBR	TTOTAL	TH2	ICONT	CORAR	TOPWID	ELMAX

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1300.00 ELREA= 1300.00

D/S END OF SEGMENT BETW. MURRAY WASHINGTON & EBER WHITE S.S.

3765.00	18.90	802.30	0.00	802.30	802.33	0.03	0.00	0.00	786.10
370.	0.	370.	0.	0.	250.	0.	0.	0.	784.10
0.00	0.30	1.48	0.00	0.015	0.025	0.015	0.000	783.60	807.10
0.0000014	295.	296.	296.	0	0	0	0.00	13.20	550.90

*SECNO 3775.000

3501 NV CHANGED MORE THAN 40%

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1300.00 ELREA= 1300.00

UPSTREAM END OF SEGMENT NUMBER 3. WASHINGTON AVENUE.

3775.00	15.39	801.99	0.00	0.00	802.65	0.66	0.00	0.00	788.10
1000.	0.	1000.	0.	0.	133.	0.	0.	0.	736.10
0.00	0.00	6.52	0.00	0.015	0.016	0.015	1.014	786.60	1.00
0.0023?8	11.	11.	11.	2	0	0	0.00	13.20	11.20

SPECIAL BRIDGE

SK	XK	XKOD	CD/H	PDLEN	B.S	E.S	SKLEN	SS	SLOPE	E_CLS
0.00	2.36	3.00	0.07	P.63	0.50	45.20	0.00	791.90	785.60	

*SECNO 3825.000

PRESSURE FLOW

ESDPR	ESLNC	WP	QSEIP	CPD	DAREA	TRAPEZOID AREA	ELLC	E_TRD
819.60	807.95	3.00	0.	1000.	46.	66.	797.90	1300.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1300.00 ELREA= 1300.00

3825.00	27.58	819.40	3.00	0.00	819.60	0.20	17.04	0.00	793.40
1000.	0.	1000.	0.	0.	978.	0.	3.	0.	793.40
0.04	0.01	3.63	0.00	0.015	0.015	0.015	0.215	791.90	1.00
0.000?89	951.	550.	550.	2	0	0	0.00	13.20	11.20

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**************************************************
 HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
 ERROR CODE -  01
 MODIFICATION -  50,51,52
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

ALLEN CREEK 43

SUMMARY PRINTOUT TABLE 150

SECNO	W.S.ELEV	CRIWS	VEL HEAD	E.G.ELEV	FRICTION SLOPE	AVE K	FRICTION LOSS	C & E LOSS	AREA	VELOCITY
3765.000	296.00	0.00	0.30	733.40	370.00	802.30	0.00	802.33	0.16	1.48	249.75	989.09
3765.000	296.00	0.00	0.00	703.40	370.00	802.30	0.00	802.33	0.14	1.48	249.75	989.09
3765.000	296.00	0.00	0.00	703.40	370.00	802.30	0.00	802.33	0.14	1.48	249.75	989.09
3765.000	296.00	0.00	0.00	703.40	370.00	802.30	0.00	802.33	0.14	1.48	249.75	989.09
3765.000	296.00	0.00	0.00	703.40	370.00	802.30	0.00	802.33	0.14	1.48	249.75	989.09
3765.000	296.00	0.00	0.00	703.40	370.00	802.30	0.00	802.33	0.14	1.48	249.75	989.09
3775.000	10.00	0.00	0.00	786.60	200.00	802.31	0.00	802.34	0.14	1.28	156.60	529.80
3775.000	10.00	0.00	0.00	786.60	400.00	802.27	0.00	802.37	0.57	2.58	156.20	528.09
3775.000	10.00	0.00	0.00	786.60	500.00	802.24	0.00	802.40	0.95	3.21	155.91	526.85
3775.000	10.00	0.00	0.00	786.60	600.00	802.22	0.00	802.43	1.36	3.84	155.64	525.31
3775.000	10.00	0.00	0.00	786.60	700.00	802.16	0.00	802.48	1.79	4.47	155.11	523.48
3775.000	10.00	0.00	0.00	786.60	800.00	802.11	0.00	802.53	2.25	5.17	154.60	521.32
3775.000	10.00	0.00	0.00	786.60	900.00	802.05	0.00	802.30	2.81	5.84	154.02	518.67
3775.000	10.00	0.00	0.00	786.60	1000.00	801.95	0.00	802.38	3.76	6.52	153.30	516.05
4325.000	350.00	1300.00	797.90	791.90	200.00	802.97	0.00	803.32	0.36	1.08	129.50	353.73
4325.000	350.00	1300.00	797.90	791.90	400.00	804.95	0.00	805.70	0.92	3.09	129.51	416.16
4325.000	350.00	1300.00	797.90	791.90	500.00	805.68	0.00	806.66	1.00	3.45	165.09	481.16
4325.000	350.00	1300.00	797.90	791.90	600.00	805.37	0.00	806.37	1.14	3.65	164.34	562.79
4325.000	350.00	1300.00	797.90	791.90	700.00	810.01	0.00	810.33	1.12	3.74	167.26	661.53
4325.000	350.00	1300.00	797.90	791.90	800.00	814.42	0.00	813.13	1.30	3.74	243.54	777.47
4325.000	350.00	1300.00	797.90	791.90	900.00	816.19	0.00	816.39	0.95	3.65	264.00	910.67
4325.000	350.00	1300.00	797.90	791.90	1000.00	819.08	0.00	819.68	0.87	3.60	277.76	1061.12

FORM 141 LEB PRINTED BY ROTARY SIGNIFOLD FORMS

ALLEN CREEK #3

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CHSEL	DIFWSP	DIFWSX	DIFWES	TOPWID	XLCH
3765.000	370.00	802.30	0.00	0.00	0.00	13.80	296.00
3765.000	370.00	802.30	0.00	0.00	0.00	13.80	296.00
3765.000	370.00	802.30	0.00	0.00	0.00	13.80	296.00
3765.000	370.00	802.30	0.00	0.00	0.00	13.80	296.00
3765.000	370.00	802.30	0.00	0.00	0.00	13.80	296.00
3765.000	370.00	802.30	0.00	0.00	0.00	13.80	296.00
3765.000	370.00	802.30	0.00	0.00	0.00	13.80	296.00
3765.000	370.00	802.30	0.00	0.00	0.00	13.80	296.00
3775.000	200.00	802.31	0.00	0.01	0.00	10.20	10.00
3775.000	400.00	802.27	0.00	-0.03	0.00	10.20	10.00
3775.000	500.00	802.24	0.00	-0.06	0.00	10.20	10.00
3775.000	600.00	802.20	0.00	-0.10	0.00	10.20	10.00
3775.000	700.00	802.16	0.00	-0.14	0.00	10.20	10.00
3775.000	800.00	802.11	0.00	-0.19	0.00	10.20	10.00
3775.000	900.00	802.05	0.00	-0.25	0.00	10.20	10.00
3775.000	1000.00	801.99	0.00	-0.31	0.00	10.20	10.00
4325.000	300.00	802.97	0.00	0.68	0.00	10.20	550.00
4325.000	400.00	804.95	0.00	2.63	0.00	10.20	550.00
4325.000	500.00	806.68	0.00	4.24	0.00	10.20	550.00
4325.000	600.00	808.37	0.00	6.16	0.00	10.20	550.00
4325.000	700.00	810.61	0.00	8.45	0.00	10.20	550.00
4325.000	800.00	813.23	0.00	11.11	0.00	10.20	550.00
4325.000	900.00	816.17	0.00	14.12	0.00	10.20	550.00
4325.000	1000.00	819.48	0.00	17.49	0.00	10.20	550.00

SUMMARY OF ERRORS

PRINTED IN U.S.A.

FORM 1411-DO-PRINTED BY ROTARY MANIFOLD FORMS.

10:05:44 X782 ANITA HJ201607 FUBAA MAR 11, 1980

SEGMENT #4

100YR STORM

Segment #4 100yr

PRINTED IN U.S.A.
FORM 1411-GR PRINTED BY NOTARY MANIFOLD FORMS.

```
JOBID=HU201607          USER=ANITA          PROJECT=HUDAA          BILLING=HUDDA          RUN=X0182
```

```
10:00:17                                JOB INTRODUCED FROM                                  MAR 11, 1980
                                                CDC1 JCL
```

```
10:00:36 START OF TRANSLATION

        $JOB HU201607,USER=ANITA,PROJECT=HUDAA;
        INPUT HEC2;
        RECORD COUNT: 55
        $ENDTOPUT;
        VALUES WTAPAK,WTAPAK;
        SEND 'START OF HEC=2 EXECUTION';
        STEP HEC=2,WTAENGLM,OPTIONS='FILE=A 91,FILE=B 92,FILE=C 93,FILE=D 94,
                                        FILE=E 95,FILE=F 96';
        ALC FILE=A,SIZE=2,UNIT=CYL,INCRSIZE=1;
        ASG FILE=A,FILE=A,TEMPRY,DVC=MS/M400,MD=81;
        ALC FILE=B,SIZE=2,UNIT=CYL,INCRSIZE=1;
        ASG FILE=B,FILE=B,TEMPRY,DVC=MS/M400,MD=82;
        ALC FILE=C,SIZE=2,UNIT=CYL,INCRSIZE=1;
        ASG FILE=C,FILE=C,TEMPRY,DVC=MS/M400,MD=82;
        ALC FILE=D,SIZE=2,UNIT=CYL,INCRSIZE=1;
        ASG FILE=D,FILE=D,TEMPRY,DVC=MS/M400,MD=82;
        ALC FILE=E,SIZE=2,UNIT=CYL,INCRSIZE=1;
        ASG FILE=E,FILE=E,TEMPRY,DVC=MS/M400,MD=82;
        ALC FILE=F,SIZE=2,UNIT=CYL,INCRSIZE=1;
        ASG FILE=F,FILE=F,TEMPRY,DVC=MS/M400,MD=82;
        ASG FEND,HEC2,FILESTAT=IN;
        DEFINE NOPR;
        PRINTER=(FORMAT=66,NOP=1,FRT=64);
        ENDSTEP;
        $ENDJOB;

        RECORD COUNT :   100

10:00:37 END OF TRANSLATION
```

```
JOB1>*SUBJTEST          USER=ANITA              PROJECT=HUDDA           BILLING=HUDDA           JOB=XC162

*GT,3 TAPE,SPIDER

1*JOB,*SS                       JOB EXECUTION OPTIONS                       MAR 11, 1980

        START 3  USER EXECUTION
        STEP 1
        LOAD "OBJECT FILE" (1980/ 3/28 17:56) INITIALIZED
        LIBRARY = UTAERGLB
10:00:56  STEP STARTED XPRTY=9
        FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: $000182.FILEMB
        FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: $000182.FILEMC
        FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: $000182.FILEMD
        FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: $000182.FILEME
        FP04.   2 CYLINDER(S) ALLOCATED ON VOLUME: UTAPAK FOR EFN: $000182.FILEMF
        TASK MAIN I=03 P=00 COMPLETED
        DUFCT.IFN=FILEMA        REMEMBER REUSE=
        DUFCT.IFN=FILEMB        REMEMBER REUSE=
        DUFCT.IFN=FILEMC        REMEMBER REUSE=
        DUFCT.IFN=FILEMD        REMEMBER REUSE=         3
        DUFCT.IFN=FILEME        REMEMBER REUSE=         3   BLOCK BUFFERS=      10   CREATE BUFFERS=      37
        TEMPORARY               DISC USED=     241 TRACKS
        FILEMA    OK  UTAPAK  :  NT  CF  10  CONNECTS=          1
        FILEMB    OK  UTAPAK  :  NT  CF  10  CONNECTS=         31
        FILEMC    OK  UTAPAK  :  NT  CF  10  CONNECTS=        135
        FILEMD    OK  UTAPAK  :  NT  CF  10  CONNECTS=        150
        FILEME    OK  UTAPAK  :  NT  CF  10  CONNECTS=         21
        FILEMF    OK  UTAPAK  :  NT  CF  10  CONNECTS=          7
        $OLD      OK  LIBRARY :  NT  CF  10  CONNECTS=          1
        $LIB      OK  LIBRARY :  NT  CF  10  CONNECTS=          1
        $STD      OK  SYSPRT  :  NT  CF  10  CONNECTS=         15

        CPU          2.253                  PIOC MISSING CHGTS      556   STACKOV      02
        ELAPSED      4.597                  SYS  MISSING SECTS     2024
        I/OS           582   LIMIT    NOLIM     PACKING STORE     68464
        CPTOS            0   LIMIT    NOLIM     BUFFER SIZE        1344   SPOOLED      8272
10:05:22  STEP COMPLETED


        START   10:00:38   I/OS        582
        STOP    10:05:22   CARDS         3
        CPU        2.253
        ELAPSED    4.745

10:05:23  RESULT:  JOB COMPLETED
```

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FORM 1611-0D-4 SUPPLIED BY ROTARY MANIFOLD FORMS.

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**********************************************************
*  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977            *
*  ERROR CORR - 00                                       *
*  MODIFICATIO - SC,S1,S2                                *
**********************************************************

E
ANN ARBOR FLOOD INSURANCE STUDY, SEGMENT 4.  M.J. BEAVER.  3/10/78.
2100 YEAR STAGE.
T3      ALLEN  CREEK.          OVERLAND FLOW

J1  ICHECK    INQ      NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
              0.        0.        2.        1.  0.050000     0.50      0.0       0.        854.000   0.001

J2  NPROF     IPLOT    PRFVS     XSECV     XSECH     FN        ALLDC     IDH       CHNIM     ITRACE
            1.000     0.000    -1.000     0.000     0.000     0.050     0.000     0.000     0.000     0.000

J3  LPRNT     UNBSC                    ***********REQUESTED SECTION ROUTINES**********
          -10.000   -10.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
QT        6.000  1560.000  1560.000  1560.000  1560.000  1560.000  1560.000     0.000     0.000     0.000
NC        0.080     0.080     0.080     0.100     0.300     0.300     0.080     0.600     0.000     0.080

X1        5.000     0.000     1.000    80.000   360.000   300.000   320.000     0.000     0.000     0.000
GR      820.000     0.000   798.000     1.000   798.000    52.000   650.000    51.000   852.000    66.000
GR      804.000    72.000   806.000    80.000   820.000    51.000     0.000     0.000     0.000     0.000
QT        6.000   300.000   600.000   500.000  1200.000  1500.000  1020.000     0.000     0.000     0.000
NC        0.080     0.067     0.067     0.500     0.050     0.080     0.300     0.300     0.300     0.300

100' U/S OF LIBERTY ST.

X1       10.000     4.000     1.000    75.000   465.000   465.000   465.000     0.000     0.000     0.000
GR      930.000     0.000   827.000     1.000   827.000    75.000   630.000    75.000     0.000     0.000

100' U/S OF WILLIAM ST.

X1       11.000     5.000     1.000   150.000   550.000   550.000   550.000     0.000     0.000     0.000
GR      900.000     0.000   900.000     1.000   898.000    60.000   307.000    95.000   100.000   100.000
GR      900.000   131.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC        0.070     0.070     0.070     0.000     0.000     0.000     0.000     0.000     0.000     0.000

100' U/S OF JEFFERSON.

X1       12.000     6.000     1.000   180.000   530.000   530.000   530.000     0.000     0.000     0.000
GR      900.000     0.000   901.000     1.000   898.000    70.000   110.000    95.000   210.000   100.000
GR      900.000   111.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
NC        0.060     0.060     0.060     0.050     0.005     0.050     0.080     0.050     0.060     0.060

215' U/S OF JEFFERSON.

X1       13.000     4.000     1.000    55.000   315.000   315.000   315.000     0.000     0.000     0.000
GR      900.000     0.000   909.000     0.000   909.000    55.000   900.000    54.000     0.000     0.000
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FORM 3411-00 PRINTED BY ROTARY MANIFOLD FORMS.

X1	13.500	4.000	1.000	55.000	250.000	250.000	250.000	0.000	0.000	0.000
GR	900.000	0.000	812.000	1.000	812.000	55.000	900.000	56.000	0.000	0.000

100' D/S OF E. MADISON.

X1	14.000	4.000	1.000	55.000	250.000	250.000	250.000	0.000	0.000	0.000
GR	900.000	0.000	815.000	1.000	815.000	55.000	900.000	56.000	0.000	0.000

X1	15.000	4.000	1.000	55.000	410.000	410.000	410.000	0.000	0.000	0.000
GR	900.000	0.000	816.000	1.000	816.000	55.000	900.000	56.000	0.000	0.000

X1	16.000	4.000	1.000	60.000	280.000	280.000	280.000	0.000	0.000	0.000
GR	900.000	0.000	817.000	1.000	817.000	60.000	900.000	61.000	0.000	0.000

HILL STREET

X1	17.000	4.000	1.000	90.000	400.000	400.000	400.000	0.000	0.000	0.000
GR	900.000	0.000	821.200	1.000	821.200	90.000	900.000	91.000	0.000	0.000
DC	0.050	0.000	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	18.000	4.000	1.000	200.000	430.000	430.000	430.000	0.000	0.000	0.000
GR	900.000	0.000	821.000	1.000	821.000	200.000	900.000	201.000	0.000	0.000

X1	19.000	4.000	1.000	200.000	163.000	163.000	163.000	0.000	0.000	0.000
GR	900.000	0.000	822.000	1.000	822.000	200.000	900.000	201.000	0.000	0.000

X1	20.000	4.000	1.000	200.000	163.000	163.000	163.000	0.000	0.000	0.000
GR	900.000	0.000	823.000	1.000	823.000	200.000	900.000	201.000	0.000	0.000

D/S LIMIT OF SEGMENT 44 & HOOVER ST.

X1	19.000	4.000	1.000	450.000	164.000	164.000	164.000	0.000	0.000	0.000
GR	900.000	0.000	830.100	1.000	829.300	90.000	824.000	300.000	225.000	450.000
DC	900.000	450.000	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

FORM 1411-GD PRINTED BY ROTARY MANIFOLD FORMS.
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*****************************************************
HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
ERROR CORR - 31
MODIFICATION - 52.51.52
*****************************************************

T1AAN ARBOR FLOOD INSURANCE STUDY. SEGMENT 1 4.   U.J. HEAVER.   3/10/80.
T2100 YEAR STORY.
T3      ALLEN   CREEK.          BURRIARD F.OH

J1  ICHECK    INQ       NINV      IDIP      STRT      METRIC    HVINS     Q         USEL      PQ

      0.        3.        0.        0.  3.000000      0.00      0.0       1.   304.000     0.000

J2  NPROF     NPLOT     PRINT     XSECV     XSECH     FN        ALLOC     IBW       CAMIN     ITRACE

    2.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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**************************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
**************************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY. SEGMENT 2 A.   W.J. WEAVER.   3/10/80.
T2100 YEAR STORM.
T3      ALLEN   CREEK.          OVERLAND FLOW

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      3.        4.        0.        0.  0.000000      0.00      1.0       0.   104.000     0.000

J2  NPROF     IPLOT     PRFMS     WSEL      WSEL      FQ        ALLOC     ZDL       CHAIN     STRACE

     3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
```

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*****************************************************
  HEC2 RELEASE DATED NOV 75 UPDATED FEB 1977
  ERROR CORR - 0
  MODIFICATION - SC.51.5E
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY, SEGMENT 1 4.   M.J. WEAVER.   3/10/80.
T2100 YEAR STORM.
T3      ARLEN   CREEK          OVERLAND FLOW

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

       0.       5.       5.       5.  0.000000     0.30     2.0       0.   804.000    0.000

J2  NPROF    NPLOT    PRINT    XSECV    XSECH     FN      ALLOC     XBL      CFSI     ITRACE

     4.000    0.000   -1.000    0.000    0.000    0.000    0.000    0.000    0.000    0.000
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FORM 1411-82 PRINTED BY ROTARY MANIFOLD FORMS.

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*****************************************************
  HEC2 RELEASE DATED MAY 76 UPDATED FEB 1977
  ERROR CONN -  31
  MODIFICATION -  [illegible]
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY. SEGMENT 4 [illegible]   H.J. [illegible]   3/1[illegible]/80.
T2100 YEAR STORM.
T3      [illegible]      [illegible]
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	[illegible]	WSEL	FR
	0.	0.	0.	0.	0.000000	0.00	0.[illegible]	[illegible]	804.030	0.000

J2	ARROR	SPLOT	[illegible]	XSECV	XSECH	FT	[illegible]	[illegible]	[illegible]	ITRACE
	5.000	0.000	-1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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FORM 1411.00 PRINTED BY ROTARY MANIFOLD FORMS.

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**********************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION - 150,[illegible]
**********************************************************

 TRANS ARBOR FLOOD INSURANCE STUDY, SEGMENT B 4.   [illegible] WEAVER,   3/10/80.
 T2100 YEAR STORM.
 T3      ALLEN   CRUEK.          OVERLAND FLOW.

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
      0.        7.        0.        0.  0.000000      0.00      0.0       0.   804.000     0.000

J2  NPROF     IPLOT     PRINT     XSECV     XSECH     FN        ALLDC     IBW       CHNL      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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FORM 1411-CD-PRINTED BY ROTARY MANIFOLD FORMS.

PRINTED IN U.S.A.

FORM 161-CU PRINTED BY ROTARY MANIFOLD FORMS.

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SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
13.500	250.00	0.00	0.00	812.00	200.00	812.75	812.75	813.13	584.71	6.94	40.48	8.27
13.500	250.00	0.00	0.00	812.00	600.00	813.81	0.00	814.43	234.63	5.83	102.94	59.17
13.500	250.00	0.00	0.00	812.00	900.00	814.69	0.00	815.27	166.58	6.19	145.50	89.71
13.500	250.00	0.00	0.00	812.00	1200.00	815.37	0.00	815.84	140.72	6.60	181.96	121.16
13.500	250.00	0.00	0.00	812.00	1500.00	815.96	0.00	816.72	126.70	6.99	214.69	153.24
13.500	250.00	0.00	0.00	812.00	1800.00	816.51	0.00	817.36	119.07	7.38	244.04	184.96
14.000	250.00	0.00	0.00	815.00	200.00	816.56	0.00	816.90	59.58	2.09	50.33	25.91
14.000	250.00	0.00	0.00	815.00	600.00	817.55	0.00	817.85	96.27	4.35	108.04	63.66
14.000	250.00	0.00	0.00	815.00	900.00	818.10	0.00	818.55	104.30	5.38	167.51	88.14
14.000	250.00	0.00	0.00	815.00	1200.00	818.60	0.00	819.19	112.90	6.18	194.39	112.94
14.000	250.00	0.00	0.00	815.00	1500.00	819.06	0.00	819.78	116.16	6.85	219.24	137.99
14.000	250.00	0.00	0.00	815.00	1800.00	819.50	0.00	820.35	120.56	7.41	243.13	163.93
15.000	410.00	0.00	0.00	816.00	200.00	817.97	0.00	818.03	25.22	1.08	106.98	41.51
15.000	410.00	0.00	0.00	816.00	600.00	819.82	0.00	819.75	26.15	3.09	194.55	113.09
15.000	410.00	0.00	0.00	816.00	900.00	820.47	0.00	820.49	30.62	3.72	241.97	162.63
15.000	410.00	0.00	0.00	816.00	1200.00	821.21	0.00	821.49	32.76	4.26	281.81	209.60
15.000	410.00	0.00	0.00	816.00	1500.00	821.86	0.00	822.21	34.51	4.73	317.29	255.35
15.000	410.00	0.00	0.00	816.00	1800.00	822.46	0.00	822.89	36.01	5.16	349.31	299.87
16.000	280.00	0.00	0.00	817.00	200.00	818.32	0.00	818.73	30.96	.96	111.16	35.74
16.000	280.00	0.00	0.00	817.00	600.00	820.40	0.00	820.54	28.43	2.99	200.94	112.52
16.000	280.00	0.00	0.00	817.00	900.00	821.35	0.00	821.52	28.69	3.52	255.03	168.03
16.000	280.00	0.00	0.00	817.00	1200.00	822.12	0.00	822.36	29.18	3.97	302.29	222.13
16.000	280.00	0.00	0.00	817.00	1500.00	822.8.	0.00	823.11	29.63	4.37	343.35	274.66
16.000	280.00	0.00	0.00	817.00	1800.00	823.43	0.00	823.60	29.64	4.73	380.65	326.20
17.000	400.00	0.00	0.00	821.20	200.00	821.70	0.00	822.01	507.16	5.86	51.59	8.88
17.000	400.00	0.00	0.00	821.20	600.00	822.58	322.32	823.03	261.78	6.56	131.51	42.24
17.000	400.00	0.00	0.00	821.20	900.00	823.35	0.00	823.69	130.13	6.71	191.51	78.68
17.000	400.00	0.00	0.00	821.20	1200.00	824.0.	0.00	824.25	110.54	6.82	247.04	121.3.
17.000	400.00	0.00	0.00	821.20	1500.00	824.54	0.00	824.97	79.64	6.78	301.39	168.20
17.000	400.00	0.00	0.00	821.20	1800.00	825.0.	0.00	825.57	72.8.	6.71	352.35	210.54
18.000	430.00	0.00	0.00	821.00	200.00	822.46	0.00	822.69	5.07	0.68	295.42	114.24
18.000	430.00	0.00	0.00	821.00	600.00	823.87	0.00	823.66	4.37	1.17	513.62	267.15
18.000	430.00	0.00	0.00	821.00	900.00	824.85	0.00	824.25	4.52	1.39	667.68	421.92
18.000	430.00	0.00	0.00	821.00	1200.00	825.67	0.00	824.91	4.69	1.50	771.83	560.04
18.000	430.00	0.00	0.00	821.00	1500.00	826.43	0.00	825.51	4.85	1.59	807.33	716.95
18.000	430.00	0.00	0.00	821.00	1800.00	826.13	0.00	826.07	4.27	1.80	990.35	870.86
18.300	163.00	0.00	0.00	822.50	200.00	822.59	0.00	822.64	66.27	.69	110.62	24.76
18.300	163.00	0.00	0.00	822.00	600.00	823.89	0.00	823.74	17.93	.70	330.85	141.70
18.300	163.00	0.00	0.00	822.00	900.00	824.85	0.00	824.01	13.40	1.95	467.04	245.10
18.300	163.00	0.00	0.00	822.00	1200.00	825.65	0.00	824.02	12.04	2.36	580.12	360.86
18.300	163.00	0.00	0.00	822.00	1500.00	826.54	0.00	825.61	9.50	2.13	705.02	486.76
18.300	163.00	0.00	0.00	822.00	1800.00	826.12	0.00	826.17	8.61	2.21	815.75	620.73
14.600	163.00	0.00	0.00	823.00	200.00	823.6.	0.00	823.65	56.93	.53	121.22	25.92
14.600	163.00	0.00	0.00	823.00	600.00	824.93	0.00	824.26	24.42	2.62	329.04	74.75
14.600	163.00	0.00	0.00	823.00	900.00	825.7.	0.00	825.76	48.12	4.21	371.31	150.71
18.600	163.00	0.00	0.00	823.00	1200.00	826.29	0.00	825.52	20.67	2.74	438.10	220.29
18.600	163.00	0.00	0.00	823.00	1500.00	826.74	0.00	826.36	22.46	2.76	544.88	316.36
18.600	163.00	0.00	0.00	823.00	1800.00	826.26	0.00	826.80	18.02	2.77	649.03	424.08

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FORM 143-GB PRINTED BY ROTARY MANIFOLD FORMS.

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRITS	EG	10K*S	VCH	AREA	.01K
19.000	164.00	0.00	0.00	824.00	200.00	824.99	0.00	825.06	132.57	2.14	93.58	17.37
19.000	164.00	0.00	0.00	824.00	600.00	825.30	0.00	825.49	114.47	3.03	198.14	56.06
19.000	164.00	0.00	0.00	824.00	700.00	825.71	0.00	825.93	130.91	3.66	246.97	76.66
19.000	164.00	0.00	0.00	824.00	1200.00	826.99	0.00	826.25	121.69	3.92	306.93	108.87
19.000	164.00	0.00	0.00	824.00	1500.00	826.52	0.00	826.55	93.34	3.87	387.63	155.26
19.000	164.00	0.00	0.00	824.00	1800.00	826.71	0.00	826.92	66.46	3.70	436.83	217.55

FORM 1411-GO PRINTED BY ROTARY MANIFOLD FORMS.
PRINTED IN U.S.A.

ALLEN CREEK.

SUMMARY PRINTOUT TABLE 15

	RADIO		RUNOFF	STORAGE	OUTFLOW	EFFIC.%	TIME TO PEAK	FLOW
	9.000	1560.00	804.00	0.00	0.00	0.00	71.27	300.00
	9.000	1560.00	804.00	0.00	0.00	0.00	71.27	300.00
	9.000	1560.00	804.00	0.00	0.00	0.00	71.27	300.00
	9.000	1560.00	804.00	0.00	0.00	0.00	71.27	300.00
	9.000	1560.00	804.00	0.00	0.00	0.00	71.27	300.00
	9.000	1560.00	804.00	0.00	0.00	0.00	71.27	300.00
*	10.000	200.00	807.61	0.00	3.61	0.00	74.01	465.00
*	10.000	600.00	808.25	0.00	4.25	0.00	74.02	465.00
*	10.000	900.00	808.63	0.00	4.63	0.00	74.04	465.00
*	10.000	1200.00	809.00	0.00	5.00	0.00	74.04	465.00
*	10.000	1500.00	809.35	0.00	5.35	0.00	74.05	465.00
*	10.000	1800.00	809.63	0.00	5.63	0.00	74.06	465.00
	11.000	200.00	809.00	0.00	2.94	0.00	129.03	550.00
	11.000	600.00	810.00	0.00	2.64	0.00	129.05	550.00
	11.000	900.00	811.58	0.00	2.92	0.00	129.07	550.00
	11.000	1200.00	812.17	0.00	3.16	0.00	129.08	550.00
	11.000	1500.00	812.70	0.00	3.37	0.00	129.09	550.00
	11.000	1800.00	813.18	0.00	3.55	0.00	129.10	550.00
	12.000	200.00	810.37	0.00	0.72	0.00	95.07	550.00
	12.000	600.00	811.73	0.00	2.64	0.00	95.25	550.00
	12.000	900.00	812.67	0.00	2.89	0.00	99.35	550.00
	12.000	1200.00	813.10	0.00	0.93	0.00	99.45	550.00
	12.000	1500.00	813.66	0.00	0.96	0.00	99.90	550.00
	12.000	1800.00	814.17	0.00	0.91	0.00	99.93	550.00
	13.000	200.00	811.03	0.00	0.64	0.00	54.06	315.00
	13.000	600.00	812.50	0.00	0.77	0.00	54.06	315.00
	13.000	900.00	813.21	0.00	0.81	0.00	54.09	315.00
	13.000	1200.00	813.94	0.00	0.85	0.00	54.11	315.00
	13.000	1500.00	814.52	0.00	0.87	0.00	54.12	315.00
	13.000	1800.00	815.04	0.00	0.00	0.00	54.12	315.00
	13.500	200.00	812.79	0.00	1.74	0.00	54.02	250.00
	13.500	600.00	813.91	0.00	1.41	0.00	54.04	250.00
	13.500	900.00	814.69	0.00	1.51	0.00	54.06	250.00
	13.500	1200.00	815.37	0.00	1.62	0.00	54.08	250.00
	13.500	1500.00	815.96	0.00	1.64	0.00	54.09	250.00
	13.500	1800.00	816.51	0.00	1.68	0.00	54.10	250.00
	14.000	200.00	816.48	0.00	3.73	0.00	54.04	250.00
	14.000	600.00	817.55	0.00	3.65	0.00	54.06	250.00
	14.000	900.00	818.40	0.00	3.71	0.00	54.07	250.00
	14.000	1200.00	819.17	0.00	3.73	0.00	54.08	250.00
	14.000	1500.00	819.87	0.00	3.80	0.00	54.10	250.00
	14.000	1800.00	819.30	0.00	2.98	0.00	54.11	250.00

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FORM 14760 PRINTED BY ROTARY MANIFOLD FORMS.

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
15.000	200.00	817.97	0.00	1.69	0.00	54.05	410.00
15.000	600.00	819.47	0.00	2.05	0.00	54.09	410.00
15.000	1000.00	820.47	0.00	2.37	0.00	54.11	410.00
15.000	1400.00	821.20	0.00	2.61	0.00	54.13	410.00
15.000	1500.00	821.86	0.00	2.80	0.00	54.14	410.00
15.000	1600.00	822.46	0.00	2.96	0.00	54.15	410.00
16.000	200.00	820.72	0.00	0.74	0.00	59.04	280.00
16.000	600.00	820.40	0.00	0.80	0.00	59.05	280.00
16.000	900.00	821.33	0.00	0.85	0.00	59.12	280.00
16.000	1200.00	822.12	0.00	0.91	0.00	59.12	280.00
16.000	1500.00	822.81	0.00	0.95	0.00	59.14	280.00
16.000	1800.00	823.45	0.00	1.00	0.00	59.16	280.00
17.000	200.00	821.74	0.00	3.06	0.00	89.01	430.00
17.000	600.00	822.63	0.00	2.25	0.00	89.06	430.00
17.000	900.00	823.35	0.00	2.02	0.00	89.05	400.00
17.000	1200.00	823.99	0.00	1.87	0.00	89.07	400.00
17.000	1500.00	824.59	0.00	1.77	0.00	89.09	400.00
17.000	1800.00	825.14	0.00	1.71	0.00	89.11	400.00
18.000	200.00	822.48	0.00	0.73	0.00	199.14	430.00
18.000	600.00	823.58	0.00	0.93	0.00	199.07	430.00
18.000	900.00	824.25	0.00	0.90	0.00	199.08	430.00
18.000	1200.00	824.87	0.00	0.88	0.00	199.10	430.00
18.000	1500.00	825.46	0.00	0.87	0.00	199.11	430.00
18.000	1800.00	826.02	0.00	0.85	0.00	199.13	430.00
18.300	200.00	822.59	0.00	0.11	0.00	199.02	165.00
18.300	600.00	823.59	0.00	0.11	0.00	199.04	165.00
18.300	900.00	824.33	0.00	0.10	0.00	199.04	165.00
18.300	1200.00	824.71	0.00	0.04	0.00	199.03	165.00
18.300	1500.00	825.34	0.00	0.07	0.00	199.06	165.00
18.300	1800.00	825.91	0.00	0.05	0.00	199.10	165.00
18.600	200.00	823.61	0.00	1.02	0.00	199.02	163.00
18.600	600.00	824.15	0.00	0.46	0.00	199.03	163.00
18.600	900.00	824.67	0.00	0.32	0.00	199.04	163.00
18.600	1200.00	825.21	0.00	0.24	0.00	199.00	163.00
18.600	1500.00	825.76	0.00	0.19	0.00	199.02	163.00
18.600	1800.00	826.26	0.00	0.16	0.00	199.08	163.00
19.000	200.00	824.99	0.00	1.30	0.00	139.96	164.00
19.000	600.00	825.30	0.00	1.37	0.00	247.96	164.00
19.000	900.00	825.73	0.00	1.24	0.00	250.50	164.00
19.000	1200.00	826.09	0.00	0.79	0.00	250.50	164.00
19.000	1500.00	826.32	0.00	0.58	0.00	247.73	164.00
19.000	1800.00	826.71	0.00	0.45	0.00	261.02	164.00

CUMULATIVE OF 19066

CAUTION SECNO= 10.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 10.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 10.000 PROFILE= 1 20 TRIALS ATTEMPTED SO SHALL BE USED

CAUTION SECNO= 10.000 PROFILE= 2 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 10.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY

CAUTION SECNO= 10.300 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 10.300 PROFILE= 3 CRITICAL DEPTH ASSUMED

PRINTED IN U.S.A.

FORM 134-GR PRINTED BY ROTARY MANIFOLD FORMS.

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CAUTION  SECNO=   10.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   10.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   10.000  PROFILE= 4  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   10.000  PROFILE= 5  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   10.000  PROFILE= 5  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   10.000  PROFILE= 6  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   10.000  PROFILE= 6  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   13.500  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   13.500  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   13.500  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
```

PRINTED IN U.S.A.

FORM 1411-OD PRINTED BY ROTARY MANIFOLD FORMS,

SEGMENT #4

100 yr

Pressure flow

Segment 4 100 yr.

```
JOB(USERBANITA,PROJECT=NUDAA,ACCOUNT=BILLING=NUDAA,RON=X0106
                                                                    1
                                                                    2
                                                                    3
                                                                    4
 15:46:40          JOB INTRODUCED FROM                  MAR 10, 1980
                   CC21 JCL                                         5
                                                                    6
                                                                    7
                                                                    8
 $*ACT OF CANCEL TIME                                               9
                                                                   10
$JOB AU231607,USER=ANITA,PROJECT=NUDAA#                            11
$INPUT FEC2#                                                       12
RECORD CEIL = 0                                                    13
$END-OF-INPUT#                                                     14
$CALLS TERMINATE#                                                  15
                                                                   16
SEND 'START OF FEC02 EXECUTION'#                                   17
STEP FEC02,UTAGNSLM,OPTIONS='FILE03 91,FILE03 92,FILE03 93,FILE03 94,
                                                                   18
ALC FILE03,FILE04,TEMPRY,DVC=3,UNIT=CYL,INCRSIZE=21,              19
ASG FILE03,FILE04,TEMPRY,DVC=3,UNIT=CYL,INCRSIZE=21,              20
ALC FILE03,SIZE=2,UNIT=CYL,INCRSIZE=1,                            21
ASG FILE03,FILE04,TEMPRY,DVC=3,UNIT=CYL,INCRSIZE=1,               22
ALC FILE04,FILE05,TEMPRY,DVC=3,UNIT=CYL,INCRSIZE=1,               23
ASG FILE04,FILE05,TEMPRY,DVC=3,UNIT=CYL,INCRSIZE=1,               24
ALC FILE05,FILE06,TEMPRY,DVC=3,UNIT=CYL,INCRSIZE=1,               25
ASG FILE05,FILE06,TEMPRY,DVC=3,UNIT=CYL,INCRSIZE=1,               26
ALC FILE06,FILE07,TEMPRY,DVC=3,UNIT=CYL,INCRSIZE=1,               27
ASG FILE06,FILE07,TEMPRY,DVC=3,UNIT=CYL,INCRSIZE=1,               28
ALC FILE07,FILE08,TEMPRY,DVC=3,UNIT=CYL,INCRSIZE=1,               29
ASG FILE07,FILE08,TEMPRY,DVC=3,UNIT=CYL,INCRSIZE=1,               30
ALC FILE08,FILE09,TEMPRY,DVC=3,UNIT=CYL,INCRSIZE=1,               31
ASG FILE08,FILE09,TEMPRY,DVC=3,UNIT=CYL,INCRSIZE=1,               32
ALC FILE09,FILE10,TEMPRY,DVC=3,UNIT=CYL,INCRSIZE=1,
```

```
#DBID=HU201607          USER=ANITA          PROJECT=HUDAA          BILLING=HUDDA          RON=X0106

NOT  : TERMINAL WILL BE DOWN FROM 10 AM TO 12 NOON FOR PAYROLL

=====================================================================================================

15:47:00                                  JOB EXECUTION LISTING                                  MAR 10, 1980

=====================================================================================================
          START OF HEC#2 EXECUTION
          STEP
          LOAD MODULE = HEC#2 (79/2 /22 23:58) PREINITIALIZED
          LIBRARY = [illegible]
15:47:04  STEP STARTED XPRTY=9
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000106.FILE#B
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000106.FILE#C
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000106.FILE#D
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000106.FILE#A
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000106.FILE#E
          FP04.    2 CYLINDER(S) ALLOCATED ON VOLUME: WTAPAK FOR EFN: ;000106.FILE#F
          TASK MAIN J=03 P=00 COMPLETED
          DUF01.IFN=FILE#F       REMEMBER REUSE=        0
          DUF01.IFN=FILE#B       REMEMBER REUSE=        0
          DUF01.IFN=FILE#C       REMEMBER REUSE=        0
          DUF01.IFN=FILE#D       REMEMBER REUSE=        0
          DUF01.IFN=FILE#A       REMEMBER REUSE=        0
          DUF01.IFN=FILE#E       REMEMBER REUSE=        0    UNLOCK BUFFER=        0    CREATE BUFFER=       37
          TEMPORARY  FILES USED=   226 TRACKS
          FILE#F    ON  WTAPAK :  NB  CP  IO  CONNECTS=        [illegible]
          FILE#A    ON  WTAPAK :  NB  CP  IO  CONNECTS=       133
          FILE#C    ON  WTAPAK :  NB  CP  IO  CONNECTS=       [illegible]
          HDPD      ON  L64NV4 :  NB  CP  IO  CONNECTS=        [illegible]
          HDPD      ON  L64NV4 :  NB  CP  IO  CONNECTS=         [illegible]
          FILE#A    ON  WTAPAK :  NB  CP  IO  CONNECTS=        67
          FILE#A    ON  WTAPAK :  NB  CP  IO  CONNECTS=       [illegible]
          FILE#E    ON  WTAPAK :  NB  CP  IO  CONNECTS=        [illegible]
          CPU          1.436                    PROG MISSING SEGTS    [illegible]    [illegible]
          ELAPSED      3.901                    PVS  MISSING SEGTS     1400
          LINES          673   LIMIT     NOLIM    BACKING STORE        466664
          CARDS            0   LIMIT     NOLIM    BUFFER SIZE           13040   OPSIZE     2272
15:50:56  STEP COMPLETED


          START     15:47:00   LINES       673
          STOP      15:51:00   CARDS         0
          CPU          1.436
          ELAPSE       4.072
15:51:00  RESULT: [illegible] COMPLETED
```

```
**************************************************
    HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
    EARLY CORR = 01
    MODIFICATION = 50A51.52
**************************************************

C
T1ANA ARBOR FLOOD INSURANCE STUDY, DEC 30? M.I.  W.J. JEPNER,  3/10/77.
T2100 YEAR STORM.
T3    ALLEN CREEK,          PRESENT FLO.

J1  ICHECK    INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
          0.         2.         3.         0.  0.030000       0.30       0.0        0.    824.300      0.005

GT      0.200    327.000    327.050    328.000    328.500    328.000    340.300      0.005      0.300      0.500
NC      0.150      0.150      0.015      0.300      0.500      2.000      0.000      0.000      0.000      0.000

        U/S END OF REACH 13

X1   4325.000      9.100      1.200     11.200     560.300     562.100     566.000      1.000      5.300      0.000
X3     10.000      0.000      0.000      0.000      0.000      0.200      0.000   1300.000   1300.000      0.000
GR   1300.000      0.000    786.100      1.000    787.100      2.100    786.700      4.100    786.600      6.100
GR    786.700      8.100    787.100     10.160    788.100     11.200   1300.000     12.000      0.000      0.000
CT      2.000    114.300    200.000    320.000    400.000    500.000    800.000      0.500      3.000      3.000

        U/S END OF TYPE J CULVERT SEGMENT#4

X1   4330.000      6.900    530.250    548.750      5.000      5.200      5.000      0.000      0.000      0.000
X3     10.000      0.000      0.000      0.000      2.000      0.000      0.150    900.300    900.000      1.150
GR   900.000      0.300    900.000    539.200    790.900    550.250    541.900    545.720    900.000    545.650
GR   900.000    550.300      0.000      0.000      1.000      0.000      0.000      0.000      0.000      0.000
SC     0.000     67.700      2.600      0.000      0.620      0.000     47.400      0.000    815.700    791.900

        U/S END OF TYPE J CULVERT SEGMENT#3

X1   6732.000     19.000    545.000    560.100    611.000    611.100    620.500      0.500      0.500      0.500
X3     0.300      0.000      1.000    821.200    900.000      0.000      0.000      0.000      0.000      0.000
X3    10.300      0.000      3.000      0.300      0.000      1.000      0.000    900.300    900.000      0.000
GR    19.000      0.000    900.000      0.000    539.900    900.000      0.000    539.000    900.300    817.200
GR   559.500    900.000    819.700    560.500    900.000    611.900    543.900    900.300    820.500    544.000
GR   900.200    821.200    545.500    900.300    821.900    559.500    900.200    649.900    543.500    900.000
GR   560.700    545.000    900.000    817.200    560.100      0.000      0.200    900.300    900.000      0.000
GR   900.000      0.000    900.000    538.700    817.200    539.000    816.900    539.500    816.100    540.500
GR   815.900    542.500    815.700    564.700    645.900    565.500    816.100    547.900    816.600    558.500
GR   817.200    549.000    900.000    569.000    901.000    700.000      0.100      0.100      0.500      0.000
EJ     0.500      0.000      1.000      0.300      1.000      0.000      0.200      0.200      0.200      0.000
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*PROF 1

CCHV= 0.300 CEHV= 0.500

*SECNO 4325.000

SECNO	DEPTH	CHSEL	CRIHS	LBELK	EG	HV	HL	QLOSS	BANK ELEV
ID	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XCH	XNR	TH	ELMIN	SST
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IN2	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE.E.LEA= 1300.00 ELREA= 1300.00

U/S END OF SEGMENT #3

4325.00	12.13	90*.00	0.00	404.00	304.11	0.11	0.00	0.00	793.40
320.	0.	320.	0.	0.	120.	0.	0.	0.	793.40
0.00	0.00	0.67	0.00	0.150	0.015	0.150	0.000	791.90	1.06
0.000072	550.	550.	550.	0	0	0	0.00	10.20	11.20

*SECNO 4330.000

3494 OVERBANK AREA ASSUMED NON-EFFECTIVE.ELEA= 500.00 E.REA= 300.00

D/S END OF TYPE 3 CULVERT.SEG# NI84

4330.00	12.23	104.11	0.00	0.00	404.14	0.01	0.00	0.00	791.90
100.	0.	100.	0.	0.	296.	0.	0.	0.	791.90
0.70	0.00	0.06	0.00	0.150	0.013	0.150	0.013	791.90	539.25
0.000055	5.	5.	5.	2	3	0	0.00	9.50	548.75

BOXCULVERT

SS	XK	RNOR /	COFQ	ROLL	BNC	BNP	AREA	SS	ELCHU	ELCHD
	0.30	12.73	2.60	0.00	3.62	0.30	42.40	0.00	815.70	792.50

*SECNO 3732.000

PRESSURE FLOW BECAUSE EGL C CC 823.96 EXCEEDS .5 DEPTH

3331 HV CHANGED MORE THAN HVTOL

SECNO	DEPTH	CHSEL	CRIHS	LBELK	EG	HV	HL	QLOSS	BANK ELEV
ID	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XCH	XNR	TH	ELMIN	SST
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IN2	ICONT	CORAR	TOPWID	ENDST

PRESSURE FLOW

EGABS	EGLOC	FB	QPELR	QFP	BAREA	TRAPEZOID AREA	ELLC	ELTRD
825.56	822.56	0.00	0.	100.	42.	42.	822.50	990.00

3322 ST TRIAL ATTEMPTED TO BECOME

3728 CRITICAL DEPTH ASSUMED

FORM 1411-GO PRINTED BY ROTARY MANIFOLD FORMS.
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3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 900.00 ELREA= 900.00

U/S END OF TYPE D CULVERT NEAR HOOVER

8732.00	1.85	817.53	817.55	0.30	818.29	0.74	0.08	-0.00	817.20
100.	0.	100.	0.	0.	15.	0.	7.	1.	817.20
0.10	0.30	1.83	0.05	0.130	0.015	0.153	0.018	815.70	535.00
0.003532	4410.	4410.	4410.	20	20	0	0.00	10.00	549.00

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FORM 1411-CO PRINTED BY ROTARY MANIFOLD FORMS.

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR =  01
  MODIFICATION =  50.51.32
**************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY. SEGMENT B 4.   J.J. LEAVER.   3/10/80.
T2100 YEAR STORM.
T3      ALLEN CREEK.          PRESSURE FLOW.

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
         0.        3.        7.        7.  0.200000      0.00      0.0        0.   804.000     0.000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLOC     IC        CHNIM     ITRACE
     2.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*PROF 2

CCHV= 0.300 CEHV= 0.500

*SECNO 4325.000

SECNO	DEPTH	QWEIR	CRIWS	WSELK	ES	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TIM	LEFT/RIGHT
TIME	WLOB	WCH	WROB	XNL	XNCH	XNR	WTL	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IN2	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED ON-EFFECTIVE=ELLOB= 1502.03 ELROA= 1500.00

U/S END OF SEGMENT #5

4325.30	12.18	804.00	0.00	804.00	804.11	0.11	0.00	0.00	795.40
320.	0.	320.	0.	0.	150.	0.	0.	0.	795.40
0.30	0.00	2.47	0.00	0.150	0.015	0.150	0.000	791.90	1.00
0.000072	550.	550.	550.	0	0	0	0.00	10.20	11.20

*SECNO 4325.000

3495 OVERBANK AREA ASSUMED ON-EFFECTIVE=ELLOB= 920.30 ELROA= 900.00

D/S END OF TYPE 9 CULVERT SEGMENT#4

4330.20	12.18	804.00	0.00	0.00	804.18	0.05	0.00	0.00	791.90
200.	0.	200.	0.	0.	116.	0.	0.	0.	791.90
0.30	0.00	1.73	0.00	0.150	0.015	0.150	0.015	791.90	539.25
0.000021	5.	5.	3.	2	6	0	0.00	9.50	548.75

SPECIAL BRIDGE

SS	XR	YROB	COFI	RJLEN	SNC	SUP	SAREA	SS	ELCHU	ELCHD
	0.00	22.78	2.40	0.00	0.62	0.00	47.42	0.00	0.00	791.90

*SECNO 3722.000

ERROR EL OF CROSS SEC 1.00 IS 2.00 LOWER THAN LOWEST PT

SECNO	DEPTH	QWEIR	CRIWS	WSELK	ES	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TIM	LEFT/RIGHT
TIME	WLOB	WCH	WROB	XNL	XNCH	XNR	WTL	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IN2	ICONT	CORAR	TOPWID	ENDST

PRESSURE FLOW

QSPRS	WSELWS	SSA	QWEIR	SSR	PAREA	TRAPEZOID AREA	LPSC	SSTRB
479.20	807.31	0.0	0	0	200.	12.	9.	50.00

THIS 20 TRIALS ATTEMPTED WSELWS SEL

BY 0.USEL ASSUMED BASED ON THE BEST

3495 OVERBANK AREA ASSUMED INEFFECTIVE=ELOB= 900.00 ELROA= 900.00

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U/S END OF TYPE D CULVERT NEAR HOOVER

8732.00	2.83	818.53	0.00	0.00	819.58	1.05	0.00	0.00	817.20
200.	0.	200.	0.	0.	24.	0.	7.	1.	817.20
0.15	0.00	8.24	0.00	0.150	0.015	0.150	0.015	815.70	539.00
0.002719	4410.	4410.	4410.	20	0	0	0.05	10.00	549.00

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  30,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY, SEGMENT M 4.   U.S. HEAVER.   3/10/80.
T2100 YEAR STORM.
T3      ALLEN CREEK;              PRESSURE FLOW.
J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        4.        0.        0.  3.000000      0.00       0.0        0.   804.000     0.000
J2  NPROF     SPLOT     PMFVS     XSECV     XSECH     FN        ALLOC     SDM       CHNIM     ITRACE
     3.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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FORM 1411-GD PRINTED BY ROTARY MANIFOLD FORMS.
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*PROF 3

CCHV= 0.300 CEHV= 0.500

*SECNO 4325.000

SECNO	DEPTH	CWSEL	CRITS	MSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROD	ALOB	ACH	AROB	WOL	TW	LEFT/RIGHT
TYPE	WLOB	WCH	WROB	XWI	XLCH	XWR	ZTW	B.OT	SET
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IR2	ICONT	CORAR	TOPWID	ENDST

S495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLE= 1505.00 ELRGAR= 1300.00

U/S END OF SEGMENT #3

4325.00	12.15	804.00	0.00	804.00	804.11	0.11	0.00	0.00	795.60
325.	0.	280.	0.	0.	120.	0.	0.	0.	795.20
0.00	0.00	2.57	0.00	0.156	0.015	0.193	0.000	791.90	1.07
0.000072	550.	550.	551.	0	0	0	0.00	10.20	11.22

*SECNO 4330.000

S495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLE= 900.00 ELRGAR= 900.00

D/S END OF TYPE 3 CULVERT SEGMENT#4

4330.00	12.11	804.01	0.00	0.00	804.11	0.11	0.00	0.00	795.90
300.	0.	300.	0.	0.	110.	0.		0.	791.80
0.00	0.00	2.61	0.00	0.150	0.015	0.150	0.013	791.90	539.26
0.000047	5.	5.	5.	0	0	0	0.00	9.50	548.75

SPECIAL BRIDGE

SR	RK	XCOR	COFQ	TOLSN	SWC	SWP	SAREA	SS	ELCHU	ELCHD
	0.20	17.78	2.60	0.10	8.62	0.20	67.40	0.20	805.70	791.95

*SECNO 8732.000

CROSS FLOW DISCHARGE OVER DE 823.91 EXCEEDS 1.5 DEPTH

3311 HV CHANGED MORE THAN HVINS

SECNO	DEPTH	CWSEL	CRITS	MSELK	EG	HV	HL	CLOSS	BANK ELEV
Q	QLOB	QCH	QROD	ALOB	ACH	AROB	WOL	TW	LEFT/RIGHT
TYPE	WLOB	WCH	WROB	XWI	XLCH	XWR	ZTW	B.OT	SET
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IR2	ICONT	CORAR	TOPWID	ENDST

OVERBANK FLOW

ECORS	EGLOB	HL	HWSEL	QPR	BATEA	TRAPEZOID AREA	ELLE	ELRB
815.07	822.91	7.00	0.	530.	67.	67.	821.20	900.00

3315 HV HEADLOSS ITERATE) LSOWL WSEL

3722 CRITICAL DEPTH ASSUMED

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3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLSA= 900.00 ELREA= 900.00

U/S END OF TYPE D CULVERT NEAR HOOVER

8732.00	3.43	819.13	819.13	0.50	822.65	1.32	0.50	-0.63	817.20
330.	0.	300.	0.	0.	30.	0.	7.	1.	817.20
0.12	0.00	0.00	0.00	0.130	0.015	0.150	0.025	815.20	539.00
0.003115	4410.	4410.	4410.	20	14	0	0.00	10.00	549.00

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 31
  MODIFICATION - 50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY. SEGMENT # 4.   W.J. WEAVER.   3/10/80.
T2100 YEAR STORM.
T3      ALLEN CREEK.                PRESSURE FLOW.
J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC    HVINS     Q        WSEL     FQ
       0.       5.       0.       0.  0.003000     0.00      0.0       0.   804.000    0.000
J2  NPROF    IPLOT    PRFVS    XSECV    XSECH     FN       ELDC     IBP      CHNIM    ITRACE
     4.000    0.000   -1.000    0.000    0.000    0.000    1.000    0.000    0.000    0.000
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*PROF 4

CCHV=  0.300 CEHV=  0.500
*SECNO 4325.000
     SECNO      DEPTH      CHSEL      CREMB      HSELK      B3         HV         THL        CLOSS      BANK ELEV
       0        QLOB       QCH        QROB       XLOB       ACH        XROB       CVOL       YHP        LEFT/RIGHT
      TYPE      WLOB       WCH        WROB       XCH        HCH        XRB        HT         ELEXM      ESTA
     SLOPE      XLOBL      XLCH       XLOBR      ITRIAL     IAZ        ICONT      CORAR      TOPWID     ENDST

9495 OVERBANK AREA ASSUMED NON-EFFECTIVE,E.LEA=     1500.00 R.REA=     1500.00

          U/S END OF SEGMENT #3

   4325.00      12.10      804.00       0.00       804.00     804.11       0.11       0.20       0.03     793.60
       320.          0.        920.          0.          0.       120.          0.         1.          0.     793.60
      0.03       0.00       2.47       0.00       0.192      0.315      0.150      0.000     791.90     791.90
  0.000072        550.       550.       550.          3          0          0       0.00      10.20      11.20

*SECNO 4350.000
9495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      500.00 ELREA=      500.00

          D/S END OF TYPE B CULVERT,SEGMENT#4

   4350.00      12.06      803.96       0.00       0.00       804.15       0.19       0.00       0.06     791.90
       400.          0.        400.          0.          0.       115.          0.         0.          1.     792.00
      0.00       0.00       3.49       0.00       0.150      0.015      0.150      0.012     791.90     539.26
  0.000083          5.         5.         5.          2          0          0       0.00       9.50     548.75

SPECIAL BRIDGE

 SB   XR          AKOB        COPT        RDLSK       BUC         BUF         BAREA       SS          ELOPB       ELCND
      0.00        17.70        2.60        0.00        0.62        0.00       67.60        0.00       815.70      791.90

*SECNO 0732.000
PRESS FLOW FLOWSE ROUTE IF   927.31  INCREMS 1.5 DEPTH
PRESSURE FLOW

  JOPOB       ECLNC       HI          JAREA       APR         BAREA       TRAPEZOID       ELLO        ELTO
                                                                            AREA
   927.62      927.93       0.00          0.          400          67.          67.         62.20      900.00

9495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA=      900.00 ELREA=      900.00

          U/S END OF TYPE B  CULVERT NEAR INCOVER

   4732.00       7.42      923.12       0.00       0.00       925.62       0.50       12.47       0.00     817.20
       400.          0.        400.          0.          0.        70.          1.         1.          1.     817.20
      0.22       0.00       3.70       0.00       0.150      0.035      0.150      0.015     815.70     539.06
  0.000233          4.         4.         4.          1          0          0       0.00      11.00     549.01
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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR -  01
  MODIFICATION -  50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY, SEGMENT X 4.   N.J. WEAVER.   3/10/80.
T2100 YEAR STORM.
T3      ALLEN CREEK.                PRESSURE FLOW.
J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
       0.        0.        0.        0.  0.000000      0.00       0.0        0.   804.000     0.000
J2  NPROF     DPLOT     PMFVS     XSECV     XSLOP     FN        ALLDC     IEH       CHNIN     ITRACE
      5.000     0.000    -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000
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*PROF 5

CCHV= 0.300 CEHV= 0.500

*SECNO 4325.000

SECNO	DEPTH	CHSEL	CRDNS	CHELK	ES	HV	HL	BLOSS	BANK ELEV
0	QLOB	CCH	AROB	QLOC	ACH	AROB	VOL	YH	LEFT/RIGHT
TIME	WLOB	VOL	WEOB	WHL	XWCH	WLB	WTL	ELSEL	SRT
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IN2	ICONT	CORAR	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1503.00 ELREA= 1501.00

U/S END OF SEGMENT #3

4325.00	12.10	804.00	0.00	804.20	804.11	0.11	0.00	0.00	793.40
320.	0.	320.	0.	0.	120.	0.	0.	0.	793.40
0.00	1.00	2.42	0.00	0.150	0.015	0.150	0.000	792.85	0.20
0.000072	550.	550.	550.	0	2	0	0.00	10.20	11.20

*SECNO 4330.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 901.00 ELREA= 900.50

U/S END OF TYPE 4 CULVERT,SECNO=#4

4330.00	12.01	803.21	0.00	0.00	804.21	0.11	0.00	0.00	791.90
500.	0.	500.	0.	0.	114.	0.	0.	0.	791.90
0.00	0.00	4.38	0.00	0.150	0.015	0.150	0.013	791.90	539.25
0.000135	5.	5.	5.	2	0	0	0.00	9.50	540.75

SPECIAL DATA=6

SK	XK	LAOC	CCTO	RDLEV	B.C	B.P	BAREA	QS	ELCHD	ELCND
	0.00	17.78	2.00	3.00	1.62	1.00	47.47	5.01	815.20	791.90

*SECNO 8732.000
PRESSURE FLOW

EGPRS	EGLIC	WQ	QSTR	QSB	BAREA	AREA	ELLC	ELTRD
834.63	827.95	5.00	0.	500.	47.	47.	821.20	900.00

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 900.00 ELREA= 900.50

U/S END OF TYPE 3 CULVERT,SECNO=#3

8732.00	18.81	834.51	0.00	0.00	834.65	0.14	30.42	0.00	817.20
500.	0.	500.	0.	0.	184.	0.	14.	1.	817.20
0.45	0.00	3.24	0.00	0.150	0.015	0.150	0.015	815.20	539.50
0.000561	4410.	4410.	4410.	2	2	0	0.00	10.00	549.60

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*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977
  ERROR CORR - 01
  MODIFICATION - 50,51,52
*****************************************************

T1ANN ARBOR FLOOD INSURANCE STUDY. SEGMENT # 4.   J.J. WEAVER.   3/10/80.
T2100 YEAR STORM.
T3      ALLEN CREEK.          PRESSURE FLOW.
J1  ICHECK    INQ      NINV     IDIM     STRT     METRIC   HVINS    Q        WSEL     FQ
      0.       7.       0.       0.  0.000000    0.00     0.0      0.   804.000   0.000
J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLOC    IE       CK1      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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*PROF 6

CONV= 0.300 CEHV= 0.500
*SECNO 4325.000

SECNO	DEPTH	CWSEL	CRWNS	HSTWK	EG	KV	ML	QLOSS	PNWS ELEV
@	QLOB	QCH	QROB	ALOB	XCH	ATOT	VOL	TIME	LEFT/RIGHT
TIME	WLOB	WCH	WROB	XTL	XNCH	WNR	PCH	LOB	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IHS	ICONT	CORAK	TOPWID	ENDST

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 1300.00 ELREA= 1300.00

U/S END OF SEGMENT 05

4325.00	12.10	804.02	0.00	674.30	664.11	0.11	0.00	0.00	795.40
320.	0.	350.	0.	0.	120.	0.	0.	0.	793.40
0.00	1.53	2.62	0.00	0.150	0.015	0.156	0.000	221.30	1.00
0.000072	550.	550.	550.	0	0	0	0.00	10.20	11.20

*SECNO 4330.000

3501 HV CHANGED TOLE THAN 0V1.0%

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 900.00 ELREA= 900.00

U/S END OF TYPE 6 CROSSSECTION

4330.00	11.76	803.56	0.00	0.00	804.45	0.80	0.00	0.34	791.90
305.	0.	850.	0.	0.	152.	0.	0.	0.	791.90
0.00	1.00	2.76	0.00	0.152	0.319	0.150	0.095	791.90	325.25
0.000193	5.	5.	5.	2	0	0	0.00	9.52	548.75

SPECIAL BRIDGE

SS	BK	ABOR	CDS	FOLE	PIC	CWP	BAREA	SS	BLCHD	ELCHD
	0.00	12.23	2.00	0.00	1.00	0.13	52.6	1.0	115.70	792.5

*SECNO 8732.000

3501 HV CHANGED MORE THAN 0.10%

PRESSURE FLOW

ESPRS	EGLUS	KJ	QWEIR	CPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
862.82	823.65	3.03	0.	900.	47.	47.	821.20	900.00

5495 OVERBANK AREA ASSUMED NON-EFFECTIVE,ELLEA= 900.00 ELREA= 900.00

U/S END OF TYPE 6 CROSSSECTION

8732.00	66.38	892.28	0.00	0.00	892.28	0.02	17.35	0.00	817.20

800.	0.	800.	0.	0.	662.	0.	39.	1.	817.20
1.01	0.00	1.21	0.00	0.150	0.015	0.150	0.015	815.70	539.00
0.000008	4410.	4410.	4410.	2	0	0	0.00	10.00	549.00



****

HEC2 RELEASE DATED NOV 76 UPDATED FEB 1977

ERROR CORR - 01

MODIFICATION - 50.51.52

****

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

MAIN CHEC

SUMMARY PRINTOUT TABLE 150

	SECNO	KRCH	SLOPE	CLLC	ELMIN	Q	CWSEL	CRITS	FR	TOPWS	VCH	AREA	.DIS
	4325.000	550.00	0.00	0.00	791.90	320.00	804.30	0.00	804.11	0.72	2.67	119.82	376.38
	4325.000	550.00	0.00	0.00	791.90	320.00	804.30	0.00	804.11	0.72	2.67	119.82	376.38
	4325.000	550.00	0.00	0.00	791.90	320.00	804.30	0.00	804.11	0.72	2.67	119.82	376.38
	4325.000	550.00	0.00	0.00	791.90	320.00	804.30	0.00	804.11	0.72	2.67	119.82	376.38
	4325.000	550.00	0.00	0.00	791.90	320.00	804.30	0.00	804.11	0.72	2.67	119.82	376.38
	4325.000	550.00	0.00	0.00	791.90	320.00	804.30	0.00	804.11	0.72	2.67	119.82	376.38
	4330.000	5.00	0.00	0.00	791.90	100.00	804.13	0.00	804.14	0.05	0.86	116.18	441.10
	4330.000	5.00	0.00	0.00	791.90	200.00	804.08	0.00	804.13	0.21	1.72	115.75	439.09
	4330.000	5.00	0.00	0.00	791.90	300.00	804.01	0.00	804.11	0.47	2.61	114.95	435.29
	4330.000	5.00	0.00	0.00	791.90	400.00	803.90	0.00	804.10	0.85	3.46	114.53	433.52
	4330.000	5.00	0.00	0.00	791.90	500.00	803.81	0.00	804.21	1.35	4.31	114.06	431.07
	4330.000	5.00	0.00	0.00	791.90	800.00	803.66	0.00	804.45	3.63	7.18	111.71	419.90
*	8732.000	4610.00	900.00	821.20	815.70	100.00	817.35	817.55	813.29	35.32	6.08	14.58	16.83
*	8732.000	4610.00	900.00	821.20	815.70	200.00	818.55	0.00	816.56	67.09	8.24	24.21	38.35
*	8732.000	4610.00	900.00	821.20	815.70	300.00	819.13	819.17	822.65	91.13	9.90	30.30	55.75
*	8732.000	4610.00	900.00	821.20	815.70	400.00	819.65	0.00	823.62	0.00	5.70	70.22	161.93
	8732.000	4610.00	900.00	821.20	815.70	500.00	834.51	0.00	834.63	0.61	2.72	184.72	640.55
	8732.000	4610.00	900.00	821.20	815.70	800.00	862.20	0.00	862.30	0.83	1.21	661.30	2781.43

FORM FSU-FB-PRINTED BY ROTARY MARIFOLD FORMS

PRINTED IN U.S.A.

ALLEN CREEK.

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CHSEL	DIFWSP	DIFHSX	DIFKWS	TOPWID	XLOB
	4325.000	320.00	804.00	0.00	0.00	0.00	10.20	550.00
	4325.000	320.00	804.00	0.00	0.00	0.00	10.20	550.00
	4325.000	320.00	804.00	0.00	0.00	0.00	10.20	550.00
	4325.000	320.00	804.00	0.00	0.00	0.00	10.20	550.00
	4325.000	320.00	804.00	0.00	0.00	0.00	10.20	550.00
	4325.000	320.00	804.00	0.00	0.00	0.00	10.20	550.00
	4330.000	100.00	804.13	0.00	0.13	0.00	9.50	5.00
	4330.000	200.00	804.02	0.00	0.02	0.00	9.50	5.00
	4330.000	300.00	804.01	0.00	0.01	0.00	9.50	5.00
	4330.000	400.00	803.98	0.00	-0.04	0.00	9.50	5.00
	4330.000	500.00	803.91	0.00	-0.09	0.00	9.50	5.00
	4330.000	300.00	803.66	0.00	-0.34	0.00	9.50	5.00
a	8732.000	100.00	817.55	0.00	13.42	0.00	10.00	4410.00
a	8732.000	200.00	819.53	0.00	14.44	0.00	10.00	4410.00
a	8732.000	300.00	819.18	0.00	15.12	0.00	10.00	4410.00
	8732.000	400.00	818.13	0.00	12.16	0.00	10.00	4410.00
	8732.000	500.00	816.51	0.00	30.61	0.00	10.00	4410.00
	8732.000	800.00	892.28	0.00	78.62	0.00	10.00	4410.00

SUMMARY OF ERRORS

CAUTION SECNO= 8732.000 PROFILE= 1 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 8732.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8732.000 PROFILE= 2 HGE ASSUMED BASED ON NORM DEP

CAUTION SECNO= 8732.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION SECNO= 8732.000 PROFILE= 3 CRITICAL DEPTH ASSUMED

CAUTION SECNO= 8732.000 PROFILE= 3 20 TRIALS ATTEMPTED TO BALANCE WSEL

FORM 3411-00 PRINTED BY ROTARY MANI-OLD FORMS.

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF ANN ARBOR

3) WATERCOURSE: HURON RIVER, ALLEN CREEK
TRAVER CREEK

4) DOCUMENT TYPE: REPORT

00BREAK00

HYDRAULIC REPORT
CITY OF ANN ARBOR - MICHIGAN

I. INTRODUCTION

The City of Ann Arbor covers approximately 23 square miles. It is an urban residential community. This report summarizes the hydraulic studies undertaken to support detailed studies of approximately 3 1/2 miles of the Huron River, 1 3/4 miles of the Allen Creek Drain, and 3/4 mile of Traver Creek.

This study was conducted by Wade, Trim and Associates, Inc., Consulting Engineers and Glen Roberts served as Project Manager.

II. HURON RIVER (DETAILED)

Detailed studies of the Huron River were performed from the Huron Parkway to the city limit between Argo and Barton Dams. This entire reach was studied in detail by the Corps of Engineers (Reference 1).

Cross section locations are shown in Exhibit 1 (Sheets 1 and 2). Table 1 cross references section designations by showing which computer section number corresponds to the cross section letter shown in Exhibit 1. Table 2 lists discharges that have been approved by the Michigan Department of Natural Resources (MDNR) for this river.

A. Method of Analysis

The Corps of Engineers used the HEC-2 backwater program for developing water surface profiles (Reference 2). Although their Flood Hazard Information Report for the Huron River (Reference 1) only shows profiles for the 50, 100, and 500 year storms, the Corps of Engineers did analyze the 10 year storm and their analysis was used for our study.

Table 2 contains selected flood elevations from the HEC-2 printouts. Copies of the HEC-2 computer printouts are presented in Exhibit 2. Cross-section plots are also presented in Exhibit 3. Water surface profiles resulting from the backwater analysis are presented as Exhibit 4.

B. Variables and Coefficients

Typical roughness value for the main channel is 0.03; roughness values for the overbank area varied between 0.04 to 0.1 for all floods. These values are indicative of summer month conditions and are consistent with roughness values recommended and used in engineering practice. The contraction and expansion coefficients varied from 0.1 and 0.3, to 0.6 and 0.8, respectively.

C. High Water Marks

There are no documented high water marks for this reach of the Huron River. Not even at the USGS gage?

D. Starting Conditions

The Corps of Engineers studied the Huron River in several segments, two of which contain the reach being studied in this report. One computer run started at Geddes Dam which is downstream from our starting location using the normal pond elevation for all storms. The other computer run started at Argo Dam and also used the normal pond elevation as the starting water surface elevation for all storms.

E. Special Problems

No special problems were encountered in the analysis of the Huron River.

F. General

Computed water-surface elevations were developed to an accuracy of 0.5 foot for floods of the selected recurrence intervals.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). This datum is equivalent to the U.S. Geological Survey (USGS) datum.

The hydraulic analyses for this study are based only on the effects of flow unobstructed by ice or debris. The flood elevations are considered valid only if hydraulic structures, in general, remain unobstructed and do not fail.

TABLE 1

CITY OF ANN ARBOR

HURON RIVER

CROSS SECTION	COMPUTER NO.	DESCRIPTION
A	42.3	Huron Parkway
B	42.0	d/s Face of Geddes Ave. Bridge
C	41.1	u/s Face of Geddes Ave. Bridge
D	41.0	±200' u/s of Geddes Ave.
E	40.0	±2500' u/s of Geddes Ave.
F	39.0	±4300' u/s of Geddes Ave.
G	38.0	d/s Face of Penn Central R.R. Bridge #1
H	37.1	u/s Face of Penn Central R.R. Bridge #1
I	36.0	±100' d/s of Penn Central R.R. Bridge #2
J	35.0	d/s Face of Penn Central R.R. Bridge #2
K	34.1	u/s Face of Penn Central R.R. Bridge #2
L	33.0	d/s Face of Fuller Road R.R. Bridge
M	32.1	u/s Face of Fuller Road R.R. Bridge
N	32.0	±300' u/s of Fuller Road
O	31.0	±2360' u/s of Fuller Road @ Island Park Bridge
P	30.0	d/s Face of Wall Street Bridge USGS gage
Q	29.1	u/s Face of Wall Street Bridge
R	28.0	d/s Face of Broadway Bridge
S	27.1	u/s Face of Broadway Bridge
T	26.0	Argo Dam
U	25.0	d/s Face of Ann Arbor R.R. Bridge
V	24.1	u/s Face of Ann Arbor R.R. Bridge
W	23.0	±2070' u/s of Ann Arbor R.R.
X	22.0	±250' d/s of State Route 14 (outside the City limits)

TABLE 2

CITY OF ANN ARBOR

HURON RIVER FLOOD ELEVATIONS

LOCATION	SELECTED FREQUENCIES 10 YEAR	50 YEAR	100 YEAR	500 YEAR
	~~Q=4,690 cfs~~ 5250 cfs	Q=6,980 cfs	Q=8,000 cfs	Q=10,770 cfs
Huron Parkway	748.3	749.1	749.6	751.0
u/s Face Geddes Ave. (49.2 Mi.)	748.3	749.1	749.4	750.7
d/s Penn Central R.R. #1 (50.4 Mi.)	752.5	753.9	754.5	756.1
u/s Penn Central R.R. #1 (50.4 Mi.)	752.6	754.3	755.1	757.9
d/s Penn Central R.R. #2 (50.9 Mi.)	755.6	757.1	757.7	759.7
u/s Penn Central R.R. #2 (50.9 Mi.)	756.3	758.2	759.0	762.8
d/s face of Fuller Rd. (51.1 Mi.)	757.5	759.6	760.5	764.1
u/s face of Fuller Rd. (51.1 Mi.)	757.6	759.7	760.6	764.6
	~~Q=4,400 cfs~~ 4850	Q=6,550 cfs	Q=7,500 cfs	Q=10,100 cfs
d/s face Will St. (51.8 Mi.)	761.6	762.7	763.3	766.2
d/s face Broadway Ave. (52.3 Mi.)	764.2	765.7	766.4	767.6
u/s face Broadway Ave. (52.3 Mi.)	764.3	765.9	766.5	767.7
	~~Q=4,364 cfs~~ 4800	Q=6,490 cfs	Q=7,430 cfs	Q=10,000 cfs
Argo Dam (52.6 Mi.)	774.0	774.0	774.0	774.0
u/s of Ann Arbor R.R. (52.7 Mi.)	774.1	774.1	774.2	775.1

III. ALLEN CREEK DRAIN (DETAILED)

Detailed studies of the Allen Creek were performed from its confluence with the Huron River to Hoover Street. The Allen Creek Drain within the study reach is entirely enclosed. Plans incidate that the Creek was enclosed in 1925. Cross section information was obtained from the construction plans of the enclosure (Reference 3). A total of 8 cross sections to determine ground elevations were field surveyed and completed in July, 1978. Field cross section data were supplemented by U.S.G.S. Quad Maps of the study area which consist of 10 foot interval contour data (References 4 and 5). The flood plain of the Allen Creek Drain within the study reach is comprised of houses, warehouses, trees and a railroad easement.

Cross section locations are shown in Exhibit 1 (Sheet 2). Table 3 cross references section designations by showing which computer section number corresponds to each cross section letter shown on Exhibit 1.

Table 4 lists discharges that have been approved by the Michigan Department of Natural Resources (MDNR) for this Creek.

A. Method of Analysis

The Allen Creek enclosure is not adequate to handle the floods analyzed in this report; therefore, a combination of pipe flow and overland flow occurs. Since the HEC-2 computer program is not set up to handle this type of divided flow condition in one step, the following analysis was performed:

1. Pressure flow stage/discharge rating curves were developed for the enclosure using the special bridge routine. These rating curves were developed for every location that the 10, 50, 100 and 500 year flows change; thus, the enclosure was analyzed in five segments (Exhibit 5). Is there continuity? can water get in/out of the enclosure?

2. Low flow stage/discharge rating curves were developed for the enclosure using the normal bridge routine (Exhibit 5).

3. Stage/discharge rating curves were developed for overland flow over the Allen Creek enclosure (Exhibit 5). Intermediate cross sections were used in the long segments (#1 and #5).

4. The overland flow rating curves and the lesser discharge for a given elevation obtained from the rating curves developed for the enclosure were then combined to form composite stage/discharge curves for the Allen Creek (Exhibit 5).

5. The 10, 50, 100 and 500 year flow rates were applied to the rating curves developed in Step 4 to determine flood elevations.

Each segment of this analysis was done independently. Starting conditions for each segment were based on the slope-area method in HEC-2 and the starting energy slope was extracted from the 100 year run on the preceding (downstream) segment.

Downstream cross-section

Water surface profiles as presented in Exhibit 6 were determined by running the overland flow for the entire reach using the discharges as determined by the rating curves to be flowing overland. HEC-2 printouts are presented as Exhibit 7 (Exhibit 7 is contained in the 11" x 15" folder enclosed with this report).

B. Variables and Coefficients

Roughness coefficients (Mannings "n") were estimated by field inspection. The roughness value for the enclosed concrete channel was estimated at 0.015; the roughness value for the overbank area was estimated at 0.13. These values are indicative of summer month conditions and are consistent with roughness values recommended and used in engineering practice.

C. High Water Marks

The only documented high water data which exists for the Allen Creek Drain consist of a report prepared in 1974 by McNamee, Porter & Seeley for the Washtenaw County Drain Commission (Reference 6). Map 4 of that report shows the extent of flooding during the 1968 storm which was estimated at approximately a 100 year flood. Our analysis indicated a flood plain consistent with the 1974 report.

D. Starting Conditions

The starting water surface elevation used at the downstream section of the study was the mean annual Huron River level. A storm frequency/ discharge rating curve was developed for the Huron River to determine the mean annual flow (2.33 year recurrence interval) of 1900 cfs. This flow was then applied to the stage/discharge rating curve to obtain the mean annual elevation of 761.9.

E. Special Problems

The Allen Creek Drain enclosure is inadequate to handle flow rates evaluated in this study, thereby causing a divided flow condition as discussed in paragraph A.

F. General

Computed water-surface elevations were developed to an accuracy of 0.5 foot for floods of the selected recurrence intervals.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). This datum is equivalent to the U.S. Geological Survey (USGS) datum.

The hydraulic analyses for this study are based only on the effects of flow unobstructed by ice or debris. The flood elevations are considered valid only if hydraulic structures, in general, remain unobstructed and do not fail.

TABLE 3

CITY OF ANN ARBOR

ALLEN CREEK DRAIN

CROSS SECTION	HEC-2 COMPUTER NO.	DESCRIPTION
A	0	@ Huron River
B	2	@ W. Summit
C	3	@ Felch
D	4	@ Miller Road
E	5	@ Ann Street
F	6	@ Huron
G	7	@ Washington
H	8	@ Liberty
I	9	@ Jefferson
J	10	@ Madison
K	11	@ Davis
L	12	@ Hoover

See Allen Cr. folder

Also p. 12 was thrown away for correct info see Allen Creek folder

IV. TRAVER CREEK (DETAILED)

Detailed studies of the Traver Creek were performed from its confluence with the Huron River to the Ann Arbor Railroad just upstream of Plymouth Road. A detailed study was done on Traver Creek by Midwestern Consulting, Inc (Reference 7); however, this study considered only valley sections and did not include any bridges. Thus, this Flood Insurance Study is an expansion of the study done by Midwestern. The flood plain of the Traver Creek within the study reach ranges from grassy to thick brush and trees and is substantially developed with apartment dwellings.

Cross section locations are shown in Exhibit 1 (Sheets 3-6). Table 5 cross references section designations by showing which computer section number corresponds to the cross section letters shown in Exhibit 1. Exhibit 8 contains bridge sketches, as well as, the computations for total loss coefficients. Table 6 lists discharges that have been approved by the Michigan Department of Natural Resources (MDNR) for this creek.

A. Method of Analysis

The HEC-2 backwater program was used in developing water surface profiles (Reference 2).

Table 6 contains selected flood elevations from the HEC-2 printouts. HEC-2 printouts including computer cross section plots are presented as Exhibit 9. Water surface profiles resulting from the backwater analyses are presented as Exhibit 10. (Exhibit 9 is contained in the 11" x 15" folder enclosed with this report).

B. Variables and Coefficients

Roughness coefficients (Mannings "n") were estimated by field inspection at each cross section. Typical roughness values for the main channel range from 0.035 to 0.045; roughness values for the overbank area varied between 0.06 to 0.1 for all floods. These values are indicative of summer month conditions and are consistent with roughness values recommended and used in engineering practice. The contraction and expansion coefficients used were 0.1 and 0.3, respectively and increased to 0.3 and 0.5, respectively at bridge sections.

C. High Water Marks

No documented high water data exists for flood elevations on the Traver Creek.

D. Starting Conditions

The starting water surface elevation used in all backwater computations was the mean annual Huron River level. A storm frequency/discharge rating curve was developed for the Huron River to determine the mean annual flow (2.33 year recurrence interval) of 1,900 cfs. This flow was then applied to the stage/discharge rating curve to obtain the mean annual elevation of 758.1 (Exhibit 11). The Huron River flood elevations control for approximately 100 feet. The Huron River elevations were taken from the Army Corps of Engineers Flood Information Report.

E. Special Problems

The Plymouth Road culvert near the upstream limit of the study is inadequate for the passage of flood waters. Furthermore, any flow over the roadway does not immediately re-enter Traver Creek because the Plymouth Road stream crossing acts as a perched bridge and a divided flow condition results. Exhibit 1 indicates the location of the resulting flow diversions.

An analysis was performed to determine the distribution of flow for the various flow areas and the flood elevations at Plymouth Road. A combined stage/discharge rating curve (Exhibit 11) at Plymouth Road was developed from the following stage/discharge relationships:

1. Pressure flow through the culvert.

2. Weir flow entering Traver Creek at cross section Z (Exhibit 1).

3. Weir flow entering Traver Creek at cross section AB (Exhibit 1).

The floodway of Traver Creek is well defined by the buildings bordering the Creek. Consequently, the ineffective flow areas around the buildings were left out on the 100-year run. Therefore, no further encroachment analysis was conducted.

F. General

Computed water-surface elevations were developed to an accuracy of 0.5 foot for floods of the selected recurrence intervals.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). This datum is equivalent to the U.S. Geological Survey (USGS) datum.

The hydraulic analyses for this study are based only on the effects of flow unobstructed by ice or debris. The flood elevations are considered valid only if hydraulic structures, in general, remain unobstructed and do not fail.

TABLE 5

CITY OF ANN ARBOR

TRAVER CREEK

CROSS SECTION	COMPUTER NO.	DESCRIPTION
A	1.0	d/s Face of Island Dr. Bridge
B	2.0	u/s Face of Island Dr. Bridge
C	50.0	±50' u/s of Island Dr.
D	164.0	±164' u/s of Island Dr.
E	240.0	±240' u/s of Island Dr.
F	400.0	±400' u/s of Island Dr.
G	560.0	±560' u/s of Island Dr.
H	620.0	±620' u/s of Island Dr.
I	680.0	±27' d/s of Nielson Ct.
J	707.0	d/s end of Nielson Ct. Culverts
K	787.0	u/s end of Nielson Ct. Culverts
L	865.0	±78' u/s of Nielson Ct.
M	968.0	±165' u/s of Nielson Ct.
N	1050.0	±225' u/s of Nielson Ct.
O	1139.0	±237' d/s of Broadway
P	1341.0	±35' d/s of Broadway
Q	1376.0	d/s Face of Broadway Bridge
R	1443.5	u/s Face of Broadway Bridge
S	1525.0	±80' u/s of Broadway
T	1800.0	±355' u/s of Broadway
U	2021.0	±576' u/s of Broadway
V	2400.0	±955' u/s of Broadway
W	2758.0	±1313' u/s of Broadway
X	2864.0	±1419' u/s of Broadway
Y	3050.0	±1605' u/s of Broadway
Z	3244.0	±1799' u/s of Broadway
AA	3500.0	±207' d/s of Plymouth
AB	3677.0	±30' d/s of Plymouth
AC	3707.0	d/s Face of Plymouth Road Bridge
AD		u/s Face of Plymouth Road Bridge

TABLE 6

CITY OF ANN ARBOR

TRAVER CREEK FLOOD ELEVATIONS

LOCATION		SELECTED FREQUENCIES			
		10 YEAR	50 YEAR	100 YEAR	500 YEAR
		Q=560 cfs	Q=1,000 cfs	Q=1,170 cfs	Q=1,640 cfs
u/s Island Dr.	(0 Mi.)	760.4	761.1	761.5	763.0
d/s Nielson Ct.	(0.1 Mi.)	766.7	768.9	769.6	771.1
u/s Nielson Ct.	(0.1 Mi.)	767.4	771.7	772.1	773.0
d/s Broadway	(0.3 Mi.)	773.7	774.3	775.4	776.3
u/s Broadway	(0.3 Mi.)	775.2	775.3	775.8	776.6
d/s Plymouth Road	(0.7 Mi.)	797.8	798.0	798.1	798.2
u/s Plymouth Road	(0.7 Mi.)	803.2	804.2	804.4	804.9

REFERENCES

1. U.S. Army Corps of Engineers (1976), Special Flood Hazard Information Report: Huron River, Ann Arbor to Ypsilanti and Vicinity, for Department of Natural Resources and Huron River Watershed Commission.

2. U.S. Army Corps of Engineers (1973), Hydrologic Engineering Center, HEC-2 Water Surface Profile User's Manual.

3. As built construction plans and typical pipe cross sections of the Allen Creek Drain supplied by Washtenaw County Drain Commissioner's Office.

4. U.S. Geological Survey Topographical Maps - Ann Arbor West Quadrangle, Washtenaw County, Michigan, 7.5 Minute Series, 1965.

5. U.S. Geological Survey Topographical Maps - Ann Arbor East Quadrangle, Washtenaw County, Michigan, 7.5 Minute Series, Photorevised 1973.

6. McNamee, Porter & Seeley, Allen's Creek Drain: Analysis and Preliminary Alternatives for Relief, February, 1974.

7. Midwestern Consultants, Traver Creek Drainage Area Study, City of Ann Arbor, Michigan, 1975.



1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF ANN ARBOR

3) WATERCOURSE: HURON RIVER

4) DOCUMENT TYPE: INPUT

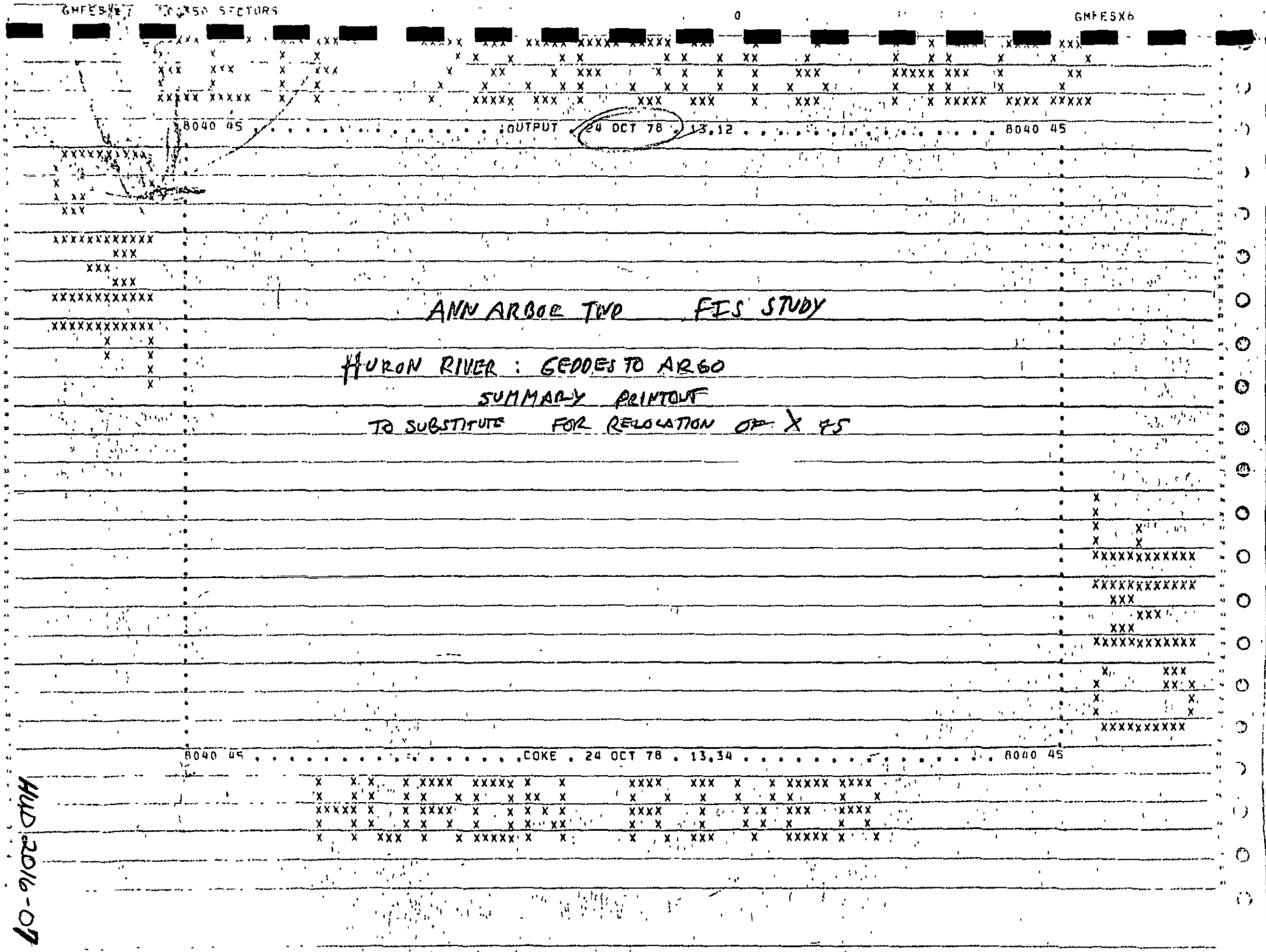


CITY OF ANN ARBOR

HURON RIVER

EXHIBIT 2

HEC-2 COMPUTER PRINTOUTS



HUD 2016-01

13.09.22. GMFESX6.. 24 OCT 78 7600Z BKY25E V1 GMF NORM 804045 EETF 723F3
13.09.22. GMFESX6.. GMF,804045,EETF 723F3016.HEC2
13.09.22. GMFESX6.. INPUT 6600B 13.08.11 24 OCT 78 VTA COKE

THIS RUN EXECUTED 24 OCT 78 13.09.50

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**********************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR =  01,02
  MODIFICATION =  50,51,52,53
**********************************************

T1      ANN ARBOR TOWNSHIP, FIS
T2      HURON RIVER: GEDDES TO ARGO DAMS
T3      TEN YEAR FLOW

J1  ICHECK     INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ
        0.       2.        0.        0.  0.000000      0.00      0.0       0.   747.500     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      0.000   150.000     0.000   200.000     0.000   201.000     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
NC    .040       .040      .030      .100      .300     0.000     0.000     0.000     0.000     0.000
QT   4.000   4978.000  7411.000  8485.000 11427.000     0.000     0.000     0.000     0.000     0.000

X1    50.000     8.000     0.000   159.370     0.000     0.000     0.000     0.000     0.000     0.000
GR   750.000     0.000   736.500     0.000   736.500    54.670   750.000    54.670   750.000   114.670
GR   736.500   114.670   736.500   159.370   750.000   159.370     0.000     0.000     0.000     0.000
NC     0.000     0.000     0.000      .200      .400     0.000     0.000     0.000     0.000     0.000

X1    49.000    46.000   113.000   490.000   250.000   250.000   250.000     0.000     0.000     0.000
GR   766.900    80.000   751.800   100.000   747.300   113.000   744.800   120.000   743.300   130.000
GR   742.600   140.000   742.100   150.000   741.800   160.000   741.300   170.000   740.700   180.000
GR   740.400   190.000   739.500   200.000   739.300   210.000   738.300   220.000   737.200   230.000
GR   736.700   240.000   737.100   250.000   736.400   260.000   735.900   270.000   735.700   280.000
GR   735.600   290.000   735.300   300.000   735.100   310.000   733.900   320.000   733.400   330.000
GR   733.900   340.000   733.700   350.000   733.900   360.000   734.300   370.000   735.100   380.000
GR   735.600   390.000   736.600   400.000   738.600   410.000   738.700   420.000   738.100   430.000
GR   738.900   440.000   740.700   450.000   743.900   460.000   744.900   470.000   745.000   480.000
GR   744.400   490.000   750.700   490.000   751.900   530.000   750.100   550.000   751.200   558.000
GR   751.300   566.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1    48.100     0.000     0.000     0.000   800.000   800.000   800.000     0.000    -.400     0.000
NC     0.000     0.000     0.000      .400      .600     0.000     0.000     0.000     0.000     0.000

X1    48.000    44.000   273.000   480.000   200.000   200.000   200.000     0.000     0.000     0.000
GR   778.000   200.000   775.100   211.000   747.300   273.000   746.100   280.000   745.900   289.000
GR   778.000   289.000   778.000   293.000   743.600   293.000   742.600   300.000   740.700   310.000
GR   738.700   320.000   733.100   330.000   732.900   340.000   732.900   350.000   733.800   360.000
GR   738.000   370.000   737.900   380.000   736.700   390.000   737.600   398.000   777.000   398.000
GR   777.000   402.000   737.200   402.000   737.200   410.000   737.400   420.000   737.200   430.000
GR   736.900   440.000   737.300   450.000   738.900   460.000   742.000   470.000   747.300   480.000
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GR	751.500	491.000	751.700	505.000	775.000	505.000	[illegible]	508.500	[illegible]	508.000
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
X1	47.000	45.000	170.000	377.000	130.000	130.000	130.000	0.000	0.000	0.000
GR	778.300	100.000	775.100	112.000	747.300	170.000	745.300	180.000	746.000	180.000
GR	777.000	188.000	777.000	192.000	743.100	192.000	741.500	200.000	740.100	210.000
GR	738.800	220.000	734.100	230.000	733.000	240.000	733.700	250.000	733.900	260.000
GR	738.700	270.000	737.800	280.000	737.200	290.000	737.800	296.000	776.000	296.000
GR	776.000	300.000	730.300	300.000	733.300	310.000	735.600	320.000	736.600	330.000
GR	737.600	340.000	739.000	350.000	741.100	360.000	744.900	370.000	747.300	377.000
GR	751.600	387.000	751.800	403.000	775.000	403.000	775.000	406.500	752.400	406.500
GR	752.000	426.000	753.500	428.000	753.400	454.000	752.100	468.000	758.900	492.000
GR	777.000	492.000	777.000	495.500	760.500	495.500	765.600	552.000	773.200	574.000
NC	0.000	0.000	0.000	.400	.600	0.000	0.000	0.000	0.000	0.000
X1	46.000	58.000	315.000	797.000	300.000	300.000	300.000	0.000	0.000	0.000
GR	786.200	95.000	769.900	190.000	754.100	300.000	747.400	315.000	745.900	325.000
GR	745.500	335.000	744.600	345.000	742.900	355.000	741.400	365.000	741.100	375.000
GR	739.700	385.000	740.300	395.000	740.200	405.000	740.300	415.000	740.100	425.000
GR	739.900	435.000	738.800	445.000	738.400	455.000	738.900	465.000	739.800	475.000
GR	740.100	485.000	739.600	495.000	739.700	505.000	739.800	515.000	739.800	525.000
GR	740.100	535.000	740.000	545.000	739.700	555.000	739.200	565.000	737.900	575.000
GR	737.700	585.000	737.600	595.000	737.700	605.000	734.100	615.000	736.800	625.000
GR	736.300	635.000	735.200	645.000	735.300	655.000	735.000	665.000	735.200	675.000
GR	735.600	685.000	736.400	695.000	733.600	705.000	730.900	715.000	730.600	725.000
GR	730.800	735.000	734.000	745.000	738.500	755.000	740.100	765.000	742.300	775.000
GR	744.600	785.000	746.900	795.000	747.400	797.000	750.600	805.000	753.100	845.000
GR	753.200	870.000	751.100	882.000	756.000	891.000	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
X1	45.000	69.000	314.000	921.000	2940.000	2940.000	2940.000	0.000	0.000	0.000
GR	785.200	35.000	773.000	185.000	752.200	285.000	750.700	300.000	747.400	314.000
GR	746.700	321.000	743.600	331.000	743.000	341.000	742.600	351.000	742.400	361.000
GR	742.100	371.000	741.600	381.000	741.400	391.000	741.100	401.000	741.000	411.000
GR	740.500	421.000	740.300	431.000	739.600	441.000	739.600	451.000	738.600	461.000
GR	738.500	471.000	738.600	481.000	738.600	491.000	738.700	501.000	738.300	511.000
GR	737.500	521.000	737.300	531.000	737.000	541.000	737.300	551.000	737.400	561.000
GR	737.300	571.000	737.200	581.000	737.500	591.000	738.700	601.000	739.200	611.000
GR	739.700	621.000	740.800	631.000	741.200	641.000	741.100	651.000	741.300	661.000
GR	741.800	671.000	741.400	681.000	741.300	691.000	741.200	701.000	740.800	711.000
GR	741.200	721.000	741.400	731.000	741.400	741.000	741.800	751.000	741.300	761.000
GR	741.500	771.000	740.300	781.000	738.400	791.000	738.600	791.000	738.600	801.000
GR	738.500	811.000	738.600	821.000	738.700	831.000	738.800	841.000	738.800	851.000
GR	738.700	861.000	739.100	871.000	740.800	881.000	742.700	891.000	744.300	901.000
GR	746.400	911.000	749.600	921.000	750.300	961.000	752.500	971.000	0.000	0.000
NC	.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OT	4.000	4690.000	6982.000	7994.000	10765.000	0.000	0.000	0.000	0.000	0.000
X1	44.000	93.000	205.000	619.000	1300.000	1300.000	1300.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	79.000	800.300	950.000	751.500	0.000	0.000	0.000
GR	800.300	79.000	767.700	154.000	748.800	200.000	747.400	205.000	746.100	220.000
GR	744.600	230.000	744.000	240.000	743.500	250.000	742.000	260.000	740.200	270.000
GR	739.000	280.000	736.500	290.000	736.200	300.000	736.400	310.000	736.400	320.000
GR	737.200	330.000	738.300	340.000	739.600	350.000	740.100	360.000	740.600	370.000
GR	741.400	380.000	741.300	390.000	741.000	400.000	741.300	410.000	741.200	420.000
GR	741.400	430.000	741.400	440.000	741.400	450.000	741.300	460.000	741.300	470.000
GR	741.200	480.000	741.000	490.000	740.700	500.000	740.900	510.000	741.400	520.000
GR	741.100	530.000	740.700	540.000	740.700	550.000	740.800	560.000	741.100	570.000
GR	742.400	580.000	742.700	590.000	742.600	600.000	747.400	619.000	750.500	650.000
GR	751.600	750.000	751.500	950.000	752.100	1010.000	747.400	1042.000	739.000	1162.000
[illegible]	747.400	1282.000	748.100	1292.000	751.300	1392.000	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

GR	754.000	0.000	754.500	20.000	751.610	20.000	748.000	25.000	736.800	36.000	
GR	736.800	62.000	748.000	73.000	751.610	78.000	754.500	78.000	754.000	103.000	
GR	753.500	128.000	754.000	143.000	754.500	178.000	751.860	178.000	748.000	185.000	
GR	736.800	197.000	736.800	321.000	748.000	332.000	751.860	340.000	754.500	340.000	
X1	43.200	0.000	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000	
NC	.040	0.000	0.000	.500	.700	0.000	0.000	0.000	0.000	0.000	
X1	43.100	65.000	300.000	1293.000	200.000	200.000	200.000	0.000	-1.700	0.000	
GR	754.500	103.000	751.900	150.000	749.300	240.000	747.900	300.000	742.800	323.000	
GR	740.900	353.000	741.400	363.000	740.800	373.000	740.700	383.000	741.100	393.000	
GR	740.600	403.000	740.600	413.000	741.800	443.000	741.200	463.000	741.300	493.000	
GR	741.000	523.000	741.000	543.000	741.300	573.000	740.900	583.000	741.400	613.000	
GR	740.700	633.000	740.900	663.000	741.400	693.000	741.500	703.000	741.300	713.000	
GR	741.900	723.000	741.800	753.000	741.600	763.000	741.700	803.000	742.000	813.000	
GR	741.800	823.000	742.200	843.000	742.400	883.000	742.600	893.000	742.300	923.000	
GR	742.400	933.000	742.200	943.000	742.400	963.000	742.200	983.000	742.300	1003.000	
GR	742.200	1013.000	742.400	1023.000	742.500	1033.000	742.200	1063.000	742.300	1073.000	
GR	741.000	1083.000	741.000	1093.000	740.800	1103.000	740.500	1113.000	740.600	1123.000	
GR	740.400	1133.000	740.300	1173.000	739.600	1183.000	739.400	1193.000	739.400	1203.000	
GR	739.000	1213.000	738.700	1223.000	738.700	1233.000	739.000	1243.000	740.200	1253.000	
GR	742.900	1263.000	745.100	1273.000	749.100	1293.000	751.300	1331.000	753.200	1371.000	
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000	
X1	43.000	0.000	0.000	0.000	1340.000	1340.000	1340.000	0.000	1.700	0.000	
NC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000	
X1	42.300	90.000	150.000	818.000	300.000	300.000	300.000	0.000	0.000	0.000	
GR	756.800	100.000	754.400	140.000	752.900	150.000	747.400	152.000	745.100	160.000	
GR	741.900	170.000	741.800	180.000	741.400	190.000	742.100	200.000	744.600	210.000	
GR	746.000	211.000	761.800	211.000	761.800	215.600	746.400	215.600	743.000	220.000	
GR	741.400	230.000	741.000	240.000	741.200	250.000	741.000	260.000	741.200	270.000	
GR	741.200	280.000	741.200	290.000	741.500	300.000	741.500	310.000	741.200	320.000	
GR	741.400	330.000	741.600	340.000	742.000	350.000	743.600	360.000	746.600	368.000	
GR	765.500	368.000	765.500	372.600	746.100	372.600	742.100	380.000	741.800	390.000	
GR	741.500	400.000	741.600	410.000	741.700	420.000	741.600	430.000	741.700	440.000	
GR	741.700	450.000	741.900	460.000	741.800	470.000	741.900	480.000	741.900	490.000	
GR	741.700	500.000	741.800	510.000	741.900	520.000	744.400	528.000	769.200	528.000	
GR	769.200	532.600	746.300	532.600	741.200	540.000	741.200	550.000	741.700	560.000	
GR	741.900	570.000	741.800	580.000	741.400	590.000	741.200	600.000	740.600	610.000	
GR	740.400	620.000	740.800	630.000	741.900	640.000	743.600	650.000	744.800	660.000	
GR	745.800	670.000	745.800	680.000	747.900	686.000	773.000	686.000	773.000	690.600	
GR	747.900	690.600	745.800	700.000	745.100	710.000	742.300	720.000	741.400	730.000	
GR	740.800	740.000	739.200	750.000	738.900	760.000	738.600	770.000	738.500	780.000	
GR	739.500	790.000	741.600	800.000	744.700	810.000	747.400	818.000	753.900	838.000	
GR	756.800	891.000	767.800	911.000	767.900	965.000	773.300	979.000	780.200	998.000	
X1	42.200	0.000	0.000	0.000	67.500	67.500	67.500	0.000	0.000	0.000	
X1	42.100	22.000	225.000	942.000	840.000	840.000	840.000	0.000	0.000	0.000	
GR	755.000	0.000	754.000	25.000	753.000	57.000	752.000	104.000	751.000	152.000	
GR	750.000	202.000	746.000	225.000	744.000	234.000	742.000	237.000	742.000	485.000	
GR	746.000	495.000	746.000	690.000	744.000	700.000	742.000	720.000	739.000	725.000	
GR	739.000	925.000	744.000	933.000	746.000	942.000	746.000	960.000	749.000	980.000	
GR	750.000	1020.000	753.000	1033.000	0.000	0.000	0.000	0.000	0.000	0.000	

		[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
			0.000	0.000	0.000	0.000	0.000	0.000	751.400	75[redacted]	[redacted]	[redacted]
		[redacted]	0.000	755.000	10.000	754.000	30.000	753.000	50.000	752.000	90.000	
		751.600	130.000	750.000	140.000	745.000	200.000	745.000	240.000	745.000	340.000	
B	GR	745.000	550.000	744.900	700.000	742.300	710.000	740.200	720.000	739.600	730.000	
	GR	739.200	740.000	740.600	750.000	739.300	760.000	739.200	770.000	739.800	780.000	
	GR	740.400	790.000	743.700	800.000	744.600	807.000	746.000	850.000	750.000	890.000	
	GR	753.000	910.000	754.000	960.000	755.000	1000.000	756.000	1010.000	0.000	0.000	
	SR	0.000	1.500	3.000	0.000	87.000	0.000	955.000	.830	740.000	740.000	
	X1	41.100	0.000	0.000	0.000	13.500	13.500	13.500	0.000	0.000	0.000	
	X2	0.000	0.000	1.000	752.300	751.400	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	751.400	753.000	0.000	
	BT	24.000	0.000	755.500	755.500	10.000	755.000	755.000	30.000	754.000	754.000	
C	BT	50.000	753.000	753.000	90.000	752.000	752.000	130.000	751.600	751.600	140.000	
	BT	751.600	750.000	200.000	751.500	745.000	240.000	751.400	745.000	340.000	751.700	
	BT	745.000	550.000	751.800	745.000	700.000	753.470	744.900	700.000	753.470	752.300	
	BT	720.000	753.450	748.900	750.000	753.370	747.800	780.000	753.300	748.800	807.000	
	BT	753.280	752.200	807.000	753.280	744.600	860.000	753.000	746.000	890.000	753.000	
	BT	750.000	910.000	753.000	753.000	960.000	754.000	754.000	1000.000	755.000	755.000	
	BT	1010.000	756.000	756.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	X1	41.000	33.000	650.000	870.000	200.000	200.000	200.000	0.000	0.000	0.000	
	GR	753.700	105.000	748.500	120.000	747.600	220.000	750.200	320.000	750.000	480.000	
	GR	748.700	600.000	747.300	650.000	745.100	660.000	743.800	670.000	743.500	680.000	
D	GR	743.400	690.000	742.700	700.000	742.200	710.000	740.900	720.000	740.400	730.000	
	GR	740.300	740.000	740.000	750.000	740.000	760.000	739.700	770.000	740.000	780.000	
	GR	740.200	790.000	740.400	800.000	740.600	810.000	740.900	820.000	740.300	830.000	
	GR	737.800	840.000	741.300	850.000	745.100	860.000	747.300	870.000	749.900	880.000	
	GR	751.300	913.000	755.700	958.000	756.900	1046.000	0.000	0.000	0.000	0.000	
	NC	.100	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000	
	X1	140.000	27.000	300.000	500.000	2300.000	2300.000	2300.000	0.000	0.000	0.000	
	GR	755.100	100.000	752.900	200.000	750.500	300.000	747.500	312.000	744.000	320.000	
E	GR	742.900	330.000	743.000	340.000	743.100	350.000	743.300	360.000	743.400	370.000	
	GR	743.300	380.000	743.200	390.000	743.300	400.000	743.700	410.000	743.900	420.000	
	GR	744.200	430.000	744.100	440.000	744.400	450.000	743.700	460.000	744.000	470.000	
	GR	745.900	480.000	747.500	488.000	748.200	500.000	748.000	595.000	751.500	615.000	
	GR	752.200	645.000	758.100	660.000	0.000	0.000	0.000	0.000	0.000	0.000	
	NC	.050	.050	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000	
	X1	39.000	26.000	210.000	350.000	1800.000	1800.000	1800.000	0.000	0.000	0.000	
	GR	771.700	47.000	760.000	90.000	753.600	150.000	748.400	200.000	747.500	210.000	
F	GR	745.200	220.000	745.100	230.000	744.900	240.000	744.900	250.000	744.900	260.000	
	GR	745.200	270.000	745.200	280.000	745.300	290.000	745.200	300.000	745.500	310.000	
	GR	745.600	320.000	746.000	330.000	747.200	340.000	747.500	345.000	748.400	350.000	
	GR	749.000	410.000	751.600	417.000	753.000	438.000	758.300	450.000	758.100	482.000	
	GR	762.300	494.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	X1	38.100	0.000	0.000	0.000	1300.000	1300.000	1300.000	0.000	0.000	0.000	
	NC	.060	.060	0.000	.500	.700	0.000	0.000	0.000	0.000	0.000	
	X1	38.000	19.000	100.000	227.000	100.000	100.000	100.000	0.000	0.000	0.000	
	X	10.000	0.000	0.000	0.000	0.000	0.000	0.000	760.000	760.000	0.000	
	X	764.410	0.000	764.320	100.000	752.000	100.000	748.500	117.000	747.600	120.000	
G	GR	715.100	130.000	744.300	140.000	743.600	150.000	743.600	151.200	745.300	168.000	
	GR	745.700	170.000	745.200	180.000	745.100	190.000	745.000	200.000	745.200	210.000	
	GR	748.000	220.000	748.500	227.000	764.040	227.000	763.790	327.000	0.000	0.000	
	SR	1.250	1.500	2.700	0.000	87.000	5.000	1040.000	2.000	744.500	744.500	
	1	47.100	0.000	0.000	0.000	28.200	28.200	28.200	0.000	0.000	0.000	

SB	1.250	1.500	2.700	0.000	87.000	5.000	1040.000	2.000	744.500	744.500	

	X1	37.100	0.000	0.000	0.000	28.200	28.200	28.200	0.000	0.000	0.000
	X2	0.000	0.000	1.000	754.700	763.790	0.000	0.000	0.000	.820	0.000
	X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	764.320	764.040	0.000
H	BT	7.000	0.000	764.440	764.440	100.000	764.320	764.320	100.000	764.320	754.400
	BT	150.000	764.150	754.700	227.000	763.040	754.600	227.000	764.040	764.040	327.000
	BT	763.790	763.790	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	NC	.100	.100	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000
	X1	37.000	24.000	200.000	341.000	300.000	300.000	300.000	0.000	0.000	0.000
	GR	759.400	91.000	760.100	101.000	754.200	121.000	753.400	191.000	750.200	198.000
	GR	749.900	200.000	748.500	204.000	747.300	211.000	746.800	221.000	746.700	231.000
	GR	746.700	241.000	746.700	251.000	746.700	261.000	746.800	271.000	746.700	281.000
	GR	746.400	291.000	746.100	301.000	746.500	311.000	746.800	321.000	748.500	329.000
	GR	751.200	341.000	750.200	391.000	749.200	406.000	757.800	491.000	0.000	0.000
I	X1	36.000	0.000	0.000	0.000	2400.000	2400.000	2400.000	1.000	2.400	0.000
	NC	.100	.040	0.000	.500	.700	0.000	0.000	0.000	0.000	0.000
	X1	35.000	17.000	100.000	215.000	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	760.000	760.000	0.000
	GR	768.050	0.000	768.260	100.000	753.100	100.000	752.600	105.000	750.700	115.000
J	GR	749.800	125.000	749.500	135.000	749.800	145.000	749.900	150.000	749.900	165.000
	GR	749.100	175.000	748.600	185.000	750.400	195.000	752.600	205.000	754.200	215.000
	GR	768.620	215.000	768.800	315.000	0.000	0.000	0.000	0.000	0.000	0.000
	SB	1.250	1.500	2.700	0.000	85.000	15.000	820.000	1.670	749.500	749.500
	X1	34.100	0.000	0.000	0.000	28.800	28.800	28.800	0.000	0.000	0.000
	X2	0.000	0.000	1.000	758.800	768.050	0.000	0.000	0.000	0.000	0.000
K	X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	768.260	768.620	0.000
	BT	8.000	0.000	768.050	768.050	100.000	768.260	768.260	100.000	768.260	758.600
	BT	150.000	768.420	758.800	165.000	768.420	758.800	215.000	768.620	758.800	215.000
	BT	768.620	768.620	315.000	768.800	768.800	0.000	0.000	0.000	0.000	0.000
	NC	0.000	0.000	0.000	.600	.800	0.000	0.000	0.000	0.000	0.000
	X1	34.000	18.000	200.000	315.000	300.000	300.000	300.000	0.000	0.000	0.000
	GR	772.900	153.000	771.400	160.000	754.100	200.000	752.600	203.000	750.500	210.000
	GR	749.100	220.000	748.600	230.000	748.700	240.000	748.600	250.000	749.000	260.000
	GR	749.400	270.000	749.700	280.000	750.300	290.000	751.600	300.000	752.600	303.000
	GR	755.300	315.000	761.300	792.000	766.900	816.000	0.000	0.000	0.000	0.000
	X1	33.000	24.000	100.000	226.000	300.000	300.000	300.000	0.000	0.000	0.000
	X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	764.000	764.000	0.000
L	GR	766.350	0.000	765.720	100.000	755.800	100.000	753.000	114.000	752.700	116.000
	GR	751.900	126.000	752.800	136.000	752.800	139.000	751.900	140.500	751.500	142.000
	GR	751.000	146.000	750.700	156.000	750.400	166.000	750.400	176.000	750.800	184.000
	GR	750.800	185.500	750.400	186.000	750.900	187.000	749.300	196.000	749.300	206.000
	GR	751.600	216.000	752.800	226.000	765.120	226.000	763.180	326.000	0.000	0.000
	SB	1.250	1.500	2.700	0.000	106.000	6.000	1496.000	.770	750.500	750.500
	X1	32.100	0.000	0.000	0.000	40.800	40.800	40.800	0.000	0.000	0.000
	X2	0.000	0.000	1.000	763.720	763.180	0.000	0.000	0.000	0.000	0.000
	X3	10.000	0.000	0.000	0.000	0.000	0.000	763.720	763.180	0.000	0.000
M	BT	8.000	0.000	766.350	766.350	100.000	765.720	765.720	100.000	765.720	763.120
	BT	140.500	765.500	763.500	185.500	765.120	763.200	226.000	765.120	763.060	226.000
	BT	765.120	765.120	326.000	763.180	763.180	0.000	0.000	0.000	0.000	0.000
	NC	0.05	0.04	0.	0.	0.					

N	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	160.000	769.300	188.000	769.400	200.000	756.400	280.000	755.900	430.000	
	[illegible]	470.000	751.000	470.000	750.400	480.000	750.100	490.000	750.400	500.000	
	[illegible]	510.000	749.800	520.000	749.800	530.000	750.000	540.000	750.500	550.000	
	[illegible]	560.000	755.600	580.000	759.200	603.000	759.200	703.000	770.000	703.000	
	.070	.070	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000	
O	1.300	32.000	400.000	780.000	2060.000	2060.000	2060.000	0.000	0.000	0.000	
	[illegible]	0.000	763.000	90.000	760.900	359.000	759.700	390.000	758.200	400.000	
	[illegible]	404.000	754.000	410.000	753.600	420.000	754.000	430.000	754.300	440.000	
	[illegible]	450.000	757.900	455.000	759.100	580.000	757.600	660.000	754.600	661.000	
	754.400	670.000	754.300	680.000	754.200	690.000	754.300	700.000	754.200	710.000	
	754.200	720.000	754.200	730.000	754.100	740.000	754.100	750.000	753.900	760.000	
	754.500	770.000	755.600	777.000	757.300	780.000	758.500	855.000	758.600	941.000	
	767.100	998.000	767.900	1005.000	0.000	0.000	0.000	0.000	0.000	0.000	
	.050	.050	0.000	.200	.400	0.000	0.000	0.000	0.000	0.000	
	4.000	4400.000	6550.000	7550.000	10100.000	0.000	0.000	0.000	0.000	0.000	
	X1	30.100	28.000	398.000	531.000	1600.000	1600.000	1600.000	0.000	0.000	0.000
	GR	763.300	0.000	762.200	200.000	762.000	300.000	762.000	320.000	761.000	380.000
	GR	760.000	390.000	758.000	398.000	757.200	413.000	755.500	430.000	755.600	440.000
	GR	755.200	450.000	755.100	462.000	755.300	462.000	755.300	468.500	755.300	470.000
	GR	755.900	480.000	756.000	490.000	755.600	500.000	755.200	510.000	756.100	520.000
	GR	757.200	531.000	760.000	590.000	765.000	620.000	770.000	640.000	773.000	650.000
	GR	775.000	740.000	775.000	770.000	774.000	820.000	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
P	X1	30.000	0.000	0.000	0.000	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	762.200	766.000	0.000
	SB	0.000	1.500	2.900	0.000	133.000	0.000	870.000	0.000	755.500	755.500
	wall street										
Q	X1	29.100	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000
	X2	0.000	1.000	1.000	765.100	762.200	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	762.200	766.000	0.000
	BT	26.000	0.000	763.300	763.300	200.000	762.200	762.200	300.000	764.480	762.000
	BT	320.000	765.000	762.000	380.000	767.000	761.000	398.000	767.330	758.000	398.000
	BT	767.330	760.000	413.000	767.600	763.000	430.000	767.800	765.100	440.000	768.000
	BT	764.200	450.000	768.000	762.500	460.000	768.100	760.000	462.000	768.100	755.300
	BT	468.500	768.100	755.300	470.000	768.100	759.000	480.000	768.100	762.000	500.000
	BT	768.100	765.000	520.000	768.200	762.000	531.000	768.220	757.200	590.000	770.800
	BT	760.000	620.000	772.000	765.000	640.000	772.600	770.000	650.000	773.000	773.000
	BT	740.000	775.000	775.000	770.000	775.000	775.000	774.000	820.000	820.000	0.000
	NC	.050	.050	0.000	.600	.800	0.000	0.000	0.000	0.000	0.000
	X1	29.000	28.000	400.000	550.000	200.000	200.000	200.000	0.000	0.000	0.000
	GR	770.000	30.000	763.200	20.000	763.000	100.000	762.200	170.000	762.200	200.000
	[illegible]	762.800	250.000	764.000	300.000	763.500	337.000	762.600	400.000	757.200	415.000
	[illegible]	756.800	420.000	756.100	430.000	755.600	440.000	755.400	450.000	755.700	460.000
	[illegible]	[illegible]	[illegible]	755.500	480.000	755.700	490.000	755.700	500.000	755.700	510.000
	[illegible]	[illegible]	[illegible]	755.600	530.000	756.100	540.000	757.200	545.000	754.600	550.000
	[illegible]	[illegible]	[illegible]	765.700	620.000	770.000	650.000	789.600	690.000	0.000	0.000
	.050	.050	0.000	.040	.100	0.000	0.000	0.000	0.000	0.000	0.000
	[illegible]	[illegible]	0.000	0.000	1940.000	1940.000	1940.000	0.000	1.100	0.600	
	[illegible]	[illegible]	0.200	.600	.800	0.000	0.000	0.000	0.000	0.000	
R	[illegible]	[illegible]	[illegible]	419.000	300.000	300.000	300.000	0.000	0.000	0.000	
	[illegible]	[illegible]	1.000	0.000	0.000	0.000	0.000	775.000	775.000	0.000	
	[illegible]	[illegible]	775.700	300.000	770.500	360.000	758.700	360.000	758.100	360.000	
	[illegible]	[illegible]	[illegible]	379.000	757.000	389.000	757.200	399.000	757.000	409.000	
	[illegible]	[illegible]	758.200	419.000	758.200	429.000	758.600	439.000	754.100	441.000	

[redacted]	[redacted]	200.000	775.760	300.000	776.500	360.000	758.700	360.000	758.700	365.000
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	758.000	413.000	758.200	419.000	758.200	429.000	758.600	439.000	759.700	441.000
GR	760.500	450.000	762.000	469.000	764.000	490.000	765.000	535.000	765.000	595.000
GR	766.000	775.000	767.000	805.000	770.000	825.000	777.500	835.000	0.000	0.000
SO	0.000	1.500	2.800	0.000	100.000	0.000	1265.000	0.000	760.000	760.000
X1	27.100	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	773.250	776.500	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	776.500	776.560	0.000
BT	20.000	200.000	776.500	776.500	300.000	775.760	775.760	360.000	776.500	776.500
BT	360.000	776.500	758.700	365.000	776.500	758.700	379.000	776.500	769.000	399.000
BT	776.500	772.500	415.000	776.500	773.250	429.000	776.500	772.500	441.000	776.500
BT	769.500	469.000	776.500	764.000	469.000	776.560	762.000	490.000	776.700	764.000
BT	535.000	777.000	765.000	595.000	777.500	765.000	775.000	777.500	766.000	805.000
BT	777.500	767.000	825.000	777.500	770.500	835.000	777.500	775.000	835.000	777.500
BT	777.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	.060	.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	27.000	16.000	393.000	475.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	776.900	325.000	764.400	368.000	763.300	375.000	759.700	393.000	758.500	401.000
GR	758.000	413.000	757.500	423.000	757.400	433.000	757.400	443.000	757.600	453.000
GR	757.700	463.000	758.800	473.000	759.700	475.000	762.700	483.000	763.200	486.000
GR	767.300	506.000	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

THIS RUN EXECUTED 24 OCT 78 13.09.51

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*****************************************
RELEASE DATED NOV 76 UPDATED AUG1977
CORR - 01,02
CLASSIFICATION - 50,51,52,53
*****************************************

T1      ANN ARBOR TOWNSHIP, FIS
T2      HURON RIVER: GEDDES TO ARGO DAMS
T3      FIFTY YEAR FLOW

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
      0.       3.       0.       0.  0.000000    0.00      0.0      0.   747.500   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
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THIS RUN EXECUTED 24 OCT 78 13.09.52

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  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
**************************************************

T1      ANN ARBOR TOWNSHIP, FIS
T2      HURON RIVER: GEDDES TO ARGO DAMS
T3      ONE HUNDRED YEAR FLOW

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ
        0.      4.       0.       0.  0.000000     0.00     0.0      0.  747.500    0.000
J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLOC    IBW      CHNIM    ITRACE
    3.000     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 24 OCT 78 13.09.52

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** ************************************************
   RELEASE DATED NOV 76 UPDATED AUG1977
   CODE = 01,02
   DISTRIBUTION = 50,51,52,53
** ************************************************

T1     ANN ARBOR TOWNSHIP, EIS
T2     HURON RIVER: GEDDES TO ARGO DAMS
T3     FIVE HUNDRED YEAR FLOW

J1  ICHECK    INQ      NINV     IDIR     STRT      METRIC    HVINS     Q         WSEL      FQ
      0.       5.       0.       0.   0.000000     0.00      0.0       0.      747.800   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
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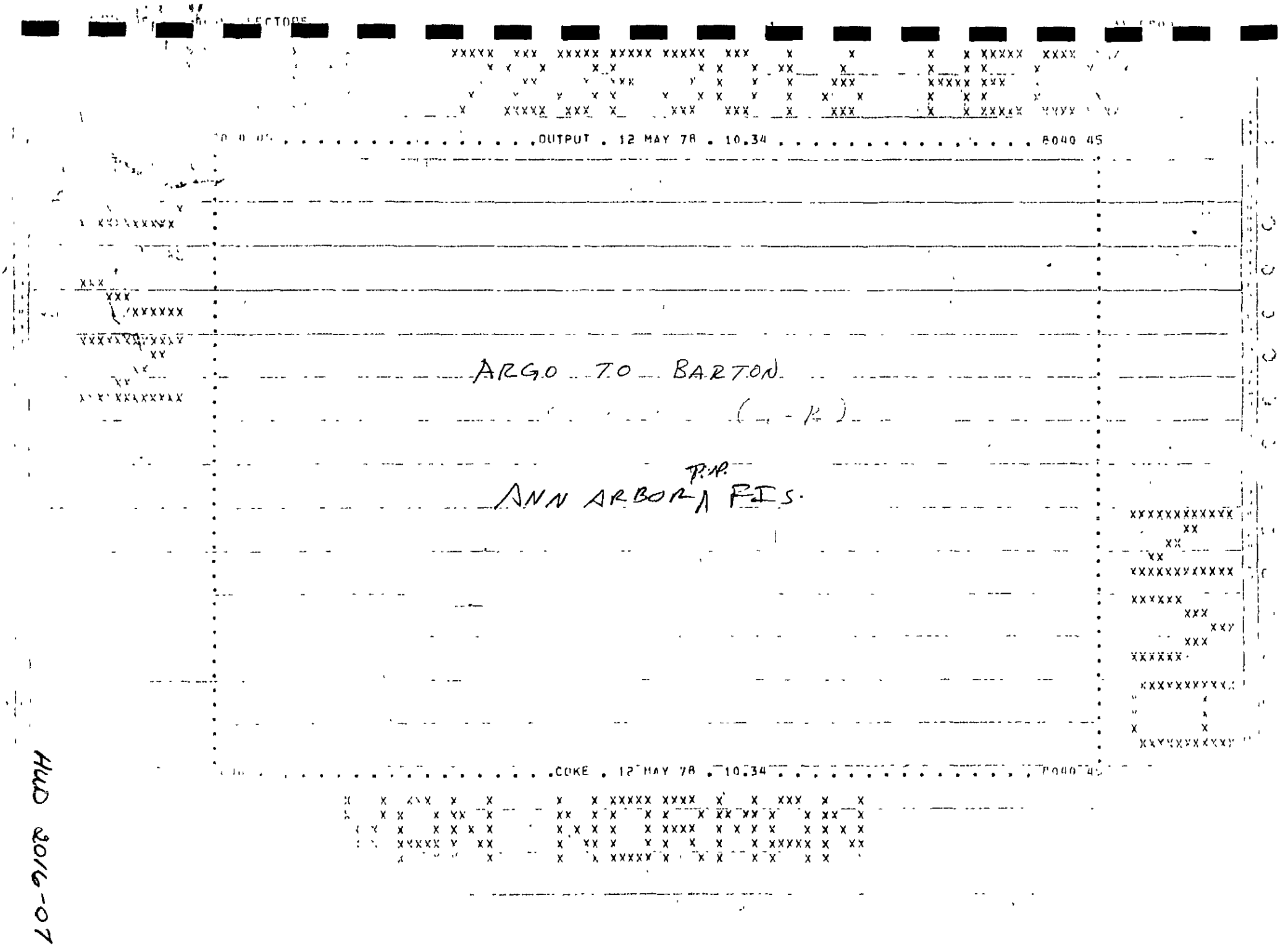


OUTPUT . 12 MAY 78 . 10.34 . . . . . 8040 45

ARGO TO BARTON

(- R)

ANN ARBOR T.P. FIS.

COKE . 12 MAY 78 . 10.34 . . . . . 8040 45

HUD 2016-07

THIS RUN EXECUTED 12 MAY 7[illegible] 10.33 [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] TOWNSHIP, FIS
[illegible] CIV R: APPD TO BARTON DAMS
[illegible] YEAR FLOW

J1	ICHECK	INO	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	[illegible]	[illegible]	0.	0.	0.000000	0.00	0.0	0.	774.000	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	0.000	150.000	0.000	200.000	0.000	201.000	0.000	0.000	0.000
NC	.050	.040	.030	.100	.300	0.000	0.000	0.000	0.000	0.000
[illegible]	[illegible].000	4364.000	6497.000	7439.000	10018.000	0.000	0.000	0.000	0.000	0.000
X1	20.000	35.000	212.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	777.000	166.000	776.800	192.000	776.800	200.000	773.700	212.000	771.200	220.000
GR	768.200	230.000	765.600	240.000	765.500	250.000	763.000	260.000	762.300	270.000
[illegible]	[illegible]	280.000	762.500	290.000	762.400	300.000	762.900	310.000	765.000	320.000
[illegible]	[illegible].300	330.000	765.700	340.000	765.700	350.000	765.600	360.000	765.600	370.000
[illegible]	[illegible].500	380.000	765.700	390.000	765.600	400.000	765.500	410.000	765.500	420.000
GR	[illegible].500	430.000	765.800	440.000	766.100	450.000	766.000	460.000	765.900	470.000
GR	766.800	480.000	771.700	490.000	773.700	500.000	776.700	515.000	776.600	575.000
NC	.050	.040	.030	1.000	.300	0.000	0.000	0.000	0.000	0.000
X1	[illegible].000	54.000	100.000	548.000	120.000	72.000	95.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	800.000	800.000	0.000
GR	802.490	0.000	802.500	100.000	776.000	100.000	776.400	125.000	771.200	150.000
GR	773.700	152.000	769.800	161.000	768.900	170.000	765.400	180.000	762.900	190.000
GR	[illegible].300	200.000	761.700	210.000	768.700	220.000	768.800	229.000	767.600	230.000
GR	[illegible].100	240.000	763.900	250.000	763.900	260.000	764.200	270.000	762.200	280.000
GR	[illegible].900	290.000	768.900	299.000	767.200	300.000	764.300	310.000	763.000	320.000
GR	762.700	330.000	763.700	340.000	762.100	350.000	768.700	360.000	768.400	369.000
GR	766.400	370.000	765.100	380.000	763.300	390.000	763.700	400.000	764.200	410.000
GR	764.400	420.000	768.800	430.000	768.800	439.000	765.400	440.000	766.100	450.000
[illegible]	[illegible].700	460.000	765.700	470.000	766.200	480.000	766.600	490.000	767.400	499.000
[illegible]	[illegible].500	500.000	768.200	508.000	767.600	510.000	768.700	520.000	769.500	530.000
[illegible]	[illegible].00	[illegible].000	779.100	548.000	802.630	548.000	802.630	700.000	0.000	0.000
	1.[illegible]50	1.500	2.600	0.000	370.500	56.500	10843.500	1.380	765.000	765.000
[illegible]	[illegible].10	[illegible]	0.000	0.000	10.000	10.000	10.000	0.000	0.000	0.000
		[illegible]	1.000	793.980	802.490	0.000	0.000	0.000	0.000	0.000
		[illegible]	0.000	0.000	0.000	0.000	0.000	802.500	802.630	[illegible]
	[illegible]	[illegible].000	802.490	802.490	100.000	802.500	802.500	100.000	802.500	[illegible]
	[illegible]	[illegible]	794.000	548.000	802.630	802.630	700.000	802.630	802.630	0.000
	[illegible]	[illegible]	0.000	.100	.300	0.000	0.000	0.000	0.000	[illegible]

		43.000	450.000	990.000	180.000	240.000	200.000	0.000	0.000	[redacted]
[redacted]				470.000	771.100	480.000	770.900	490.000	770.500	
				520.000	769.000	530.000	768.500	540.000	768.100	
				570.000	762.700	660.000	762.400	690.000	762.500	
	790	10.000	762.500	720.000	763.000	730.000	763.800	740.000	765.000	750.000
	.00	10.000	767.300	770.000	767.500	780.000	767.700	790.000	768.100	800.000
	.00	810.000	768.300	820.000	768.400	830.000	768.200	840.000	768.000	850.000
			767.200	870.000	767.900	880.000	766.400	890.000	766.400	
		910.000	765.500	920.000	765.400	930.000	765.300	940.000	765.400	
		1.0.000	766.100	970.000	768.300	980.000	773.500	990.000	777.200	
	0.200	1050.000	781.500	1100.000	795.500	1270.000	0.000	0.000	0.000	0.000
	.080	.050	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000

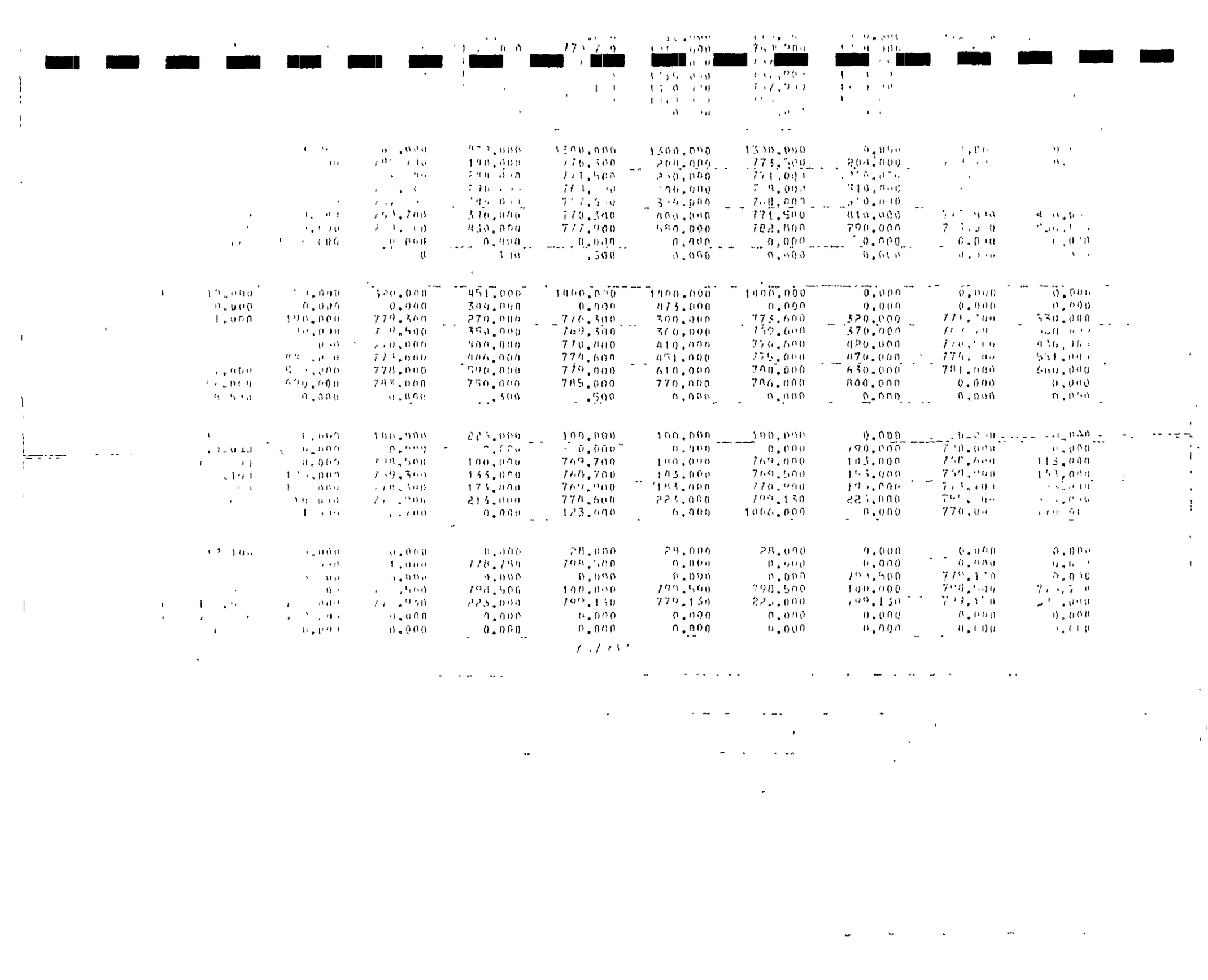
X1	23.000	51.000	300.000	731.000	1870.000	1870.000	1870.000	0.000	0.000	0.000
GR	37.300	98.000	802.000	248.000	777.100	300.000	773.600	301.000	771.800	311.000
GR	770.200	321.000	769.300	331.000	768.600	341.000	768.200	351.000	767.700	361.000
GR	767.300	371.000	767.300	381.000	767.200	391.000	767.200	401.000	767.200	411.000
GR	767.000	421.000	766.600	431.000	765.300	441.000	764.600	451.000	764.100	461.000
GR	764.100	471.000	764.100	481.000	764.200	491.000	764.200	501.000	764.100	511.000
GR	764.000	521.000	764.000	531.000	764.100	541.000	764.200	551.000	764.300	561.000
GR	765.000	571.000	765.800	581.000	766.100	591.000	766.500	601.000	766.800	611.000
GR	767.000	621.000	767.100	631.000	766.600	641.000	766.600	651.000	766.600	661.000
GR	766.400	671.000	766.600	681.000	766.900	691.000	767.600	701.000	768.900	711.000
GR	771.500	721.000	773.600	731.000	776.900	741.000	779.000	841.000	783.200	1041.000
	[illegible]	1151.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000

X1	22.000	51.000	247.000	650.000	3000.000	3000.000	3000.000	0.000	0.000	0.000
GR	787.200	200.000	773.800	247.000	769.800	250.000	772.500	260.000	771.700	270.000
	[illegible]	280.000	771.200	290.000	771.300	300.000	771.100	310.000	771.200	320.000
	771.500	330.000	771.200	340.000	771.100	350.000	770.800	360.000	770.000	370.000
	[illegible]	380.000	766.000	390.000	765.700	400.000	765.300	410.000	765.000	420.000
GR	765.200	430.000	765.300	440.000	765.400	450.000	765.400	460.000	766.200	470.000
GR	766.800	480.000	767.400	490.000	767.800	500.000	767.800	510.000	768.000	520.000
GR	767.300	530.000	765.600	540.000	765.300	550.000	766.200	560.000	770.400	570.000
GR	771.400	580.000	771.700	590.000	772.000	600.000	772.200	610.000	772.500	620.000
	772.700	630.000	773.200	640.000	773.300	650.000	781.200	680.000	783.400	740.000
	786.200	900.000	788.100	1080.000	786.600	1120.000	782.200	1130.000	782.700	1145.000
GR	787.700	1150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HC	0.000	0.000	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000

X1	21.000	[illegible]	[illegible]	598.000	250.000	250.000	250.000	0.000	0.000	0.000
X3	10.000		0.000	0.000	0.000	0.000	805.000	805.000	0.000	
GR	807.500		[illegible]	100.000	782.300	155.000	782.300	170.000	781.400	195.000
GR	100.0		[illegible]	294.000	773.400	300.000	770.700	310.000	772.500	317.000
			771.100	330.000	769.200	340.000	768.200	350.000	767.800	360.000
			[illegible]	380.000	765.200	390.000	766.100	400.000	767.200	410.000
			[illegible]	430.000	765.900	439.000	765.600	440.000	765.700	445.000
			[illegible]	460.000	767.100	470.000	766.700	480.000	766.700	490.000
			[illegible]	510.000	769.600	520.000	769.700	530.000	770.200	540.000
			771.200	557.000	773.000	562.000	773.700	568.000	775.200	579.000
			.700	598.000	0.000	0.000	0.000	0.000	0.000	0.000
				0.000	110.000	15.000	5000.000	1.000	[illegible]	

			0.000	91.000	91.000	91.000	0.000	0.000	0.00	
			[illegible]	807.100	0.000	0.000	0.000	0.000	0.000	
			[illegible]	0.000	0.000	0.000	0.000	[illegible]	[illegible]	
			[illegible]	100.000	807.500	807.500	420.000	807.100	[illegible]	
			[illegible]	808.700	808.700	0.000	0.000	0.000	0.000	
				0.000	0.000	0.000	0.000	0.000	0.00	

	[illegible]	[illegible]	[illegible]	[illegible]	0.000	0.000	0.000	0.000	0.000	0.000	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	140.000	140.000	140.000	0.000	0.000	0.000	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.000	0.000	0.000	0.000	0.000	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	18.000	100.000	217.000	140.000	140.000	140.000	0.000	0.000	0.000	
	10.000	0.000	0.000	0.000	0.000	0.000	0.000	783.000	783.000	0.000	
	784.930	0.000	783.960	100.000	771.900	107.000	768.700	117.000	766.700	127.000	
	[illegible]	[illegible]	765.700	140.000	764.400	147.000	765.100	157.000	765.200	167.000	
	[illegible]	[illegible]	766.000	179.000	766.400	187.000	769.500	197.000	773.700	704.000	
	[illegible]	[illegible]	783.900	217.000	784.340	317.000	0.000	0.000	0.000	0.000	
	1.250	1.500	3.000	0.000	77.000	8.000	1526.000	1.250	766.000	766.000	
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.000	0.000	
	[illegible]	0.000	1.000	782.300	783.960	0.000	0.000	0.000	0.000	0.000	
	[illegible]	0.000	0.000	0.000	0.000	0.000	0.000	783.960	783.970	0.000	
BT	7.000	0.000	784.930	784.930	100.000	783.960	783.960	100.000	783.960	782.300	
BT	180.000	783.970	782.300	217.000	783.970	782.000	217.000	783.970	783.970	317.000	
BT	784.340	784.340	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
X1	19.000	35.000	400.000	682.000	165.000	165.000	165.000	0.000	0.000	0.000	
X3	0.000	0.000	0.000	400.000	0.000	550.000	0.000	0.000	0.000	0.000	
GR	788.000	197.000	783.400	367.000	777.100	384.000	774.900	400.000	773.700	402.000	
GR	770.100	412.000	767.600	422.000	765.500	432.000	765.000	442.000	764.700	452.000	
GR	765.000	462.000	765.500	482.000	765.100	492.000	764.700	502.000	765.200	512.000	
GR	766.300	522.000	766.700	532.000	767.700	542.000	767.900	552.000	768.300	562.000	
GR	768.700	572.000	769.200	582.000	769.200	592.000	769.700	602.000	769.900	612.000	
GR	769.800	622.000	770.500	632.000	770.700	642.000	771.200	652.000	772.300	662.000	
GR	772.700	672.000	773.700	682.000	783.900	722.000	785.100	822.000	783.100	922.000	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
X1	14.000	18.000	100.000	213.000	165.000	165.000	165.000	0.000	0.000	0.000	
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	785.000	785.000	0.000	
GR	791.550	0.000	791.240	100.000	771.700	100.000	769.700	110.000	765.800	120.000	
GR	763.700	130.000	764.400	140.000	768.700	150.000	769.900	154.000	770.600	161.000	
GR	768.300	170.000	765.100	180.000	764.900	190.000	766.800	200.000	770.700	210.000	
GR	773.700	213.000	790.930	213.000	790.640	313.000	0.000	0.000	0.000	0.000	
GR	1.250	1.500	2.900	0.000	93.000	7.000	1666.000	.670	766.500	766.500	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
X1	17.100	0.000	0.000	0.000	28.000	28.000	28.000	0.000	0.000	0.000	
X2	0.000	0.000	1.000	781.400	790.640	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	791.240	790.930	0.000	
GR	7.000	0.000	791.550	791.550	100.000	791.240	791.240	100.000	791.240	781.900	
[illegible]	154.000	791.000	781.400	213.000	790.930	781.400	213.000	790.930	790.930	313.000	
BT	790.640	790.640	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
NC	.050	.100	0.000	.100	.300	0.000	0.000	0.000	0.000	0.000	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	17.000	31.000	634.000	894.000	250.000	250.000	250.000	0.000	0.000	0.000	
[illegible]	[illegible]	[illegible]	788.800	320.000	788.800	450.000	788.300	600.000	773.500	634.000	
[illegible]	[illegible]	[illegible]	769.500	654.000	768.500	664.000	767.300	674.000	767.100	684.000	
[illegible]	[illegible]	[illegible]	765.100	704.000	764.900	714.000	764.200	724.000	762.600	[illegible]	
[illegible]	[illegible]	[illegible]	761.300	754.000	763.500	764.000	764.900	774.000	765.600	784.000	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	766.500	804.000	768.900	814.000	769.300	824.000	769.000	50.000	
[illegible]	[illegible]	[illegible]	[illegible]	854.000	773.500	894.000	779.200	904.000	783.[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	
[illegible]	.100	0.000	.400	.600	0.000	0.000	0.000	0.000	0.000	0.000	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
X1	16.	30.	1200.	1400.	1800.	1800.	1800.				
GR	783.2	340.	783.2	380.	779.2	710.	776.7	910.	773.8	950.	



1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF ANN ARBOR

3) WATERCOURSE: HURON RIVER

4) DOCUMENT TYPE: OUTPUT

THIS RUN EXECUTED 24 OCT 78 13.09.52

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**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED  AUG1977
  ERROR CORR -  01,02
  MODIFICATION -  50,51,52,53
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NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

TEN YEAR FLOW

SUMMARY-PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
50.000	747.50	0.00	747.82	99.37	0.00	4978.00	0.00	0.00	0.00	0.00	159.37	0.00
50.000	747.50	0.00	748.21	99.37	0.00	7411.00	0.00	0.00	0.00	0.00	159.37	0.00
50.000	747.50	0.00	748.44	99.37	0.00	8485.00	0.00	0.00	0.00	0.00	159.37	0.00
50.000	747.80	0.00	749.41	99.37	0.00	11427.00	0.00	0.00	0.00	0.00	159.37	0.00
49.000	747.88	0.00	747.91	378.66	.05	4977.95	0.00	0.00	0.00	113.00	490.00	0.00
49.000	748.33	0.00	748.39	379.98	.31	7410.69	0.00	0.00	0.00	113.00	490.00	0.00
49.000	748.59	0.00	748.67	380.73	.62	8484.37	0.00	0.00	0.00	113.00	490.00	0.00
49.000	749.68	0.00	749.79	383.87	3.62	11423.38	0.00	0.00	0.00	113.00	490.00	0.00
48.100	747.91	0.00	747.94	379.92	.20	4977.80	0.00	0.00	0.00	113.00	490.00	0.00
48.100	748.40	0.00	748.45	381.32	.78	7410.22	0.00	0.00	0.00	113.00	490.00	0.00
48.100	748.67	0.00	748.74	382.11	1.34	8483.66	0.00	0.00	0.00	113.00	490.00	0.00
48.100	749.78	0.00	749.88	386.78	5.61	11421.39	.00	0.00	0.00	113.00	490.00	0.00
48.000	747.89	0.00	748.00	201.87	.08	4977.83	.09	0.00	0.00	273.00	480.00	0.00
48.000	748.36	0.00	748.57	204.13	.51	7409.87	.61	0.00	0.00	273.00	480.00	0.00
48.000	748.62	0.00	748.89	205.41	1.02	8482.76	1.22	0.00	0.00	273.00	480.00	0.00
48.000	749.70	0.00	750.10	210.65	5.79	11414.29	6.91	0.00	0.00	273.00	480.00	0.00
47.000	747.91	0.00	748.02	201.67	.08	4977.83	.09	0.00	0.00	170.00	377.00	0.00
47.000	748.40	0.00	748.62	203.81	.53	7409.88	.59	0.00	0.00	170.00	377.00	0.00
47.000	748.67	0.00	748.94	205.00	1.04	8482.79	1.17	0.00	0.00	170.00	377.00	0.00
47.000	749.77	0.00	750.17	209.89	5.83	11414.60	6.58	0.00	0.00	170.00	377.00	0.00
46.000	748.05	0.00	748.07	485.10	.04	4977.91	.05	0.00	0.00	315.00	797.00	0.00
46.000	748.68	0.00	748.72	488.08	.33	7410.30	.37	0.00	0.00	315.00	797.00	0.00
46.000	749.02	0.00	749.07	489.68	.66	8483.59	.75	0.00	0.00	315.00	797.00	0.00
46.000	750.28	0.00	750.35	495.65	3.40	11419.77	3.83	0.00	0.00	315.00	797.00	0.00
45.000	748.14	0.00	748.15	605.56	.12	4977.88	0.00	0.00	0.00	314.00	921.00	0.00
45.000	748.83	0.00	748.86	610.65	.88	7410.12	0.00	0.00	0.00	314.00	921.00	0.00
45.000	749.19	0.00	749.23	613.32	1.73	8483.27	0.00	0.00	0.00	314.00	921.00	0.00
45.000	750.49	0.00	750.54	660.94	7.90	11414.87	4.22	0.00	0.00	314.00	921.00	0.00
44.000	748.18	0.00	748.22	424.50	.07	4689.41	.52	871.00	79.00	205.00	619.00	950.00
44.000	748.90	0.00	748.97	434.13	.55	6977.67	3.79	871.00	79.00	205.00	619.00	950.00
44.000	749.27	0.00	749.35	438.76	1.12	7985.62	7.26	871.00	79.00	205.00	619.00	950.00
44.000	750.56	0.00	750.68	460.90	4.68	10728.39	31.92	871.00	79.00	205.00	619.00	950.00

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	TOPRID	QLOH	QCH	QAOB	PERENC	STENCL	STCHL	STCHR	STENCR
	43.300	748.17	0.00	748.26	196.21	0.00	4690.00	0.00	0.00	0.00	20.00	340.00	0.00
	43.300	748.81	0.00	749.05	200.85	0.00	6982.00	0.00	0.00	0.00	20.00	340.00	0.00
	43.300	749.24	0.00	749.45	203.27	0.00	7994.00	0.00	0.00	0.00	20.00	340.00	0.00
	43.300	750.52	0.00	750.82	211.75	0.00	10765.00	0.00	0.00	0.00	20.00	340.00	0.00
	43.200	748.18	0.00	748.26	196.17	0.00	4690.00	0.00	0.00	0.00	20.00	340.00	0.00
	43.200	748.88	0.00	749.05	200.86	0.00	6982.00	0.00	0.00	0.00	20.00	340.00	0.00
	43.200	749.24	0.00	749.45	203.28	0.00	7994.00	0.00	0.00	0.00	20.00	340.00	0.00
	43.200	750.52	0.00	750.82	211.77	0.00	10765.00	0.00	0.00	0.00	20.00	340.00	0.00
	43.100	748.30	0.00	748.31	1093.00	11.11	4678.47	.42	0.00	0.00	300.00	1293.00	0.00
	43.100	749.13	0.00	749.14	1135.86	33.69	6945.30	3.01	0.00	0.00	300.00	1293.00	0.00
	43.100	749.55	0.00	749.56	1157.62	50.32	7937.97	5.70	0.00	0.00	300.00	1293.00	0.00
	43.100	750.96	0.00	750.97	1223.33	133.96	10604.16	26.88	0.00	0.00	300.00	1293.00	0.00
	43.000	748.32	0.00	748.32	1006.93	.19	4689.81	0.00	0.00	0.00	300.00	1293.00	0.00
	43.000	749.15	0.00	749.16	1047.38	4.40	6977.60	.00	0.00	0.00	300.00	1293.00	0.00
	43.000	749.57	0.00	749.59	1070.48	10.81	7983.05	.14	0.00	0.00	300.00	1293.00	0.00
	43.000	750.98	0.00	751.00	1143.70	57.48	10701.88	5.65	0.00	0.00	300.00	1293.00	0.00
	42.300	748.31	0.00	748.34	650.76	0.00	4689.80	.20	0.00	0.00	150.00	818.00	0.00
	42.300	749.14	0.00	749.18	653.64	0.00	6980.66	1.34	0.00	0.00	150.00	818.00	0.00
	42.300	749.56	0.00	749.61	655.07	0.00	7991.52	2.48	0.00	0.00	150.00	818.00	0.00
	42.300	750.97	0.00	751.02	659.92	0.00	10755.39	9.61	0.00	0.00	150.00	818.00	0.00
	42.200	748.32	0.00	748.34	650.75	0.00	4689.80	.20	0.00	0.00	150.00	818.00	0.00
	42.200	749.15	0.00	749.19	653.61	0.00	6980.67	1.33	0.00	0.00	150.00	818.00	0.00
	42.200	749.57	0.00	749.61	655.06	0.00	7991.53	2.47	0.00	0.00	150.00	818.00	0.00
	42.200	750.98	0.00	751.03	659.90	0.00	10755.42	9.58	0.00	0.00	150.00	818.00	0.00
	42.100	748.36	0.00	748.38	764.31	4.44	4661.52	24.04	0.00	0.00	225.00	942.00	0.00
Avon Parkway	42.100	749.21	0.00	749.24	781.96	11.99	6918.00	52.01	0.00	0.00	225.00	942.00	0.00
	42.100	749.64	0.00	749.68	801.44	17.26	7906.29	70.45	0.00	0.00	225.00	942.00	0.00
	42.100	751.05	0.00	751.09	874.84	50.10	10557.63	157.27	0.00	0.00	225.00	942.00	0.00
Gables	42.000	748.27	0.00	748.80	107.00	0.00	4690.00	0.00	0.00	0.00	700.00	807.00	0.00
	42.000	749.05	0.00	750.00	107.00	0.00	6982.00	0.00	0.00	0.00	700.00	807.00	0.00
	42.000	749.44	0.00	750.58	107.00	0.00	7994.00	0.00	0.00	0.00	700.00	807.00	0.00
	42.000	750.77	0.00	752.33	107.00	0.00	10765.00	0.00	0.00	0.00	700.00	807.00	0.00
	41.100	748.29	0.00	748.82	107.00	0.00	4690.00	0.00	0.00	0.00	700.00	807.00	0.00
	41.100	749.06	0.00	750.12	107.00	0.00	6982.00	0.00	0.00	0.00	700.00	807.00	0.00
	41.100	749.43	0.00	750.78	107.00	0.00	7994.00	0.00	0.00	0.00	700.00	807.00	0.00
	41.100	750.68	0.00	752.91	107.00	0.00	10765.00	0.00	0.00	0.00	700.00	807.00	0.00
	41.000	749.04	0.00	749.16	464.69	103.33	4583.77	2.89	0.00	0.00	650.00	870.00	0.00
	41.000	750.64	0.00	750.78	783.67	685.86	6276.53	19.61	0.00	0.00	650.00	870.00	0.00
	41.000	751.48	0.00	751.61	803.46	1216.14	6735.01	42.85	0.00	0.00	650.00	870.00	0.00
	41.000	754.18	0.00	754.27	837.45	3079.41	7494.98	190.62	0.00	0.00	650.00	870.00	0.00
	40.000	749.80	0.00	750.06	302.55	0.00	4448.54	241.46	0.00	0.00	300.00	500.00	0.00
	40.000	751.34	0.00	751.64	349.14	3.13	6298.07	680.80	0.00	0.00	300.00	500.00	0.00
	40.000	752.07	0.00	752.37	404.69	15.64	7054.99	923.37	0.00	0.00	300.00	500.00	0.00
	40.000	754.47	0.00	754.73	522.01	168.82	8818.73	1777.45	0.00	0.00	300.00	500.00	0.00

[redacted]	SEC [redacted]	C [redacted]	[redacted]	[redacted]	EG [redacted]	TOP [redacted]	[redacted]	[redacted]	CH [redacted]	ORO [redacted]	P [redacted]	[redacted]	ENCL [redacted]	STCHL [redacted]	STCHR [redacted]	STENCR [redacted]
	39.000	751.32	0.00	751.74	243.97	129.06	4328.97	231.97	0.00	0.00	210.00	350.00	0.00
	39.000	752.70	0.00	753.23	274.75	281.86	6164.18	535.96	0.00	0.00	210.00	350.00	0.00
	39.000	753.29	0.00	753.86	285.71	366.11	6929.10	698.80	0.00	0.00	210.00	350.00	0.00
	39.000	755.22	0.00	755.78	308.21	718.72	8798.74	1247.54	0.00	0.00	210.00	350.00	0.00
	38.100	752.52	0.00	752.77	270.32	181.56	4163.87	344.57	0.00	0.00	210.00	350.00	0.00
	38.100	753.96	0.00	754.31	293.57	369.29	5925.42	687.29	0.00	0.00	210.00	350.00	0.00
	38.100	754.55	0.00	754.92	300.41	476.28	6661.77	855.95	0.00	0.00	210.00	350.00	0.00
	38.100	756.26	0.00	756.68	320.33	831.26	8559.43	1374.31	0.00	0.00	210.00	350.00	0.00
Dust. Pipe F. G	38.000	752.52	0.00	753.03	127.00	0.00	4690.00	0.00	0.00	0.00	100.00	227.00	0.00
	38.000	753.93	0.00	754.68	127.00	0.00	6982.00	0.00	0.00	0.00	100.00	227.00	0.00
	38.000	754.49	0.00	755.36	127.00	0.00	7994.00	0.00	0.00	0.00	100.00	227.00	0.00
	38.000	756.15	0.00	757.24	127.00	0.00	10765.00	0.00	0.00	0.00	100.00	227.00	0.00
Upst. Pipe F. H	37.100	752.60	0.00	753.09	127.00	0.00	4690.00	0.00	0.00	0.00	100.00	227.00	0.00
	37.100	754.28	0.00	754.98	127.00	0.00	6982.00	0.00	0.00	0.00	100.00	227.00	0.00
	37.100	755.12	0.00	755.87	127.00	0.00	7994.00	0.00	0.00	0.00	100.00	227.00	0.00
	37.100	757.84	0.00	758.64	127.00	0.00	10765.00	0.00	0.00	0.00	100.00	227.00	0.00
	37.000	753.01	0.00	753.44	251.80	11.06	4469.70	209.25	0.00	0.00	200.00	341.00	0.00
	37.000	754.81	0.00	755.31	342.53	63.89	6431.45	486.66	0.00	0.00	200.00	341.00	0.00
	37.000	755.68	0.00	756.19	354.11	130.17	7228.84	634.99	0.00	0.00	200.00	341.00	0.00
	37.000	758.44	0.00	758.89	384.37	405.41	9226.90	1132.69	0.00	0.00	200.00	341.00	0.00
	36.000	755.58	0.00	755.98	253.87	11.89	4456.18	221.93	0.00	0.00	200.00	341.00	0.00
	36.000	757.13	0.00	757.65	341.33	59.10	6443.78	479.12	0.00	0.00	200.00	341.00	0.00
	36.000	757.79	0.00	758.34	350.25	110.71	7273.15	610.14	0.00	0.00	200.00	341.00	0.00
	36.000	759.87	0.00	760.44	377.88	330.98	9398.92	1035.10	0.00	0.00	200.00	341.00	0.00
	35.000	755.57	0.00	756.55	115.00	0.00	4690.00	0.00	0.00	0.00	100.00	215.00	0.00
	35.000	757.05	0.00	758.36	115.00	0.00	6982.00	0.00	0.00	0.00	100.00	215.00	0.00
	35.000	757.68	0.00	759.12	115.00	0.00	7994.00	0.00	0.00	0.00	100.00	215.00	0.00
	35.000	759.69	0.00	761.28	115.00	0.00	10765.00	0.00	0.00	0.00	100.00	215.00	0.00
*	34.100	756.34	0.00	757.08	115.00	0.00	4690.00	0.00	0.00	0.00	100.00	215.00	0.00
*	34.100	758.21	0.00	759.16	115.00	0.00	6982.00	0.00	0.00	0.00	100.00	215.00	0.00
*	34.100	758.96	0.00	759.99	115.00	0.00	7994.00	0.00	0.00	0.00	100.00	215.00	0.00
*	34.100	762.82	0.00	763.71	115.00	0.00	10765.00	0.00	0.00	0.00	100.00	215.00	0.00
	34.000	757.17	0.00	757.65	270.93	6.37	4528.95	154.68	0.00	0.00	200.00	315.00	0.00
	34.000	759.37	0.00	759.79	451.48	22.40	5934.91	1024.69	0.00	0.00	200.00	315.00	0.00
	34.000	760.29	0.00	760.67	526.02	31.34	6357.02	1605.64	0.00	0.00	200.00	315.00	0.00
	34.000	764.11	0.00	764.26	627.20	64.44	6182.61	4517.96	0.00	0.00	200.00	315.00	0.00
	33.000	757.51	0.00	758.09	126.00	0.00	4690.00	0.00	0.00	0.00	100.00	226.00	0.00
	33.000	759.59	0.00	760.30	126.00	0.00	6982.00	0.00	0.00	0.00	100.00	226.00	0.00
	33.000	760.45	0.00	761.22	126.00	0.00	7994.00	0.00	0.00	0.00	100.00	226.00	0.00
	33.000	764.10	0.00	764.80	173.21	0.00	10751.78	13.22	0.00	0.00	100.00	226.00	0.00
	32.100	757.62	0.00	758.18	126.00	0.00	4690.00	0.00	0.00	0.00	100.00	226.00	0.00
	32.100	759.72	0.00	760.41	126.00	0.00	6982.00	0.00	0.00	0.00	100.00	226.00	0.00
	32.100	760.60	0.00	761.34	126.00	0.00	7994.00	0.00	0.00	0.00	100.00	226.00	0.00
	32.100	764.58	0.00	765.23	126.00	0.00	10765.00	0.00	0.00	0.00	100.00	226.00	0.00

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
32.000	758.16	0.00	758.60	327.24	598.06	3963.10	128.85	0.00	0.00	470.00	560.00	0.00
32.000	760.58	0.00	760.88	448.75	1692.86	4758.08	531.07	0.00	0.00	470.00	560.00	0.00
32.000	761.56	0.00	761.83	454.83	2149.72	5019.70	824.58	0.00	0.00	470.00	560.00	0.00
32.000	765.49	0.00	765.63	478.94	3529.97	5349.70	1885.34	0.00	0.00	470.00	560.00	0.00
31.000	760.23	0.00	760.38	575.46	9.49	4380.21	300.29	0.00	0.00	400.00	780.00	0.00
31.000	761.80	0.00	761.95	718.46	67.59	6282.02	632.40	0.00	0.00	400.00	780.00	0.00
31.000	762.56	0.00	762.69	820.02	146.61	7059.55	787.84	0.00	0.00	400.00	780.00	0.00
31.000	765.88	0.00	765.96	936.86	840.51	8677.32	1247.17	0.00	0.00	400.00	780.00	0.00
30.100	761.55	0.00	761.96	252.17	52.98	3975.76	371.27	0.00	0.00	398.00	531.00	0.00
30.100	762.70	0.00	763.23	497.53	264.73	5604.52	680.75	0.00	0.00	398.00	531.00	0.00
30.100	763.28	0.00	763.81	605.84	538.90	6163.89	827.21	0.00	0.00	398.00	531.00	0.00
30.100	766.12	0.00	766.36	624.50	2395.99	6497.00	1207.01	0.00	0.00	398.00	531.00	0.00
30.000	761.61	0.00	762.15	133.00	0.00	4400.00	0.00	0.00	0.00	398.00	531.00	0.00
30.000	762.75	0.00	763.46	431.39	312.74	6237.26	0.00	0.00	0.00	398.00	531.00	0.00
30.000	763.31	0.00	764.03	531.00	623.32	6976.68	0.00	0.00	0.00	398.00	531.00	0.00
30.000	766.16	0.00	766.41	624.61	2407.66	6484.70	1207.63	0.00	0.00	398.00	531.00	0.00
29.100	761.55	0.00	762.33	133.00	0.00	4400.00	0.00	0.00	0.00	398.00	531.00	0.00
29.100	762.47	0.00	763.91	379.45	11.72	6538.28	0.00	0.00	0.00	398.00	531.00	0.00
29.100	762.91	0.00	764.60	460.00	101.59	7448.40	0.00	0.00	0.00	398.00	531.00	0.00
29.100	766.00	0.00	766.63	624.02	4162.75	5937.25	0.00	0.00	0.00	398.00	531.00	0.00
29.000	762.54	0.00	762.87	285.31	6.89	4320.87	72.24	0.00	0.00	400.00	550.00	0.00
29.000	764.56	0.00	764.85	588.99	590.79	5698.30	260.91	0.00	0.00	400.00	550.00	0.00
29.000	765.42	0.00	765.68	593.44	1076.84	6118.91	354.25	0.00	0.00	400.00	550.00	0.00
29.000	766.79	0.00	767.05	600.84	2130.17	7408.21	561.61	0.00	0.00	400.00	550.00	0.00
28.100	763.95	0.00	764.24	355.87	24.28	4289.09	86.63	0.00	0.00	400.00	550.00	0.00
28.100	765.59	0.00	765.89	588.68	564.91	5727.95	257.14	0.00	0.00	400.00	550.00	0.00
28.100	766.29	0.00	766.58	592.29	979.59	6228.79	341.62	0.00	0.00	400.00	550.00	0.00
28.100	767.59	0.00	767.89	598.94	1996.21	7559.66	544.14	0.00	0.00	400.00	550.00	0.00
28.000	764.17	0.00	765.12	104.00	0.00	4400.00	0.00	0.00	0.00	365.00	469.00	0.00
28.000	765.70	0.00	766.98	104.00	0.00	6550.00	0.00	0.00	0.00	365.00	469.00	0.00
28.000	766.36	0.00	767.77	104.00	0.00	7550.00	0.00	0.00	0.00	365.00	469.00	0.00
28.000	767.56	0.00	769.45	104.00	0.00	10100.00	0.00	0.00	0.00	365.00	469.00	0.00
27.100	764.32	0.00	765.30	104.00	0.00	4400.00	0.00	0.00	0.00	365.00	469.00	0.00
27.100	765.85	0.00	767.25	104.00	0.00	6550.00	0.00	0.00	0.00	365.00	469.00	0.00
27.100	766.49	0.00	768.08	104.00	0.00	7550.00	0.00	0.00	0.00	365.00	469.00	0.00
27.100	767.69	0.00	769.87	104.00	0.00	10100.00	0.00	0.00	0.00	365.00	469.00	0.00
27.000	765.01	0.00	765.77	128.92	149.43	4164.29	86.27	0.00	0.00	393.00	475.00	0.00
27.000	766.89	0.00	767.85	144.56	333.48	6009.84	206.68	0.00	0.00	393.00	475.00	0.00
27.000	767.73	0.00	768.75	149.44	434.91	6831.66	283.43	0.00	0.00	393.00	475.00	0.00
27.000	769.64	0.00	770.82	156.02	720.38	8867.14	512.47	0.00	0.00	393.00	475.00	0.00

[redacted] FL[redacted]

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	EITRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
50.000	0.00	0.00	0.00	736.50	4978.00	747.50	0.00	747.82	5.63	4.55	1093.07	2097.50
50.000	0.00	0.00	0.00	736.50	7411.00	747.50	0.00	748.21	12.48	6.78	1093.07	2097.50
50.000	0.00	0.00	0.00	736.50	8485.00	747.50	0.00	748.44	16.36	7.76	1093.07	2097.50
50.000	0.00	0.00	0.00	736.50	11427.00	747.80	0.00	749.41	27.44	10.18	1122.88	2181.55
49.000	250.00	0.00	0.00	733.40	4978.00	747.88	0.00	747.91	.41	1.40	3546.11	7750.67
49.000	250.00	0.00	0.00	733.40	7411.00	748.33	0.00	748.39	.78	1.99	3719.56	8382.45
49.000	250.00	0.00	0.00	733.40	8485.00	748.59	0.00	748.67	.94	2.22	3818.20	8749.38
49.000	250.00	0.00	0.00	733.40	11427.00	749.68	0.00	749.79	1.22	2.70	4232.96	10350.65
48.100	800.00	0.00	0.00	733.00	4978.00	747.91	0.00	747.94	.36	1.34	3710.64	8349.53
48.100	800.00	0.00	0.00	733.00	7411.00	748.40	0.00	748.45	.67	1.90	3896.37	9043.99
48.100	800.00	0.00	0.00	733.00	8485.00	748.67	0.00	748.74	.81	2.12	4000.50	9441.72
48.100	800.00	0.00	0.00	733.00	11427.00	749.78	0.00	749.88	1.05	2.59	4426.35	11128.30
48.000	200.00	0.00	0.00	732.90	4978.00	747.89	0.00	748.00	1.70	2.62	1897.72	3822.31
48.000	200.00	0.00	0.00	732.90	7411.00	748.36	0.00	748.57	3.24	3.72	1992.70	4118.38
48.000	200.00	0.00	0.00	732.90	8485.00	748.62	0.00	748.89	3.92	4.15	2046.42	4287.66
48.000	200.00	0.00	0.00	732.90	11427.00	749.70	0.00	750.10	5.20	5.06	2271.24	5009.18
47.000	130.00	0.00	0.00	733.00	4978.00	747.91	0.00	748.02	1.76	2.65	1876.94	3752.48
47.000	130.00	0.00	0.00	733.00	7411.00	748.40	0.00	748.62	3.33	3.76	1975.71	4058.91
47.000	130.00	0.00	0.00	733.00	8485.00	748.67	0.00	748.94	4.02	4.19	2030.75	4231.73
47.000	130.00	0.00	0.00	733.00	11427.00	749.77	0.00	750.17	5.29	5.08	2260.34	4967.43
46.000	300.00	0.00	0.00	730.60	4978.00	748.05	0.00	748.07	.26	1.11	4477.31	9729.28
46.000	300.00	0.00	0.00	730.60	7411.00	748.68	0.00	748.72	.47	1.55	4783.19	10852.30
46.000	300.00	0.00	0.00	730.60	8485.00	749.02	0.00	749.07	.55	1.72	4948.79	11478.04
46.000	300.00	0.00	0.00	730.60	11427.00	750.28	0.00	750.35	.67	2.06	5568.70	13926.80
45.000	2940.00	0.00	0.00	737.00	4978.00	748.14	0.00	748.15	.29	1.05	4728.07	9222.41
45.000	2940.00	0.00	0.00	737.00	7411.00	748.83	0.00	748.86	.49	1.44	5148.43	10593.07
45.000	2940.00	0.00	0.00	737.00	8485.00	749.19	0.00	749.23	.56	1.58	5370.46	11343.43
45.000	2940.00	0.00	0.00	737.00	11427.00	750.49	0.00	750.54	.64	1.86	6191.23	14237.84
44.000	1300.00	0.00	0.00	736.20	4690.00	748.18	0.00	748.22	.78	1.61	2925.10	5308.05
44.000	1300.00	0.00	0.00	736.20	6982.00	748.90	0.00	748.97	1.25	2.17	3233.17	6240.97
44.000	1300.00	0.00	0.00	736.20	7994.00	749.27	0.00	749.35	1.40	2.37	3395.79	6750.36
44.000	1300.00	0.00	0.00	736.20	10765.00	750.56	0.00	750.68	1.54	2.74	3980.95	8673.85
43.300	200.00	0.00	0.00	736.80	4690.00	748.17	0.00	748.26	1.21	2.38	1967.60	4265.43
43.300	200.00	0.00	0.00	736.80	6982.00	748.88	0.00	749.05	2.21	3.32	2105.99	4698.28
43.300	200.00	0.00	0.00	736.80	7994.00	749.24	0.00	749.45	2.63	3.67	2179.37	4932.19
43.300	200.00	0.00	0.00	736.80	10765.00	750.52	0.00	750.82	3.45	4.41	2443.80	5798.74
43.200	10.00	0.00	0.00	736.80	4690.00	748.18	0.00	748.26	1.21	2.39	1966.26	4261.28
43.200	10.00	0.00	0.00	736.80	6982.00	748.88	0.00	749.05	2.21	3.31	2106.33	4699.38
43.200	10.00	0.00	0.00	736.80	7994.00	749.24	0.00	749.45	2.63	3.67	2179.78	4933.50
43.200	10.00	0.00	0.00	736.80	10765.00	750.52	0.00	750.82	3.44	4.40	2444.33	5800.50
43.100	200.00	0.00	0.00	737.00	4690.00	748.30	0.00	748.31	.07	.56	8482.72	17235.99
43.100	200.00	0.00	0.00	737.00	6982.00	749.13	0.00	749.14	.12	.75	9403.20	20194.03
43.100	200.00	0.00	0.00	737.00	7994.00	749.55	0.00	749.56	.13	.83	9884.03	21777.95
43.100	200.00	0.00	0.00	737.00	10765.00	750.96	0.00	750.97	.15	.96	11565.77	27530.80

[redacted]	[redacted]	XLOC	[redacted]	ELIND	ELLC	[redacted]	ELMIN	[redacted]	D	[redacted]	CWSEL	CRIWS	[redacted]	EG	TOK*S	[redacted]	VCH	AREA	.01K
		43.000		1340.00		0.00	0.00		738.70		4690.00		748.32	0.00		748.32	.16	.70	6711.84	11091.30
		43.000		1340.00		0.00	0.00		738.70		6982.00		749.15	0.00		749.16	.24	.93	7566.89	14398.51
		43.000		1340.00		0.00	0.00		738.70		7994.00		749.57	0.00		749.59	.26	1.00	8013.21	15767.23
		43.000		1340.00		0.00	0.00		738.70		10765.00		750.98	0.00		751.00	.27	1.14	9575.37	20758.22
		42.300		300.00		0.00	0.00		738.50		4690.00		748.31	0.00		748.34	.50	1.16	4044.39	6617.85
		42.300		300.00		0.00	0.00		738.50		6982.00		749.14	0.00		749.18	.74	1.52	4588.69	8098.90
		42.300		300.00		0.00	0.00		738.50		7994.00		749.56	0.00		749.61	.81	1.65	4860.91	8876.89
		42.300		300.00		0.00	0.00		738.50		10765.00		750.97	0.00		751.02	.85	1.86	5787.33	11696.12
		42.200		67.50		0.00	0.00		738.50		4690.00		748.32	0.00		748.34	.50	1.16	4042.55	6613.01
		42.200		67.50		0.00	0.00		738.50		6982.00		749.15	0.00		749.19	.75	1.52	4584.54	8087.24
		42.200		67.50		0.00	0.00		738.50		7994.00		749.57	0.00		749.61	.81	1.65	4859.41	8872.52
		42.200		67.50		0.00	0.00		738.50		10765.00		750.98	0.00		751.03	.85	1.87	5784.27	11686.41
		42.100		840.00		0.00	0.00		739.00		4690.00		748.36	0.00		748.38	.46	1.09	4341.94	6949.75
		42.100		840.00		0.00	0.00		739.00		6982.00		749.21	0.00		749.24	.64	1.42	4998.27	8713.70
		42.100		840.00		0.00	0.00		739.00		7994.00		749.64	0.00		749.68	.68	1.53	5335.44	9659.72
		42.100		840.00		0.00	0.00		739.00		10765.00		751.05	0.00		751.09	.67	1.71	6515.49	13110.91
		42.000		100.00		0.00	0.00		739.20		4690.00		748.27	0.00		748.80	9.62	5.81	807.07	1512.32
		42.000		100.00		0.00	0.00		739.20		6982.00		749.05	0.00		750.00	15.47	7.85	889.89	1775.25
		42.000		100.00		0.00	0.00		739.20		7994.00		749.44	0.00		750.58	17.44	8.58	931.73	1913.96
		42.000		100.00		0.00	0.00		739.20		10765.00		750.77	0.00		752.33	19.89	10.02	1074.03	2413.65
		41.100		13.50		751.40	752.30		739.20		4690.00		748.29	0.00		748.82	13.62	5.86	800.86	1270.71
		41.100		13.50		751.40	752.30		739.20		6982.00		749.06	0.00		750.12	35.43	8.26	845.01	1173.06
		41.100		13.50		751.40	752.30		739.20		7994.00		749.43	0.00		750.78	44.04	9.31	858.95	1204.53
		41.100		13.50		751.40	752.30		739.20		10765.00		750.68	0.00		752.91	79.61	11.99	898.11	1206.50
		41.000		200.00		0.00	0.00		737.80		4690.00		749.04	0.00		749.16	2.27	2.81	1831.16	3115.44
		41.000		200.00		0.00	0.00		737.80		6982.00		750.64	0.00		750.78	2.21	3.17	2823.00	4696.39
		41.000		200.00		0.00	0.00		737.80		7994.00		751.48	0.00		751.61	1.89	3.11	3490.33	5813.57
		41.000		200.00		0.00	0.00		737.80		10765.00		754.18	0.00		754.27	1.04	2.72	5705.42	10531.52
		40.000		2300.00		0.00	0.00		742.90		4690.00		749.80	0.00		750.06	7.33	4.13	1247.37	1732.63
		40.000		2300.00		0.00	0.00		742.90		6982.00		751.34	0.00		751.64	6.50	4.56	1736.48	2738.76
		40.000		2300.00		0.00	0.00		742.90		7994.00		752.07	0.00		752.37	5.84	4.62	2008.80	3307.18
		40.000		2300.00		0.00	0.00		742.90		10765.00		754.47	0.00		754.73	3.67	4.39	3124.05	5617.71
		39.000		1800.00		0.00	0.00		744.90		4690.00		751.32	0.00		751.74	11.51	5.38	1016.91	1382.65
		39.000		1800.00		0.00	0.00		744.90		6982.00		752.70	0.00		753.23	11.40	6.18	1372.40	2067.86
		39.000		1800.00		0.00	0.00		744.90		7994.00		753.29	0.00		753.86	11.02	6.41	1540.32	2408.59
		39.000		1800.00		0.00	0.00		744.90		10765.00		755.22	0.00		755.78	8.45	6.51	2112.45	3702.42
		38.100		1300.00		0.00	0.00		744.90		4690.00		752.52	0.00		752.77	5.67	4.28	1323.35	1970.48
		38.100		1300.00		0.00	0.00		744.90		6982.00		753.96	0.00		754.31	6.11	5.04	1733.97	2825.13
		38.100		1300.00		0.00	0.00		744.90		7994.00		754.55	0.00		754.92	6.16	5.30	1908.51	3220.75
		38.100		1300.00		0.00	0.00		744.90		10765.00		756.26	0.00		756.68	5.68	5.72	2439.79	4515.10
Distr. Place R.E.Br.		38.000		100.00		0.00	0.00		743.60		4690.00		752.52	0.00		753.03	11.77	5.72	820.30	1367.05
		38.000		100.00		0.00	0.00		743.60		6982.00		753.93	0.00		754.68	13.91	6.99	998.85	1871.87
		38.000		100.00		0.00	0.00		743.60		7994.00		754.49	0.00		755.36	14.62	7.46	1070.89	2090.59
		38.000		100.00		0.00	0.00		743.60		10765.00		756.15	0.00		757.24	15.07	8.40	1280.81	2772.87

Upstream R.R. Bridge	37.100	28.20	763.79	754.70	743.60	4690.00	752.60	0.00	753.09	11.32	5.65	830.35	1393.96
	37.100	28.20	763.79	754.70	743.60	6982.00	754.28	0.00	754.98	12.05	6.68	1045.02	2011.10
	37.100	28.20	763.79	754.70	743.60	7994.00	755.12	0.00	755.87	11.62	6.94	1151.53	2345.02
	37.100	28.20	763.79	754.70	743.60	10765.00	757.84	0.00	758.64	9.27	7.19	1496.34	3536.57
	37.000	300.00	0.00	0.00	746.10	4690.00	753.01	0.00	753.44	11.15	5.38	1082.83	1404.76
	37.000	300.00	0.00	0.00	746.10	6982.00	754.81	0.00	755.31	9.49	5.93	1625.12	2266.27
	37.000	300.00	0.00	0.00	746.10	7994.00	755.68	0.00	756.19	8.38	5.98	1929.15	2761.12
	37.000	300.00	0.00	0.00	746.10	10765.00	758.44	0.00	758.89	5.39	5.78	2952.96	4635.39
	36.000	2400.00	0.00	0.00	748.50	4690.00	755.58	0.00	755.98	10.07	5.21	1126.09	1477.83
	36.000	2400.00	0.00	0.00	748.50	6982.00	757.13	0.00	757.65	9.91	6.01	1594.37	2218.05
	36.000	2400.00	0.00	0.00	748.50	7994.00	757.79	0.00	758.34	9.52	6.23	1826.55	2590.59
	36.000	2400.00	0.00	0.00	748.50	10765.00	759.87	0.00	760.44	7.53	6.43	2584.59	3923.57
	35.000	100.00	0.00	0.00	748.60	4690.00	755.57	0.00	756.55	30.86	7.96	589.00	844.24
	35.000	100.00	0.00	0.00	748.60	6982.00	757.05	0.00	758.36	30.31	9.20	759.23	1268.12
	35.000	100.00	0.00	0.00	748.60	7994.00	757.68	0.00	759.12	29.67	9.61	832.16	1467.48
	35.000	100.00	0.00	0.00	748.60	10765.00	759.69	0.00	761.28	24.82	10.13	1063.09	2160.77
*	34.100	28.80	768.05	758.80	748.60	4690.00	756.34	0.00	757.08	19.73	6.93	677.07	1055.96
*	34.100	28.80	768.05	758.80	748.60	6982.00	758.21	0.00	759.16	18.08	7.82	893.19	1641.83
*	34.100	28.80	768.05	758.80	748.60	7994.00	758.96	0.00	759.99	17.76	8.17	978.70	1897.07
*	34.100	28.80	768.05	758.80	748.60	10765.00	762.82	0.00	763.71	10.00	7.56	1423.27	3403.82
	34.000	300.00	0.00	0.00	748.60	4690.00	757.17	0.00	757.65	9.76	5.62	955.91	1501.46
	34.000	300.00	0.00	0.00	748.60	6982.00	759.37	0.00	759.79	6.73	5.60	1753.06	2692.28
	34.000	300.00	0.00	0.00	748.60	7994.00	760.29	0.00	760.67	5.63	5.46	2198.34	3367.61
	34.000	300.00	0.00	0.00	748.60	10765.00	764.11	0.00	764.26	1.83	3.85	4509.35	7952.85
	33.000	300.00	0.00	0.00	749.30	4690.00	757.51	0.00	758.09	14.84	6.11	767.37	1217.49
	33.000	300.00	0.00	0.00	749.30	6982.00	759.59	0.00	760.30	12.88	6.78	1029.17	1945.80
	33.000	300.00	0.00	0.00	749.30	7994.00	760.45	0.00	761.22	12.26	7.02	1138.41	2282.97
	33.000	300.00	0.00	0.00	749.30	10765.00	764.10	0.00	764.80	7.67	6.73	1619.08	3886.34
	32.100	40.80	763.18	763.72	749.30	4690.00	757.62	0.00	758.18	13.97	6.00	781.94	1254.84
	32.100	40.80	763.18	763.72	749.30	6982.00	759.72	0.00	760.41	12.22	6.67	1046.38	1997.68
	32.100	40.80	763.18	763.72	749.30	7994.00	760.60	0.00	761.34	11.66	6.91	1156.51	2340.59
	32.100	40.80	763.18	763.72	749.30	10765.00	764.58	0.00	765.23	6.85	6.49	1658.07	4112.21
	32.000	300.00	0.00	0.00	749.80	4690.00	758.16	0.00	758.60	9.67	5.73	1162.98	1507.93
	32.000	300.00	0.00	0.00	749.80	6982.00	760.58	0.00	760.88	5.60	5.23	2124.16	2951.65
	32.000	300.00	0.00	0.00	749.80	7994.00	761.56	0.00	761.83	4.56	5.03	2570.16	3741.90
	32.000	300.00	0.00	0.00	749.80	10765.00	765.49	0.00	765.63	1.89	3.96	4399.69	7829.39
	31.000	2060.00	0.00	0.00	753.60	4690.00	760.23	0.00	760.38	7.49	3.18	1722.39	1713.69
	31.000	2060.00	0.00	0.00	753.60	6982.00	761.80	0.00	761.95	4.64	3.18	2708.92	3241.80
	31.000	2060.00	0.00	0.00	753.60	7994.00	762.56	0.00	762.69	3.73	3.12	3288.52	4138.26
	31.000	2060.00	0.00	0.00	753.60	10765.00	765.88	0.00	765.96	1.28	2.46	6287.80	9504.88
	30.100	1600.00	0.00	0.00	755.10	4400.00	761.55	0.00	761.96	11.82	5.35	964.10	1279.86
	30.100	1600.00	0.00	0.00	755.10	6550.00	762.70	0.00	763.23	12.56	6.25	1381.52	1848.24
	30.100	1600.00	0.00	0.00	755.10	7550.00	763.28	0.00	763.81	11.63	6.35	1699.67	2213.88
	30.100	1600.00	0.00	0.00	755.10	10100.00	766.12	0.00	766.36	4.29	4.81	3458.15	4874.27

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
30.000	100.00	0.00	0.00	755.10	4400.00	761.61	0.00	762.15	14.00	5.85	751.92	1175.82
30.000	100.00	0.00	0.00	755.10	6550.00	762.75	0.00	763.46	15.10	6.91	1138.87	1681.28
30.000	100.00	0.00	0.00	755.10	7550.00	763.31	0.00	764.03	14.37	7.08	1409.29	1991.74
30.000	100.00	0.00	0.00	755.10	10100.00	766.16	0.00	766.41	4.24	4.78	3474.87	4904.96
29.100	30.00	762.20	765.10	755.10	4400.00	761.55	0.00	762.33	29.96	7.07	621.91	805.87
29.100	30.00	762.20	765.10	755.10	6550.00	762.47	760.63	763.91	58.40	9.64	690.10	957.12
29.100	30.00	762.20	765.10	755.10	7550.00	762.91	761.12	764.60	70.51	10.50	790.72	849.12
29.100	30.00	762.20	765.10	755.10	10100.00	766.00	0.00	766.63	50.18	7.55	1758.85	1425.83
29.000	200.00	0.00	0.00	755.40	4400.00	762.54	0.00	762.87	7.66	4.62	1024.55	1589.27
29.000	200.00	0.00	0.00	755.40	6550.00	764.56	0.00	764.85	5.27	4.61	2021.07	2853.16
29.000	200.00	0.00	0.00	755.40	7550.00	765.42	0.00	765.68	4.36	4.48	2533.00	3617.29
29.000	200.00	0.00	0.00	755.40	10100.00	766.79	0.00	767.05	4.00	4.71	3352.46	5050.05
28.100	1940.00	0.00	0.00	756.50	4400.00	763.95	0.00	764.24	6.47	4.37	1120.01	1729.40
28.100	1940.00	0.00	0.00	756.50	6550.00	765.59	0.00	765.89	5.46	4.67	1984.46	2802.81
28.100	1940.00	0.00	0.00	756.50	7550.00	766.29	0.00	766.58	4.90	4.67	2400.98	3409.92
28.100	1940.00	0.00	0.00	756.50	10100.00	767.59	0.00	767.89	4.59	4.95	3173.02	4715.74
28.000	300.00	0.00	0.00	757.00	4400.00	764.17	0.00	765.12	27.64	7.84	561.42	836.95
28.000	300.00	0.00	0.00	757.00	6550.00	765.70	0.00	766.98	26.88	9.07	722.26	1263.35
28.000	300.00	0.00	0.00	757.00	7550.00	766.36	0.00	767.77	26.67	9.56	790.10	1462.08
28.000	300.00	0.00	0.00	757.00	10100.00	767.56	0.00	769.45	29.64	11.04	915.01	1855.02
27.100	51.00	776.50	773.25	757.00	4400.00	764.32	0.00	765.30	37.01	7.91	556.03	723.28
27.100	51.00	776.50	773.25	757.00	6550.00	765.85	0.00	767.25	40.46	9.49	690.06	1029.75
27.100	51.00	776.50	773.25	757.00	7550.00	766.49	0.00	768.08	41.62	10.12	746.41	1170.30
27.100	51.00	776.50	773.25	757.00	10100.00	767.69	0.00	769.87	48.57	11.86	851.34	1449.23
27.000	150.00	0.00	0.00	757.40	4400.00	765.01	0.00	765.77	15.53	7.17	696.99	1116.68
27.000	150.00	0.00	0.00	757.40	6550.00	766.89	0.00	767.85	14.74	8.18	954.15	1705.85
27.000	150.00	0.00	0.00	757.40	7550.00	767.73	0.00	768.75	14.15	8.50	1077.64	2007.43
27.000	150.00	0.00	0.00	757.40	10100.00	769.64	0.00	770.82	13.15	9.24	1369.70	2785.00

TEN YEAR FLOW

[redacted] PRINTOUT TABLE 150

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
50.000	4978.00	747.50	0.00	0.00	0.00	99.37	0.00
50.000	7411.00	747.50	0.00	0.00	0.00	99.37	0.00
50.000	8485.00	747.50	0.00	0.00	0.00	99.37	0.00
50.000	11427.00	747.80	.30	0.00	0.00	99.37	0.00
49.000	4978.00	747.88	0.00	.38	0.00	378.66	250.00
49.000	7411.00	748.33	.46	.83	0.00	379.98	250.00
49.000	8485.00	748.59	.26	1.09	0.00	380.73	250.00
49.000	11427.00	749.68	1.08	1.88	0.00	383.87	250.00
48.100	4978.00	747.91	0.00	.03	0.00	379.92	800.00
48.100	7411.00	748.40	.49	.06	0.00	381.32	800.00
48.100	8485.00	748.67	.27	.08	0.00	382.11	800.00
48.100	11427.00	749.78	1.11	.10	0.00	386.78	800.00
48.000	4978.00	747.89	0.00	-.02	0.00	201.87	200.00
48.000	7411.00	748.36	.47	-.04	0.00	204.13	200.00
48.000	8485.00	748.62	.26	-.05	0.00	205.41	200.00
48.000	11427.00	749.70	1.08	-.08	0.00	210.65	200.00
47.000	4978.00	747.91	0.00	.02	0.00	201.67	130.00
47.000	7411.00	748.40	.49	.04	0.00	203.81	130.00
47.000	8485.00	748.67	.27	.05	0.00	205.00	130.00
47.000	11427.00	749.77	1.10	.07	0.00	209.89	130.00
46.000	4978.00	748.05	0.00	.14	0.00	485.10	300.00
46.000	7411.00	748.68	.63	.28	0.00	488.08	300.00
46.000	8485.00	749.02	.34	.35	0.00	489.68	300.00
46.000	11427.00	750.28	1.26	.51	0.00	495.65	300.00
45.000	4978.00	748.14	0.00	.08	0.00	605.56	2940.00
45.000	7411.00	748.83	.69	.15	0.00	610.65	2940.00
45.000	8485.00	749.19	.36	.17	0.00	613.32	2940.00
45.000	11427.00	750.49	1.30	.21	0.00	660.94	2940.00
44.000	4690.00	748.18	0.00	.04	0.00	424.50	1300.00
44.000	6982.00	748.90	.72	.07	0.00	434.13	1300.00
44.000	7994.00	749.27	.37	.07	0.00	438.76	1300.00
44.000	10765.00	750.56	1.30	.08	0.00	460.90	1300.00
43.300	4690.00	748.17	0.00	-.00	0.00	196.21	200.00
43.300	6982.00	748.88	.70	-.02	0.00	200.85	200.00
43.300	7994.00	749.24	.36	-.02	0.00	203.27	200.00
43.300	10765.00	750.52	1.27	-.05	0.00	211.75	200.00
43.200	4690.00	748.18	0.00	.00	0.00	196.17	10.00
43.200	6982.00	748.88	.71	.00	0.00	200.86	10.00
43.200	7994.00	749.24	.36	.00	0.00	203.28	10.00
43.200	10765.00	750.52	1.28	.00	0.00	211.77	10.00
43.100	4690.00	748.30	0.00	.13	0.00	1093.00	200.00
43.100	6982.00	749.13	.83	.25	0.00	1135.86	200.00
43.100	7994.00	749.55	.42	.30	0.00	1157.62	200.00
43.100	10765.00	750.96	1.41	.44	0.00	1223.33	200.00

			DIFWSX	DIFKWS	TOPWID	XLCH
[illegible]	[illegible]	[illegible]	0.00	.01	0.00	1006.93	1340.00
[illegible]	[illegible]	[illegible]	.83	.02	0.00	1047.38	1340.00
[illegible]	7994.00	749.57	.42	.02	0.00	1070.48	1340.00
[illegible]	10765.00	750.98	1.41	.02	0.00	1143.70	1340.00
42.300	4690.00	748.31	0.00	-.00	0.00	650.76	300.00
42.300	6982.00	749.14	.83	-.00	0.00	653.64	300.00
42.300	7994.00	749.56	.42	-.01	0.00	655.07	300.00
42.300	10765.00	750.97	1.41	-.01	0.00	659.92	300.00
42.200	4690.00	748.32	0.00	.00	0.00	650.75	67.50
42.200	6982.00	749.15	.83	.00	0.00	653.61	67.50
42.200	7994.00	749.57	.42	.01	0.00	655.06	67.50
42.200	10765.00	750.98	1.41	.01	0.00	659.90	67.50
42.100	4690.00	748.36	0.00	.04	0.00	764.31	840.00
42.100	6982.00	749.21	.85	.06	0.00	781.96	840.00
42.100	7994.00	749.64	.43	.07	0.00	801.44	840.00
42.100	10765.00	751.05	1.41	.07	0.00	874.84	840.00
42.000	4690.00	748.27	0.00	-.09	0.00	107.00	100.00
42.000	6982.00	749.05	.77	-.17	0.00	107.00	100.00
42.000	7994.00	749.40	.39	-.20	0.00	107.00	100.00
42.000	10765.00	750.77	1.33	-.28	0.00	107.00	100.00
41.100	4690.00	748.29	0.00	.01	0.00	107.00	13.50
41.100	6982.00	749.06	.77	.01	0.00	107.00	13.50
41.100	7994.00	749.43	.38	-.00	0.00	107.00	13.50
41.100	10765.00	750.68	1.25	-.09	0.00	107.00	13.50
41.000	4690.00	749.04	0.00	.75	0.00	464.69	200.00
41.000	6982.00	750.64	1.60	1.58	0.00	783.67	200.00
41.000	7994.00	751.48	.84	2.05	0.00	803.46	200.00
41.000	10765.00	754.18	2.70	3.50	0.00	837.45	200.00
40.000	4690.00	749.80	0.00	.77	0.00	302.55	2300.00
40.000	6982.00	751.34	1.54	.70	0.00	349.14	2300.00
40.000	7994.00	752.07	.73	.59	0.00	404.69	2300.00
40.000	10765.00	754.47	2.40	.29	0.00	522.01	2300.00
39.000	4690.00	751.32	0.00	1.52	0.00	243.97	1800.00
39.000	6982.00	752.70	1.37	1.35	0.00	274.75	1800.00
39.000	7994.00	753.29	.60	1.22	0.00	285.71	1800.00
39.000	10765.00	755.22	1.93	.75	0.00	308.21	1800.00
38.100	4690.00	752.52	0.00	1.19	0.00	270.32	1300.00
38.100	6982.00	753.96	1.45	1.27	0.00	293.57	1300.00
38.100	7994.00	754.55	.59	1.26	0.00	300.41	1300.00
38.100	10765.00	756.26	1.71	1.04	0.00	320.33	1300.00
38.000	4690.00	752.52	0.00	.00	0.00	127.00	100.00
38.000	6982.00	753.93	1.41	-.04	0.00	127.00	100.00
38.000	7994.00	754.49	.57	-.06	0.00	127.00	100.00
38.000	10765.00	756.15	1.65	-.12	0.00	127.00	100.00

RR
BR G

		DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH

RR BR	H	37.100	4690.00	752.60	0.00	.08	0.00	127.00	28.20
		37.100	6982.00	754.28	1.68	.36	0.00	127.00	28.20
		37.100	7994.00	755.12	.84	.63	0.00	127.00	28.20
		37.100	10765.00	757.84	2.72	1.69	0.00	127.00	28.20
		37.000	4690.00	753.01	0.00	.41	0.00	251.80	300.00
		37.000	6982.00	754.81	1.80	.53	0.00	342.53	300.00
		37.000	7994.00	755.68	.87	.56	0.00	354.11	300.00
		37.000	10765.00	758.44	2.75	.60	0.00	384.37	300.00
	I	36.000	4690.00	755.58	0.00	2.57	0.00	253.87	2400.00
		36.000	6982.00	757.13	1.55	2.32	0.00	341.33	2400.00
		36.000	7994.00	757.79	.67	2.11	0.00	350.25	2400.00
		36.000	10765.00	759.87	2.08	1.44	0.00	377.88	2400.00
	J	35.000	4690.00	755.57	0.00	-.01	0.00	115.00	100.00
		35.000	6982.00	757.05	1.48	-.08	0.00	115.00	100.00
		35.000	7994.00	757.68	.63	-.11	0.00	115.00	100.00
		35.000	10765.00	759.69	2.01	-.18	0.00	115.00	100.00
*	K	34.100	4690.00	756.34	0.00	.77	0.00	115.00	28.80
*		34.100	6982.00	758.21	1.88	1.17	0.00	115.00	28.80
*		34.100	7994.00	758.96	.74	1.27	0.00	115.00	28.80
*		34.100	10765.00	762.82	3.86	3.13	0.00	115.00	28.80
	L	34.000	4690.00	757.17	0.00	.84	0.00	270.93	300.00
		34.000	6982.00	759.37	2.20	1.16	0.00	451.48	300.00
		34.000	7994.00	760.29	.92	1.33	0.00	526.02	300.00
		34.000	10765.00	764.11	3.82	1.29	0.00	627.20	300.00
	M	33.000	4690.00	757.51	0.00	.34	0.00	126.00	300.00
		33.000	6982.00	759.59	2.08	.21	0.00	126.00	300.00
		33.000	7994.00	760.45	.87	.16	0.00	126.00	300.00
		33.000	10765.00	764.10	3.64	-.01	0.00	173.21	300.00
	N	32.100	4690.00	757.62	0.00	.12	0.00	126.00	40.80
		32.100	6982.00	759.72	2.10	.14	0.00	126.00	40.80
		32.100	7994.00	760.60	.87	.14	0.00	126.00	40.80
		32.100	10765.00	764.58	3.98	.48	0.00	126.00	40.80
	O	32.000	4690.00	758.16	0.00	.54	0.00	327.24	300.00
		32.000	6982.00	760.58	2.41	.85	0.00	448.75	300.00
		32.000	7994.00	761.56	.99	.97	0.00	454.83	300.00
		32.000	10765.00	765.49	3.93	.91	0.00	478.94	300.00
		31.000	4690.00	760.23	0.00	2.07	0.00	575.46	2060.00
		31.000	6982.00	761.80	1.58	1.23	0.00	718.46	2060.00
		31.000	7994.00	762.56	.75	.99	0.00	820.02	2060.00
		31.000	10765.00	765.88	3.33	.39	0.00	936.86	2060.00
		30.100	4400.00	761.55	0.00	1.32	0.00	252.17	1600.00
		30.100	6550.00	762.70	1.15	.90	0.00	497.53	1600.00
		30.100	7550.00	763.28	.58	.72	0.00	605.84	1600.00
		30.100	10100.00	766.12	2.84	.23	0.00	624.50	1600.00

				WSP	DIF	D	S	WID	XLC
P	[illegible]	4400.00	761.[illegible]	0.00	.07	0.00	133.00	100.00
	[illegible]	6550.00	76[illegible]	1.14	.05	0.00	431.39	100.00
	[illegible]	7550.00	76[illegible]	.56	.03	0.00	531.00	100.00
	[illegible]	10100.00	766.16	2.85	.05	0.00	624.61	100.00
Q	29.100	4400.00	761.55	0.00	-.06	0.00	133.00	30.00
	29.100	6550.00	762.47	.91	-.29	0.00	379.45	30.00
	29.100	7550.00	762.91	.44	-.40	0.00	460.00	30.00
	29.100	10100.00	766.00	3.09	-.17	0.00	624.02	30.00
	29.000	4400.00	762.54	0.00	.99	0.00	285.31	200.00
	29.000	6550.00	764.56	2.01	2.09	0.00	588.99	200.00
	29.000	7550.00	765.42	.87	2.51	0.00	593.44	200.00
	29.000	10100.00	766.79	1.37	.80	0.00	600.84	200.00
	28.100	4400.00	763.95	0.00	1.40	0.00	355.87	1940.00
	28.100	6550.00	765.59	1.64	1.03	0.00	588.68	1940.00
	28.100	7550.00	766.29	.71	.87	0.00	592.29	1940.00
	28.100	10100.00	767.59	1.30	.80	0.00	598.94	1940.00
R	28.000	4400.00	764.17	0.00	.22	0.00	104.00	300.00
	28.000	6550.00	765.70	1.54	.12	0.00	104.00	300.00
	28.000	7550.00	766.36	.65	.06	0.00	104.00	300.00
	28.000	10100.00	767.56	1.20	-.04	0.00	104.00	300.00
S	27.100	4400.00	764.32	0.00	.16	0.00	104.00	51.00
	27.100	6550.00	765.85	1.52	.14	0.00	104.00	51.00
	27.100	7550.00	766.49	.64	.13	0.00	104.00	51.00
	27.100	10100.00	767.69	1.20	.13	0.00	104.00	51.00
	27.000	4400.00	765.01	0.00	.68	0.00	128.92	150.00
	27.000	6550.00	766.89	1.88	1.04	0.00	144.56	150.00
	27.000	7550.00	767.73	.84	1.24	0.00	149.44	150.00
	27.000	10100.00	769.64	1.91	1.95	0.00	156.02	150.00

SUMMARY OF ERRORS

CAUTION SECNO= 34.100 PROFILE= 1 HYDRAULIC JUMP D.S.
CAUTION SECNO= 34.100 PROFILE= 2 HYDRAULIC JUMP D.S.
CAUTION SECNO= 34.100 PROFILE= 3 HYDRAULIC JUMP D.S.
CAUTION SECNO= 34.100 PROFILE= 4 HYDRAULIC JUMP D.S.

[illegible] 100 YEAR FLOOD
[illegible] NO. 2

STATION	FLOODWAY WIDTH (FT)	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
50.000	159.	1093.	6.8	747.5	747.5	0.0
49.000	380.	3720.	2.0	748.4	747.9	.5
48.100	381.	3896.	1.9	748.4	747.9	.5
48.000	212.	1993.	3.7	748.4	747.9	.5
47.000	212.	1976.	3.8	748.4	747.9	.5
46.000	488.	4703.	1.5	748.7	748.1	.6
45.000	611.	5148.	1.4	748.8	748.1	.7
44.000	434.	3233.	2.2	748.9	748.2	.7
43.300	310.	2106.	3.3	748.9	748.2	.7
43.200	310.	2106.	3.3	748.9	748.2	.7
43.100	1136.	9403.	.7	749.1	748.3	.8
43.000	1047.	7567.	.9	749.1	748.3	.8
42.300	672.	4589.	1.5	749.1	748.3	.8
42.200	672.	4585.	1.5	749.1	748.3	.8
42.100	782.	4998.	1.4	749.3	748.4	.9
42.000	107.	890.	7.8	749.1	748.3	.8
41.100	107.	845.	8.3	749.1	748.3	.8
41.000	784.	2823.	2.5	750.6	749.0	1.6
40.000	349.	1736.	4.0	751.3	749.8	1.5
39.000	275.	1372.	5.1	752.7	751.3	1.4
38.100	294.	1734.	4.0	753.9	752.5	1.4
38.000	127.	999.	7.0	753.9	752.5	1.4
37.100	127.	1045.	6.7	754.3	752.6	1.7
37.000	343.	1625.	4.3	754.8	753.0	1.8
36.000	341.	1594.	4.4	757.1	755.6	1.5
35.000	115.	759.	9.2	757.1	755.6	1.5
34.100	115.	893.	7.8	758.2	756.3	1.9
34.000	451.	1753.	4.0	759.4	757.2	2.2
33.000	126.	1020.	6.8	759.6	757.5	2.1
32.100	126.	1046.	6.7	759.7	757.6	2.1
32.000	449.	2124.	5.3	760.6	758.2	2.4
31.000	718.	2709.	2.6	761.8	760.2	1.6
30.100	498.	1382.	4.7	762.7	761.5	1.2
30.000	431.	1139.	5.8	762.7	761.6	1.1
29.100	379.	698.	9.4	762.5	761.6	.9
29.000	589.	2021.	3.2	764.5	762.5	2.0
28.100	589.	1984.	3.3	765.5	763.9	1.6
28.000	104.	722.	9.1	765.7	764.2	1.5
27.100	104.	690.	9.5	765.8	764.3	1.5
27.000	145.	954.	6.9	766.9	765.0	1.9

TEN YEAR FLOW

	FLOODWAY WIDTH (FT)	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
[illegible]	159.	1093.	7.8	747.5	747.5	0.0
[illegible]	381.	3818.	2.2	748.6	747.9	.7
[illegible]	382.	4001.	2.1	748.7	747.9	.8
43,000	213.	2046.	4.1	748.6	747.9	.7
42,000	213.	2031.	4.2	748.7	747.9	.8
41,000	490.	4949.	1.7	749.1	748.1	1.0
40,000	613.	5370.	1.6	749.2	748.1	1.1
44,000	439.	3396.	2.4	749.3	748.2	1.1
43,300	311.	2179.	3.7	749.3	748.2	1.1
43,200	311.	2180.	3.7	749.3	748.2	1.1
43,100	1156.	9884.	.8	749.5	748.3	1.2
43,000	1070.	8013.	1.0	749.6	748.3	1.3
42,100	673.	4861.	1.6	749.5	748.3	1.2
42,200	673.	4859.	1.6	749.6	748.3	1.3
42,100	801.	5335.	1.5	749.7	748.4	1.3
42,000	107.	932.	8.6	749.5	748.3	1.2
41,100	107.	859.	9.3	749.4	748.3	1.1
41,000	805.	3490.	2.3	751.4	749.0	2.4
40,000	498.	2009.	4.0	752.1	749.8	2.3
39,100	290.	1540.	5.2	753.3	751.3	2.0
[illegible]	500.	1909.	4.2	754.5	752.5	2.0
38,[illegible]	127.	1071.	7.5	754.5	752.5	2.0
37,100	127.	1152.	6.9	755.1	752.6	2.5
37,000	354.	1929.	4.1	755.7	753.0	2.7
[illegible]	339.	1127.	4.4	757.8	755.6	2.2
[illegible]	115.	833.	9.6	757.7	755.6	2.1
[illegible]	115.	979.	8.2	758.9	756.3	2.6
33,000	525.	2198.	3.6	760.3	757.2	3.1
[illegible]	159.	1138.	7.0	760.4	757.5	2.9
[illegible]	157.	1157.	6.9	760.6	757.6	3.0
[illegible]	[illegible]	6578.	3.1	761.6	758.2	3.4
[illegible]	[illegible]	3269.	2.4	762.5	760.2	2.3
[illegible]	[illegible]	1701.	4.4	763.2	761.5	1.7
[illegible]	[illegible]	1459.	5.4	763.3	761.6	1.7
[illegible]	[illegible]	791.	9.5	763.0	761.6	1.4
[illegible]	[illegible]	[illegible]	3.0	765.4	762.5	2.9
[illegible]	[illegible]	[illegible]	3.1	766.2	763.9	2.3
[illegible]	[illegible]	[illegible]	9.6	766.4	764.2	2.2
[illegible]	[illegible]	[illegible]	10.1	766.5	764.3	2.2
[illegible]	[illegible]	[illegible]	7.0	767.7	765.0	2.7

[redacted] [redacted]

[illegible] INSURANCE ZONE DATA FOR [illegible] YEAR FLOW

FLOOD HAZARD FACTOR FOR ENTIRE REACH USING SECTIONS

SECTION	CUMULATIVE DISTANCE	ELEVATION DIFFERENCE BETWEEN BASE FLOOD AND		
		10.	2.	0.2
50.000	0.	0.00	0.00	.30
49.000	250.	-.72	-.26	1.08
48.100	1050.	-.76	-.27	1.11
48.000	1250.	-.73	-.26	1.08
47.000	1380.	-.76	-.27	1.10
46.000	1680.	-.97	-.34	1.26
45.000	4620.	-1.05	-.36	1.30
44.000	5920.	-1.09	-.37	1.30
43.300	6120.	-1.07	-.36	1.27
43.200	6130.	-1.07	-.36	1.28
43.100	6330.	-1.25	-.42	1.41
43.000	7670.	-1.25	-.42	1.41
42.300	7970.	-1.25	-.42	1.41
42.200	8038.	-1.25	-.42	1.41
42.100	8878.	-1.28	-.43	1.41
42.000	8978.	-1.16	-.39	1.33
41.100	8991.	-1.15	-.38	1.25
41.000	9191.	-2.45	-.84	2.70
40.000	11491.	-2.26	-.73	2.40
39.000	13291.	-1.97	-.60	1.93
38.100	14591.	-2.03	-.59	1.71
38.000	14691.	-1.97	-.57	1.65
37.100	14719.	-2.52	-.84	2.72
37.000	15019.	-2.67	-.87	2.75
36.000	17419.	-2.21	-.67	2.08
35.000	17519.	-2.11	-.63	2.01
34.100	17548.	-2.62	-.74	3.86
34.000	17848.	-3.12	-.92	3.82
33.000	18148.	-2.94	-.87	3.64
32.100	18189.	-2.97	-.87	3.98
32.000	18489.	-3.40	-.99	3.93
31.000	20549.	-2.33	-.75	3.33
30.100	22149.	-1.73	-.58	2.84
30.000	22249.	-1.70	-.56	2.85
29.100	22279.	-1.36	-.44	3.09
29.000	22479.	-2.60	-.87	1.37
28.100	24419.	-2.35	-.71	1.30
28.000	24719.	-2.19	-.65	1.20
27.100	24770.	-2.17	-.64	1.20
27.000	24920.	-2.72	-.84	1.91
WEIGHTED AVG FOR REACH		-1.91	-.61	2.06

FIF FOR THE REACH = 020 WITH 32.7% OF THE REACH WITHIN .5 FEET
ZONE FOR THE REACH = A 8

[illegible] FLOOD HAZARD FACTORS BY EVEN INCREMENTS

TOTAL LENGTH	AVG ELEVATION DATA TO	L.	DIFF.	WTD. AVG.	FHF	PERCENT WITHIN

						AVG.	FHF	PERCENT WITHIN
						SEC.		50.000
	1	124.	747.59	747.77	-.18	-.18	005	100.
	2	248.	747.78	748.31	-.53	-.35	005	100.
		250.				SEC.		49.000
	3	372.	747.88	748.59	-.71	-.47	005	100.
	4	496.	747.88	748.61	-.73	-.54	005	100.
	5	620.	747.89	748.62	-.73	-.58	005	100.
	6	744.	747.89	748.63	-.74	-.60	005	100.
	7	868.	747.90	748.65	-.75	-.62	005	100.
	8	992.	747.90	748.66	-.76	-.64	005	100.
		1050.				SEC.		48.100
	9	1116.	747.90	748.66	-.76	-.65	005	100.
	10	1240.	747.90	748.64	-.74	-.66	005	100.
		1250.				SEC.		48.000
	11	1364.	747.90	748.64	-.74	-.67	005	100.
		1380.				SEC.		47.000
	12	1488.	747.94	748.73	-.79	-.68	005	100.
	13	1612.	747.99	748.87	-.88	-.70	005	92.
		1680.				SEC.		46.000
	14	1736.	748.04	748.98	-.94	-.71	005	93.
	15	1860.	748.06	749.03	-.97	-.73	005	93.
	16	1984.	748.06	749.04	-.98	-.75	010	94.
	17	2108.	748.06	749.04	-.98	-.76	010	94.
	18	2232.	748.07	749.05	-.98	-.77	010	94.
	19	2356.	748.07	749.06	-.99	-.78	010	95.
	20	2480.	748.08	749.06	-.98	-.79	010	95.
	21	2604.	748.08	749.07	-.99	-.80	010	95.
	22	2728.	748.08	749.08	-1.00	-.81	010	95.
	23	2852.	748.09	749.09	-1.00	-.82	010	96.
	24	2976.	748.09	749.09	-1.00	-.83	010	96.
	25	3100.	748.09	749.10	-1.01	-.83	010	96.
	26	3224.	748.10	749.11	-1.01	-.84	010	96.
	27	3348.	748.10	749.11	-1.01	-.85	010	96.
	28	3472.	748.10	749.12	-1.02	-.85	010	96.
	29	3596.	748.11	749.13	-1.02	-.86	010	97.
	30	3720.	748.11	749.14	-1.03	-.86	010	97.
	31	3844.	748.11	749.14	-1.03	-.87	010	97.
	32	3968.	748.12	749.15	-1.03	-.88	010	97.
	33	4092.	748.12	749.16	-1.04	-.88	010	97.
	34	4216.	748.12	749.16	-1.04	-.88	010	97.
	35	4340.	748.13	749.17	-1.04	-.89	010	97.
	36	4464.	748.13	749.18	-1.05	-.89	010	97.
	37	4588.	748.13	749.19	-1.06	-.90	010	97.
		4620.				SEC.		45.000
	38	4712.	748.14	749.19	-1.05	-.90	010	97.
	39	4836.	748.14	749.20	-1.06	-.91	010	97.
	40	4960.	748.15	749.21	-1.06	-.91	010	98.
	41	5084.	748.15	749.21	-1.06	-.91	010	98.
	42	5208.	748.15	749.22	-1.07	-.92	010	98.
	43	5332.	748.16	749.23	-1.07	-.92	010	98.
	44	5456.	748.16	749.24	-1.08	-.92	010	98.
	45	5580.	748.17	749.24	-1.07	-.93	010	98.
	46	5704.	748.17	749.25	-1.08	-.93	010	98.
	47	5828.	748.17	749.26	-1.09	-.93	010	98.
		5920.				SEC.		44.000
	48	5952.	748.18	749.26	-1.08	-.94	010	98.
	49	6076.	748.18	749.25	-1.07	-.94	010	98.
		6120.				SEC.		43.300
		6130.				SEC.		43.200
	50	6200.	748.20	749.30	-1.10	-.94	010	98.
	51	6324.	748.26	749.45	-1.19	-.95	010	98.
		6330.				SEC.		43.100
	52	6448.	748.30	749.55	-1.25	-.95	010	98.

	[illegible]	[illegible]	[illegible]	[illegible]	-.96	010	98.
	[illegible]	[illegible]	[illegible]	[illegible]	-.97	010	98.
	6948.	748.31	749.28	-1.25	-.97	010	98.
	7068.	748.31	749.28	-1.25	-.98	010	98.
	7192.	748.31	749.56	-1.25	-.98	010	98.
	7316.	748.31	749.56	-1.25	-.99	010	98.
	7440.	748.31	749.57	-1.26	-.99	010	98.
	7564.	748.31	749.57	-1.26	-1.00	010	98.
	7570.				SEC.	43.000	
62	7688.	748.32	749.57	-1.25	-1.00	010	98.
63	7812.	748.32	749.57	-1.25	-1.01	010	98.
	7936.	748.32	749.57	-1.25	-1.01	010	98.
	7970.				SEC.	42.300	
	8039.				SEC.	42.200	
65	8060.	748.32	749.57	-1.25	-1.01	010	98.
66	8184.	748.32	749.58	-1.26	-1.02	010	98.
67	8308.	748.33	749.59	-1.26	-1.02	010	99.
68	8432.	748.34	749.60	-1.26	-1.02	010	99.
69	8556.	748.34	749.61	-1.27	-1.03	010	99.
70	8680.	748.35	749.62	-1.27	-1.03	010	99.
71	8804.	748.35	749.63	-1.28	-1.03	010	99.
	8878.				SEC.	42.100	
72	8928.	748.34	749.59	-1.25	-1.04	010	97.
	8978.				SEC.	42.000	
	8991.				SEC.	41.100	
73	9052.	748.42	749.80	-1.38	-1.04	010	97.
74	9176.	748.75	750.69	-1.94	-1.05	010	96.
	9191.				SEC.	41.000	
75	9300.	749.03	751.42	-2.39	-1.07	010	95.
76	9424.	749.09	751.53	-2.44	-1.09	010	93.
77	9548.	749.14	751.56	-2.42	-1.11	010	92.
78	9672.	749.18	751.59	-2.41	-1.12	010	91.
79	9796.	749.22	751.62	-2.40	-1.14	010	90.
80	9920.	749.26	751.65	-2.39	-1.16	010	89.
81	10044.	749.30	751.68	-2.38	-1.17	010	88.
82	10168.	749.34	751.72	-2.38	-1.19	010	87.
83	10292.	749.38	751.75	-2.37	-1.20	010	86.
84	10416.	749.43	751.78	-2.35	-1.21	010	85.
85	10540.	749.47	751.81	-2.34	-1.23	010	82.
86	10664.	749.51	751.84	-2.33	-1.24	010	79.
87	10788.	749.55	751.87	-2.32	-1.25	015	75.
88	10912.	749.59	751.90	-2.31	-1.26	015	73.
89	11036.	749.63	751.94	-2.31	-1.28	015	70.
90	11160.	749.67	751.97	-2.30	-1.29	015	69.
91	11284.	749.71	752.00	-2.29	-1.30	015	67.
92	11408.	749.76	752.03	-2.27	-1.31	015	66.
	11491.				SEC.	40.000	
93	11532.	749.81	752.07	-2.26	-1.32	015	66.
94	11656.	749.89	752.14	-2.25	-1.33	015	65.
95	11780.	750.00	752.22	-2.22	-1.34	015	64.
96	11904.	750.10	752.31	-2.21	-1.35	015	64.
97	12028.	750.20	752.39	-2.19	-1.36	015	63.
98	12152.	750.31	752.48	-2.17	-1.36	015	62.
99	12276.	750.41	752.56	-2.15	-1.37	015	62.
100	12400.	750.52	752.64	-2.12	-1.38	015	61.
101	12524.	750.62	752.73	-2.11	-1.39	015	59.
102	12648.	750.73	752.81	-2.08	-1.39	015	59.
103	12772.	750.83	752.90	-2.07	-1.40	015	58.
	12896.	750.94	752.98	-2.04	-1.41	015	58.
	13020.	751.04	753.07	-2.03	-1.41	015	57.
	13144.	751.15	753.15	-2.00	-1.42	015	57.
	13268.	751.25	753.23	-1.98	-1.42	015	56.
	13291				SEC.	39.000	
	13392.	751.36	753.33	-1.97	-1.43	015	56.
	13516.	751.47	753.45	-1.98	-1.43	015	55.
	13640.	751.58	753.57	-1.99	-1.44	015	55.
	13764.	751.70	753.69	-1.99	-1.44	015	55.
	13888.	751.81	753.81	-2.00	-1.45	015	54.
	14012.	751.93	753.93	-2.00	-1.45	015	53.
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

				-1.44		015		55.
				-1.44		015		55.
		75		-1.45		015		54.
11	14012.	751.9	753.95	-2.00		-1.45	015	53.
110	14136.	752.04	754.05	-2.01		-1.46	015	53.
115	14260.	752.15	754.17	-2.02		-1.46	015	52.
116	14384.	752.27	754.29	-2.02		-1.47	015	53.
117	14508.	752.38	754.41	-2.03		-1.47	015	52.
	14591.					SEC.	38.100	
118	14632.	752.48	754.50	-2.02		-1.48	015	53.
	14691.					SEC.	38,000	
	14719.					SEC.	37.100	
119	14756.	752.58	754.86	-2.28		-1.48	015	52.
120	14880.	752.73	755.31	-2.58		-1.49	015	50.
121	15004.	752.90	755.54	-2.64		-1.50	015	50.
	15019.					SEC.	37.000	
122	15128.	753.06	755.72	-2.66		-1.51	015	48.
123	15252.	753.19	755.83	-2.64		-1.52	015	48.
124	15376.	753.33	755.94	-2.61		-1.53	015	48.
125	15500.	753.46	756.05	-2.59		-1.54	015	46.
126	15624.	753.59	756.16	-2.57		-1.55	015	43.
127	15748.	753.72	756.27	-2.55		-1.55	015	43.
128	15872.	753.86	756.38	-2.52		-1.56	015	41.
129	15996.	753.99	756.49	-2.50		-1.57	015	38.
130	16120.	754.12	756.60	-2.48		-1.58	015	35.
131	16244.	754.26	756.71	-2.45		-1.58	015	35.
132	16368.	754.39	756.81	-2.42		-1.59	015	33.
133	16492.	754.52	756.92	-2.40		-1.60	015	32.
134	16616.	754.65	757.03	-2.38		-1.60	015	31.
135	16740.	754.79	757.14	-2.35		-1.61	015	31.
136	16864.	754.92	757.25	-2.33		-1.61	015	31.
137	16988.	755.05	757.36	-2.31		-1.62	015	31.
138	17112.	755.19	757.47	-2.28		-1.62	015	31.
139	17236.	755.32	757.58	-2.26		-1.63	015	31.
140	17360.	755.45	757.69	-2.24		-1.63	015	31.
	17419.					SEC.	36.000	
141	17484.	755.55	757.73	-2.18		-1.64	015	30.
	17519.					SEC.	35.000	
	17548.					SEC.	34.100	
142	17608.	756.04	758.47	-2.43		-1.64	015	30.
143	17732.	756.68	759.50	-2.82		-1.65	015	31.
	17848.					SEC.	34.000	
144	17856.	757.01	760.03	-3.02		-1.66	015	31.
145	17980.	757.25	760.33	-3.08		-1.67	015	31.
146	18104.	757.39	760.40	-3.01		-1.68	015	32.
	18148.					SEC.	33.000	
	18189.					SEC.	32.100	
147	18228.	757.58	760.58	-3.00		-1.69	015	32.
148	18352.	757.81	760.92	-3.11		-1.70	015	31.
149	18476.	758.03	761.32	-3.29		-1.71	015	32.
	18489.					SEC.	32.000	
150	18600.	758.21	761.57	-3.36		-1.72	015	32.
151	18724.	758.34	761.65	-3.31		-1.73	015	32.
152	18848.	758.46	761.71	-3.25		-1.74	015	32.
153	18972.	758.59	761.77	-3.18		-1.75	020	31.
154	19096.	758.71	761.83	-3.12		-1.76	020	25.
155	19220.	758.83	761.89	-3.06		-1.77	020	23.
156	19344.	758.96	761.95	-2.99		-1.77	020	22.
157	19468.	759.08	762.01	-2.93		-1.78	020	22.
158	19592.	759.21	762.06	-2.85		-1.79	020	22.
159	19716.	759.33	762.12	-2.79		-1.79	020	22.
160	19840.	759.46	762.18	-2.72		-1.80	020	23.
161	19964.	759.58	762.24	-2.66		-1.80	020	22.
162	20088.	759.70	762.30	-2.60		-1.81	020	24.
163	20212.	759.83	762.36	-2.53		-1.81	020	24.
164	20336.	759.95	762.42	-2.47		-1.82	020	24.
165	20460.	760.08	762.48	-2.40		-1.82	020	24.

						SEC.	31.000	
					-1.82	020		24.
					-1.83	020		25.
		760.41			-1.83	020		26.
		760.51	762.61	-2.10	-1.83	020		27.
		760.62	762.77	-2.15	-1.83	020		27.
		760.73	762.87	-2.14	-1.84	020		29.
		760.83	762.88	-2.06	-1.84	020		29.
		760.92	762.94	-2.02	-1.84	020		29.
		761.02	762.99	-1.97	-1.84	020		30.
		761.13	763.05	-1.92	-1.84	020		30.
		761.23	763.10	-1.87	-1.84	020		31.
		761.33	763.16	-1.83	-1.84	020		31.
		761.43	763.22	-1.79	-1.84	020		31.
						SEC.	30.100	
179	22196.	761.53	763.27	-1.74	-1.84	020		32.
	22249.					SEC.	30.000	
	22279.					SEC.	29.100	
180	22320.	761.67	763.36	-1.69	-1.84	020		32.
181	22444.	762.06	764.21	-2.15	-1.84	020		33.
	22479.					SEC.	29.000	
182	22568.	762.49	765.22	-2.73	-1.84	020		32.
183	22692.	762.65	765.49	-2.84	-1.85	020		33.
184	22816.	762.74	765.55	-2.81	-1.85	020		33.
185	22940.	762.83	765.60	-2.77	-1.86	020		33.
186	23064.	762.92	765.66	-2.74	-1.86	020		33.
187	23188.	763.01	765.71	-2.70	-1.87	020		33.
188	23312.	763.10	765.77	-2.67	-1.87	020		33.
189	23436.	763.19	765.83	-2.64	-1.88	020		34.
190	23560.	763.28	765.88	-2.60	-1.88	020		34.
191	23684.	763.37	765.94	-2.57	-1.88	020		34.
192	23808.	763.46	765.99	-2.53	-1.89	020		34.
193	23932.	763.55	766.05	-2.50	-1.89	020		34.
194	24056.	763.64	766.10	-2.46	-1.89	020		34.
195	24180.	763.73	766.16	-2.43	-1.90	020		35.
196	24304.	763.82	766.22	-2.40	-1.90	020		36.
	24419.					SEC.	28.100	
197	24428.	763.91	766.27	-2.36	-1.90	020		36.
198	24552.	764.00	766.31	-2.31	-1.90	020		36.
199	24676.	764.09	766.33	-2.24	-1.91	020		37.
	24719.					SEC.	28.000	
	24770.					SEC.	27.100	
200	24800.	764.30	766.54	-2.24	-1.91	020		38.
	24920.					SEC.	27.000	

THIS REACH CAN BE SUBDIVIDED BY INC NO. TO MEET FIA REQUIREMENTS
INPUT 20N WHERE N IS THE NUMBER OF REACHES AND THEN INPUT THE END
OF EACH REACH BY INC NO. FOR EXAMPLE 202 85 200
A NEGATIVE INC NO. WILL SUPPRESS INTERMEDIATE INC OUTPUT.

50,51,52,53

CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

	CUSEL	DIFKS	EG	TOPWID	QLOB	OCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
26.000	770.00	0.00	774.05	290.66	.01	8363.97	.02	0.00	0.00	212.00	500.00	0.00
[illegible]	770.00	0.00	774.12	290.66	.02	6496.95	.03	0.00	0.00	212.00	500.00	0.00
[illegible]	[illegible]	0.00	774.15	290.66	.02	7438.94	.04	0.00	0.00	212.00	500.00	0.00
[illegible]	[illegible]	0.00	775.03	297.76	.82	10015.85	1.33	0.00	0.00	212.00	500.00	0.00
25.000	770.05	0.00	774.08	404.24	0.00	8364.00	0.00	0.00	0.00	100.00	548.00	0.00
25.000	770.13	0.00	774.18	404.65	0.00	6497.00	0.00	0.00	0.00	100.00	548.00	0.00
[illegible]	[illegible]	0.00	774.28	404.89	0.00	7439.00	0.00	0.00	0.00	100.00	548.00	0.00
[illegible]	[illegible]	0.00	775.16	410.44	0.00	10018.00	0.00	0.00	0.00	100.00	548.00	0.00
23.100	770.06	0.00	774.09	404.28	0.00	8364.00	0.00	0.00	0.00	100.00	548.00	0.00
24.100	770.14	0.00	774.20	404.76	0.00	6497.00	0.00	0.00	0.00	100.00	548.00	0.00
24.100	770.19	0.00	774.26	405.04	0.00	7439.00	0.00	0.00	0.00	100.00	548.00	0.00
[illegible]	[illegible]	0.00	775.19	410.66	0.00	10018.00	0.00	0.00	0.00	100.00	548.00	0.00
[illegible]	770.05	0.00	774.10	561.15	.45	8363.53	.01	0.00	0.00	450.00	990.00	0.00
20.000	770.18	0.00	774.32	564.78	1.01	6495.96	.03	0.00	0.00	450.00	990.00	0.00
21.000	770.24	0.00	774.39	567.17	1.46	7437.50	.05	0.00	0.00	450.00	990.00	0.00
24.000	775.15	0.00	775.23	598.63	15.09	10002.45	.46	0.00	0.00	450.00	990.00	0.00
.000	770.1[illegible]	0.00	774.18	431.86	0.00	8363.96	.04	0.00	0.00	300.00	731.00	0.00
0.0	770.[illegible]	0.00	774.39	432.46	0.00	6496.87	.13	0.00	0.00	300.00	731.00	0.00
[illegible].000	770.4[illegible]	0.00	774.51	432.75	0.00	7438.81	.19	0.00	0.00	300.00	731.00	0.00
23.000	775.39	0.00	775.50	435.93	0.00	10016.35	1.65	0.00	0.00	300.00	731.00	0.00
[illegible]	[illegible]	0.00	774.45	409.21	.09	8363.19	.74	0.00	0.00	247.00	650.00	0.00
[illegible]	[illegible]	0.00	774.92	412.16	.40	6494.35	2.25	0.00	0.00	247.00	650.00	0.00
[illegible]	[illegible]	0.00	775.15	413.65	.71	7434.87	3.42	0.00	0.00	247.00	650.00	0.00
[illegible].000	[illegible]	0.00	776.24	421.32	5.90	10001.44	12.67	0.00	0.00	247.00	650.00	0.00
[illegible].000	[illegible]	0.00	774.52	288.88	0.00	8364.00	0.00	0.00	0.00	100.00	598.00	0.00
[illegible]	[illegible]	0.00	775.04	297.57	0.00	6497.00	0.00	0.00	0.00	100.00	598.00	0.00
[illegible]	[illegible]	0.00	775.30	301.73	0.00	7439.00	0.00	0.00	0.00	100.00	598.00	0.00
[illegible]	[illegible]	0.00	776.41	319.37	0.00	10018.00	0.00	0.00	0.00	100.00	598.00	0.00
[illegible].[illegible]	[illegible].41	0.00	774.55	289.35	0.00	8364.00	0.00	0.00	0.00	100.00	598.00	0.00
[illegible].000	[illegible].[illegible]	0.00	775.10	298.67	0.00	6497.00	0.00	0.00	0.00	100.00	[illegible].00	0.00
[illegible]	[illegible]	[illegible].00	[illegible].37	303.55	0.00	7439.00	0.00	0.00	0.00	100.00	[illegible]	0.00
[illegible]	[illegible]	0.00	[illegible].51	321.11	0.00	10018.00	0.00	0.00	0.00	100.00	[illegible]	0.00

[illegible] TOPWID QLOB OCH QROB PERENC STENCL [illegible]

		0.00	778.59	290.18	0.00	4364.00	0.00	0.00	0.00	100.00	[illegible]	[illegible]	
		0.00	[illegible]	[illegible]	0.00	6497.00	0.00	0.00	0.00	[illegible]	[illegible]	[illegible]	
		0.00	[illegible]	[illegible]	0.00	7439.00	0.00	0.00	0.00	100.00	[illegible]	[illegible]	
		0.00	778.60	322.69	0.00	10018.00	0.00	0.00	0.00	100.00	[illegible]	[illegible]	
[illegible]	[illegible]	0.00	775.94	100.46	0.00	4364.00	0.00	0.00	0.00	100.00	217.00	0.00	
[illegible]	[illegible]	0.00	776.04	101.88	0.00	6497.00	0.00	0.00	0.00	100.00	217.00	0.00	
	[illegible]	0.00	776.53	102.58	0.00	7439.00	0.00	0.00	0.00	100.00	217.00	0.00	
	[illegible]	0.00	778.11	105.76	0.00	10018.00	0.00	0.00	0.00	100.00	217.00	0.00	
[illegible]	778.64	0.00	775.19	101.03	0.00	4364.00	0.00	0.00	0.00	100.00	217.00	0.00	
[illegible]	775.41	0.00	776.40	103.48	0.00	6497.00	0.00	0.00	0.00	100.00	217.00	0.00	
[illegible]	775.83	0.00	777.00	104.81	0.00	7439.00	0.00	0.00	0.00	100.00	217.00	0.00	
[illegible]	[illegible]	0.00	778.81	109.47	0.00	10018.00	0.00	0.00	0.00	100.00	217.00	0.00	
[illegible]	[illegible]	0.00	775.50	150.00	0.00	4364.00	0.00	150.00	400.00	400.00	682.00	550.00	
[illegible]	776.67	0.00	776.95	150.00	0.00	6497.00	0.00	150.00	400.00	400.00	682.00	550.00	
[illegible]	777.31	0.00	777.64	150.00	0.00	7439.00	0.00	150.00	400.00	400.00	682.00	550.00	
[illegible]	779.19	0.00	779.61	150.00	0.00	10018.00	0.00	150.00	400.00	400.00	682.00	550.00	
[illegible]	[illegible]	0.00	775.72	113.00	0.00	4364.00	0.00	0.00	0.00	100.00	213.00	0.00	
[illegible]	[illegible]	0.00	777.29	113.00	0.00	6497.00	0.00	0.00	0.00	100.00	213.00	0.00	
[illegible]	[illegible]	0.00	778.02	113.00	0.00	7439.00	0.00	0.00	0.00	100.00	213.00	0.00	
[illegible]	779.20	0.00	780.07	113.00	0.00	10018.00	0.00	0.00	0.00	100.00	213.00	0.00	
[illegible]	775.82	0.00	775.78	113.00	0.00	4364.00	0.00	0.00	0.00	100.00	213.00	0.00	
[illegible]	776.82	0.00	777.40	113.00	0.00	6497.00	0.00	0.00	0.00	100.00	213.00	0.00	
[illegible]	777.49	0.00	778.15	113.00	0.00	7439.00	0.00	0.00	0.00	100.00	213.00	0.00	
[illegible]	779.40	0.00	780.24	113.00	0.00	10018.00	0.00	0.00	0.00	100.00	213.00	0.00	
[illegible]	775.80	0.00	775.86	269.51	1.77	4361.58	.65	0.00	0.00	634.00	894.00	0.00	
[illegible]	[illegible]	0.00	777.51	275.85	8.15	6485.84	3.00	0.00	0.00	634.00	894.00	0.00	
[illegible]	778.16	0.00	778.27	278.88	13.22	7420.91	4.87	0.00	0.00	634.00	894.00	0.00	
[illegible]	[illegible]	0.00	780.39	305.88	35.55	9967.29	15.17	0.00	0.00	634.00	894.00	0.00	
[illegible]	776.01	0.00	776.12	492.13	282.40	4078.52	3.08	0.00	0.00	1200.00	1400.00	0.00	
[illegible]	777.66	0.00	777.78	591.15	975.48	5506.90	14.62	0.00	0.00	1200.00	1400.00	0.00	
[illegible]	[illegible]	0.00	778.53	656.85	1385.17	6030.75	23.08	0.00	0.00	1200.00	1400.00	0.00	
[illegible]	780.51	0.00	780.61	844.08	2814.15	7147.24	56.61	0.00	0.00	1200.00	1400.00	0.00	
[illegible]	776.30	0.00	776.34	313.01	8.00	4333.72	22.28	0.00	0.00	208.00	429.00	0.00	
[illegible]	777.92	0.00	778.11	388.00	32.16	6356.93	107.91	0.00	0.00	208.00	429.00	0.00	
[illegible]	778.69	0.00	778.85	422.46	49.58	7203.60	185.82	0.00	0.00	208.00	429.00	0.00	
[illegible]	[illegible]	0.00	780.88	518.03	122.10	9397.33	498.57	0.00	0.00	208.00	429.00	0.00	
[illegible]	[illegible]	0.00	777.22	173.00	63.83	4255.99	84.18	173.00	300.00	320.00	851.00	873.00	
[illegible]	[illegible]	0.00	778.93	173.00	169.70	6211.93	115.38	173.00	300.00	320.00	851.00	873.00	
[illegible]	[illegible]	0.00	779.65	173.00	222.37	7064.76	151.87	173.00	300.00	320.00	851.00	873.00	
[illegible]	[illegible]	0.00	781.62	173.00	375.83	9379.09	263.08	173.00	300.00	320.00	851.00	873.00	
[illegible]	[illegible]	0.00	777.34	123.00	0.00	4364.00	0.00	0.00	0.00	100.00	[illegible]	0.00	
[illegible]	[illegible]	0.00	779.09	123.00	0.00	6497.00	0.00	0.00	0.00	100.00	[illegible]	0.00	
[illegible]	[illegible]	0.00	779.83	123.00	0.00	7439.00	0.00	0.00	0.00	100.00	[illegible]	0.00	
[illegible]	[illegible]	0.00	781.84	123.00	0.00	10018.00	0.00	0.00	0.00	100.00	[illegible]	[illegible]	

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]

	0.00	0.00	0.00	761.50	8364.00	774.00	0.00	774.05	.83	1.83	2304.30	[illegible]
[illegible]	0.00	0.00	0.00	761.50	6497.00	774.00	0.00	774.12	1.83	2.76	[illegible]	[illegible]
	.0	0.00	0.00	761.50	7439.00	774.00	0.00	774.15	2.41	3.13	[illegible]	[illegible]
		0.00	0.00	761.50	10018.00	774.80	0.00	775.03	3.21	3.93	[illegible]	[illegible]
35,000	95.00	0.00	0.00	761.30	8364.00	774.05	0.00	774.08	.51	1.36	3208.09	6132.13
25,000	95.00	0.00	0.00	761.30	6497.00	774.12	0.00	774.18	1.09	2.01	3234.78	6216.61
25,000	95.00	0.00	0.00	761.30	7439.00	774.16	0.00	774.24	1.41	2.29	3250.30	6267.87
	.00	0.00	0.00	761.30	10018.00	775.04	0.00	775.16	1.84	2.76	[illegible]	7342.13
[illegible]	10.00	802.40	793.98	761.30	8364.00	774.06	0.00	774.09	.50	1.36	3211.15	6141.51
24,100	10.00	802.40	793.98	761.30	6497.00	774.14	0.00	774.20	1.08	2.00	3241.91	6238.00
24,100	10.00	802.40	793.98	761.30	7439.00	774.18	0.00	774.26	1.40	2.28	3259.67	6292.48
24,100	10.00	802.40	793.98	761.30	10018.00	775.07	0.00	775.19	1.81	2.76	3624.08	7439.52
[illegible]	200.00	0.00	0.00	762.20	8364.00	774.08	0.00	774.10	.37	1.12	3904.20	7191.92
[illegible]	200.00	0.00	0.00	762.20	6497.00	774.18	0.00	774.22	.78	1.60	3958.75	7353.95
24,000	200.00	0.00	0.00	762.20	7439.00	774.23	0.00	774.29	.99	1.87	3995.79	7464.23
24,000	200.00	0.00	0.00	762.20	10018.00	775.15	0.00	775.23	1.22	2.23	8530.80	9004.27
[illegible]	1870.00	0.00	0.00	763.90	8364.00	774.15	0.00	774.18	.51	1.35	3227.50	6110.10
[illegible]	1870.00	0.00	0.00	763.90	6497.00	774.33	0.00	774.39	1.04	1.97	3305.75	6356.04
[illegible]	1870.00	0.00	0.00	763.90	7439.00	774.43	0.00	774.51	1.32	2.23	3344.04	6477.70
24,000	1870.00	0.00	0.00	763.90	10018.00	775.39	0.00	775.50	1.65	2.67	3760.13	7052.26
23,000	3000.00	0.00	0.00	765.00	8364.00	774.39	0.00	774.45	1.81	2.03	2157.07	3240.73
[illegible]	3000.00	0.00	0.00	765.00	6497.00	774.79	0.00	774.92	3.15	2.80	2322.99	3659.[illegible]
[illegible]	3000.00	0.00	0.00	765.00	7439.00	775.00	0.00	775.15	3.68	3.10	2407.46	3888.[illegible]
[illegible]	3000.00	0.00	0.00	765.00	10018.00	776.05	0.00	776.28	3.87	3.50	2845.55	5091.[illegible]
21,000	250.00	0.00	0.00	765.20	8364.00	774.41	0.00	774.52	2.86	2.66	1643.67	2591.06
21,000	250.00	0.00	0.00	765.20	6497.00	774.83	0.00	775.00	5.18	3.68	1766.83	2858.56
1,000	250.00	0.00	0.00	765.20	7439.00	775.04	0.00	775.30	6.19	4.07	1827.04	2990.70
1,000	250.00	0.00	0.00	765.20	10018.00	776.08	0.00	776.41	7.05	4.66	2149.02	3773.[illegible]
[illegible]	91.00	807.10	802.50	765.20	8364.00	774.48	0.00	774.55	2.83	2.64	1650.32	2595.[illegible]
20,200	91.00	807.10	802.50	765.20	6497.00	774.89	0.00	775.10	5.05	3.64	1782.69	2890.29
20,200	91.00	807.10	802.50	765.20	7439.00	775.12	0.00	775.37	5.97	4.02	1850.66	3044.67
1,200	91.00	807.10	802.50	765.20	10018.00	776.18	0.00	776.51	6.74	4.59	2163.23	3860.31
[illegible]	[illegible]	0.00	0.00	765.20	8364.00	774.48	0.00	774.59	2.77	2.63	[illegible]	2620.[illegible]
0,100	140.00	0.00	0.00	765.20	6497.00	774.97	0.00	775.17	4.89	3.60	1808.14	2938.76
[illegible],100	140.00	0.00	0.00	765.20	7439.00	775.21	0.00	775.45	5.75	3.96	1876.58	3107.47
20,100	140.00	0.00	0.00	765.20	10018.00	776.28	0.00	776.60	6.47	4.52	2218.28	3938.90
[illegible]	[illegible]	[illegible]	0.00	764.40	8364.00	774.46	0.00	775.00	11.83	6.11	710.71	[illegible]
[illegible]	[illegible]	[illegible]	0.00	764.40	6497.00	774.91	0.00	776.04	21.05	8.[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	0.0	0.00	764.40	7439.00	775.12	0.00	776.55	26.[illegible]	9.[illegible]	[illegible]	[illegible]
[illegible]	1 0.	0.00	0.00	764.40	10018.00	776.13	0.00	778.11	32.95	11.30	[illegible]	[illegible]
		[illegible]	764.40	8364.00	774.64	0.00	775.10	10.9[illegible]	[illegible]			
		[illegible]	764.40	6497.00	775.41	0.00	776.00	17.03	[illegible]			
		[illegible]	764.40	7439.00	775.83	0.00	777.00	22.[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]	764.40	10018.00	777.29	0.00	778.81	32.57	[illegible]	111		

					0.00	764.70	8364.00	775.35	0.00	775.50	2.60	[illegible]	[illegible]	[illegible]	[illegible]
					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
					[illegible]	763.70	10018.00	779.18	0.00	779.61	8.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		[illegible]	0.00	0.00	0.00	763.70	8364.00	775.35	0.00	775.72	6.70	4.83	903.50	1696.41	
		[illegible]	0.00	0.00	0.00	763.70	6497.00	776.70	0.00	777.29	9.11	6.16	1055.17	2151.15	
			0.00	0.00	0.00	763.70	7439.00	777.34	0.00	778.02	9.68	6.57	1148.66	[illegible]	
			[illegible]	0.00	0.00	763.70	10018.00	779.20	0.00	780.07	10.36	7.03	1337.65	511.[illegible]	
	.100	250.00	790.64	781.40	763.70	8364.00	775.82	0.00	775.78	6.52	4.79	911.20	1709.20		
	16.100	250.00	790.64	781.40	763.70	6497.00	776.82	0.00	777.40	8.73	6.07	1069.55	2199.31		
	17.100	250.00	790.64	781.40	763.70	7439.00	777.49	0.00	778.15	9.24	6.50	1145.10	2407.04		
	17.100	250.00	790.64	781.40	763.70	10018.00	779.40	0.00	780.24	9.81	7.36	1360.42	3197.93		
	17.000	250.00	0.00	0.00	761.30	8364.00	775.80	0.00	775.86	.90	1.96	2240.99	4606.77		
	17.000	250.00	0.00	0.00	761.30	6497.00	777.41	0.00	777.51	1.12	2.45	2691.44	6149.30		
	17.000	250.00	0.00	0.00	761.30	7439.00	778.16	0.00	778.27	1.15	2.61	2888.85	6924.30		
	17.000	250.00	0.00	0.00	761.30	10018.00	780.24	0.00	780.38	1.17	2.94	3487.69	9280.27		
	[illegible]	1000.00	0.00	0.00	767.40	8364.00	776.01	0.00	776.12	2.03	2.70	1935.99	3064.22		
	16.000	1000.00	0.00	0.00	767.40	6497.00	777.66	0.00	777.78	1.92	2.99	2807.18	4694.48		
	16.000	1000.00	0.00	0.00	767.40	7439.00	778.41	0.00	778.53	1.77	3.03	3274.68	5591.85		
	16.000	1000.00	0.00	0.00	767.40	10018.00	780.51	0.00	780.61	1.31	2.96	4847.79	8739.03		
	[illegible]	1500.00	0.00	0.00	767.50	8364.00	776.30	0.00	776.44	2.94	2.98	1552.35	2547.27		
	[illegible]	[illegible]	0.00	0.00	767.50	6497.00	777.92	0.00	778.11	3.04	3.51	2119.37	3728.75		
	[illegible]	1500.00	0.00	0.00	767.50	7439.00	778.64	0.00	778.85	2.94	3.65	2411.63	4335.51		
	[illegible]	1500.00	0.00	0.00	767.50	10018.00	780.66	0.00	780.88	2.54	3.89	3360.97	6285.13		
	[illegible]	1400.00	0.00	0.00	769.30	8364.00	776.80	0.00	777.22	9.96	5.25	890.91	1382.91		
	[illegible]	1400.00	0.00	0.00	769.30	6497.00	778.37	0.00	778.93	9.98	6.11	1162.85	2057.01		
	[illegible]	1400.00	0.00	0.00	769.30	7439.00	779.05	0.00	779.65	9.76	6.39	1280.01	2380.84		
	[illegible]	1400.00	0.00	0.00	769.30	10018.00	780.92	0.00	781.62	8.80	6.94	1604.96	3376.13		
	13.000	100.00	0.00	0.00	768.60	8364.00	776.88	0.00	777.34	10.92	5.43	804.02	1320.32		
	13.000	100.00	0.00	0.00	768.60	6497.00	778.43	0.00	779.09	12.27	6.53	994.97	1854.59		
	[illegible]	100.00	0.00	0.00	768.60	7439.00	779.09	0.00	779.83	12.57	6.92	1075.47	2097.96		
	[illegible]	100.00	0.00	0.00	768.60	10018.00	780.91	0.00	781.84	12.55	7.71	1299.08	2827.46		
	[illegible]	28.00	790.50	778.78	768.60	8364.00	776.96	0.00	777.40	10.54	5.37	813.06	1344.16		
	12.100	28.00	790.50	778.78	768.60	6497.00	778.79	0.00	779.40	10.68	6.25	1039.55	1988.10		
	12.100	28.00	790.50	778.78	768.60	7439.00	779.72	0.00	780.36	10.09	6.65	1153.19	2342.37		
	[illegible]	[illegible]	[illegible]	778.78	768.60	10018.00	782.53	0.00	783.22	8.04	6.68	1800.09	[illegible]		

		770.00	0.00	0.00	0.00	290.66	0.00
		770.00	0.00	0.00	0.00	290.66	0.00
			0.00	0.00	0.00	290.66	0.00
			.80	0.00	0.00	297.76	0.00
	8368.00	770.05	0.00	.05	0.00	404.24	95.00
	6897.00	770.12	.07	.12	0.00	404.65	95.00
	7439.00	770.16	.04	.16	0.00	404.89	95.00
			.88	.24	0.00	410.44	95.00
			0.00	.01	0.00	404.28	10.00
	6897.00	770.14	.08	.02	0.00	404.76	10.00
	7439.00	770.18	.04	.02	0.00	405.04	10.00
	10018.00	775.07	.89	.04	0.00	410.66	10.00
		770.06	0.00	.02	0.00	561.15	200.00
	6897.00	770.19	.10	.04	0.00	564.74	200.00
	7439.00	770.23	.06	.05	0.00	567.17	200.00
	10018.00	775.15	.92	.07	0.00	598.63	200.00
		770.13	0.00	.07	0.00	431.86	1870.00
		770.33	.19	.16	0.00	432.46	1870.00
		770.43	.10	.20	0.00	432.75	1870.00
	10018.00	775.39	.96	.24	0.00	435.93	1870.00
		770.39	0.00	.24	0.00	409.21	3000.00
			.40	.44	0.00	412.16	3000.00
		775.00	.20	.57	0.00	413.65	3000.00
			1.05	.66	0.00	421.32	3000.00
21.000	8368.00	770.01	0.00	.02	0.00	288.88	250.00
21.000	6897.00	770.03	.02	.04	0.00	297.57	250.00
			.21	.04	0.00	301.73	250.00
	10018.00	776.03	1.04	.03	0.00	319.37	250.00
20.200	8368.00	770.04	0.00	.03	0.00	289.35	91.00
20.200	6897.00	770.09	.05	.06	0.00	298.67	91.00
20.200	7439.00	775.12	.23	.08	0.00	303.35	91.00	
			1.06	.11	0.00	321.11	91.00
			0.00	.04	0.00	299.18	140.00
20.100	6897.00	770.07	.08	.07	0.00	300.15	140.00
20.100	7439.00	775.21	.24	.09	0.00	305.09	140.00
20.100	10018.00	776.28	1.08	.10	0.00	322.69	140.00
			0.00	-.02	0.00	100.46	140.00
			.05	-.06	0.00	101.88	140.00
		775.13	.22	-.08	0.00	102.58	140.00
		776.15	1.00	-.16	0.00	105.76	140.00
			0.00	.18	0.00	101.03	30.00
			.77	.50	0.00	103.88	30.00
			.82	.70	0.00	104.81	30.00
			1.46	1.17	0.00	109.07	30.00

[redacted]

		.99	.61	0.00	150.00	165.00	
		1.35	1.35	0.00	150.00	165.00	
		.45	1.83	0.00	150.00	165.00	
		1.13	1.83	0.00	150.00	165.00	
	[illegible]	775.35	0.00	.03	0.00	113.00	165.00
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	[illegible]	777.30	.65	.03	0.00	113.00	165.00
	[illegible]	779.20	1.85	.02	0.00	113.00	165.00
17.100	8364.00	775.42	0.00	.07	0.00	113.00	28.00
17.100	6897.00	776.82	1.40	.13	0.00	113.00	28.00
17.100	7439.00	777.49	.67	.15	0.00	113.00	28.00
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[illegible]	[illegible]	775.80	0.00	.37	0.00	269.31	250.00
17.000	6897.00	777.41	1.62	.59	0.00	275.85	250.00
17.000	7439.00	778.16	.75	.67	0.00	278.88	250.00
17.000	10018.00	780.24	2.08	.84	0.00	305.88	250.00
[illegible]	[illegible]	775.81	0.00	.21	0.00	492.13	1800.00
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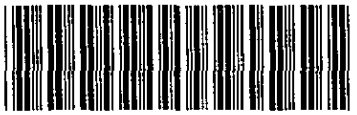
16.900	7439.00	778.41	.75	.25	0.00	656.85	1800.00
16.900	10018.00	780.51	2.10	.26	0.00	804.08	1800.00
[illegible]	[illegible]	776.30	0.00	.20	0.00	313.01	1300.00
[illegible]	[illegible]	777.92	1.62	.26	0.00	388.00	1300.00
17.000	7439.00	778.64	.72	.23	0.00	422.46	1300.00
17.000	10018.00	780.66	2.01	.15	0.00	518.83	1300.00
14.000	8364.00	776.80	0.00	.49	0.00	173.00	1400.00
14.000	6897.00	778.37	1.57	.45	0.00	173.00	1400.00
14.000	7439.00	779.05	.68	.40	0.00	173.00	1400.00
14.000	10018.00	780.92	1.87	.26	0.00	173.00	1400.00
13.000	8364.00	776.88	0.00	.08	0.00	123.00	100.00
13.000	6897.00	778.43	1.55	.06	0.00	123.00	100.00
[illegible]	[illegible]	779.09	.66	.04	0.00	123.00	100.00
[illegible]	10018.00	780.91	1.82	-.00	0.00	123.00	100.00
12.100	8364.00	776.96	0.00	.07	0.00	123.00	28.00
12.100	6897.00	778.79	1.84	.36	0.00	123.00	28.00
12.100	7439.00	779.72	.92	.63	0.00	123.00	28.00
[illegible]	[illegible]	[illegible]	2.81	1.62	0.00	123.00	28.00

[illegible] OF [illegible]



1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF ANN ARBOR

3) WATERCOURSE: HURON RIVER

4) DOCUMENT TYPE: W.S. PROFILES



CITY OF ANN ARBOR

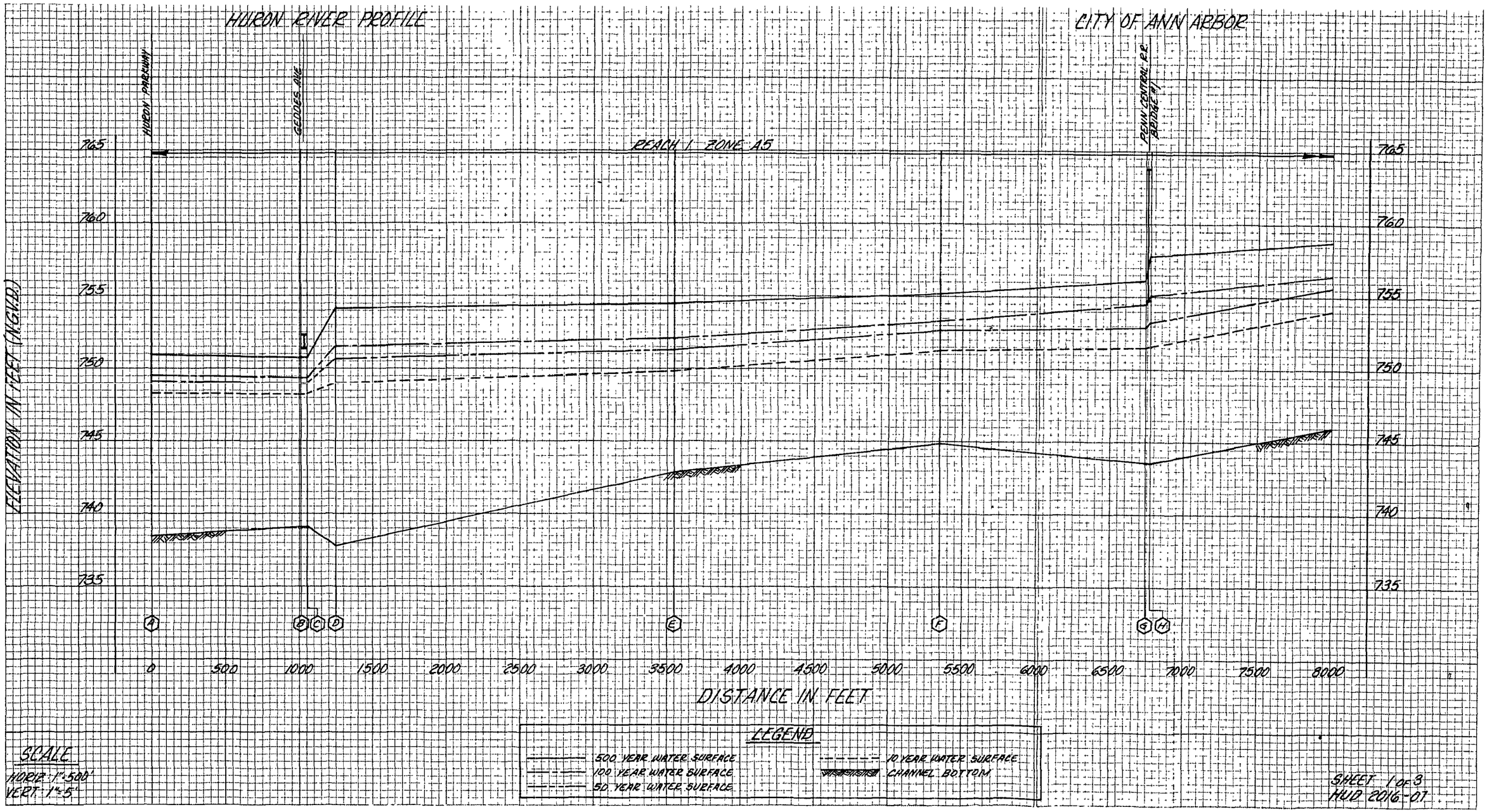
HURON RIVER

EXHIBIT 4

WATER SURFACE PROFILES

HURON RIVER PROFILE

CITY OF ANN ARBOR



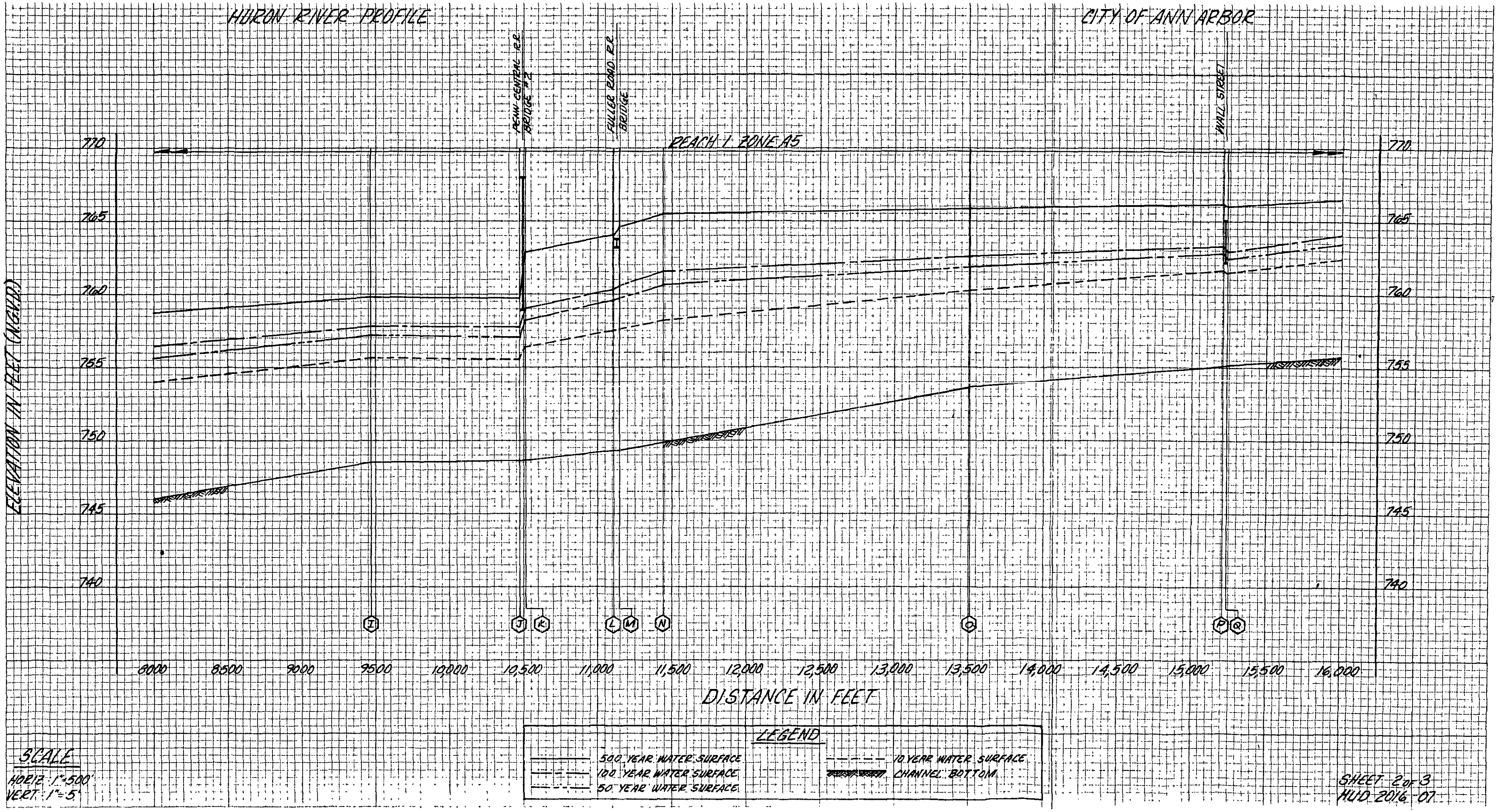
SCALE
HORIZ: 1"=500'
VERT: 1"=5'

SHEET 1 OF 3
HUD 2016-07

KEUFFEL & ESSER CO.
10 X 10 TO THE INCH

HURON RIVER PROFILE

CITY OF ANN ARBOR



SCALE

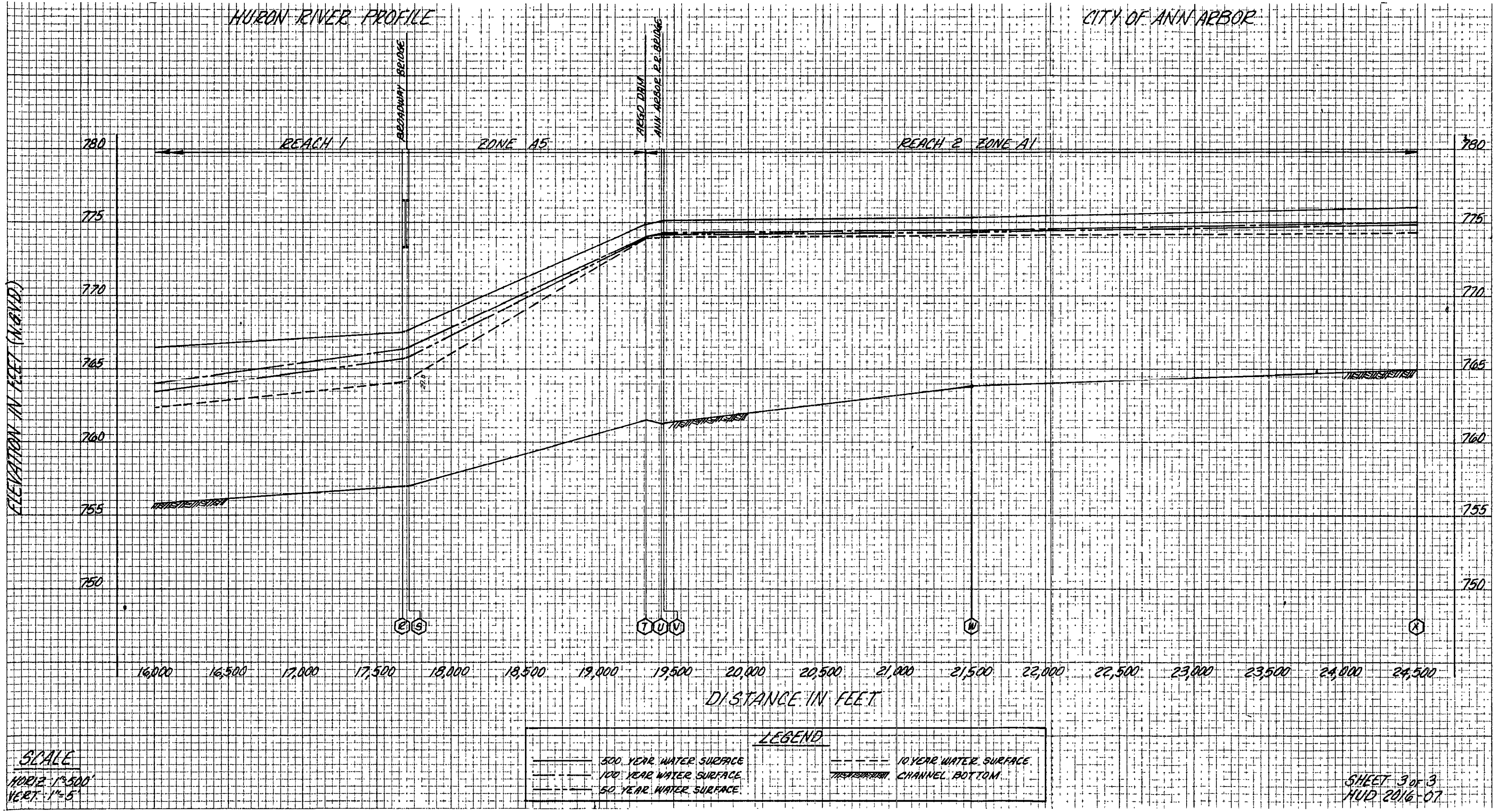
HORIZ 1"=500'

VERT 1"=5'

HUD 2016 07

HURON RIVER PROFILE

CITY OF ANN ARBOR



SCALE
HORIZ: 1"=500'
VERT: 1"=5'

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF ANN ARBOR

3) WATERCOURSE: HURON RIVER

4) DOCUMENT TYPE: X-SECS

00BREAK00

CITY OF ANN ARBOR

HURON RIVER

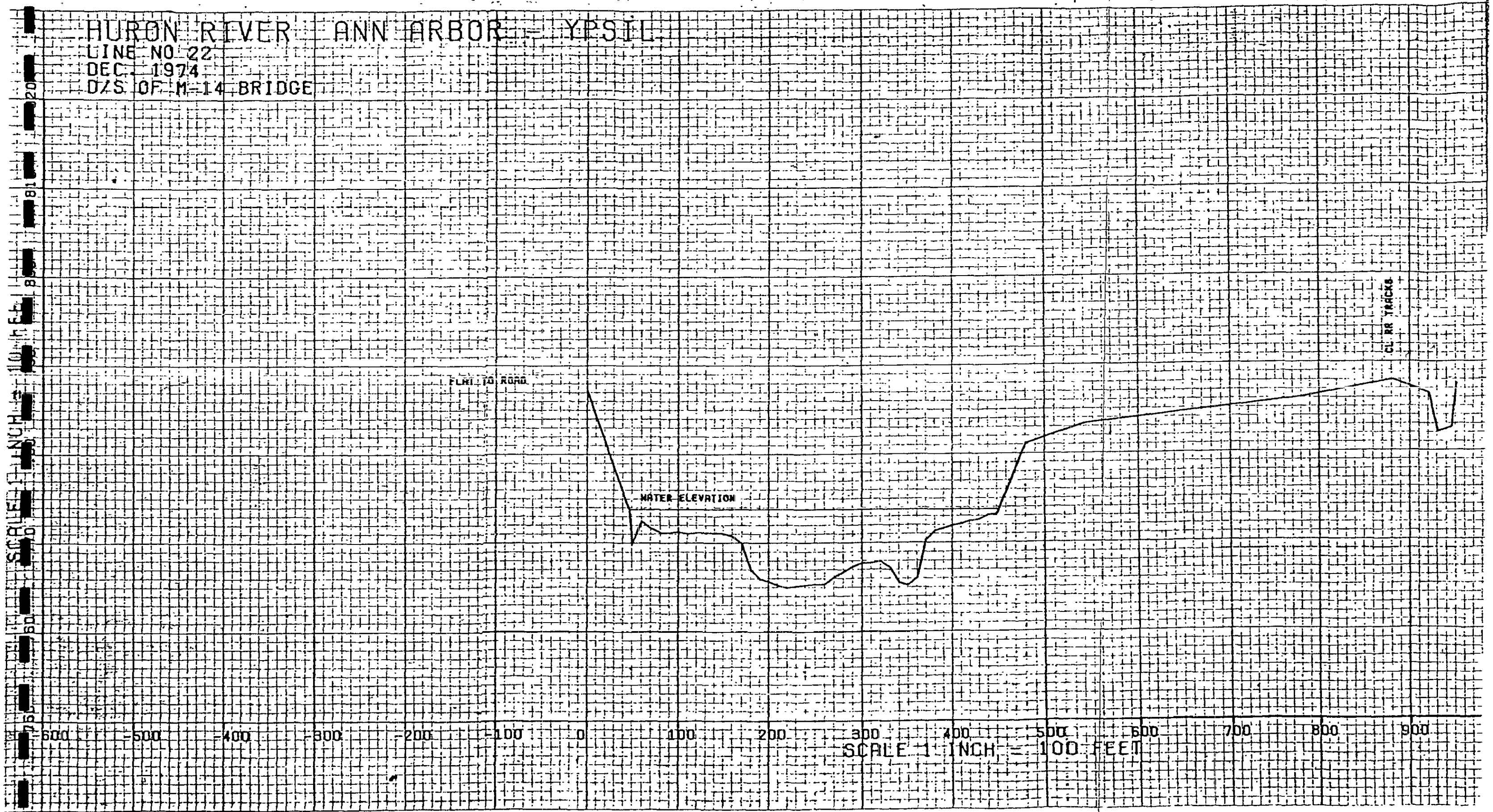
EXHIBIT 3

CROSS-SECTION PLOTS

HUD 2016-07

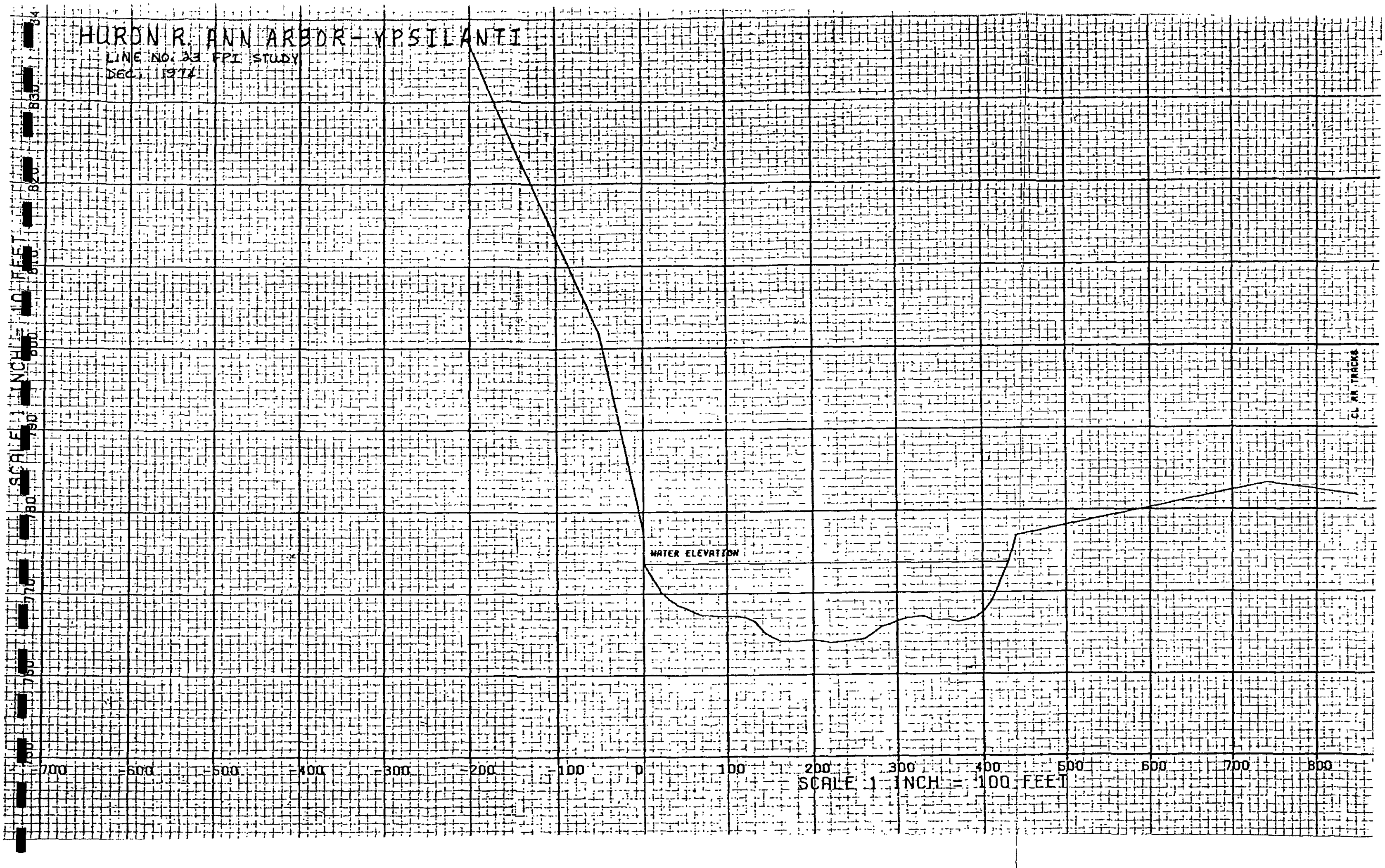
HURON RIVER ANN ARBOR - YPSIL

LINE NO 22
DEC. 1974
D/S OF M-14 BRIDGE



HURON R. ANN ARBOR-YPSILANTI

LINE NO. 23 FPI STUDY
DEC. 1974



HURON RIVER

ANN ARBOR - YPSIL

LINE NO. 24

1974

ON RIVER

NE 24

1974

SCALE 1 INCH = 10 FEET

820

810

800

790

780

770

760

750

740

CL ROAD

BASE RETAINING WALL

WATER ELEVATION

-600 -500 -400 -300 -200 -100 0 100 200 300 400 500 600 700 800 900

SCALE 1 INCH = 100 FEET

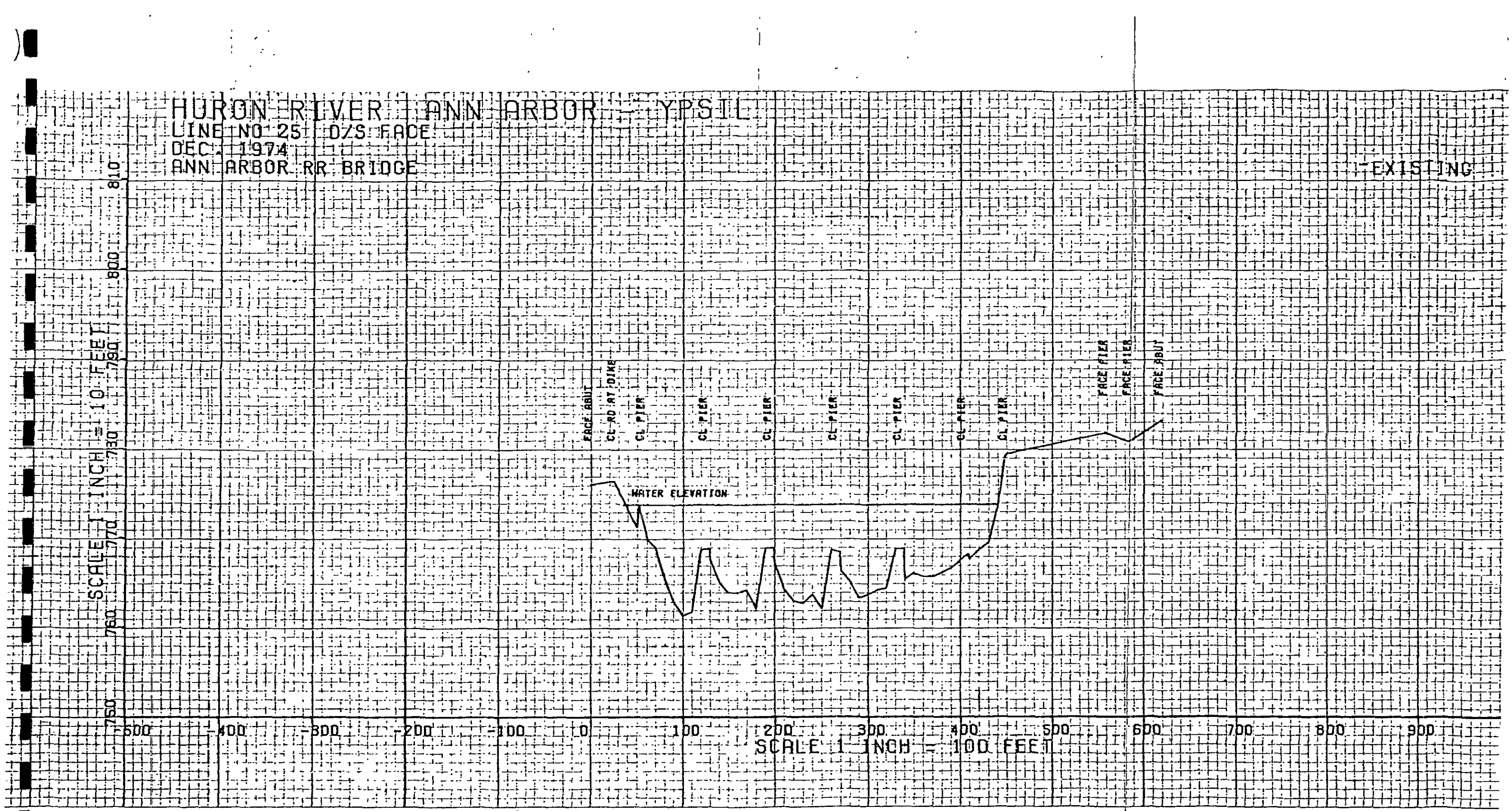
HURON RIVER ANN ARBOR - YPSIL

LINE NO 25 D/S FACE

DEC. 1974

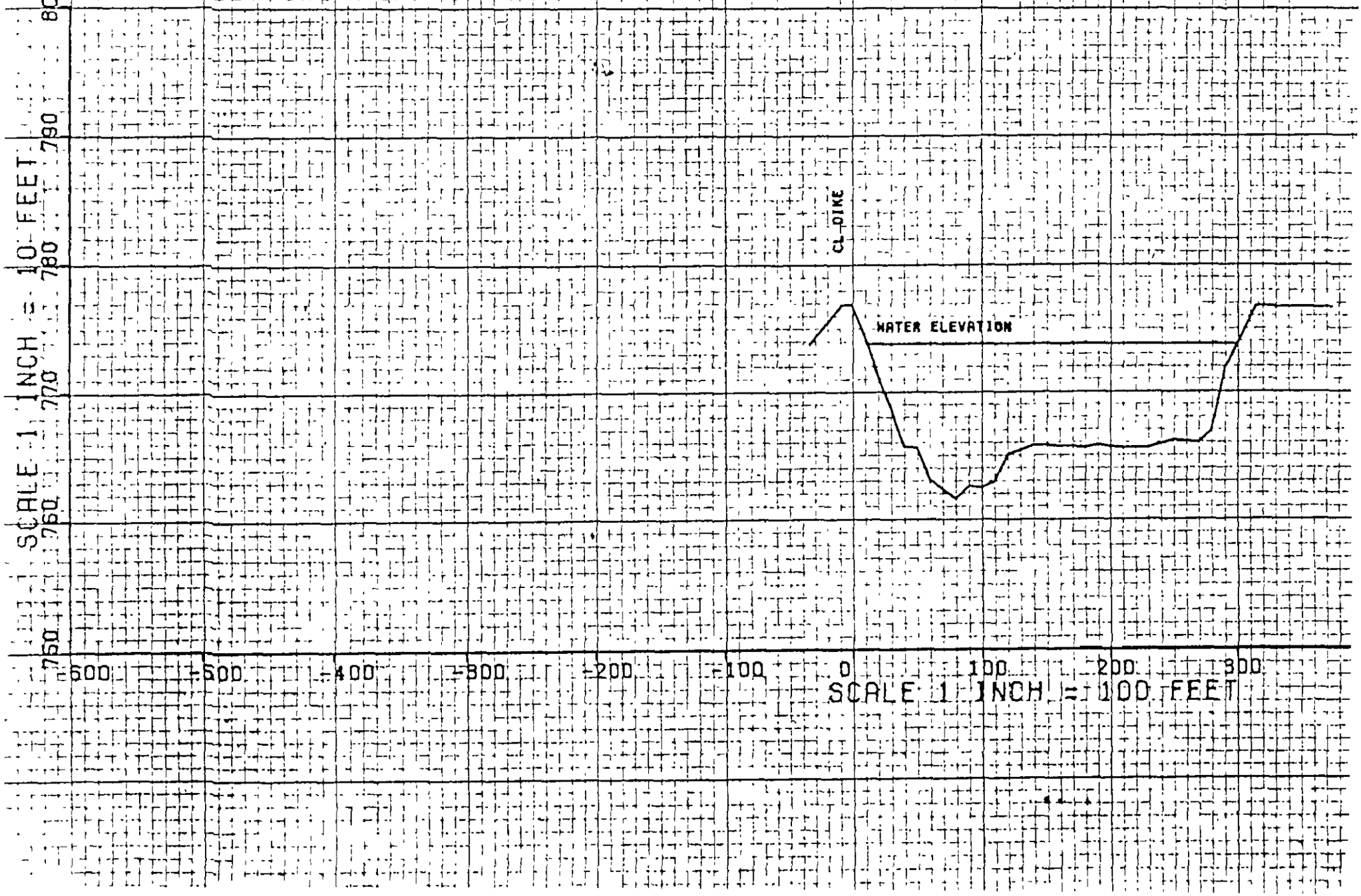
ANN ARBOR RR BRIDGE

EXISTING



HURON RIVER ANN ARBOR - YPSIL

LINE NO. 26
DEC. 1974
25 FEET UPSTREAM OF DAM

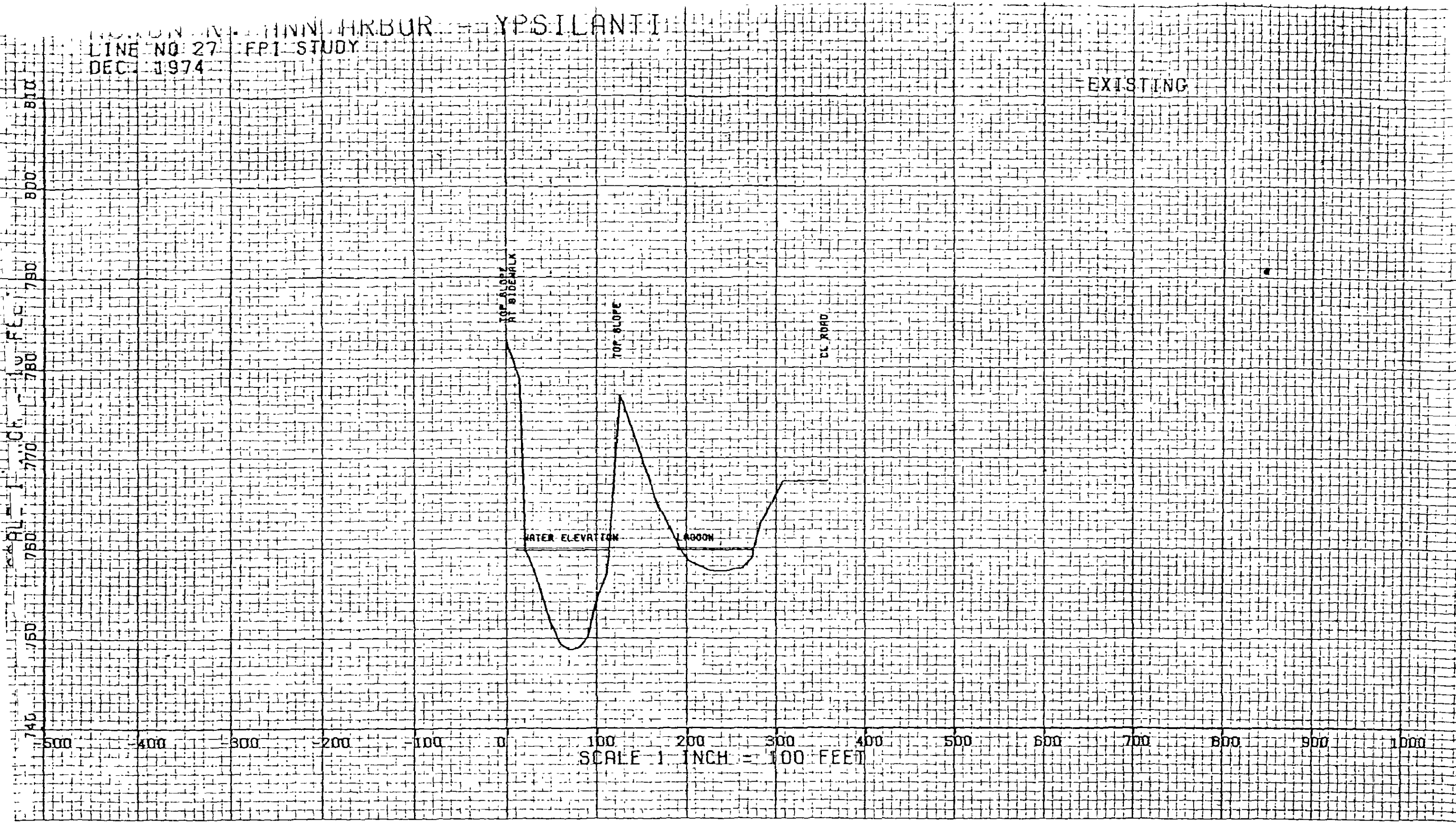


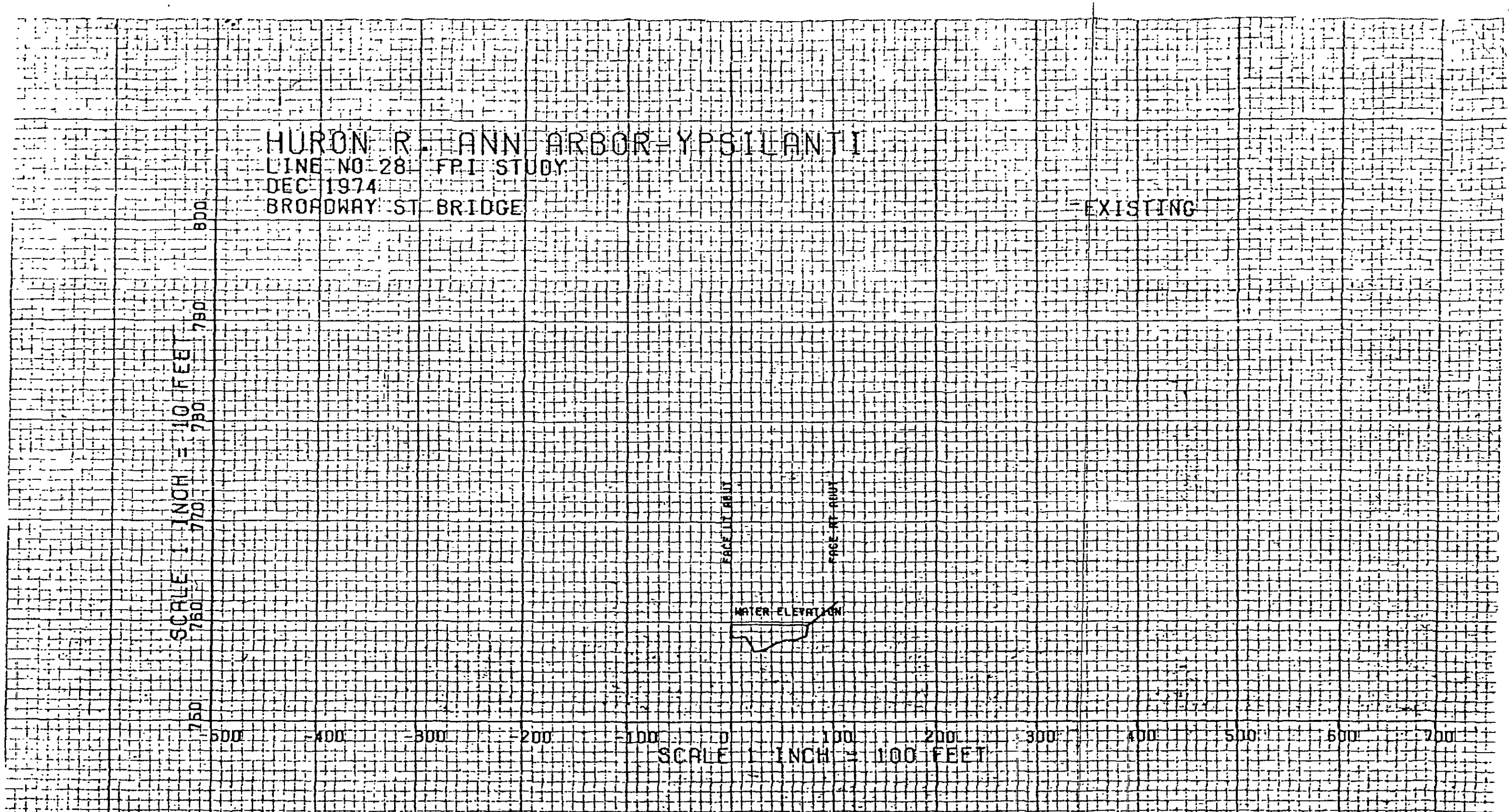
ANN ARBOR - YPSILANTI

LINE NO 27 FPI STUDY

DEC 1974

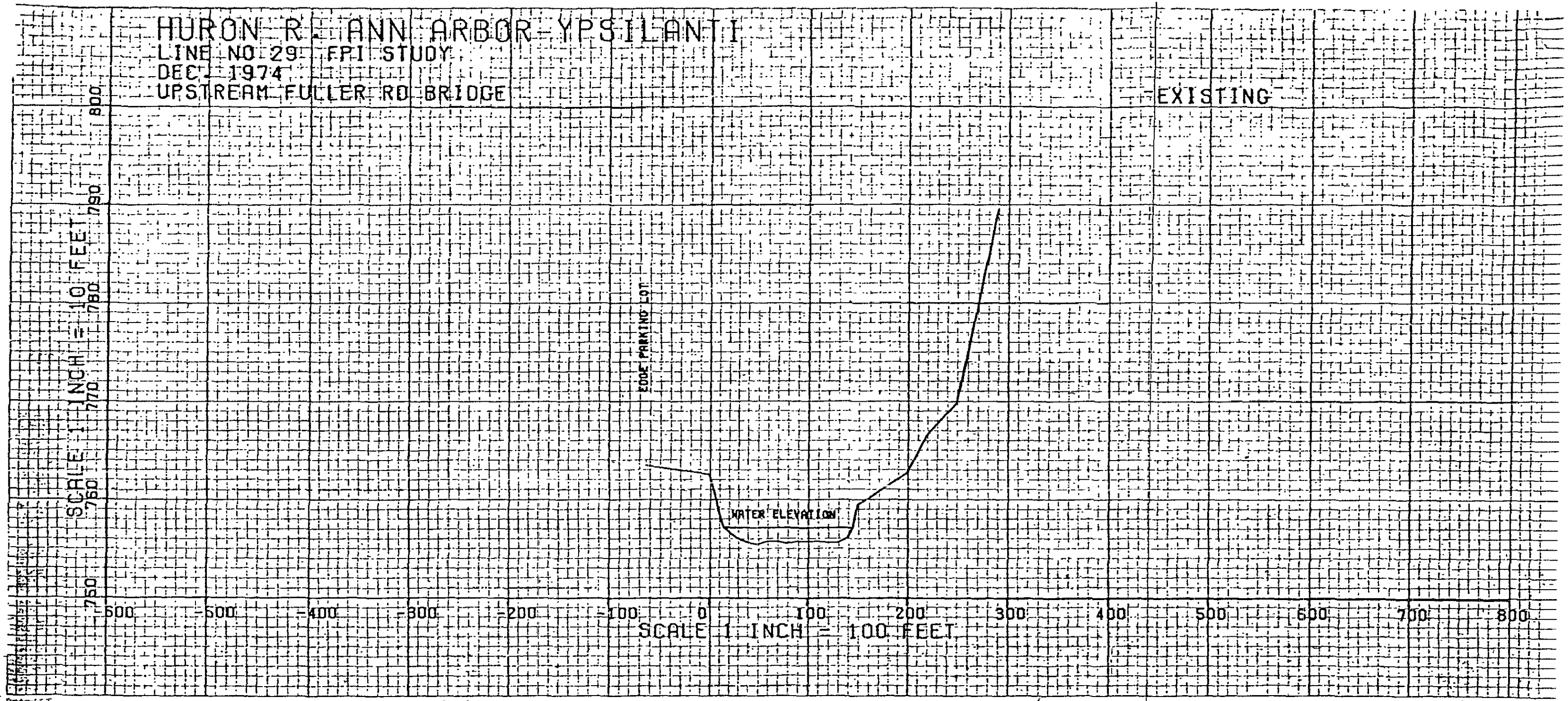
EXISTING




HURON R. ANN ARBOR-YPSILANTI
LINE NO 28 FPI STUDY
DEC 1974
BROADWAY ST BRIDGE
EXISTING
FACE LT ABUT
FACE RT ABUT
WATER ELEVATION
SCALE 1 INCH = 10 FEET
800
790
780
770
760
750
-500
-400
-300
-200
-100
0
100
200
300
400
500
600
700
SCALE 1 INCH = 100 FEET

HURON R. ANN ARBOR-YPSILANTI
LINE NO 29 FPI STUDY
DEC. 1974
UPSTREAM FULLER RD BRIDGE

EXISTING



HURON R. - ANN ARBOR-YPSILANTI
LINE NO 30 FRI STUDY
DEC 1974
FULLER RD BRIDGE

-EXISTING

SCALE 1 INCH = 10 FEET

800
790
780
770
760

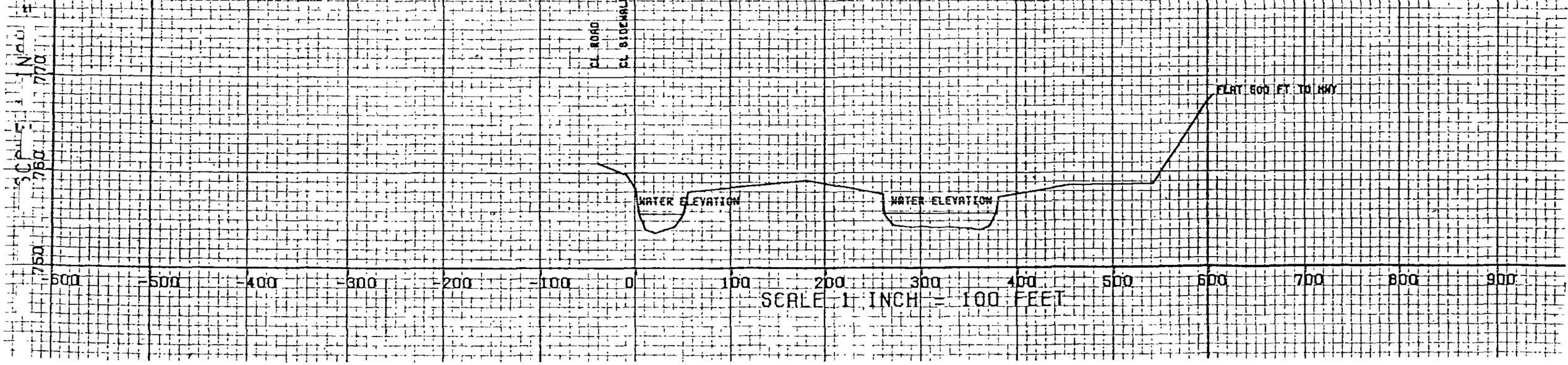
FACE LT ABUT

CL PIER

WATER ELEVATION

HURON R. ANN ARBOR - YPSILANTI
LINE NO 31 FPI STUDY
DEC. 1974
ISLAND PARK AREA

EXISTING



HURON R. ANN ARBOR-YPSILANTI
LINE NO 31A FPI STUDY
DEC 1974
ISLAND PARK FOOT BRIDGE

EXISTING

SCALE 1 INCH = 100 FEET

FACE LT ABUT
FACE RT ABUT
WATER ELEVATION

500 400 300 200 100 0 100 200 300 400 500 600

SCALE 1 INCH = 100 FEET

HURON R. - ANN ARBOR - YPSILANTI
LINE NO 32 FPI STUDY
DEC 1974

EXISTING

RETAINING WALL

FLAT OUT 500 FEET

WATER ELEVATION

SCALE 1 INCH = 10 FEET
800
780
760
750
740

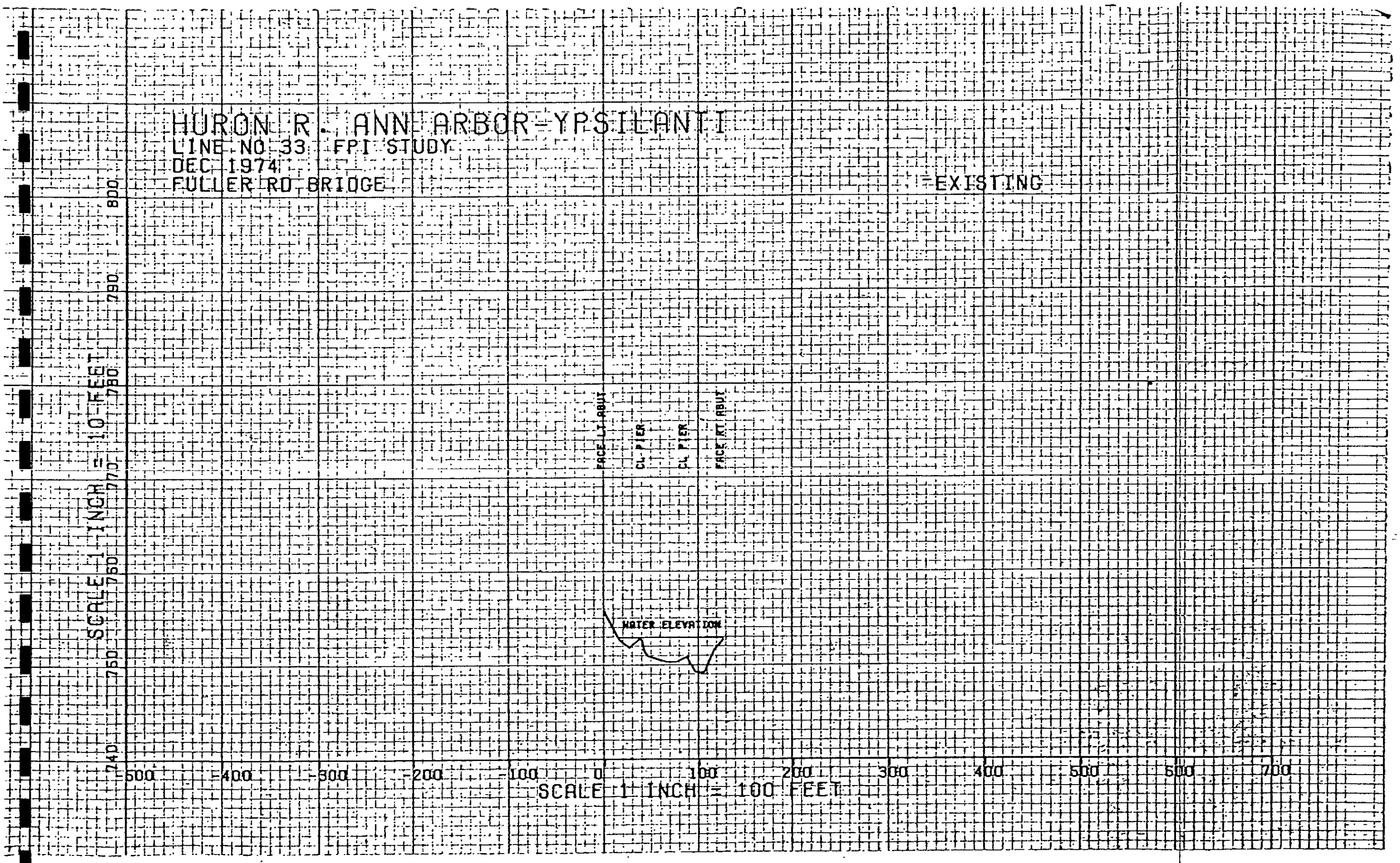
-500 -400 -300 -200 -100 0 100 200 300 400 500 600 700 800 900

SCALE 1 INCH = 100 FEET

HURON R. ANN ARBOR-YPSILANTI

LINE NO 33 FPI STUDY
DEC 1974
FULLER RD BRIDGE

. = EXISTING

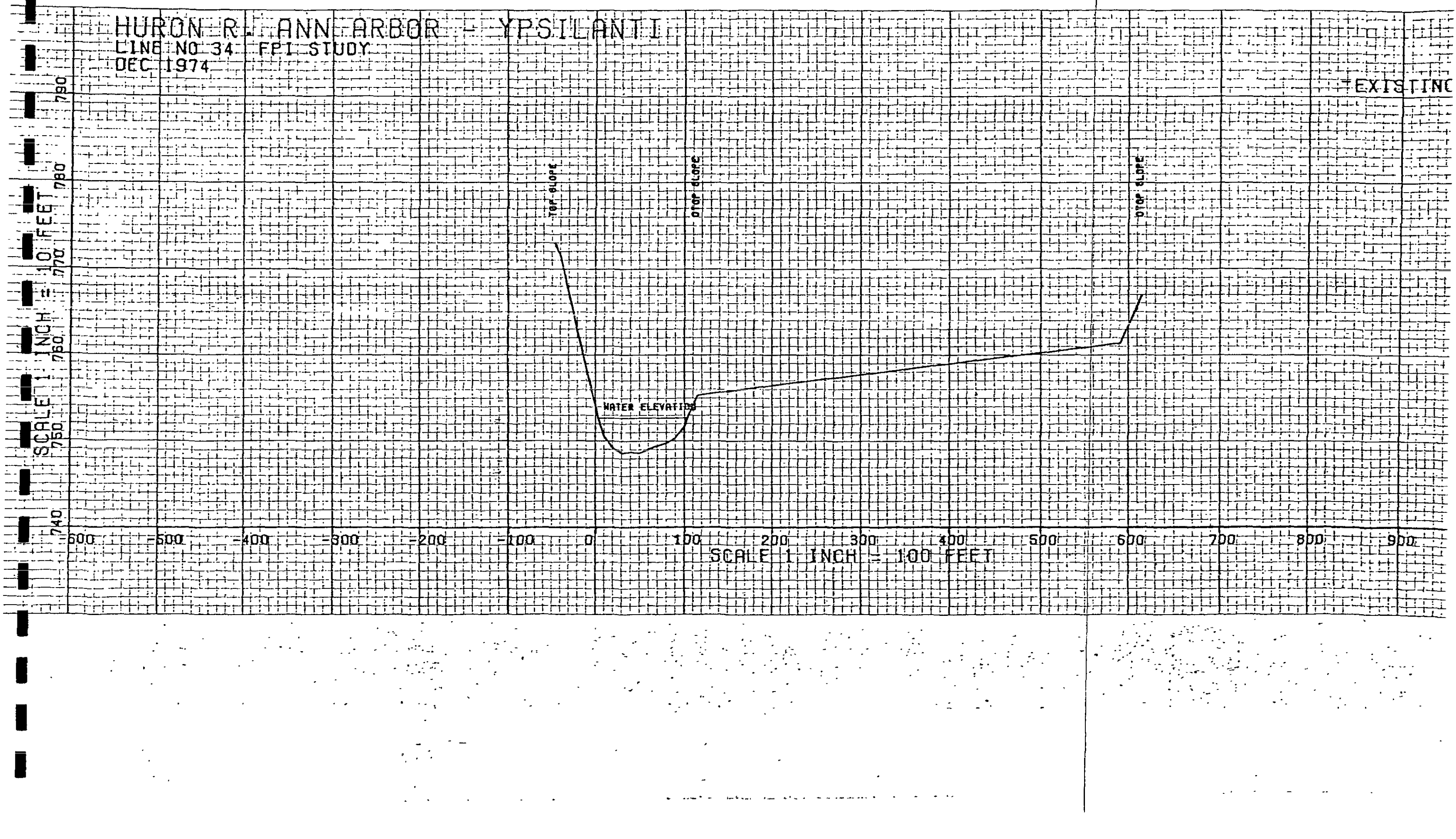


HURON R. ANN ARBOR - YPSILANTI

LINE NO 34 FPI STUDY

DEC 1974

EXISTING



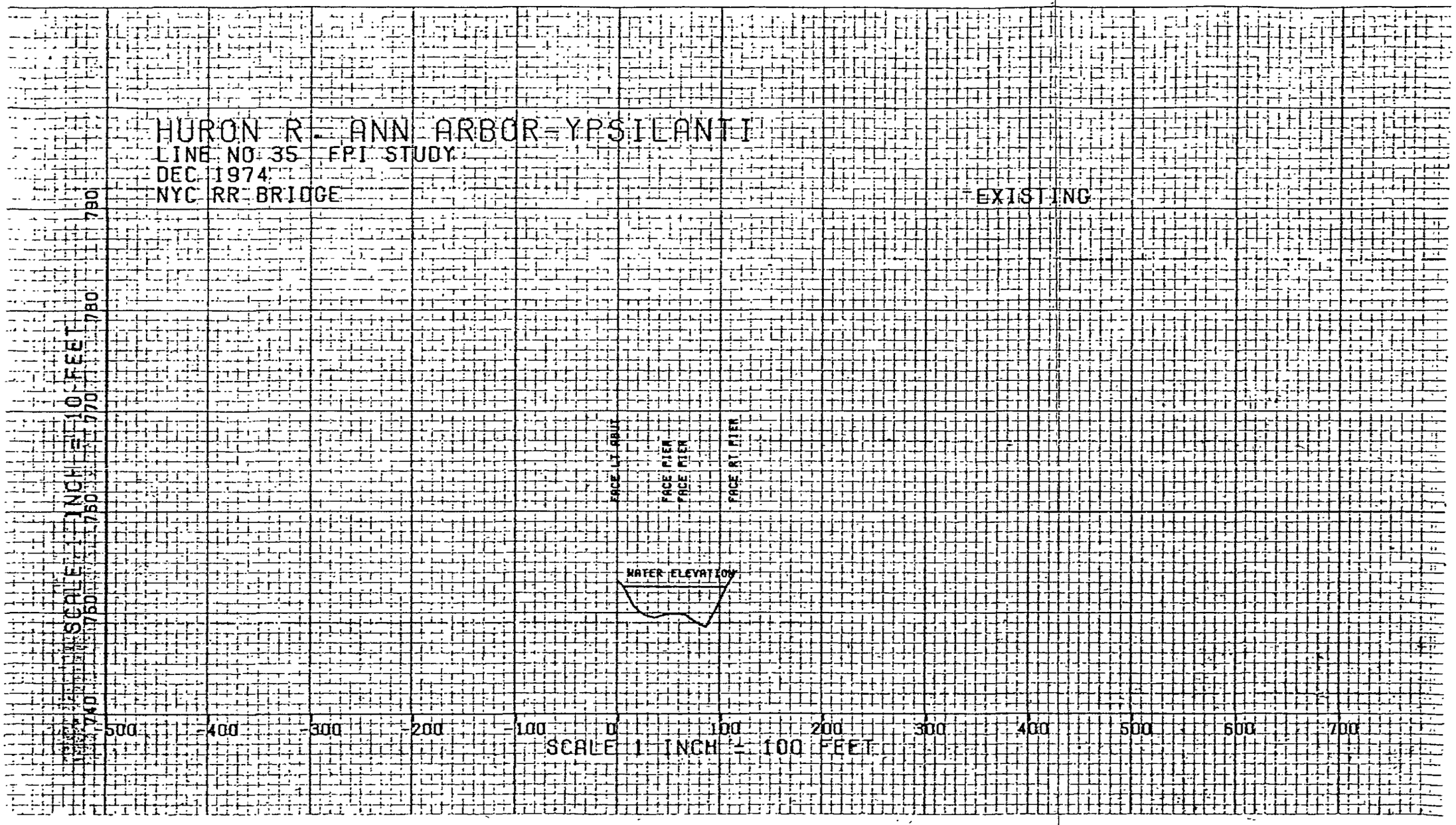
HURON R. - ANN ARBOR-YPSILANTI

LINE NO 35 FPI STUDY

DEC 1974

NYC RR BRIDGE

EXISTING



HURON R. ANN ARBOR - YPSILANTI
LINE NO 37 FPI STUDY
DEC 1974

EXISTING

SCALE 1 INCH = 10 FEET

760
770
780
790

740
750

CL ROAD

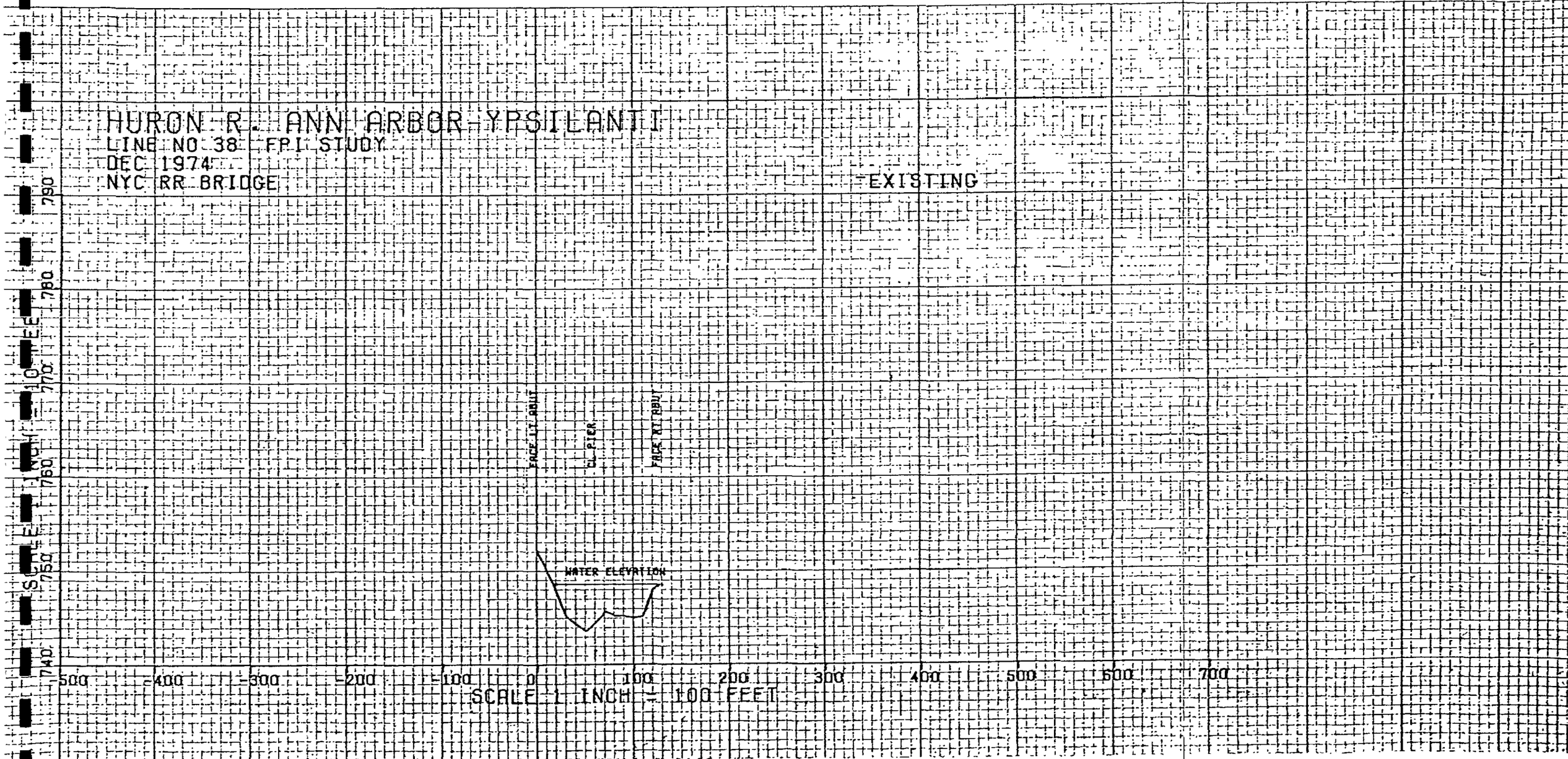
WATER ELEVATION

-700 -600 -500 -400 -300 -200 -100 0 100 200 300 400 500 600

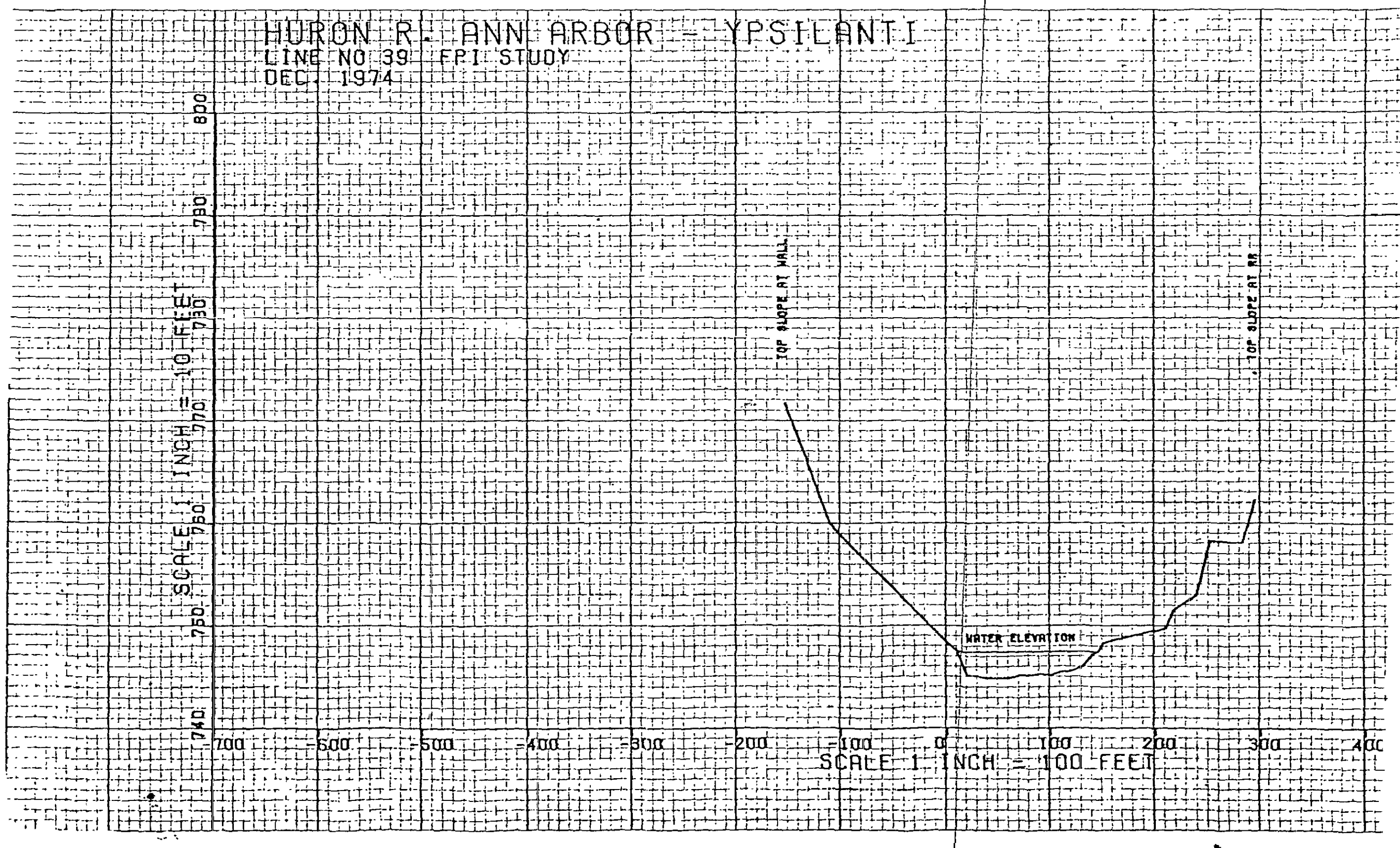
SCALE 1 INCH = 100 FEET

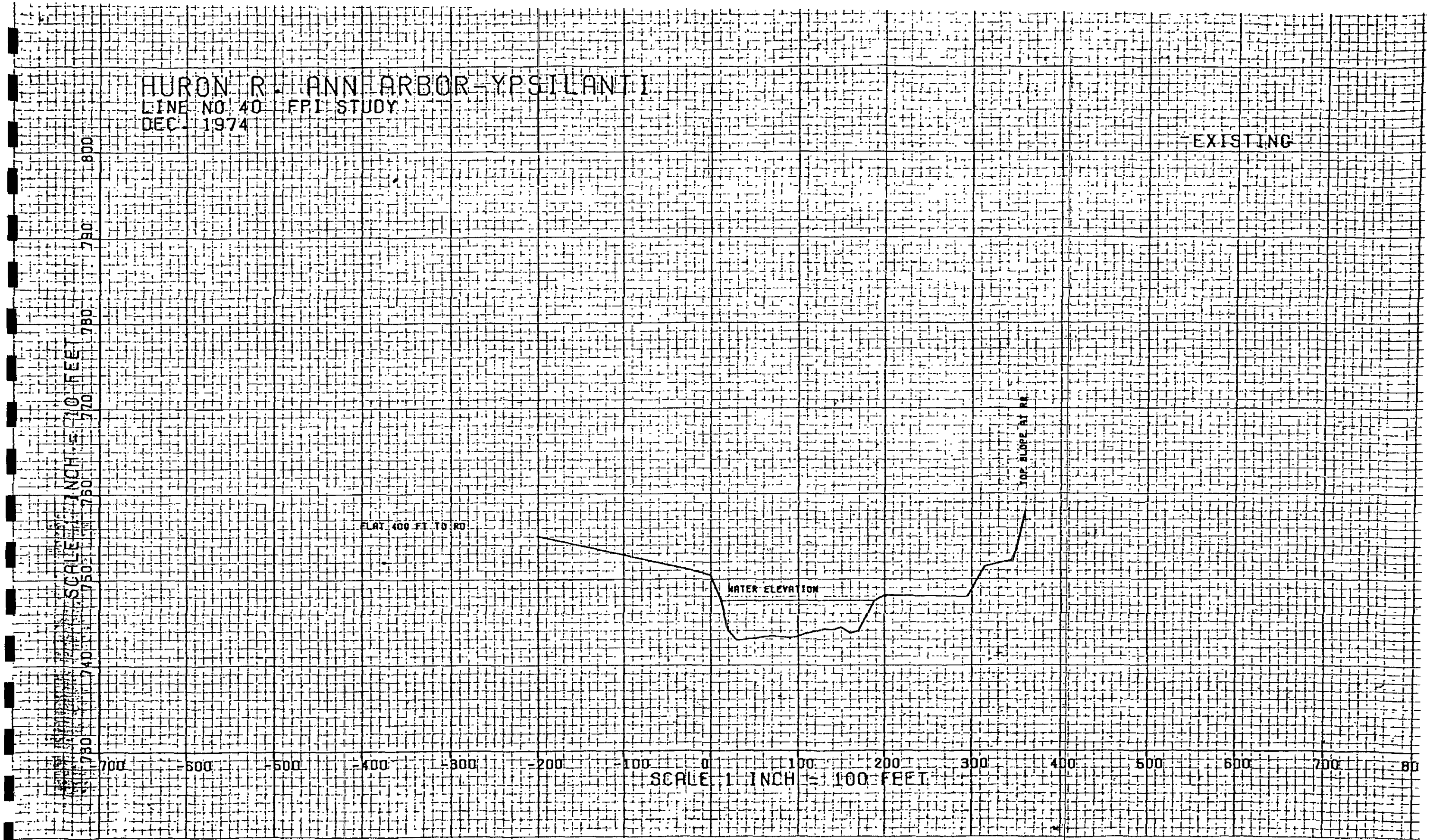
HURON R. ANN ARBOR-YPSILANTI
LINE NO 38 FPI STUDY
DEC 1974
NYC RR BRIDGE

EXISTING



HURON R. ANN ARBOR - YPSILANTI
LINE NO 39 FPI STUDY
DEC. 1974

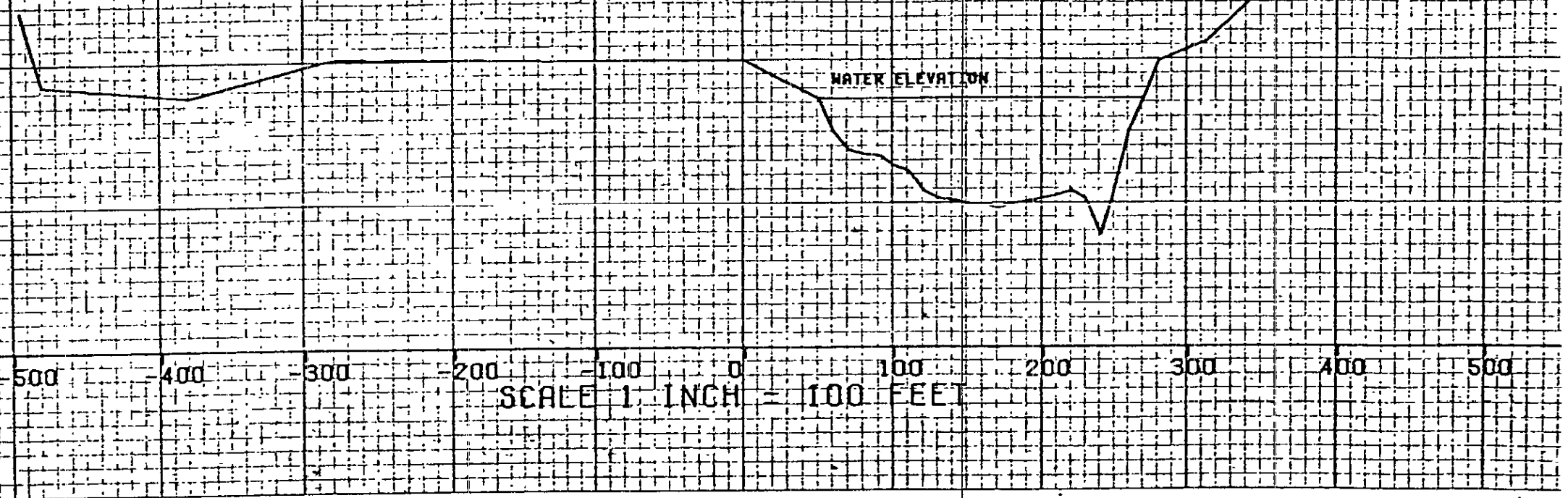



HURON R. ANN ARBOR-YPSILANTI
LINE NO 40 FPI STUDY
DEC. 1974
EXISTING
FLAT 400 FT TO RD
WATER ELEVATION
TOP SLOPE AT RR
SCALE 1 INCH = 10 FEET
SCALE 1 INCH = 100 FEET
800
790
780
770
760
750
740
730
-700
-600
-500
-400
-300
-200
-100
0
100
200
300
400
500
600
700
80

HURON R. ANN ARBOR-YPSILANTI

LINE NO 41 FPI STUDY

DEC. 1974



HURON R. - ANN ARBOR-YPSILANTI
LINE NO. 42 - EPI STUDY
DEC 1974
GEODES RD BRIDGE

-EXISTI

SCALE 1 INCH = 10 FEET

SCALE 1 INCH = 100 FEET

WATER ELEVATION

FACE RT ABUT

FACE LT ABUT

780 740 750 760 770 780

500 400 300 200 100 0 100 200 300 400

HURON R. ANN ARBOR YPSILANTI

LINE NO 42A FPI STUDY

DEC. 1974

HURON PARKWAY BRIDGE

EXI

SCALE 1 INCH = 10 FEET

FACE AT ABUT

CL PIER

CL PIER

CL PIER

CL PIER

CL PIER

BOULDER ROAD

WATER ELEVATION

-400 -300 -200 -100 0 100 200 300 400 500 600 700 800 900 1000

SCALE 1 INCH = 100 FEET

HUDSON RIVER ANN ARBOR
LINE NO. 43 EPI STUDY D
E.C. 1974

SCALE 1 INCH = 100 FEET

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300

WATER ELEVATION

TOP SLOPE AT RR

EXISTING

SILANI

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF ANN ARBOR

3) WATERCOURSE: TRAVER CREEK

4) DOCUMENT TYPE: BRIDGE SKETCHES & NOTES

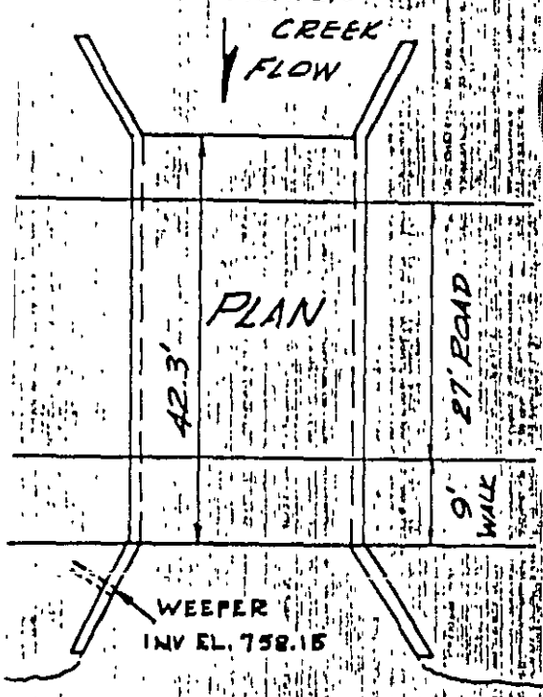
00BREAK00

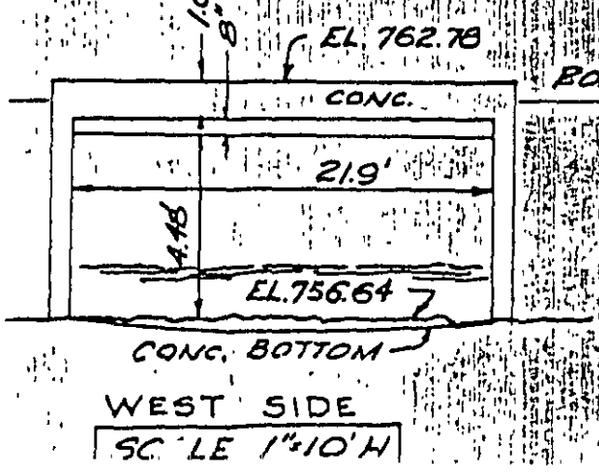
CITY OF ANN ARBOR

TRAVER CREEK

EXHIBIT 8

BRIDGE SKETCHES AND NOTES





A. EXISTING STRUCTURE

1.	Slope	=	1%
2.	Area	=	106 ft²
3.	Capacity	=	2000 c.f.s.
4.	Invert Elev. (SE end)	=	756.64

B. REQUIRED CAPACITY

1.	Design frequency	25 years
2.	Tributary area	4280 acres
3.	Required Capacity	2100 cfs

C. REVISION OF EXISTING STRUCTURE

1.	Available Grade	=	0.35%
2.	Required Area	=	160 ft²
3.	Required dimensions	=	22 x 7.2*
4.	New Invert Elev.	=	754.0**

* This allows the esixting structure to be retained with only a lowering of the bottom elevation.

** This is approximate top of existing footing elevation

BRIDGE AT ISLAND DR.

Bridge Location : ISLAND DR. (SECTION 1)
Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) No Piers 0 — HEC-2 Manual
XKOR (Loss Coefficient) = $1.0 + \Sigma k$, $\Sigma k = k_f + k_e + k_p$
where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers
Description of Bridge : 21.9' WIDE & 42.3' LONG
$K_f = 29.1\, n^2 L / R^{4/3}$ for English units
Area = $= \frac{98}{}$ $W_p = 53'$
$R = A/w_p = \frac{98}{53} = 1.85$ $R^{4/3} = 2.3$ $L = 42.3$
n (composite) $= 21.9(0.03) + (4.4 \times 2 + 21.9)(0.015) / 53 = 0.021$
$K_f = 29.1 \times (0.021)^2 \times 42.3 \;/ (2.3) = 0.25$

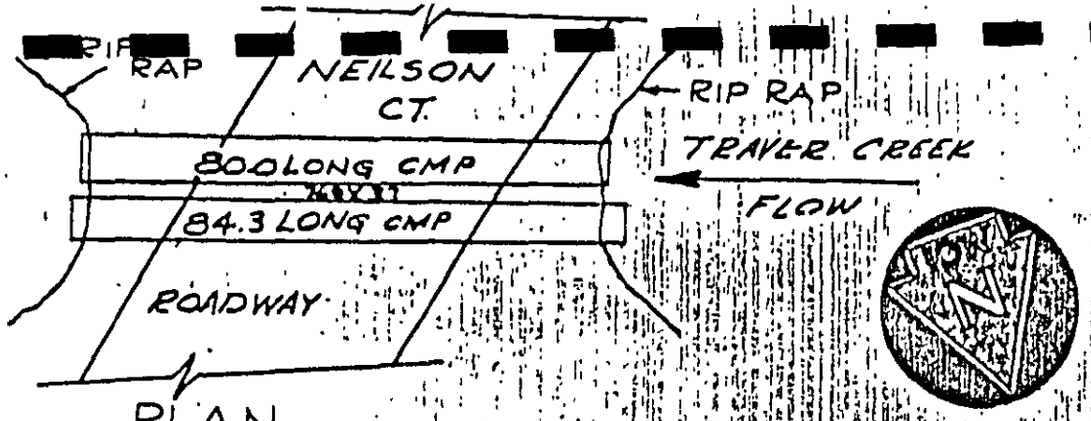
$K_e = 0.2$ — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

$K_p = 0$ if bridge has no intermediate piers

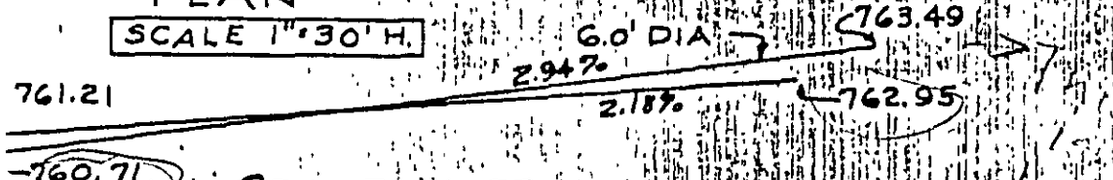
$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.25 + 0.2 + = 1.5
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 21.9
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 98
8. SS = side slope = 0
(horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 757.64
(0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 756.64
(0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK.	SHEET NO.	File Code No (Job No) Owner Project Suffix
TRAVER CREEK CITY OF ANN ARBOR	AM		___ OF ___	HUD • 2016 07
	DATE 6/13/79	DATE		



PLAN
SCALE 1"=30' H.



GRADE LINES
SCALE 1"=20' H
1"=5' V

A. EXISTING STRUCTURE

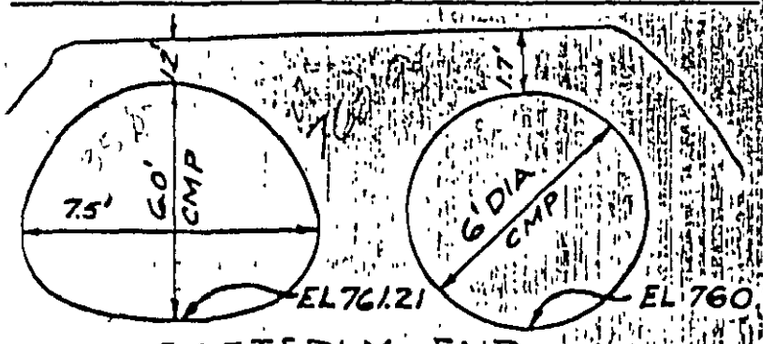
1.	Slope	=	2.18% and 2.94%
2.	Area	=	64.1 ft² (CMP)
3.	Capacity	=	880 c.f.s.
4.	Invert Elev.	=	761.0±

B. REQUIRED CAPACITY

1.	Design frequency	=	25 years
2.	Tributary area	=	4270 acres
3.	Required capacity	=	2090 cfs

C. PROPOSED NEW ENCLOSURE

1.	Available grade	=	0.35%
2.	Required Area	=	160 ft²
3.	Possible demensions	=	8' x 20' (8' max. height)
4.	New Invert Elev.	=	757.0 ±



EASTERLY END
SCALE 1"=5' H

NIELSON CT CULVERTS

Bridge Location : NIELSON CT.

Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) No PIER 0 — HEC-2 Manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge : TWO CULVERTS — 6" DIA. CMP
6' x 7.5' ELLIP. CMP.

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = $= \frac{64.1}{R^{4/3}}$ Wp = 41'

$R = A/wp = \frac{64.1}{41} = 1.6$ $R^{4/3} = 1.9$, $L = 8$

wt ave. n (composite) = 0.026

$K_f = 29.1 \times (\quad)^2 \times \quad / \quad = 0.9$

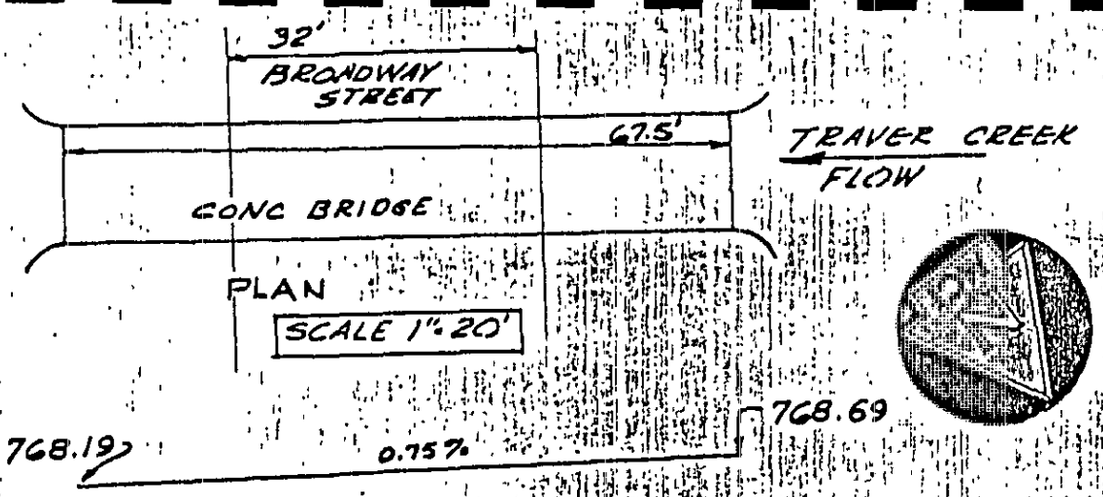
K_e = need field check 0.5 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

K_p = 0 if bridge has no intermediate piers

K_p = 0.05 if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.9 + 0.5 + 0 = 2.4
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 10.7
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 64.1
8. SS = side slope = 0
   (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 762.95
   (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 760.7
    (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK	SHEET NO.	File Code No (Job No) Owner Project Suffix
TRAVER CREEK CITY OF ANN ARBOR	AM		___ OF ___	HUD • 2016 • 01
	DATE 6/13/79	DATE		



A. EXISTING STRUCTURE

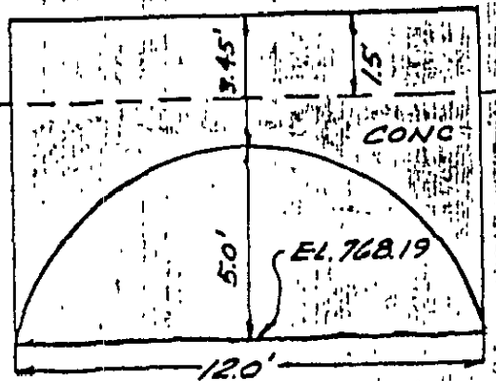
1. Slope	=	0.75%
2. Area	=	45 ft²
3. Capacity	=	650 c.f.s.
4. Invert Elev. (SE end)	=	768.19

B. REQUIRED CAPACITY

1. Design Frequency 25 years
2. Tributary Area 4260 acres
3. Required Capacity 2080 c.f.s.

C. PROPOSED NEW ENCLOSURE

1. Available grade	=	0.9%
2. Required Area	=	114 ft²
3. Possible Dimensions	=	8' x 14.3' Box (10' max. height, or 2- 102" dia pipes)
4. Flow Invert Elev.	=	762.0 ±



EAST END
SCALE 1"=5' H.

BROADWAY BRIDGE

Bridge Location : BROADWAY

Bridge Losses - SB Card

REFERENCE

1. XK (Pier Shape Coefficient) No PIERS 0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge : Arched opening — 12' wide 5' height

$k_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = = 45 S.F. Wp = 29.

$R = A/wp = 45/29 = 1.55$ $R^{4/3} = 1.8$ $L = 67.5'$

n (composite) = 0.03

$k_f = 29.1 \times (0.03)^2 \times 67.5 / 1.8 = 1.$

k_e = Headwall and wingwalls sq edged

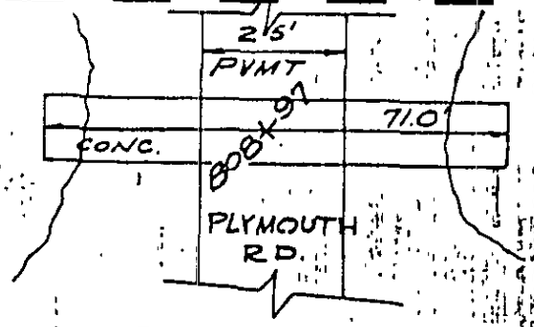
0.5 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 4

$k_p = 0$ if bridge has no intermediate piers

$k_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 1. + 0.5 + 0 = 2.5
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 3.
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 45.
8. SS = side slope = 0
   (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 758.69
   (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 768.19
    (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK.	SHEET NO.	File Code No (Job No) Owner Project Suffix
TRAVER CREEK CITY OF ANN ARBOR	AM		___ OF ___	HUD-2018-07
	DATE 6/13/79	DATE		



PLAN
SCALE 1" = 30'

TRAVER

CREEK FLOW

791.19 0.79% 791.74

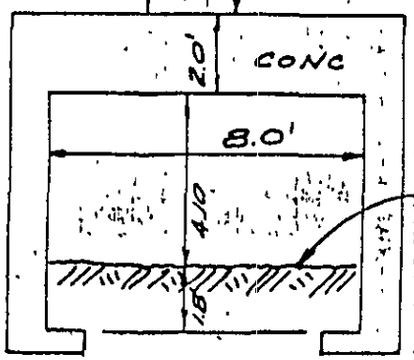
GRADE LINE
SCALE 1" = 30' H.
1" = 5' V.

PLYMOUTH ROAD

EL. 808.97

9.77'

TOP HDWL. EL 799.2



SOUTHEAST
END SECTION
SCALE 1" = 5' H
1" = 5' V.

A. EXISTING STRUCTURE

1.	Slope	=	0.79%
2.	Area	=	33 ft²
3.	Capacity	=	470 c.f.s. (700 c.f.s. under pr.)
4.	Invert Elev. (SE end)	=	793.1

B. REQUIRED CAPACITY

1.	Design Frequency	=	25 years
2.	Tributary Area	=	4160 acres
3.	Required Capacity	=	2000 c.f.s.

C. PROPOSED NEW ENCLOSURE

1	Available grade	=	0.95%
2	Required Area	=	108 ft²
3	Possible Dimensions	=	8' x 13.5' (no max. heigh at this point, or 2-102" dia. concrete pipes
4	New Invert Elev.	=	784.5 ±

CULVERT AT PLYMOUTH RD.

Bridge Location : PLYMOUTH ROAD
Bridge Losses -- SB Card

REFERENCE

1. XK (Pier Shape Coefficient) No PIERS 0 — HEC-2 manual

XKOR (Loss Coefficient) = 1.0 + Σk, $\Sigma k = k_f + k_e + k_p$

where k_f = friction loss coefficient
k_e = entrance loss coefficient
k_p = loss from intermediate piers

Description of Bridge :

$K_f = 29.1\, n^2 L / R^{4/3}$ for English units

Area = = 33 Wp = 24.2

$R = A/wp = 33/24.2 = 1.36$ $R^{4/3} = 1.5$ L = 71'

n (composite) = $(0.03)(8.1) + (0.015)[(4.1)2 + 8.1]/24.2 = 0.02$

$K_f = 29.1 \times (0.02)^2 \times 71' / 1.5 = 0.6$

K_e = slope-tapered inlet = 0.2 — Hydraulic Charts for the Selection of Highway Culverts Circular No. 5 Dec. 1965 pg. 49

$K_p = 0$ if bridge has no intermediate piers

$K_p = 0.05$ if bridge has intermediate piers — HEC-2 manual

2. XKOR = 1 + 0.6 + 0.2 + 0 = 1.8
3. COFQ = Coefficient of discharge = 3.0 — HEC-2 manual
4. RDLEN = Length of weir = 0 (0 if read off BT cards)
5. BWC = bottom width of bridge opening (inc. piers) = 8.0
6. BWP = total width of obstruction = 0 — field data
7. BAREA = bridge opening inc. piers = 33
8. SS = side slope = 0 (horizontal per 1 vertical unit)
9. ELCHU = Elevation of channel invert U/S side = 791.74 (0 if equal to minimum elevation in previous x-sect.)
10. ELCHD = Elevation of channel invert D/S side = 791.19 (0 if equal to minimum elevation in previous x-sect.)

SUBJECT	BY	CHK.	SHEET NO	File Code No (Job No) Project Owner Suffix
TRAVER CREEK CITY OF ANN ARBOR	DATE 6/13/79	DATE	___ OF ___	HUD • 2016 • 07

CITY OF ANN ARBOR

TRAVER CREEK

EXHIBIT 9

HEC-2 COMPUTER PRINTOUTS

(Contained in 11" x 15" folder)

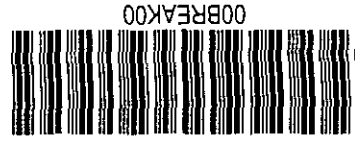


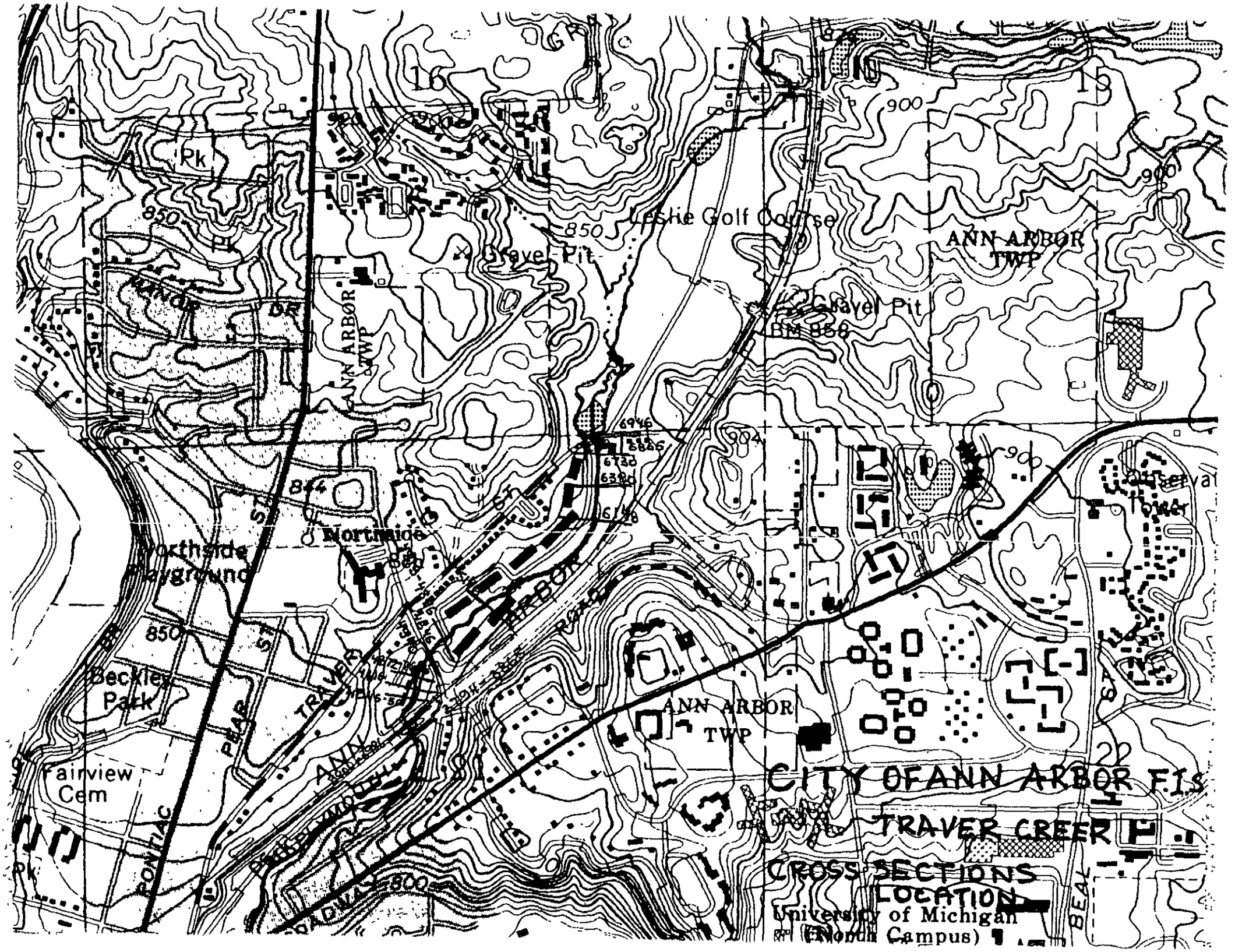
1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF ANN ARBOR

3) WATERCOURSE: TRAVER CREEK

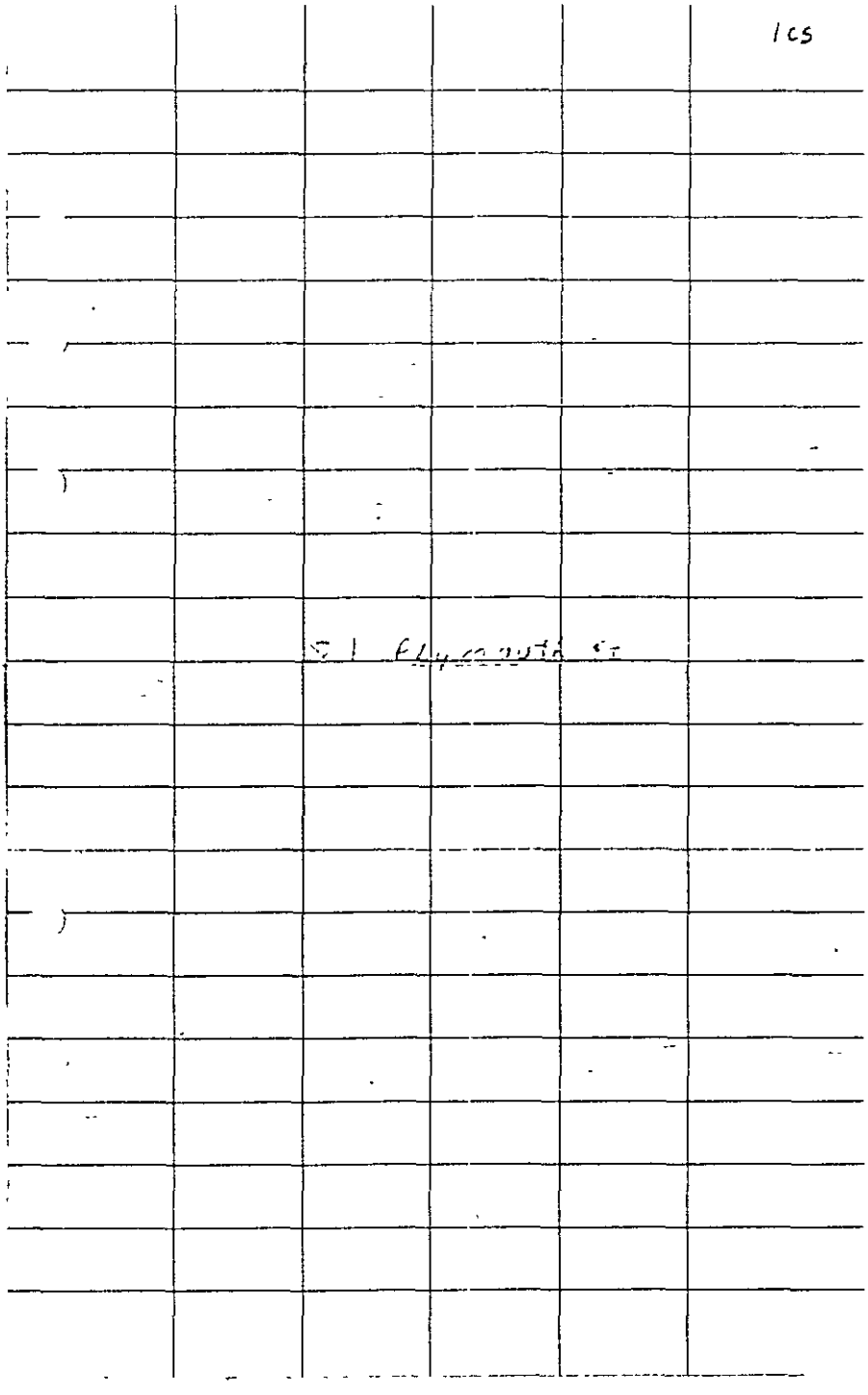
4) DOCUMENT TYPE: ROBERT FIELD NOTES




Leslie Golf Course
Gravel Pit
Gravel Pit
BM 868
ANN ARBOR TWP
ANN ARBOR TWP
ANN ARBOR TWP
Northside Playground
Northside
Beckley Park
Fairview Cem
Observatory Tower
CITY OF ANN ARBOR FIS
TRAVER CREEK
CROSS SECTIONS LOCATION
University of Michigan (North Campus)

Plymouth Rd. over Traver Creek
c.s. 3794 - 3865 on HEC-2 run

1cs

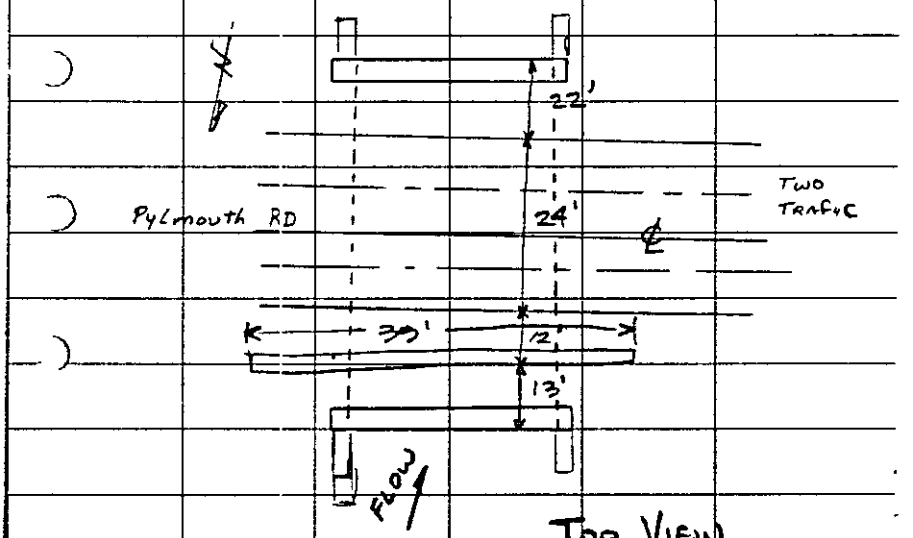


BM 109				823.49	
	3.12	826.61			
8.1	DESC	Dist	RoD	ELEV	
	BOX CULVERT	0'	20.76	805.85	
	NW EDGE OF RD	25' Rt	22.02	804.59	
	"	50' RT	23.33	803.28	
	"	100' RT	29.16	802.45	
		100' more	SAME	±	
	"	25 LT	19.32	807.29	
	"	50' LT	17.84	808.77	
	"	100' LT	16.61	810.00	
	"	200' LT	12.86	813.81	
	Slope stop				
	CK	Shot	3.12	823.49	

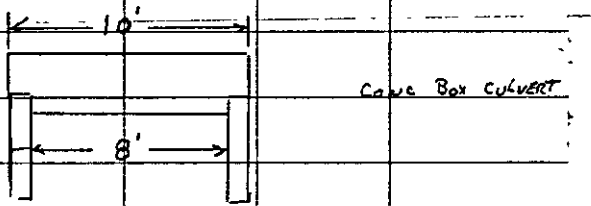
TBM RAIL				796.50	PG. 4L
	3.6B	800.18			
BRIDGE @ 1	DESC	DIST	ROD	ELEV	
	TOP OF HEADWALL	0'L	0.97	899.21	
	LT FACE OF BOX COL	1'R	8.7	891.5	
	℄ OF COL L/S	5'R	2.99	897.19	
	℄ OF DITCH	5'R	9.1	891.1	
	RT FACE OF BOX COL	9'R	8.7	891.5	
	W/S		7.3	897.9	
					JR

2/8 5/38 4C.S.

BOX CULVERT OVER TRAVER DITCH & UNDER PYLMOUTH RD



TOP VIEW



U/S FACE LOOKING D/S

Ann Arbor R.R. over Traver Creek 5 c.s.

c.s. 3900 - 3986 on HEC-2 run.

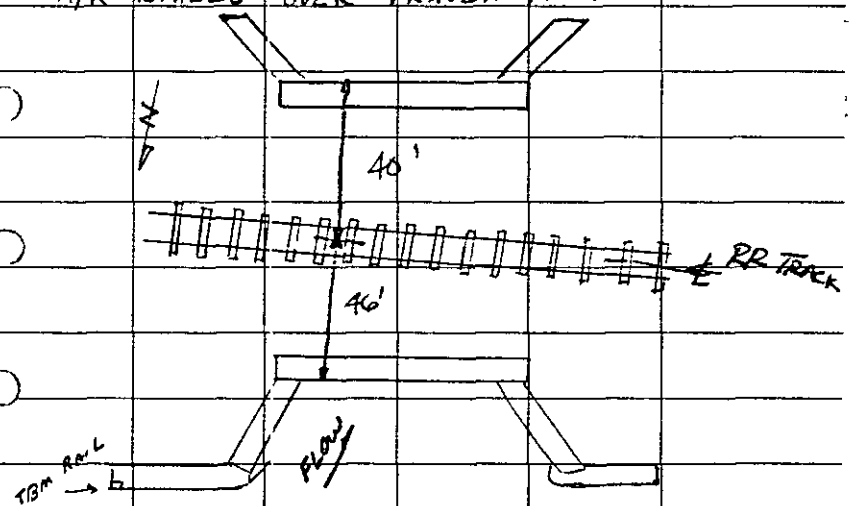
@ 2 RAIL ROAD TRACKS

Bm 109				823.49	PG 1L
	3.12	826.61			
⊗ 2	DESC	DIST	ROD	ELEV	
	INVERT	0'	4.85	821.76	
	℄ OF TRACKS	25' RT	5.02	821.59	
	"	50' RT	5.08	821.53	
	"	100' R	5.44	821.17	
	"	200' R	5.84	820.77	
	"	25' L	4.64	821.97	
	"	50' L	4.46	822.15	
	"	100' L	4.14	822.47	
	"	200' L	3.50	823.11	
					JR

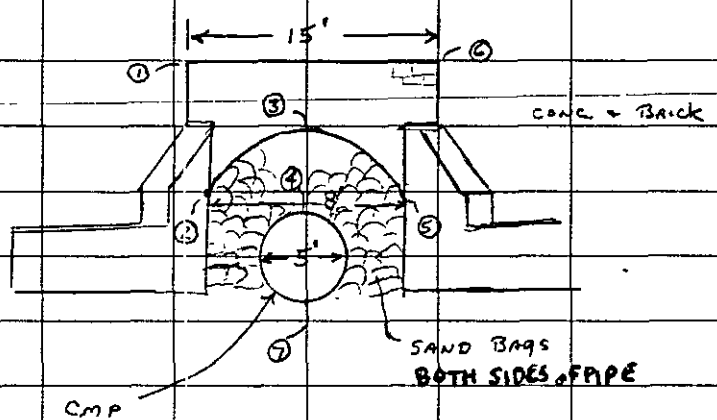
TBM RAIL				796.50	PG 4L
	10.95	80745			
BRIDGE ⊗ 2	DESC	D.O.-	F.O.D		
1	TOP HEAD WALL	0'	2.43	805.02	
2	L/S	3.5' R	8.93	798.52	
3	L/S ℄	7.5R	6.26	801.19	
4	L/S E of CONCRETE	7.5 R	9.63	797.82	
5	L/S RT	11' R	8.62	798.83	
6	TOP OF RAIL	15' R	2.69	804.76	
7	℄ of D.H.	7.5R	14.2	793.3 2	
	W/S		13.3	794.1	
					VB

2/5/38 8c.s.

R/R BRIDGE OVER TRAVER Ditch



TOP VIEW



U/S FACE LOOKING D/S

This culvert area has [illegible] been rebuilt — it now also has a 8' ϕ culvert [illegible] with have a [illegible] of 2'0" see file.

Walk bridge over Traver Creek 9c.s.

c.s. 4046-4050 on HEC-2 run.

⊗ ~~3A~~ (2A) Tip WALKWAY

80' ↔ U/S FROM R/R BRIDGE

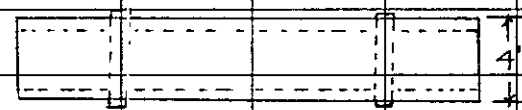
TBM RAIL				796.50	PG 4L
	10.94	8074C			
@(2A)	DESC	DIST	ROD	ELEV	
1 @ ANGLE	LT TOP OF BR	0	6.42	801.04	
2	TOE OF SL TOP OF SL	7 LT	8.6	798.9	
* 3	TOE OF R/R SLOPE	29' LT	7.3	800.2	
4	TOP OF BR @ ANGLE	15' R	6.46	801.00	
5	END BR TOP OF RT SL	22' R	8.3	798.7	
6	GE.	50' R	9.0	798.5	
7	GE	75' R	8.8	798.7	
8	GE	100' R	6.9	800.6	
9	GE	125' R	6.3	801.2	
10	GE	150	5.9	801.6	
*	20'(+) RISE TO TOP OF RAIL ROAD BANK @ TRACKS				

5
2/6/98

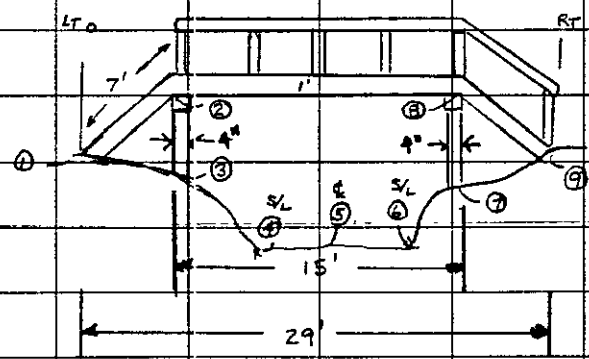
12 C.S.

N

WOODEN WALKWAY OVER TRAVER Ditch



Top View



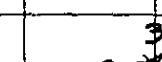
U/S FACE LOOKING D/S

ALL WOOD CONSTRUCTION, WITH NO ABUTMENTS

TBM Rail				796.50	
	10/96	HI = 807.96			
@ 2A	DESC.	Dist	RoD	Elev	
1	@ WOOD BR + GROUND LT	0' L	8.45	799.01	
2	4S	7' R	7.32	800.14	
3	PIERS TOE	7' R	11.4	796.1	
4	TOE S/L	11' R	13.1	794.4	
5	L OF PATH	15' R	13.3	794.2	
6	S/L	18' R	13.2	794.3	
7	PIER TOE	22' R	10.1	797.4	
8	4S	22' R	7.38	800.08	
9	@ LIGHT BR R + GR	29' R	8.69	798.77	
10	U/C		12.9	794.6	

Walk bridge over Trower Creek (15 c.s.)

C.S. 4372 - 4376 on HEC-2 run

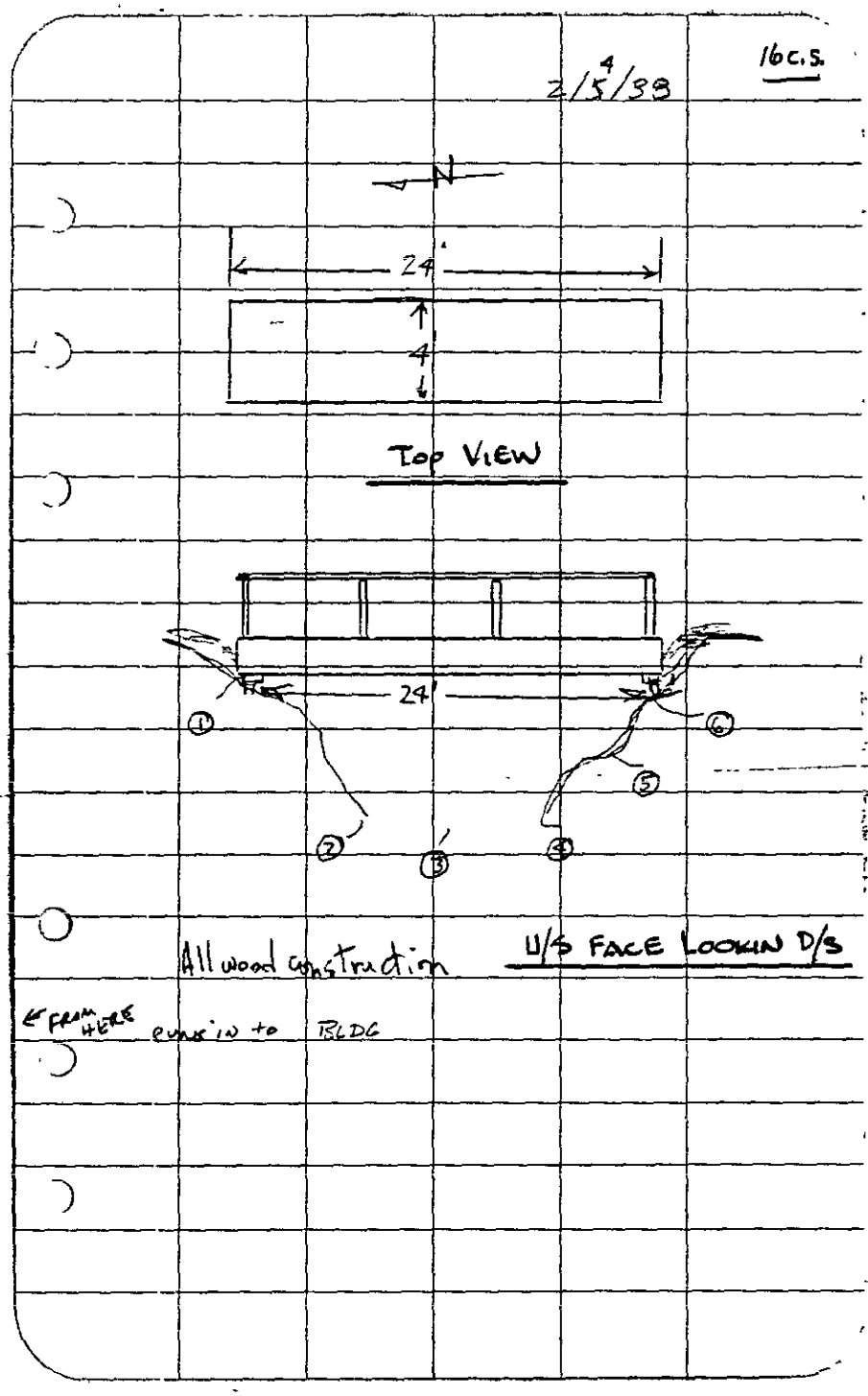


± 300' U/S FROM R/R BRIDGE ⊗ 2

TBM RAIL				796.50	PG 4L
	~~12.40~~	808.60			
BR. ⊗ 3A	DESC	DIST	R.D	ELEV	
1	L/S LT	0 L	7.53	801.07	
2	S/L LT	6 R	12.2	796.4	
3	℄ of DRAIN	10 R	13.0	795.6	
4	S/L RT	16 R	12.3	796.3	
5	Top of SEC. BK	20 R	10.1	798.5	
6	L/S RT	24 R	7.42	801.18	
	W/S		12.2	796.4	
⊗ 3A Top		⊗ 4A	Rail		
	@ WALKWAY Top of BK GE	0' L	7.0	801.6	
	GE	25' L	4.7	803.9	
	G-E	50' L	2.6	806.0	
	Top of BK @ WALKWAY	24' R	6.5	801.8	
	@ HOUSE	54' R	5.3	803.3	

16 c.s.

2/5/99



All wood construction

U/S FACE LOOKIN D/S

← FROM HERE RUNS IN TO BLDG

Barton Road over Traver Creek 19 c.s.

c.s. 4540 - 4646 on HEC-2 run

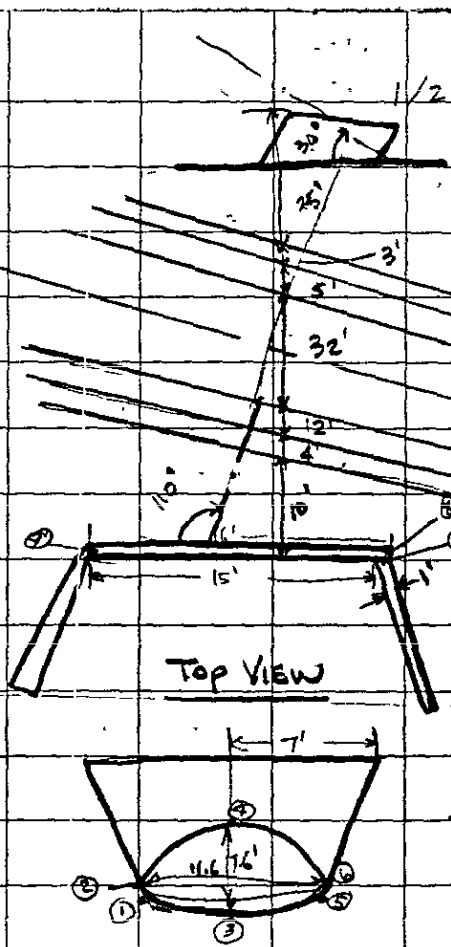
Ⓐ #4

BARTON ROAD

		@ #4 HI			
TBM("STR")	4.99	816.70 ✓		811.71 ✓	Ref Pg. 12
①	EDGE OF @ WINGWALL		16.2	800.5 ✓	○
②	TANGENT OF PIPE		15.19	801.51	
③	BTM OF PIPE		17.43	799.27 ✓	○
④	TOP PIPE W/S		9.8	806.9	
⑤	@ EDGE OF WINGWALL		15.0	801.7	○
⑥	TANGENT OF PIPE		15.01	801.69	
	W/S		16.7	800.0 ✓	
⑦	TOP WINGWALL		6.38	810.32 ✓	
⑧	TOP RT END HEADWALL		6.02	810.68 ✓	
⑨	TOP LT END HEADWALL		6.36	810.34 ✓	
					○
					○
					○
					JHE

20 c.s.

1/29/38



TOP VIEW

U/S FACE LOOKING D/S

E.M.P

7.6' H X 11.6' W

		@ #4 HI			
		816.70			
	℄ RD @ ℄ PIPE	0	6.10	810.60 ✓	
	℄ RD	25 RT	5.82	810.88	
	"	50 RT	5.73	810.97	
	"	75 RT	5.32	811.38	
	"	100 RT	4.86	811.84	
	"	125 RT	4.04	812.66	
	℄ RD	150 RT	3.15	813.55	
	℄ RD	25 LT	5.90	810.80	
	"	50 LT	5.71	810.99	
	"	75 LT	5.36	811.34	
	"	100 LT	4.96	811.74	
	"	125 LT	4.23	812.47	
	"	150 LT	3.08	813.62	
	℄ RD	175 LT	1.03	815.67	
TBM "5 TR"	CK. SHOT	4.99	-	811.71 ✓	
					✓

Entrance Road to apt. complex over Trower Creek. 22 c.s.

c.s. 4913-4846 on HEC-2 run

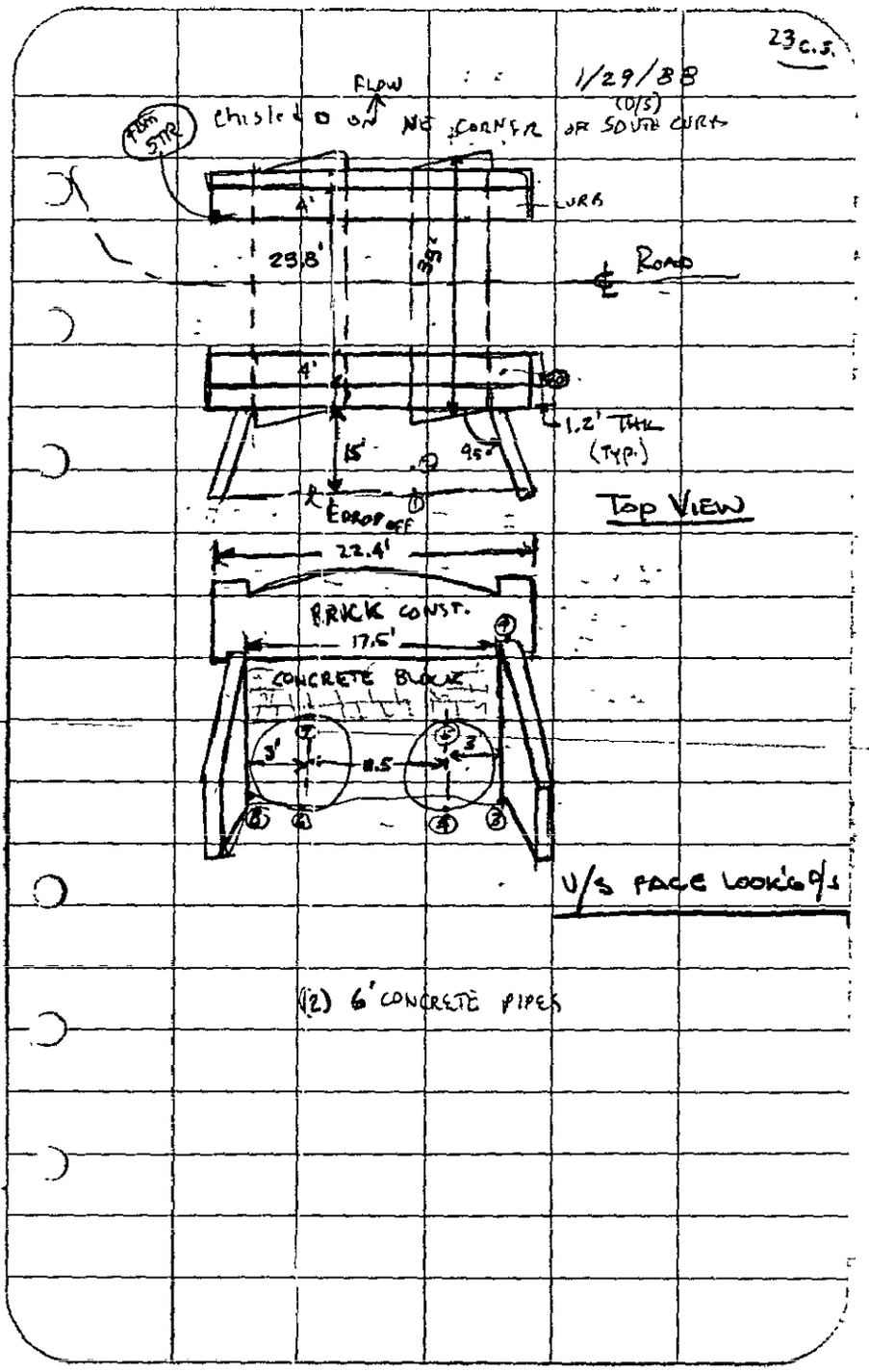
⊗ #5

ENTRANCE ROAD TO APT. COMPLEX

		(X)=5 HI	BRIDGE DATA		
TBM 5 TR	4.63	816.34 ✓		811.71 ✓	Ref. Pt. 1
(1)	TOP DROPOFF	15' U/S FROM U/S FACE OF BRIDGE	13.3	803.0 ✓	
(2)	BTM DROP OFF		14.1	802.2 ✓	
(3)	RT EDGE @ BTM. WINGWALL		13.5	802.8 ✓	
(4)	BTM PIPE		14.25	802.09 ✓	
(5)	RT U/S PIPE		8.25	808.09 ✓	
(6)	BTM PIPE		14.27	802.07 ✓	
(7)	LT U/S PIPE		8.25	808.09 ✓	
(8)	LT. EDGE @ BTM WINGWALL		13.4	802.5 ✓	
	W/S		13.85	802.49 ✓	
(9)	TOP WINGWALL		4.44	811.90 ✓	
(10)	ON CURB		4.50	811.84 ✓	
					VPE

23 C.S.

1/29/88



(2) 6' CONCRETE PIPES

		(K) #5 HI 816.34	ROAD DATA		
	℄ RD @ ℄ PIPES	0	4.86	811.48	
	℄ RD	25' LT	5.93	810.41	
	"	50 LT	6.08	810.26	
	"	75 LT	6.24	810.10	
	"	100 LT	5.96	810.38	
	"	125 LT	5.60	810.74	
	℄ RD	150 LT	5.02	811.32	
	25'±	TO BARTON RD			
	℄ RD	25' RT	5.08	811.26	
	"	50 RT	5.16	811.18	
	"	75 RT	4.89	811.45	
	℄ RD	100 RT	4.49	811.85	
	CK SHOT	(TBM STR)	4.63	811.71	

33 cs.

Traver Road over Traver Creek

c.s. 6865 - 6946 on HEC-2 run.

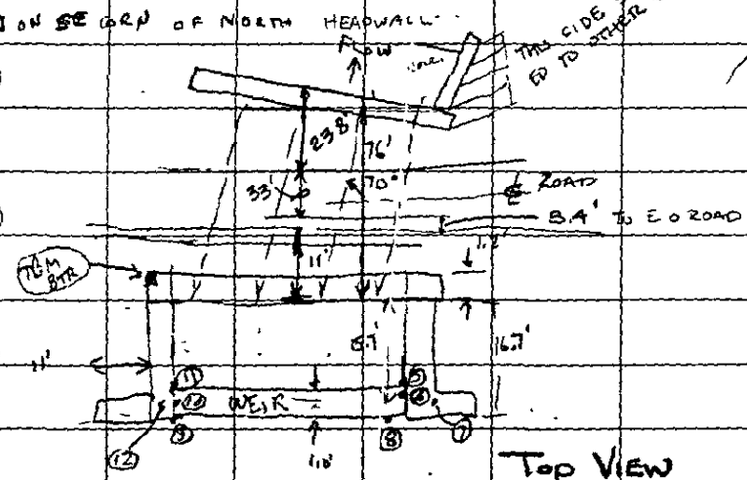
(8) #8

		HI			
TBM 8 TR	4.16	835.39 ✓		831 23	Ref. Pt. Pg 1L
①	ON ICE		11.70	823 69	
②			13.52	821,87	w/s
③			13.42	821.97	
④	ON ICE		12.20	823.19	
⑤	@ BTM OF WEIR		10.73	824 66	
⑥	@ TOP WEIR		7.95	827 44	
⑦	TOP WINGWALL		6 01	829.38	
⑧	ON RT SIDE U/S BTM OF WEIR		8.97	826 42	w/s
⑨	ON LT SIDE U/S BTM OF WEIR		8.56	826.83	
⑩	TOP WEIR		7.94	827.45	
⑪	BTM WEIR		10.80	824 59	
⑫	TOP WING WALL		6.34	829.05	

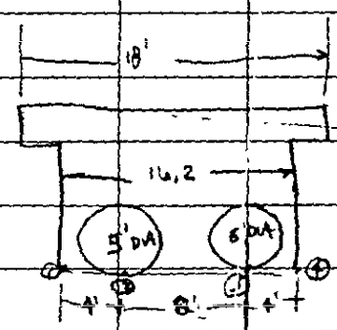
1/29/88

34cs.

□ ON SE CORN OF NORTH HEADWALL



Top View



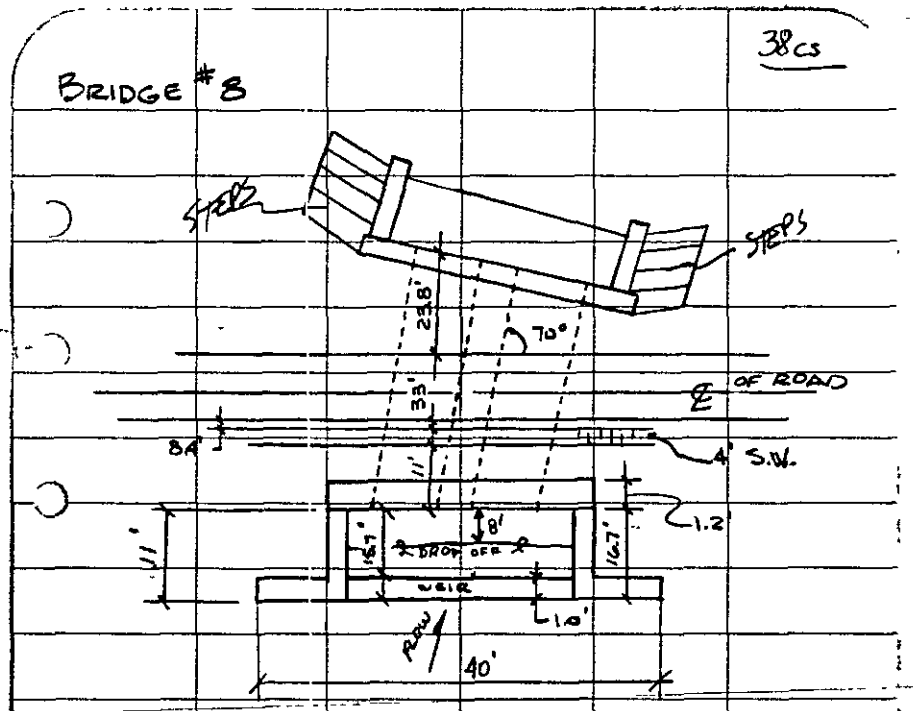
U/S FACE LOOK'G D/S

L/S 3.52

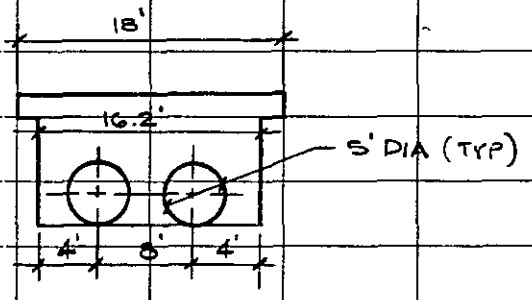
		@ #8			
		HI 835.39			
	℄ ROAD @ ℄ PIAS	0	4.28	831 11	
	℄ RD	25 RT	3,72	831 67	
	"	50 RT	3,15	832 24	
	"	75 RT	2,51	832.88	
	"	100 RT	1.46	833.93	
	℄ RD	125 RT	0.06	835.33	
	ROAD CONTINUES TO SLOPE UP				
	℄ RD	25 LT	4.38	831.01	
	"	50 LT	4.22	831.17	
	"	75 LT	3,85	831.54	
	"	100 LT	3,29	832.10	
	"	125 LT	2,88	832.51	
	℄ RD	150 LT	2.72	832 67	

38 cs

BRIDGE #8



Top View



U/S FACE LOOKING D/S

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF ANN ARBOR

3) WATERCOURSE: TRAVER CREEK

4) DOCUMENT TYPE: RATING CURVES & WATER SURFACE PROFILES

00BREAK00

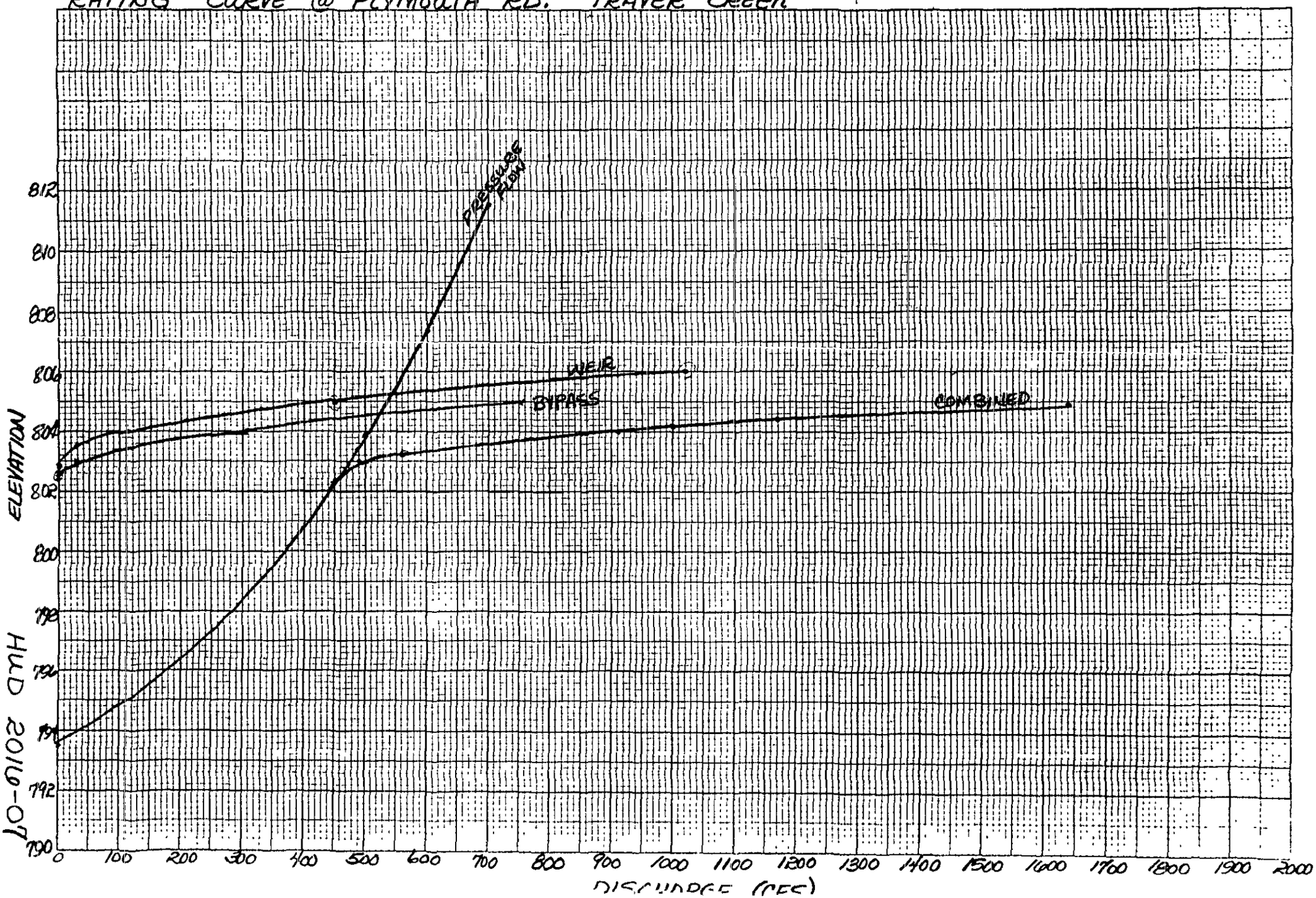
CITY OF ANN ARBOR

TRAVER CREEK

EXHIBIT 11

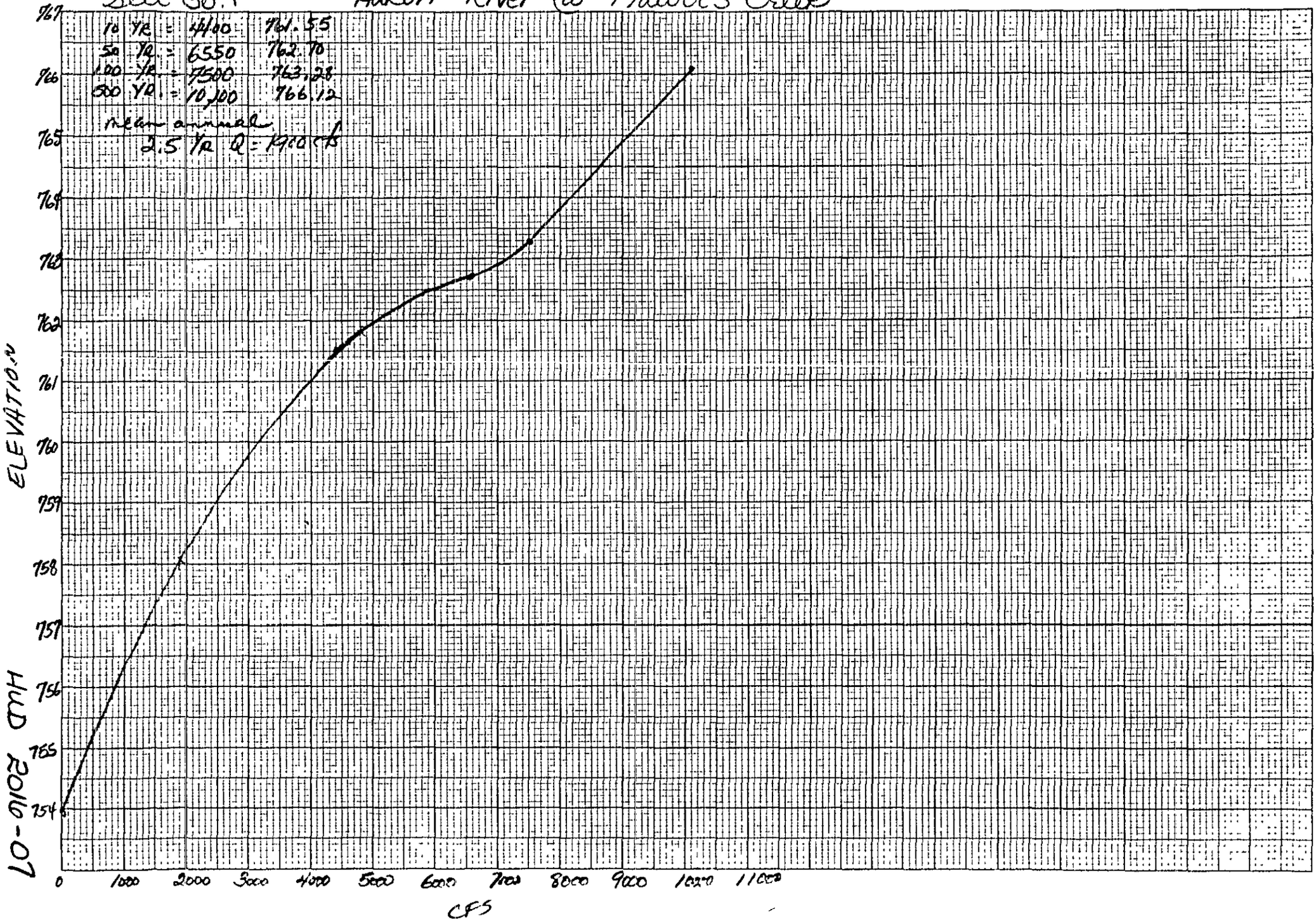
RATING CURVES

RATING CURVE @ PLYMOUTH RD. TRAVER CREEK



K+E 10 X 10 TO ½ INCH KEUFFEL & ESSER CO. MADE IN U.S.A. 46 1320

Sect 30.1 Huron River @ Traver's Creek



HUD 2016-07

DIETZGEN CORPORATION
MADE IN U.S.A.

NO 3410-10 DIETZGEN GRAPH PAPER
10 X 10 PER INCH

FLOOD PROFILE
TRAVER CREEK
CITY OF ANN ARBOR, MI.

ELEVATION IN FEET (NGVD)

820
810
800
790
780
770
760
750

MOUTH AT HURON RIVER
HURON RIVER BACKWATER
ISLAND DRIVE
FOOTBRIDGE
NIELSON ROAD
FOOTBRIDGE
BROADWAY
PLYMOUTH ROAD

0 400 800 1200 1600 2000 2400 2800 3200 3600 4000

STREAM DISTANCE IN FEET ABOVE MOUTH

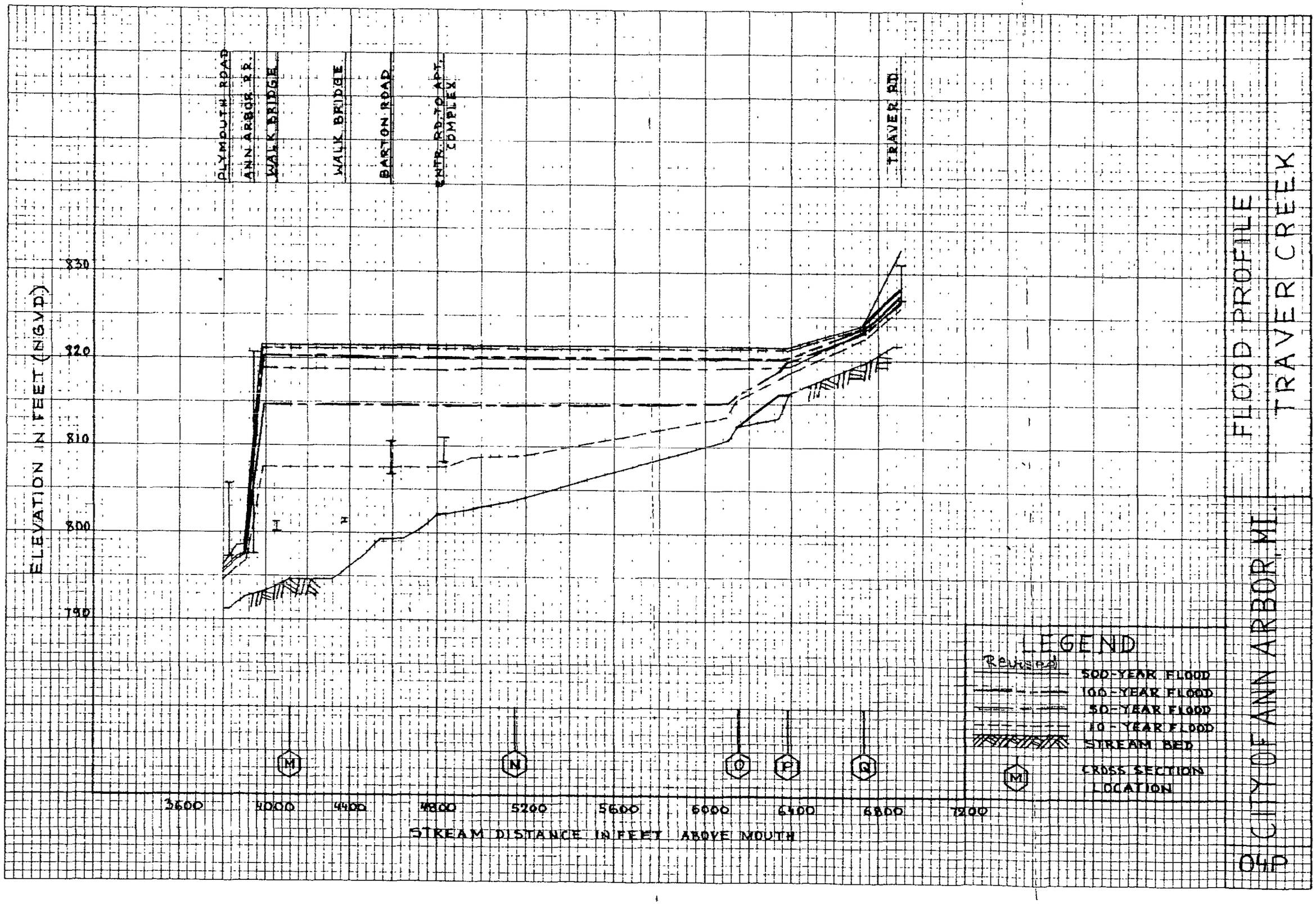
A B C D E F G H I J K L

LEGEND
500-YEAR FLOOD
100-YEAR FLOOD
50-YEAR FLOOD
10-YEAR FLOOD
STREAM BED
A CROSS SECTION LOCATION

03P

DIETZGEN CORPORATION
MADE IN U.S.A.
NO 3410 10 DIETZGEN GRAPH PAPER
10 X 10 PER INCH

FLOOD PROFILE
TRAVER CREEK
CITY OF ANN ARBOR, MI



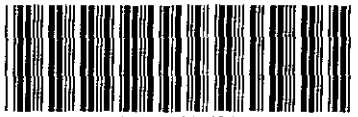
04P

FLOOD INSURANCE STUDY WORK MAP
CITY OF ANN ARBOR, MI

LEGEND

- CORPORATE LIMITS
- 100-YEAR FLOOD LIMITS
- 500-YEAR FLOOD LIMITS
- FLOODWAY LIMITS
- 12 — DISTANCE (IN THOUSANDS OF FEET) ABOVE THE MOUTH
- A — A — CROSS SECTION LOCATION
- RM 3 × — ELEVATION REFERENCE MARKS
- ZONE AE — ZONE DESIGNATIONS
- 764 — Revised BASE FLOOD ELEVATIONS

SPILLWAY ELEV 799
HURON R
Huron Bridge Park
Kuebler Langford Pk
Northside Playground
Northside Sch
Beckley Park
Fairview Cem
Gravel Pit
TRAVER CREEK
Golf Course
ANN ARBOR TWP
BM 858
Conservation Area
Summit Playground
Gaging Station
Riverside Park
St Thomas Sch
St Joseph Hospital
Jones Sch
Courthouse
City Hall
CONRAIL
Island Park
FULLER RD
BR 765
VA Hospital
University of Michigan (North Campus)
ARBORCREST CEMETERY
GLACIER
FULLER



1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF ANN ARBOR

3) WATERCOURSE: TRAVER CREEK

4) DOCUMENT TYPE: STUDY



City of Ann Arbor FIS
Traver Creek - encroachment run

```
EEEEEE   EEEEEE          K   K     OOOO    BBBBB    Y    Y   L        IIIII    N    N    SSSS    K   K
E        E               K  K     O    O   B    B    Y  Y    L          I      NN   N   S        K  K
E        E       ------  K K      O    O   BBBBB     YY     L          I      N N  N    SSSS    K K
EEEE     EEEE            KKK      O    O   B    B    Y      L          I      N  N N        S   KKK
E        E               K  K     O    O   B    B    Y      L          I      N   NN   S    S   K  K
EEEEEE   EEEEEE          K   K     OOOO    BBBBB    Y      LLLLLL   IIIII    N    N    SSSS    K   K

                        USACOE DETROIT H800 VOS 7.1.0      PRINTER:   6

                        EE-KOBYLINSK                  8 MAR 89 11:43:05

                        TERMINAL:106
```

THIS RUN EXECUTED 3 MAR 89 10:56.03

```
**************************************************
  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         CITY OF ANN ARBOR FIS RESTUDY
T2         TRAVER CREEK
T3        100-YEAR FLOOD

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
       0.         2.         0.         0.   0.000000       0.00       0.0        0.    760.480      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

GT      2.000    430 000    430.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
NC      0.070      0.070      0.035      0.300      0.500      0.000      0.000      0.000      0.000      0.000
          D/S FACE OF ISLAND DRIVE - START OF GREENHORNE & O'MARA PROVIDED DATA
X1      0.000      8.000    101.000    136.000      0.000      0.000      0.000      0.000      0.000      0.000
GR    762.200      0.000    762.800    101.000    756.640    107.000    756.640    107.100    756.640    128.900
GR    756.640    129.000    762.800    136.000    762.900    200.000      0.000      0.000      0.000      0.000

SB      0.000      1.500      3.000      0.000     24.300      0.000     98.000      0.000    757.060    756.640
          U/S FACE OF ISLAND DRIVE
X1     42.000      8.000    101.000    136.000     42.000     42.000     42.000      0.000      0.000      0.000
X2      0.000      0.000      1.000    761.100    762.800      0.000      0.000      0.000      0.000      0.000
X3      0.000      0.000      0.000     83.000      0.000    136.000      0.000      0.000      0.000      0.000
BT      8.000      0.000    762.200      0.000    101.000    762.800      0.000    107.000    762.800    757.000
BT    107.100    762.800    761.100    128.900    762.800    761.100    129.000    762.800    757.060    136.000
BT    762.800      0.000    200.000    762.900      0.000      0.000      0 000      0.000      0.000      0.000
GR    762.200      0.000    762.800    101.000    757.000    107.000    757.000    107.100    757.060    128.900
GR    757.060    129.000    762.800    136.000    762.900    200.000      0.000      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     67.000     12.000    113.000    126.000     25.000     25.000     25.000      0.000     -0.200      0.000
GR    766.300     50.000    766.000     66.000    765.000     92.000    764.000    101.000    760.000    109.000
GR    756.500    113.000    756.500    120.000    756.500    126.000    760.000    129.000    763.000    136.000
GR    763.000    173.000    770.000    173.100      0.000      0.000      0.000      0.000      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
NH	5.000	0.070	101.000	0.100	113.000	0.030	126.000	0.100	136.000	0.070
NH	173.100	0 000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	92.000	12.000	113.000	126.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	766.300	50.000	766.000	66.000	765.000	92.000	764.000	101.000	760.000	109.000
GR	757.000	113.000	756.500	120.000	757.000	126.000	760.000	129.000	763.000	136.000
GR	763.000	173.000	770.000	173.100	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
NH	5.000	0.070	101.000	0.100	113 000	0.030	126.000	0.100	136.000	0.070
NH	173.100	0.000	0.000	0.000	0 000	0.000	0.000	0 000	0.000	0.000
X1	97.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000
X1	102.000	0 000	0.000	0.000	5.000	5.000	5 000	0.000	0.000	0.000
X1	107.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000
X1	112.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000
X1	117.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000
NC	0.100	0.100	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	147.000	10.000	82.000	94.000	30.000	30.000	30.000	0.000	0.000	0.000
GR	766.140	5.000	765.000	64.000	764.000	72.000	760.000	78.000	758.000	82.000
GR	756.000	88.000	758.000	94.000	760.000	97.000	764.000	108.000	764.000	130.000
X1	206.000	10.000	33.000	44.000	59.000	59.000	59.000	0.000	0.000	0.000
GR	766.000	6.000	765.000	22 000	763.000	26.000	761.000	28.000	758.000	33.000
GR	756.700	40.000	758.000	44.000	762.000	50.000	765.000	58.000	766.000	63.000
NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	222.000	10.000	35.000	47.000	16.000	16.000	16.000	0.000	0.000	0.000
GR	766.000	0.000	766.000	5.000	765.000	25.000	760.000	33.000	758.000	35.000
GR	756.900	41.000	759.000	47.000	760.000	49.000	765.000	60.000	767.000	67.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	237.000	9.000	40.000	53.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	766.000	0.000	765.000	30.000	760.000	37.000	758.000	40.000	757.200	47.000
GR	758.000	53.000	760.000	55.000	765.000	65.000	766.000	73.000	0.000	0.000
X1	252.000	9.000	45.000	59.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	766.000	0.000	765.000	34.000	760.000	43.000	759.000	45.000	757.400	52.000
GR	759.000	59.000	760.000	60.000	765.000	70.000	766.000	80.000	0.000	0.000
X1	267.000	9.000	50.000	65.000	15 000	15.000	15.000	0.000	0.000	0.000
GR	766.100	0.000	765.000	38.000	760.000	47.000	759.000	50.000	757 700	57.000
GR	759.000	65.000	760.000	66.000	765.000	75.000	766 100	85.000	0.000	0.000

NC	0.100	0.100	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION A									
X1	282.000	8.000	67.000	83.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	766.900	10.000	765.000	53.000	760.000	63.000	759.000	67 000	758.000	75.000
GR	759.000	83.000	765.000	90.000	766.200	100.000	0.000	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	372.000	10.000	114.000	124.000	90.000	90.000	90.000	0.000	0.000	0 000
X4	1.000	765.500	41.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	770.000	40.000	765.000	90.000	764.000	104.000	760.000	111.000	758.500	114.000
GR	758.000	119.000	758.500	124.000	765.000	136 000	765.500	151.000	770.000	151.100
	D/S FACE OF FOOTBRIDGE									
X1	430.000	12.000	120.000	143.000	58.000	58.000	58.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	120.000	0.000	143.000	0.000	0.000	0.000	0.000
GR	770.000	24.000	765.500	25.000	765.000	104.000	764.000	120.000	760.000	124.000
GR	759.000	128.000	758.500	131.000	759.000	134.000	760.000	136.000	764 000	143.000
GR	765.000	150.000	770.000	150.100	0.000	0.000	0.000	0.000	0.000	0.000
X1	431.000	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	764.000	765.000	0.000	0.000	0.000	0.000	0 000
X3	0.000	0.000	0.000	120.000	0.000	143.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	0.000	120.000	143.000	0.000	0.000	0.000	0.000	0.000
X1	435.000	0.000	0.000	0 000	4.000	4.000	4.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	764.000	765.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	120.000	0.000	143.000	0.000	0.000	0.000	0.000
	U/S FACE OF FOOTBRIDGE									
X1	436.000	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	119.000	0.000	141.000	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
	CROSS SECTION B									
X1	452.000	11.000	160.000	173.000	16.000	16.000	16.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	140.000	0.000	194.000	0.000	0.000	0.000	0.000
GR	770.000	65.000	765.500	65.100	765.000	143.000	764.000	154.000	760.000	160.000
GR	758.600	168.000	760.000	173.000	764.000	177.000	765.000	190.000	765.500	200.000
GR	770.000	200.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	577.000	9.000	168.000	178.000	125.000	125.000	125.000	0.000	0.000	0.000
GR	770.600	115.000	766.000	115.100	765.000	156.000	764.000	162.000	760.000	168 000
GR	759.000	173.000	760.000	178.000	765.000	182.000	771.000	195.000	0.000	0.000
NC	0.060	0.090	0.035	0.000	0.000	0.000	0.000	0.000	0 000	0.000
	CROSS SECTION C									
X1	647.000	8.000	53.000	60.000	70.000	70.000	70.000	0.000	0.000	0 000
GR	770.000	25.000	767.800	25.100	765.000	39.000	760.000	53.000	759.000	57.000
GR	760.000	60.000	765.000	66.000	770.000	85.000	0.000	0.000	0.000	0.000

X1	662.000	12.000	24.000	32.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	768.500	0.000	768.000	9.000	765.000	14.000	760.000	24.000	759.200	28.000
GR	760.000	32.000	763.000	36.000	764.000	39.000	765.000	40.000	767.000	47.000
GR	768.000	57.000	770.000	57.100	0.000	0.000	0.000	0.000	0 000	0.000
X1	677.000	12.000	21.000	30.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	768.700	0.000	768.000	6.000	765.000	12.000	761.000	21.000	759.400	26.000
GR	761.000	30.000	763.000	33.000	764.000	39.000	765.000	41.000	766.000	45.000
GR	768.000	55.000	770.000	55.100	0.000	0.000	0.000	0.000	0.000	0.000
X1	692.000	11.000	20.000	30.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	768.900	0.000	768.000	4.000	765.000	10.000	761.000	20.000	759.600	25.000
GR	761.000	30.000	765.000	37.000	766.000	39.000	767.000	45.000	767.500	52.000
GR	770.000	52.100	0 000	0.000	0.000	0.000	0.000	0.000	0.000	0 000
X1	707.000	11.000	23.000	32.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	768.900	0 000	768.000	7.000	764.000	15.000	763.000	19.000	761.000	23.000
GR	759.800	28.000	761.000	32.000	765.000	39.000	767.000	44.000	768.000	55.000
GR	770.000	55.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	722.000	10.000	25.000	34.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	768.900	0.000	768.000	13.000	765.000	18.000	761.000	25 000	760.000	30.000
GR	761.000	34.000	765.000	40.000	767.000	44.000	768.000	53.000	768.500	55.000
X1	736.000	7.000	26.000	36.000	14.000	14.000	14.000	0.000	0.000	0.000
GR	769.000	0.000	768.000	16.000	761.000	26.000	760.100	31 000	761.000	36.000
GR	767.000	45.000	769.000	58.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	752.000	11.000	27.000	39.000	16.000	16.000	16.000	0.000	0.000	0.000
GR	770.000	0.000	768.900	0.100	768.000	15.000	761.000	27.000	760.300	33.000
GR	761.000	39.000	766.000	46.000	767.000	48.000	768.000	55.000	768 900	85.000
GR	770.000	85.100	0.000	0.000	0.000	0.000	0 000	0.000	0.000	0.000
X1	767.000	11.000	27.000	41.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	770.000	0 000	769.000	0.100	768.000	15.000	765.000	20.000	761.000	27.000
GR	760.300	34.000	761.000	41.000	767.000	49.000	768.000	52.000	768.900	80.000
GR	770.000	80.100	0.000	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
	D/S FACE OF NIELSON ROAD									
X1	794.000	20.000	38.700	54.500	27.000	27.000	27.000	0.000	0.000	0.000
GR	775.000	5.000	769.500	5.100	769.000	22.000	763.000	38.700	761.300	39.700
GR	761.200	42.450	761.300	45.200	763.000	46.200	763.700	48.500	762.500	48.750
GR	761.400	49.500	760.900	50.500	760.700	51.500	760 900	52.500	761.400	53.500
GR	762.500	54.250	763.700	54.500	768.000	65.000	770.000	65.100	775.000	65.200
SB	0.000	2.400	3.000	0.000	9.700	0.000	64.100	0.000	762.900	760.700
	U/S FACE OF NIELSON ROAD - CROSS SECTION D									
X1	874.000	20.000	38.700	54.500	80.000	80.000	80.000	0.000	0.000	0 000
X2	0.000	0.000	1.000	769.500	770.000	0.000	0.000	0.000	0.000	0.000
BT	20.000	0.000	775.000	0.000	0.100	770.500	0.000	20.000	770.500	0.000
BT	38.700	770.590	764.700	39.700	770.570	768.000	42.450	770.570	768.900	45.200
BT	770.500	768.000	46.200	770.500	764.700	48.500	770.500	766.500	48.750	770.500

BT	767.700	49.500	770.500	768.800	50.500	770.500	769.300	51.500	770.500	769.500
BT	52.500	770.500	769.300	53.500	770.500	768.800	54.250	770.500	767 700	54.500
BT	770.500	766.500	65.000	770.000	0.000	65 100	770.000	0.000	65.200	775.000
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	775.000	0.000	770.500	0.100	770.500	20.000	764.700	38.700	763.000	39.700
GR	762.900	42.450	763.000	45.200	764.700	46.200	766.500	48.500	765.300	48.750
GR	764.100	49.500	763.700	50.500	763.500	51.500	763.700	52.500	764.100	53.500
GR	765.300	54.250	766.500	54.500	770.000	65.000	770.000	65.100	775.000	65.200
X1	952.000	10.000	101.000	114.000	78.000	78.000	78.000	0.000	0.000	0.000
GR	775.000	72.000	771.000	73.000	770.000	86.000	769.000	93.000	765.000	101.000
GR	762.500	108.000	765.000	114.000	767.000	119.000	767.700	136.000	775.000	136.100
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF FOOTBRIDGE - CROSS SECTION E									
X1	1055.000	9.000	17.000	43.000	103.000	103.000	103.000	0.000	0.000	0 000
GR	775.000	0.000	769.000	6.000	765.000	17.000	763.500	25.000	765.000	43.000
GR	767.000	47.000	768.500	47.100	767.700	50.000	775.000	50.100	0.000	0.000
X1	1056.000	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	767.500	768.500	0.000	0.000	0.000	0.000	0.000
X1	1061.000	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	767.500	768.500	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF FOOTBRIDGE									
X1	1062.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	1137.000	8.000	34.000	49.000	110.000	60.000	75.000	0.000	0.000	0.000
GR	775.000	0.000	768.000	23.000	765.000	34.000	764.200	41.000	765.000	49.000
GR	768.000	55.000	769.200	60.000	775.000	60.100	0.000	0.000	0.000	0.000
NC	0.090	0.100	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1226.000	12.000	97.000	109.000	70.000	131.000	89.000	0.000	0.000	0.000
GR	775.000	30.000	770.000	69.000	769.000	84.000	768.000	90.000	767.000	92.000
GR	766.000	97.000	765.200	103.000	766.000	109 000	768.000	112.000	769.000	114.000
GR	769.100	130.000	775.000	130.100	0.000	0.000	0.000	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	1327.000	11.000	98.000	112.000	101 000	101.000	101.000	0.000	-1.500	0.000
GR	777.000	55.000	774.000	56.000	773.000	85.000	772.000	96.000	770.000	98.000
GR	767.800	105.000	770.000	112.000	772.000	119.000	773.000	130.000	774.000	156.000
GR	777.000	156.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION F									
X1	1428.000	11.000	98.000	112.000	129.000	60.000	101.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	83.000	0.000	126.000	0.000	0.000	0.000	0.000
GR	777.000	55.000	774.000	56.000	773.000	85.000	772.000	96.000	770.000	98.000
GR	767.800	105.000	770.000	112.000	772.000	119.000	773.000	130.000	774.000	156.000
GR	777.000	156.100	0.000	0.000	0.000	0 000	0.000	0.000	0.000	0.000

D/S FACE OF BROADWAY

X1	1463.000	19.000	92.000	120.000	50.000	25.000	35.000	0.000	0.000	0.000
GR	780.000	55.000	774.700	56.000	774.500	92.000	768.200	98 000	768.200	98.100
GR	768.200	98.500	768.200	99.500	768.200	100.800	768.200	102.400	768.200	104.000
GR	768.200	105.600	768.200	107.200	768.200	108.500	768.200	109.500	768.200	109.900
GR	768.200	110.000	774.500	120.000	774.700	165.000	780.000	166.000	0.000	0.000
SB	0.000	2.500	3.000	0.000	9.000	0.000	45.000	0.000	768.700	768.200
ET	0 000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S FACE OF BROADWAY - CROSS SECTION G

X1	1530.000	19.000	92 000	120.000	67.000	67.000	67.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	773.700	774.700	0.000	0.000	0.000	0.000	0.000
BT	17.000	55.000	780.000	0.000	56.000	774.700	0.000	98.000	774.700	0.000
BT	98.100	776.200	768.700	98.500	776.200	770.300	99.500	776.200	771.800	100.800
BT	776.200	773.000	102.400	776.200	773.500	104.000	776.200	773.700	105.600	776.200
BT	773.500	107.200	776.200	773.000	108.500	776.200	771.800	109.500	776.200	770.300
BT	109.900	776.200	768.700	110.000	774.700	0.000	180.000	775.200	0.000	180.100
BT	780.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	780.000	55.000	774.700	56.000	774.500	92.000	768.700	98.000	768.700	98.100
GR	768.700	98.500	768.700	99.500	768.700	100.800	768.700	102.400	768.700	104.000
GR	768.700	105.600	768.700	107.200	768.700	108.500	768.700	109.500	768.700	109.900
GR	768.700	110.000	774.500	120.000	775.200	180.000	780.000	180.100	0.000	0.000
X1	1612.000	11.000	247.000	263.000	95.000	50.000	82.000	0.000	0.000	0.000
GR	780.000	160.000	775.000	161.000	773.000	234.000	772.000	244.000	771.000	247.000
GR	770.200	255.000	771.000	263.000	774.000	270.000	775.000	290.000	775.400	325.000
GR	780.000	325.100	0.000	0.000	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
NH	5.000	0.060	210.000	0.100	219.000	0.035	229.000	0.100	231.000	0.090
NH	255.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CROSS SECTION H

X1	1887.000	10.000	219.000	229.000	262.000	243.000	275.000	0.000	0.000	0.000
GR	780.000	45.000	774.000	120.000	774.000	210.000	773 000	219.000	771 400	225.000
GR	773.000	229.000	774.000	231.000	776.500	245.000	778.000	254.900	779.000	255.100
ET	0.000	4.100	0.000	114.000	239 000	0.000	0.000	0.000	0.000	0.000
X1	1997.000	0.000	0.000	0.000	110.000	110.000	110.000	0.000	0 600	0.000
NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	140.000	237.000	149.000	230.000	0.000	0.000	0.000
X1	2052.000	0.000	0.000	0.000	55.000	55.000	55 000	0.000	0.500	0.000
NH	4.000	0.060	43.000	0.100	47.000	0.035	58.000	0.100	122.000	0.000
ET	0.000	0.000	4.100	38.000	78.000	0.000	0.000	0.000	0.000	0.000
X1	2108.000	9.000	43.000	67.000	134.000	37.000	56.000	0.000	0.000	0.000
GR	780.000	5.000	776.000	43.000	774.000	47.000	772.700	50.000	774.000	54.000
GR	775.000	58.000	776.000	67.000	777.000	101.000	779.000	122.000	0.000	0.000

NH	4.000	0.060	82.000	0.100	87.000	0.035	100 000	0.100	109.000	0.000
ET	0.000	0.000	4.100	74.000	103.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION I									
X1	2487.000	9.000	87.000	104.000	410.000	344.000	379.000	0.000	0.000	0.000
GR	783.000	20.000	781.000	36.000	780.000	51.000	779.000	82.000	777.000	87.000
GR	775.700	92.000	777.700	100.000	780.000	104.000	783.000	109.000	0.000	0.000
ET	0.000	0.000	4.100	64.000	108.000	0.000	0.000	0.000	0.000	0.000
X1	2665.000	0.000	0.000	0.000	172.000	187.000	178.000	0.000	1.800	0.000
NH	4.000	0.060	80.000	0.100	89 000	0.035	110.000	0.100	118.000	0.000
ET	0.000	0.000	4.100	83.000	115.000	0.000	0.000	0.000	0.000	0.000
X1	2845.000	9.000	89.000	117.000	171.000	171.000	180.000	0.000	0.000	0.000
GR	786.000	30.000	784.000	80.000	783.000	89.000	782.000	93.000	779.400	102.000
GR	782.000	110.000	783.000	113.000	784.000	117.000	790.000	118.000	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	2900.000	0.000	0.000	0.000	55.000	50.000	55.000	0.000	1.600	0.000
	CROSS SECTION J									
X1	2951.000	7.000	84.000	115.000	55.000	50.000	51.000	0.000	0.000	0.000
GR	794.500	60.000	794.000	84.000	783.000	95.000	782.000	99.000	783.000	103.000
GR	793.000	111.000	794.000	115.000	0.000	0.000	0.000	0.000	0 000	0.000
NC	0.070	0.080	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	3137.000	9.000	38.000	49.000	200.000	170.000	186.000	0.000	0 000	0.000
GR	795.000	12.900	789.500	13.000	789.000	27.000	785 000	38.000	784 000	44.000
GR	785.000	49.000	787.000	54.000	788.000	64.000	795.000	64.100	0.000	0.000
X1	3331.000	10.000	25.000	37.000	202.000	182.000	194.000	0.000	0.000	0.000
GR	795.000	0.000	790.000	14.000	787.000	25.000	785.000	31.000	787.000	37.000
GR	790.000	41.000	791.000	46.000	793.000	50.000	794.000	54.000	795.000	54.100
NH	4.000	0.060	56.000	0 100	67.000	0.035	81.000	0.100	125.000	0.000
	CROSS SECTION K									
X1	3587.000	9.000	67.000	81.000	158.000	358.000	256.000	0.000	0.000	0.000
GR	797.000	9.000	795.100	50.000	795.000	56.000	789.000	67.000	788 500	75.000
GR	789 000	81.000	793.000	90.000	795.000	103.000	800.000	125.000	0.000	0.000
NC	0.100	0.100	0.035	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	175.000	198.000	181.000	193.000	0.000	0.000	0.000
	CROSS SECTION L - END OF GREENHORNE & O'MARA PROVIDED DATA									
X1	3764.000	10.000	181.000	193.000	125.000	200.000	177.000	0.000	0.000	0.000
GR	801.000	104.800	800.000	104.900	796.000	105.000	795.000	170.000	793.000	181.000
GR	792.000	183.000	791.300	188 000	792.000	193 000	795.000	195.000	800.000	218.000
NC	0.000	0.000	0.013	0.500	1.000	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

	D/S FACE OF PLYMOUTH ROAD									
X1	3794.000	13.000	200.000	210.000	30.000	30.000	30.000	0.000	0 000	0.000
GR	813.800	0.000	810.000	100.000	808.800	150.000	807.300	175.000	805.800	200.000
GR	791.500	201 000	791.100	205.000	791.500	209.000	805.800	210.000	804 600	225.000
GR	803.300	250.000	802.400	300.000	802.400	400.000	0.000	0.000	0.000	0.000
SB	0.000	1.670	3.000	0.000	8.200	0.000	46.800	0.000	791.100	791.100
ET	0.000	4.100	6.100	193.000	217.000	200.000	210.000	0.000	0.000	0.000
	U/S FACE OF PLYMOUTH ROAD									
X1	3865.000	0.000	0.000	0.000	71.000	71.000	71.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	797.200	805.800	0.000	0.000	0.000	0.000	0.000
BT	14.000	0.000	813.800	0.000	100.000	810.000	0.000	150.000	808.800	0.000
BT	175.000	807.300	0.000	200.000	805.800	0.000	201.000	805.800	791.500	201.000
BT	805.800	797.200	209.000	805.800	797.200	209.000	805.800	791.500	210.000	805.800
BT	0.000	225.000	804.600	0.000	250.000	803.300	0.000	300.000	802 400	0.000
BT	400.000	802.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	2.000	420.000	420.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.070	0.070	0.030	0.500	1.000	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
	D/S FACE OF ANN ARBOR RR									
X1	3900.000	17.000	200.000	215.000	35.000	35.000	35.000	0.000	0.000	0.000
GR	823.100	0.000	822.500	100.000	822.200	150.000	822.000	175.000	795.300	200.000
GR	795.300	205.000	793.800	205.500	793.000	206.500	792.800	207.500	793.000	208.500
GR	793.800	209.500	795.300	210 000	795.300	215.000	821.600	225.000	821.500	250.000
GR	821.200	300.000	820.800	400.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	3.170	3.000	0.000	3.920	0.000	19.630	0.000	792.800	792.800
ET	0.000	4.100	6.100	195.000	220.000	200.000	215.000	0.000	0.000	0.000
	U/S FACE OF ANN ARBOR RR									
X1	3986.000	0.000	0.000	0.000	86.000	86.000	86.000	0.000	0.000	0.000
X2	0.000	0 000	1.000	797.800	820.800	0.000	0.000	0.000	0.000	0.000
BT	17.000	0.000	823.100	0 000	100.000	822.500	0.000	150.000	822.200	0.000
BT	175.000	822.000	0.000	200.000	821.800	0.000	205.000	821.800	795.300	205.500
BT	821.800	796.800	206.500	821.800	797.600	207.500	821.800	797.800	208.500	821.700
BT	797.600	209.500	821.700	796.800	210.000	821.600	795 300	215.000	821.600	0.000
BT	225.000	821.600	0.000	250.000	821.500	0.000	300.000	821.200	0.000	400.000
BT	820.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	2.000	680.000	680.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	282.000	367.000	310.000	338.000	0.000	0.000	0.000
X1	4016.000	18.000	310.000	338.000	30.000	30.000	30.000	0.000	-1.200	0.000
GR	830.000	0.000	820.000	160.000	807.100	240.000	807.300	260.000	805.000	285.000
GR	802.800	310.000	795.400	324.000	794.700	329.000	795.100	333.000	798.000	338.000
GR	799.800	360.000	800.900	385.000	801.500	410.000	802.200	435.000	803 400	460.000
GR	803.900	485.000	820.000	650.000	830.000	700.000	0.000	0.000	0 000	0 000
NC	0.000	0.000	0.027	0.300	0.500	0.000	0.000	0.000	0 000	0.000
ET	0.000	4.100	6.100	192.000	337.000	250.000	279.000	0.000	0.000	0.000

	D/S FACE OF WALK BRIDGE									
X1	4046.000	17.000	250.000	279.000	30.000	30.000	30.000	0.000	0.000	0.000
GR	830.000	0.000	820.000	150.000	800.200	221.000	799.900	250.000	796.100	257.000
GR	794.400	261.000	794.200	265.000	794.300	268.000	797.400	272.000	798.800	279.000
GR	798.500	300 000	798.700	325.000	800.600	350.000	801.200	375.000	801.600	400.000
GR	820.000	650.000	830.000	680.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	1.250	1.540	3.000	0.000	17.100	0.700	101.200	0.000	794.200	794.200
ET	0.000	4.100	6.100	190.000	340.000	250.000	279.000	0.000	0.000	0.000
	U/S FACE OF WALK BRIDGE									
X1	4050.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	800.100	801.100	0.000	0.000	0.000	0 000	0.000
BT	14.000	0.000	830.000	0.000	150.000	820.000	0.000	221.000	8800.200	0.000
BT	250.000	799.000	0.000	257.000	801.100	800.100	272.000	801.100	800.100	279.000
BT	798.800	0.000	300.000	798.500	0.000	325.000	798.700	0.000	350 000	800.600
BT	0.000	375.000	801.200	0.000	400.000	801.600	0.000	650.000	820.000	0.000
BT	680.000	830.000	0.000	0.000	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
ET	0.000	4.100	6.100	183.000	465.000	280.000	380.000	0.000	0.000	0.000
	CROSS SECTION M									
X1	4116.000	18.000	310.000	338.000	66.000	66.000	66.000	0.000	0 000	0.000
GR	830.000	0.000	820.000	160.000	807.100	240.000	807.300	260.000	805.000	285.000
GR	802.800	310 000	795.400	324.000	794.700	329.000	795.100	333.000	798.000	338.000
GR	799.800	360.000	800.900	385 000	801.500	410.000	802.200	435.000	803.400	460.000
GR	803.900	485.000	820.000	650.000	830.000	700.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	157.000	639.000	270.000	390.000	0.000	0 000	0.000
X1	4216 000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.000	0.000
ET	0.000	0.000	4.100	270.000	390.000	0.000	0.000	0.000	0.000	0.000
X1	4316.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.000	0.000
NC	0.065	0.065	0.027	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	178.000	800 000	350.000	500.000	0.000	0.000	0.000
	D/S FACE OF WALK BRIDGE									
X1	4372.000	15.000	410.000	434.000	56.000	56.000	56.000	0.000	0.000	0.000
GR	830.000	0.000	820.000	200.000	806.000	360.000	803.900	385.000	801.600	409.500
GR	801.100	410.000	796.400	416.000	795.600	420.000	796.300	426.000	798.500	430.000
GR	801.200	434.000	801.800	434.500	803 300	464.000	820.000	820.000	830.000	860.000
SB	0.000	1.540	3.000	0.000	15.900	0.000	88.500	0.000	795.600	795.600
ET	0.000	4.100	6.100	179.000	799.000	350.000	500.000	0.000	0.000	0.000
	U/S FACE OF WALK BRIDGE									
X1	4376.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	801.200	801.600	0.000	0.000	0.000	0.000	0.000
BT	11.000	0.000	830.000	0.000	200.000	820.000	0.000	360.000	806.000	0.000
BT	385.000	803.900	0 000	409.500	801.600	0.000	410.000	801.600	801.100	434.000
BT	801.800	801.200	434.500	801.800	0.000	464.000	803.300	0.000	820.000	820 000
BT	0.000	860.000	830.000	0.000	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
ET	0.000	0.000	4.100	375.000	515.000	0.000	0.000	0 000	0.000	0.000
X1	4458.000	17.000	430.000	458.000	82.000	82 000	82.000	0.000	2.800	0.000
GR	830.000	0.000	820.000	200.000	807.100	360.000	807.300	380.000	805.000	405.000
GR	802.800	430.000	795.400	444.000	794.700	449.000	795 100	453.000	798.000	458.000
GR	799.800	480.000	800.900	505.000	801.500	530.000	802.200	555.000	803.400	580.000
GR	820.000	820.000	830.000	860.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	4.100	330.000	470 000	0.000	0.000	0.000	0.000	0.000
X1	4539.000	30.000	383.000	417.000	81.000	81.000	81.000	0.000	0.000	0.000
GR	830.000	0 000	820 000	200.000	815.700	225.000	813.600	250.000	812.500	275.000
GR	811.700	300.000	811.300	325.000	811.000	350.000	810.800	375.000	810.000	383.000
GR	801.500	394.200	800.500	395.000	799.900	396.000	799.700	397.000	799.500	398.000
GR	799.300	400.000	799.500	402.000	799.800	403.000	800.100	404.000	800.700	405.000
GR	801.700	405.800	810.000	417.000	810.900	425.000	811.000	450.000	811.400	475.000
GR	811.800	500.000	812.700	525.000	813.600	550.000	820 000	790.000	830.000	830.000
NC	0.100	0.100	0.013	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	4.100	330.000	470.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF BARTON ROAD									
X1	4540.000	0.000	0 000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	30.000	0.000	830.000	0.000	200.000	820.000	0.000	225.000	815.700	0.000
BT	250.000	813.600	0.000	275.000	812.500	0.000	300.000	811.700	0.000	325.000
BT	811.300	0.000	350.000	811.000	0.000	375.000	810.800	0.000	383.000	810.800
BT	810.000	394.200	810.700	801.500	395.000	810.700	805.200	396.000	810.700	805.200
BT	397.000	810.700	806.000	398.000	810.600	806.500	400.000	810.600	806.900	402.000
BT	810.600	806.500	403.000	810.700	806.100	404.000	810.700	805.400	405.000	810.700
BT	804.200	405.800	810.700	801.700	417.000	810 800	810.000	425.000	810.900	0.000
BT	450.000	811.000	0.000	475.000	811.400	0.000	500 000	811.800	0.000	525.000
BT	812.700	0.000	550.000	813.600	0.000	790.000	820.000	0.000	830.000	830.000
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	4.100	330.000	470.000	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF BARTON ROAD									
X1	4646.000	0.000	0.000	0.000	106 000	106.000	106.000	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	0.065	0.065	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	4.100	330.000	470.000	0.000	0.000	0.000	0.000	0.000
X1	4647.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
ET	0.000	4.100	6.100	107.000	683.000	300.000	440.000	0.000	0.000	0.000
X1	4728.000	20.000	360.000	375.000	81.000	81.000	81.000	0.000	-3.000	0.000
GR	830.000	0.000	820.000	20.000	813.600	160.000	814.600	260.000	813.700	285.000
GR	812.100	304.000	810.100	329.000	804.900	354.000	804 900	360.000	804.200	362.000
GR	803.700	366.000	804.000	371.000	806.400	375.000	808.400	385.000	811.100	410.000
GR	811.900	435.000	812.000	460.000	812.200	485.000	820.000	720.000	830.000	860 000

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ET      0.000      0.000      4.100    230.000    380.000      0.000      0.000      0.000      0.000      0.000
X1   4812.000     34.000    300.000    320.000     84.000     84.000     84.000      0.000      0.000      0.000
GR    830.000      0.000    820.000     70.000    811.300    160.000    810.700    185.000    810 400    210.000
GR    810.100    235.000    810.300    260.000    810.400    285.000    811.000    300.000    805 100    301.300
GR    804.000    301.500    803.300    302.000    802.500    303.000    802.100    304.300    802.500    305.500
GR    803.300    306.500    804.000    307.000    805.100    307.300    805.100    312.800    804 000    313.000
GR    803.300    313.500    802.500    314.500    802.500    315 800    802.500    317.000    803.300    318.000
GR    804.000    318 500    805.100    318.800    811.500    320.000    811.300    335.000    811.200    360.000
GR    811.400    385.000    811.800    410.000    820.000    600.000    830.000    880.000      0.000      0.000

NC      0.100      0.100      0.013      0.300      0.500      0.000      0.000      0.000      0.000      0.000
ET      0.000      0.000      4.100    230.000    380.000      0.000      0.000      0.000      0.000      0.000
          D/S FACE OF ENTRANCE ROAD TO APT. COMPLEX
X1   4813.000      0.000      0.000      0.000      1.000      1.000      1.000      0 000      0.000      0.000
BT     34.000      0.000    830.000      0.000     70.000    820 000      0.000    160.000    811.300      0.000
BT    185.000    810.700      0.000    210.000    810.400      0.000    235.000    810.100      0.000    260.000
BT    810.300      0.000    285.000    810.400      0.000    300.000    811.000      0.000    301 300    811 100
BT    805.100    301.500    811.100    806.500    302.000    811.100    807.100    303.000    811.200    807.800
BT    304.300    811.300    808.100    305.500    811.300    807.800    306.500    811.400    807.100    307.000
BT    811.400    806.500    307.300    811.500    805.100    312.800    811.500    805.100    313 000    811.500
BT    806.500    313.500    811.500    807.100    314.500    811.500    807.800    315.800    811.500    808.100
BT    317.000    811.500    807.800    318.000    811.500    807.100    318.500    811.500    806.500    318.800
BT    811.500    805.100    320.000    811.500      0.000    335.000    811.300      0.000    360.000    811.200
BT      0.000    385.000    811.400      0.000    410.000    811.800      0.000    600.000    820.000      0.000
BT    880.000    830.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000

ET      0.000      0.000      4.100    230.000    380.000      0.000      0.000      0.000      0.000      0.000
          U/S FACE OF ENTRANCE ROAD TO APT. COMPLEX
X1   4846.000      0.000      0.000      0.000     33.000     33.000     33.000      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      0.065      0.065      0.045      0.100      0.300      0.000      0.000      0.000      0.000      0.000
ET      0.000      0.000      4.100    230.000    380.000      0.000      0 000      0.000      0.000      0.000
X1   4847.000      0.000      0.000      0.000      1.000      1.000      1.000      0.000      0.000      0.000

ET      0.000      4.100      6.100    119.000    641.000    300.000    440.000      0.000      0.000      0.000
X1   4946.000     20.000    360.000    375.000     99.000     99.000     99.000      0.000     -0.900      0.000
GR    830.000      0.000    820.000     90.000    813.600    160.000    814.600    260.000    813.700    285.000
GR    812.100    304.000    810.100    329.000    804.900    354.000    804.900    360.000    804.200    362.000
GR    803.700    366.000    804.000    371.000    806.400    375.000    808.400    385.000    811.100    410.000
GR    811.900    435.000    812.000    460.000    812.200    485.000    820.000    640.000    830.000    880.000

ET      0.000      0.000      4.100    320.000    420.000      0.000      0.000      0.000      0.000      0.000
          CROSS SECTION N
X1   5146.000     20.000    360.000    375.000    200.000    200.000    200.000      0.000      0.000      0.000
GR    830.000      0.000    820.000    100.000    813.600    160.000    814.600    260.000    813.700    285.000
GR    812.100    304.000    810.100    329.000    804.900    354.000    804.900    360.000    804.200    362.000
GR    803.700    366.000    804.000    371.000    806.400    375.000    808.400    385.000    811 100    410.000
GR    811.900    435.000    812.000    460.000    812.200    485.000    820.000    520.000    830.000    640.000
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NC	0.000	0.000	0.013	0.500	1.000	0 000	0.000	0.000	0.000	0 000
ET	0.000	4.100	1.400	20.000	155.000	0.000	0.000	0.000	0.000	0.000
X1	6108.000	10.000	45.000	128.000	962.000	962.000	962.000	0.000	0.000	0.000
GR	829.200	0.000	823.200	45.000	810.900	86.000	810.900	96.000	820.500	128.000
GR	819.700	130.000	818.500	145.000	817.800	170.000	818.000	206.000	830.000	400.000
X1	6133.000	9.000	45.000	128.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	829.700	0.000	824.700	45.000	812.400	86.000	812.400	96.000	822.000	128.000
GR	821.200	130.000	820.000	145.000	819.300	170.000	819.500	206.000	0 000	0.000
	CROSS SECTION O									
X1	6148.000	9.000	45.000	128.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	829.900	0.000	824.900	45.000	812.600	86.000	812.600	96.000	822.200	128.000
GR	821.400	130.000	820.200	145.000	819.500	170.000	819.700	206.000	0.000	0.000
ET	0.000	4.100	0.000	19.000	72.000	0.000	0.000	0.000	0.000	0.000
X1	6335.000	7.000	19.000	72.000	187.000	187.000	187.000	0.000	0.000	0.000
GR	824.500	0.000	823.400	19.000	816.100	51.000	816.100	63.000	817.100	72.000
GR	818.800	94.000	819.600	113.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6355.000	7.000	19.000	72.000	20.000	20.000	20.000	0.000	0.000	0.000
GR	826.600	0.000	825.500	19.000	816.100	51.000	816.100	63.000	819.200	72.000
GR	820.900	94.000	821.700	113.000	0.000	0.000	0.000	0.000	0.000	0 000
	CROSS SECTION P									
X1	6380.000	7 000	19.000	72.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	826.800	0.000	825.700	19.000	816.100	51.000	816.100	63.000	819.400	72.000
GR	821 100	94.000	821.900	113.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.045	0.000	0 000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION Q									
X1	6730.000	16.000	115.000	140.000	350.000	350.000	350.000	0.000	0.000	0.000
GR	831.900	0.000	831.800	27.000	831.200	52.000	826.400	93.000	826.100	115.000
GR	819.900	128.000	819.800	133.000	819.700	135.000	820.000	138.000	821.000	140.000
GR	821.900	155.000	828.300	186.000	828.900	196.000	829.500	215.000	830.100	240.000
GR	834.700	259.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF TRAVER ROAD									
X1	6865.000	28.000	140.000	160.000	135.000	135.000	135.000	0.000	0.000	0.000
GR	832.700	0.000	832.500	25.000	832.100	50.000	831 500	75.000	831.200	100.000
GR	831.000	125.000	831.000	140.000	824.400	143.500	822.900	144.000	822.100	145.000
GR	821.900	146.000	822.100	147.000	822.900	148.000	824 400	148.500	824.500	151.500
GR	823.000	152.000	822.200	153.000	822.000	154.000	822.200	155.000	823.000	156.000
GR	824.500	156.500	831.400	160.000	831 600	170.000	831.700	175.000	832.200	200.000
GR	832.900	225.000	833.900	250.000	835.300	275.000	0.000	0.000	0.000	0.000
SB	0.000	1 500	3.000	0.000	7.850	0.000	39.260	0.000	821.900	821.900

U/S FACE OF TRAVER ROAD

X1	6946.000	0.000	0.000	0.000	81.000	81.000	81.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	826.900	831.600	0.000	0.000	0.000	0.000	0.000
BT	28.000	0.000	832.700	0.000	25.000	832.500	0.000	50.000	832.100	0.000
BT	75.000	831.500	0.000	100.000	831.200	0.000	125.000	831.000	0.000	140.000
BT	831.000	0.000	143.500	831.100	824.400	144.000	831.100	825.900	145.000	831.100
BT	826.700	146.000	831.100	826.900	147.000	831.100	826.700	148.000	831.100	825.900
BT	148.500	831.100	824.400	151.500	831.100	824.500	152.000	831.100	826.000	153.000
BT	831.200	826.800	154.000	831.200	827.000	155.000	831.200	826.800	156.000	831.300
BT	826.000	156.500	831.300	824.500	160.000	831.400	0.000	170.000	831.600	0.000
BT	175.000	831.700	0.000	200.000	832 200	0.000	225.000	832.900	0.000	250.000
BT	833.900	0.000	275.000	835.300	0.000	0.000	0.000	0 000	0.000	0.000
NC	0.000	0.000	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	6947.000	0.000	0.000	0.000	1.000	1.000	1.000	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= 0.300 CEHV= 0.500
*SECNO 0.000
D/S FACE OF ISLAND DRIVE - START OF GREENHORNE & O'MARA PROVIDED DATA

0.00	3.84	760.48	0.00	760.48	760.77	0.29	0.00	0.00	762.80
430.	0.	430.	0.	0.	100.	0.	0.	0.	762.80
0.00	0.00	4.30	0.00	0.000	0.035	0.000	0.000	756.64	103.26
0.002352	0.	0.	0.	0	0	0	0.00	30.10	133.36

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	3.00	0.00	24.30	0.00	98.00	0.00	757.06	756.64

*SECNO 42.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 760.928 EGLWC= 761.176 ELLC= 761 100 PCWSE= 760.480 ELTRD= 762.800

3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 762.80 MAX ELLC= 761.10

3470 ENCROACHMENT STATIONS= 83.0 136.0 TYPE= 1 TARGET= 53.000
U/S FACE OF ISLAND DRIVE

42.00	3.51	760.51	0.00	0.00	761.01	0.49	0.14	0.10	762.80
430.	0.	430.	0.	0.	76.	0.	0.	0.	100000.00
0.00	0.00	5.63	0.00	0.000	0.035	0.000	0.000	757.00	103.36
0.004818	42.	42.	42.	2	0	0	-13.99	29.86	133.22

CCHV= 0.500 CEHV= 1.000
*SECNO 67.000

67.00	4.32	760.62	0.00	0.00	761.33	0.71	0.11	0.21	756.30
430.	21.	394.	15.	11.	56.	8.	0.	0.	756.30
0.00	1.97	7.02	1.76	0.070	0.035	0.070	0.000	756.30	107.37
0.003892	25.	25.	25.	1	0	0	0.00	23.53	130.90

CCHV= 0.500 CEHV= 1.000
1490 NH CARD USED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 92.000									
92.00	4.22	760.72	0.00	0.00	761.64	0.92	0.10	0.22	757.00
430.	13.	409.	9.	9.	52.	7.	0.	0.	757.00
0.00	1.34	7 89	1.21	0.100	0.030	0.100	0.000	756.50	107.54
0.004039	25.	25.	25.	0	0	0	0.00	23.17	130.71
CCHV= 0.100 CEHV= 0.300									
1490 NH CARD USED									
*SECNO 97.000									
97.00	4.25	760.75	0.00	0.00	761.66	0.91	0.02	0.00	757.00
430.	13.	408.	9.	10.	52.	7	0.	0.	757.00
0 00	1.33	7.87	1.21	0.100	0.030	0.100	0.000	756 50	107 52
0.004003	5.	5.	5.	0	0	0	0.00	23.21	130.73
*SECNO 102.000									
102.00	4.30	760.80	0.00	0.00	761.68	0.89	0.02	0.00	757.00
430.	13.	408.	9.	10.	53.	8.	0.	0.	757.00
0.00	1.32	7.75	1.19	0.100	0.030	0.100	0.000	756.50	107 40
0.003809	5.	5.	5	2	0	0	0.00	23.46	130.86
*SECNO 107.000									
107.00	4.33	760.83	0.00	0.00	761.70	0.88	0.02	0.00	757.00
430.	13.	408.	9.	10.	53.	8.	0.	0.	757.00
0.00	1.31	7.71	1.18	0.100	0.030	0.100	0.000	756.50	107.36
0.003746	5.	5.	5.	0	0	0	0.00	23.55	130.91
*SECNO 112.000									
112.00	4.38	760.88	0.00	0.00	761.73	0.85	0.02	0.00	757 00
430.	13.	407.	9.	10.	54.	8.	0.	0.	757.00
0.00	1.30	7.59	1.17	0.100	0.030	0.100	0.000	756.50	107.25
0.003563	5.	5.	5.	2	0	0	0.00	23.80	131.05
*SECNO 117.000									
117.00	4.40	760.90	0.00	0.00	761.74	0.84	0.02	0.00	757.00
430.	13.	407.	9.	10.	54.	8.	0.	0.	757.00
0.00	1.29	7.56	1.16	0.100	0.030	0.100	0.000	756.50	107.21
0.003509	5.	5.	5.	0	0	0	0.00	23.88	131.09

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 147.000									
147.00	4.85	760.85	0.00	0.00	761.98	1.13	0.15	0.09	758.00
430.	14.	406.	10.	8.	46.	7.	0.	0.	758.00
0.01	1.73	8.78	1.57	0 100	0.035	0.100	0.000	756.00	76.72
0.007606	30.	30.	30.	2	0	0	0.00	22.62	99.34
*SECNO 206.000									
206.00	4.50	761.20	760.92	0.00	762.51	1.31	0.48	0.05	758.00
430.	15.	402.	13.	9.	42.	8.	0.	0.	758.00
0 01	1.77	9.49	1.67	0.100	0.035	0.100	0.000	756.70	27.80
0.008614	59.	59.	59.	4	11	0	0.00	21.00	48.80
CCHV= 0.500 CEHV= 1.000									
*SECNO 222.000									
222.00	4.89	761.79	0.00	0.00	762.79	0.99	0.11	0.16	758.00
430.	13.	405.	12.	8.	49.	8.	0.	0.	759.00
0.01	1.55	8.23	1.49	0.100	0.035	0.100	0.000	756.90	30.12
0.006011	16.	16.	16.	15	0	0	0.00	22.85	52.97
CCHV= 0.100 CEHV= 0.300									
*SECNO 237.000									
237.00	5.07	762.27	0.00	0.00	762.89	0.62	0.06	0.04	758.00
430.	19.	398.	14.	13.	61.	12.	0.	0.	758.00
0.01	1.39	6.56	1.17	0.100	0.035	0.100	0.000	757.20	33.83
0.003089	15.	15.	15.	3	0	0	0 00	25.70	59.53
*SECNO 252.000									
252.00	4.82	762.22	0.00	0.00	762.99	0.77	0.06	0.04	759.00
430.	14.	406.	9.	10.	56.	8.	0.	0.	759.00
0.01	1.46	7.22	1.21	0.100	0.035	0.100	0.000	757.40	39.00
0.004673	15.	15.	15.	2	0	0	0.00	25.44	64.44
*SECNO 267.000									
267.00	4.75	762.45	0.00	0.00	763.06	0.61	0.06	0.02	759.00
430.	21.	400.	9.	14.	62.	8	0.	0.	759.00
0.01	1.46	6.49	1.12	0.100	0.035	0.100	0.000	757.70	42.58
0.003621	15.	15.	15.	2	0	0	0.00	27.85	70.42

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	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 282.000
CROSS SECTION A

282.00	4.61	762.61	0.00	0.00	763.12	0.52	0.05	0.01	759.00
430.	28.	395.	8.	19.	66.	8.	0.	0.	759.00
0.01	1 43	6.01	1.02	0.100	0.035	0.100	0.000	758.00	57.79
0.003076	15.	15.	15.	2	0	0	0 00	29.42	87.21

CCHV= 0.500 CEHV= 1.000
*SECNO 372.000

372.00	4.94	762.94	0.00	0.00	763.77	0.83	0.33	0.32	758.50
430.	33.	369.	28.	19.	47.	18.	1.	0.	758.50
0.01	1.77	7.88	1.54	0.100	0.035	0.100	0.000	758.00	105 86
0.004420	90.	90.	90.	2	0	0	0.00	26.32	132.19

*SECNO 430.000

3470 ENCROACHMENT STATIONS= 120.0 143.0 TYPE= 1 TARGET= 23.000
D/S FACE OF FOOTBRIDGE

430.00	5.12	763.62	0.00	0.00	764.17	0.56	0.27	0.14	764.00
430.	0.	430.	0.	0.	72.	0.	1.	0.	100000.00
0.02	0.00	6.00	0.00	0.000	0.035	0.000	0.000	758.50	120.39
0.004849	58.	58.	58.	3	0	0	0.00	21.92	142.31

*SECNO 431.000

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 765.00 MAX ELLC= 764.00

3470 ENCROACHMENT STATIONS= 120.0 143.0 TYPE= 1 TARGET= 23.000

431.00	5.13	763.63	0.00	0.00	764.18	0.55	0.00	0.00	764.00
430.	0.	430.	0.	0.	72	0.	1.	0.	100000.00
0.02	0.00	5.98	0.00	0.000	0.035	0.000	0.000	758.50	120.38
0.004802	1.	1.	1.	0	0	0	0.00	21.95	142.33

*SECNO 435.000

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 765.00 MAX ELLC= 764.00

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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=      120.0      143.0  TYPE=      1  TARGET=       23.000
   435.00      5.16    763.66      0 00       0.00    764.20      0.54       0.02      0 01    764.00
     430.        0.       430.        0.         0.       73.        0.         1.        0.  100000.00
     0.02      0.00      5.92       0.00      0.000     0.035     0.000      0.000    758.50    120.35
 0.004676        4.         4.         4.          1         0         0       0.00     22.04    142.39

*SECNO 436.000

3470 ENCROACHMENT STATIONS=      119.0      141 0  TYPE=      1  TARGET=       22.000
          U/S FACE OF FOOTBRIDGE
   436.00      5.17    763.67       0.00       0.00    764.21      0.55       0.00      0.00    764.00
     430.        0.       430.        0.         0.       72.        0.         1.        0.  100000.00
     0.02      0.00      5.94       0.00      0.000     0.035     0.000      0.000    758.50    120.33
 0.004539        1.         1.         1.          0         0         0       0.00     20.66    141.00


CCHV=    0.100 CEHV=    0.300
*SECNO 452.000

3470 ENCROACHMENT STATIONS=      140.0      194.0  TYPE=      1  TARGET=       54.000
          CROSS SECTION B
   452.00      4.95    763.55       0.00       0.00    764.37      0.82       0.07      0.08    760.00
     430.       12.       410.        7.         9.       55.        6.         1.         0     760.00
     0.02      1.30      7.42       1.17      0.100     0.035     0.100      0.000    758.60    154.67
 0.004579       16.        16.        16.          2         0         0       0.00     21.88    176.55


*SECNO 577.000
   577.00      4.96    763.96       0.00       0.00    765.14      1.18       0.67      0.11    760.00
     430.       19.       402.        9.         12.      45.        6.         1.         0.    760.00
     0.02      1.64      9.01       1.36      0.100     0.035     0.100      0.000    759.00    162.06
 0.006289      125.       125.       125.          2         0         0       0.00     19.12    181.17


*SECNO 647.000
          CROSS SECTION C
   647.00      5.64    764.64       0.00       0.00    765.57      0.92       0.40      0.03    760.00
     430.       90.       317.       22.        30.      36        13.         1.        0.     760.00
     0.02      2.99      8.82       1.74      0.060     0.035     0.090      0.000    759.00     40.01
 0.005134       70.        70.        70.          3         0         0       0.00     25 56     65.57
```

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 662.000									
662.00	5.65	764.85	0.00	0.00	765.65	0.80	0.07	0.01	760.00
430.	62.	336.	32.	24.	42.	18.	1.	0.	760.00
0.03	2.62	8.00	1.80	0.060	0.035	0.090	0.000	759.20	14.30
0.003990	15.	15.	15.	2	0	0	0.00	25.56	39.85
*SECNO 677.000									
677.00	5.41	764.81	0.00	0.00	765.76	0.95	0.07	0.05	761.00
430.	44.	355.	31.	16.	42.	17.	1.	0.	761.00
0.03	2.71	8.55	1.81	0.060	0.035	0.090	0.000	759.40	12 42
0.005721	15.	15.	15.	2	0	0	0.00	28.21	40.63
*SECNO 692.000									
692.00	5.57	765.17	0.00	0.00	765.86	0.69	0.07	0.03	761.00
430.	52.	354.	23.	22.	49.	15.	1.	0.	761.00
0.03	2.41	7.27	1.54	0.060	0.035	0.090	0.000	759.60	9.66
0.003731	15.	15.	15.	2	0	0	0.00	27.69	37.34
*SECNO 707.000									
707.00	5.33	765.13	0.00	0.00	765.97	0.84	0.06	0.05	761 00
430.	59.	345.	26.	20.	43.	15.	1.	0.	761.00
0.03	2.92	8.11	1.72	0.060	0.035	0.090	0.000	759.80	12.74
0.004810	15.	15.	15.	2	0	0	0.00	26.58	39 32
*SECNO 722.000									
722.00	5.04	765.04	0.00	0.00	766.12	1.08	0.08	0.07	761.00
430.	41.	367.	23.	14.	41.	12.	1.	0	761.00
0.03	2.84	8.97	1.84	0.060	0.035	0.090	0.000	760.00	17.93
0.006127	15.	15.	15.	2	0	0	0.00	22.16	40.09
*SECNO 736.000									
736.00	5.30	765.40	0.00	0.00	766.22	0.81	0.07	0.03	761.00
430.	33.	374.	23.	14.	49.	15.	1.	0.	761.00
0.03	2.35	7.72	1.58	0.060	0.035	0.090	0.000	760.10	19.71
0.004105	14.	14.	14.	3	0	0	0.00	22.89	42.60

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 752.000									
752.00	5.51	765.81	0.00	0.00	766.30	0.49	0.05	0.03	761.00
430.	38.	372.	20.	20.	62.	16.	1.	0.	761.00
0.03	1.92	6.00	1.23	0.060	0.035	0.090	0.000	760.30	18.75
0.002261	16.	16.	16.	2	0	0	0.00	26.99	45.74
*SECNO 767.000									
767.00	5.69	765.99	0.00	0.00	766.34	0.34	0.03	0.01	761.00
430.	38.	375.	17.	22.	75.	17.	1.	0.	761.00
0.03	1.76	5.01	1.01	0.060	0.035	0.090	0.000	760.30	18.34
0.001497	15.	15.	15.	2	0	0	0.00	29.32	47.66

CCHV= 0.300 CEHV= 0.500

*SECNO 794.000 D/S FACE OF NIELSON ROAD									
794.00	5.28	765.98	0.00	0.00	766.49	0.51	0.06	0.08	763.00
430.	25.	398.	7.	12.	67.	6.	1.	0.	763.70
0.03	2.01	5.93	1.11	0.060	0.035	0.090	0.000	760.70	30.42
0.004203	27.	27.	27.	2	0	0	0.00	29.64	60.06

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.40	3.00	0.00	9.70	0.00	64.10	0.00	762.90	760.70

*SECNO 874.000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 768.632 ELLC= 769.500 PCWSE= 765.976 ELTRD= 770.000

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 770.00 MAX ELLC= 769.50

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

U/S FACE OF NIELSON ROAD - CROSS SECTION D									
874.00	3.85	766.75	766.75	0.00	768.47	1.71	0.71	0.60	764.70
430.	0.	430.	0.	0.	41.	0.	2.	0.	766.50
0.03	0.00	10.50	0.00	0.000	0.035	0.000	0.000	762.90	32.08
0.029552	80.	80.	80.	20	15	0	-10.83	23.18	55.26

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 952.000

3301 HV CHANGED MORE THAN HVINS

952.00	6.37	768.87	0.00	0 00	769.26	0.39	0.40	0.40	765.00
430.	24.	361.	45.	15.	67.	40.	2.	1.	765.00
0.04	1.61	5.42	1.11	0.060	0.035	0.090	0.000	762.50	93.26
0.002026	78.	78.	78.	2	0	0	0.00	42.76	136.02

CCHV= 0.100 CEHV= 0.300

*SECNO 1055.000

D/S FACE OF FOOTBRIDGE - CROSS SECTION E

1055.00	5.76	769.26	0.00	0.00	769.39	0.13	0.10	0.03	765.00
430.	25.	395.	10.	25.	130.	17.	2.	1.	765.00
0.05	1.00	3.03	0.60	0.060	0.035	0.090	0.000	763.50	5.74
0.000601	103.	103.	103.	2	0	0	0.00	44.28	50.02

*SECNO 1056.000

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 768.50 MAX ELLC= 767.50

1056.00	5.70	769.20	0.00	0.00	769.42	0.22	0.00	0.03	765.00
430.	22	398.	10.	16.	103.	11.	2.	1.	765.00
0.05	1.38	3.87	0.94	0.060	0.035	0.090	0.000	763.50	5.80
0.005792	1.	1.	1.	2	0	0	-39.48	44.22	50.02

*SECNO 1061.000

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 768.50 MAX ELLC= 767.50

1061.00	5.73	769.23	0.00	0.00	769.44	0 21	0.03	0.00	765.00
430.	22.	397.	10.	16.	103.	11.	2.	1.	765.00
0.05	1.38	3.85	0.94	0.060	0.035	0.090	0.000	763.50	5.78
0.005665	5	5.	5.	1	0	0	-39 48	44.24	50.02

*SECNO 1062.000

U/S FACE OF FOOTBRIDGE

1062.00	5.83	769.33	0.00	0.00	769.45	0.13	0.00	0.01	765.00
430.	26.	394.	10	26	132.	17.	2.	1.	765.00
0.05	1 00	2.99	0.60	0.060	0.035	0.090	0.000	763.50	5 67
0.000573	1.	1.	1.	2	0	0	0.00	44.35	50.02

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 1137.000									
1137.00	5.07	769.27	0.00	0.00	769.58	0.31	0.07	0.05	765.00
430.	63.	345.	23.	33.	70.	20.	2.	1.	765.00
0.05	1.89	4.92	1 13	0.060	0.035	0.090	0.000	764.20	18.82
0.001731	110.	75.	60.	2	0	0	0.00	41.18	60.00
*SECNO 1226.000									
3301 HV CHANGED MORE THAN HVINS									
1226.00	3.79	768.99	768.76	0.00	770.13	1.14	0.30	0.25	766.00
430.	44.	373.	13.	18.	41	7.	2.	1.	766.00
0.06	2.42	9.17	1.84	0.090	0.035	0.100	0.000	765.20	84.08
0.009281	70.	89.	131.	6	15	0	0.00	29.90	113.97
CCHV= 0.500 CEHV= 1.000									
*SECNO 1327.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
1327.00	4.23	770.53	770.53	0.00	771.88	1.35	1.05	0.21	768.50
430.	3.	416.	11.	2.	44.	7.	3.	1.	768.50
0.06	1.44	9.50	1.59	0.090	0.035	0.100	0.000	766 30	95 71
0.011652	101.	101.	101.	2	8	0	0.00	23.58	119.29
*SECNO 1428.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
3470 ENCROACHMENT STATIONS= 83.0 126.0 TYPE= 1 TARGET= 43.000									
CROSS SECTION F									
1428.00	4.22	772.02	772.02	0.00	773.38	1.36	1.17	0.01	770.00
430.	3.	416.	11.	2.	44.	7.	3.	1.	770.00
0.06	1.44	9.52	1.59	0.090	0.035	0.100	0.000	767.80	95.79
0.011742	129.	101.	60.	2	5	0	0.00	23.43	119.21
*SECNO 1463.000									
3301 HV CHANGED MORE THAN HVINS									

D/S FACE OF BROADWAY

1463.00	5.61	773.81	0.00	0.00	774.06	0.25	0.12	0.56	774.50
430.	0.	430.	0.	0.	107.	0.	3.	1.	774.50
0.07	0.00	4.02	0.00	0.000	0.035	0.000	0.000	768.20	92.66
0.001658	50.	35.	25.	3	0	0	0.00	26.23	118.89

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.50	3.00	0.00	9 00	0.00	45.00	0.00	768.70	768.20

*SECNO 1530.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
777.35	774 54	0.00	142.	289.	45.	45.	773.70	774.70

U/S FACE OF BROADWAY - CROSS SECTION G

1530.00	6.58	775.28	0.00	0.00	775.41	0.14	1.35	0.00	774.50
430.	8.	416.	6	24.	138.	26	3.	1.	774.50
0.07	0.34	3.02	0.23	0.090	0.035	0.100	0.000	768.70	55.89
0.000720	67.	67.	67.	2	0	4	0.00	124.11	180.00

*SECNO 1612.000

1612.00	5.15	775.35	0.00	0.00	775.51	0.16	0.07	0.02	771.00
430.	110.	294.	26.	139.	76.	43.	3.	1.	771.00
0.08	0.79	3.86	0.62	0.090	0.035	0.100	0.000	770.20	160.93
0.001041	95.	82.	50.	1	0	0	0.00	160.17	321.10

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 1887.000
CROSS SECTION H

1887.00	4.37	775.77	0.00	0.00	775.87	0.10	0.35	0.01	773.00
430.	278.	142.	10.	199.	36.	13.	5.	2.	773.00
0.11	1.40	3.97	0.75	0.063	0.035	0.095	0.000	771.40	97.91
0.001716	262.	275.	243.	2	0	0	0.00	142.98	240.89

*SECNO 1997.000

3470 ENCROACHMENT STATIONS= 114.0 239.0 TYPE= 1 TARGET= 125.000

1997.00	3.96	775.96	0.00	0.00	776.16	0.20	0.26	0.03	773.60
430.	255.	167.	9.	146.	32.	9.	6.	3.	773.60
0.12	1.74	5.28	0.96	0.064	0.035	0.095	0.000	772.00	114.00
0.003560	110.	110.	110.	2	0	0	0.00	124.62	238.62

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 2052.000

3470 ENCROACHMENT STATIONS= 140.0 237.0 TYPE= 1 TARGET= 97.000

2052.00	3.76	776.26	0.00	0.00	776.88	0.62	0.30	0.42	774.10
430.	176.	244.	10.	96.	30.	7.	6.	3.	774.10
0.13	1.83	8.23	1.43	0.090	0.035	0.100	0.000	772.50	140.00
0.009448	55.	55.	55.	2	0	0	0.00	97.00	237.00

1490 NH CARD USED
*SECNO 2108.000

2108.00	4 33	777.03	776.92	0.00	777.73	0.71	0.76	0.09	776.00
430.	9.	402.	19.	5.	58.	18.	6.	3.	776.00
0.13	1.73	6.97	1.06	0.060	0.041	0.100	0.000	772.70	33.25
0.011970	134.	56.	37.	4	8	0	0.00	68.03	101.28

1490 NH CARD USED
*SECNO 2487.000
CROSS SECTION I

2487.00	4 53	780.23	0.00	0.00	780.90	0.67	3.14	0.02	777.00
430.	57.	373.	0.	34.	53.	0.	7.	3.	780.00
0.15	1.65	7.02	0.01	0.075	0.034	0.100	0.000	775.70	47.54
0.006045	410.	379.	344.	2	0	0	0.00	56.85	104.38

*SECNO 2665.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2665.00	4.22	781.72	781.72	0.00	782.67	0.95	1.31	0.28	778.80
430.	39.	391.	0.	23.	48.	0.	7.	4.	781.80
0.15	1.71	8.17	0.00	0.081	0.034	0.000	0.000	777.50	53 48
0.009265	172.	178.	187.	2	8	0	0.00	50.38	103.86

1490 NH CARD USED
*SECNO 2845.000

2845.00	4.22	783.62	0.00	0.00	784.46	0.84	1.74	0.06	783.00
430.	1.	429.	0.	2.	58.	0.	7.	4.	784.00
0.16	0.69	7.35	0.00	0.100	0.033	0.000	0.000	779.40	83.38
0.010122	171.	180.	171.	3	0	0	0.00	32.12	115.50

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 2900.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2900.00	4.00	785.00	785.00	0.00	786.04	1.04	0.65	0.20	784.60
430.	0.	430.	0.	1.	52.	0.	7.	4.	785.60
0.16	0.59	8.18	0.00	0.100	0.034	0.000	0.000	781.00	85.41
0.013853	55.	55.	50.	2	11	0	0.00	29.19	114.60

*SECNO 2951.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
CROSS SECTION J

2951.00	4.53	786.53	786.53	0.00	788.05	1.52	0.77	0 48	794.00
430.	0.	430.	0.	0.	43.	0.	7.	4.	794.00
0.16	0.00	9.90	0.00	0.000	0.035	0.000	0.000	782.00	91.47
0.016502	55.	51.	50.	2	8	0	0.00	14.35	105 82

CCHV= 0.100 CEHV= 0.300
*SECNO 3137 000

3301 HV CHANGED MORE THAN HVINS

3137.00	5.16	789.16	0.00	0.00	789.59	0.43	1.43	0.11	785 00
430.	54.	310.	66.	24.	51.	32.	8.	4.	785.00
0.17	2.23	6.06	2.06	0.070	0.045	0.080	0.000	784.00	22.78
0.004436	200.	186.	170.	2	0	0	0.00	41.24	64.02

*SECNO 3331.000

3331.00	5.08	790.08	0.00	0.00	790.86	0.79	1.17	0.11	787.00
430.	46.	372.	13.	17	49.	6.	8.	4.	787.00
0.18	2.62	7.59	2.02	0.070	0.045	0.080	0.000	785.00	13.78
0.008693	202.	194.	182.	2	0	0	0.00	27.62	41.40

1490 NH CARD USED
*SECNO 3587.000
CROSS SECTION K

3587.00	3.55	792.05	0.00	0.00	793.12	1.07	2.17	0.09	789 00
430.	14.	398.	18.	8.	46.	10.	9.	4.	789.00
0.19	1.66	8.63	1.70	0.100	0.035	0.100	0.000	788.50	61.42
0.008463	158.	256.	358.	2	0	0	0.00	26.43	87.85

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 3764.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 175.0 198.0 TYPE= 1 TARGET= 23.000
CROSS SECTION L - END OF GREENHORNE & O'MARA PROVIDED DATA

3764.00	3.84	795.14	795.14	0.00	796.64	1.50	1.74	0.43	793.00
430.	19.	406.	5.	10.	40.	3.	9.	4.	792.00
0.19	1.96	10.11	1.49	0.100	0.035	0.100	0.000	791.30	175.00
0.011741	125.	177.	200.	3	8	0	0.00	20.65	195.65

CCHV= 0.500 CEHV= 1.000
*SECNO 3794.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
D/S FACE OF PLYMOUTH ROAD

3794.00	4.61	795.71	795.71	0.00	797.86	2.15	0.18	0.65	805.80
430.	0.	430.	0.	0.	37.	0.	9.	4.	805.80
0.19	0.00	11.77	0.00	0.000	0.013	0.000	0.000	791.10	200.71
0.003671	30	30.	30.	2	11	0	0.00	8.59	209.29

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.67	3.00	0.00	8.20	0.00	46.80	0.00	791.10	791.10

*SECNO 3865.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
797.90	797.86	0.00	0.	430.	47.	50.	797.20	805.80

3470 ENCROACHMENT STATIONS= 193.0 217.0 TYPE= 1 TARGET= 24.000
U/S FACE OF PLYMOUTH ROAD

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3865.00	4.98	796.08	0.00	0.00	797.90	1.82	0.04	0.00	805.80
430.	0.	430.	0.	0.	40.	0.	9.	4.	805.80
0.20	0.00	10.82	0.00	0.000	0.013	0.000	0.000	791.10	200.68
0.002942	71.	71.	71.	5	0	0	0.00	8.64	209.32

CCHV= 0.500 CEHV= 1.000
*SECNO 3900.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
D/S FACE OF ANN ARBOR RR

3900.00	4.74	797.54	797.54	0.00	798.97	1.43	0.18	0.20	795.30
420.	5.	414.	1.	2.	43.	1.	9.	4.	795.30
0.20	1.92	9.65	1.24	0.070	0.030	0.070	0.000	792.80	197.90
0.011698	35.	35.	35.	2	11	0	0.00	17.95	215.85

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	3.17	3.00	0.00	3.92	0.00	19.63	0.00	792.80	792.80

*SECNO 3986.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
820.07	798.97	0.00	0.	420.	20.	20.	797.80	820.80

3470 ENCROACHMENT STATIONS= 195.0 220.0 TYPE= 1 TARGET= 25 000
U/S FACE OF ANN ARBOR RR

3986.00	27.26	820.06	0.00	0.00	820.07	0.02	21.11	0.00	795.30
420.	16.	392.	12.	110.	381.	91.	9.	4.	795.30
0.22	0.15	1.03	0.13	0.070	0.030	0.070	0.000	792.80	195.00
0.000007	86.	86.	86.	1	0	0	0.00	25.00	220.00

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

CCHV= 0.100 CEHV= 0.300
*SECNO 4016.000

3470 ENCROACHMENT STATIONS= 282.0 367.0 TYPE= 1 TARGET= 85.000

4016.00	26.57	820.07	0.00	0.00	820.07	0.00	0.00	0.00	801 60
680.	114.	400.	166.	483.	671.	641.	10.	4.	796.80
0.24	0.24	0.60	0.26	0.070	0.035	0.070	0.000	793.50	282.00
0.000003	30.	30.	30.	2	0	0	0.00	85.00	367.00

CCHV= 0.300 CEHV= 0.500
*SECNO 4046.000

3470 ENCROACHMENT STATIONS= 192.0 337.0 TYPE= 1 TARGET= 145.000
D/S FACE OF WALK BRIDGE

4046.00	25.87	820.07	0.00	0.00	820.07	0.00	0.00	0.00	799.90
680.	154.	325.	202.	1040.	685.	1238.	12.	5.	798.80
0.27	0.15	0.47	0.16	0.070	0.027	0.070	0.000	794.20	192.00
0.000001	30	30.	30.	0	0	0	0.00	145.00	337.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.54	3.00	0.00	17.10	0.70	101.20	0.00	794.20	794.20

*SECND 4050.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
821.15	820.07	0.00	599.	88.	101.	97.	800.10	801.10

3470 ENCROACHMENT STATIONS= 190.0 340.0 TYPE= 1 TARGET= 150.000
U/S FACE OF WALK BRIDGE

4050.00	25.89	820.09	0.00	0.00	820.09	0.00	0.02	0.00	799.90
680.	154.	319.	207.	1064.	686.	1300.	12.	5.	798.80
0.27	0.14	0.47	0.16	0.070	0.027	0.070	0.000	794.20	190.00
0.000001	4.	4.	4.	0	0	4	0.00	150.00	340.00

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

CCHV= 0.100 CEHV= 0.300
*SECNO 4116.000

3470 ENCROACHMENT STATIONS= 183.0 465.0 TYPE= 1 TARGET= 282.000
CROSS SECTION M

4116.00	25.39	820.09	0.00	0.00	820.09	0.00	0.00	0.00	802.80
680.	144.	229.	307.	1489.	637.	2403.	18.	5.	798.00
0.36	0.10	0.36	0.13	0.070	0.027	0.070	0.000	794.70	183.00
0.000001	66.	66	66.	0	0	0	0.00	282.00	465.00

*SECNO 4216.000

3470 ENCROACHMENT STATIONS= 157.0 639.0 TYPE= 1 TARGET= 482.000

4216.00	25.39	820.09	0.00	0.00	820.09	0.00	0.00	0.00	802.80
680.	118.	188.	374.	1534.	638.	4067.	30.	6.	798.00
0.55	0.08	0.30	0.09	0.070	0.027	0.070	0.000	794.70	158.56
0.000001	100.	100.	100.	0	0	0	0.00	480.44	639.00

*SECNO 4316.000

4316.00	25.39	820.09	0.00	0.00	820.09	0.00	0.00	0.00	802.80
680.	118.	189.	373.	1534.	638.	4075.	45.	7.	798.00
0.74	0 08	0.30	0.09	0.070	0.027	0.070	0.000	794.70	158.55
0.000001	100.	100.	100.	0	0	0	0.00	491.90	650.45

CCHV= 0.300 CEHV= 0.500
*SECNO 4372.000

3470 ENCROACHMENT STATIONS= 178.0 800.0 TYPE= 1 TARGET= 622.000
D/S FACE OF WALK BRIDGE

4372.00	24.49	820.09	0.00	0.00	820.09	0.00	0.00	0.00	801.10
680.	181.	184.	315.	1947.	541.	3520.	53.	8.	801.20
0.84	0.09	0.34	0.09	0.065	0.027	0.065	0.000	795.60	198.19
0.000001	56.	56.	56.	0	0	0	0.00	601.81	800.00

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.54	3.00	0.00	15.90	0.00	88.50	0.00	795.60	795.60

*SECNO 4376.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
821.50	820.09	0.00	612.	68.	89.	89.	801.20	801.60

3470 ENCROACHMENT STATIONS= 179.0 799.0 TYPE= 1 TARGET= 620.000
U/S FACE OF WALK BRIDGE

4376.00	24.50	820.10	0.00	0.00	820.10	0.00	0.01	0.00	801.10
680.	181.	184.	315.	1950.	541.	3524.	53.	8.	801.20
0.85	0.09	0.34	0.09	0.065	0.027	0.065	0.000	795.60	197.91
0.000001	4.	4.	4.	0	0	5	0.00	601.09	799.00

CCHV= 0.100 CEHV= 0.300
*SECNO 4458.000

4458.00	22.60	820.10	0.00	0.00	820.10	0.00	0.00	0.00	805.60
680.	125.	191.	364.	1462.	560.	3378.	64.	9.	800.80
0.98	0.09	0.34	0.11	0.065	0.027	0.065	0.000	797.50	233.44
0.000001	82.	82.	82.	0	0	0	0.00	547.59	781.02

CCHV= 0.100 CEHV= 0.300
*SECNO 4539.000

4539.00	20.80	820.10	0.00	0.00	820.10	0.00	0.00	0.00	810.00
680.	219.	192.	269.	1316.	555.	1905.	72.	10.	810.00
1.09	0.17	0.35	0.14	0.065	0.045	0.065	0.000	799.30	197.92
0.000003	81.	81.	81.	0	0	0	0.00	592.50	790.42

CCHV= 0.300 CEHV= 0.500
*SECNO 4540.000

3370 NORMAL BRIDGE, NRD= 30 MIN ELTRD= 810.60 MAX ELLC= 810.00

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          D/S FACE OF BARTON ROAD
  4540.00    20.80   820.10    0.00     0.00   820.11    0.00     0.00     0.00   810.00
     680.      165.     312.     203.   1313.     386.   1901.      72.      10.    810.00
     1.09     0.13     0.81     0.11   0.100    0.013   0.100    0.000   799.30   197.92
 0.000005       1.       1.       1.       0        0       0  -175.16   592.50   790.42

*SECNO 4646.000

3370 NORMAL BRIDGE, NRD= 30 MIN ELTRD=  810.60 MAX ELLC=  810.00

          U/S FACE OF BARTON ROAD
  4646.00    20.80   820.10    0.00     0.00   820.11    0.00     0.00     0.00   810.00
     680.      165.     312.     203.   1312.     386.   1901.      81.      11.    810.00
     1.16     0.13     0.81     0.11   0.100    0.013   0.100    0.000   799.30   197.95
 0.000005      106.     106.     106.       0        0       0  -175.16   592.46   790.41

CCHV=    0.100 CEHV=    0.300
*SECNO 4647.000
  4647.00    20.81   820.11    0.00     0.00   820.11    0.00     0.00     0 00   810.00
     680.      219.     192.     269.   1316.     555.   1904.      81.      11.    810.00
     1.16     0.17     0.35     0.14   0.065    0.045   0.065    0.000   799 30   197.95
 0.000003       1.       1.       1.       0        0       0     0 00   592.46   790.41
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*SECNO 4728.000

3470 ENCROACHMENT STATIONS=      107.0      683.0  TYPE=      1  TARGET=      576.000
  4728.00    19.41   820.11    0.00     0.00   820.11    0.00     0.00     0.00   801.90
     680.      298.      68.     314.   2558.     282.   2844.      90.      12.    803.40
     1.34     0.12     0.24     0.11   0.065    0.045   0.065    0.000   800.70   107.00
 0.000001       81.      81.      81.       0        0       0     0.00   576.00   683.00


*SECNO 4812.000
  4812.00    18.01   820.11    0.00     0.00   820.11    0.00     0.00     0.00   811.00
     680.      335.      92.     253.   1747.     318.   1585.      99.      13.    811.50
     1.46     0.19     0.29     0.16   0.065    0.045   0.065    0.000   802.10    69.24
 0.000004       84.      84.      84.       0        0       0     0.00   533.78   603.02


CCHV=    0.300 CEHV=    0.500
*SECNO 4813.000

3370 NORMAL BRIDGE, NRD= 34 MIN ELTRD=  810.10 MAX ELLC=  808.10

          D/S FACE OF ENTRANCE ROAD TO APT. COMPLEX
  4813 00    18.01   820.11    0.00     0.00   820.11    0.00     0.00     0.00   811.00
     680.      287.     176.     217.   1747.     228.   1585.      99.      13.    811.50
     1.46     0.16     0.77     0.14   0.100    0.013   0.100    0.000   802.10    69.25
 0.000007       1.       1.       1.       0        0       0   -90.58   533.77   603.01
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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       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 4846.000

3370 NORMAL BRIDGE, NRD= 34 MIN ELTRD=  810.10 MAX ELLC=  808 10

          U/S FACE OF ENTRANCE ROAD TO APT. COMPLEX
  4846.00     18.01    820.11     0.00       0.00    820.11      0.00      0.00      0.00    811.00
     680.      287.       176.      217.      1747.     228.      1584.      102.       14.     811.50
     1.49      0.16       0.77      0.14      0.100     0.013     0.100     0.000    802.10    69.25
 0.000007       33.        33.       33.          0         0         0    -90.58    533.74   602.99


CCHV=   0.100 CEHV=   0 300
*SECNO 4847.000
  4847.00     18.01    820.11     0.00       0.00    820.11      0.00      0.00      0.00    811.00
     680.      335         92.      253.      1747.     318.      1584.      102.       14.     811.50
     1.49      0.19       0.29      0.16      0.065     0.045     0.065     0.000    802.10    69.25
 0.000004        1.         1.        1.          0         0         0      0.00    533.74   602.99


*SECNO 4946.000

3470 ENCROACHMENT STATIONS=      119.0      641 0  TYPE=      1  TARGET=      522.000
  4946.00     17.31    820.11     0.00       0.00    820.11      0.00      0.00      0.00    804.00
     680.      309.       87.      283.      1926.     250.      1867.      111.       15.     805.50
     1.65      0.16       0.35      0.15      0.065     0.045     0.065     0.000    802.80   119.00
 0.000003       99.        99.       99.          0         0         0      0.00    522.00   641.00


*SECNO 5146.000
          CROSS SECTION N
  5146.00     16.41    820.11     0.00       0.00    820.11      0.00      0.00      0.00    804.90
     680.      334.      104.      241.      1717.     237.      1146.      127.       17.     806.40
     1.88      0.19       0.44      0.21      0.065     0.045     0.065     0.000    803.70    98.90
 0.000005      200.       200.      200.          0         0         0      0.00    422.42   521.32


CCHV=   0.500 CEHV=   1.000
*SECNO 6108.000

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=       20.0       155.0  TYPE=      1  TARGET=      135.000
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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
6108.00	9.22	820.12	0.00	0.00	820.17	0.05	0.01	0.05	823.20
680.	0.	675.	5	0.	375.	33.	166.	23.	820.50
2.03	0.00	1.80	0.14	0.000	0.013	0.065	0.000	810.90	55.29
0.000029	962.	962.	962.	0	0	0	0.00	97.46	155.00

*SECNO 6133.000

3265 DIVIDED FLOW

3280 CROSS SECTION 6133.00 EXTENDED 0.62 FEET

6133.00	7.72	820.12	0.00	0.00	820.21	0.09	0.00	0.04	824.70
680.	0.	675.	5.	0.	276.	38.	166.	23.	822.00
2.03	0.00	2.45	0.14	0.000	0.013	0.065	0.000	812.40	60.27
0.000065	25.	25.	25.	0	0	0	0.00	123.96	206.00

*SECNO 6148.000

3265 DIVIDED FLOW

3280 CROSS SECTION 6148.00 EXTENDED 0.42 FEET

CROSS SECTION 0

6148.00	7.52	820.12	0.00	0.00	820.22	0.10	0.00	0.01	824.90
680.	0.	677.	3.	0.	264.	26.	166.	23.	822.20
2.03	0.00	2.57	0.12	0.000	0.013	0.065	0.000	812.60	60.93
0.000074	15.	15.	15.	0	0	0	0.00	118.32	206.00

*SECNO 6335.000

3280 CROSS SECTION 6335.00 EXTENDED 0.54 FEET

3470 ENCROACHMENT STATIONS= 19.0 72.0 TYPE= 1 TARGET= 53.000

6335.00	4.05	820.15	0.00	0.00	820.68	0.53	0.03	0.43	823.40
680.	0.	680.	0.	0.	116.	0.	167.	23.	100000.00
2.04	0.00	5.85	0.00	0.000	0.013	0.000	0.000	816.10	33.28
0.000680	187.	187	187.	1	0	0	0.00	38.72	72.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 6355.000									
6355.00	4.07	820.17	0.00	0.00	820.89	0.72	0.02	0.19	825.50
680.	0.	677.	3.	0.	99.	6.	167.	23.	819.20
2.04	0.00	6.82	0.42	0.000	0.013	0.065	0.000	816.10	37.18
0.000916	20.	20.	20.	0	0	0	0.00	47.25	84.42
*SECNO 6380.000									
CROSS SECTION P									
6380.00	4.09	820.19	0.00	0.00	820.92	0.73	0.02	0.01	825.70
680.	0.	678.	2.	0.	99.	4.	167.	23.	819.40
2.04	0.00	6.86	0.37	0.000	0.013	0.065	0.000	816.10	37.37
0.000931	25.	25.	25.	0	0	0	0.00	44.83	82.20
*SECNO 6730.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
CROSS SECTION Q									
6730.00	3.75	823.45	823.45	0.00	824.52	1.07	0.89	0.34	826.10
680	0.	508.	172.	0.	55.	36.	168.	24.	821.00
2.06	0.00	9.20	4 81	0.000	0.045	0.065	0.000	819.70	120.57
0.020701	350.	350.	350.	3	11	0	0.00	41.92	162.49
CCHV= 0.500 CEHV= 1.000									
*SECNO 6865.000									
3301 HV CHANGED MORE THAN HVINS									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
D/S FACE OF TRAVER ROAD									
6865.00	5.46	827.36	827.36	0.00	829.29	1.94	0.83	0.86	831.00
680.	0.	680.	0.	0.	61.	0.	168.	24.	831.40
2.06	0.00	11.17	0.00	0.000	0.013	0.000	0.000	821.90	141.93
0.002924	135.	135.	135.	3	14	0	0.00	16.02	157.95

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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	3.00	0.00	7.85	0.00	39.26	0.00	821.90	821.90

*SECNO 6946.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
834.35	829.29	0.00	141.	543.	39.	39.	826.90	831.60

U/S FACE OF TRAVER ROAD

6946.00	9.52	831.42	0.00	0.00	831.81	0.39	2.51	0.00	831.00
680.	3.	677.	0.	16.	134.	0.	168.	24.	831.40
2.06	0.20	5.03	0.00	0.060	0.013	0.000	0.000	821.90	81 91
0.000307	81	81.	81.	2	0	5	0.00	78.94	160.85

CCHV= 0.100 CEHV= 0.300

*SECNO 6947.000

6947.00	9.53	831.43	0.00	0.00	831.81	0.38	0.00	0.00	831.00
680.	12.	668.	0.	17.	135.	0.	168.	24.	831.40
2.06	0.71	4.96	0.01	0.060	0.045	0.060	0.000	821.90	81.17
0.003572	1.	1.	1.	1	0	0	0.00	80.12	161 30

THIS RUN EXECUTED 3 MAR 89 10:56:20

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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
**************************************************

T1         CITY OF ANN ARBOR FIS RESTUDY
T2         TRAVER CREEK
T3        100-YEAR FLOOD ENCROACHED RUN

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       0.         3.         0.         0.   0.000000       0.00       0.0         0.    760.480      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
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 0.300 CEHV= 0.500
*SECNO 0.000
D/S FACE OF ISLAND DRIVE - START OF GREENHORNE & O'MARA PROVIDED DATA

0.00	3.84	760.48	0.00	760.48	760.77	0.29	0.00	0.00	762.80
430.	0.	430.	0.	0.	100.	0.	0.	0.	762.80
0.00	0.00	4.30	0.00	0.000	0.035	0.000	0.000	756.64	103.26
0.002352	0	0.	0.	0	0	0	0.00	30.10	133.36

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.50	3.00	0.00	24.30	0.00	98.00	0.00	757.06	756.64

*SECNO 42.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS= 760.928 EGLWC= 761.176 ELLC= 761.100 PCWSE= 760.480 ELTRD= 762.800

3370 NORMAL BRIDGE,NRD= 8 MIN ELTRD= 762.80 MAX ELLC= 761.10

3470 ENCROACHMENT STATIONS= 83.0 136.0 TYPE= 1 TARGET= 53.000
U/S FACE OF ISLAND DRIVE

42.00	3.51	760.51	0.00	0.00	761 01	0.49	0.14	0.10	762.80
430.	0.	430.	0.	0.	76.	0.	0.	0.	100000.00
0.00	0.00	5.63	0.00	0.000	0.035	0.000	0.000	757.00	103.36
0.004818	42.	42.	42.	2	0	0	-13.99	29.86	133.22

CCHV= 0.500 CEHV= 1.000
*SECNO 67.000

67.00	4.32	760.62	0.00	0.00	761.33	0.71	0.11	0.21	756.30
430.	21.	394.	15.	11.	56.	8.	0.	0.	756.30
0.00	1.97	7.02	1.76	0.070	0.035	0.070	0.000	756.30	107.37
0.003892	25.	25.	25.	1	0	0	0.00	23.53	130.90

CCHV= 0 500 CEHV= 1.000
1490 NH CARD USED

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	DLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 92.000									
92.00	4.22	760.72	0.00	0.00	761.64	0.92	0.10	0.22	757.00
430.	13.	409.	9.	9.	52.	7.	0.	0.	757.00
0.00	1.34	7.89	1.21	0.100	0.030	0.100	0.000	756.50	107.54
0.004039	25.	25.	25.	0	0	0	0.00	23.17	130.71
CCHV= 0.100 CEHV= 0.300									
1490 NH CARD USED									
*SECNO 97.000									
97.00	4.25	760.75	0.00	0.00	761.66	0.91	0.02	0.00	757.00
430.	13.	408.	9.	10.	52.	7.	0.	0.	757.00
0.00	1.33	7.87	1.21	0.100	0.030	0.100	0.000	756.50	107.52
0.004003	5.	5.	5.	0	0	0	0.00	23.21	130.73
*SECNO 102.000									
102.00	4.30	760.80	0.00	0.00	761.68	0.89	0.02	0.00	757.00
430.	13.	408.	9.	10.	53.	8.	0.	0.	757.00
0.00	1.32	7.75	1.19	0.100	0.030	0.100	0.000	756.50	107.40
0.003809	5.	5.	5.	2	0	0	0.00	23.46	130.86
*SECNO 107.000									
107.00	4.33	760.83	0.00	0.00	761.70	0.88	0.02	0.00	757.00
430.	13.	408.	9.	10.	53.	8.	0.	0.	757.00
0.00	1.31	7.71	1.18	0.100	0.030	0.100	0.000	756.50	107.36
0.003746	5.	5.	5.	0	0	0	0.00	23.55	130.91
*SECNO 112.000									
112.00	4.38	760.88	0.00	0.00	761.73	0.85	0.02	0.00	757.00
430.	13.	407.	9.	10.	54.	8.	0.	0.	757.00
0.00	1.30	7.59	1.17	0.100	0.030	0.100	0.000	756.50	107.25
0.003563	5.	5.	5.	2	0	0	0.00	23.80	131.05
*SECNO 117.000									
117.00	4.40	760.90	0.00	0.00	761.74	0.84	0.02	0.00	757.00
430.	13.	407.	9.	10.	54.	8.	0.	0.	757.00
0.00	1.29	7.56	1.16	0.100	0.030	0.100	0.000	756.50	107.21
0.003509	5.	5.	5.	0	0	0	0.00	23.88	131.09

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 147.000									
147.00	4.85	760.85	0.00	0.00	761.98	1.13	0.15	0.09	758.00
430.	14.	406.	10.	8.	46.	7.	0.	0.	758.00
0.01	1.73	8.78	1.57	0.100	0.035	0.100	0.000	756.00	76.72
0.007606	30.	30.	30.	2	0	0	0.00	22.62	99.34
*SECNO 206.000									
206.00	4.50	761.20	760.92	0.00	762.51	1.31	0.48	0.05	758.00
430.	15.	402.	13.	9.	42.	8.	0.	0.	758.00
0.01	1.77	9.49	1.67	0.100	0.035	0.100	0.000	756.70	27.80
0.008614	59.	59.	59.	4	11	0	0.00	21.00	48.80
CCHV= 0.500 CEHV= 1.000									
*SECNO 222.000									
222.00	4.89	761.79	0.00	0.00	762.79	0.99	0.11	0.16	758.00
430.	13.	405.	12.	8.	49.	8.	0.	0.	759.00
0.01	1.55	8.23	1.49	0.100	0.035	0.100	0.000	756.90	30.12
0.006011	16.	16.	16.	15	0	0	0.00	22.85	52.97
CCHV= 0.100 CEHV= 0.300									
*SECNO 237.000									
237.00	5.07	762.27	0.00	0.00	762.89	0.62	0.06	0.04	758.00
430.	19.	398.	14.	13.	61.	12.	0.	0.	758.00
0.01	1.39	6.56	1.17	0.100	0.035	0.100	0.000	757.20	33.83
0.003089	15.	15.	15.	3	0	0	0.00	25.70	59.53
*SECNO 252.000									
252.00	4.82	762.22	0.00	0.00	762.99	0.77	0.06	0.04	759.00
430.	14.	406.	9.	10.	56.	8.	0.	0.	759.00
0.01	1.46	7.22	1.21	0.100	0.035	0.100	0.000	757.40	39.00
0.004673	15.	15.	15.	2	0	0	0.00	25.44	64.44
*SECNO 267.000									
267.00	4.75	762.45	0.00	0.00	763.06	0.61	0.06	0.02	759.00
430.	21.	400.	9.	14.	62.	8.	0.	0.	759.00
0.01	1.46	6.49	1.12	0.100	0.035	0.100	0.000	757.70	42.58
0.003621	15.	15.	15.	2	0	0	0.00	27.85	70.42

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 282.000

CROSS SECTION A

282.00	4.61	762.61	0.00	0.00	763.12	0.52	0.05	0.01	759.00
430.	28.	395.	8.	19.	66.	8.	0.	0.	759.00
0.01	1.43	6.01	1.02	0.100	0.035	0.100	0.000	758.00	57.79
0.003076	15.	15.	15.	2	0	0	0.00	29.42	87.21

CCHV= 0.500 CEHV= 1.000

*SECNO 372.000

372.00	4.94	762.94	0.00	0.00	763.77	0.83	0.33	0.32	758.50
430.	33.	369.	28.	19.	47.	18.	1.	0.	758.50
0.01	1.77	7.88	1.54	0.100	0.035	0.100	0.000	758.00	105.86
0.004420	90.	90.	90.	2	0	0	0.00	26.32	132.19

*SECNO 430.000

3470 ENCROACHMENT STATIONS= 120.0 143.0 TYPE= 1 TARGET= 23.000

D/S FACE OF FOOTBRIDGE

430.00	5.12	763.62	0.00	0.00	764.17	0.56	0.27	0.14	764.00
430.	0.	430.	0.	0.	72.	0.	1.	0.	100000.00
0.02	0.00	6.00	0.00	0.000	0.035	0.000	0.000	758.50	120.39
0.004849	58.	58.	58.	3	0	0	0.00	21.92	142.31

*SECNO 431.000

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 765.00 MAX ELLC= 764.00

3470 ENCROACHMENT STATIONS= 120.0 143.0 TYPE= 1 TARGET= 23.000

431.00	5.13	763.63	0.00	0.00	764.18	0.55	0.00	0.00	764.00
430.	0.	430.	0.	0.	72.	0.	1.	0.	100000.00
0.02	0.00	5.98	0.00	0.000	0.035	0.000	0.000	758.50	120.38
0.004802	1.	1.	1.	0	0	0	0.00	21.95	142.33

*SECNO 435.000

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 765.00 MAX ELLC= 764.00

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

3470 ENCROACHMENT STATIONS= 120.0 143.0 TYPE= 1 TARGET= 23.000

435.00	5.16	763.66	0.00	0.00	764.20	0.54	0.02	0.01	764.00
430.	0.	430.	0.	0.	73.	0.	1.	0.	100000.00
0.02	0.00	5.92	0.00	0.000	0.035	0.000	0.000	758.50	120.35
0.004676	4.	4.	4.	1	0	0	0.00	22.04	142.39

*SECNO 436.000

3470 ENCROACHMENT STATIONS= 119.0 141.0 TYPE= 1 TARGET= 22.000

U/S FACE OF FOOTBRIDGE

436.00	5.17	763.67	0.00	0.00	764.21	0.55	0.00	0.00	764.00
430.	0.	430.	0.	0.	72.	0.	1.	0.	100000.00
0.02	0.00	5.94	0.00	0.000	0.035	0.000	0.000	758.50	120.33
0.004539	1.	1.	1.	0	0	0	0.00	20.66	141.00

CCHV= 0.100 CEHV= 0.300

*SECNO 452.000

3470 ENCROACHMENT STATIONS= 140.0 194.0 TYPE= 1 TARGET= 54.000

CROSS SECTION B

452.00	4.95	763.55	0.00	0.00	764.37	0.82	0.07	0.08	760.00
430.	12.	410.	7.	9.	55.	6.	1.	0.	760.00
0.02	1.30	7.42	1.17	0.100	0.035	0.100	0.000	758.60	154.67
0.004579	16.	16.	16.	2	0	0	0.00	21.88	176.55

*SECNO 577.000

577.00	4.96	763.96	0.00	0.00	765.14	1.18	0.67	0.11	760.00
430.	19.	402.	9.	12.	45.	6.	1.	0.	760.00
0.02	1.64	9.01	1.36	0.100	0.035	0.100	0.000	759.00	162.06
0.006289	125.	125.	125.	2	0	0	0.00	19.12	181.17

*SECNO 647.000

CROSS SECTION C

647.00	5.64	764.64	0.00	0.00	765.57	0.92	0.40	0.03	760.00
430.	90.	317.	22.	30.	36.	13.	1.	0.	760.00
0.02	2.99	8.82	1.74	0.060	0.035	0.090	0.000	759.00	40.01
0.005134	70.	70.	70.	3	0	0	0.00	25.56	65.57

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 662.000									
662.00	5.65	764.85	0.00	0.00	765.65	0.80	0.07	0.01	760.00
430.	62.	336.	32.	24.	42.	18.	1.	0.	760.00
0.03	2.62	8.00	1.80	0.060	0.035	0.090	0.000	759.20	14.30
0.003990	15.	15.	15.	2	0	0	0.00	25.56	39.85
*SECNO 677.000									
677.00	5.41	764.81	0.00	0.00	765.76	0.95	0.07	0.05	761.00
430.	44.	355.	31.	16.	42.	17.	1.	0.	761.00
0.03	2.71	8.55	1.81	0.060	0.035	0.090	0.000	759.40	12.42
0.005721	15.	15.	15.	2	0	0	0.00	28.21	40.63
*SECNO 692.000									
692.00	5.57	765.17	0.00	0.00	765.86	0.69	0.07	0.03	761.00
430.	52.	354.	23.	22.	49.	15.	1.	0.	761.00
0.03	2.41	7.27	1.54	0.060	0.035	0.090	0.000	759.60	9.66
0.003731	15.	15.	15.	2	0	0	0.00	27.69	37.34
*SECNO 707.000									
707.00	5.33	765.13	0.00	0.00	765.97	0.84	0.06	0 05	761.00
430.	59.	345.	26.	20.	43.	15.	1.	0.	761.00
0.03	2.92	8.11	1.72	0.060	0.035	0.090	0.000	759.80	12.74
0.004810	15.	15.	15.	2	0	0	0.00	26.58	39.32
*SECNO 722.000									
722.00	5.04	765.04	0.00	0.00	766.12	1.08	0.08	0.07	761.00
430.	41.	367.	23.	14.	41.	12.	1.	0.	761.00
0.03	2.84	8.97	1.84	0.060	0.035	0.090	0.000	760.00	17.93
0.006127	15.	15.	15.	2	0	0	0.00	22.16	40 09
*SECNO 736.000									
736.00	5.30	765.40	0.00	0.00	766.22	0.81	0.07	0.03	761.00
430.	33.	374.	23.	14.	49.	15.	1.	0.	761.00
0.03	2.35	7.72	1.58	0.060	0.035	0.090	0.000	760.10	19.71
0.004105	14.	14.	14.	3	0	0	0.00	22.89	42 60

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 752.000									
752.00	5.51	765.81	0.00	0.00	766.30	0.49	0.05	0.03	761.00
430.	38.	372.	20.	20.	62.	16.	1.	0.	761.00
0.03	1.92	6.00	1.23	0.060	0.035	0.090	0.000	760.30	18.75
0.002261	16.	16.	16.	2	0	0	0.00	26.99	45.74
*SECNO 767.000									
767.00	5.69	765.99	0.00	0.00	766.34	0.34	0.03	0.01	761.00
430.	38.	375.	17.	22.	75.	17.	1.	0.	761.00
0.03	1.76	5.01	1.01	0.060	0.035	0.090	0.000	760.30	18.34
0.001497	15.	15.	15.	2	0	0	0.00	29.32	47.66

CCHV= 0.300 CEHV= 0.500

*SECNO 794.000 D/S FACE OF NIELSON ROAD									
794.00	5.28	765.98	0.00	0.00	766.49	0.51	0.06	0.08	763.00
430.	25.	398.	7.	12.	67	6.	1.	0.	763.70
0.03	2.01	5.93	1.11	0.060	0.035	0.090	0.000	760.70	30.42
0.004203	27.	27.	27.	2	0	0	0.00	29.64	60.06

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.40	3.00	0.00	9.70	0.00	64.10	0.00	762.90	760.70

*SECNO 874.000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 768.632 ELLC= 769.500 PCWSE= 765.976 ELTRD= 770.000

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 770.00 MAX ELLC= 769.50

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

U/S FACE OF NIELSON ROAD - CROSS SECTION D									
874.00	3.85	766.75	766.75	0.00	768.47	1.71	0.71	0.60	764.70
430.	0.	430.	0.	0.	41.	0.	2.	0.	766.50
0.03	0.00	10.50	0.00	0.000	0.035	0.000	0.000	762.90	32.08
0.029552	80.	80.	80.	20	15	0	-10.83	23.18	55.26

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	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 952.000

3301 HV CHANGED MORE THAN HVINS

952.00	6.37	768.87	0.00	0.00	769.26	0.39	0.40	0.40	765.00
430.	24.	361.	45.	15.	67.	40.	2.	1.	765.00
0.04	1.61	5.42	1.11	0.060	0.035	0.090	0.000	762.50	93.26
0.002026	78.	78.	78.	2	0	0	0.00	42.76	136.02

CCHV= 0.100 CEHV= 0.300
*SECNO 1055.000
D/S FACE OF FOOTBRIDGE - CROSS SECTION E

1055.00	5.76	769.26	0.00	0.00	769.39	0.13	0.10	0.03	765 00
430.	25.	395.	10.	25.	130.	17.	2.	1.	765.00
0.05	1.00	3.03	0.60	0.060	0.035	0.090	0.000	763.50	5.74
0.000601	103.	103.	103.	2	0	0	0.00	44.28	50.02

*SECNO 1056.000

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 768.50 MAX ELLC= 767.50

1056.00	5.70	769.20	0.00	0.00	769.42	0.22	0.00	0.03	765.00
430.	22.	398.	10.	16.	103.	11.	2.	1.	765.00
0.05	1.38	3.87	0.94	0.060	0.035	0.090	0.000	763.50	5.80
0.005792	1.	1.	1.	2	0	0	-39.48	44.22	50.02

*SECNO 1061.000

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 768.50 MAX ELLC= 767.50

1061.00	5.73	769.23	0.00	0.00	769.44	0.21	0.03	0.00	765.00
430.	22.	397.	10.	16.	103.	11.	2.	1.	765.00
0.05	1.38	3.85	0.94	0.060	0.035	0.090	0.000	763.50	5.78
0.005665	5.	5.	5.	1	0	0	-39.48	44.24	50 02

*SECNO 1062.000
U/S FACE OF FOOTBRIDGE

1062.00	5.83	769.33	0.00	0.00	769.45	0.13	0.00	0.01	765.00
430.	26.	394.	10.	26.	132.	17.	2.	1.	765.00
0.05	1.00	2.99	0.60	0.060	0.035	0.090	0.000	763.50	5.67
0.000573	1.	1.	1.	2	0	0	0.00	44.35	50.02

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 1137.000									
1137.00	5.07	769.27	0.00	0.00	769.58	0.31	0.07	0.05	765.00
430.	63.	345.	23.	33.	70	20.	2.	1.	765.00
0.05	1.89	4.92	1.13	0.060	0.035	0.090	0 000	764.20	18.82
0.001731	110.	75.	60.	2	0	0	0.00	41.18	60 00
*SECNO 1226.000									
3301 HV CHANGED MORE THAN HVINS									
1226.00	3.79	768.99	768.76	0.00	770.13	1.14	0.30	0.25	766.00
430.	44.	373	13.	18	41	7.	2.	1.	766.00
0.06	2.42	9.17	1.84	0.090	0.035	0.100	0.000	765.20	84 08
0.009281	70.	89.	131.	6	15	0	0.00	29.90	113.97
CCHV= 0.500 CEHV= 1.000									
*SECNO 1327.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
1327.00	4.23	770.53	770.53	0.00	771.88	1.35	1.05	0.21	768.50
430.	3.	416.	11.	2.	44.	7.	3.	1.	768.50
0.06	1.44	9.50	1.59	0.090	0.035	0 100	0.000	766.30	95.71
0.011652	101.	101.	101.	2	8	0	0.00	23.58	119.29
*SECNO 1428.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
3470 ENCROACHMENT STATIONS=		83.0	126.0	TYPE=	1	TARGET=		43.000	
CROSS SECTION F									
1428.00	4.22	772.02	772.02	0.00	773.38	1.36	1 17	0.01	770.00
430.	3.	416.	11.	2.	44.	7.	3.	1.	770.00
0.06	1.44	9.52	1.59	0.090	0.035	0.100	0.000	767.80	95.79
0.011742	129.	101.	60.	2	5	0	0.00	23.43	119.21
*SECNO 1463.000									
3301 HV CHANGED MORE THAN HVINS									

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          D/S FACE OF BROADWAY
  1463.00      5.61   773.81      0.00      0.00   774.06      0.25      0.12      0.56   774.50
     430.         0.      430.        0.        0.     107.        0.         3.         1.   774.50
     0.07      0.00     4.02      0.00     0.000    0.035     0.000     0.000    768.20    92.66
 0.001658        50.       35.       25.         3         0         0      0.00     26.23   118.89


SPECIAL BRIDGE

SB   XK          XKOR        COFQ        RDLEN       BWC         BWP         BAREA       SS          ELCHU       ELCHD
      0.00        2.50        3.00         0.00        9.00        0.00        45.00       0.00      768.70      768.20

*SECNO 1530.000
 2800 NAT Q1=     160.24  WSEL=     775.28  ENC Q1=     160.28  WSEL=     775.38  RATIO= -0 0002
 NAT Q1=     167.  RATIOS LOB,CH,ROB=  0.0233  0 9586  0.0182  WSEL=     775.38
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS=       92.0      120.0  TYPE=      4  TARGET=        0.041
          U/S FACE OF BROADWAY - CROSS SECTION G
  1530.00      6.58   775.28      0.00   775.28   775.43      0.15      0.08      0.05   774.50
     430.         0.      430.        0.        0.     138.        0.         3.         1.   774.50
     0.07      0.00     3.12      0.00     0.000    0.035     0.000     0.000    768.70    92.00
 0.000820        67.       67.       67.         0         0         4      0.00     28 00   120.00


*SECNO 1612.000
 2800 NAT Q1=     133.25  WSEL=     775.35  ENC Q1=     133.25  WSEL=     775.45  RATIO=  0.0000
 NAT Q1=     140.  RATIOS LOB,CH,ROB=  0.2638  0.6708  0.0654  WSEL=     775.45

3470 ENCROACHMENT STATIONS=      193.8      270.8  TYPE=      4  TARGET=        0.049
  1612.00      5.15   775.35      0.00   775.35   775.54      0.18      0.08      0.03   771.00
     430.       105.      306.       19.      112.       76        21.         3.         1.   771.00
     0.08      0.94     4.02      0.92     0.090    0.035     0.100     0.000    770.20   193.80
 0.001133        95.       82.       50.         1         0         0      0.00     76.99   270.79


CCHV=    0.100 CEHV=    0.300
1490 NH CARD USED
*SECNO 1887.000
 2800 NAT Q1=     103.80  WSEL=     775.77  ENC Q1=     103.80  WSEL=     775.87  RATIO=  0.0000
 NAT Q1=     112.  RATIOS LOB,CH,ROB=  0.6572  0.3189  0.0239  WSEL=     775.87

3470 ENCROACHMENT STATIONS=      119.6      229.0  TYPE=      4  TARGET=        0.075
          CROSS SECTION H
  1887.00      4.45   775 85      0.00   775.77   775.94      0.09      0.39      0.01   773.00
     430.       297.      133.        0.      188.       36          0.         5.         2.   773.00
     0.11      1.58     3.65      0.00     0.063    0.035     0.000     0.000    771.40   119.58
 0.001934       262.      275.      243.         2         0         0      0.00    109.42   229.00
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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 1997.000
 2800 NAT Q1=      72.07  WSEL=     775.96  ENC Q1=      72.07  WSEL=     776.06  RATIO=   0.0000
 NAT Q1=      80.   RATIOS LOB,CH,ROB=  0.6105  0.3690  0.0206  WSEL=     776.06

3470 ENCROACHMENT STATIONS=      126.3      229.0  TYPE=      4  TARGET=        0.097
  1997.00      4.08    776.08      0.00    775.96    776.25      0.17       0.29       0.02    773.60
     430.       270.       160.        0.       142.        33.         0.          5.         2.    773.60
     0.12       1.91       4.88      0.00     0.064     0.035      0.000      0.000    772.00    126.32
 0.003849       110.       110.       110.         2         0          0       0.00    102.68    229.00


CCHV=    0.500 CEHV=    1.000
*SECNO 2052.000

3470 ENCROACHMENT STATIONS=      149.0      230.0  TYPE=      1  TARGET=       81.000
  2052.00      3.89    776.39      0.00    776.26    777.01      0.62       0.31       0.45    774.10
     430.       177.       251.        2.        94.        31.         2.          5.         2.    774.10
     0.13       1.88       8.13      1.09     0.090     0.035      0.100      0.000    772.50    149.00
 0.008725        55.        55.        55.         2         0          0       0.00     81.00    230.00


1490 NH CARD USED
*SECNO 2108.000

3470 ENCROACHMENT STATIONS=       38.0       78.0  TYPE=      1  TARGET=       40.000
  2108.00      4.40    777.10      0.00    777.03    777.79      0.69       0.72       0.07    776.00
     430.         9.       406.       15.        4.        59.        10.          6.         2    776.00
     0.13       2.16       6.84      1.44     0.060     0.041      0.100      0.000    772.70     38.00
 0.011247       134.        56.       37.         2         0          0       0.00     40.00     78.00


1490 NH CARD USED
*SECNO 2487.000

3470 ENCROACHMENT STATIONS=       74.0      103.0  TYPE=      1  TARGET=       29.000
           CROSS SECTION I
  2487.00      4.56    780.26      0.00    780.23    781.03      0.76       3.16       0.07    777.00
     430.        40.       390.        0.        20.        53.         0.          6.         2.  100000.00
     0.14       1.97       7.33      0.00     0.082     0.034      0.000      0.000    775.70     74.00
 0.006408       410.       379.       344.         3         0          0       0.00     29.00    103.00
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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 2665.000

3470 ENCROACHMENT STATIONS=      64.0      108 0  TYPE=      1  TARGET=       44.000
  2665.00      4.16    781.66    781.65    781.72    782.66      1.00      1.40      0.24    778.80
     430.       37.       393.       0.       20.       47.       0.        6.        3.     781.80
     0.15      1.89      8.37      0.00     0.081     0.034    0.000     0.000    777.50     64.00
 0.009898      172.      178.      187.         4        11         0      0.00     39.76    103.76


1490 NH CARD USED
*SECNO 2845.000

3470 ENCROACHMENT STATIONS=      83.0      115.0  TYPE=      1  TARGET=       32.000
  2845.00      4.30    783.70      0.00    783.62    784.48      0.78      1.71      0.11    783.00
     430.        2.       428.       0.        2.       60.       0.        7.        3.  100000.00
     0.16      0.72      7.11      0.00     0.100     0.034    0.000     0.000    779.40     83.00
 0.009182      171.      180.      171.         3         0         0      0.00     32.00    115.00


*SECNO 2900.000
 2800 NAT Q1=      36.53  WSEL=     785.00  ENC Q1=      39.16  WSEL=     785 10  RATIO= -0.0719
 NAT Q1=      39.   RATIOS LOB,CH,ROB=   0.0017   0.9983   0.0000  WSEL=     785.10
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      89.0      117.0  TYPE=      4  TARGET=       0.002
  2900.00      3.98    784.98    784.98    785 00    786.04      1.06      0.63      0.27    784.60
     430.        0.       430.       0.        0.       52.       0.        7.        3.     785.60
     0.16      0.00      8.25      0.00     0 000     0.034    0.000     0.000    781.00     89.00
 0.014495       55.       55.       50.         2        11         0      0.00     25.54    114.54


*SECNO 2951.000
 2800 NAT Q1=      33.47  WSEL=     786.53  ENC Q1=      35.00  WSEL=     786.63  RATIO= -0.0455
 NAT Q1=      35.   RATIOS LOB,CH,ROB=   0 0000   1 0000   0.0000  WSEL=     786.63
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      84.0      115.0  TYPE=      4  TARGET=       0.000
          CROSS SECTION J
  2951.00      4.53    786.53    786.53    786.53    788.05      1.52      0.79      0.47    794.00
     430.        0.       430.       0.        0.       43.       0.        7.        3.     794.00
     0.16      0.00      9.90      0.00     0.000     0.035    0.000     0.000    782.00     91.47
 0.016488       55.       51.       50.         2         8         0      0.00     14.35    105.82
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       GROB      ALOB      ACH       AROB      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 3137.000
 2800 NAT Q1=      64.56  WSEL=    789.16  ENC Q1=      64.56  WSEL=    789.26  RATIO=  0.0000
 NAT Q1=     68.  RATIOS LOB,CH,ROB=  0.1291  0.7131  0.1579  WSEL=    789.26

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      31.5      59.8  TYPE=     4  TARGET=       0.048
  3137.00      5.17   789.17      0.00   789.16   789 65     0.48      1.49      0.10   785.00
     430.       48.      322.       59.       19.       51.       27.        7.        3.   785.00
     0.17      2.49      6.28     2 23     0.070     0.045     0.080     0.000   784.00     31.54
 0.004743      200.      186.      170.         3         0         0      0.00    28.24     59.78


*SECNO 3331.000
 2800 NAT Q1=      46.12  WSEL=    790.08  ENC Q1=      46.12  WSEL=    790.18  RATIO=  0.0000
 NAT Q1=     48.  RATIOS LOB,CH,ROB=  0.1117  0.8570  0.0314  WSEL=    790.18

3470 ENCROACHMENT STATIONS=      19.4      37.6  TYPE=     4  TARGET=       0.047
  3331.00      5.13   790.13      0.00   790.08   791.00     0.87      1.24      0.12   787.00
     430.       40.      388.        2.       13.       50.        2.        8.        3.   787.00
     0.18      2.98      7.82     1.17     0.070     0.045     0.080     0.000   785.00     19.39
 0.009078      202.      194.      182.         2         0         0      0.00    18.26     37.65


1490 NH CARD USED
*SECNO 3587.000
 2800 NAT Q1=      46.74  WSEL=    792.05  ENC Q1=      46.74  WSEL=    792.15  RATIO=  0.0000
 NAT Q1=     49.  RATIOS LOB,CH,ROB=  0.0339  0.9234  0.0427  WSEL=    792.15

3470 ENCROACHMENT STATIONS=      66.3      82.5  TYPE=     4  TARGET=       0.052
           CROSS SECTION K
  3587.00      3.64   792.14      0.00   792.05   793.35     1.21      2.24      0.10   789.00
     430.        2.      422.        6.        2.       47.        4.        8.        3.   789.00
     0.19      0.98      8 91     1.40     0.100     0 035     0.100     0.000   788.50     66.27
 0.008691      158.      256.      358.         2         0         0      0.00    16.21     82.48


CCHV=   0.500 CEHV=   1.000
*SECNO 3764.000
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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

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 181.0 193.0 TYPE= 1 TARGET= 12.000
CROSS SECTION L - END OF GREENHORNE & O'MARA PROVIDED DATA

3764.00	3.89	795.19	795.19	795.14	796.92	1.72	2.25	0.51	793.00
430.	0.	430.	0.	0.	41.	0.	8.	3.	100000.00
0.19	0.00	10.54	0.00	0.000	0.035	0.000	0.000	791.30	181.00
0.020246	125.	177.	200.	2	8	0	0.00	12.00	193.00

CCHV= 0.500 CEHV= 1.000
*SECNO 3794.000
2800 NAT Q1= 70.97 WSEL= 795.71 ENC Q1= 73.18 WSEL= 795.81 RATIO= -0.0312
NAT Q1= 73. RATIOS LOB,CH,ROB= 0.0000 1.0000 0.0000 WSEL= 795.81
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 200.0 210.0 TYPE= 4 TARGET= 0.000
D/S FACE OF PLYMOUTH ROAD

3794.00	4.61	795.71	795.71	795.71	797.86	2.15	0.22	0.43	805.80
430.	0.	430.	0.	0.	37.	0.	8.	3.	805.80
0.19	0.00	11.77	0.00	0.000	0.013	0.000	0.000	791.10	200.71
0.003670	30.	30.	30.	2	11	0	0.00	8.59	209.29

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.67	3.00	0.00	8.20	0.00	46.80	0.00	791.10	791.10

*SECNO 3865.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
797.90	797.86	0.00	0.	430.	47.	50.	797.20	805.80

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 200.0 210.0 TYPE= 1 TARGET= 10.000
U/S FACE OF PLYMOUTH ROAD

3865.00	4.98	796.08	0.00	796.08	797.90	1.82	0.04	0.00	805.80
430.	0.	430.	0.	0.	40.	0.	8.	3.	100000.00
0.19	0.00	10.82	0.00	0.000	0.013	0.000	0.000	791.10	200.68
0.002939	71.	71.	71.	5	0	0	0.00	8.64	209.32

CCHV= 0.500 CEHV= 1.000
*SECNO 3900.000
2800 NAT Q1= 38.83 WSEL= 797.54 ENC Q1= 40.56 WSEL= 797.64 RATIO= -0.0446
NAT Q1= 41. RATIOS LOB,CH,ROB= 0.0114 0.9856 0.0030 WSEL= 797.64
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 200.0 215.0 TYPE= 4 TARGET= 0.014
D/S FACE OF ANN ARBOR RR

3900.00	4.75	797.55	797.55	797.54	799.02	1.48	0.20	0.17	795.30
420.	0.	420.	0.	0.	43.	0.	8.	3.	795.30
0.19	0.00	9.76	0.00	0.000	0.030	0.000	0.000	792.80	200.00
0.016112	35.	35.	35.	2	11	0	0.00	15.00	215.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	3.17	3.00	0.00	3.92	0.00	19.63	0.00	792.80	792.80

*SECNO 3986.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
820.08	799.02	0.00	0.	420.	20.	20.	797.80	820.80

3470 ENCROACHMENT STATIONS= 200.0 215 0 TYPE= 1 TARGET= 15.000
U/S FACE OF ANN ARBOR RR

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3986.00	27.26	820.06	0.00	820.06	820.08	0.02	21.05	0.00	795.30
420.	0.	420.	0.	0.	381.	0.	9.	3.	100000.00
0.22	0.00	1.10	0.00	0.000	0.030	0.000	0.000	792.80	200.00
0.000049	86.	86.	86.	1	0	0	0.00	15.00	215.00

CCHV= 0.100 CEHV= 0.300
*SECNO 4016.000

3470 ENCROACHMENT STATIONS= 310.0 338.0 TYPE= 1 TARGET= 28.000

4016.00	26.56	820.06	0.00	820.07	820.08	0.02	0.00	0.00	801.60
680.	0.	680.	0.	0.	670.	0.	9.	3.	99998.80
0.22	0.00	1.01	0.00	0.000	0.035	0.000	0.000	793.50	310.00
0.000029	30.	30.	30.	2	0	0	0.00	28.00	338.00

CCHV= 0.300 CEHV= 0.500
*SECNO 4046.000

3470 ENCROACHMENT STATIONS= 250.0 279.0 TYPE= 1 TARGET= 29.000
D/S FACE OF WALK BRIDGE

4046.00	25.87	820.07	0.00	820.07	820.08	0.02	0.00	0.00	799.90
680.	0.	680.	0.	0.	685.	0.	9	3.	100000.00
0.23	0.00	0.99	0.00	0.000	0.027	0.000	0.000	794.20	250.00
0.000016	30.	30.	30.	0	0	0	0.00	29.00	279.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.54	3.00	0.00	17.10	0.70	101.20	0.00	794.20	794.20

#SECNO 4050.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
821.15	820.08	0.00	599.	88.	101.	97.	800.10	801.10

3470 ENCROACHMENT STATIONS= 250.0 279.0 TYPE= 1 TARGET= 29 000
U/S FACE OF WALK BRIDGE

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4050.00	25.87	820.07	0.00	820.09	820.08	0.02	0.00	0.00	799.90
680.	0.	680.	0.	0.	685	0.	9.	3.	100000.00
0.23	0.00	0.99	0.00	0.000	0.027	0.000	0.000	794.20	250.00
0.000016	4.	4.	4.	1	0	4	0.00	29.00	279.00

CCHV= 0.100 CEHV= 0.300
*SECNO 4116.000

3470 ENCROACHMENT STATIONS= 280.0 380.0 TYPE= 1 TARGET= 100.000
CROSS SECTION M

4116.00	25.38	820.08	0.00	820.09	820.09	0.00	0.00	0.00	802.80
680.	91.	411.	178.	479.	637.	863.	12.	3.	798.00
0.27	0.19	0.65	0.21	0.070	0.027	0.070	0.000	794.70	280.00
0.000002	66.	66.	66.	1	0	0	0.00	100.00	380.00

*SECNO 4216.000

3470 ENCROACHMENT STATIONS= 270.0 390.0 TYPE= 1 TARGET= 120.000

4216.00	25.38	820.08	0.00	820.09	820.09	0.00	0.00	0.00	802.80
680.	100.	364.	216.	620.	637.	1055.	16.	4.	798.00
0.34	0.16	0.57	0.20	0.070	0.027	0.070	0.000	794.70	270.00
0.000002	100.	100.	100.	0	0	0	0.00	120.00	390 00

*SECNO 4316.000

3470 ENCROACHMENT STATIONS= 270.0 390.0 TYPE= 1 TARGET= 120.000

4316.00	25 38	820.08	0.00	820.09	820.09	0.00	0.00	0.00	802 80
680.	100.	364.	216.	620.	637.	1055.	22.	4.	798.00
0.41	0.16	0.57	0.20	0.070	0.027	0.070	0.000	794.70	270 00
0.000002	100.	100.	100.	0	0	0	0.00	120.00	390.00

CCHV= 0.300 CEHV= 0.500
*SECNO 4372.000

3470 ENCROACHMENT STATIONS= 350.0 500.0 TYPE= 1 TARGET= 150.000
D/S FACE OF WALK BRIDGE

4372.00	24.48	820.08	0.00	820.09	820.09	0.00	0.00	0.00	801.10
680.	177.	301.	202.	949.	541.	1100.	25.	4.	801.20
0.46	0.19	0.56	0.18	0.065	0.027	0.065	0.000	795.60	350.00
0.000002	56.	56.	56.	0	0	0	0.00	150.00	500.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	GCH	GROB	ALOB	ACH	AROB	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	1.54	3.00	0.00	15.90	0.00	88.50	0.00	795.60	795.60

*SECNO 4376.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
821.50	820.09	0.00	612.	68.	89.	89.	801.20	801.60

3470 ENCROACHMENT STATIONS= 350.0 500.0 TYPE= 1 TARGET= 150.000
U/S FACE OF WALK BRIDGE

4376.00	24.50	820.10	0.00	820.10	820.10	0.00	0.01	0.00	801.10
680.	177.	301.	202.	950.	541.	1101.	25.	4.	801.20
0.46	0.19	0.56	0.18	0.065	0.027	0.065	0.000	795.60	350.00
0.000002	4.	4.	4.	0	0	5	0.00	150.00	500.00

CCHV= 0.100 CEHV= 0.300
*SECNO 4458.000

3470 ENCROACHMENT STATIONS= 375.0 515.0 TYPE= 1 TARGET= 140.000

4458.00	22.60	820.10	0.00	820.10	820.10	0.00	0.00	0.00	805.60
680.	122.	336.	222.	664.	559.	991.	30.	4.	800.80
0.52	0.18	0.60	0.22	0.065	0.027	0.065	0.000	797.50	375.00
0.000002	82.	82.	82.	0	0	0	0.00	140.00	515.00

CCHV= 0.100 CEHV= 0.300
*SECNO 4539.000

3470 ENCROACHMENT STATIONS= 330.0 470.0 TYPE= 1 TARGET= 140.000

4539.00	20.79	820.09	0.00	820.10	820.10	0.00	0.00	0.00	810.00
680.	158.	365.	157.	487.	554.	484.	33.	5.	810.00
0.56	0.32	0.66	0.32	0.065	0.045	0.065	0.000	799.30	330.00
0.000012	81.	81.	81.	0	0	0	0.00	140.00	470.00

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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

CCHV=   0.300 CEHV=   0.500
*SECNO 4540.000

3370 NORMAL BRIDGE, NRD= 30 MIN ELTRD=  810.60 MAX ELLC=  810.00


3470 ENCROACHMENT STATIONS=     330.0     470.0  TYPE=     1  TARGET=     140.000
          D/S FACE OF BARTON ROAD
  4540.00    20.79   820.09     0.00   820.10   820.11     0.02     0.00     0.01   810.00
     680.      97.     486.       96.     484.     386.     481.       33.       5.    810.00
     0.56     0.20     1.26     0.20    0.100    0.013    0.100    0.000   799.30   330.00
 0.000011        1       1.       1.        0        0        0  -175.16   140.00   470.00

*SECNO 4646.000

3370 NORMAL BRIDGE, NRD= 30 MIN ELTRD=  810.60 MAX ELLC=  810.00


3470 ENCROACHMENT STATIONS=     330.0     470.0  TYPE=     1  TARGET=     140.000
          U/S FACE OF BARTON ROAD
  4646.00    20.79   820.09     0.00   820 10   820.11     0.02     0.00     0.00   810.00
     680.      97.     487.       96.     483.     385.     481.       36.       5.    810.00
     0.59     0.20     1.26     0.20    0.100    0.013    0.100    0.000   799.30   330.00
 0.000011      106.     106.      106.        0        0        0  -175.16   140.00   470.00


CCHV=   0.100 CEHV=   0.300
*SECNO 4647.000

3470 ENCROACHMENT STATIONS=     330.0     470.0  TYPE=     1  TARGET=     140.000
  4647.00    20.80   820.10     0.00   820.11   820.11     0.00     0.00     0.00   810.00
     680.     158.     365.      157.     487.     554.     485.       36.       5.    810.00
     0.59     0.32     0.66     0.32    0.065    0.045    0.065    0.000   799.30   330.00
 0.000012        1.       1.       1.        1        0        0     0.00   140.00   470.00


*SECNO 4728.000

3470 ENCROACHMENT STATIONS=     300.0     440.0  TYPE=     1  TARGET=     140.000
  4728.00    19.41   820.11     0.00   820.11   820.11     0.00     0.00     0.00   801 90
     680.     272.     156.      252.     843.     282.     837.       40.       5.    803.40
     0.65     0.32     0.56     0.30    0.065    0.045    0.065    0.000   800.70   300.00
 0.000006       81.      81.       81.        0        0        0     0.00   140.00   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 4812.000

3470 ENCROACHMENT STATIONS=      230.0      380.0  TYPE=      1  TARGET=      150.000
  4812.00     18.01     820.11      0.00     820.11     820.11      0.00       0.00       0.00     811.00
     680.       289.       189.       202.       683.       318.       529.        43.        6.      811.50
    0.71       0.42       0.59       0 38      0.065      0.045      0.065      0.000     802.10     230.00
 0.000018        84.        84.        84.          0          0          0       0.00     150.00     380.00


CCHV=    0.300 CEHV=    0.500
*SECNO 4813.000

3370 NORMAL BRIDGE, NRD= 34 MIN ELTRD=  810.10 MAX ELLC=  808.10


3470 ENCROACHMENT STATIONS=      230.0      380.0  TYPE=      1  TARGET=      150.000
           D/S FACE OF ENTRANCE ROAD TO APT. COMPLEX
  4813.00     18.00     820.10      0.00     820.11     820.12      0.01       0.00       0.01     811.00
     680.       215.       315.       150.       683.       228.       529         43.        6.      811.50
    0.71       0 31       1.39       0.28      0.100      0.013      0.100      0.000     802.10     230.00
 0.000023         1.         1.         1.          0          0          0     -90.58     150.00     380.00


*SECNO 4846.000

3370 NORMAL BRIDGE, NRD= 34 MIN ELTRD=  810.10 MAX ELLC=  808.10


3470 ENCROACHMENT STATIONS=      230.0      380.0  TYPE=      1  TARGET=      150.000
           U/S FACE OF ENTRANCE ROAD TO APT. COMPLEX
  4846.00     18.00     820.10      0.00     820.11     820.12      0.01       0.00       0.00     811.00
     680.       215.       315.       150.       682.       228        528.        44.        6.      811.50
    0.72       0.31       1.39       0.28      0.100      0.013      0.100      0.000     802.10     230.00
 0.000023        33.        33.        33.          0          0          0     -90.58     150.00     380.00


CCHV=    0.100 CEHV=    0.300
*SECNO 4847.000

3470 ENCROACHMENT STATIONS=      230.0      380.0  TYPE=      1  TARGET=      150.000
  4847.00     18.01     820.11      0.00     820.11     820.12      0.00       0.00       0.00     811.00
     680.       289.       189.       202.       683.       318.       529.        44.        6.      811.50
    0.72       0.42       0.59       0.38      0.065      0.045      0.065      0.000     802.10     230.00
 0.000018         1.         1.         1.          1          0          0       0.00     150.00     380.00
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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 4946.000

3470 ENCROACHMENT STATIONS=      300.0      440.0  TYPE=      1  TARGET=      140.000
  4946.00      17.32     820.12      0.00     820.11     820.12      0.00       0.00       0.00     804.00
     680.        271.        166.       243.       718.       250.       701.         48.         6.      805.50
     0.78       0.38       0.66       0.35      0.065      0.045      0.065      0.000     802.80     300.00
 0.000010        99.        99.        99.          0          0          0       0.00     140.00     440.00

*SECNO 5146.000

3470 ENCROACHMENT STATIONS=      320.0      420.0  TYPE=      1  TARGET=      100.000
          CROSS SECTION N
  5146.00      16.42     820.12      0.00     820.11     820.12      0.01       0.00       0.00     804.90
     680.        252.        210.       218.       494.       237.       475.         54.         7.      806.40
     0.87       0.51       0.89       0.46      0.065      0.045      0.065      0.000     803.70     320.00
 0.000020        200.        200.       200.          0          0          0       0.00     100.00     420.00


CCHV=    0.500 CEHV=    1.000
*SECNO 6108.000
 2800 NAT Q1=    1272.57  WSEL=     820.12  ENC Q1=    1298.16  WSEL=     820.22  RATIO= -0.0201
 NAT Q1=    1365.   RATIOS LOB,CH,ROB=  0.0000  0.9512  0.0488  WSEL=     820.22

3470 ENCROACHMENT STATIONS=       45.0      128.0  TYPE=      4  TARGET=        0.049
  6108.00      9 24     820.14      0.00     820.12     820.19      0.05       0.02       0.04     823.20
     680.          0.        680.         0.         0.        377.         0.         72.         8.      820.50
     1.02       0.00       1.80       0.00      0.000      0.013      0.000      0.000     810.90      55.21
 0.000029        962.        962.       962.          0          0          0       0.00      71.59     126.79


*SECNO 6133.000
 2800 NAT Q1=     843.80  WSEL=     820.12  ENC Q1=     862.86  WSEL=     820.22  RATIO= -0.0226
 NAT Q1=     871.   RATIOS LOB,CH,ROB=  0.0000  0.9907  0.0093  WSEL=     820.22
3280 CROSS SECTION    6133.00 EXTENDED        0.64 FEET


3470 ENCROACHMENT STATIONS=       45.0      128.0  TYPE=      4  TARGET=        0.009
  6133 00      7.74     820.14      0.00     820.12     820.23      0.09       0.00       0.04     824.70
     680.          0.        680.         0.         0.        277.         0.         72.         8.      822.00
     1.02       0.00       2.45       0.00      0.000      0.013      0.000      0.000     812.40      60.20
 0.000065         25.         25.        25.          0          0          0       0.00      61 60     121.80
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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 6148.000
 2800 NAT Q1=     792.17  WSEL=     820.12  ENC Q1=     813.10  WSEL=     820.22  RATIO= -0.0264
 NAT Q1=     818.  RATIOS LOB,CH,ROB=  0.0000  0.9942  0.0058  WSEL=     820.22
3280 CROSS SECTION    6148.00 EXTENDED       0.44 FEET

3470 ENCROACHMENT STATIONS=       45.0       128.0  TYPE=      4  TARGET=        0.006
          CROSS SECTION 0
  6148.00      7.54    820.14      0.00    820.12    820.24      0.10      0.00      0.01    824.90
     680.        0.      680.        0.        0.      265.        0.       72.         8.    822.20
     1.02      0.00      2.57      0.00     0.000     0.013     0.000     0.000    812.60     60.86
 0.000073       15.       15.       15.         0         0         0      0.00     60.28    121.14

*SECNO 6335.000
 2800 NAT Q1=     260.80  WSEL=     820.15  ENC Q1=     288.63  WSEL=     820 25  RATIO= -0.1067
 NAT Q1=     313.  RATIOS LOB,CH,ROB=  0.0000  0.9209  0.0791  WSEL=     820.25
3280 CROSS SECTION    6335.00 EXTENDED       0.58 FEET

3470 ENCROACHMENT STATIONS=       19.0       72.0  TYPE=      4  TARGET=        0.079
  6335.00      4.07    820.17      0.00    820.15    820.69      0.52      0.03      0.42    823.40
     680.        0.      680.        0.        0.      118.        0.       73.         9.    817.10
     1.03      0.00      5.77      0.00     0.000     0.013     0.000     0.000    816.10     33.11
 0.000656       187.      187.      187.         1         0         0      0.00     38 90     72.00

*SECNO 6355.000
 2800 NAT Q1=     224 67  WSEL=     820.17  ENC Q1=     236.55  WSEL=     820.27  RATIO= -0.0529
 NAT Q1=     238.  RATIOS LOB,CH,ROB=  0.0000  0.9953  0.0047  WSEL=     820.27

3470 ENCROACHMENT STATIONS=       19.0       72.0  TYPE=      4  TARGET=        0.005
  6355.00      4.09    820.19      0 00    820.17    820.90      0 71      0.02      0.20    825.50
     680.        0.      680.        0.        0.      100.        0.       73.         9.    819.20
     1.03      0.00      6.78      0.00     0.000     0.013     0.000     0.000    816.10     37.09
 0.000931       20.       20.       20.         0         0         0      0.00     34.91     72.00

*SECNO 6380.000
 2800 NAT Q1=     222.87  WSEL=     820.19  ENC Q1=     234.43  WSEL=     820.29  RATIO= -0.0519
 NAT Q1=     235.  RATIOS LOB,CH,ROB=  0.0000  0.9971  0.0029  WSEL=     820.29

3470 ENCROACHMENT STATIONS=       19.0       72.0  TYPE=      4  TARGET=        0.003
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          CROSS SECTION P
  6380.00      4.11    820.21      0.00    820.19    820.93      0.72      0.02      0.01    825.70
     680.        0.       680.        0.        0.       100.        0.       73.         9.     819.40
     1.03      0.00      6.83      0.00     0.000     0.013     0.000     0.000    816.10     37.30
 0.000942       25.       25.       25.         0         0         0      0.00     34.70     72.00


*SECNO 6730.000
 2800 NAT Q1=      47.26  WSEL=     823.45  ENC Q1=      47.26  WSEL=     823.55  RATIO=  0.0000
 NAT Q1=      50.  RATIOS LOB,CH,ROB=  0.0000  0.7400  0.2600  WSEL=     823.55

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      115.0      153.6  TYPE=      4  TARGET=        0.059
          CROSS SECTION Q
  6730.00      3.76    823.46    823.46    823.45    824.69      1.23      0.91      0.51    826.10
     680.        0.       536.      144.        0.        55.       28.       74.         9.     821.00
     1.05      0.00      9.67      5.15     0.000     0.045     0.065     0.000    819.70    120.54
 0.022759       350.      350.      350.         3        11         0      0.00     33.09    153.63


CCHV=    0.500 CEHV=    1.000
*SECNO 6865 000
 2800 NAT Q1=     125.76  WSEL=     827.36  ENC Q1=     130.56  WSEL=     827.46  RATIO= -0.0382
 NAT Q1=     131.  RATIOS LOB,CH,ROB=  0.0000  1 0000  0.0000  WSEL=     827.46

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      140.0      160.0  TYPE=      4  TARGET=        0.000
          D/S FACE OF TRAVER ROAD
  6865.00      5.46    827.36    827.36    827.36    829.29      1.94      0.86      0.70    831 00
     680.        0.       680.        0.        0.        61.       0.       74.         9.     831.40
     1.05      0.00     11.17      0.00     0.000     0.013     0.000     0.000    821.90    141.93
 0.002923       135.      135       135.         3        14         0      0.00     16.02    157.95


SPECIAL BRIDGE

SB   XK         XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00       1.50       3.00       0.00       7.85       0.00       39.26      0.00     821.90     821.90

*SECNO 6946.000
 2800 NAT Q1=     388.07  WSEL=     831.42  ENC Q1=     395.81  WSEL=     831.52  RATIO= -0.0199
 NAT Q1=     399.  RATIOS LOB,CH,ROB=  0.0075  0.9925  0.0000  WSEL=     831.52
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CROSS SECTION P

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

WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 140.0 160.0 TYPE= 4 TARGET= 0.008
U/S FACE OF TRAVER ROAD

6946.00	9.52	831 42	0.00	831.42	831.81	0.40	0.06	0.77	831.00
680.	0.	680.	0.	0.	134.	0.	74.	9.	831.40
1.05	0.00	5.06	0.00	0 000	0.013	0.000	0.000	821.90	140.00
0.000315	81.	81.	81.	0	0	5	0.00	20.00	160.00

CCHV= 0.100 CEHV= 0.300
*SECND 6947.000
2800 NAT Q1= 113.78 WSEL= 831.43 ENC Q1= 114.84 WSEL= 831.53 RATIO= -0.0093
NAT Q1= 118. RATIOS LOB,CH,ROB= 0.0273 0.9725 0.0002 WSEL= 831.53

3470 ENCROACHMENT STATIONS= 140.0 160.0 TYPE= 4 TARGET= 0.027

6947.00	9.52	831.42	0.00	831.43	831.82	0.40	0.00	0.00	831.00
680.	0	680.	0.	0.	134.	0.	74.	9.	831.40
1.05	0.00	5.06	0.00	0.000	0.045	0.000	0.000	821.90	140.00
0.003776	1	1.	1.	0	0	0	0.00	20.00	160.00

THIS RUN EXECUTED 3 MAR 89 10:56:29

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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

100-YEAR FLOOD

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
0.000	760.48	0.00	760.77	30.10	0.00	430.00	0.00	0.00	0.00	101.00	136.00	0.00
0.000	760.48	0.00	760.77	30.10	0.00	430.00	0.00	0.00	0.00	101.00	136.00	0.00
42.000	760.51	0.00	761.01	29.86	0.00	430.00	0.00	53.00	83.00	101.00	136.00	136.00
42.000	760.51	0.00	761.01	29.86	0.00	430.00	0.00	53.00	83.00	101.00	136.00	136.00
67.000	760.62	0.00	761.33	23.53	21.50	393.64	14.86	0.00	0.00	113.00	126.00	0.00
67.000	760.62	0.00	761.33	23.53	21.50	393.64	14.86	0.00	0.00	113.00	126.00	0.00
92.000	760.72	0.00	761.64	23.17	12.64	408.50	8.85	0.00	0.00	113.00	126.00	0.00
92.000	760.72	0.00	761.64	23.17	12.64	408.50	8.85	0.00	0.00	113 00	126.00	0.00
97.000	760.75	0.00	761.66	23.21	12.69	408.42	8.89	0.00	0.00	113.00	126.00	0.00
97.000	760.75	0.00	761.66	23.21	12.69	408.42	8.89	0.00	0.00	113.00	126.00	0.00
102.000	760.80	0.00	761.68	23.46	12.95	407.95	9.09	0.00	0.00	113.00	126.00	0.00
102.000	760.80	0.00	761.68	23.46	12.95	407.95	9.09	0.00	0.00	113 00	126.00	0.00
107.000	760.83	0.00	761.70	23.55	13.04	407.79	9.16	0.00	0.00	113.00	126.00	0.00
107.000	760.83	0.00	761.70	23.55	13.04	407.79	9.16	0.00	0.00	113.00	126.00	0.00
112.000	760.88	0.00	761.73	23.80	13.31	407.32	9.37	0.00	0.00	113.00	126.00	0.00
112.000	760.88	0.00	761.73	23.80	13.31	407.32	9.37	0.00	0.00	113.00	126.00	0.00
117.000	760.90	0.00	761.74	23.88	13.39	407.17	9.44	0.00	0.00	113.00	126.00	0.00
117.000	760.90	0.00	761.74	23.88	13.39	407.17	9.44	0.00	0.00	113.00	126.00	0.00
147.000	760.85	0.00	761.98	22.62	13.78	405.92	10.30	0.00	0.00	82.00	94.00	0.00
147.000	760.85	0.00	761.98	22.62	13.78	405.92	10.30	0.00	0.00	82.00	94.00	0.00
206.000	761.20	0.00	762.51	21.00	15.08	402.10	12.82	0.00	0.00	33.00	44.00	0.00
206.000	761.20	0.00	762.51	21.00	15.08	402.10	12.82	0.00	0.00	33.00	44.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
222.000	761.79	0.00	762.79	22.85	12.69	405.11	12.20	0.00	0.00	35.00	47.00	0.00
222.000	761.79	0.00	762.79	22.85	12.69	405.11	12.20	0.00	0.00	35.00	47.00	0.00
237.000	762.27	0.00	762.89	25.70	18.57	397.72	13.71	0.00	0.00	40.00	53.00	0.00
237.000	762.27	0.00	762.89	25.70	18.57	397.72	13.71	0.00	0.00	40.00	53.00	0.00
252.000	762.22	0.00	762.99	25.44	14.43	406.30	9.27	0.00	0.00	45.00	59.00	0.00
252.000	762.22	0.00	762.99	25.44	14.43	406.30	9.27	0.00	0.00	45.00	59.00	0.00
267.000	762.45	0.00	763.06	27.85	20.88	399.70	9.42	0.00	0.00	50.00	65.00	0.00
267.000	762 45	0.00	763.06	27.85	20.88	399.70	9.42	0.00	0.00	50.00	65.00	0.00
282.000	762.61	0.00	763.12	29.42	27.57	394.72	7.71	0.00	0.00	67.00	83.00	0.00
282.000	762.61	0.00	763.12	29.42	27.57	394.72	7.71	0.00	0 00	67.00	83.00	0.00
372.000	762.94	0.00	763.77	26.32	32.94	369.06	28 00	0.00	0.00	114.00	124.00	0.00
372.000	762.94	0.00	763.77	26.32	32.94	369.06	28.00	0.00	0.00	114.00	124 00	0.00
430.000	763.62	0.00	764.17	21.92	0.00	430 00	0.00	23.00	120.00	120.00	143.00	143.00
430.000	763.62	0.00	764.17	21.92	0.00	430.00	0.00	23.00	120.00	120.00	143.00	143.00
431.000	763.63	0.00	764.18	21.95	0.00	430.00	0.00	23.00	120.00	120.00	143.00	143.00
431.000	763.63	0.00	764.18	21.95	0.00	430.00	0.00	23.00	120.00	120.00	143.00	143.00
435.000	763.66	0.00	764.20	22.04	0.00	430.00	0.00	23.00	120 00	120.00	143.00	143.00
435.000	763.66	0.00	764.20	22.04	0.00	430.00	0.00	23.00	120.00	120.00	143.00	143.00
436.000	763.67	0.00	764.21	20.66	0.00	430.00	0.00	22.00	119.00	120.00	143.00	141.00
436.000	763.67	0.00	764.21	20.66	0.00	430.00	0.00	22.00	119 00	120.00	143.00	141.00
452.000	763.55	0.00	764.37	21.88	12.35	410.27	7.38	54.00	140.00	160.00	173.00	194.00
452.000	763.55	0.00	764.37	21.88	12.35	410.27	7.38	54.00	140.00	160.00	173.00	194.00
577.000	763.96	0.00	765.14	19.12	19.37	402.09	8.54	0.00	0.00	168.00	178.00	0.00
577.000	763.96	0.00	765.14	19.12	19.37	402.09	8.54	0.00	0.00	168.00	178.00	0.00
647.000	764.64	0.00	765.57	25.56	90.07	317.46	22.47	0.00	0.00	53.00	60.00	0.00
647.000	764.64	0.00	765.57	25.56	90.07	317 46	22.47	0.00	0.00	53.00	60.00	0.00
662.000	764.85	0.00	765.65	25.56	61.74	336.09	32.16	0.00	0.00	24.00	32.00	0.00
662.000	764.85	0.00	765.65	25.56	61.74	336.09	32.16	0.00	0.00	24.00	32.00	0.00
677.000	764.81	0.00	765.76	28.21	44.36	354.95	30.69	0.00	0.00	21.00	30.00	0.00
677.000	764.81	0.00	765.76	28.21	44.36	354.95	30.69	0.00	0.00	21.00	30.00	0.00
692.000	765.17	0.00	765.86	27.69	52.46	354.13	23.41	0.00	0.00	20.00	30.00	0.00
692.000	765.17	0.00	765.86	27 69	52.46	354.13	23.41	0.00	0.00	20.00	30.00	0.00
707.000	765.13	0.00	765.97	26.58	59.27	345.03	25.70	0.00	0.00	23.00	32.00	0 00
707.000	765.13	0.00	765.97	26.58	59.27	345.03	25.70	0.00	0.00	23.00	32.00	0.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	722.000	765.04	0.00	766 12	22.16	40.64	366.79	22.57	0.00	0.00	25.00	34.00	0.00
	722.000	765.04	0.00	766.12	22.16	40.64	366.79	22.57	0.00	0.00	25.00	34.00	0 00
	736.000	765.40	0.00	766.22	22.89	32.56	374.42	23.03	0.00	0.00	26.00	36.00	0.00
	736.000	765.40	0.00	766.22	22.89	32.56	374.42	23.03	0.00	0.00	26.00	36.00	0.00
	752.000	765.81	0.00	766.30	26.99	38.09	371.99	19.93	0.00	0.00	27.00	39.00	0.00
	752.000	765.81	0.00	766.30	26.99	38.09	371.99	19.93	0.00	0.00	27.00	39.00	0.00
	767.000	765.99	0.00	766.34	29.32	38.46	374.68	16.86	0.00	0.00	27.00	41.00	0.00
	767.000	765.99	0.00	766.34	29.32	38.46	374.68	16.86	0.00	0.00	27.00	41.00	0.00
	794.000	765.98	0.00	766.49	29.64	24.76	398.23	7.01	0.00	0.00	38.70	54.50	0.00
	794.000	765.98	0 00	766.49	29.64	24.76	398.23	7.01	0.00	0.00	38.70	54.50	0.00
*	874.000	766.75	0.00	768.47	23.18	0.00	430.00	0.00	0.00	0.00	38.70	54.50	0.00
*	874.000	766.75	0 00	768.47	23.18	0.00	430.00	0.00	0.00	0.00	38.70	54.50	0.00
	952.000	768.87	0.00	769.26	42.76	24.10	361.05	44.85	0.00	0.00	101.00	114.00	0.00
	952.000	768 87	0.00	769.26	42.76	24.10	361.05	44.85	0.00	0.00	101.00	114.00	0.00
	1055.000	769.26	0.00	769.39	44.28	24.95	395.03	10.01	0.00	0.00	17.00	43.00	0.00
	1055.000	769.26	0.00	769.39	44.28	24.95	395.03	10.01	0.00	0.00	17.00	43.00	0.00
	1056.000	769.20	0.00	769.42	44.22	22.03	397.70	10.26	0.00	0.00	17.00	43.00	0.00
	1056.000	769.20	0.00	769 42	44.22	22.03	397.70	10.26	0.00	0.00	17.00	43.00	0.00
	1061.000	769.23	0.00	769.44	44.24	22.37	397.23	10.39	0.00	0.00	17.00	43.00	0.00
	1061.000	769.23	0.00	769.44	44.24	22.37	397.23	10.39	0.00	0.00	17.00	43.00	0.00
	1062.000	769.33	0.00	769.45	44.35	25.56	394.27	10.17	0.00	0.00	17.00	43.00	0.00
	1062.000	769.33	0.00	769.45	44.35	25.56	394.27	10.17	0.00	0.00	17.00	43.00	0.00
	1137.000	769.27	0.00	769.58	41.18	62.55	344.78	22.67	0.00	0.00	34.00	49.00	0.00
	1137.000	769.27	0.00	769.58	41.18	62.55	344.78	22.67	0.00	0.00	34.00	49.00	0.00
	1226.000	768.99	0.00	770.13	29.90	44.45	372.81	12.74	0.00	0.00	97.00	109.00	0.00
	1226.000	768.99	0.00	770.13	29.90	44.45	372.81	12.74	0.00	0.00	97.00	109.00	0.00
*	1327.000	770.53	0.00	771.88	23.58	2.95	415.62	11.42	0.00	0.00	98.00	112.00	0.00
*	1327.000	770.53	0.00	771.88	23.58	2.95	415.62	11.42	0.00	0.00	98.00	112.00	0.00
*	1428.000	772.02	0.00	773.38	23.43	2.93	415.73	11.34	43.00	83.00	98.00	112.00	124 00
*	1428.000	772.02	0.00	773.38	23.43	2.93	415.73	11.34	43.00	83.00	98.00	112.00	124.00
	1463.000	773.81	0.00	774.06	26.23	0.00	430.00	0.00	0.00	0.00	92.00	120.00	0.00
	1463.000	773.81	0.00	774.06	26.23	0.00	430.00	0.00	0.00	0.00	92.00	120.00	0.00
	1530.000	775.28	0.00	775.41	124.11	8.29	415.95	5.75	0.00	0.00	92.00	120.00	0.00
	1530.000	775.28	0.00	775.43	28.00	0.00	430.00	0.00	0.04	92.00	92.00	120.00	120.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	1612.000	775 35	0.00	775.51	160.17	109.70	293.83	26.46	0.00	0.00	247.00	263.00	0.00
	1612.000	775.35	0 01	775.54	76.99	105.06	305.67	19.27	0.05	193.80	247.00	263.00	270.79
	1887.000	775.77	0.00	775.87	142.98	278.46	141.62	9.92	0.00	0.00	219.00	229.00	0.00
	1887.000	775.85	0.08	775.94	109.42	297.06	132.94	0.00	0.07	119.58	219.00	229.00	229.00
	1997.000	775 96	0.00	776.16	124 62	254.63	166.82	8.55	125.00	114.00	219.00	229.00	239.00
	1997.000	776.08	0.12	776.25	102.68	269.89	160.11	0.00	0.10	126.32	219.00	229.00	229.00
	2052.000	776.26	0.00	776.88	97.00	176.15	243.71	10.14	97.00	140.00	219.00	229.00	237.00
	2052.000	776.39	0.12	777.01	81.00	177.13	250.64	2.23	81.00	149.00	219.00	229.00	230.00
	2108.000	777.03	0.00	777.73	68.03	8.67	402.35	18.98	0.00	0.00	43.00	67.00	0.00
	2108.000	777.10	0.07	777.79	40.00	9.02	406.12	14.85	40.00	38.00	43.00	67.00	78.00
	2487.000	780.23	0.00	780.90	56.85	56.52	373.48	0.00	0.00	0.00	87.00	104.00	0.00
	2487.000	780.26	0.04	781.03	29.00	40.23	389.77	0.00	29.00	74.00	87.00	104 00	103.00
*	2665.000	781.72	0 00	782.67	50.38	38.82	391.18	0.00	0.00	0.00	87.00	104.00	0.00
	2665.000	781.66	-0.06	782.66	39.76	37.15	392.85	0.00	44.00	64.00	87.00	104.00	108 00
	2845.000	783.62	0.00	784.46	32.12	1.20	428.80	0.00	0.00	0.00	89.00	117.00	0.00
	2845.000	783.70	0.07	784.48	32.00	1.57	428.42	0.00	32.00	83.00	89.00	117.00	115.00
*	2900.000	785.00	0.00	786.04	29.19	0.43	429.57	0.00	0.00	0.00	89.00	117.00	0.00
*	2900.000	784.98	-0.01	786.04	25.54	0.00	430.00	0.00	0.00	89.00	89.00	117.00	117.00
*	2951.000	786.53	0.00	788.05	14.35	0.00	430.00	0.00	0.00	0.00	84.00	115.00	0.00
*	2951.000	786.53	0.00	788.05	14.35	0.00	430.00	0.00	0.00	84.00	84.00	115.00	115.00
	3137.000	789.16	0.00	789.59	41.24	53.56	310.12	66.32	0.00	0.00	38.00	49.00	0.00
	3137.000	789.17	0.01	789.65	28.24	48.12	322.40	59.48	0.05	31.54	38.00	49.00	59.79
	3331.000	790.08	0.00	790.86	27.62	45.57	371.63	12.80	0.00	0.00	25.00	37 00	0.00
	3331.000	790.13	0.05	791.00	18.26	39.66	388.14	2.19	0.05	19.39	25.00	37.00	37.65
	3587.000	792.05	0.00	793.12	26.43	14.09	398.15	17.76	0.00	0.00	67.00	81.00	0.00
	3587.000	792.14	0.09	793.35	16.21	2.10	422.10	5.80	0.05	66.27	67.00	81.00	82.48
*	3764.000	795.14	0.00	796.64	20.65	18 72	406.32	4.96	23.00	175.00	181.00	193.00	198.00
*	3764.000	795.19	0.05	796.92	12.00	0.00	430.00	0.00	12.00	181.00	181.00	193.00	193.00
*	3794.000	795 71	0.00	797.86	8.59	0.00	430.00	0.00	0.00	0.00	200.00	210.00	0.00
*	3794.000	795.71	0.00	797.86	8.59	0.00	430.00	0.00	0.00	200.00	200.00	210.00	210.00
	3865.000	796.08	0.00	797.90	8.64	0.00	430.00	0.00	24.00	193.00	200.00	210.00	217.00
	3865.000	796.08	0.00	797.90	8.64	0.00	430.00	0.00	10.00	200.00	200.00	210.00	210.00
*	3900.000	797.54	0.00	798.97	17.95	4.51	414.31	1.18	0.00	0.00	200.00	215.00	0.00
*	3900.000	797.55	0.01	799.02	15.00	0.00	420.00	0.00	0.01	200.00	200.00	215.00	215.00

SECND	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
3986.000	820.06	0.00	820.07	25.00	16.25	391.69	12.06	25.00	195.00	200.00	215.00	220.00
3986.000	820.06	0.00	820.08	15.00	0.00	420.00	0.00	15.00	200.00	200.00	215.00	215.00
4016.000	820.07	0.00	820.07	85.00	114.23	399.80	165.97	85.00	282.00	310.00	338.00	367.00
4016.000	820.06	-0.01	820.08	28.00	0.00	680.00	0.00	28.00	310.00	310.00	338.00	338.00
4046.000	820.07	0.00	820 07	145.00	153.61	324.63	201.76	145.00	192.00	250.00	279.00	337.00
4046.000	820.07	-0.01	820.08	29.00	0.00	680.00	0.00	29.00	250.00	250.00	279.00	279.00
4050.000	820.09	0.00	820.09	150 00	154.21	319.21	206.58	150.00	190.00	250.00	279.00	340.00
4050.000	820.07	-0.02	820.08	29.00	0.00	680.00	0.00	29.00	250.00	250.00	279.00	279 00
4116.000	820.09	0.00	820.09	282.00	144.45	228.67	306.88	282.00	183.00	310.00	338.00	465.00
4116.000	820.08	-0.01	820.09	100.00	90.90	411.00	178.09	100.00	280.00	310.00	338.00	380.00
4216.000	820.09	0.00	820.09	480 44	117.94	188.21	373.85	482.00	157.00	310.00	338.00	639.00
4216.000	820.08	-0.01	820.09	120.00	99.52	364.46	216.01	120.00	270.00	310.00	338.00	390.00
4316.000	820.09	0.00	820.09	491.90	118.41	188.95	372.64	0.00	0.00	310.00	338.00	0.00
4316.000	820.08	-0.01	820.09	120.00	99.53	364.46	216.01	120.00	270.00	310.00	338.00	390.00
4372.000	820.09	0.00	820.09	601.81	180.54	184.35	315.12	622.00	178.00	410.00	434.00	800.00
4372.000	820.08	-0.01	820.09	150.00	177 41	300.96	201.63	150.00	350.00	410.00	434.00	500.00
4376.000	820.10	0.00	820.10	601.09	180 51	184.09	315.40	620 00	179.00	410.00	434.00	799.00
4376.000	820.10	-0.01	820.10	150.00	177 44	300.90	201.65	150.00	350.00	410.00	434.00	500.00
4458.000	820.10	0.00	820.10	547.59	125.24	190.72	364.04	0.00	0.00	430.00	458.00	0.00
4458.000	820.10	-0.01	820.10	140.00	121.91	336.13	221.95	140.00	375.00	430.00	458.00	515.00
4539.000	820.10	0.00	820.10	592.50	219.47	191.97	268.56	0.00	0.00	383.00	417.00	0.00
4539.000	820.09	-0.01	820.10	140.00	158.14	365.00	156.86	140.00	330.00	383.00	417.00	470.00
4540.000	820.10	0.00	820.11	592.50	165.47	311.88	202.65	0.00	0.00	383.00	417 00	0.00
4540.000	820.09	-0.01	820.11	140.00	97.14	486.50	96.37	140 00	330.00	383.00	417.00	470.00
4646.000	820.10	0.00	820.11	592.46	165.46	311.91	202.62	0.00	0.00	383.00	417.00	0.00
4646.000	820.09	-0.01	820.11	140.00	97.13	486.52	96.35	140.00	330.00	383.00	417.00	470.00
4647.000	820.11	0.00	820.11	592.46	219.47	192.00	268.53	0.00	0.00	383.00	417.00	0.00
4647.000	820.10	0.00	820.11	140.00	158.14	364.99	156.87	140.00	330.00	383.00	417.00	470.00
4728.000	820.11	0.00	820.11	576.00	297.68	67.89	314.42	576.00	107.00	360.00	375.00	683.00
4728.000	820.11	0.00	820.11	140.00	271.87	156.49	251.64	140.00	300.00	360.00	375.00	440.00
4812.000	820.11	0.00	820.11	533.78	335.46	91.50	253.04	0.00	0.00	300.00	320.00	0.00
4812.000	820.11	0.00	820.11	150.00	289.22	188.78	202.00	150.00	230.00	300.00	320.00	380.00
4813.000	820.11	0.00	820.11	533.77	287.10	176.34	216.56	0.00	0.00	300.00	320.00	0.00
4813.000	820.10	-0.01	820.12	150.00	214.64	315.45	149.91	150.00	230.00	300.00	320.00	380.00

	SECND	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	4846.000	820.11	0.00	820.11	533.74	287.10	176.35	216.55	0.00	0.00	300.00	320.00	0.00
	4846.000	820.10	0.00	820.12	150.00	214.63	315.48	149.89	150.00	230.00	300.00	320.00	380.00
	4847.000	820.11	0.00	820.11	533.74	335.46	91.51	253.03	0.00	0.00	300.00	320.00	0.00
	4847.000	820.11	0.01	820.12	150.00	289.22	188.77	202.01	150.00	230.00	300.00	320.00	380.00
	4946.000	820.11	0.00	820.11	522.00	309.39	87.38	283.24	522.00	119.00	360.00	375.00	641.00
	4946.000	820.12	0.01	820.12	140.00	270.71	165.85	243.44	140.00	300.00	360.00	375.00	440.00
	5146.000	820.11	0.00	820.11	422.42	334.39	104.48	241.13	0.00	0.00	360.00	375.00	0.00
	5146.000	820.12	0.01	820.12	100.00	251.75	209.88	218.37	100.00	320.00	360.00	375.00	420.00
	6108.000	820.12	0.00	820.17	97.46	0.00	675.35	4.65	135.00	20.00	45.00	128.00	155.00
	6108.000	820.14	0.02	820.19	71.59	0.00	680.00	0.00	0.05	45.00	45.00	128.00	128.00
	6133.000	820.12	0.00	820.21	123.96	0.00	674.90	5.10	0.00	0.00	45.00	128.00	0.00
	6133.000	820.14	0.02	820.23	61.60	0.00	680.00	0.00	0.01	45.00	45.00	128.00	128.00
	6148.000	820.12	0.00	820.22	118.32	0.00	677.02	2.98	0.00	0.00	45.00	128.00	0.00
	6148.000	820.14	0.02	820.24	60.28	0.00	680.00	0.00	0.01	45.00	45.00	128.00	128.00
	6335.000	820 15	0.00	820.68	38.72	0.00	680.00	0.00	53.00	19.00	19.00	72.00	72.00
	6335.000	820.17	0.02	820.69	38.90	0.00	680.00	0.00	0.08	19.00	19.00	72.00	72.00
	6355.000	820.17	0.00	820.89	47.25	0.00	677.47	2.53	0.00	0.00	19.00	72.00	0.00
	6355.000	820.19	0.02	820.90	34.91	0.00	680.00	0.00	0.00	19.00	19.00	72.00	72.00
	6380.000	820.19	0.00	820.92	44.83	0.00	678.50	1.50	0.00	0.00	19.00	72.00	0.00
	6380.000	820.21	0.02	820.93	34.70	0.00	680.00	0.00	0.00	19.00	19.00	72.00	72.00
*	6730.000	823.45	0.00	824.52	41.92	0.00	508.26	171.74	0.00	0.00	115.00	140.00	0.00
*	6730.000	823.46	0.01	824.69	33.09	0.00	536.15	143.85	0.06	115.00	115.00	140.00	153.63
*	6865.000	827.36	0.00	829.29	16.02	0.00	680.00	0.00	0.00	0.00	140.00	160.00	0.00
*	6865.000	827.36	0.00	829.29	16.02	0.00	680.00	0.00	0.00	140.00	140.00	160.00	160.00
	6946.000	831.42	0.00	831.81	78.94	3.31	676.69	0.00	0.00	0.00	140.00	160.00	0.00
	6946.000	831.42	0.00	831.81	20.00	0.00	680.00	0.00	0.01	140.00	140.00	160.00	160.00
	6947.000	831.43	0.00	831.81	80.12	11.80	668.20	0.00	0.00	0.00	140.00	160.00	0.00
	6947.000	831.42	-0.02	831.82	20.00	0.00	680.00	0.00	0.03	140.00	140.00	160.00	160.00

100-YEAR FLOOD

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	756.64	430.00	760.48	0.00	760.77	23.52	4.30	100 04	88.66
0.000	0.00	0.00	0.00	756.64	430.00	760.48	0.00	760.77	23.52	4.30	100.04	88.66
42.000	42.00	762.80	761.10	757.00	430.00	760.51	0.00	761.01	48.18	5.63	76.43	61.95
42.000	42.00	762.80	761.10	757.00	430.00	760.51	0.00	761.01	48.18	5.63	76.43	61.95
67.000	25.00	0.00	0.00	756.30	430.00	760.62	0.00	761.33	38.92	7.02	75.46	68.92
67.000	25.00	0.00	0.00	756.30	430.00	760.62	0.00	761.33	38.92	7.02	75.46	68.92
92.000	25.00	0.00	0.00	756.50	430.00	760.72	0.00	761.64	40.39	7.89	68.54	67.66
92.000	25.00	0.00	0.00	756.50	430.00	760.72	0.00	761.64	40.39	7.89	68.54	67.66
97.000	5.00	0.00	0.00	756.50	430.00	760.75	0.00	761.66	40.03	7.87	68.77	67.96
97.000	5.00	0.00	0.00	756.50	430.00	760.75	0.00	761.66	40.03	7.87	68.77	67.96
102.000	5.00	0.00	0.00	756.50	430.00	760.80	0.00	761.68	38.09	7.75	70.11	69.67
102.000	5.00	0.00	0.00	756.50	430.00	760.80	0.00	761.68	38.09	7.75	70.11	69.67
107.000	5.00	0.00	0.00	756.50	430.00	760.83	0.00	761.70	37.46	7.71	70.56	70.26
107.000	5.00	0.00	0.00	756.50	430.00	760.83	0.00	761.70	37.46	7.71	70.56	70.26
112.000	5.00	0.00	0.00	756.50	430.00	760.88	0.00	761.73	35.63	7.59	71.95	72.03
112.000	5.00	0.00	0.00	756.50	430.00	760.88	0.00	761.73	35.63	7.59	71.95	72.03
117.000	5.00	0.00	0.00	756.50	430.00	760.90	0.00	761 74	35.09	7.56	72.38	72.59
117.000	5.00	0.00	0.00	756.50	430.00	760.90	0.00	761.74	35.09	7.56	72.38	72.59
147.000	30.00	0.00	0.00	756.00	430.00	760.85	0.00	761.98	76.06	8.78	60.71	49.30
147.000	30.00	0.00	0.00	756.00	430.00	760.85	0.00	761.98	76.06	8.78	60.71	49.30
206.000	59.00	0 00	0.00	756.70	430.00	761.20	760.92	762.51	86.14	9.49	58.55	46.33
206.000	59.00	0.00	0.00	756.70	430.00	761.20	760.92	762.51	86.14	9.49	58 55	46.33
222.000	16.00	0.00	0.00	756.90	430.00	761.79	0.00	762.79	60.11	8.23	65.62	55.46
222.000	16.00	0.00	0.00	756.90	430.00	761.79	0.00	762.79	60.11	8.23	65.62	55 46
237.000	15.00	0.00	0.00	757.20	430.00	762.27	0.00	762.89	30.89	6.56	85.72	77.36
237.000	15.00	0.00	0.00	757.20	430.00	762.27	0.00	762.89	30.89	6.56	85.72	77.36
252.000	15.00	0.00	0.00	757.40	430.00	762.22	0.00	762.99	46.73	7.22	73.84	62.90
252.000	15.00	0.00	0.00	757.40	430.00	762.22	0.00	762.99	46.73	7.22	73.84	62.90
267.000	15.00	0.00	0.00	757.70	430.00	762.45	0.00	763.06	36.21	6.49	84.30	71 46
267.000	15.00	0.00	0.00	757.70	430.00	762.45	0.00	763 06	36.21	6.49	84.30	71.46
282.000	15.00	0.00	0.00	758.00	430.00	762.61	0.00	763.12	30.76	6.01	92.51	77.53
282.000	15.00	0.00	0.00	758.00	430.00	762.61	0.00	763.12	30.76	6.01	92.51	77 53

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
372.000	90.00	0.00	0.00	758.00	430.00	762.94	0.00	763.77	44.20	7.88	83.60	64.68
372.000	90.00	0.00	0.00	758.00	430.00	762.94	0.00	763.77	44.20	7.88	83.60	64.68
430.000	58.00	0.00	0.00	758.50	430.00	763.62	0.00	764.17	48.49	6.00	71.69	61.75
430.000	58.00	0.00	0.00	758.50	430.00	763.62	0.00	764.17	48.49	6.00	71.69	61.75
431.000	1.00	765.00	764.00	758.50	430.00	763.63	0.00	764.18	48.02	5.98	71.96	62.06
431.000	1.00	765.00	764.00	758.50	430.00	763.63	0.00	764.18	48 02	5.98	71.96	62.06
435.000	4.00	765.00	764.00	758.50	430.00	763.66	0.00	764.20	46.76	5.92	72.66	62.88
435.000	4.00	765.00	764.00	758.50	430.00	763.66	0.00	764.20	46.76	5.92	72.66	62.88
436.000	1.00	0.00	0.00	758.50	430.00	763.67	0.00	764.21	45.39	5.94	72.39	63.83
436.000	1.00	0.00	0 00	758.50	430.00	763.67	0.00	764.21	45.39	5.94	72.39	63.83
452.000	16.00	0.00	0.00	758.60	430.00	763.55	0.00	764.37	45.79	7 42	71.05	63.54
452.000	16.00	0.00	0.00	758.60	430.00	763.55	0.00	764.37	45.79	7.42	71.05	63.54
577.000	125.00	0.00	0.00	759.00	430.00	763.96	0.00	765.14	62.89	9.01	62.69	54.22
577.000	125.00	0.00	0.00	759.00	430.00	763.96	0.00	765.14	62.89	9.01	62.69	54.22
647.000	70.00	0.00	0.00	759.00	430.00	764.64	0.00	765.57	51.34	8.82	79.05	60.01
647.000	70.00	0.00	0.00	759.00	430.00	764.64	0.00	765.57	51.34	8.82	79.05	60 01
662.000	15.00	0.00	0.00	759.20	430.00	764.85	0.00	765.65	39.90	8.00	83.39	68.07
662.000	15.00	0.00	0.00	759.20	430.00	764.85	0.00	765.65	39.90	8.00	83.39	68.07
677.000	15.00	0.00	0.00	759.40	430.00	764.81	0.00	765.76	57.21	8.55	74.85	56.85
677.000	15.00	0.00	0.00	759.40	430.00	764.81	0.00	765.76	57.21	8.55	74.85	56 85
692.000	15.00	0.00	0.00	759.60	430.00	765.17	0.00	765.86	37.31	7.27	85.71	70.40
692.000	15.00	0.00	0.00	759.60	430.00	765.17	0.00	765.86	37 31	7.27	85.71	70.40
707.000	15.00	0.00	0.00	759.80	430.00	765.13	0.00	765.97	48.10	8.11	77.79	62.00
707.000	15.00	0.00	0.00	759.80	430.00	765.13	0.00	765.97	48.10	8.11	77.79	62.00
722.000	15.00	0 00	0.00	760.00	430.00	765.04	0.00	766.12	61.27	8.97	67.46	54.93
722.000	15.00	0.00	0.00	760.00	430.00	765.04	0.00	766.12	61.27	8.97	67.46	54.93
736.000	14.00	0.00	0.00	760.10	430.00	765.40	0.00	766.22	41.05	7.72	76.91	67.11
736.000	14.00	0.00	0.00	760.10	430 00	765.40	0 00	766.22	41.05	7.72	76.91	67.11
752.000	16.00	0.00	0.00	760.30	430.00	765.81	0.00	766.30	22.61	6 00	98.03	90.43
752.000	16.00	0.00	0.00	760.30	430.00	765.81	0.00	766.30	22.61	6.00	98.03	90.43
767.000	15.00	0.00	0.00	760.30	430.00	765.99	0.00	766.34	14.97	5.01	113.27	111.12
767.000	15.00	0.00	0.00	760.30	430.00	765.99	0.00	766.34	14.97	5.01	113.27	111.12
794.000	27.00	0.00	0.00	760.70	430.00	765.98	0.00	766.49	42.03	5.93	85.81	66.33
794.000	27.00	0.00	0.00	760.70	430.00	765.98	0.00	766.49	42.03	5.93	85.81	66.33

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	874.000	80.00	770.00	769.50	762.90	430.00	766.75	766.75	768.47	295.52	10.50	40.95	25.01
*	874.000	80.00	770.00	769.50	762.90	430.00	766.75	766.75	768.47	295.52	10.50	40.95	25.01
	952.000	78.00	0.00	0.00	762.50	430.00	768.87	0.00	769.26	20.26	5.42	121.82	95.53
	952.000	78.00	0.00	0.00	762.50	430.00	768.87	0.00	769.26	20.26	5.42	121.82	95.53
	1055.000	103.00	0.00	0.00	763.50	430.00	769.26	0.00	769.39	6.01	3.03	171.76	175.41
	1055.000	103.00	0.00	0.00	763.50	430.00	769.26	0.00	769.39	6.01	3.03	171.76	175.41
	1056.000	1.00	768.50	767.50	763.50	430.00	769.20	0.00	769.42	57.92	3.87	129.52	56.50
	1056.000	1.00	768.50	767.50	763.50	430.00	769.20	0.00	769.42	57.92	3.87	129.52	56.50
	1061.000	5.00	768.50	767.50	763.50	430.00	769.23	0.00	769.44	56.65	3.85	130.56	57.13
	1061.000	5.00	768.50	767.50	763.50	430.00	769.23	0.00	769.44	56.65	3.85	130.56	57.13
	1062.000	1.00	0.00	0.00	763.50	430.00	769.33	0.00	769.45	5.73	2.99	174.68	179.62
	1062.000	1.00	0.00	0.00	763.50	430.00	769.33	0.00	769.45	5.73	2.99	174.68	179.62
	1137.000	75.00	0.00	0.00	764.20	430.00	769.27	0.00	769.58	17.31	4.92	123.27	103.37
	1137.000	75.00	0.00	0.00	764.20	430.00	769.27	0.00	769.58	17.31	4.92	123.27	103.37
	1226.000	89.00	0.00	0.00	765.20	430.00	768.99	768.76	770.13	92.81	9.17	65.92	44.64
	1226.000	89.00	0.00	0.00	765.20	430.00	768.99	768.76	770.13	92.81	9.17	65.92	44.64
*	1327.000	101.00	0.00	0.00	766.30	430.00	770.53	770.53	771.88	116.52	9.50	53.01	39.84
*	1327.000	101.00	0.00	0.00	766.30	430.00	770.53	770.53	771.88	116.52	9.50	53.01	39.84
*	1428.000	101.00	0.00	0.00	767.80	430.00	772.02	772.02	773.38	117.42	9.52	52.85	39.68
*	1428.000	101.00	0.00	0.00	767.80	430.00	772.02	772.02	773.38	117.42	9.52	52.85	39.68
	1463.000	35.00	0.00	0.00	768.20	430.00	773.81	0.00	774.06	16.58	4.02	107.09	105.62
	1463.000	35.00	0.00	0.00	768.20	430.00	773.81	0.00	774.06	16.58	4.02	107.09	105.62
	1530.000	67.00	774.70	773.70	768.70	430.00	775.28	0.00	775.41	7.20	3.02	187.58	160.24
	1530.000	67.00	999999.00	0.00	768.70	430.00	775.28	0.00	775.43	8.20	3.12	137.71	150.16
	1612.000	82.00	0.00	0.00	770.20	430.00	775.35	0.00	775.51	10.41	3.86	257.79	133.25
	1612.000	82.00	0.00	0.00	770.20	430.00	775.35	0.00	775.54	11.33	4.02	209.25	127.77
	1887.000	275.00	0.00	0.00	771.40	430.00	775.77	0.00	775.87	17.16	3.97	247.88	103.80
	1887.000	275.00	0.00	0.00	771.40	430.00	775.85	0.00	775.94	19.34	3.65	224.50	97.77
	1997.000	110.00	0.00	0.00	772.00	430.00	775.96	0.00	776.16	35.60	5.28	186.56	72.07
	1997.000	110.00	0.00	0.00	772.00	430.00	776.08	0.00	776.25	38.49	4.88	174.40	69.31
	2052.000	55.00	0.00	0.00	772.50	430.00	776.26	0.00	776.88	94.48	8.23	132.96	44.24
	2052.000	55.00	0.00	0.00	772.50	430.00	776.39	0.00	777.01	87.25	8.13	127.29	46.03
	2108.000	56.00	0.00	0.00	772.70	430.00	777.03	776.92	777.73	119.70	6.97	80.61	39.30
	2108.000	56.00	0.00	0.00	772.70	430.00	777.10	0.00	777.79	112.47	6.84	73.90	40.55

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	2487.000	379.00	0.00	0.00	775.70	430.00	780.23	0.00	780.90	60.45	7.02	87.44	55.30
	2487.000	379.00	0.00	0.00	775.70	430.00	780.26	0.00	781.03	64.08	7.33	73.61	53.72
*	2665.000	178.00	0.00	0.00	777.50	430.00	781.72	781.72	782.67	92.65	8.17	70.62	44.67
	2665.000	178.00	0.00	0.00	777.50	430.00	781.66	781.65	782.66	98.98	8.37	66.55	43.22
	2845.000	180.00	0.00	0.00	779.40	430.00	783.62	0.00	784.46	101.22	7.35	60.13	42.74
	2845.000	180.00	0.00	0.00	779.40	430.00	783.70	0.00	784.48	91.82	7.11	62.42	44.87
*	2900.000	55.00	0.00	0.00	781.00	430.00	785.00	785.00	786.04	138.53	8.18	53.21	36.53
*	2900.000	55.00	0.00	0.00	781.00	430.00	784.98	784.98	786.04	144.95	8.25	52.14	35.72
*	2951.000	51.00	0.00	0.00	782.00	430.00	786.53	786.53	788.05	165.02	9.90	43.43	33.47
*	2951.000	51.00	0.00	0.00	782.00	430.00	786.53	786.53	788.05	164.88	9.90	43.44	33.49
	3137.000	186.00	0.00	0.00	784.00	430.00	789.16	0.00	789.59	44.36	6.06	107.41	64.56
	3137.000	186.00	0.00	0.00	784.00	430.00	789.17	0.00	789.65	47.43	6.28	97.33	62.44
	3331.000	194.00	0.00	0.00	785.00	430.00	790.08	0.00	790.86	86.93	7.59	72.69	46.12
	3331.000	194.00	0.00	0.00	785.00	430.00	790.13	0.00	791.00	90.78	7.82	64.77	45.13
	3587.000	256.00	0.00	0.00	788.50	430.00	792.05	0.00	793.12	84.63	8.63	65.04	46.74
	3587.000	256.00	0.00	0.00	788.50	430.00	792.14	0.00	793.35	86.91	8.91	53.67	46.13
*	3764.000	177.00	0.00	0.00	791.30	430.00	795.14	795.14	796.64	117.41	10.11	53.08	39.68
*	3764.000	177.00	0.00	0.00	791.30	430.00	795.19	795.19	796.92	202.46	10.54	40.81	30.22
*	3794.000	30.00	0.00	0.00	791.10	430.00	795.71	795.71	797.86	36.71	11.77	36.53	70.97
*	3794.000	30.00	0.00	0.00	791.10	430.00	795.71	795.71	797.86	36.70	11.77	36.53	70.98
	3865.000	71.00	805.80	797.20	791.10	430.00	796.08	0.00	797.90	29.42	10.82	39.73	79.27
	3865.000	71.00	805.80	797.20	791.10	430.00	796.08	0.00	797.90	29.39	10.82	39.75	79.32
*	3900.000	35.00	0.00	0.00	792.80	420.00	797.54	797.54	798.97	116.98	9.65	46.24	38.83
*	3900.000	35.00	0.00	0.00	792.80	420.00	797.55	797.55	799.02	161.12	9.76	43.04	33.09
	3986.000	86.00	820.80	797.80	792.80	420.00	820.06	0.00	820.07	0.07	1.03	582.23	1561.16
	3986.000	86.00	820.80	797.80	792.80	420.00	820.06	0.00	820.08	0.49	1.10	380.87	599.15
	4016.000	30.00	0.00	0.00	793.50	680.00	820.07	0.00	820.07	0.03	0.60	1794.57	3785.55
	4016.000	30.00	0.00	0.00	793.50	680.00	820.06	0.00	820.08	0.29	1.01	670.38	1255.00
	4046.000	30.00	0.00	0.00	794.20	680.00	820.07	0.00	820.07	0.01	0.47	2962.12	6150.93
	4046.000	30.00	0.00	0.00	794.20	680.00	820.07	0.00	820.08	0.16	0.99	684.83	1677.47
	4050.000	4.00	801.10	800.10	794.20	680.00	820.09	0.00	820.09	0.01	0.47	3049.20	6264.24
	4050.000	4.00	801.10	800.10	794.20	680.00	820.07	0.00	820.08	0.16	0.99	685.15	1678.42
	4116.000	66.00	0.00	0.00	794.70	680.00	820.09	0.00	820.09	0.01	0.36	4530.17	7886.03
	4116.000	66.00	0.00	0.00	794.70	680.00	820.08	0.00	820.09	0.02	0.65	1978.30	4383.16

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4216.000	100.00	0.00	0.00	794.70	680.00	820.09	0.00	820.09	0.01	0.30	6239.34	9582.15
4216.000	100.00	0.00	0.00	794.70	680.00	820.08	0.00	820.09	0.02	0.57	2312.67	4945.27
4316.000	100.00	0.00	0.00	794.70	680.00	820.09	0.00	820.09	0.01	0.30	6246.47	9544.69
4316.000	100.00	0.00	0.00	794.70	680.00	820 08	0.00	820.09	0.02	0.57	2312.76	4945.58
4372.000	56.00	0.00	0 00	795.60	680.00	820.09	0.00	820.09	0.01	0.34	6008.73	8076.21
4372.000	56.00	0.00	0.00	795.60	680.00	820.08	0.00	820.09	0.02	0.56	2589.92	4944.17
4376.000	4.00	801.60	801.20	795.60	680.00	820.10	0.00	820.10	0.01	0.34	6016.07	8095.79
4376.000	4.00	801.60	801.20	795.60	680.00	820.10	0.00	820.10	0.02	0.56	2592.13	4950.52
4458.000	82.00	0.00	0.00	797.50	680.00	820.10	0.00	820.10	0.01	0.34	5399.12	7607.23
4458.000	82.00	0.00	0.00	797.50	680.00	820.10	0.00	820.10	0.02	0.60	2214.01	4313.23
4539.000	81.00	0.00	0.00	799.30	680.00	820 10	0.00	820.10	0.03	0.35	3775.16	3681.49
4539.000	81.00	0.00	0.00	799.30	680.00	820.09	0.00	820.10	0.12	0.66	1525.82	1934.48
4540.000	1.00	810.60	810.00	799.30	680.00	820.10	0.00	820.11	0 05	0.81	3599.97	3160.05
4540.000	1.00	810.60	810.00	799.30	680.00	820.09	0.00	820.11	0.11	1.26	1350.57	2023.06
4646.000	106.00	810.60	810.00	799.30	680.00	820.10	0.00	820.11	0.05	0.81	3599.04	3159.04
4646.000	106.00	810.60	810.00	799.30	680.00	820.09	0.00	820.11	0.11	1.26	1349.80	2021.34
4647.000	1.00	0.00	0.00	799.30	680.00	820.11	0.00	820.11	0.03	0.35	3774.24	3680.30
4647.000	1.00	0.00	0.00	799.30	680.00	820.10	0.00	820.11	0.12	0.66	1525.99	1934.80
4728.000	81.00	0.00	0.00	800.70	680.00	820.11	0.00	820.11	0.01	0.24	5683.89	6351.23
4728.000	81.00	0.00	0.00	800.70	680.00	820.11	0.00	820.11	0.06	0.56	1961.47	2754.88
4812.000	84.00	0.00	0.00	802.10	680.00	820.11	0.00	820.11	0.04	0.29	3649.97	3323.21
4812.000	84.00	0.00	0.00	802.10	680.00	820.11	0.00	820.11	0.18	0.59	1529.49	1610.78
4813.000	1.00	810.10	808.10	802.10	680.00	820.11	0.00	820.11	0.07	0.77	3559.25	2523.77
4813.000	1.00	810.10	808.10	802.10	680.00	820.10	0.00	820.12	0.23	1.39	1438.81	1410.66
4846.000	33.00	810.10	808.10	802.10	680.00	820.11	0.00	820.11	0.07	0.77	3558.80	2523.32
4846.000	33.00	810.10	808.10	802.10	680.00	820.10	0.00	820.12	0.23	1.39	1438.07	1409.53
4847.000	1.00	0.00	0.00	802.10	680.00	820.11	0.00	820.11	0.04	0.29	3649.41	3322.46
4847.000	1.00	0.00	0.00	802.10	680.00	820.11	0.00	820.12	0.18	0.59	1529.59	1610.94
4946.000	99.00	0.00	0.00	802.80	680.00	820.11	0.00	820.11	0.03	0.35	4042.40	4050.81
4946.000	99.00	0.00	0.00	802.80	680.00	820.12	0.00	820.12	0.10	0.66	1669.11	2135.65
5146.000	200.00	0.00	0.00	803.70	680.00	820.11	0.00	820.11	0.05	0.44	3100.22	3088.75
5146.000	200.00	0.00	0.00	803.70	680.00	820.12	0.00	820.12	0.20	0.89	1205.55	1539.05
6108.000	962.00	0.00	0.00	810.90	680.00	820.12	0.00	820.17	0.29	1.80	408.06	1272.57
6108.000	962.00	0.00	0.00	810.90	680.00	820.14	0.00	820.19	0.29	1.80	376.85	1271.74

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	6133 000	25.00	0.00	0.00	812.40	680.00	820.12	0.00	820.21	0.65	2.45	313.59	843.80
	6133 000	25.00	0 00	0.00	812.40	680.00	820.14	0.00	820.23	0.65	2.45	277.11	842.64
	6148.000	15.00	0.00	0.00	812.60	680.00	820.12	0.00	820.22	0.74	2.57	289.41	792.17
	6148.000	15.00	0.00	0.00	812.60	680.00	820.14	0 00	820.24	0.73	2.57	264.98	793.58
	6335.000	187.00	0.00	0 00	816.10	680.00	820.15	0.00	820.68	6.80	5.85	116.24	260.80
	6335.000	187.00	0.00	0.00	816.10	680.00	820.17	0.00	820.69	6.56	5.77	117.75	265.56
	6355.000	20.00	0.00	0.00	816.10	680.00	820.17	0.00	820.89	9.16	6.82	105.34	224.67
	6355.000	20.00	0.00	0.00	816.10	680.00	820.19	0.00	820.90	9.31	6.78	100.31	222.90
	6380.000	25.00	0.00	0.00	816.10	680.00	820.19	0.00	820.92	9 31	6.86	102.88	222.87
	6380.000	25.00	0.00	0.00	816.10	680.00	820.21	0.00	820.93	9.42	6.83	99.61	221.54
*	6730.000	350.00	0.00	0.00	819.70	680.00	823.45	823.45	824.52	207 01	9.20	90.96	47 26
*	6730.000	350.00	0.00	0.00	819.70	680.00	823.46	823.46	824.69	227.59	9.67	83.38	45 07
*	6865.000	135.00	0.00	0 00	821.90	680.00	827.36	827.36	829.29	29.24	11.17	60.90	125.76
*	6865.000	135.00	0.00	0.00	821.90	680.00	827.36	827.36	829.29	29.23	11.17	60 90	125.77
	6946.000	81.00	831.60	826.90	821.90	680.00	831.42	0.00	831.81	3.07	5.03	150.57	388.07
	6946.000	81.00	999999.00	0.00	821.90	680.00	831.42	0.00	831.81	3.15	5.06	134.42	382.91
	6947.000	1.00	0.00	0.00	821.90	680.00	831.43	0.00	831.81	35.72	4.96	151.27	113.78
	6947.000	1.00	0.00	0.00	821 90	680.00	831.42	0.00	831.82	37.76	5.06	134.46	110.66

100-YEAR FLOOD

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	430.00	760.48	0.00	0.00	0.00	30.10	0.00
0.000	430.00	760.48	0.00	0.00	0.00	30.10	0.00
42.000	430.00	760.51	0.00	0.03	0.00	29.86	42.00
42.000	430.00	760.51	0.00	0.03	0.00	29.86	42.00
67.000	430.00	760.62	0.00	0 11	0.00	23.53	25.00
67.000	430.00	760.62	0.00	0.11	0.00	23.53	25.00
92.000	430.00	760.72	0.00	0.10	0.00	23.17	25.00
92.000	430.00	760.72	0.00	0.10	0.00	23.17	25.00
97.000	430.00	760.75	0.00	0.03	0.00	23.21	5.00
97.000	430.00	760.75	0.00	0.03	0.00	23.21	5.00
102.000	430.00	760.80	0.00	0.05	0.00	23.46	5.00
102.000	430 00	760.80	0.00	0.05	0.00	23.46	5.00
107.000	430.00	760.83	0.00	0.03	0.00	23.55	5.00
107.000	430.00	760.83	0.00	0.03	0.00	23.55	5.00
112.000	430.00	760.88	0.00	0.05	0.00	23.80	5.00
112.000	430.00	760.88	0.00	0.05	0.00	23.80	5.00
117.000	430.00	760.90	0.00	0.03	0.00	23.88	5.00
117.000	430.00	760.90	0.00	0.03	0.00	23.88	5.00
147.000	430.00	760.85	0.00	-0.06	0.00	22.62	30.00
147.000	430.00	760.85	0.00	-0.06	0.00	22.62	30.00
206.000	430.00	761.20	0.00	0.35	0.00	21.00	59.00
206.000	430.00	761.20	0.00	0.35	0.00	21.00	59.00
222.000	430.00	761.79	0.00	0.59	0.00	22.85	16.00
222.000	430.00	761.79	0.00	0.59	0.00	22.85	16.00
237.000	430 00	762.27	0.00	0.47	0.00	25.70	15.00
237.000	430.00	762.27	0.00	0.47	0.00	25.70	15 00
252.000	430.00	762.22	0 00	-0.05	0.00	25.44	15.00
252.000	430.00	762.22	0.00	-0.05	0.00	25.44	15.00
267.000	430.00	762.45	0.00	0.23	0.00	27.85	15.00
267.000	430.00	762.45	0.00	0.23	0.00	27.85	15.00
282.000	430.00	762.61	0.00	0.15	0.00	29.42	15.00
282.000	430.00	762.61	0 00	0.15	0.00	29.42	15.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
372.000	430.00	762.94	0.00	0.33	0.00	26.32	90.00
372.000	430.00	762.94	0.00	0.33	0.00	26.32	90 00
430.000	430.00	763.62	0.00	0.68	0.00	21.92	58.00
430.000	430.00	763.62	0.00	0.68	0.00	21.92	58 00
431.000	430.00	763.63	0.00	0.01	0.00	21.95	1.00
431.000	430.00	763.63	0.00	0.01	0 00	21.95	1.00
435.000	430.00	763.66	0.00	0.03	0.00	22.04	4.00
435.000	430.00	763.66	0.00	0.03	0.00	22.04	4.00
436.000	430.00	763.67	0.00	0 00	0.00	20 66	1.00
436.000	430.00	763.67	0.00	0.00	0.00	20.66	1.00
452.000	430.00	763.55	0.00	-0.12	0 00	21.88	16.00
452.000	430.00	763.55	0.00	-0.12	0.00	21.88	16.00
577.000	430.00	763.96	0.00	0 41	0.00	19.12	125.00
577.000	430.00	763.96	0.00	0.41	0.00	19.12	125.00
647.000	430.00	764.64	0.00	0.68	0.00	25.56	70.00
647.000	430.00	764.64	0.00	0.68	0.00	25.56	70.00
662.000	430.00	764.85	0.00	0.21	0.00	25.56	15.00
662.000	430.00	764.85	0.00	0.21	0.00	25.56	15.00
677.000	430.00	764.81	0.00	-0.04	0.00	28.21	15.00
677.000	430.00	764.81	0.00	-0.04	0.00	28.21	15.00
692.000	430.00	765.17	0.00	0.36	0.00	27.69	15.00
692.000	430.00	765.17	0.00	0.36	0.00	27.69	15.00
707.000	430.00	765.13	0.00	-0.04	0.00	26.58	15.00
707.000	430.00	765.13	0.00	-0.04	0.00	26.58	15.00
722.000	430.00	765.04	0.00	-0.09	0.00	22.16	15.00
722.000	430.00	765.04	0.00	-0.09	0.00	22.16	15.00
736.000	430.00	765.40	0.00	0.36	0.00	22.89	14.00
736.000	430.00	765.40	0.00	0.36	0.00	22.89	14.00
752.000	430.00	765.81	0.00	0.40	0.00	26.99	16.00
752.000	430.00	765.81	0.00	0.40	0.00	26.99	16.00
767.000	430.00	765.99	0.00	0.19	0.00	29.32	15.00
767.000	430.00	765.99	0.00	0.19	0.00	29.32	15.00
794.000	430.00	765.98	0.00	-0.02	0.00	29.64	27.00
794.000	430.00	765.98	0.00	-0.02	0.00	29.64	27.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	874.000	430.00	766.75	0.00	0.78	0.00	23.18	80.00
*	874.000	430.00	766 75	0.00	0.78	0.00	23.18	80.00
	952.000	430.00	768.87	0.00	2.12	0.00	42.76	78.00
	952.000	430.00	768.87	0.00	2.12	0.00	42.76	78.00
	1055.000	430.00	769.26	0.00	0.38	0.00	44.28	103.00
	1055.000	430.00	769.26	0 00	0.38	0.00	44.28	103.00
	1056.000	430.00	769.20	0.00	-0.06	0.00	44.22	1.00
	1056.000	430.00	769.20	0.00	-0.06	0.00	44.22	1.00
	1061.000	430.00	769.23	0.00	0.03	0.00	44.24	5.00
	1061.000	430.00	769.23	0.00	0.03	0.00	44.24	5.00
	1062.000	430.00	769.33	0.00	0.10	0.00	44.35	1.00
	1062.000	430.00	769.33	0.00	0.10	0.00	44.35	1.00
	1137.000	430.00	769 27	0.00	-0.06	0 00	41.18	75.00
	1137.000	430.00	769.27	0.00	-0.06	0.00	41.18	75.00
	1226.000	430.00	768.99	0.00	-0.28	0.00	29.90	89.00
	1226.000	430.00	768.99	0.00	-0.28	0.00	29.90	89.00
*	1327.000	430.00	770.53	0.00	1.54	0.00	23.58	101.00
*	1327 000	430.00	770.53	0.00	1.54	0 00	23.58	101.00
*	1428.000	430.00	772.02	0.00	1.49	0.00	23.43	101.00
*	1428.000	430.00	772.02	0.00	1.49	0.00	23.43	101.00
	1463.000	430.00	773.81	0.00	1.79	0.00	26.23	35.00
	1463.000	430.00	773.81	0.00	1.79	0.00	26.23	35.00
	1530.000	430.00	775.28	0.00	1.47	0.00	124.11	67.00
	1530.000	430.00	775.28	0.00	1.47	0.00	28.00	67.00
	1612.000	430.00	775.35	0.00	0.07	0.00	160.17	82.00
	1612.000	430.00	775.35	0 01	0.08	0.01	76.99	82.00
	1887.000	430.00	775.77	0.00	0.42	0.00	142.98	275.00
	1887.000	430.00	775.85	0.08	0.49	0.08	109.42	275.00
	1997.000	430.00	775.96	0.00	0.20	0.00	124.62	110.00
	1997.000	430.00	776.08	0.12	0.23	0.12	102.68	110.00
	2052.000	430.00	776.26	0.00	0.30	0.00	97.00	55.00
	2052.000	430.00	776.39	0.12	0.31	0.12	81.00	55.00
	2108.000	430.00	777.03	0.00	0.76	0.00	68.03	56.00
	2108.000	430.00	777.10	0.07	0.72	0.07	40.00	56.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2487.000	430.00	780.23	0.00	3.20	0.00	56.85	379.00
	2487.000	430.00	780.26	0.04	3.16	0.04	29.00	379.00
*	2665.000	430.00	781.72	0.00	1.49	0.00	50.38	178.00
	2665.000	430.00	781.66	-0.06	1.40	-0.06	39.76	178.00
	2845.000	430.00	783.62	0.00	1.90	0.00	32.12	180.00
	2845.000	430.00	783.70	0.07	2.04	0.07	32.00	180.00
*	2900.000	430.00	785.00	0.00	1.37	0.00	29.19	55.00
*	2900.000	430.00	784.98	-0.01	1.29	-0.01	25.54	55.00
*	2951.000	430.00	786.53	0.00	1.53	0.00	14.35	51.00
*	2951.000	430.00	786 53	0.00	1.54	0.00	14.35	51.00
	3137.000	430.00	789.16	0.00	2.63	0.00	41.24	186.00
	3137.000	430.00	789.17	0.01	2.64	0.01	28.24	186.00
	3331.000	430.00	790.08	0.00	0.92	0.00	27.62	194.00
	3331.000	430.00	790.13	0.05	0.97	0.05	18.26	194.00
	3587.000	430.00	792.05	0.00	1.97	0.00	26.43	256.00
	3587.000	430.00	792.14	0.09	2.00	0.09	16.21	256.00
*	3764.000	430.00	795.14	0.00	3.10	0.00	20 65	177.00
*	3764.000	430.00	795.19	0.05	3.06	0.05	12.00	177.00
*	3794.000	430.00	795.71	0.00	0.57	0.00	8.59	30.00
*	3794.000	430.00	795.71	0.00	0.52	0.00	8.59	30.00
	3865.000	430.00	796.08	0.00	0.37	0.00	8.64	71.00
	3865.000	430.00	796.08	0.00	0.37	0.00	8.64	71.00
*	3900.000	420.00	797.54	0.00	1.46	0.00	17.95	35.00
*	3900.000	420 00	797.55	0.01	1.46	0.01	15.00	35.00
	3986.000	420.00	820.06	0.00	22.52	0.00	25.00	86.00
	3986.000	420.00	820.06	0.00	22.51	0.00	15.00	86.00
	4016.000	680.00	820.07	0.00	0.01	0.00	85.00	30.00
	4016.000	680.00	820.06	-0.01	0.00	-0.01	28.00	30.00
	4046.000	680.00	820.07	0.00	0.00	0.00	145.00	30.00
	4046.000	680.00	820.07	-0.01	0.00	-0.01	29.00	30.00
	4050.000	680.00	820.09	0.00	0.02	0.00	150.00	4.00
	4050.000	680.00	820.07	-0.02	0.00	-0.02	29.00	4.00
	4116.000	680.00	820.09	0.00	0.00	0.00	282.00	66.00
	4116.000	680.00	820.08	-0.01	0.01	-0.01	100.00	66.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4216.000	680.00	820.09	0.00	0.00	0.00	480.44	100.00
4216.000	680.00	820.08	-0.01	0.00	-0.01	120.00	100.00
4316.000	680.00	820.09	0.00	0.00	0.00	491.90	100.00
4316.000	680.00	820.08	-0.01	0.00	-0.01	120.00	100.00
4372.000	680.00	820.09	0.00	0.00	0.00	601.81	56.00
4372.000	680.00	820.08	-0.01	0.00	-0.01	150.00	56.00
4376.000	680.00	820.10	0.00	0.01	0.00	601.09	4.00
4376.000	680.00	820.10	-0.01	0.01	-0.01	150.00	4.00
4458.000	680.00	820.10	0.00	0.00	0.00	547.59	82.00
4458.000	680.00	820.10	-0.01	0.00	-0.01	140.00	82.00
4539.000	680.00	820.10	0 00	0.00	0.00	592.50	81.00
4539.000	680.00	820.09	-0.01	0.00	-0.01	140.00	81.00
4540.000	680.00	820.10	0.00	0.00	0.00	592.50	1.00
4540.000	680.00	820.09	-0.01	-0.01	-0.01	140.00	1.00
4646.000	680.00	820.10	0.00	0.00	0.00	592.46	106.00
4646.000	680.00	820.09	-0.01	0.00	-0.01	140.00	106.00
4647.000	680.00	820.11	0.00	0.00	0.00	592.46	1.00
4647.000	680.00	820.10	0.00	0.01	0.00	140.00	1.00
4728.000	680.00	820.11	0.00	0.00	0.00	576.00	81.00
4728.000	680.00	820.11	0.00	0.00	0.00	140.00	81.00
4812.000	680.00	820.11	0.00	0.00	0.00	533.78	84.00
4812.000	680.00	820.11	0.00	0.00	0.00	150.00	84.00
4813.000	680.00	820.11	0.00	0.00	0.00	533.77	1.00
4813 000	680.00	820.10	-0.01	-0.01	-0.01	150.00	1.00
4846.000	680.00	820 11	0.00	0.00	0.00	533.74	33.00
4846.000	680.00	820.10	0.00	0 00	0.00	150.00	33.00
4847.000	680.00	820.11	0.00	0.00	0.00	533.74	1.00
4847.000	680.00	820.11	0.01	0.01	0.01	150.00	1.00
4946.000	680.00	820.11	0.00	0.00	0.00	522.00	99.00
4946.000	680.00	820.12	0.01	0.00	0.01	140.00	99.00
5146.000	680.00	820.11	0.00	0.00	0.00	422.42	200.00
5146.000	680.00	820.12	0.01	0.00	0.01	100.00	200.00
6108.000	680.00	820.12	0 00	0.01	0.00	97.46	962.00
6108.000	680.00	820.14	0.02	0.02	0.02	71.59	962.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	6133.000	680.00	820.12	0.00	0.00	0.00	123.96	25.00
	6133.000	680.00	820.14	0.02	0.00	0.02	61.60	25.00
	6148.000	680.00	820.12	0.00	0.00	0.00	118.32	15.00
	6148.000	680.00	820.14	0.02	0.00	0.02	60.28	15.00
	6335.000	680.00	820.15	0.00	0.03	0.00	38.72	187.00
	6335.000	680.00	820.17	0 02	0.03	0.02	38.90	187.00
	6355.000	680.00	820.17	0.00	0 02	0.00	47.25	20.00
	6355.000	680.00	820.19	0.02	0.02	0.02	34.91	20.00
	6380.000	680.00	820.19	0.00	0.02	0.00	44.83	25.00
	6380.000	680.00	820.21	0.02	0.02	0.02	34.70	25.00
*	6730.000	680.00	823.45	0.00	3.25	0.00	41.92	350.00
*	6730.000	680.00	823.46	0.01	3.25	0.01	33.09	350.00
*	6865.000	680.00	827.36	0.00	3.91	0 00	16.02	135.00
*	6865.000	680.00	827.36	0.00	3.90	0.00	16.02	135.00
	6946.000	680.00	831.42	0.00	4.06	0.00	78.94	81.00
	6946.000	680.00	831.42	0.00	4 06	0.00	20.00	81.00
	6947.000	680.00	831.43	0.00	0.02	0.00	80.12	1.00
	6947.000	680.00	831.42	-0.02	0.00	-0.02	20.00	1.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=    874.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    874.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    874.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=    874.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=    874.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=    874.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO=   1327.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   1327 000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   1327.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   1327.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   1428.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   1428.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   1428.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   1428.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   2665.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   2665.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   2900.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   2900.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   2900.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   2900 000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   2951.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   2951.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   2951.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   2951.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   3764.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   3764.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   3764.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   3764.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   3794.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   3794.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   3794.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   3794.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   3900.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   3900.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   3900.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   3900.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   6730.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   6730.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=   6730.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=   6730.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=   6865.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO=  6865.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  6865.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  6865.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
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FLOODWAY DATA, 100-YEAR FLOOD
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
0.000	30.	100.	4.3	760.5	760.5	0.0
42.000	30.	76.	5.6	760.5	760.5	0.0
67.000	24.	75.	5.7	760.6	760.6	0.0
92.000	23.	69.	6.3	760.7	760.7	0.0
97.000	23.	69.	6.3	760.7	760.7	0.0
102.000	23.	70.	6.1	760.8	760.8	0.0
107.000	24.	71.	6.1	760.8	760.8	0.0
112.000	24.	72.	6.0	760.9	760.9	0.0
117.000	24.	72.	5.9	760.9	760.9	0.0
147.000	23.	61.	7.1	760.8	760.8	0.0
206.000	21.	59.	7.3	761.2	761.2	0.0
222.000	23.	66.	6.6	761.8	761.8	0.0
237.000	26.	86.	5.0	762.3	762.3	0.0
252.000	25.	74.	5 8	762.2	762.2	0.0
267.000	28.	84.	5.1	762.5	762.5	0.0
282.000	29.	93.	4.6	762.6	762.6	0.0
372.000	26.	84.	5.1	762.9	762.9	0.0
430.000	22.	72.	6.0	763.6	763.6	0.0
431.000	22.	72.	6.0	763.6	763.6	0.0
435.000	22.	73.	5.9	763.7	763.7	0.0
436.000	21.	72.	5.9	763.7	763.7	0.0
452.000	22.	71.	6.1	763.6	763.6	0.0
577.000	19.	63.	6.9	764.0	764.0	0.0
647.000	26.	79.	5.4	764.6	764.6	0.0
662.000	26.	83.	5.2	764.9	764.9	0.0
677.000	28.	75.	5.7	764.8	764.8	0.0
692.000	28.	86.	5.0	765.2	765.2	0.0
707.000	27.	78.	5.5	765.1	765.1	0.0
722.000	22.	67.	6.4	765.0	765.0	0.0
736.000	23.	77.	5.6	765.4	765.4	0.0
752.000	27.	98.	4.4	765.8	765.8	0.0
767.000	29.	113.	3.8	766.0	766.0	0.0
794.000	30.	86.	5.0	766.0	766.0	0.0
874.000	23.	41.	10.5	766.8	766.8	0.0
952.000	43.	122.	3.5	768.9	768.9	0.0
1055.000	44.	172.	2.5	769.3	769.3	0.0
1056.000	44.	130.	3.3	769.2	769.2	0.0
1061.000	44.	131.	3.3	769.2	769.2	0.0
1062.000	44.	175.	2.5	769.3	769.3	0.0
1137.000	41.	123.	3.5	769.3	769.3	0.0
1226.000	30.	66.	6.5	769.0	769.0	0.0
1327.000	24.	53.	8.1	770.5	770.5	0.0

FLOODWAY DATA, 100-YEAR FLOOD
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
1428.000	23.	53.	8.1	772.0	772.0	0.0
1463.000	26	107.	4.0	773.8	773.8	0.0
1530.000	28.	138.	3.1	775.3	775.3	0.0
1612.000	77.	209.	2.1	775.3	775.3	0.0
1887.000	109.	225.	1.9	775.9	775.8	0.1
1997.000	103.	174.	2.5	776.1	776.0	0.1
2052.000	81.	127.	3.4	776.4	776.3	0.1
2108.000	40.	74.	5.8	777.1	777.0	0.1
2487.000	29.	74.	5.8	780 2	780.2	0.0
2665.000	40.	67.	6.5	781.7	781.7	0.0
2845.000	32.	62.	6.9	783.7	783.6	0.1
2900.000	26.	52.	8.2	785.0	785.0	0.0
2951.000	14.	43	9.9	786.5	786.5	0.0
3137.000	28.	97.	4.4	789.2	789.2	0.0
3331.000	18.	65.	6.6	790.2	790.1	0.1
3587.000	16.	54.	8.0	792.1	792.0	0.1
3764.000	12.	41.	10.5	795.2	795.1	0.1
3794.000	9.	37.	11.8	795.7	795.7	0.0
3865.000	9.	40.	10.8	796.1	796.1	0.0
3900.000	15.	43.	9.8	797.5	797.5	0.0
3986.000	15.	381.	1.1	820.1	820.1	0.0
4016.000	28.	670.	1.0	820.1	820.1	0.0
4046.000	29.	685.	1.0	820.1	820.1	0.0
4050.000	29.	685.	1.0	820.1	820.1	0.0
4116.000	100.	1978.	0.3	820.1	820.1	0 0
4216.000	120.	2313.	0.3	820.1	820.1	0.0
4316.000	120.	2313.	0.3	820.1	820.1	0.0
4372.000	150.	2590.	0.3	820.1	820.1	0.0
4376.000	150.	2592.	0.3	820.1	820.1	0.0
4458.000	140.	2214.	0.3	820.1	820.1	0.0
4539.000	140.	1526.	0.4	820.1	820.1	0.0
4540.000	140.	1351.	0.5	820.1	820.1	0.0
4646.000	140.	1350.	0.5	820.1	820.1	0.0
4647.000	140.	1526.	0.4	820.1	820.1	0.0
4728.000	140.	1961.	0.3	820.1	820.1	0.0
4812.000	150.	1529.	0.4	820.1	820.1	0.0
4813.000	150.	1439.	0.5	820.1	820.1	0.0
4846.000	150.	1438.	0.5	820.1	820.1	0.0
4847.000	150.	1530.	0.4	820.1	820.1	0.0
4946.000	140.	1669.	0.4	820.1	820.1	0.0
5146.000	100.	1206.	0.6	820.1	820.1	0.0
6108.000	72.	377.	1.8	820.1	820.1	0.0

FLOODWAY DATA, 100-YEAR FLOOD
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
6133.000	62.	277.	2.5	820.1	820.1	0.0
6148.000	60.	265.	2.6	820.1	820.1	0.0
6335.000	39.	118.	5.8	820.2	820.2	0.0
6355.000	35.	100.	6.8	820.2	820.2	0.0
6380.000	35.	100.	6.8	820.2	820.2	0.0
6730.000	33.	83.	8.2	823.4	823.4	0.0
6865.000	16.	61.	11.2	827.4	827.4	0.0
6946.000	20.	134.	5.1	831.4	831.4	0.0
6947.000	20.	134.	5.1	831.4	831.4	0.0

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City of Ann Arbor FIS
Traver Creek - multiple profiles

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EEEEEE   EEEEEE          K   K     0000    BBBBB    Y    Y   L        IIIII    N    N    SSSS    K   K
E        E               K  K     0    0   B    B    Y  Y    L          I      NN   N   S        K  K
E        E       ------  K K      0    0   BBBBB      YY     L          I      N N  N    SSSS    K K
EEEE     EEEE            KKK      0    0   B    B     Y      L          I      N  N N        S   KKK
E        E               K  K     0    0   B    B     Y      L          I      N   NN   S    S   K  K
EEEEEE   EEEEEE          K   K     0000    BBBBB    Y      LLLLLL   IIIII    N    N    SSSS    K   K
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USACOE DETROIT H800 VOS 7.1.0 PRINTER: 6

EE-KOBYLINSK 8 MAR 89 11:28:10

TERMINAL: 106

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THIS RUN EXECUTED 3 MAR 89 10:48:39

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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
**************************************************

C
T1        CITY OF ANN ARBOR FIS RESTUDY
T2        TRAVER CREEK
T3        10-YEAR FLOOD

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

       0.         2.         0.         0.   0.002700       0.00       0.0         0.    762.000      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

    150.000      0.000      0.000      0.000      0.000      0 000      0.000      0 000      0.000      0.000


QT      4.000    290.000    380.000    430.000    530.000      0.000      0.000      0.000      0.000      0.000
NC      0.070      0.070      0.035      0.300      0.500      0.000      0.000      0.000      0.000      0.000
          D/S FACE OF ISLAND DRIVE - START OF GREENHORNE & O'MARA PROVIDED DATA
X1      0.000      8.000    101.000    136.000      0.000      0.000      0.000      0.000      0.000      0.000
GR    762.200      0.000    762.800    101.000    756.640    107.000    756.640    107.100    756.640    128.900
GR    756.640    129.000    762.800    136.000    762.900    200.000      0.000      0.000      0.000      0.000

SB      0.000      1.500      3.000      0.000     24 300      0.000     98.000      0.000    757.060    756.640
          U/S FACE OF ISLAND DRIVE
X1     42.000      8.000    101.000    136.000     42.000     42.000     42.000      0.000      0.000      0.000
X2      0.000      0.000      1.000    761.100    762.800      0.000      0.000      0.000      0.000      0.000
X3      0.000      0.000      0.000     83.000      0.000    136.000      0.000      0.000      0.000      0 000
BT      8.000      0.000    762.200      0.000    101.000    762.800      0.000    107.000    762.800    757.000
BT    107.100    762.800    761.100    128.900    762.800    761.100    129.000    762.800    757.060    136.000
BT    762.800      0.000    200.000    762.900      0.000      0.000      0.000      0.000      0.000      0.000
GR    762.200      0.000    762.800    101.000    757.000    107.000    757.000    107.100    757.060    128.900
GR    757.060    129.000    762.800    136.000    762.900    200.000      0.000      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     67.000     12.000    113.000    126.000     25.000     25.000     25.000      0.000     -0.200      0.000
GR    766.300     50.000    766.000     66 000    765.000     92.000    764.000    101.000    760.000    109.000
GR    756.500    113.000    756.500    120.000    756.500    126.000    760.000    129.000    763.000    136.000
GR    763.000    173.000    770.000    173.100      0.000      0.000      0.000      0.000      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
NH	5 000	0.070	101.000	0.100	113.000	0.030	126.000	0.100	136.000	0.070
NH	173.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	92.000	12.000	113.000	126.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	766.300	50.000	766.000	66.000	765.000	92.000	764.000	101.000	760.000	109.000
GR	757.000	113.000	756.500	120.000	757.000	126.000	760.000	129.000	763.000	136.000
GR	763.000	173.000	770.000	173.100	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
NH	5.000	0.070	101.000	0.100	113.000	0.030	126.000	0.100	136.000	0.070
NH	173.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	97.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000
X1	102.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000
X1	107.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000
X1	112.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000
X1	117.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000
NC	0.100	0.100	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	147.000	10.000	82.000	94.000	30.000	30.000	30.000	0.000	0.000	0.000
GR	766.140	5.000	765.000	64.000	764.000	72.000	760.000	78.000	758.000	82.000
GR	756.000	88.000	758.000	94.000	760.000	97.000	764.000	108.000	764.000	130.000
X1	206.000	10.000	33.000	44.000	59.000	59.000	59.000	0.000	0.000	0.000
GR	766.000	6.000	765.000	22.000	763.000	26.000	761.000	28.000	758 000	33.000
GR	756.700	40.000	758.000	44.000	762.000	50.000	765.000	58.000	766.000	63.000
NC	0.000	0.000	0.000	0.500	1 000	0.000	0.000	0.000	0 000	0.000
X1	222.000	10.000	35.000	47.000	16.000	16.000	16.000	0.000	0.000	0.000
GR	766.000	0.000	766.000	5.000	765.000	25.000	760.000	33.000	758.000	35.000
GR	756.900	41 000	759.000	47.000	760.000	49.000	765.000	60.000	767.000	67.000
NC	0.000	0.000	0.000	0.100	0.300	0.000	0 000	0.000	0.000	0.000
X1	237.000	9.000	40.000	53.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	766.000	0.000	765.000	30.000	760.000	37.000	758.000	40.000	757.200	47.000
GR	758.000	53.000	760.000	55.000	765.000	65.000	766.000	73.000	0.000	0.000
X1	252.000	9.000	45.000	59.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	766.000	0.000	765.000	34.000	760 000	43.000	759.000	45.000	757.400	52.000
GR	759.000	59.000	760.000	60.000	765.000	70.000	766.000	80.000	0.000	0.000
X1	267.000	9.000	50.000	65.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	766.100	0.000	765.000	38.000	760.000	47.000	759.000	50.000	757.700	57.000
GR	759.000	65.000	760.000	66.000	765.000	75.000	766.100	85.000	0.000	0.000

NC	0.100	0.100	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION A									
X1	282.000	8.000	67.000	83.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	766.900	10.000	765.000	53.000	760.000	63.000	759.000	67.000	758.000	75.000
GR	759.000	83.000	765.000	90.000	766.200	100.000	0.000	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	372.000	10.000	114 000	124.000	90.000	90.000	90.000	0.000	0.000	0.000
X4	1.000	765.500	41.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	770.000	40.000	765.000	90.000	764.000	104.000	760.000	111.000	758.500	114.000
GR	758.000	119.000	758.500	124.000	765.000	136.000	765.500	151.000	770.000	151.100
	D/S FACE OF FOOTBRIDGE									
X1	430.000	12.000	120.000	143.000	58.000	58.000	58 000	0.000	0.000	0.000
X3	0.000	0.000	0.000	120.000	0.000	143.000	0.000	0.000	0.000	0.000
GR	770.000	24.000	765.500	25.000	765.000	104.000	764.000	120.000	760.000	124.000
GR	759.000	128.000	758.500	131.000	759.000	134.000	760.000	136.000	764.000	143.000
GR	765 000	150.000	770.000	150.100	0 000	0.000	0.000	0.000	0.000	0.000
X1	431.000	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	764.000	765.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	120.000	0.000	143.000	0.000	0.000	0.000	0.000
X1	435.000	0.000	0.000	0.000	4 000	4.000	4.000	0.000	0.000	0.000
X2	0.000	0.000	0.000	764.000	765.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	120.000	0.000	143.000	0.000	0.000	0.000	0.000
	U/S FACE OF FOOTBRIDGE									
X1	436.000	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	119.000	0 000	141.000	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
	CROSS SECTION B									
X1	452.000	11.000	160.000	173.000	16.000	16.000	16 000	0.000	0.000	0.000
X3	0.000	0.000	0.000	140 000	0.000	194.000	0.000	0.000	0.000	0.000
GR	770.000	65.000	765.500	65.100	765.000	143.000	764.000	154.000	760.000	160.000
GR	758.600	168.000	760.000	173.000	764.000	177.000	765.000	190.000	765.500	200.000
GR	770.000	200.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	577.000	9.000	168.000	178.000	125.000	125.000	125.000	0.000	0.000	0 000
GR	770.600	115.000	766.000	115.100	765.000	156.000	764.000	162.000	760.000	168.000
GR	759.000	173.000	760.000	178.000	765.000	182.000	771.000	195.000	0.000	0.000
NC	0.060	0.090	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION C									
X1	647.000	8.000	53.000	60.000	70.000	70.000	70.000	0.000	0.000	0.000
GR	770.000	25.000	767.800	25.100	765.000	39.000	760.000	53.000	759.000	57.000
GR	760.000	60.000	765.000	66.000	770.000	85.000	0.000	0.000	0.000	0 000

X1	662.000	12.000	24.000	32.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	768.500	0.000	768.000	9.000	765.000	14.000	760.000	24.000	759.200	28.000
GR	760.000	32.000	763.000	36.000	764.000	39.000	765.000	40.000	767.000	47.000
GR	768.000	57.000	770.000	57.100	0.000	0.000	0.000	0.000	0.000	0.000
X1	677.000	12.000	21.000	30.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	768.700	0.000	768.000	6.000	765.000	12.000	761.000	21.000	759.400	26.000
GR	761.000	30.000	763.000	33.000	764.000	39.000	765.000	41.000	766.000	45.000
GR	768.000	55.000	770.000	55.100	0.000	0 000	0.000	0.000	0.000	0.000
X1	692.000	11.000	20.000	30.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	768.900	0.000	768.000	4.000	765.000	10.000	761.000	20.000	759.600	25.000
GR	761.000	30.000	765.000	37.000	766.000	39.000	767.000	45.000	767.500	52.000
GR	770.000	52.100	0.000	0 000	0 000	0.000	0.000	0.000	0.000	0.000
X1	707.000	11.000	23.000	32.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	768.900	0.000	768.000	7.000	764.000	15.000	763.000	19.000	761.000	23.000
GR	759.800	28.000	761.000	32.000	765.000	39.000	767.000	44.000	768.000	55 000
GR	770.000	55.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	722.000	10.000	25.000	34.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	768.900	0.000	768.000	13.000	765.000	18.000	761.000	25.000	760.000	30.000
GR	761.000	34.000	765.000	40.000	767.000	44.000	768.000	53.000	768.500	55.000
X1	736.000	7.000	26.000	36 000	14.000	14.000	14.000	0.000	0.000	0.000
GR	769.000	0.000	768.000	16.000	761.000	26.000	760.100	31.000	761.000	36.000
GR	767.000	45.000	769 000	58.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	752.000	11.000	27.000	39.000	16.000	16 000	16.000	0.000	0 000	0.000
GR	770.000	0.000	768.900	0.100	768.000	15.000	761.000	27.000	760.300	33.000
GR	761.000	39.000	766.000	46.000	767 000	48.000	768.000	55.000	768.900	85.000
GR	770.000	85.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	767.000	11.000	27.000	41.000	15.000	15.000	15.000	0.000	0.000	0.000
GR	770.000	0.000	769.000	0.100	768.000	15.000	765.000	20.000	761.000	27.000
GR	760.300	34.000	761.000	41.000	767.000	49.000	768.000	52.000	768.900	80.000
GR	770.000	80.100	0.000	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
	D/S FACE OF NIELSON ROAD									
X1	794.000	20.000	38.700	54.500	27.000	27.000	27.000	0.000	0.000	0.000
GR	775.000	5.000	769.500	5.100	769.000	22.000	763.000	38.700	761.300	39.700
GR	761.200	42.450	761.300	45.200	763 000	46.200	763.700	48.500	762.500	48.750
GR	761.400	49.500	760.900	50.500	760.700	51.500	760.900	52.500	761.400	53.500
GR	762.500	54.250	763.700	54.500	768.000	65.000	770.000	65.100	775.000	65.200
SB	0.000	2.400	3.000	0.000	9.700	0.000	64.100	0.000	762.900	760.700
	U/S FACE OF NIELSON ROAD - CROSS SECTION D									
X1	874.000	20.000	38.700	54.500	80.000	80.000	80.000	0 000	0.000	0.000
X2	0.000	0.000	1.000	769.500	770.000	0.000	0.000	0.000	0.000	0.000
BT	20.000	0.000	775.000	0.000	0.100	770.500	0.000	20.000	770.500	0.000
BT	38.700	770.590	764.700	39.700	770.570	768.000	42.450	770 570	768.900	45.200
BT	770.500	768.000	46.200	770.500	764.700	48.500	770.500	766.500	48.750	770.500

BT	767.700	49.500	770.500	768.800	50.500	770.500	769.300	51.500	770.500	769.500
BT	52.500	770.500	769.300	53.500	770.500	768.800	54.250	770.500	767.700	54.500
BT	770.500	766.500	65.000	770.000	0.000	65.100	770.000	0.000	65.200	775.000
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	775.000	0.000	770.500	0.100	770.500	20.000	764.700	38.700	763.000	39.700
GR	762.900	42.450	763.000	45.200	764 700	46.200	766.500	48.500	765.300	48.750
GR	764.100	49.500	763.700	50.500	763 500	51.500	763.700	52.500	764.100	53.500
GR	765.300	54 250	766.500	54.500	770.000	65.000	770.000	65.100	775.000	65.200
X1	952.000	10.000	101.000	114.000	78.000	78.000	78.000	0.000	0.000	0.000
GR	775.000	72 000	771.000	73.000	770.000	86.000	769.000	93.000	765.000	101.000
GR	762.500	108.000	765.000	114.000	767.000	119.000	767.700	136.000	775.000	136.100
NC	0.000	0.000	0.000	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF FOOTBRIDGE - CROSS SECTION E									
X1	1055.000	9.000	17.000	43.000	103.000	103.000	103.000	0.000	0.000	0 000
GR	775.000	0.000	769.000	6.000	765.000	17.000	763.500	25.000	765.000	43.000
GR	767.000	47.000	768 500	47.100	767.700	50.000	775.000	50.100	0.000	0.000
X1	1056.000	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	767.500	768.500	0 000	0.000	0.000	0.000	0.000
X1	1061.000	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	767.500	768.500	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF FOOTBRIDGE									
X1	1062.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	1137.000	8.000	34.000	49.000	110.000	60.000	75.000	0.000	0.000	0.000
GR	775.000	0.000	768.000	23.000	765.000	34.000	764.200	41.000	765.000	49.000
GR	768.000	55.000	769.200	60.000	775.000	60.100	0.000	0.000	0.000	0.000
NC	0.090	0.100	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1226.000	12.000	97.000	109.000	70.000	131.000	89.000	0.000	0.000	0.000
GR	775.000	30.000	770.000	69.000	769.000	84.000	768.000	90.000	767.000	92.000
GR	766.000	97.000	765.200	103.000	766.000	109.000	768.000	112.000	769.000	114.000
GR	769.100	130.000	775.000	130.100	0.000	0.000	0.000	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	1327.000	11.000	98.000	112.000	101.000	101.000	101.000	0.000	-1.500	0.000
GR	777.000	55.000	774.000	56 000	773.000	85.000	772.000	96.000	770.000	98.000
GR	767.800	105.000	770.000	112.000	772.000	119.000	773.000	130.000	774.000	156.000
GR	777.000	156.100	0.000	0.000	0.000	0.000	0.000	0 000	0.000	0.000
	CROSS SECTION F									
X1	1428.000	11.000	98.000	112 000	129.000	60.000	101.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	83.000	0.000	126.000	0.000	0.000	0.000	0.000
GR	777.000	55.000	774 000	56.000	773.000	85.000	772.000	96.000	770 000	98.000
GR	767.800	105 000	770.000	112.000	772.000	119.000	773.000	130.000	774.000	156.000
GR	777.000	156.100	0.000	0.000	0.000	0.000	0 000	0.000	0.000	0.000

D/S FACE OF BROADWAY

X1	1463.000	19.000	92.000	120.000	50.000	25.000	35.000	0.000	0.000	0.000
GR	780.000	55.000	774.700	56.000	774.500	92.000	768.200	98.000	768.200	98.100
GR	768.200	98.500	768.200	99.500	768.200	100.800	768.200	102.400	768.200	104.000
GR	768.200	105.600	768.200	107.200	768.200	108.500	768.200	109.500	768.200	109.900
GR	768.200	110.000	774.500	120.000	774.700	165.000	780.000	166.000	0.000	0.000
SB	0.000	2.500	3.000	0.000	9.000	0.000	45.000	0.000	768.700	768.200

U/S FACE OF BROADWAY - CROSS SECTION G

X1	1530.000	19.000	92.000	120.000	67.000	67.000	67.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	773.700	774.700	0.000	0.000	0.000	0.000	0.000
BT	17.000	55.000	780.000	0.000	56.000	774.700	0 000	98.000	774.700	0.000
BT	98.100	776.200	768.700	98.500	776.200	770.300	99.500	776.200	771.800	100.800
BT	776.200	773.000	102.400	776.200	773.500	104.000	776.200	773.700	105.600	776.200
BT	773.500	107.200	776.200	773.000	108.500	776.200	771.800	109.500	776.200	770.300
BT	109.900	776.200	768.700	110.000	774.700	0.000	180.000	775.200	0.000	180.100
BT	780.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	780.000	55.000	774.700	56.000	774.500	92 000	768.700	98.000	768.700	98.100
GR	768.700	98.500	768.700	99.500	768.700	100.800	768.700	102.400	768.700	104.000
GR	768.700	105.600	768.700	107.200	768.700	108.500	768.700	109.500	768.700	109.900
GR	768.700	110.000	774.500	120.000	775.200	180.000	780.000	180.100	0.000	0.000
X1	1612.000	11.000	247.000	263.000	95.000	50.000	82.000	0.000	0.000	0.000
GR	780.000	160.000	775.000	161.000	773.000	234.000	772.000	244.000	771.000	247.000
GR	770.200	255.000	771.000	263.000	774.000	270.000	775 000	290.000	775.400	325.000
GR	780.000	325.100	0.000	0.000	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
NH	5.000	0.060	210.000	0.100	219.000	0.035	229.000	0.100	231.000	0.090
NH	255.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CROSS SECTION H

X1	1887.000	10.000	219.000	229.000	262.000	243.000	275.000	0.000	0.000	0.000
GR	780.000	45.000	774.000	120.000	774.000	210.000	773.000	219.000	771.400	225.000
GR	773.000	229.000	774.000	231.000	776.500	245.000	778.000	254.900	779.000	255.100
X1	1997.000	0.000	0.000	0.000	110.000	110.000	110.000	0.000	0.600	0.000
X3	0.000	0.000	0.000	114.000	0.000	239.000	0.000	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	2052.000	0.000	0.000	0.000	55.000	55.000	55.000	0.000	0.500	0.000
X3	0.000	0.000	0.000	140.000	0.000	237.000	0.000	0.000	0.000	0.000
NH	4 000	0.060	43.000	0.100	47.000	0.035	58.000	0.100	122.000	0.000
X1	2108.000	9.000	43.000	67.000	134.000	37.000	56.000	0.000	0.000	0.000
GR	780.000	5.000	776.000	43.000	774.000	47 000	772.700	50.000	774.000	54.000
GR	775.000	58.000	776.000	67.000	777.000	101.000	779.000	122.000	0.000	0.000
NH	4.000	0.060	82.000	0.100	87.000	0.035	100.000	0.100	109.000	0.000

CROSS SECTION I

X1	2487.000	9.000	87.000	104.000	410.000	344.000	379.000	0.000	0.000	0.000
GR	783.000	20.000	781.000	36.000	780.000	51.000	779.000	82.000	777.000	87.000
GR	775.700	92.000	777.700	100.000	780.000	104.000	783 000	109.000	0.000	0.000
X1	2665.000	0.000	0.000	0.000	172 000	187.000	178.000	0.000	1.800	0.000
NH	4 000	0.060	80.000	0.100	89.000	0.035	110.000	0.100	118.000	0.000
X1	2845.000	9.000	89.000	117.000	171 000	171.000	180.000	0.000	0.000	0.000
GR	786.000	30.000	784.000	80.000	783.000	89.000	782.000	93.000	779.400	102.000
GR	782.000	110.000	783.000	113.000	784.000	117.000	790.000	118.000	0.000	0.000
X1	2900.000	0.000	0.000	0.000	55.000	50.000	55.000	0.000	1.600	0.000

CROSS SECTION J

X1	2951.000	7.000	84.000	115.000	55.000	50.000	51.000	0.000	0.000	0.000
GR	794.500	60.000	794.000	84.000	783.000	95.000	782.000	99 000	783.000	103.000
GR	793.000	111.000	794.000	115.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.070	0.080	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	3137.000	9.000	38.000	49.000	200.000	170.000	186.000	0.000	0.000	0.000
GR	795.000	12.900	789.500	13.000	789.000	27.000	785.000	38.000	784.000	14.000
GR	785.000	49.000	787.000	54.000	788.000	64.000	795.000	64.100	0.000	0.000
X1	3331.000	10.000	25.000	37.000	202.000	182.000	194.000	0.000	0.000	0.000
GR	795.000	0.000	790.000	14.000	787.000	25.000	785.000	31.000	787.000	37.000
GR	790.000	41.000	791.000	46.000	793.000	50.000	794.000	54.000	795.000	54.100
NH	4.000	0.060	56.000	0.100	67.000	0.035	81.000	0 100	125.000	0.000

CROSS SECTION K

X1	3587.000	9.000	67.000	81.000	158.000	358.000	256.000	0.000	0.000	0.000
GR	797.000	9.000	795.100	50.000	795.000	56.000	789.000	67.000	788.500	75.000
GR	789.000	81.000	793.000	90.000	795.000	103.000	800.000	125.000	0.000	0.000
NC	0.100	0.100	0.035	0.500	1.000	0.000	0.000	0 000	0.000	0.000

CROSS SECTION L - END OF GREENHORNE & O'MARA PROVIDED DATA

X1	3764.000	10.000	181.000	193.000	125.000	200.000	177.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	175.000	0.000	198.000	0.000	0.000	0.000	0.000
GR	801.000	104.800	800.000	104.900	796.000	105.000	795.000	170.000	793.000	181.000
GR	792.000	183.000	791 300	188.000	792.000	193.000	795.000	195.000	800.000	218.000
NC	0.000	0.000	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000

D/S FACE OF PLYMOUTH ROAD

X1	3794.000	13.000	200.000	210.000	30.000	30.000	30.000	0.000	0.000	0.000
GR	813.800	0.000	810.000	100.000	808.800	150.000	807 300	175.000	805.800	200.000
GR	791.500	201.000	791.100	205.000	791.500	209.000	805.800	210 000	804.600	225.000
GR	803.300	250.000	802.400	300.000	802 400	400 000	0.000	0.000	0.000	0.000
SB	0.000	1.670	3.000	0.000	8.200	0.000	46.800	0.000	791.100	791.100

	U/S FACE OF PLYMOUTH ROAD									
X1	3865.000	0.000	0.000	0.000	71.000	71.000	71.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	797.200	805.800	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	193.000	0.000	217.000	0.000	0.000	0.000	0.000
BT	14.000	0.000	813.800	0.000	100.000	810.000	0.000	150.000	808.800	0 000
BT	175.000	807.300	0.000	200.000	805.800	0.000	201.000	805.800	791.500	201.000
BT	805.800	797.200	209.000	805.800	797.200	209.000	805.800	791.500	210.000	805.800
BT	0.000	225.000	804.600	0.000	250.000	803.300	0.000	300.000	802.400	0.000
BT	400.000	802.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	290.000	370.000	420.000	520.000	0.000	0.000	0 000	0.000	0.000
NC	0.070	0.070	0.030	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF ANN ARBOR RR									
X1	3900.000	17.000	200 000	215.000	35.000	35.000	35.000	0.000	0.000	0.000
GR	823.100	0.000	822.500	100.000	822 200	150.000	822.000	175.000	795.300	200.000
GR	795.300	205.000	793.800	205.500	793.000	206.500	792.800	207.500	793.000	208.500
GR	793.800	209 500	795.300	210.000	795 300	215.000	821.600	225.000	821.500	250.000
GR	821.200	300.000	820.800	400.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	3.170	3.000	0.000	3 920	0.000	19.630	0.000	792.800	792.800
	U/S FACE OF ANN ARBOR RR									
X1	3986.000	0.000	0.000	0.000	86.000	86.000	86.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	797.800	820.800	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	195.000	0.000	220.000	0.000	0.000	0.000	0.000
BT	17.000	0.000	823.100	0.000	100.000	822.500	0.000	150.000	822.200	0.000
BT	175.000	822.000	0.000	200.000	821.800	0.000	205.000	821.800	795.300	205.500
BT	821.800	796.800	206.500	821.800	797.600	207.500	821.800	797.800	208.500	821.700
BT	797.600	209.500	821.700	796.800	210.000	821.600	795.300	215.000	821.600	0.000
BT	225.000	821.600	0.000	250.000	821.500	0.000	300.000	821.200	0.000	400.000
BT	820.800	0.000	0.000	0.000	0.000	0.000	0.000	0 000	0.000	0.000
QT	4.000	360.000	580.000	680.000	890.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	4016.000	18 000	310.000	338.000	30.000	30 000	30.000	0.000	-1.200	0.000
X3	0.000	0.000	0.000	282.000	0.000	367.000	0.000	0.000	0.000	0.000
GR	830.000	0.000	820.000	160.000	807.100	240.000	807.300	260.000	805.000	285.000
GR	802.800	310.000	795.400	324.000	794.700	329.000	795.100	333.000	798.000	338.000
GR	799.800	360.000	800.900	385.000	801.500	410.000	802.200	435 000	803.400	460.000
GR	803.900	485.000	820.000	650.000	830.000	700.000	0.000	0.000	0 000	0 000
NC	0.000	0.000	0.027	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF WALK BRIDGE									
X1	4046.000	17.000	250.000	279.000	30.000	30 000	30.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	192.000	0.000	337.000	0.000	0.000	0.000	0.000
GR	830.000	0.000	820.000	150.000	800.200	221.000	799.000	250.000	796.100	257.000
GR	794.400	261.000	794.200	265.000	794.300	268.000	797.400	272.000	798.800	279.000
GR	798.500	300.000	798.700	325.000	800.600	350.000	801.200	375.000	801.600	400.000
GR	820.000	650.000	830.000	680.000	0.000	0.000	0.000	0.000	0.000	0.000

SB	1.250	1.540	3.000	0.000	17.100	0.700	101.200	0.000	794.200	794.200
	U/S FACE OF WALK BRIDGE									
X1	4050.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	800 100	801.100	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	190.000	0.000	340.000	0.000	0.000	0.000	0.000
BT	14.000	0.000	830.000	0.000	150.000	820.000	0.000	221.000	800.200	0.000
BT	250.000	799.000	0.000	257.000	801.100	800.100	272.000	801.100	800.100	279.000
BT	798.800	0.000	300.000	798.500	0.000	325.000	798.700	0.000	350.000	800.600
BT	0.000	375.000	801.200	0.000	400.000	801.600	0.000	650.000	820.000	0.000
BT	680.000	830.000	0.000	0.000	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
	CROSS SECTION M									
X1	4116.000	18.000	310.000	338.000	66.000	66.000	66.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	183.000	0.000	465.000	0.000	0.000	0.000	0.000
GR	830.000	0.000	820.000	160.000	807.100	240.000	807.300	260.000	805.000	285.000
GR	802.800	310.000	795.400	324.000	794.700	329.000	795.100	333.000	798.000	338.000
GR	799.800	360.000	800.900	385.000	801.500	410.000	802.200	435.000	803.400	460.000
GR	803.900	485.000	820.000	650.000	830.000	700.000	0.000	0.000	0.000	0.000
X1	4216.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	157.000	0.000	639.000	0.000	0.000	0.000	0.000
X1	4316.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.000	0.000
NC	0.065	0.065	0.027	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF WALK BRIDGE									
X1	4372.000	15.000	410.000	434.000	56.000	56.000	56.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	178.000	0.000	800.000	0.000	0.000	0.000	0.000
GR	830.000	0.000	820.000	200.000	806.000	360.000	803.900	385.000	801.600	409.500
GR	801.100	410.000	796.400	416.000	795.600	420.000	796.300	426 000	798.500	430.000
GR	801.200	434.000	801.800	434.500	803.300	464.000	820.000	820.000	830.000	360.000
SB	0.000	1.540	3.000	0.000	15.900	0.000	88.500	0.000	795.600	795.600
	U/S FACE OF WALK BRIDGE									
X1	4376.000	0.000	0.000	0.000	4.000	4 000	4.000	0 000	0.000	0.000
X2	0.000	0.000	1.000	801.200	801.600	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	179.000	0.000	799.000	0.000	0.000	0.000	0.000
BT	11.000	0.000	830.000	0.000	200.000	820.000	0.000	360.000	806.000	0.000
BT	385.000	803.900	0.000	409.500	801.600	0.000	410.000	801.600	801.100	434.000
BT	801.800	801.200	434.500	801.800	0.000	464.000	803.300	0.000	820.000	820.000
BT	0.000	860.000	830.000	0.000	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	4458.000	17.000	430.000	458.000	82.000	82.000	82.000	0.000	2.800	0.000
GR	830.000	0.000	820.000	200.000	807.100	360.000	807.300	380.000	805.000	405.000
GR	802.800	430.000	795.400	444.000	794.700	449.000	795.100	453.000	798.000	458.000
GR	799.800	480.000	800.900	505.000	801.500	530.000	802.200	555.000	803.400	580.000
GR	820.000	820.000	830.000	860.000	0.000	0.000	0.000	0.000	0 000	0.000

NC	0.000	0.000	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	4539.000	30.000	383.000	417.000	81.000	81.000	81.000	0 000	0.000	0.000
GR	830.000	0.000	820.000	200.000	815 700	225.000	813.600	250.000	812.500	275.000
GR	811.700	300.000	811.300	325.000	811.000	350.000	810.800	375 000	810.000	383.000
GR	801.500	394.200	800.500	395.000	799.900	396.000	799.700	397.000	799.500	398.000
GR	799.300	400.000	799.500	402.000	799.800	403.000	800.100	404.000	800.700	405.000
GR	801.700	405.800	810.000	417.000	810.900	425.000	811.000	450.000	811.400	475 000
GR	811.800	500.000	812.700	525.000	813.600	550.000	820.000	790.000	830.000	830.000
NC	0.100	0.100	0.013	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF BARTON ROAD									
X1	4540.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	30.000	0.000	830.000	0.000	200.000	820.000	0.000	225.000	815.700	0.000
BT	250.000	813.600	0.000	275.000	812.500	0.000	300.000	811.700	0.000	325.000
BT	811.300	0.000	350.000	811.000	0.000	375.000	810.800	0.000	383.000	810.800
BT	810.000	394.200	810.700	801.500	395.000	810.700	805.200	396.000	810.700	805.200
BT	397.000	810.700	806.000	398.000	810.600	806.500	400.000	810.600	806.900	402.000
BT	810.600	806.500	403.000	810.700	806.100	404.000	810.700	805.400	405.000	810.700
BT	804.200	405.800	810.700	801.700	417.000	810.800	810.000	425.000	810.900	0.000
BT	450.000	811.000	0.000	475.000	811.400	0.000	500.000	811.800	0.000	525.000
BT	812.700	0.000	550.000	813.600	0.000	790.000	820.000	0.000	830.000	830.000
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0 000	0 000	0.000
	U/S FACE OF BARTON ROAD									
X1	4646.000	0.000	0.000	0.000	106.000	106.000	106.000	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	0.065	0.065	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	4647.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	4728.000	20.000	360.000	375.000	81.000	81.000	81.000	0.000	-3 000	0.000
X3	0.000	0.000	0.000	107.000	0.000	683.000	0.000	0.000	0.000	0.000
GR	830.000	0.000	820.000	20.000	813.600	160.000	814.600	260.000	813.700	285.000
GR	812.100	304.000	810.100	329.000	804.900	354.000	804.900	360.000	804.200	362.000
GR	803.700	366.000	804.000	371.000	806.400	375.000	808.400	385.000	811.100	410.000
GR	811.900	435.000	812.000	460.000	812.200	485.000	820.000	720.000	830.000	860.000
X1	4812.000	34.000	300.000	320.000	84.000	84.000	84.000	0.000	0.000	0.000
GR	830.000	0.000	820.000	70.000	811.300	160.000	810.700	185.000	810.400	210.000
GR	810.100	235.000	810.300	260.000	810.400	285.000	811.000	300.000	805.100	301.300
GR	804.000	301.500	803.300	302.000	802.500	303.000	802.100	304.300	802.500	305.500
GR	803.300	306.500	804.000	307.000	805.100	307.300	805.100	312.800	804.000	313.000
GR	803.300	313.500	802.500	314.500	802.500	315.800	802.500	317.000	803 300	318.000
GR	804.000	318.500	805.100	318.800	811.500	320.000	811.300	335.000	811.200	360.000
GR	811.400	385.000	811.800	410.000	820.000	600.000	830.000	880.000	0.000	0.000
NC	0.100	0.100	0.013	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF ENTRANCE ROAD TO APT. COMPLEX									
X1	4813.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	34.000	0.000	830.000	0.000	70.000	820.000	0.000	160.000	811.300	0.000
BT	185.000	810.700	0.000	210.000	810.400	0.000	235.000	810.100	0.000	260.000
BT	810.300	0.000	285.000	810.400	0.000	300.000	811.000	0.000	301.300	811.100
BT	805.100	301.500	811.100	806.500	302.000	811.100	807.100	303.000	811.200	807.800

BT	304.300	811.300	808.100	305.500	811.300	807.800	306.500	811.400	807.100	307.000
BT	811.400	806.500	307.300	811.500	805 100	312.800	811.500	805.100	313.000	811.500
BT	806 500	313.500	811.500	807.100	314.500	811.500	807.800	315.800	811.500	808.100
BT	317.000	811.500	807.800	318.000	811.500	807.100	318 500	811.500	806.500	318.800
BT	811.500	805.100	320.000	811.500	0.000	335.000	811.300	0.000	360.000	811.200
BT	0.000	385.000	811.400	0.000	410.000	811.800	0.000	600 000	820.000	0.000
BT	880.000	830.000	0.000	0.000	0.000	0 000	0.000	0.000	0.000	0.000
	U/S FACE OF ENTRANCE ROAD TO APT. COMPLEX									
X1	4846.000	0.000	0.000	0.000	33.000	33.000	33 000	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	0.065	0.065	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	4847.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	4946.000	20.000	360.000	375.000	99.000	99.000	99.000	0.000	-0 900	0.000
X3	0.000	0.000	0.000	119.000	0.000	641.000	0.000	0.000	0.000	0.000
GR	830.000	0.000	820.000	90.000	813.600	160.000	814.600	260.000	813.700	285.000
GR	812.100	304.000	810.100	329.000	804.900	354.000	804.900	360.000	804.200	362.000
GR	803.700	366.000	804.000	371.000	806.400	375.000	808.400	385.000	811 100	410.000
GR	811.900	435.000	812.000	460.000	812.200	485.000	820.000	640.000	830.000	880.000
	CROSS SECTION N									
X1	5146.000	20.000	360.000	375.000	200.000	200.000	200.000	0.000	0.000	0.000
GR	830.000	0.000	820.000	100.000	813.600	160.000	814.600	260.000	813.700	285.000
GR	812.100	304.000	810.100	329.000	804.900	354.000	804.900	360.000	804.200	362.000
GR	803.700	366.000	804.000	371.000	806.400	375.000	808.400	385.000	811.100	410.000
GR	811.900	435.000	812.000	460.000	812.200	485.000	820.000	520.000	830.000	640.000
NC	0.000	0.000	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	6108.000	10.000	45.000	128.000	962.000	962.000	962.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	20.000	0.000	155.000	0.000	0.000	0.000	0.000
GR	829.200	0.000	823.200	45.000	810.900	86.000	810.900	96.000	820.500	128.000
GR	819.700	130.000	818.500	145.000	817.800	170.000	818.000	206.000	830.000	400.000
X1	6133.000	9.000	45.000	128.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	829.700	0.000	824.700	45.000	812.400	86.000	812.400	96.000	822.000	128.000
GR	821.200	130.000	820.000	145.000	819.300	170.000	819.500	206.000	0.000	0.000
	CROSS SECTION O									
X1	6148.000	9.000	45.000	128.000	15.000	15 000	15.000	0.000	0.000	0.000
GR	829.900	0.000	824.900	45.000	812.600	86.000	812.600	96.000	822.200	128.000
GR	821.400	130 000	820.200	145.000	819.500	170.000	819.700	206.000	0.000	0.000
X1	6335.000	7.000	19.000	72.000	187.000	187.000	187 000	0.000	0.000	0.000
X3	0.000	0.000	0 000	19.000	0 000	72.000	0.000	0.000	0.000	0.000
GR	824.500	0.000	823.400	19.000	816.100	51.000	816.100	63.000	817.100	72.000
GR	818.800	94.000	819.600	113.000	0.000	0.000	0.000	0.000	0.000	0.000

X1	6355.000	7.000	19.000	72.000	20.000	20.000	20.000	0.000	0.000	0.000
GR	826.600	0.000	825.500	19.000	816.100	51.000	816.100	63.000	819.200	72.000
GR	820.900	94.000	821.700	113.000	0.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION P									
X1	6380.000	7.000	19.000	72.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	826.800	0.000	825.700	19.000	816.100	51.000	816.100	63.000	819.400	72.000
GR	821 100	94.000	821.900	113.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION Q									
X1	6730.000	16.000	115.000	140.000	350.000	350.000	350.000	0.000	0.000	0.000
GR	831.900	0.000	831.800	27.000	831.200	52.000	826.400	93.000	826.100	115.000
GR	819.900	128.000	819.800	133.000	819.700	135.000	820.000	138.000	821 000	140.000
GR	821.900	155.000	828.300	186.000	828.900	196.000	829.500	215.000	830.100	240.000
GR	834.700	259.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF TRAVER ROAD									
X1	6865.000	28.000	140.000	160.000	135.000	135.000	135.000	0.000	0.000	0.000
GR	832.700	0.000	832.500	25.000	832.100	50.000	831.500	75.000	831.200	100.000
GR	831.000	125.000	831.000	140.000	824 400	143.500	822.900	144.000	822.100	145.000
GR	821.900	146.000	822.100	147.000	822.900	148.000	824.400	148.500	824.500	151.500
GR	823.000	152.000	822.200	153.000	822.000	154.000	822.200	155.000	823.000	156.000
GR	824.500	156.500	831.400	160.000	831.600	170.000	831.700	175 000	832.200	200.000
GR	832.900	225.000	833.900	250 000	835.300	275.000	0.000	0.000	0.000	0.000
SB	0.000	1.500	3.000	0.000	7.850	0.000	39.260	0.000	821.900	821.900
	U/S FACE OF TRAVER ROAD									
X1	6946.000	0.000	0 000	0 000	81.000	81.000	81.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	826.900	831.600	0.000	0.000	0.000	0.000	0.000
BT	28.000	0.000	832.700	0.000	25.000	832.500	0.000	50.000	832.100	0.000
BT	75.000	831.500	0.000	100.000	831.200	0.000	125.000	831.000	0.000	140.000
BT	831.000	0.000	143.500	831.100	824.400	144.000	831.100	825.900	145.000	831.100
BT	826 700	146.000	831.100	826.900	147.000	831.100	826.700	148.000	831.100	825.900
BT	148.500	831.100	824.400	151.500	831.100	824.500	152.000	831.100	826.000	153.000
BT	831.200	826.800	154.000	831 200	827.000	155.000	831.200	826.800	156 000	831.300
BT	826.000	156.500	831.300	824.500	160.000	831.400	0.000	170.000	831.600	0.000
BT	175.000	831.700	0.000	200.000	832.200	0.000	225.000	832.900	0.000	250.000
BT	833.900	0.000	275.000	835.300	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.045	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	6947.000	0.000	0.000	0.000	1.000	1.000	1.000	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

THIS RUN EXECUTED 3 MAR 89 10:49:02

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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         CITY OF ANN ARBOR FIS RESTUDY
T2         TRAVER CREEK
T3         100-YEAR FLOOD

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
       0.         4.         0.         0.   0.002700       0.00       0.0         0.    763.000      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
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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=    0.300 CEHV=    0.500
*SECNO 0.000
          D/S FACE OF ISLAND DRIVE - START OF GREENHORNE & O'MARA PROVIDED DATA
     0.00      3.70    760.34      0.00    763 00    760.65      0.31      0.00      0.00    762.80
     430.        0.      430.        0.         0.      96.        0.        0.         0.    762.80
     0.00      0.00      4.49      0.00     0 000     0.035     0.000     0.000    756.64    103.40
 0.002673        0.        0.        0.         0         0         4      0.00     29.81    133.20


SPECIAL BRIDGE

SB  XK          XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00        1 50       3.00       0.00      24.30       0.00      98.00       0.00     757.06     756.64

*SECNO 42.000

6070,LOW FLOW BY NORMAL BRIDGE

EGPRS=      0.000  EGLWC=    761.059  ELLC=    761.100  PCWSE=    760.338  ELTRD=    762.800

3370 NORMAL BRIDGE,NRD=  8 MIN ELTRD=  762.80 MAX ELLC=  761.10


3470 ENCROACHMENT STATIONS=       83.0      136.0  TYPE=      1  TARGET=       53.000
          U/S FACE OF ISLAND DRIVE
    42.00      3.38    760.38      0.00      0.00    760.91      0.53      0.15      0.11    762.80
     430.        0.      430.        0.         0.      74.        0.        0.         0.  100000.00
     0.00      0.00      5.84      0.00     0.000     0.035     0.000     0.000    757.00    103.50
 0.005400        42.       42.       42.         2         0         0    -12.97     29.56    133.06


CCHV=    0.500 CEHV=    1.000
*SECNO 67.000
    67.00      4.20    760.50      0.00      0.00    761.26      0.75      0.12      0.22    756.30
     430.        21.      395        14.       10.      55.        8.        0.         0.    756.30
     0.00      2.02      7.24      1.81     0.070     0.035     0.070     0.000    756.30    107.61
 0.004300        25.       25.       25.         1         0         0      0.00     23.01    130.62


CCHV=    0.500 CEHV=    1.000
1490 NH CARD USED
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 92.000									
92.00	4.11	760.61	0.00	0.00	761.59	0.98	0.11	0 23	757.00
430.	12.	409.	8.	9.	50.	7.	0.	0.	757.00
0.00	1.37	8.14	1.24	0.100	0.030	0.100	0.000	756.50	107.76
0.004460	25.	25.	25.	1	0	0	0.00	22.69	130.45
CCHV= 0.100 CEHV= 0.300									
1490 NH CARD USED									
*SECNO 97.000									
97.00	4.15	760.65	0.00	0.00	761.62	0.97	0.02	0.00	757.00
430.	12.	409.	9.	9.	51.	7.	0.	0.	757.00
0.00	1.36	8.09	1.24	0.100	0.030	0.100	0.000	756.50	107.72
0.004376	5.	5.	5.	1	0	0	0.00	22.78	130.50
*SECNO 102.000									
102.00	4.21	760.71	0.00	0.00	761.64	0.93	0.02	0.00	757.00
430.	13.	409.	9.	9.	52.	7.	0.	0.	757.00
0.00	1.34	7.93	1.21	0.100	0.030	0.100	0.000	756.50	107.57
0.004101	5.	5.	5.	2	0	0	0.00	23.09	130.67
*SECNO 107.000									
107.00	4.25	760.75	0.00	0.00	761.66	0.92	0.02	0.00	757.00
430.	13.	408.	9.	10.	52.	7.	0.	0.	757.00
0.00	1.33	7.87	1.21	0.100	0.030	0.100	0.000	756.50	107.52
0.004007	5.	5.	5.	1	0	0	0.00	23.21	130.73
*SECNO 112.000									
112.00	4.30	760.80	0.00	0.00	761.69	0.88	0.02	0.00	757.00
430.	13.	408.	9.	10.	53.	8.	0.	0.	757.00
0.00	1.32	7.74	1.19	0.100	0.030	0.100	0.000	756.50	107.39
0.003794	5.	5.	5.	2	0	0	0.00	23.48	130.87
*SECNO 117.000									
117.00	4.33	760.83	0.00	0.00	761.71	0.87	0.02	0.00	757.00
430.	13.	408.	9.	10.	53.	8.	0	0.	757.00
0.00	1.31	7.70	1.18	0.100	0.030	0.100	0.000	756.50	107.35
0.003731	5	5.	5.	0	0	0	0.00	23.56	130.92

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 147.000									
147.00	4.77	760 77	0.00	0.00	761.96	1.19	0.16	0.09	758.00
430.	13.	407	10.	8.	45.	6	0.	0.	758.00
0.01	1 76	8.98	1.60	0.100	0.035	0.100	0.000	756.00	76.83
0.008152	30.	30.	30.	2	0	0	0.00	22.30	99.14
*SECNO 206.000									
206.00	4.47	761.17	760.92	0.00	762.51	1.34	0.50	0.05	758.00
430.	15.	402.	13.	8.	42.	8.	0.	0.	758.00
0.01	1.77	9 58	1.68	0.100	0.035	0.100	0.000	756.70	27.83
0.008862	59.	59.	59.	4	11	0	0.00	20.92	48.75
CCHV= 0.500 CEHV= 1.000									
*SECNO 222.000									
222.00	4.88	761.78	0.00	0.00	762.79	1.01	0.12	0.16	758.00
430.	13.	405.	12.	8.	49	8.	0.	0.	759.00
0.01	1.56	8.29	1.50	0.100	0.035	0.100	0.000	756.90	30.16
0.006165	16.	16.	16.	15	0	0	0.00	22.74	52.90
CCHV= 0.100 CEHV= 0.300									
*SECNO 237.000									
237.00	5.07	762.27	0.00	0.00	762.89	0.62	0.06	0.04	758.00
430.	19.	398.	14.	13.	61.	12.	0.	0.	758.00
0.01	1.39	6.55	1.17	0.100	0.035	0.100	0.000	757.20	33.82
0.003077	15.	15.	15.	3	0	0	0.00	25.72	59.54
*SECNO 252.000									
252.00	4.83	762.23	0.00	0.00	762.99	0.76	0.06	0.04	759.00
430.	14.	406.	9.	10.	56.	8.	0.	0.	759.00
0.01	1.46	7.21	1.21	0.100	0.035	0.100	0.000	757.40	38.99
0.004651	15.	15.	15.	2	0	0	0.00	25.46	64.45
*SECNO 267.000									
267.00	4.76	762.46	0.00	0.00	763.07	0.61	0.06	0.02	759.00
430.	21.	400.	9.	14.	62.	8.	0.	0.	759.00
0.01	1.46	6.48	1.12	0.100	0.035	0.100	0.000	757.70	42.57
0.003608	15.	15.	15.	2	0	0	0.00	27.86	70.43

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 282.000
CROSS SECTION A

282.00	4.61	762.61	0.00	0.00	763.13	0.52	0.05	0.01	759.00
430.	28.	395.	8.	19.	66.	8.	0.	0.	759.00
0.01	1.43	6.00	1.02	0.100	0.035	0.100	0.000	758.00	57.78
0.003066	15.	15.	15.	2	0	0	0.00	29.43	87.21

CCHV= 0.500 CEHV= 1.000
*SECNO 372.000

372.00	4.94	762.94	0.00	0.00	763.77	0.83	0.33	0.32	758.50
430.	33.	369.	28.	19.	47.	18.	1.	0.	758.50
0.01	1.77	7.87	1.54	0.100	0.035	0.100	0.000	758.00	105.86
0.004411	90.	90.	90.	2	0	0	0.00	26.33	132 19

*SECNO 430.000

3470 ENCROACHMENT STATIONS= 120.0 143.0 TYPE= 1 TARGET= 23.000
D/S FACE OF FOOTBRIDGE

430.00	5.12	763.62	0.00	0.00	764.17	0.56	0.27	0.14	764.00
430.	0.	430.	0.	0.	72.	0.	1.	0.	100000.00
0.02	0.00	6.00	0.00	0.000	0.035	0.000	0.000	758.50	120.39
0.004844	58.	58.	58.	3	0	0	0.00	21.92	142.32

*SECNO 431.000

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 765.00 MAX ELLC= 764.00

3470 ENCROACHMENT STATIONS= 120.0 143.0 TYPE= 1 TARGET= 23.000

431.00	5.13	763.63	0.00	0.00	764.18	0.55	0.00	0.00	764.00
430.	0.	430.	0.	0.	72.	0.	1.	0.	100000.00
0.02	0.00	5.97	0.00	0.000	0.035	0.000	0.000	758.50	120.38
0.004797	1.	1.	1.	0	0	0	0.00	21.96	142.34

*SECNO 435.000

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 765.00 MAX ELLC= 764.00

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

3470 ENCROACHMENT STATIONS= 120.0 143.0 TYPE= 1 TARGET= 23.000

435.00	5.16	763.66	0.00	0.00	764.21	0.54	0.02	0.01	764.00
430	0.	430.	0.	0.	73.	0.	1.	0.	100000.00
0.02	0.00	5.92	0.00	0.000	0.035	0.000	0.000	758.50	120.35
0.004672	4.	4	4.	1	0	0	0.00	22.04	142.39

*SECNO 436.000

3470 ENCROACHMENT STATIONS= 119.0 141.0 TYPE= 1 TARGET= 22.000

U/S FACE OF FOOTBRIDGE

436.00	5.17	763.67	0.00	0.00	764.21	0.55	0.00	0.00	764.00
430.	0.	430.	0.	0.	72.	0.	1.	0.	100000.00
0.02	0.00	5.94	0.00	0.000	0.035	0.000	0.000	758.50	120.33
0.004535	1.	1.	1.	0	0	0	0.00	20.67	141.00

CCHV= 0.100 CEHV= 0.300

*SECNO 452.000

3470 ENCROACHMENT STATIONS= 140.0 194 0 TYPE= 1 TARGET= 54.000

CROSS SECTION B

452.00	4.95	763.55	0.00	0.00	764.37	0.82	0.07	0.08	760.00
430.	12.	410.	7.	9.	55.	6.	1.	0.	760.00
0.02	1.30	7.42	1.17	0.100	0.035	0.100	0.000	758.60	154.67
0.004575	16.	16.	16.	2	0	0	0.00	21.88	176.55

*SECNO 577.000

577.00	4.96	763.96	0.00	0.00	765.14	1.18	0.67	0.11	760.00
430.	19.	402.	9.	12.	45.	6.	1.	0.	760.00
0.02	1.64	9.01	1.36	0.100	0.035	0.100	0.000	759.00	162.05
0.006287	125.	125.	125.	2	0	0	0.00	19.12	181.17

*SECNO 647.000

CROSS SECTION C

647.00	5.64	764.64	0.00	0.00	765.57	0.92	0.40	0.03	760.00
430.	90.	317.	22.	30.	36	13.	1.	0.	760.00
0.02	2.99	8.82	1.74	0.060	0.035	0.090	0.000	759.00	40.01
0.005133	70.	70.	70.	3	0	0	0.00	25.56	65.57

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 662 000									
662.00	5.65	764.85	0.00	0.00	765.65	0.80	0.07	0.01	760.00
430.	62.	336.	32.	24.	42.	18.	1.	0.	760.00
0.03	2.62	8.00	1.80	0.060	0.035	0.090	0.000	759.20	14.30
0.003990	15.	15.	15.	2	0	0	0.00	25.56	39.85
*SECNO 677.000									
677.00	5.41	764.81	0.00	0.00	765.76	0.95	0.07	0.05	761.00
430.	44.	355.	31.	16.	42.	17.	1.	0.	761.00
0.03	2.71	8.55	1.81	0.060	0.035	0.090	0.000	759.40	12.42
0.005720	15.	15.	15.	2	0	0	0.00	28.21	40.63
*SECNO 692.000									
692.00	5.57	765.17	0.00	0.00	765.86	0.69	0.07	0.03	761.00
430.	52.	354.	23.	22.	49.	15.	1.	0.	761.00
0.03	2.41	7.27	1.54	0.060	0.035	0.090	0.000	759.60	9.66
0.003731	15.	15.	15.	2	0	0	0.00	27.69	37.34
*SECNO 707.000									
707.00	5.33	765.13	0.00	0.00	765.97	0.84	0.06	0.05	761.00
430.	59.	345.	26.	20.	43.	15.	1.	0.	761.00
0.03	2.92	8.11	1.72	0.060	0.035	0.090	0.000	759.80	12.74
0.004810	15.	15.	15.	2	0	0	0.00	26.58	39.32
*SECNO 722.000									
722.00	5.04	765.04	0.00	0.00	766.12	1.08	0.08	0.07	761.00
430.	41.	367.	23.	14.	41.	12.	1.	0.	761.00
0 03	2.84	8.97	1.84	0.060	0 035	0.090	0.000	760.00	17.93
0.006127	15.	15.	15.	2	0	0	0.00	22.16	40.09
*SECNO 736.000									
736.00	5.30	765.40	0.00	0.00	766.22	0.81	0.07	0.03	761.00
430.	33.	374.	23.	14.	49.	15.	1.	0.	761.00
0.03	2.35	7 72	1.58	0.060	0.035	0.090	0.000	760.10	19.71
0.004105	14.	14.	14.	3	0	0	0.00	22.89	42.60

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 752.000									
752.00	5.51	765.81	0.00	0.00	766.30	0.49	0.05	0.03	761.00
430.	38.	372.	20.	20.	62.	16.	1.	0.	761.00
0.03	1.92	6.00	1.23	0.060	0.035	0.090	0.000	760.30	18.75
0.002261	16.	16.	16.	2	0	0	0.00	26.99	45.74
*SECNO 767.000									
767.00	5.69	765.99	0.00	0.00	766.34	0.34	0.03	0.01	761 00
430.	38.	375.	17.	22.	75.	17.	1.	0.	761.00
0.03	1 76	5.01	1.01	0.060	0.035	0.090	0.000	760.30	18.34
0.001497	15.	15.	15.	2	0	0	0.00	29.32	47.66

CCHV= 0.300 CEHV= 0.500

*SECNO 794.000

D/S FACE OF NIELSON ROAD

794.00	5.28	765 98	0.00	0.00	766.49	0.51	0.06	0.08	763 00
430.	25.	398.	7.	12.	67.	6.	1.	0.	763.70
0.03	2.01	5.93	1.11	0.060	0.035	0.090	0.000	760.70	30.42
0.004203	27.	27.	27.	2	0	0	0.00	29.64	60.06

SPECIAL BRIDGE

SB XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
0.00	2.40	3.00	0.00	9.70	0.00	64.10	0.00	762.90	760.70

*SECNO 874 000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 768.632 ELLC= 769.500 PCWSE= 765.976 ELTRD= 770.000

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 20 MIN ELTRD= 770.00 MAX ELLC= 769.50

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

U/S FACE OF NIELSON ROAD - CROSS SECTION D

874.00	3.85	766.75	766.75	0.00	768.47	1.71	0.71	0.60	764.70
430.	0.	430.	0.	0.	41.	0.	1.	0.	766.50
0.03	0.00	10.50	0.00	0.000	0.035	0.000	0.000	762.90	32.08
0.029552	80.	80.	80.	20	15	0	-10.83	23.18	55.26

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 952.000

3301 HV CHANGED MORE THAN HVINS

952.00	6.37	768.87	0.00	0.00	769.26	0.39	0 40	0.40	765.00
430.	24.	361.	45.	15.	67.	40.	2.	1.	765.00
0.04	1.61	5.42	1.11	0.060	0.035	0.090	0.000	762.50	93.26
0.002026	78.	78.	78.	2	0	0	0.00	42.76	136.02

CCHV= 0.100 CEHV= 0.300
*SECNO 1055.000
D/S FACE OF FOOTBRIDGE - CROSS SECTION E

1055.00	5.76	769.26	0.00	0.00	769.39	0.13	0.10	0.03	765.00
430.	25.	395.	10.	25.	130.	17.	2.	1.	765.00
0.05	1.00	3.03	0.60	0.060	0.035	0.090	0.000	763.50	5.74
0.000601	103	103.	103.	2	0	0	0.00	44.28	50.02

*SECNO 1056.000

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 768.50 MAX ELLC= 767.50

1056.00	5.70	769.20	0.00	0.00	769.42	0.22	0.00	0.03	765.00
430.	22.	398.	10.	16.	103.	11.	2.	1.	765.00
0.05	1.38	3.87	0.94	0.060	0.035	0.090	0.000	763.50	5.80
0.005792	1.	1.	1.	2	0	0	-39.48	44.22	50.02

*SECNO 1061.000

3370 NORMAL BRIDGE, NRD= 0 MIN ELTRD= 768.50 MAX ELLC= 767.50

1061.00	5.73	769.23	0.00	0.00	769.44	0.21	0.03	0.00	765.00
430.	22.	397.	10.	16.	103.	11.	2.	1.	765.00
0.05	1.38	3.85	0.94	0.060	0.035	0.090	0.000	763.50	5.78
0.005665	5.	5.	5.	1	0	0	-39.48	44.24	50.02

*SECNO 1062.000
U/S FACE OF FOOTBRIDGE

1062.00	5.83	769.33	0.00	0.00	769.45	0.13	0.00	0.01	765.00
430.	26.	394.	10.	26.	132	17.	2.	1.	765.00
0.05	1.00	2.99	0.60	0.060	0.035	0.090	0.000	763.50	5.67
0.000573	1.	1.	1.	2	0	0	0.00	44.35	50.02

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 1137.000									
1137.00	5.07	769.27	0.00	0.00	769.58	0.31	0.07	0.05	765.00
430.	63.	345.	23.	33.	70.	20.	2.	1.	765.00
0.05	1.89	4.92	1.13	0.060	0.035	0.090	0.000	764.20	18.82
0.001731	110.	75.	60.	2	0	0	0.00	41.18	60.00
*SECNO 1226.000									
3301 HV CHANGED MORE THAN HVINS									
1226.00	3.79	768.99	768.76	0.00	770.13	1.14	0.30	0.25	766.00
430.	44.	373.	13	18.	41.	7.	2.	1.	766.00
0.06	2.42	9.17	1.84	0.090	0.035	0.100	0.000	765.20	84.08
0.009281	70.	89.	131.	6	15	0	0.00	29.90	113.97
CCHV= 0.500 CEHV= 1.000									
*SECNO 1327 000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
1327.00	4.23	770.53	770.53	0.00	771.88	1.35	1.05	0.21	768.50
430.	3.	416.	11.	2.	44.	7.	3.	1.	768.50
0.06	1.44	9.50	1.59	0 090	0.035	0.100	0.000	766.30	95.71
0.011652	101.	101.	101.	2	8	0	0.00	23.58	119.29
*SECNO 1428.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
3470 ENCROACHMENT STATIONS=		83.0	126.0	TYPE=	1	TARGET=		43.000	
CROSS SECTION F									
1428.00	4.22	772.02	772.02	0.00	773.38	1.36	1.17	0.01	770.00
430.	3.	416.	11.	2.	44.	7.	3.	1.	770.00
0.06	1.44	9.52	1.59	0.090	0.035	0.100	0.000	767.80	95 79
0.011742	129.	101.	60.	2	5	0	0.00	23.43	119.21
*SECNO 1463.000									
3301 HV CHANGED MORE THAN HVINS									

D/S FACE OF BROADWAY

1463.00	5.61	773.81	0.00	0.00	774.06	0.25	0.12	0.56	774.50
430.	0.	430.	0.	0.	107.	0	3.	1.	774.50
0.07	0.00	4.02	0.00	0.000	0.035	0.000	0.000	768.20	92.66
0.001658	50.	35.	25.	3	0	0	0.00	26.23	118.89

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.50	3.00	0.00	9.00	0.00	45.00	0.00	768.70	768.20

*SECNO 1530.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
777.35	774.54	0.00	142.	289.	45.	45.	773.70	774.70

U/S FACE OF BROADWAY - CROSS SECTION G

1530.00	6.58	775.28	0.00	0.00	775 41	0.14	1.35	0.00	774.50
430.	8.	416.	6.	24.	138.	26.	3.	1.	774.50
0.07	0.34	3.02	0.23	0.090	0.035	0.100	0.000	768.70	55.89
0.000720	67.	67.	67.	2	0	4	0.00	124.11	180.00

*SECNO 1612.000

1612.00	5.15	775.35	0 00	0.00	775.51	0.16	0.07	0.02	771.00
430.	110.	294.	26.	139.	76.	43	3.	1.	771.00
0.08	0.79	3.86	0.62	0.090	0.035	0.100	0.000	770.20	160.93
0.001041	95.	82.	50.	1	0	0	0.00	160.17	321.10

CCHV= 0.100 CEHV= 0.300
1490 NH CARD USED
*SECNO 1887.000
CROSS SECTION H

1887.00	4.37	775.77	0.00	0.00	775.87	0.10	0.35	0.01	773.00
430.	278.	142.	10.	199.	36.	13.	5.	2.	773.00
0.11	1.40	3.97	0.75	0.063	0.035	0.095	0.000	771.40	97.91
0.001716	262.	275.	243.	2	0	0	0.00	142 98	240.89

*SECNO 1997.000

3470 ENCROACHMENT STATIONS= 114.0 239.0 TYPE= 1 TARGET= 125.000

1997.00	3.96	775.96	0.00	0.00	776.16	0.20	0.26	0.03	773.60
430.	255.	167.	9.	146.	32.	9.	6.	3.	773.60
0.12	1.74	5.28	0.96	0.064	0.035	0.095	0.000	772.00	114.00
0.003560	110.	110.	110.	2	0	0	0.00	124.62	238.62

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 2052.000

3470 ENCROACHMENT STATIONS= 140.0 237.0 TYPE= 1 TARGET= 97.000

2052.00	3.76	776.26	0.00	0.00	776.88	0.62	0.30	0.42	774.10
430.	176.	244.	10.	96.	30.	7.	6.	3.	774.10
0.13	1.83	8.23	1.43	0.090	0.035	0.100	0.000	772.50	140.00
0.009448	55.	55.	55.	2	0	0	0.00	97.00	237.00

1490 NH CARD USED
*SECNO 2108.000

2108.00	4.33	777.03	776.92	0.00	777.73	0.71	0.76	0.09	776.00
430.	9.	402.	19.	5.	58.	18.	6.	3.	776.00
0.13	1.73	6.97	1.06	0.060	0.041	0.100	0.000	772.70	33.25
0.011970	134.	56.	37.	4	8	0	0.00	68.03	101 28

1490 NH CARD USED
*SECNO 2487.000
CROSS SECTION I

2487.00	4.53	780.23	0.00	0.00	780.90	0.67	3.14	0.02	777.00
430.	57.	373.	0.	34.	53.	0.	7.	3.	780.00
0.15	1.65	7.02	0.01	0.075	0.034	0.100	0.000	775.70	47.54
0.006045	410.	379.	344.	2	0	0	0.00	56.85	104.38

*SECNO 2665.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

2665.00	4.22	781.72	781.72	0.00	782.67	0.95	1.31	0.28	778.80
430.	39.	391.	0.	23.	48.	0.	7.	4.	781.80
0.15	1.71	8.17	0.00	0.081	0.034	0.000	0.000	777.50	53.48
0.009265	172.	178.	187.	2	8	0	0.00	50.38	103.86

1490 NH CARD USED
*SECNO 2845.000

2845.00	4.22	783.62	0.00	0.00	784.46	0.84	1.74	0.06	783.00
430.	1.	429.	0.	2.	58.	0.	7.	4.	784.00
0.16	0.69	7.35	0.00	0.100	0.033	0.000	0.000	779.40	83.38
0.010122	171.	180.	171.	3	0	0	0.00	32.12	115.50

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 2900.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
2900.00	4.00	785.00	785.00	0.00	786.04	1.04	0.65	0.20	784.60
430.	0.	430.	0.	1.	52.	0.	7.	4.	785.60
0.16	0.59	8.18	0.00	0.100	0.034	0.000	0.000	781.00	85.41
0.013853	55.	55.	50.	2	11	0	0.00	29.19	114.60
*SECNO 2951.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
CROSS SECTION J									
2951.00	4.53	786.53	786.53	0.00	788 05	1.52	0.77	0.48	794.00
430.	0.	430.	0.	0.	43.	0.	7.	4.	794.00
0.16	0.00	9.90	0.00	0.000	0.035	0.000	0.000	782.00	91.47
0.016502	55.	51.	50.	2	8	0	0.00	14.35	105.82
CCHV= 0.100 CEHV= 0.300									
*SECNO 3137.000									
3301 HV CHANGED MORE THAN HVINS									
3137.00	5.16	789.16	0.00	0.00	789.59	0.43	1.43	0.11	785.00
430.	54.	310.	66.	24.	51.	32.	8.	4.	785.00
0.17	2.23	6.06	2.06	0.070	0.045	0.080	0.000	784.00	22.78
0.004436	200.	186.	170.	2	0	0	0.00	41.24	64.02
*SECNO 3331.000									
3331.00	5.08	790.08	0.00	0.00	790.86	0.79	1.17	0.11	787.00
430.	46.	372.	13.	17.	49.	6.	8.	4.	787.00
0.18	2.62	7.59	2.02	0.070	0.045	0.080	0.000	785.00	13.78
0.008693	202.	194.	182.	2	0	0	0.00	27.62	41.40
1490 NH CARD USED									
*SECNO 3587.000									
CROSS SECTION K									
3587.00	3.55	792.05	0.00	0.00	793.12	1.07	2.17	0.09	789.00
430.	14.	398.	18.	8.	46.	10.	9.	4.	789.00
0.19	1.66	8.63	1.70	0.100	0.035	0.100	0.000	788.50	61.42
0.008463	158.	256.	358.	2	0	0	0.00	26.43	87.85

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 3764.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 175.0 198.0 TYPE= 1 TARGET= 23.000
CROSS SECTION L - END OF GREENHORNE & O'MARA PROVIDED DATA

3764.00	3.84	795.14	795.14	0.00	796.64	1.50	1.74	0.43	793.00
430.	19.	406.	5.	10.	40.	3.	9.	4.	792.00
0.19	1.96	10.11	1.49	0.100	0.035	0.100	0.000	791.30	175.00
0.011741	125.	177.	200.	3	8	0	0.00	20.65	195.65

CCHV= 0.500 CEHV= 1.000
*SECNO 3794.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
D/S FACE OF PLYMOUTH ROAD

3794.00	4.61	795.71	795.71	0.00	797.86	2.15	0.18	0.65	805.80
430.	0.	430	0.	0.	37.	0.	9.	4.	805.80
0.19	0.00	11.77	0.00	0.000	0.013	0.000	0.000	791.10	200.71
0.003671	30.	30.	30.	2	11	0	0.00	8.59	209.29

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.67	3.00	0.00	8.20	0.00	46.80	0.00	791.10	791.10

*SECNO 3865.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
797.90	797.86	0.00	0.	430.	47.	50.	797.20	805.80

3470 ENCROACHMENT STATIONS= 193.0 217.0 TYPE= 1 TARGET= 24.000
U/S FACE OF PLYMOUTH ROAD

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
3865.00	4.98	796.08	0.00	0.00	797.90	1.82	0 04	0.00	805.80
430.	0.	430.	0.	0.	40.	0.	9.	4.	805.80
0.20	0.00	10.82	0.00	0.000	0.013	0.000	0.000	791.10	200.68
0.002942	71.	71.	71.	5	0	0	0.00	8.64	209.32

CCHV= 0.500 CEHV= 1.000
*SECNO 3900.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
D/S FACE OF ANN ARBOR RR

3900.00	4.74	797.54	797.54	0.00	798.97	1.43	0.18	0.20	795.30
420.	5.	414.	1.	2.	43.	1.	9.	4.	795.30
0.20	1.92	9.65	1.24	0.070	0.030	0.070	0.000	792.80	197.90
0.011698	35.	35.	35.	2	11	0	0.00	17.95	215.85

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	3.17	3.00	0.00	3.92	0.00	19.63	0.00	792.80	792.80

*SECNO 3986.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
820.07	798.97	0.00	0.	420.	20.	20.	797.80	820.80

3470 ENCROACHMENT STATIONS= 195.0 220.0 TYPE= 1 TARGET= 25.000
U/S FACE OF ANN ARBOR RR

3986.00	27.26	820.06	0.00	0.00	820.07	0.02	21.11	0.00	795 30
420.	16.	392.	12.	110.	381.	91.	9.	4.	795.30
0.22	0.15	1.03	0.13	0.070	0.030	0.070	0.000	792.80	195.00
0.000007	86.	86.	86.	1	0	0	0.00	25.00	220.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	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 4016.000

3470 ENCROACHMENT STATIONS=		282.0	367.0	TYPE=	1	TARGET=		85.000	
4016.00	26.57	820.07	0.00	0.00	820.07	0.00	0.00	0.00	801.60
680.	114.	400.	166.	483.	671.	641.	10.	4.	796.80
0.24	0.24	0.60	0.26	0.070	0.035	0.070	0.000	793.50	282.00
0.000003	30.	30.	30.	2	0	0	0.00	85.00	367.00

CCHV= 0.300 CEHV= 0.500
*SECNO 4046.000

3470 ENCROACHMENT STATIONS=		192.0	337.0	TYPE=	1	TARGET=		145.000	
D/S FACE OF WALK BRIDGE									
4046.00	25.87	820.07	0.00	0.00	820.07	0.00	0.00	0.00	799.00
680.	155.	326.	199.	1053.	688.	1238.	12.	5.	798.80
0.27	0 15	0.47	0.16	0.070	0.027	0.070	0.000	794.20	192.00
0.000001	30.	30.	30.	0	0	0	0.00	145.00	337.00

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	1.25	1.54	3.00	0.00	17.10	0.70	101.20	0.00	794.20	794.20

*SECNO 4050.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
821.15	820.07	0.00	606.	79.	101.	97.	800.10	801.10

3470 ENCROACHMENT STATIONS=		190.0	340.0	TYPE=	1	TARGET=		150.000	
U/S FACE OF WALK BRIDGE									
4050.00	25.89	820.09	0.00	0.00	820.09	0.00	0.01	0.00	799.00
680.	156.	320.	204.	1077.	689.	1300.	12.	5.	798.80
0.27	0.14	0.46	0.16	0.070	0.027	0.070	0.000	794.20	190.00
0.000001	4.	4.	4.	0	0	4	0.00	150.00	340.00

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

CCHV= 0.100 CEHV= 0.300
*SECNO 4116.000

3470 ENCROACHMENT STATIONS= 183.0 465.0 TYPE= 1 TARGET= 282.000
CROSS SECTION M

4116.00	25.39	820.09	0.00	0.00	820.09	0.00	0.00	0.00	802.80
680.	144.	229.	307.	1489.	637.	2403.	18.	5	798.00
0.36	0.10	0.36	0.13	0.070	0.027	0.070	0.000	794.70	183.00
0.000001	66.	66.	66.	0	0	0	0.00	282.00	465.00

*SECNO 4216.000

3470 ENCROACHMENT STATIONS= 157.0 639.0 TYPE= 1 TARGET= 482.000

4216.00	25.39	820.09	0.00	0.00	820.09	0.00	0.00	0.00	802.80
680.	118.	188.	374.	1534.	637.	4066.	30.	6.	798.00
0.55	0.08	0.30	0.09	0.070	0.027	0.070	0.000	794.70	158.61
0.000001	100.	100.	100.	0	0	0	0.00	480.39	639.00

*SECNO 4316.000

4316.00	25.39	820.09	0.00	0.00	820.09	0.00	0.00	0.00	802.80
680.	118.	189.	373.	1534.	637.	4073.	45.	7.	798.00
0.74	0.08	0.30	0.09	0.070	0.027	0.070	0.000	794.70	158.60
0.000001	100.	100.	100.	0	0	0	0.00	491.83	650.44

CCHV= 0.300 CEHV= 0.500
*SECNO 4372.000

3470 ENCROACHMENT STATIONS= 178.0 800.0 TYPE= 1 TARGET= 622.000
D/S FACE OF WALK BRIDGE

4372.00	24.49	820.09	0.00	0.00	820.09	0.00	0.00	0.00	801.10
680.	181.	184.	315.	1947.	541.	3519.	53.	8.	801.20
0.84	0.09	0.34	0.09	0.065	0.027	0.065	0.000	795.60	198.25
0.000001	56.	56.	56.	0	0	0	0.00	601.74	800.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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	1.54	3.00	0.00	15.90	0.00	88.50	0.00	795.60	795.60

*SECNO 4376.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
821.50	820.09	0.00	612.	68	89.	89.	801.20	801.60

3470 ENCROACHMENT STATIONS= 179.0 799.0 TYPE= 1 TARGET= 620.000
U/S FACE OF WALK BRIDGE

4376.00	24.50	820.10	0.00	0.00	820.10	0.00	0.01	0.00	801.10
680.	180.	184.	315.	1950.	541.	3523.	53.	8.	801.20
0.85	0.09	0.34	0.09	0.065	0.027	0.065	0.000	795.60	197.97
0.000001	4.	4.	4.	0	0	5	0.00	601.02	799.00

CCHV= 0.100 CEHV= 0.300
*SECNO 4458.000

4458.00	22.60	820.10	0.00	0.00	820.10	0.00	0.00	0.00	805.60
680.	125.	191.	364.	1461.	559.	3377.	64.	9.	800.80
0.98	0.09	0.34	0.11	0.065	0.027	0.065	0.000	797.50	233.48
0.000001	82.	82	82.	0	0	0	0.00	547.50	780.97

CCHV= 0.100 CEHV= 0.300
*SECNO 4539.000

4539.00	20.80	820.10	0.00	0.00	820.10	0.00	0.00	0.00	810.00
680.	219.	192.	268.	1315.	555.	1903.	72.	10.	810.00
1.09	0.17	0.35	0.14	0.065	0.045	0.065	0.000	799.30	197.98
0.000003	81.	81.	81.	0	0	0	0.00	592.42	790.40

CCHV= 0.300 CEHV= 0.500
*SECNO 4540.000

3370 NORMAL BRIDGE, NRD= 30 MIN ELTRD= 810.60 MAX ELLC= 810.00

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          D/S FACE OF BARTON ROAD
  4540.00    20.80   820.10    0.00     0.00   820.10    0.00     0.00     0.00   810.00
     680.     165.     312.     203.     1312.    386.    1900.     72.      10.    810.00
     1.09     0.13     0.81     0.11     0.100   0.013    0.100   0.000   799.30  197.99
 0.000005       1.       1.       1.       0       0        0   -175.16  592.42  790.40

*SECNO 4646.000

3370 NORMAL BRIDGE, NRD= 30 MIN ELTRD=  810.60 MAX ELLC=  810.00

          U/S FACE OF BARTON ROAD
  4646.00    20.80   820.10    0.00     0.00   820.10    0.00     0.00     0.00   810.00
     680.     165.     312.     203.     1312.    386.    1899.     81.      11.    810.00
     1.16     0.13     0.81     0.11     0.100   0.013    0.100   0.000   799.30  198.02
 0.000005     106.     106.     106.       0       0        0   -175.16  592.38  790.40

CCHV=    0.100 CEHV=    0.300
*SECNO 4647.000
  4647.00    20.80   820.10    0.00     0.00   820.10    0.00     0.00     0.00   810.00
     680.     219.     192.     268.     1315.    554.    1903.     81.      11.    810.00
     1.16     0.17     0.35     0.14     0.065   0.045    0.065   0.000   799.30  198.02
 0.000003       1.       1.       1.       0       0        0     0.00   592.38  790.40

*SECNO 4728.000

3470 ENCROACHMENT STATIONS=      107.0      683.0  TYPE=      1  TARGET=      576.000
  4728.00    19.40   820.10    0.00     0.00   820.10    0.00     0.00     0.00   801.90
     680.     298.      68.     314.     2557.    282.    2843.      90       12.    803.40
     1.34     0.12     0.24     0.11     0.065   0.045    0.065   0.000   800.70  107.00
 0.000001      81       81.      81.       0       0        0     0.00   576.00  683.00

*SECNO 4812.000
  4812.00    18.00   820.10    0.00     0.00   820.10    0.00     0.00     0.00   811 00
     680.     335.      92.     253.     1746.    318.    1584.     99.      13.    811.50
     1.46     0.19     0.29     0.16     0.065   0.045    0.065   0.000   802.10   69.27
 0.000004      84.      84.      84.       0       0        0     0.00   533.66  602.93

CCHV=    0.300 CEHV=    0 500
*SECNO 4813.000

3370 NORMAL BRIDGE, NRD= 34 MIN ELTRD=  810.10 MAX ELLC=  808.10

          D/S FACE OF ENTRANCE ROAD TO APT. COMPLEX
  4813.00    18.00   820.10    0.00     0.00   820.11    0.00     0.00     0.00   811.00
     680.     287.     176.     217.     1746.    228.    1584.     99.      13.    811.50
     1.46     0.16     0.77     0.14     0.100   0.013    0.100   0.000   802.10   69.27
 0.000007       1.       1.       1.       0       0        0   -90.58   533.65  602.92
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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       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 4846.000

3370 NORMAL BRIDGE,NRD= 34 MIN ELTRD=  810.10 MAX ELLC=  808.10

          U/S FACE OF ENTRANCE ROAD TO APT. COMPLEX
  4846.00     18.00     820.10      0.00      0.00     820.11      0.00      0.00      0.00    811.00
     680.      287.      176.      217.      1746.      228.      1583.      102.       14.     811.50
    1.49      0.16      0.78      0.14     0.100     0.013     0.100     0.000    802.10     69.28
0.000007       33.       33.       33.         0         0         0    -90.58    533.62    602.90


CCHV=   0.100 CEHV=   0.300
*SECNO 4847.000
  4847.00     18.01     820.11      0.00      0.00     820.11      0.00      0.00      0.00    811.00
     680.       335        92.      253.      1746.      318.      1583.      102.       14.     811.50
    1.49      0.19      0.29      0.16     0.065     0.045     0.065     0.000    802.10     69.28
0.000004         1.        1.        1.         0         0         0      0.00    533.62    602.90
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*SECNO 4946.000

3470 ENCROACHMENT STATIONS=      119.0      641.0  TYPE=      1  TARGET=      522.000
  4946.00     17.31     820.11      0.00      0.00     820.11      0.00      0.00      0.00    804.00
     680.      309.        87.      283.      1925.      250.      1866.      111.       15.     805.50
    1.65      0.16      0.35      0.15     0.065     0.045     0.065     0.000    802.80    119.00
0.000003       99.       99.       99.         0         0         0      0.00    522.00    641.00


*SECNO 5146.000
          CROSS SECTION N
  5146.00     16.41     820.11      0.00      0.00     820.11      0.00      0.00      0.00    804.90
     680.      334.      105.      241.      1717.      237.      1146.      127.       17.     806.40
    1.88      0.19      0.44      0.21     0.065     0.045     0.065     0.000    803.70     98.93
0.000005      200.      200.      200.         0         0         0      0.00    422.35    521.28


CCHV=   0.500 CEHV=   1.000
*SECNO 6108.000

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=       20.0      155.0  TYPE=      1  TARGET=      135.000
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
6108.00	9.22	820.12	0.00	0.00	820 17	0.05	0.01	0.05	823.20
680.	0.	675.	5.	0.	375.	33.	166.	23.	820.50
2.03	0.00	1.80	0.14	0.000	0.013	0.065	0.000	810.90	55.30
0.000029	962.	962	962.	0	0	0	0.00	97.43	155.00

*SECNO 6133.000

3265 DIVIDED FLOW

3280 CROSS SECTION 6133.00 EXTENDED 0.62 FEET

6133.00	7.72	820.12	0.00	0.00	820.21	0.09	0.00	0.04	824.70
680.	0.	675.	5.	0.	276.	38.	166.	23.	822.00
2.03	0.00	2.45	0.13	0.000	0.013	0.065	0.000	812.40	60.28
0.000065	25.	25.	25.	0	0	0	0.00	123.90	206.00

*SECNO 6148.000

3265 DIVIDED FLOW

3280 CROSS SECTION 6148.00 EXTENDED 0.42 FEET

CROSS SECTION 0

6148.00	7 52	820.12	0.00	0.00	820.22	0.10	0.00	0.01	824.90
680.	0.	677.	3.	0.	264.	25.	166.	23.	822.20
2.03	0.00	2.57	0.12	0.000	0.013	0.065	0.000	812.60	60.94
0.000074	15.	15.	15.	0	0	0	0.00	118.18	206.00

*SECNO 6335.000

3280 CROSS SECTION 6335.00 EXTENDED 0.54 FEET

3470 ENCROACHMENT STATIONS= 19.0 72.0 TYPE= 1 TARGET= 53.000

6335.00	4.05	820.15	0.00	0.00	820.68	0.53	0.03	0.43	823.40
680.	0.	680.	0.	0.	116.	0.	167.	23.	100000.00
2.04	0.00	5.86	0.00	0.000	0.013	0.000	0.000	816.10	33.29
0.000682	187.	187.	187.	1	0	0	0.00	38.71	72.00

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 6355.000									
6355.00	4.07	820.17	0.00	0.00	820.89	0.72	0.02	0.19	825.50
680.	0.	677.	3.	0.	99	6.	167.	23.	819.20
2.04	0.00	6.83	0.42	0.000	0.013	0.065	0.000	816.10	37.19
0.000919	20.	20.	20.	0	0	0	0.00	47.19	84.38
*SECNO 6380.000									
CROSS SECTION P									
6380.00	4.09	820.19	0.00	0.00	820.92	0.73	0.02	0.01	825.70
680.	0.	679.	1.	0.	99.	4.	167.	23.	819.40
2.04	0.00	6.87	0.37	0.000	0.013	0.065	0.000	816.10	37.38
0.000934	25.	25.	25.	0	0	0	0.00	44.78	82.16
*SECNO 6730.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
CROSS SECTION Q									
6730.00	3.75	823.45	823.45	0.00	824.52	1.07	0.89	0.34	826.10
680.	0.	508.	172.	0.	55.	36.	168.	24.	821.00
2.05	0.00	9.20	4.81	0.000	0.045	0.065	0.000	819.70	120.57
0.020704	350.	350.	350.	3	11	0	0.00	41.92	162.49

CCHV= 0.500 CEHV= 1.000
*SECNO 6865.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

D/S FACE OF TRAVER ROAD									
6865.00	5.46	827.36	827.36	0.00	829.29	1.94	0.83	0.86	831.00
680.	0.	680.	0.	0.	61.	0.	168.	24.	831.40
2.06	0.00	11.17	0.00	0.000	0.013	0.000	0.000	821.90	141.93
0.002924	135.	135.	135.	3	14	0	0.00	16 02	157.95

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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	3.00	0.00	7.85	0.00	39.26	0.00	821.90	821.90

*SECNO 6946.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
834.35	829.29	0.00	141.	543.	39.	39.	826.90	831.60

U/S FACE OF TRAVER ROAD

6946.00	9.52	831.42	0.00	0.00	831.81	0.39	2.51	0.00	831.00
680.	3.	677.	0.	16.	134.	0.	168.	24.	831.40
2.06	0.20	5.03	0.00	0.060	0.013	0.000	0.000	821.90	81.91
0.000307	81.	81.	81.	2	0	5	0.00	78.94	160.85

CCHV= 0.100 CEHV= 0.300

*SECNO 6947.000

6947.00	9.53	831.43	0.00	0.00	831.81	0.38	0.00	0.00	831.00
680.	12.	668.	0.	17.	135.	0.	168.	24	831.40
2.06	0.71	4.96	0.01	0.060	0.045	0.060	0.000	821.90	81.17
0.003572	1.	1.	1.	1	0	0	0.00	80.12	161.30

THIS RUN EXECUTED 3 MAR 89 10:49:19

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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

10-YEAR FLOOD

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	756.64	290.00	759.57	0.00	759.81	26.85	3.95	73.41	55.96
0.000	0.00	0.00	0.00	756.64	380.00	760.07	0.00	760.36	26.90	4.32	87.93	73.27
0.000	0.00	0.00	0.00	756.64	430.00	760.34	0.00	760.65	26.73	4.49	95.80	83.17
0.000	0.00	0.00	0.00	756.64	530.00	760.81	0.00	761.17	26.94	4.81	110.15	102.12
42.000	42.00	762.80	761.10	757.00	290.00	759.64	0.00	760.04	52.50	5.06	57.37	40.03
42.000	42.00	762.80	761.10	757.00	380.00	760.13	0.00	760.61	53.54	5.59	68.02	51.94
42.000	42.00	762.80	761.10	757.00	430.00	760.38	0.00	760.91	54.00	5.84	73.59	58.52
42.000	42.00	762.80	761.10	757.00	530.00	760.84	0.00	761.46	56.42	6.36	83.36	70.56
67.000	25.00	0.00	0.00	756.30	290.00	759.76	0.00	760.29	39.18	6.07	56.72	46.33
67.000	25.00	0.00	0.00	756.30	380.00	760.25	0.00	760.93	42.03	6.87	66.95	58.62
67.000	25.00	0.00	0.00	756.30	430.00	760.50	0.00	761.26	43.00	7.24	72.70	65.58
67.000	25.00	0.00	0.00	756.30	530.00	760.96	0.00	761.85	44.77	7.93	83.90	79.21
92.000	25.00	0.00	0.00	756.50	290.00	759.86	0.00	760.58	43.11	6.92	50.04	44.17
92.000	25.00	0.00	0.00	756.50	380.00	760.36	0.00	761.25	44.33	7.75	60.25	57.08
92.000	25.00	0.00	0.00	756.50	430.00	760.61	0.00	761.59	44.60	8.14	65.98	64.38
92.000	25.00	0.00	0.00	756.50	530.00	761.07	0.00	762.23	45.70	8.88	76.90	78.40
97.000	5.00	0.00	0.00	756.50	290.00	759.89	0.00	760.60	42.42	6.89	50.33	44.53
97.000	5.00	0.00	0.00	756.50	380.00	760.39	0.00	761.27	43.65	7.71	60.60	57.52
97.000	5.00	0.00	0.00	756.50	430.00	760.65	0.00	761.62	43.76	8.09	66.46	65.00
97.000	5.00	0.00	0.00	756.50	530.00	761.11	0.00	762.26	44.92	8.83	77.43	79.08
102.000	5.00	0.00	0.00	756.50	290.00	759.94	0.00	760.62	39.71	6.75	51.54	46.02
102.000	5.00	0.00	0.00	756.50	380.00	760.45	0.00	761.30	40.69	7.55	62.21	59.57
102.000	5.00	0.00	0.00	756.50	430.00	760.71	0.00	761.64	41.01	7.93	68.14	67.15
102.000	5.00	0.00	0.00	756.50	530.00	761.19	0.00	762.28	41.97	8.65	79.55	81.81
107.000	5.00	0.00	0.00	756.50	290.00	759.97	0.00	760.64	38.86	6.71	51.94	46.52
107.000	5.00	0.00	0.00	756.50	380.00	760.49	0.00	761.32	39.71	7.49	62.78	60.30
107.000	5.00	0.00	0.00	756.50	430.00	760.75	0.00	761.66	40.07	7.87	68.75	67.93
107.000	5.00	0.00	0.00	756.50	530.00	761.22	0.00	762.30	41.08	8.59	80.24	82.69

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
112.000	5.00	0.00	0.00	756.50	290.00	760.00	0.00	760.66	37.42	6.63	52.65	47.41
112.000	5.00	0.00	0.00	756.50	380.00	760.54	0.00	761.34	37.60	7.36	64.09	61.97
112.000	5.00	0.00	0.00	756.50	430.00	760.80	0.00	761.69	37.94	7.74	70.22	69.81
112.000	5.00	0.00	0.00	756.50	530.00	761.29	0.00	762.33	38.81	8.44	82.08	85.07
117.000	5.00	0.00	0.00	756.50	290.00	760.04	0.00	760.68	36.03	6.55	53.37	48.31
117.000	5.00	0.00	0.00	756.50	380.00	760.56	0.00	761.36	36.94	7.32	64.52	62.52
117.000	5.00	0.00	0.00	756.50	430.00	760.83	0.00	761.71	37.31	7.70	70.67	70.39
117 000	5.00	0.00	0.00	756.50	530.00	761.32	0.00	762.35	38.07	8.39	82.72	85.90
147.000	30.00	0.00	0 00	756.00	290.00	760.01	0.00	760 92	82.85	7.78	43.22	31.86
147.000	30.00	0.00	0.00	756.00	380.00	760.51	0.00	761.61	82.16	8.59	53.38	41 92
147.000	30.00	0.00	0.00	756.00	430.00	760.77	0.00	761.96	81.52	8.98	59.05	47.63
147.000	30.00	0.00	0.00	756.00	530.00	761.25	760.91	762.61	80.88	9.68	70.15	58.93
206.000	59.00	0.00	0.00	756.70	290.00	760.46	0.00	761.43	83.24	8.09	43.76	31.79
206.000	59.00	0.00	0.00	756.70	380.00	760.93	0.00	762.14	87.20	9.10	52.96	40.69
206.000	59.00	0.00	0.00	756.70	430.00	761.17	760.92	762.51	88.62	9.58	57.92	45.68
206.000	59.00	0.00	0.00	756.70	530.00	761.60	761.42	763.18	91.89	10.47	67.15	55.29
222.000	16.00	0.00	0.00	756.90	290.00	760.60	0.00	761.59	93.35	8.12	40.71	30.01
222.000	16.00	0.00	0 00	756.90	380.00	761.07	760.83	762.29	94.43	9.04	49.78	39.11
222.000	16.00	0.00	0.00	756.90	430.00	761.78	0.00	762.79	61.65	8.29	64.95	54.76
222.000	16.00	0.00	0.00	756.90	530.00	762.53	0.00	763.56	51.30	8.47	83.04	73.99
237.000	15.00	0.00	0.00	757.20	290.00	761.22	0.00	761.72	34.44	5.84	60.61	49.42
237.000	15.00	0.00	0.00	757.20	380.00	761.82	0.00	762.43	34.47	6.47	74.54	64.72
237.000	15.00	0.00	0.00	757.20	430.00	762.27	0.00	762.89	30.77	6.55	85.85	77.51
237.000	15.00	0.00	0.00	757.20	530.00	762.98	0.00	763.65	28.04	6.88	105.30	100.09
252.000	15.00	0.00	0.00	757.40	290.00	761.15	0.00	761.85	62.26	6.79	48.91	36.75
252.000	15.00	0.00	0.00	757.40	380.00	761.77	0.00	762.55	55.50	7.26	62.72	51.01
252.000	15.00	0.00	0.00	757.40	430.00	762.23	0.00	762.99	46.51	7.21	73.98	63.05
252.000	15.00	0.00	0.00	757.40	530.00	762.95	0.00	763.74	39.39	7.40	93.35	84 44
267.000	15.00	0.00	0.00	757.70	290.00	761.41	0.00	761.94	46.12	6.02	57.15	42.70
267.000	15.00	0.00	0.00	757.70	380.00	762.03	0.00	762.64	41.34	6.45	72.92	59.10
267.000	15.00	0.00	0.00	757.70	430.00	762.46	0.00	763.07	36.08	6.48	84.42	71.58
267.000	15.00	0.00	0.00	757.70	530.00	763.17	0.00	763.81	31.21	6.70	105.08	94.87
282.000	15.00	0.00	0.00	758.00	290.00	761.56	0.00	762.01	38.99	5.56	63.52	46.44
282.000	15.00	0.00	0.00	758.00	380.00	762.19	0.00	762.71	34.77	5.95	80.68	64.45
282.000	15.00	0.00	0.00	758.00	430.00	762.61	0.00	763.13	30.66	6.00	92.62	77.65
282.000	15.00	0.00	0.00	758.00	530.00	763.31	0.00	763.86	26.70	6.22	114.13	102.56
372.000	90.00	0.00	0.00	758.00	290.00	761.95	0.00	762 62	47.42	6.96	59.30	42 11
372.000	90.00	0.00	0.00	758.00	380.00	762.56	0.00	763.36	47.22	7.69	73.67	55.30
372.000	90.00	0.00	0.00	758.00	430.00	762.94	0.00	763.77	44.11	7.87	83.67	64.75
372 000	90.00	0.00	0.00	758.00	530.00	763.61	0.00	764.52	41.09	8.31	102.15	82.68

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
430.000	58.00	0.00	0.00	758.50	290.00	762.42	0.00	762.99	67.59	6.08	47.71	35.27
430.000	58 00	0.00	0.00	758.50	380.00	763.20	0.00	763.77	54.18	6.04	62.90	51.62
430.000	58.00	0.00	0.00	758.50	430.00	763.62	0.00	764.17	48.44	6.00	71.72	61.78
430.000	58.00	0.00	0.00	758.50	530.00	764.38	0.00	764.93	39.83	5 95	89 05	83.97
431.000	1.00	765.00	764.00	758.50	290.00	762.43	0.00	763.00	67.54	6.08	47 72	35.29
431.000	1 00	765 00	764.00	758.50	380.00	763.22	0.00	763 78	53.54	6.02	63.17	51.93
431.000	1.00	765.00	764.00	758.50	430.00	763.63	0.00	764.18	47.97	5.97	71.98	62.08
431.000	1.00	765.00	764.00	758.50	530.00	764.39	0.00	765.06	124.59	6.58	80.50	47.48
435.000	4.00	765.00	764.00	758.50	290.00	762.51	0.00	763 04	62.03	5.89	49.21	36.82
435.000	4.00	765.00	764.00	758.50	380 00	763.27	0.00	763.81	50.62	5.89	64.48	53.41
435.000	4.00	765.00	764.00	758.50	430.00	763.66	0.00	764.21	46.72	5.92	72.68	62.91
435.000	4.00	765.00	764.00	758.50	530.00	764.44	0.00	765.11	124.59	6.58	80.50	47.48
436.000	1.00	0.00	0.00	758.50	290.00	762.52	0.00	763.05	61.65	5.88	49.32	36.93
436.000	1.00	0.00	0.00	758.50	380.00	763.28	0.00	763.82	49.58	5.90	64.43	53.97
436.000	1.00	0.00	0.00	758.50	430.00	763.67	0.00	764.21	45.35	5.94	72.41	63.85
436.000	1.00	0.00	0.00	758.50	530.00	764.72	0.00	765.21	30.57	5.60	95.37	95 86
452.000	16.00	0.00	0.00	758.60	290.00	762.50	0.00	763.19	55.40	6.76	49.48	38.96
452.000	16.00	0.00	0.00	758.60	380.00	763.19	0.00	763.97	48.58	7.21	63.34	54.52
452.000	16.00	0.00	0.00	758.60	430.00	763.55	0.00	764.37	45.75	7.42	71.07	63.57
452.000	16.00	0.00	0.00	758.60	530.00	764.59	0.00	765.34	31.95	7.17	98 94	93.77
577.000	125.00	0.00	0.00	759.00	290.00	763.10	0.00	763.97	60.47	7.66	47.08	37.29
577.000	125.00	0.00	0.00	759.00	380.00	763.67	0.00	764.74	62.48	8.58	57.13	48.07
577.000	125.00	0.00	0.00	759.00	430.00	763.96	0 00	765.14	62.87	9.01	62.70	54.23
577.000	125 00	0.00	0.00	759.00	530.00	764.77	0.00	765.98	52.36	9.19	80.34	73.24
647.000	70.00	0.00	0.00	759.00	290.00	763.56	0.00	764.39	59.20	8.10	53.82	37.69
647.000	70.00	0.00	0.00	759.00	380.00	764.27	0.00	765.16	53.55	8.59	70.11	51.93
647.000	70.00	0.00	0 00	759.00	430.00	764.64	0.00	765.57	51.33	8.82	79.05	60.02
647.000	70.00	0.00	0.00	759.00	530.00	765.48	0.00	766.34	41.19	8.74	102.26	82.58
662.000	15.00	0.00	0 00	759.20	290.00	763.81	0.00	764.48	42.51	7.13	58.60	44.48
662.000	15.00	0.00	0.00	759.20	380.00	764.49	0.00	765.25	41.26	7.75	74.30	59.16
662.000	15.00	0.00	0.00	759.20	430.00	764.85	0.00	765.65	39.90	8.00	83.40	68.08
662.000	15.00	0.00	0.00	759.20	530.00	765.59	0.00	766.40	35.30	8.21	103.52	89.21
677.000	15.00	0.00	0.00	759.40	290.00	763.71	0.00	764.65	75.72	8.20	46.51	33.33
677.000	15.00	0.00	0 00	759.40	380.00	764.42	0.00	765.38	63.49	8.49	64.18	47.69
677.000	15.00	0.00	0.00	759.40	430.00	764.81	0.00	765.76	57.20	8.55	74.85	56.85
677.000	15.00	0.00	0.00	759.40	530.00	765.60	0.00	766.48	45.06	8.43	98.77	78.95
692.000	15.00	0 00	0.00	759.60	290.00	764.18	0.00	764.76	40.52	6.51	60.31	45.56
692.000	15.00	0.00	0.00	759.60	380.00	764.82	0.00	765.49	39.11	7.08	76.23	60.76
692.000	15.00	0.00	0.00	759.60	430.00	765.17	0.00	765.86	37.31	7.27	85.71	70.40
692.000	15.00	0.00	0.00	759.60	530.00	765.85	0.00	766.55	33.28	7.49	105 54	91 88

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	707.000	15.00	0.00	0.00	759.80	290.00	764.14	0.00	764.88	54 80	7.40	53.48	39.17
	707.000	15.00	0.00	0.00	759.80	380.00	764.78	0.00	765.60	50.74	7.92	68.88	53.35
	707.000	15.00	0.00	0.00	759.80	430.00	765.13	0.00	765 97	48.10	8.11	77.79	62.00
	707.000	15.00	0.00	0.00	759.80	530.00	765.80	0.00	766.66	42.71	8.35	96.67	81.10
	722.000	15.00	0.00	0.00	760.00	290.00	764.15	0.00	765.00	62.56	7.83	48.99	36.66
	722.000	15.00	0.00	0.00	760.00	380.00	764.73	0.00	765.74	62.49	8.64	60.69	48.07
	722.000	15.00	0.00	0.00	760.00	430.00	765.04	0.00	766.12	61.27	8.97	67.46	54.93
	722.000	15.00	0.00	0.00	760.00	530.00	765.68	0.00	766.81	55.36	9.31	82.45	71.23
	736.000	14.00	0.00	0.00	760.10	290.00	764.48	0.00	765.10	39.73	6.61	57.28	46.01
	736.000	14.00	0.00	0.00	760.10	380.00	765.09	0.00	765 84	40.86	7.36	69.92	59.45
	736 000	14.00	0.00	0.00	760.10	430.00	765.40	0.00	766.22	41.05	7 72	76.92	67.11
	736.000	14.00	0.00	0.00	760.10	530.00	765.95	0.00	766.90	41.86	8.38	90.08	81 91
	752 000	16.00	0.00	0.00	760.30	290.00	764 79	0.00	765.17	22.91	5.22	72.04	60.58
	752.000	16.00	0.00	0.00	760.30	380.00	765.46	0.00	765.92	22.71	5.75	88.93	79.75
	752.000	16.00	0.00	0.00	760.30	430.00	765.81	0 00	766.30	22.61	6.00	98 03	90 43
	752.000	16.00	0.00	0.00	760.30	530.00	766.42	0.00	766.98	22.72	6.48	115.05	111.19
	767.000	15.00	0.00	0.00	760.30	290.00	764.94	0.00	765.21	15.31	4.37	83.90	74.13
	767.000	15.00	0.00	0.00	760.30	380.00	765.64	0.00	765.96	15.07	4.80	103.03	97.90
	767.000	15.00	0.00	0.00	760.30	430.00	765.99	0.00	766.34	14.97	5.01	113.27	111.12
	767.000	15.00	0.00	0.00	760.30	530.00	766.63	0.00	767.03	15.01	5.40	132.56	136.79
	794.000	27.00	0.00	0.00	760.70	290.00	764.91	0.00	765.37	54.36	5.56	57.18	39.33
	794.000	27.00	0.00	0.00	760.70	380.00	765.62	0.00	766.11	45.36	5.81	75.51	56.42
	794.000	27.00	0.00	0.00	760.70	430.00	765.98	0.00	766.49	42.03	5.93	85.81	66.33
	794.000	27.00	0.00	0.00	760.70	530.00	766.62	0.00	767.16	37.74	6.17	106.00	86.27
*	874.000	80.00	770 00	769.50	762.90	290.00	766.01	766.01	767.31	260.47	9.13	31.78	17.97
*	874.000	80.00	770.00	769.50	762.90	380.00	766.51	766.51	768.07	280.86	10.02	37.94	22.67
*	874.000	80.00	770.00	769.50	762.90	430.00	766.75	766.75	768.47	295.52	10.50	40.95	25.01
*	874.000	80.00	770.00	769.50	762.90	530.00	767.22	767.22	769.24	326.58	11.40	46.47	29.33
	952.000	78.00	0.00	0 00	762.50	290.00	767.66	0.00	768.06	27.39	5.27	71.58	55.42
	952.000	78.00	0.00	0.00	762.50	380.00	768.45	0.00	768.84	22.56	5.40	103.79	80.00
	952.000	78.00	0.00	0.00	762.50	430.00	768.87	0.00	769.26	20.26	5.42	121.82	95.53
	952.000	78.00	0.00	0.00	762.50	530.00	769.71	0.00	770.07	16.33	5.39	159.73	131.15
	1055.000	103.00	0.00	0.00	763.50	290.00	768.11	0.00	768.22	6.92	2.73	122.29	110.21
	1055.000	103.00	0.00	0.00	763.50	380.00	768.85	0 00	768.98	6.35	2.95	153.97	150.75
	1055.000	103.00	0.00	0.00	763.50	430.00	769.26	0.00	769.39	6.01	3.03	171.76	175.41
	1055.000	103.00	0.00	0.00	763.50	530.00	770.04	0.00	770.19	5.37	3.16	207.03	228.66
	1056.000	1.00	768.50	767.50	763.50	290.00	768.07	0.00	768.23	31.41	3.28	99.10	51.74
	1056.000	1.00	768.50	767.50	763.50	380.00	768.79	0.00	769.01	68.10	3.90	111.44	46.05
	1056.000	1.00	768.50	767.50	763.50	430.00	769.20	0.00	769.42	57.92	3.87	129.52	56.50
	1056.000	1.00	768.50	767.50	763.50	530.00	770.00	0.00	770.21	44.20	3.83	165.27	79.72

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	1061.000	5.00	768.50	767.50	763.50	290.00	768.09	0.00	768.25	31.41	3.28	99.10	51.74
	1061.000	5.00	768.50	767.50	763.50	380.00	768.83	0.00	769.05	65.33	3.85	113.18	47.02
	1061.000	5.00	768.50	767.50	763.50	430.00	769.23	0 00	769.44	56.65	3.85	130.56	57.13
	1061.000	5.00	768.50	767.50	763.50	530 00	770.02	0.00	770.23	43.59	3.81	166.08	80 28
	1062.000	1.00	0.00	0.00	763.50	290.00	768.15	0.00	768.26	6.67	2.70	123.97	112.31
	1062.000	1.00	0.00	0.00	763.50	380.00	768.93	0.00	769.06	5 99	2.89	157.39	155.33
	1062.000	1.00	0.00	0.00	763.50	430.00	769.33	0.00	769.45	5.73	2.99	174.68	179.62
	1062.000	1.00	0.00	0.00	763.50	530.00	770.10	0.00	770.24	5.22	3.13	209.17	232.05
	1137.000	75.00	0.00	0.00	764.20	290.00	768.09	0.00	768 41	24.34	4.80	79.49	58.79
	1137.000	75.00	0.00	0.00	764.20	380.00	768.88	0.00	769.19	18.99	4.86	107.65	87.21
	1137.000	75.00	0.00	0.00	764.20	430.00	769.27	0.00	769.58	17.31	4.92	123.27	103.37
	1137.000	75.00	0.00	0.00	764.20	530.00	770.04	0.00	770.35	14.44	4.98	156.05	139.47
*	1226.000	89.00	0.00	0.00	765.20	290.00	768.12	768.12	769.19	124.03	8.70	42.96	26.04
*	1226.000	89.00	0.00	0.00	765.20	380.00	768.58	768.58	769.81	116.13	9.42	54.35	35.26
	1226.000	89.00	0.00	0.00	765.20	430.00	768.99	768 76	770.13	92.81	9.17	65.92	44.64
	1226.000	89.00	0.00	0.00	765.20	530.00	769.89	0.00	770.74	54.57	8.23	112.47	71.75
*	1327.000	101.00	0.00	0.00	766.30	290.00	769.77	769.77	770.90	137.88	8.60	36.86	24.70
*	1327.000	101.00	0.00	0.00	766.30	380.00	770.22	770.22	771.55	130.96	9.39	46.06	33.21
*	1327.000	101.00	0.00	0.00	766.30	430.00	770.53	770.53	771.88	116.52	9.50	53.01	39.84
*	1327.000	101.00	0.00	0.00	766.30	530.00	771.02	771.02	772.46	104.35	9.91	67.29	51.88
*	1428.000	101.00	0.00	0.00	767.80	290.00	771.28	771.28	772.40	136.34	8.57	37.02	24.84
*	1428.000	101.00	0.00	0.00	767.80	380.00	771.74	771.74	773.05	126.72	9.30	46.64	33.76
*	1428.000	101.00	0.00	0.00	767.80	430.00	772.02	772.02	773.38	117.42	9.52	52.85	39.68
*	1428.000	101.00	0.00	0.00	767.80	530.00	772.52	772.52	773.96	104.05	9.90	67.39	51.96
	1463.000	35.00	0.00	0.00	768.20	290.00	772.79	0.00	772.99	15.81	3.54	81.89	72.93
	1463.000	35.00	0.00	0.00	768.20	380.00	773.48	0.00	773.71	16.20	3.85	98.71	94.42
	1463.000	35.00	0.00	0.00	768.20	430.00	773.81	0.00	774.06	16.58	4.02	107.09	105.62
	1463.000	35.00	0.00	0.00	768.20	530.00	774.37	0.00	774.66	17.44	4.33	122.44	126.90
	1530.000	67.00	774.70	773.70	768.70	290.00	773.02	0.00	773.74	108.94	6.81	42.58	27.79
	1530.000	67.00	774.70	773.70	768.70	380.00	775.11	0.00	775.23	6.48	2.80	167.05	149.23
	1530.000	67.00	774.70	773.70	768.70	430.00	775.28	0.00	775.41	7.20	3.02	187.58	160.24
	1530.000	67.00	774.70	773.70	768.70	530.00	775.54	0.00	775.72	8.72	3.44	220.68	179.45
	1612.000	82.00	0.00	0.00	770.20	290.00	774.04	0.00	774.30	21.26	4.45	108.69	62.89
	1612.000	82.00	0.00	0.00	770.20	380.00	775.17	0 00	775.32	9.98	3.68	229.97	120.29
	1612.000	82.00	0.00	0.00	770.20	430.00	775.35	0.00	775.51	10.41	3.86	257.79	133.25
	1612.000	82.00	0.00	0.00	770.20	530.00	775.62	0.00	775.81	11.70	4.25	303.10	154.96
	1887.000	275.00	0.00	0.00	771.40	290.00	774.88	0.00	775.11	45.08	5.33	128.91	43.19
	1887.000	275.00	0.00	0.00	771.40	380.00	775 58	0.00	775.68	18.25	3.95	221.82	88.94
	1887.000	275.00	0.00	0.00	771.40	430.00	775.77	0.00	775.87	17.16	3.97	247.88	103.80
	1887.000	275.00	0.00	0.00	771.40	530.00	776 08	0.00	776.18	16.16	4.08	293.92	131.82

	SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	1997.000	110.00	0.00	0.00	772.00	290.00	775.39	0.00	775.69	57.23	5.86	116.46	38.34
	1997.000	110.00	0.00	0.00	772.00	380.00	775.79	0.00	776.00	39.06	5.32	165.19	60.81
	1997.000	110.00	0.00	0.00	772.00	430.00	775.96	0.00	776.16	35.60	5.28	186.56	72.07
	1997.000	110.00	0.00	0.00	772.00	530.00	776.26	0.00	776.45	31.75	5.30	224.43	94.07
*	2052.000	55.00	0.00	0.00	772.50	290.00	775.93	775.93	776.44	81.88	7.08	101.21	32.05
*	2052.000	55.00	0.00	0.00	772.50	380.00	776.21	776.21	776.74	81.43	7 55	127.75	42.11
	2052.000	55.00	0.00	0.00	772.50	430.00	776.26	0.00	776.88	94.48	8.23	132.96	44.24
	2052.000	55.00	0.00	0.00	772.50	530.00	776.54	0.00	777.15	89.52	8.50	159.83	56.02
	2108.000	56.00	0.00	0.00	772.70	290.00	776.57	776 29	777.14	105.79	6.11	53.59	28.20
	2108.000	56.00	0.00	0.00	772.70	380.00	776.89	776.68	777.55	113.27	6.64	71.72	35.70
	2108.000	56.00	0.00	0.00	772.70	430.00	777.03	776.92	777.73	119.70	6.97	80.61	39.30
	2108.000	56.00	0.00	0.00	772.70	530.00	777.31	777.23	778.06	122.30	7.36	100.51	47.93
	2487.000	379.00	0.00	0.00	775.70	290.00	779.61	0.00	780.20	62.39	6.38	56.45	36.71
	2487.000	379.00	0.00	0.00	775.70	380.00	780.02	779.66	780 69	62.34	6.90	75.62	48.13
	2487.000	379.00	0.00	0.00	775.70	430.00	780.23	0.00	780.90	60.45	7.02	87.44	55.30
	2487.000	379.00	0.00	0.00	775.70	530.00	780.57	0.00	781.28	61.01	7.40	107.13	67.86
	2665.000	178.00	0.00	0.00	777.50	290.00	781.01	780.86	781.90	104.05	7.68	43.21	28.43
*	2665.000	178.00	0.00	0.00	777.50	380.00	781.44	781 44	782.43	103.04	8.25	57 69	37.44
*	2665.000	178.00	0.00	0.00	777.50	430.00	781.72	781.72	782.67	92.65	8.17	70.62	44 67
*	2665.000	178.00	0.00	0.00	777.50	530.00	782.11	782.11	783.04	83.20	8.34	91.93	58.11
	2845.000	180.00	0.00	0.00	779.40	290.00	783.17	0.00	783.76	88.24	6.18	47.04	30.87
	2845.000	180.00	0.00	0.00	779.40	380.00	783.57	0.00	784.26	84.67	6.65	58.51	41.30
	2845.000	180.00	0.00	0.00	779.40	430.00	783.62	0.00	784.46	101.22	7.35	60.13	42.74
	2845.000	180.00	0.00	0.00	779.40	530.00	783.85	783.75	784.88	114.72	8.17	67.77	49.48
*	2900.000	55.00	0.00	0.00	781.00	290.00	784.44	784.44	785.31	152.13	7.48	38.79	23.51
*	2900.000	55.00	0.00	0.00	781.00	380.00	784.81	784.81	785.79	143.98	7.96	47.90	31 67
*	2900.000	55.00	0.00	0.00	781.00	430.00	785.00	785.00	786.04	138.53	8.18	53.21	36.53
*	2900.000	55.00	0.00	0.00	781.00	530.00	785.37	785.37	786.48	127.75	8.49	64.82	46.89
*	2951.000	51.00	0.00	0.00	782.00	290.00	785.69	785.69	786.96	171.97	9.04	32.08	22.11
*	2951.000	51.00	0.00	0.00	782.00	380.00	786.25	786.25	787.69	167.19	9.63	39.47	29.39
*	2951.000	51.00	0.00	0.00	782.00	430.00	786.53	786.53	788.05	165.02	9.90	43.43	33.47
*	2951.000	51.00	0.00	0.00	782.00	530.00	787.04	787.04	788.72	161.66	10.38	51.05	41.68
	3137.000	186.00	0.00	0.00	784.00	290.00	788.23	0.00	788.63	50.52	5.59	73.98	40.80
	3137.000	186.00	0.00	0.00	784.00	380.00	788.85	0.00	789.27	46.51	5.93	95.56	55.72
	3137.000	186.00	0.00	0.00	784.00	430.00	789.16	0.00	789.59	44.36	6.06	107.41	64.56
	3137.000	186.00	0.00	0.00	784.00	530.00	789.73	0.00	790.17	40.03	6.23	135.35	83.77
	3331.000	194.00	0.00	0.00	785.00	290.00	789.33	0.00	789.95	85.40	6.57	53.59	31.38
	3331.000	194.00	0.00	0.00	785.00	380.00	789.83	0.00	790.56	86.69	7.27	66.02	40.81
	3331.000	194.00	0.00	0.00	785.00	430.00	790.08	0.00	790.86	86.93	7.59	72.69	46.12
	3331.000	194.00	0.00	0.00	785.00	530.00	790.53	0.00	791.40	86.61	8.12	85.79	56.95

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	3587.000	256.00	0.00	0.00	788.50	290.00	791.36	0.00	792.18	85.93	7.46	48.11	31.29
	3587.000	256.00	0.00	0.00	788.50	380.00	791.82	0.00	792.81	84.49	8.23	59.26	41.34
	3587.000	256.00	0.00	0.00	788.50	430.00	792.05	0 00	793.12	84.63	8.63	65.04	46.74
	3587.000	256.00	0.00	0.00	788.50	530.00	792.44	0.00	793.70	86.62	9.41	75.68	56.95
*	3764 000	177.00	0.00	0.00	791.30	290.00	794.42	794.42	795.60	124.18	8.86	38.83	26.02
*	3764.000	177.00	0.00	0.00	791.30	380.00	794.89	794.89	796.29	120.34	9.72	48.04	34.64
*	3764.000	177.00	0.00	0.00	791.30	430.00	795.14	795.14	796.64	117.41	10.11	53.08	39.68
*	3764.000	177.00	0.00	0.00	791.30	530.00	795.61	795.61	797.31	112.24	10.80	63.34	50.03
*	3794.000	30.00	0.00	0.00	791.10	290.00	794.71	794 71	796.38	33.96	10.35	28.03	49.76
*	3794.000	30.00	0.00	0.00	791.10	380.00	795.37	795.37	797.36	35.86	11.32	33.57	63.46
*	3794.000	30.00	0.00	0.00	791.10	430.00	795.71	795.71	797.86	36.71	11.77	36.53	70.97
*	3794.000	30.00	0.00	0.00	791.10	530.00	796.36	796.36	798.82	38.34	12.58	42.13	85.60
	3865.000	71.00	805 80	797 20	791.10	290.00	795.95	0.00	796.90	16.35	7.81	37.15	71.72
	3865.000	71.00	805.80	797.20	791.10	380.00	796.77	0.00	797.94	18.43	8.69	43.74	88.51
	3865.000	71.00	805 80	797.20	791.10	430.00	796.08	0.00	797.90	29.42	10.82	39.73	79.27
	3865.000	71.00	805 80	797.20	791.10	530.00	798.52	0.00	799.69	14.73	8.65	61.26	138.08
*	3900.000	35.00	0.00	0.00	792.80	290.00	796.91	796.91	798.04	128.70	8.58	35.22	25.56
*	3900.000	35.00	0.00	0.00	792.80	370.00	797.31	797.31	798.63	121.01	9.27	42.08	33.63
*	3900.000	35.00	0.00	0.00	792.80	420.00	797.54	797.54	798.97	116.98	9.65	46.24	38.83
	3900.000	35.00	0.00	0.00	792.80	520.00	798.88	0.00	799.86	48.71	8.04	71.48	74 50
	3986.000	86.00	820.80	797.80	792.80	290.00	807.63	0.00	807.65	0.33	1.39	271.39	507.42
	3986.000	86.00	820.80	797.80	792.80	370.00	814.77	0.00	814.79	0.12	1.14	450.21	1060.92
	3986.000	86.00	820.80	797.80	792.80	420.00	820.06	0.00	820 07	0.07	1.03	582.23	1561.16
	3986.000	86.00	820.80	797 80	792.80	520.00	821.44	0.00	821.46	0.09	1.21	616.68	1703.50
	4016.000	30.00	0.00	0.00	793.50	360.00	807.65	0.00	807.66	0.13	0.74	738 88	985.15
	4016.000	30.00	0.00	0.00	793.50	580.00	814.79	0.00	814.80	0.06	0.67	1345.77	2416.21
	4016.000	30.00	0.00	0 00	793.50	680.00	820.07	0.00	820.07	0.03	0.60	1794.57	3785.55
	4016.000	30.00	0.00	0.00	793.50	890.00	821.46	0.00	821.47	0.05	0.73	1912.72	4186.05
	4046.000	30.00	0.00	0.00	794.20	360.00	807.65	0.00	807.66	0.05	0.61	1178.24	1562.35
	4046.000	30.00	0.00	0.00	794.20	580.00	814.79	0.00	814.80	0.02	0.54	2212.73	3955.78
	4046.000	30.00	0.00	0.00	794.20	680.00	820.07	0.00	820.07	0.01	0.47	2978.32	6231.81
	4046.000	30.00	0.00	0.00	794.20	890.00	821.46	0.00	821 47	0.02	0.58	3179.88	6893.93
	4050.000	4.00	801.10	800.10	794.20	360.00	807.67	0 00	807.67	0.05	0.60	1204.97	1587.10
	4050.000	4.00	801.10	800.10	794.20	580.00	814.81	0.00	814.81	0.02	0.53	2273.29	4023.80
	4050.000	4.00	801.10	800.10	794.20	680.00	820.09	0.00	820.09	0.01	0.46	3064.89	6343.56
	4050.000	4.00	801.10	800.10	794.20	890.00	821.48	0.00	821.48	0.02	0.57	3274.13	7020.82
	4116.000	66.00	0.00	0.00	794.70	360.00	807 67	0.00	807.67	0 07	0.64	1258.09	1393.65
	4116.000	66.00	0.00	0.00	794.70	580.00	814.81	0.00	814.81	0.02	0.45	3047.67	4482.18
	4116.000	66.00	0.00	0.00	794.70	680.00	820.09	0.00	820.09	0.01	0.36	4529.21	7883.57
	4116.000	66.00	0.00	0.00	794.70	890.00	821.48	0.00	821.48	0.01	0.43	4922.32	8921.74

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
4216.000	100.00	0.00	0.00	794.70	360.00	807.67	0.00	807.67	0 06	0.60	1410 39	1463.42
4216.000	100.00	0.00	0.00	794.70	580.00	814.81	0.00	814.81	0.01	0.39	3880.01	5150.77
4216.000	100.00	0.00	0.00	794.70	680.00	820.09	0.00	820.09	0.01	0.30	6237.70	9578.66
4216.000	100.00	0.00	0.00	794.70	890.00	821.48	0.00	821.48	0.01	0.35	6909.84	11059.58
4316.000	100.00	0.00	0.00	794.70	360.00	807.67	0.00	807.67	0.06	0.60	1410.73	1463.84
4316.000	100.00	0.00	0.00	794.70	580.00	814.81	0.00	814.81	0.01	0.39	3880.27	5151.21
4316.000	100.00	0.00	0.00	794.70	680.00	820.09	0.00	820.09	0.01	0.30	6244.79	9541.16
4316.000	100.00	0.00	0.00	794.70	890.00	821.48	0.00	821.48	0.01	0.35	6951.26	11046.28
4372.000	56.00	0.00	0.00	795.60	360.00	807.67	0.00	807.68	0.17	0.98	808.29	873.89
4372.000	56.00	0.00	0.00	795.60	580.00	814.81	0.00	814.81	0.02	0.52	3186.72	3776.13
4372.000	56.00	0.00	0.00	795.60	680.00	820.09	0.00	820.09	0.01	0.34	6006.68	8072.38
4372.000	56.00	0.00	0.00	795.60	890.00	821.48	0.00	821.48	0.01	0.39	6864.03	9718.95
4376.000	4.00	801.60	801.20	795.60	360.00	807.69	0.00	807.70	0.17	0.97	814.01	879.92
4376.000	4.00	801.60	801.20	795.60	580.00	814.83	0.00	814.83	0.02	0.52	3194.99	3787 38
4376.000	4.00	801.60	801.20	795.60	680.00	820.10	0.00	820.10	0.01	0.34	6014.03	8091.95
4376.000	4.00	801.60	801.20	795.60	890.00	821.50	0.00	821.50	0.01	0.38	6871.77	9742.63
4458.000	82.00	0.00	0.00	797.50	360.00	807.69	0.00	807.70	0.26	1.01	718 24	708.06
4458.000	82.00	0.00	0.00	797.50	580.00	814.83	0.00	814.83	0.03	0.51	2883.27	3544.72
4458.000	82.00	0.00	0.00	797.50	680.00	820.10	0.00	820.10	0.01	0.34	5397.26	7604.01
4458.000	82.00	0.00	0.00	797.50	890.00	821.50	0.00	821.50	0.01	0.39	6188.83	9001 10
4539.000	81 00	0.00	0.00	799.30	360.00	807.63	0.00	807.73	9.32	2.61	137.97	117.93
4539.000	81.00	0.00	0.00	799.30	580.00	814.82	0.00	814.83	0.36	0.86	1243.30	969.71
4539.000	81.00	0.00	0.00	799.30	680.00	820 10	0.00	820.10	0.03	0.35	3773.15	3678.87
4539.000	81.00	0.00	0.00	799.30	890.00	821.50	0.00	821.50	0.03	0.36	4624.70	4846.28
4540.000	1.00	810.60	810.00	799.30	360.00	807.46	0.00	807.91	7.92	5.39	66.78	127.91
4540.000	1.00	810.60	810.00	799.30	580.00	814.81	0.00	814.84	0.55	1.83	1064.47	782.24
4540.000	1.00	810.60	810.00	799 30	680.00	820.10	0.00	820.10	0.05	0.81	3597.95	3157.85
4540.000	1.00	810.60	810.00	799.30	890.00	821.50	0.00	821.50	0.05	0.88	4449.57	4126.46
4646.000	106.00	810.60	810.00	799.30	360.00	807.54	0.00	807.99	7.92	5.39	66.78	127.91
4646.000	106.00	810.60	810.00	799.30	580.00	814.82	0.00	814.85	0.55	1.83	1063.74	781.66
4646.000	106.00	810.60	810.00	799.30	680.00	820.10	0.00	820.10	0.05	0.81	3597.03	3156.84
4646.000	106.00	810.60	810.00	799.30	890.00	821.50	0.00	821.50	0.05	0.88	4448.46	4125.16
4647.000	1.00	0.00	0 00	799.30	360.00	807.93	0.00	808.03	7.93	2.46	146.59	127 85
4647.000	1.00	0.00	0.00	799.30	580.00	814.85	0.00	814.85	0.35	0.86	1250.13	975.59
4647.000	1.00	0.00	0.00	799.30	680.00	820.10	0.00	820.10	0.03	0.35	3772.23	3677.67
4647.000	1.00	0.00	0.00	799.30	890.00	821.50	0.00	821.50	0.03	0.36	4623.67	4844.80
4728.000	81.00	0.00	0.00	800.70	360.00	808.03	0.00	808.07	2.75	1.88	299.65	217.28
4728.000	81.00	0.00	0.00	800.70	580.00	814.85	0.00	814.85	0.07	0.49	2668.16	2132.59
4728.000	81.00	0.00	0.00	800.70	680.00	820.10	0.00	820.10	0.01	0.24	5681.93	6347 84
4728.000	81.00	0.00	0.00	800.70	890.00	821.50	0.00	821.50	0.01	0.27	6487.28	7803.67

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	4812.000	84.00	0.00	0.00	802.10	360.00	807.88	0.00	808.23	58.12	4.74	75.92	47.22
	4812.000	84.00	0.00	0.00	802.10	580.00	814.85	0.00	814.86	0.50	0.76	1309.36	821.04
	4812.000	84.00	0.00	0.00	802.10	680.00	820.10	0.00	820.10	0.04	0.29	3648.16	3320.78
	4812.000	84.00	0.00	0.00	802.10	890.00	821.50	0.00	821.50	0.04	0.30	4428.51	4396.87
	4813.000	1.00	810.10	808.10	802.10	360.00	807.68	0.00	808.42	18.32	6.90	52.14	84.10
	4813.000	1.00	810.10	808.10	802.10	580.00	814.84	0.00	814.86	0.88	1.79	1217.85	617.29
	4813.000	1.00	810.10	808.10	802.10	680.00	820.10	0.00	820.11	0.07	0.77	3557.44	2521.97
	4813.000	1.00	810.10	808.10	802.10	890.00	821.50	0.00	821.50	0.07	0.83	4337.78	3316.99
	4846.000	33.00	810.10	808.10	802.10	360.00	807.76	0.00	808.49	18.25	6.85	52.54	84.26
	4846.000	33.00	810.10	808.10	802.10	580.00	814.85	0.00	814.87	0.89	1.79	1215.88	615.99
	4846.000	33.00	810.10	808.10	802.10	680.00	820.10	0.00	820.11	0.07	0.78	3556.99	2521.52
	4846.000	33.00	810.10	808.10	802.10	890.00	821.50	0.00	821.50	0.07	0.83	4337.24	3316.43
	4847.000	1.00	0.00	0.00	802.10	360.00	808.24	0.00	808.53	44.87	4.34	82.90	53.74
	4847.000	1.00	0.00	0.00	802.10	580.00	814.86	0.00	814.87	0.50	0.76	1309.79	821.40
	4847.000	1.00	0.00	0.00	802.10	680.00	820.11	0.00	820.11	0.04	0.29	3647.60	3320.03
	4847.000	1.00	0.00	0.00	802.10	890.00	821.50	0.00	821.50	0.04	0.30	4427.86	4395.95
	4946.000	99.00	0.00	0.00	802.80	360.00	808.63	0.00	808.72	8.76	2.83	184.78	121.66
	4946.000	99.00	0.00	0.00	802.80	580.00	814.87	0.00	814.87	0.27	0.84	1503.70	1115.64
	4946.000	99.00	0.00	0.00	802.80	680.00	820.11	0.00	820.11	0.03	0.35	4040.63	4048.19
	4946.000	99.00	0.00	0.00	802.80	890.00	821.50	0.00	821.51	0.03	0.38	4770.52	5195.03
	5146.000	200.00	0.00	0.00	803.70	360.00	808.83	0.00	808.97	16.22	3.50	143.40	89.38
	5146.000	200.00	0.00	0.00	803.70	580.00	814.87	0.00	814.88	0.51	1.09	1083.84	813.42
	5146.000	200.00	0.00	0.00	803.70	680.00	820.11	0.00	820.11	0.05	0.44	3098.79	3086.69
	5146.000	200.00	0.00	0.00	803.70	890.00	821.50	0.00	821.51	0.05	0.47	3710.84	3994.00
*	6108.000	962.00	0.00	0.00	810.90	360.00	813.47	813.47	814.35	21.44	7.56	47.59	77.75
	6108.000	962.00	0.00	0.00	810.90	580.00	815.00	0.00	815.55	8.00	5.98	96.97	205.10
	6108.000	962.00	0.00	0.00	810.90	680.00	820.12	0.00	820.17	0.29	1.80	407.73	1271.44
	6108.000	962.00	0.00	0.00	810.90	890.00	821.51	0.00	821.56	0.24	1.83	549.96	1832.29
*	6133.000	25.00	0.00	0.00	812.40	360.00	814.97	814.97	815.85	21.44	7.56	47.59	77.75
*	6133.000	25.00	0.00	0.00	812.40	580.00	815.69	815.69	816.79	20.19	8.41	68.94	129.08
	6133.000	25.00	0.00	0.00	812.40	680.00	820.12	0.00	820.21	0.65	2.45	313.17	842.90
	6133.000	25.00	0.00	0.00	812.40	890.00	821.51	0.00	821.60	0.48	2.33	504.58	1278.80
*	6148.000	15.00	0.00	0.00	812.60	360.00	815.17	815.17	816.05	21.44	7.56	47.59	77.75
*	6148.000	15.00	0.00	0.00	812.60	580.00	815.89	815.89	816.99	20.06	8.39	69.11	129.51
	6148.000	15.00	0.00	0.00	812.60	680.00	820.12	0.00	820.22	0.74	2.57	289.01	791.31
	6148.000	15.00	0.00	0.00	812.60	890.00	821.52	0.00	821.60	0.54	2.43	475.40	1208.83
*	6335.000	187.00	0.00	0.00	816.10	360.00	818.20	818.20	819.03	22.58	7.30	49.29	75.77
*	6335.000	187.00	0.00	0.00	816.10	580.00	818.85	818.85	819.92	21.18	8.31	69.80	126.02
	6335.000	187.00	0.00	0.00	816.10	680.00	820.15	0.00	820.68	6.82	5.86	116.12	260.39
	6335.000	187.00	0.00	0.00	816.10	890.00	821.54	0.00	821.94	3.77	5.11	174.19	458.18

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	6355.000	20.00	0.00	0.00	816.10	360.00	818.53	818.53	819.41	21.24	7.52	47 90	78.12
*	6355.000	20.00	0.00	0.00	816.10	580.00	819.25	819.25	820.34	19.88	8.39	69.12	130.08
	6355.000	20.00	0.00	0.00	816.10	680.00	820.17	0.00	820 89	9.19	6.83	105.18	224.28
	6355.000	20.00	0.00	0.00	816.10	890.00	821 54	0.00	822.05	4.45	5.76	188.38	421.77
	6380.000	25.00	0.00	0.00	816.10	360.00	819.18	0.00	819.65	8.76	5.50	65.49	121.63
	6380.000	25.00	0.00	0 00	816.10	580.00	820.01	0.00	820.62	8.24	6.26	94.99	202.07
	6380.000	25.00	0.00	0.00	816.10	680.00	820.19	0.00	820.92	9.34	6.87	102.74	222.49
	6380.000	25.00	0.00	0.00	816.10	890.00	821.56	0.00	822.08	4.60	5.85	180.48	414.86
*	6730.000	350.00	0.00	0.00	819.70	360.00	822.57	822.57	823.36	200.49	7.70	56.81	25.42
*	6730.000	350.00	0.00	0.00	819.70	580.00	823.20	823.20	824.20	205.70	8.81	80.89	40.44
*	6730.000	350.00	0.00	0.00	819.70	680.00	823.45	823.45	824.52	207.04	9.20	90.95	47.26
*	6730.000	350.00	0.00	0.00	819.70	890.00	823.91	823.91	825.12	208.26	9.89	111.05	61.67
*	6865.000	135.00	0.00	0.00	821.90	360.00	825.91	825.91	827.25	30.60	9.28	38.79	65.08
*	6865.000	135.00	0.00	0.00	821.90	580.00	826.94	826.94	828.71	29.68	10.69	54.27	106.47
*	6865.000	135.00	0.00	0 00	821.90	680.00	827.36	827.36	829.29	29.24	11 17	60.90	125.76
*	6865.000	135.00	0.00	0.00	821.90	890.00	828.16	828.16	830.40	28.56	12.01	74.12	166.54
	6946.000	81.00	831.60	826.90	821.90	360.00	827.31	0.00	827.87	8.48	5.98	60.19	123.65
	6946.000	81.00	831.60	826.90	821.90	580.00	831.12	0.00	831.44	2.59	4.51	131.16	360.56
	6946.000	81.00	831.60	826.90	821.90	680.00	831.42	0.00	831.81	3.07	5.03	150.57	388.07
	6946.000	81.00	831.60	826.90	821.90	890.00	831.68	0.00	832.28	4.55	6.29	175.34	417.38
	6947.000	1.00	0.00	0.00	821.90	360.00	827.32	0.00	827.87	101.47	5.98	60.21	35.74
	6947.000	1.00	0.00	0.00	821.90	580.00	831.12	0.00	831.44	30.92	4.51	131.24	104.31
	6947.000	1.00	0.00	0.00	821.90	680.00	831.43	0.00	831.81	35.72	4.96	151.27	113.78
	6947.000	1.00	0.00	0.00	821.90	890.00	831.78	0.00	832.29	47.14	5.90	186.73	129.63

10-YEAR FLOOD

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	290.00	759.57	0.00	0.00	-2.43	28.18	0.00
0.000	380.00	760 07	0.51	0.00	-2.43	29.24	0.00
0.000	430.00	760.34	0.27	0.00	-2.66	29.81	0.00
0.000	530.00	760.81	0.47	0.00	-3.19	30.80	0.00
42.000	290.00	759.64	0.00	0.08	0.00	27.89	42.00
42.000	380.00	760.13	0.49	0.06	0.00	28.99	42.00
42.000	430.00	760.38	0.26	0.05	0.00	29.56	42 00
42.000	530.00	760.84	0.45	0.02	0.00	30.57	42.00
67.000	290.00	759.76	0.00	0.11	0 00	19.90	25.00
67.000	380.00	760.25	0.49	0.12	0.00	21.90	25.00
67.000	430.00	760.50	0.26	0.12	0.00	23.01	25.00
67.000	530.00	760.96	0.46	0.13	0.00	25 03	25.00
92.000	290.00	759.86	0.00	0.10	0.00	19.68	25.00
92.000	380.00	760.36	0.50	0.11	0.00	21.56	25.00
92.000	430.00	760.61	0.26	0.11	0.00	22.69	25.00
92.000	530.00	761.07	0.46	0.11	0.00	24.68	25.00
97.000	290.00	759.89	0.00	0.03	0.00	19.72	5.00
97.000	380.00	760.39	0 50	0.03	0.00	21.63	5.00
97.000	430.00	760.65	0.26	0.04	0.00	22.78	5.00
97.000	530.00	761.11	0.46	0.04	0.00	24.78	5 00
102.000	290.00	759.94	0.00	0.05	0.00	19.86	5 00
102.000	380.00	760.45	0.51	0.06	0.00	21.95	5.00
102.000	430.00	760.71	0.26	0.06	0.00	23.09	5 00
102.000	530.00	761.19	0.47	0.08	0.00	25.15	5.00
107.000	290.00	759.97	0.00	0.03	0.00	19.91	5.00
107.000	380.00	760.49	0.52	0.03	0.00	22.07	5.00
107.000	430.00	760.75	0.26	0.04	0.00	23.21	5.00
107.000	530.00	761.22	0.48	0.04	0.00	25.26	5.00
112.000	290.00	760.00	0.00	0.04	0.00	19.99	5.00
112.000	380.00	760.54	0.53	0.05	0.00	22 32	5.00
112.000	430.00	760.80	0.27	0.05	0.00	23.48	5.00
112.000	530.00	761.29	0.48	0.06	0.00	25.58	5.00
117.000	290.00	760.04	0.00	0.04	0.00	20.13	5.00
117.000	380.00	760.56	0.52	0.03	0.00	22.41	5.00
117.000	430.00	760.83	0.27	0.03	0.00	23.56	5.00
117.000	530.00	761.32	0.49	0.03	0.00	25.69	5.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
147.000	290.00	760.01	0.00	-0.03	0.00	19.05	30.00
147.000	380.00	760.51	0.50	-0.05	0.00	21.19	30.00
147.000	430.00	760.77	0.26	-0.06	0.00	22.30	30.00
147.000	530.00	761.25	0.48	-0.07	0.00	24.33	30.00
206.000	290.00	760.46	0.00	0.45	0.00	18.79	59.00
206.000	380.00	760.93	0.47	0.42	0.00	20.28	59.00
206.000	430.00	761.17	0.24	0.40	0.00	20.92	59.00
206.000	530.00	761.60	0.43	0.35	0.00	22.00	59.00
222.000	290.00	760.60	0.00	0.14	0.00	18.24	16.00
222.000	380.00	761.07	0.48	0.15	0.00	20.04	16.00
222.000	430.00	761.78	0.70	0.61	0.00	22.74	16.00
222.000	530.00	762.53	0.75	0.93	0.00	25.58	16.00
237.000	290.00	761.22	0.00	0.62	0.00	22.14	15.00
237.000	380.00	761.82	0.60	0.75	0.00	24.18	15.00
237.000	430.00	762.27	0.45	0.49	0.00	25.72	15.00
237.000	530.00	762.98	0.71	0.45	0 00	28.18	15.00
252.000	290.00	761.15	0.00	-0.07	0.00	21.40	15.00
252.000	380.00	761.77	0.61	-0.06	0.00	23.72	15.00
252.000	430.00	762.23	0.46	-0.05	0.00	25.46	15.00
252.000	530.00	762.95	0.72	-0.04	0.00	28.21	15.00
267.000	290.00	761.41	0.00	0.25	0.00	24.08	15.00
267.000	380.00	762.03	0.63	0.26	0.00	26.33	15.00
267.000	430.00	762.46	0.43	0.23	0.00	27.86	15.00
267.000	530.00	763.17	0.71	0.22	0.00	30.41	15.00
282.000	290.00	761.56	0.00	0.16	0.00	26.11	15.00
282.000	380.00	762.19	0.63	0.16	0.00	28 12	15.00
282.000	430.00	762.61	0.42	0.15	0.00	29.43	15.00
282.000	530.00	763.31	0.70	0.15	0.00	31.66	15.00
372.000	290.00	761.95	0.00	0.39	0.00	22.76	90.00
372.000	380.00	762.56	0.61	0.36	0.00	24.93	90.00
372.000	430.00	762.94	0.38	0.33	0.00	26.33	90.00
372.000	530.00	763.61	0.67	0.29	0.00	28.75	90.00
430.000	290.00	762.42	0.00	0.47	0.00	18.67	58.00
430.000	380.00	763.20	0.78	0.65	0 00	20.79	58.00
430.000	430.00	763.62	0.41	0.68	0.00	21.92	58.00
430.000	530.00	764.38	0.76	0.77	0.00	23.00	58.00
431.000	290.00	762.43	0.00	0.01	0.00	18.67	1.00
431.000	380.00	763.22	0.79	0.01	0.00	20 82	1.00
431.000	430.00	763.63	0.41	0.01	0.00	21.96	1.00
431.000	530.00	764.39	0.76	0.01	0.00	23.00	1.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
435.000	290.00	762.51	0.00	0.08	0.00	18.89	4.00
435.000	380.00	763.27	0.77	0.05	0.00	21.00	4.00
435.000	430.00	763.66	0.39	0.03	0.00	22.04	4.00
435.000	530.00	764.44	0.77	0.05	0.00	23.00	4.00
436.000	290.00	762.52	0.00	0.01	0.00	18.91	1.00
436.000	380.00	763.28	0.76	0.01	0.00	20.28	1.00
436.000	430.00	763.67	0.39	0.00	0.00	20.67	1.00
436.000	530.00	764.72	1.06	0.29	0.00	22.00	1.00
452.000	290.00	762.50	0.00	-0.01	0.00	19.26	16.00
452.000	380.00	763.19	0.69	-0.09	0.00	20.98	16.00
452.000	430.00	763.55	0.36	-0.12	0.00	21.88	16.00
452.000	530.00	764.59	1.04	-0.13	0.00	37.22	16.00
577.000	290.00	763.10	0.00	0.60	0.00	17.13	125.00
577.000	380.00	763.67	0.56	0.48	0.00	18.43	125.00
577 000	430.00	763.96	0.30	0.41	0.00	19.12	125.00
577.000	530.00	764.77	0.81	0.18	0.00	24.48	125.00
647.000	290.00	763.56	0.00	0.46	0.00	21.25	70.00
647.000	380.00	764.27	0.71	0.61	0.00	24.12	70.00
647.000	430.00	764.64	0.37	0.68	0.00	25.56	70.00
647.000	530.00	765.48	0.84	0.70	0.00	31.15	70.00
662.000	290.00	763.81	0.00	0.25	0.00	22.09	15.00
662.000	380.00	764.49	0.67	0.21	0.00	24.47	15.00
662.000	430.00	764.85	0.36	0.21	0.00	25.56	15.00
662.000	530.00	765.59	0.74	0.11	0.00	29.06	15.00
677.000	290.00	763.71	0.00	-0.11	0.00	22.36	15.00
677.000	380.00	764.42	0.71	-0.07	0.00	26.55	15.00
677.000	430.00	764.81	0.39	-0.04	0.00	28.21	15.00
677.000	530.00	765.60	0.79	0.01	0.00	32.62	15.00
692.000	290.00	764.18	0.00	0.48	0.00	23.52	15.00
692.000	380.00	764.82	0.64	0.40	0.00	26.24	15.00
692.000	430.00	765.17	0.35	0.36	0.00	27.69	15.00
692.000	530.00	765.85	0.68	0.25	0.00	30.42	15.00
707.000	290.00	764.14	0.00	-0.04	0.00	22.78	15.00
707.000	380.00	764.78	0.64	-0.04	0.00	25.19	15.00
707.000	430.00	765.13	0.34	-0.04	0.00	26.58	15.00
707.000	530.00	765.80	0.67	-0.05	0.00	29.60	15.00
722.000	290.00	764.15	0.00	0.01	0.00	19.24	15.00
722.000	380.00	764.73	0.58	-0.05	0.00	21.12	15.00
722.000	430.00	765.04	0.31	-0.09	0.00	22.16	15.00
722.000	530.00	765.68	0.64	-0.12	0.00	24.51	15.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	736.000	290.00	764.48	0.00	0.33	0.00	20.23	14.00
	736.000	380.00	765.09	0.61	0.36	0.00	21.98	14.00
	736.000	430.00	765.40	0.31	0.36	0.00	22.89	14.00
	736.000	530.00	765.95	0.55	0.27	0.00	24.52	14.00
	752.000	290.00	764.79	0.00	0.30	0.00	23.80	16.00
	752.000	380.00	765.46	0.68	0.37	0.00	25.92	16.00
	752.000	430.00	765.81	0.34	0.40	0.00	26.99	16.00
	752.000	530.00	766.42	0.61	0.47	0.00	29.13	16.00
	767.000	290.00	764.94	0.00	0.15	0.00	26.14	15.00
	767.000	380.00	765.64	0.70	0.18	0.00	28.25	15.00
	767.000	430.00	765.99	0.36	0.19	0.00	29.32	15.00
	767.000	530.00	766.63	0.64	0.21	0.00	31.23	15.00
	794.000	290.00	764.91	0.00	-0.03	0.00	24.07	27.00
	794.000	380.00	765.62	0.71	-0.02	0.00	27.76	27.00
	794.000	430.00	765.98	0.36	-0.02	0.00	29.64	27.00
	794.000	530.00	766.62	0.64	-0.01	0.00	33.01	27.00
*	874.000	290.00	766.01	0.00	1.10	0.00	19.21	80.00
*	874.000	380.00	766.51	0.49	0.89	0 00	21.65	80.00
*	874.000	430.00	766.75	0.25	0.78	0.00	23.18	80.00
*	874.000	530.00	767.22	0.46	0.60	0.00	26.06	80.00
	952.000	290.00	767.66	0.00	1.65	0.00	39.40	78.00
	952.000	380.00	768.45	0.78	1.94	0.00	41.90	78.00
	952.000	430.00	768.87	0.43	2.12	0.00	42.76	78.00
	952.000	530.00	769.71	0.84	2.50	0.00	48.01	78.00
	1055.000	290.00	768.11	0.00	0.44	0.00	40.09	103.00
	1055.000	380.00	768.85	0 75	0.41	0.00	43.62	103.00
	1055.000	430.00	769 26	0.40	0.38	0.00	44.28	103.00
	1055.000	530.00	770.04	0.79	0.33	0.00	45.08	103.00
	1056.000	290.00	768.07	0.00	-0.03	0.00	39 88	1.00
	1056.000	380.00	768.79	0.71	-0.07	0.00	43.43	1.00
	1056.000	430.00	769.20	0.41	-0.06	0.00	44.22	1.00
	1056.000	530.00	770.00	0.80	-0.04	0.00	45.03	1.00
	1061.000	290.00	768.09	0.00	0.02	0.00	39.94	5.00
	1061.000	380.00	768.83	0.74	0.04	0.00	43.54	5.00
	1061.000	430.00	769.23	0.40	0.03	0.00	44.24	5.00
	1061.000	530.00	770.02	0.79	0.02	0.00	45.05	5.00
	1062.000	290.00	768.15	0.00	0.06	0.00	40.36	1.00
	1062.000	380.00	768.93	0.79	0.11	0.00	43.84	1.00
	1062.000	430.00	769.33	0.39	0.10	0.00	44.35	1.00
	1062.000	530.00	770.10	0.77	0.07	0.00	45.13	1.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	1137.000	290.00	768.09	0.00	-0 06	0.00	32.69	75.00
	1137.000	380.00	768.88	0.79	-0.06	0.00	38.58	75.00
	1137.000	430.00	769.27	0.39	-0.06	0.00	41.18	75.00
	1137.000	530.00	770.04	0.77	-0.05	0.00	43 73	75.00
*	1226.000	290.00	768.12	0.00	0.03	0.00	22.95	89.00
*	1226.000	380.00	768.58	0.46	-0 30	0.00	26.62	89.00
	1226.000	430.00	768.99	0.41	-0.28	0.00	29.90	89.00
	1226.000	530.00	769.89	0.90	-0.16	0.00	59.38	89.00
*	1327.000	290.00	769.77	0.00	1.65	0.00	19.73	101.00
*	1327.000	380.00	770.22	0.44	1.64	0.00	21.72	101.00
*	1327.000	430.00	770.53	0.31	1.54	0.00	23.58	101.00
*	1327.000	530.00	771.02	0.49	1.13	0.00	34.41	101.00
*	1428.000	290.00	771.28	0.00	1.51	0.00	19.76	101.00
*	1428.000	380.00	771.74	0.46	1.53	0.00	21.85	101.00
*	1428.000	430.00	772.02	0.28	1.49	0.00	23.43	101.00
*	1428.000	530.00	772.52	0.50	1.50	0.00	34.47	101.00
	1463.000	290.00	772.79	0.00	1.51	0.00	23.66	35.00
	1463.000	380.00	773.48	0.69	1.74	0.00	25.40	35.00
	1463.000	430.00	773.81	0.33	1.79	0.00	26.23	35.00
	1463.000	530.00	774.37	0.56	1.85	0.00	27.67	35.00
	1530.000	290.00	773.02	0.00	0.22	0.00	23.91	67.00
	1530.000	380.00	775.11	2.09	1.62	0.00	116.10	67.00
	1530.000	430.00	775.28	0.17	1.47	0.00	124.11	67.00
	1530.000	530.00	775.54	0.27	1.17	0.00	124.17	67.00
	1612.000	290.00	774.04	0.00	1.03	0.00	74.83	82.00
	1612.000	380.00	775.17	1.13	0.07	0.00	144.14	82.00
	1612.000	430.00	775.35	0.17	0.07	0.00	160.17	82.00
	1612.000	530.00	775.62	0.28	0.08	0.00	164.13	82.00
	1887.000	290.00	774.88	0.00	0.84	0.00	127.03	275.00
	1887.000	380.00	775.58	0.70	0.41	0.00	139.64	275.00
	1887.000	430.00	775.77	0.19	0.42	0.00	142.98	275.00
	1887.000	530.00	776.08	0.32	0.46	0.00	148.70	275.00
	1997.000	290.00	775.39	0.00	0.51	0.00	121.43	110.00
	1997.000	380.00	775.79	0.40	0.21	0.00	123.66	110.00
	1997.000	430.00	775.96	0.17	0.20	0.00	124.62	110.00
	1997.000	530.00	776.26	0.30	0.18	0.00	125.00	110.00
*	2052.000	290.00	775.93	0 00	0.54	0.00	95.66	55.00
*	2052.000	380.00	776.21	0.28	0.42	0.00	97.00	55.00
	2052.000	430.00	776.26	0.05	0.30	0.00	97.00	55.00
	2052.000	530.00	776.54	0.28	0.27	0.00	97.00	55.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2108.000	290.00	776.57	0.00	0.64	0.00	48.61	56.00
	2108.000	380.00	776.89	0.32	0.68	0.00	62.77	56.00
	2108.000	430.00	777.03	0.13	0.76	0.00	68.03	56.00
	2108.000	530.00	777.31	0.28	0.77	0.00	73.65	56.00
	2487.000	290.00	779.61	0.00	3.03	0.00	40.13	379.00
	2487.000	380.00	780.02	0.41	3.12	0.00	53.27	379.00
	2487.000	430.00	780.23	0.21	3.20	0.00	56.85	379.00
	2487.000	530.00	780.57	0.34	3 26	0.00	62.36	379.00
	2665.000	290.00	781.01	0.00	1.41	0.00	27.27	178.00
*	2665.000	380.00	781.44	0.42	1.42	0 00	41.14	178.00
*	2665.000	430.00	781.72	0.28	1.49	0.00	50.38	178.00
*	2665.000	530.00	782.11	0.39	1.54	0.00	58.15	178.00
	2845.000	290.00	783.17	0.00	2.16	0.00	26.30	180.00
	2845.000	380.00	783.57	0.40	2.14	0.00	31.46	180.00
	2845.000	430.00	783.62	0.05	1.90	0.00	32 12	180 00
	2845.000	530.00	783.85	0.23	1.74	0.00	35.08	180.00
*	2900.000	290.00	784.44	0.00	1.27	0.00	22.86	55.00
*	2900.000	380.00	784.81	0.37	1.24	0.00	26.72	55 00
*	2900.000	430.00	785.00	0.19	1.37	0.00	29.19	55.00
*	2900.000	530.00	785.37	0.37	1.52	0.00	33.97	55.00
*	2951.000	290.00	785.69	0.00	1.26	0.00	12.85	51 00
*	2951.000	380.00	786.25	0.55	1.44	0.00	13.85	51.00
*	2951.000	430.00	786.53	0.28	1.53	0.00	14.35	51.00
*	2951.000	530.00	787.04	0.51	1.68	0.00	15.28	51 00
	3137 000	290.00	788.23	0.00	2.54	0.00	34.90	186.00
	3137.000	380.00	788.85	0.61	2.60	0.00	36.57	186 00
	3137.000	430.00	789.16	0.31	2.63	0.00	41.24	186.00
	3137.000	530.00	789.73	0.58	2.69	0.00	51.03	186.00
	3331.000	290.00	789.33	0.00	1.10	0.00	23.66	194.00
	3331.000	380.00	789.83	0.50	0.98	0.00	26.16	194.00
	3331.000	430.00	790.08	0.25	0.92	0.00	27.62	194.00
	3331.000	530.00	790.53	0.45	0.79	0.00	31.11	194.00
	3587.000	290.00	791.36	0.00	2 03	0.00	23.67	256.00
	3587.000	380.00	791.82	0.46	1.99	0.00	25.52	256.00
	3587.000	430.00	792.05	0.22	1.97	0.00	26.43	256 00
	3587.000	530.00	792.44	0.39	1.91	0.00	28.03	256.00
*	3764.000	290.00	794.42	0.00	3.06	0.00	19.62	177.00
*	3764.000	380.00	794.89	0.47	3.07	0.00	19.93	177.00
*	3764.000	430.00	795.14	0.25	3.10	0.00	20.65	177.00
*	3764.000	530.00	795.61	0 47	3.18	0.00	22.82	177.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	3794.000	290.00	794.71	0.00	0.29	0.00	8.45	30.00
*	3794.000	380.00	795.37	0.65	0.48	0.00	8.54	30.00
*	3794.000	430.00	795.71	0.34	0.57	0.00	8.59	30.00
*	3794.000	530.00	796.36	0.65	0.75	0.00	8.68	30.00
	3865.000	290.00	795.95	0.00	1.24	0.00	8.62	71.00
	3865.000	380.00	796.77	0.82	1.40	0.00	8.74	71.00
	3865.000	430.00	796 08	-0.69	0.37	0.00	8.64	71.00
	3865.000	530.00	798.52	2.44	2 16	0 00	8.98	71.00
*	3900.000	290.00	796.91	0.00	0.96	0 00	17.12	35.00
*	3900.000	370.00	797.31	0.39	0.54	0.00	17.64	35.00
*	3900.000	420.00	797.54	0.23	1.46	0.00	17.95	35.00
	3900.000	520.00	798.88	1.34	0.36	0.00	19.71	35.00
	3986.000	290.00	807.63	0.00	10.71	0.00	24.69	86.00
	3986.000	370.00	814.77	7.15	17.47	0.00	25.00	86.00
	3986.000	420.00	820.06	5.28	22.52	0.00	25.00	86.00
	3986.000	520.00	821.44	1.39	22.56	0.00	25.00	86.00
	4016.000	360.00	807.65	0.00	0.02	0.00	85.00	30.00
	4016.000	580.00	814.79	7.14	0.02	0.00	85.00	30.00
	4016.000	680.00	820.07	5.28	0.01	0.00	85.00	30.00
	4016.000	890.00	821.46	1.39	0.02	0.00	85.00	30.00
	4046 000	360.00	807.65	0.00	0.00	0.00	142.72	30.00
	4046.000	580.00	814.79	7.14	0.00	0.00	145.00	30.00
	4046.000	680.00	820.07	5.28	0.00	0.00	145.00	30.00
	4046.000	890.00	821.46	1.39	0.00	0.00	145.00	30.00
	4050.000	360.00	807.67	0.00	0.01	0.00	145.79	4.00
	4050.000	580.00	814.81	7.14	0.01	0.00	150.00	4.00
	4050.000	680.00	820.09	5.28	0.01	0.00	150.00	4.00
	4050.000	890.00	821.48	1.39	0.02	0.00	150.00	4.00
	4116.000	360.00	807.67	0.00	0.00	0.00	228 52	66.00
	4116.000	580.00	814.81	7.14	0.00	0.00	272.80	66.00
	4116.000	680.00	820.09	5.28	0.00	0.00	282.00	66.00
	4116.000	890.00	821.48	1 39	0.00	0.00	282.00	66.00
	4216.000	360.00	807.67	0.00	0.00	0.00	287.15	100.00
	4216.000	580.00	814 81	7.14	0.00	0.00	404.61	100.00
	4216.000	680.00	820.09	5.28	0.00	0.00	480.39	100.00
	4216.000	890.00	821.48	1.39	0.00	0.00	482.00	100.00
	4316.000	360.00	807.67	0.00	0.00	0.00	287.17	100.00
	4316.000	580.00	814.81	7.14	0.00	0.00	404.62	100.00
	4316.000	680.00	820.09	5.28	0 00	0.00	491.83	100.00
	4316.000	890.00	821 48	1.39	0.00	0.00	521.12	100.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4372.000	360.00	807.67	0.00	0.00	0.00	216.26	56.00
4372.000	580.00	814.81	7.14	0.00	0.00	450.04	56.00
4372.000	680.00	820.09	5.28	0.00	0.00	601.74	56.00
4372.000	890.00	821.48	1.39	0.00	0.00	622.00	56.00
4376.000	360.00	807.69	0.00	0.02	0.00	217.12	4.00
4376.000	580.00	814.83	7.14	0.02	0.00	450.64	4.00
4376.000	680.00	820.10	5.27	0.01	0.00	601.02	4.00
4376.000	890.00	821.50	1.40	0.02	0.00	620.00	4.00
4458.000	360.00	807.69	0.00	0.00	0.00	195.25	82.00
4458.000	580.00	814.83	7.14	0.00	0.00	405.83	82 00
4458.000	680.00	820.10	5.27	0.00	0.00	547.50	82.00
4458.000	890.00	821.50	1.40	0.00	0.00	585.04	82.00
4539.000	360.00	807.63	0 00	-0.06	0.00	27.67	81.00
4539.000	580.00	814.82	7.20	0.00	0.00	360.61	81.00
4539.000	680.00	820.10	5.28	0.00	0.00	592.42	81.00
4539.000	890.00	821.50	1.40	0.00	0.00	625.97	81.00
4540.000	360.00	807 46	0.00	-0.17	0.00	27.21	1.00
4540.000	580.00	814.81	7.35	-0 01	0.00	360.11	1.00
4540.000	680.00	820.10	5.29	0.00	0.00	592.42	1.00
4540.000	890.00	821.50	1.40	0.00	0.00	625.97	1.00
4646.000	360.00	807.54	0.00	0.08	0.00	27.46	106.00
4646.000	580.00	814.82	7.28	0.01	0.00	360.01	106.00
4646.000	680.00	820.10	5.28	0.00	0.00	592.38	106.00
4646.000	890.00	821.50	1.40	0.00	0.00	625.93	106.00
4647.000	360.00	807.93	0.00	0.39	0.00	28.49	1.00
4647.000	580.00	814.85	6.91	0.03	0.00	361.55	1.00
4647.000	680.00	820.10	5.26	0.00	0.00	592.38	1.00
4647.000	890.00	821.50	1.40	0.00	0.00	625.93	1.00
4728.000	360.00	808.03	0.00	0.10	0.00	92.07	81.00
4728.000	580.00	814.85	6.82	0.01	0.00	548.21	81.00
4728.000	680.00	820.10	5.25	0.00	0.00	576.00	81.00
4728.000	890.00	821.50	1.40	0.00	0.00	576.00	81.00
4812.000	360.00	807.88	0.00	-0.16	0.00	18.63	84.00
4812.000	580.00	814.85	6.98	0.00	0.00	357.57	84.00
4812.000	680.00	820.10	5.25	0.00	0.00	533.66	84.00
4812.000	890.00	821.50	1 40	0.00	0.00	582.59	84.00
4813.000	360.00	807.68	0.00	-0.19	0.00	18.55	1.00
4813.000	580.00	814.84	7.16	-0.01	0.00	357.48	1.00
4813.000	680.00	820.10	5 26	0.00	0.00	533.65	1.00
4813.000	890 00	821.50	1.40	0.00	0.00	582.58	1.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	4846.000	360.00	807.76	0.00	0.07	0.00	18 58	33.00
	4846.000	580.00	814.85	7.09	0.00	0.00	357.29	33.00
	4846.000	680.00	820.10	5.26	0.00	0.00	533.62	33.00
	4846.000	890.00	821.50	1.40	0.00	0.00	582.55	33.00
	4847.000	360.00	808.24	0.00	0.48	0.00	18.78	1.00
	4847.000	580.00	814.86	6 62	0.02	0.00	357.61	1.00
	4847.000	680.00	820.11	5.24	0.00	0.00	533.62	1.00
	4847.000	890.00	821.50	1.40	0.00	0.00	582.55	1.00
	4946.000	360.00	808.63	0.00	0.39	0.00	63.78	99.00
	4946.000	580.00	814.87	6.23	0.00	0.00	419.73	99.00
	4946.000	680.00	820.11	5.24	0.00	0.00	522.00	99.00
	4946.000	890.00	821.50	1.40	0 00	0.00	522.00	99.00
	5146.000	360.00	808.83	0.00	0.20	0.00	53.88	200.00
	5146.000	580.00	814.87	6.04	0.00	0.00	348.98	200.00
	5146.000	680.00	820.11	5.23	0.00	0.00	422.35	200.00
	5146.000	890.00	821.50	1.40	0.00	0.00	453.11	200.00
*	6108.000	360.00	813.47	0.00	4.64	0.00	27.10	962.00
	6108.000	580.00	815.00	1.53	0.12	0.00	37.32	962.00
	6108.000	680.00	820.12	5.12	0.01	0.00	97.43	962.00
	6108.000	890.00	821.51	1.40	0.01	0.00	104.36	962.00
*	6133.000	360.00	814.97	0 00	1.50	0.00	27.10	25.00
*	6133.000	580.00	815.69	0.72	0.69	0.00	31.93	25.00
	6133.000	680.00	820.12	4.43	0.00	0.00	123.90	25.00
	6133.000	890.00	821.51	1.40	0.00	0.00	147.55	25 00
*	6148.000	360.00	815.17	0.00	0.20	0.00	27.10	15.00
*	6148.000	580.00	815.89	0.73	0.21	0.00	31.96	15.00
	6148.000	680.00	820.12	4.22	0.00	0.00	118.18	15.00
	6148.000	890.00	821.52	1 40	0.00	0.00	145.72	15.00
*	6335.000	360.00	818.20	0.00	3.04	0.00	30.21	187.00
*	6335.000	580.00	818.85	0.65	2.96	0.00	33.05	187.00
	6335.000	680.00	820.15	1.30	0.03	0.00	38.71	187.00
	6335.000	890.00	821.54	1.39	0.02	0.00	44.81	187.00
*	6355.000	360.00	818.53	0.00	0.33	0.00	27.35	20.00
*	6355.000	580.00	819.25	0.72	0.40	0.00	32.38	20.00
	6355.000	680.00	820.17	0.91	0.02	0.00	47.19	20.00
	6355.000	890 00	821.54	1.38	0 01	0.00	76.75	20.00
	6380.000	360.00	819.18	0.00	0.64	0.00	30.62	25.00
	6380.000	580.00	820.01	0.83	0.76	0.00	41.86	25.00
	6380.000	680.00	820.19	0.18	0.02	0.00	44 78	25.00
	6380.000	890.00	821.56	1.37	0.01	0.00	71.99	25.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	6730.000	360.00	822.57	0.00	3.39	0.00	35.83	350.00
*	6730.000	580.00	823.20	0.63	3.19	0.00	40.22	350.00
*	6730.000	680.00	823.45	0.25	3.26	0.00	41.92	350.00
*	6730.000	890.00	823.91	0.46	2.35	0.00	45.13	350.00
*	6865.000	360.00	825.91	0.00	3.34	0.00	14.52	135.00
*	6865.000	580.00	826.94	1 03	3.74	0.00	15.58	135.00
*	6865.000	680.00	827.36	0.42	3.91	0.00	16.02	135.00
*	6865.000	890.00	828.16	0.80	4 25	0.00	16.85	135.00
	6946.000	360.00	827.31	0.00	1.40	0.00	15.97	81.00
	6946.000	580.00	831.12	3.81	4.18	0.00	49.76	81.00
	6946.000	680.00	831.42	0.30	4.06	0.00	78.94	81.00
	6946.000	890.00	831.68	0.26	3.52	0.00	106.57	81.00
	6947.000	360.00	827.32	0.00	0.00	0.00	15.97	1.00
	6947.000	580.00	831.12	3.81	0.00	0.00	49.98	1.00
	6947.000	680.00	831.43	0.31	0.02	0.00	80.12	1.00
	6947.000	890.00	831.78	0.35	0.11	0.00	115.96	1.00

SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 874.000 PROFILE= 1 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 874.000 PROFILE= 1 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 874.000 PROFILE= 1 20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION SECNO= 874.000 PROFILE= 2 CRITICAL DEPTH ASSUMED
CAUTION SECNO= 874.000 PROFILE= 2 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 874.000 PROFILE= 2 20 TRIALS ATTEMPTED TO BALANCE WSEL
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CAUTION SECNO= 874.000 PROFILE= 3 PROBABLE MINIMUM SPECIFIC ENERGY
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CAUTION SECNO= 874.000 PROFILE= 4 PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION SECNO= 874.000 PROFILE= 4 20 TRIALS ATTEMPTED TO BALANCE WSEL

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00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF ANN ARBOR

3) WATERCOURSE: TRAVER CREEK

4) DOCUMENT TYPE: WATER SURFACE PROFILES

00BREAK00

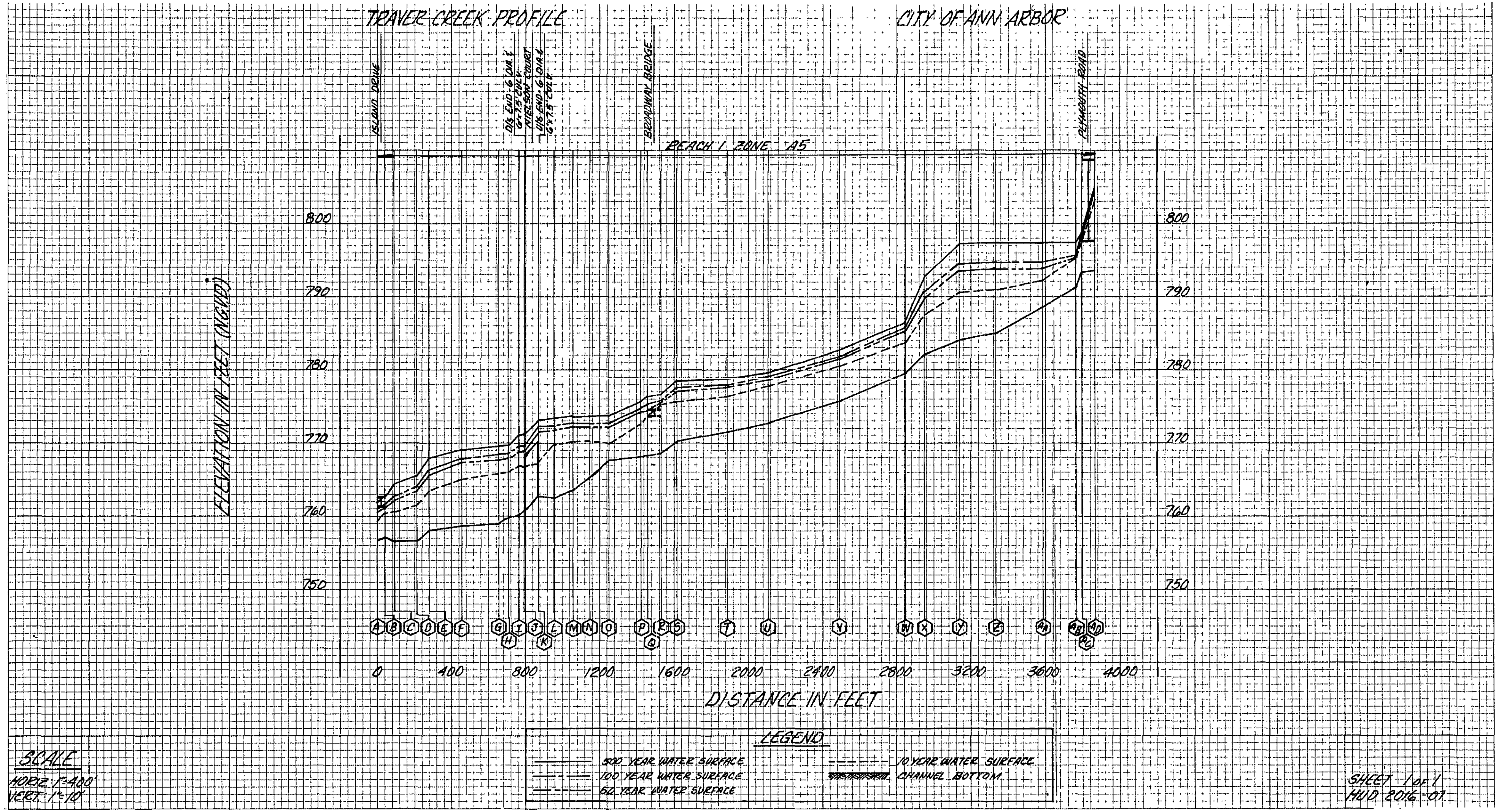
CITY OF ANN ARBOR

TRAVER CREEK

EXHIBIT 10

WATER SURFACE PROFILES

TRAVER CREEK PROFILE — CITY OF ANN ARBOR



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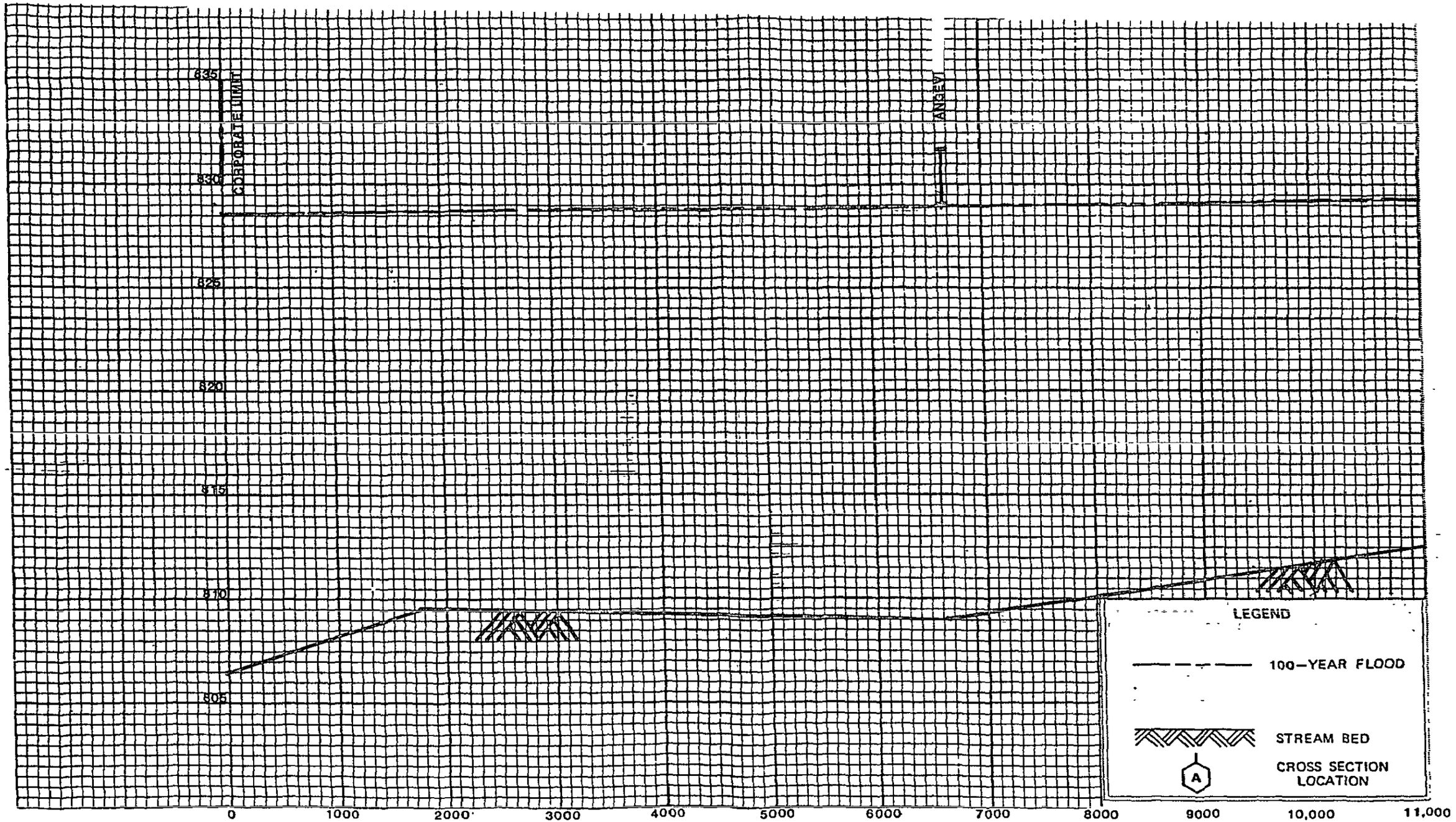
VERT 1"=10'

SHEET 1 OF 1
HUD 2016-07

KEUFFEL & ESSER CO
10 X 10 TO THE INCH



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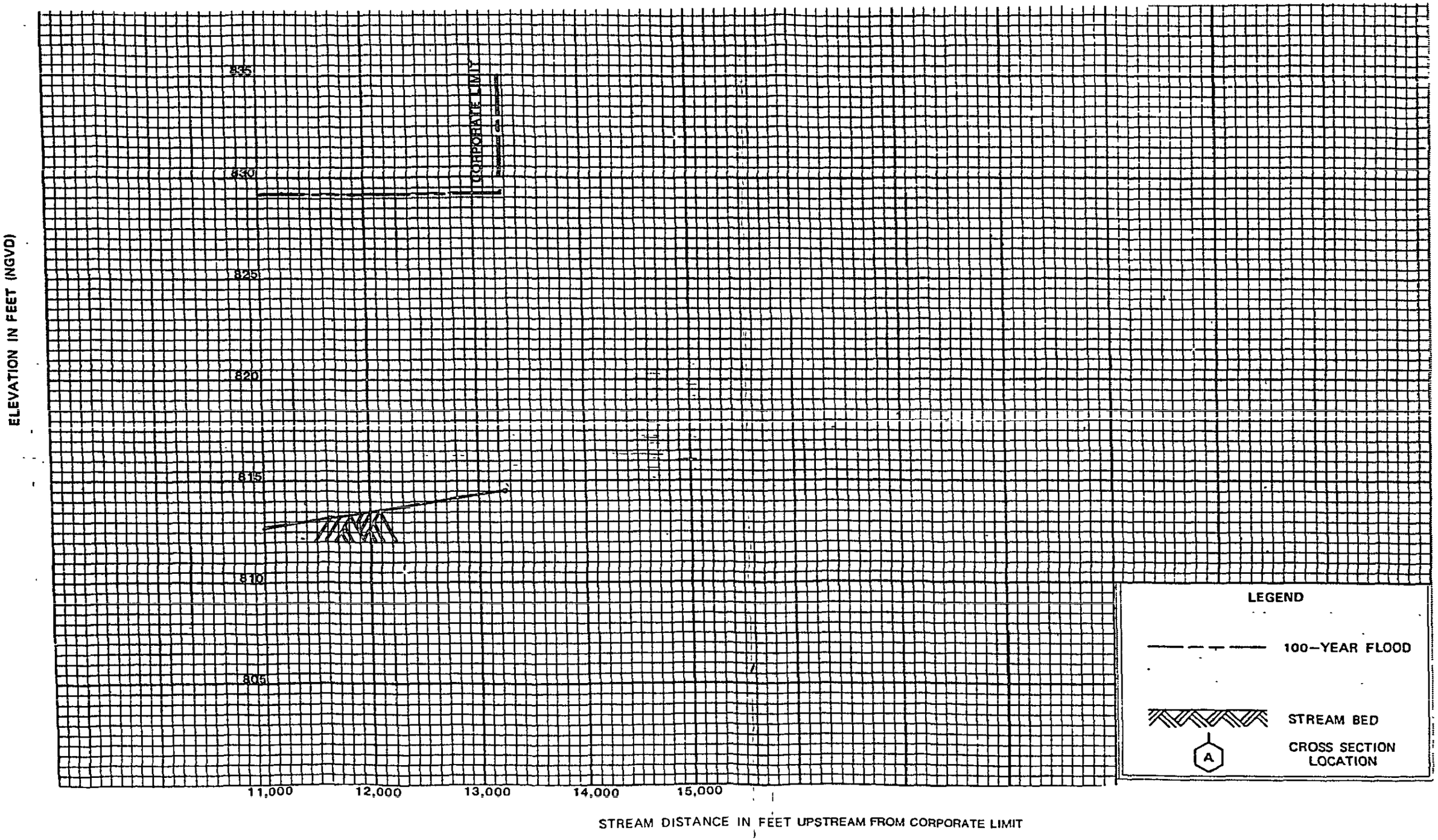

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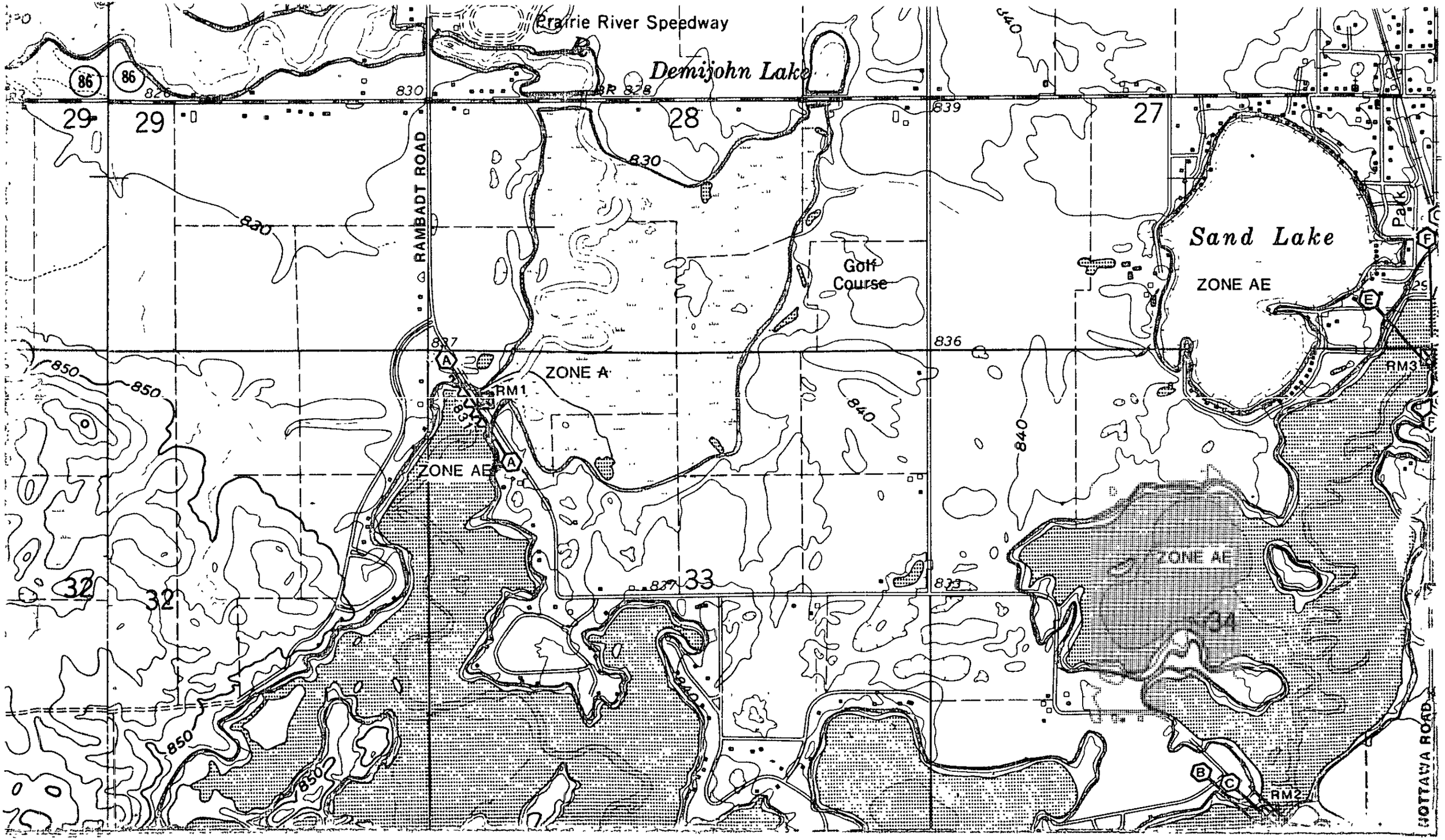

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Demijohn Lake
Sand Lake
Golf Course
ZONE AE
ZONE A
ZONE AE
ZONE AE
RAMBADT ROAD
NOTTAWA ROAD
Park
RM1
RM2
RM3
29
29
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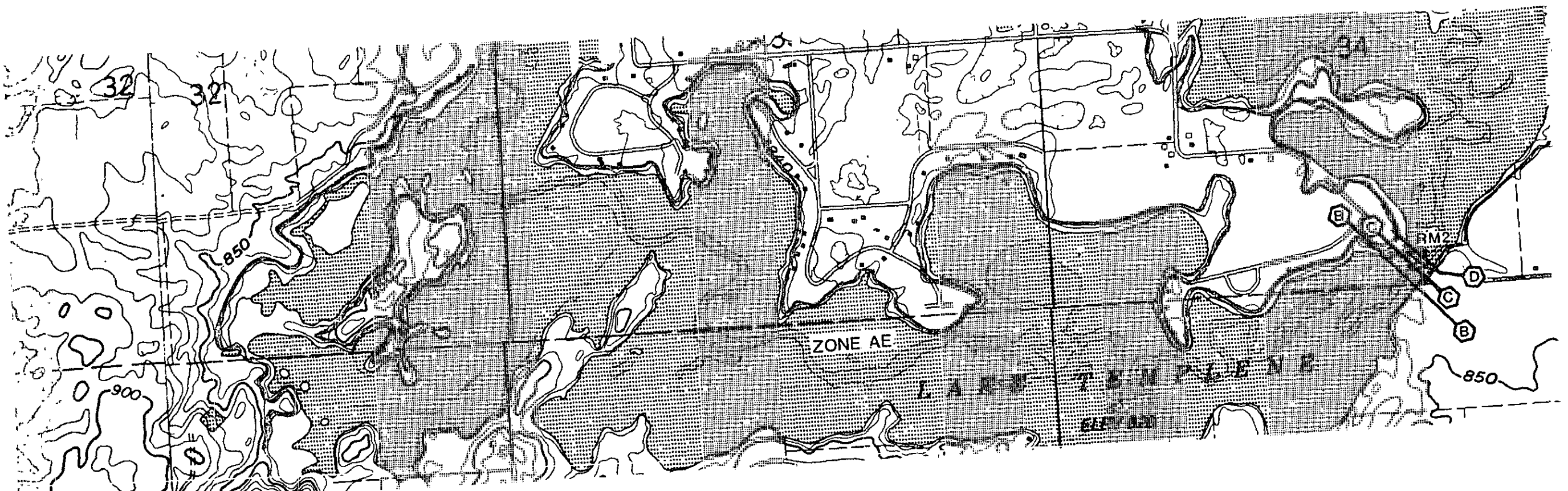
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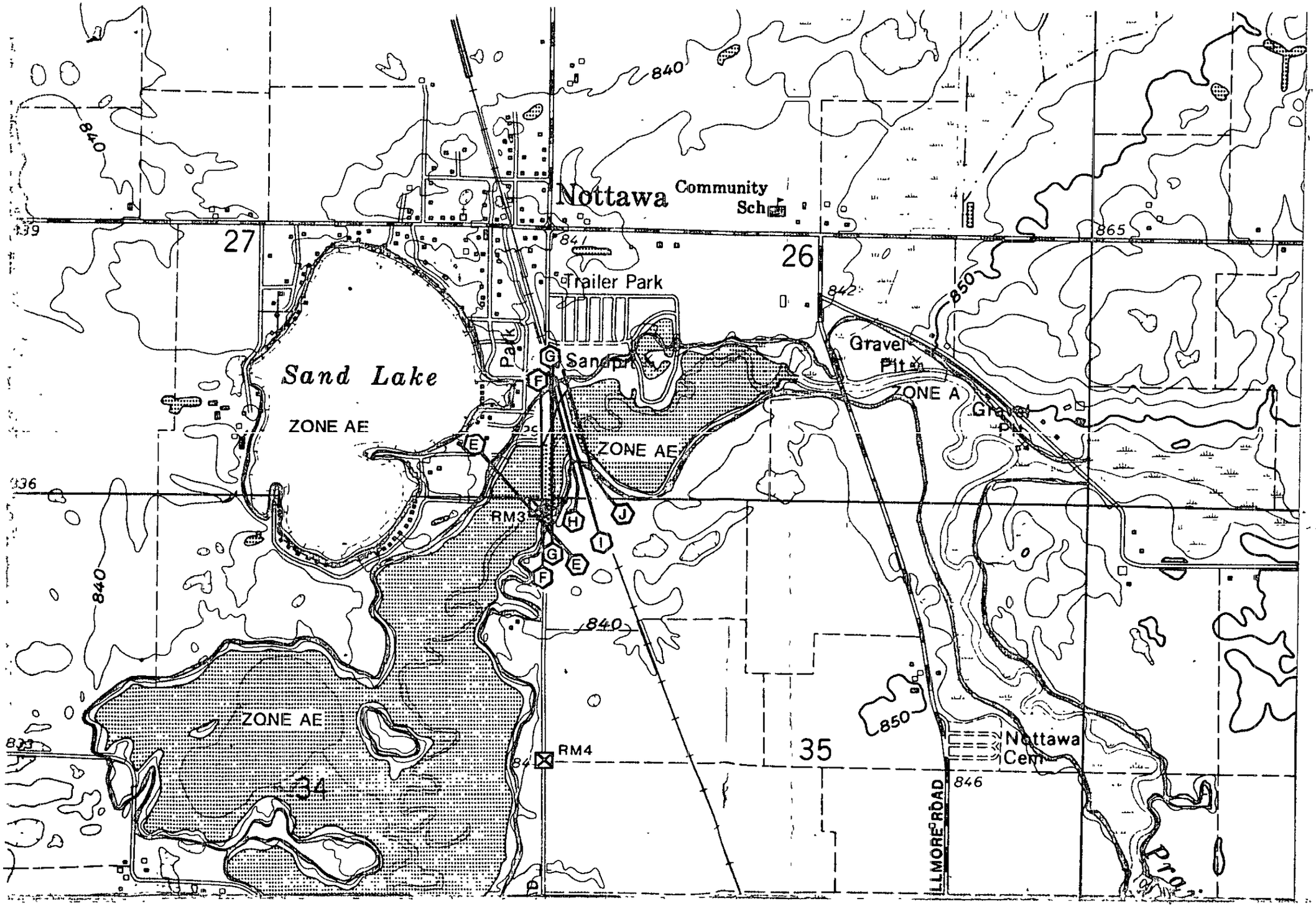

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Community
Sch
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27
26
841
Trailer Park
842
850
865
Gravel
Pit
ZONE A
Sand Lake
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Sandpit
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Nottawa
Cem
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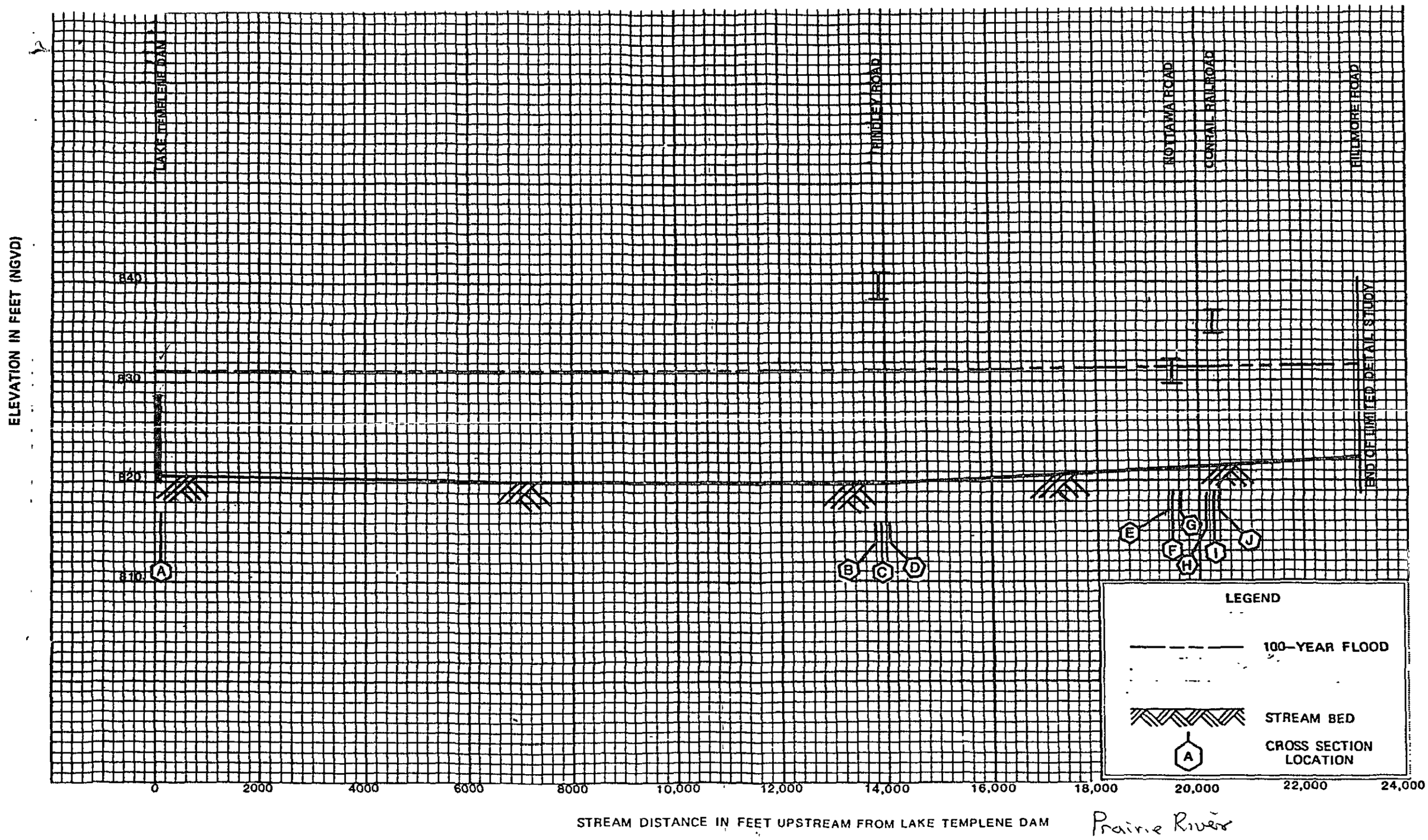
LLMORE ROAD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820
810
LAKE TEMPLENE DAM
RINDLEY ROAD
KOTTAWA ROAD
CONRAIL RAILROAD
HILLMORE ROAD
END OF LIMITED DETAIL STUDY
A
B
C
D
E
F
G
H
I
J
LEGEND
100-YEAR FLOOD
STREAM BED
CROSS SECTION LOCATION
0
2000
4000
6000
8000
10,000
12,000
14,000
16,000
18,000
20,000
22,000
24,000
STREAM DISTANCE IN FEET UPSTREAM FROM LAKE TEMPLENE DAM
Prairie River

00BREAK00

1) COUNTY: WASHTENAW

2) STUDY NAME: CITY OF ANN ARBOR

3) WATERCOURSE: WEST BRANCH OF PITTSFIELD - ANN ARBOR DR.
NORTHWEST " " " " " DR

4) DOCUMENT TYPE: REPORT

00BREAK00

Enclosure over Northwest Branch Pittsfield - Ann Arbor Drain.

C.S. 751 and C.S. 4905

There is no survey data for enclosure. Information was taken from "Sewer Plans for Eisenhower Parkway and King George".

d/s face of enclosure is 10'-9" x 17'-0" RCP pipe.

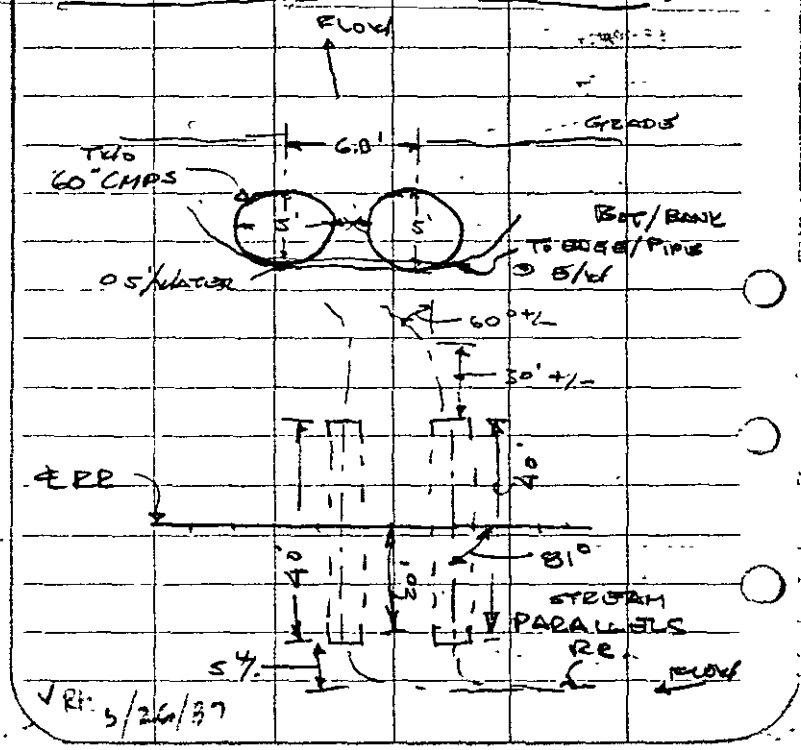
u/s face of enclosure is 84" concrete pipe.

Ann Arbor Railroad over Northwest Branch Pittsfield - Ann Arbor Drain (PAAD).
C.S. 5380 - 5480 on HEC-2 run.

N.W. BRANCH PITTS. & A.A. DR
EXCT. F.S. ODT & I RR

STA	+	HI	−	ELEV
TBM 1				833.43 ✓
	7.54	840.97		
TP 2 @ & END CUV.T			7.67	833.30 ✓
	7.81	840.11		
✓ TBM 7			7.68	833.43 ✓

CHECKED 5/19/87 C.E.d.



✓ Rt: 5/26/87

UC
JS
JR

4/13/87 870231 75/

NAIL IN Ø40' W/ DT & I RR

SEE PG 3

TP8 1 - TOP W END 5' CMP

(8 LY OF TWO) W. SIDE DT & I

RR 800' +/- S OF EISENHOWER

CMP'S IN GOOD COND.

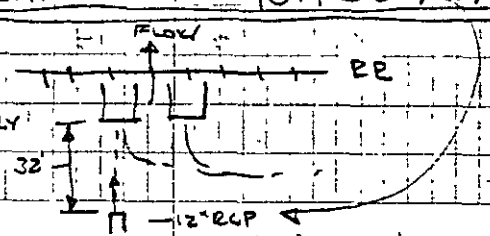
STA	+	HI	-	ELEV
IP 1 ~~TBM 1~~				833.~~43~~ 30
	6.89	840.19		

O = ℄ LT. CMP

INV. (L) 60" CMP	11.86 828.33
INV. (R) 60" CMP	11.84 828.35
E/W 3' LT	11.4 828.~~79~~ 8
E/W 9' RT	11.4 828.~~79~~ 8
GRADE @ TOP, 8' U/S /PIPES	5.0 835.~~19~~ 2
INV 12" ~~CMP~~ RCP	10.40 829.79

REDUCED 5/19/87
C.E.J

12" RCP
32' DIRECTLY
WEST OF
(L) PIPE



H.W. BRANCH PITT: G.A. DR.
SECT #3 @ OT & I RR

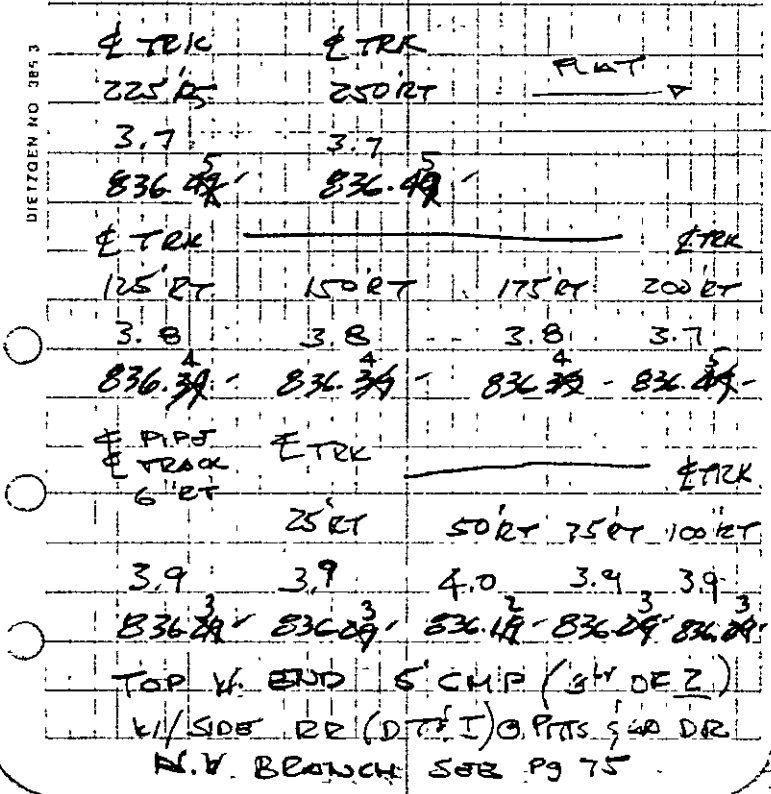
STA	+	HI	−	ELEV
	○ =	℄ TRK @ ℄ (L)		PIPE
✓ TP1			6.89	833.30 ✓
				℄ TRK
← FLAT				250' LT
				3.9
				836.99
℄ TRK				℄ TRK
225' LT	200' LT	175' LT	150' LT	125' LT
4.0	4.0	4.0	4.0	4.0
836.19	836.19	836.19	836.19	836.19 ✓
				℄ PIPE (L)
℄ TRK			℄ TRK	℄ TRK
100' LT	75' LT	50' LT	25' LT	0
4.0	4.0	3.9	3.99	3.95
836.19	836.19	836.59	836.20	836.24
	6.89	40.19 ✓		
TP1				833.30 ✓
✓RH 5/20/87		REDUCED 5/19/87		C.C.✓

HC
JS
JR

4/13/87 870231 76/

N.W. BRANCH PITC & A.A. DR

SECT # 3 @ DT & I RR



TOP W. END 5' CMP (3RD DEZ)

W/SIDE RR (D & I) @ PITS & A.A. DR

N.W. BRANCH SEE PG 75

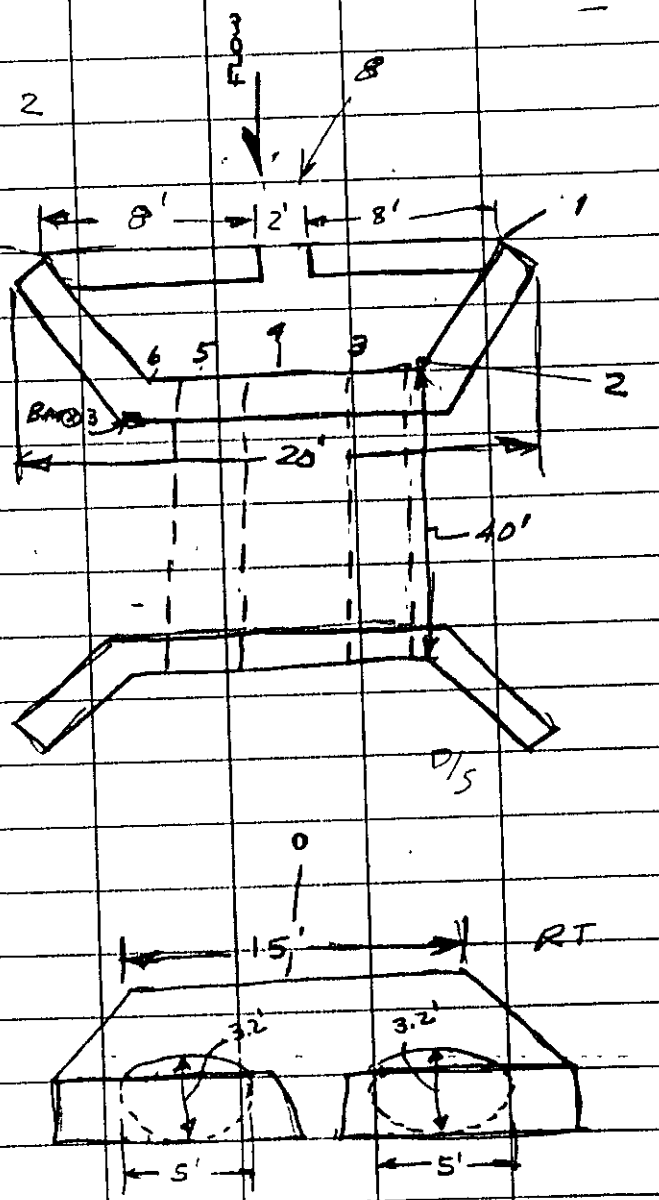
Outlet of retention basin over Northwest Branch PAAD.
C.S. 5451 on HEC-2 run

0

BM ⊗ 3				833.47	
	6.23	HI 839.90			
	PESC	Dist	RoD	ELEV	
1	Top of flow wall in front	LT SIDE 3'L	7.64	832.26	
2	IN SIDE Bottom LT	0	10.29	829.61	
3	℄ of LT Conc. Cul	4'R	10.44	829.46	
4	℄ of Two Cul	7'R	10.48	829.42	
5	℄ of RT Cul	10'R	10.58	829.32	
6	INSIDE Bottom R	14'R	10.70	829.20	
7	Top of OUTSIDE WALL	17'R	8.08	831.82	
8	BETWEEN OPENING OF OUTSIDE WALL	7'R	10.53	829.37	
Top of HILL OVER CULVERTS	℄ of CULVERT'S	0	4.7	835.2	
		25'R	4.3	835.6	
		50'R	4.3	835.6	
100' R A.D		75'R.	4.7	835.2	
		25'L	5.2	834.7	
		50'L	5.8	834.1	
		75'L	6.3	833.6	
		100'L	6.5	833.4	

10

PAGE 2



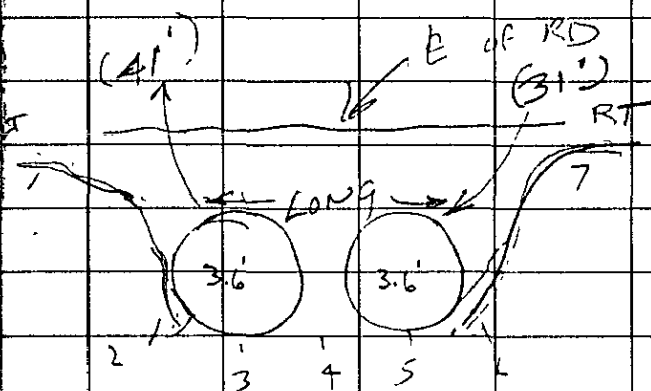
Inlet to retention basin over Northwest Branch PAAD.
C.S. 5731 on HEC-2 run.

9

Top of Sewer TP2				837.19	Pr 2
	3 27	840 A6 (5)			
	DESC	Dist	RoD		
1	Top of LT BK	0 L	5.6	834.9	
2	TOE of LT BK @ water	9' R	10.3	830.2	
3	℄ of LT Cul. Bottom	12' R	11 3	829.2	
4	Center of Two Culvert	14' R	11.2	829.3	
5	℄ of RT Culvert	16' R	11.2	829.3	
6	TOE of RT BK @ water	18' R	10.7	829.8	
7	Top of RT BK	29' R	3.7	836.8	
Top RD Construction	LT L/S	(41' long)	7.34	833.12	
	RT L/S	(31' long)	7.04	833.42	
	℄ of Road		4 1	836.4	

Construction Heavy Equipment @ work

INLET



U/S FACE

(2) 42" PIPES

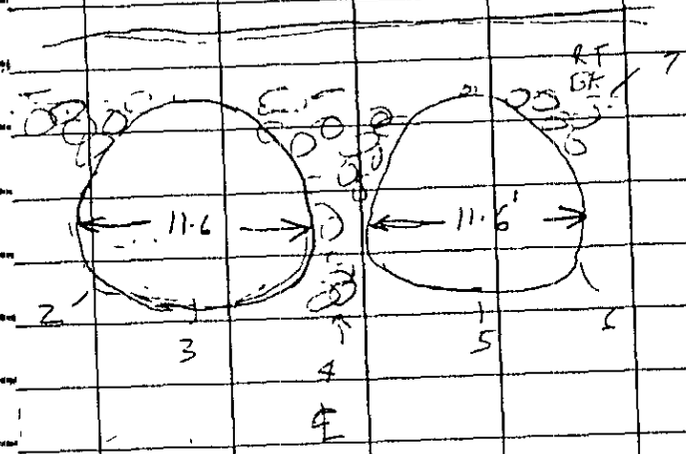
Road elev. will change until const. is complete

Boardwalk over Northwest Branch PAAD
C.S. 6201-6294 on HEC-2 run

7

				⊗ C
BM 104				842.62
	4.13	HE 846.75		
	DESC	Dist	RoD	
1	Top of BK LT	0	6.3	840.5
2	TOE of BK @ metal Culvert	4' R	12.8	834.0
3	℄ of LT Cul @ Bottom	10.5' R	14.2	832.6
4	Middle of Two Culvert	19' R	14.0	832.8
5	℄ of RT Cul Bottom	27' R	14.1	832.7
6	TOE of RT BK @ Cul	33' R	13.6	833.2
7	Top of RT BK	38' R	5.9	840.9
ROAD ⊗ 6	LT L/S Culvert		6.43	840.32
	RT L/S Culvert	27' R	6.39	840.36
	℄ LT Cul on RD	0 L	5.17	841.58
	on RD	25' L	5.22	841.53
	"	50' L	5.58	841.17
	"	75' L	5.96	840.79
	"	100' L	5.14	841.61
		125' L	6.37	840.38
	Road Total	150' L (over)	6.59	840.16

(4-7-87) ⊗ 6



Dist = 95' ACROSS

		HI		
		846.75		
	DESC	Dist	Rod	
	℄ of RT Rd			
	CULVERT ON RD	27'R	5.24	841.51
		50'R	5.51	841.24
		75'R	5.83	840.92
		100'R	6.17	840.58
		125'R	6.50	840.25
		150'R	6.71	840.04
	ON RD	175'R	6.85	839.90
		CK Shot	4.12	842.63

Private bridge over Northwest Branch PAAD
C.S. 6930-6960 on HEC-2 run

5	1ST DAM D/S FROM 7TH AVE			1/7/88
BM 113				911.04
	5.02	916.06		
⊗ B	DESC	Dist	ROD	
• 1	Top of Lt BK	0 L	15.3	900.8
• 2	Toe of Slope	100 L	12.0	904.1
• 3	Top of SLOPE	160 L	5.2	910.9
• 4	Top of Lt WING WALL	4 R	15.45	900.61
5	Bottom FACE U/S of WALL	4 R	16.1	900.0
6	TOE of BK	13 R	18.0	898.1
• 7	Top DAM ANGLE	18 R	17.31	898.75
8	U/S FACE	18 R	18.2	897.9
• 9	℄ Top of DAM OPEN	31 R	18.28	897.78
10	U/S FACE	31 R	18.5	897.6
• 11	Top of DAM ANGLE	44 R	17.29	898.77
12	U/S FACE OF WALL	44 R	18.1	898.0
13	Toe of Rt BK	49 R	18.1	898.0
• 14	Top of WING WALL	59 R	15.40	900.66
15	U/S WALL FACE	59	16.1	900.0
• 16	Top of BK	68 R	14.8	901.3
• 17	GE	85 R	13-7	902.4

⊗ B-DAM HALFWAY BETW. & BEHIND RES # 2331 & 2335 DELAWARE

SEE Pg 3

check PAGE 4 DESC - ON RT FOR MORE INFORMATION ON HEAD WALL

5

6

		~~B~~		
BM 113				911.04
	5.02	916.06		
	DESC	Dist	RoD	ELEV
18	D/S SECOND DAM TOP LT	13'R	19.81	896.25
19	D/S FACE	13'R	22.3	893.8
20	TOP @ ANGLE	21'R	20.32	895.74
21	D/S FACE	21'R	22.1	894.0
22	TOP @ ℄ OPEN	26.5'R	21.38	894.68
23	TOE D/S FACE	26 31.5'R	22.2	893.9
24	TOP ℄ OF WALL BETWEEN OPEN	31.5'R	20.30	895.76
25	D/S FACE	31.5'R	22.26	893.80
26	℄ TOP OPEN	36.5'R	21.34	894.72
27	D/S FACE	36.5'R	20.8	895.3
28	TOP @ ANGLE	41'R	20.28	895.78
29	D/S FACE	41'R	21.8	894.3
30	TOP END OF WALL	50'R	19.67 ~~20.2~~	896.39
31	TOE OF BK RT	50'R	20.3	895.8
32	TOP OF BK RT	61'R	15.4	900.7
33	TOE LT BK	11'R	21.3	894.8
34	TOP LT BK	0	15.3	900.8

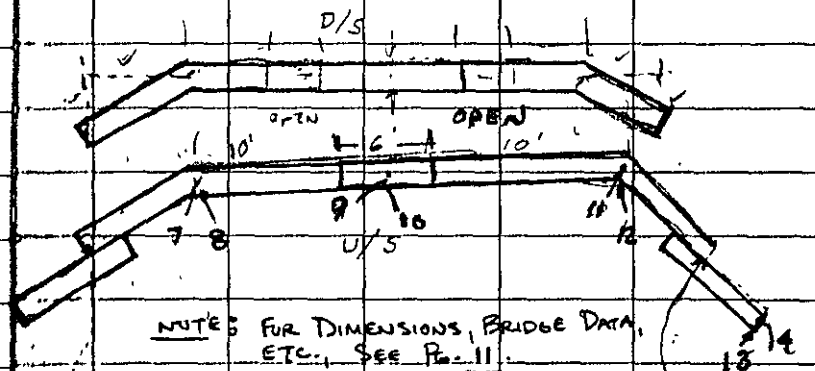
SECONDARY DAM

6

1/4/88

Ref. Pg. 3

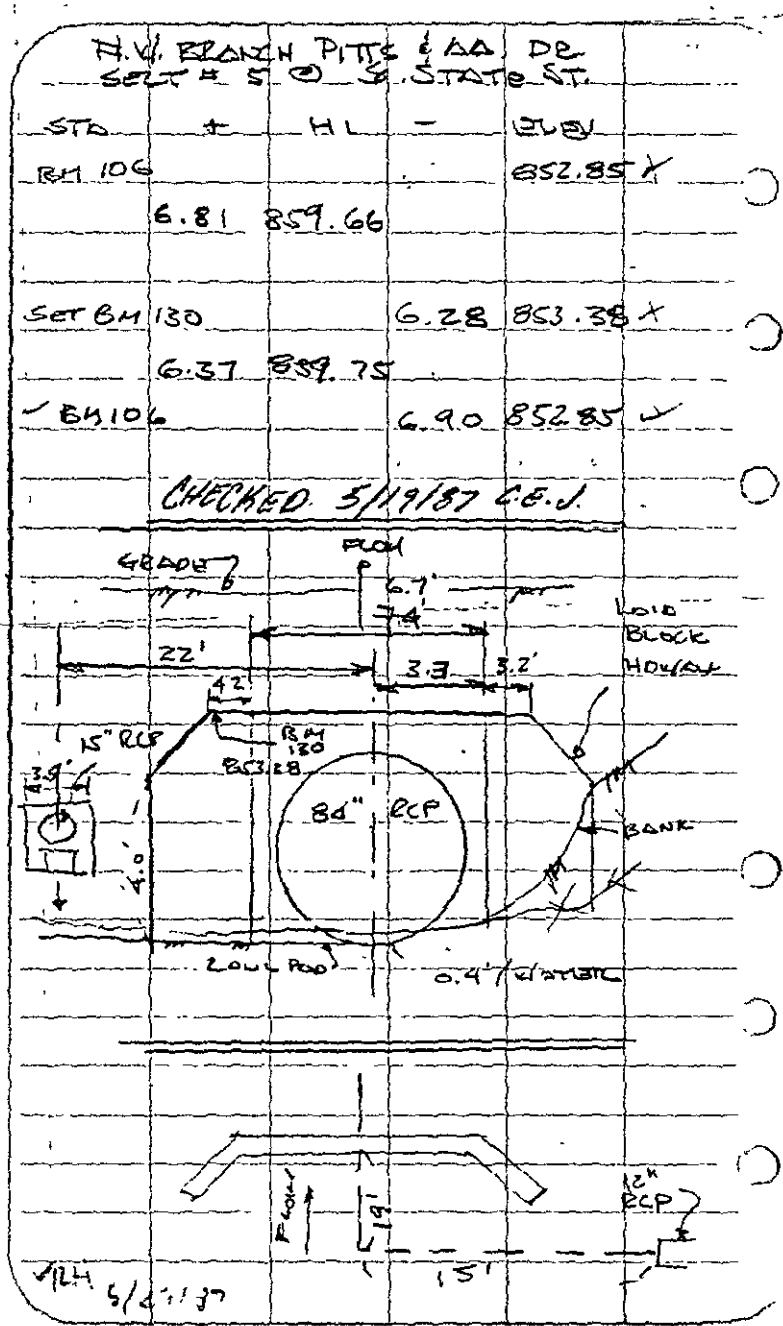
B



NOTE: FOR DIMENSIONS, BRIDGE DATA, ETC., SEE Pg. 11

DESC	Dist		
TOP OF WALL	8'R	17.28	898.78
D/S	8'R	19.3	896.8
TOP OF WALL 61	55'R	17.13	898.93
D/S	55'R	19.6	896.5

State Street over Northwest Branch PAAD
c.s. 7400-7571 on HEC-2 run.



MC
JS
JR

4/13/87 870231 78/
55° SUNNY

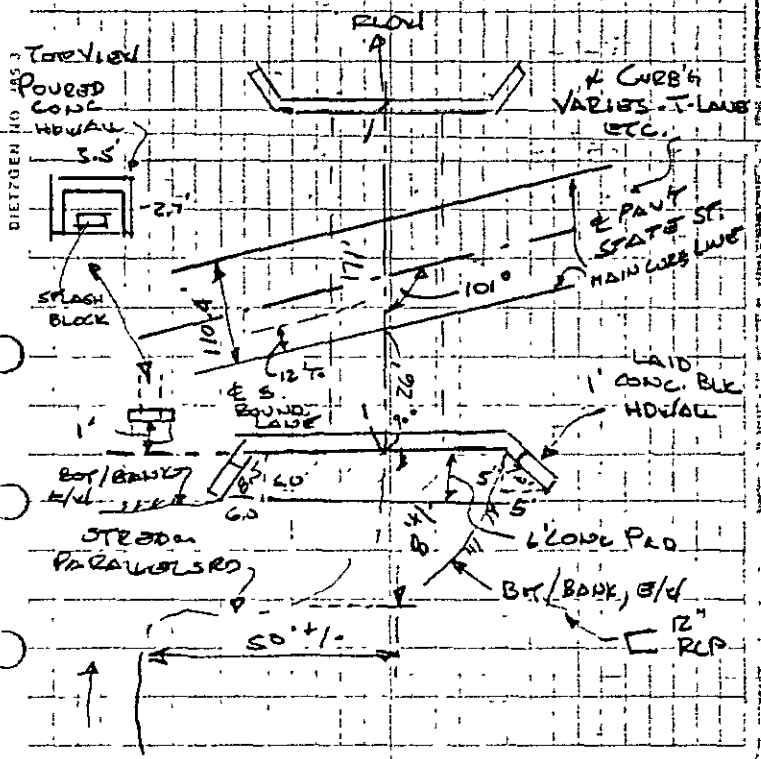
N.W. BRANCH & A.A. DR.

SECT #5 @ S. STATE ST. BRIDGE

BM106 - "□" CUT IN CONC HDWALL

SEE Pg 5

BM 130 - CHISEED "□" @ N.W. END CONC WINGWALL, W. SIDE S. STATE ST. @ N.W. BRANCH PITTSFIELD & ANN ARBOR DR.



N.W. BRANCH PITTS & AA DR
SECT# 5 @ S STATE ST.

STA	+	HI	−	ELEV
BM 130				853.38
	4 51	857.89		
TOP/(L) HDWALL			4.46	853.43
TOP/(R) HDWALL			4.45	853.44
TOP/(L) WING HDWALL			9.0	848.89
TOP/(R) WING HDWALL			8.33	849.56
E/W 5' RT			12.8	845.04
E/W 4' LT @ WINGWALL			12.8	~~854~~ 845.09
INV. 15" RCP			10.58	847.31
INV. 12" RCP			12.56 ~~10.58~~	845.33
INV. 84" RCP			13.02	844.87
GRADE 8' D/S OF HDWALL			2.4	855.49

JRF 5/2[illegible]/57

H.V. BRANCH PITS & AA DR
SECT #5 @ STATE ST.

STA	+	HL	−	ELEV
	0 −	℄ PAV'T	0 ℄ PIPE	
✓ BM 130			7.58	853.38 ~~✗~~ PG 78
				℄ PAV'T
	STEADY GRADE			250'LT
	←			2.54
				858.42
℄ PAV'T	——	——	——	℄ PAV'T
225 LT	200'LT	175'LT	150'LT	125 LT
2.75	2.87	3.05	3.40	3.63
858.21	858.09	857.91	857.56	857.35
℄ PAV'T.	——	——	℄ PAV'T	℄ PIPE ℄ PAV'T
100'LT	75'LT	50'LT	25'LT	0
3.88	4.18	4.43	4.63	4.73
857.08	856.78	856.53	856.33	856.23
	7.58	860.96 ✓		
BM 130				853.38 ~~858~~
VLM 5/26/87		REDUCED 5/19/87 C.E.L		

MC
JS
JR

4/13/87 870231 80/

N.W. BRANCH PITTS & A.A. DR

SECT #5 @ STATE ST.

& SECT. TAKEN @ ℄ S

BOUND LANE

GRADE RISES TO
RT 94 OVER PASS →

℄ PAV'T
250' RT
6.96
854.00

℄ PAV'T			℄ PAV'T
150' RT	175' RT	200' RT	225' RT
6.06	6.33	6.60	6.79
854.90'	854.63'	854.36'	854.17'

℄ PAV'T				℄ PAV'T
25' RT	50' RT	75' RT	100' RT	125' RT
4.86	5.19	5.32	5.48	5.84
856.10'	855.77'	855.64'	855.48'	855.12'

CHISELED "□" IN CONC HOWALL
SEE Pg 78.

DIETZGEN NO. 185 3

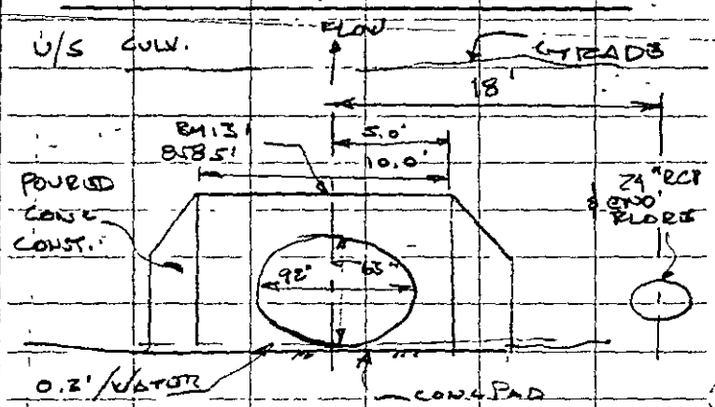
Culvert, outlet of Retention Pond at Briarwood, over Northwest Branch PAAD
C.S. 8181-8425 on HEC-2 run.

N.W. BRANCH PITTS & AA DR
SECT #6 @ E. END POND @
HALL DR.

STA	+	HI	−	ELEV
BM 107				855.05 ✓
	11.83	866.88		
SET BM 131			8.37	858.51 ✗
	8.56	867.07		
✓BM 107			12.02	855.05 ✓

CHECKED 5/19/87 C.E.J.

U/S CULV.



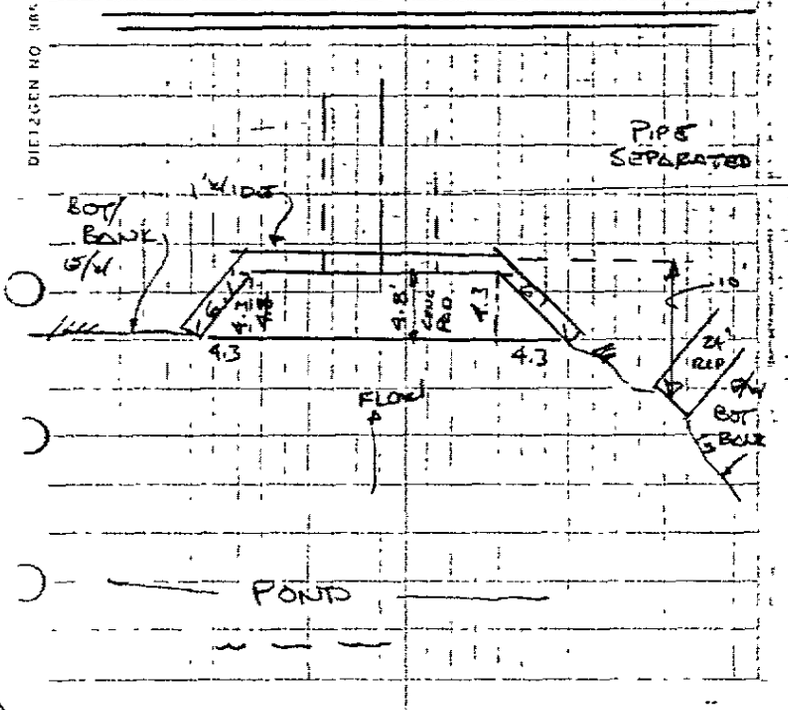
✓RH 5/20/87

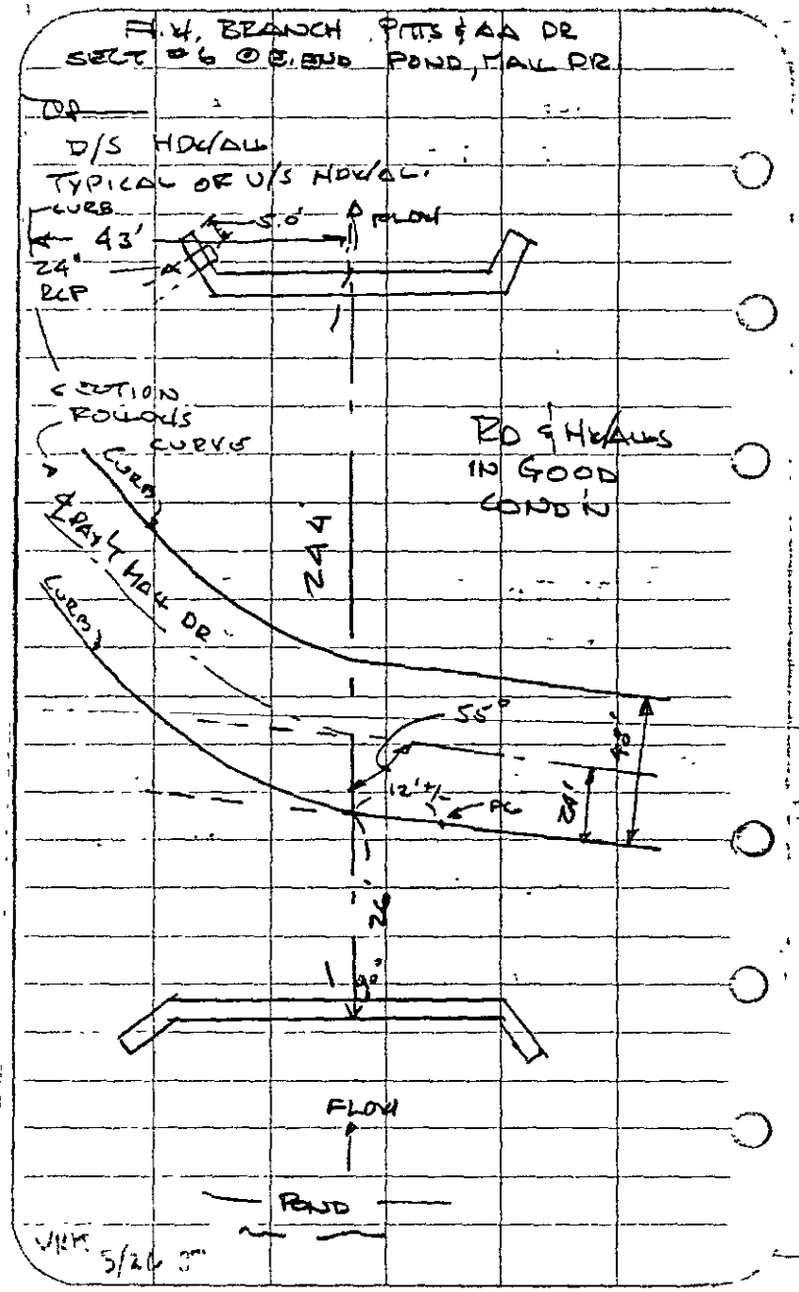
HC
JS
DE

4/13/87 870231 8/

CHISELED "□" IN CONC HDWL
SEE Pg 5

BM 131 END CHISELED "□" @
℄ CONC HDWL @ D/S END POND
W. SIDE HALL DR, 150'+/- W/ELY
OF MARKET PL.





FL. 4, BRANCH PITTS & AA DR
SECT #6 @ E. END POND, MALL DR
D/S HDWALL
TYPICAL OF U/S HDWAL.
CURB
43'
5.0'
FLOW
24"
RCP
SECTION
FOLLOWS
CURVE
CURB
℄ PAYT MALL DR
CURB
RD & HWALLS
IN GOOD
COND'N
244
55°
12'+/-
PC
24'
48'
26'
90°
FLOW
POND

HC
JS
JR

4/13/87 870231 82

N.W. BRANCH PITTS. & A.A. DR.

SECT. C @ E. END POND @ MALL DR

(SEE PG 81 ALSO)

STA	+ HI	−	ELEV
BM 131			858.51
	5.80		864.31

U/S INV. 63" X 98" RCP	12.77	851.54
D/S INV. " "	16.33	847.98
TOP/(L) HDWALL	5.82	858.49
TOP/(R) HDWALL	5.79	858.52
TOP/(L) W.WALL	8.87	855.44
TOP/(R) W.WALL	8.80	855.51
CONC PAD @ (L) W.WALL	12.75	851.56
CONC PAD @ (R) WINGWALL	12.70	851.61
INV 24" RCP (U/S)	~~12.77~~	852.09 12.22
GRADE 20' D/S OF CULV'T.	3.1	861.24
INV. 24" RCP (D/S)	15.88	848.43

REDUCED 5/19/87 CEJ.

DIETZGEN NO 385 3

N.W. BRANCH PITTS & A.A. DR.
SELT. 6 @ E. END POND @ MALL DR.

STA	+	HI	−	ELEV
		OF ℄ PAV'T @ ℄ PIPE		
✓ BM 131			5.80	858.51 ✓
	STEADY			℄ PAV'T
	GRADE			250' LT
				4.63
				859.68
℄ PAV'T				℄ PAV'T
225' LT	200' LT	175' LT	150' LT	125' LT
4.51	4.38	4.32	3.90	3.79
859.80	859.93	859.99	860.41	860.52
℄ PAV'T			℄ PAV'T	℄ PAV'T ℄ PIPE
100' LT	75' LT	50' LT	25' LT	0
3.60	3.32	3.10	3.14	2.68
860.71	860.99	861.21	861.17	861.63
	5.80	864.31 ✓		
BM 131				858.51

VRH 5/24/87 REDUCED 5/19/87 C.E.

ML
JS
JR

9/13/87 870231 83/

N.W. BRANCH PITTS & A.A. DR

SECT 6 @ E END POND @ MALL DR.

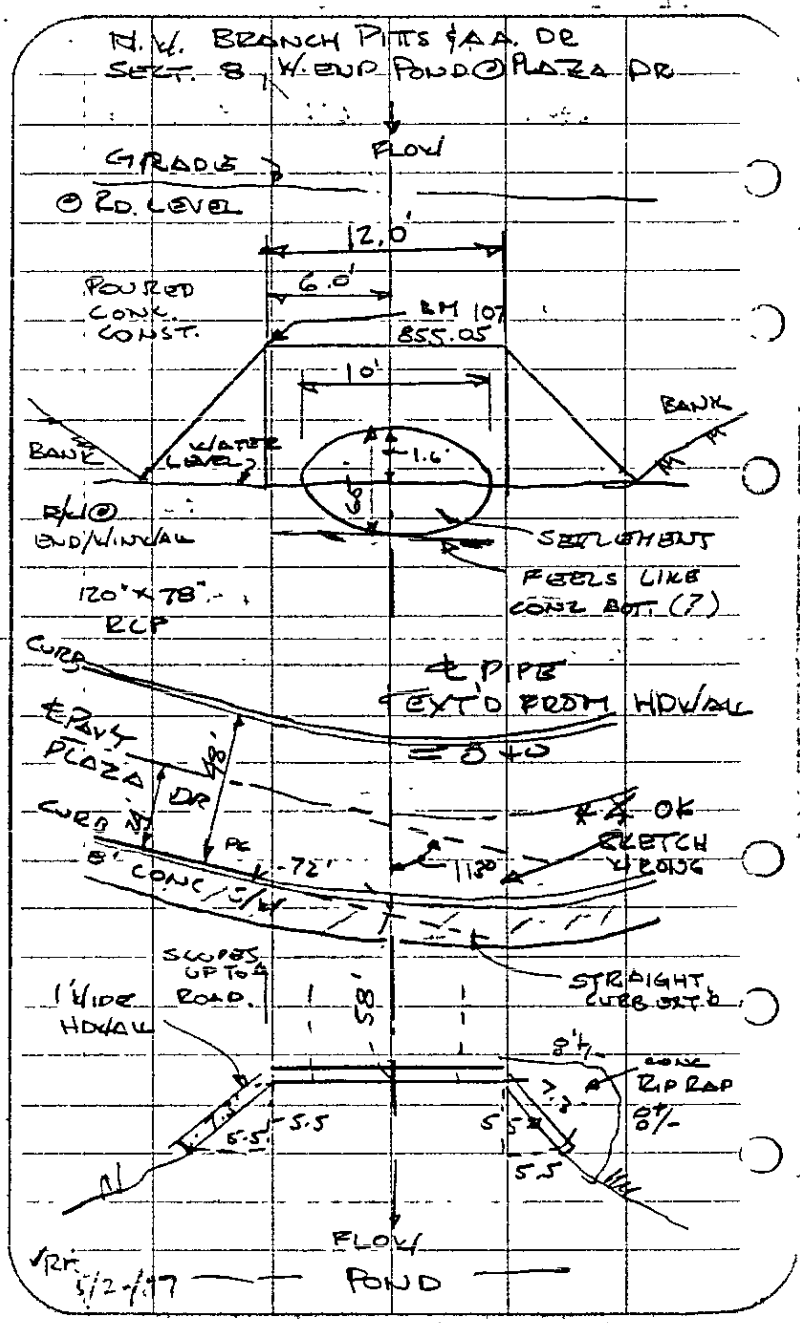
FLAT
MALL
PARK'G

℄ PAV'T	℄ PAV'T		
225' RT	250' RT		
1.07	0.67		
863.24	863.64		
℄ PAV'T			
125' RT			℄ PAV'T
[illegible]	150' RT	175' RT	200' RT
1.63	1.51	1.15	1.10
862.69	862.80	863.16	863.21
℄ PAV'T	℄ PAV'T		℄ PAV'T
25' RT	50' RT	75' RT	100' RT
2.60	2.36	2.06	1.92
861.71	861.95	862.25	~~863~~ 862.39

REF. PAGE 81

DIETZGEN NO 385 3

D/S Face Eisenhower Parkway over Northwest Branch PAAD
C.S. 8701 on HEC-2 run.



HC
JS
JR

4/13/87 870231 84/

N.W. BRANCH PITTS & A.A. DR.
SECT # 8 @ W. END POND @ PLAZA DR
600'+/- S. OF EISENHOWER PKWY

ROAD & HDWALL IN
GOOD COND.

REP PG 5

STA	+ HI	-	ELEV
BM 107			855.07 5
	3.64	858.71	
INV 120" X 78" RCP		11.86	846.85 3
TOP/(L) HDWALL		3.55	855.16 4
TOP/(R) HDWALL		3.64	855.07 5
TOP/(L) W. WALL & E/W		7.10	851.61 .59
TOP/(R) WINGWALL & E/W		7.18	851.53

* NOT SURE WHERE
PIPE BENDS
REDUCED 5/19/87 CEH

DIETZGEN NO 385 3

N.W. BRANCH, PITTS & A.A. DR
SECT. # 8 W. END POND @ PLEZA D.R.

STA	+	HI	−	ELEV
✓ BM 107			11.46	855.06 ✓
MAN MADE GRADE RISES UP UP 8'+- N/ EISENHOWER.				℄ PAV'T
				250' LT
⊙ EISENHOWER				6.52
↓				859.99 ✓
℄ PAV'T		———		℄ PAV'T
225 LT	200 LT	175 LT	150 LT	125 LT
6.64	7.04	7.24	7.38	7.13
859.87	859.47	859.27	859.13	859.38 ✓
℄ PAV'T	———		℄ PAV'T	℄ PIPE ℄ PAV'T
100 LT	75 LT	50 LT	25 LT	0
6.69	6.19	5.74	5.32	4.85
859.82 ✓	860.32	860.77	861.19 ✓	861.66 ✓
	11.46	866.51		
BM 107				855.05

VZH 5/26/87 REDUCED 5/19/87 C.E.J.

MG
JS
JR

4/13/87 -- 870231 85/

N.W. BRANCH PITTS. & A.A. DR

SECT # 8 @ W. END POND @ PLAZA DR

* DID NOT DO SECTION # 7
FALLS THRU POND.

DIETZGEN NO 385 3

℄ PAV'T — MALL PARK'G →

250' RT
0.06
866.45'

℄ PAV'T ——— ℄ PAV'T

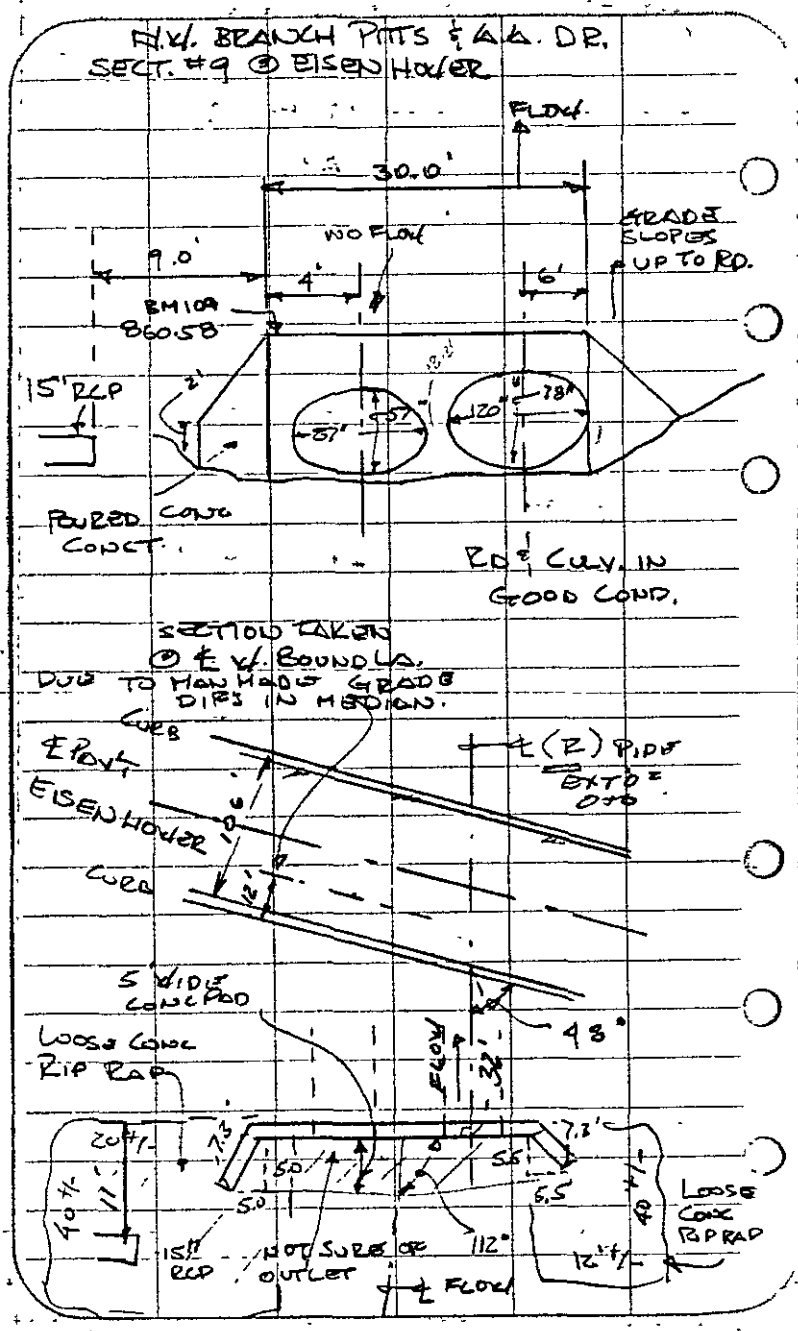
150' RT	175' RT	200' RT	225' RT
1.91	1.44	1.06	0.44
864.60'	865.07'	865.45'	866.07'

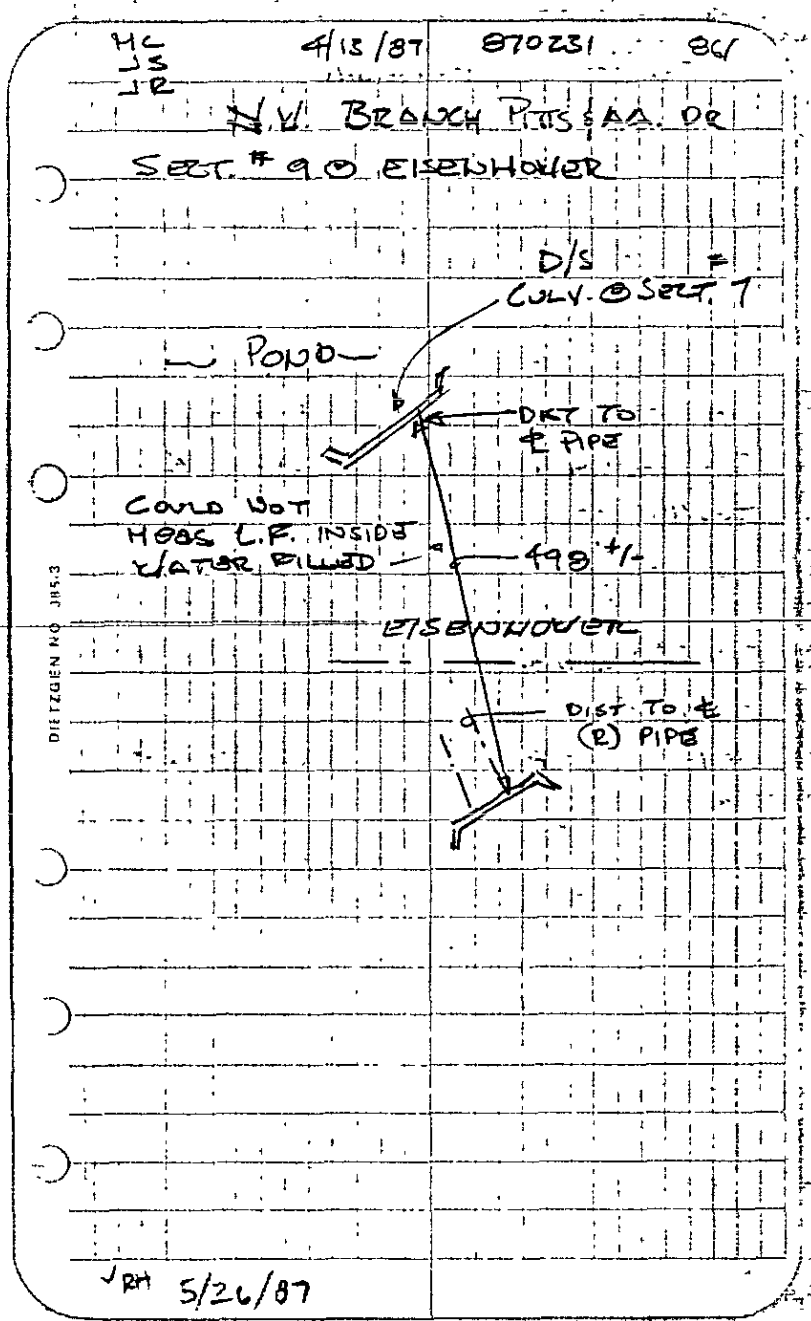
℄ PAV'T ——— ℄ PAV'T

25' RT	50' RT	75' RT	100' RT	125' RT
4.20	3.66	3.20	2.72	2.31
862.31'	862.85'	863.31'	863.79'	864.20'

CHISELED "□" ON CONC HDWALL SEE PG 5

u/s face Eisenhower Parkway over Northwest Branch PAAD.
c.s. 9230 on HEC-2 run.




HC
JS
JR
4/13/87
870231
BC
N.Y. BRONX PITTS & A.A. DR
SECT #90 EISENHOWER
D/S
CULV. @ SECT 7
POND
DRT TO
℄ PIPE
COULD NOT
HOOK L.F. INSIDE
WATER FILLED
498 +/-
EISENHOWER
DIST TO ℄
(R) PIPE
DIETZGEN NO 385.3
JRH 5/26/87

N.W. BRANCH PITTS & A.A. DR
SECT. #9 @ EISENHOWER

STA	+	HI	−	ELEV
	℄ = ℄ / (R) PIPE			
BM 109				860.58
	3.42	864.00 ✓		
INV. 20"X 78" RCP			11.71	852.29
INV 87"X 57" RCP			11.06	852.94
TOP/(L) HDWALL			3.42	860.58
TOP/(R) HDWALL			~~4.17~~ 3.43	860.57
E/W 5' RT			11.4	852.60
E/W 21' LT			11.4	852.60
TOP/(L) W.WALL			7.07	856.93
TOP/(R) WINGWALL			7.17	856.83
INV 15" RCP			10.36	853.64

REDUCED 5/19/87

VPH 5/26/87

N.W. BRANCH PITTS & A.A DR
SECT # 9 @ EISENHOWER

STA	+	HI	-	ELEV.
	0+0 = ℄ PAV'T OVER (RT) PIPE			
✓BM109			7.80	860.58 ✓

STEADY GRADE
RISES 2-3"+/-
TO STATE ST.

		℄ PAV'T	℄ PAV'T	℄ PAV'T
		275'LT	250'LT	225'LT
		8.90	8.92	8.78
		859.48'	859.46'	859.60'
℄ PAV'T				℄ PAV'T
200'LT	175'LT	150'LT	125'LT	100'LT
8.57	8.44	8.28	8.14	7.94
859.81'	859.94'	860.10'	860.24'	860.44'
℄ PAV'T	℄ PAV'T	℄ OVER (L) PIPE	℄ PAV'T	
75'LT	50'LT	30'LT +/-	25'LT	℄ PAV'T ℄ (R) PIPE
7.78	7.55	7.30	7.28	6.96
860.60'	860.83'	861.08'	861.10'	861.42'
	7.80	868.38 ✓		
BM109				860.58' PLS

VRF 5/26/87 REDUCED 5/19/87 C.E.J.

MC
JS
JR

4/13/87 870231 88/

N.W. BRANCH PITTS & A.A. DR.

SECT # 9 @ EISENHOWER PKWY

TOOK SECTION IN ℄ W. ROUND

LA, ℄ MEDIANS IRREGULAR

DIETZGEN NO 385 3

℄ PAV'T

250' RT. — RISES 2-3"/- @ 200.9

0.70 — FLATTENS OUT TO

867.68' — S MAIN ST.

℄ PAV'T ——— ℄ PAV'T

150' RT	175' RT	200' RT	225' RT
3.78	3.03	2.30	1.55
864.60	865.35'	866.08'	866.83'

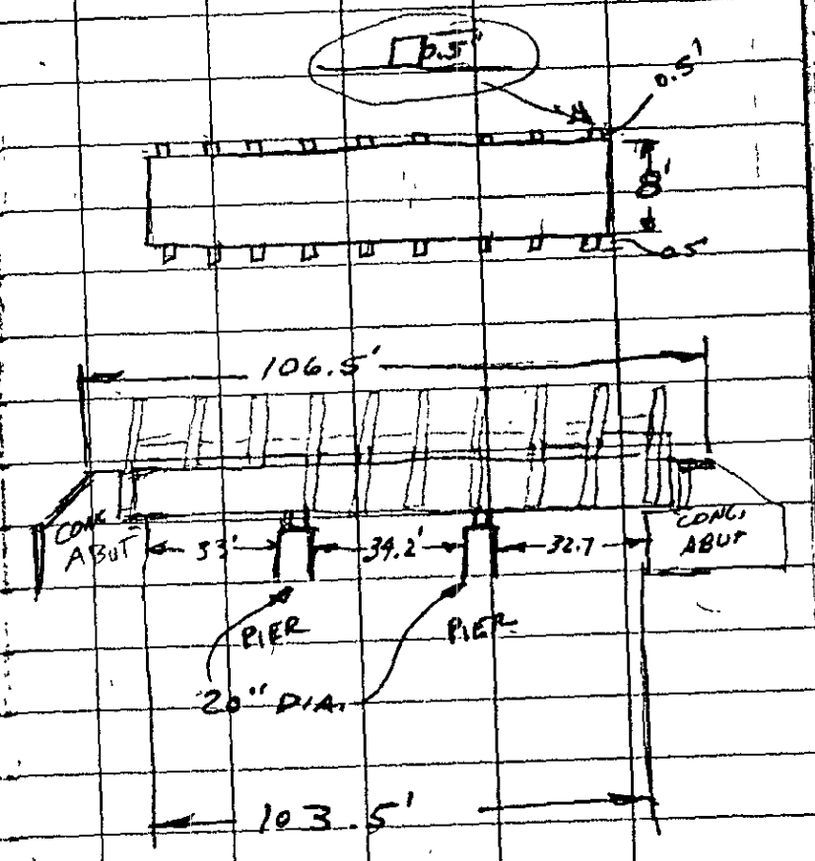
℄ PAV'T ——— ℄ PAV'T

25' RT	50' RT	75' RT	100' RT	125' RT
6.56	6.01	5.51	5.00	4.39
861.82'	862.37'	862.87	863.38'	863.99'

Private bridge over Northwest Branch PAAD
C.S. 10051-10059 on HEC-2 run.

13

TBM @ 7		HI		876.73	PG	
	528	876.0				
	DESC	Dist	RoD	ELEV		
1	Lt face ABUT @ GB	0	10.0	866.0	-	
2	LT SIDE OF PIER	33' RT	11.1	864.9	-	
3	RT SIDE of PIER	34.3 RT	10.9	865.1	-	
4	TOP of LT BK	42' RT	10.7	865.3	-	
5	TOE of LT BK	~~44'~~ RT	12.0	864.0	-	
6	℄ OF Ditch	~~59'~~ RT	13.1	862.9	-	
7	TOE of RT BK @ water	58' RT	12.3	863.7	-	
8	TOP of RT BK	59' RT	10.9	865.1	-	
9	LT SIDE OF PIER	~~69'~~ RT	11.2	864.8	-	
10	RT SIDE OF PIER	70.8 RT	11.1	864.9	-	
11	FACE of ABUT RT	103.5 RT	9.2	866.8	-	
	4/5 LT	0	7.54	868.47	-	
	4/5 RT	103.5 R	7.61	868.40	-	
	LT ℄ FF	0	5.21	870.80	-	
	"	25' L	3.28	872.73	-	
	"	50' L	0.01	876.08	- ✓	RAISE 6" NEXT 100'

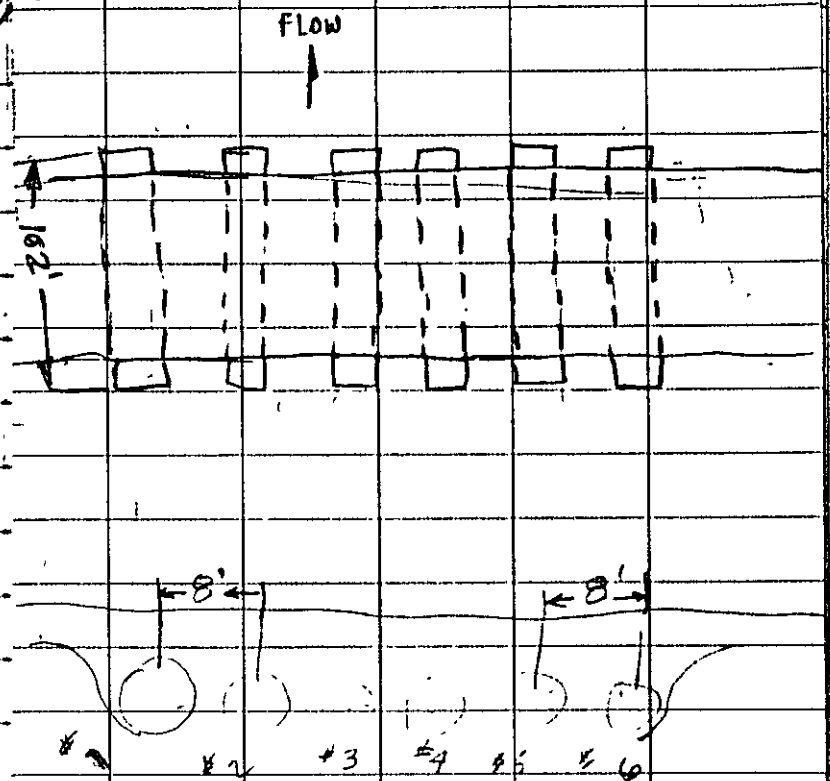


		HI		⊗ 7
		876.01		
	DESC	DIST		
RT. END	BR & OVER DIKE	106'R	5.31	870.70 -
	CE	125'R	6.4	869.6 -
	CE	150'R	6.1	869.9 -
	CE	175'R	5.7	870.3 -
	NEXT 25' SMALL POND.			

Private bridge over Northwest Branch PAAD
C.S. 11021 - 11129 on MEC-2 mm.

15

BM 111				874.95	PG 41
	3.67	878.62			
	DESC	DIST	ROD	ELEV	
GE	TOP LT BK @ Rock	0	7.7	870.9	
	TOE LT BK	9'R	12.7	865.9	
	℄ of 1ST CULVERT	11.5R	13.1	865.5	
	℄ of 2ND CULVERT	19.5R	13.36	865.26	
BTM OF PIPE	℄ of 3RD CULVERT	28.R	13.25	865.37	
	℄ of 4 CULVERT	38.5'R	12.76	865.86	
	℄ of 5 CULVERT	47.0'R	12.21	866.41	
	℄ of 6 CULVERT	56'R	12.92	865.70	
	TOE OF RT BK	59'R	12.3	866.3	
	TOP OF RT BK	71'R	5.5	873.1	
(ROCK)		68'R	4.6	874.0	
ROAD ⊗ CULVERT	L/S #1 LT SIDE	0	9.51	869.11	
11	L/S #2		9.86	868.76	
11	L/S #3		9.94	868.68	
11	L/S #4		9.24	869.38	
11	L/S #5		9.53	869.09	
	L/S #6 RT SIDE		9.59	869.03	✓

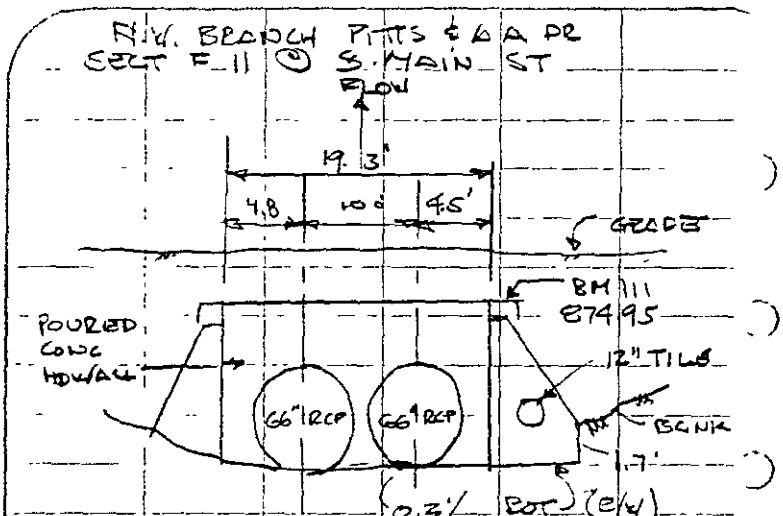


@ 8 Road

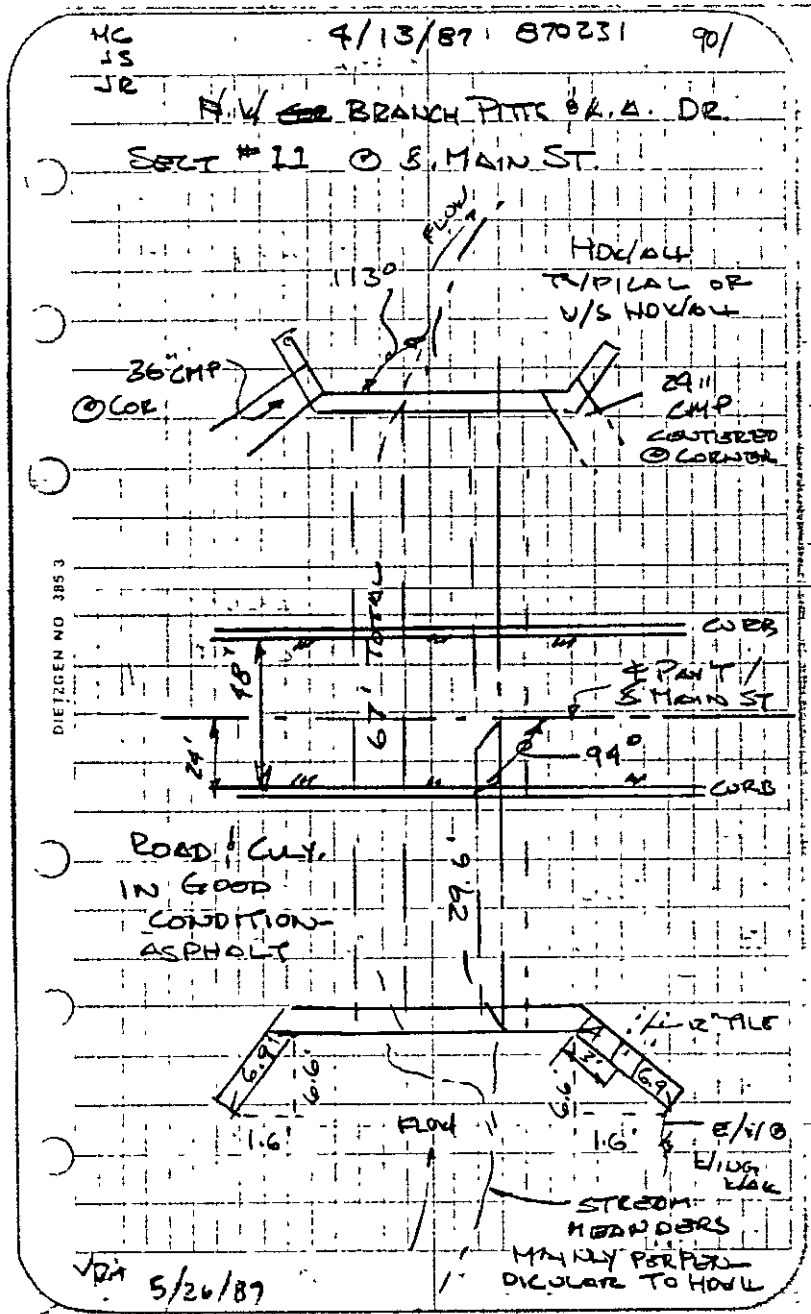
HI
878.62 ✓

DESC	Dist	Rod	Elev
ON RD OVER #1 CUL	0	6.66	871.96
	25'L	6.91	871.71
	50'L	7.15	871.47
	75'L	7.31	871.31
	100'L	7.15	871.47
	125'L	6.97	871.65
	150'L	6.73	871.89
	175'L	6.45	872.17
	200'L	5.82	872.80
ON RD ℄ OVER CUL	47'R	6.30	872.32
	75'R	6.17	872.45
	100'R	6.02	872.60
	125'R	5.82	872.80
	150'R	5.65	872.97
	175'R	5.37	873.25
	200'R	5.00	873.62
	225'R	4.75	873.87

Main Street over Northwest Branch PAAD
C.S. 11221 - 11288 -Om HEC-2 run.



STA	+	HI	−	ELEV
BM 111				874.95 SURVEY
	5.96	880.91		
INV. 36" CMP (D/S)			13.44	867.47
INV. (L) 66" RCP			13.25	867.66
INV. (R) 66" RCP			13.21	867.70
TOP/(L) HDWALL			6.24	874.67
TOP/(R) HDWALL			5.96	874.95
TOP/(L) W. WALL @ BANK			10.14	870.77
TOP/(R) W. WALL " "			11.03	869.88
INV. 12" TILE			11.50	869.41
E/W 3' LT			12.6	868.3X
INV (L) 66" RCP D/S			13.34	867.57
INV (R) 66" RCP D/S			13.74	867.17
INV. 24" CMP D/S			11.96	868.95


MC
JS
JR
4/13/87 870231 90/
N.W. BRANCH PITTS & K.A. DR.
SECT # 11 @ S. MAIN ST.
FLOW
113°
HDWALL
TYPICAL OF
U/S HDWALL
36" CMP
@ COR
24" CMP
CENTERED
@ CORNER
CURB
48'
67' TOTAL
℄ PAVT /
S MAIN ST
24'
94°
CURB
ROAD & CULV.
IN GOOD
CONDITION-
ASPHALT
29.6'
12" TILE
6.9'
6.6'
6.6'
6.9'
1.6'
FLOW
1.6'
E/W @
WING WALL
STREAM
MEANDERS
MAINLY PERPEN-
DICULAR TO HDWL
VRA 5/26/87
DIETZGEN NO 385 3

NW. BRANCH PITTS & A.A. DR.
SECT # 1 @ S. MAIN ST.

STA	+	HI	-	ELEV
✓ BM 111			11.73	874.95 ✓
	RISES 2 1/4 @ 200			℄ PAV'T
	& DROPS BACK DOWN			250' LT
	1 1/4			2.59
				884.09
℄ PAV'T				℄ PAV'T
225' LT	200' LT	175' LT	150' LT	125' LT
4.09	5.53	6.53	7.50	8.28
882.59	881.15	880.15	879.18	878.40
℄ PAV'T			℄ PAV'T	℄ PAV'T ℄ (W) PIPE
100' LT	75' LT	50' LT	25' LT	0
8.93	9.43	9.72	9.85	10.07
877.75	877.25	876.96	876.83	876.61
	11.73	886.68 ✓		
BM 111				874.95

VRH 5/26/87 REDUCED 5/19/87 C.E.L.

MC
JS
JR

4/13/87 870231 9/

N.W. BRANCH PITTS & AA DR

SECT # 22 @ S. MAIN ST

RISES 13'+/- TO S

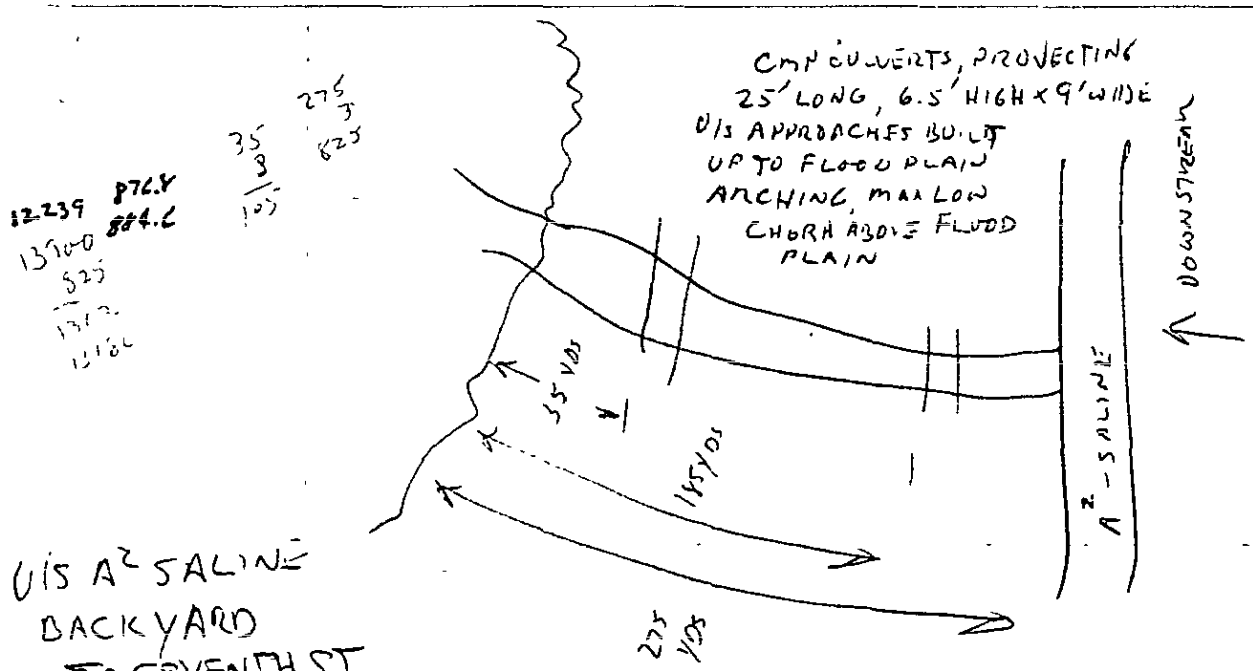
EISENHOWER

℄ PAV'T	℄ PAV'T	℄ PAV'T	
225' RT	250' RT	275' RT	
10.97	10.73	10.25	
875.71'	875.95'	876.43'	
℄ PAV'T	℄ PAV'T		℄ PAV'T
125' RT	150' RT	175' RT	200' RT
10.84	10.94	11.10	11.10
875.84'	875.74'	875.58'	875.58'
℄ PAV'T ℄ (R) PIPE	℄ PAV'T		℄ PAV'T
10' RT	25' RT	50' RT	75' RT	100' RT
10.14	10.21	10.36'	10.54	10.76
876.54'	876.47'	876.32'	876.14'	875.92'

CHISELED "□" @ CONC NORTH W. SIDE S. MAIN. SEE PG 6

Private bridges over Northwest Branch PAAD
c.s. 13181-13205 on HEC-2 run
c.s. 13661-13685 on HEC-2 run

PIPE ARCHES JUST D/S OF MAIN ST
≈ 3.5' x 5'
D/S n's .03 OVERBANKS, CLEAR CHANNEL
U/S RIGHT PARKING LOT, LEFT BRUSH & WEEDS
CHANNEL CLEAR
GOOD U/S TO MAIN ST
D/S GOOD MOST OF THE WAY TO THE PRUDENTIAL-BACHE BUILDING.
EISENHOWER U/S MEDIUM TO HEAVY BRUSH ON OVERBANKS



U/S A² SALINE BACKYARD TO SEVENTH ST

65.3
76.8 67.6
2.3
66.3

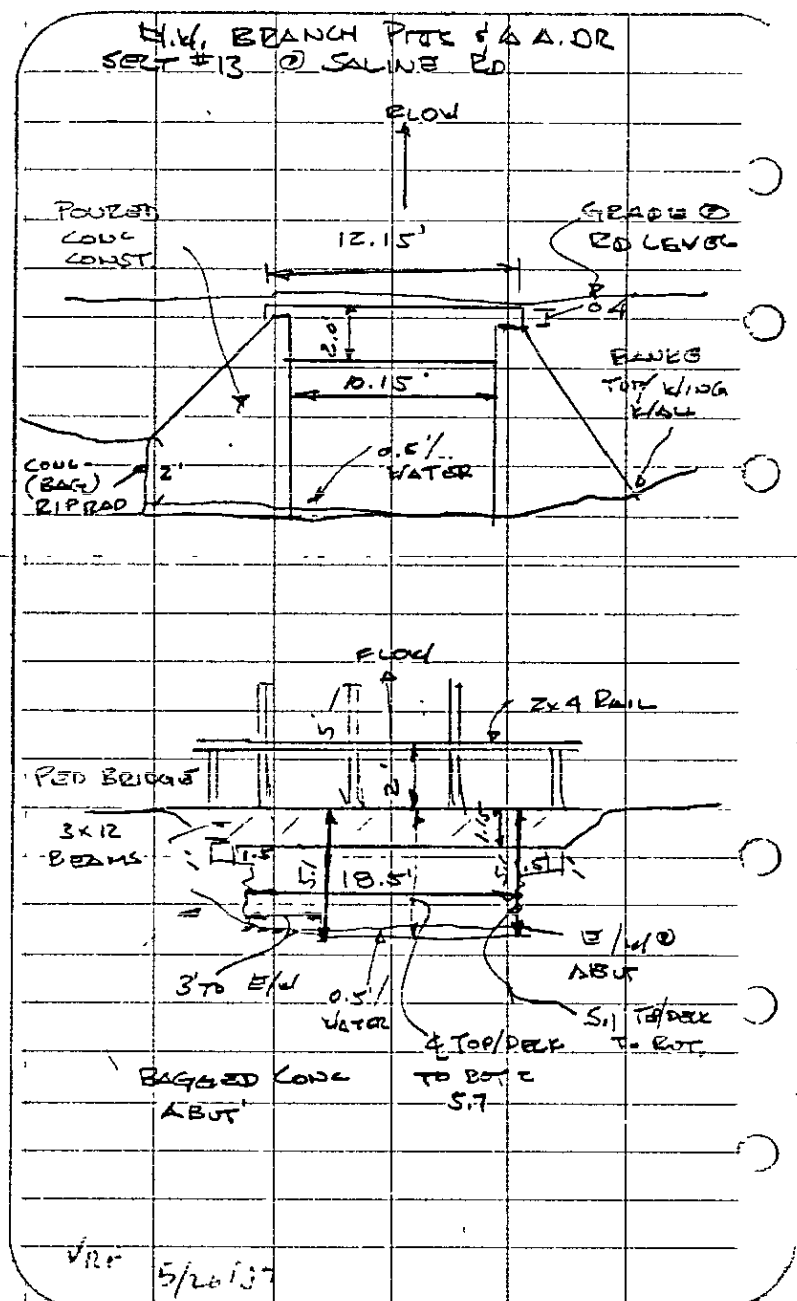
D/S CULVERT, FLOOD PLAIN AT TOP OF CULVERT, VERY LITTLE FILL ON TOP OF CULVERT

D/S A²-SALINE RD CHANNEL SOME DEBRIS, OVERBANKS WOODED & BRUSH OF 20-30 FT GRASS BEYOND

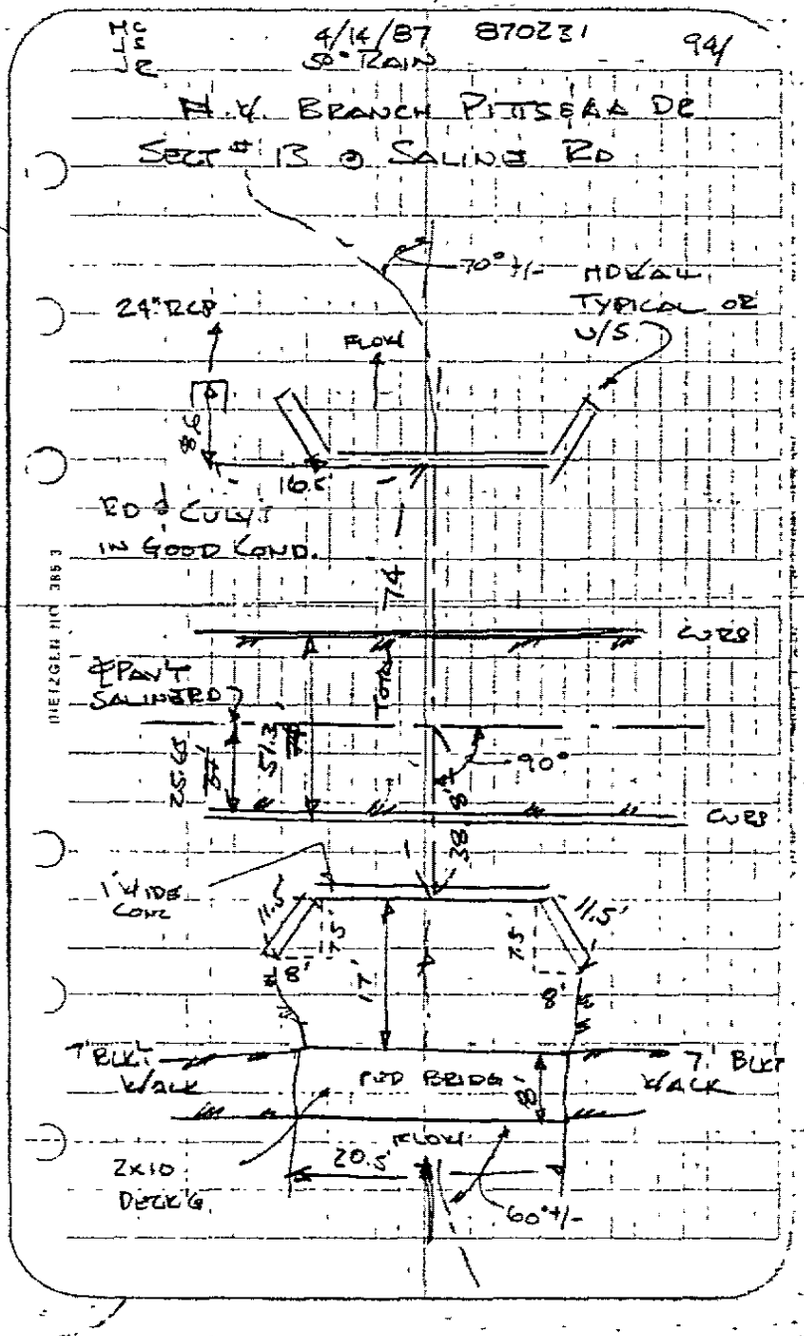
D/ OF 275 YDS WOODED & BRUSH TO MAIN ST, SOME DEBRIS IN

Saline Ann Arbor Road over Northwest Branch PAAD

C.S. 13901 - 13975 on HEC-2 run.
C.S. 13994 - 14002 on HEC-2 run.



5/26/87


MC
JS
JR
4/14/87
870231
50° RAIN
94
N.W. BRANCH PITTSBURG DR
SECT # 13 @ SALINE RD
70° +/-
HDWALL
TYPICAL OR
U/S
24" RCP
FLOW
8.6
16.5
RD & CULVT
IN GOOD COND.
74
CURB
℄ PAV'T
SALINE RD
TOTAL
25.65
51.3
90°
CURB
38
1' WIDE
CONC
11.5
11.5
7.5
7.5
8'
8'
17'
7' BLKT
WALK
7' BLKT
WALK
RED BRIDG
FLOW
20.5'
2x10
DECK'G
60° +/-

N.W BRANCH PITTSFORD DR
SECT # 13 @ SALINE RD

STA	+	H.I.	−	ELEV
RM 112				895.25
	2.45	897.70		
TOP/(L) HDWALL			2.46	895.24
TOP/(R) HDWALL			2.45	895.25
TOP/(L) W.W/ALL			7.66	890.04
TOP(R) W. W/ALL			7.86	889.85
BOT HDW. @ (L) ABUT *			13.1	884.6
BOT ℄ STR 5' RT *			11.6	886.1
BOT INV. @ (R) ABUT *			11.0	886.7
℄ (L) END PED BRIDGE ON DECK			4.83	892.87
℄ (R) END PED " "			4.84	892.86
D/S 24" RCP			9.84	887.86
BOT IN WATER @ (L) END WINGWALL			10.5	887.2
BOT ℄ D/S END CULV.			14.6	883.1
TOP/ D/S HDWALL			2.94	894.76

* SEE PAGE 5/ADD. IN BACK OF BOOK FOR WATER SECTION

EH 5/20/87

N.W. BRANCH PITTS CK. DR
SEWER @ SALINE RD

STA	+	HI	-	ELEV
	0 = ℄ PAV'T OVER (L)			ABUT.
BM 112			7.15	895.25 ✓
	CONTINUES TO RISE			℄ PAV'T 250' LT
				5.29
				897.11
℄ PAV'T	———			℄ PAV'T
225' LT	200' LT	175' LT	150' LT	125' LT
5.79	6.18	6.55	6.80	6.99
891.41	891.22	896.85	895.60	895.41
℄ PAV'T	———		℄ PAV'T	℄ PAV'T (1) ABUT
100' LT	75' LT	50' LT	25' LT	0
7.13	7.22	7.27	7.21	7.11
895.27	895.18	895.13	895.19	895.29
	7.15	902.40 ✓		
BM 112				895.25

JDF 5/20/87 REVISED 5/19/87 CEL

MC
JS
JR

4/14/87 870231 96/
55° RAIN

N.W. BRANCH PITTS. & A.A. DR.

SECT # 13 @ SALINE RD

℄ PAV'T	℄ PAV'T	CONTINUES TO RISE 4'+/-
250' RT	275' RT	
3.00	2.19	
899.40'	900.21'	

℄ PAV'T				℄ PAV'T
125' RT	150' RT	175' RT	200' RT	225' RT
5.73	5.28	4.74	4.16	3.64
896.67'	897.12'	897.66'	898.24'	898.76'

℄ PAV'T (R) ABUT	℄ PAV'T			℄ PAV'T
10' RT	25' RT	50' RT	75' RT	100' RT
7.08	7.01	6.82	6.56	6.22
895.32'	895.39'	895.58'	895.84'	896.18'

~~[illegible]~~ CHISELED "D" @ CONC

HDWALL N.W. SIDE SALINE RD

SEE Pg 7

Dam at Saline Ann Arbor Rd. over Northwest Branch PAAD
~~over pond over~~
C.S. 14016 on HEC-2 run

8

BM 112				895.28	✓
	3.93	899.21	✓		
⊗ D	DESC	DIST	RoD	ELEV	
1	Top of Bk Lt side	0 L	3.8	895.4	✓
2	Top of ℄ DAM EDGE	22.6' R	6.99	892.22	✓
3	U/S Toe of Bk @ Face of Dam	28' R	9.0	890.2	✓
4	℄ of DAM Top	34' R	9.17	890.04	✓
5	U/S	34' R	9.5 ~~11.3~~	889.7	✓
6	D/S	34' R	11.3	887.9	✓
7	Toe of Dam ~~Bk~~ Face of Dam	41' R	9.1	890.1	✓
8	Top of Dam #8	46' R	6.93	892.28	✓
9	Top of Bk	72' R	3.9	895.3	✓
10	GE	100' R	3.0	896.2	✓
12	U/S #2	23 R	7.2	892.0	✓
13	D/S #2	23 R	7.1	892.1	✓
14	℄ of Dam where Flat out	32' R	9.17	890.04	✓
15	U/S	32' R	9.6	889.6	✓
16	D/S	32' R	10.5	888.7	✓
17	℄ of DAM Flat out	38' R	9.16	890.85	✓
18	U/S		9.4	889.8	✓
19	D/S		10.7	888.5	✓

8

⊗ D-DAM Approx. ± 40 FT. N.W. of Saline Road

CHISELED "D" S.W. Gor. & S W END Conc. Howall on NW Branch / Pittsfield Ann Arbor Drain on W. Side Saline Rd (Set By Tallam 4/7/87)

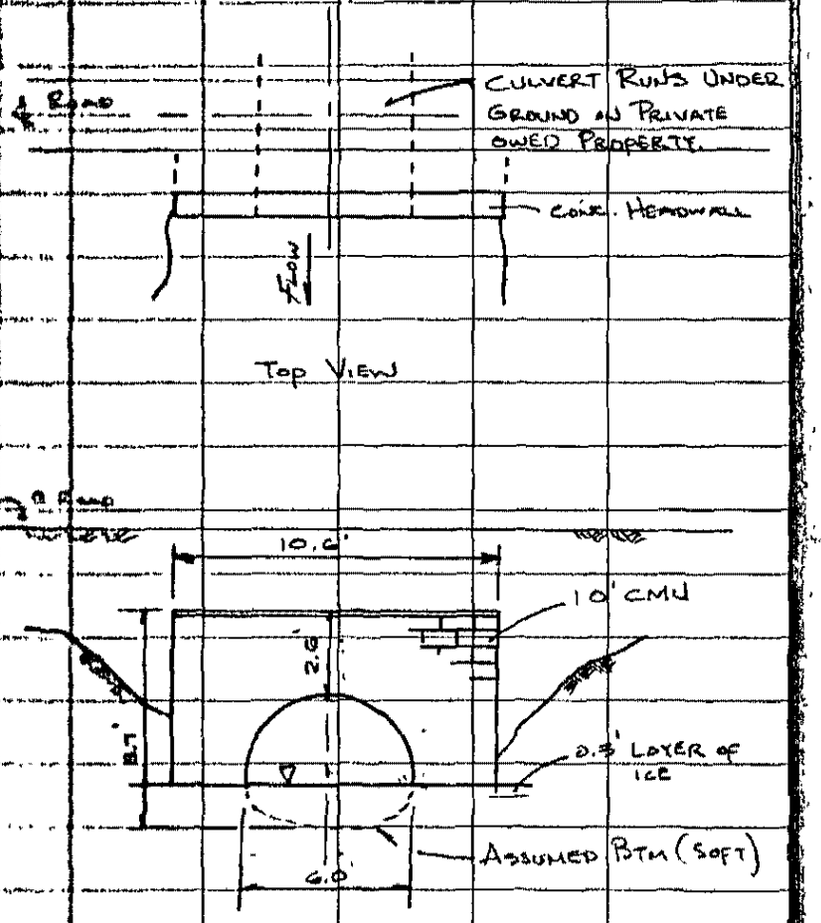
DC: For Drw'g See Pg. 10

DESC	DIST	RoD		
Top of Dam #8	46' R	6.93	892.28	✓
U/S #8	46 R	7.0	892.2	✓
D/S #8	46' R	7.5	891.7	✓

WIDTH OF DAM = 1.0'

1-12-88

FA - Conc. Box Culvert

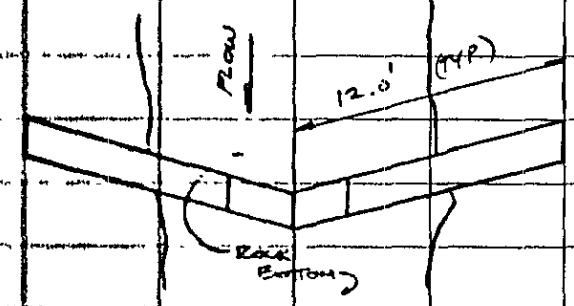


D/S FACE LOOKING U/S

L/S = 900.8

Ref. Pg 4

D-Dam



Top View



D/S FACE LOOKING O/S

Ref. Pg. 8

Dam u/s Saline Ann Arbor Road over Northwest Branch PAAD.

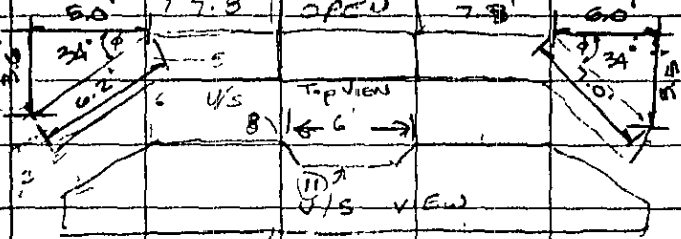
C.S. 14566 on HEC-2 run.

	7				
BM 112 3				911.04	
	1.64	912 68			
⊗ C	DESC	Dist	RoD	ELEV	
1	Top of Lt Bk	0	18.0	894.68	
2	Top EDGE of DAM	2'R	18.81	893.87	
3	U/S FACE DAM	2'R	18.4	894.3	
4	D/S FACE DAM	2'R	18.7	894.0	
5	Top of WALL @ ANGLE	7'R	18.87	893.81	
6	U/S @ ANGLE	7'R	19.6	893.1	
7	D/S @ ANGLE	7'R	21.7	891.0	
8	@ OPENING Lt Top	16'R	18.89	893.79	
9	U/S FACE	16'R	20.1	892.6	
10	D/S FACE	16'R	22.1	890.6	
11	@ MIDDLE OPENING	18.5'R	19.84	892.84	
12	U/S FACE Bottom	18.5'R	20.1	892.6	
13	D/S FACE Bottom	18.5'R	22.7	890.0	
14	@ OPENING Rt Top	20.9'R	19.85	892.83	
15	U/S FACE Bottom	20.9'R	20.3	892.4	
16	U/S TOE FACE	20.9'R	21.9	890.8	
17	TOE OF Rt Lt	2.8'R	21.6	891.1	

⊗ C-DAM BEHIND RES. # 2365 DELAWARE

7

Ref. Pg 3



33	Top of SLOPE	125'L	2.9	900.8	
	DESC	Dist	RoD	ELEV	
18	Top @ Rt Angle	29'R	18.90	893.78	
19	U/S	29'R	19.1	893.0	
20	D/S	29'R	21.5	891.2	
21	Rt END of DAM	35'R	18.88	893.80	
22	U/S	35'R	18.7	894.3	
23	D/S	35'R	19.4	893.3	
24	Top of Rt TOE OF SLOPE	46'R	17.1	895.6	
25	TOP OF SLOPE BACK OF HOUSE	76'R	12.4	900.3	
26	GE SIDE of HOUSE	96'R	12.5	900.2	
27	TOE OF Lt BK	10'R	21.6	891.1	
28	SLOPE UP TOWARD RD	25L	14.5	898.2	
29	ON SLOPE	75'L	7.8	904.8	JAB

Small dam u/s Saline Ann Arbor Rd over Northwest Branch PAAD
C.S. 15315 on HEC-2 run.

5	1ST DAM D/S FROM 7TH AVE			1/4/88	⊗B-DAM HALFWAY BETW. & BEHIND RES # 2331 & 2335 DELAWARE 5
BM 113				911.04	SEE PG 3
	5.02	916.06			
⊗ B	DESC	DIST	ROD		
• 1	TOP OF LT BK	0 L	15.3	900.8	
• 2	TOE OF SLOPE	100' L	12.0	904.1	
• 3	TOP OF SLOPE	160' L	5.2	910.9	
• 4	TOP OF LT WING WALL	4' R	15.45	900.61	
5	BOTTOM FACE U/S OF WALL	4' R	16.1	900.0	check PAGE 4 DESC - ON RT FOR
6	TOE OF BK	13' R	18.0	898.1	MORE INFORMATION ON HEAD WALL
• 7	TOP DAM ANGLE	18' R	17.31	898.75	
8	U/S FACE	18' R	18.2	897.9	
• 9	℄ TOP OF DAM OPEN	31' R	18.28	897.78	
10	U/S FACE	31' R	18.5	897.6	
• 11	TOP OF DAM ANGLE	44' R	17.29	898.77	
12	U/S FACE OF WALL	44' R	18.1	898.0	
13	TOE OF RT BK	49' R	18.1	898.0	
• 14	TOP OF WING WALL	59' R	15.40	900.66	
15	U/S WALL FACE	59'	16.1	900.0	
• 16	TOP OF BK	61' R	14.8	901.3	
• 17	GE	85' R	13.7	902.4	

6

		~~DB~~		
BM 113				911.04
	5.02	916.06		
	DESC	Dist	RoD	ELEV
18	D/S SECOND DAM TOP LT	13'R	19.81	896.25
19	D/S FACE	13'R	22.3	893.8
20	TOP @ ANGLE	21'R	20.32	895.74
21	D/S FACE	21'R	22.1	894.0
22	TOP @ ℄ OPEN	26.5'R	21.38	894.68
23	TOE D/S FACE	26 ~~31.5'~~ R	22.2	893.9
24	TOP ℄ OF WALL BETWEEN OPEN	31.5'R	20.30	895.76
25	D/S FACE	31.5'R	22.26	893.80
26	℄ TOP OPEN	36.5'R	21.34	894.72
27	D/S FACE	36.5'R	20.8	895.3
28	TOP @ ANGLE	41'R	20.28	895.78
29	D/S FACE	41'R	21.8	894.3
30	TOP END OF WALL	50'R	19.67 ~~20.2~~	896.39
31	TOE OF BK RT	50'R	20.3 ~~2~~	895.8
32	TOP OF BK RT	61'R	15.4 ~~1~~	900.7
33	TOE LT BK	11'R	21.3	894.8
34	TOP LT BK	0	15.3	900.8

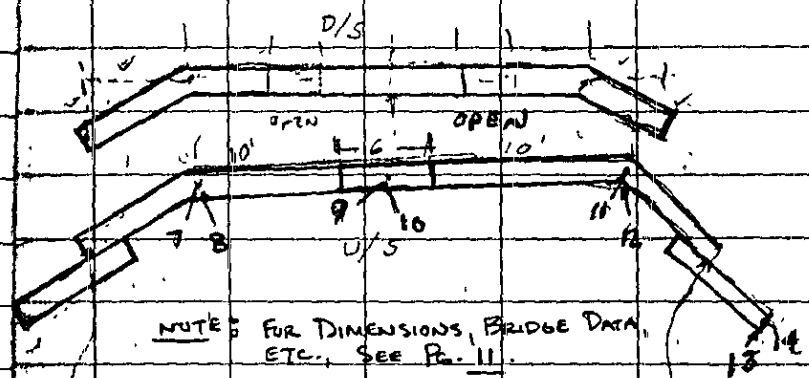
SECONDARY DAM

6

1/4/88

Ref. Pg. 3

8



NOTE: FOR DIMENSIONS, BRIDGE DATA, ETC., SEE Pg. 11.

DESC	Dist		
TOP OF WALL	8'R	17.23	898.78
D/S	8'R	19.3	896.8
TOP OF WALL 61	55'R	17.13	898.93
D/S	55'R	19.6	896.5

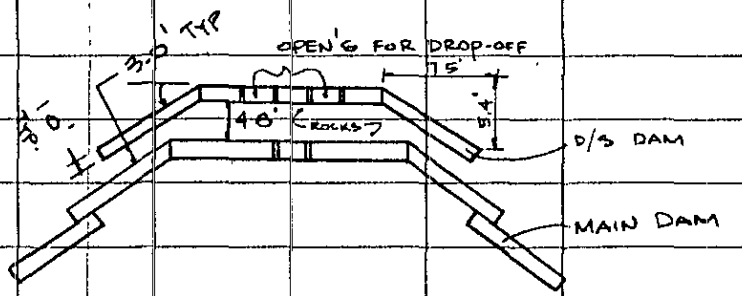
13

1-12-88

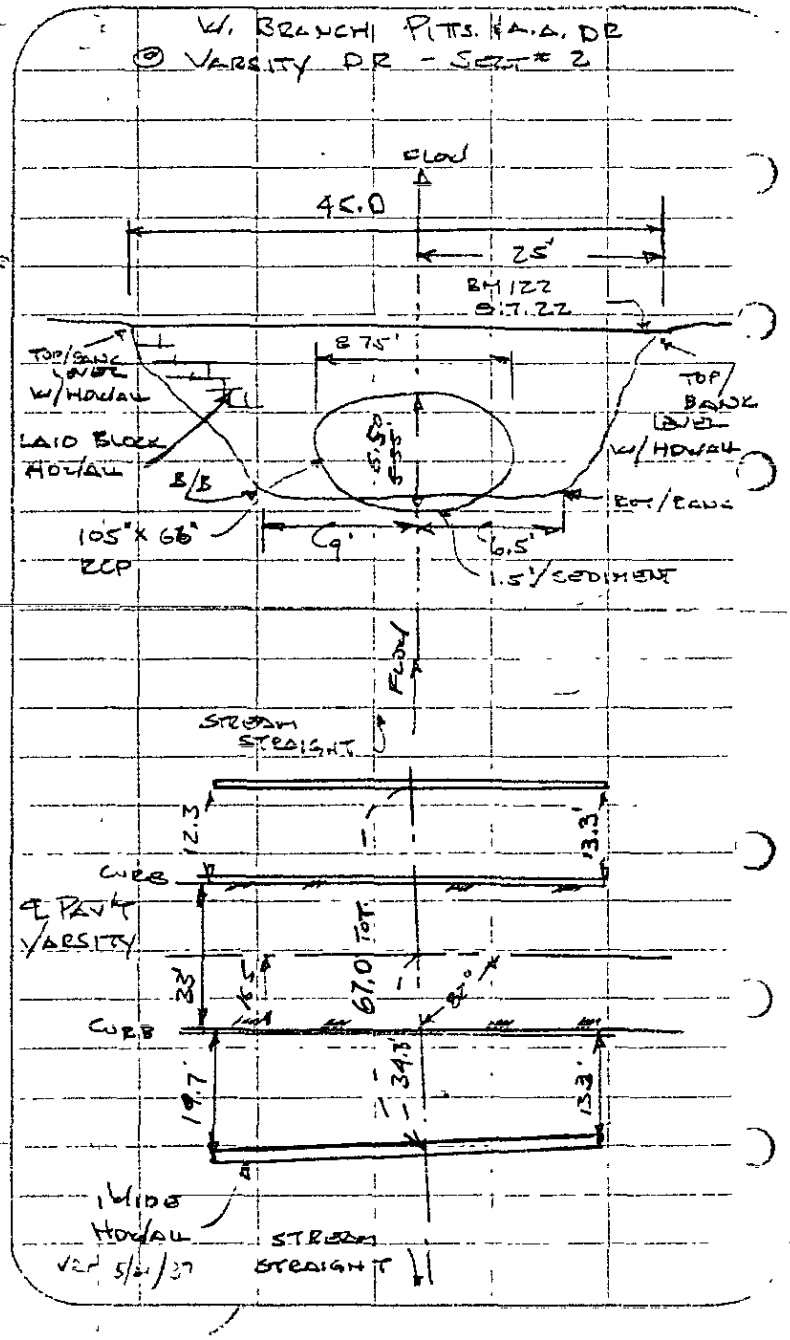
BM 113				911.04
	3.54	914.58		
~~4S @~~ ABUT	DESC	DIST		
4S @ 1	L/S @ 4 ABUT		14.36	900.22
⊗ B 2	TOE @ ABUT		19.3	895.28
3	L/S @ ABUT		12.18	902.40
4	L/S @ ABUT		12.15	902.43
	~~L/S @ RT~~ ABUT		14.66	899.92
	TOE @ RT of ABUT		18.6	896.0
	TP ℄ of RT ABUT		13.31	901.22
	~~℄ of ABC~~ ~~RT~~ A		11.12	903.46
	℄ of DR @ RT ABUT		13.54	901.04

13

⊗ B - DAM



Varsity Drive over West Branch Pittsfield-Ann Arbor Drain (PAAD)
C.S. 1100-1167 on HEC-2 run.



MC
JS
JR

4/9/87 870231 34/

W. BRANCH PITTS #A.A. DR

SECT #2 @ VARSITY DR.

ROAD IN GOOD COND.

HDWAL STR. IN GOOD COND.

REF. PAGE 17

℄ PIPE →

STA	+	HI	−	ELEV
BM 122		.84		817.22 .89
	4.96	822.18		
INV 105"x66" RCP			13.23	808.95 .94
TOP/(L) HDWAL			4.98	817.20 .86
TOP/(R) HDWAL			4.96	817.22 .88
B/BANK (L) E/W			12.5	810.3 R+9.6
B/BANK (R) E/W			12.5	810.3 809.6
ON BOT/DR 5' LT			13.5	809.3 808.6
ON BOT/DR 5' RT			13.2	809.6

REVISED 5/19/87

DIETZGEN NO 385-3

PITTS & A.A. DR - W/ BRANCH
℄ VARSITY DR. SECT # 2

ST				
STA	+	HI	−	ELEV
			✓ [illegible]	
✓ BH122			4.96	817.22 .88 ✓
		HI 822.84		
				℄ PAV'T
				250' LT
				4.89
				817.25 .95
℄ PAV'T				℄ PAV'T
225' LT	200' LT	175' LT	150' LT	125' LT
4.76	4.59	448	442	4.40
~~817.42~~ 8.08	817.59 818.25	~~[illegible]~~ 818.36	~~[illegible]~~ 818.42	~~817.78~~ 818.44
℄ PAV'T				℄ PAV'T
100' RT	75' LT	50' LT	25' LT	0'
4.52	4.60	4.72	4.90	5.44
~~817.66~~ 818.32	~~[illegible]~~ 818.24	818.12 ~~[illegible]~~	817.94 ~~[illegible]~~	817.40 ~~818.74~~
BH122	4.96	822.18 ✓		817.22 .85
VRH 5/21/[illegible]		84	[illegible] 5/[illegible]	

VHC
JS
JR

4/9/87 870231 35/
60° SUNNY

W. BRANCH PITTS & A.A. DR
SECT # 2 @ ℄ YARCITY Ca

℄ PAV'T
250' RT
6.26
~~815.92~~
6.58

℄ PAV'T ——— ℄ PAV'T

150' RT	175' RT	200' RT	225' RT
5.77	5.95	6.03	6.16
~~816.41~~	~~816.23~~	~~816.15~~	~~816.02~~
7.07	.87	.81	.68

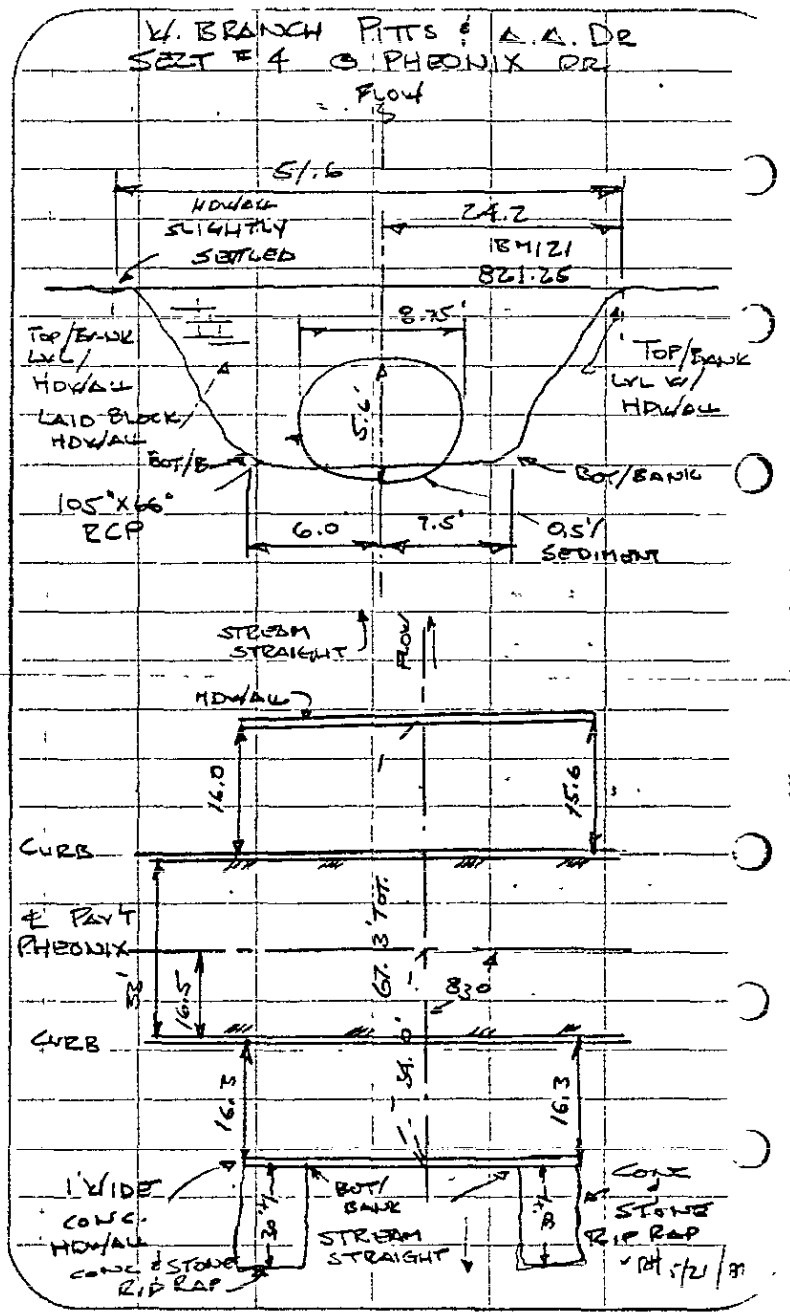
℄ PAV'T ——— ℄ PAV'T

25' RT	50' RT	75' RT	100' RT	125' RT
5.24	5.35	5.39	5.59	5.72
~~816.72~~	~~816.83~~	~~816.77~~	~~816.7~~	~~816.46~~
7.60	7.49	7.45	7.25	7.12

CHISELED "□" ON HOWALL (SEE PG. 17)

DIETZGEN NO. 385 3

Phoenix Dr. over West Branch PAAD
C.S. 1750 - 1817 on HEC-2 run.



HC
JS
JR

4/9/87 | 87023 | 37/

W. BRANCH PITTS. & A.A DR
@ PHEONIX DR SECT 4

ROAD IN GOOD COND
HDWALL STR. IN GOOD COND

Ref. Pg. 16

℄ PIPE - 0+0

STA	+	HI	-	ELEV
BM 121				821.25
	4.47	825.72		
INV 105" x 66" RCP			15.14	810.58
TOP (L) HDWALL			4.79	820.93
TOP (R) HDWALL			4.47	821.25
B/BANK (L) E/W			14.0	811.78
B/BANK (R) E/W			14.0	811.78
ON BOT/DR 5' LT			14.7	811.08
" " 5' RT			14.8	810.98

REDUCED 5/13/87
C.E.J

DIETZGEN NO 385 3

STA	+	HI	−	ELEV
			↓ SHOT	
✓ BM 121			4.47	821.25 ✓
				℄ PAV'T
				250' LT
				4.95
				820.77 ✓
℄ PAV'T				℄ PAV'T
225' LT	200' LT	175' LT	150' LT	125' LT
4.98	4.72	4.62	4.56	4.58
820.84'	821.00'	821.10'	821.16'	821.14'
℄ PAV'T			℄ PAV'T	℄ PAV'T OVER PIPES
100' LT	75' LT	50' LT	25' LT	0
4.67	4.75	4.83	4.97	5.05
821.05'	820.97'	820.89'	820.75'	820.67'
	4.47	825.72 ✓		
BM 121				821.25 ✓
✓RH 5/14/97		REVISED 5/17/97 C.E.J.		

MC
JS
JR

4/9/87 870231 38/

W. BRANCH PITTS & AA DR
SECT #4 @ PHEONIX DR.

DIETZGEN NO 385-3

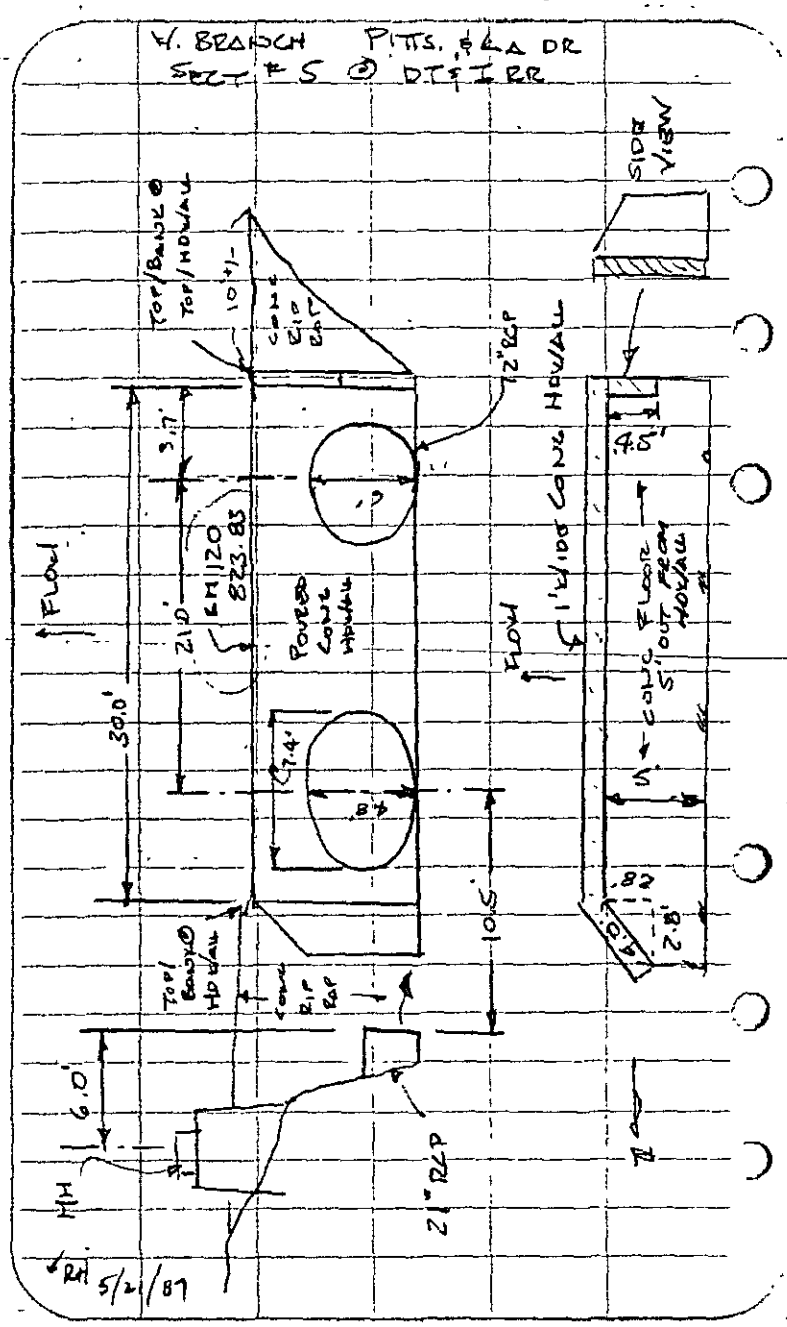
℄ PAV'T			℄ PAV'T
175 RT	200 RT	225 RT	250 RT
5.77	5.88	6.00	6.14
819.95	819.84	819.72	819.58

℄ PAV'T					℄ PAV'T
25 RT	50 RT	75 RT	100 RT	125 RT	150 RT
5.18	5.26	5.38	5.47	5.54	5.63
820.54	820.46	820.34	820.25	820.18	820.[illegible]

SEE PG

CHISELED "□" IN CONC HOWALL 16

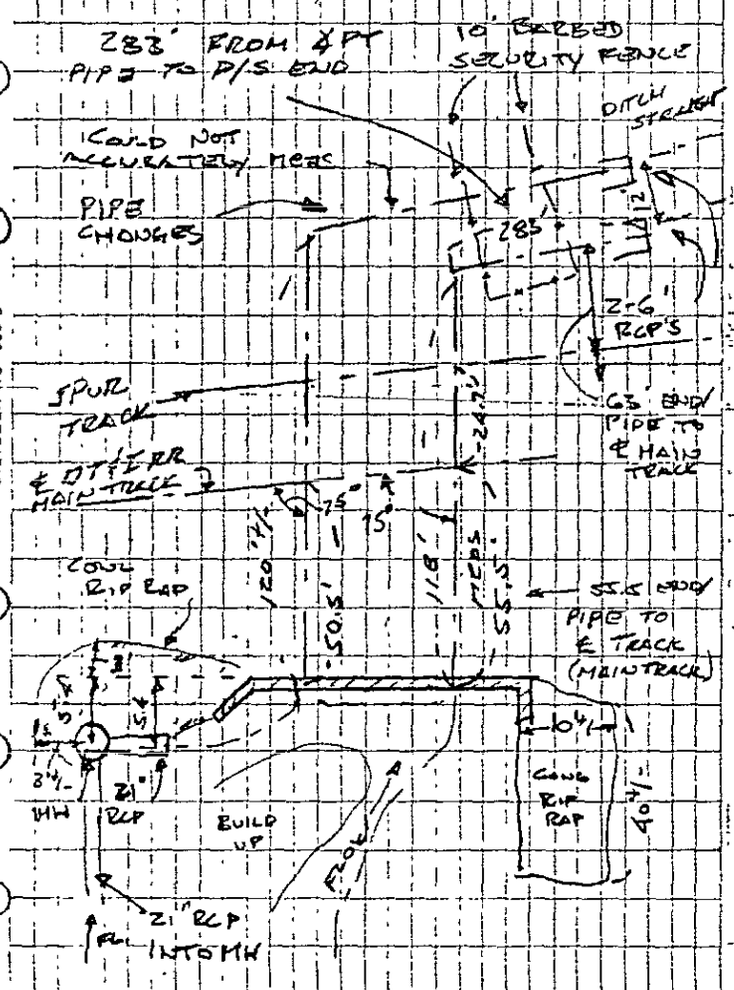
D.T. & I.R.R. over West Branch PAAD
C.S. 2660-3061 on HEC-2 run



HC
JS
JR

4/9/87 870231 39/

W. BRANCH PITTS & LA DR
SECT # 5 @ DT & I RR



DIETZGEN NO 385 3

W. BRANCH PITTS & A.A. DR
SECT #5 @ DT & I RR

STA	+	HI	-	ELEV
BH 120		-	-	823.83
	6.57	830.40		
INV 72" RCP			14.71	815.69
INV 4 8'X7.4' RCP			14.33	816.07
TOP (R) HDWALL			6.64	823.76
TOP (L) HDWALL			6.65	823.75
TOP (R) WINGWALL			9.75	820.65
TOP (L) WINGWALL			9.70	820.66
(R) CONC PL. @ COR/WINGWALL			14.36	816.04
(L) CONC PL. @ COR/WINGWALL			14.32	816.08
INV. 21" RCP			14.50	815.90
RIM/MH			4.38	826.02

REVISED 5/19/97
CEV.

VRH 5/21/97

W. BRANCH PITTSFIELD DR.
SECT. P5 @ DITCH

STD	+	HI	−	ELBU
	0 =	℄ LT. PIPE UNDER RR		
BM 124			10.73	823.83
→ STEADY GRADE				℄ TRK 250' LT 3.3 831.56
℄ TRK 225' LT	200' LT	175' LT	150' LT	℄ TRK 125' LT
3.4 831.76	3.5 831.66	3.7 830.96	3.7 830.86	3.8 830.76
℄ TRK 100' LT	75' LT	50' LT	℄ TRK 25' LT	℄ TRACK OVER(L) PIPE
3.9 830.76	4.0 830.66	4.1 830.56	4.1 830.56	4.2 830.46
	10.73	834.56		
BM 124			823.83	
RH 5/24/89	REDUCED		5/19/89	C.S.

HC
JS
JR

4/9/87 870231 41

W. BRANCH PITTS. & A.A. OR
@ DT & I RR SECT #5

℄ TRK	℄ TRK	STEADY
250' RT	275' RT	GRADE
4.9	5.0	
829.~~66~~ 7	829.~~56~~ 6	

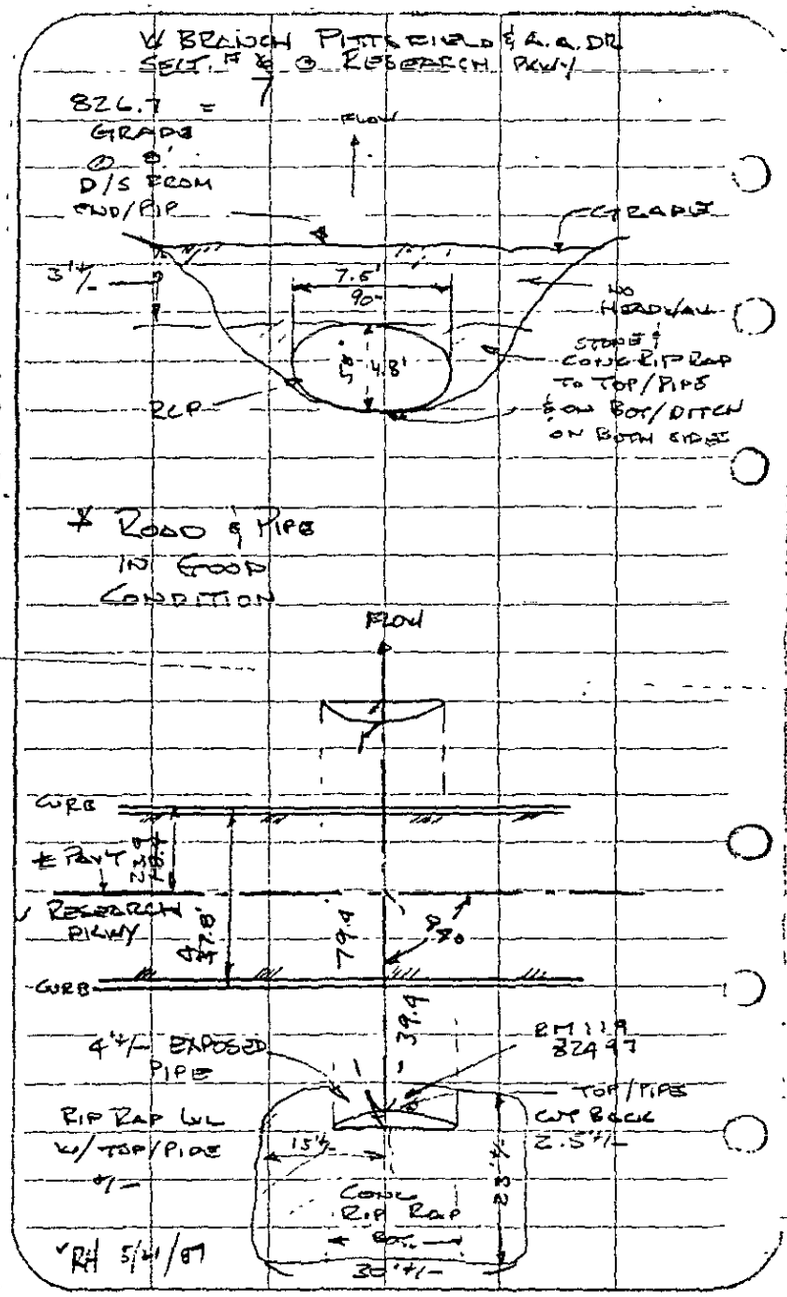
℄ TRK				℄ TRK
125' RT	150' RT	175' RT	200' RT	225' RT
4.5	4.6	4.7	4.8	4.9
830.~~56~~ 1	830.0 ~~829.96~~	829.~~86~~ 9	829.~~75~~ 8	829.~~66~~ 7

℄ TRK	℄ TRK		℄ TRK
OVERPIPE 27' RT	50' RT	75' RT	100' RT
4.2	4.2	4.3	4.4
830.~~36~~ 4	830.~~36~~ 4	830.~~36~~ 3	830.~~16~~ 2

DISC ON CONC HOWALL (SEE PG 16)

X

Research Pkwy. over West Branch PAAD
C.S. 3410-3489 on HEC-2 run.



HC
JS
JR

4/10/87 870231. 42/
35° SUNNY

W. BRANCH PITTSFIELD & A.A. DR
SECT #7 @ RESEARCH PKWY
0 = ℄ PIPE

STA +	HI	-	ELEV
BM 119			824.97 ✓ PG 15
	6.73	831.70 ✓	

INV 58" x 90" RCP	12.16	819.54 -
B/B (L) 3' LT	~~5.5~~ 11.69	820.01 -
B/B (R) 3' RT	11.72	819.98 -
TOP/RIP RAP (L) 15' LT	6.4	825.30 -
TOP/RIP RAP (R) 15' RT	6.5	825.29 -
GRADE 8' D/S	5.0	826.70 -

* MISSED SECT 6 -
SEE Pg 46

W. BRANCH PITTS & A.A DR
SECT # 7 @ RESEARCH PKWY

STA	+	HI	−	ELEV
	0 = ℄ PAV'T OVER ℄ PIPE			
			✓ SHOT	
✓ BM119			6.73	824.97 ✓
				℄ PAV'T
				250' LT
				3.85
				827.85'
℄ PAV'T				℄ PAV'T
225' LT	200' LT	175' LT	150' LT	125 LT
3.99	4.19	4.37	4.53	4.67
827.71'	827.51'	827.33'	827.17'	827.03'
℄ PAV'T			℄ PAV'T	℄ PAV'T @ ℄ PIPE
100' LT	75 LT	50 LT	25 LT	0
4.87	5.00	5.18	5.15	5.14
826.83'	826.70'	826.52'	826.55'	826.56'
	6.73	831.70 ✓		
BM119				824.97 ✓

RH 5/21/87 REDUCED 5/19/87 C.E.J.

MC
JS
JR

4/10/87 870231 43/

W. BRANCH PITS & LA DR

SECT 17 & 20 RESEARCH PKWY

℄ PAV'T

250' RT

4.45

827.25'

℄ PAV'T ℄ PAV'T

150' RT 175' RT 200' RT 225' RT

4.32 4.21 4.20 4.35

827.38' 827.49' 827.50' 827.35'

℄ PAV'T ℄ PAV'T

25' RT 50' RT 75' RT 100' RT 125' RT

4.94 4.81 4.69 4.52 4.37

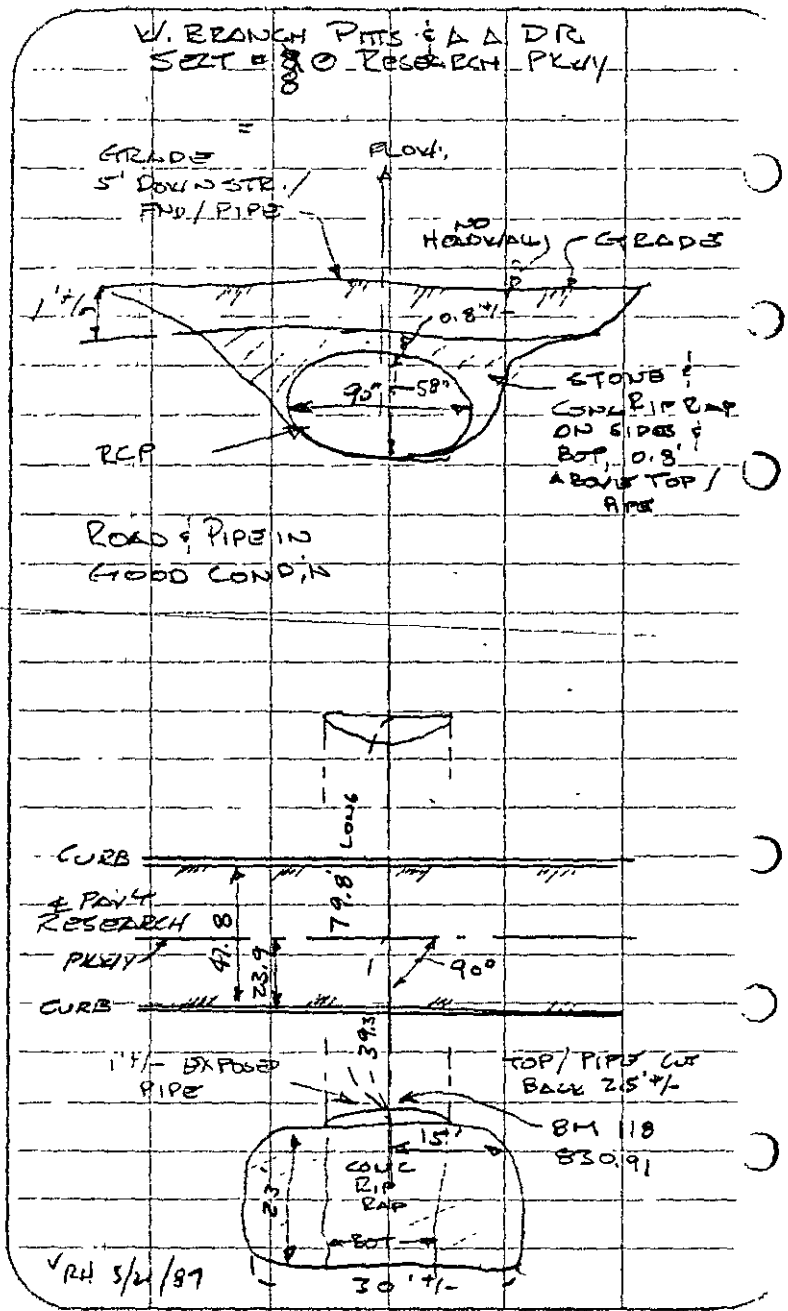
826.76' 826.89' 827.01' 827.18' 827.33'

SEE PG 15

CHISELED "X" @ TOP/CURV

DIETZGEN NO 3551

Research Pkwy: over West Branch PAAD
c.s. 4120-4200 on HEC-2 run.



MC
JS
JR

4/10/87 870231 44

W. BRANCH PITTS & AA DR
SECT # 8 @ RESEARCH PKWY
0 = ℄ PIPE

STA	+ HL	− ELEV
BM118		830.91
6.24	837.15 ✓	REF PG. 15
INV 58" X 90' RCP		11.66 825.49
B/B (L) 3 LG		11.3 825.~~85~~ 9
B/B (R) 2.5' RT		11.2 ~~825.95~~ 826.0
TOP/RIPRAP (L)		6.4 830.~~85~~ 8
TOP/RIP RAP (R)		5.9 831.~~85~~ 3
GRADE 5' D/S/PIPE		5.5 831.~~85~~ 7

DIETZGEN NO 385 3

W. BRANCH PITTS & A A DR
SECT #8 @ RESEARCH PKWY

STA	+	HI	−	ELEV
		0 = ℄ PIPE		
			↓ SHOT	
✓ BM118			6.24	830.91 ✓
				℄ PAV'T
				250'LT
				5.92
				831.23
℄ PAV'T				℄ PAV'T
225 ~~300~~'LT	200'LT	175'LT	150'LT	125'LT
6.08	6.17	6.22	6.27	6.29
831.07	830.98	830.93	830.88	830.86
℄ PAV'T			℄ PAV'T	℄ PAV'T ℄ PIPE
100'LT	75'LT	50'LT	25'LT	0
6.20	5.92	5.74	5.50	5.35
830.95	831.23	831.41	831.65	831.30
	6.24	837.15 ✓		
BM 118				830.91

VRH 5/4/87 REVISED 5/18/87

MC
JS
JR

4/10/87 870231 45

LL BRANCH PITS & LA. DR.

SECT #8 @ RESEARCH PKWY

℄ PAV'T
250' RT
4.64
832.51'

℄ PAV'T	℄ PAV'T		℄ PAV'T
150 RT	175 RT	200 RT	225 RT
4.50	4.46	4.47	4.49
832.65'	832.69'	832.68'	832.66'

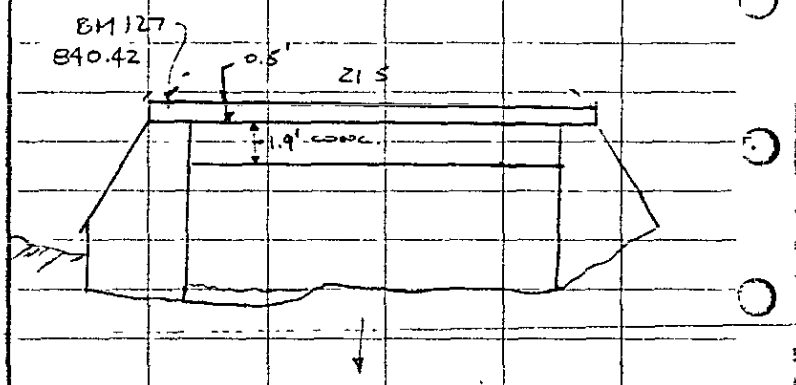
℄ PAV'T				℄ PAV'T
25 RT	50' RT	75 RT	100 ℄ RT	125 RT
5.16	4.97	4.85	4.71	4.58
831.99'	832.18'	832.30'	832.44'	832.57'

CHISELED "□" @ TOP/PIPE

SEE PG 15

State Street over West Branch PAAD
C.S. 5400 - 5592 .0m HEC-2 run

PITTSFIELD & A.A. DR - W. BRANCH
SECT. #10 @ STATE ST.
D/S HDWAL SEE Pg 49



O = LT ABUT

GRADUAL GRADE UP AROUND STR. TO MEET ST. ST.

STA	T	HI	—	ELEV	
BM 127	3.07	843.49		840.42	Ref Pg. 49
T/(L) HDWAL			3.04	840.45	
BO ABUT (L)			9.5	834.0 ~~833.99~~	*
BOT 5' RT			10.0	833 ~~74~~ 5	*
BOT 10' RT			10.5	~~833.95~~ 833.0	*
BOT (R) ABUT			10.9	832.55 6	*
TOP END/LT WINGWALL			7.36	836.~~42~~ 13	
TOP END/RT WINGWALL			7.19	836.~~54~~ 30	
1N 12" RCP			6.95	~~836.52~~ 836.4	

VPH 5/22/87

* SEE PAGE 1/ADD. BACK OF BOOK FOR WATER SECTION.

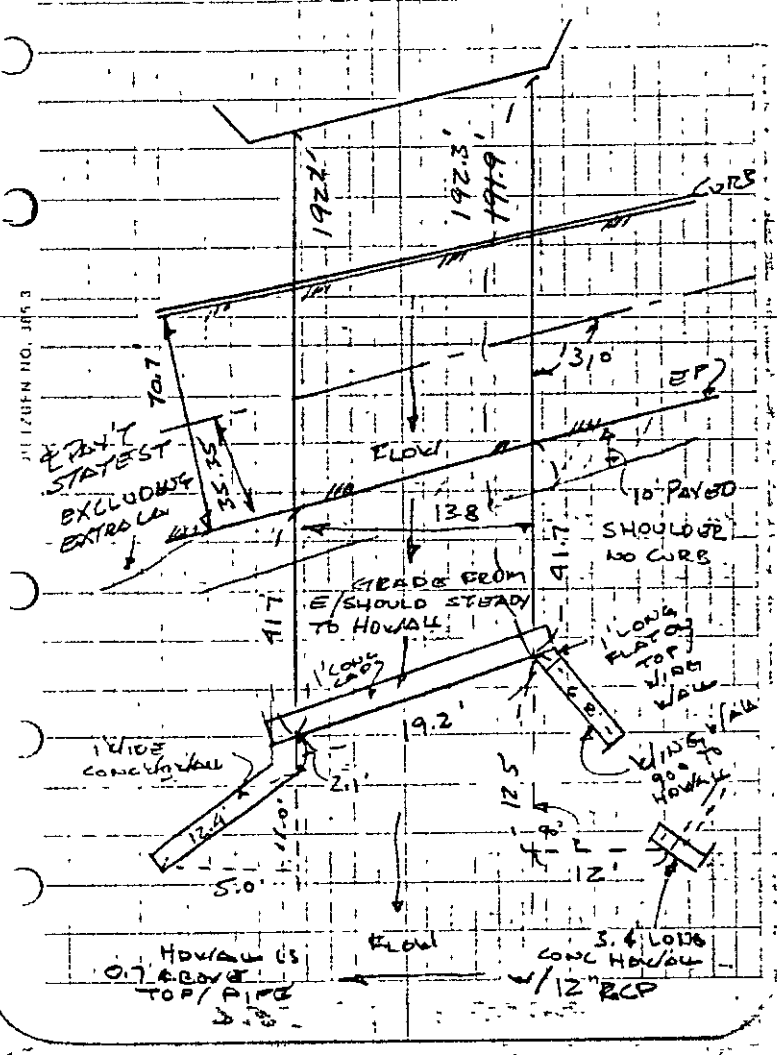
MC
JS
JR

4/10/87 870231 50/

PITTS. & D.A. DR

SECT. # 10 @ STATE ST (D/S)

W. BRANCH



PITTS. & A.A. DR - W. BRANCH
SECT # 10 @ STATE ST.

STA	+	HI	-	ELEV
	0 @	LT/ABUT		
			J SHOT	
✓ BM 101			9.77	846.04 ✓
UP & OVER				
RT 94			℄ PAV'T	℄ PAV'T
✓			230' LT	225' LT
			0.26	1.22
			855.55	854.59 ✓
℄ PAV'T	℄ PAV'T	ON MEDIAN	———	ON MEDIAN
200' LT	175' LT	150' LT	125' LT	100' LT
2.26	3.00	3.01	3.75	4.36
853.55'	852.81'	852.80	852.05	851.45 ✓
ON CAL MEDIAN	ON MED.	℄ PAV'T	℄ PAV'T LT ABUT	℄ PAV'T RT. ABUT
75' LT	50' LT	25' LT	~~18' LT~~ 0.	18' RT
5.24	6.05	7.12	7.72	8.16
850.57	849.76'	848.69'	848.09' ✓	847.65 ✓
	9.77	855.81 ✓		
BM 101				846.04 ✓

✓RH 5/22/87 REDUCED 5/19/87 C.S.L

MC
JS
JR

9/10/87 870231 SV

HI. 855.81

℄ PAV'T 250' RT	℄ PAV'T 275' RT	PAV'T FLATTENS OUT →
12.56	12.84	
845.25'	842.97'	

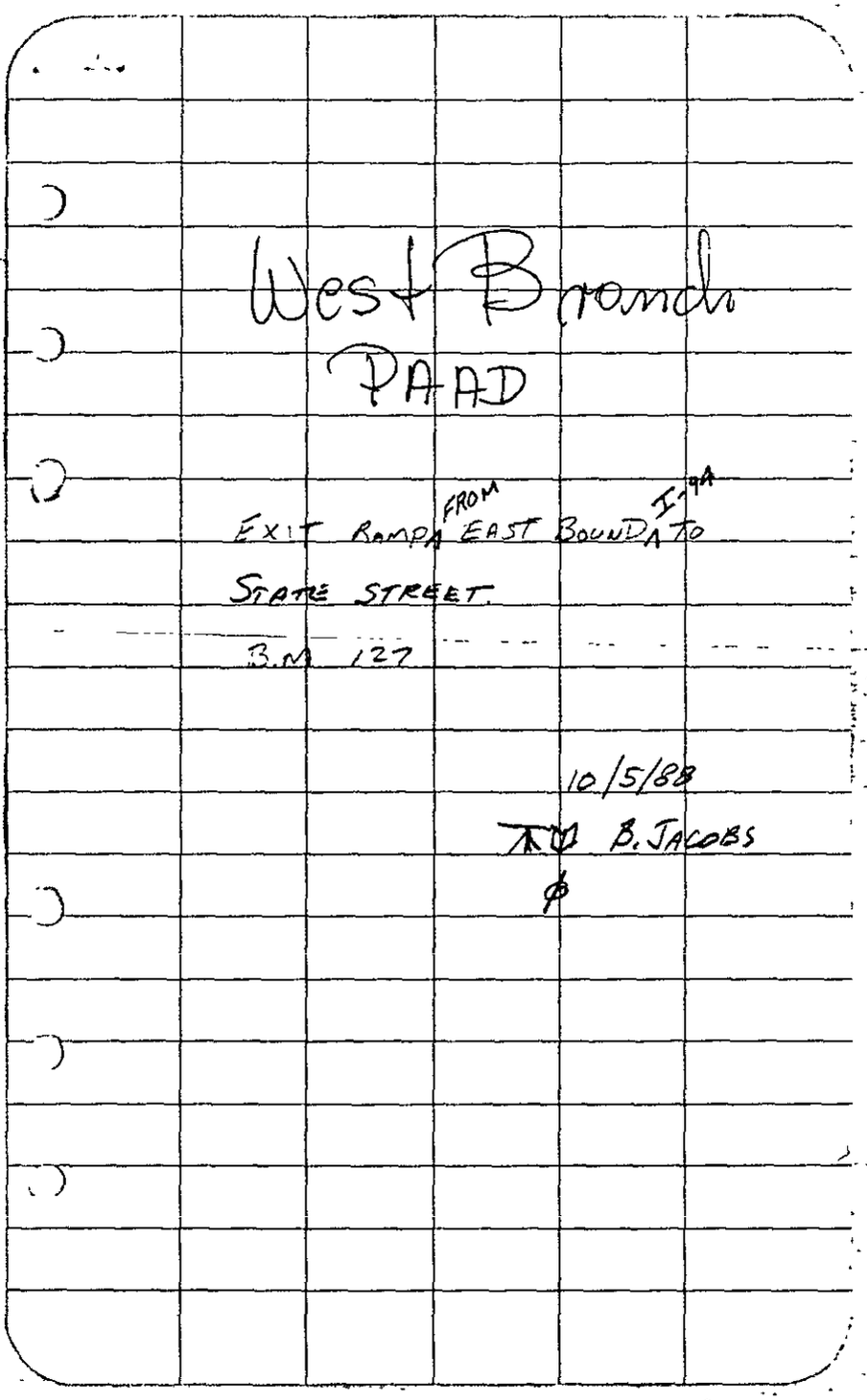
℄ PAV'T 150' RT	175' RT	200' RT	℄ PAV'T 225' RT
10.90	11.30	11.76	12.30
844.91'	844.51'	844.05'	843.51'

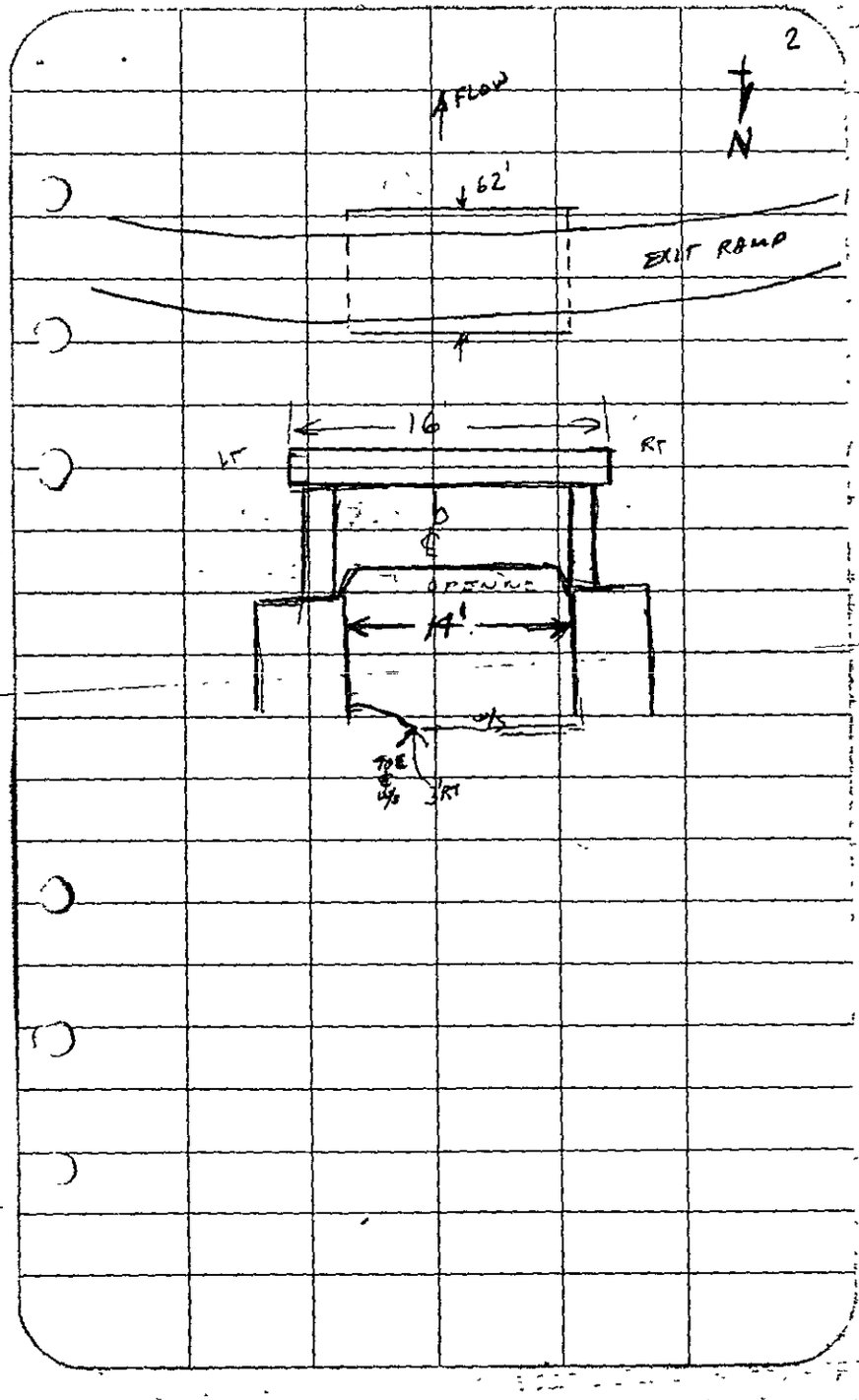
℄ PAV'T 25 RT	℄ PAV'T 50' RT	℄ PAV'T 75' RT	℄ PAV'T 100' RT	℄ PAV'T 125' RT
8.30	8.76	9.26	9.86	10.42
849.51'	849.05'	846.55'	845.95'	845.39'

X-CUT IN NE RDLT. LT. STAND.
S. SIDE STATE ST (SHEET 2)

DIETZGEN NO 385 3

Exit ramp from E. Bound I-94 to State St.
over West Branch PAAD
c.s. 6600 - 6662 on HEC-2 run

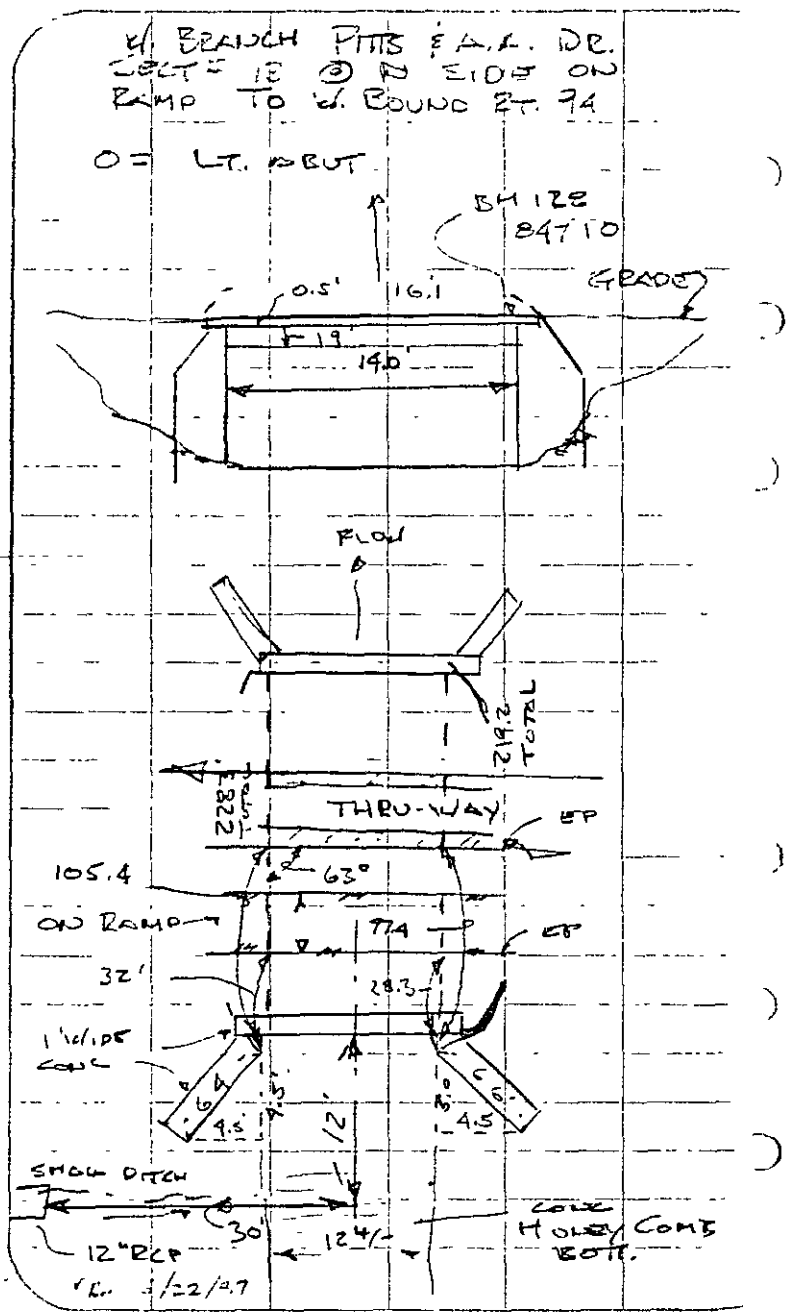



2
FLOW
N
62'
EXIT RAMP
16
LT
RT
OPENING
14'
TOE
RT

		HI 854.24			
	DESC	DIST	ROD		
	ROAD	25' LT	4.43	849.81	
	"	50' LT	4.61	849.63	
	"	75' LT	4.68	849.56	
	"	100' LT	4.69	849.55	
	"	125' LT	4.75	849.49	
	"	150' LT	4.88	849.36	

TP 3				849.59 ✓	
	4.65	85424 ✓			
⊗ CS	DESC	DIST	ROD	ELEV	
	LT FACE OF CULVERT (TOP OF PIPE)	0	14.3	839.9 ✓	
	TOE OF BK @ WATER	3'R	15.0	839.2 ✓	
	SHOT IN WATER	5'R	15.4	838.8 ✓	
	"	10'R	15.4	838.8 ✓	
	RT FACE OF ABUT	14'R	15.2	839.0 ✓	
ROAD CS @	4S LT	0	11.54	842.70 ✓	
	4S RT	14'R	11.53	842.71 ✓	
	℄ BOX CULVERT EDGE OF RD	0	4.41	849.83 ✓	
	"	25'R	4.23	849.96 ✓	
	"	50'R	4.05	850.14 ✓	
	"	75'R	3.77	850.47 ✓	
	ROAD	100'R	3.69	850.55 ✓	
	"	125'R	3.41	850.83 ✓	
	"	150 R	3.09	851.15 ✓	
		OVER LT SIDE			

I-94 and N. side of ramp to W. Bound I-94
over West Branch PAAD
c.s. 6900-7128 on HEC-2 run



HC
JS
JR

4/10/87 870231 54
60° SUNNY

W. BRANCH PITTSFIELD DR
@ SECT 13, N. SIDE ON RAMP TO
W. BOUND I-94. +/- MOVED
SECT. NO DITCH BOTT RAMP
= T-WAY

HDWALL IN GOOD COND.

REF PG 55

STA +	HI -	ELEV
BM-128		847.10 ✓
	3.13	850.23 ✓
TOP/(R) HDWALL	3.13	847.10
TOP/(L) HDWALL	3.22	847.01
TOP END/(R) W. WALL	6.93	843.80
TOP END/(L) W. WALL	6.50	843.73
BOT @ (L) ABUT	10.6	839.63
BOT 5' RT	10.7	839.53
BOT 10' RT	10.7	839.53
BOT @ (R) ABUT	10.6	839.63
INV 12" RCP	8.18	842.05

W. BRANCH PITTS & A.A. DR
SECT # 13 @ N. SIDE ON RAMP
TO W. ROUND RT 94

(SECT ALONG N. EP)
0 = LT/ABUT

STA	+	HI	-	ELEV
✓ BM128			7.90	847.10 ✗
				EP
				250' LT
				7.61
				847.40
EP				EP
225' LT	200' LT	175' LT	150' LT	125' LT
7.81	7.97	8.07	8.12	8.10
847.19	847.03	846.93	846.88	846.90
EP			EP	EP @ LT/ABUT
100' LT	75' LT	50' LT	25' LT	0
7.99	7.88	7.68	7.55	7.80 (31)
847.01	847.12	847.32	847.45	847.69
	7.90	855.00 ✓		
BM 128				847.10

REDUCED 5/19/87 CEL

MC
JS
JR

4/10/87 ~~870321~~ 870231 57/

W. BRANCH PITTS & A.A. DR

SET # 13 ON N. SIDE ON RAMP TO W. BOUND RT 94

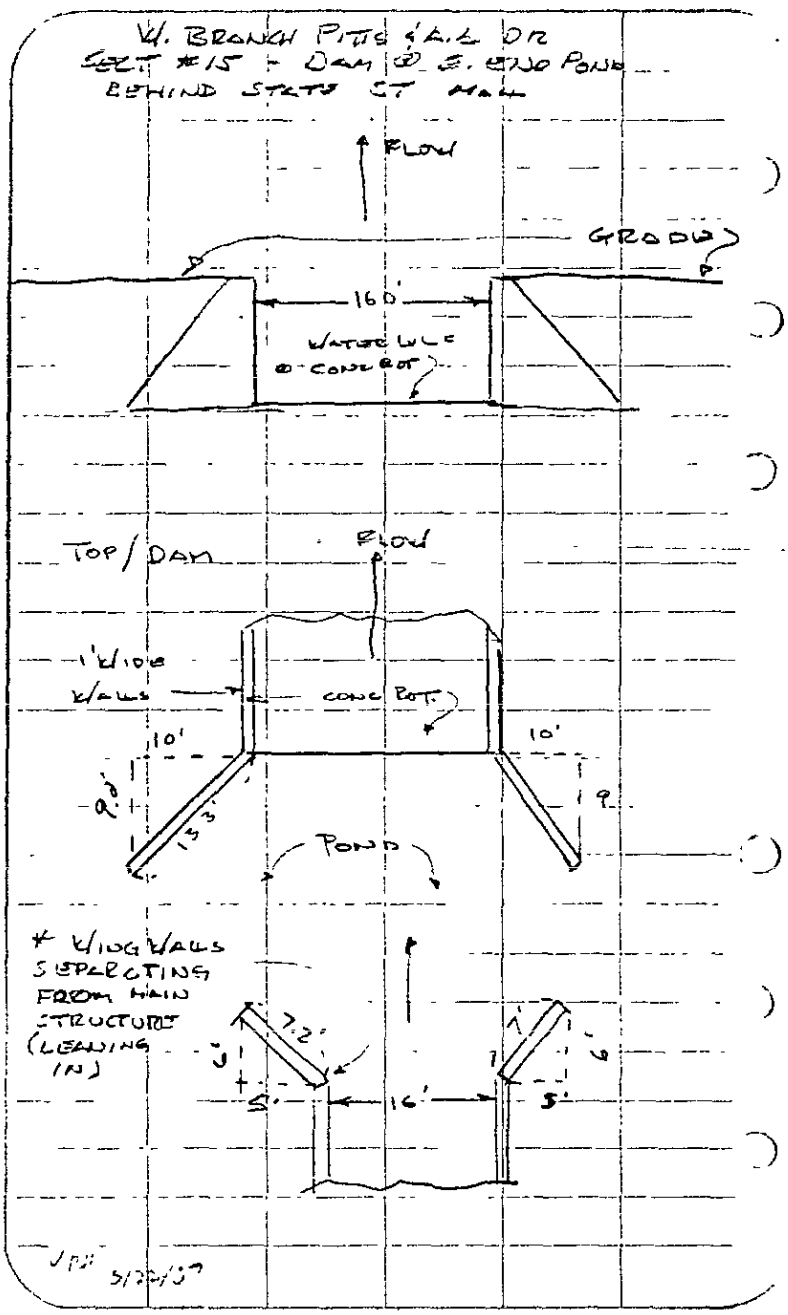
EP	EP	EP
225' RT	250' RT	275' RT
2.91	2.26	1.64
852.09'	852.74'	853.36'

EP			EP
125' RT	150' RT	175' RT	200' RT
5.47	4.88	4.25	3.55
849.53'	850.12'	850.75'	851.45'

EP/ABUT. EP				EP
~~15~~ 15' RT	25' RT	50' RT	75' RT	100' RT
7.20	7.11	6.83	6.48	6.04
847.80'	847.89'	848.17'	848.52'	848.96'

CHISELED "□" S/W COR. CONC. HDWALL (SEE PG 55)

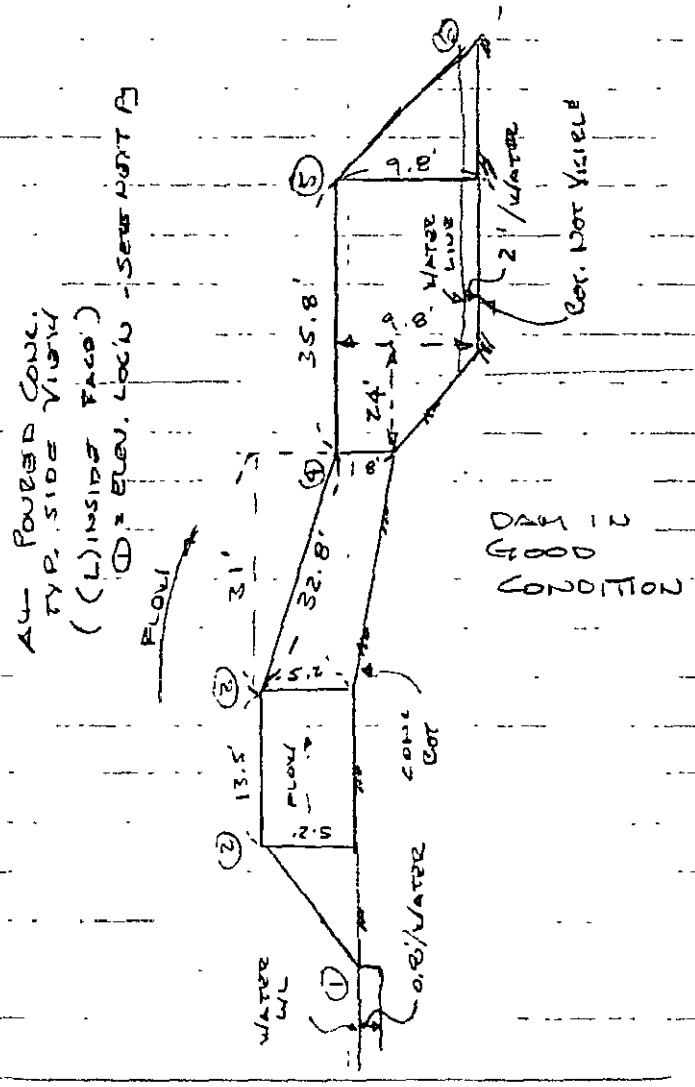
Dam at E. end pond behind State Street Mall
over West Branch PAAD
@ S. 7295 - 7362 on HEC-2 run



HC
JS
JR

4/11/87 870231 60/

W. BRANCH PITTS & A.A. DR.
SECT # 15 - DAM @ E. END POND
BEHIND STATE ST. MALL (NEAR RT 94)



W. BRANCH PITT & A.A. DR
SECT# 15 - DAM @ E. END POND
BEHIND ST. ST. MALL

STA	+	HI	-	ELEV
BM 115				859.39
	4.68	864.07		
① TOP/(R) W.W.			9.08	854.99
① TOP/(L) W.W.			9.82	854.25
② TOP/CONC WALL (L)			4.68	859.39
② TOP/CONC WALL (R)			~~4.81~~ 4.65	859.42
③ TOP/CONC WALL (L)			~~15.42~~ 4.81	859.26
③ TOP/CONC WALL (R)			4.74	859.33
④ " " (L)			15.45	848.62
④ " " (R)			15.05	849.02
⑤ " " (L)			15.45	848.62
⑤ " " (R)			15.34	848.73
⑥ TOP/END W.W. (L)			22.48	841.59
⑥ TOP/END W.W. (R)			22.08	841.99

VRH 5/22/[illegible]

W. BRANCH PITTS & A.A. DR.
SECTION 15 @ DAM - BEHIND
STATE ST. MALL (JUST. BY / RT 94.)

0 = @ LT. W/ALL

STA	+	HI	−	ELEV
✓ BM115			4.68	859.39 ✓
				T/B
				250' LT
				6.7
				857.~~37~~ 4
T/B				T/B
225' LT	200' LT	175' LT	150' LT	125' LT
6.2	5.9	5.5	5.8	5.5
857.~~87~~ 9	858.~~17~~ 2	858.~~57~~ 6	858.~~27~~ 3	858.~~57~~ 6
T/B			T/B	GS @ W/ALL
100' LT	75' LT	50' LT	25' LT	0
5.7	6.1	6.1	6.4	5.6
858.~~37~~ 4	858.0 ~~857.97~~	858.0 ~~857.97~~	857.~~67~~ 7	858.~~17~~ 5
	4.68	864.0'7 ✓		
BM115				859.39'

✓ 21 5/22/87 REDUCED 5/19/87 C.E.L

MC
JS
JR

4/11/87 870231 62/
50° CLDY

W. BRANCH PITTS & A.A. DR
SECT. # 15 @ DAM BEHIND
STATE ST. MALL.

T/B
250' RT
4.1 860.0
~~859.97~~

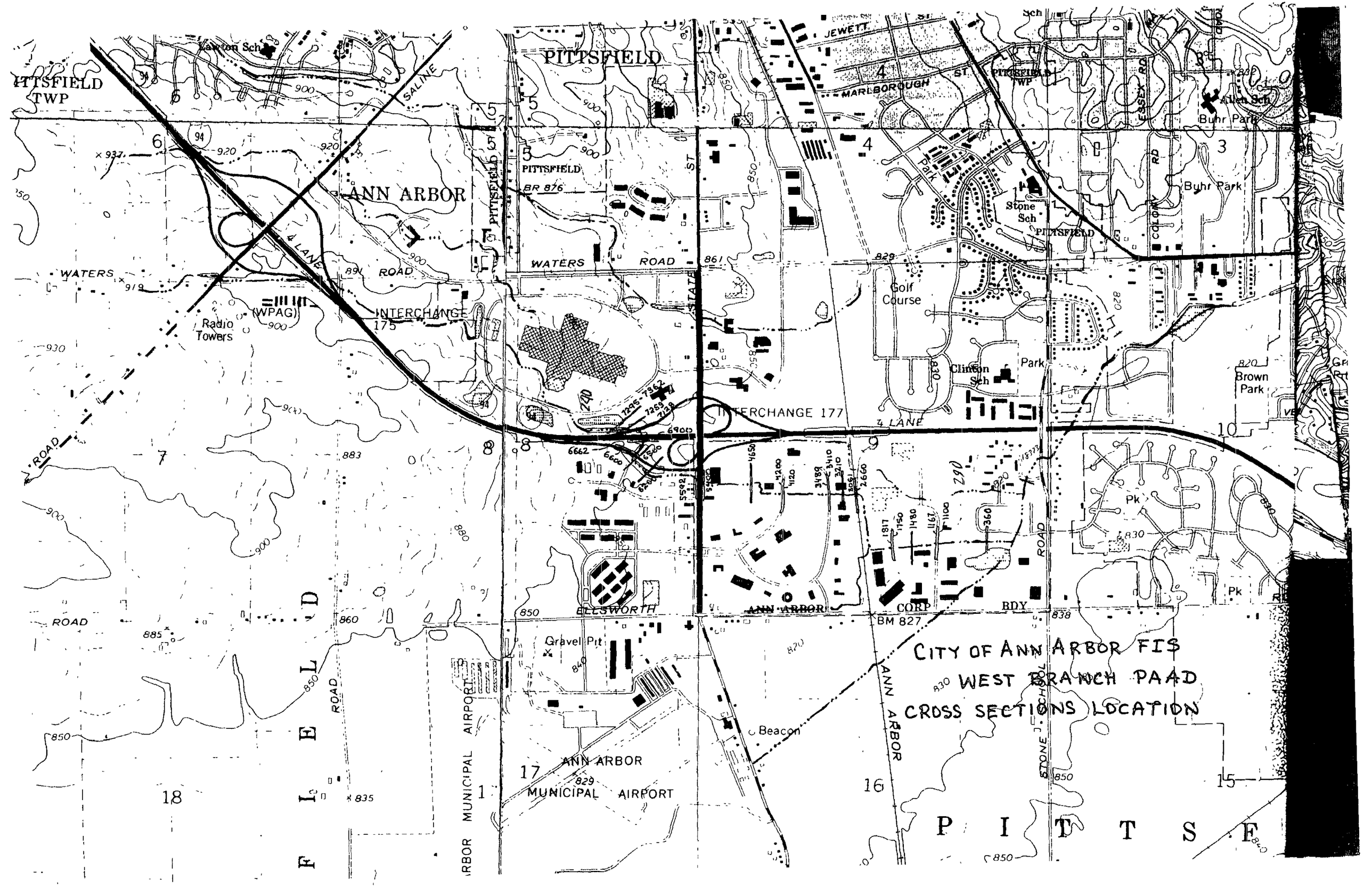
T/B ——— T/B

125' RT	150' RT	175 RT	200' RT	225' RT
6.2	6.0	5.0	4.2	4.1
857.~~87~~ 9	858.~~07~~ 1	859.~~07~~ 1	859.~~87~~ 9	860.0 ~~859.97~~

GS @ Wall T/B ——— T/B

17' RT	25' RT	50' RT	75' RT	100' RT
5.7	6.3	6.6	6.5	6.3
858.~~37~~ 4	857.~~77~~ 8	857.~~47~~ 5	857.~~57~~ 6	857.~~77~~ 8

CHISELED "□" ON CONC DAM see Pg 13



PITTSFIELD TWP
PITTSFIELD
ANN ARBOR
WATERS ROAD
INTERCHANGE 175
INTERCHANGE 177
4 LANE
Radio Towers
(WPAG)
Golf Course
Clinton Sch
Park
Stone Sch
Buhr Park
Brown Park
Allen Sch
Lawton Sch
JEWETT ST
MARLBOROUGH ST
ESSEX RD
COLONY RD
SALINE
STATE ST
ELLSWORTH
ANN ARBOR CORP BDY
BM 827
Gravel Pit
Beacon
ANN ARBOR MUNICIPAL AIRPORT
ANN ARBOR
STONE SCHOOL ROAD
PITTSFIELD
PITTSFIELD TWP
CITY OF ANN ARBOR FIS
WEST BRANCH PAAD
CROSS SECTIONS LOCATION

ANN ARBOR

PITTSFIELD

PITTSFIELD TWP

INTERCHANGE 175

INTERCHANGE 177

ELLSWORTH

CORP

BM 827

BM 833

Gravel Pit

Golf Course

Golf Course

Park

Park

Park

Park

Brown Park

Buhr Park

Buhr Park

Water Tank

Radio Towers

(WPAG)

Sch

Sch

Sch

```
EEEEEE   EEEEEE          BBBBB    RRRRR    U    U    CCCC    EEEEEE
E        E               B    B   R    R   U    U   C    C  E
E        E       ------  BBBBB    R    R   U    U   C       E
EEEE     EEEE            B    B   RRRRR    U    U   C       EEEE
E        E               B    B   R    R   U    U   C    C  E
EEEEEE   EEEEEE          BBBBB    R    R    UUUU     CCCC    EEEEEE

USACOE DETROIT H800 VOS 7.1.0     PRINTER   6

EE-BRUCE                  22 DEC 88 14:10:56

PROG: SYS BOOT
```

Northwest Branch PAAD
INPUT: NWBRAAEN
OUTPUT: PITTEN.

THIS RUN EXECUTED 21 DEC 88 11:58:35

```
*****************************************************
  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      CITY OD ANN ARBOR, MI, FLOOD INSURANCE RESTUDY
T2      NORTHWEST BRANCH PITTSFIELD-ANN ARBOR DRAIN
T3      100-YEAR DISCHARGE, EXISTING CONDITION

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        3.        0.        0.   0.000000     0.00       0.0       0.    807.380    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      0.060     0.060     0.045     0.300     0.500     0.000     0.000     0.000     0.000     0.000
QT      4.000   470.000   840.000   840.000  1060.000     0 000     0.000     0.000     0.000     0.000
ET      0.000     0.000     0.000     1.400     0.000     0.000     0.000     0.000     0.000     0.000
                FIELD SECTION 1, MOVED  D/S TO MOUTH
X1      0.000    16.000   125.000   150.000     0.000     0.000     0.000     0.000    -0.400     0.000
GR    811.900     0.000   811.800    25.000   808.200    50.000   808.100    72.000   808.000    75.000
GR    807.000   103.000   802.900   125.000   801.500   127.000   801.000   128.000   801.000   136.000
GR    801.500   146.000   803.100   150.000   803.000   156.000   807.700   175.000   812.100   195.000
GR    812.000   203.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

                VALLEY SECTION A, FIELD SECTION 1
X1    350.000     0.000     0.000     0.000   350.000   350.000   350.000     0.000     0.400     0.000

NC      0.000     0.000     0.000     0.500     1.000     0.000     0.000     0.000     0.000     0.000
ET      0.000     0.000     5.100     5.100   117.000   158.000     0 000     0.000     0.000     0 000
                FIELD SECTION 1, MOVED U/S                DRAIN
X1    700.000     0.000     0.000     0 000   350.000   350.000   350.000     0.000     0.400     0.000

X1    750.000    13.000   177.000   193.600    50.000    50.000    50.000     0.000     0.000     0.000
X3      0.000     0.000     0.000   177.000     0.000   193.600     0.000     0.000     0.000     0.000
GR    817.000     0.000   811.000   160 000   802.000   177.000   802.000   177.100   800.900   179.300
GR    800.700   182.300   800.500   185.300   800.700   188.300   800.900   191.300   802.000   193.500
GR    802.000   193.600   811.000   210.000   817.000   370.000     0.000     0.000     0.000     0.000
```

NC	0.015	0.015	0.015	0.100	0.300	0 000	0.000	0 000	0.000	0.000
		D/S FACE	NORTHWEST	BRANCH	PITTSFIELD-A2	DRAIN	ENCLOSED			
X1	751.000	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	177.000	0.000	193.600	0.000	0.000	0.000	0.000
BT	-13.000	0.000	820.000	0.000	160.000	815.000	0.000	177.000	815.000	802.000
BT	0.000	177.100	815.000	803.800	179.300	815.000	806.300	182.300	815.000	810.000
BT	0.000	185.300	815.000	810.600	188.300	815.000	810.000	191.300	815.000	806.300
BT	0.000	193.500	815.000	803.800	193.600	815.000	802.000	210.000	815.000	0.000
BT	0.000	370.000	820.000	0.000	0.000	0.000	0.000	0.000	0.000	0 000
X1	850.000	0.000	0.000	0.000	99.000	99.000	99.000	0.000	0.050	0.000
X3	0.000	0.000	0.000	177.000	0.000	193.600	0.000	0.000	0.000	0.000
BT	-13.000	0.000	820.000	0.000	160.000	815.000	0.000	177.000	815.000	802.050
BT	0.000	177.100	815.000	803.850	179.300	815.000	806.350	182.300	815.000	810.050
BT	0.000	185 300	815.000	810.650	188.300	815.000	810.050	191.300	815.000	806 350
BT	0.000	193.500	815.000	803.850	193.600	815.000	802.050	210.000	815.000	0.000
BT	0.000	370.000	820.000	0.000	0.000	0.000	0.000	0.000	0 000	0.000
X1	1000.000	13.000	177.000	193.600	150.000	150.000	150.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	177.000	0.000	193.600	0.000	0.000	0.000	0.000
BT	-13.000	0.000	820.000	0.000	160 000	815.000	0.000	177.000	815.000	802.130
BT	0.000	177.100	815.000	803.930	179.300	815.000	806.430	182.300	815.000	810.130
BT	0.000	185.300	815.000	810.730	188.300	815.000	810.130	191.300	815.000	806.430
BT	0.000	193.500	815.000	803.930	193.600	815.000	802.130	210.000	815.000	0.000
BT	0.000	370.000	820.000	0.000	0.000	0 000	0.000	0.000	0.000	0.000
GR	817.130	0 000	811.130	160.000	802.130	177.000	802.130	177.100	801.030	179.300
GR	800.830	182.300	800.630	185.300	800.830	188.300	801.030	191.300	802.130	193.500
GR	802.130	193.600	811.130	210.000	817.130	370.000	0.000	0.000	0.000	0.000
X1	1300.000	0.000	0.000	0.000	300.000	300.000	300.000	0.000	0.150	0.000
X3	0.000	0 000	0.000	177.000	0.000	193.600	0.000	0.000	0.000	0.000
BT	-13.000	0.000	820.000	0.000	160.000	815.000	0.000	177.000	815.000	802.280
BT	0.000	177 100	815.000	804 080	179.300	815.000	806.580	182.300	815.000	810.280
BT	0.000	185.300	815.000	810 880	188.300	815.000	810.280	191.300	815.000	806.580
BT	0.000	193.500	815.000	804.080	193.600	815.000	802.280	210.000	815.000	0.000
BT	0.000	370.000	820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1600.000	13.000	177.000	193.600	300.000	300.000	300.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	177.000	0.000	193.600	0.000	0.000	0.000	0.000
BT	-13.000	0.000	820.000	0 000	160.000	815.000	0.000	177.000	815.000	802.430
BT	0.000	177.100	815.000	804 230	179.300	815.000	806.730	182.300	815.000	810.430
BT	0.000	185.300	815.000	811.030	188.300	815.000	810.430	191.300	815.000	806.730
BT	0.000	193.500	815.000	804.230	193.600	815.000	802.430	210.000	815.000	0.000
BT	0.000	370.000	820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	817.380	0.000	811.380	160.000	802.430	177 000	802.380	177.100	801.280	179.300
GR	801.080	182.300	800.880	185.300	801.080	188.300	801.280	191.300	802.380	193.500
GR	802.430	193.600	811.380	210.000	817.380	370.000	0.000	0.000	0.000	0.000

X1	2250.000	0.000	0.000	0.000	650.000	650.000	650.000	0.000	0.910	0.000
X3	0 000	0.000	0.000	177.000	0.000	193.600	0.000	0.000	0.000	0.000
BT	-13.000	0.000	820.000	0.000	160.000	815.000	0.000	177.000	815.000	803.340
BT	0.000	177.100	815.000	805.140	179.300	815 000	807.640	182.300	815.000	811.340
BT	0.000	185 300	815.000	811.940	188.300	815.000	811.340	191.300	815.000	807.640
BT	0.000	193.500	815.000	805.140	193 600	815 000	803.340	210.000	815.000	0.000
BT	0.000	370.000	820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2900.000	13 000	177.000	193.600	650.000	650.000	650.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	177.000	0.000	193.600	0.000	0.000	0.000	0.000
BT	-13.000	0.000	820.000	0 000	160.000	815.000	0.000	177.000	815.000	804.400
BT	0.000	177.100	815.000	806 050	179.300	815.000	808.550	182.300	815.000	812.250
BT	0.000	183.500	815.000	812.850	188.300	815.000	812.250	191.300	815.000	808.550
BT	0.000	193.500	815.000	806.050	193.600	815.000	804.400	210.000	815.000	0.000
BT	0.000	370.000	820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	819 200	0 000	813.200	160.000	804.400	177.000	804.200	177.100	803.100	179.300
GR	802.900	182.300	802.700	183.500	802.900	188.300	803.100	191.300	804.200	193 500
GR	804.400	193.600	813.200	210.000	819.200	370.000	0.000	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

CHANGE IN PIPE SIZE AT JUNCTION, NW BR PITTSFIELD-A2 DRAIN ENC

X1	2905.000	21.000	90.000	110.000	5.000	5.000	5.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	90.000	0.000	110.000	0 000	0.000	0.000	0.000
X5	3.000	0 000	811.750	811.850	813.070	0.000	0.000	0.000	0.000	0.000
BT	-19.000	0.000	838.300	0.000	25.000	837.800	0.000	50.000	837.500	0.000
BT	0.000	75.000	837.000	0.000	96.500	836.500	808.250	97 000	836.500	810.250
BT	0.000	98.000	836.500	811.150	99.000	836.500	811.650	100.000	836.500	811.750
BT	0.000	101.000	836.500	811.650	102.000	836.500	811 150	103.000	836.500	810.250
BT	0.000	103.500	836.500	808.250	125.000	836.000	0.000	150.000	835.700	0.000
BT	0.000	175 000	835.300	0.000	200.000	834 900	0.000	225.000	834.500	0.000
BT	0.000	325.000	833.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	822.950	0.000	822.450	25.000	822.150	50.000	813.650	75.000	805.250	90.000
GR	808.250	96.500	806.450	97 000	805.350	98.000	804.850	99 000	804.750	100.000
GR	804.750	101.000	805.350	102.000	806.450	103.000	808.250	103.500	805.250	110.000
GR	812.650	125.000	820.350	150.000	819.950	175.000	819.550	200.000	819.150	225.000
GR	817.650	325 000	0.000	0.000	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

WATER SURFACE ELEVATIONS BY INTERPOLATION BETWEEN 2905 AND 4905
BASED ON CONTROLING ELEVATION FOR WEIR FLOW AT 4905

X1	3905.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	7 670	0.000
X3	0.000	0.000	0.000	90.000	0.000	110.000	0.000	0.000	0.000	0.000
X5	3.000	0.000	821.900	822.000	823.520	0.000	0.000	0.000	0.000	0.000
BT	-19.000	0.000	838 300	0.000	25.000	837.800	0.000	50.000	837.500	0.000
BT	0.000	75.000	837.000	0.000	96.500	836.500	815.920	97.000	836.500	817.920
BT	0.000	98.000	836.500	818.820	99.000	836.500	819.320	100.000	836.500	819.420
BT	0.000	101.000	836.500	819.320	102.000	836.500	818.820	103.000	836.500	817.920
BT	0.000	103 500	836.500	815.920	125.000	836.000	0.000	150.000	835.700	0.000
BT	0.000	175.000	835.300	0.000	200.000	834.900	0.000	225.000	834.500	0.000
BT	0.000	325.000	833.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S FACE NORTHWEST BRANCH PITTSFIELD-A2 DRAIN, ENCLOSED

X1	4905.000	21.000	90 000	110.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
X3	0.000	0 000	0.000	90.000	0.000	110.000	0.000	0.000	0.000	0.000
X5	3.000	0.000	832.000	832.100	832.300	0.000	0.000	0.000	0.000	0.000
BT	-19.000	0.000	838.300	0.000	25.000	837.800	0.000	50.000	837.500	0.000
BT	0.000	75.000	837.000	0.000	96.500	836.500	823.590	97 000	836 500	825.590
BT	0.000	98 000	836 500	826.490	99.000	836.500	826.990	100 000	836.500	827.090
BT	0.000	101.000	836.500	826.990	102.000	836.500	826.490	103.000	836.500	825.590
BT	0.000	103.500	836.500	823.590	125.000	836.000	0.000	150.000	835.700	0.000
BT	0.000	175.000	835.300	0.000	200.000	834.900	0 000	225.000	834.500	0.000
BT	0.000	325.000	833.000	0.000	0.000	0.000	0 000	0.000	0.000	0.000
GR	838.300	0.000	837.800	25 000	837.500	50.000	829.000	75.000	820 600	90 000
GR	823 590	96.500	821.800	97.000	820.700	98.000	820.200	99.000	820.100	100.000
GR	820.200	101.000	820.700	102.000	821.800	103.000	823.590	103.500	820.600	110.000
GR	828.000	125.000	835.700	150.000	835.300	175.000	834.900	200.000	834.500	225.000
GR	833.000	325.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.030	0.030	0 030	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	5.100	1.400	90.000	110.000	0.000	0.000	0.000	0.000
X1	4906.000	0 000	0.000	0.000	1.000	1.000	1.000	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

VALLEY SECTION B, FIELD SECTION 2A (SUPPLEMENTAL SURVEY)

X1	4950.000	5.000	66 000	73.000	44.000	44.000	44.000	0.000	0.000	0.000
GR	831.800	0.000	830.300	40.000	820.100	66.000	820.500	73.000	830.900	108.000
NC	0.040	0.040	0 040	0.300	0.500	0 000	0.000	0.000	0.000	0.000
X1	5200.000	6.000	60.000	67.000	250.000	250 000	250.000	0 000	0.000	0.000
GR	832.700	0.000	831.100	41.000	824.800	60.000	824.600	67 000	831.700	86.000
GR	832 200	112.000	0.000	0 000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5270.000	6.000	57.000	65.000	70.000	70.000	70.000	0.000	0 000	0.000
GR	833.000	0 000	831 400	40.000	826.000	57.000	825.700	65.000	831.900	80.000
GR	832.600	114.000	0 000	0.000	0.000	0.000	0.000	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

VALLEY SECTION C, FIELD SECTION 2B (SUPPLEMENTAL SURVEY)

X1	5330.000	7.000	55.000	62.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	833.300	0.000	831.600	40.000	827.200	55.000	826.800	62.000	832.200	73 000
GR	833.000	86.000	832.900	116.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	5.100	7 100	186.000	349.000	215.000	290.000	0.000	0.000

DOWNSTREAM FACE ANN ARBOR RAILROAD, FIELD SECTION 3

X1	5360.000	22.000	220.000	285.000	50.000	50.000	0.000	0.000	0.000	0.000
GR	836.200	0.000	833 000	175 000	832.800	220.000	830.800	247.400	830.800	247.500
GR	829.200	248.000	828.400	249.000	828.300	250.000	828.400	251.000	829.200	252.000
GR	830 800	252 500	830.800	253.500	829.200	254.000	828.400	255.000	828.300	256.000
GR	828.400	257.000	829 200	258 000	830.800	258.500	830.800	258.600	832.800	285.000
GR	833 000	360.000	836.500	475.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.030	0.030	0.030	0.300	0.500	0.000	0 000	0.000	0.000	0.000
SB	0.000	1 500	3.000	0.000	10.000	0.000	39.270	0.000	0.000	0.000
ET	0.000	0.000	5.100	7.100	175.000	360.000	190.000	315.000	0.000	0.000
		U/S FACE ANN ARBOR RAILROAD								
X1	5420.000	20.000	220.000	285.000	40.000	40.000	40.000	0.000	0.000	0.000
X2	0.000	0 000	1.000	833.300	836.200	0.000	0.000	0.000	0.000	0.000
X4	2.000	833.000	175.000	833.000	360.000	0.000	0.000	0.000	0.000	0.000
BT	-16.000	0.000	836.200	0.000	247.500	836.200	830.800	248.000	836.200	832.500
BT	0.000	249.000	836.200	833.200	250.000	836.200	833.300	251.000	836.200	833.200
BT	0.000	252.000	836.200	832.500	252 500	836.200	830.800	253.500	836.300	830.800
BT	0.000	254.000	836.300	832.500	255 000	836.300	833.200	256.000	836.300	833.300
BT	0 000	257.000	836.300	833 200	258.000	836.300	832.500	258.500	836.300	830.800
BT	0.000	475.000	836.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	836.200	0.000	833 000	220.000	830.800	247.400	830.800	247.500	829.200	248.000
GR	828 400	249.000	828 300	250.000	828.400	251.000	829.200	252.000	830.800	252.500
GR	830.800	253 500	829 200	254.000	828.400	255.000	828.300	256.000	828.400	257.000
GR	829.200	258.000	830.800	258.500	830.800	258.600	833.000	285.000	836.500	475.000
NC	0.050	0.050	0.030	0.300	0.500	0.000	0.000	0.000	0.000	0.000
QT	4.000	470.000	790.000	790.000	1000.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	5.100	28.000	152.000	0.000	0.000	0.000	0 000
X1	5450.000	27 000	90.000	110.000	30.000	30.000	30.000	0.000	0.000	0.000
GR	833.400	0.000	833 600	25.000	834.100	50.000	834.700	75.000	829.500	90.000
GR	829 500	91.900	831.100	92.000	830.200	92.500	829.700	93.400	829.500	94.500
GR	829.700	95.600	830.200	96.500	831.100	97.000	829 500	97.100	829.400	100.900
GR	831.000	101.000	830.100	101.500	829.600	102.400	829.400	103.500	829.600	104.600
GR	830.100	105.500	831.000	106.000	829.400	106.100	829.400	110.000	835.600	125.000
GR	835.600	150.000	835.200	175.000	0.000	0.000	0 000	0.000	0.000	0.000
NC	0 030	0.030	0 015	0.000	0.000	0 000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	5.100	28.000	152.000	0.000	0.000	0.000	0.000
		OUTLET OF RETENTION BASIN FIELD SECTION 3A (SUPP SURVEY)								
X1	5451 000	0 000	0 000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	-27.000	0 000	833.400	0.000	25.000	833.600	0.000	50.000	834.100	0.000
BT	0.000	75.000	834.700	0.000	90.000	835.000	0.000	91.900	835.000	0.000
BT	0.000	92.000	835.000	831.100	92.500	835.100	832.000	93.400	835.100	832.500
BT	0.000	94.500	835.100	832.700	95.600	835 100	832.500	96.500	835.100	832.000
BT	0.000	97.000	835.100	831.100	97.100	835 100	0.000	100.900	835.200	0.000
BT	0.000	101 000	835.200	831.000	101.500	835.200	831.900	102.400	835.200	832.400
BT	0.000	103.500	835.300	832.600	104 600	835.300	832 400	105.500	835.300	831.900
BT	0.000	106.000	835.300	831.000	106 100	835.300	0.000	110.000	835.400	0.000
BT	0.000	125.000	835.600	0.000	150 000	835.600	0.000	175.000	835.200	0.000
ET	0.000	0 000	0.000	5.100	18.000	152.000	0.000	0.000	0.000	0.000
		U/S END OF RETION BASIN OUTLET								
X1	5491.000	0 000	0.000	0.000	40.000	40.000	40.000	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

836.71

ET	0.000	0.000	0.000	5 100	13.000	157.000	0.000	0.000	0.000	0.000
X1	5492.000	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	5.100	13.000	157 000	0.000	0.000	0.000	0.000
		WEIR ON OUTLET OF RETENTION BASIN								
X1	5495.000	13.000	90.000	110.000	3.000	3.000	3.000	0.000	0.000	0.000
GR	833.400	0.000	833.600	25.000	834.100	50.000	834.700	75.000	831.800	90.000
GR	831.800	98.500	829.400	99.000	829 400	101.000	831.800	101.500	831.800	110.000
GR	835.600	125.000	835.600	150.000	835.200	175.000	0.000	0.000	0.000	0.000
NC	0.020	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	5 100	0.000	230.000	0.000	0.000	0.000	0.000
		RETENTION BASIN AT R.R. (APPROX)								
X1	5520.000	4 000	15.000	215.000	25.000	25.000	25.000	0.000	0.000	0.000
GR	834.000	0.000	828.000	15.000	828.000	215.000	834 000	230.000	0.000	0.000
NC	0.020	0.020	0.020	0 000	0.000	0.000	0.000	0.000	0.000	0.000
		RETENTION BASIN AT R.R. (APPROX)								
X1	5650.000	0.000	0.000	0.000	130.000	130.000	130.000	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
ET	0.000	0.000	5.100	7.100	60.000	170.000	60.000	125.000	0.000	0.000
		INLET TO RETENTION BASIN, FIELD SECTION 3B, SUPPLEMENTAL SURVEY								
X1	5731.000	24 000	109.000	118.000	81.000	81.000	81.000	0.000	0.000	0.000
GR	835.000	0.000	834.900	100.000	830.200	109.000	829.200	110.400	830.200	110.500
GR	830.200	110.510	829.500	111.000	829.200	112.000	829.500	113.000	830.200	113.500
GR	830.200	113.510	829.200	113.600	829.300	114.400	830.300	114.500	830.300	114.510
GR	829.600	115.000	829.300	116.000	829.600	117.000	830.300	117 500	830.300	117.510
GR	829.300	117.600	829.800	118.000	836.800	129.000	836.800	200.000	0.000	0.000
NC	0 030	0.030	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	3 030	3.000	0.000	9.000	0.000	19.200	0 000	0.000	0.000
ET	0.000	0 000	5.100	7.100	70.000	160 000	80.000	120.000	0.000	0.000
		U/S SIDE OF INLET TO RETENTION BASIN								
X1	5766.000	0 000	0.000	0.000	35.000	35.000	35.000	0.000	0.000	0.000
X2	0.000	0 000	1.000	832.300	835.000	0.000	0.000	0.000	0.000	0.000
BT	-19.000	0.000	835.000	0.000	100.000	836.300	0.000	109.000	836.300	0.000
BT	0.000	110.500	836.400	830.200	110.510	836.400	831.200	111.000	836.400	831.900
BT	0.000	112.000	836.400	832.200	113.000	836.400	831.900	113.500	836.400	831.200
BT	0.000	113.510	836.400	830.200	114.500	836.400	830.300	114.510	836.400	831.300
BT	0.000	115.000	836.400	832.000	116 000	836.400	832.300	117.000	836.500	832.000
BT	0.000	117.500	836.500	831.300	117.510	836.500	830.300	129.000	836.800	0.000
BT	0.000	200.000	836.800	0.000	0 000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000
X1	5856.000	20.000	250.000	273.000	90 000	90 000	90.000	0.000	-2.300	0.000
GR	843.600	0.000	844.300	50.000	843.100	125.000	843.300	150.000	842.200	175.000
GR	842.000	200.000	842.200	219.000	841.800	225.000	836.700	250.000	833.700	258.000
GR	833.000	262.000	833.700	265.000	837.700	273.000	838.000	275.000	840.800	291.000
GR	841.600	304.000	841.300	325.000	841.600	350.000	842.400	375.000	843.700	400.000

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	5.000	124.000	527.000	5 000	0.000	0.000	0.000
X1	5952.000	0.000	0.000	0.000	96.000	96.000	96.000	0.000	1.400	0.000
ET	0.000	0.000	0.000	5.100	245 000	277.000	0.000	0.000	0.000	0.000
		VALLEY SECTION D, FIELD SECTION 4								
X1	6000 000	0.000	0.000	0.000	48.000	48.000	48.000	0.000	0.900	0.000
ET	0.000	0.000	0.000	5.100	246.000	277.000	0.000	0.000	0.000	0.000
X1	6004.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	0.000	0.000
ET	0.000	0 000	0.000	1.400	0.000	0.000	0.000	0 000	0.000	0.000
		FIELD SECTION 4 MOVED U/S								
X1	6150.000	0.000	0.000	0 000	146.000	146.000	146.000	0.000	0.000	0.000
NC	0 030	0.030	0 030	0 500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	5.100	7.100	88.000	250.000	125.000	213.000	0.000	0.000
		D/S FACE BOARDWALK, FIELD SECTION 4A, SUPPLEMENTAL SURVEY								
X1	6201.000	25 000	150.000	188.000	51.000	51.000	51.000	0.000	0.000	0.000
GR	840.200	0.000	840.400	125.000	840.500	150.000	834.000	154.000	834.800	154.100
GR	833.600	154.500	832.800	157.100	832.600	159.900	832.800	162.700	833.600	165.300
GR	834.800	165.700	832.800	165.800	832.800	171.100	834.900	171.200	833.700	171.600
GR	832.900	174.200	832.700	177 000	832.900	179.800	833.700	182.400	834.900	182.800
GR	833.200	182.900	840.900	188.000	840.600	250.000	840.000	300.000	839.900	325.000
SB	0.000	2.570	3.000	0 000	23.200	0.000	62.000	0 000	0.000	0.000
NC	0.060	0.060	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	5.100	7.100	40.000	285.000	120.000	220.000	0.000	0.000
		U/S FACE BOARDWALK								
X1	6294.000	0.000	0.000	0.000	93.000	93.000	93.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	839 800	839.900	0.000	0.000	0.000	0.000	0.000
BT	-23.000	0.000	840.200	0.000	125.000	841.500	0.000	150 000	841.600	0.000
BT	0.000	154 100	841.600	834.800	154.500	841.600	836.800	157.100	841.600	839.600
BT	0.000	159.900	841.600	840.100	162.700	841.600	839.600	165.300	841.500	836.800
BT	0.000	165 700	841.500	834.800	165.800	841.500	832.800	171.100	841.500	832.800
BT	0.000	171.200	841.500	834 900	171.600	841.500	836.900	174.200	841.500	839.700
BT	0.000	177.000	841.500	840.200	179.800	841.500	839.700	182.400	841.400	836.900
BT	0 000	182.800	841.400	834.900	188.000	841.400	0.000	250.000	840.600	0.000
BT	0.000	300.000	840.000	0.000	325.000	839.900	0.000	0.000	0.000	0 000
NC	0.060	0.060	0.045	0.000	0 000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	1.400	0 000	0.000	0.000	0.000	0.000	0.000
		FIELD SECTION 4 MOVED U/S								
X1	6650.000	20.000	250.000	273.000	356.000	356.000	356.000	0.000	0.770	0.000
GR	843.600	0.000	844.300	50.000	843.100	125.000	843.300	150.000	842.200	175.000
GR	842.000	200.000	842.200	219.000	841.800	225.000	836.700	250.000	833.700	258.000
GR	833.000	262.000	833.700	265.000	837.700	273.000	838.000	275.000	840.800	291.000
GR	841.600	304.000	841.300	325.000	841.600	350.000	842.400	375.000	843.700	400.000

413

NC	0.000	0.000	0.000	0 300	0.500	0.000	0.000	0.000	0.000	0.000
X1	6800.000	0 000	0.000	0.000	150.000	150.000	150.000	0.000	0.540	0.000
ET	0.000	0.000	5.100	5.100	251.000	272.000	0.000	0 000	0.000	0.000
	FIELD SECTION 4 MOVED U/S									
X1	6900.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.360	0.000
NC	0 020	0.020	0.025	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	WINGWALLS TO PRIVATE BRIDGE, FIELD SECTION 4B (SUPP SURVEY)									
X1	6910.000	16.000	175.000	190.100	10.000	10.000	10.000	0.000	0.000	0.000
GR	848.900	0.000	848.100	25.000	847.800	50.000	847.900	75.000	847.100	150.000
GR	847.000	175.000	845.900	175.100	834.800	175.110	835.000	180.000	836.000	185.000
GR	836.800	187.000	837.400	190.000	845.900	190.100	847 000	190 110	847.400	250.000
GR	848.000	325.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE TO PRIVATE BRIDGE									
X1	6930.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	0.000	0.000
BT	-10.000	0.000	848.900	0.000	25 000	848.100	0.000	50.000	847.800	0.000
BT	0.000	75.000	847 900	0.000	150.000	847.100	0.000	175.000	847.000	0.000
BT	0.000	175.100	847.000	845.900	190.100	847.000	845.900	250.000	847.400	0.000
BT	0.000	325.000	848.000	0.000	0.000	0 000	0.000	0.000	0.000	0.000
	U/S FACE TO PRIVATE BRIDGE									
X1	6960.000	0.000	0.000	0.000	30.000	30.000	30.000	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
	WINGWALLS TO PRIVATE BRIDGE									
X1	6975.000	0.000	0.000	0.000	15.000	15.000	15.000	0.000	0.000	0.000
NC	0.030	0.030	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	5 100	5.100	251.000	272.000	0.000	0.000	0.000	0.000
	FIELD SECTION 4 MOVED U/S									
X1	6978.000	20.000	250.000	273.000	3.000	3.000	3.000	0.000	1.900	0.000
GR	843.600	0 000	844.300	50.000	843.100	125.000	843.300	150.000	842.200	175.000
GR	842.000	200.000	842.200	219.000	841.800	225.000	836.700	250.000	833.700	258.000
GR	833.000	262.000	833.700	265.000	837.700	273.000	838.000	275.000	840.800	291.000
GR	841.600	304.000	841.300	325.000	841 600	350.000	842.400	375.000	843.700	400.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0 000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000
X1	7070.000	0.000	0.000	0.000	92.000	92.000	92.000	0.000	2.140	0.000
	FIELD SECTION 4 MOVED U/S									
X1	7100.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.730	0.000
ET	0.000	0.000	0.000	5.100	0.000	400.000	0.000	0.000	0.000	0.000
X1	7175.000	0.000	0.000	0.000	75.000	75.000	75.000	0.000	1.780	0 000

		FIELD SECTION 4 MOVED U/S								
X1	7250.000	0.000	0.000	0.000	75.000	75.000	75.000	0.000	1.780	0.000
X1	7300.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	1.190	0.000
		FIELD SECTION 4 MOVED U/S								
X1	7350 000	0.000	0.000	0.000	50 000	50.000	50.000	0.000	1.190	0.000
NC	0 000	0.000	0.000	0.500	1 000	0.000	0.000	0.000	0 000	0.000
ET	0.000	0.000	0.000	1 400	0.000	0 000	0.000	0.000	0.000	0.000
X1	7375.000	8.000	250.000	270.000	25.000	25.000	25.000	0.000	-0.400	0.000
GR	857.000	0.000	854.900	220.000	846.700	250.000	844.700	257.000	845.000	260.000
GR	847.000	270.000	854.300	290.000	854.300	400.000	0.000	0.000	0.000	0.000
		D/S FACE STATE STREET, FIELD SECTION 5								
X1	7400.000	20.000	235.000	253.600	25.000	25.000	25.000	0.000	0.000	0.000
GR	858.400	0 000	857.900	75.000	857.600	100.000	856.500	200.000	845.100	235.000
GR	848.400	246.500	846 700	247.000	845.500	248.000	845.100	249.000	844.900	250.000
GR	845.100	251.000	845.500	252.000	846.700	253.000	848.400	253.500	845.100	253 600
GR	856.100	275.000	855.800	300.000	855.500	350.000	854.000	500.000	854.000	600.000
SB	0.000	1 830	3.000	0.000	7.000	0.000	38.500	0.000	0.000	0.000
ET	0.000	0.000	0.000	5.100	150.000	400.000	0.000	0.000	0.000	0.000
		U/S FACE STATE STREET								
X1	7571.000	0.000	0.000	0.000	171.000	171.000	171.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	849.200	854 000	0.000	0.000	0.000	0.000	0.000
BT	-18.000	0.000	858.400	0 000	75.000	857.900	0.000	100.000	857.600	0.000
BT	0.000	200.000	856.500	0.000	246.500	856.200	848.400	247.000	856.200	850.200
BT	0.000	248.000	856.200	851.300	249.000	856.200	851.800	250.000	856.200	851.900
BT	0.000	251.000	856 200	851.800	252.000	856.200	851 300	253.000	856.200	850.200
BT	0.000	253.500	856 200	848.400	275.000	856.100	0.000	300.000	855.800	0.000
BT	0.000	350 000	855.500	0.000	500.000	854.000	0.000	600 000	854.000	0.000
NC	0.045	0.045	0 045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	5.100	90.000	170.000	0.000	0.000	0.000	0.000
		FIELD SECTION (APPROX)								
X1	7600.000	6.000	130.000	140.000	29.000	29.000	29.000	0.000	0.000	0.000
GR	854.000	0.000	854.000	100.000	845.000	130.000	845.000	140.000	854.000	170.000
GR	854.000	270.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	5.100	5.100	100.000	170.000	0 000	0.000	0.000	0.000
		FIELD SECTION (APPROX)								
X1	8150 000	0.000	0.000	0.000	550.000	550.000	550.000	0.000	2.750	0.000
NC	0.000	0 000	0.000	0.300	0 500	0.000	0.000	0.000	0.000	0.000
		D/S FACE OF CULVERT, OUTLET OF RETENTION POND AT BRIARWOOD, FS								
X1	8181.000	19.000	130.000	138.400	31.000	31.000	31.000	0.000	0.000	0.000
GR	857.500	0.000	857.500	100.000	848 000	130.000	850.600	130 100	849.800	130.200
GR	848.900	130.700	848.500	131.200	848.200	132.200	848 100	133.200	848.000	134.200
GR	848.100	135.200	848.200	136.200	848.500	137.200	848.900	137.700	849.800	138.200
GR	850.600	138.300	848.000	138.400	857 500	170 000	857.500	270.000	0.000	0.000

549

NC	0.030	0 030	0 015	0.000	0 000	0.000	0.000	0.000	0 000	0.000
SB	0.000	2.130	3 000	0.000	8.200	0.000	37.300	0.000	0.000	0.000
		U/S FACE OF CULVERT, OUTLET OF RETENTION POND AT BRIARWOOD								
X1	8425.000	0.000	0.000	0.000	244.000	244.000	244.000	0.000	3.500	0.000
X2	0.000	0.000	1.000	853.300	861.000	0.000	0.000	0.000	0.000	0 000
BT	-17.000	0.000	861.000	0.000	100.000	861.000	0.000	130.100	861.000	854.100
BT	0.000	130 200	861 000	854.800	130.700	861.000	855.700	131.200	861.000	856.200
BT	0.000	132.200	861.000	856.600	133.200	862.000	856.700	134.200	861.000	856.800
BT	0.000	135 200	861 000	856.700	136.200	861.000	856.600	137.200	861.000	856.200
BT	0.000	137.700	861.000	855.700	138 200	861 000	854.800	138.300	861.000	854.100
BT	0.000	170 000	861.000	0.000	270.000	861.000	0.000	0.000	0.000	0.000
NC	0.020	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		RETENTION POND, SITE PLANS FOR BRIARWOOD								
X1	8430.000	5.000	120.000	230.000	5.000	5.000	5.000	0.000	0.000	0.000
GR	862.000	0.000	860.000	50.000	844.000	120.000	844.000	230.000	862.000	330.000
		RETENTION POND								
X1	8680.000	0.000	0.000	0.000	250.000	250.000	250.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0 000
		D/S FACE EISENHOWER PARKWAY, FIELD SECTION 8								
X1	8701.000	17 000	100.000	150.000	21.000	21 000	21.000	0.000	0.000	0.000
GR	855.700	0.000	855.700	100.000	846.800	119.900	850.000	120.000	848.500	120.500
GR	847.000	121.000	847.800	122.000	846.900	123.000	846.800	125.000	846 900	127.000
GR	847.000	128.000	847.800	129.000	848.500	129.500	850.000	130.000	846 800	130.100
GR	856 800	150 000	855.700	250.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.070	0.050	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2 660	3.000	0.000	10.000	0.000	54.750	0.000	0.000	0.000
ET	0.000	0.000	0.000	5.100	80.000	170.000	0.000	0.000	0.000	0.000
		U/S FACE EISENHOWER NOTE: TWO CULVERTS AT INLET, ONLY ONE COMING OUT. SECOND CULVERT NOT CODED, FIELD SECTION 9								
X1	9230.000	0.000	0.000	0 000	529.000	529.000	529.000	0.000	5.500	0.000
X2	0.000	0.000	1.000	853.300	861.200	0.000	0.000	0.000	0.000	0.000
BT	-13.000	0.000	861.200	0.000	120.000	861.600	855.500	120.500	861.600	857.000
BT	0.000	121.000	861.600	857.600	122.000	861.600	858.400	123.000	861.700	858.600
BT	0.000	125.000	861.700	858.800	127.000	861.700	858.600	128.000	861.800	858.400
BT	0.000	129 000	861.800	857.600	129.500	861.800	857.000	130.000	861.800	855.500
BT	0.000	250.000	862.300	0 000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.070	0.050	0.045	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	5.100	208.000	292.000	0.000	0.000	0.000	0.000
		FIELD SECTION 10 MOVED D/S								
X1	9305.000	20.000	250.000	268.000	75.000	75.000	75.000	0.000	-9.800	0.000
GR	881.800	0 000	882.400	25.000	879.100	50.000	879.100	75.000	878.300	100.000
GR	876.400	125.000	873.900	150.000	870.700	175.000	870.100	199.000	866.000	209.000
GR	864.700	225.000	864.800	250.000	863.700	253.000	863.100	258.000	863.700	264.000
GR	865.200	268.000	864.900	275.000	865 500	300.000	866.400	309.000	869.300	323.000

62.5

NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	5.100	204.000	299.000	0.000	0.000	0.000	0.000
X1	9640.000	0.000	0.000	0.000	335.000	335.000	335.000	0.000	4.300	0.000
ET	0.000	0.000	0.000	5.100	207.000	309.000	0.000	0.000	0.000	0.000
X1	9775.000	0.000	0.000	0.000	135.000	135.000	135.000	0.000	1.770	0.000
ET	0.000	0.000	0.000	5.100	207.000	295.000	0.000	0.000	0.000	0.000
		FIELD SECTION 10 MOVED D/S								
X1	10000.000	0.000	0.000	0.000	225.000	225.000	225.000	0.000	2.980	0.000
ET	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000
X1	10050.000	20.000	0.000	103.500	50.000	50.000	50.000	0.000	0.000	0.000
GR	866.000	0.000	866.000	0.100	864.900	32.900	864.900	33.000	864.900	34.800
GR	864.900	34.900	865.300	41.000	864.000	44.000	862.900	49.000	863.700	56.000
GR	865.100	59.000	864.800	68.900	864.800	69.000	864.800	70.800	864.800	70.900
GR	866.800	103.500	866.800	103.600	869.600	125.000	869.900	150.000	870.300	175.000
ET	0.000	0.000	0.000	1.410	0.000	0.000	0.000	0.000	0.000	0.000
		D/S FACE OF PRIVATE BRIDGE, FIELD SECTION 10A, (SUPP SURVEY)								
X1	10051.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	-15.000	0.000	870.800	866.000	0.100	870.800	868 500	32.900	870.800	868.500
BT	0.000	33.000	870.800	864.900	34.800	873 500	864.900	34.900	870.800	868.500
BT	0.000	68.900	870.800	868.500	69 000	870 800	864.800	70.800	870.800	864.800
BT	0.000	70.900	870.800	868.500	103.500	870.800	868.500	103.600	870 800	866.800
BT	0.000	125.000	869.600	0.000	150.000	869.900	0.000	175.000	870.300	0.000
		U/S FACE OF PRIVATE BRIDGE								
X1	10059.000	0.000	0.000	0.000	8.000	8.000	8.000	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
ET	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000
X1	10060.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
		VALLEY SECTION E, FIELD SECTION 10								
X1	10100.000	20.000	250.000	268.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	881.800	0.000	882.400	25.000	879.100	50.000	879.100	75.000	878.300	100.000
GR	876.400	125.000	873.900	150.000	870.700	175.000	870.100	199.000	866.000	209.000
GR	864.700	225.000	864.800	250.000	863.700	253.000	863.100	258.000	863.700	264.000
GR	865.200	268.000	864.900	275.000	865.500	300.000	866.400	309.000	869.300	323.000
		FIELD SECTION 10 MOVED U/S								
X1	10920.000	0.000	0.000	0.000	820.000	820.000	820.000	0.000	1.950	0.000
NC	0.030	0.030	0.045	0.500	1.000	0.000	0.000	0.000	0.000	0.000
		D/S FACE OF PRIVATE BRIDGE, FIELD SEC 10B, (SUPP SURVEY)								
X1	11021.000	60.000	209.000	259.000	101.000	101.000	101.000	0.000	0.000	0.000
GR	872.800	0.000	872.200	25.000	871.300	125.000	871.500	150.000	871.700	175.000
GR	870.900	200.000	866.000	209.000	866.000	209.100	865.500	210.000	865.500	211.000
GR	865.500	212.000	865.500	213.000	866.000	214.000	866.000	214.100	865.800	217.000
GR	865.800	217.100	865.300	218.000	865.300	219.000	865.300	220.000	865.300	221.000
GR	865.800	222.000	865.800	222.100	865.900	225.500	865.900	225.600	865.400	226.500
GR	865.400	227.500	865.400	228.500	865.400	229.500	865.900	230.500	865.900	230.600

GR	866.400	235.000	866.400	235.100	865.900	236.000	865.900	237.000	865.900	238.000
GR	865.900	239.000	866.400	240.000	866.400	240.100	866.900	244.500	866.900	244.600
GR	866.400	245 500	866.400	246.500	866.400	247.500	866.400	248 500	866.900	249.500
GR	866.900	249.600	866.800	253.500	866.800	253.600	866.300	254.500	866.300	255.500
GR	866.300	256.500	866.300	257.500	866.800	258 500	866.800	258.600	866.300	259.000
GR	873.100	271.000	872.600	300.000	873.200	375.000	873.600	400.000	873.900	425.000
NC	0.030	0.030	0.030	0.500	1.000	0.000	0.000	0.000	0.000	0.000
SB	0 000	4.360	3.000	0.000	30.000	0.000	85.500	0.000	0.000	0.000
ET	0 000	0.000	5.100	7.100	85.000	425.000	170.000	310.000	0.000	0.000
		U/S FACE OF PRIVATE BRIDGE								
X1	11129.000	0.000	0.000	0.000	108.000	108.000	108.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	869.900	871.300	0.000	0.000	0.000	0.000	0.000
BT	-60.000	0.000	872.800	0 000	25.000	872.200	0.000	125.000	871.300	0.000
BT	0.000	150.000	871.500	0.000	175.000	871.700	0.000	200.000	872.000	0.000
BT	0.000	209.000	871.800	866.000	209.100	871.800	867.000	210.000	871.800	868.500
BT	0.000	211 000	871.800	869.000	212.000	871.800	869.000	213 000	871.800	868.500
BT	0.000	214 000	871.800	867.000	214.100	871.800	866.000	217.000	871.700	865.800
BT	0.000	217.100	871.700	866.800	218.000	871.700	868.300	219.000	871.700	868.800
BT	0.000	220.000	871.700	868.800	221.000	871 700	868.300	222.000	871.700	866.800
BT	0.000	222.100	871.700	865.800	225.500	871.700	865.900	225 600	871.700	866.900
BT	0.000	226.500	871.700	868.400	227.500	871.700	868 900	228 500	871.700	868.900
BT	0.000	229.500	871.700	868 400	230.500	871.700	866.900	230.600	871.700	865.900
BT	0 000	235.000	871.600	866.400	235.100	871.600	867.400	236.000	871.600	868.900
BT	0.000	237.000	871.600	869.400	238.000	871.600	869.400	239.000	871.600	868 900
BT	0.000	240.000	871.600	867.400	240.100	871.600	866.400	244.500	871.500	866 900
BT	0 000	244.600	871.500	867.900	245.500	871.500	869.400	246.500	871.500	869.900
BT	0.000	247.500	871 500	869.900	248.500	871.500	869.400	249.500	871.500	867.900
BT	0.000	249.600	871.500	866.900	253.500	871.500	866.800	253.600	871.500	867.800
BT	0.000	254.500	871.500	869.300	255.500	871.500	869.800	256.500	871.500	869 800
BT	0.000	257.500	871.500	869.300	258.500	871.400	867.800	258.600	871.400	866.800
BT	0.000	259.000	871.400	0.000	271.000	873 100	0.000	300.000	872.600	0.000
BT	0.000	375.000	873.200	0.000	400.000	873.600	0.000	425.000	873.900	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	0.000	5.100	7.100	175.000	340 000	185.000	285.000	0.000	0.000
		FIELD SECTION 12 MOVED D/S								
X1	11170 000	20.000	250.000	269.000	41.000	41.000	41.000	0.000	-10.600	0.000
GR	883.800	0.000	883.100	50.000	882.500	75.000	881.600	100.000	880.000	150.000
GR	880.000	225.000	879.800	250.000	877.000	255.000	876.800	260.000	877.000	264.000
GR	879.900	269 000	880.000	275.000	879.500	300.000	879.700	325.000	884.500	350.000
GR	885.800	400.000	886.200	425.000	887.000	450.000	887.100	475.000	887.700	500.000
NC	0.000	0 000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000
		D/S FACE OF MAIN STREET, FIELD SECTION 11								
X1	11221.000	32 000	245.000	266.000	51.000	51.000	51 000	0.000	0.000	0.000
GR	884.100	0.000	881.200	50.000	878.400	125.000	870.900	175.000	870.600	245.000
GR	867.600	247.200	870.400	247.300	869.400	247.500	868.500	248.000	867.800	249.000
GR	867.600	250.000	867.800	251.000	868.500	252.000	869.400	252.500	870.400	252.700
GR	867 600	252.800	867.200	257.200	870.000	257.300	868.900	257 500	868.200	258.000
GR	867.400	259.000	867.200	260.000	867.400	261.000	868.200	262.000	868.900	262.500
GR	870.000	262 700	867.200	262.800	870.600	266.000	873.100	325.000	875.600	425.000
GR	875.600	450.000	876.000	500.000	0.000	0 000	0.000	0 000	0.000	0.000

NC	0.030	0.030	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.590	3.000	0.000	11.000	0 000	47.520	0.000	0.000	0.000
ET	0.000	0 000	0.000	5.100	205.000	305.000	0.000	0.000	0.000	0.000
		U/S FACE OF MAIN STREET								
X1	11288.000	0.000	0.000	0.000	67.000	67.000	67.000	0.000	0.000	0.000
X2	0.000	0 000	1.000	872 200	875.600	0.000	0.000	0.000	0.000	0.000
BT	-32.000	0 000	884.100	0.000	50.000	881.200	0.000	125.000	878.400	0.000
BT	0.000	175 000	877.200	0.000	245.000	876.600	0.000	247.200	876.600	0.000
BT	0.000	247 300	876.600	870.400	247.500	876.600	871.400	248.000	876.600	872.200
BT	0.000	249.000	876 600	872.900	250.000	876.600	873.100	251.000	876.600	872.900
BT	0.000	252.000	876.600	872.200	252.500	876.600	871.400	252.700	876.600	870.400
BT	0.000	252.800	876.600	0.000	257.200	876.500	0.000	257.300	876.500	870.000
BT	0.000	257.500	876.500	871 000	258.000	876.500	871.800	259.000	876.500	872.400
BT	0.000	260 000	876.500	872.700	261.000	876 500	872.400	262.000	876.500	871.800
BT	0.000	262.500	876.500	871.000	262.700	876.500	870.000	262.800	876.500	0.000
BT	0.000	266.000	876.500	0.000	325.000	876.200	0.000	425.000	875.600	0.000
BT	0.000	450.000	875.600	0.000	500.000	876.000	0.000	0 000	0.000	0.000
NC	0.060	0.060	0.045	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	5.100	120.000	280.000	0.000	0.000	0.000	0.000
		FIELD SECTION 12 MOVED D/S								
X1	11330.000	20.000	250.000	269.000	42 000	42.000	42.000	0.000	-9.100	0.000
GR	883.800	0 000	883.100	50.000	882.500	75.000	881.600	100.000	880.000	150.000
GR	880.800	225.000	879.800	250.000	877 000	255.000	876.800	260.000	877.000	264.000
GR	879.900	269.000	880.000	275.000	879 500	300.000	879.700	325.000	884.500	350.000
GR	885 800	400.000	886.200	425.000	887 000	450.000	887.100	475.000	887.700	500.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	5.100	125.000	310.000	0.000	0.000	0.000	0.000
X1	11730.000	0.000	0.000	0.000	400.000	400.000	400.000	0.000	4.000	0.000
ET	0.000	0.000	0.000	5.100	125 000	325.000	0.000	0.000	0.000	0.000
X1	11800 000	0.000	0.000	0 000	70.000	70.000	70.000	0.000	0.700	0.000
ET	0.000	0.000	0.000	5.100	120.000	330.000	0.000	0.000	0.000	0.000
X1	11850.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.500	0.000
ET	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000
X1	12050.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
ET	0 000	0.000	0.000	5.100	150.000	320.000	0.000	0.000	0.000	0.000
		VALLEY SETION F, FIELD SECTION 12								
X1	12239.000	0.000	0.000	0.000	189.000	189.000	189.000	0.000	1.900	0 000
ET	0.000	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000
		FIELD SECTION 12 MOVED U/S								
X1	13030.000	0.000	0.000	0.000	791 000	791.000	791.000	0.000	2.600	0.000

76.3

NC	0.035	0.035	0 045	0.500	1.000	0.000	0.000	0 000	0.000	0.000
ET	0.000	0 000	0 000	5.100	100.000	220.000	0.000	0 000	0.000	0 000
		D/S FACE PRIVATE BRIDGE (APPROX)								
X1	13181.000	11.000	150.000	170.000	151.000	151.000	151.000	0 000	0.000	0.000
GR	887.200	0 000	885 700	150.000	881.700	155.000	881.700	155 100	880.600	156.500
GR	880.400	160.000	880.600	163.500	881.700	164.900	881.700	165.000	885 700	170.000
GR	887.200	320.000	0.000	0 000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	2.160	3.000	0.000	9.750	0.000	52.000	0.000	0.000	0.000
ET	0.000	0.000	0.000	5.100	90.000	230.000	0.000	0.000	0 000	0.000
		U/S FACE PRIVATE BRIDGE (APPROX)								
X1	13205.000	0.000	0.000	0.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	884.000	887.200	0.000	0.000	0.000	0.000	0 000
BT	-11.000	0.000	887.200	0.000	150.000	887.200	0.000	155.000	887.200	881.700
BT	0.000	155.100	887.200	883 500	156.500	887.200	885.900	160.000	887.200	887.000
BT	0.000	163.500	887.200	885.900	164.900	887.200	883.500	165.000	887.200	881.700
BT	0.000	170.000	887.200	0.000	320 000	887.200	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	0.000	5.100	1.400	20.000	300.000	0.000	0.000	0.000	0.000
X1	13400.000	0.000	0.000	0.000	195.000	195.000	195.000	0.000	0.830	0.000
NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	5.100	0.000	45.000	280.000	0.000	0.000	0.000	0.000
X1	13500.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.400	0.000
ET	0.000	0.000	5.100	0.000	85.000	235.000	0.000	0.000	0.000	0.000
		D/S FACE PRIVATE BRIDGE (APPROX)								
X1	13661.000	11.000	150.000	170.000	161.000	161.000	161.000	0.000	0.000	0.000
GR	889.000	0.000	887.500	150.000	883.500	155.000	883.500	155.100	882.400	156.500
GR	882.200	160.000	882.400	163.500	883.500	164.900	883.500	165.000	887.500	170.000
GR	889.000	320.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0 000	2.160	2.800	0.000	9.750	0.000	52.000	0.000	0.000	0.000
ET	0.000	0.000	5.100	7.100	90.000	230.000	125.000	195.000	0.000	0.000
		U/S FACE PRIVATE BRIDGE (APPROX)								
X1	13685 000	0.000	0.000	0.000	24.000	24.000	24.000	0 000	0.000	0.000
X2	0 000	0 000	1.000	888.400	889.400	0.000	0.000	0.000	0.000	0.000
BT	-11.000	0.000	889.000	0.000	150.000	889.000	0.000	155.000	889.000	883.500
BT	0.000	155.100	889.000	885.300	156.500	889.000	887.700	160.000	889.000	888 800
BT	0.000	163.500	889.000	887.300	164.900	889.000	885.700	165.000	889.900	883.500
BT	0 000	170.000	889.000	0.000	320.000	889.000	0.000	0.000	0.000	0 000
NC	0.000	0.000	0.045	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	5.100	5.100	133.000	188.000	0.000	0.000	0.000	0.000
X1	13850.000	0.000	0.000	0.000	165.000	165.000	165.000	0.000	0.700	0 000

		D/S FACE SALINE ANN ARBOR ROAD FIELD SECTION 13								
X1	13901.000	12.000	250.000	261.000	51 000	51.000	51.000	0.000	0.000	0.000
GR	895.600	0.000	894 300	75.000	891.500	240.000	883.100	250.000	883.100	250.100
GR	884.600	255.000	885.200	261.000	885.200	261.100	891.500	270.000	894.100	300 000
GR	894.700	350.000	897.300	475.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.030	0.030	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	3 220	3.000	0.000	10.000	0.000	76.500	0.000	0.000	0.000
		U/S FACE SALINE ANN ARBOR ROAD								
X1	13975.000	0.000	0.000	0.000	74.000	74.000	74.000	0.000	1.500	0.000
X2	0 000	0.000	1.000	893.300	895 300	0.000	0.000	0 000	0.000	0.000
BT	-12.000	0.000	897.100	0.000	75.000	895.800	0.000	240 000	895.300	0.000
BT	0.000	250.000	895.300	884.600	250.100	895.300	893.300	255 000	895.300	893.300
BT	0.000	261.000	895.300	893.300	261.100	895.300	886.700	270.000	895.400	0.000
BT	0.000	300.000	895.600	0.000	350.000	896.200	0.000	475 000	898.800	0.000
QT	4.000	280.000	490.000	490.000	620.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	5.100	5.100	229.000	264.000	0.000	0.000	0.000	0.000
X1	13980 000	13.000	241.000	259.600	5.000	5.000	5.000	0.000	-1.900	0.000
GR	897.100	0.000	895.800	75.000	892.900	240.000	891.800	241.000	887.800	241 100
GR	887.200	250.000	887.800	259.600	891.800	259.700	892.900	260 000	895.400	275 000
GR	895.600	300.000	896.200	350.000	898.800	475.000	0.000	0.000	0.000	0.000
ET	0.000	0 000	5.100	5.100	224.000	269.000	0.000	0.000	0.000	0.000
X1	13985.000	0 000	0.000	0 000	5.000	5.000	5.000	0.000	0.700	0.000
ET	0.000	0 000	5.100	5.100	219.000	274.000	0.000	0.000	0.000	0.000
X1	13990.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.700	0.000
ET	0.000	0.000	5.100	5 100	216.000	277.000	0.000	0.000	0.000	0 000
X1	13993.000	13.000	241.000	259.600	3.000	3.000	3.000	0.000	0.000	0.000
GR	897.100	0 000	895.800	75 000	892.900	240.000	891.800	241.000	887.800	241.100
GR	887.200	250.000	887.800	259.600	891.800	259.700	892.900	260.000	895.400	275.000
GR	895.600	300 000	896.200	350.000	898.800	475.000	0.000	0 000	0.000	0.000
ET	0.000	0.000	5.100	5.100	215.000	278.000	0.000	0 000	0.000	0.000
		FOOT BRIDGE AT SALINE ANN ARBOR ROAD, FIELD SECTION 13A								
X1	13994.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	-13.000	0.000	897.100	0.000	75.000	895.800	0.000	240.000	892.900	0.000
BT	0.000	241.000	892.900	891.800	241.100	892.900	891.800	250.000	892.900	891.800
BT	0.000	259.600	892.900	891.800	259.700	892.900	891.800	260.000	892.900	0.000
BT	0.000	275.000	895.400	0.000	300.000	895.600	0.000	350.000	896.200	0.000
BT	0.000	475.000	898.800	0.000	0.000	0.000	0.000	0.000	0.000	0 000
ET	0.000	0.000	5.100	5.100	207.000	286 000	0.000	0.000	0.000	0.000
		U/S FACE OF FOOT BRIDGE								
X1	14002.000	0 000	0.000	0.000	8.000	8.000	8.000	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

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NC      0.030      0.030      0.020      0.000      0.000      0.000      0.000      0.000      0.000      0.000
ET      0.000      0.000      5.100      5.100    206.000    287.000      0.000      0.000      0.000      0.000
X1  14003.000      0.000      0.000      0.000      1.000      1.000      1.000      0.000      0.000      0.000

                SMALL DAM AT SALINE ANN ARBOR ROAD (SUPP SURVEY)
X1  14016.000      7.000     22.600     46.000     13.000     13.000      0.000      0.000      0.000
GR    895.400      0.000    892.200     22.600    890.000     32.000    890.000     38.000    892.300     46.000
GR    895.300     72.000    896.200    100.000      0.000      0.000      0.000      0.000      0.000      0.000

NC      0.000      0.000      0.000      0.500      0.000      0.000      0.000      0.000      0.000      0.000
ET      0.000      0.000      5.100      5.100      5.000     81.000      0.000      0.000      0.000      0.000
                POND BEHIND SMALL DAM
X1  14018.000     13.000     31.000     61.000      2.000      2.000      2.000      0.000      0.000      0.000
GR    895.100      0.000    890.900     19.000    889.900     21.000    888.800     26.000    887.700     31.000
GR    886.600     36.000    885.700     51.000    885.600     56.000    887.600     61.000    889.000     66.000
GR    890.000     71.000    892.000     78.000    894.800    101.000      0.000      0.000      0.000      0.000

ET      0.000      0.000      0.000      5.100      0.000    101.000      0.000      0.000      0.000      0.000
X1  14034.000      0.000      0.000      0.000     16.000     16.000     16.000      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
                VALLEY SECTION G, PONDED AREA BEHIND SMALL DAM,  FIELD SECTION 14
X1  14546.000      0.000      0.000      0.000    512.000    512.000    512.000      0.000      0.000      0.000

ET      0.000      0.000      0.000      5.100      0.000    151.000      0.000      0.000      0.000      0.000
                SECOND SMALL DAM U/S SALINE ANN ARBOR ROAD (SUPP SURVEY)
X1  14566.000     12.000     82.000    104.000     20.000     20.000     20.000      0.000      0.000      0.000
GR    904.900      0.000    898.200     50.000    894.700     75.000    893.800     82.000    893.800     91.000
GR    892.800     92.000    892.800     96.000    893.800     97.000    893.800    104.000    894.300    110.000
GR    895.600    121.000    900.300    151.000      0.000      0.000      0.000      0.000      0.000      0.000

NC      0.000      0.000      0.000      0.500      0.000      0.000      0.000      0.000      0.000      0.000
                POND SECTION, (APPROX)
X1  14568.000      6.000     60.000    104.000      2.000      2.000      2.000      0.000      0.000      0.000
GR    904.900      0.000    898.200     50.000    889.000     60.000    889.000    104.000    895.600    121.000
GR    900.300    151.000      0.000      0.000      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
                POND SECTION, (APPROX)
X1  15308.000      0.000      0.000      0.000    740.000    740.000    740.000      0.000      0.000      0.000

                THIRD SMALL DAM U/S SALINE ANN ARBOR ROAD (SUPP SURVEY)
X1  15315.000     13.000    178.000    204.000      7.000      7.000      0.000      0.000      0.000
GR    910.900      0.000    904.100     60.000    900.800    160.000    900.600    164.000    898.800    178.000
GR    898.800    188.000    897.800    189.000    897.800    193.000    898.800    194.000    898.800    204.000
GR    900.700    219.000    901.300    221.000    902.400    245.000      0.000      0.000      0.000      0.000

NC      0.000      0.000      0.000      0.500      0.000      0.000      0.000      0.000      0.000      0.000
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                POND BEHIND SMALL DAM
X1  15325.000    16.000   180.000   266.000    10.000    10.000    10.000     0.000     0.000     0.000
GR    909.300     0.000   908.500    25.000   907.000    50.000   906.700    75.000   904.300   100.000
GR    901.900   125.000   900.600   150.000   899.400   175.000   897.500   180.000   893.000   185.000
GR    893.000   261.000   897.500   266.000   900.000   279.000   901.500   300.000   904.400   325.000
GR    904.500   345.000     0.000     0.000     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
          VALLEY SECTION H, PONDED AREA, JUST 7TH ST  FIELD SECTION 15
X1  15600.000     0.000     0.000     0.000   275.000   275.000   275.000     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
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 0.300 CEHV= 0.500
*SECNO 0.000
FIELD SECTION 1, MOVED D/S TO MOUTH

0.00	6.78	807.38	0.00	807.38	807.55	0.17	0.00	0.00	802.50
840.	107.	597.	136.	71.	159.	75.	0.	0.	802.70
0.00	1 51	3.75	1.82	0.060	0.045	0.060	0.000	800.60	81.16
0.001146	0.	0.	0.	0	0	0	0.00	94.20	175.36

*SECNO 350.000
VALLEY SECTION A, FIELD SECTION 1

350 00	6.78	807.78	0.00	0.00	807.95	0.17	0.40	0.00	802.90
840.	107.	597.	136.	71.	159.	75.	2.	1.	803.10
0.03	1.51	3 75	1.82	0 060	0.045	0.060	0.000	801 00	81.13
0.001145	350.	350.	350.	0	0	0	0.00	94.24	175.37

CCHV= 0.500 CEHV= 1.000
*SECNO 700 000

3470 ENCROACHMENT STATIONS= 117.0 158.0 TYPE= 1 TARGET= 41.000
FIELD SECTION 1, MOVED U/S DRAIN

700.00	6.83	808.23	0.00	0.00	808.48	0.25	0.45	0.08	803.30
840.	65.	687.	89.	34.	160.	38.	5.	1.	803.50
0.06	1.93	4 28	2.34	0 060	0 045	0.060	0.000	801 40	117.00
0 001473	350	350.	350.	2	0	0	0.00	41.00	158.00

*SECNO 750.000

3470 ENCROACHMENT STATIONS= 177 0 193.6 TYPE= 1 TARGET= 16.600

750 00	7.87	808.37	0.00	0.00	809.08	0.72	0.13	0.47	802.00
840.	0.	840.	0.	0.	124.	0.	5.	1.	100000.00
0.06	0.00	6.79	0.00	0.000	0.045	0.000	0.000	800.50	177.00
0.006357	50.	50	50	2	0	0	0.00	16.60	193.60

CCHV= 0 100 CEHV= 0.300
*SECNO 751.000

1164R
807.4 @ PBAP

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 13 MIN ELTRD= 815.00 MAX ELLC= 810.60

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16.600
D/S FACE NORTHWEST BRANCH PITTSFIELD-A2 DRAIN ENCLOSED

751.00	7.64	808.14	0.00	0.00	809.18	1.04	0.00	0.10	802.00
840.	0.	840.	0.	0	103.	0.	5.	1.	100000.00
0.06	0.00	8.19	0.00	0.000	0.015	0.000	0.000	800 50	177.00
0.001454	1.	1.	1.	2	0	0	-17.41	16 60	193.60

10'4"x17' RCP

*SECNO 850.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 810.65

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16.600

850.00	7.76	808.31	0.00	0.00	809.33	1.02	0.14	0.00	802.05
840.	0.	840.	0.	0.	104.	0.	5.	1.	100000.00
0.06	0 00	8.11	0 00	0.000	0.015	0.000	0.000	800 55	177.00
0.001424	99.	99.	99.	2	0	0	-18.30	16.60	193.60

*SECNO 1000.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 810.73

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16.600

1000.00	7.92	808 55	0 00	0.00	809.54	0.99	0.21	0 00	802.13
840	0.	840	0.	0.	105.	0.	5.	1.	100000.00
0.07	0.00	8.00	0.00	0.000	0.015	0.000	0.000	800.63	177.00
0.001386	150.	150.	150.	2	0	0	-19.56	16.60	193.60

*SECNO 1300.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 810.88

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16.600

1300.00	8.23	809.01	0.00	0.00	809.95	0.95	0.41	0.00	802.28
840.	0.	840.	0.	0.	108.	0.	6.	2.	100000.00
0.08	0.00	7.81	0.00	0.000	0.015	0.000	0.000	800.78	177.00
0.001320	300.	300.	300.	2	0	0	-22.10	16.60	193 60

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 1600.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 811.03

3470 ENCROACHMENT STATIONS=			177.0	193.6	TYPE=	1	TARGET=	16.600	
1600.00	8.57	809.45	0.00	0.00	810.34	0.89	0.38	0.01	802.43
840.	0.	840	0.	0.	111.	0.	7.	2.	100000.00
0.09	0.00	7.59	0.00	0.000	0.015	0.000	0.000	800.88	177.00
0.001238	300.	300.	300.	2	0	0	-24.65	16.60	193.60

*SECNO 2250.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815 00 MAX ELLC= 811.94

3470 ENCROACHMENT STATIONS=			177.0	193.6	TYPE=	1	TARGET=	16.600	
2250.00	8.46	810.25	0.00	0.00	811.16	0.91	0.81	0.00	803.34
840.	0.	840	0.	0.	110.	0	9.	2.	100000.00
0.11	0.00	7.65	0.00	0.000	0.015	0.000	0.000	801.79	177.00
0.001256	650.	650.	650.	2	0	0	-23.68	16.60	193.60

*SECNO 2900.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 812.85

3470 ENCROACHMENT STATIONS=			177.0	193.6	TYPE=	1	TARGET=	16 600	
2900 00	8.36	811.06	0.00	0.00	811.98	0.92	0.82	0.00	804.40
840.	0.	840.	0.	0.	109.	0.	10.	2.	100000.00
0 14	0.00	7.70	0.00	0.000	0.015	0.000	0.000	802.70	177.00
0.001270	650.	650.	650.	0.	0	0	-22.79	16.60	193.60

CCHV= 0.500 CEHV= 1.000
*SECNO 2905.000
WATER EL=X5 CARD= 811.750

3470 ENCROACHMENT STATIONS=			90.0	110.0	TYPE=	1	TARGET=	20.000	
CHANGE IN PIPE SIZE AT JUNCTION, NW BR PITTSFIELD-A2 DRAIN ENC									
2905.00	7.00	811.75	0.00	0.00	812 68	0.93	0.01	0.01	805.25
840.	0.	840.	0.	0.	108.	0.	10.	2.	100000.00
0.14	0.00	7.75	0 00	0.000	0.015	0.000	0.000	804.75	90.00
0.001529	5.	5.	5.	0	0	0	0.00	20.00	110.00

84' ?

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 3905.000
WATER EL=X5 CARD= 821 900

3470 ENCROACHMENT STATIONS= 90.0 110.0 TYPE= 1 TARGET= 20.000
WATER SURFACE ELEVATIONS BY INTERPOLATION BETWEEN 2905 AND 4905
BASED ON CONTROLING ELEVATION FOR WEIR FLOW AT 4905

3905.00	9.48	821.90	0.00	0.00	822.34	0.44	0.82	0 05	812.92
840.	0.	840.	0.	0.	158.	0.	13.	3.	100000.00
0.19	0.00	5 32	0.00	0.000	0.015	0.000	0.000	812.42	90.00
0.000512	1000.	1000.	1000.	0	0	0	0.00	20.00	110.00

*SECNO 4905 000
WATER EL=X5 CARD= 832.000

3470 ENCROACHMENT STATIONS= 90.0 110.0 TYPE= 1 TARGET= 20.000
U/S FACE NORTHWEST BRANCH PITTSFIELD-A2 DRAIN, ENCLOSED

4905.00	11.90	832.00	0.00	0.00	832.26	0.26	0.34	0.02	820.60
840.	0	840.	0.	0.	206	0.	17.	3.	100000.00
0.26	0.00	4.07	0.00	0 000	0.015	0.000	0.000	820.10	90.00
0.000242	1000.	1000.	1000.	0	0	0	0.00	20.00	110.00

CCHV= 0.300 CEHV= 0 500
*SECNO 4906 000

3470 ENCROACHMENT STATIONS= 90.0 110.0 TYPE= 1 TARGET= 20.000

4906.00	11 90	832 00	0.00	0.00	832.26	0.26	0.00	0.00	820.60
840.	0	840.	0.	0.	206.	0.	17.	3.	100000.00
0.26	0.00	4.07	0.00	0.000	0.030	0.000	0.000	820.10	90.00
0.000967	1.	1.	1.	0	0	0	0.00	20.00	110.00

CCHV= 0.500 CEHV= 1 000
*SECNO 4950.000
3280 CROSS SECTION 4950.00 EXTENDED 1.43 FEET

VALLEY SECTION B, FIELD SECTION 2A (SUPPLEMENTAL SURVEY)

4950.00	12.23	832.33	0.00	0.00	832.37	0.04	0.01	0.11	820.10
840	311.	192.	337	237.	84.	232.	18.	3	820.50
0.26	1 31	2.28	1.45	0.030	0.030	0.030	0.000	820.10	0.00
0 000077	44.	44.	44.	2	0	0	0.00	108.00	108.00

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

CCHV= 0.300 CEHV= 0.500
*SECNO 5200.000
3280 CROSS SECTION 5200.00 EXTENDED 0.09 FEET

5200.00	7.69	832 29	0.00	0.00	832.52	0.23	0 05	0.09	824.80
840	300.	274.	265.	101.	53.	87.	20.	4	824.60
0.28	2.99	5 16	3.03	0.040	0.040	0.040	0.000	824.60	10.55
0.001296	250.	250	250.	2	0	0	0.00	101.45	112.00

*SECNO 5270.000

5270.00	6.62	832.32	0.00	0.00	832.73	0.41	0.12	0.09	826.00
840.	278.	339.	222.	73.	52.	57.	20.	4.	825.70
0.29	3.84	6.55	3 87	0.040	0.040	0.040	0.000	825.70	16.74
0.002571	70.	70.	70.	1	0	0	0.00	84.16	100.90

CCHV= 0.500 CEHV= 1 000
*SECNO 5330.000
VALLEY SECTION C, FIELD SECTION 2B (SUPPLEMENTAL SURVEY)

5330.00	5.75	832 55	0.00	0.00	833.33	0.78	0.22	0.37	827 20
840.	302.	349.	189.	58.	39.	35.	21.	4.	826.80
0.29	5 22	8.99	5.48	0.040	0.040	0.040	0.000	826.80	17.67
0.005967	60.	60.	60	2	0	0	0.00	60.99	78.67

*SECNO 5380.000

3470 ENCROACHMENT STATIONS= 186.0 349.0 TYPE= 1 TARGET= 163.000
DOWNSTREAM FACE ANN ARBOR RAILROAD, FIELD SECTION 3

5380.00	5.27	833.57	833.26	0.00	833.87	0.30	0.30	0.24	832 80
840.	54	687.	99.	24.	146.	44.	21.	4.	832.80
0.29	2.26	4.71	2.26	0.040	0.040	0.040	0.000	828.30	186.00
0.006153	50.	50	50.	9	9	0.	0.00	163 00	349.00

CCHV= 0.300 CEHV= 0.500

SPECIAL BRIDGE

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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	1.50	3.00	0.00	10.00	0.00	39.27	0.00	828.30	828.30

*SECNO 5420.000
3280 CROSS SECTION 5420.00 EXTENDED 0.20 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
844.23	833.90	0.00	387	455.	39.	50	833.30	836.20

3470 ENCROACHMENT STATIONS= 175.0 360.0 TYPE= 1 TARGET= 185.000

		U/S FACE	ANN ARBOR	RAILROAD					
5420.00	8.39	836.69	0.00	0.00	836.71	0.02	2.84	0.00	833.00
840.	158.	412.	269.	166.	343	277.	21.	4.	833.00
0.30	0.95	1.20	0.97	0.030	0.030	0.030	0.000	828.30	175.00
0.000072	40.	40.	40.	1	0	6	0.00	185.00	360.00

CCHV= 0.300 CEHV= 0.500
*SECNO 5450.000
3280 CROSS SECTION 5450.00 EXTENDED 3.27 FEET

5450.00	7.27	836.67	0.00	0.00	836.73	0.06	0.00	0.02	829.50
790.	312.	361.	117.	275.	140.	121.	22.	4.	829.40
0.31	1.13	2.58	0.97	0.050	0.030	0.050	0.000	829.40	0.00
0.000329	30.	30.	30.	2	0	0	0.00	175.00	175.00

*SECNO 5451.000
3280 CROSS SECTION 5451.00 EXTENDED 3 27 FEET

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 833.40 MAX ELLC= 832.70

		OUTLET OF	RETENTION	BASIN FIELD	SECTION 3A	(SUPP SURVEY)			
5451.00	7.26	836.66	0.00	0.00	836.74	0.08	0.00	0.01	829.50
790.	542.	145.	103.	233.	53.	76.	22.	4	829.40
0.31	2.32	2.75	1.36	0.030	0.015	0.030	0.000	829.40	0.00
0.000630	1.	1.	1.	1	0	0	-173.17	175.00	175.00

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 5491.000
3280 CROSS SECTION 5491.00 EXTENDED 3.28 FEET

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 833.40 MAX ELLC= 832.70

U/S END OF RETION BASIN OUTLET

5491.00	7.29	836 69	0.00	0.00	836.77	0.08	0.02	0.00	829.50
790.	541.	145.	104.	235.	53.	77.	22	5.	829 40
0.31	2.31	2 73	1.36	0.030	0 015	0.030	0.000	829.40	0.00
0.000618	40.	40.	40.	0	0	0	-173.17	175.00	175.00

*SECNO 5492.000
3280 CROSS SECTION 5492.00 EXTENDED 3.29 FEET

5492.00	7.30	836.70	0.00	0.00	836.77	0 07	0.00	0.00	829.50
790.	286.	395.	108.	277	140.	123.	22.	5.	829.40
0.31	1 03	2 82	0.88	0.030	0.015	0.030	0.000	829.40	0.00
0.000098	1.	1.	1.	1	0	0	0.00	175.00	175.00

*SECNO 5495.000
3280 CROSS SECTION 5495.00 EXTENDED 3.30 FEET

WEIR ON OUTLET OF RETENTION BASIN

5495.00	7 29	836.69	0.00	0.00	836.78	0.09	0.00	0.01	831.80
790.	333.	356.	101.	260.	104.	105.	22.	5.	831.80
0 31	1.28	3 42	0.97	0.030	0.015	0.030	0.000	829.40	0.00
0.000168	3.	3.	3.	1	0	0	0.00	175.00	175.00

*SECNO 5520.000
3280 CROSS SECTION 5520.00 EXTENDED 2.81 FEET

RETENTION BASIN AT R.R. (APPROX)

5520.00	8.81	836.81	0 00	0.00	836.81	0.00	0.00	0.03	828.00
790.	24	742.	24	87.	1762.	87.	23.	5.	828.00
0.33	0.27	0.42	0 27	0.020	0.020	0 020	0.000	828 00	0.00
0.000002	25	25.	25.	2	0	0	0.00	230.00	230.00

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 5650.000
3280 CROSS SECTION 5650.00 EXTENDED 2.81 FEET

RETENTION BASIN AT R.R. (APPROX)

5650.00	8.81	836.81	0.00	0.00	836.81	0.00	0.00	0.00	828.00
790.	24.	742.	24.	87	1763.	87.	29.	5.	828.00
0.42	0 27	0.42	0.27	0.020	0.020	0.020	0.000	828.00	0.00
0.000002	130.	130.	130	1	0	0	0.00	230 00	230.00

CCHV= 0.500 CEHV= 1.000
*SECNO 5731.000
3280 CROSS SECTION 5731 00 EXTENDED 0.01 FEET

3470 ENCROACHMENT STATIONS= 60.0 170.0 TYPE= 1 TARGET= 110.000
INLET TO RETENTION BASIN, FIELD SECTION 3B, SUPPLEMENTAL SURVEY

5731 00	7.61	836.81	0.00	0.00	837 04	0.23	0.00	0.22	830.20
790.	352.	301.	137.	114.	65.	39.	31.	6.	829.80
0.42	3.09	4.61	3.51	0.020	0.020	0.020	0.000	829.20	60.00
0 000535	81.	81.	81.	0	0	0	0.00	110.00	170.00

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	3.03	3.00	0.00	9.00	0.00	19.20	0.00	829.20	829.20

*SECNO 5766.000
3280 CROSS SECTION 5766 00 EXTENDED 0.31 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
916.46	837.04	0.00	728.	62.	19.	28.	832.30	835.00

3470 ENCROACHMENT STATIONS= 70.0 160.0 TYPE= 1 TARGET= 90.000
U/S SIDE OF INLET TO RETENTION BASIN

5766.00	7.91	837.11	0.00	0.00	837.30	0.19	0.26	0.00	830.20
790.	386.	229.	176.	107.	68.	52.	31.	6.	829.80
0.43	3 61	3.37	3.40	0.030	0.045	0.030	0.000	829.20	70.00
0 001369	35.	35.	35.	2	0	8	0.00	90.00	160.00

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 5856.000									
5856.00	6.63	837.33	0.00	0.00	837.93	0.61	0.22	0.42	834.40
790	48.	721.	21.	21.	111.	11.	31.	6.	835.40
0.43	2.28	6.51	1.89	0.060	0.045	0.060	0.000	830.70	235.66
0.005239	90.	90.	90.	2	0	0	0.00	48.64	284.29
CCHV= 0.300 CEHV= 0.500									
*SECNO 5952.000									
5952.00	5.72	837 82	0.00	0.00	838.88	1.06	0.72	0.23	835.80
790.	26.	757.	6.	10.	90.	3.	31.	6.	836.80
0.43	2.65	8.42	1.92	0.060	0.045	0.060	0.000	832.10	240.10
0.011569	96.	96.	96.	2	0	0	0.00	39.02	279.12
*SECNO 6000.000									
VALLEY SECTION D, FIELD SECTION 4									
6000.00	5.33	838.33	838.21	0.00	839.70	1.37	0.67	0.16	836.70
790.	18.	770.	2.	7.	81.	1.	32.	6.	837 70
0.43	2.78	9.51	1.72	0.060	0.045	0.060	0.000	833.00	242.01
0.016959	48.	48.	48.	4	11	0	0.00	34.88	276.89
*SECNO 6004.000									
6004.00	6.02	839.02	0.00	0.00	839.90	0.88	0.05	0.15	836.70
790.	33.	747.	10.	13.	97	5.	32.	6.	837 70
0 43	2.53	7.72	1.95	0.060	0.045	0.060	0.000	833.00	238.66
0.008833	4.	4.	4	6	0	0	0.00	42.14	280.79
*SECNO 6150 000									
FIELD SECTION 4 MOVED U/S									
6150.00	7.33	840.33	0 00	0.00	840.74	0.41	0.70	0.14	836.70
790.	65.	689.	36.	32.	127.	21.	32.	6.	837.70
0.44	2.00	5.43	1.73	0.060	0.045	0.060	0.000	833 00	232.18
0 003028	146.	146	146.	2	0	0	0.00	56.17	288.35
CCHV= 0.500 CEHV= 1.000									
*SECNO 6201.000									
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

3280 CROSS SECTION 6201.00 EXTENDED 0.89 FEET

3470 ENCROACHMENT STATIONS= 88.0 250.0 TYPE= 1 TARGET= 162.000
D/S FACE BOARDWALK, FIELD SECTION 4A, SUPPLEMENTAL SURVEY

6201.00	8.19	840.79	0.00	0.00	840.92	0.14	0.05	0.13	840.50
790.	14	776.	1.	24.	257.	4.	32.	6.	840.90
0.45	0.58	3.02	0.22	0.030	0.030	0.030	0.000	832.60	88.00
0.000484	51	51.	51.	2	0	0	0.00	138.27	250.00

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	2.57	3.00	0.00	23.20	0.00	62.00	0.00	832.60	832.60

*SECNO 6294.000
3280 CROSS SECTION 6294.00 EXTENDED 1.46 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
847.27	840.92	0.00	539.	251.	62.	167.	839.80	839.90

3470 ENCROACHMENT STATIONS= 40.0 285.0 TYPE= 1 TARGET= 245.000
U/S FACE BOARDWALK

6294.00	8.76	841.36	0.00	0.00	841.44	0.08	0.52	0.00	840.50
790.	69.	683.	38.	110.	279.	72.	33.	7.	840.90
0.46	0.63	2.45	0.52	0.060	0.045	0.060	0.000	832.60	40.00
0.000647	93.	93.	93.	2	0	6	0.00	245.00	285.00

*SECNO 6650.000
FIELD SECTION 4 MOVED U/S

6650.00	7.96	841.73	0.00	0.00	842.02	0.29	0.37	0.21	837.47
790.	79.	660.	51.	44.	141.	31.	36.	8	838.47
0.48	1.78	4.67	1.61	0.060	0.045	0.060	0.000	833.77	229.12
0.001943	356.	356.	356.	2	0	0	0.00	64.47	293.59

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 6800 000

6800.00	7.72	842.03	0.00	0.00	842.36	0.33	0.32	0.02	838.01
790.	74.	672.	44.	40.	136	27.	37	8.	839.01
0.49	1.87	4.95	1.64	0.060	0.045	0.060	0.000	834.31	230.31
0.002305	150.	150.	150.	2	0	0	0.00	60.21	290.52

*SECNO 6900.000

3470 ENCROACHMENT STATIONS= 251.0 272.0 TYPE= 1 TARGET= 21.000

FIELD SECTION 4 MOVED U/S

6900.00	7.55	842.22	0.00	0.00	842 84	0.62	0.34	0.14100000.00	
790.	0.	790.	0	0.	125.	0.	37.	8.	100000.00
0.50	0.00	6.32	0.00	0.000	0 045	0 000	0.000	834.67	251.00
0.005463	100.	100.	100	1	0	0	0.00	21 00	272.00

CCHV= 0.500 CEHV= 1.000

*SECNO 6910.000

WINGWALLS TO PRIVATE BRIDGE, FIELD SECTION 4B (SUPP SURVEY)

6910.00	7 46	842.26	0.00	0.00	843.29	1.03	0.04	0.41	847.00
790	0.	790.	0.	0.	97.	0.	37.	8.	845.90
0.50	0.00	8.13	0.00	0 000	0.025	0.000	0.000	834.80	175.10
0.003483	10.	10.	10.	0	0	0	0.00	14.95	190.06

*SECNO 6930.000

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 847.00 MAX ELLC= 845.90

D/S FACE TO PRIVATE BRIDGE

6930.00	7.59	842.39	0.00	0.00	843.38	0.99	0.07	0.02	847.00
790.	0.	790.	0.	0.	99.	0.	37.	8.	845.90
0.50	0.00	7.97	0.00	0.000	0.025	0.000	0 000	834.80	175.10
0.003297	20	20	20	2	0	0	0.00	14.96	190.06

*SECNO 6960.000

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 847.00 MAX ELLC= 845.90

U/S FACE TO PRIVATE BRIDGE

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
6960.00	7.76	842.56	0.00	0.00	843.50	0.94	0.10	0.02	847.00
790.	0.	790.	0.	0.	102	0.	37.	8.	845.90
0.50	0.00	7.77	0.00	0.000	0 025	0.000	0.000	834.80	175.10
0.003082	30.	30.	30.	2	0	0	0.00	14.96	190.06

*SECNO 6975.000
WINGWALLS TO PRIVATE BRIDGE

6975.00	7.84	842.64	0.00	0.00	843.55	0.92	0.05	0.01	847.00
790.	0.	790.	0.	0.	103.	0.	37.	8.	845 90
0.50	0.00	7.68	0.00	0.000	0.025	0.000	0.000	834.80	175.10
0.002991	15.	15.	15.	2	0	0	0.00	14.96	190.06

*SECNO 6978.000

3470 ENCROACHMENT STATIONS= 251.0 272.0 TYPE= 1 TARGET= 21.000
FIELD SECTION 4 MOVED U/S

6978.00	8.41	843.31	0.00	0.00	843.78	0.47	0.01	0.22100001.90	
790.	0.	790.	0.	0.	143.	0.	37.	8.	100001.90
0.50	0.00	5.53	0.00	0.000	0.040	0.000	0.000	834.90	251.00
0.002978	3	3.	3.	3	0	0	0.00	21.00	272.00

CCHV= 0.300 CEHV= 0.500
*SECNO 7070.000

7070.00	6 54	843 58	0.00	0.00	844.14	0.55	0.31	0.04	840.74
790	77.	681.	32.	20.	109.	10.	37.	8.	841.74
0.50	3.86	6.25	3.17	0.030	0 040	0 030	0.000	837.04	236.06
0.003907	92.	92.	92.	0	0	0	0.00	47.77	283.83

*SECNO 7100.000
FIELD SECTION 4 MOVED U/S

7100.00	5 78	843.55	0.00	0.00	844.49	0.94	0.16	0.19	841.47
790.	48.	730.	12.	11.	91.	4.	38.	8	842.47
0.50	4 50	7.98	3.31	0.030	0.040	0 030	0.000	837.77	239.78
0.008039	30.	30.	30.	2	0	0	0.00	39.71	279.49

*SECNO 7175.000
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									
7175.00	5.26	844.81	844.81	0.00	846.18	1.37	0.78	0.22	843.25
790.	29.	758.	3.	6.	79.	1.	38.	9.	844 25
0 51	4.88	9.55	2 88	0.030	0.040	0.030	0.000	839.55	242.34
0.013864	75.	75.	75.	20	11	0	0.00	34.16	276 50
*SECND 7250.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
FIELD SECTION 4 MOVED U/S									
7250.00	5.27	846.60	846.60	0.00	847.96	1.36	1.04	0.00	845.03
790.	29.	758	3.	6.	80	1.	38.	9.	846 03
0.51	4.88	9.52	2.89	0.030	0.040	0.030	0.000	841.33	242.30
0.013754	75.	75.	75.	2	5	0	0.00	34.24	276.54
*SECND 7300.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
7300.00	5.27	847.79	847.79	0.00	849.15	1.37	0.69	0.00	846.22
790.	29.	758.	3.	6.	80.	1.	38.	9	847.22
0.51	4.88	9.53	2.89	0.030	0.040	0.030	0.000	842.52	242.31
0 013779	50.	50.	50.	2	5	0	0.00	34.22	276.53
*SECND 7350.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
FIELD SECTION 4 MOVED U/S									
7350.00	5.27	848.98	848.98	0.00	850 34	1.37	0.69	0.00	847.41
790.	29.	758.	3.	6.	80.	1.	38.	9.	848 41
0.51	4.88	9.53	2 89	0.030	0.040	0.030	0.000	843.71	242.31
0 013773	50.	50.	50.	2	5	0	0.00	34.23	276.54
CCHV= 0.500 CEHV= 1.000									
*SECND 7375.000									
3301 HV CHANGED MORE THAN HVINS									
7375.00	6.23	850.53	0 00	0.00	850.94	0.42	0 12	0.48	846.30
790.	132.	578.	80.	33.	104	21.	38.	9.	846.60
0.51	4.03	5.55	3.77	0.030	0.040	0.030	0.000	844.30	234.53
0.002559	25.	25.	25.	5	0	0	0.00	46.24	280.77

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 7400 000

D/S FACE STATE STREET, FIELD SECTION 5

7400.00	5 71	850.61	0.00	0 00	851.02	0.42	0.08	0.00	845.10
790.	272.	378.	140.	47.	79.	29	38.	9.	845.10
0.52	5 84	4.81	4 75	0.030	0.040	0.030	0.000	844.90	218.09
0.003853	25.	25.	25.	2	0	0	0.00	46.22	264.31

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	1.83	3.00	0.00	7.00	0.00	38.50	0.00	844 90	844.90

*SECNO 7571.000

3265 DIVIDED FLOW

3280 CROSS SECTION 7571.00 EXTENDED 0.83 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
862.57	851.02	0 00	319.	472.	39.	30.	849.20	854.00

U/S FACE STATE STREET

7571.00	9.93	854.83	0.00	0 00	854.87	0.04	3.85	0.00	845.10
790	288.	278.	224.	145.	157.	209.	40.	9.	845.10
0.54	1.98	1.77	1.07	0.030	0.040	0.030	0.000	844.90	205.14
0.000208	171.	171.	171.	2	0	7	0.00	250.11	600.00

*SECNO 7600.000

3280 CROSS SECTION 7600.00 EXTENDED 0.84 FEET

FIELD SECTION (APPROX)

7600.00	9.84	854.84	0.00	0.00	854.88	0.04	0.01	0.00	845.00
790.	280.	230.	280.	244	98.	244	40	9.	845.00
0.55	1.15	2.34	1.15	0.045	0.045	0.045	0.000	845.00	0.00
0.000237	29.	29.	29.	2	0	0	0.00	270.00	270.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 8150.000

3470 ENCROACHMENT STATIONS= 100.0 170.0 TYPE= 1 TARGET= 70.000

FIELD SECTION (APPROX)

8150.00	7.34	855.09	0.00	0.00	855.27	0.18	0.25	0.14	847.75
790.	237.	316.	237.	90.	73	90.	45.	12.	847.75
0.60	2.64	4.31	2.64	0.045	0.045	0.045	0.000	847.75	105.53
0.001193	550.	550	550.	2	0	0	0.00	58.94	164.47

CCHV= 0.300 CEHV= 0.500

*SECNO 8181 000

D/S FACE OF CULVERT, OUTLET OF RETENTION POND AT BRIARWOOD, FS

8181.00	7.13	855 13	0.00	0.00	855.33	0 20	0.05	0.01	848.00
790.	281.	212.	297.	80.	56.	85.	45.	12.	848.00
0.60	3.49	3.78	3.51	0.045	0.045	0.045	0.000	848.00	107.47
0 002514	31	31	31.	2	0	0	0.00	54.66	162.13

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	2.13	3.00	0 00	8.20	0.00	37.30	0.00	848.00	848.00

*SECNO 8425.000

3280 CROSS SECTION 8425.00 EXTENDED 0.41 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
869.97	858.15	0.00	274	517.	37.	43.	853.30	861.00

U/S FACE OF CULVERT, OUTLET OF RETENTION POND AT BRIARWOOD

8425.00	9.91	861.41	0.00	0.00	861.49	0.07	6.16	0.00	851.50
790.	257.	262.	271.	196.	79.	205.	47.	12.	851.50
0.63	1.31	3.30	1.33	0.030	0 015	0.030	0.000	851.50	0.00
0.000134	244.	244.	244.	2	0	6	0 00	270.00	270.00

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 8430.000

RETENTION POND, SITE PLANS FOR BRIARWOOD

8430.00	17.51	861.51	0.00	0.00	861.51	0.00	0.00	0.02	844.00
790.	120.	525.	145.	694.	1926.	852.	48.	13.	844 00
0.64	0.17	0.27	0.17	0.020	0.020	0.020	0.000	844.00	12.28
0.000000	5	5.	5.	2	0	0	0.00	314.99	327.27

*SECNO 8680.000

RETENTION POND

8680.00	17.51	861.51	0.00	0.00	861.51	0.00	0.00	0.00	844.00
790.	120.	525.	145.	695.	1927.	852.	67.	14.	844.00
0.93	0.17	0 27	0.17	0.020	0.020	0.020	0.000	844.00	12.07
0.000000	250.	250.	250.	1	0	0	0.00	315.25	327.32

*SECNO 8701.000

3280 CROSS SECTION 8701.00 EXTENDED 5.81 FEET

D/S FACE EISENHOWER PARKWAY, FIELD SECTION 8

8701.00	14.71	861.51	0.00	0.00	861.51	0.00	0.00	0.00	855 70
790.	257.	316.	217.	581.	541.	526.	69.	14.	856.80
0.94	0.44	0.58	0.41	0.020	0.020	0.020	0.000	846.80	0.00
0 000004	21.	21.	21.	0	0	0	0.00	250.00	250.00

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	2.66	3.00	0.00	10.00	0.00	54.75	0.00	846.80	846.80

*SECNO 9230.000

3280 CROSS SECTION 9230.00 EXTENDED 1.22 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
870.11	861 51	0 00	529.	266.	55	65.	853.30	861 20

U/S FACE EISENHOWER NOTE. TWO CULVERTS AT INLET, ONLY ONE

COMING OUT. SECOND CULVERT NOT CODED, FIELD SECTION 9

9230.00	10.12	862 42	0.00	0.00	862.48	0.07	0.97	0.00	861.20
790.	68.	686.	35.	122.	312.	67.	82.	18.	862.30
1.01	0 56	2 20	0.53	0 070	0.045	0.050	0.000	852.30	0.00
0.000549	529.	529.	529.	2	0	5	0.00	250.00	250.00

CCHV= 0.500 CEHV= 1.000
*SECNO 9305.000
3280 CROSS SECTION 9305.00 EXTENDED 3.01 FEET

FIELD SECTION 10 MOVED D/S

9305.00	9.21	862.51	0.00	0.00	862.52	0.01	0.01	0.03	855 00
790.	263.	195.	332.	399.	154.	348.	83.	18.	855.40
1.04	0 66	1.27	0.95	0.070	0.045	0.050	0.000	853 30	162.44
0.000088	75.	75.	75.	2	0	0	0.00	160.56	323.00

CCHV= 0.300 CEHV= 0.500
*SECNO 9640.000

9640.00	4.94	862.54	0.00	0.00	862.65	0.11	0.08	0.05	859.30
790.	240.	274.	276.	130.	77.	117.	88.	19.	859.70
1.07	1.84	3.57	2.36	0.070	0.045	0.050	0.000	857.60	204.03
0.001760	335	335.	335.	2	0	0	0.00	112.87	316.90

*SECNO 9775.000

9775.00	3 48	862.85	0.00	0.00	863.34	0.48	0.50	0.18	861.07
790	219.	365.	206.	66.	51	52.	88.	19.	861.47
1.08	3.29	7.20	4.00	0.070	0.045	0.050	0.000	859.37	207.55
0.012424	135.	135.	135.	2	0	0	0.00	102.38	309.93

*SECNO 10000.000
FIELD SECTION 10 MOVED D/S

10000.00	3.43	865.78	0 00	0.00	866.31	0.53	2.95	0 02	864.05
790.	217.	372.	201.	64.	50.	49.	89	20.	864.45
1.09	3.40	7.49	4.10	0.070	0.045	0.050	0.000	862.35	207.70
0.013838	225.	225.	225.	5	0	0	0.00	101.94	309 64

*SECNO 10050.000
3280 CROSS SECTION 10050.00 EXTENDED 0.63 FEET

10050.00	3.73	866.63	0.00	0.00	867.05	0.42	0.72	0.03	866.00
790.	0.	790.	0.	0.	151.	0.	89.	20.	866.80
1.09	0.00	5.23	0.00	0.000	0.045	0.000	0.000	862.90	0.00
0.014906	50.	50.	50.	3	0	0	0.00	100.74	100.74

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 10051.000
3280 CROSS SECTION 10051.00 EXTENDED 0 64 FEET

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 869.60 MAX ELLC= 868.50

D/S FACE OF PRIVATE BRIDGE, FIELD SECTION 10A, (SUPP SURVEY)

10051.00	3.73	866.63	0.00	0.00	867.09	0.46	0.02	0.02	866.00
790.	0.	790.	0.	0.	145.	0.	89.	20.	866.80
1 09	0.00	5.44	0.00	0.000	0.045	0.000	0.000	862.90	0.00
0.017851	1.	1.	1.	1	0	0	-6.62	100 85	100.85

*SECNO 10059.000
3280 CROSS SECTION 10059.00 EXTENDED 0.91 FEET

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 869.60 MAX ELLC= 868.50

U/S FACE OF PRIVATE BRIDGE

10059.00	4 01	866.91	0.00	0.00	867.24	0.33	0.11	0.04	866 00
790.	0.	790	0.	0.	172.	0.	90.	20	866.80
1.09	0.00	4 60	0 03	0.000	0.045	0.050	0.000	862.90	0.00
0.010668	8.	8.	8.	3	0	0	-7.70	104.43	104.43

*SECNO 10060.000
3280 CROSS SECTION 10060.00 EXTENDED 0.99 FEET

10060.00	4.09	866.99	0 00	0.00	867.26	0.27	0 01	0.02	866.00
790.	0.	790	0.	0.	188	0.	90.	20.	866.80
1.09	0.00	4.21	0.47	0.000	0.045	0.050	0.000	862 90	0.00
0.007501	1.	1.	1.	2	0	0	0.00	105.04	105.04

*SECNO 10100.000
VALLEY SECTION E, FIELD SECTION 10

10100.00	4 18	867 28	0.00	0.00	867.50	0.22	0.22	0.02	864.80
790.	232.	310.	248.	96.	63.	82.	90.	20.	865.20
1 10	2.41	4.90	3.04	0.070	0.045	0.050	0.000	863.10	205.87
0.004295	40.	40.	40.	2	0	0	0.00	107.40	313.27

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

*SECNO 10920.000
FIELD SECTION 10 MOVED U/S

10920.00	4.76	869.81	0.00	0.00	869.94	0.13	2.41	0 03	866.75
790.	239.	281.	270.	122.	73.	108.	95.	22.	867.15
1.18	1.96	3.82	2.50	0.070	0.045	0.050	0.000	865.05	204.47
0 002138	820.	820.	820.	4	0	0	0.00	111.56	316.03

CCHV= 0.500 CEHV= 1.000
*SECNO 11021.000
D/S FACE OF PRIVATE BRIDGE, FIELD SEC 10B, (SUPP SURVEY)

11021.00	4.71	870.01	0.00	0.00	870.21	0.19	0.21	0.06	866.00
790	48.	706	37.	15.	197.	12.	95.	22.	866.30
1.19	3.21	3.58	3.03	0.030	0.045	0.030	0.000	865.30	201.63
0.001978	101	101.	101.	2	0	0	0.00	63.93	265.55

CCHV= 0.500 CEHV= 1.000

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	4.36	3.00	0.00	30.00	0.00	85.50	0.00	865.30	865.30

*SECNO 11129.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
875.79	870.22	0.00	303.	491	86.	138.	869.90	871.30

3470 ENCROACHMENT STATIONS= 85.0 425.0 TYPE= 1 TARGET= 340.000
U/S FACE OF PRIVATE BRIDGE

11129.00	6.88	872.18	0.00	0.00	872.24	0.06	2.04	0.00	866.00
790.	94.	658.	38	118.	305.	31.	96.	23.	866.30
1.20	0.80	2.15	1.23	0.030	0.030	0.030	0 000	865.30	85.00
0.000177	108.	108.	108.	2	0	5	0.00	184.38	269.38

CCHV= 0.300 CEHV= 0.500

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
G	QLOB	QCH	QROB	ALOB	ACH	AROB	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 11170.000

3470 ENCROACHMENT STATIONS= 175.0 340 0 TYPE= 1 TARGET= 165.000

FIELD SECTION 12 MOVED D/S

11170.00	6.02	872.22	0.00	0.00	872.26	0.04	0 01	0.01	869.20
790.	302.	196.	292	214.	97.	200.	97.	23.	869.30
1 21	1 41	2.02	1.46	0.030	0.030	0.030	0.000	866.20	175.00
0.000208	41.	41.	41.	0	0	0	0.00	165.00	340.00

CCHV= 0.500 CEHV= 1.000

*SECNO 11221.000

D/S FACE OF MAIN STREET, FIELD SECTION 11

11221.00	5.04	872.24	0.00	0.00	872.45	0.21	0.03	0.17	870.60
790.	361.	357.	71.	110	85.	32.	97.	23.	870.60
1.21	3.28	4.19	2.26	0.030	0.030	0.030	0.000	867.20	166.09
0.002713	51.	51.	51.	1	0	0	0.00	138 53	304.62

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	1.59	3.00	0.00	11 00	0.00	47.52	0.00	867.20	867.20

*SECNO 11288.000

3280 CROSS SECTION 11288.00 EXTENDED 0 32 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
879.07	872.47	0.00	184.	610.	48.	55.	872.20	875.60

U/S FACE OF MAIN STREET

11288.00	9.11	876.31	0.00	0.00	876.32	0.01	3.87	0.00	870.60
790.	372.	140.	278.	488.	171.	504.	98.	23.	870.60
1.24	0.76	0.82	0.55	0.030	0.025	0.030	0.000	867.20	138.88
0 000028	67.	67.	67.	0	0	5	0.00	361.12	500.00

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

CCHV= 0 500 CEHV= 1.000
*SECNO 11330.000
3280 CROSS SECTION 11330 00 EXTENDED 1.62 FEET

FIELD SECTION 12 MOVED D/S

11330.00	8 62	876.32	0.00	0.00	876.32	0.00	0.00	0.00	870.70
790.	452.	127.	212.	983	147	419.	100.	24.	870.80
1 26	0.46	0.86	0 51	0.060	0.045	0.060	0.000	867.70	0.00
0.000050	42.	42.	42.	2	0	0	0.00	385.26	385.26

CCHV= 0.300 CEHV= 0.500
*SECNO 11730.000

11730.00	4.58	876.28	0.00	0.00	876.49	0.21	0.07	0.10	874.70
790.	207.	351.	232.	130.	70.	101	108.	26.	874.80
1.30	1.59	5.03	2.29	0.060	0.045	0.060	0.000	871.70	106.86
0.004522	400.	400.	400.	2	0	0	0.00	226.89	333.75

*SECNO 11800.000

11800.00	4.21	876.61	0.00	0.00	877.05	0.44	0.45	0.12	875.40
790.	139.	430.	221.	79.	63.	78.	108	27.	875.50
1.30	1.75	6.84	2.85	0.060	0.045	0.060	0.000	872.40	118.44
0.009645	70.	70	70.	3	0	0	0.00	213 38	331.82

*SECNO 11850.000

11850.00	4.19	877.09	0.00	0 00	877.54	0.45	0.49	0.01	875.90
790.	137.	432.	221.	78.	63.	77.	109.	27.	876.00
1.30	1.75	6.90	2.87	0.060	0.045	0.060	0.000	872 90	118.77
0.009868	50.	50.	50.	2	0	0	0.00	213.00	331.77

*SECNO 12050.000

12050.00	4.19	879.09	0.00	0.00	879.55	0.46	2.00	0.01	877.90
790.	134.	435.	220.	77	62.	76.	110.	28.	878.00
1.31	1.75	6.97	2.89	0.060	0.045	0.060	0.000	874.90	119.12
0 010117	200.	200	200.	2	0	0	0.00	212.59	331.71

*SECNO 12239.000
VALLEY SETION F, FIELD SECTION 12

12239.00	4 19	880.99	0.00	0.00	881.44	0.45	1.89	0.00	879.80
790.	136.	433.	221.	78	63.	77.	111.	29.	879.90
1.32	1.75	6.92	2.87	0.060	0.045	0.060	0.000	876.80	118.83
0.009913	189.	189.	189.	1	0	0	0.00	212.93	331.76

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 13030.000

FIELD SECTION 12 MOVED U/S

13030.00	5.04	884.44	0.00	0.00	884.54	0.10	2.99	0.11	882.40
790	271.	284	235.	201.	79.	132.	116.	33.	882.50
1.42	1.35	3.60	1.77	0.060	0.045	0.060	0.000	879.40	93.02
0 001981	791.	791.	791.	6	0	0	0.00	243.19	336.21

CCHV= 0.500 CEHV= 1.000
*SECNO 13181.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

D/S FACE PRIVATE BRIDGE (APPROX)

13181.00	6 24	886.64	886.64	0.00	887.19	0.56	0.51	0.46	885.70
790.	95.	600.	95.	44.	89.	44	117.	34.	885 70
1.43	2.17	6.77	2.17	0.035	0.045	0 035	0.000	880.40	56.49
0.007194	151.	151.	151.	2	12	0	0.00	207.02	263.51

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	2.16	3.00	0.00	9 75	0.00	52.00	0.00	880.40	880.40

*SECNO 13205 000
3280 CROSS SECTION 13205.00 EXTENDED 0.59 FEET

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
894.38	887 19	0.00	485.	311.	52.	35.	884.00	887.20

U/S FACE PRIVATE BRIDGE (APPROX)

13205.00	7.39	887.79	0.00	0.00	887.83	0.05	0.64	0.00	885.70
790.	263.	265.	263.	201.	112.	201.	118.	34.	885.70
1.43	1 31	2.37	1.31	0.035	0.045	0.035	0.000	880.40	0.00
0.000648	24.	24.	24.	2	0	5	0.00	320.00	320.00

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        QLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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 13400.000

3470 ENCROACHMENT STATIONS=      20.0      300.0  TYPE=      1  TARGET=      280.000
 13400.00      6.71    887 94      0.00      0.00    888.13      0.18      0.23      0.07    886.53
     790.       180       429.      180.       99.       98.       99.       119.       35.     886.53
     1.45      1 81      4 37      1.81     0.035     0.045     0.035     0.000    881.23     20 00
 0.002612       195.      195.      195.         3         0         0      0.00    280.00    300.00


CCHV=   0.500 CEHV=   1.000
*SECNO 13500 000

3470 ENCROACHMENT STATIONS=      45.0      280.0  TYPE=      1  TARGET=      235.000
 13500.00      6 60    888.23      0.00      0.00    888.47      0.23      0.29      0.05    886.93
     790.       166.      459.      165.       82.       96        83       120.       36      886.93
     1.46      2.04      4.78      1.99     0.035     0.045     0.035     0.000    881.63     45.00
 0.003223       100.      100.      100.         2         0         0      0.00    235.00    280.00


*SECNO 13661 000

3470 ENCROACHMENT STATIONS=      85.0      235.0  TYPE=      1  TARGET=      150 000
                D/S FACE PRIVATE BRIDGE (APPROX)
 13661.00      6.58    888 78      0.00      0.00    889.06      0.28      0.55      0.05    887.50
     790.       154       483.      154.       62.       96.       62.       121        37.     887.50
     1.47      2.47      5.05      2.47     0.035     0.045     0.035     0.000    882.20     85.00
 0.003621       161.      161.      161.         2         0         0      0.00    150.00    235.00


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        2 16       2.80       0.00       9.75       0.00       52.00       0.00     882.20     882.20

*SECNO 13685.000
3280 CROSS SECTION  13685.00 EXTENDED       0.56 FEET

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 AREA	ELLC	ELTRD
896.52	889.18	0.00	523	273.	52.	60.	888.40	889.40

3470 ENCROACHMENT STATIONS= 90.0 230.0 TYPE= 1 TARGET= 140.000

U/S FACE PRIVATE BRIDGE (APPROX)

13685.00	7.36	889.56	0.00	0 00	889.70	0.15	0.64	0.00	887.50
790.	179	432.	179.	105.	111.	105.	121.	37.	887.50
1 47	1.70	3.89	1.70	0.035	0.030	0.035	0 000	882.20	90.00
0.000780	24.	24	24.	2	0	5	0.00	140.00	230 00

CCHV= 0.500 CEHV= 1.000
*SECNO 13850.000
3280 CROSS SECTION 13850.00 EXTENDED 0.11 FEET

3470 ENCROACHMENT STATIONS= 133.0 188.0 TYPE= 1 TARGET= 55.000

13850.00	6.91	889.81	0.00	0 00	890.27	0.45	0.26	0.31	888 20
790.	93.	600.	98.	26	102.	27.	122.	37.	888.20
1.48	3.57	5.87	3.57	0 035	0.045	0.035	0.000	882.90	133.00
0.004472	165.	165.	165	2	0	0	0.00	55.00	188.00

*SECNO 13901.000

D/S FACE SALINE ANN ARBOR ROAD FIELD SECTION 13

13901.00	6 98	890.08	0.00	0.00	890.95	0.87	0 27	0.42	883.10
790.	187.	509.	94.	29.	62.	17.	122.	37.	885.20
1.48	6 46	8.17	5.43	0.035	0.045	0.035	0.000	883.10	241.69
0.006244	51.	51.	51.	2	0	0	0.00	26.30	267.99

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	3.22	3.00	0.00	10.00	0 00	76.50	0 00	883.10	883.10

*SECNO 13975.000

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

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 892.412 ELLC= 893 300 PCWSE= 890.079 ELTRD= 895.300

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 895.30 MAX ELLC= 893.30

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

	U/S FACE	SALINE	ANN ARBOR ROAD						
13975.00	6 74	891.34	891.34	0.00	894.08	2 75	0.58	1.87	884.60
790.	0.	790.	0.	0.	59.	0.	122.	37.	886.70
1.48	0.00	13.30	0.80	0.000	0.025	0.030	0.000	884.60	241.98
0 010189	74.	74.	74.	2	18	0	-42.64	25.67	267.65

*SECNO 13980.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 229.0 264.0 TYPE= 1 TARGET= 35.000

13980 00	10.05	895.35	0.00	0.00	895.42	0.08	0.00	1.34	889.90
490.	53.	423.	14.	52.	181.	18.	122.	37.	885.90
1.48	1.03	2.34	0.75	0.030	0.025	0.030	0.000	885.30	229 00
0.000096	5.	5.	5.	3	0	0	0.00	35 00	264.00

*SECNO 13985.000

3470 ENCROACHMENT STATIONS= 224.0 269.0 TYPE= 1 TARGET= 45.000

13985.00	9.35	895.35	0.00	0.00	895.42	0.08	0.00	0.00	890.60
490.	64.	402.	25.	60	168.	28.	122.	37	886 60
1.48	1.06	2.39	0.88	0.030	0.025	0.030	0.000	886.00	224.00
0.000111	5.	5.	5.	2	0	0	0.00	45.00	269.00

*SECNO 13990.000

3470 ENCROACHMENT STATIONS= 219.0 274.0 TYPE= 1 TARGET= 55.000

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
13990.00	8 65	895.35	0.00	0.00	895.44	0.09	0.00	0.01	891.30
490.	67.	401.	22.	62.	155.	27.	122.	37.	887.30
1.48	1.09	2.59	0.82	0.030	0.025	0.030	0.000	886.70	219.00
0.000145	5.	5.	5.	0	0	0	0.00	55.00	274.00

*SECNO 13993.000

3470 ENCROACHMENT STATIONS= 216.0 277.0 TYPE= 1 TARGET= 61.000

13993.00	8.15	895.35	0.00	0.00	895.46	0.11	0.00	0.02	891.80
490.	62.	413.	14.	57.	146.	19.	122.	37.	887.80
1.48	1.10	2.83	0.75	0.030	0.025	0.030	0.000	887.20	216.00
0.000189	3.	3.	3.	0	0	0	0.00	58.69	274.69

*SECNO 13994 000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 892.90 MAX ELLC= 891.80

3470 ENCROACHMENT STATIONS= 215.0 278.0 TYPE= 1 TARGET= 63.000

FOOT BRIDGE AT SALINE ANN ARBOR ROAD, FIELD SECTION 13A

13994.00	8 17	895.37	0.00	0.00	895.46	0.10	0.00	0.01	891.80
490.	128.	332.	30.	58.	125.	19.	122.	37.	887.80
1.48	2.20	2.65	1 54	0.030	0.025	0.030	0.000	887.20	215.00
0.000738	1.	1.	1.	1	0	0	-21.29	59.74	274.74

*SECNO 14002.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 892.90 MAX ELLC= 891.80

3470 ENCROACHMENT STATIONS= 207.0 286.0 TYPE= 1 TARGET= 79.000

U/S FACE OF FOOT BRIDGE

14002.00	8.19	895.39	0.00	0.00	895.48	0.08	0.01	0.01	891.80
490.	153.	309.	28.	75.	126.	20.	122	37.	887.80
1.48	2 03	2.45	1.43	0.030	0.025	0.030	0.000	887.20	207.00
0.000626	8.	8.	8.	2	0	0	-21.29	67.97	274.97

*SECNO 14003.000

```
   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=      206.0      287.0  TYPE=      1  TARGET=       81.000
 14003.00      8.19     895.39       0.00       0.00     895.50       0.10       0.00       0.02     891.80
    490.        68.       410.        12.        78.      147.         20        122.        37.      887.80
    1.48       0.87       2.80       0.59      0.030      0.020      0.030      0.000     887.20     206.00
 0.000117        1.         1.         1.          0          0          0       0.00      68.97     274.97


*SECNO 14016.000
                SMALL DAM AT SALINE ANN ARBOR ROAD (SUPP SURVEY)
 14016.00      5.40     895 40       0.00       0.00     895.57       0.17       0.00       0.07     892.20
    490.        45.       394.        51.        36.      107.         42.        122.        37.      892.30
    1.49       1 23       3.69       1.23      0.030      0 020      0.030      0.000     890.00       0.00
 0.000336        13.        13.        13          0          0          0       0.00      75.10      75.10


CCHV=    0.500 CEHV=    1.000
*SECNO 14018.000
3280 CROSS SECTION  14018.00 EXTENDED       0.83 FEET

3470 ENCROACHMENT STATIONS=        5.0       81.0  TYPE=      1  TARGET=       76.000
                POND BEHIND SMALL DAM
 14018.00     10.03     895.63       0 00       0.00     895.65       0.02       0.00       0.08     887.70
    490.        70.       355.        65.       123.      280.         110.       122.        37.      887.60
    1.49       0.56       1.27       0.59      0.030      0.020      0.030      0.000     885.60       5.00
 0.000015        2.         2          2.          2          0          0       0.00      76.00      81.00


*SECNO 14034.000
3280 CROSS SECTION  14034.00 EXTENDED       0.83 FEET

 14034.00     10.03     895.63       0.00       0.00     895.65       0.02       0.00       0.00     887.70
    490.        68.       345.        77.       129.      280.         151.       123.        37.      887.60
    1.49       0.53       1.23       0.51      0.030      0.020      0.030      0.000     885.60       0.00
 0.000014        16.        16.        16.          0          0          0       0.00     101.00     101.00


CCHV=    0.100 CEHV=    0.300
*SECNO 14546.000
3280 CROSS SECTION  14546.00 EXTENDED       0.84 FEET

                VALLEY SECTION G,PONDED AREA BEHIND SMALL DAM, FIELD SECTION 14
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
14546.00	10.04	895 64	0.00	0.00	895 66	0 02	0.01	0.00	887.70
490.	68.	345.	77.	129.	280.	151.	129.	39.	887.60
1 63	0.53	1 23	0.51	0.030	0.020	0.030	0.000	885.60	0.00
0.000014	512.	512.	512.	0	0	0	0.00	101.00	101.00

*SECNO 14566.000

3301 HV CHANGED MORE THAN HVINS

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

SECOND SMALL DAM U/S SALINE ANN ARBOR ROAD (SUPP SURVEY)

14566.00	2.92	895.72	895.72	0.00	896.50	0.78	0.00	0.23	893.80
490.	50	372.	68.	14	47.	18.	129.	39.	893.80
1.63	3.60	7.87	3.69	0.030	0.020	0.030	0.000	892.80	67.73
0.004265	20	20.	20.	20	17	0	0.00	54.02	121.75

CCHV= 0.500 CEHV= 0.300
*SECNO 14568.000

3301 HV CHANGED MORE THAN HVINS

POND SECTION, (APPROX)

14568 00	7.85	896.85	0.00	0.00	896.88	0.02	0.00	0.38	889.00
490.	14.	432.	44.	34.	346.	83.	129.	39.	889.00
1.63	0.43	1.25	0.53	0.030	0.020	0.030	0.000	889.00	51.46
0 000018	2.	2.	2.	2	0	0	0.00	77 56	129.02

CCHV= 0.100 CEHV= 0.300
*SECNO 15308 000

POND SECTION, (APPROX)

15308.00	7.87	896.87	0.00	0 00	896.89	0.02	0.01	0 00	889.00
490.	14.	432.	44	34.	346.	83.	137.	40.	889.00
1.81	0.43	1.25	0.53	0.030	0.020	0.030	0.000	889.00	51.45
0.000018	740.	740.	740.	2	0	0	0.00	77.65	129.10

*SECNO 15315.000

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

3301 HV CHANGED MORE THAN HVINS

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

THIRD SMALL DAM U/S SALINE ANN ARBOR ROAD (SUPP SURVEY)

15315.00	2.89	900.69	900.69	0 00	901.43	0 74	0.00	0.22	898.80
490.	43.	405.	42.	14.	54.	14.	137.	40	898 80
1 81	3.06	7.46	2.98	0.030	0.020	0 030	0.000	897.80	162.10
0 003941	7.	7.	7.	20	22	0	0.00	56.85	218.96

CCHV= 0 500 CEHV= 0.300
*SECNO 15325.000

3301 HV CHANGED MORE THAN HVINS

POND BEHIND SMALL DAM

15325.00	8.79	901 79	0 00	0.00	901.80	0.01	0.00	0.37	897.50
490.	12.	467.	11.	75.	734.	62.	137	40.	897.50
1.81	0.15	0.64	0.18	0.030	0.020	0.030	0.000	893.00	127.04
0.000004	10.	10.	10.	2	0	0	0.00	175.50	302.53

CCHV= 0.100 CEHV= 0.300
*SECNO 15600.000

VALLEY SECTION H, PONDED AREA, JUST 7TH ST. FIELD SECTION 15

15600 00	8 79	901.79	0.00	0.00	901.80	0.01	0.00	0.00	897.50
490.	12.	467.	11.	75.	734.	62.	143.	41.	897.50
1.94	0.15	0 64	0.18	0.030	0.020	0.030	0.000	893 00	127.02
0.000004	275.	275.	275.	2	0	0	0.00	175.52	302.54

THIS RUN EXECUTED 21 DEC 88 11:59:01

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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       CITY OF ANN ARBOR, MI, FLOOD INSURANCE RESTUDY
T2       NORTHWEST BRANCH PITTSFIELD-ANN ARBOR DRAIN
T3      100 YEAR DISCHARGE, ENCROACHED RUN

J1   ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ

        0         4.         0.         0.   0.000000       0.00       0.0         0.    807 480      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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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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=   0.300 CEHV=   0.500
*SECNO 0.000
 2800 NAT Q1=     248.11  WSEL=     807.38  ENC Q1=     248.11  WSEL=     807.48  RATIO=  0.0000
 NAT Q1=     257.   RATIOS LOB,CH,ROB=  0.1317  0.7042  0.1641  WSEL=     807.48

3470 ENCROACHMENT STATIONS=      107.9      165.2  TYPE=      4  TARGET=        0.035
                FIELD SECTION 1, MOVED  D/S TO MOUTH
     0.00      6.88    807.48      0.00    807.38    807.66      0.18      0.00      0.00    802.50
     840.      101.      612.      127.       58.      162.        63         0.        0      802.70
     0.00      1.75      3.78      2.01     0.060     0.045     0.060     0.000    800.60    107.90
 0.001142        0.        0.        0.         0         0         0      0.00     57.27    165.17


*SECNO 350.000
 2800 NAT Q1=     248.21  WSEL=     807.78  ENC Q1=     248.21  WSEL=     807.88  RATIO=  0.0000
 NAT Q1=     257.   RATIOS LOB,CH,ROB=  0.1318  0.7041  0.1641  WSEL=     807.88

3470 ENCROACHMENT STATIONS=      107.9      165.2  TYPE=      4  TARGET=        0.035
              VALLEY SECTION A, FIELD SECTION 1
   350.00      6.88    807.88      0.00    807.78    808.06      0.18      0.40      0.00    802.90
     840.      101.      612.      127        58.      161.        63.        2.        0.     803.10
     0.03      1.75      3.79      2.01     0.060     0.045     0.060     0.000    801.00    107.89
 0.001146      350.      350.      350.         1         0         0      0.00     57.28    165.17


CCHV=   0.500 CEHV=   1.000
*SECNO 700.000

3470 ENCROACHMENT STATIONS=      117.0      158.0  TYPE=      1  TARGET=       41.000
                FIELD SECTION 1, MOVED U/S                  DRAIN
    700.00      6.92    808.32      0.00    808.23    808.56      0.24      0.44      0.06    803.30
     840.       65.       686.      89.        34.      163.        39.        4.        1.     803.50
     0.06      1.90      4.22      2.31     0.060     0.045     0.060     0.000    801.40    117.00
 0.001404       350       350.      350.         2         0         0      0.00     41.00    158.00


*SECNO 750.000

3470 ENCROACHMENT STATIONS=      177.0      193.6  TYPE=      1  TARGET=       16.600
    750.00      7.95    808.45      0.00    808.37    809.15      0.70      0.13      0.46    802.00
     840.        0.       840.       0.        0.      125.        0.        5.        1.  100000.00
     0.06      0.00      6.71      0.00     0.000     0.045     0.000     0.000    800.50    177.00
 0.006171       50.       50.       50.         2         0         0      0.00     16.60    193.60
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 751 000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 810.60

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16.600
D/S FACE NORTHWEST BRANCH PITTSFIELD-A2 DRAIN ENCLOSED

751 00	7.73	808.23	0.00	808.14	809.25	1.03	0.00	0.10	802.00
840.	0.	840.	0.	0.	103.	0.	5.	1.	100000.00
0.06	0.00	8.13	0.00	0.000	0 015	0 000	0.000	800.50	177 00
0.001433	1.	1.	1.	2	0	0	-18 05	16.60	193.60

*SECNO 850.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 810.65

3470 ENCROACHMENT STATIONS= 177 0 193.6 TYPE= 1 TARGET= 16.600

850 00	7.84	808.39	0.00	808.31	809.39	1.01	0.14	0.00	802.05
840.	0.	840.	0.	0.	104.	0.	5.	1.	100000.00
0.06	0 00	8.05	0.00	0.000	0.015	0.000	0.000	800.55	177 00
0.001405	99.	99.	99.	2	0	0	-18.92	16.60	193.60

*SECNO 1000.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 810.73

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16.600

1000.00	7.99	808.62	0.00	808.55	809.60	0.98	0.21	0.00	802.13
840.	0.	840.	0.	0.	106.	0.	5.	1.	100000.00
0.07	0.00	7 95	0.00	0.000	0.015	0.000	0.000	800.63	177.00
0.001369	150.	150.	150.	2	0	0	-20.16	16.60	193.60

*SECNO 1300.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 810 88

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 177.0 193.6 TYPE= 1 TARGET= 16.600

1300.00	8.29	809.07	0.00	809.01	810.01	0.94	0.40	0.00	802.28
840.	0.	840.	0	0.	108.	0.	6.	1.	100000.00
0.08	0.00	7.77	0.00	0.000	0.015	0.000	0.000	800.78	177.00
0.001307	300	300.	300.	2	0	0	-22.68	16.60	193.60

*SECNO 1600.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 811.03

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16.600

1600.00	8.63	809.51	0.00	809.45	810.40	0.89	0.38	0.01	802.43
840.	0.	840.	0.	0.	111.	0.	7.	1	100000.00
0.09	0.00	7.56	0.00	0.000	0.015	0.000	0.000	800.88	177.00
0.001228	300.	300.	300.	2	0	0	-25.21	16.60	193.60

*SECNO 2250.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 811.94

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16.600

2250.00	8.51	810.30	0.00	810.25	811.20	0.90	0.80	0.00	803.34
840	0.	840.	0.	0.	110.	0.	8.	1.	100000.00
0.11	0.00	7.62	0.00	0.000	0.015	0.000	0.000	801.79	177.00
0.001246	650.	650.	650.	2	0	0	-24.17	16.60	193.60

*SECNO 2900.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 812.85

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16.600

2900.00	8.41	811.11	0.00	811.06	812.02	0.92	0.81	0.00	804.40
840.	0.	840.	0.	0.	109.	0.	10.	2.	100000.00
0.13	0.00	7.68	0.00	0.000	0.015	0.000	0.000	802.70	177.00
0.001261	650.	650.	650.	0	0	0	-23.22	16.60	193.60

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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 2905.000
 WATER EL=X5 CARD=   811.850

3470 ENCROACHMENT STATIONS=      90.0     110.0  TYPE=     1  TARGET=      20.000
                CHANGE IN PIPE SIZE AT JUNCTION, NW BR PITTSFIELD-A2 DRAIN ENC
  2905.00     7.10   811.85     0.00   811.75   812.75     0.90     0.01     0.01   805.25
     840        0.      840.       0.      0.      110.       0.       10.       2.  100000.00
     0.13     0.00     7.61     0.00   0.000    0.015    0.000    0.000   804.75    90.00
 0.001449        5        5.       5.       0        0        0     0.00    20.00   110.00


CCHV=   0.100 CEHV=   0.300
*SECNO 3905.000
 WATER EL=X5 CARD=   822.000

3470 ENCROACHMENT STATIONS=      90.0     110.0  TYPE=     1  TARGET=      20.000
              WATER SURFACE ELEVATIONS BY INTERPOLATION BETWEEN 2905 AND 4905
              BASED ON CONTROLING ELEVATION FOR WEIR FLOW AT 4905
  3905.00     9.58   822.00     0.00   821.90   822.43     0.43     0.79     0.05   812.92
     840.       0.      840.       0.      0.      160.       0.       13.       2.  100000.00
     0.19     0.00     5.25     0.00   0.000    0.015    0.000    0.000   812.42    90.00
 0.000494     1000.    1000.    1000.       0        0        0     0.00    20.00   110.00


*SECNO 4905.000
 WATER EL=X5 CARD=   832.100

3470 ENCROACHMENT STATIONS=      90.0     110.0  TYPE=     1  TARGET=      20.000
                U/S FACE NORTHWEST BRANCH PITTSFIELD-A2 DRAIN, ENCLOSED
  4905.00    12.00   832.10     0.00   832.00   832.35     0.25     0.33     0.02   820.60
     840.       0.      840.       0.      0.      208.       0.       17.       3.  100000.00
     0.26     0.00     4.03     0.00   0.000    0.015    0.000    0.000   820.10    90.00
 0.000235     1000.    1000.    1000.       0        0        0     0.00    20.00   110.00


CCHV=   0.300 CEHV=   0.500
*SECNO 4906.000
 2800 NAT Q1=    270.12  WSEL=    832.00  ENC Q1=    421.59  WSEL=    832.10  RATIO= -0.5608
 NAT Q1=    850.  RATIOS LOB,CH,ROB=  0.2299  0.4959  0.2743  WSEL=    832.10

3470 ENCROACHMENT STATIONS=      90.0     110.0  TYPE=     4  TARGET=      0.504
  4906.00    12.00   832.10     0.00   832.00   832.35     0.25     0.00     0.00   820.60
     840        0.      840.       0.      0.      208.       0.       17.       3.   820.60
     0.26     0.00     4.03     0.00   0.000    0.030    0.000    0.000   820.10    90.00
 0.000941        1.       1.       1.       0        0        0     0.00    20.00   110.00
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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

CCHV=   0.500 CEHV=   1.000
*SECNO 4950.000
 2800 NAT Q1=     957.79  WSEL=     832.33  ENC Q1=     957.79  WSEL=     832.43  RATIO=  0.0000
 NAT Q1=     981   RATIOS LOB,CH,ROB=  0.3727  0.2261  0 4012  WSEL=     832.43
3280 CROSS SECTION    4950.00 EXTENDED       1.52 FEET

3470 ENCROACHMENT STATIONS=       22.7      103.6  TYPE=      4  TARGET=        0.024
                VALLEY SECTION B, FIELD SECTION 2A (SUPPLEMENTAL SURVEY)
  4950.00     12.32    832.42      0 00    832.33    832.47      0.04      0.01      0.10    820.10
     840.      308.       193       339       219.       85.       226.       18.        3.     820.50
     0.26      1.41      2.28      1.50     0.030     0.030     0.030     0.000    820.10     22.67
 0.000076       44.       44.       44.         2         0         0      0.00     80.92    103.59

CCHV=   0.300 CEHV=   0.500
*SECNO 5200.000
 2800 NAT Q1=     233.29  WSEL=     832.29  ENC Q1=     233.29  WSEL=     832.39  RATIO=  0.0000
 NAT Q1=     243.   RATIOS LOB,CH,ROB=  0.3606  0.3206  0 3188  WSEL=     832.39
3280 CROSS SECTION    5200.00 EXTENDED       0.16 FEET

3470 ENCROACHMENT STATIONS=       38.7       84.8  TYPE=      4  TARGET=        0.039
  5200.00      7 76    832.36      0.00    832.29    832.62      0.26      0.05      0 11    824.80
     840       296.       280.      264.       87.       54.       79.       20.        3.     824.60
     0.28      3 42      5.22      3 34     0.040     0.040     0.040     0.000    824 60     38 74
 0.001307       250.      250.      250.         2         0         0      0.00     46.06     84.80

*SECNO 5270.000
 2800 NAT Q1=     165.65  WSEL=     832.32  ENC Q1=     165.65  WSEL=     832.42  RATIO=  0.0000
 NAT Q1=     173.   RATIOS LOB,CH,ROB=  0.3351  0.3971  0.2678  WSEL=     832.42

3470 ENCROACHMENT STATIONS=       40.0       77.8  TYPE=      4  TARGET=        0.040
  5270 00      6 69    832.39      0.00    832.32    832.85      0.45      0.13      0.10    826.00
     840.      267.       349.      223        63.       52.       52.       20.        3.     825 70
     0.29      4.26      6.67      4.31     0.040     0.040     0.040     0.000    825.70     40.00
 0.002639       70.       70.       70.         2         0         0      0.00     37.84     77.84

CCHV=   0.500 CEHV=   1.000
*SECNO 5330.000
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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

2800 NAT Q1= 108.74 WSEL= 832 55 ENC Q1= 108.74 WSEL= 832.65 RATIO= 0.0000
NAT Q1= 114. RATIOS LOB, CH, ROB= 0.3655 0.4074 0.2271 WSEL= 832 65

3470 ENCROACHMENT STATIONS= 38.9 70.6 TYPE= 4 TARGET= 0.048
VALLEY SECTION C, FIELD SECTION 2B (SUPPLEMENTAL SURVEY)

5330.00	5.82	832.62	0.00	832.55	833 48	0.86	0.23	0.40	827.20
840	297.	358.	185.	49.	39.	32.	20.	3.	826 80
0.29	6.01	9.08	5.78	0.040	0.040	0.040	0.000	826.80	38.95
0 005979	60.	60.	60.	1	0	0	0.00	31.70	70.65

*SECNO 5380.000

3470 ENCROACHMENT STATIONS= 215.0 290.0 TYPE= 1 TARGET= 75.000
DOWNSTREAM FACE ANN ARBOR RAILROAD, FIELD SECTION 3

5380.00	5.21	833.51	0.00	833.57	834.03	0 51	0.37	0.17	832.80
840.	9.	821.	9.	4.	142.	4.	20.	3.	832.80
0.29	2.64	5.79	2.65	0.040	0.040	0.040	0.000	828.30	215 00
0.009655	50.	50.	50.	5	0	0	0.00	75.00	290 00

CCHV= 0.300 CEHV= 0 500

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	3 00	0.00	10.00	0.00	39.27	0.00	828.30	828.30

*SECNO 5420 000
3280 CROSS SECTION 5420.00 EXTENDED 0.17 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
844.17	833.97	0.00	383.	459.	39.	50.	833.30	836.20

3470 ENCROACHMENT STATIONS= 190.0 315.0 TYPE= 1 TARGET= 125.000
U/S FACE ANN ARBOR RAILROAD

5420.00	8.37	836.67	0.00	836.69	836.70	0 04	2.68	0.00	833.00
840.	140.	561.	140.	110.	342.	110.	21.	3.	833.00
0.30	1.27	1.64	1.27	0.030	0.030	0.030	0.000	828 30	190.00
0.000135	40	40.	40.	2	0	6	0.00	125.00	315.00

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

CCHV= 0.300 CEHV= 0.500
*SECNO 5450.000
3280 CROSS SECTION 5450.00 EXTENDED 1.45 FEET

3470 ENCROACHMENT STATIONS= 28.0 152.0 TYPE= 1 TARGET= 124.000

5450.00	7.25	836.65	0.00	836.67	836.74	0.09	0.01	0.03	829.50
790.	248.	426.	116.	185.	139.	90.	21.	3.	829.40
0.30	1.34	3.06	1.28	0.050	0.030	0.050	0.000	829.40	28.00
0.000465	30.	30.	30.	2	0	0	0.00	124.00	152.00

*SECNO 5451.000
3280 CROSS SECTION 5451.00 EXTENDED 1.39 FEET

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 833.40 MAX ELLC= 832.70

3470 ENCROACHMENT STATIONS= 28.0 152.0 TYPE= 1 TARGET= 124.000
OUTLET OF RETENTION BASIN FIELD SECTION 3A (SUPP SURVEY)

5451.00	7.19	836.59	0.00	836.66	836.79	0.20	0.00	0.05	829.50
790.	478.	225.	88.	141.	51.	43.	21.	3.	829.40
0.30	3.40	4.37	2.03	0.030	0.015	0.030	0.000	829.40	28.00
0.001655	1.	1.	1.	2	0	0	-173.17	124.00	152.00

*SECNO 5491.000
3280 CROSS SECTION 5491.00 EXTENDED 1.53 FEET

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 833.40 MAX ELLC= 832.70

3470 ENCROACHMENT STATIONS= 18.0 152.0 TYPE= 1 TARGET= 134.000
U/S END OF RETION BASIN OUTLET

5491.00	7.33	836.73	0.00	836.69	836.86	0.13	0.05	0.02	829.50
790.	515.	191.	84.	180.	54.	49.	21.	4.	829.40
0.30	2.85	3.53	1.72	0.030	0.015	0.030	0.000	829.40	18.00
0.001005	40.	40.	40.	2	0	0	-173.17	134.00	152.00

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 5492.000
3280 CROSS SECTION 5492.00 EXTENDED 1.60 FEET

3470 ENCROACHMENT STATIONS=		13.0	157.0	TYPE=	1	TARGET=	144.000		
5492.00	7.40	836.80	0.00	836.70	836.88	0.08	0.00	0.02	829.50
790.	265.	421.	104.	243.	142.	103.	21.	4.	829.40
0.31	1.09	2.96	1.01	0.030	0.015	0.030	0.000	829.40	13.00
0 000105	1.	1.	1.	2	0	0	0.00	144.00	157.00

*SECNO 5495 000
3280 CROSS SECTION 5495 00 EXTENDED 1.59 FEET

3470 ENCROACHMENT STATIONS=		13.0	157.0	TYPE=	1	TARGET=	144.000		
WEIR ON OUTLET OF RETENTION BASIN									
5495 00	7.38	836 78	0.00	836.69	836.90	0.12	0.00	0.02	831.80
790.	307.	388.	94.	225.	106.	85.	21.	4.	831.80
0.31	1.36	3.67	1.11	0.030	0.015	0.030	0.000	829.40	13.00
0.000189	3.	3.	3.	1	0	0	0.00	144.00	157.00

*SECNO 5520 000
3280 CROSS SECTION 5520.00 EXTENDED 2.93 FEET

RETENTION BASIN AT R.R. (APPROX)									
5520.00	8.93	836.93	0.00	836.81	836.93	0.00	0.00	0.03	828.00
790.	25.	765.	0.	89.	1786.	0.	22.	4.	828.00
0.32	0.28	0.43	0.28	0.020	0.020	0.020	0.000	828.00	0.00
0.000002	25.	25.	25.	2	0	0	0.00	215.00	215.00

*SECNO 5650.000
3280 CROSS SECTION 5650 00 EXTENDED 2 93 FEET

RETENTION BASIN AT R.R. (APPROX)									
5650.00	8.93	836.93	0.00	836.81	836.93	0.00	0.00	0.00	828.00
790.	25.	765.	0.	89.	1787.	0.	28.	4.	828.00
0.41	0.28	0 43	0.28	0.020	0.020	0.020	0.000	828.00	0.00
0.000002	130.	130	130.	1	0	0	0.00	215.00	215 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

CCHV= 0.500 CEHV= 1.000
*SECNO 5731.000
3280 CROSS SECTION 5731.00 EXTENDED 0.13 FEET

3470 ENCROACHMENT STATIONS= 60.0 125.0 TYPE= 1 TARGET= 65.000
INLET TO RETENTION BASIN, FIELD SECTION 3B, SUPPLEMENTAL SURVEY

5731.00	7.73	836.93	0.00	836.81	837.15	0.22	0.00	0.22	830.20
790.	368.	299.	122.	120.	66.	34.	30.	5.	829.80
0.41	3.08	4.52	3.56	0.020	0.020	0.020	0.000	829.20	60.00
0.000503	81.	81.	81.	0	0	0	0.00	65.00	125.00

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	3.03	3.00	0.00	9.00	0.00	19.20	0.00	829.20	829.20

*SECNO 5766.000
3280 CROSS SECTION 5766.00 EXTENDED 0.14 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
916.58	837.15	0.00	735.	56.	19.	28.	832.30	835.00

3470 ENCROACHMENT STATIONS= 80.0 120.0 TYPE= 1 TARGET= 40.000
U/S SIDE OF INLET TO RETENTION BASIN

5766.00	7.74	836.94	0.00	837.11	837.33	0.39	0.18	0.00	830.20
790.	423.	320.	47.	80.	66.	13.	30.	5.	829.80
0.42	5.28	4.82	3.61	0.030	0.045	0.030	0.000	829.20	80.00
0.002893	35.	35.	35.	2	0	8	0.00	40.00	120.00

*SECNO 5856.000
2800 NAT Q1= 109.15 WSEL= 837.33 ENC Q1= 109.15 WSEL= 837.43 RATIO= 0.0000
NAT Q1= 114. RATIOS LOB, CH, ROB= 0.0636 0.9074 0.0290 WSEL= 837.43

3470 ENCROACHMENT STATIONS= 244.8 275.2 TYPE= 4 TARGET= 0.040

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
5856.00	6.59	837 29	0.00	837.33	837.98	0.69	0.36	0.30	834.40
790.	33.	747.	10.	12.	110.	4.	30.	5.	835.40
0.42	2.70	6.80	2.54	0 060	0.045	0.060	0.000	830.70	244.79
0.005776	90.	90.	90.	1	0	0	0.00	30 39	275.18

CCHV= 0.300 CEHV= 0.500
*SECNO 5952.000
2800 NAT Q1= 73.39 WSEL= 837 82 ENC Q1= 70.48 WSEL= 837.82 RATIO= 0.0396
NAT Q1= 73. RATIOS LOB,CH,ROB= 0.0335 0.9587 0.0078 WSEL= 837 82

3470 ENCROACHMENT STATIONS= 249.8 273.0 TYPE= 0 TARGET= 0.040

5952.00	5 74	837.84	0 00	837.82	839.02	1.18	0.80	0.25	835.80
790.	0.	790.	0.	0	90.	0.	30.	5.	836.80
0.42	0.93	8.73	0.00	0.060	0.045	0.000	0.000	832.10	249.79
0.013014	96.	96.	96	2	0	0	0.00	23.21	273.00

*SECNO 6000.000
3470 ENCROACHMENT STATIONS= 245.0 277 0 TYPE= 1 TARGET= 32.000
VALLEY SECTION D, FIELD SECTION 4

6000.00	5.47	838 47	0.00	838.33	839.72	1.25	0.66	0.03	836.70
790.	20.	767.	3.	6	84	2.	30.	5.	837.70
0.42	3.16	9.10	1.89	0.060	0.045	0.060	0.000	833.00	245.00
0.014723	48.	48.	48.	2	0	0	0 00	32.00	277.00

*SECNO 6004.000

3470 ENCROACHMENT STATIONS= 246.0 277.0 TYPE= 1 TARGET= 31.000

6004.00	5.76	838.76	0.00	839.02	839.83	1 07	0.05	0.05	836.70
790.	20.	764.	6.	7.	91.	3.	30.	5.	837.70
0.42	3.05	8.42	2.13	0.060	0.045	0.060	0 000	833.00	246.00
0.011449	4	4.	4.	4	0	0	0.00	31.00	277.00

*SECNO 6150.000
2800 NAT Q1= 143.56 WSEL= 840.33 ENC Q1= 143.56 WSEL= 840.43 RATIO= 0.0000
NAT Q1= 149. RATIOS LOB,CH,ROB= 0.0851 0.8670 0.0479 WSEL= 840.43

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= 242.2 277.8 TYPE= 4 TARGET= 0.035
FIELD SECTION 4 MOVED U/S

6150.00	7.37	840 37	0.00	840.33	840.81	0.45	0.80	0.19	836.70
790.	54.	714.	22.	23.	128.	11.	31.	5.	837.70
0.43	2.39	5.58	2.06	0.060	0.045	0.060	0.000	833.00	242.15
0.003182	146.	146.	146.	2	0	0	0.00	35.61	277.76

CCHV= 0.500 CEHV= 1.000
*SECNO 6201.000

3265 DIVIDED FLOW

3280 CROSS SECTION 6201.00 EXTENDED 0.98 FEET

3470 ENCROACHMENT STATIONS= 125.0 213.0 TYPE= 1 TARGET= 88.000
D/S FACE BOARDWALK, FIELD SECTION 4A, SUPPLEMENTAL SURVEY

6201.00	8.28	840 88	0.00	840 79	841.02	0.14	0.05	0 15	840.50
790.	6.	783.	0.	11.	261.	1.	31.	5.	840.90
0.44	0.60	3.01	0.14	0.030	0.030	0.030	0.000	832.60	125.00
0.000473	51.	51	51.	2	0	0	0.00	83.39	213.00

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	2.57	3.00	0.00	23.20	0.00	62.00	0.00	832.60	832.60

*SECNO 6294 000
3280 CROSS SECTION 6294.00 EXTENDED 1.45 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
847.36	841.02	0.00	554.	237.	62.	167.	839.80	839.90

3470 ENCROACHMENT STATIONS= 120.0 220.0 TYPE= 1 TARGET= 100.000

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                U/S FACE BOARDWALK
 6294.00      8.75    841.35      0.00    841.36    841.46      0.11      0.44      0.00    840.50
    790.        18.      765.        8.      27.       278.       17.       32.        5.     840.90
     0.45      0 65      2.75      0 45    0 060     0.045     0.060     0.000    832.60    120.00
0.000815        93.       93.       93.        2         0         6      0.00    100.00    220.00


*SECNO 6650.000
 2800 NAT Q1=     179.24  WSEL=     841.73  ENC Q1=     179.24  WSEL=     841 83  RATIO=  0.0000
 NAT Q1=     186.   RATIOS LOB, CH, ROB=  0.1031  0.8290  0.0679  WSEL=     841.83

3470 ENCROACHMENT STATIONS=      240.0      281.1  TYPE=      4  TARGET=        0.034
                FIELD SECTION 4 MOVED U/S
  6650.00      8.01    841.78      0.00    841.73    842.09      0.31      0.43      0.20    837.47
     790        69.      680.        40.      33.       143.       21.       34.        6.     838.47
     0 47      2.12      4.77      1.88    0.060     0.045     0.060     0.000    833.77    240.04
 0.002009       356.      356.       356        2         0         0      0.00     41.02    281.06


CCHV=    0.300 CEHV=    0.500
*SECNO 6800.000
 2800 NAT Q1=     164.56  WSEL=     842.03  ENC Q1=     164.56  WSEL=     842.13  RATIO=  0.0000
 NAT Q1=     170.   RATIOS LOB, CH, ROB=  0.0963  0.8449  0.0588  WSEL=     842.13

3470 ENCROACHMENT STATIONS=      240.8      279.5  TYPE=      4  TARGET=        0.034
  6800.00      7 77    842 08      0.00    842.03    842.44      0 36      0 33      0.02    838.01
     790.        64.      694.        32.      29       137.       17        35.        6.     839.01
     0.48      2.22      5.05      1.95    0.060     0 045     0.060     0.000    834.31    240.83
 0.002368       150       150.      150.        0         0         0      0.00     38.64    279.46


*SECNO 6900.000

3470 ENCROACHMENT STATIONS=      251 0      272.0  TYPE=      1  TARGET=       21.000
                FIELD SECTION 4 MOVED U/S
  6900.00      7.63    842.30      0.00    842.22    842.90      0.60      0.34      0.12100000.00
     790.          0      790.        0.         0       127        0.       35.        6.  100000.00
     0.48      0.00      6 24      0.00    0.000     0.045     0.000     0.000    834.67    251.00
 0.005278       100.      100.      100.        0         0         0      0.00     21.00    272.00


CCHV=    0.500 CEHV=    1.000
*SECNO 6910.000
                WINGWALLS TO PRIVATE BRIDGE, FIELD SECTION 4B (SUPP SURVEY)
  6910.00      7.54    842.34      0.00    842.26    843.34      1.00      0.04      0.40    847.00
     790.          0.      790.        0.         0.       98.        0.       35.        6.     845.90
     0.48      0.00      8.03      0.00    0.000     0.025     0.000     0.000    834.80    175.10
 0.003371        10.       10.       10.        0         0         0      0.00     14.95    190.06
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 6930.000

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 847.00 MAX ELLC= 845.90

D/S FACE TO PRIVATE BRIDGE

6930.00	7.66	842 46	0.00	842 39	843.43	0.97	0.07	0.02	847.00
790.	0.	790.	0.	0.	100.	0.	35.	6.	845.90
0.48	0.00	7.89	0.00	0.000	0.025	0.000	0.000	834.80	175.10
0.003205	20.	20.	20.	2	0	0	0.00	14.96	190.06

*SECNO 6960.000

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 847.00 MAX ELLC= 845.90

U/S FACE TO PRIVATE BRIDGE

6960.00	7.82	842.62	0.00	842.56	843.54	0.92	0.09	0.02	847.00
790.	0.	790.	0.	0.	103	0.	35.	6.	845.90
0 48	0.00	7 70	0.00	0.000	0.025	0.000	0 000	834.80	175.10
0 003008	30.	30	30.	2	0	0	0.00	14.96	190.06

*SECNO 6975.000

WINGWALLS TO PRIVATE BRIDGE

6975.00	7.90	842.70	0.00	842.64	843.60	0.90	0.04	0.01	847.00
790.	0.	790.	0	0.	104.	0.	35.	6.	845.90
0.48	0.00	7.62	0.00	0.000	0.025	0.000	0.000	834.80	175.10
0.002923	15.	15.	15.	2	0	0	0.00	14.96	190.06

*SECNO 6978.000

3470 ENCROACHMENT STATIONS= 251.0 272.0 TYPE= 1 TARGET= 21.000

FIELD SECTION 4 MOVED U/S

6978.00	8.45	843.35	0.00	843.31	843.82	0.47	0.01	0.22100001.90	
790.	0.	790	0.	0.	144.	0.	35.	6.	100001.90
0.48	0.00	5.49	0.00	0.000	0.040	0.000	0.000	834.90	251.00
0.002924	3.	3.	3.	3	0	0	0.00	21.00	272.00

CCHV= 0.300 CEHV= 0.500
*SECNO 7070.000

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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

 2800 NAT Q1=     126.39  WSEL=     843.58  ENC Q1=     126.39  WSEL=     843 68  RATIO=  0.0000
 NAT Q1=     132.   RATIOS LOB, CH, ROB=  0.1016  0.8536  0.0448  WSEL=     843.68

3470 ENCROACHMENT STATIONS=      243.9      275.5  TYPE=      4  TARGET=        0.043
  7070.00      6.56    843.60      0.00    843.58    844.22      0.62      0.32      0.08    840.74
     790.        64.     709.        17       14.       109.         4.        35.         6     841.74
    0.49       4.65      6.50      4.02     0.030     0.040     0.030     0 000    837.04    243.87
0.004200        92.       92.       92.         2         0         0      0.00     31.66    275.53


*SECNO 7100.000
 2800 NAT Q1=      88.11  WSEL=     843 55  ENC Q1=      88.11  WSEL=     843.65  RATIO=  0.0000
 NAT Q1=      93.   RATIOS LOB, CH, ROB=  0.0655  0.9164  0.0181  WSEL=     843.65

3470 ENCROACHMENT STATIONS=      247.2      273.0  TYPE=      4  TARGET=        0.048
                FIELD SECTION 4 MOVED U/S
  7100.00      5.79    843 56      0.00    843.55    844.62      1.06      0.18      0.22    841 47
     790.        26.     764.        0.        5.        92        0.        35.         6.     842.47
    0.49       5.24      8.34      0.00     0.030     0.040     0.000     0.000    837.77    247.22
0.009269        30.       30.       30.         2         0         0      0.00     25.78    273.00


*SECNO 7175.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
  7175.00      5.26    844.81    844.81    844.81    846.18      1.37      0.84      0.16    843.25
     790.        29.     758.        3.         6        79        1.        36.         6.     844.25
    0 49       4 88      9.55      2.88     0.030     0 040     0.030     0.000    839 55    242.34
 0.013862        75.       75.       75.         1        11         0      0.00     34.16    276.50


*SECNO 7250 000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
                FIELD SECTION 4 MOVED U/S
  7250.00      5.27    846.60    846.60    846.60    847 96      1.36      1.04      0.00    845.03
     790.        29.     758         3.         6.        80.        1.        36.         6.     846.03
    0.49       4 88      9.52      2.89     0.030     0.040     0.030     0.000    841.33    242.30
 0.013754        75        75.       75.         2         5         0      0.00     34.24    276.54


*SECNO 7300.000
7185 MINIMUM SPECIFIC ENERGY
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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       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
  7300 00      5.27     847.79     847.79     847.79     849.15      1.37       0.69       0 00     846.22
     790.       29.       758.        3.          6         80.        1.         36.          6      847.22
     0.50      4 88       9.53       2.89       0.030      0.040      0.030      0.000     842.52     242.31
 0.013779       50.        50.        50.          2          5          0       0.00      34.22     276.53


*SECNO 7350.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
                FIELD SECTION 4 MOVED U/S
  7350.00      5.27     848 98     848.98     848.98     850.34      1.37       0.69       0.00     847.41
     790.       29.       758.        3.          6.        80.        1.         36.          6.     848.41
     0 50      4.88       9 53       2.89       0.030      0.040      0.030      0.000     843.71     242.31
 0.013773        50        50.        50.          2          5          0       0.00      34 23     276.54


CCHV=    0.500 CEHV=    1.000
*SECNO 7375.000
 2800 NAT Q1=      156.18  WSEL=      850.53  ENC Q1=      156.18  WSEL=      850.63  RATIO=  0.0000
 NAT Q1=      163.   RATIOS LOB, CH, ROB=   0.1706   0.7258   0.1036  WSEL=      850.63

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      241.3      275.5  TYPE=      4  TARGET=         0.040
  7375.00      6.13     850.43       0.00     850.53     850.92      0.49       0.14       0.44     846.30
     790.       122.       601.        67.        26.       102.        16.        36.          6.     846.60
     0.50      4.78       5.88       4.30       0.030      0.040      0.030      0.000     844.30     241.35
 0.002934       25.        25.        25.          5          0          0       0.00      34.19     275.54


*SECNO 7400.000
 2800 NAT Q1=      127.27  WSEL=      850.61  ENC Q1=      127.27  WSEL=      850.71  RATIO=  0.0000
 NAT Q1=      133   RATIOS LOB, CH, ROB=   0.3454   0 4760   0.1786  WSEL=      850.71

3470 ENCROACHMENT STATIONS=      223.9      258 9  TYPE=      4  TARGET=         0.043
                D/S FACE STATE STREET,  FIELD SECTION 5
  7400.00      5.63     850.53       0.00     850 61     851.06      0.54       0.09       0.05     845.10
     790.       280.       402.       108.        40.        77.        21.        36.          6.     845.10
     0.50      7.00       5.22       5.01       0.030      0.040      0.030      0.000     844.90     223.94
 0.004672       25.        25.        25.          1          0          0       0.00      34.95     258.89
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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	1.83	3.00	0.00	7.00	0.00	38.50	0.00	844.90	844.90

*SECNO 7571.000
3280 CROSS SECTION 7571.00 EXTENDED 0.80 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
862.49	850.96	0.00	315.	476.	39.	30.	849.20	854.00

3470 ENCROACHMENT STATIONS= 150.0 400.0 TYPE= 1 TARGET= 250.000

	U/S FACE	STATE	STREET						
7571.00	9.90	854.80	0.00	854.83	854.87	0.06	3.80	0.00	845.10
790.	314.	304.	173.	144.	157.	92.	37.	6.	845.10
0.52	2.17	1.94	1.89	0.030	0.040	0.030	0.000	844.90	205.21
0.000250	171.	171.	171.	2	0	7	0.00	67.26	272.47

*SECNO 7600.000
3280 CROSS SECTION 7600.00 EXTENDED 0.81 FEET

3470 ENCROACHMENT STATIONS= 90.0 170.0 TYPE= 1 TARGET= 80.000

	FIELD SECTION (APPROX)								
7600.00	9.81	854.81	0.00	854.84	854.87	0.06	0.01	0.00	845.00
790.	271.	255.	263.	167.	98.	159.	37.	6.	845.00
0.53	1.62	2.60	1.65	0.045	0.045	0.045	0.000	845.00	90.00
0.000296	29.	29.	29.	2	0	0	0.00	80.00	170.00

*SECNO 8150.000

3470 ENCROACHMENT STATIONS= 100.0 170.0 TYPE= 1 TARGET= 70.000

	FIELD SECTION (APPROX)								
8150.00	7.35	855.10	0.00	855.09	855.28	0.18	0.29	0.12	847.75
790.	237.	316.	237.	90.	74.	90.	42.	7.	847.75
0.57	2.63	4.30	2.63	0.045	0.045	0.045	0.000	847.75	105.50
0.001186	550.	550.	550.	2	0	0	0.00	59.00	164.50

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

CCHV= 0.300 CEHV= 0.500
*SECNO 8181.000
D/S FACE OF CULVERT, OUTLET OF RETENTION POND AT BRIARWOOD, FS

8181.00	7.14	855.14	0.00	855.13	855.34	0.20	0.05	0.01	848.00
790.	281.	212.	297.	80.	56	85.	42.	7.	848.00
0.58	3.49	3.78	3.51	0.045	0.045	0.045	0.000	848.00	107.47
0.002515	31.	31.	31.	1	0	0	0.00	54.65	162.13

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	2.13	3.00	0.00	8.20	0.00	37.30	0.00	848.00	848.00

*SECNO 8425.000
3280 CROSS SECTION 8425.00 EXTENDED 0.41 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
869.98	858.13	0.00	275.	517	37.	43.	853.30	861.00

U/S FACE OF CULVERT, OUTLET OF RETENTION POND AT BRIARWOOD

8425.00	9.91	861.41	0.00	861.41	861.49	0.07	6.15	0.00	851.50
790.	257	262.	271.	196.	79.	205.	44.	8.	851.50
0.61	1.31	3.30	1.33	0.030	0.015	0.030	0.000	851.50	0.00
0.000134	244	244.	244.	2	0	6	0.00	270.00	270.00

*SECNO 8430.000
RETENTION POND, SITE PLANS FOR BRIARWOOD

8430.00	17.51	861 51	0.00	861.51	861.51	0.00	0.00	0.02	844.00
790.	120.	525.	145.	694.	1926.	852.	44.	8.	844.00
0.62	0.17	0.27	0.17	0.020	0.020	0.020	0.000	844.00	12.27
0.000000	5.	5.	5.	2	0	0	0.00	315.00	327.27

*SECNO 8680.000
RETENTION POND

8680.00	17.51	861.51	0.00	861.51	861.51	0.00	0.00	0 00	844 00
790.	120.	525.	145.	695.	1927.	852.	64.	10.	844.00
0.91	0.17	0.27	0.17	0.020	0.020	0 020	0.000	844.00	12.06
0.000000	250.	250.	250.	1	0	0	0.00	315.26	327.32

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

*SECNO 8701.000
2800 NAT Q1= 4134.21 WSEL= 861.51 ENC Q1= 4134.21 WSEL= 861.61 RATIO= 0.0000
NAT Q1= 4232. RATIOS LOB,CH,ROB= 0.3262 0.3966 0.2772 WSEL= 861.61
3280 CROSS SECTION 8701.00 EXTENDED 5.81 FEET

3470 ENCROACHMENT STATIONS= 3.3 246 6 TYPE= 4 TARGET= 0.023
D/S FACE EISENHOWER PARKWAY, FIELD SECTION 8

8701.00	14.71	861.51	0.00	861 51	861 51	0.00	0.00	0 00	855.70
790	254.	323.	213	562.	541.	506.	65.	10.	856.80
0.92	0.45	0.60	0.42	0.020	0.020	0.020	0.000	846.80	3.30
0.000004	21.	21.	21	0	0	0	0.00	243.28	246.58

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	2.66	3.00	0.00	10 00	0.00	54 75	0.00	846.80	846 80

*SECNO 9230.000
3280 CROSS SECTION 9230.00 EXTENDED 1.19 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
870.11	861.51	0.00	529.	266.	55.	65.	853.30	861.20

3470 ENCROACHMENT STATIONS= 80.0 170 0 TYPE= 1 TARGET= 90.000
U/S FACE EISENHOWER NOTE: TWO CULVERTS AT INLET, ONLY ONE
COMING OUT. SECOND CULVERT NOT CODED, FIELD SECTION 9

9230.00	10 09	862.39	0.00	862 42	862.48	0.09	0.97	0.00	861.20
790	15.	774.	1	24.	310.	4.	77.	12.	862.30
0.98	0.61	2.50	0.27	0.070	0.045	0.050	0.000	852.30	80.00
0.000710	529.	529.	529	2	0	5	0.00	90.00	170.00

CCHV= 0.500 CEHV= 1.000
*SECNO 9305.000

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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

3280 CROSS SECTION    9305.00 EXTENDED       3.01 FEET


3470 ENCROACHMENT STATIONS=      208.0      292.0  TYPE=      1  TARGET=       84.000
                FIELD SECTION 10 MOVED D/S
  9305.00      9 21    862.51      0.00    862.51    862.54      0.03      0.02      0.03    855.00
     790.       311       267.      212.      306.      154       173        78.       12.     855.40
       0 99     1.01      1.74      1.22    0 070     0.045     0.050     0.000    853.30    208.00
 0 000166       75.       75.       75.         2         0         0      0.00     84 00    292.00


CCHV=    0.300 CEHV=    0.500
*SECNO 9640.000

3470 ENCROACHMENT STATIONS=      204.0      299 0  TYPE=      1  TARGET=       95.000
  9640 00      4.99    862.59      0.00    862.54    862.72      0.13      0.13      0.05    859.30
     790.       261       296.      233.      133.       78.       91.       81.       13.     859.70
     1.03      1.97      3.81      2.56    0.070     0.045     0.050     0.000    857.60    204.00
 0.001966       335.      335.      335.         2         0         0      0 00     95.00    299.00


*SECNO 9775.000

3470 ENCROACHMENT STATIONS=      207.0      309.0  TYPE=      1  TARGET=      102.000
  9775.00      3.59    862.96      0.00    862.85    863.38      0.42      0.51      0.14    861.07
     790.       222       355.      214.       71.       53.       56.       82.       13.     861.47
     1.03      3.12      6 73      3.83    0 070     0.045     0 050     0.000    859.37    207.29
 0.010319       135.      135.      135.         2         0         0      0.00    101.71    309 00


*SECNO 10000.000

3470 ENCROACHMENT STATIONS=      207.0      295.0  TYPE=      1  TARGET=       88.000
                FIELD SECTION 10 MOVED D/S
 10000 00      3.39    865.74    865.70    865.78    866 37      0.63      2.89      0.11    864.05
     790       225.      394.      170.       62.       49.       37.       83        14.     864 45
     1.04      3.63      8.07      4.58    0.070     0.045     0.050     0.000    862.35    207.80
 0.016369       225.      225.      225.         6        10         0      0.00     87.20    295.00


*SECNO 10050.000
 2800 NAT Q1=       64.71  WSEL=     866.63  ENC Q1=       71.28  WSEL=     866.73  RATIO= -0.1016
 NAT Q1=       71.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     866.73
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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  10050.00 EXTENDED       0.79 FEET

 10050.00      3.89    866 79      0.00    866.63    867.13      0 35      0.67      0.09    866.00
    790.         0.      790.        0.        0.      167.         0.       83.       14.     866.80
     1.05      0 00      4.74      0.00     0.000     0.045     0.000     0.000    862.90      0.00
 0.011298        50       50.        50.         3         0         0      0.00    103 26    103.26


*SECNO 10051 000
     3700.    BRIDGE STENCL=       0.00     STENCR=     103.50
 2800 NAT Q1=       59.13  WSEL=     866.63  ENC Q1=       64.51  WSEL=     866.73  RATIO= -0.0911
 NAT Q1=      65.   RATIOS LOB,CH,ROB=   0.0000  1.0000  0.0000  WSEL=     866.73
3280 CROSS SECTION  10051.00 EXTENDED       0.79 FEET


3370 NORMAL BRIDGE,NRD= 15 MIN ELTRD=  869.60 MAX ELLC=  868.50

                D/S FACE OF PRIVATE BRIDGE, FIELD SECTION 10A, (SUPP SURVEY)
 10051 00      3.88    866.78      0.00    866.63    867.16      0.38      0.01      0.01    866.00
    790.         0.      790.        0.        0.      160          0.       83.       14.     866.80
     1.05      0 00      4.93      0.00     0.000     0.045     0.000     0.000    862.90      0.00
 0 013347        1.        1.         1.         1         0         0     -7.21    103.37    103.37


*SECNO 10059.000
 2800 NAT Q1=       76.49  WSEL=     866.91  ENC Q1=       83.71  WSEL=     867.01  RATIO= -0.0945
 NAT Q1=      84.   RATIOS LOB,CH,ROB=   0.0000  1.0000  0.0000  WSEL=     867.01
3280 CROSS SECTION  10059.00 EXTENDED       0.97 FEET


3370 NORMAL BRIDGE,NRD= 15 MIN ELTRD=  869.60 MAX ELLC=  868.50

                U/S FACE OF PRIVATE BRIDGE
 10059 00      4.07    866.97      0.00    866.91    867.27      0.31      0.09      0.02    866.00
    790          0.      790.        0.        0.      178.         0.       83.       14.     866.80
     1 05      0.00      4.44      0.00     0.000     0.045     0.000     0.000    862.90      0.00
 0.009587        8.         8         8.         2         0         0     -7.89    103.50    103.50


*SECNO 10060.000
 2800 NAT Q1=       91.21  WSEL=     866.99  ENC Q1=       95.52  WSEL=     867 09  RATIO= -0.0472
 NAT Q1=      96.   RATIOS LOB,CH,ROB=   0.0000  1.0000  0.0000  WSEL=     867.09
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 10060.00 EXTENDED 1.03 FEET

10060.00	4.13	867.03	0.00	866.99	867.29	0.26	0.01	0.01	866.00
790.	0.	790.	0.	0.	192.	0.	83.	14.	866.80
1.05	0.00	4.11	0.00	0.000	0.045	0.000	0.000	862.90	0.00
0.007678	1	1.	1.	2	0	0	0.00	103.50	103.50

*SECNO 10100.000
2800 NAT Q1= 120.55 WSEL= 867.28 ENC Q1= 120.55 WSEL= 867.38 RATIO= 0.0000
NAT Q1= 129. RATIOS LOB,CH,ROB= 0.2959 0.3845 0.3195 WSEL= 867.38

3470 ENCROACHMENT STATIONS= 215.0 302.0 TYPE= 4 TARGET= 0.064
VALLEY SECTION E, FIELD SECTION 10

10100.00	4.18	867.28	0.00	867.28	867.54	0.26	0.24	0.00	864.80
790.	223	330.	237.	85.	63.	71.	83.	14.	865.20
1.05	2.63	5.25	3.37	0.070	0.045	0.050	0.000	863.10	215.01
0.004956	40.	40.	40.	1	0	0	0.00	86.95	301.96

*SECNO 10920.000
2800 NAT Q1= 170.86 WSEL= 869.81 ENC Q1= 170.86 WSEL= 869.91 RATIO= 0.0000
NAT Q1= 180. RATIOS LOB,CH,ROB= 0.3029 0.3506 0.3465 WSEL= 869.91

3470 ENCROACHMENT STATIONS= 212.2 305.9 TYPE= 4 TARGET= 0.053
FIELD SECTION 10 MOVED U/S

10920.00	4.89	869.94	0.00	869.81	870.07	0.14	2.50	0.04	866.75
790	231.	291.	268.	116.	76.	103	88.	16	867.15
1.13	1.99	3.84	2.59	0.070	0.045	0.050	0.000	865.05	212.16
0.002061	820.	820.	820.	2	0	0	0.00	93.77	305.93

CCHV= 0.500 CEHV= 1.000
*SECNO 11021.000
2800 NAT Q1= 177.64 WSEL= 870.01 ENC Q1= 177.64 WSEL= 870.11 RATIO= 0.0000
NAT Q1= 186 RATIOS LOB,CH,ROB= 0.0615 0.8906 0.0480 WSEL= 870.11

3470 ENCROACHMENT STATIONS= 206.0 261.2 TYPE= 4 TARGET= 0.044
D/S FACE OF PRIVATE BRIDGE, FIELD SEC 10B, (SUPP SURVEY)

11021.00	4.84	870.14	0.00	870.01	870.34	0.20	0.20	0.06	866.00
790.	31.	740.	19.	10.	203.	7.	89.	16.	866.30
1.14	3.11	3.65	2.72	0.030	0.045	0.030	0.000	865.30	205.99
0.001971	101	101.	101.	0	0	0	0.00	55.19	261.18

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= 0.500 CEHV= 1.000

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	4.36	3.00	0.00	30 00	0.00	85.50	0.00	865 30	865.30

*SECNO 11129.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
875.92	870.33	0.00	316.	478.	86.	138.	869.90	871.30

3470 ENCROACHMENT STATIONS= 170.0 310 0 TYPE= 1 TARGET= 140.000
U/S FACE OF PRIVATE BRIDGE

11129 00	6.89	872.19	0.00	872.18	872.26	0.07	1.92	0.00	866.00
790.	66	685.	39.	58.	306.	31.	90.	16.	866.30
1.15	1.13	2.24	1 28	0.030	0.030	0.030	0.000	865.30	170.00
0.000191	108.	108.	108.	2	0	5	0.00	99.39	269.39

871.6

CCHV= 0.300 CEHV= 0.500
*SECNO 11170.000

3470 ENCROACHMENT STATIONS= 185 0 285.0 TYPE= 1 TARGET= 100.000
FIELD SECTION 12 MOVED D/S

11170.00	5.99	872.19	0.00	872.22	872 29	0.10	0.01	0.02	869.20
790.	396.	301.	92.	184	97.	46.	90.	16.	869.30
1.16	2.16	3.12	2.01	0.030	0.030	0.030	0.000	866.20	185.00
0.000502	41.	41.	41.	2	0	0	0.00	100.00	285.00

CCHV= 0.500 CEHV= 1.000
*SECNO 11221.000
2800 NAT Q1= 151.68 WSEL= 872.24 ENC Q1= 151.68 WSEL= 872.34 RATIO= 0.0000
NAT Q1= 166. RATIOS LOB,CH,ROB= 0.4708 0.4315 0.0977 WSEL= 872.34

3470 ENCROACHMENT STATIONS= 178.7 275.5 TYPE= 4 TARGET= 0.087
D/S FACE OF MAIN STREET, FIELD SECTION 11

11221.00	5 04	872.24	0.00	872.24	872.49	0.26	0.05	0.15	870.60
790.	359.	386.	45	100.	85.	14.	90.	16.	870.60
1.16	3.60	4.52	3.27	0.030	0.030	0.030	0.000	867.20	178.69
0.003142	51.	51.	51.	1	0	0	0.00	96.81	275.50

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

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	1.59	3.00	0 00	11.00	0.00	47 52	0.00	867.20	867.20

*SECNO 11288.000
3280 CROSS SECTION 11288.00 EXTENDED 0.29 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
879.06	872.61	0.00	184.	611.	48	55.	872.20	875.60

3470 ENCROACHMENT STATIONS= 205.0 305.0 TYPE= 1 TARGET= 100.000
U/S FACE OF MAIN STREET

11288.00	9.09	876.29	0 00	876.31	876.32	0.03	3.82	0.00	870.60
790.	304.	247.	239.	224.	170.	190	91.	17.	870.60
1.17	1 36	1.45	1.26	0.030	0.025	0.030	0.000	867.20	205.00
0.000090	67.	67.	67.	2	0	5	0.00	100.00	305.00

CCHV= 0.500 CEHV= 1.000
*SECNO 11330 000

3470 ENCROACHMENT STATIONS= 120 0 280 0 TYPE= 1 TARGET= 160.000
FIELD SECTION 12 MOVED D/S

11330 00	8.61	876.31	0.00	876.32	876.33	0.02	0.00	0.01	870.70
790.	538.	208.	44.	652.	146.	60.	92.	17.	870 80
1.19	0.83	1.42	0.73	0.060	0.045	0.060	0.000	867.70	120.00
0.000135	42	42.	42	2	0	0	0.00	160.00	280.00

CCHV= 0.300 CEHV= 0.500
*SECNO 11730.000

3470 ENCROACHMENT STATIONS= 125.0 310.0 TYPE= 1 TARGET= 185.000

11730.00	4.66	876.36	0.00	876 28	876 60	0.24	0.16	0.11	874.70
790.	243.	376.	171.	135.	71.	71.	97	18.	874.80
1.22	1.80	5 27	2.41	0.060	0.045	0 060	0.000	871.70	125.00
0.004834	400.	400.	400.	0	0	0	0.00	185.00	310.00

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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 11800 000

3470 ENCROACHMENT STATIONS=      125.0      325 0  TYPE=      1  TARGET=      200.000
 11800.00      4.32    876.72      0.00    876.61    877.08      0.36       0.42       0.06    875.40
     790.       166.       408       216.       93.        65.        79.        97.        19.     875.50
     1.22       1.79       6.28      2 72     0.060      0.045     0.060      0.000    872.40    125.00
 0.007776        70.        70.       70.         3          0          0       0.00    200.00    325.00


*SECNO 11850.000

3470 ENCROACHMENT STATIONS=      120.0      330.0  TYPE=      1  TARGET=      210.000
 11850.00      4.21    877 11      0.00    877 09    877.55      0 43       0.43       0.04    875.90
     790.       141.       427.      222.       80.        63.        78.        97.        19.     876.00
     1.22       1.76       6.79      2 85     0.060      0 045     0.060      0.000    872.90    120.00
 0.009479        50         50.       50.         2          0          0       0.00    210.00    330.00


*SECNO 12050.000
 2800 NAT Q1=       78.54  WSEL=      879.09  ENC Q1=       78 54  WSEL=      879.19  RATIO=  0.0000
 NAT Q1=       87.  RATIOS LOB,CH,ROB=  0.1957  0.5202  0.2840  WSEL=      879.19
 7185 MINIMUM SPECIFIC ENERGY
 3720 CRITICAL DEPTH ASSUMED

 3470 ENCROACHMENT STATIONS=      155.4      318 3  TYPE=      4  TARGET=        0.101
  12050.00      4.25    879.15    879.15    879 09    879.69      0.54       2.03       0.05    877.90
      790.       121.       465.      204.       62.        64.        66.        98.        20.     878.00
      1.24       1 94       7.31      3.09     0.060      0.045     0 060      0.000    874 90    155.42
  0.010848       200.       200       200.         2          5          0       0.00    162.85    318.27


 *SECNO 12239.000

 3470 ENCROACHMENT STATIONS=      150.0      320 0  TYPE=      1  TARGET=      170.000
                   VALLEY SETION F, FIELD SECTION 12
  12239.00      4.33    881 13      0.00    880.99    881.55      0.42       1.83       0.03    879.80
      790.       146        434.      210.       76.        65         73.        99.        20      879.90
      1 25       1.91       6.66      2.88     0.060      0.045     0.060      0.000    876.80    150.00
  0.008689       189.       189.      189          1          0          0       0.00    170.00    320.00


 *SECNO 13030.000
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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

2800 NAT Q1= 177.51 WSEL= 884.44 ENC Q1= 177.51 WSEL= 884.54 RATIO= 0.0000
NAT Q1= 191. RATIOS LOB,CH,ROB= 0.3566 0.3466 0.2968 WSEL= 884.54

3470 ENCROACHMENT STATIONS= 134.5 323.1 TYPE= 4 TARGET= 0.071
FIELD SECTION 12 MOVED U/S

13030.00	5.11	884.51	0.00	884.44	884.62	0.11	2.97	0.09	882.40
790	269.	298.	222.	179.	80	119.	105.	24.	882.50
1 34	1.50	3.73	1.87	0.060	0.045	0.060	0.000	879.40	134.47
0.002087	791.	791.	791.	4	0	0	0.00	188.61	323.08

CCHV= 0.500 CEHV= 1.000
*SECNO 13181.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 100.0 220.0 TYPE= 1 TARGET= 120.000
D/S FACE PRIVATE BRIDGE (APPROX)

13181.00	6.21	886.61	886.61	886.64	887.20	0.59	0 54	0.48	885.70
790.	92.	606.	92.	33.	88.	33.	106.	24.	885.70
1.34	2.77	6.88	2.77	0.035	0.045	0.035	0.000	880.40	100.00
0.007466	151.	151.	151.	0	13	0	0.00	120.00	220.00

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	2.16	3.00	0.00	9.75	0.00	52.00	0.00	880.40	880.40

*SECNO 13205.000
3280 CROSS SECTION 13205.00 EXTENDED 0.52 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
894.35	887.18	0.00	483.	314.	52.	35.	884.00	887.20

3470 ENCROACHMENT STATIONS= 90.0 230.0 TYPE= 1 TARGET= 140 000
U/S FACE PRIVATE BRIDGE (APPROX)

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
13205.00	7.32	887.72	0.00	887.79	887.83	0 11	0.63	0.00	885.70
790	217.	356.	217.	103.	110	103.	106.	24.	885 70
1.35	2.10	3.23	2.10	0.035	0.045	0.035	0.000	880.40	90.00
0.001221	24.	24	24.	2	0	5	0.00	140.00	230.00

CCHV= 0.300 CEHV= 0.500
*SECNO 13400.000
2800 NAT Q1= 154.58 WSEL= 887.94 ENC Q1= 154 58 WSEL= 888.04 RATIO= 0.0000
NAT Q1= 168. RATIOS LOB,CH,ROB= 0.2418 0.5164 0.2418 WSEL= 888.04

3470 ENCROACHMENT STATIONS= 91.6 228.4 TYPE= 4 TARGET= 0.081

13400.00	6 78	888.01	0.00	887.94	888.23	0.22	0.34	0.05	886.53
790.	171.	449.	171.	69.	100.	69.	107.	25.	886.53
1.36	2.46	4.51	2.46	0.035	0.045	0 035	0.000	881.23	91.58
0 002731	195.	195.	195.	2	0	0	0.00	136.84	228.42

CCHV= 0.500 CEHV= 1.000
*SECNO 13500 000
2800 NAT Q1= 139.15 WSEL= 888.23 ENC Q1= 139.15 WSEL= 888.33 RATIO= 0.0000
NAT Q1= 150. RATIOS LOB,CH,ROB= 0 2205 0.5590 0 2205 WSEL= 888.33

3470 ENCROACHMENT STATIONS= 95.6 224.4 TYPE= 4 TARGET= 0.070

13500.00	6.68	888.31	0.00	888.23	888.58	0.27	0.30	0.05	886.93
790.	156.	478.	156.	60.	98.	60	108.	25.	886.93
1.37	2.59	4 90	2.59	0.035	0.045	0.035	0.000	881 63	95.56
0.003316	100.	100.	100.	2	0	0	0.00	128.87	224.44

*SECNO 13661.000
2800 NAT Q1= 131.28 WSEL= 888 78 ENC Q1= 131.28 WSEL= 888.88 RATIO= 0.0000
NAT Q1= 147. RATIOS LOB,CH,ROB= 0.2166 0.5669 0.2166 WSEL= 888.88

3470 ENCROACHMENT STATIONS= 103.7 216.3 TYPE= 4 TARGET= 0 104
D/S FACE PRIVATE BRIDGE (APPROX)

13661.00	6.67	888.87	0.00	888.78	889.17	0.30	0.56	0.04	887.50
790.	145.	500.	145.	53.	97.	53.	108.	26.	887.50
1.38	2.76	5.13	2.76	0 035	0.045	0.035	0.000	882.20	103.70
0.003649	161.	161.	161.	2	0	0	0.00	112.60	216.30

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

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	2.16	2.80	0.00	9.75	0.00	52.00	0.00	882 20	882.20

*SECNO 13685.000
3280 CROSS SECTION 13685.00 EXTENDED 0.36 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
896.61	889.42	0.00	535	261.	52.	60	888 40	889 40

3470 ENCROACHMENT STATIONS= 125.0 195.0 TYPE= 1 TARGET= 70.000
U/S FACE PRIVATE BRIDGE (APPROX)

13685.00	7.15	889.35	0.00	889.56	889.71	0.37	0.54	0.00	887 50
790.	102.	585.	102.	43.	107.	43	108.	26.	887.50
1.38	2 36	5.46	2.36	0.035	0.030	0.035	0.000	882.20	125.00
0.001618	24.	24.	24.	2	0	5	0.00	70.00	195.00

CCHV= 0.500 CEHV= 1.000
*SECNO 13850 000
3280 CROSS SECTION 13850.00 EXTENDED 0.08 FEET

3470 ENCROACHMENT STATIONS= 133.0 188.0 TYPE= 1 TARGET= 55.000

13850.00	6.87	889.77	0.00	889.81	890.24	0.47	0.42	0.10	888.20
790.	91.	604.	96.	25	101.	27.	109.	26.	888.20
1.39	3.58	5.95	3.58	0.035	0.045	0.035	0 000	882.90	133.00
0.004636	165.	165.	165.	1	0	0	0.00	55.00	188.00

*SECNO 13901.000
D/S FACE SALINE ANN ARBOR ROAD FIELD SECTION 13

13901 00	6.95	890.05	0.00	890.08	890 93	0.89	0.28	0.42	883.10
790.	187.	510.	93.	29.	62.	17.	109.	26.	885.20
1.39	6.51	8.23	5.47	0.035	0.045	0.035	0.000	883.10	241.73
0.006389	51.	51.	51.	2	0	0	0.00	26.21	267.95

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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	3.22	3.00	0.00	10.00	0.00	76 50	0.00	883.10	883.10

*SECND 13975.000

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 892.425 ELLC= 893.300 PCWSE= 890.046 ELTRD= 895 300

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 895.30 MAX ELLC= 893.30

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
U/S FACE SALINE ANN ARBOR ROAD

13975 00	6 74	891 34	891.34	891.34	894.08	2.75	0.59	1.86	884.60
790.	0.	790.	0.	0.	59.	0.	109.	26.	886.70
1.39	0.00	13.30	0.80	0.000	0.025	0.030	0.000	884.60	241.98
0.010189	74.	74.	74	2	18	0	-42.64	25.67	267.65

*SECNO 13980.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 229.0 264.0 TYPE= 1 TARGET= 35.000

13980.00	10 05	895.35	0.00	895.35	895.42	0.08	0 00	1.34	889.90
490.	53	423.	14.	52.	181.	18.	109.	26.	885.90
1.39	1.03	2 34	0.75	0 030	0.025	0.030	0.000	885.30	229.00
0.000096	5.	5.	5.	3	0	0	0 00	35 00	264.00

*SECND 13985.000

3470 ENCROACHMENT STATIONS= 224.0 269.0 TYPE= 1 TARGET= 45.000

13985.00	9.35	895.35	0.00	895.35	895.42	0.08	0.00	0.00	890.60
490.	64.	402	25.	60.	168.	28.	109.	26.	886.60
1.39	1 06	2.39	0.88	0.030	0.025	0.030	0.000	886.00	224.00
0.000111	5.	5.	5.	2	0	0	0.00	45.00	269.00

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 13990.000

3470 ENCROACHMENT STATIONS=			219.0	274.0	TYPE=	1	TARGET=	55.000	
13990.00	8.65	895.35	0.00	895.35	895.44	0 09	0.00	0.01	891.30
490.	67.	401.	22.	62.	155.	27.	109.	26.	887.30
1.39	1.09	2.59	0.82	0.030	0 025	0.030	0.000	886.70	219.00
0.000145	5.	5.	5.	0	0	0	0.00	55.00	274.00

*SECNO 13993.000

3470 ENCROACHMENT STATIONS=			216.0	277.0	TYPE=	1	TARGET=	61.000	
13993.00	8.15	895.35	0.00	895.35	895.46	0.11	0.00	0.02	891.80
490.	62.	413.	14.	57.	146.	19.	109.	26.	887.80
1.39	1 10	2.83	0.75	0 030	0.025	0.030	0.000	887.20	216.00
0 000189	3.	3.	3.	0	0	0	0.00	58.69	274.69

*SECNO 13994.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 892.90 MAX ELLC= 891.80

3470 ENCROACHMENT STATIONS=			215.0	278.0	TYPE=	1	TARGET=	63.000	
FOOT BRIDGE AT SALINE ANN ARBOR ROAD, FIELD SECTION 13A									
13994.00	8.17	895.37	0.00	895.37	895.46	0.10	0.00	0.01	891.80
490.	128	332.	30.	58.	125.	19.	109.	26.	887 80
1.39	2.20	2.65	1 54	0.030	0.025	0.030	0.000	887.20	215.00
0.000738	1.	1	1.	1	0	0	-21.29	59.74	274.74

*SECNO 14002.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 892.90 MAX. ELLC= 891.80

3470 ENCROACHMENT STATIONS=			207.0	286.0	TYPE=	1	TARGET=	79.000	
U/S FACE OF FOOT BRIDGE									
14002.00	8.19	895 39	0.00	895.39	895.48	0.08	0.01	0.01	891.80
490.	153.	309	28.	75.	126.	20.	109.	26.	887.80
1.39	2.03	2.45	1.43	0.030	0.025	0.030	0.000	887.20	207.00
0.000626	8.	8.	8.	2	0	0	-21.29	67.97	274.97

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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 14003.000

3470 ENCROACHMENT STATIONS=      206.0      287.0  TYPE=      1  TARGET=       81.000
 14003.00      8 19    895.39      0.00    895 39    895.50      0.10      0.00      0.02    891.80
     490.       68.      410.       12.      78.      147.       20.       109.       26.     887.80
     1.39      0 87      2.80      0.59     0.030     0.020     0.030     0.000    887.20    206.00
 0.000117        1.         1         1.        0         0         0      0.00     68.97    274.97


*SECNO 14016.000
                SMALL DAM AT SALINE ANN ARBOR ROAD (SUPP SURVEY)
 14016 00      5.40    895.40      0.00    895.40    895.57      0.17      0 00      0.07    892.20
     490.       45.      394.       51.      36       107.       42.       110        26.     892.30
     1.40      1 23      3.69      1.23     0.030     0.020     0.030     0.000    890.00      0.00
 0.000336        13        13.       13.       0         0         0      0.00     75.10     75.10


CCHV=    0.500 CEHV=    1.000
*SECNO 14018.000
3280 CROSS SECTION   14018 00 EXTENDED       0.83 FEET

3470 ENCROACHMENT STATIONS=        5.0       81.0  TYPE=      1  TARGET=       76.000
                POND BEHIND SMALL DAM
 14018 00     10.03    895.63      0.00    895.63    895.65      0 02      0.00      0.08    887.70
     490.       70.      355.       65.     123.      280.       110.      110.       26.     887.60
     1.40      0.56      1.27      0.59     0.030     0.020     0.030     0.000    885.60      5 00
 0.000015        2.         2.        2.        2         0         0      0.00     76.00     81.00


*SECNO 14034.000
3280 CROSS SECTION   14034.00 EXTENDED       0.53 FEET

 14034.00     10.03    895.63      0.00    895.63    895.65      0.02      0.00      0.00    887.70
     490.       71.      359.       59.     129       280.       100.      110.       26.     887 60
     1.40      0.55      1.28      0.59     0.030     0 020     0.030     0.000    885.60      0.00
 0.000016        16.       16.       16.       0         0         0      0.00     78.00     78.00


CCHV=    0.100 CEHV=    0.300
*SECNO 14546.000
3280 CROSS SECTION   14546.00 EXTENDED       0.54 FEET
```

VALLEY SECTION G, PONDED AREA BEHIND SMALL DAM, FIELD SECTION 14

14546.00	10 04	895.64	0.00	895.64	895.66	0.02	0.01	0.00	887.70
490.	71.	359.	59.	129.	280.	100.	116.	27.	887.60
1.53	0 55	1.28	0.59	0 030	0.020	0.030	0.000	885.60	0.00
0.000016	512.	512.	512.	0	0	0	0.00	78.00	78.00

*SECNO 14566.000

3301 HV CHANGED MORE THAN HVINS

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

SECOND SMALL DAM U/S SALINE ANN ARBOR ROAD (SUPP SURVEY)

14566.00	2.91	895.71	895.71	895.72	896.50	0.79	0.00	0.23	893.80
490.	50.	372.	68.	14.	47	18.	116.	27.	893.80
1 53	3.61	7.91	3.70	0.030	0 020	0.030	0.000	892.80	67.77
0 004315	20.	20.	20.	20	17	0	0.00	53.23	121.00

CCHV= 0.500 CEHV= 0.300
*SECNO 14568.000

3301 HV CHANGED MORE THAN HVINS

POND SECTION, (APPROX)

14568.00	7.86	896.86	0 00	896.85	896.88	0.02	0.00	0.38	889.00
490.	14.	432.	44.	34.	346.	83.	116	27.	889.00
1.53	0.43	1.25	0.53	0.030	0.020	0.030	0.000	889.00	51.46
0.000018	2.	2.	2.	2	0	0	0.00	77.59	129.05

CCHV= 0.100 CEHV= 0.300
*SECNO 15308.000

POND SECTION, (APPROX)

15308.00	7 87	896 87	0.00	896.87	896.89	0.02	0.01	0.00	889.00
490	14.	432.	44.	34	346.	83.	124.	28	889.00
1.71	0.43	1.25	0.53	0.030	0.020	0.030	0.000	889.00	51.44
0.000018	740.	740.	740.	2	0	0	0.00	77.69	129.13

*SECNO 15315.000

3301 HV CHANGED MORE THAN HVINS

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

THIRD SMALL DAM U/S SALINE ANN ARBOR ROAD (SUPP SURVEY)

15315.00	2.89	900.69	900.69	900.69	901 43	0.74	0.00	0.22	898.80
490	43.	405.	42.	14.	54.	14.	124.	28.	898.80
1 71	3.06	7.46	2.98	0.030	0.020	0.030	0.000	897.80	162.10
0 003941	7.	7.	7.	20	22	0	0.00	56.85	218.96

CCHV= 0.500 CEHV= 0.300
*SECNO 15325.000

3301 HV CHANGED MORE THAN HVINS

POND BEHIND SMALL DAM

15325.00	8.79	901.79	0.00	901.79	901.80	0.01	0.00	0.37	897.50
490	12.	467.	11.	75.	734	62.	124.	28.	897.50
1.71	0.15	0.64	0 18	0.030	0.020	0 030	0.000	893.00	127.04
0 000004	10.	10.	10.	2	0	0	0.00	175.50	302.53

CCHV= 0.100 CEHV= 0.300
*SECNO 15600.000

VALLEY SECTION H, PONDED AREA, JUST 7TH ST. FIELD SECTION 15

15600 00	8.79	901.79	0.00	901.79	901.80	0.01	0.00	0.00	897.50
490.	12.	467.	11.	75.	734.	62.	129	30	897.50
1.84	0.15	0.64	0.18	0.030	0.020	0.030	0.000	893 00	127.02
0.000004	275.	275.	275.	2	0	0	0.00	175.52	302.54

THIS RUN EXECUTED 21 DEC 88 11:59:18

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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

100-YEAR DISCHARGE, EXIS

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
0.000	807.38	0 00	807.55	94.20	107.08	597.27	135.65	0.00	0.00	125.00	150.00	0.00
0.000	807.48	0.10	807.66	57.27	101.20	611.75	127.05	0.04	107.90	125.00	150.00	165.17
350.000	807.78	0.00	807.95	94.24	107.12	597.20	135.68	0.00	0.00	125.00	150.00	0.00
350.000	807.88	0 10	808.06	57.28	101.12	611.87	127.01	0.04	107.89	125.00	150.00	165.18
700.000	808 23	0 00	808.48	41.00	64.69	686.76	88.55	41.00	117.00	125.00	150.00	158 00
700.000	808.32	0.09	808.56	41.00	65.06	685.90	89.04	41.00	117.00	125.00	150.00	158 00
750.000	808.37	0.00	809.08	16.60	0.00	840.00	0 00	16.60	177.00	177.00	193.60	193 60
750.000	808.45	0.08	809.15	16.60	0.00	840.00	0 00	16.60	177.00	177.00	193.60	193.60
751.000	808.14	0.00	809.18	16.60	0.00	840 00	0.00	16.60	177.00	177.00	193.60	193.60
751.000	808.23	0.08	809.25	16.60	0.00	840.00	0.00	16.60	177.00	177.00	193.60	193.60
850.000	808.31	0.00	809.33	16.60	0.00	840.00	0.00	16.60	177.00	177.00	193.60	193.60
850.000	808.39	0.08	809.39	16.60	0.00	840.00	0.00	16.60	177.00	177.00	193.60	193 60
1000.000	808 55	0.00	809.54	16.60	0.00	840 00	0.00	16.60	177.00	177.00	193.60	193.60
1000.000	808.62	0.07	809.60	16.60	0.00	840.00	0.00	16.60	177.00	177.00	193.60	193.60
1300.000	809.01	0.00	809.95	16.60	0.00	840.00	0.00	16.60	177.00	177.00	193.60	193.60
1300.000	809 07	0.07	810.01	16.60	0.00	840.00	0.00	16.60	177.00	177.00	193.60	193.60
1600.000	809.45	0.00	810.34	16.60	0.00	840.00	0.00	16.60	177.00	177.00	193.60	193 60
1600 000	809.51	0 06	810.40	16.60	0.00	840.00	0.00	16.60	177.00	177.00	193.60	193.60
2250.000	810.25	0.00	811.16	16.60	0.00	840.00	0.00	16 60	177.00	177.00	193.60	193.60
2250 000	810.30	0.06	811.20	16.60	0.00	840.00	0.00	16 60	177.00	177.00	193.60	193.60
2900.000	811.06	0.00	811.98	16.60	0.00	840.00	0.00	16.60	177.00	177.00	193.60	193 60
2900.000	811.11	0.05	812.02	16.60	0.00	840.00	0.00	16.60	177.00	177.00	193.60	193.60

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
*	2905.000	811.75	0 00	812.68	20.00	0.00	840.00	0.00	20.00	90.00	90.00	110.00	110.00
*	2905.000	811.85	0.10	812 75	20 00	0.00	840.00	0.00	20.00	90.00	90.00	110.00	110 00
*	3905.000	821.90	0.00	822.34	20.00	0.00	840.00	0.00	20.00	90.00	90.00	110.00	110.00
*	3905.000	822.00	0.10	822.43	20.00	0.00	840.00	0.00	20.00	90.00	90.00	110.00	110 00
*	4905.000	832.00	0.00	832.26	20.00	0.00	840.00	0.00	20.00	90.00	90.00	110.00	110.00
*	4905.000	832.10	0.10	832.35	20.00	0 00	840.00	0.00	20.00	90.00	90.00	110.00	110.00
	4906.000	832.00	0.00	832.26	20.00	0.00	840.00	0.00	20.00	90.00	90.00	110.00	110 00
	4906.000	832.10	0.10	832.35	20.00	0 00	840.00	0.00	0.50	90.00	90.00	110.00	110.00
	4950.000	832.33	0.00	832.37	108 00	310.70	191.94	337.36	0.00	0.00	66.00	73.00	0.00
	4950.000	832.42	0.09	832.47	80.92	307.64	193.15	339.21	0.02	22.67	66.00	73 00	103.59
	5200.000	832.29	0.00	832.52	101 45	300.40	274.33	265.27	0.00	0.00	60.00	67.00	0.00
	5200.000	832 36	0.07	832.62	46.06	295.90	280.02	264.08	0 04	38.74	60.00	67.00	84.80
	5270.000	832.32	0.00	832 73	84.16	278.19	339.32	222.49	0 00	0 00	57.00	65.00	0 00
	5270.000	832.39	0.07	832.85	37.84	267.29	349.23	223.48	0.04	40.00	57.00	65.00	7/ 84
	5330 000	832.55	0.00	833.33	60.99	301.79	349.01	189.20	0.00	0.00	55.00	62.00	0 00
	5330 000	832.62	0.07	833.48	31.70	297.28	357.52	185.20	0.05	38.95	55.00	62.00	70.65
	5380.000	833.57	0.00	833.87	163.00	53.72	686.94	99.34	163.00	186.00	220.00	285.00	349.00
	5380.000	833.51	-0.06	834.03	75.00	9.25	821.41	9.34	75.00	215.00	220.00	285.00	290.00
	5420.000	836.69	0.00	836 71	185.00	158.34	412.27	269.39	185.00	175.00	220.00	285.00	360.00
	5420.000	836.67	-0.02	836.70	125.00	139.59	560.83	139.58	125.00	190.00	220.00	285.00	315.00
	5450.000	836 67	0.00	836.73	175.00	311.77	360.84	117.39	0 00	0 00	90.00	110.00	0.00
	5450.000	836.65	-0.03	836.74	124.00	247.69	426.42	115.89	124.00	28.00	90.00	110.00	152.00
	5451.000	836.66	0.00	836.74	175 00	541.83	145.21	102.96	0.00	0.00	90.00	110.00	0.00
	5451.000	836.59	-0.07	836 79	124.00	477 65	224.53	87.82	124.00	28.00	90.00	110.00	152.00
	5491 000	836.69	0.00	836 77	175.00	541.10	145.03	103.86	0.00	0.00	90.00	110.00	0.00
	5491.000	836.73	0.04	836.86	134.00	514.98	190.83	84.19	134.00	18.00	90.00	110.00	152.00
	5492.000	836 70	0 00	836.77	175.00	286.41	395.33	108.26	0.00	0 00	90.00	110.00	0.00
	5492.000	836.80	0.10	836.88	144.00	265.25	420.76	103.99	144.00	13.00	90.00	110.00	157.00
	5495.000	836.69	0 00	836.78	175.00	333.22	355.51	101.26	0 00	0.00	90.00	110.00	0.00
	5495.000	836.78	0.09	836.90	144.00	307.46	388.13	94.42	144.00	13.00	90.00	110.00	157 00
	5520.000	836.81	0.00	836.81	230 00	23.79	742.42	23.79	0.00	0 00	15.00	215.00	0.00
	5520.000	836.93	0.12	836.93	215 00	24.70	765.29	0.00	230.00	0.00	15.00	215.00	230.00
	5650.000	836.81	0.00	836.81	230.00	23.80	742.40	23.80	0.00	0.00	15.00	215.00	0.00
	5650.000	836.93	0.12	836.93	215.00	24.71	765.29	0.00	0.00	0.00	15.00	215.00	0.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
5731.000	836.81	0.00	837.04	110.00	352.49	300.61	136.90	110.00	60.00	109.00	118.00	170 00
5731.000	836.93	0.12	837 15	65.00	368.47	299.31	122.21	65.00	60.00	109.00	118.00	125 00
5766.000	837.11	0.00	837.30	90.00	385.78	228.68	175.53	90 00	70.00	109.00	118.00	160 00
5766.000	836.94	-0.18	837.33	40.00	423.12	319.93	46.95	40.00	80.00	109.00	118 00	120.00
5856.000	837.33	0.00	837.93	48 64	47.83	721 21	20.95	0.00	0.00	250.00	273.00	0 00
5856.000	837.29	-0.03	837.98	30 39	33.18	747 28	9.54	0.04	244.79	250.00	273.00	275.18
5952.000	837.82	0.00	838.88	39.02	26.48	757.34	6 18	0 00	0.00	250.00	273.00	0.00
5952.000	837.84	0.02	839.02	23.21	0.39	789.61	0.00	0.04	249.79	250.00	273.00	273.00
6000.000	838.33	0 00	839.70	34.88	18 10	769.71	2.19	0.00	0.00	250.00	273.00	0.00
6000.000	838 47	0.14	839.72	32.00	19.99	766 53	3.49	32.00	245.00	250.00	273.00	277.00
6004.000	839.02	0.00	839.90	42.14	33.21	746.54	10.25	0.00	0.00	250.00	273.00	0 00
6004.000	838 76	-0.25	839.83	31 00	20.08	763.62	6.29	31.00	246.00	250.00	273.00	277.00
6150.000	840 33	0.00	840.74	56.17	64.88	689.46	35 66	0.00	0.00	250.00	273.00	0.00
6150.000	840.37	0.03	840.81	35.61	53.74	713.81	22.45	0.04	242.15	250.00	273.00	277.76
6201.000	840.79	0.00	840.92	138.27	13.66	775.55	0.79	162.00	88.00	150.00	188.00	250.00
6201.000	840.88	0.09	841.02	83.39	6.46	783.39	0.15	88.00	125.00	150.00	188 00	213 00
6294.000	841.36	0.00	841.44	245.00	68.98	683.43	37.59	245.00	40.00	150.00	188.00	285.00
6294 000	841.35	-0.01	841.46	100.00	17.61	764.79	7.60	100.00	120.00	150.00	188.00	220.00
6650.000	841.73	0 00	842 02	64.47	79.28	660.05	50.67	0.00	0.00	250.00	273.00	0 00
6650.000	841 78	0 05	842.09	41.02	69.48	680.34	40.18	0.03	240.04	250.00	273.00	281.07
6800 000	842 03	0 00	842.36	60.21	73.81	672.11	44.08	0.00	0.00	250.00	273.00	0 00
6800.000	842 08	0 06	842.44	38.64	63.95	693 85	32.20	0.03	240.83	250.00	273.00	279.46
6900.000	842 22	0.00	842.84	21 00	0.00	790.00	0.00	21.00	251.00	250.00	273.00	272 00
6900.000	842.30	0.08	842.90	21.00	0.00	790.00	0.00	21.00	251.00	250.00	273.00	272.00
6910.000	842.26	0.00	843.29	14.95	0.00	790.00	0.00	0.00	0.00	175.00	190.10	0 00
6910.000	842.34	0.08	843.34	14.95	0.00	790.00	0.00	0.00	0.00	175.00	190.10	0 00
6930.000	842.39	0.00	843.38	14.96	0.00	790.00	0.00	0.00	0.00	175.00	190.10	0.00
6930.000	842.46	0.07	843.43	14.96	0.00	790.00	0.00	0.00	0.00	175.00	190 10	0.00
6960.000	842.56	0.00	843.50	14.96	0.00	790.00	0.00	0 00	0.00	175.00	190.10	0.00
6960.000	842.62	0.06	843.54	14.96	0 00	790.00	0.00	0.00	0.00	175.00	190.10	0.00
6975 000	842.64	0.00	843.55	14 96	0.00	790.00	0.00	0.00	0.00	175.00	190.10	0.00
6975 000	842.70	0.06	843.60	14 96	0.00	790.00	0.00	0.00	0.00	175.00	190.10	0.00
6978 000	843.31	0.00	843.78	21.00	0.00	790.00	0.00	21.00	251.00	250.00	273 00	272.00
6978.000	843.35	0.04	843.82	21.00	0.00	790.00	0.00	21.00	251.00	250.00	273.00	272 00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	7070.000	843.58	0.00	844.14	47.77	76.61	681 00	32.39	0.00	0.00	250.00	273.00	0.00
	7070.000	843.60	0.01	844.22	31.66	63.58	709 48	16.94	0 04	243.87	250.00	273.00	275.53
	7100.000	843.55	0.00	844.49	39.71	48.02	729.94	12.04	0.00	0.00	250.00	273.00	0.00
	7100.000	843.56	0.01	844.62	25.78	26 37	763.63	0.00	0.05	247.22	250.00	273.00	273.00
*	7175 000	844.81	0.00	846.18	34.16	29.22	757.84	2.94	0.00	0.00	250.00	273.00	0 00
*	7175.000	844.81	0 00	846.18	34.16	29.22	757.84	2.94	400.00	0.00	250.00	273.00	400.00
*	7250.000	846.60	0.00	847 96	34.24	29.46	757.50	3.03	0.00	0.00	250.00	273.00	0.00
*	7250.000	846.60	0.00	847.96	34.24	29.46	757.50	3.03	0.00	0.00	250.00	273.00	0.00
*	7300 000	847.79	0.00	849.15	34.22	29.41	757.58	3 01	0.00	0.00	250.00	273.00	0.00
*	7300.000	847.79	0.00	849.15	34.22	29.41	757.58	3.01	0.00	0.00	250.00	273.00	0 00
*	7350.000	848.98	0.00	850.34	34.23	29.42	757.56	3.02	0.00	0.00	250.00	273.00	0.00
*	7350.000	848.98	0.00	850.34	34.23	29.42	757.56	3.02	0.00	0.00	250.00	273 00	0.00
	7375 000	850.53	0.00	850.94	46.24	131.86	578.41	79.73	0.00	0.00	250.00	270.00	0.00
	7375.000	850 43	-0.10	850.92	34.19	122.08	600.69	67.23	0.04	241.35	250.00	270.00	275 54
	7400 000	850.61	0.00	851.02	46.22	271.84	377.97	140.19	0.00	0.00	235.00	253.60	0.00
	7400 000	850.53	-0.08	851.06	34.95	280.34	402.08	107.58	0.04	223.94	235.00	253.60	258.90
	7571.000	854 83	0.00	854.87	250.11	287.88	278.31	223.81	0.00	0.00	235.00	253.60	0.00
	7571 000	854.80	-0.03	854.87	67.26	313.61	303.78	172.61	250.00	150.00	235.00	253.60	400.00
	7600.000	854.84	0.00	854.88	270.00	280.03	229.95	280.03	0.00	0.00	130.00	140.00	0.00
	7600.000	854.81	-0.03	854.87	80.00	271.49	255.37	263.14	80.00	90.00	130.00	140.00	170.00
	8150.000	855.09	0.00	855.27	58.94	236 87	316.27	236 86	70.00	100.00	130.00	140.00	170.00
	8150.000	855.10	0 01	855.28	59.00	236.99	316.02	236.98	70.00	100.00	130.00	140.00	170.00
	8181.000	855.13	0 00	855.33	54.66	280.66	211.91	297.43	0.00	0.00	130.00	138 40	0.00
	8181.000	855.14	0.01	855.34	54.65	280.65	211.92	297.42	0 00	0.00	130.00	138.40	0.00
	8425.000	861.41	0.00	861.49	270.00	256.80	262.03	271.17	0.00	0.00	130.00	138.40	0.00
	8425.000	861.41	0.00	861.49	270.00	256.81	262.00	271.19	0.00	0.00	130.00	138.40	0.00
	8430.000	861.51	0.00	861 51	314.99	119 79	525.42	144.79	0.00	0.00	120.00	230.00	0.00
	8430.000	861.51	0.00	861.51	315.00	119.79	525.41	144.80	0.00	0 00	120.00	230.00	0.00
	8680 000	861.51	0.00	861 51	315.25	119.86	525.31	144.83	0.00	0.00	120.00	230.00	0.00
	8680.000	861.51	0.00	861.51	315.26	119.86	525.30	144 84	0.00	0.00	120.00	230.00	0.00
	8701.000	861.51	0.00	861.51	250.00	256.68	315.86	217 46	0.00	0.00	100.00	150.00	0.00
	8701.000	861.51	0.00	861.51	243.28	253.58	323.08	213.33	0.02	3.30	100.00	150 00	246.58
	9230.000	862.42	0.00	862.48	250.00	68.44	686.41	35.15	0.00	0.00	100.00	150.00	0.00
	9230.000	862.39	-0.03	862.48	90.00	14.50	774.44	1.05	90.00	80.00	100.00	150.00	170.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
9305.000	862.51	0.00	862.52	160.56	262.78	195.11	332.10	0.00	0.00	250.00	268.00	0.00
9305.000	862.51	0.00	862.54	84.00	311.00	267.35	211.64	84.00	208.00	250.00	268.00	292.00
9640.000	862.54	0.00	862.65	112.87	239.88	273.94	276.19	0.00	0.00	250.00	268.00	0.00
9640.000	862.59	0.05	862.72	95.00	261.23	295.66	233.11	95.00	204.00	250.00	268.00	299.00
9775.000	862.85	0.00	863.34	102.38	218.67	365.39	205.94	0.00	0.00	250.00	268.00	0.00
9775.000	862.96	0.11	863.38	101.71	221.75	354.54	213.72	102.00	207.00	250.00	268.00	309.00
10000.000	865.78	0.00	866.31	101.94	216.85	372.04	201.11	0.00	0.00	250.00	268.00	0.00
10000.000	865.74	-0.04	866.37	87.20	225.50	394.43	170.07	88.00	207.00	250.00	268.00	295.00
10050.000	866.63	0.00	867.05	100.74	0.00	790.00	0.00	0.00	0.00	0.00	103.50	0.00
10050.000	866.79	0.16	867.13	103.26	0.00	790.00	0.00	0.00	0.00	0.00	103.50	103.50
10051.000	866.63	0.00	867.09	100.85	0.00	790.00	0.00	0.00	0.00	0.00	103.50	0.00
10051.000	866.78	0.15	867.16	103.37	0.00	790.00	0.00	0.00	0.00	0.00	103.50	103.50
10059.000	866.91	0.00	867.24	104.43	0.00	790.00	0.00	0.00	0.00	0.00	103.50	0.00
10059.000	866.97	0.06	867.27	103.50	0.00	790.00	0.00	0.00	0.00	0.00	103.50	103.50
10060.000	866.99	0.00	867.26	105.04	0.00	789.93	0.07	0.00	0.00	0.00	103.50	0.00
10060.000	867.03	0.04	867.29	103.50	0.00	790.00	0.00	0.00	0.00	0.00	103.50	103.50
10100.000	867.28	0.00	867.50	107.40	232.49	309.58	247.92	0.00	0.00	250.00	268.00	0.00
10100.000	867.28	-0.01	867.54	86.95	222.57	330.09	237.34	0.06	215.01	250.00	268.00	301.96
10920.000	869.81	0.00	869.94	111.56	238.53	280.99	270.48	0.00	0.00	250.00	268.00	0.00
10920.000	869.94	0.13	870.07	93.77	231.32	290.93	267.75	0.05	212.16	250.00	268.00	305.93
11021.000	870.01	0.00	870.21	63.93	47.55	705.54	36.90	0.00	0.00	209.00	259.00	0.00
11021.000	870.14	0.13	870.34	55.19	31.02	739.96	19.02	0.04	205.99	209.00	259.00	261.18
11129.000	872.18	0.00	872.24	184.38	94.33	658.00	37.67	340.00	85.00	209.00	259.00	425.00
11129.000	872.19	0.01	872.26	99.39	66.05	684.70	39.25	140.00	170.00	209.00	259.00	310.00
11170.000	872.22	0.00	872.26	165.00	301.53	196.45	292.03	165.00	175.00	250.00	269.00	340.00
11170.000	872.19	-0.03	872.29	100.00	396.48	301.14	92.38	100.00	185.00	250.00	269.00	285.00
11221.000	872.24	0.00	872.45	138.53	361.32	357.40	71.28	0.00	0.00	245.00	266.00	0.00
11221.000	872.24	-0.01	872.49	96.81	358.87	386.26	44.87	0.09	178.69	245.00	266.00	275.50
11288.000	876.31	0.00	876.32	361.12	372.36	139.68	277.95	0.00	0.00	245.00	266.00	0.00
11288.000	876.29	-0.02	876.32	100.00	304.11	247.06	238.83	100.00	205.00	245.00	266.00	305.00
11330.000	876.32	0.00	876.32	385.26	451.51	126.53	211.96	0.00	0.00	250.00	269.00	0.00
11330.000	876.31	0.00	876.33	160.00	537.81	208.14	44.05	160.00	120.00	250.00	269.00	280.00
11730.000	876.28	0.00	876.49	226.89	206.91	351.25	231.84	0.00	0.00	250.00	269.00	0.00
11730.000	876.36	0.08	876.60	185.00	243.13	375.94	170.92	185.00	125.00	250.00	269.00	310.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	11800.000	876.61	0.00	877.05	213.38	138.91	429.77	221.33	0 00	0.00	250.00	269.00	0 00
	11800.000	876 72	0.11	877.08	200 00	166.23	408.07	215.69	200.00	125.00	250.00	269.00	325.00
	11850.000	877.09	0 00	877.54	213.00	136.71	432.43	220 86	0.00	0.00	250.00	269.00	0.00
	11850.000	877.11	0.02	877.55	210.00	140.91	427.47	221.62	210.00	120.00	250.00	269.00	330.00
	12050.000	879.09	0.00	879 55	212.59	134.29	435.36	220.34	0.00	0.00	250.00	269.00	0.00
*	12050.000	879.15	0.06	879.69	162.85	120.59	465.26	204 15	0.10	155.42	250.00	269.00	318.27
	12239.000	880 99	0.00	881.44	212.93	136.27	432.96	220.77	0.00	0.00	250.00	269.00	0.00
	12239.000	881.13	0.14	881.55	170.00	145.79	434.27	209 94	170.00	150.00	250.00	269.00	320 00
	13030.000	884.44	0.00	884.54	243.19	271.20	284.16	234.64	0.00	0.00	250.00	269 00	0 00
	13030.000	884.51	0.06	884.62	188.61	269.30	298.38	222.31	0.07	134.47	250.00	269.00	323 08
*	13181.000	886.64	0.00	887.19	207.02	94.84	600.31	94.84	0.00	0.00	150 00	170.00	0.00
*	13181.000	886.61	-0.02	887.20	120 00	91.83	606.35	91.82	120.00	100.00	150.00	170.00	220.00
	13205.000	887.79	0.00	887.83	320.00	262.58	264.84	262.58	0.00	0.00	150.00	170.00	0 00
	13205.000	887.72	-0.07	887 83	140.00	216.80	356.40	216 80	140.00	90.00	150.00	170.00	230 00
	13400 000	887.94	0.00	888.13	280.00	180.35	429.29	180.35	280.00	20.00	150.00	170.00	300.00
	13400.000	888.01	0.06	888.23	136.84	170.73	448.54	170.73	0.08	91.58	150.00	170.00	228 42
	13500.000	888.23	0.00	888.47	235.00	166.18	458 89	164.93	235.00	45.00	150.00	170.00	280.00
	13500.000	888.31	0.08	888.58	128.87	156.07	477.87	156.06	0.07	95.56	150.00	170.00	224.44
	13661.000	888.78	0.00	889.06	150.00	153.51	482.99	153.50	150.00	85.00	150.00	170.00	235.00
	13661.000	888.87	0.09	889.17	112.60	145.25	499.51	145.24	0.10	103.70	150.00	170.00	216.30
	13685.000	889.56	0.00	889.70	140 00	179.09	431.82	179 09	140.00	90.00	150.00	170.00	230 00
	13685.000	889.35	-0 21	889 71	70.00	102.39	585.22	102.39	70.00	125.00	150.00	170.00	195.00
	13850.000	889.81	0.00	890.27	55.00	92.53	599.71	97 75	55.00	133.00	150.00	170.00	188.00
	13850.000	889.77	-0.04	890.24	55.00	90.69	603.52	95 79	55.00	133.00	150.00	170.00	188 00
	13901.000	890.08	0.00	890.95	26.30	187.31	508.69	94.00	0.00	0.00	250.00	261 00	0 00
	13901.000	890.05	-0.03	890.93	26.21	187.07	509.53	93.40	0.00	0.00	250.00	261.00	0.00
*	13975.000	891.34	0.00	894.08	25.67	0.00	789.76	0 24	0.00	0.00	250.00	261.00	0 00
*	13975.000	891.34	0.00	894 08	25 67	0 00	789.76	0.24	0.00	0.00	250.00	261.00	0.00
	13980.000	895.35	0.00	895.42	35 00	53.31	423.06	13.63	35.00	229.00	241 00	259.60	264.00
	13980.000	895.35	0.00	895.42	35.00	53.31	423.06	13.63	35.00	229.00	241.00	259.60	264 00
	13985.000	895.35	0 00	895.42	45.00	63.85	401.56	24.60	45.00	224.00	241.00	259.60	269.00
	13985.000	895.35	0.00	895.42	45.00	63.85	401.56	24.60	45.00	224.00	241.00	259.60	269.00
	13990.000	895.35	0.00	895.44	55.00	66.78	401.48	21.74	55.00	219.00	241.00	259 60	274 00
	13990.000	895.35	0.00	895.44	55.00	66.78	401.48	21.74	55.00	219.00	241.00	259.60	274 00

	SECNO	CWSEL	DIFKWS	EQ	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	13993.000	895.35	0.00	895.46	58.69	62.45	413.06	14.49	61.00	216.00	241.00	259.60	277.00
	13993.000	895.35	0.00	895.46	58.69	62.45	413.06	14.49	61.00	216.00	241.00	259.60	277.00
	13994.000	895.37	0.00	895.46	59.74	128.24	332.13	29.63	63.00	215.00	241.00	259.60	278.00
	13994.000	895.37	0.00	895.46	59.74	128.24	332.13	29.63	63.00	215.00	241.00	259.60	278.00
	14002.000	895.39	0.00	895.48	67.97	152.78	308.81	28.40	79.00	207.00	241.00	259.60	286.00
	14002.000	895.39	0.00	895.48	67.97	152.78	308.81	28.40	79.00	207.00	241.00	259.60	286.00
	14003.000	895.39	0.00	895.50	68.97	67.77	410.24	11.99	81.00	206.00	241.00	259.60	287.00
	14003.000	895.39	0.00	895.50	68.97	67.77	410.24	11.99	81.00	206.00	241.00	259.60	287.00
	14016.000	895.40	0.00	895.57	75.10	44.62	393.93	51.46	0.00	0.00	22.60	46.00	0.00
	14016.000	895.40	0.00	895.57	75.10	44.62	393.93	51.46	0.00	0.00	22.60	46.00	0.00
	14018.000	895.63	0.00	895.65	76.00	69.67	354.94	65.39	76.00	5.00	31.00	61.00	81.00
	14018.000	895.63	0.00	895.65	76.00	69.67	354.94	65.39	76.00	5.00	31.00	61.00	81.00
	14034.000	895.63	0.00	895.65	101.00	68.41	344.77	76.83	0.00	0.00	31.00	61.00	0.00
	14034.000	895.63	0.00	895.65	78.00	71.30	359.36	59.34	101.00	0.00	31.00	61.00	101.00
	14546.000	895.64	0.00	895.66	101.00	68.46	344.63	76.91	0.00	0.00	31.00	61.00	0.00
	14546.000	895.64	0.00	895.66	78.00	71.35	359.30	59.35	0.00	0.00	31.00	61.00	0.00
*	14566.000	895.72	0.00	896.50	54.02	50.26	371.54	68.20	0.00	0.00	82.00	104.00	0.00
*	14566.000	895.71	-0.01	896.50	53.23	50.14	371.98	67.88	151.00	0.00	82.00	104.00	151.00
	14568.000	896.85	0.00	896.88	77.56	14.35	432.04	43.61	0.00	0.00	60.00	104.00	0.00
	14568.000	896.86	0.00	896.88	77.59	14.36	432.00	43.64	0.00	0.00	60.00	104.00	0.00
	15308.000	896.87	0.00	896.89	77.65	14.37	431.93	43.70	0.00	0.00	60.00	104.00	0.00
	15308.000	896.87	0.00	896.89	77.69	14.38	431.89	43.73	0.00	0.00	60.00	104.00	0.00
*	15315.000	900.69	0.00	901.43	56.85	42.92	404.80	42.28	0.00	0.00	178.00	204.00	0.00
*	15315.000	900.69	0.00	901.43	56.85	42.92	404.80	42.28	0.00	0.00	178.00	204.00	0.00
	15325.000	901.79	0.00	901.80	175.50	11.65	467.41	10.94	0.00	0.00	180.00	266.00	0.00
	15325.000	901.79	0.00	901.80	175.50	11.65	467.41	10.94	0.00	0.00	180.00	266.00	0.00
	15600.000	901.79	0.00	901.80	175.52	11.66	467.40	10.94	0.00	0.00	180.00	266.00	0.00
	15600.000	901.79	0.00	901.80	175.52	11.66	467.40	10.94	0.00	0.00	180.00	266.00	0.00

100-YEAR DISCHARGE, EXIS

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	800.60	840.00	807.38	0.00	807.55	11.46	3.75	304.49	248 11
	0.000	0.00	0.00	0.00	800.60	840.00	807.48	0.00	807.66	11.42	3.78	282.88	248.61
	350.000	350.00	0.00	0.00	801.00	840.00	807 78	0.00	807.95	11.45	3.75	304.60	248.21
	350.000	350.00	0.00	0.00	801.00	840.00	807.88	0.00	808.06	11.46	3.79	282.55	248.15
	700.000	350.00	0.00	0.00	801.40	840.00	808.23	0.00	808.48	14.73	4.28	231.88	218.84
	700 000	350.00	0.00	0.00	801.40	840.00	808.32	0.00	808.56	14.04	4.22	235.52	224.19
	750.000	50.00	0 00	0.00	800.50	840.00	808.37	0.00	809.08	63.57	6.79	123.73	105.36
	750.000	50.00	0.00	0.00	800 50	840.00	808.45	0.00	809.15	61.71	6.71	125.11	106.93
	751.000	1 00	815.00	810.60	800.50	840.00	808.14	0.00	809.18	14.54	8.19	102.59	220.26
	751.000	1.00	815.00	810.60	800.50	840.00	808.23	0.00	809.25	14.33	8.13	103.33	221.93
	850.000	99.00	815.00	810.65	800.55	840.00	808.31	0.00	809.33	14.24	8 11	103.62	222.58
	850 000	99.00	815.00	810.65	800.55	840.00	808.39	0.00	809.39	14.05	8 05	104.31	224.13
	1000.000	150.00	815.00	810.73	800.63	840.00	808.55	0.00	809.54	13.86	8.00	105.00	225.66
	1000.000	150.00	815.00	810.73	800.63	840.00	808.62	0.00	809.60	13.69	7.95	105.64	227.05
	1300 000	300.00	815.00	810.88	800 78	840.00	809.01	0.00	809.95	13 20	7.81	107.56	231.18
	1300.000	300.00	815.00	810.88	800.78	840.00	809.07	0.00	810.01	13.07	7.77	108.10	232.32
	1600.000	300.00	815.00	811 03	800.88	840.00	809.45	0 00	810.34	12.38	7.59	110.66	238.77
	1600.000	300.00	815.00	811 03	800.88	840.00	809.51	0 00	810.40	12.28	7.56	111.13	239.71
	2250.000	650.00	815.00	811.94	801.79	840.00	810.25	0 00	811.16	12.56	7.65	109.82	237.05
	2250.000	650.00	815.00	811.94	801.79	840.00	810.30	0.00	811.20	12.46	7.62	110.25	237.93
	2900.000	650.00	815.00	812.85	802.70	840.00	811.06	0.00	811.98	12.70	7.70	109.04	235 73
	2900 000	650.00	815.00	812.85	802.70	840.00	811.11	0.00	812.02	12.61	7.68	109.42	236.55
*	2905.000	5.00	100000.00	100000.00	804.75	840.00	811.75	0.00	812.68	15.29	7.75	108.40	214.80
*	2905.000	5.00	100000.00	100000.00	804.75	840.00	811.85	0.00	812 75	14 49	7.61	110.39	220.68
*	3905 000	1000.00	100000.00	100000.00	812.42	840.00	821.90	0.00	822.34	5.12	5.32	157.99	371.12
*	3905 000	1000.00	100000.00	100000.00	812.42	840.00	822.00	0.00	822.43	4.94	5.25	159.99	377.82
*	4905.000	1000.00	100000.00	100000.00	820.10	840.00	832.00	0.00	832.26	2.42	4.07	206.36	540.21
*	4905.000	1000.00	100000.00	100000.00	820.10	840.00	832.10	0.00	832.35	2 35	4.03	208.36	547.44
	4906.000	1.00	0.00	0.00	820.10	840.00	832.00	0.00	832.26	9.67	4.07	206 37	270 12
	4906.000	1.00	0.00	0.00	820.10	840.00	832.10	0.00	832.35	9.41	4.03	208 40	273 77
	4950.000	44.00	0 00	0.00	820.10	840.00	832.33	0.00	832.37	0.77	2.28	553.13	957.79
	4950 000	44.00	0.00	0 00	820.10	840 00	832.42	0.00	832.47	0.76	2.28	529.39	963.52

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
5200.000	250.00	0.00	0.00	824.60	840.00	832.29	0.00	832.52	12.96	5.16	241.08	233.29
5200.000	250.00	0.00	0.00	824.60	840.00	832.36	0.00	832.62	13.07	5.22	219.23	232.32
5270.000	70.00	0.00	0.00	825.70	840.00	832.32	0.00	832.73	25.71	6.55	181.83	165.65
5270.000	70.00	0.00	0.00	825.70	840.00	832.39	0.00	832.85	26.39	6.67	166.95	163.51
5330.000	60.00	0.00	0.00	826.80	840.00	832.55	0.00	833.33	59.67	8.99	131.19	108.74
5330.000	60.00	0.00	0.00	826.80	840.00	832.62	0.00	833.48	59.79	9.08	120.87	108.64
5380.000	50.00	0.00	0.00	828.30	840.00	833.57	833.26	833.87	61.53	4.71	213.60	107.08
5380.000	50.00	0.00	0.00	828.30	840.00	833.51	0.00	834.03	96.55	5.79	148.88	85.49
5420.000	40.00	836.20	833.30	828.30	840.00	836.69	0.00	836.71	0.72	1.20	787.06	991.43
5420.000	40.00	836.20	833.30	828.30	840.00	836.67	0.00	836.70	1.35	1.64	561.50	721.87
5450.000	30.00	0.00	0.00	829.40	790.00	836.67	0.00	836.73	3.29	2.58	536.23	435.73
5450.000	30.00	0.00	0.00	829.40	790.00	836.65	0.00	836.74	4.65	3.06	414.97	366.44
5451.000	1.00	833.40	832.70	829.40	790.00	836.66	0.00	836.74	6.30	2.75	362.02	314.76
5451.000	1.00	833.40	832.70	829.40	790.00	836.59	0.00	836.79	16.55	4.37	235.15	194.19
5491.000	40.00	833.40	832.70	829.40	790.00	836.69	0.00	836.77	6.18	2.73	364.26	317.70
5491.000	40.00	833.40	832.70	829.40	790.00	836.73	0.00	836.86	10.05	3.53	283.52	249.15
5492.000	1.00	0.00	0.00	829.40	790.00	836.70	0.00	836.77	0.98	2.82	540.11	799.63
5492.000	1.00	0.00	0.00	829.40	790.00	836.80	0.00	836.88	1.05	2.96	488.69	770.03
5495.000	3.00	0.00	0.00	829.40	790.00	836.69	0.00	836.78	1.68	3.42	468.89	609.52
5495.000	3.00	0.00	0.00	829.40	790.00	836.78	0.00	836.90	1.89	3.67	415.90	575.24
5520.000	25.00	0.00	0.00	828.00	790.00	836.81	0.00	836.81	0.02	0.42	1936.11	5941.86
5520.000	25.00	0.00	0.00	828.00	790.00	836.93	0.00	836.93	0.02	0.43	1874.60	5894.79
5650.000	130.00	0.00	0.00	828.00	790.00	836.81	0.00	836.81	0.02	0.42	1937.41	5948.32
5650.000	130.00	0.00	0.00	828.00	790.00	836.93	0.00	836.93	0.02	0.43	1875.96	5901.80
5731.000	81.00	0.00	0.00	829.20	790.00	836.81	0.00	837.04	5.35	4.61	218.08	341.40
5731.000	81.00	0.00	0.00	829.20	790.00	836.93	0.00	837.15	5.03	4.52	220.30	352.34
5766.000	35.00	835.00	832.30	829.20	790.00	837.11	0.00	837.30	13.69	3.37	226.47	213.54
5766.000	35.00	835.00	832.30	829.20	790.00	836.94	0.00	837.33	28.93	4.82	159.46	146.89
5856.000	90.00	0.00	0.00	830.70	790.00	837.33	0.00	837.93	52.39	6.51	142.85	109.15
5856.000	90.00	0.00	0.00	830.70	790.00	837.29	0.00	837.98	57.76	6.80	125.91	103.95
5952.000	96.00	0.00	0.00	832.10	790.00	837.82	0.00	838.88	115.69	8.42	103.15	73.45
5952.000	96.00	0.00	0.00	832.10	790.00	837.84	0.00	839.02	130.14	8.73	90.91	69.25
6000.000	48.00	0.00	0.00	833.00	790.00	838.33	838.21	839.70	169.59	9.51	88.75	60.66
6000.000	48.00	0.00	0.00	833.00	790.00	838.47	0.00	839.72	147.23	9.10	92.43	65.11

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	6004.000	4.00	0.00	0.00	833.00	790.00	839.02	0.00	839.90	88.33	7.72	115.06	84.06
	6004.000	4.00	0.00	0.00	833.00	790.00	838.76	0.00	839.83	114.49	8.42	100.19	73.83
	6150.000	146.00	0.00	0.00	833.00	790.00	840.33	0.00	840.74	30.28	5.43	180.02	143.56
	6150.000	146.00	0.00	0.00	833.00	790.00	840.37	0.00	840.81	31.82	5.58	161.23	140.04
	6201.000	51.00	0.00	0.00	832.60	790.00	840.79	0.00	840.92	4.84	3.02	284.36	359.03
	6201.000	51.00	0.00	0.00	832.60	790.00	840.88	0.00	841.02	4.73	3.01	272.25	363.06
	6294.000	93.00	839.90	839.80	832.60	790.00	841.36	0.00	841.44	6.47	2.45	460.63	310.58
	6294.000	93.00	839.90	839.80	832.60	790.00	841.35	0.00	841.46	8.15	2.75	322.24	276.70
	6650.000	356.00	0.00	0.00	833.77	790.00	841.73	0.00	842.02	19.43	4.67	217.27	179.24
	6650.000	356.00	0.00	0.00	833.77	790.00	841.78	0.00	842.09	20.09	4.77	196.70	176.23
	6800.000	150.00	0.00	0.00	834.31	790.00	842.03	0.00	842.36	23.05	4.95	202.17	164.56
	6800.000	150.00	0.00	0.00	834.31	790.00	842.08	0.00	842.44	23.68	5.05	182.70	162.33
	6900.000	100.00	0.00	0.00	834.67	790.00	842.22	0.00	842.84	54.63	6.32	125.06	106.89
	6900.000	100.00	0.00	0.00	834.67	790.00	842.30	0.00	842.90	52.78	6.24	126.60	108.74
	6910.000	10.00	0.00	0.00	834.80	790.00	842.26	0.00	843.29	34.83	8.13	97.15	133.86
	6910.000	10.00	0.00	0.00	834.80	790.00	842.34	0.00	843.34	33.71	8.03	98.32	136.06
	6930.000	20.00	847.00	845.90	834.80	790.00	842.39	0.00	843.38	32.97	7.97	99.14	137.59
	6930.000	20.00	847.00	845.90	834.80	790.00	842.46	0.00	843.43	32.05	7.89	100.19	139.55
	6960.000	30.00	847.00	845.90	834.80	790.00	842.56	0.00	843.50	30.82	7.77	101.65	142.30
	6960.000	30.00	847.00	845.90	834.80	790.00	842.62	0.00	843.54	30.08	7.70	102.58	144.05
	6975.000	15.00	0.00	0.00	834.80	790.00	842.64	0.00	843.55	29.91	7.68	102.80	144.46
	6975.000	15.00	0.00	0.00	834.80	790.00	842.70	0.00	843.60	29.23	7.62	103.68	146.12
	6978.000	3.00	0.00	0.00	834.90	790.00	843.31	0.00	843.78	29.78	5.53	142.91	144.78
	6978.000	3.00	0.00	0.00	834.90	790.00	843.35	0.00	843.82	29.24	5.49	143.85	146.10
	7070.000	92.00	0.00	0.00	837.04	790.00	843.58	0.00	844.14	39.07	6.25	138.91	126.39
	7070.000	92.00	0.00	0.00	837.04	790.00	843.60	0.00	844.22	42.00	6.50	127.09	121.90
	7100.000	30.00	0.00	0.00	837.77	790.00	843.55	0.00	844.49	80.39	7.98	105.71	88.11
	7100.000	30.00	0.00	0.00	837.77	790.00	843.56	0.00	844.62	92.69	8.34	96.60	82.05
*	7175.000	75.00	0.00	0.00	839.55	790.00	844.81	844.81	846.18	138.64	9.55	86.40	67.09
*	7175.000	75.00	0.00	0.00	839.55	790.00	844.81	844.81	846.18	138.62	9.55	86.40	67.10
*	7250.000	75.00	0.00	0.00	841.33	790.00	846.60	846.60	847.96	137.54	9.52	86.65	67.36
*	7250.000	75.00	0.00	0.00	841.33	790.00	846.60	846.60	847.96	137.54	9.52	86.65	67.36
*	7300.000	50.00	0.00	0.00	842.52	790.00	847.79	847.79	849.15	137.79	9.53	86.59	67.30
*	7300.000	50.00	0.00	0.00	842.52	790.00	847.79	847.79	849.15	137.79	9.53	86.59	67.30

	SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	7350.000	50.00	0.00	0.00	843.71	790.00	848.98	848.98	850.34	137.73	9.53	86.61	67.31
*	7350.000	50.00	0.00	0.00	843.71	790.00	848.98	848.98	850.34	137.73	9.53	86.61	67.31
	7375.000	25.00	0.00	0.00	844.30	790.00	850.53	0.00	850.94	25.59	5.55	158.01	156.18
	7375.000	25.00	0.00	0.00	844.30	790.00	850.43	0.00	850.92	29.34	5.88	143.41	145.85
	7400.000	25.00	0.00	0.00	844.90	790.00	850.61	0.00	851.02	38.53	4.81	154.67	127.27
	7400.000	25.00	0.00	0.00	844.90	790.00	850.53	0.00	851.06	46.72	5.22	138.53	115.58
	7571.000	171.00	854.00	849.20	844.90	790.00	854.83	0.00	854.87	2.08	1.77	511.36	548.05
	7571.000	171.00	854.00	849.20	844.90	790.00	854.80	0.00	854.87	2.50	1.94	392.69	499.55
	7600.000	29.00	0.00	0.00	845.00	790.00	854.84	0.00	854.88	2.37	2.34	587.24	512.80
	7600.000	29.00	0.00	0.00	845.00	790.00	854.81	0.00	854.87	2.96	2.60	424.92	459.40
	8150.000	550.00	0.00	0.00	847.75	790.00	855.09	0.00	855.27	11.93	4.31	253.06	228.75
	8150.000	550.00	0.00	0.00	847.75	790.00	855.10	0.00	855.28	11.86	4.30	253.62	229.43
	8181.000	31.00	0.00	0.00	848.00	790.00	855.13	0.00	855.33	25.14	3.78	221.06	157.55
	8181.000	31.00	0.00	0.00	848.00	790.00	855.14	0.00	855.34	25.15	3.78	221.03	157.51
	8425.000	244.00	861.00	853.30	851.50	790.00	861.41	0.00	861.49	1.34	3.30	480.29	682.89
	8425.000	244.00	861.00	853.30	851.50	790.00	861.41	0.00	861.49	1.34	3.30	480.41	683.01
	8430.000	5.00	0.00	0.00	844.00	790.00	861.51	0.00	861.51	0.00	0.27	3471.60	14509.15
	8430.000	5.00	0.00	0.00	844.00	790.00	861.51	0.00	861.51	0.00	0.27	3471.73	14509.86
	8680.000	250.00	0.00	0.00	844.00	790.00	861.51	0.00	861.51	0.00	0.27	3474.26	14523.79
	8680.000	250.00	0.00	0.00	844.00	790.00	861.51	0.00	861.51	0.00	0.27	3474.38	14524.49
	8701.000	21.00	0.00	0.00	846.80	790.00	861.51	0.00	861.51	0.04	0.58	1648.16	4134.21
	8701.000	21.00	0.00	0.00	846.80	790.00	861.51	0.00	861.51	0.04	0.60	1609.29	4042.07
	9230.000	529.00	861.20	853.30	852.30	790.00	862.42	0.00	862.48	5.49	2.20	500.07	337.01
	9230.000	529.00	861.20	853.30	852.30	790.00	862.39	0.00	862.48	7.10	2.50	338.02	296.40
	9305.000	75.00	0.00	0.00	853.30	790.00	862.51	0.00	862.52	0.88	1.27	900.40	841.00
	9305.000	75.00	0.00	0.00	853.30	790.00	862.51	0.00	862.54	1.66	1.74	633.41	614.06
	9640.000	335.00	0.00	0.00	857.60	790.00	862.54	0.00	862.65	17.60	3.57	323.94	188.30
	9640.000	335.00	0.00	0.00	857.60	790.00	862.59	0.00	862.72	19.66	3.81	301.30	178.18
	9775.000	135.00	0.00	0.00	859.37	790.00	862.85	0.00	863.34	124.24	7.20	168.65	70.88
	9775.000	135.00	0.00	0.00	859.37	790.00	862.96	0.00	863.38	103.19	6.73	179.53	77.77
	10000.000	225.00	0.00	0.00	862.35	790.00	865.78	0.00	866.31	138.38	7.49	162.52	67.16
	10000.000	225.00	0.00	0.00	862.35	790.00	865.74	865.70	866.37	163.69	8.07	148.10	61.75
	10050.000	50.00	0.00	0.00	862.90	790.00	866.63	0.00	867.05	149.06	5.23	151.03	64.71
	10050.000	50.00	0.00	0.00	862.90	790.00	866.79	0.00	867.13	112.98	4.74	166.82	74.32

	SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	01%
	10051.000	1.00	869.60	868.50	862.90	790.00	866 63	0.00	867.09	178 51	5.44	145.12	59.13
	10051.000	1.00	869.60	868.50	862.90	790.00	866.78	0.00	867.16	133 47	4.93	160.29	68.38
	10059.000	8.00	869.60	868.50	862.90	790.00	866.91	0.00	867.24	106.68	4.60	171.90	76.49
	10059.000	8.00	869.60	868.50	862.90	790.00	866.97	0.00	867.27	95.87	4.44	177.79	80.68
	10060.000	1.00	0.00	0.00	862.90	790.00	866.99	0.00	867 26	75.01	4.21	187.98	91.21
	10060 000	1.00	0.00	0 00	862.90	790.00	867.03	0.00	867.29	76.78	4.11	192.43	90.16
	10100 000	40.00	0.00	0 00	863.10	790.00	867.28	0.00	867.50	42.95	4 90	241.11	120.55
	10100.000	40.00	0.00	0.00	863.10	790.00	867.28	0.00	867.54	49.56	5.25	217 96	112.22
	10920.000	820.00	0.00	0.00	865 05	790.00	869.81	0.00	869.94	21.38	3.82	303.79	170.86
	10920.000	820.00	0.00	0.00	865.05	790.00	869.94	0.00	870.07	20.61	3.84	295.60	174.00
	11021.000	101.00	0.00	0.00	865.30	790 00	870.01	0.00	870.21	19.78	3.58	224.06	177 64
	11021.000	101.00	0 00	0.00	865.30	790 00	870.14	0.00	870.34	19.71	3.65	219.97	177 93
	11129.000	108.00	871.30	869.90	865.30	790.00	872.18	0.00	872.24	1.77	2.15	453.72	593 08
	11129.000	108.00	871.30	869.90	865.30	790.00	872.19	0.00	872.26	1.91	2.24	394.88	571.14
	11170.000	41.00	0.00	0 00	866 20	790 00	872.22	0.00	872 26	2.08	2.02	511.79	547.38
	11170 000	41 00	0.00	0.00	866.20	790.00	872.19	0 00	872 29	5.02	3.12	325.99	352.45
	11221 000	51.00	0 00	0.00	867 20	790.00	872.24	0.00	872.45	27.13	4.19	226.86	151.68
	11221.000	51.00	0.00	0.00	867.20	790.00	872.24	0.00	872.49	31.42	4.52	198.97	140.93
	11288.000	67.00	875.60	872.20	867.20	790.00	876.31	0.00	876.32	0.28	0.82	1163.06	1485 47
	11288.000	67.00	875.60	872.20	867.20	790.00	876.29	0.00	876.32	0.90	1.45	584.14	834.80
	11330.000	42.00	0.00	0.00	867.70	790.00	876 32	0.00	876.32	0.50	0.86	1548.52	1120.88
	11330.000	42.00	0.00	0.00	867.70	790.00	876.31	0.00	876.33	1.35	1 42	858 35	680.79
	11730.000	400.00	0.00	0.00	871.70	790.00	876.28	0.00	876.49	45.22	5.03	301.40	117.48
	11730.000	400.00	0.00	0.00	871.70	790.00	876.36	0 00	876.60	48.34	5.27	276.97	113.63
	11800.000	70.00	0.00	0.00	872 40	790.00	876.61	0.00	877.05	96.45	6.84	219.83	80.44
	11800.000	70.00	0.00	0.00	872.40	790.00	876.72	0.00	877.08	77.76	6.28	237.23	89.59
	11850 000	50 00	0.00	0.00	872 90	790.00	877.09	0.00	877.54	98.68	6.90	217.62	79.53
	11850.000	50.00	0.00	0.00	872.90	790.00	877.11	0 00	877.55	94.79	6.79	220.87	81.14
	12050.000	200.00	0.00	0.00	874.90	790 00	879.09	0.00	879 55	101.17	6.97	215.22	78.54
*	12050.000	200.00	0.00	0.00	874.90	790.00	879.15	879.15	879.69	108.48	7.31	191.81	75.85
	12239.000	189.00	0.00	0.00	876.80	790.00	880.99	0.00	881.44	99.13	6.92	217.18	79.35
	12239.000	189.00	0.00	0.00	876.80	790.00	881.13	0.00	881.55	86.89	6.66	214.30	84.75
	13030.000	791 00	0 00	0.00	879.40	790.00	884.44	0.00	884.54	19.81	3.60	412.20	177.51
	13030.000	791.00	0.00	0.00	879.40	790.00	884.51	0.00	884.62	20.87	3.73	378.17	172.93

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	13181.000	151.00	0.00	0.00	880.40	790.00	886.64	886.64	887.19	71.94	6.77	176.08	93.14
*	13181.000	151.00	0.00	0.00	880.40	790.00	886.61	886 61	887.20	74.66	6.88	154.43	91.43
	13205.000	24.00	887.20	884.00	880.40	790.00	887.79	0.00	887.83	6 48	2.37	512.98	310 33
	13205.000	24.00	887.20	884.00	880.40	790.00	887.72	0 00	887.83	12.21	3.23	317 05	226 12
	13400.000	195.00	0.00	0.00	881.23	790.00	887.94	0.00	888.13	26.12	4.37	297.12	154.58
	13400.000	195 00	0.00	0 00	881.23	790.00	888.01	0.00	888.23	27.31	4.51	238.21	151 18
	13500.000	100.00	0.00	0.00	881.63	790 00	888.23	0.00	888 47	32.23	4 78	260.45	139.15
	13500.000	100.00	0.00	0 00	881.63	790.00	888.31	0.00	888.58	33.16	4.90	218.05	137 19
	13661.000	161.00	0.00	0 00	882.20	790.00	888.78	0.00	889.06	36.21	5.05	220.08	131.28
	13661.000	161.00	0.00	0.00	882.20	790.00	888.87	0.00	889.17	36.49	5.13	202.62	130.78
	13685.000	24 00	889.40	888.40	882.20	790.00	889.56	0.00	889.70	7.80	3 89	321.90	282.88
	13685.000	24.00	889.40	888.40	882.20	790.00	889.35	0.00	889.71	16.18	5.46	193.75	196.42
	13850.000	165.00	0.00	0.00	882.90	790.00	889.81	0 00	890.27	44.72	5.87	155.52	118.14
	13850 000	165.00	0.00	0.00	882.90	790.00	889.77	0.00	890.24	46.36	5.95	153.55	116.03
	13901.000	51.00	0.00	0 00	883.10	790.00	890.08	0.00	890.95	62.44	8.17	108.59	99 98
	13901.000	51.00	0.00	0 00	883.10	790.00	890.05	0.00	890.93	63.89	8.23	107.72	98 84
*	13975 000	74.00	895.30	893.30	884.60	790.00	891.34	891.34	894.08	101.89	13.30	59.68	78.26
*	13975.000	74.00	895.30	893.30	884.60	790 00	891.34	891.34	894.08	101.89	13.30	59.68	78.26
	13980 000	5.00	0.00	0 00	885.30	490.00	895.35	0.00	895.42	0.96	2.34	250.80	499.58
	13980 000	5.00	0.00	0.00	885.30	490.00	895.35	0.00	895.42	0.96	2.34	250.80	499.58
	13985.000	5.00	0.00	0 00	886.00	490.00	895.35	0.00	895.42	1 11	2.39	256 32	465.14
	13985.000	5.00	0.00	0.00	886.00	490.00	895.35	0.00	895.42	1.11	2.39	256.32	465.14
	13990.000	5.00	0.00	0.00	886.70	490.00	895.35	0.00	895.44	1.45	2.59	243.13	406.78
	13990.000	5.00	0.00	0.00	886.70	490 00	895.35	0.00	895.44	1.45	2 59	243.13	406.78
	13993.000	3.00	0.00	0 00	887 20	490.00	895.35	0.00	895.46	1.89	2.83	221.85	356.68
	13993.000	3.00	0 00	0 00	887.20	490.00	895.35	0.00	895.46	1.89	2.83	221.85	356.68
	13994.000	1.00	892.90	891.80	887.20	490.00	895.37	0.00	895.46	7.38	2.65	203.13	180.40
	13994.000	1.00	892.90	891.80	887.20	490.00	895.37	0.00	895.46	7 38	2.65	203.13	180.40
	14002 000	8.00	892.90	891.80	887.20	490.00	895.39	0.00	895.48	6.26	2 45	221.27	195 84
	14002.000	8.00	892 90	891.80	887.20	490 00	895.39	0.00	895.48	6.26	2.45	221.27	195.84
	14003.000	1.00	0.00	0.00	887.20	490.00	895.39	0.00	895.50	1.17	2.80	244.51	453.46
	14003.000	1.00	0.00	0.00	887.20	490.00	895.39	0.00	895.50	1.17	2.80	244.51	453.46
	14016.000	13.00	0.00	0.00	890.00	490.00	895.40	0.00	895.57	3.36	3.69	184.72	267.28
	14016.000	13.00	0.00	0.00	890.00	490.00	895.40	0.00	895.57	3.36	3.69	184.72	267.28

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	01%
	14018.000	2.00	0.00	0.00	885.60	490.00	895.63	0.00	895.65	0.15	1.27	513.00	1255.71
	14018.000	2.00	0.00	0 00	885.60	490.00	895 63	0.00	895.65	0.15	1.27	513.00	1255.71
	14034 000	16.00	0.00	0.00	885.60	490.00	895.63	0.00	895.65	0.14	1 23	559.63	1293 40
	14034.000	16.00	0.00	0.00	885.60	490.00	895.63	0.00	895.65	0.16	1 28	508.29	1240.88
	14546.000	512.00	0.00	0.00	885.60	490.00	895.64	0.00	895.66	0.14	1.23	560.40	1295.66
	14546.000	512.00	0 00	0.00	885.60	490.00	895.64	0.00	895.66	0.16	1.28	508.70	1242.28
*	14566 000	20.00	0.00	0.00	892.80	490.00	895.72	895.72	896.50	42.65	7.87	79.65	75 03
*	14566.000	20.00	0.00	0.00	892.80	490.00	895.71	895.71	896.50	43.15	7.91	79.29	74.59
	14568.000	2.00	0.00	0.00	889.00	490 00	896.85	0.00	896.88	0.18	1.25	461.75	1151.37
	14568.000	2.00	0.00	0.00	889.00	490.00	896.86	0.00	896.88	0.18	1.25	462.09	1152.54
	15308.000	740.00	0.00	0.00	889.00	490.00	896.87	0.00	896 89	0.18	1.25	462.72	1154 70
	15308.000	740.00	0.00	0.00	889 00	490.00	896.87	0 00	896.89	0.18	1.25	463.05	1155.86
*	15315.000	7.00	0.00	0.00	897.80	490.00	900.69	900.69	901.43	39.41	7.46	82.45	78 06
*	15315.000	7.00	0.00	0.00	897.80	490.00	900.69	900.69	901.43	39.41	7.46	82.45	78.06
	15325.000	10.00	0.00	0 00	893.00	490.00	901.79	0.00	901.80	0.04	0.64	870 93	2324.87
	15325.000	10.00	0.00	0 00	893.00	490.00	901.79	0.00	901 80	0.04	0.64	870.93	2324 87
	15600 000	275.00	0.00	0.00	893.00	490.00	901.79	0.00	901.80	0.04	0.64	871 10	2325.37
	15600.000	275.00	0.00	0.00	893.00	490.00	901.79	0.00	901.80	0.04	0.64	871.10	2325.37

100-YEAR DISCHARGE, EXIS

SUMMARY PRINTOUT TABLE 150

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	0.000	840.00	807.38	0.00	0 00	0.00	94.20	0.00
	0 000	840.00	807.48	0 10	0.00	0.10	57.27	0.00
	350.000	840.00	807.78	0 00	0 40	0.00	94.24	350.00
	350.000	840 00	807.88	0.10	0 40	0 10	57.28	350.00
	700.000	840.00	808.23	0.00	0.45	0.00	41.00	350.00
	700.000	840.00	808.32	0.09	0.44	0.09	41.00	350.00
	750 000	840.00	808.37	0 00	0.13	0.00	16.60	50.00
	750.000	840.00	808.45	0 08	0.13	0.08	16 60	50 00
	751 000	840.00	808.14	0.00	-0.23	0.00	16 60	1.00
	751.000	840 00	808.23	0.08	-0.23	0.08	16.60	1 00
	850.000	840.00	808.31	0.00	0.17	0 00	16.60	99 00
	850.000	840.00	808.39	0.08	0.16	0.08	16 60	99.00
	1000.000	840.00	808 55	0.00	0.24	0 00	16.60	150.00
	1000.000	840 00	808 62	0.07	0.24	0.07	16.60	150.00
	1300.000	840.00	809.01	0.00	0.46	0.00	16.60	300.00
	1300.000	840.00	809.07	0.07	0.45	0.07	16.60	300.00
	1600.000	840.00	809.45	0.00	0.44	0.00	16.60	300.00
	1600.000	840 00	809.51	0.06	0 44	0.06	16 60	300.00
	2250.000	840.00	810.25	0.00	0.80	0.00	16.60	650 00
	2250.000	840.00	810 30	0.06	0.79	0.06	16.60	650.00
	2900.000	840.00	811.06	0.00	0.81	0.00	16.60	650.00
	2900.000	840.00	811.11	0.05	0.81	0.05	16.60	650.00
*	2905.000	840.00	811.75	0.00	0.69	0 00	20.00	5.00
*	2905.000	840.00	811.85	0.10	0.74	0.10	20.00	5.00
*	3905.000	840.00	821.90	0.00	10.15	0.00	20.00	1000.00
*	3905.000	840.00	822.00	0.10	10.15	0.10	20.00	1000.00
*	4905.000	840.00	832 00	0.00	10.10	0.00	20.00	1000.00
*	4905.000	840.00	832.10	0 10	10 10	0 10	20.00	1000.00
	4906.000	840.00	832.00	0.00	0 00	0.00	20.00	1.00
	4906.000	840.00	832.10	0.10	0 00	0.10	20.00	1.00
	4950 000	840.00	832.33	0.00	0.33	0.00	108 00	44.00
	4950 000	840.00	832.42	0.09	0.32	0 09	80.92	44.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
5200.000	840.00	832.29	0.00	-0.04	0.00	101.45	250.00
5200.000	840.00	832.36	0.07	-0.06	0 07	46.06	250.00
5270.000	840.00	832.32	0.00	0.04	0.00	84.16	70.00
5270.000	840.00	832.39	0.07	0.03	0.07	37.84	70 00
5330.000	840 00	832 55	0 00	0.22	0 00	60.99	60 00
5330.000	840.00	832.62	0.07	0.23	0.07	31.70	60.00
5380.000	840.00	833.57	0.00	1.03	0.00	163.00	50.00
5380.000	840 00	833.51	-0.06	0.89	-0.06	75 00	50.00
5420 000	840.00	836.69	0.00	3.11	0.00	185.00	40.00
5420.000	840 00	836 67	-0.02	3.15	-0.02	125.00	40.00
5450.000	790.00	836.67	0.00	-0.02	0.00	175.00	30.00
5450.000	790 00	836 65	-0.03	-0.02	-0.03	124.00	30.00
5451.000	790.00	836.66	0.00	-0.01	0.00	175.00	1 00
5451.000	790.00	836.59	-0.07	-0.05	-0.07	124.00	1.00
5491.000	790.00	836.69	0 00	0.03	0.00	175.00	40.00
5491.000	790.00	836.73	0.04	0.14	0.04	134.00	40.00
5492.000	790.00	836.70	0.00	0.02	0 00	175.00	1.00
5492.000	790.00	836 80	0.10	0.07	0.10	144.00	1.00
5495.000	790.00	836.69	0.00	-0.01	0.00	175.00	3.00
5495.000	790.00	836.78	0.09	-0.02	0.09	144.00	3.00
5520.000	790.00	836.81	0.00	0.12	0.00	230.00	25.00
5520.000	790.00	836.93	0.12	0.15	0.12	215.00	25.00
5650.000	790 00	836.81	0.00	0.00	0.00	230.00	130.00
5650 000	790.00	836.93	0.12	0.00	0.12	215.00	130.00
5731.000	790.00	836.81	0.00	0.00	0.00	110.00	81.00
5731.000	790.00	836.93	0.12	0.00	0 12	65.00	81.00
5766 000	790.00	837.11	0.00	0.30	0.00	90.00	35.00
5766 000	790.00	836.94	-0.18	0.01	-0.18	40.00	35.00
5856.000	790.00	837.33	0.00	0.22	0.00	48.64	90.00
5856.000	790.00	837.29	-0.03	0.36	-0.03	30.39	90.00
5952.000	790.00	837.82	0.00	0.49	0.00	39.02	96.00
5952.000	790.00	837.84	0.02	0 55	0.02	23 21	96.00
6000.000	790.00	838.33	0.00	0.51	0.00	34.88	48.00
6000.000	790.00	838.47	0.14	0.63	0.14	32.00	48.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	6004.000	790.00	839.02	0.00	0.69	0.00	42.14	4.00
	6004.000	790.00	838.76	-0.25	0.29	-0.25	31 00	4.00
	6150 000	790.00	840.33	0.00	1.32	0.00	56.17	146.00
	6150.000	790.00	840.37	0.03	1.61	0.03	35.61	146.00
	6201.000	790.00	840.79	0.00	0.45	0.00	138.27	51.00
	6201.000	790.00	840.88	0.09	0.51	0.09	83.39	51.00
	6294.000	790.00	841.36	0.00	0.57	0.00	245.00	93 00
	6294 000	790.00	841.35	-0.01	0.47	-0.01	100.00	93.00
	6650.000	790.00	841.73	0.00	0.37	0.00	64.47	356.00
	6650.000	790 00	841.78	0.05	0 43	0 05	41.02	356.00
	6800.000	790.00	842 03	0.00	0.30	0 00	60.21	150.00
	6800.000	790.00	842.08	0.06	0.31	0.06	38.64	150.00
	6900.000	790.00	842.22	0.00	0.19	0.00	21.00	100.00
	6900.000	790.00	842.30	0.08	0.22	0.08	21.00	100.00
	6910.000	790.00	842.26	0.00	0.04	0.00	14.95	10.00
	6910.000	790.00	842.34	0 08	0 04	0.08	14.95	10.00
	6930.000	790.00	842.39	0.00	0.13	0.00	14.96	20.00
	6930 000	790.00	842.46	0 07	0.12	0.07	14.96	20.00
	6960.000	790.00	842.56	0 00	0.17	0.00	14.96	30.00
	6960.000	790.00	842.62	0.06	0.16	0.06	14.96	30.00
	6975.000	790.00	842.64	0.00	0.08	0.00	14.96	15.00
	6975.000	790.00	842.70	0.06	0.07	0.06	14.96	15 00
	6978.000	790.00	843.31	0.00	0.67	0.00	21.00	3.00
	6978.000	790.00	843.35	0.04	0.66	0.04	21.00	3.00
	7070 000	790.00	843.58	0.00	0.27	0 00	47.77	92.00
	7070.000	790.00	843.60	0.01	0 24	0.01	31.66	92.00
	7100.000	790.00	843.55	0.00	-0.03	0.00	39.71	30.00
	7100.000	790.00	843.56	0.01	-0.04	0.01	25.78	30.00
*	7175.000	790.00	844 81	0 00	1.26	0.00	34.16	75.00
*	7175.000	790.00	844.81	0.00	1.25	0.00	34.16	75.00
*	7250.000	790.00	846.60	0.00	1 79	0.00	34.24	75.00
*	7250.000	790.00	846.60	0.00	1.79	0 00	34.24	75.00
*	7300.000	790.00	847.79	0.00	1.19	0.00	34.22	50.00
*	7300.000	790.00	847.79	0 00	1.19	0.00	34.22	50.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	7350.000	790.00	848.98	0.00	1.19	0.00	34.23	50.00
*	7350 000	790.00	848.98	0.00	1.19	0.00	34.23	50.00
	7375.000	790.00	850.53	0.00	1.55	0.00	46.24	25.00
	7375.000	790.00	850.43	-0.10	1.46	-0.10	34.19	25.00
	7400.000	790 00	850.61	0.00	0.08	0.00	46 22	25.00
	7400.000	790 00	850.53	-0.08	0.09	-0 08	34.95	25.00
	7571.000	790.00	854.83	0.00	4.22	0.00	250.11	171.00
	7571.000	790.00	854.80	-0.03	4.28	-0.03	67.26	171.00
	7600.000	790.00	854 84	0.00	0.01	0.00	270.00	29.00
	7600.000	790.00	854.81	-0.03	0.01	-0.03	80.00	29.00
	8150.000	790.00	855.09	0.00	0.25	0.00	58.94	550.00
	8150.000	790.00	855.10	0.01	0.29	0.01	59.00	550.00
	8181 000	790.00	855.13	0.00	0.04	0.00	54.66	31.00
	8181 000	790.00	855.14	0.01	0.04	0.01	54.65	31.00
	8425 000	790.00	861.41	0.00	6.28	0.00	270.00	244.00
	8425.000	790.00	861.41	0.00	6.27	0.00	270.00	244.00
	8430.000	790.00	861.51	0.00	0.10	0 00	314.99	5.00
	8430.000	790.00	861.51	0.00	0.10	0.00	315.00	5.00
	8680.000	790.00	861.51	0.00	0.00	0.00	315.25	250.00
	8680.000	790.00	861.51	0.00	0.00	0.00	315.26	250.00
	8701 000	790.00	861.51	0.00	0.00	0.00	250.00	21.00
	8701.000	790.00	861.51	0.00	0.00	0.00	243.28	21 00
	9230.000	790 00	862.42	0.00	0.91	0.00	250.00	529.00
	9230.000	790.00	862.39	-0.03	0.88	-0.03	90.00	529.00
	9305.000	790.00	862.51	0.00	0.09	0.00	160.56	75.00
	9305.000	790.00	862.51	0.00	0.12	0.00	84.00	75.00
	9640.000	790.00	862.54	0 00	0 03	0.00	112.87	335.00
	9640.000	790.00	862.59	0.05	0.08	0.05	95.00	335.00
	9775.000	790.00	862.85	0.00	0 32	0.00	102.38	135.00
	9775.000	790.00	862.96	0.11	0.37	0.11	101.71	135.00
	10000.000	790.00	865.78	0.00	2.93	0.00	101.94	225 00
	10000.000	790.00	865.74	-0.04	2.78	-0.04	87.20	225.00
	10050.000	790.00	866.63	0 00	0.85	0.00	100.74	50.00
	10050.000	790.00	866.79	0.16	1.04	0.16	103.26	50.00

	SECND	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	10051.000	790.00	866.63	0.00	0.00	0.00	100 85	1 00
	10051.000	790.00	866.78	0.15	0.00	0.15	103.37	1.00
	10059.000	790.00	866 91	0.00	0.28	0.00	104.43	8.00
	10059.000	790.00	866.97	0.06	0.18	0.06	103.50	8.00
	10060.000	790.00	866.99	0.00	0.08	0.00	105.04	1.00
	10060.000	790 00	867.03	0.04	0.07	0.04	103.50	1 00
	10100.000	790.00	867.28	0.00	0.30	0.00	107 40	40.00
	10100.000	790.00	867 28	-0 01	0.24	-0.01	86.95	40.00
	10920.000	790.00	869.81	0.00	2.52	0.00	111.56	820.00
	10920.000	790.00	869.94	0.13	2 66	0.13	93.77	820.00
	11021.000	790.00	870.01	0.00	0.21	0.00	63.93	101.00
	11021.000	790.00	870.14	0.13	0.20	0.13	55.19	101.00
	11129.000	790.00	872.18	0.00	2.17	0.00	184.38	108.00
	11129.000	790.00	872.19	0 01	2.05	0.01	99.39	108.00
	11170.000	790.00	872.22	0.00	0.04	0.00	165.00	41.00
	11170.000	790.00	872.19	-0 03	0.00	-0.03	100.00	41.00
	11221.000	790.00	872.24	0.00	0 03	0.00	138.53	51.00
	11221.000	790.00	872.24	-0.01	0.05	-0 01	96.81	51.00
	11288.000	790.00	876.31	0.00	4.07	0 00	361.12	67.00
	11288.000	790.00	876.29	-0.02	4.05	-0 02	100.00	67.00
	11330.000	790.00	876.32	0.00	0.01	0 00	385.26	42 00
	11330.000	790 00	876.31	0.00	0 02	0.00	160.00	42.00
	11730.000	790 00	876.28	0.00	-0.04	0.00	226 89	400.00
	11730.000	790 00	876.36	0.08	0.05	0.08	185.00	400.00
	11800.000	790.00	876.61	0.00	0.33	0.00	213.38	70.00
	11800.000	790.00	876.72	0.11	0.36	0.11	200.00	70.00
	11850 000	790.00	877 09	0.00	0 48	0.00	213.00	50.00
	11850.000	790.00	877 11	0.02	0.39	0.02	210.00	50.00
	12050.000	790.00	879.09	0.00	1.99	0.00	212.59	200.00
*	12050.000	790.00	879.15	0.06	2.04	0.06	162.85	200.00
	12239.000	790.00	880.99	0 00	1.90	0.00	212.93	189.00
	12239.000	790.00	881.13	0.14	1.98	0.14	170.00	189.00
	13030 000	790 00	884.44	0.00	3.45	0.00	243.19	791.00
	13030.000	790.00	884.51	0.06	3.38	0.06	188.61	791.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	13181.000	790 00	886.64	0.00	2.19	0.00	207.02	151.00
*	13181.000	790.00	886.61	-0.02	2.10	-0.02	120.00	151.00
	13205.000	790.00	887.79	0.00	1.15	0.00	320.00	24.00
	13205.000	790.00	887.72	-0 07	1.11	-0.07	140.00	24.00
	13400.000	790.00	887.94	0.00	0.16	0.00	280.00	195 00
	13400.000	790.00	888 01	0.06	0.29	0.06	136.84	195.00
	13500.000	790 00	888.23	0.00	0.29	0.00	235.00	100 00
	13500.000	790.00	888.31	0.08	0.30	0.08	128.87	100.00
	13661.000	790.00	888.78	0.00	0.55	0.00	150 00	161.00
	13661.000	790.00	888.87	0.09	0 56	0 09	112.60	161.00
	13685.000	790.00	889.56	0.00	0.77	0.00	140.00	24.00
	13685.000	790.00	889.35	-0.21	0.48	-0.21	70.00	24.00
	13850.000	790.00	889.81	0.00	0.26	0.00	55.00	165.00
	13850.000	790.00	889.77	-0 04	0.42	-0 04	55.00	165.00
	13901 000	790.00	890.08	0.00	0.27	0 00	26.30	51.00
	13901 000	790 00	890.05	-0.03	0.28	-0.03	26.21	51.00
*	13975.000	790 00	891.34	0.00	1.26	0.00	25.67	74.00
*	13975.000	790.00	891.34	0.00	1.29	0.00	25.67	74.00
	13980.000	490.00	895.35	0.00	4.01	0 00	35.00	5.00
	13980.000	490.00	895.35	0.00	4.01	0.00	35.00	5.00
	13985.000	490.00	895.35	0.00	0.00	0.00	45.00	5.00
	13985.000	490.00	895 35	0.00	0.00	0.00	45.00	5.00
	13990.000	490.00	895.35	0.00	0.00	0.00	55.00	5.00
	13990.000	490.00	895.35	0.00	0.00	0.00	55.00	5.00
	13993.000	490.00	895.35	0.00	0.00	0.00	58 69	3.00
	13993.000	490.00	895.35	0.00	0.00	0.00	58.69	3.00
	13994 000	490.00	895.37	0.00	0.02	0.00	59 74	1.00
	13994.000	490.00	895.37	0.00	0.02	0.00	59.74	1.00
	14002.000	490.00	895.39	0.00	0.03	0.00	67.97	8.00
	14002.000	490.00	895.39	0 00	0.03	0.00	67.97	8.00
	14003.000	490.00	895.39	0.00	0.00	0.00	68.97	1.00
	14003.000	490.00	895 39	0.00	0.00	0 00	68.97	1.00
	14016.000	490.00	895.40	0.00	0.00	0.00	75.10	13.00
	14016.000	490.00	895.40	0.00	0.00	0.00	75.10	13.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	14018.000	490.00	895.63	0.00	0.23	0.00	76.00	2.00
	14018.000	490.00	895.63	0.00	0.23	0.00	76.00	2.00
	14034.000	490.00	895.63	0 00	0.00	0.00	101 00	16.00
	14034.000	490.00	895.63	0.00	0.00	0.00	78.00	16.00
	14546.000	490.00	895.64	0.00	0.01	0 00	101.00	512.00
	14546.000	490.00	895.64	0.00	0.01	0.00	78.00	512.00
*	14566.000	490.00	895.72	0.00	0.08	0.00	54.02	20.00
*	14566.000	490.00	895.71	-0.01	0.07	-0.01	53.23	20.00
	14568.000	490.00	896.85	0 00	1 14	0.00	77.56	2 00
	14568.000	490.00	896.86	0.00	1.15	0.00	77.59	2.00
	15308.000	490.00	896.87	0.00	0.01	0.00	77.65	740 00
	15308.000	490.00	896.87	0.00	0 01	0.00	77.69	740 00
*	15315.000	490 00	900.69	0.00	3.83	0.00	56.85	7.00
*	15315.000	490 00	900.69	0 00	3.82	0.00	56.85	7.00
	15325.000	490.00	901.79	0 00	1.10	0.00	175.50	10.00
	15325.000	490.00	901.79	0 00	1 10	0.00	175.50	10.00
	15600 000	490.00	901.79	0.00	0.00	0.00	175.52	275.00
	15600.000	490.00	901.79	0.00	0.00	0.00	175 52	275.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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NOTE     SECNO=  2905.000  PROFILE= 1  WSEL BASED ON X5 CARD
NOTE     SECNO=  2905.000  PROFILE= 2  WSEL BASED ON X5 CARD

NOTE     SECNO=  3905.000  PROFILE= 1  WSEL BASED ON X5 CARD
NOTE     SECNO=  3905.000  PROFILE= 2  WSEL BASED ON X5 CARD

NOTE     SECNO=  4905.000  PROFILE= 1  WSEL BASED ON X5 CARD
NOTE     SECNO=  4905.000  PROFILE= 2  WSEL BASED ON X5 CARD

CAUTION  SECNO=  7175.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  7175.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  7175.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=  7175.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  7175.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=  7250.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  7250.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  7250.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  7250.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=  7300.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  7300.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  7300.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  7300.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=  7350.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  7350.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  7350 000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  7350.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO= 12050.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 12050.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO= 13181.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 13181,000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 13181.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 13181.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO= 13975 000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 13975.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 13975.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 13975.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO= 14566.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 14566.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 14566.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 14566.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 14566.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 14566.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO= 15315.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO= 15315.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 15315.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 15315.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 15315.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 15315.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
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FLOODWAY DATA, 100-YEAR DISCHARGE, EXIS
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
0.000	57.	283.	3.0	807.5	807.4	0.1
350.000	57.	283.	3.0	807.9	807.8	0.1
700 000	41.	236.	3.6	808.3	808.2	0.1
750 000	17.	125.	6.7	808.5	808.4	0.1
751.000	17.	103	8.1	808.2	808.1	0.1
850 000	17.	104.	8.1	808.4	808.3	0 1
1000.000	17.	106.	8.0	808.6	808.5	0.1
1300.000	17.	108.	7.8	809.1	809.0	0 1
1600.000	17.	111.	7.6	809.5	809.4	0.1
2250.000	17.	110.	7.6	810.3	810.2	0.1
2900.000	17.	109.	7.7	811.1	811.1	0 0
2905.000	20	110.	7.6	811.9	811.8	0 1
3905.000	20.	160.	5.3	822.0	821.9	0.1
4905.000	20	208.	4.0	832.1	832.0	0.1
4906.000	20.	208.	4.0	832.1	832.0	0 1
4950 000	81.	529.	1.6	832.4	832.3	0.1
5200 000	46.	219.	3.8	832.4	832.3	0.1
5270.000	38.	167.	5.0	832.4	832.3	0.1
5330.000	32.	121.	6.9	832.6	832 5	0.1
5380.000	75.	149.	5.6	833 6	833.6	0.0
5420.000	125.	562.	1.5	836.7	836.7	0.0
5450.000	124.	415.	1.9	836.7	836.7	0 0
5451.000	124.	235.	3.4	836.7	836.7	0.0
5491.000	134.	284.	2.8	836.7	836.7	0.0
5492.000	144.	489.	1.6	836.8	836.7	0.1
5495.000	144.	416.	1.9	836.8	836.7	0.1
5520.000	215.	1875.	0.4	836 9	836.8	0.1
5650.000	215	1876.	0.4	836.9	836.8	0.1
5731.000	65.	220.	3.6	836.9	836.8	0.1
5766 000	40.	159.	5.0	837.0	837.1	-0.1
5856 000	30.	126.	6.3	837.3	837 3	0.0
5952.000	23	91.	8.7	837 8	837.8	0.0
6000.000	32.	92	8.5	838.4	838.3	0.1
6004 000	31.	100.	7.9	838.8	839.0	-0.2
6150 000	36.	161.	4.9	840.3	840.3	0.0
6201 000	88.	272.	2.9	840.9	840.8	0.1
6294.000	100	322.	2.5	841.4	841.4	0.0
6650.000	41.	197.	4.0	841.7	841.7	0.0
6800 000	39.	183.	4.3	842.1	842.0	0 1
6900.000	21.	127.	6 2	842.3	842.2	0.1
6910.000	15.	98.	8.0	842.4	842.3	0.1
6930.000	15.	100.	7.9	842.5	842.4	0.1

FLOODWAY DATA, 100-YEAR DISCHARGE, EXIS
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
6960.000	15.	103.	7.7	842.7	842.6	0.1
6975.000	15.	104.	7.6	842.7	842.6	0.1
6978.000	21.	144.	5.5	843 3	843.3	0 0
7070.000	32.	127.	6.2	843.6	843.6	0.0
7100.000	26.	97.	8.2	843.6	843.6	0 0
7175.000	34	86.	9.1	844.8	844.8	0.0
7250.000	34.	87.	9.1	846.6	846.6	0 0
7300.000	34.	87.	9 1	847.8	847.8	0.0
7350.000	34.	87.	9.1	849.0	849.0	0.0
7375.000	34.	143.	5.5	850.5	850.5	0.0
7400.000	35.	139	5.7	850.6	850.6	0.0
7571 000	67.	393.	2.0	854.8	854.8	0.0
7600.000	80	425	1.9	854.8	854.8	0.0
8150.000	59	254.	3.1	855.1	855.1	0.0
8181.000	55	221.	3.6	855.1	855 1	0.0
8425.000	270.	480.	1.6	861.4	861 4	0 0
8430.000	315.	3472.	0 2	861.5	861.5	0 0
8680.000	315.	3474	0.2	861.5	861.5	0.0
8701 000	243.	1609.	0.5	861 5	861.5	0.0
9230.000	90.	338	2.3	862.4	862 4	0 0
9305.000	84	633.	1.2	862.5	862.5	0.0
9640.000	95.	301.	2.6	862.6	862.5	0 1
9775.000	102.	180.	4.4	863.0	862.9	0.1
10000.000	87.	148.	5.3	865.8	865.8	0.0
10050.000	103.	167	4.7	866.8	866.6	0.2
10051.000	103.	160.	4.9	866.8	866 6	0.2
10059.000	104.	178.	4.4	867.0	866 9	0.1
10060.000	104.	192.	4.1	867.0	867.0	0.0
10100.000	87.	218.	3.6	867.3	867.3	0.0
10920.000	94.	296.	2.7	869.9	869.8	0.1
11021.000	55.	220.	3 6	870.1	870.0	0 1
11129.000	99	395.	2.0	872 2	872.2	0.0
11170.000	100.	326.	2.4	872.2	872.2	0.0
11221 000	97.	199	4.0	872.2	872.2	0.0
11288.000	100.	584.	1.4	876.3	876.3	0.0
11330.000	160.	858.	0.9	876.3	876.3	0.0
11730.000	185.	277.	2.9	876.4	876.3	0.1
11800.000	200.	237.	3.3	876.7	876.6	0.1
11850 000	210.	221.	3.6	877.1	877 1	0.0
12050.000	163.	192.	4.1	879.2	879.1	0.1
12239.000	170.	214.	3.7	881.1	881.0	0.1
13030.000	189.	378.	2.1	884.5	884.4	0.1

FLOODWAY DATA, 100-YEAR DISCHARGE, EXIS
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
13181.000	120.	154	5.1	886.6	886.6	0.0
13205.000	140.	317	2.5	887.8	887.8	0.0
13400.000	137.	238.	3.3	888.0	887.9	0 1
13500.000	129.	218	3.6	888.3	888.2	0 1
13661.000	113.	203.	3.9	888.9	888.8	0.1
13685.000	70.	194.	4.1	889.5	889.6	-0.1
13850.000	55.	154	5.1	889.8	889.8	0 0
13901.000	26.	108.	7.3	890.1	890.1	0 0
13975.000	26	60.	13.2	891.3	891.3	0 0
13980 000	35.	251.	2.0	895.3	895 3	0 0
13985.000	45.	256.	1.9	895.3	895 3	0.0
13990.000	55.	243.	2.0	895.3	895.3	0.0
13993 000	59.	222.	2.2	895.3	895.3	0 0
13994.000	60.	203.	2.4	895.4	895.4	0.0
14002.000	68.	221.	2.2	895.4	895 4	0.0
14003.000	69.	245.	2.0	895.4	895.4	0 0
14016.000	75.	185.	2.7	895 4	895.4	0.0
14018.000	76.	513.	1 0	895 6	895 6	0.0
14034.000	78.	508.	1.0	895 6	895.6	0 0
14546.000	78.	509.	1.0	895.6	895 6	0.0
14566.000	53.	79	6.2	895.7	895.7	0.0
14568.000	78.	462.	1.1	896.9	896.9	0.0
15308.000	78.	463.	1.1	896 9	896 9	0 0
15315.000	57.	82.	5.9	900.7	900 7	0.0
15325.000	175.	871.	0.6	901.8	901.8	0 0
15600 000	176.	871.	0.6	901 8	901.8	0.0

```
**********************************************************
*  WATER SURFACE PROFILES                                *
*  VERSION OF NOVEMBER 1976                              *
*  UPDATED MAY 1984                                      *
*                                                        *
*  RUN DATE  13 DEC 88 TIME    10.11:59                  *
**********************************************************
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**************************************
*  U.S. ARMY CORPS OF ENGINEFRS      *
*  THE HYDROLOGIC ENGINEFRING 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     X
XXXXXXX   XXXX      X           XXXXX    XXXXX
X      X  X         X                 X
X      X  X         X     X           X
X      X  XXXXXXX   XXXXX             XXXXXXX
```

Northwest Branch PAAD
Multiple Profile
INPUT: NWBRAA
OUTPUT: PITTS

THIS RUN EXECUTED 13 DEC 88 10:12:00

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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
**************************************************
```

C
T1 CITY OD ANN ARBOR, MI, FLOOD INSURANCE RESTUDY
T2 NORTHWEST BRANCH PITTSFIELD-ANN ARBOR DRAIN
T3 10-YEAR DISCHARGE

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2	0.	0.	0.001140	0 00	0.0	0.	805.200	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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.045	0.300	0.500	0 000	0.000	0.000	0.000	0.000
QT	4.000	470.000	680.000	840 000	1060.000	0.000	0.000	0.000	0 000	0.000
		FIELD SECTION 1, MOVED D/S TO MOUTH								
X1	0.000	16.000	125.000	150.000	0 000	0.000	0.000	0.000	-0.400	0.000
GR	811.900	0.000	811.800	25.000	808.200	50.000	808.100	72.000	808.000	75.000
GR	807.000	103.000	802.900	125.000	801.500	127.000	801.000	128.000	801.000	136.000
GR	801.500	146.000	803.100	150.000	803.000	156.000	807.700	175.000	812.100	195.000
GR	812.000	203.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		VALLEY SECTION A, FIELD SECTION 1								
X1	350.000	0.000	0.000	0.000	350.000	350.000	350.000	0.000	0.400	0.000
NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
		FIELD SECTION 1, MOVED U/S DRAIN								
X1	700.000	0.000	0.000	0.000	350.000	350.000	350.000	0.000	0.400	0.000
X3	0.000	0.000	0.000	117.000	0.000	158.000	0.000	0.000	0.000	0.000
X1	750.000	13.000	177.000	193.600	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	177.000	0.000	193 600	0.000	0.000	0.000	0.000
GR	817.000	0.000	811.000	160.000	802.000	177.000	802.000	177.100	800.900	179.300
GR	800 700	182.300	800.500	185.300	800.700	188 300	800.900	191.300	802.000	193.500
GR	802.000	193.600	811.000	210.000	817 000	370.000	0.000	0.000	0.000	0 000

NC	0.015	0.015	0.015	0.100	0.300	0.000	0.000	0.000	0.000	0.000
		D/S FACE	NORTHWEST	BRANCH	PITTSFIELD-A2	DRAIN	ENCLOSED			
X1	751.000	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	177.000	0 000	193.600	0.000	0.000	0.000	0.000
BT	-13.000	0.000	820.000	0.000	160.000	815.000	0.000	177.000	815.000	802.000
BT	0.000	177.100	815.000	803.800	179.300	815.000	806.300	182.300	815.000	810.000
BT	0.000	185.300	815.000	810.600	188.300	815.000	810 000	191.300	815.000	806.300
BT	0.000	193.500	815.000	803.800	193.600	815.000	802.000	210.000	815.000	0.000
BT	0.000	370.000	820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	850 000	0.000	0.000	0.000	99 000	99.000	99.000	0.000	0.050	0.000
X3	0.000	0.000	0.000	177.000	0.000	193.600	0.000	0 000	0.000	0.000
BT	-13.000	0.000	820.000	0.000	160.000	815.000	0.000	177.000	815.000	802.050
BT	0.000	177.100	815.000	803.850	179.300	815.000	806.350	182.300	815.000	810.050
BT	0.000	185.300	815.000	810.650	188 300	815.000	810.050	191.300	815.000	806.350
BT	0.000	193.500	815.000	803.850	193.600	815.000	802.050	210.000	815.000	0.000
BT	0.000	370 000	820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1000.000	13.000	177.000	193.600	150.000	150.000	150.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	177.000	0.000	193.600	0.000	0.000	0.000	0.000
BT	-13.000	0.000	820.000	0 000	160.000	815 000	0.000	177.000	815 000	802.130
BT	0.000	177.100	815.000	803.930	179.300	815.000	806.430	182.300	815.000	810.130
BT	0.000	185.300	815.000	810.730	188.300	815.000	810.130	191.300	815 000	806.430
BT	0.000	193.500	815.000	803.930	193.600	815.000	802.130	210.000	815.000	0.000
BT	0 000	370.000	820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	817.130	0.000	811.130	160.000	802.130	177.000	802.130	177 100	801.030	179.300
GR	800.830	182 300	800.630	185 300	800.830	188.300	801.030	191 300	802.130	193.500
GR	802 130	193.600	811.130	210.000	817.130	370.000	0.000	0.000	0.000	0.000
X1	1300.000	0.000	0.000	0.000	300.000	300.000	300.000	0.000	0.150	0.000
X3	0.000	0.000	0.000	177.000	0.000	193.600	0.000	0.000	0.000	0.000
BT	-13.000	0.000	820.000	0.000	160.000	815.000	0.000	177.000	815.000	802.280
BT	0.000	177.100	815.000	804 080	179.300	815 000	806.580	182.300	815.000	810.280
BT	0.000	185.300	815.000	810.880	188.300	815.000	810.280	191.300	815.000	806.580
BT	0.000	193.500	815.000	804.080	193.600	815 000	802.280	210.000	815.000	0.000
BT	0.000	370.000	820.000	0 000	0.000	0.000	0.000	0.000	0.000	0.000
X1	1600.000	13 000	177.000	193.600	300.000	300.000	300 000	0.000	0.000	0.000
X3	0.000	0.000	0.000	177.000	0.000	193.600	0.000	0.000	0.000	0.000
BT	-13.000	0.000	820.000	0.000	160.000	815.000	0.000	177.000	815.000	802.430
BT	0 000	177.100	815.000	804.230	179 300	815.000	806.730	182.300	815.000	810.430
BT	0.000	185.300	815.000	811.030	188 300	815.000	810.430	191.300	815 000	806.730
BT	0.000	193.500	815.000	804.230	193.600	815.000	802.430	210.000	815.000	0.000
BT	0.000	370.000	820.000	0.000	0.000	0 000	0.000	0.000	0.000	0.000
GR	817.380	0.000	811.380	160.000	802.430	177.000	802.380	177 100	801 280	179.300
GR	801.080	182.300	800.880	185.300	801.080	188.300	801.280	191.300	802.380	193.500
GR	802.430	193.600	811.380	210.000	817.380	370.000	0.000	0.000	0.000	0.000

X1	2250.000	0.000	0 000	0.000	650.000	650.000	650.000	0.000	0.910	0.000
X3	0.000	0.000	0.000	177.000	0.000	193.600	0.000	0.000	0.000	0.000
BT	-13.000	0.000	820 000	0.000	160.000	815.000	0.000	177.000	815.000	803.340
BT	0 000	177.100	815.000	805.140	179 300	815.000	807.640	182.300	815.000	811.340
BT	0.000	185.300	815.000	811 940	188.300	815 000	811.340	191 300	815.000	807.640
BT	0.000	193.500	815.000	805.140	193.600	815 000	803.340	210.000	815.000	0.000
BT	0.000	370.000	820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	2900.000	13.000	177.000	193.600	650.000	650.000	650.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	177.000	0.000	193.600	0.000	0.000	0.000	0 000
BT	-13.000	0.000	820.000	0.000	160.000	815.000	0.000	177 000	815.000	804.400
BT	0.000	177.100	815.000	806.050	179.300	815.000	808.550	182.300	815.000	812.250
BT	0.000	183.500	815.000	812.850	188.300	815.000	812.250	191.300	815.000	808.550
BT	0.000	193.500	815.000	806.050	193.600	815.000	804.400	210.000	815.000	0.000
BT	0.000	370.000	820.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	819.200	0.000	813.200	160.000	804.400	177 000	804.200	177.100	803.100	179 300
GR	802.900	182.300	802.700	183.500	802.900	188.300	803.100	191.300	804.200	193.500
GR	804 400	193.600	813 200	210 000	819.200	370.000	0.000	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

CHANGE IN PIPE SIZE AT JUNCTION, NW BR PITTSFIELD-A2 DRAIN ENC

X1	2905.000	21.000	90.000	110.000	5.000	5 000	5.000	0 000	0.000	0.000
X3	0.000	0.000	0.000	90.000	0.000	110.000	0.000	0.000	0.000	0.000
X5	3.000	0.000	811.550	811.750	813 270	0.000	0.000	0.000	0.000	0.000
BT	-19.000	0.000	838.300	0.000	25.000	837.800	0.000	50.000	837.500	0.000
BT	0.000	75.000	837.000	0.000	96.500	836.500	808 250	97.000	836.500	810.250
BT	0.000	98.000	836.500	811.150	99.000	836.500	811.650	100.000	836.500	811.750
BT	0.000	101.000	836.500	811.650	102.000	836.500	811.150	103.000	836.500	810.250
BT	0.000	103.500	836.500	808.250	125.000	836.000	0.000	150.000	835.700	0.000
BT	0.000	175.000	835.300	0.000	200.000	834.900	0.000	225.000	834.500	0 000
BT	0.000	325.000	833.000	0.000	0.000	0 000	0.000	0.000	0.000	0.000
GR	822.950	0.000	822.450	25.000	822.150	50.000	813.650	75.000	805 250	90.000
GR	808 250	96.500	806.450	97.000	805.350	98 000	804.850	99.000	804.750	100.000
GR	804.750	101 000	805.350	102.000	806.450	103.000	808.250	103.500	805.250	110.000
GR	812.650	125.000	820.350	150.000	819.950	175.000	819.550	200.000	819 150	225.000
GR	817 650	325.000	0.000	0.000	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

WATER SURFACE ELEVATIONS BY INTERPOLATION BETWEEN 2905 AND 4905
BASED ON CONTROLING ELEVATION FOR WEIR FLOW AT 4905

X1	3905.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	7.670	0.000
X3	0.000	0.000	0 000	90.000	0.000	110.000	0.000	0.000	0.000	0.000
X5	3.000	0.000	821.700	821.900	823.420	0.000	0.000	0.000	0.000	0.000
BT	-19.000	0.000	838.300	0.000	25 000	837.800	0.000	50.000	837.500	0.000
BT	0.000	75.000	837.000	0 000	96.500	836.500	815.920	97.000	836.500	817.920
BT	0.000	98.000	836.500	818 820	99.000	836.500	819.320	100.000	836.500	819.420
BT	0.000	101.000	836.500	819.320	102.000	836.500	818.820	103.000	836.500	817.920
BT	0.000	103.500	836.500	815.920	125.000	836.000	0.000	150.000	835.700	0.000
BT	0.000	175.000	835.300	0.000	200.000	834.900	0.000	225.000	834.500	0.000
BT	0.000	325.000	833.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

U/S FACE NORTHWEST BRANCH PITTSFIELD-A2 DRAIN, ENCLOSED

X1	4905.000	21.000	90.000	110.000	1000.000	1000.000	1000.000	0.000	0.000	0 000
X3	0.000	0.000	0.000	90.000	0.000	110 000	0 000	0.000	0.000	0.000
X5	3.000	0.000	831.800	832.000	832.200	0 000	0.000	0.000	0.000	0 000
BT	-19.000	0.000	838.300	0.000	25.000	837.800	0.000	50.000	837.500	0.000
BT	0.000	75.000	837.000	0.000	96.500	836.500	823.590	97 000	836.500	825.590
BT	0.000	98.000	836.500	826.490	99.000	836.500	826.990	100.000	836 500	827.090
BT	0.000	101.000	836.500	826.990	102.000	836.500	826.490	103.000	836.500	825.590
BT	0.000	103.500	836.500	823.590	125.000	836.000	0.000	150.000	835.700	0 000
BT	0.000	175.000	835.300	0.000	200 000	834.900	0.000	225.000	834.500	0.000
BT	0.000	325.000	833.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	838.300	0.000	837.800	25.000	837.500	50.000	829.000	75.000	820.600	90.000
GR	823 590	96.500	821 800	97.000	820.700	98.000	820.200	99.000	820.100	100 000
GR	820.200	101 000	820.700	102.000	821.800	103.000	823.590	103.500	820.600	110 000
GR	828.000	125 000	835.700	150.000	835.300	175.000	834.900	200.000	834 500	225.000
GR	833.000	325.000	0.000	0.000	0.000	0 000	0.000	0.000	0.000	0.000
NC	0 030	0.030	0.030	0.300	0 500	0.000	0.000	0.000	0.000	0.000
X1	4906.000	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	90.000	0.000	110.000	0.000	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

VALLEY SECTION B, FIELD SECTION 2A (SUPPLEMENTAL SURVEY)

X1	4950 000	5.000	66.000	73.000	44.000	44.000	44.000	0.000	0 000	0.000
GR	831 800	0.000	830.300	40.000	820.100	66.000	820.500	73 000	830.900	108.000
NC	0.040	0.040	0 040	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	5200 000	6.000	60.000	67.000	250.000	250.000	250.000	0.000	0.000	0.000
GR	832.700	0.000	831.100	41.000	824 800	60.000	824 600	67.000	831.700	86.000
GR	832.200	112.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0 000
X1	5270.000	6.000	57 000	65.000	70.000	70.000	70.000	0 000	0.000	0.000
GR	833 000	0.000	831.400	40.000	826 000	57.000	825.700	65.000	831.900	80.000
GR	832.600	114.000	0.000	0.000	0.000	0.000	0.000	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

VALLEY SECTION C, FIELD SECTION 2B (SUPPLEMENTAL SURVEY)

X1	5330.000	7.000	55.000	62.000	60.000	60.000	60.000	0.000	0.000	0.000
GR	833.300	0.000	831.600	40.000	827.200	55.000	826.800	62.000	832.200	73.000
GR	833.000	86 000	832.900	116.000	0.000	0.000	0.000	0.000	0.000	0.000

DOWNSTREAM FACE ANN ARBOR RAILROAD, FIELD SECTION 3

X1	5380.000	22.000	220.000	285.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0 000	0.000	186.000	0.000	349.000	0.000	0.000	0.000	0.000
GR	836.200	0.000	833.000	175.000	832.800	220.000	830.800	247.400	830.800	247.500
GR	829.200	248 000	828.400	249.000	828.300	250.000	828.400	251 000	829.200	252.000
GR	830.800	252.500	830.800	253.500	829.200	254.000	828.400	255.000	828.300	256.000
GR	828 400	257.000	829.200	258.000	830.800	258.500	830.800	258.600	832.800	285.000
GR	833.000	360.000	836.500	475.000	0.000	0.000	0 000	0.000	0.000	0.000

NC	0.030	0.030	0.030	0.300	0.500	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.500	3.000	0.000	10 000	0.000	39.270	0.000	0.000	0.000
		U/S FACE ANN ARBOR RAILROAD								
X1	5420.000	20.000	220.000	285.000	40.000	40.000	40.000	0 000	0.000	0.000
X2	0.000	0.000	1.000	833.300	836.200	0.000	0.000	0.000	0.000	0.000
X3	0 000	0.000	0.000	175.000	0 000	360.000	0.000	0.000	0.000	0.000
X4	2.000	833.000	175.000	833 000	360.000	0.000	0.000	0.000	0.000	0.000
BT	-16.000	0.000	836.200	0.000	247 500	836.200	830.800	248 000	836.200	832.500
BT	0.000	249.000	836.200	833.200	250.000	836.200	833.300	251.000	836.200	833.200
BT	0.000	252.000	836.200	832.500	252.500	836.200	830.800	253.500	836.300	830.800
BT	0.000	254.000	836.300	832.500	255.000	836.300	833.200	256.000	836.300	833.300
BT	0.000	257.000	836.300	833.200	258.000	836.300	832.500	258.500	836.300	830.800
BT	0.000	475.000	836.500	0.000	0.000	0 000	0.000	0.000	0.000	0.000
GR	836.200	0.000	833.000	220.000	830.800	247.400	830.800	247.500	829.200	248.000
GR	828.400	249.000	828.300	250.000	828.400	251.000	829.200	252.000	830.800	252.500
GR	830.800	253.500	829 200	254 000	828.400	255.000	828.300	256.000	828.400	257.000
GR	829.200	258.000	830.800	258.500	830.800	258.600	833.000	285.000	836.500	475.000
NC	0.050	0.050	0.030	0.300	0.500	0.000	0.000	0.000	0.000	0.000
QT	4.000	470.000	680.000	790.000	1000.000	0.000	0.000	0.000	0.000	0.000
X1	5450.000	27.000	90.000	110.000	30.000	30.000	30.000	0.000	0.000	0.000
GR	833.400	0.000	833.600	25.000	834.100	50.000	834.700	75.000	829.500	90.000
GR	829.500	91.900	831.100	92.000	830.200	92.500	829.700	93.400	829.500	94.500
GR	829.700	95.600	830.200	96.500	831.100	97.000	829.500	97.100	829.400	100.900
GR	831.000	101.000	830.100	101.500	829.600	102.400	829.400	103.500	829.600	104.600
GR	830.100	105.500	831.000	106.000	829.400	106.100	829.400	110.000	835.600	125.000
GR	835.600	150.000	835.200	175.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.030	0.030	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		OUTLET OF RETENTION BASIN FIELD SECTION 3A (SUPP SURVEY)								
X1	5451.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	-27.000	0.000	833.400	0.000	25.000	833.600	0.000	50.000	834.100	0.000
BT	0.000	75.000	834.700	0.000	90.000	835.000	0.000	91.900	835.000	0.000
BT	0.000	92.000	835 000	831.100	92.500	835.100	832.000	93.400	835.100	832.500
BT	0.000	94.500	835.100	832.700	95.600	835.100	832.500	96.500	835.100	832.000
BT	0.000	97.000	835.100	831.100	97.100	835.100	0.000	100.900	835.200	0.000
BT	0.000	101.000	835.200	831.000	101.500	835.200	831.900	102.400	835.200	832.400
BT	0.000	103.500	835.300	832.600	104.600	835.300	832.400	105.500	835.300	831.900
BT	0.000	106 000	835.300	831 000	106.100	835.300	0.000	110.000	835.400	0.000
BT	0 000	125.000	835.600	0.000	150.000	835.600	0.000	175.000	835.200	0.000
		U/S END OF RETION BASIN OUTLET								
X1	5491.000	0.000	0.000	0.000	40.000	40.000	40.000	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	5492.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
		WEIR ON OUTLET OF RETENTION BASIN								
X1	5495.000	13.000	90.000	110.000	3.000	3.000	3.000	0.000	0.000	0.000
GR	833.400	0.000	833.600	25.000	834.100	50.000	834.700	75.000	831 800	90.000
GR	831.800	98.500	829.400	99.000	829.400	101.000	831.800	101.500	831.800	110.000
GR	835.600	125.000	835.600	150.000	835.200	175.000	0.000	0.000	0.000	0.000

NC	0.020	0 020	0 020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		RETENTION BASIN AT R.R. (APPROX)								
X1	5520.000	4 000	15.000	215.000	25.000	25 000	25.000	0.000	0.000	0.000
GR	834.000	0.000	828.000	15.000	828.000	215.000	834.000	230.000	0.000	0.000
NC	0.020	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		RETENTION BASIN AT R.R. (APPROX)								
X1	5650.000	0.000	0.000	0 000	130.000	130.000	130.000	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
		INLET TO RETENTION BASIN, FIELD SECTION 3B, SUPPLEMENTAL SURVEY								
X1	5731.000	24.000	109.000	118.000	81.000	81.000	81.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	60.000	0.000	170.000	0.000	0.000	0.000	0.000
GR	835.000	0.000	834.900	100.000	830.200	109.000	829.200	110.400	830.200	110.500
GR	830.200	110.510	829.500	111.000	829.200	112.000	829.500	113.000	830.200	113.500
GR	830.200	113.510	829.200	113.600	829.300	114.400	830.300	114.500	830 300	114.510
GR	829.600	115.000	829.300	116.000	829.600	117.000	830.300	117.500	830.300	117.510
GR	829.300	117.600	829.800	118.000	836.800	129.000	836.800	200.000	0.000	0.000
NC	0.030	0.030	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	3.030	3 000	0.000	9.000	0.000	19.200	0.000	0.000	0.000
		U/S SIDE OF INLET TO RETENTION BASIN								
X1	5766.000	0.000	0.000	0.000	35.000	35.000	35.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	832.300	835.000	0.000	0.000	0.000	0.000	0.000
X3	0.000	0 000	0.000	70.000	0 000	160.000	0.000	0.000	0.000	0.000
BT	-19.000	0.000	835.000	0.000	100.000	836.300	0.000	109.000	836.300	0.000
BT	0.000	110.500	836.400	830.200	110.510	836.400	831.200	111.000	836.400	831.900
BT	0.000	112.000	836.400	832.200	113.000	836.400	831.900	113.500	836.400	831.200
BT	0.000	113.510	836.400	830.200	114.500	836 400	830.300	114.510	836.400	831.300
BT	0.000	115.000	836.400	832.000	116.000	836.400	832.300	117.000	836.500	832.000
BT	0.000	117 500	836 500	831.300	117.510	836.500	830.300	129.000	836.800	0.000
BT	0.000	200.000	836.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5856.000	20 000	250.000	273.000	90.000	90.000	90.000	0.000	-2.300	0.000
GR	843.600	0.000	844.300	50.000	843.100	125.000	843.300	150.000	842.200	175.000
GR	842.000	200.000	842.200	219.000	841.800	225.000	836.700	250.000	833.700	258.000
GR	833.000	262.000	833.700	265.000	837.700	273 000	838.000	275.000	840.800	291.000
GR	841 600	304.000	841.300	325.000	841.600	350.000	842.400	375.000	843.700	400.000
NC	0 000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	5952.000	0.000	0.000	0.000	96.000	96.000	96.000	0.000	1.400	0.000
		VALLEY SECTION D, FIELD SECTION 4								
X1	6000.000	0.000	0.000	0.000	48.000	48.000	48.000	0.000	0.900	0.000
X1	6004.000	0.000	0.000	0.000	4.000	4.000	4.000	0.000	0.000	0.000

		FIELD SECTION 4 MOVED U/S								
X1	6150.000	0.000	0.000	0.000	146.000	146 000	146.000	0.000	0.000	0.000
NC	0.030	0.030	0.030	0.500	1.000	0.000	0.000	0 000	0.000	0.000
		D/S FACE BOARDWALK, FIELD SECTION 4A, SUPPLEMENTAL SURVEY								
X1	6201.000	25.000	150.000	188.000	51.000	51.000	51 000	0.000	0.000	0.000
X3	0.000	0.000	0.000	88.000	0.000	250.000	0 000	0.000	0.000	0.000
GR	840.200	0.000	840.400	125.000	840.500	150.000	834.000	154.000	834.800	154.100
GR	833.600	154.500	832.800	157.100	832 600	159.900	832.800	162.700	833.600	165.300
GR	834.800	165 700	832.800	165 800	832.800	171.100	834.900	171.200	833.700	171.600
GR	832.900	174.200	832.700	177.000	832.900	179.800	833.700	182.400	834.900	182.800
GR	833.200	182.900	840.900	188.000	840.600	250.000	840.000	300.000	839.900	325.000
SB	0.000	2.570	3.000	0.000	23 200	0.000	62.000	0.000	0 000	0.000
NC	0.060	0.060	0.045	0.000	0.000	0 000	0.000	0.000	0.000	0.000
		U/S FACE BOARDWALK								
X1	6294.000	0.000	0.000	0 000	93.000	93.000	93.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	839.800	839.900	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	40.000	0.000	285.000	0.000	0.000	0.000	0.000
BT	-23.000	0.000	840.200	0.000	125.000	841 500	0.000	150.000	841.600	0.000
BT	0 000	154.100	841.600	834.800	154.500	841.600	836.800	157.100	841.600	839.600
BT	0.000	159.900	841.600	840.100	162.700	841.600	839.600	165.300	841.500	836.800
BT	0.000	165 700	841.500	834.800	165.800	841.500	832.800	171.100	841.500	832.800
BT	0.000	171.200	841.500	834.900	171.600	841.500	836.900	174.200	841.500	839.700
BT	0.000	177 000	841.500	840.200	179 800	841.500	839.700	182.400	841.400	836.900
BT	0.000	182.800	841.400	834.900	188.000	841.400	0.000	250.000	840.600	0.000
BT	0.000	300.000	840.000	0.000	325.000	839.900	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.045	0 000	0.000	0.000	0.000	0.000	0.000	0.000
		FIELD SECTION 4 MOVED U/S								
X1	6650.000	20.000	250.000	273.000	356.000	356.000	356.000	0.000	0.770	0.000
GR	843.600	0.000	844.300	50.000	843.100	125.000	843.300	150.000	842.200	175.000
GR	842.000	200.000	842.200	219.000	841.800	225.000	836.700	250.000	833.700	258.000
GR	833.000	262.000	833.700	265.000	837.700	273.000	838.000	275.000	840.800	291.000
GR	841.600	304.000	841.300	325.000	841.600	350 000	842.400	375.000	843.700	400.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	6800.000	0.000	0.000	0.000	150.000	150.000	150.000	0.000	0.540	0.000
		FIELD SECTION 4 MOVED U/S								
X1	6900.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.360	0.000
X3	0.000	0.000	0.000	251.000	0.000	272.000	0.000	0.000	0.000	0.000
NC	0.020	0.020	0.025	0.500	1.000	0.000	0.000	0.000	0.000	0.000
		WINGWALLS TO PRIVATE BRIDGE, FIELD SECTION 4B (SUPP SURVEY)								
X1	6910.000	16.000	175.000	190.100	10.000	10.000	10.000	0.000	0.000	0.000
GR	848.900	0.000	848 100	25.000	847.800	50.000	847.900	75.000	847.100	150.000
GR	847.000	175.000	845.900	175.100	834.800	175 110	835.000	180.000	836.000	185.000
GR	836.800	187.000	837.400	190.000	845.900	190.100	847.000	190.110	847.400	250.000
GR	848.000	325.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

		D/S FACE TO PRIVATE BRIDGE								
X1	6930.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	0.000	0.000
BT	-10.000	0.000	848.900	0.000	25.000	848.100	0.000	50.000	847.800	0.000
BT	0.000	75.000	847.900	0.000	150.000	847.100	0.000	175.000	847.000	0.000
BT	0.000	175.100	847.000	845.900	190.100	847.000	845.900	250.000	847.400	0.000
BT	0.000	325.000	848.000	0.000	0.000	0.000	0 000	0.000	0.000	0.000
		U/S FACE TO PRIVATE BRIDGE								
X1	6960 000	0.000	0.000	0.000	30.000	30.000	30.000	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
		WINGWALLS TO PRIVATE BRIDGE								
X1	6975 000	0.000	0.000	0.000	15.000	15.000	15.000	0.000	0.000	0.000
NC	0.030	0.030	0 040	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		FIELD SECTION 4 MOVED U/S								
X1	6978.000	20.000	250.000	273.000	3.000	3.000	3.000	0.000	1.900	0.000
X3	0.000	0.000	0.000	251.000	0 000	272.000	0.000	0.000	0.000	0.000
GR	843 600	0.000	844 300	50.000	843.100	125.000	843.300	150.000	842.200	175.000
GR	842.000	200.000	842.200	219.000	841.800	225.000	836.700	250.000	833.700	258.000
GR	833.000	262.000	833.700	265.000	837.700	273.000	838.000	275.000	840.800	291.000
GR	841.600	304 000	841 300	325.000	841.600	350.000	842.400	375.000	843.700	400.000
NC	0.000	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000
X1	7070.000	0.000	0.000	0.000	92.000	92.000	92.000	0.000	2.140	0.000
		FIELD SECTION 4 MOVED U/S								
X1	7100.000	0.000	0.000	0.000	30.000	30.000	30.000	0.000	0.730	0.000
X1	7175.000	0.000	0.000	0.000	75.000	75.000	75.000	0.000	1.780	0.000
		FIELD SECTION 4 MOVED U/S								
X1	7250.000	0.000	0.000	0.000	75.000	75.000	75.000	0.000	1.780	0.000
X1	7300.000	0.000	0.000	0.000	50.000	50.000	50 000	0 000	1.190	0.000
		FIELD SECTION 4 MOVED U/S								
X1	7350.000	0.000	0.000	0.000	50 000	50.000	50.000	0.000	1.190	0.000
NC	0 000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	7375 000	8 000	250.000	270.000	25.000	25.000	25.000	0.000	-0.400	0.000
GR	857.000	0.000	854.900	220.000	846.700	250.000	844.700	257.000	845 000	260.000
GR	847.000	270.000	854.300	290.000	854 300	400.000	0.000	0.000	0.000	0.000
		D/S FACE STATE STREET, FIELD SECTION 5								
X1	7400.000	20.000	235.000	253.600	25.000	25.000	25.000	0.000	0.000	0.000
GR	858.400	0.000	857.900	75 000	857.600	100.000	856.500	200.000	845.100	235.000
GR	848.400	246.500	846.700	247 000	845.500	248.000	845.100	249.000	844.900	250.000
GR	845 100	251.000	845.500	252.000	846.700	253 000	848.400	253.500	845.100	253.600
GR	856.100	275.000	855.800	300.000	855.500	350.000	854.000	500.000	854.000	600.000

SB	0.000	1.830	3.000	0.000	7.000	0.000	38.500	0 000	0.000	0.000
		U/S FACE STATE STREET								
X1	7571 000	0.000	0.000	0.000	171.000	171.000	171.000	0.000	0.000	0.000
X2	0 000	0.000	1.000	849.200	854 000	0.000	0.000	0.000	0.000	0.000
BT	-18.000	0.000	858.400	0.000	75.000	857.900	0.000	100.000	857 600	0.000
BT	0.000	200.000	856.500	0.000	246.500	856.200	848.400	247.000	856.200	850.200
BT	0.000	248.000	856.200	851.300	249.000	856.200	851.800	250.000	856.200	851.900
BT	0.000	251.000	856.200	851.800	252 000	856.200	851.300	253.000	856.200	850.200
BT	0.000	253.500	856.200	848.400	275.000	856.100	0.000	300.000	855.800	0.000
BT	0.000	350.000	855.500	0.000	500.000	854.000	0.000	600.000	854.000	0.000
NC	0.045	0.045	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		FIELD SECTION (APPROX)								
X1	7600.000	6.000	130.000	140.000	29.000	29.000	29.000	0.000	0.000	0.000
GR	854 000	0 000	854.000	100.000	845.000	130.000	845.000	140.000	854.000	170.000
GR	854.000	270.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		FIELD SECTION (APPROX)								
X1	8150.000	0.000	0.000	0.000	550.000	550.000	550.000	0.000	2.750	0.000
X3	0.000	0 000	0.000	100.000	0 000	170.000	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
		D/S FACE OF CULVERT, OUTLET OF RETENTION POND AT BRIARWOOD, FS								
X1	8181 000	19.000	130.000	138.400	31.000	31.000	31.000	0.000	0.000	0.000
GR	857 500	0.000	857.500	100.000	848.000	130.000	850.600	130.100	849 800	130.200
GR	848.900	130.700	848.500	131.200	848.200	132.200	848.100	133 200	848.000	134.200
GR	848.100	135.200	848.200	136.200	848.500	137.200	848.900	137.700	849.800	138.200
GR	850.600	138.300	848.000	138.400	857.500	170.000	857.500	270.000	0.000	0.000
NC	0.030	0.030	0.015	0.000	0.000	0.000	0 000	0.000	0.000	0.000
SB	0.000	2.130	3.000	0.000	8.200	0.000	37.300	0.000	0.000	0.000
		U/S FACE OF CULVERT, OUTLET OF RETENTION POND AT BRIARWOOD								
X1	8425.000	0.000	0.000	0.000	244.000	244.000	244.000	0.000	3.500	0.000
X2	0.000	0.000	1.000	853.300	861.000	0.000	0.000	0.000	0.000	0.000
BT	-17.000	0.000	861.000	0.000	100.000	861.000	0.000	130.100	861.000	854 100
BT	0.000	130.200	861.000	854.800	130.700	861.000	855.700	131.200	861.000	856.200
BT	0.000	132.200	861.000	856.600	133.200	862.000	856.700	134.200	861.000	856.800
BT	0.000	135.200	861.000	856.700	136.200	861.000	856.600	137.200	861.000	856.200
BT	0.000	137.700	861.000	855.700	138.200	861.000	854.800	138.300	861.000	854.100
BT	0.000	170.000	861.000	0.000	270.000	861.000	0.000	0.000	0.000	0.000
NC	0.020	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		RETENTION POND, SITE PLANS FOR BRIARWOOD								
X1	8430.000	5.000	120.000	230.000	5.000	5.000	5.000	0.000	0.000	0.000
GR	862.000	0.000	860.000	50.000	844.000	120.000	844.000	230.000	862.000	330.000
		RETENTION POND								
X1	8680.000	0.000	0.000	0.000	250.000	250.000	250.000	0.000	0.000	0.000

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                D/S FACE EISENHOWER PARKWAY, FIELD SECTION 8
X1    8701.000    17.000   100.000   150.000    21 000    21.000    21.000     0.000     0.000     0.000
GR     855.700     0 000   855.700   100.000   846.800   119.900   850.000   120.000   848.500   120 500
GR     847.000   121.000   847.800   122.000   846.900   123.000   846.800   125.000   846.900   127.000
GR     847.000   128.000   847.800   129.000   848 500   129.500   850.000   130.000   846.800   130.100
GR     856.800   150.000   856.800   250.000     0 000     0.000     0.000     0.000     0.000     0.000

NC       0.070     0.050     0.045     0.000     0.000     0 000     0.000     0.000     0.000     0.000
SB       0.000     2.660     3.000     0.000    10.000     0.000    54.750     0 000     0.000     0 000
                U/S FACE EISENHOWER NOTE:  TWO CULVERTS  AT INLET, ONLY ONE
                COMING OUT.  SECOND CULVERT NOT CODED, FIELD SECTION 9
X1    9230.000     0.000     0.000     0.000   529.000   529.000   529.000     0.000     5 500     0.000
X2       0.000     0.000     1.000   853.300   861.200     0.000     0.000     0.000     0.000     0.000
BT     -13.000     0.000   861.200     0.000   120.000   861.600   855.500   120.500   861.600   857.000
BT       0.000   121.000   861.600   857.600   122.000   861.600   858.400   123.000   861.700   858 600
BT       0.000   125.000   861.700   858.800   127.000   861.700   858.600   128.000   861 800   858.400
BT       0.000   129.000   861.800   857.600   129.500   861.800   857.000   130.000   861.800   855.500
BT       0.000   250.000   862.300     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       0.070     0.050     0.045     0.500     1.000     0.000     0.000     0.000     0.000     0.000
                FIELD SECTION 10 MOVED D/S
X1    9305.000    20.000   250.000   268.000    75.000    75.000    75 000     0 000    -9.800     0.000
GR     881.800     0.000   882.400    25.000   879.100    50.000   879.100    75.000   878.300   100.000
GR     876.400   125.000   873.900   150.000   870.700   175.000   870.100   199.000   866.000   209.000
GR     864.700   225.000   864.800   250.000   863.700   253.000   863.100   258 000   863.700   264.000
GR     865.200   268.000   864.900   275.000   865.500   300.000   866.400   309.000   869.300   323.000

NC       0.000     0.000     0.000     0.300     0.500     0.000     0.000     0.000     0.000     0.000
X1    9640.000     0.000     0.000     0.000   335.000   335.000   335.000     0.000     4.300     0.000

X1    9775.000     0.000     0.000     0.000   135.000   135.000   135.000     0.000     1.770     0.000

                FIELD SECTION 10 MOVED D/S
X1   10000.000     0 000     0.000     0.000   225.000   225.000   225.000     0.000     2.980     0.000

X1   10050.000    20.000     0.000   103.500    50.000    50.000    50.000     0.000     0.000     0.000
GR     866.000     0.000   866.000     0.100   864.900    32.900   864.900    33.000   864.900    34.800
GR     864 900    34 900   865.300    41.000   864.000    44.000   862.900    49.000   863.700    56.000
GR     865.100    59.000   864.800    68 900   864.800    69.000   864.800    70.800   864.800    70.900
GR     866 800   103.500   866.800   103.600   869.600   125.000   869.900   150.000   870.300   175.000

                D/S FACE OF PRIVATE BRIDGE, FIELD SECTION 10A, (SUPP SURVEY)
X1   10051.000     0.000     0.000     0.000     1.000     1.000     1.000     0.000     0.000     0.000
BT     -15.000     0.000   870 800   866.000     0.100   870.800   868.500    32.900   870.800   868.500
BT       0.000    33.000   870.800   864.900    34.800   873.500   864.900    34.900   870.800   868.500
BT       0.000    68.900   870.800   868.500    69.000   870.800   864.800    70.800   870.800   864.800
BT       0.000    70.900   870.800   868.500   103.500   870.800   868.500   103.600   870.800   866.800
BT       0.000   125.000   869 600     0 000   150.000   869.900     0 000   175.000   870.300     0 000
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		U/S FACE OF PRIVATE BRIDGE								
X1	10059.000	0.000	0.000	0.000	8.000	8.000	8.000	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	10060.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
		VALLEY SECTION E, FIELD SECTION 10								
X1	10100.000	20.000	250.000	268.000	40.000	40.000	40.000	0.000	0.000	0.000
GR	881.800	0.000	882.400	25.000	879.100	50.000	879.100	75.000	878.300	100.000
GR	876.400	125.000	873.900	150.000	870.700	175.000	870.100	199.000	866.000	209.000
GR	864.700	225.000	864.800	250.000	863.700	253.000	863.100	258.000	863.700	264.000
GR	865.200	268.000	864.900	275.000	865.500	300.000	866.400	309.000	869.300	323.000
		FIELD SECTION 10 MOVED U/S								
X1	10920.000	0.000	0.000	0.000	820.000	820.000	820.000	0.000	1.950	0.000
NC	0.030	0.030	0.045	0.500	1.000	0.000	0.000	0.000	0.000	0.000
		D/S FACE OF PRIVATE BRIDGE, FIELD SEC 10B, (SUPP SURVEY)								
X1	11021.000	60.000	209.000	259.000	101.000	101.000	101.000	0.000	0.000	0.000
GR	872.800	0.000	872.200	25.000	871.300	125.000	871.500	150.000	871.700	175.000
GR	870.900	200.000	866.000	209.000	866.000	209.100	865.500	210.000	865.500	211.000
GR	865.500	212.000	865.500	213.000	866.000	214.000	866.000	214.100	865.800	217.000
GR	865.800	217.100	865.300	218.000	865.300	219.000	865.300	220.000	865.300	221.000
GR	865.800	222.000	865.800	222.100	865.900	225.500	865.900	225.600	865.400	226.500
GR	865.400	227.500	865.400	228.500	865.400	229.500	865.900	230.500	865.900	230.600
GR	866.400	235.000	866.400	235.100	865.900	236.000	865.900	237.000	865.900	238.000
GR	865.900	239.000	866.400	240.000	866.400	240.100	866.900	244.500	866.900	244.600
GR	866.400	245.500	866.400	246.500	866.400	247.500	866.400	248.500	866.900	249.500
GR	866.900	249.600	866.800	253.500	866.800	253.600	866.300	254.500	866.300	255.500
GR	866.300	256.500	866.300	257.500	866.800	258.500	866.800	258.600	866.300	259.000
GR	873.100	271.000	872.600	300.000	873.200	375.000	873.600	400.000	873.900	425.000
NC	0.030	0.030	0.030	0.500	1.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	4.360	3.000	0.000	30.000	0.000	85.500	0.000	0.000	0.000
		U/S FACE OF PRIVATE BRIDGE								
X1	11129.000	0.000	0.000	0.000	108.000	108.000	108.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	869.900	871.300	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	85.000	0.000	0.000	0.000	0.000	0.000	0.000
BT	-60.000	0.000	872.800	0.000	25.000	872.200	0.000	125.000	871.300	0.000
BT	0.000	150.000	871.500	0.000	175.000	871.700	0.000	200.000	872.000	0.000
BT	0.000	209.000	871.800	866.000	209.100	871.800	867.000	210.000	871.800	868.500
BT	0.000	211.000	871.800	869.000	212.000	871.800	869.000	213.000	871.800	868.500
BT	0.000	214.000	871.800	867.000	214.100	871.800	866.000	217.000	871.700	865.800
BT	0.000	217.100	871.700	866.800	218.000	871.700	868.300	219.000	871.700	868.800
BT	0.000	220.000	871.700	868.800	221.000	871.700	868.300	222.000	871.700	866.800
BT	0.000	222.100	871.700	865.800	225.500	871.700	865.900	225.600	871.700	866.900
BT	0.000	226.500	871.700	868.400	227.500	871.700	868.900	228.500	871.700	868.900
BT	0.000	229.500	871.700	868.400	230.500	871.700	866.900	230.600	871.700	865.900
BT	0.000	235.000	871.600	866.400	235.100	871.600	867.400	236.000	871.600	868.900
BT	0.000	237.000	871.600	869.400	238.000	871.600	869.400	239.000	871.600	868.900
BT	0.000	240.000	871.600	867.400	240.100	871.600	866.400	244.500	871.500	866.900
BT	0.000	244.600	871.500	867.900	245.500	871.500	869.400	246.500	871.500	869.900
BT	0.000	247.500	871.500	869.900	248.500	871.500	869.400	249.500	871.500	867.900

BT	0.000	249.600	871.500	866.900	253.500	871.500	866.800	253.600	871.500	867.800
BT	0.000	254.500	871.500	869.300	255.500	871.500	869.800	256.500	871.500	869.800
BT	0.000	257.500	871.500	869.300	258.500	871.400	867.800	258.600	871.400	866.800
BT	0.000	259.000	871.400	0.000	271.000	873.100	0.000	300.000	872.600	0.000
BT	0.000	375.000	873.200	0.000	400.000	873.600	0.000	425.000	873.900	0.000
NC	0.000	0.000	0.000	0.300	0.500	0.000	0.000	0.000	0.000	0.000
		FIELD SECTION 12 MOVED D/S								
X1	11170.000	20.000	250.000	269.000	41.000	41.000	41.000	0.000	-10.600	0.000
X3	0.000	0.000	0.000	175.000	0.000	340.000	0.000	0.000	0.000	0.000
GR	883.800	0.000	883.100	50.000	882.500	75.000	881.600	100.000	880.000	150.000
GR	880.000	225.000	879.800	250.000	877.000	255.000	876.800	260.000	877.000	264.000
GR	879.900	269.000	880.000	275.000	879.500	300.000	879.700	325.000	884.500	350.000
GR	885.800	400.000	886.200	425.000	887.000	450.000	887.100	475.000	887.700	500.000
NC	0.000	0.000	0.000	0.500	1.000	0.000	0.000	0.000	0.000	0.000
		D/S FACE OF MAIN STREET, FIELD SECTION 11								
X1	11221.000	32.000	245.000	266.000	51.000	51.000	51.000	0.000	0.000	0.000
GR	884.100	0.000	881.200	50.000	878.400	125.000	870.900	175.000	870.600	245.000
GR	867.600	247.200	870.400	247.300	869.400	247.500	868.500	248.000	867.800	249.000
GR	867.600	250.000	867.800	251.000	868.500	252.000	869.400	252.500	870.400	252.700
GR	867.600	252.800	867.200	257.200	870.000	257.300	868.900	257.500	868.200	258.000
GR	867.400	259.000	867.200	260.000	867.400	261.000	868.200	262.000	868.900	262.500
GR	870.000	262.700	867.200	262.800	870.600	266.000	873.100	325.000	875.600	425.000
GR	875.600	450.000	876.000	500.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.030	0.030	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	1.590	3.000	0.000	11.000	0.000	47.520	0.000	0.000	0.000
		U/S FACE OF MAIN STREET								
X1	11288.000	0.000	0.000	0.000	67.000	67.000	67.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	872.200	875.600	0.000	0.000	0.000	0.000	0.000
BT	-32.000	0.000	884.100	0.000	50.000	881.200	0.000	125.000	878.400	0.000
BT	0.000	175.000	877.200	0.000	245.000	876.600	0.000	247.200	876.600	0.000
BT	0.000	247.300	876.600	870.400	247.500	876.600	871.400	248.000	876.600	872.200
BT	0.000	249.000	876.600	872.900	250.000	876.600	873.100	251.000	876.600	872.900
BT	0.000	252.000	876.600	872.200	252.500	876.600	871.400	252.700	876.600	870.400
BT	0.000	252.800	876.600	0.000	257.200	876.500	0.000	257.300	876.500	870.000
BT	0.000	257.500	876.500	871.000	258.000	876.500	871.800	259.000	876.500	872.400
BT	0.000	260.000	876.500	872.700	261.000	876.500	872.400	262.000	876.500	871.800
BT	0.000	262.500	876.500	871.000	262.700	876.500	870.000	262.800	876.500	0.000
BT	0.000	266.000	876.500	0.000	325.000	876.200	0.000	425.000	875.600	0.000
BT	0.000	450.000	875.600	0.000	500.000	876.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.045	0.500	1.000	0.000	0.000	0.000	0.000	0.000
		FIELD SECTION 12 MOVED D/S								
X1	11330.000	20.000	250.000	269.000	42.000	42.000	42.000	0.000	-9.100	0.000
GR	883.800	0.000	883.100	50.000	882.500	75.000	881.600	100.000	880.000	150.000
GR	880.800	225.000	879.800	250.000	877.000	255.000	876.800	260.000	877.000	264.000
GR	879.900	269.000	880.000	275.000	879.500	300.000	879.700	325.000	884.500	350.000
GR	885.800	400.000	886.200	425.000	887.000	450.000	887.100	475.000	887.700	500.000

NC	0.000	0.000	0.000	0.300	0.500	0.000	0 000	0.000	0.000	0.000
X1	11730 000	0.000	0.000	0.000	400 000	400.000	400.000	0.000	4.000	0.000
X1	11800.000	0.000	0.000	0.000	70.000	70.000	70.000	0.000	0.700	0.000
X1	11850.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.500	0.000
X1	12050.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	2.000	0.000
		VALLEY SETION F, FIELD SECTION 12								
X1	12239.000	0.000	0.000	0 000	189.000	189.000	189.000	0.000	1.900	0.000
		FIELD SECTION 12 MOVED U/S								
X1	13030.000	0.000	0.000	0.000	791.000	791.000	791.000	0.000	2.600	0.000
NC	0.035	0.035	0.045	0.500	1.000	0.000	0.000	0 000	0.000	0.000
		D/S FACE PRIVATE BRIDGE (APPROX)								
X1	13181.000	11.000	150.000	170.000	151.000	151.000	151.000	0.000	0.000	0.000
GR	887.200	0.000	885.700	150.000	881.700	155.000	881.700	155.100	880.600	156.500
GR	880.400	160 000	880.600	163.500	881.700	164.900	881.700	165.000	885.700	170.000
GR	887 200	320.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0 000
SB	0.000	2.160	3.000	0.000	9.750	0.000	52.000	0.000	0.000	0.000
		U/S FACE PRIVATE BRIDGE (APPROX)								
X1	13205.000	0.000	0.000	0.000	24.000	24 000	24.000	0.000	0.000	0.000
X2	0.000	0 000	1.000	884.000	887.200	0.000	0.000	0.000	0.000	0.000
BT	-11 000	0.000	887.200	0.000	150.000	887.200	0.000	155.000	887.200	881.700
BT	0.000	155.100	887.200	883.500	156.500	887.200	885.900	160.000	887.200	887.000
BT	0.000	163.500	887.200	885 900	164.900	887.200	883.500	165.000	887.200	881.700
BT	0.000	170.000	887.200	0.000	320.000	887.200	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
X1	13400.000	0 000	0.000	0.000	195.000	195.000	195 000	0.000	0.830	0 000
X3	0.000	0.000	0 000	20.000	0.000	300 000	0.000	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	13500.000	0.000	0.000	0.000	100 000	100.000	100.000	0.000	0.400	0.000
X3	0.000	0.000	0 000	45.000	0.000	280.000	0.000	0 000	0.000	0.000
		D/S FACE PRIVATE BRIDGE (APPROX)								
X1	13661.000	11.000	150.000	170 000	161 000	161.000	161.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	85.000	0.000	235.000	0.000	0.000	0.000	0.000
GR	889.000	0.000	887.500	150.000	883.500	155.000	883.500	155.100	882.400	156.500
GR	882 200	160.000	882.400	163.500	883.500	164.900	883.500	165.000	887.500	170.000
GR	889.000	320.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.030	0.000	0.000	0.000	0 000	0.000	0.000	0.000
SB	0.000	2 160	2.800	0.000	9.750	0.000	52.000	0.000	0 000	0.000

		U/S FACE PRIVATE BRIDGE (APPROX)								
X1	13685.000	0.000	0.000	0.000	24.000	24.000	24.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	888.400	889.400	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	90.000	0.000	230.000	0.000	0 000	0.000	0.000
BT	-11.000	0.000	889.000	0.000	150.000	889.000	0.000	155.000	889.000	883.500
BT	0.000	155.100	889.000	885.300	156.500	889.000	887 700	160.000	889.000	888.800
BT	0.000	163 500	889.000	887.300	164.900	889.000	885.700	165.000	889 900	883.500
BT	0.000	170.000	889.000	0.000	320.000	889.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.045	0.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	13850 000	0 000	0.000	0.000	165.000	165.000	165.000	0.000	0.700	0.000
X3	0.000	0.000	0.000	133.000	0.000	188.000	0.000	0 000	0.000	0.000
		D/S FACE SALINE ANN ARBOR ROAD FIELD SECTION 13								
X1	13901.000	12 000	250.000	261.000	51.000	51.000	0.000	0.000	0.000	
GR	895.600	0.000	894.300	75.000	891.500	240.000	883 100	250 000	883.100	250 100
GR	884 600	255.000	885.200	261.000	885.200	261.100	891.500	270.000	894.100	300 000
GR	894.700	350 000	897.300	475.000	0.000	0.000	0.000	0.000	0.000	0 000
NC	0.030	0.030	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SB	0.000	3.220	3.000	0.000	10 000	0 000	76.500	0.000	0.000	0.000
		U/S FACE SALINE ANN ARBOR ROAD								
X1	13975.000	0.000	0.000	0.000	74.000	74.000	74.000	0.000	1.500	0.000
X2	0.000	0.000	1.000	893.300	895 300	0.000	0.000	0.000	0.000	0.000
BT	-12.000	0.000	897.100	0.000	75.000	895.800	0.000	240.000	895.300	0.000
BT	0.000	250.000	895.300	884.600	250.100	895.300	893.300	255.000	895.300	893.300
BT	0.000	261.000	895.300	893.300	261.100	895.300	886.700	270 000	895.400	0.000
BT	0.000	300.000	895.600	0.000	350.000	896.200	0.000	475.000	898.800	0.000
QT	4.000	280.000	420.000	490.000	620.000	0.000	0.000	0.000	0.000	0.000
X1	13980.000	13.000	241.000	259.600	5.000	5.000	5.000	0.000	-1.900	0.000
X3	0 000	0.000	0.000	229.000	0.000	264.000	0.000	0.000	0 000	0.000
GR	897.100	0.000	895 800	75.000	892.900	240.000	891 800	241.000	887.800	241.100
GR	887.200	250.000	887.800	259.600	891.800	259.700	892.900	260.000	895.400	275.000
GR	895.600	300.000	896.200	350.000	898.800	475.000	0.000	0.000	0.000	0.000
X1	13985.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.700	0.000
X3	0 000	0.000	0.000	224.000	0.000	269.000	0.000	0.000	0.000	0.000
X1	13990.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.700	0.000
X3	0.000	0.000	0.000	219.000	0.000	274.000	0.000	0.000	0.000	0.000
X1	13993.000	13.000	241.000	259.600	3.000	3.000	3.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	216.000	0.000	277.000	0.000	0.000	0.000	0.000
GR	897.100	0.000	895.800	75.000	892.900	240.000	891.800	241.000	887.800	241.100
GR	887.200	250.000	887.800	259.600	891.800	259.700	892.900	260.000	895.400	275.000
GR	895.600	300.000	896.200	350.000	898.800	475.000	0.000	0 000	0.000	0.000
		FOOT BRIDGE AT SALINE ANN ARBOR ROAD, FIELD SECTION 13A								
X1	13994.000	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	215.000	0.000	278.000	0 000	0.000	0.000	0.000
BT	-13.000	0.000	897.100	0.000	75.000	895.800	0.000	240.000	892.900	0.000
BT	0.000	241.000	892.900	891 800	241.100	892.900	891.800	250.000	892.900	891.800
BT	0 000	259.600	892.900	891.800	259.700	892.900	891.800	260 000	892.900	0.000

BT	0.000	275.000	895.400	0.000	300 000	895 600	0.000	350.000	896.200	0.000
BT	0.000	475.000	898.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		U/S FACE OF FOOT BRIDGE								
X1	14002.000	0.000	0.000	0 000	8.000	8.000	8.000	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	207.000	0.000	286.000	0.000	0.000	0.000	0.000
NC	0.030	0.030	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	14003.000	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	206.000	0.000	287.000	0.000	0.000	0.000	0.000
		SMALL DAM AT SALINE ANN ARBOR ROAD (SUPP SURVEY)								
X1	14016.000	7.000	22.600	46.000	13.000	13.000	13.000	0.000	0.000	0.000
GR	895.400	0.000	892.200	22.600	890.000	32.000	890.000	38.000	892.300	46.000
GR	895.300	72.000	896.200	100.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0 000	0.500	0.000	0.000	0.000	0.000	0.000	0.000
		POND BEHIND SMALL DAM								
X1	14018.000	13.000	31.000	61.000	2.000	2.000	2.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	5.000	0.000	81.000	0.000	0.000	0.000	0.000
GR	895 100	0.000	890.900	19.000	889.900	21.000	888.800	26.000	887.700	31 000
GR	886 600	36 000	885 700	51.000	885.600	56 000	887.600	61.000	889.000	66.000
GR	890.000	71.000	892.000	78.000	894.800	101.000	0.000	0.000	0.000	0.000
X1	14034.000	0.000	0 000	0.000	16.000	16.000	16.000	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
		VALLEY SECTION G, PONDED AREA BEHIND SMALL DAM, FIELD SECTION 14								
X1	14546.000	0.000	0.000	0.000	512.000	512.000	512.000	0.000	0.000	0.000
		SECOND SMALL DAM U/S SALINE ANN ARBOR ROAD (SUPP SURVEY)								
X1	14566.000	12.000	82.000	104.000	20 000	20 000	20.000	0.000	0.000	0.000
GR	904.900	0.000	898.200	50.000	894.700	75.000	893.800	82.000	893.800	91.000
GR	892.800	92.000	892.800	96.000	893.800	97.000	893.800	104.000	894.300	110.000
GR	895.600	121.000	900.300	151 000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0 000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000
		POND SECTION, (APPROX)								
X1	14568.000	6.000	60.000	104.000	2.000	2.000	2.000	0.000	0.000	0.000
GR	904.900	0.000	898.200	50.000	889.000	60.000	889.000	104.000	895.600	121.000
GR	900.300	151.000	0.000	0.000	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
		POND SECTION, (APPROX)								
X1	15308.000	0.000	0.000	0.000	740.000	740.000	740.000	0.000	0.000	0.000
		THIRD SMALL DAM U/S SALINE ANN ARBOR ROAD (SUPP SURVEY)								
X1	15315.000	13.000	178.000	204.000	7.000	7.000	7.000	0.000	0.000	0.000
GR	910.900	0.000	904.100	60.000	900.800	160 000	900.600	164 000	898.800	178.000
GR	898.800	188.000	897.800	189.000	897.800	193.000	898.800	194.000	898.800	204.000
GR	900.700	219.000	901.300	221.000	902.400	245.000	0.000	0.000	0.000	0.000

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NC      0.000      0.000      0.000      0.500      0 000      0.000      0.000      0.000      0.000      0.000
                POND BEHIND SMALL DAM
X1  15325.000     16.000    180.000    266.000     10 000     10.000     10.000      0 000      0.000      0.000
GR    909.300      0.000    908.500     25.000    907.000     50.000    906.700     75.000    904.300    100.000
GR    901.900    125.000    900.600    150.000    899.400    175.000    897.500    180.000    893 000    185.000
GR    893.000    261.000    897.500    266.000    900.000    279.000    901.500    300.000    904.400    325.000
GR    904.500    345.000      0.000      0.000      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
          VALLEY SECTION H, PONDED AREA, JUST 7TH ST.  FIELD SECTION 15
X1  15600.000      0.000      0.000      0.000    275.000    275.000    275.000      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
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THIS RUN EXECUTED 13 DEC 88 10:12:44

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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      CITY OF ANN ARBOR, MI, FLOOD INSURANCE RESTUDY
T2      NORTHWEST BRANCH PITTSFIELD-ANN ARBOR DRAIN
T3      100-YEAR DISCHARGE

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0.        4.        0.        0   0.001140     0.00       0.0        0.   807 200    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= 0.300 CEHV= 0.500
*SECNO 0.000
FIELD SECTION 1, MOVED D/S TO MOUTH

0.00	6.78	807.38	0.00	807.20	807.54	0.17	0.00	0.00	802.50
840.	107.	597.	136.	71.	159.	74	0.	0.	802.70
0.00	1.51	3.76	1.82	0.060	0.045	0.060	0.000	800.60	81.27
0.001150	0.	0.	0.	0	0	4	0.00	94.07	175.35

*SECNO 350 000
VALLEY SECTION A, FIELD SECTION 1

350.00	6.78	807.78	0.00	0 00	807.95	0.17	0.40	0.00	802.90
840.	107.	597.	136.	71.	159.	75.	2.	1.	803.10
0.03	1.51	3.75	1.82	0.060	0.045	0.060	0.000	801.00	81.21
0 001148	350.	350.	350	0	0	0	0.00	94.15	175.36

CCHV= 0.500 CEHV= 1.000
*SECNO 700.000

3470 ENCROACHMENT STATIONS= 117.0 158.0 TYPE= 1 TARGET= 41.000
FIELD SECTION 1, MOVED U/S DRAIN

700.00	6.83	808.23	0 00	0.00	808.48	0.25	0.45	0.08	803.30
840.	65.	687	89.	33.	160.	38.	5.	1.	803.50
0.06	1.93	4.28	2.34	0 060	0.045	0.060	0.000	801.40	117.00
0.001475	350	350.	350	2	0	0	0.00	41.00	158.00

*SECNO 750.000

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16.600

750.00	7 87	808.37	0.00	0.00	809.08	0.72	0.13	0.47	802.00
840	0.	840	0.	0.	124	0.	5.	1.	100000.00
0.06	0.00	6.79	0.00	0.000	0 045	0.000	0.000	800.50	177 00
0.006361	50.	50.	50.	2	0	0	0.00	16.60	193.60

CCHV= 0.100 CEHV= 0.300
*SECNO 751.000

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= 13 MIN ELTRD= 815.00 MAX ELLC= 810.60

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16.600

D/S FACE NORTHWEST BRANCH PITTSFIELD-A2 DRAIN ENCLOSED

751.00	7.64	808.14	0.00	0.00	809.18	1.04	0.00	0.10	802.00
840.	0.	840.	0.	0.	103	0	5.	1.	100000.00
0.06	0 00	8.19	0.00	0.000	0.015	0.000	0.000	800.50	177.00
0.001455	1.	1.	1.	2	0	0	-17.40	16.60	193.60

*SECNO 850.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 810.65

3470 ENCROACHMENT STATIONS= 177 0 193.6 TYPE= 1 TARGET= 16.600

850.00	7.76	808.31	0.00	0 00	809 33	1.02	0.14	0.00	802.05
840.	0.	840	0.	0	104	0.	5.	1.	100000.00
0.06	0.00	8.11	0.00	0.000	0.015	0.000	0.000	800.55	177.00
0 001425	99.	99.	99.	2	0	0	-18.28	16.60	193.60

*SECNO 1000.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 810.73

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16.600

1000.00	7 92	808.55	0.00	0 00	809.54	0.99	0.21	0.00	802.13
840.	0.	840.	0.	0.	105.	0.	5.	1.	100000.00
0.07	0 00	8.00	0.00	0.000	0.015	0.000	0.000	800 63	177.00
0 001386	150.	150.	150.	2	0	0	-19.54	16.60	193.60

*SECNO 1300.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 810.88

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16.600

1300.00	8.22	809.00	0.00	0.00	809.95	0.95	0.41	0.00	802.28
840	0	840.	0.	0.	108.	0	6.	2.	100000.00
0.08	0.00	7.81	0.00	0.000	0.015	0.000	0.000	800.78	177.00
0.001321	300.	300.	300.	2	0	0	-22.09	16.60	193.60

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 1600 000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 811.03

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16.600

1600.00	8.56	809 44	0.00	0.00	810.34	0.89	0.38	0.01	802.43
840.	0.	840.	0.	0.	111.	0	7.	2.	100000.00
0.09	0.00	7.59	0.00	0.000	0.015	0.000	0.000	800.88	177.00
0.001238	300.	300.	300.	2	0	0	-24.64	16 60	193 60

*SECNO 2250.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 811.94

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16.600

2250.00	8.46	810.25	0 00	0.00	811 15	0.91	0.81	0.00	803.34
840.	0.	840.	0.	0.	110.	0.	9.	2.	100000 00
0.11	0.00	7.65	0.00	0.000	0.015	0.000	0.000	801.79	177.00
0.001256	650	650.	650.	2	0	0	-23.67	16.60	193.60

*SECNO 2900.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 815.00 MAX ELLC= 812.85

3470 ENCROACHMENT STATIONS= 177.0 193.6 TYPE= 1 TARGET= 16 600

2900.00	8.36	811.06	0.00	0.00	811.98	0.92	0.82	0.00	804.40
840.	0.	840.	0.	0.	109.	0.	10.	2.	100000.00
0.14	0.00	7.70	0.00	0.000	0.015	0.000	0 000	802.70	177.00
0.001270	650.	650.	650.	0	0	0	-22.78	16.60	193.60

CCHV= 0.500 CEHV= 1.000
*SECNO 2905.000
WATER EL=X5 CARD= 811.750

3470 ENCROACHMENT STATIONS= 90.0 110.0 TYPE= 1 TARGET= 20 000
CHANGE IN PIPE SIZE AT JUNCTION, NW BR PITTSFIELD-A2 DRAIN ENC

2905.00	7.00	811.75	0.00	0.00	812.68	0.93	0.01	0.01	805.25
840.	0.	840.	0.	0.	108.	0.	10.	2.	100000.00
0.14	0.00	7.75	0.00	0.000	0.015	0.000	0.000	804.75	90.00
0 001529	5.	5.	5.	0	0	0	0 00	20.00	110.00

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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


CCHV=   0.100 CEHV=   0.300
*SECNO 3905.000
 WATER EL=X5 CARD=   821.900

3470 ENCROACHMENT STATIONS=      90.0      110.0  TYPE=     1  TARGET=      20.000
               WATER SURFACE ELEVATIONS BY INTERPOLATION BETWEEN 2905 AND 4905
               BASED ON CONTROLING ELEVATION FOR WEIR FLOW AT 4905
  3905.00     9.48    821.90      0.00      0.00    822.34      0.44      0.82      0.05    812.92
     840.       0.       840.         0         0.      158.       0.        13         3  100000.00
     0.19     0.00      5.32      0.00     0.000     0 015     0.000     0.000    812.42     90.00
 0.000512     1000.     1000.     1000.         0         0         0      0.00     20.00    110 00


*SECNO 4905.000
 WATER EL=X5 CARD=   832.000

3470 ENCROACHMENT STATIONS=      90.0      110.0  TYPE=     1  TARGET=      20.000
                  U/S FACE NORTHWEST BRANCH PITTSFIELD-A2 DRAIN, ENCLOSED
  4905.00    11.90    832 00      0.00      0.00    832.26      0.26      0.34      0.02    820.60
     840.       0        840.        0.        0.      206.       0.        17.        3.  100000.00
     0.26     0.00      4.07      0.00     0.000     0.015     0.000     0.000    820 10     90.00
 0.000242     1000.     1000.     1000.         0         0         0      0.00     20.00    110.00


CCHV=   0.300 CEHV=   0.500
*SECNO 4906.000

3470 ENCROACHMENT STATIONS=      90.0      110 0  TYPE=     1  TARGET=      20.000
  4906.00    11.90    832.00      0.00      0 00    832.26      0.26      0.00      0.00    820.60
     840.       0.       840.        0.        0.      206       0.        17.        3.  100000.00
     0.26     0.00      4.07      0.00     0.000     0.030     0.000     0.000    820.10     90.00
 0 000967        1.        1.        1.         0         0         0      0.00     20.00    110.00


CCHV=   0 500 CEHV=   1.000
*SECNO 4950 000
3280 CROSS SECTION   4950.00 EXTENDED      1.43 FEET

                  VALLEY SECTION B, FIELD SECTION 2A (SUPPLEMENTAL SURVEY)
  4950.00    12.23    832.33      0.00      0.00    832.37      0.04      0.01      0.11    820.10
     840.      311.      192.       337.      237.       84.      232.       18.        3.     820.50
     0.26     1 31      2.28      1.45     0.030     0.030     0.030     0.000    820.10      0 00
 0.000077      44.       44.       44.         2         0         0      0.00    108 00     108 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


CCHV=    0.300 CEHV=    0.500
*SECNO 5200.000
3280 CROSS SECTION    5200.00 EXTENDED       0.09 FEET

  5200.00      7.69    832.29      0.00       0.00     832.52      0.23       0.05       0.09    824 80
     840.       300.      274.       265.       101.       53.       87.       20.          4.     824.60
     0.28      2.99      5.16       3.03      0.040      0.040     0.040     0.000     824.60     10.55
 0.001296       250       250        250.         2          0         0      0.00     101.45    112.00


*SECNO 5270 000
  5270.00      6 62    832.32      0.00       0.00     832.73      0.41       0.12       0.09    826.00
     840.       278.      339.       222.       73.       52.       57.       20.          4     825.70
     0.29      3.84      6.55       3 87      0.040      0.040     0.040     0 000     825.70     16.74
 0.002571        70.       70.        70.          1          0         0      0.00      84.16    100.90


CCHV=    0.500 CEHV=    1 000
*SECNO 5330 000
                VALLEY SECTION C, FIELD SECTION 2B (SUPPLEMENTAL SURVEY)
  5330 00      5.75    832.55      0.00       0.00     833.33      0.78       0.22       0.37    827.20
     840.       302       349.       189.       58.       39.       35.       21.          4     826.80
     0.29      5 22      8 99       5.48      0.040      0.040     0.040     0.000     826.80     17.67
 0.005967         60        60.        60.          2          0         0      0.00      60.99     78.67


*SECNO 5380 000

3470 ENCROACHMENT STATIONS=      186.0      349.0  TYPE=       1   TARGET=      163.000
                DOWNSTREAM FACE ANN ARBOR RAILROAD, FIELD SECTION 3
  5380.00      5.27    833.57    833.26       0.00     833.87      0.30       0.30       0.24    832.80
     840.       54.       687.       99.       24.       146       44.       21.          4.     832.80
     0.29      2 26      4.71       2.26      0.040      0.040     0.040     0.000     828.30     186.00
 0 006153       50.       50.        50.          9          9         0      0.00     163.00     349.00


CCHV=    0 300 CEHV=    0.500

SPECIAL BRIDGE
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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	1.50	3.00	0.00	10.00	0.00	39.27	0.00	828.30	828.30

*SECNO 5420.000
3280 CROSS SECTION 5420.00 EXTENDED 0.20 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
844.23	833.90	0.00	387.	455.	39.	50.	833.30	836.20

3470 ENCROACHMENT STATIONS= 175.0 360 0 TYPE= 1 TARGET= 185.000

U/S FACE ANN ARBOR RAILROAD

5420.00	8.39	836.69	0.00	0.00	836.71	0.02	2.84	0.00	833.00
840	158.	412.	269.	166.	343.	277.	21.	4.	833.00
0.30	0.95	1.20	0.97	0.030	0.030	0.030	0.000	828.30	175.00
0.000072	40.	40.	40	1	0	6	0.00	185.00	360.00

CCHV= 0.300 CEHV= 0.500
*SECNO 5450.000
3280 CROSS SECTION 5450 00 EXTENDED 3.27 FEET

5450.00	7.27	836.67	0.00	0.00	836.73	0.06	0.00	0.02	829.50
790	312.	361.	117.	275.	140.	121.	22.	4.	829.40
0.31	1 13	2.58	0 97	0.050	0.030	0 050	0.000	829.40	0.00
0.000329	30.	30.	30.	2	0	0	0.00	175.00	175.00

*SECNO 5451.000
3280 CROSS SECTION 5451.00 EXTENDED 3.27 FEET

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 833.40 MAX ELLC= 832.70

OUTLET OF RETENTION BASIN FIELD SECTION 3A (SUPP SURVEY)

5451.00	7.26	836 66	0.00	0 00	836.74	0.08	0.00	0.01	829.50
790.	542.	145.	103.	233.	53.	76.	22.	4	829.40
0 31	2.32	2.75	1 36	0.030	0 015	0.030	0.000	829.40	0.00
0.000630	1	1.	1.	1	0	0	-173.17	175.00	175.00

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 5491.000
3280 CROSS SECTION 5491.00 EXTENDED 3.28 FEET

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 833.40 MAX ELLC= 832 70

U/S END OF RETION BASIN OUTLET

5491.00	7.29	836.69	0.00	0.00	836.77	0.08	0.02	0.00	829.50
790.	541.	145.	104.	235.	53.	77.	22.	5.	829 40
0.31	2.31	2.73	1 36	0.030	0.015	0.030	0.000	829.40	0.00
0.000618	40.	40	40.	0	0	0	-173.17	175.00	175.00

*SECNO 5492.000
3280 CROSS SECTION 5492.00 EXTENDED 3.29 FEET

5492.00	7 30	836.70	0.00	0.00	836.77	0.07	0.00	0.00	829.50
790.	286.	395	108.	277.	140.	123.	22.	5.	829.40
0.31	1.03	2.82	0.88	0.030	0.015	0.030	0.000	829.40	0.00
0.000098	1	1.	1.	1	0	0	0 00	175.00	175.00

*SECNO 5495.000
3280 CROSS SECTION 5495.00 EXTENDED 3 30 FEET

WEIR ON OUTLET OF RETENTION BASIN

5495 00	7.29	836 69	0 00	0.00	836.78	0 09	0.00	0.01	831.80
790.	333.	356	101.	260.	104.	105.	22.	5.	831.80
0.31	1.28	3.42	0 97	0.030	0.015	0 030	0.000	829.40	0.00
0.000168	3.	3.	3.	1	0	0	0.00	175.00	175.00

*SECNO 5520.000
3280 CROSS SECTION 5520.00 EXTENDED 2.81 FEET

RETENTION BASIN AT R R. (APPROX)

5520.00	8.81	836.81	0.00	0.00	836.81	0.00	0.00	0.03	828.00
790.	24.	742.	24.	87.	1762.	87.	23.	5.	828.00
0.33	0 27	0.42	0.27	0.020	0.020	0.020	0.000	828.00	0.00
0.000002	25.	25.	25.	2	0	0	0.00	230.00	230.00

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 5650.000
3280 CROSS SECTION 5650.00 EXTENDED 2.81 FEET

RETENTION BASIN AT R.R. (APPROX)

5650.00	8.81	836.81	0.00	0.00	836.81	0.00	0.00	0.00	828.00
790	24	742.	24.	87.	1763.	87.	29.	5.	828.00
0.42	0.27	0.42	0.27	0.020	0.020	0.020	0.000	828.00	0.00
0.000002	130	130.	130.	1	0	0	0.00	230.00	230.00

CCHV= 0.500 CEHV= 1.000
*SECNO 5731.000
3280 CROSS SECTION 5731.00 EXTENDED 0.01 FEET

3470 ENCROACHMENT STATIONS= 60.0 170.0 TYPE= 1 TARGET= 110.000
INLET TO RETENTION BASIN, FIELD SECTION 3B, SUPPLEMENTAL SURVEY

5731.00	7.61	836.81	0.00	0.00	837.04	0.23	0.00	0.22	830.20
790.	352.	301.	137	114.	65	39.	31.	6.	829.80
0.42	3.09	4.61	3.51	0.020	0.020	0.020	0.000	829.20	60.00
0.000535	81.	81.	81.	0	0	0	0.00	110.00	170.00

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	3.03	3.00	0.00	9.00	0.00	19.20	0.00	829.20	829.20

*SECNO 5766.000
3280 CROSS SECTION 5766.00 EXTENDED 0.31 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
916.46	837.04	0.00	728.	62.	19.	28.	832.30	835.00

3470 ENCROACHMENT STATIONS= 70.0 160.0 TYPE= 1 TARGET= 90.000
U/S SIDE OF INLET TO RETENTION BASIN

5766.00	7.91	837.11	0.00	0.00	837.30	0.19	0.26	0.00	830.20
790.	386.	229.	176	107.	68.	52.	31.	6.	829.80
0.43	3.61	3.37	3.40	0.030	0.045	0.030	0.000	829.20	70.00
0.001369	35.	35.	35	2	0	8	0.00	90.00	160.00

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 5856.000									
5856.00	6.63	837.33	0.00	0.00	837.93	0.61	0.22	0.42	834.40
790.	48	721.	21.	21.	111.	11.	31.	6.	835.40
0.43	2.28	6.51	1.89	0 060	0.045	0.060	0.000	830.70	235.66
0.005239	90.	90.	90.	2	0	0	0.00	48.64	284.29
CCHV= 0.300 CEHV= 0.500									
*SECNO 5952.000									
5952.00	5 72	837.82	0.00	0.00	838.88	1.06	0.72	0.23	835.80
790.	26.	757.	6.	10.	90.	3.	31.	6.	836.80
0.43	2 65	8.42	1 92	0.060	0.045	0.060	0.000	832.10	240.10
0 011569	96.	96.	96	2	0	0	0.00	39.02	279.12
*SECNO 6000.000									
VALLEY SECTION D, FIELD SECTION 4									
6000.00	5.33	838.33	838.21	0.00	839.70	1.37	0.67	0.16	836.70
790.	18.	770.	2.	7.	81.	1.	32.	6.	837.70
0 43	2.78	9.51	1.72	0.060	0.045	0.060	0.000	833 00	242.01
0 016959	48.	48.	48.	4	11	0	0.00	34 88	276.89
*SECNO 6004.000									
6004 00	6.02	839.02	0.00	0.00	839.90	0.88	0.05	0.15	836.70
790.	33.	747.	10.	13.	97.	5.	32.	6.	837 70
0.43	2.53	7.72	1.95	0.060	0.045	0.060	0.000	833.00	238.66
0.008833	4.	4.	4.	6	0	0	0.00	42 14	280.79
*SECNO 6150.000									
FIELD SECTION 4 MOVED U/S									
6150.00	7.33	840.33	0.00	0.00	840.74	0.41	0.70	0.14	836.70
790.	65.	689.	36.	32.	127.	21.	32.	6.	837.70
0.44	2.00	5.43	1 73	0.060	0.045	0.060	0.000	833 00	232.18
0.003028	146.	146.	146.	2	0	0	0.00	56.17	288.35
CCHV= 0.500 CEHV= 1.000									
*SECNO 6201 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

3280 CROSS SECTION 6201.00 EXTENDED 0.89 FEET

3470 ENCROACHMENT STATIONS= 88.0 250.0 TYPE= 1 TARGET= 162.000
D/S FACE BOARDWALK, FIELD SECTION 4A, SUPPLEMENTAL SURVEY

6201.00	8.19	840.79	0.00	0.00	840.92	0.14	0.05	0.13	840.50
790.	14.	776.	1.	24.	257	4	32.	6.	840.90
0.45	0.58	3.02	0 22	0.030	0.030	0.030	0.000	832.60	88.00
0.000484	51.	51	51.	2	0	0	0.00	138.27	250.00

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	2 57	3.00	0.00	23.20	0.00	62.00	0.00	832.60	832.60

*SECNO 6294.000
3280 CROSS SECTION 6294.00 EXTENDED 1.46 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
847.27	840 92	0 00	539.	251.	62.	167.	839.80	839.90

3470 ENCROACHMENT STATIONS= 40.0 285.0 TYPE= 1 TARGET= 245.000
U/S FACE BOARDWALK

6294.00	8.76	841.36	0.00	0.00	841 44	0.08	0.52	0.00	840.50
790	69.	683.	38.	110.	279.	72.	33.	7.	840.90
0.46	0.63	2 45	0.52	0.060	0.045	0.060	0.000	832.60	40.00
0.000647	93.	93.	93.	2	0	6	0.00	245.00	285.00

*SECNO 6650.000
FIELD SECTION 4 MOVED U/S

6650.00	7.96	841.73	0.00	0.00	842.02	0.29	0 37	0.21	837.47
790.	79.	660.	51	44.	141.	31.	36.	8.	838.47
0.48	1.78	4.67	1.61	0.060	0.045	0.060	0.000	833.77	229.12
0 001943	356.	356.	356.	2	0	0	0.00	64.47	293.59

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 6800.000

6800.00	7.72	842.03	0.00	0.00	842.36	0.33	0.32	0.02	838.01
790.	74.	672.	44.	40.	136.	27.	37.	8.	839.01
0.49	1.87	4.95	1.64	0.060	0.045	0 060	0.000	834.31	230.31
0.002305	150.	150.	150.	2	0	0	0.00	60.21	290.52

*SECNO 6900.000

3470 ENCROACHMENT STATIONS= 251.0 272.0 TYPE= 1 TARGET= 21.000
FIELD SECTION 4 MOVED U/S

6900 00	7.55	842.22	0.00	0.00	842.84	0.62	0.34	0.14	100000.00
790.	0.	790.	0.	0.	125.	0.	37.	8.	100000.00
0.50	0.00	6.32	0.00	0.000	0.045	0.000	0.000	834.67	251.00
0.005463	100.	100.	100.	1	0	0	0.00	21.00	272.00

CCHV= 0.500 CEHV= 1.000
*SECNO 6910.000
WINGWALLS TO PRIVATE BRIDGE, FIELD SECTION 4B (SUPP SURVEY)

6910 00	7.46	842.26	0.00	0.00	843.29	1 03	0.04	0.41	847.00
790.	0.	790.	0.	0.	97.	0.	37	8.	845.90
0.50	0 00	8.13	0.00	0.000	0.025	0.000	0 000	834.80	175.10
0.003483	10	10	10.	0	0	0	0.00	14.95	190.06

*SECNO 6930.000

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 847.00 MAX ELLC= 845.90

D/S FACE TO PRIVATE BRIDGE

6930.00	7.59	842.39	0.00	0 00	843.38	0.99	0.07	0.02	847.00
790.	0.	790.	0.	0.	99.	0.	37.	8.	845.90
0.50	0.00	7.97	0.00	0.000	0.025	0.000	0.000	834.80	175.10
0.003297	20	20.	20.	2	0	0	0.00	14.96	190.06

*SECNO 6960 000

3370 NORMAL BRIDGE, NRD= 10 MIN ELTRD= 847.00 MAX ELLC= 845.90

U/S FACE TO PRIVATE BRIDGE

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
6960.00	7.76	842.56	0.00	0.00	843.50	0.94	0.10	0.02	847.00
790.	0.	790.	0	0.	102.	0.	37.	8.	845.90
0.50	0.00	7.77	0.00	0.000	0 025	0 000	0.000	834.80	175.10
0.003082	30.	30.	30.	2	0	0	0 00	14.96	190.06
*SECNO 6975 000									
WINGWALLS TO PRIVATE BRIDGE									
6975.00	7 84	842.64	0.00	0.00	843.55	0.92	0.05	0.01	847.00
790	0.	790.	0	0.	103.	0.	37.	8.	845.90
0.50	0.00	7.68	0.00	0.000	0.025	0.000	0.000	834.80	175.10
0.002991	15.	15.	15.	2	0	0	0.00	14.96	190.06
*SECNO 6978.000									
3470 ENCROACHMENT STATIONS=		251.0		272 0	TYPE=	1	TARGET=	21.000	
FIELD SECTION 4 MOVED U/S									
6978.00	8.41	843 31	0.00	0.00	843.78	0.47	0.01	0.22	100001.90
790.	0.	790.	0.	0.	143.	0.	37.	8.	100001.90
0 50	0.00	5.53	0.00	0.000	0.040	0.000	0.000	834.90	251.00
0.002978	3.	3.	3.	3	0	0	0.00	21.00	272.00
CCHV= 0.300 CEHV= 0.500									
*SECNO 7070 000									
7070.00	6.54	843.58	0.00	0.00	844.14	0.55	0.31	0.04	840.74
790.	77.	681.	32.	20	109.	10.	37.	8.	841.74
0.50	3.86	6 25	3.17	0.030	0.040	0.030	0.000	837.04	236.06
0 003907	92.	92.	92.	0	0	0	0.00	47.77	283.83
*SECNO 7100.000									
FIELD SECTION 4 MOVED U/S									
7100.00	5 78	843.55	0.00	0.00	844.49	0.94	0.16	0 19	841.47
790	48.	730.	12.	11.	91.	4.	38.	8.	842.47
0 50	4.50	7.98	3.31	0.030	0.040	0.030	0.000	837.77	239.78
0.008039	30.	30.	30.	2	0	0	0.00	39.71	279.49

*SECNO 7175.000
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									
7175.00	5.26	844.81	844.81	0 00	846 18	1.37	0.78	0.22	843.25
790.	29	758.	3.	6.	79.	1.	38.	9.	844.25
0.51	4.88	9 55	2.88	0.030	0.040	0.030	0.000	839.55	242.34
0.013864	75.	75.	75	20	11	0	0.00	34.16	276.50
*SECND 7250.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
FIELD SECTION 4 MOVED U/S									
7250.00	5.27	846.60	846.60	0.00	847.96	1.36	1.04	0.00	845.03
790.	29.	758.	3.	6.	80.	1.	38.	9.	846.03
0.51	4.88	9.52	2.89	0.030	0.040	0 030	0 000	841.33	242.30
0.013754	75.	75.	75	2	5	0	0.00	34.24	276.54
*SECND 7300.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
7300 00	5.27	847 79	847.79	0.00	849.15	1.37	0.69	0.00	846.22
790	29.	758.	3.	6.	80.	1.	38.	9.	847.22
0.51	4.88	9.53	2.89	0.030	0.040	0.030	0.000	842.52	242.31
0.013779	50	50.	50.	2	5	0	0.00	34.22	276.53
*SECND 7350.000									
7185 MINIMUM SPECIFIC ENERGY									
3720 CRITICAL DEPTH ASSUMED									
FIELD SECTION 4 MOVED U/S									
7350.00	5.27	848.98	848.98	0.00	850.34	1.37	0.69	0.00	847.41
790.	29.	758.	3.	6.	80.	1.	38.	9.	848.41
0.51	4.88	9.53	2.89	0.030	0.040	0.030	0.000	843.71	242.31
0.013773	50.	50.	50.	2	5	0	0.00	34.23	276.54
CCHV= 0.500 CEHV= 1.000									
*SECND 7375.000									
3301 HV CHANGED MORE THAN HVINS									
7375.00	6.23	850.53	0.00	0.00	850.94	0.42	0.12	0.48	846.30
790.	132.	578.	80.	33.	104.	21.	38.	9.	846.60
0.51	4.03	5.55	3.77	0.030	0.040	0.030	0.000	844.30	234.53
0.002559	25.	25.	25.	5	0	0	0.00	46.24	280.77

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 7400.000

D/S FACE STATE STREET, FIELD SECTION 5

7400.00	5.71	850.61	0.00	0.00	851.02	0.42	0.08	0.00	845.10
790.	272.	378.	140.	47.	79.	29.	38.	9.	845.10
0.51	5.84	4.81	4.75	0.030	0.040	0.030	0.000	844.90	218.09
0.003853	25.	25.	25.	2	0	0	0 00	46.22	264.31

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	1.83	3.00	0.00	7.00	0.00	38.50	0.00	844.90	844.90

*SECNO 7571.000

3265 DIVIDED FLOW

3280 CROSS SECTION 7571.00 EXTENDED 0.83 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
862.57	851.02	0.00	319.	472.	39.	30.	849.20	854.00

U/S FACE STATE STREET

7571 00	9.93	854 83	0.00	0.00	854.87	0.04	3.85	0.00	845.10
790.	288.	278.	224	145.	157.	209.	40.	9.	845.10
0.54	1.98	1 77	1.07	0.030	0.040	0.030	0.000	844.90	205.14
0.000208	171.	171.	171.	2	0	7	0.00	250.11	600.00

*SECNO 7600.000

3280 CROSS SECTION 7600 00 EXTENDED 0.84 FEET

FIELD SECTION (APPROX)

7600 00	9.84	854.84	0.00	0.00	854.88	0.04	0.01	0.00	845.00
790.	280.	230.	280	244.	98.	244.	40.	9.	845.00
0.55	1.15	2.34	1.15	0.045	0.045	0.045	0.000	845.00	0.00
0.000237	29.	29.	29.	2	0	0	0.00	270.00	270.00

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 8150.000

3470 ENCROACHMENT STATIONS= 100.0 170.0 TYPE= 1 TARGET= 70.000

FIELD SECTION (APPROX)

8150.00	7.34	855.09	0.00	0.00	855 27	0.18	0.25	0.14	847.75
790.	237.	316.	237.	90.	73.	90.	45.	12.	847.75
0.60	2 64	4.31	2.64	0.045	0.045	0.045	0.000	847.75	105.53
0.001193	550.	550	550.	2	0	0	0.00	58.94	164.47

CCHV= 0.300 CEHV= 0.500

*SECNO 8181.000

D/S FACE OF CULVERT, OUTLET OF RETENTION POND AT BRIARWOOD, FS

8181.00	7.13	855.13	0.00	0.00	855.33	0.20	0.05	0.01	848.00
790.	281	212.	297.	80.	56.	85.	45	12.	848.00
0 60	3.49	3 78	3.51	0 045	0.045	0.045	0.000	848.00	107.47
0.002514	31.	31.	31.	2	0	0	0.00	54.66	162.13

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	2.13	3.00	0.00	8.20	0.00	37.30	0.00	848.00	848.00

*SECNO 8425.000

3280 CROSS SECTION 8425.00 EXTENDED 0.41 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
869.97	858.15	0.00	274.	517.	37.	43.	853.30	861.00

U/S FACE OF CULVERT, OUTLET OF RETENTION POND AT BRIARWOOD

8425 00	9.91	861.41	0.00	0.00	861.49	0.07	6.16	0.00	851.50
790.	257.	262.	271.	196.	79.	205.	47.	12.	851.50
0.63	1.31	3.30	1.33	0 030	0.015	0.030	0.000	851.50	0.00
0.000134	244.	244.	244.	2	0	6	0.00	270.00	270.00

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 8430.000

RETENTION POND, SITE PLANS FOR BRIARWOOD

8430.00	17.51	861.51	0.00	0.00	861.51	0.00	0.00	0.02	844.00
790.	120	525.	145.	694.	1926.	852.	48.	13.	844.00
0 64	0.17	0.27	0.17	0.020	0.020	0.020	0.000	844.00	12.28
0.000000	5.	5.	5.	2	0	0	0.00	314.99	327.27

*SECNO 8680.000

RETENTION POND

8680.00	17.51	861.51	0.00	0 00	861.51	0.00	0.00	0.00	844.00
790.	120.	525.	145.	695.	1927.	852	67.	14.	844.00
0.93	0.17	0.27	0.17	0.020	0.020	0.020	0.000	844.00	12.07
0.000000	250.	250	250.	1	0	0	0.00	315.25	327.32

*SECNO 8701.000

3280 CROSS SECTION 8701.00 EXTENDED 5.81 FEET

D/S FACE EISENHOWER PARKWAY, FIELD SECTION 8

8701.00	14.71	861.51	0.00	0.00	861 51	0.00	0.00	0.00	855.70
790.	269.	331.	191.	581.	541.	471.	69.	14.	856.80
0.94	0.46	0.61	0.40	0.020	0.020	0.020	0.000	846.80	0.00
0.000004	21.	21.	21.	0	0	0	0.00	250.00	250.00

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	2.66	3.00	0.00	10.00	0.00	54.75	0.00	846.80	846.80

*SECNO 9230.000

3280 CROSS SECTION 9230.00 EXTENDED 1.21 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
870.11	861 51	0.00	529.	266.	55.	65.	853.30	861.20

U/S FACE EISENHOWER NOTE: TWO CULVERTS AT INLET, ONLY ONE

COMING OUT. SECOND CULVERT NOT CODED, FIELD SECTION 9

9230.00	10.11	862.41	0.00	0.00	862.48	0.08	0.97	0.00	861.20
790.	71.	717.	2.	121.	311.	11	81.	18.	862.30
1.01	0 59	2.30	0.16	0.070	0.045	0.050	0.000	852.30	0.00
0.000603	529.	529.	529.	2	0	5	0.00	250.00	250 00

CCHV= 0.500 CEHV= 1.000
*SECNO 9305.000
3280 CROSS SECTION 9305.00 EXTENDED 3.01 FEET

FIELD SECTION 10 MOVED D/S

9305 00	9.21	862.51	0.00	0.00	862.53	0.01	0.01	0.03	855.00
790.	263.	195.	332.	399.	154.	348.	82.	18.	855.40
1 03	0.66	1.27	0.95	0.070	0 045	0.050	0.000	853.30	162.40
0.000088	75.	75.	75.	2	0	0	0.00	160.60	323.00

CCHV= 0.300 CEHV= 0.500
*SECNO 9640 000

9640.00	4.94	862 54	0.00	0.00	862.66	0.11	0.08	0.05	859.30
790	240.	274.	276.	130.	77.	117.	87.	19	859.70
1.07	1.84	3.56	2.36	0 070	0.045	0.050	0.000	857.60	204.02
0.001751	335.	335.	335.	2	0	0	0.00	112.90	316.92

*SECNO 9775 000

9775.00	3.49	862.86	0.00	0.00	863.34	0.48	0.50	0.18	861.07
790.	219.	365.	206.	67.	51.	52.	88	19.	861.47
1 07	3.29	7.19	3.99	0.070	0.045	0 050	0.000	859.37	207.55
0.012361	135.	135.	135.	2	0	0	0.00	102.40	309.95

*SECNO 10000.000

FIELD SECTION 10 MOVED D/S

10000 00	3.43	865.78	0.00	0.00	866.31	0.53	2.95	0.02	864.05
790.	217.	372	201.	64.	50.	49.	89.	20.	864.45
1.09	3.40	7.51	4.11	0.070	0.045	0.050	0.000	862.35	207.71
0.013905	225.	225.	225.	6	0	0	0.00	101.93	309.63

*SECNO 10050 000
3280 CROSS SECTION 10050.00 EXTENDED 0.64 FEET

10050.00	3.73	866.63	0.00	0.00	867.06	0.42	0.72	0.03	866.00
790.	0.	790.	0.	0.	152.	0.	89.	20.	866.80
1.09	0.00	5.21	0.00	0.000	0.045	0.000	0.000	862.90	0.00
0 014762	50.	50.	50.	3	0	0	0.00	100.82	100.82

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 10051.000
3280 CROSS SECTION 10051.00 EXTENDED 0.64 FEET

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 869.60 MAX ELLC= 868.50

D/S FACE OF PRIVATE BRIDGE, FIELD SECTION 10A, (SUPP SURVEY)

10051.00	3.73	866.63	0.00	0.00	867.09	0.46	0.02	0.02	866.00
790.	0.	790.	0.	0.	146.	0.	89.	20.	866.80
1.09	0.00	5.43	0.00	0.000	0.045	0.000	0.000	862.90	0.00
0.017682	1.	1.	1.	1	0	0	-6.64	100.93	100.93

*SECNO 10059.000
3280 CROSS SECTION 10059.00 EXTENDED 0.91 FEET

3370 NORMAL BRIDGE, NRD= 15 MIN ELTRD= 869.60 MAX ELLC= 868.50

U/S FACE OF PRIVATE BRIDGE

10059.00	4.01	866.91	0.00	0.00	867.24	0.33	0.11	0.04	866.00
790	0.	790.	0.	0.	172.	0.	89.	20.	866.80
1.09	0.00	4.59	0.03	0.000	0.045	0.050	0.000	862.90	0.00
0.010649	8.	8.	8.	3	0	0	-7.71	104.43	104.43

*SECNO 10060.000
3280 CROSS SECTION 10060.00 EXTENDED 0.99 FEET

10060.00	4.09	866.99	0.00	0.00	867.26	0.27	0.01	0.02	866.00
790	0.	790.	0.	0.	188.	0.	89.	20.	866.80
1.09	0.00	4.20	0.47	0.000	0.045	0.050	0.000	862.90	0.00
0.007492	1.	1.	1.	2	0	0	0.00	105.04	105.04

*SECNO 10100.000
VALLEY SECTION E, FIELD SECTION 10

10100.00	4.18	867.28	0.00	0.00	867.50	0.22	0.22	0.02	864.80
790.	232.	310.	248.	96.	63.	82.	89.	20	865.20
1.09	2.41	4.90	3.04	0.070	0.045	0.050	0.000	863.10	205.87
0.004293	40.	40.	40.	2	0	0	0.00	107.40	313.27

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

*SECNO 10920.000
FIELD SECTION 10 MOVED U/S

10920.00	4.76	869.81	0.00	0.00	869 94	0.13	2.41	0.03	866.75
790.	239.	281.	270.	122.	73.	108.	94.	22.	867.15
1.17	1.96	3.82	2.50	0.070	0.045	0.050	0.000	865.05	204.47
0.002138	820	820.	820.	4	0	0	0.00	111.56	316.03

CCHV= 0.500 CEHV= 1.000
*SECNO 11021.000
D/S FACE OF PRIVATE BRIDGE, FIELD SEC 10B, (SUPP SURVEY)

11021.00	4.71	870.01	0 00	0.00	870 21	0.19	0.21	0.06	866.00
790.	48.	706.	37.	15.	197.	12	95.	22.	866.30
1.18	3.21	3.58	3.03	0.030	0.045	0.030	0.000	865.30	201.63
0.001978	101.	101.	101.	2	0	0	0.00	63.93	265.55

CCHV= 0.500 CEHV= 1.000

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	4.36	3.00	0.00	30.00	0.00	85.50	0.00	865.30	865.30

*SECNO 11129.000
PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
875.79	870.22	0.00	303.	491.	86.	138.	869.90	871.30

3470 ENCROACHMENT STATIONS= 85.0 425.0 TYPE= 1 TARGET= -85.000
U/S FACE OF PRIVATE BRIDGE

11129.00	6.88	872.18	0.00	0 00	872.24	0.06	2.04	0.00	866.00
790.	94.	658.	38.	118.	305.	31.	96.	23.	866.30
1.20	0.80	2.15	1.23	0.030	0.030	0 030	0.000	865.30	85.00
0.000177	108.	108.	108.	2	0	5	0.00	184.38	269.38

CCHV= 0.300 CEHV= 0.500

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 11170.000

3470 ENCROACHMENT STATIONS= 175.0 340.0 TYPE= 1 TARGET= 165.000

FIELD SECTION 12 MOVED D/S

11170.00	6.02	872.22	0.00	0.00	872.26	0.04	0.01	0.01	869.20
790	302.	196.	292.	214.	97.	200.	96	23.	869.30
1.20	1.41	2.02	1.46	0 030	0.030	0.030	0.000	866.20	175.00
0.000208	41.	41	41.	0	0	0	0.00	165.00	340.00

CCHV= 0.500 CEHV= 1.000

*SECNO 11221.000

D/S FACE OF MAIN STREET, FIELD SECTION 11

11221.00	5.04	872.24	0.00	0.00	872.45	0.21	0.03	0.17	870.60
790.	361.	357.	71.	110.	85.	32.	96.	23.	870.60
1 21	3.28	4.19	2.26	0.030	0 030	0.030	0.000	867.20	166 09
0.002713	51.	51.	51.	1	0	0	0.00	138.53	304 62

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	1.59	3.00	0.00	11.00	0.00	47.52	0.00	867.20	867.20

*SECNO 11288.000

3280 CROSS SECTION 11288.00 EXTENDED 0.32 FEET

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
879.07	872.47	0.00	184.	610.	48.	55.	872.20	875.60

U/S FACE OF MAIN STREET

11288.00	9.11	876.31	0.00	0.00	876.32	0.01	3.87	0.00	870.60
790.	372.	140.	278.	488.	171.	504.	98.	23.	870.60
1.23	0.76	0.82	0.55	0.030	0.025	0.030	0.000	867 20	138.88
0.000028	67.	67.	67.	0	0	5	0.00	361.12	500.00

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

CCHV= 0.500 CEHV= 1.000
*SECNO 11330.000
3280 CROSS SECTION 11330.00 EXTENDED 1.62 FEET

FIELD SECTION 12 MOVED D/S

11330.00	8.62	876.32	0.00	0.00	876.32	0.00	0.00	0.00	870.70
790.	452	127.	212.	983	147.	419.	99.	24.	870.80
1.26	0.46	0.86	0.51	0.060	0.045	0.060	0.000	867.70	0.00
0.000050	42.	42.	42.	2	0	0	0.00	385.26	385.26

CCHV= 0.300 CEHV= 0.500
*SECNO 11730.000

11730.00	4 58	876.28	0.00	0.00	876.49	0.21	0.07	0.10	874.70
790.	207.	351	232.	130.	70.	101.	107.	26.	874.80
1.29	1.59	5.03	2.29	0.060	0.045	0.060	0.000	871.70	106.86
0.004522	400.	400.	400.	2	0	0	0.00	226.89	333.75

*SECNO 11800.000

11800 00	4.21	876.61	0.00	0.00	877.05	0.44	0.45	0.12	875.40
790	139.	430	221.	79.	63.	78.	108.	27.	875 50
1.29	1.75	6.84	2.85	0.060	0.045	0.060	0.000	872.40	118.44
0.009645	70.	70.	70.	3	0	0	0.00	213.38	331.82

*SECNO 11850.000

11850.00	4.19	877.09	0 00	0 00	877.54	0.45	0.49	0.01	875.90
790.	137.	432.	221.	78.	63.	77.	108.	27.	876.00
1 30	1.75	6 90	2.87	0.060	0.045	0.060	0.000	872.90	118.77
0.009868	50.	50.	50.	2	0	0	0.00	213.00	331.77

*SECNO 12050.000

12050.00	4 19	879.09	0.00	0.00	879.55	0 46	2.00	0.01	877.90
790.	134.	435.	220.	77.	62.	76.	109.	28.	878.00
1 31	1.75	6.97	2.89	0.060	0.045	0.060	0.000	874.90	119.12
0.010117	200.	200	200.	2	0	0	0.00	212.59	331.71

*SECNO 12239.000
VALLEY SETION F, FIELD SECTION 12

12239.00	4.19	880 99	0 00	0.00	881.44	0.45	1.89	0.00	879.80
790.	136.	433.	221.	78.	63.	77.	110.	29.	879.90
1.32	1.75	6.92	2.87	0.060	0.045	0.060	0.000	876.80	118.83
0.009913	189	189.	189.	1	0	0	0.00	212.93	331.76

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 13030.000

FIELD SECTION 12 MOVED U/S

13030.00	5.04	884.44	0 00	0.00	884.54	0 10	2.99	0.11	882.40
790.	271.	284.	235.	201.	79.	132.	116.	33.	882 50
1.41	1 35	3.60	1.77	0.060	0.045	0.060	0 000	879.40	93.02
0.001981	791.	791.	791.	6	0	0	0.00	243.19	336.21

CCHV= 0 500 CEHV= 1.000
*SECNO 13181.000
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

D/S FACE PRIVATE BRIDGE (APPROX)

13181 00	6.24	886.64	886.64	0.00	887.19	0.56	0.51	0.46	885.70
790.	95.	600.	95	44.	89.	44.	117.	34.	885.70
1.42	2.17	6 77	2.17	0.035	0.045	0.035	0.000	880.40	56.49
0.007194	151.	151.	151	2	12	0	0.00	207.02	263.51

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	2.16	3.00	0.00	9.75	0.00	52 00	0.00	880.40	880.40

*SECNO 13205.000
3280 CROSS SECTION 13205.00 EXTENDED 0.59 FEET

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
894.38	887.19	0.00	485.	311.	52.	35.	884.00	887.20

U/S FACE PRIVATE BRIDGE (APPROX)

13205.00	7.39	887.79	0.00	0.00	887.83	0 05	0.64	0.00	885.70
790.	263.	265	263.	201.	112.	201.	117.	34.	885.70
1.43	1.31	2.37	1 31	0.035	0.045	0.035	0.000	880.40	0.00
0.000648	24.	24.	24.	2	0	5	0.00	320.00	320.00

```
   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

CCHV=    0.300 CEHV=    0.500
*SECNO 13400.000

3470 ENCROACHMENT STATIONS=       20.0      300.0  TYPE=      1  TARGET=      280.000
 13400.00       6.71     887 94       0.00       0 00     888.13       0.18       0.23       0.07     886.53
     790.        180.        429.       180.        99.        98.        99.        119.        35.      886.53
     1 44        1 81        4.37       1.81     0.035      0.045      0.035      0.000     881.23      20.00
 0.002612        195.        195.       195.         3          0          0       0.00     280 00     300.00


CCHV=    0.500 CEHV=    1.000
*SECNO 13500 000

3470 ENCROACHMENT STATIONS=       45.0      280.0  TYPE=      1  TARGET=      235.000
 13500.00       6.60     888.23       0.00       0.00     888.47       0.23       0 29       0.05     886.93
     790         166.        459.       165.        82.        96.        83.        119.        36.      886.93
     1.45        2 04        4.78       1.99     0.035      0.045      0.035      0.000     881.63      45.00
 0.003223        100.        100.       100.         2          0          0       0.00     235.00     280 00


*SECNO 13661.000

3470 ENCROACHMENT STATIONS=       85.0      235.0  TYPE=      1  TARGET=      150.000
                  D/S FACE PRIVATE BRIDGE (APPROX)
 13661.00       6.58     886.78       0.00       0.00     889.06       0.28       0.55       0.05     887.50
     790.        154         483.       154.        62.        96         62.        120.        37       887.50
     1 46        2 47        5.05       2.47     0.035      0 045      0 035      0.000     882 20      85.00
 0.003621        161.        161.       161.         2          0          0       0.00     150.00     235.00


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        2.16        2.80        0.00        9.75        0.00       52.00        0.00      882.20      882.20

*SECNO 13685.000
3280 CROSS SECTION  13685.00 EXTENDED       0.56 FEET

PRESSURE AND WEIR 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

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
896.52	889.18	0.00	523.	273.	52.	60.	888.40	889.40

3470 ENCROACHMENT STATIONS= 90.0 230.0 TYPE= 1 TARGET= 140.000

U/S FACE PRIVATE BRIDGE (APPROX)

13685.00	7.36	889.56	0.00	0.00	889.70	0.15	0.64	0.00	887.50
790.	179.	432.	179.	105.	111.	105.	120.	37.	887.50
1.46	1.70	3.89	1 70	0.035	0.030	0.035	0.000	882 20	90.00
0.000780	24.	24.	24.	2	0	5	0.00	140.00	230.00

CCHV= 0.500 CEHV= 1.000
*SECNO 13850.000
3280 CROSS SECTION 13850.00 EXTENDED 0.11 FEET

3470 ENCROACHMENT STATIONS= 133.0 188.0 TYPE= 1 TARGET= 55.000

13850.00	6.91	889.81	0.00	0.00	890.27	0.45	0.26	0.31	888.20
790.	93.	600.	98.	26.	102.	27.	121.	37.	888 20
1.47	3.57	5.87	3.57	0.035	0.045	0.035	0.000	882.90	133.00
0.004472	165.	165.	165.	2	0	0	0.00	55.00	188.00

*SECNO 13901.000

D/S FACE SALINE ANN ARBOR ROAD FIELD SECTION 13

13901.00	6.98	890.08	0.00	0 00	890.95	0.87	0.27	0.42	883.10
790.	187.	509.	94.	29.	62.	17.	121.	37.	885.20
1.47	6.46	8.17	5 43	0.035	0.045	0.035	0.000	883.10	241.69
0.006244	51.	51.	51.	2	0	0	0 00	26.30	267.99

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	3.22	3.00	0.00	10.00	0.00	76.50	0 00	883.10	883.10

*SECNO 13975.000

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

6070, LOW FLOW BY NORMAL BRIDGE

EGPRS= 0.000 EGLWC= 892.412 ELLC= 893.300 PCWSE= 890.079 ELTRD= 895.300

3301 HV CHANGED MORE THAN HVINS

3370 NORMAL BRIDGE, NRD= 12 MIN ELTRD= 895.30 MAX ELLC= 893.30

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

	U/S FACE	SALINE	ANN ARBOR ROAD					
13975.00	6.74	891 34	891.34	0.00	894.08	2.75	0.58	1.87	884.60
790.	0.	790.	0.	0.	59.	0.	122.	37.	886.70
1.48	0.00	13.30	0.80	0.000	0 025	0.030	0.000	884.60	241.98
0.010189	74.	74	74.	2	18	0	-42.64	25.67	267.65

*SECNO 13980.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 229.0 264.0 TYPE= 1 TARGET= 35.000

13980.00	10.05	895.35	0.00	0.00	895.42	0.08	0.00	1.34	889.90
490.	53.	423.	14.	52.	181	18.	122.	37.	885.90
1.48	1.03	2.34	0.75	0.030	0.025	0.030	0.000	885.30	229.00
0.000096	5.	5.	5.	3	0	0	0.00	35.00	264.00

*SECNO 13985.000

3470 ENCROACHMENT STATIONS= 224.0 269.0 TYPE= .1 TARGET= 45.000

13985.00	9 35	895.35	0.00	0.00	895.42	0.08	0.00	0.00	890.60
490.	64.	402	25.	60.	168.	28.	122.	37.	886.60
1.48	1.06	2.39	0.88	0.030	0.025	0.030	0.000	886.00	224.00
0.000111	5.	5	5.	2	0	0	0.00	45.00	269.00

*SECNO 13990.000

3470 ENCROACHMENT STATIONS= 219.0 274.0 TYPE= 1 TARGET= 55.000

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
13990.00	8.65	895.35	0.00	0.00	895.44	0.09	0.00	0.01	891.30
490.	67.	401.	22.	62	155	27.	122.	37.	887.30
1.48	1.09	2.59	0.82	0.030	0.025	0.030	0.000	886.70	219.00
0.000145	5.	5.	5	0	0	0	0.00	55.00	274.00

*SECNO 13993.000

3470 ENCROACHMENT STATIONS= 216.0 277.0 TYPE= 1 TARGET= 61.000

13993.00	8.15	895.35	0.00	0.00	895.46	0.11	0.00	0.02	891.80
490.	62	413.	14	57	146.	19.	122.	37.	887.80
1.48	1.10	2.83	0.75	0.030	0.025	0.030	0.000	887.20	216.00
0.000189	3	3.	3	0	0	0	0.00	58.69	274.69

*SECNO 13994.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 892.90 MAX ELLC= 891.80

3470 ENCROACHMENT STATIONS= 215.0 278.0 TYPE= 1 TARGET= 63.000

FOOT BRIDGE AT SALINE ANN ARBOR ROAD, FIELD SECTION 13A

13994.00	8.17	895.37	0.00	0.00	895.46	0.10	0.00	0.01	891 80
490.	128.	332.	30.	58.	125.	19.	122.	37.	887.80
1.48	2.20	2.65	1.54	0.030	0.025	0.030	0.000	887.20	215.00
0.000738	1.	1.	1.	1	0	0	-21.29	59.74	274.74

*SECNO 14002.000

3370 NORMAL BRIDGE, NRD= 13 MIN ELTRD= 892.90 MAX ELLC= 891.80

3470 ENCROACHMENT STATIONS= 207.0 286.0 TYPE= 1 TARGET= 79.000

U/S FACE OF FOOT BRIDGE

14002.00	8 19	895.39	0.00	0.00	895.48	0.08	0.01	0.01	891.80
490.	153.	309.	28.	75.	126.	20.	122.	37.	887.80
1.48	2.03	2.45	1.43	0.030	0.025	0.030	0.000	887.20	207.00
0.000626	8.	8.	8.	2	0	0	-21.29	67.97	274.97

*SECNO 14003.000

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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=      206.0      287.0  TYPE=      1  TARGET=       81.000
 14003.00      8.19    895.39      0.00      0.00    895.50      0.10      0.00      0.02    891.80
    490.        68.      410.       12.       78.      147.       20.      122.       37.     887.80
    1.48       0 87      2.80      0.59     0.030     0.020     0.030     0.000    887.20    206.00
 0.000117         1         1.         1         0         0         0      0.00     68.97    274.97


*SECND 14016.000
                SMALL DAM AT SALINE ANN ARBOR ROAD (SUPP SURVEY)
 14016 00      5.40    895.40      0.00      0.00    895.57      0.17      0.00      0.07    892.20
    490.        45.      394.       51.       36.      107.       42.      122.       37.     892.30
    1.48       1.23      3.69      1 23     0.030     0.020     0.030     0.000    890.00      0.00
 0.000336        13.       13.       13.         0         0         0      0.00     75.10     75.10


CCHV=    0.500 CEHV=    1.000
*SECND 14018.000
3280 CROSS SECTION  14018.00 EXTENDED       0.83 FEET


3470 ENCROACHMENT STATIONS=        5.0       81.0  TYPE=      1  TARGET=       76.000
                POND BEHIND SMALL DAM
 14018.00     10.03    895.63      0.00      0.00    895.65      0.02      0 00      0.08    887.70
    490.        70.      355.       65.      123.      280.      110.      122.       37.     887.60
    1.48       0.56      1.27      0.59     0.030     0.020     0.030     0.000    885.60      5.00
 0.000015         2.        2.        2.         2         0         0      0.00     76.00     81.00


*SECND 14034.000
3280 CROSS SECTION  14034.00 EXTENDED       0.83 FEET

 14034.00     10.03    895.63      0.00      0.00    895.65      0.02      0.00      0.00    887.70
    490.        68.      345.       77.      129.      280.      151.      122.       37.     887.60
    1 48       0.53      1.23      0.51     0.030     0.020     0.030     0.000    885.60      0.00
 0.000014        16.       16.       16.         0         0         0      0.00    101.00    101.00


CCHV=    0.100 CEHV=    0.300
*SECND 14546.000
3280 CROSS SECTION  14546.00 EXTENDED       0.84 FEET

                VALLEY SECTION G, PONDED AREA BEHIND SMALL DAM, FIELD SECTION 14
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
14546.00	10.04	895.64	0.00	0.00	895.66	0.02	0.01	0.00	887.70
490.	68.	345.	77	129	280.	151	129.	39.	887.60
1.62	0.53	1.23	0.51	0.030	0.020	0.030	0.000	885.60	0.00
0.000014	512.	512.	512.	0	0	0	0.00	101.00	101.00

*SECNO 14566.000

3301 HV CHANGED MORE THAN HVINS

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

SECOND SMALL DAM U/S SALINE ANN ARBOR ROAD (SUPP SURVEY)

14566.00	2.92	895.72	895.72	0.00	896.50	0.78	0.00	0.23	893.80
490.	50	372.	68.	14.	47.	18.	129.	39.	893 80
1.63	3.60	7.87	3.69	0.030	0.020	0.030	0.000	892.80	67.73
0.004265	20.	20.	20.	20	17	0	0.00	54.02	121.75

CCHV= 0 500 CEHV= 0.300
*SECNO 14568 000

3301 HV CHANGED MORE THAN HVINS

POND SECTION, (APPROX)

14568.00	7.85	896 85	0.00	0.00	896.88	0.02	0.00	0.38	889 00
490.	14.	432	44.	34.	346	83.	129.	39.	889.00
1.63	0.43	1.25	0.53	0.030	0.020	0.030	0.000	889.00	51.46
0.000018	2.	2.	2.	2	0	0	0.00	77.56	129.02

CCHV= 0.100 CEHV= 0.300
*SECNO 15308.000

POND SECTION, (APPROX)

15308.00	7.87	896 87	0.00	0.00	896.89	0.02	0.01	0 00	889.00
490.	14.	432.	44.	34.	346.	83.	137.	40.	889.00
1.80	0 43	1.25	0 53	0.030	0.020	0.030	0.000	889.00	51.45
0.000018	740.	740.	740.	2	0	0	0.00	77.65	129.10

*SECNO 15315.000

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

3301 HV CHANGED MORE THAN HVINS

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

THIRD SMALL DAM U/S SALINE ANN ARBOR ROAD (SUPP SURVEY)

15315.00	2.89	900.69	900.69	0.00	901.43	0.74	0.00	0.22	898.80
490.	43.	405.	42.	14.	54.	14.	137.	40.	898.80
1.80	3 06	7.46	2.98	0.030	0.020	0.030	0.000	897.80	162.10
0.003941	7.	7	7.	20	22	0	0.00	56.85	218.96

CCHV= 0.500 CEHV= 0.300
*SECNO 15325.000

3301 HV CHANGED MORE THAN HVINS

POND BEHIND SMALL DAM

15325.00	8.79	901.79	0.00	0.00	901.80	0.01	0.00	0.37	897.50
490.	12.	467.	11.	75	734	62.	137.	40.	897.50
1.81	0.15	0 64	0.18	0.030	0.020	0.030	0.000	893.00	127.04
0.000004	10.	10.	10.	2	0	0	0.00	175.50	302.53

CCHV= 0.100 CEHV= 0.300
*SECNO 15600.000

VALLEY SECTION H, PONDED AREA, JUST 7TH ST FIELD SECTION 15

15600.00	8.79	901.79	0.00	0.00	901.80	0.01	0.00	0.00	897.50
490.	12.	467.	11.	75.	734.	62.	142.	41.	897.50
1.93	0.15	0.64	0.18	0.030	0 020	0.030	0.000	893.00	127.02
0.000004	275.	275.	275.	2	0	0	0.00	175.52	302.54

THIS RUN EXECUTED 13 DEC 88 10:13:43

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

10-YEAR DISCHARGE

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	800.60	470.00	805.83	0.00	805.96	11.56	3.13	190.23	138.22
0.000	0.00	0.00	0.00	800.60	680.00	806.78	0.00	806.94	11.54	3.53	253.97	200.13
0.000	0.00	0.00	0.00	800.60	840.00	807.38	0.00	807.54	11.50	3.76	304.11	247.75
0.000	0.00	0.00	0.00	800.60	1060.00	808.06	0.00	808.24	11.26	3.98	381.75	315.85
350.000	350.00	0.00	0.00	801.00	470.00	806.23	0.00	806.36	11.52	3.12	190.51	138.49
350.000	350.00	0.00	0.00	801.00	680.00	807.19	0.00	807.34	11.51	3.52	254.27	200.43
350.000	350.00	0.00	0.00	801.00	840.00	807.78	0.00	807.95	11.48	3.75	304.33	247.95
350.000	350.00	0.00	0.00	801.00	1060.00	808.46	0.00	808.64	11.31	3.99	380.99	315.20
700.000	350.00	0.00	0.00	801.40	470.00	806.66	0.00	806.80	12.70	3.29	166.82	131.90
700.000	350.00	0.00	0.00	801.40	680.00	807.63	0.00	807.83	13.73	3.86	206.95	183.54
700.000	350.00	0.00	0.00	801.40	840.00	808.23	0.00	808.48	14.75	4.28	231.79	218.71
700.000	350.00	0.00	0.00	801.40	1060.00	808.93	0.00	809.24	16.36	4.83	260.40	262.03
750.000	50.00	0.00	0.00	800.50	470.00	806.76	0.00	807.12	38.47	4.85	97.00	75.78
750.000	50.00	0.00	0.00	800.50	680.00	807.75	0.00	808.30	52.63	6.00	113.40	93.73
750.000	50.00	0.00	0.00	800.50	840.00	808.37	0.00	809.08	63.61	6.79	123.69	105.32
750.000	50.00	0.00	0.00	800.50	1060.00	809.08	0.00	810.03	79.36	7.82	135.61	118.99
751.000	1.00	815.00	810.60	800.50	470.00	806.70	0.00	807.15	6.46	5.34	87.94	184.86
751.000	1.00	815.00	810.60	800.50	680.00	807.61	0.00	808.37	10.63	6.97	97.56	208.52
751.000	1.00	815.00	810.60	800.50	840.00	808.14	0.00	809.18	14.55	8.19	102.57	220.21
751.000	1.00	815.00	810.60	800.50	1060.00	808.69	0.00	810.21	21.12	9.88	107.30	230.65
850.000	99.00	815.00	810.65	800.55	470.00	806.77	0.00	807.21	6.43	5.33	88.12	185.32
850.000	99.00	815.00	810.65	800.55	680.00	807.73	0.00	808.47	10.48	6.92	98.21	210.06
850.000	99.00	815.00	810.65	800.55	840.00	808.31	0.00	809.33	14.25	8.11	103.60	222.54
850.000	99.00	815.00	810.65	800.55	1060.00	808.95	0.00	810.42	20.51	9.73	108.92	234.05
1000.000	150.00	815.00	810.73	800.63	470.00	806.87	0.00	807.31	6.40	5.32	88.31	185.79
1000.000	150.00	815.00	810.73	800.63	680.00	807.89	0.00	808.63	10.30	6.87	98.96	211.84
1000.000	150.00	815.00	810.73	800.63	840.00	808.55	0.00	809.54	13.86	8.00	104.99	225.62
1000.000	150.00	815.00	810.73	800.63	1060.00	809.31	0.00	810.72	19.78	9.54	111.06	238.37

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01%
	1300.000	300.00	815.00	810.88	800.78	470.00	807.06	0.00	807.50	6.31	5.29	88.80	187.03
	1300.000	300.00	815.00	810.88	800.78	680.00	808.23	0.00	808.93	9.92	6.75	100.67	215.85
	1300.000	300.00	815.00	810.88	800.78	840.00	809.00	0.00	809.95	13.21	7.81	107.54	231.16
	1300.000	300.00	815.00	810.88	800.78	1060.00	809.98	0.00	811.31	18.70	9.24	114.67	245.15
	1600.000	300.00	815.00	811.03	800.88	470.00	807.26	0.00	807.69	6.05	5.22	90.12	191.08
	1600.000	300.00	815.00	811.03	800.88	680.00	808.55	0.00	809.23	9.33	6.59	103.21	222.65
	1600.000	300.00	815.00	811.03	800.88	840.00	809.44	0.00	810.34	12.38	7.59	110.65	238.74
	1600.000	300.00	815.00	811.03	800.88	1060.00	810.63	0.00	811.88	18.62	8.96	118.36	245.65
	2250.000	650.00	815.00	811.94	801.79	470.00	807.65	0.00	808.13	7.12	5.58	84.24	176.14
	2250.000	650.00	815.00	811.94	801.79	680.00	809.15	0.00	809.86	9.92	6.78	100.31	215.91
	2250.000	650.00	815.00	811.94	801.79	840.00	810.25	0.00	811.15	12.56	7.65	109.81	237.03
	2250.000	650.00	815.00	811.94	801.79	1060.00	811.93	0.00	813.15	20.68	8.90	119.14	233.10
	2900.000	650.00	815.00	812.85	802.70	470.00	808.10	0.00	808.66	8.46	5.99	78.45	161.61
	2900.000	650.00	815.00	812.85	802.70	680.00	809.78	0.00	810.54	10.52	6.97	97.52	209.61
	2900.000	650.00	815.00	812.85	802.70	840.00	811.06	0.00	811.98	12.70	7.70	109.03	235.71
	2900.000	650.00	815.00	812.85	802.70	1060.00	813.27	0.00	814.50	20.77	8.90	119.14	232.60
*	2905.000	5.00	833.00	811.75	804.75	470.00	810.49	810.49	813.59	75.46	14.12	33.30	54.11
*	2905.000	5.00	100000.00	100000.00	804.75	680.00	811.55	0.00	812.21	11.20	6.51	104.40	203.17
*	2905.000	5.00	100000.00	100000.00	804.75	840.00	811.75	0.00	812.68	15.29	7.75	108.40	214.80
*	2905.000	5.00	100000.00	100000.00	804.75	1060.00	813.27	0.00	814.18	11.83	7.64	138.79	308.23
*	3905.000	1000.00	833.00	819.42	812.42	470.00	818.15	818.15	821.26	75.77	14.15	33.22	53.99
*	3905.000	1000.00	100000.00	100000.00	812.42	680.00	821.70	0.00	822.00	3.61	4.42	153.99	357.80
*	3905.000	1000.00	100000.00	100000.00	812.42	840.00	821.90	0.00	822.34	5.12	5.32	157.99	371.12
*	3905.000	1000.00	100000.00	100000.00	812.42	1060.00	823.42	0.00	823.91	4.97	5.63	188.39	475.59
*	4905.000	1000.00	833.00	827.09	820.10	470.00	825.86	825.86	828.96	75.78	14.13	33.26	53.99
*	4905.000	1000.00	100000.00	100000.00	820.10	680.00	831.80	0.00	831.98	1.67	3.36	202.36	525.79
*	4905.000	1000.00	100000.00	100000.00	820.10	840.00	832.00	0.00	832.26	2.42	4.07	206.36	540.21
*	4905.000	1000.00	100000.00	100000.00	820.10	1060.00	832.20	0.00	832.59	3.65	5.04	210.36	554.70
	4906.000	1.00	0.00	0.00	820.10	470.00	829.72	0.00	829.85	6.12	2.93	160.54	190.03
	4906.000	1.00	0.00	0.00	820.10	680.00	831.80	0.00	831.98	6.69	3.36	202.37	262.91
	4906.000	1.00	0.00	0.00	820.10	840.00	832.00	0.00	832.26	9.67	4.07	206.37	270.12
	4906.000	1.00	0.00	0.00	820.10	1060.00	832.20	0.00	832.59	14.61	5.04	210.37	277.36
	4950.000	44.00	0.00	0.00	820.10	470.00	829.87	0.00	829.91	0.84	2.04	336.43	514.13
	4950.000	44.00	0.00	0.00	820.10	680.00	832.02	0.00	832.05	0.59	1.96	519.72	887.01
	4950.000	44.00	0.00	0.00	820.10	840.00	832.33	0.00	832.37	0.77	2.28	553.13	957.79
	4950.000	44.00	0.00	0.00	820.10	1060.00	832.72	0.00	832.77	1.02	2.68	594.85	1050.74
	5200.000	250.00	0.00	0.00	824.60	470.00	829.78	0.00	830.12	28.78	5.89	108.72	87.61
	5200.000	250.00	0.00	0.00	824.60	680.00	831.98	0.00	832.17	10.84	4.59	212.44	206.54
	5200.000	250.00	0.00	0.00	824.60	840.00	832.29	0.00	832.52	12.96	5.16	241.08	233.29
	5200.000	250.00	0.00	0.00	824.60	1060.00	832.67	0.00	832.95	15.09	5.76	282.35	272.92

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	5270.000	70.00	0.00	0.00	825.70	470.00	829 91	0.00	830.59	68.97	7.85	77.93	56.59
	5270.000	70.00	0.00	0.00	825.70	680.00	832.01	0 00	832.35	22.01	5.86	159.38	144.94
	5270.000	70.00	0.00	0.00	825.70	840.00	832.32	0 00	832.73	25.71	6.55	181.83	165.65
	5270.000	70.00	0.00	0.00	825.70	1060.00	832 72	0.00	833.18	28.61	7.19	221 06	198.18
*	5330.000	60.00	0.00	0.00	826.80	470.00	830.60	830.60	831.76	138.61	10.26	59.62	39.92
	5330.000	60.00	0.00	0.00	826.80	680.00	832.21	0 00	832.89	54.88	8.26	112 82	91 80
	5330.000	60.00	0.00	0.00	826 80	840.00	832.55	0.00	833.33	59.67	8.99	131.19	108.74
	5330.000	60.00	0 00	0.00	826.80	1060.00	832.97	832.75	833.81	62.77	9.68	161.08	133.80
*	5380 000	50.00	0.00	0.00	828.30	470.00	832.37	832.37	833.07	258.25	6.68	70.40	29.25
*	5380.000	50.00	0.00	0 00	828 30	680.00	833.06	833.06	833.57	134 64	5.85	129.39	58.60
	5380.000	50.00	0.00	0.00	828.30	840.00	833.57	833.26	833.87	61.53	4.71	213.60	107.08
	5380.000	50.00	0 00	0.00	828.30	1060.00	834.14	0.00	834.36	34.56	4.10	306.35	180.32
	5420.000	40.00	836.20	833.30	828.30	470.00	832.68	832.66	835.32	407.09	13.04	36.05	23.29
	5420.000	40.00	836.20	833.30	828.30	680.00	836.54	0.00	836.55	0.53	1.01	759.20	935.45
	5420.000	40.00	836.20	833.30	828.30	840.00	836.69	0.00	836.71	0.72	1.20	787.06	991.43
	5420.000	40.00	836.20	833.30	828.30	1060.00	836.85	0.00	836.88	1.02	1.46	815.44	1049.73
	5450 000	30.00	0.00	0.00	829.40	470.00	836.09	0.00	836.12	1.94	1.87	434.47	337.31
	5450.000	30.00	0.00	0.00	829.40	680.00	836.53	0.00	836.57	2.76	2.33	510.62	409.57
	5450.000	30.00	0.00	0.00	829.40	790.00	836.67	0.00	836.73	3.29	2.58	536.23	435 73
	5450 000	30.00	0.00	0.00	829.40	1000.00	836.83	0 00	836.91	4.63	3.11	563.58	464.63
	5451.000	1.00	833.40	832.70	829.40	470.00	836.08	0.00	836.14	5.86	2.24	259.34	194.09
	5451.000	1.00	833.40	832.70	829.40	680.00	836.51	0.00	836.58	5.81	2.54	336.43	282 10
	5451.000	1.00	833.40	832.70	829.40	790.00	836.66	0.00	836.74	6.30	2.75	362.02	314 76
	5451.000	1.00	833.40	832.70	829.40	1000.00	836.81	0.00	836.93	8.11	3.24	389.12	351.10
	5491.000	40.00	833.40	832 70	829.40	470.00	836.10	0.00	836.16	5.70	2.22	262.06	196.92
	5491.000	40.00	833.40	832.70	829.40	680.00	836.54	0.00	836.61	5.71	2.53	338.38	284.53
	5491.000	40.00	833.40	832 70	829.40	790.00	836.69	0.00	836.77	6.18	2.73	364.26	317.70
	5491.000	40.00	833.40	832.70	829.40	1000.00	836.85	0.00	836.96	7.92	3.22	392.17	355.31
	5492.000	1.00	0.00	0.00	829.40	470.00	836.13	0.00	836.17	0.56	2.01	441.18	630.21
	5492.000	1.00	0.00	0.00	829.40	680.00	836.56	0.00	836.61	0.82	2.54	514 31	753.18
	5492 000	1.00	0.00	0.00	829.40	790.00	836.70	0.00	836.77	0.98	2.82	540.11	799.63
	5492.000	1.00	0.00	0.00	829.40	1000.00	836.86	0.00	836.96	1 38	3.40	568.41	852.34
	5495.000	3.00	0.00	0.00	829.40	470.00	836.12	0.00	836.18	1.10	2.56	368.80	448 77
	5495.000	3.00	0.00	0.00	829.40	680.00	836.54	0 00	836.62	1.44	3.11	443.32	566.05
	5495.000	3.00	0.00	0.00	829.40	790.00	836.69	0.00	836.78	1.68	3.42	468.89	609 52
	5495.000	3.00	0.00	0.00	829.40	1000.00	836.85	0.00	836.98	2.30	4.09	496.98	659.08
	5520.000	25.00	0.00	0.00	828.00	470 00	836 19	0.00	836.19	0.01	0.27	1794.14	5250.59
	5520.000	25 00	0.00	0 00	828.00	680.00	836.65	0.00	836.65	0.01	0.37	1898.37	5754.86
	5520.000	25.00	0.00	0.00	828.00	790.00	836.81	0 00	836.81	0 02	0.42	1936.11	5941.86
	5520.000	25.00	0.00	0.00	828.00	1000.00	837.02	0.00	837.02	0.03	0.52	1983.48	6179.79

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	01K
	5650.000	130.00	0.00	0.00	828.00	470.00	836.19	0.00	836.19	0.01	0.27	1795.79	5258.44
	5650.000	130.00	0.00	0.00	828.00	680.00	836.65	0.00	836.65	0.01	0.37	1900.55	5765.59
	5650.000	130.00	0.00	0.00	828.00	790.00	836.81	0.00	836.81	0.02	0.42	1937.41	5948.32
	5650.000	130.00	0.00	0.00	828.00	1000.00	837.02	0.00	837.02	0.03	0.52	1985.26	6188.80
	5731.000	81.00	0.00	0.00	829.20	470.00	836.19	0.00	836.32	3.40	3.46	175.38	254.87
	5731.000	81.00	0.00	0.00	829.20	680.00	836.65	0.00	836.83	4.60	4.21	206.38	316.94
	5731.000	81.00	0.00	0.00	829.20	790.00	836.81	0.00	837.04	5.35	4.61	218.08	341.40
	5731.000	81.00	0.00	0.00	829.20	1000.00	837.02	0.00	837.31	7.04	5.39	240.76	376.88
	5766.000	35.00	835.00	832.30	829.20	470.00	836.75	0.00	836.84	6.86	2.31	195.27	179.51
	5766.000	35.00	835.00	832.30	829.20	680.00	837.00	0.00	837.16	11.25	3.02	216.83	202.78
	5766.000	35.00	835.00	832.30	829.20	790.00	837.11	0.00	837.30	13.69	3.37	226.47	213.54
	5766.000	35.00	835.00	832.30	829.20	1000.00	837.26	0.00	837.53	18.90	4.01	240.47	230.04
	5856.000	90.00	0.00	0.00	830.70	470.00	836.86	0.00	837.14	27.51	4.41	121.26	89.61
	5856.000	90.00	0.00	0.00	830.70	680.00	837.18	0.00	837.67	43.69	5.83	135.95	102.87
	5856.000	90.00	0.00	0.00	830.70	790.00	837.33	0.00	837.93	52.39	6.51	142.85	109.15
	5856.000	90.00	0.00	0.00	830.70	1000.00	837.56	0.00	838.41	69.74	7.75	154.42	119.75
	5952.000	96.00	0.00	0.00	832.10	470.00	837.13	0.00	837.72	82.70	6.25	78.65	51.68
	5952.000	96.00	0.00	0.00	832.10	680.00	837.60	0.00	838.50	106.35	7.76	94.70	65.94
	5952.000	96.00	0.00	0.00	832.10	790.00	837.82	0.00	838.88	115.69	8.42	103.15	73.45
	5952.000	96.00	0.00	0.00	832.10	1000.00	838.21	837.91	839.54	129.31	9.49	119.39	87.94
	6000.000	48.00	0.00	0.00	833.00	470.00	837.51	0.00	838.38	147.95	7.53	63.69	38.64
	6000.000	48.00	0.00	0.00	833.00	680.00	838.07	837.86	839.28	164.69	8.91	80.11	52.99
	6000.000	48.00	0.00	0.00	833.00	790.00	838.33	838.21	839.70	169.59	9.51	88.75	60.66
*	6000.000	48.00	0.00	0.00	833.00	1000.00	838.81	838.81	840.41	169.72	10.36	106.88	76.76
	6004.000	4.00	0.00	0.00	833.00	470.00	837.74	0.00	838.48	115.13	6.92	69.89	43.80
	6004.000	4.00	0.00	0.00	833.00	680.00	838.56	0.00	839.43	101.06	7.64	96.62	67.64
	6004.000	4.00	0.00	0.00	833.00	790.00	839.02	0.00	839.90	88.33	7.72	115.06	84.06
	6004.000	4.00	0.00	0.00	833.00	1000.00	839.76	0.00	840.67	75.57	7.96	149.29	115.04
	6150.000	146.00	0.00	0.00	833.00	470.00	839.07	0.00	839.37	29.88	4.53	117.20	85.98
	6150.000	146.00	0.00	0.00	833.00	680.00	839.95	0.00	840.32	30.09	5.15	158.98	123.96
	6150.000	146.00	0.00	0.00	833.00	790.00	840.33	0.00	840.74	30.28	5.43	180.02	143.56
	6150.000	146.00	0.00	0.00	833.00	1000.00	841.01	0.00	841.46	30.03	5.84	220.63	182.49
	6201.000	51.00	0.00	0.00	832.60	470.00	839.44	0.00	839.52	3.41	2.27	207.00	254.45
	6201.000	51.00	0.00	0.00	832.60	680.00	840.37	0.00	840.49	4.52	2.82	241.72	319.96
	6201.000	51.00	0.00	0.00	832.60	790.00	840.79	0.00	840.92	4.84	3.02	284.36	359.03
	6201.000	51.00	0.00	0.00	832.60	1000.00	841.54	0.00	841.67	4.38	3.07	405.10	477.67
	6294.000	93.00	839.90	839.80	832.60	470.00	839.52	0.00	839.72	33.16	3.61	130.30	81.61
	6294.000	93.00	839.90	839.80	832.60	680.00	841.18	0.00	841.25	5.61	2.25	416.94	287.01
	6294.000	93.00	839.90	839.80	832.60	790.00	841.36	0.00	841.44	6.47	2.45	460.63	310.58
	6294.000	93.00	839.90	839.80	832.60	1000.00	841.71	0.00	841.81	7.60	2.74	546.58	362.80

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	01K
	6650.000	356.00	0.00	0.00	833.77	470.00	840.39	0.00	840.60	18.73	3.89	142.24	108.60
	6650.000	356.00	0.00	0.00	833.77	680.00	841.50	0 00	841.75	16 88	4.24	203.15	165.50
	6650.000	356.00	0 00	0.00	833.77	790.00	841.73	0.00	842.02	19.43	4.67	217.27	179.24
	6650.000	356 00	0.00	0.00	833.77	1000.00	842.15	0.00	842 52	23.38	5.35	246.63	206 82
	6800.000	150.00	0.00	0.00	834.31	470.00	840.68	0.00	840.93	22.96	4 16	130.66	98.08
	6800.000	150.00	0 00	0.00	834.31	680.00	841.76	0.00	842.04	20.61	4.54	186.63	149.79
	6800.000	150 00	0.00	0.00	834.31	790.00	842.03	0.00	842.36	23.05	4.95	202.17	164.56
	6800.000	150.00	0.00	0.00	834.31	1000.00	842.50	0 00	842.91	26.51	5.59	232.87	194.22
	6900.000	100.00	0.00	0.00	834.67	470.00	840 92	0.00	841.28	39.22	4.82	97.52	75 04
	6900.000	100.00	0 00	0.00	834.67	680.00	841.95	0.00	842.45	46 35	5.71	119 18	99.88
	6900.000	100.00	0.00	0.00	834.67	790.00	842.22	0.00	842.84	54.63	6.32	125.06	106.89
	6900.000	100.00	0.00	0 00	834.67	1000.00	842 69	0.00	843.54	71.14	7.42	134.70	118.56
	6910.000	10.00	0.00	0.00	834.80	470.00	840 95	0.00	841.52	22.85	6.06	77.56	98.32
	6910.000	10.00	0.00	0.00	834.80	680.00	841.98	0.00	842 81	29.07	7.31	92.98	126 13
	6910.000	10.00	0.00	0.00	834.80	790.00	842.26	0.00	843 29	34.83	8.13	97.15	133 86
	6910.000	10.00	0.00	0.00	834.80	1000.00	842.75	0.00	844.17	46.10	9.59	104.29	147 28
	6930.000	20.00	847.00	845 90	834.80	470.00	841.01	0.00	841.57	22.13	5.99	78.46	99.91
	6930.000	20.00	847.00	845.90	834.80	680.00	842.07	0.00	842.88	28.02	7.22	94.24	128.46
	6930.000	20.00	847.00	845.90	834.80	790.00	842.39	0.00	843.38	32.97	7.97	99.14	137.59
	6930.000	20.00	847.00	845.90	834.80	1000.00	842.97	0.00	844.31	42.21	9.28	107.79	153.93
	6960 000	30 00	847.00	845 90	834.80	470.00	841.11	0.00	841.64	21.03	5.88	79 92	102.49
	6960.000	30 00	847.00	845.90	834.80	680.00	842.21	0.00	842.98	26.36	7.05	96.39	132.44
	6960.000	30.00	847.00	845 90	834.80	790 00	842.56	0.00	843.50	30 82	7.77	101.65	142.30
	6960.000	30.00	847.00	845.90	834.80	1000.00	843.23	0.00	844.47	38 45	8.96	111.63	161.26
	6975 000	15.00	0.00	0.00	834.80	470.00	841.15	0.00	841.68	20.68	5.85	80.40	103.35
	6975.000	15.00	0.00	0.00	834 80	680.00	842.26	0.00	843.03	25.85	7.00	97 09	133.76
	6975.000	15.00	0.00	0.00	834.80	790.00	842.64	0.00	843.55	29 91	7.68	102.80	144.46
	6975.000	15.00	0.00	0.00	834.80	1000.00	843.34	0.00	844.55	37.00	8.83	113.26	164.40
	6978.000	3.00	0.00	0.00	834.90	470.00	841.48	0.00	841.79	25.35	4.49	104 58	93 34
	6978.000	3.00	0.00	0.00	834.90	680.00	842.80	0.00	843.21	27.40	5.14	132.17	129.91
	6978.000	3.00	0.00	0.00	834.90	790.00	843.31	0.00	843.78	29.78	5.53	142.91	144.78
	6978.000	3.00	0.00	0.00	834.90	1000.00	844.29	0.00	844.87	33.00	6 12	163.49	174.07
	7070.000	92.00	0.00	0.00	837.04	470.00	841.66	0.00	842.45	102.62	7.19	66.59	46 40
	7070.000	92.00	0.00	0.00	837.04	680.00	843.03	0.00	843.63	48.04	6.40	114.61	98.11
	7070.000	92.00	0.00	0.00	837.04	790.00	843.58	0.00	844.14	39.07	6.25	138.91	126.39
	7070.000	92.00	0 00	0.00	837.04	1000.00	844.75	0.00	845.17	23.46	5.62	202.03	206.44
*	7100.000	30.00	0 00	0.00	837.77	470.00	841.89	841.89	843.08	183.84	8.76	53.97	34.66
	7100.000	30 00	0 00	0.00	837.77	680.00	843.02	0.00	844.05	103.51	8.24	86.16	66.84
	7100.000	30 00	0.00	0.00	837.77	790.00	843.55	0.00	844.49	80 39	7.98	105.71	88.11
	7100 000	30.00	0.00	0.00	837.77	1000.00	844.72	0.00	845.40	43.87	7.00	159.09	150.98

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01%
*	7175.000	75.00	0.00	0.00	839.55	470.00	843.67	843.67	844.86	184 21	8.77	53.94	34.63
*	7175.000	75.00	0 00	0.00	839.55	680.00	844.44	844.44	845.78	156.04	9.39	74.43	54.44
*	7175 000	75.00	0.00	0.00	839.55	790.00	844.81	844.81	846.18	138.64	9.55	86.40	67 09
*	7175.000	75.00	0.00	0.00	839.55	1000.00	845.40	845.40	846.83	120.86	9.90	108.26	90.96
*	7250.000	75.00	0.00	0.00	841.33	470.00	845.45	845.45	846.64	184 11	8.76	53.95	34.64
*	7250 000	75.00	0.00	0.00	841.33	680.00	846.23	846.23	847.56	154.24	9 35	74.73	54.75
*	7250 000	75.00	0.00	0.00	841.33	790.00	846.60	846.60	847.96	137 54	9.52	86.65	67.36
*	7250.000	75.00	0.00	0 00	841.33	1000.00	847.19	847.19	848.61	119.66	9.86	108.67	91.42
*	7300.000	50.00	0.00	0.00	842.52	470.00	846.64	846.64	847.83	184.14	8.76	53.94	34.64
*	7300.000	50.00	0.00	0.00	842.52	680.00	847.42	847.42	848.75	154.72	9.36	74.65	54 67
*	7300.000	50.00	0.00	0.00	842.52	790.00	847.79	847.79	849.15	137.79	9.53	86.59	67.30
*	7300.000	50.00	0.00	0.00	842 52	1000.00	848.38	848.38	849.80	119.96	9.87	108.57	91.30
*	7350.000	50.00	0.00	0.00	843.71	470.00	847.83	847.83	849.02	184.13	8.76	53.94	34.64
*	7350 000	50.00	0.00	0.00	843.71	680.00	848.61	848.61	849.94	154.59	9.36	74.67	54.69
*	7350.000	50.00	0.00	0.00	843.71	790.00	848 98	848.98	850.34	137.73	9.53	86.61	67.31
*	7350.000	50.00	0.00	0.00	843.71	1000.00	849.57	849.57	850.99	119.88	9.87	108.59	91.33
	7375.000	25.00	0.00	0.00	844.30	470.00	849.26	0.00	849.60	28.95	4.90	104.42	87.36
	7375.000	25.00	0.00	0.00	844.30	680.00	850.16	0.00	850.55	25.97	5.32	141.16	133.43
	7375.000	25.00	0.00	0.00	844.30	790.00	850.53	0.00	850.94	25.59	5.55	158.01	156.18
	7375.000	25.00	0.00	0.00	844.30	1000.00	851.11	0.00	851.59	26.12	6.02	185.77	195 65
	7400 000	25.00	0.00	0.00	844 90	470 00	849.35	0.00	849.71	49.16	4.30	100.94	67.03
	7400.000	25.00	0.00	0.00	844.90	680.00	850.24	0.00	850.63	39 97	4.61	138.20	107 56
	7400.000	25.00	0 00	0.00	844 90	790.00	850.61	0.00	851.02	38.53	4.81	154.67	127.27
	7400.000	25.00	0.00	0.00	844.90	1000.00	851.19	0.00	851.67	37.73	5.19	182.50	162.80
	7571.000	171.00	854.00	849.20	844 90	470.00	853.55	0.00	853.59	1.71	1.44	312.71	359.09
	7571 000	171.00	854.00	849.20	844.90	680.00	854.63	0.00	854.67	1.81	1.63	463 60	505.60
	7571.000	171.00	854.00	849.20	844.90	790.00	854.83	0.00	854.87	2.08	1.77	511.36	548.05
	7571.000	171.00	854.00	849.20	844.90	1000.00	855.13	0.00	855.19	2.57	2.02	592.99	624 02
	7600.000	29.00	0.00	0.00	845 00	470.00	853.56	0.00	853.60	2.09	2.00	329.83	324.88
	7600.000	29.00	0.00	0.00	845.00	680.00	854.64	0.00	854.67	2.09	2.16	532.61	470 06
	7600.000	29.00	0.00	0.00	845.00	790.00	854.84	0.00	854.88	2.37	2.34	587.24	512.80
	7600.000	29.00	0 00	0.00	845.00	1000.00	855.15	0.00	855.20	2.92	2.64	671.17	585.56
	8150.000	550.00	0.00	0.00	847.75	470.00	853.78	0.00	853.90	10.22	3.50	181.40	147.03
	8150.000	550.00	0.00	0.00	847.75	680.00	854.86	0.00	855 01	10.23	3.90	239.46	212.60
	8150.000	550.00	0.00	0.00	847.75	790 00	855.09	0 00	855.27	11.93	4.31	253.06	228.75
	8150.000	550.00	0.00	0.00	847.75	1000.00	855.46	0.00	855.71	15.27	5.04	275 43	255.92
	8181.000	31.00	0.00	0.00	848.00	470.00	853.81	0.00	853.96	24.58	3.22	154.20	94 79
	8181.000	31.00	0 00	0.00	848.00	680.00	854.89	0.00	855.06	22.21	3.46	207.67	144.30
	8181.000	31.00	0.00	0.00	848.00	790.00	855.13	0.00	855.33	25.14	3 78	221.06	157.55
	8181.000	31.00	0.00	0.00	848.00	1000.00	855.52	0.00	855.78	31.06	4.36	242.54	179.42

	SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	8425.000	244.00	861.00	853.30	851.50	470.00	858.98	0 00	859.07	1.98	3.29	240.13	334 29
	8425.000	244.00	861.00	853.30	851.50	680.00	861.28	0.00	861.34	1.10	2.97	443.64	647.67
	8425.000	244.00	861 00	853 30	851.50	790.00	861.41	0.00	861.49	1.34	3.30	480.29	682.89
	8425.000	244 00	861.00	853.30	851.50	1000.00	861.63	0.00	861.72	1.81	3.89	537 62	744.07
	8430.000	5.00	0.00	0.00	844.00	470.00	859.09	0.00	859.09	0 00	0.20	2791 16	10723 95
	8430.000	5.00	0.00	0.00	844.00	680.00	861.36	0.00	861.36	0.00	0.24	3424.36	14248.20
	8430 000	5.00	0.00	0.00	844.00	790.00	861.51	0.00	861.51	0.00	0.27	3471.60	14509.15
	8430 000	5.00	0.00	0.00	844.00	1000.00	861.75	0.00	861.75	0.00	0.34	3548.99	14934.98
	8680.000	250.00	0.00	0.00	844.00	470.00	859.09	0.00	859.09	0 00	0.20	2791.17	10724 01
	8680.000	250 00	0.00	0.00	844.00	680.00	861.36	0.00	861.36	0.00	0.24	3426.51	14260.10
	8680.000	250.00	0.00	0.00	844.00	790.00	861.51	0.00	861.51	0.00	0.27	3474.26	14523.79
	8680.000	250.00	0.00	0.00	844.00	1000.00	861.75	0 00	861 75	0.00	0.34	3549.03	14935.18
	8701.000	21.00	0.00	0 00	846.80	470.00	859.09	0.00	859.09	0.06	0.63	989.04	1933.36
	8701.000	21.00	0.00	0.00	846.80	680.00	861 36	0.00	861.36	0.03	0.54	1555.38	3805.14
	8701.000	21.00	0.00	0.00	846.80	790.00	861.51	0.00	861.51	0.04	0.61	1593 16	3949 50
	8701.000	21.00	0.00	0.00	846.80	1000.00	861.75	0.00	861.76	0 06	0.74	1653.88	4186.21
	9230.000	529.00	861.20	853.30	852.30	470.00	861.60	0.00	861.64	3.81	1.70	311.14	240.67
	9230.000	529.00	861.20	853.30	852.30	680 00	862.30	0.00	862.36	4.88	2.05	415.17	307.91
	9230.000	529.00	861.20	853.30	852.30	790.00	862.41	0.00	862.48	6.03	2.30	442.71	321.62
	9230.000	529.00	861.20	853.30	852.30	1000.00	862.59	0 00	862.69	8.35	2.76	487.46	346.14
	9305.000	75.00	0.00	0.00	853.30	470.00	861 66	0.00	861.67	0.49	0.88	767.39	673 64
	9305.000	75.00	0.00	0.00	853.30	680.00	862 38	0.00	862.39	0.70	1.12	879.94	814.51
	9305.000	75.00	0.00	0.00	853.30	790 00	862.51	0.00	862.53	0.88	1.27	901.21	842.05
	9305.000	75.00	0.00	0 00	853.30	1000.00	862.73	0.00	862.75	1.27	1.55	936.71	888.60
	9640.000	335 00	0.00	0.00	857.60	470.00	861.67	0 00	861 76	17.77	3.08	228.90	111.50
	9640.000	335.00	0.00	0.00	857.60	680.00	862.40	0.00	862.50	15.08	3.24	308.79	175 13
	9640.000	335.00	0.00	0.00	857.60	790.00	862.54	0.00	862.66	17.51	3.56	324.51	188.80
	9640 000	335.00	0.00	0 00	857.60	1000.00	862.78	0.00	862.93	22.08	4.15	351.23	212.82
*	9775.000	135.00	0.00	0.00	859.37	470.00	862.21	862.21	862.72	171.30	7.09	103.72	35.91
	9775 000	135.00	0.00	0.00	859.37	680.00	862.67	0.00	863.14	130.68	7.05	149 43	59.48
	9775.000	135.00	0 00	0.00	859.37	790.00	862.86	0.00	863.34	123.61	7.19	168.95	71.06
	9775 000	135.00	0.00	0 00	859.37	1000.00	863.17	0.00	863.70	118.98	7.56	200.80	91.68
	10000.000	225.00	0.00	0.00	862.35	470.00	865.40	0.00	865.75	104 80	5.90	124.29	45.91
	10000.000	225.00	0.00	0.00	862.35	680.00	865.64	0.00	866.12	134.18	7.12	148.05	58.70
	10000.000	225.00	0.00	0.00	862.35	790.00	865.78	0.00	866.31	139.05	7.51	162.25	67.00
	10000.000	225.00	0.00	0.00	862.35	1000.00	866.05	0.00	866.64	140.82	8.03	189 71	84.27
	10050 000	50.00	0.00	0.00	862.90	470.00	866.09	0.00	866.44	187 92	4.73	99.31	34.29
	10050.000	50.00	0 00	0.00	862.90	680.00	866.47	0.00	866.87	152.81	5.02	135 55	55.01
	10050 000	50.00	0.00	0.00	862.90	790.00	866.63	0.00	867.06	147.62	5.21	151.52	65.02
	10050.000	50.00	0.00	0.00	862.90	1000 00	866.89	0.00	867 38	143.69	5 62	178.01	83.42

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	10051.000	1.00	869.60	868 50	862.90	470.00	866.09	0.00	866 47	218.63	4 92	95.54	31 79
	10051.000	1 00	869.60	868.50	862.90	680.00	866.48	0.00	866.90	181.49	5.22	130.31	50.48
	10051.000	1 00	869.60	868.50	862 90	790.00	866.63	0.00	867.09	176.82	5.43	145.59	59.41
	10051.000	1.00	869.60	868.50	862.90	1000.00	866.88	0.00	867.42	179.23	5.90	169.39	74.70
	10059.000	8.00	869.60	868.50	862.90	470.00	866.41	0.00	866.63	100.65	3.79	123.90	46.85
	10059.000	8.00	869.60	868.50	862.90	680.00	866.76	0.00	867.05	104.01	4.32	157.54	66.68
	10059.000	8.00	869.60	868 50	862 90	790.00	866.91	0.00	867.24	106.49	4.59	171.99	76 56
	10059 000	8.00	869.60	868.50	862.90	1000.00	867.19	0.00	867.58	105.42	5.01	199.75	97.40
	10060.000	1.00	0.00	0.00	862.90	470.00	866.46	0.00	866 65	75 90	3.51	133.81	53.95
	10060.000	1.00	0.00	0 00	862.90	680.00	866 82	0.00	867.07	76.53	3.99	170.54	77.73
	10060.000	1.00	0.00	0 00	862.90	790.00	866.99	0.00	867.26	74.92	4.20	188.05	91.27
	10060.000	1.00	0.00	0.00	862.90	1000 00	867.28	0.00	867.61	73.05	4.58	219.16	117.00
	10100.000	40.00	0.00	0 00	863.10	470.00	866.72	0.00	866.86	35.47	3.96	181.45	78.91
	10100.000	40.00	0.00	0.00	863.10	680.00	867.11	0.00	867.30	40.58	4.60	222.35	106.75
	10100.000	40.00	0.00	0.00	863.10	790.00	867.28	0 00	867 50	42 93	4.90	241.15	120.58
	10100.000	40.00	0.00	0.00	863.10	1000.00	867.59	0 00	867.85	46.53	5.40	274.52	146.59
	10920.000	820 00	0.00	0.00	865 05	470.00	868.99	0 00	869.09	21.26	3.29	215.60	101.93
	10920.000	820.00	0.00	0.00	865.05	680.00	869.55	0.00	869 67	21.28	3.66	275.51	147.40
	10920 000	820.00	0.00	0.00	865.05	790 00	869.81	0.00	869.94	21.38	3.82	303.78	170 85
	10920.000	820.00	0.00	0.00	865 05	1000.00	870.25	0.00	870.40	21.66	4.12	353.45	214.86
	11021.000	101.00	0.00	0.00	865.30	470.00	869.18	0.00	869.30	16.22	2.77	172.00	116.72
	11021.000	101.00	0.00	0.00	865 30	680.00	869.75	0.00	869.92	18.71	3.33	207.42	157.21
	11021.000	101.00	0.00	0.00	865.30	790.00	870.01	0.00	870.21	19.78	3.58	224.05	177.64
	11021.000	101.00	0.00	0.00	865.30	1000.00	870.46	0.00	870 71	21.55	4.02	253.17	215.40
	11129 000	108.00	871.30	869.90	865.30	470.00	869.56	0 00	870.07	127 70	5.70	82.46	41.59
	11129.000	108.00	871.30	869.90	865.30	680.00	872.01	0.00	872 06	1.51	1.95	422.67	553.87
	11129.000	108.00	871.30	869 90	865.30	790.00	872.18	0.00	872.24	1.77	2.15	453.72	593.08
	11129.000	108.00	871.30	869.90	865.30	1000.00	872.42	0.00	872.50	2 35	2.54	496.91	651.77
	11170.000	41.00	0.00	0 00	866.20	470.00	870.16	0.00	870.32	17.06	4.09	179.15	113.80
	11170.000	41.00	0.00	0.00	866.20	680.00	872.04	0.00	872.08	1.86	1.86	482.68	499.00
	11170.000	41.00	0.00	0.00	866 20	790.00	872.22	0.00	872.26	2.08	2.02	511.79	547 37
	11170.000	41.00	0 00	0.00	866.20	1000.00	872.47	0.00	872.52	2.64	2.34	551.19	615.76
*	11221.000	51.00	0 00	0.00	867 20	470.00	871.22	871.22	871.66	76.93	5.83	102.04	53.59
	11221.000	51.00	0 00	0.00	867 20	680.00	872.07	0.00	872.26	27.48	4.10	202.87	129.72
	11221.000	51.00	0.00	0.00	867.20	790.00	872.24	0.00	872.45	27.13	4.19	226.86	151.68
	11221.000	51.00	0.00	0.00	867.20	1000.00	872.50	0.00	872.74	28.76	4.49	262.57	186.46
	11288.000	67.00	875.60	872.20	867 20	470.00	872.01	871.78	874.09	202.40	11.57	40.61	33.04
	11288.000	67.00	875.60	872.20	867.20	680.00	876.08	0.00	876.09	0.25	0.76	1080.19	1354.82
	11288.000	67.00	875.60	872.20	867.20	790.00	876.31	0.00	876.32	0.28	0.82	1163.06	1485.47
	11288.000	67.00	875.60	872.20	867.20	1000.00	876.60	0.00	876.61	0.36	0.95	1266.38	1658.79

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	11330.000	42.00	0.00	0.00	867.70	470.00	875.13	0.00	875.14	0.44	0.73	1118.54	704.82
	11330.000	42 00	0.00	0 00	867 70	680.00	876.09	0.00	876.09	0.43	0.79	1461.10	1032 16
	11330.000	42.00	0.00	0 00	867.70	790.00	876.32	0.00	876.32	0.50	0.86	1548.52	1120.88
	11330.000	42.00	0.00	0 00	867.70	1000.00	876.61	0.00	876.61	0.65	1.01	1661.74	1238.32
*	11730.000	400.00	0.00	0.00	871.70	470.00	875.43	875.43	875.89	101.66	6.32	125.53	46.62
	11730 000	400.00	0.00	0 00	871.70	680.00	876.02	0.00	876.28	56.24	5.34	243.82	90.67
	11730.000	400.00	0.00	0.00	871.70	790.00	876.28	0.00	876.49	45.22	5.03	301.40	117.48
	11730.000	400.00	0.00	0.00	871.70	1000.00	876.59	0.00	876.79	41.27	5.07	374.27	155.66
	11800.000	70.00	0.00	0.00	872.40	470.00	876.15	876.12	876.60	99.03	6.26	127.42	47.23
*	11800 000	70.00	0.00	0.00	872 40	680.00	876.49	876 49	876.92	93.53	6.57	194.54	70.31
	11800.000	70.00	0.00	0 00	872.40	790.00	876.61	0.00	877.05	96.45	6.84	219.83	80.44
	11800.000	70.00	0.00	0.00	872.40	1000.00	876.90	0.00	877.28	83.52	6.74	284.74	109.42
	11850.000	50.00	0.00	0.00	872.90	470.00	876.65	876 61	877.09	97 28	6.21	128.73	47.65
	11850.000	50.00	0.00	0 00	872.90	680.00	876 96	876 94	877.42	100.79	6 78	187.78	67 73
	11850.000	50.00	0 00	0.00	872.90	790.00	877.09	0.00	877.54	98.68	6.90	217.62	79.53
	11850.000	50.00	0.00	0.00	872.90	1000.00	877.32	0.00	877.77	98.87	7.22	265.84	100.57
	12050.000	200.00	0 00	0.00	874 90	470.00	878.63	878.61	879.09	101.87	6.33	125.38	46 57
	12050.000	200.00	0 00	0.00	874.90	680.00	878.96	878.96	879.41	98.41	6.71	189.93	68 55
	12050.000	200.00	0 00	0.00	874.90	790.00	879.09	0 00	879.55	101.17	6.97	215 22	78 54
	12050.000	200 00	0 00	0.00	874.90	1000 00	879.32	0.00	879.78	101.63	7.30	262 84	99 19
	12239.000	189 00	0.00	0.00	876.80	470.00	880 54	880.52	880.99	98.96	6.25	127.48	47.25
*	12239.000	189.00	0.00	0.00	876.80	680.00	880.86	880.86	881.32	100.26	6.76	188.25	67.91
	12239.000	189.00	0.00	0.00	876.80	790.00	880.99	0.00	881.44	99 13	6.92	217.18	79.35
	12239.000	189.00	0.00	0 00	876.80	1000.00	881.23	0.00	881.68	98.52	7.21	266.22	100.75
	13030.000	791.00	0.00	0.00	879.40	470.00	883.90	0.00	883.98	18.74	3.19	282.93	108.56
	13030.000	791.00	0.00	0.00	879.40	680.00	884.29	0.00	884.38	19.31	3.46	372.67	154.76
	13030.000	791.00	0.00	0.00	879.40	790.00	884.44	0.00	884.54	19.81	3.60	412.20	177.51
	13030.000	791.00	0.00	0 00	879 40	1000.00	884.73	0 00	884.84	20.52	3.83	482.77	220 78
	13181.000	151.00	0.00	0.00	880.40	470.00	884.60	884.56	886.00	249.82	9.52	49.37	29 74
*	13181.000	151 00	0.00	0.00	880.40	680.00	885.41	885.41	887.15	256.24	10.59	64.21	42.48
*	13181.000	151.00	0.00	0.00	880.40	790.00	886.64	886.64	887.19	71.94	6.77	176.08	93.14
*	13181.000	151.00	0.00	0.00	880.40	1000.00	886 96	886.96	887.40	59.41	6.46	255.07	129.74
	13205.000	24.00	887.20	884.00	880.40	470.00	887.19	0 00	887.25	8.17	2.47	323.35	164.45
	13205.000	24.00	887.20	884.00	880.40	680 00	887.57	0.00	887.62	7 37	2 46	442.67	250 42
	13205.000	24.00	887.20	884.00	880 40	790 00	887.79	0.00	887.83	6.48	2.37	512.98	310.33
	13205.000	24.00	887.20	884.00	880.40	1000.00	887.96	0.00	888.02	7 65	2.63	567.89	361 49
	13400.000	195.00	0.00	0.00	881.23	470.00	887.38	0.00	887.62	30.50	4.35	157.40	85.10
	13400.000	195.00	0.00	0.00	881.23	680.00	887.74	0.00	887.97	30.87	4.62	239.91	122 40
	13400.000	195.00	0.00	0.00	881.23	790.00	887.94	0.00	888.13	26.12	4.37	297.12	154 58
	13400.000	195.00	0.00	0.00	881.23	1000.00	888.15	0.00	888.33	26.02	4.49	356.35	196.03

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	13500.000	100.00	0.00	0.00	881.63	470.00	887.70	0.00	887.98	34.49	4.57	145.30	80.03
	13500.000	100.00	0.00	0 00	881.63	680.00	888.07	0.00	888.33	34.82	4.85	221.76	115 24
	13500.000	100.00	0 00	0.00	881.63	790.00	888.23	0.00	888.47	32.23	4.78	260.45	139.15
	13500.000	100.00	0.00	0 00	881 63	1000.00	888.44	0.00	888.68	33.16	4.99	309 24	173 65
	13661.000	161.00	0.00	0.00	882 20	470.00	888.26	0.00	888.53	34.59	4.57	141.64	79 92
	13661.000	161.00	0.00	0.00	882.20	680.00	888.63	0.00	888.90	35.32	4.88	197.37	114 42
	13661.000	161.00	0.00	0.00	882.20	790.00	888.78	0.00	889.06	36.21	5.05	220 08	131.28
	13661.000	161.00	0.00	0.00	882.20	1000.00	889.02	0.00	889.33	38.89	5.41	255.36	160 35
	13685.000	24 00	889.40	888.40	882.20	470.00	889.27	0.00	889.34	3.94	2.67	281.38	236.74
	13685.000	24.00	889.40	888.40	882.20	680.00	889.47	0.00	889.59	6.38	3.48	310.20	269 13
	13685.000	24.00	889.40	888.40	882.20	790.00	889.56	0.00	889.70	7.80	3 89	321.90	282.88
	13685.000	24.00	889.40	888.40	882.20	1000.00	889.67	0.00	889.88	10.88	4.66	338.67	303.20
	13850.000	165.00	0.00	0.00	882 90	470.00	889.40	0.00	889.63	24.46	4.10	132.85	95.03
	13850.000	165.00	0.00	0.00	882.90	680 00	889 68	0.00	890.06	37.74	5.30	148.50	110.69
	13850.000	165.00	0.00	0.00	882.90	790.00	889.81	0.00	890 27	44.72	5.87	155.52	118.14
	13850.000	165 00	0.00	0.00	882.90	1000.00	890.02	0.00	890.64	58.23	6.88	167.16	131.05
	13901.000	51.00	0.00	0 00	883.10	470.00	889.54	0.00	889.95	32.49	5.51	94.86	82.46
	13901.000	51.00	0.00	0.00	883.10	680.00	889.91	0.00	890.61	52.10	7.31	104 15	94.21
	13901.000	51.00	0.00	0.00	883.10	790.00	890.08	0.00	890.95	62.44	8.17	108.59	99.98
	13901.000	51.00	0 00	0 00	883.10	1000.00	890.37	0.00	891.60	82.09	9.68	116.44	110.37
	13975.000	74.00	895 30	893.30	884.60	470.00	889.92	889.74	891.70	88.84	10.72	44.08	49 87
*	13975 000	74.00	895.30	893.30	884.60	680.00	890 81	890.81	893.31	102.16	12.69	53.86	67 28
*	13975.000	74.00	895 30	893.30	884.60	790.00	891.34	891.34	894 08	101.89	13.30	59.68	78.26
	13975.000	74.00	895.30	893.30	884.60	1000.00	895.80	0.00	895.94	2.36	4.15	511.60	650.72
	13980.000	5.00	0 00	0.00	885.30	280.00	892.50	0.00	892.56	1.21	2.08	151.20	254.90
	13980.000	5.00	0.00	0.00	885.30	420.00	894.45	0.00	894.52	1.02	2.26	219 45	415.32
	13980.000	5.00	0.00	0.00	885.30	490.00	895.35	0.00	895.42	0.96	2.34	250.80	499 58
	13980 000	5.00	0.00	0.00	885.30	620.00	895 85	0.00	895.96	1 27	2.78	268.67	550.22
	13985.000	5.00	0.00	0.00	886.00	280.00	892.50	0.00	892.58	1.81	2.37	129.61	207.86
	13985.000	5.00	0.00	0.00	886.00	420.00	894.45	0.00	894.53	1.27	2.39	216.00	372.09
	13985.000	5.00	0.00	0.00	886.00	490.00	895.35	0.00	895.42	1.11	2.39	256.32	465.14
	13985.000	5 00	0.00	0.00	886.00	620.00	895.86	0.00	895.96	1.41	2.80	279.14	521.64
	13990.000	5.00	0.00	0.00	886.70	280.00	892.50	0.00	892.62	2.84	2.74	103.51	166.26
	13990.000	5.00	0.00	0.00	886.70	420.00	894.45	0.00	894.55	1.81	2.68	194 07	312.21
	13990.000	5.00	0.00	0.00	886.70	490.00	895 35	0.00	895.44	1.45	2.59	243.13	406.78
	13990.000	5.00	0.00	0.00	886.70	620.00	895.86	0.00	895.97	1.76	2.97	271.30	467.27
	13993.000	3.00	0.00	0.00	887.20	280.00	892.50	0.00	892.64	3.91	3.02	93.32	141 67
	13993.000	3.00	0.00	0.00	887.20	420.00	894.45	0.00	894.58	2 44	2 97	171.67	268 93
	13993.000	3.00	0.00	0.00	887.20	490.00	895.35	0.00	895.46	1.89	2.83	221.85	356.68
	13993.000	3.00	0.00	0.00	887.20	620.00	895.86	0.00	895.99	2.22	3.21	252.97	416 02

	SECND	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01%
	13994.000	1.00	892.90	891.80	887.20	280.00	892.50	0.00	892.69	14.43	3.51	79.95	73.71
	13994.000	1.00	892.90	891.80	887.20	420.00	894.45	0.00	894.58	12.26	3.10	151.52	119.95
	13994.000	1.00	892.90	891.80	887 20	490 00	895.37	0.00	895.46	7.38	2.65	203 13	180.40
	13994.000	1.00	892.90	891 80	887.20	620 00	895.90	0.00	896.01	7.55	2.82	236.86	225.67
	14002.000	8.00	892 90	891.80	887.20	280.00	892.51	0.00	892.70	14 43	3.51	79.95	73.71
	14002.000	8.00	892.90	891.80	887.20	420.00	894.48	0.00	894.60	11.07	2.96	161.85	126.24
	14002.000	8.00	892.90	891.80	887.20	490.00	895.39	0.00	895.48	6.26	2.45	221.27	195.84
	14002.000	8.00	892.90	891.80	887.20	620.00	895.93	0.00	896.02	6.21	2.57	263.07	248.75
	14003.000	1.00	0.00	0.00	887.20	280.00	892.60	0 00	892.73	2 35	2.96	95.20	182.80
	14003.000	1.00	0.00	0.00	887.20	420.00	894.48	0.00	894.61	1.53	2.95	184.20	339.34
	14003.000	1.00	0.00	0.00	887.20	490.00	895.39	0.00	895.50	1.17	2.80	244.51	453.46
	14003.000	1.00	0.00	0.00	887.20	620.00	895.93	0.00	896.06	1.35	3.14	287.29	534.33
	14016.000	13.00	0.00	0.00	890.00	280.00	892.60	892.48	893.30	39.56	6.73	42.44	44.52
	14016.000	13.00	0.00	0.00	890.00	420.00	894.49	0.00	894.74	6.15	4.30	124.96	169.42
	14016 000	13.00	0.00	0.00	890.00	490 00	895.40	0.00	895.57	3.36	3.69	184.72	267 28
	14016.000	13.00	0.00	0 00	890.00	620.00	895.93	0.00	896.12	3.24	3.90	229.45	344.22
	14018.000	2 00	0.00	0.00	885.60	280.00	893.64	0.00	893.65	0.13	1.00	361.89	778.59
	14018.000	2.00	0.00	0.00	885.60	420.00	894.84	0.00	894.86	0.16	1.22	453.21	1054.84
	14018 000	2.00	0.00	0.00	885.60	490.00	895.63	0.00	895.65	0.15	1.27	513.00	1255.71
	14018.000	2.00	0.00	0.00	885.60	620.00	896.17	0 00	896.20	0.20	1.49	554.15	1402.45
	14034.000	16.00	0.00	0.00	885.60	280.00	893.64	0.00	893.65	0 13	0.99	368.45	780.93
	14034.000	16.00	0.00	0.00	885 60	420.00	894.84	0.00	894.86	0.15	1.20	480.53	1070.72
	14034.000	16.00	0.00	0.00	885.60	490.00	895.63	0.00	895.65	0.14	1.23	559.63	1293.40
	14034 000	16.00	0.00	0.00	885.60	620.00	896.18	0.00	896.20	0.18	1.43	614.32	1459.96
	14546.000	512.00	0 00	0.00	885.60	280.00	893.64	0.00	893.66	0.13	0 99	369.01	782 36
	14546.000	512.00	0.00	0.00	885.60	420.00	894.85	0.00	894.87	0.15	1.20	490.99	1071.93
	14546.000	512.00	0.00	0.00	885.60	490.00	895.64	0.00	895 66	0.14	1.23	560.40	1295 66
	14546.000	512.00	0.00	0.00	885.60	620.00	896.19	0.00	896.21	0.18	1.43	615 51	1463.68
*	14566 000	20.00	0.00	0.00	892.80	280.00	895.13	895.13	895.74	47.97	6.74	50.46	40.43
*	14566.000	20.00	0.00	0.00	892.80	420.00	895.54	895.54	896.27	43.90	7.54	70.33	63.39
*	14566.000	20 00	0.00	0.00	892.80	490.00	895.72	895.72	896.50	42.65	7.87	79.65	75.03
*	14566.000	20.00	0.00	0.00	892.80	620.00	896.00	896.00	896.88	41.71	8.46	95.52	96 00
	14568.000	2.00	0.00	0.00	889.00	280.00	896.03	0.00	896.04	0.09	0.81	400.01	940.16
	14568.000	2.00	0.00	0.00	889.00	420.00	896.61	0.00	896.63	0.15	1.11	442.78	1086.11
	14568.000	2.00	0.00	0.00	889.00	490.00	896.85	0.00	896.88	0.18	1.25	461.75	1151 37
	14568.000	2.00	0.00	0.00	889.00	620.00	897.27	0.00	897.30	0.24	1.49	494.76	1265.69
	15308.000	740.00	0.00	0 00	889.00	280.00	896.03	0.00	896.04	0.09	0.81	400.49	941.77
	15308.000	740.00	0.00	0 00	889.00	420.00	896.62	0 00	896.64	0.15	1.11	443.58	1088.85
	15308.000	740.00	0.00	0.00	889.00	490.00	896.87	0.00	896.89	0.18	1.25	462.72	1154.70
	15308.000	740.00	0.00	0 00	889.00	620.00	897.29	0.00	897.32	0.24	1.49	496.04	1270.15

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
*	15315.000	7.00	0.00	0.00	897.80	280.00	900.06	900.06	900.67	49.60	6.57	50.21	39.76
*	15315.000	7.00	0.00	0.00	897.80	420.00	900.47	900.47	901.20	44.72	7.36	70.21	62.80
*	15315.000	7.00	0.00	0.00	897.80	490.00	900.69	900.69	901.43	39 41	7.46	82.45	78.06
*	15315.000	7.00	0.00	0.00	897.80	620.00	900.97	900.97	901.79	38.28	7.99	99.20	100.21
	15325.000	10.00	0.00	0.00	893.00	280.00	900.97	0.00	900.97	0.02	0.41	735.94	1919.62
	15325.000	10.00	0.00	0.00	893.00	420.00	901.56	0.00	901.57	0.04	0.56	831.17	2206.13
	15325.000	10.00	0.00	0.00	893.00	490.00	901.79	0.00	901.80	0.04	0.64	870.93	2324.87
	15325.000	10.00	0.00	0 00	893.00	620.00	902.19	0.00	902.20	0.06	0.76	942.68	2540.91
	15600 000	275.00	0.00	0.00	893.00	280.00	900.97	0.00	900.97	0.02	0.41	736.02	1919.86
	15600 000	275.00	0.00	0.00	893.00	420.00	901 56	0.00	901.57	0.04	0.56	831.30	2206.53
	15600.000	275.00	0 00	0.00	893.00	490.00	901.79	0.00	901 80	0 04	0.64	871.10	2325.37
	15600.000	275.00	0.00	0.00	893.00	620.00	902.19	0.00	902.20	0.06	0.76	942.89	2541.56

10-YEAR DISCHARGE

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
0.000	470.00	805.83	0.00	0.00	0.63	61.91	0.00
0 000	680.00	806.78	0.95	0.00	0.28	75.03	0.00
0.000	840.00	807.38	0.59	0.00	0.18	94 07	0 00
0.000	1060.00	808.06	0.69	0.00	-1 24	130.29	0.00
350.000	470.00	806.23	0.00	0.40	0.00	61.96	350.00
350.000	680.00	807.19	0.95	0.40	0.00	75.16	350 00
350.000	840.00	807.78	0.59	0.40	0.00	94.15	350.00
350.000	1060 00	808.46	0.68	0.39	0.00	130.22	350 00
700.000	470.00	806.66	0.00	0.42	0.00	41.00	350.00
700.000	680.00	807.63	0 97	0.44	0.00	41.00	350.00
700.000	840 00	808.23	0.61	0.45	0.00	41.00	350.00
700.000	1060.00	808 93	0.70	0.47	0.00	41.00	350.00
750.000	470.00	806.76	0.00	0.10	0.00	16.60	50.00
750.000	680.00	807.75	0.99	0.12	0 00	16.60	50.00
750.000	840.00	808.37	0.62	0.13	0.00	16.60	50.00
750.000	1060.00	809.08	0.72	0.15	0.00	16.60	50.00
751 000	470.00	806.70	0.00	-0.05	0.00	16.60	1.00
751 000	680.00	807.61	0.91	-0.14	0.00	16.60	1.00
751.000	840.00	808.14	0.53	-0.23	0.00	16 60	1.00
751.000	1060.00	808.69	0.55	-0.39	0.00	16.60	1.00
850 000	470.00	806.77	0.00	0.07	0 00	16.60	99.00
850.000	680.00	807.73	0.96	0.12	0.00	16.60	99.00
850.000	840.00	808.31	0.58	0.17	0.00	16.60	99.00
850.000	1060.00	808.95	0.64	0.26	0.00	16.60	99.00
1000.000	470.00	806.87	0.00	0 10	0.00	16.60	150.00
1000.000	680 00	807.89	1.03	0.17	0.00	16.60	150.00
1000 000	840.00	808.55	0.65	0.24	0.00	16.60	150.00
1000 000	1060.00	809.31	0.76	0.36	0.00	16.60	150.00
1300.000	470.00	807.06	0.00	0.20	0.00	16.60	300.00
1300 000	680.00	808 23	1.16	0.33	0.00	16.60	300.00
1300.000	840.00	809.00	0.78	0.46	0.00	16.60	300.00
1300.000	1060 00	809.98	0.98	0.67	0.00	16.60	300.00
1600.000	470.00	807.26	0.00	0.20	0.00	16.60	300.00
1600.000	680.00	808.55	1.29	0.33	0.00	16.60	300.00
1600.000	840.00	809.44	0.89	0.44	0.00	16.60	300.00
1600.000	1060 00	810.63	1.19	0.65	0.00	16 60	300.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2250 000	470. 00	807. 65	0. 00	0. 38	0. 00	16. 60	650 00
	2250. 000	680. 00	809. 15	1. 50	0 60	0. 00	16. 60	650. 00
	2250. 000	840 00	810. 25	1. 10	0. 80	0. 00	16. 60	650. 00
	2250. 000	1060. 00	811. 93	1. 68	1. 29	0. 00	16. 60	650. 00
	2900. 000	470. 00	808. 10	0. 00	0. 45	0. 00	16. 60	650 00
	2900. 000	680. 00	809. 78	1. 69	0. 64	0. 00	16. 60	650 00
	2900. 000	840. 00	811. 06	1. 27	0. 81	0. 00	16. 60	650. 00
	2900. 000	1060. 00	813. 27	2. 21	1 35	0. 00	16. 60	650. 00
*	2905. 000	470. 00	810. 49	0. 00	2. 40	0. 00	20. 00	5. 00
*	2905. 000	680. 00	811. 55	1. 06	1. 77	0. 00	20. 00	5. 00
*	2905 000	840. 00	811. 75	0. 20	0. 69	0 00	20. 00	5. 00
*	2905. 000	1060. 00	813. 27	1. 52	0. 00	0. 00	20. 00	5. 00
*	3905. 000	470. 00	818. 15	0. 00	7. 66	0 00	20. 00	1000 00
*	3905. 000	680. 00	821. 70	3. 55	10. 15	0. 00	20. 00	1000. 00
*	3905. 000	840. 00	821. 90	0. 20	10. 15	0. 00	20. 00	1000. 00
*	3905. 000	1060. 00	823. 42	1. 52	10. 15	0. 00	20. 00	1000. 00
*	4905. 000	470. 00	825. 86	0. 00	7. 71	0 00	20. 00	1000. 00
*	4905. 000	680. 00	831. 80	5. 94	10. 10	0 00	20. 00	1000. 00
*	4905. 000	840. 00	832. 00	0. 20	10. 10	0. 00	20. 00	1000. 00
*	4905. 000	1060. 00	832. 20	0. 20	8. 78	0. 00	20. 00	1000. 00
	4906. 000	470. 00	829. 72	0 00	3. 86	0. 00	20. 00	1. 00
	4906. 000	680. 00	831 80	2. 08	0. 00	0. 00	20. 00	1. 00
	4906. 000	840 00	832. 00	0. 20	0. 00	0. 00	20. 00	1. 00
	4906. 000	1060. 00	832. 20	0. 20	0 00	0. 00	20. 00	1. 00
	4950. 000	470. 00	829. 87	0 00	0. 15	0. 00	63. 44	44. 00
	4950. 000	680. 00	832. 02	2. 15	0. 22	0. 00	108. 00	44. 00
	4950. 000	840. 00	832. 33	0. 31	0. 33	0. 00	108 00	44. 00
	4950. 000	1060. 00	832. 72	0. 39	0 52	0. 00	108 00	44. 00
	5200. 000	470. 00	829. 78	0. 00	-0. 10	0. 00	35. 86	250. 00
	5200. 000	680. 00	831. 98	2. 21	-0. 04	0. 00	82. 28	250. 00
	5200. 000	840. 00	832. 29	0. 31	-0. 04	0. 00	101. 45	250. 00
	5200. 000	1060. 00	832. 67	0. 39	-0. 04	0. 00	111. 39	250. 00
	5270. 000	470. 00	829. 91	0. 00	0. 13	0. 00	30. 49	70. 00
	5270. 000	680. 00	832. 01	2. 10	0. 03	0. 00	61. 48	70. 00
	5270. 000	840 00	832. 32	0. 31	0. 04	0. 00	84. 16	70. 00
	5270. 000	1060. 00	832. 72	0. 40	0. 05	0. 00	107. 28	70. 00
*	5330. 000	470. 00	830. 60	0. 00	0. 69	0. 00	26. 33	60. 00
	5330. 000	680. 00	832. 21	1. 61	0. 20	0. 00	47. 53	60. 00
	5330. 000	840. 00	832. 55	0. 34	0. 22	0. 00	60. 99	60. 00
	5330. 000	1060. 00	832. 97	0. 42	0. 24	0. 00	98. 53	60. 00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	5380.000	470.00	832.37	0.00	1.77	0.00	53.56	50.00
*	5380.000	680.00	833.06	0.68	0.85	0.00	163.00	50.00
	5380.000	840.00	833.57	0.52	1.03	0.00	163.00	50.00
	5380.000	1060.00	834.14	0.57	1.17	0.00	163.00	50.00
	5420.000	470.00	832.68	0.00	0.31	0.00	57.17	40.00
	5420.000	680.00	836.54	3.86	3.48	0.00	185.00	40.00
	5420.000	840.00	836.69	0.15	3.11	0.00	185.00	40.00
	5420.000	1060.00	836.85	0.16	2.71	0.00	185.00	40.00
	5450.000	470.00	836.09	0.00	3.41	0.00	175.00	30.00
	5450.000	680.00	836.53	0.43	-0.01	0.00	175.00	30.00
	5450.000	790.00	836.67	0.15	-0.02	0.00	175.00	30.00
	5450.000	1000.00	836.83	0.16	-0.02	0.00	175.00	30.00
	5451.000	470.00	836.08	0.00	-0.01	0.00	175.00	1.00
	5451.000	680.00	836.51	0.43	-0.01	0.00	175.00	1.00
	5451.000	790.00	836.66	0.15	-0.01	0.00	175.00	1.00
	5451.000	1000.00	836.81	0.15	-0.02	0.00	175.00	1.00
	5491.000	470.00	836.10	0.00	0.02	0.00	175.00	40.00
	5491.000	680.00	836.54	0.43	0.02	0.00	175.00	40.00
	5491.000	790.00	836.69	0.15	0.03	0.00	175.00	40.00
	5491.000	1000.00	836.85	0.16	0.03	0.00	175.00	40.00
	5492.000	470.00	836.13	0.00	0.02	0.00	175.00	1.00
	5492.000	680.00	836.56	0.43	0.02	0.00	175.00	1.00
	5492.000	790.00	836.70	0.15	0.02	0.00	175.00	1.00
	5492.000	1000.00	836.86	0.16	0.02	0.00	175.00	1.00
	5495.000	470.00	836.12	0.00	-0.01	0.00	175.00	3.00
	5495.000	680.00	836.54	0.43	-0.01	0.00	175.00	3.00
	5495.000	790.00	836.69	0.15	-0.01	0.00	175.00	3.00
	5495.000	1000.00	836.85	0.16	-0.02	0.00	175.00	3.00
	5520.000	470.00	836.19	0.00	0.07	0.00	230.00	25.00
	5520.000	680.00	836.65	0.45	0.10	0.00	230.00	25.00
	5520.000	790.00	836.81	0.16	0.12	0.00	230.00	25.00
	5520.000	1000.00	837.02	0.21	0.17	0.00	230.00	25.00
	5650.000	470.00	836.19	0.00	0.00	0.00	230.00	130.00
	5650.000	680.00	836.65	0.45	0.00	0.00	230.00	130.00
	5650.000	790.00	836.81	0.16	0.00	0.00	230.00	130.00
	5650.000	1000.00	837.02	0.21	0.00	0.00	230.00	130.00
	5731.000	470.00	836.19	0.00	0.00	0.00	68.04	81.00
	5731.000	680.00	836.65	0.45	0.00	0.00	68.76	81.00
	5731.000	790.00	836.81	0.16	0.00	0.00	110.00	81.00
	5731.000	1000.00	837.02	0.21	0.00	0.00	110.00	81.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	5766.000	470.00	836.75	0.00	0.56	0.00	58.92	35.00
	5766.000	680.00	837.00	0.26	0.36	0.00	90.00	35.00
	5766.000	790.00	837.11	0.11	0.30	0.00	90.00	35.00
	5766.000	1000 00	837.26	0.15	0.25	0.00	90 00	35.00
	5856 000	470.00	836 86	0.00	0.11	0.00	43.67	90.00
	5856.000	680.00	837.18	0.32	0 18	0.00	47.11	90 00
	5856.000	790.00	837.33	0.14	0.22	0 00	48.64	90 00
	5856.000	1000.00	837.56	0.23	0 29	0.00	51.10	90.00
	5952 000	470.00	837.13	0.00	0.27	0.00	31.66	96.00
	5952.000	680.00	837 60	0.47	0.41	0 00	36.65	96.00
	5952.000	790.00	837.82	0.22	0.49	0.00	39.02	96.00
	5952.000	1000.00	838.21	0.39	0.65	0.00	43.21	96.00
	6000.000	470.00	837.51	0.00	0.38	0 00	26 58	48.00
	6000.000	680.00	838.07	0.56	0.48	0.00	32.15	48.00
	6000.000	790 00	838.33	0.26	0.51	0.00	34.88	48.00
*	6000.000	1000.00	838.81	0.48	0.60	0.00	40.02	48.00
	6004.000	470.00	837.74	0.00	0.23	0.00	28.31	4.00
	6004 000	680 00	838.56	0.82	0.48	0.00	37.20	4.00
	6004 000	790.00	839.02	0.46	0.69	0.00	42.14	4.00
	6004.000	1000.00	839 76	0.75	0.95	0.00	50.02	4.00
	6150.000	470.00	839.07	0.00	1.33	0.00	42.67	146.00
	6150 000	680.00	839 95	0 88	1.39	0.00	52.04	146 00
	6150.000	790 00	840 33	0.39	1.32	0.00	56.17	146.00
	6150.000	1000 00	841 01	0.67	1.24	0 00	65.57	146.00
	6201.000	470.00	839.44	0.00	0.37	0.00	36.38	51.00
	6201.000	680.00	840.37	0.93	0.42	0.00	56.93	51.00
	6201.000	790 00	840.79	0.41	0.45	0.00	138.27	51.00
	6201.000	1000.00	841.54	0.75	0 53	0.00	162.00	51.00
	6294.000	470.00	839.52	0.00	0 07	0.00	36.48	93.00
	6294.000	680.00	841 18	1.67	0.81	0.00	245.00	93.00
	6294.000	790.00	841.36	0.18	0 57	0.00	245.00	93.00
	6294.000	1000.00	841.71	0.35	0.17	0.00	245.00	93 00
	6650.000	470.00	840.39	0.00	0.87	0.00	48.50	356.00
	6650.000	680.00	841.50	1.12	0.32	0.00	60.38	356.00
	6650.000	790.00	841.73	0.23	0.37	0.00	64.47	356 00
	6650.000	1000.00	842.15	0.42	0.44	0.00	85.42	356.00
	6800.000	470.00	840.68	0.00	0.29	0.00	45.90	150.00
	6800.000	680.00	841.76	1.08	0.26	0 00	57.40	150.00
	6800.000	790.00	842.03	0.26	0.30	0.00	60.21	150.00
	6800.000	1000.00	842 50	0.48	0.35	0.00	69.40	150.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	6900.000	470.00	840.92	0 00	0.24	0 00	21.00	100 00
	6900.000	680.00	841.95	1.03	0.19	0.00	21.00	100.00
	6900.000	790.00	842.22	0.27	0.19	0.00	21.00	100.00
	6900.000	1000.00	842.69	0.47	0.19	0.00	21.00	100.00
	6910.000	470.00	840 95	0.00	0.03	0.00	14.94	10.00
	6910.000	680.00	841.98	1.04	0.04	0.00	14.95	10.00
	6910.000	790.00	842.26	0.28	0 04	0.00	14.95	10.00
	6910.000	1000.00	842.75	0.48	0.06	0.00	14.96	10.00
	6930.000	470.00	841.01	0.00	0 06	0.00	14.94	20.00
	6930.000	680.00	842.07	1.06	0 09	0.00	14.95	20.00
	6930.000	790.00	842.39	0 32	0.13	0.00	14.96	20.00
	6930.000	1000.00	842.97	0.58	0.22	0.00	14.96	20.00
	6960.000	470.00	841.11	0.00	0.09	0.00	14.94	30.00
	6960.000	680 00	842.21	1.10	0.13	0.00	14.95	30.00
	6960.000	790.00	842 56	0.35	0.17	0.00	14.96	30.00
	6960.000	1000.00	843.23	0.67	0.26	0.00	14.97	30.00
	6975.000	470.00	841.15	0.00	0.04	0.00	14.94	15.00
	6975.000	680.00	842.26	1 12	0 06	0.00	14.95	15.00
	6975.000	790.00	842.64	0.37	0.08	0.00	14.96	15 00
	6975.000	1000.00	843.34	0.70	0.11	0.00	14.97	15 00
	6978.000	470 00	841.48	0.00	0.33	0.00	21.00	3 00
	6978.000	680.00	842.80	1.32	0.53	0.00	21.00	3.00
	6978.000	790.00	843.31	0.51	0.67	0.00	21.00	3.00
	6978.000	1000.00	844.29	0.98	0.95	0.00	21.00	3.00
	7070.000	470.00	841.66	0.00	0.18	0.00	27.32	92.00
	7070.000	680.00	843.03	1.38	0.24	0.00	42.02	92.00
	7070.000	790.00	843 58	0.55	0.27	0 00	47.77	92.00
	7070.000	1000.00	844.75	1.17	0.46	0.00	60.18	92.00
*	7100.000	470 00	841.89	0.00	0.24	0.00	23.93	30.00
	7100.000	680 00	843.02	1.13	-0.01	0.00	34.09	30.00
	7100.000	790.00	843.55	0.53	-0.03	0.00	39.71	30.00
	7100.000	1000.00	844.72	1 16	-0.03	0.00	52.06	30.00
*	7175.000	470.00	843.67	0.00	1.78	0.00	23.92	75.00
*	7175.000	680.00	844.44	0.77	1 42	0.00	30.11	75.00
*	7175 000	790.00	844.81	0.37	1.26	0.00	34.16	75.00
*	7175.000	1000.00	845.40	0.59	0.68	0.00	40 39	75.00
*	7250.000	470.00	845.45	0.00	1.78	0.00	23.92	75.00
*	7250.000	680.00	846 23	0.78	1.79	0.00	30.22	75.00
*	7250.000	790.00	846.60	0.37	1.79	0.00	34 24	75.00
*	7250.000	1000.00	847.19	0.59	1.79	0.00	40.49	75.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	7300.000	470.00	846.64	0.00	1.19	0.00	23 92	50.00
*	7300.000	680 00	847.42	0.78	1.19	0.00	30.19	50.00
*	7300.000	790.00	847.79	0.37	1.19	0.00	34.22	50.00
*	7300.000	1000.00	848 38	0.59	1.19	0.00	40.47	50.00
*	7350.000	470.00	847.83	0.00	1.19	0.00	23.92	50.00
*	7350.000	680.00	848.61	0.78	1.19	0.00	30 20	50.00
*	7350.000	790.00	848.98	0.37	1 19	0.00	34.23	50.00
*	7350.000	1000.00	849.57	0 59	1.19	0.00	40.48	50.00
	7375.000	470.00	849.26	0.00	1.43	0.00	38.11	25.00
	7375.000	680.00	850.16	0.90	1.56	0.00	43.85	25.00
	7375.000	790.00	850.53	0.36	1.55	0.00	46.24	25.00
	7375.000	1000 00	851.11	0 58	1.54	0.00	49.93	25.00
	7400.000	470 00	849.35	0.00	0.09	0 00	39.96	25.00
	7400.000	680.00	850.24	0.89	0.08	0.00	44.40	25.00
	7400.000	790.00	850 61	0.36	0.08	0.00	46.22	25.00
	7400.000	1000 00	851.19	0.58	0.08	0.00	49.15	25.00
	7571 000	470.00	853.55	0.00	4.20	0.00	61.00	171.00
	7571.000	680 00	854.63	1.07	4.38	0.00	229.18	171.00
	7571.000	790.00	854.83	0.20	4.22	0.00	250.11	171.00
	7571.000	1000.00	855.13	0.31	3.94	0.00	282 31	171.00
	7600.000	470.00	853.56	0 00	0.01	0 00	67.07	29.00
	7600.000	680.00	854.64	1.08	0.01	0.00	270.00	29.00
	7600.000	790.00	854.84	0.20	0.01	0.00	270.00	29.00
	7600.000	1000.00	855.15	0.31	0.02	0.00	270.00	29.00
	8150.000	470.00	853.78	0 00	0.22	0.00	50.19	550.00
	8150.000	680.00	854.86	1 08	0.22	0.00	57.38	550.00
	8150.000	790.00	855.09	0.23	0.25	0.00	58.94	550.00
	8150.000	1000.00	855.46	0.37	0.31	0 00	61.42	550.00
	8181.000	470.00	853.81	0.00	0.04	0.00	46.05	31.00
	8181 000	680.00	854.89	1.08	0.04	0.00	53.04	31.00
	8181 000	790.00	855.13	0.24	0.04	0.00	54.66	31.00
	8181.000	1000 00	855.52	0.38	0.05	0.00	57.15	31.00
	8425.000	470 00	858.98	0.00	5.16	0.00	56.87	244.00
	8425.000	680.00	861.28	2 30	6.38	0.00	270.00	244.00
	8425.000	790 00	861.41	0.14	6.28	0.00	270.00	244.00
	8425.000	1000.00	861.63	0.21	6 11	0.00	270.00	244.00
	8430.000	470.00	859.09	0.00	0.12	0 00	259.88	5.00
	8430.000	680.00	861.36	2.27	0.08	0.00	310.38	5.00
	8430.000	790 00	861.51	0.15	0.10	0.00	314.99	5.00
	8430.000	1000 00	861.75	0.24	0.13	0.00	322.41	5.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	8680.000	470.00	859.09	0.00	0.00	0.00	259.88	250.00
	8680.000	680.00	861 36	2.27	0.00	0.00	310.59	250.00
	8680.000	790 00	861.51	0.15	0.00	0.00	315.25	250.00
	8680.000	1000.00	861.75	0.24	0.00	0.00	322 42	250.00
	8701.000	470.00	859.09	0.00	0.00	0.00	250.00	21.00
	8701.000	680.00	861.36	2.27	0.00	0.00	250.00	21.00
	8701.000	790.00	861.51	0.15	0 00	0.00	250.00	21.00
	8701.000	1000.00	861.75	0.24	0.00	0.00	250.00	21.00
	9230.000	470.00	861.60	0.00	2.51	0.00	148.60	529.00
	9230.000	680.00	862.30	0.70	0.94	0.00	149.99	529.00
	9230.000	790.00	862.41	0 11	0.90	0.00	250.00	529.00
	9230.000	1000.00	862.59	0 18	0.84	0.00	250.00	529.00
	9305.000	470.00	861.66	0.00	0.06	0.00	153.95	75.00
	9305.000	680.00	862.38	0.72	0.08	0.00	159.56	75.00
	9305.000	790 00	862.51	0.13	0.11	0.00	160.60	75.00
	9305.000	1000.00	862.73	0.22	0.15	0.00	162.32	75.00
	9640.000	470.00	861.67	0.00	0.01	0.00	106.57	335.00
	9640.000	680.00	862.40	0.73	0.02	0.00	111 89	335.00
	9640.000	790.00	862.54	0 14	0.03	0.00	112.90	335.00
	9640 000	1000.00	862.78	0.23	0.04	0.00	114.61	335.00
*	9775.000	470.00	862 21	0.00	0.54	0 00	94.62	135.00
	9775.000	680.00	862.67	0.46	0.26	0.00	101.01	135.00
	9775 000	790.00	862.86	0.19	0.32	0.00	102.40	135.00
	9775.000	1000.00	863.17	0.32	0.40	0.00	104.64	135.00
	10000.000	470.00	865 40	0.00	3 20	0.00	97.89	225 00
	10000.000	680.00	865.64	0.24	2.97	0 00	100.86	225.00
	10000.000	790.00	865.78	0.14	2.92	0.00	101.93	225.00
	10000.000	1000.00	866.05	0.27	2.87	0.00	103.86	225.00
	10050 000	470.00	866.09	0.00	0.68	0.00	91.99	50.00
	10050.000	680.00	866.47	0.39	0.83	0.00	98.20	50.00
	10050.000	790.00	866.63	0.16	0.85	0.00	100.82	50.00
	10050.000	1000.00	866.89	0.26	0.85	0.00	104.31	50.00
	10051.000	470.00	866.09	0.00	0.01	0.00	92.13	1.00
	10051.000	680.00	866.48	0.38	0 00	0.00	98.33	1.00
	10051.000	790.00	866.63	0.16	0.00	0.00	100.93	1.00
	10051.000	1000.00	866.88	0.25	-0.01	0.00	104.24	1.00
	10059.000	470.00	866.41	0.00	0.31	0.00	97.22	8.00
	10059.000	680.00	866.76	0.35	0.28	0.00	102.92	8.00
	10059.000	790.00	866.91	0.15	0.28	0.00	104.43	8.00
	10059.000	1000.00	867.19	0.28	0.31	0.00	106.56	8.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	10060.000	470.00	866.46	0.00	0.05	0.00	97.91	1.00
	10060.000	680.00	866.82	0.36	0.06	0.00	103.76	1.00
	10060.000	790.00	866.99	0.17	0.08	0.00	105.04	1.00
	10060.000	1000.00	867.28	0.29	0.09	0.00	107.28	1.00
	10100.000	470.00	866.72	0.00	0.26	0.00	103.28	40.00
	10100.000	680.00	867.11	0.39	0.29	0.00	106.12	40.00
	10100.000	790.00	867.28	0.18	0.30	0.00	107.40	40.00
	10100.000	1000.00	867.59	0.31	0.31	0.00	109.64	40.00
	10920.000	470.00	868.99	0.00	2.28	0.00	105.66	820.00
	10920.000	680.00	869.55	0.56	2.44	0.00	109.70	820.00
	10920.000	790.00	869.81	0.26	2.52	0.00	111.56	820.00
	10920.000	1000.00	870.25	0.44	2.65	0.00	114.75	820.00
	11021.000	470.00	869.18	0.00	0.19	0.00	60.92	101.00
	11021.000	680.00	869.75	0.57	0.20	0.00	62.98	101.00
	11021.000	790.00	870.01	0.26	0.21	0.00	63.93	101.00
	11021.000	1000.00	870.46	0.45	0.22	0.00	65.55	101.00
	11129.000	470.00	869.56	0.00	0.38	0.00	62.28	108.00
	11129.000	680.00	872.01	2.45	2.26	0.00	184.08	108.00
	11129.000	790.00	872.18	0.17	2.17	0.00	184.38	108.00
	11129.000	1000.00	872.42	0.23	1.95	0.00	184.79	108.00
	11170.000	470.00	870.16	0.00	0.60	0.00	155.50	41.00
	11170.000	680.00	872.04	1.89	0.03	0.00	165.00	41.00
	11170.000	790.00	872.22	0.17	0.04	0.00	165.00	41.00
	11170.000	1000.00	872.47	0.25	0.05	0.00	165.00	41.00
*	11221.000	470.00	871.22	0.00	1.07	0.00	107.87	51.00
	11221.000	680.00	872.07	0.84	0.02	0.00	133.19	51.00
	11221.000	790.00	872.24	0.18	0.03	0.00	138.53	51.00
	11221.000	1000.00	872.50	0.25	0.03	0.00	146.13	51.00
	11288.000	470.00	872.01	0.00	0.79	0.00	131.69	67.00
	11288.000	680.00	876.08	4.07	4.01	0.00	359.59	67.00
	11288.000	790.00	876.31	0.23	4.07	0.00	361.12	67.00
	11288.000	1000.00	876.60	0.29	4.10	0.00	363.03	67.00
	11330.000	470.00	875.13	0.00	3.12	0.00	348.61	42.00
	11330.000	680.00	876.09	0.95	0.01	0.00	376.44	42.00
	11330.000	790.00	876.32	0.23	0.01	0.00	385.26	42.00
	11330.000	1000.00	876.61	0.29	0.01	0.00	396.41	42.00
*	11730.000	470.00	875.43	0.00	0.29	0.00	163.42	400.00
	11730.000	680.00	876.02	0.59	-0.07	0.00	217.44	400.00
	11730.000	790.00	876.28	0.26	-0.04	0.00	226.89	400.00
	11730.000	1000.00	876.59	0.31	-0.01	0.00	237.99	400.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	11800 000	470.00	876.15	0.00	0.72	0 00	165.20	70.00
*	11800.000	680.00	876.49	0.34	0.47	0.00	209.01	70.00
	11800 000	790.00	876.61	0.12	0.33	0.00	213.38	70.00
	11800.000	1000.00	876.90	0.29	0.31	0.00	224.20	70.00
	11850 000	470.00	876.65	0.00	0 50	0 00	166.43	50.00
	11850 000	680.00	876.96	0 31	0.47	0.00	207.83	50.00
	11850.000	790 00	877.09	0 14	0 48	0.00	213.00	50.00
	11850 000	1000.00	877.32	0.22	0.42	0.00	221.10	50.00
	12050.000	470.00	878.63	0.00	1 98	0.00	163.27	200.00
	12050.000	680.00	878.96	0.34	2.01	0 00	208.21	200.00
	12050.000	790.00	879.09	0.12	1.99	0.00	212.59	200 00
	12050.000	1000.00	879.32	0.23	2.00	0.00	220.61	200.00
	12239.000	470 00	880 54	0.00	1.91	0.00	165.25	189.00
*	12239.000	680.00	880.86	0.32	1.90	0 00	207.92	189.00
	12239.000	790.00	880.99	0.13	1.90	0.00	212.93	189 00
	12239.000	1000.00	881 23	0 23	1.91	0.00	221.17	189.00
	13030 000	470.00	883 90	0 00	3.36	0.00	223.90	791.00
	13030.000	680.00	884.29	0.39	3.43	0.00	237.77	791.00
	13030.000	790.00	884.44	0.16	3.45	0.00	243.19	791.00
	13030.000	1000.00	884.73	0.29	3.51	0.00	252.58	791.00
	13181.000	470 00	884 60	0.00	0.70	0 00	17.24	151.00
*	13181 000	680.00	885.41	0.81	1.12	0.00	19.27	151.00
*	13181.000	790.00	886.64	1.23	2.19	0.00	207.02	151.00
*	13181.000	1000.00	886.96	0.33	2.23	0.00	272.86	151.00
	13205.000	470.00	887.19	0.00	2.60	0.00	319.00	24.00
	13205 000	680.00	887.57	0.37	2.16	0.00	320.00	24.00
	13205.000	790.00	887 79	0.22	1.15	0.00	320.00	24.00
	13205.000	1000 00	887.96	0.17	0.99	0.00	320.00	24.00
	13400.000	470.00	887.38	0.00	0.18	0.00	188.11	195.00
	13400 000	680.00	887.74	0.36	0.17	0.00	261.51	195.00
	13400 000	790.00	887.94	0.20	0.16	0.00	280.00	195.00
	13400.000	1000.00	888.15	0.20	0.19	0.00	280.00	195.00
	13500.000	470.00	887.70	0.00	0.32	0.00	174.76	100.00
	13500.000	680 00	888.07	0 36	0.33	0.00	235.00	100.00
	13500.000	790.00	888.23	0 17	0 29	0.00	235.00	100.00
	13500.000	1000.00	888 44	0 21	0.29	0.00	235.00	100.00
	13661.000	470.00	888.26	0 00	0 56	0.00	150.00	161.00
	13661.000	680.00	888.63	0.37	0.56	0.00	150.00	161.00
	13661.000	790.00	888 78	0 15	0.55	0.00	150.00	161.00
	13661.000	1000.00	889.02	0 24	0.58	0.00	150 00	161.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	13685.000	470.00	889.27	0.00	1.01	0.00	140.00	24.00
	13685.000	680.00	889.47	0.21	0.84	0.00	140.00	24.00
	13685.000	790.00	889.56	0.08	0.77	0.00	140.00	24 00
	13685.000	1000.00	889.67	0.12	0.66	0.00	140.00	24.00
	13850.000	470.00	889.40	0.00	0.13	0.00	55.00	165.00
	13850.000	680.00	889.68	0.28	0.21	0.00	55.00	165.00
	13850.000	790.00	889.81	0.13	0.26	0.00	55.00	165.00
	13850.000	1000.00	890.02	0.21	0.35	0 00	55.00	165.00
	13901.000	470.00	889.54	0.00	0 14	0.00	24.90	51.00
	13901.000	680.00	889.91	0.37	0.22	0.00	25.86	51.00
	13901.000	790.00	890 08	0.17	0.27	0.00	26.30	51.00
	13901.000	1000.00	890 37	0.29	0.35	0.00	27.07	51.00
	13975.000	470.00	889.92	0.00	0.37	0.00	21.97	74.00
*	13975.000	680.00	890.81	0 89	0.90	0.00	24.29	74.00
*	13975.000	790.00	891.34	0.53	1.26	0.00	25.67	74.00
	13975.000	1000.00	895.80	4.47	5.43	0.00	242.45	74.00
	13980.000	280.00	892.50	0.00	2.58	0.00	35.00	5.00
	13980.000	420 00	894.45	1.95	3.64	0.00	35 00	5.00
	13980.000	490.00	895.35	0.90	4.01	0.00	35.00	5.00
	13980.000	620.00	895.85	0.51	0.05	0.00	35.00	5.00
	13985.000	280.00	892.50	0.00	0.00	0.00	40.79	5.00
	13985.000	420.00	894 45	1.95	0.00	0.00	45.00	5.00
	13985.000	490.00	895.35	0 90	0.00	0.00	45.00	5.00
	13985.000	620.00	895.86	0.51	0.01	0.00	45.00	5.00
	13990.000	280.00	892.50	0.00	0.00	0.00	26.19	5.00
	13990.000	420.00	894.45	1.95	0.00	0.00	53.30	5.00
	13990.000	490.00	895.35	0 90	0.00	0.00	55.00	5.00
	13990.000	620.00	895.86	0.51	0.00	0.00	55.00	5.00
	13993.000	280.00	892.50	0.00	0.00	0.00	19.53	3.00
	13993.000	420.00	894.45	1.95	0.00	0 00	53.31	3.00
	13993 000	490.00	895.35	0.90	0.00	0.00	58.69	3.00
	13993.000	620.00	895.86	0.51	0 00	0.00	61.00	3.00
	13994.000	280.00	892.50	0.00	0.00	0.00	19.53	1.00
	13994.000	420.00	894.45	1 95	0.00	0.00	54.31	1.00
	13994.000	490.00	895.37	0.91	0.02	0.00	59.74	1.00
	13994.000	620.00	895.90	0 53	0.03	0.00	63.00	1.00
	14002.000	280.00	892.51	0.00	0.01	0.00	19.54	8.00
	14002.000	420.00	894.48	1.97	0.03	0.00	62.50	8.00
	14002.000	490.00	895.39	0.91	0 03	0.00	67.97	8.00
	14002.000	620.00	895.93	0.54	0.04	0.00	79.00	8.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	14003.000	280.00	892.60	0.00	0.08	0.00	19.64	1.00
	14003.000	420.00	894.48	1.89	0.00	0.00	63.51	1.00
	14003.000	490.00	895.39	0.91	0.00	0.00	68.97	1.00
	14003 000	620.00	895.93	0.54	0.00	0.00	81.00	1.00
	14016.000	280.00	892.60	0.00	0.01	0.00	28.93	13 00
	14016.000	420.00	894.49	1.88	0 00	0.00	58 59	13.00
	14016 000	490.00	895.40	0.91	0.00	0.00	75.10	13.00
	14016.000	620.00	895 93	0.54	0.00	0.00	91.78	13.00
	14018.000	280.00	893 64	0.00	1.03	0.00	74.38	2.00
	14018.000	420.00	894.84	1.21	0.36	0.00	76.00	2.00
	14018 000	490.00	895.63	0.79	0.23	0.00	76.00	2.00
	14018 000	620.00	896.17	0 54	0.24	0.00	76.00	2.00
	14034 000	280.00	893.64	0.00	0.00	0.00	84 82	16.00
	14034.000	420.00	894.84	1.21	0.00	0.00	99.86	16.00
	14034.000	490.00	895.63	0.79	0.00	0.00	101.00	16.00
	14034.000	620 00	896.18	0.54	0.00	0.00	101.00	16.00
	14546.000	280 00	893.64	0.00	0.01	0.00	84.91	512.00
	14546.000	420.00	894.85	1.21	0.01	0 00	99.88	512.00
	14546 000	490.00	895.64	0.79	0.01	0 00	101.00	512.00
	14546.000	620.00	896.19	0.55	0.01	0.00	101.00	512.00
*	14566.000	280.00	895.13	0.00	1.49	0 00	45.09	20.00
*	14566.000	420.00	895.54	0.41	0.69	0.00	51.51	20.00
*	14566.000	490.00	895.72	0.18	0.08	0.00	54.02	20.00
*	14566.000	620.00	896.00	0.28	-0.18	0.00	57.86	20.00
	14568.000	280.00	896.03	0.00	0.90	0.00	71.37	2.00
	14568.000	420.00	896.61	0.58	1.07	0.00	75.71	2.00
	14568.000	490 00	896.85	0.25	1.14	0.00	77.56	2.00
	14568.000	620.00	897 27	0.42	1.27	0.00	80.68	2.00
	15308.000	280.00	896.03	0.00	0.01	0 00	71.42	740.00
	15308.000	420 00	896.62	0.59	0 01	0.00	75.79	740.00
	15308.000	490.00	896.87	0.25	0.01	0.00	77.65	740.00
	15308 000	620.00	897.29	0.42	0.02	0.00	80.80	740.00
*	15315 000	280.00	900.06	0.00	4.03	0.00	45.75	7.00
*	15315.000	420.00	900.47	0.41	3.85	0.00	52 15	7.00
*	15315.000	490.00	900.69	0 23	3.83	0.00	56.85	7.00
*	15315.000	620.00	900.97	0.28	3.68	0.00	65.09	7.00
	15325.000	280.00	900.97	0.00	0.91	0.00	149.56	10.00
	15325.000	420.00	901.56	0 60	1.09	0.00	169.07	10.00
	15325.000	490.00	901.79	0.23	1.10	0.00	175.50	10.00
	15325.000	620.00	902.19	0.40	1.22	0.00	184.01	10.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
15600.000	280.00	900.97	0 00	0.00	0.00	149.58	275.00
15600.000	420.00	901.56	0.60	0.00	0.00	169.09	275.00
15600 000	490.00	901.79	0.23	0.00	0.00	175.52	275.00
15600 000	620.00	902.19	0.40	0.00	0.00	184.04	275.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION   SECNO=   2905.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   2905.000   PROFILE= 1   MINIMUM SPECIFIC ENERGY
NOTE      SECNO=   2905.000   PROFILE= 2   WSEL BASED ON X5 CARD
NOTE      SECNO=   2905.000   PROFILE= 3   WSEL BASED ON X5 CARD
NOTE      SECNO=   2905.000   PROFILE= 4   WSEL BASED ON X5 CARD

CAUTION   SECNO=   3905.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   3905 000   PROFILE= 1   MINIMUM SPECIFIC ENERGY
NOTE      SECNO=   3905.000   PROFILE= 2   WSEL BASED ON X5 CARD
NOTE      SECNO=   3905.000   PROFILE= 3   WSEL BASED ON X5 CARD
NOTE      SECNO=   3905.000   PROFILE= 4   WSEL BASED ON X5 CARD

CAUTION   SECNO=   4905.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   4905.000   PROFILE= 1   MINIMUM SPECIFIC ENERGY
NOTE      SECNO=   4905.000   PROFILE= 2   WSEL BASED ON X5 CARD
NOTE      SECNO=   4905.000   PROFILE= 3   WSEL BASED ON X5 CARD
NOTE      SECNO=   4905.000   PROFILE= 4   WSEL BASED ON X5 CARD

CAUTION   SECNO=   5330.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   5330 000   PROFILE= 1   MINIMUM SPECIFIC ENERGY

CAUTION   SECNO=   5380.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   5380.000   PROFILE= 1   MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=   5380.000   PROFILE= 2   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   5380.000   PROFILE= 2   MINIMUM SPECIFIC ENERGY

CAUTION   SECNO=   6000.000   PROFILE= 4   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   6000.000   PROFILE= 4   MINIMUM SPECIFIC ENERGY

CAUTION   SECNO=   7100 000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   7100 000   PROFILE= 1   MINIMUM SPECIFIC ENERGY

CAUTION   SECNO=   7175.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   7175 000   PROFILE= 1   MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=   7175 000   PROFILE= 2   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   7175 000   PROFILE= 2   MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=   7175.000   PROFILE= 3   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   7175.000   PROFILE= 3   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=   7175.000   PROFILE= 3   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=   7175.000   PROFILE= 4   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   7175.000   PROFILE= 4   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=   7175.000   PROFILE= 4   20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION   SECNO=   7250.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   7250.000   PROFILE= 1   MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=   7250.000   PROFILE= 2   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   7250.000   PROFILE= 2   MINIMUM SPECIFIC ENERGY
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 CAUTION  SECNO=  7250.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  7250.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=  7250.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  7250.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=  7250.000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO=  7300 000  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  7300.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=  7300.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  7300.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=  7300.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  7300.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=  7300.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  7300.000  PROFILE= 4  MINIMUM SPECIFIC ENERGY

 CAUTION  SECNO=  7350.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  7350.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=  7350.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  7350.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=  7350.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  7350.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=  7350 000  PROFILE= 4  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  7350.000  PROFILE= 4  MINIMUM SPECIFIC ENERGY

 CAUTION  SECNO=  9775.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO=  9775.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO=  9775 000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO= 11221.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO= 11221.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY

 CAUTION  SECNO= 11730.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO= 11730.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO= 11730.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL

 CAUTION  SECNO= 11800.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
 CAUTION  SECNO= 11800.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

 CAUTION  SECNO= 12239.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
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 CAUTION  SECNO= 13181.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
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 CAUTION  SECNO= 13181.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO= 13181.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
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 CAUTION  SECNO= 13975.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
 CAUTION  SECNO= 13975.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
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CAUTION  SECNO= 13975.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO= 14566.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 14566.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 14566.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 14566.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 14566.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 14566 000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 14566.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 14566.000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 14566 000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 14566.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 14566 000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 14566 000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO= 15315.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 15315 000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 15315.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 15315.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 15315.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 15315.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 15315 000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 15315.000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 15315.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 15315.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 15315.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 15315.000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
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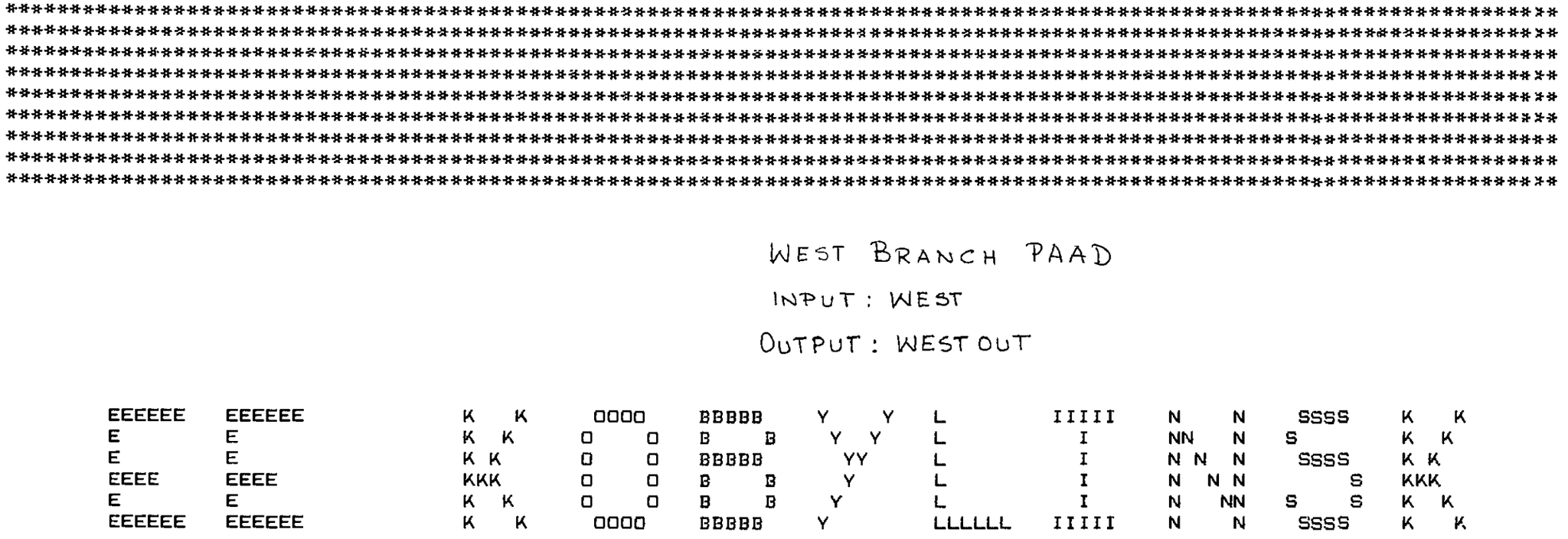

WEST BRANCH PAAD

INPUT : WEST

OUTPUT : WEST OUT

```
EEEEEE   EEEEEE        K   K     OOOO    BBBBB    Y    Y   L        IIIII    N    N    SSSS    K   K
E        E             K  K     O    O   B    B    Y  Y    L          I      NN   N   S        K  K
E        E             K K      O    O   BBBBB      YY     L          I      N N  N    SSSS    K K
EEEE     EEEE          KKK      O    O   B    B     Y      L          I      N  N N        S   KKK
E        E             K  K     O    O   B    B    Y       L          I      N   NN   S    S   K  K
EEEEEE   EEEEEE        K   K     OOOO    BBBBB    Y        LLLLLL   IIIII    N    N    SSSS    K   K
```

USACOE DETROIT H800 VOS 5.1.1 PRINTER: 6

EE KOBYLINSK 2 NOV 88 10:56:23

TERMINAL: 105

THIS RUN EXECUTED 1 NOV 88 15:22:49

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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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C
T1 CITY OF ANN ARBOR FIS RESTUDY
T2 WEST BRANCH PAAD
T3 10-YEAR FLOOD

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.001030	0.00	0.0	0.	816.000	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									
	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
QT	4.000	160.000	250.000	290.000	370.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.045	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION A									
X1	360.000	16.000	123.000	173.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	817.800	0.000	817.600	23.000	816.900	48.000	816.100	73.000	816.900	98.000
GR	816.900	113.000	816.000	123.000	809.500	145.500	809.500	152.000	809.700	160.000
GR	812.600	173.000	815.100	193.000	815.500	198.000	814.800	223.000	811.600	248.000
GR	809.900	253.000	0.000	0.000	0.000	0.000	0 000	0.000	0.000	0.000
X1	1050.000	0.000	0.000	0.000	690.000	690.000	690.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	129.000	0.000	162.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0 000
X1	1099.000	32.000	230.000	275.000	49.000	49.000	49.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	245.600	0.000	254.400	0.000	0.000	0.000	0.000
GR	818.000	0.000	818.100	25.000	818.300	50.000	818.400	75.000	818.400	100.000
GR	818.400	125.000	818.300	150.000	818.200	175.000	818.100	200.000	818.000	225.000
GR	817.900	230.000	812.400	238.000	812.400	245.600	811.100	246.000	810.100	247.000
GR	809.700	248.000	809.600	250.000	809.700	252.000	810.100	253.000	811.100	254.000
GR	812.400	254.400	812.400	261.500	817.600	275.000	817.500	300.000	817.500	325.000
GR	817.300	350.000	817.100	375.000	817.100	400.000	816.900	425.000	816.800	450.000
GR	816.700	475.000	816.600	500.000	0.000	0.000	0.000	0.000	0.000	0.000

	D/S FACE OF VARSITY DR.									
X1	1100.000	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	245.600	0.000	254.400	0.000	0.000	0.000	0.000
BT	30.000	0.000	818.000	0.000	25.000	818.100	0.000	50 000	818.300	0.000
BT	75 000	818.400	0.000	100.000	818.400	0.000	125.000	818.400	0.000	150.000
BT	818.300	0 000	175.000	818.200	0.000	200.000	818.100	0.000	225.000	818.000
BT	0.000	230.000	817.900	0.000	245.600	817.500	812.400	246.000	817.400	813.700
BT	247 000	817.400	814.600	248.000	817.400	814.900	250.000	817.400	815.100	252.000
BT	817.400	814.900	253.000	817 400	814.600	254 000	817.400	813.700	254.400	817.400
BT	812.400	275.000	817.600	0.000	300.000	817.500	0.000	325.000	817.500	0.000
BT	350.000	817.300	0.000	375.000	817.100	0.000	400.000	817.100	0.000	425.000
BT	816.900	0.000	450.000	816.800	0.000	475.000	816.700	0.000	500.000	816.600
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF VARSITY DR.									
X1	1167 000	0.000	0.000	0.000	67.000	67.000	67.000	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	245.600	0.000	254.400	0.000	0.000	0.000	0.000
X1	1168.000	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	245.600	0.000	254 400	0.000	0 000	0.000	0.000
X1	1181 000	30.000	250.000	304.000	13.000	13.000	13.000	0.000	0.000	0.000
GR	819 900	0.000	819.700	25.000	819.600	50.000	819.300	75.000	819.200	100.000
GR	818.800	125.000	818.500	150.000	817.800	175.000	818.000	200.000	819.100	225.000
GR	819.200	242.000	819.700	242.300	820.700	250.000	811.800	269.000	811.200	273.000
GR	810.400	278 000	811.200	283.000	817 900	300.000	819.700	304.000	820.100	325.000
GR	819.900	350.000	819.900	375.000	820.100	400.000	820.300	425.000	819.900	450.000
GR	819.700	475.000	819.300	500.000	818.800	525.000	818.300	550.000	818.300	600.000
X1	1194.000	0.000	0.000	0.000	13.000	13.000	13.000	0.000	0.000	0.000
X1	1217.000	0.000	0.000	0.000	23.000	23.000	23.000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION B									
X1	1480.000	0.000	0.000	0 000	263.000	263.000	263.000	0.000	0.000	0.000
X1	1700.000	0.000	0.000	0.000	220.000	220.000	220.000	0.000	0.200	0.000
NC	0.060	0.060	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF PHOENIX DR.									
X1	1750.000	33.000	223.000	274.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	245.600	0.000	254.400	0.000	0.000	0.000	0.000
GR	820.800	0.000	820.800	25.000	821.000	50.000	821.100	75.000	821.200	100.000
GR	821.100	125.000	821.100	150.000	821.000	175.000	820.900	200.000	820.800	223.000
GR	813.400	240.500	813.400	245.600	812.000	246.000	811.100	247.000	810.800	248.000
GR	810.700	249.000	810.600	250.000	810.700	251.000	810.800	252.000	811.100	253.000
GR	812.000	254.000	813.400	254.400	813.400	260.500	820.500	274.000	820.500	300.000
GR	820.300	325.000	820.300	350.000	820.200	375.000	820.100	400.000	820.000	425.000
GR	819.800	450.000	819.700	475.000	819.600	500.000	0.000	0.000	0.000	0 000

SB	0.000	1.660	2.900	0.000	7.100	0.000	40.000	0.000	810.600	810.600
	U/S FACE OF PHOENIX DR.									
X1	1817.000	0.000	0.000	0.000	67.000	67.000	67 000	0.000	0 000	0.000
X2	0.000	0.000	1.000	816.200	820.700	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	245.600	0.000	254.400	0.000	0.000	0.000	0.000
BT	33 000	0.000	820.800	0.000	25.000	820.800	0.000	50.000	821.000	0.000
BT	75.000	821.100	0.000	100.000	821.200	0.000	125.000	821.100	0.000	150.000
BT	821.100	0.000	175.000	821.000	0.000	200.000	820.900	0.000	223.000	820.800
BT	0.000	240.500	820.700	813.400	245.600	820.700	813.400	246.000	820.700	815.700
BT	247.000	820.700	815.700	248.000	820 700	816.000	249.000	820.700	816.100	250.000
BT	820.700	816.200	251.000	820.700	816.100	252.000	820.700	816.000	253.000	820.700
BT	815.700	254.000	820.700	814.900	254.400	820.700	813.400	260.500	820.600	813.400
BT	274.000	820.500	0.000	300.000	820.500	0.000	325.000	820.300	0.000	350.000
BT	820.300	0.000	375.000	820.200	0.000	400.000	820.100	0.000	425.000	820.000
BT	0.000	450.000	819.800	0.000	475.000	819.700	0.000	500.000	819.600	0.000
NC	0.000	0.000	0.045	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	1867.000	30.000	250.000	304.000	50.000	50.000	50.000	0.000	0.500	0.000
GR	819.900	0 000	819.700	25 000	819.600	50.000	819.300	75 000	819.200	100.000
GR	818.800	125.000	818.500	150.000	817 800	175.000	818.000	200.000	819.100	225.000
GR	819.200	242.000	819.700	242.300	820.700	250.000	811.800	269.000	811.200	273.000
GR	810.400	278.000	811.200	283.000	817.900	300.000	819.700	304.000	820.100	325.000
GR	819.900	350.000	819.900	375.000	820.100	400.000	820.300	425.000	819.900	450.000
GR	819.700	475.000	819.300	500.000	818.800	525.000	818.300	550.000	818.300	600.000
X1	2000.000	0.000	0.000	0.000	133.000	133.000	133 000	0.000	0.800	0.000
X1	2300.000	0.000	0.000	0.000	300.000	300.000	300.000	0 000	1.800	0.000
X1	2610.000	30.000	250.000	304.000	310.000	310.000	310.000	0.000	5.000	0.000
GR	819.900	0.000	819.700	25.000	819.600	50.000	819.300	75.000	819.200	100.000
GR	818.800	125.000	818.500	150.000	817.800	175.000	818.000	200.000	819.100	225.000
GR	819.200	242.000	819.700	242.300	820.700	250.000	811.800	269.000	811.200	273.000
GR	810.400	278.000	811.200	283.000	817.900	300.000	819.700	304.000	820.100	325.000
GR	819.900	350.000	819.900	375.000	820.100	400.000	820.300	425.000	819.900	450.000
GR	819.700	475.000	819.300	500.000	818.800	525.000	818.300	550.000	818.300	600.000
X1	2626.000	0.000	0.000	0.000	16.000	16.000	16.000	0.000	0.100	0.000
X1	2642.000	0.000	0.000	0.000	16.000	16.000	16.000	0.000	0.100	0.000
X1	2659.000	42 000	240.000	280.000	17.000	17 000	17.000	0.000	0.000	0.000
X3	0 000	0.000	0.000	246.300	0.000	274.000	0 000	0.000	0.000	0.000
GR	831.300	0.000	831.200	25.000	831.100	50.000	830.900	75.000	830.900	100.000
GR	830.800	125.000	830.700	150.000	830.600	175.000	830.500	200.000	830.500	225.000
GR	830 400	240.000	818.500	245.000	818.500	246.300	817.600	246.500	816 900	247.000
GR	816 300	248.000	816.200	249.000	816.100	250.000	816 200	251.000	816.300	252.000
GR	816.900	253.000	817.600	253.500	818.500	253.700	818.700	268.000	816.500	269.000
GR	815.900	270.000	815 700	271.000	815.900	272.000	816.500	273.000	818.700	274.000
GR	818.700	275.000	830.400	280.000	830.400	300.000	830.300	325.000	830.200	350.000
GR	830.100	375.000	830.000	400.000	829.900	425.000	829.800	450.000	829.700	475.000
GR	829.700	500.000	829.600	525.000	0.000	0 000	0.000	0.000	0.000	0.000

NC	0.050	0.050	0.013	0.500	1 000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF D. T. &I. RR.									
X1	2660.000	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	246.300	0.000	274.000	0.000	0.000	0.000	0.000
BT	42.000	0.000	831.300	0.000	25.000	831.200	0.000	50.000	831.100	0.000
BT	75.000	830.900	0.000	100.000	830.900	0.000	125.000	830.800	0.000	150.000
BT	830.700	0.000	175.000	830.600	0.000	200.000	830.500	0.000	225.000	830.500
BT	0.000	240.000	830.400	0.000	245.000	830.400	818.500	246.300	830.400	818 500
BT	246.500	830.400	819.700	247.000	830.400	820.100	248.000	830.400	820.600	249.000
BT	830.400	820.800	250.000	830.400	820.900	251.000	830.400	820.800	252.000	830 400
BT	820.600	253.000	830.400	820.100	253.500	830 400	819.700	253.700	830.400	818 500
BT	268.000	830.400	818.700	269.000	830.400	821.000	270.000	830.400	821.500	271.000
BT	830.400	821.700	272.000	830.400	821.500	273.000	830.400	821.000	274.000	830.400
BT	818.700	275.000	830.400	818.700	280.000	830.400	0.000	300.000	830.400	0 000
BT	325.000	830.300	0.000	350.000	830 200	0.000	375.000	830.100	0.000	400.000
BT	830.000	0.000	425.000	829.900	0.000	450.000	829.800	0.000	475.000	829.700
BT	0.000	500.000	829.700	0.000	525.000	829.600	0.000	0.000	0.000	0.000
	U/S FACE OF D T. &I. RR.									
X1	3061.000	0.000	0.000	0.000	401.000	401.000	401.000	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	246.300	0.000	274.000	0.000	0.000	0.000	0.000
X1	3062.000	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	246.300	0.000	274.000	0.000	0.000	0.000	0.000
X1	3111.000	15.000	31.000	86.000	49.000	49.000	49.000	0.000	0.000	0.000
GR	828.100	0.000	826.100	19.000	826.600	31.000	819.400	54.000	817.300	58.000
GR	816.800	63.000	815.900	65.000	817.300	68.000	819.600	69.000	825.200	86.000
GR	826.200	100.000	826.300	106.000	826.500	131.000	826.600	156.000	826.800	165.000
NC	0.050	0.050	0.045	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION C									
X1	3210.000	0.000	0.000	0.000	99.000	99.000	99.000	0 000	0.000	0.000
X1	3260.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.900	0.000
X1	3310.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.900	0.000
X1	3360.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.900	0.000
X1	3380.000	0 000	0.000	0.000	20.000	20.000	20.000	0.000	0.300	0.000
X1	3400.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	0.500	0.000
NC	0.035	0.035	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF RESEARCH PKWY									
X1	3410.000	33.000	235.000	265.000	10.000	10.000	10.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	246.200	0.000	253.700	0.000	0.000	0.000	0.000
GR	827.900	0.000	827.700	25.000	827.500	50.000	827.300	75.000	827.200	100.000
GR	827.000	125.000	826.800	150.000	826.700	175.000	826.500	200.000	826.600	225.000
GR	826.600	235.000	821.900	245.000	821.900	246.200	821.000	246.500	820.100	247.000
GR	819.700	248.000	819.500	250.000	819.700	252.000	820.100	253.000	821.000	253.500

GR	821.900	253.700	821.900	255.000	826.600	265.000	826.800	275.000	826.900	300.000
GR	827.000	325.000	827.200	350.000	827 300	375.000	827.400	400.000	827.500	425 000
GR	827.500	450.000	827.400	475.000	827.300	500.000	0.000	0.000	0.000	0.000
SB	0.000	1.730	2.900	0.000	6.300	0.000	29.500	0.000	819.500	819.500
	U/S FACE OF RESEARCH PKWY									
X1	3489.000	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	824.200	826.600	0.000	0.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	246.200	0.000	253.700	0.000	0.000	0.000	0.000
BT	33.000	0.000	827.900	0.000	25.000	827.700	0.000	50.000	827.500	0.000
BT	75.000	827.300	0.000	100.000	827.200	0.000	125.000	827.000	0.000	150.000
BT	826.800	0.000	175.000	826.700	0.000	200.000	826.500	0.000	225.000	826.600
BT	0.000	235.000	826.600	0.000	245.000	826.600	821.900	246.200	826.600	821.900
BT	246.500	826.600	823.000	247.000	826.600	823.700	248.000	826.600	824.100	250.000
BT	826.600	824.200	252.000	826.600	824.100	253.000	826.600	823.700	253.500	826.600
BT	823.000	253.700	826.600	821 900	255 000	826.600	821.900	265.000	826.600	0.000
BT	275.000	826.800	0.000	300.000	826.900	0.000	325.000	827.000	0.000	350.000
BT	827.200	0.000	375.000	827.300	0.000	400.000	827.400	0.000	425.000	827.500
BT	0.000	450.000	827.500	0.000	475.000	827.400	0.000	500.000	827.300	0.000
X1	3509.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	0.300	0.000
X1	3539.000	15.000	31.000	86.000	30.000	30.000	30.000	0.000	4.100	0.000
GR	828.100	0.000	826.100	19.000	826.600	31.000	819.400	54.000	817.300	58.000
GR	816.800	63.000	815.900	65 000	817 300	68.000	819.600	69.000	825.200	86.000
GR	826.200	100.000	826.300	106.000	826.500	131.000	826.600	156.000	826.800	165.000
NC	0.035	0.035	0.035	0.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	3700.000	0.000	0.000	0.000	161.000	161.000	161.000	0.000	1.600	0.000
X1	3800.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.900	0.000
X1	3900.000	0.000	0.000	0 000	100.000	100.000	100.000	0.000	1.000	0.000
X1	4070.000	27.000	250.000	281.000	170.000	170.000	170.000	0.000	-3.700	0.000
X3	0.000	0.000	0.000	250.000	0.000	281.000	0.000	0.000	0.000	0.000
GR	837.200	0.000	837.000	25.000	836.800	50.000	836.600	75.000	836.400	100.000
GR	836.200	125.000	836.000	150.000	835.900	175.000	835.600	200.000	835.400	227.000
GR	834.700	250.000	829.600	258.000	828.700	264.000	830.100	271.000	830.700	274.000
GR	835.400	281.000	835.200	300.000	834.800	325.000	834.800	350.000	834.900	375.000
GR	834.000	400.000	834.200	425.000	834.000	450.000	834.000	475.000	834.100	500.000
GR	834.000	600.000	834.200	650.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.000	0.000	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF RESEARCH PKWY									
X1	4120.000	35.000	235.000	265.000	50.000	50.000	50.000	0.000	0.000	0.000
X3	0.000	0.000	0.000	246.200	0.000	253.700	0.000	0.000	0.000	0.000
GR	831.200	0.000	831.100	25.000	831.000	50.000	830.900	75.000	830.900	100.000
GR	830.900	125.000	831.000	150.000	831.200	175.000	831.400	200.000	831.700	225.000
GR	831.800	235.000	827.900	245.200	827.900	246.200	826.500	246.500	826.000	247.000
GR	825.600	248.000	825.500	249.000	825.500	250.000	825.500	251.000	825.600	252.000
GR	826.000	253.000	826.500	253.500	827.900	253.700	827.900	255.000	831.800	265.000
GR	832.000	275.000	832.200	300.000	832.300	325.000	832.400	350.000	832.600	375.000
GR	832.700	400.000	832.700	425.000	832.700	450.000	832.700	475.000	832.500	500.000

SB	0.000	1.730	2.900	0.000	6.250	0.000	30.000	0.000	825.500	825.500
	U/S FACE OF RESEARCH PKWY									
X1	4200.000	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	830.300	831.800	0.000	0.000	0.000	0.000	0.000
BT	35.000	0.000	831.200	0.000	25.000	831.100	0 000	50.000	831.000	0.000
BT	75.000	830.900	0.000	100.000	830.900	0.000	125.000	830.900	0.000	150.000
BT	831.000	0.000	175.000	831.200	0.000	200.000	831.400	0.000	225.000	831.700
BT	0.000	235.000	831.800	0.000	245 200	831.800	827.900	246.200	831.800	827.900
BT	246.500	831.800	829.200	247.000	831.800	829.700	248.000	831.800	830.200	249.000
BT	831.800	830.300	250.000	831.800	830.300	251.000	831.800	830.300	252.000	831.800
BT	830.200	253.000	831.800	829.700	253.500	831.800	829.200	253.700	831.800	827.900
BT	255.000	831.800	827.900	265.000	831.800	0.000	275.000	832.000	0.000	300.000
BT	832.200	0.000	325.000	832.300	0.000	350 000	832.400	0.000	375.000	832.600
BT	0.000	400.000	832.700	0.000	425.000	832.700	0.000	450.000	832.700	0.000
BT	475.000	832.700	0.000	500.000	832.500	0.000	0.000	0.000	0.000	0.000
X1	4250.000	27.000	250.000	281.000	50.000	50.000	50.000	0.000	-2.900	0.000
GR	837.200	0.000	837.000	25.000	836.800	50.000	836.600	75.000	836.400	100.000
GR	836.200	125.000	836.000	150.000	835.900	175.000	835.600	200.000	835.400	227.000
GR	834.700	250.000	829.600	258.000	828.700	264.000	830.100	271.000	830.700	274.000
GR	835.400	281.000	835.200	300.000	834.800	325.000	834.800	350 000	834.900	375.000
GR	834.000	400.000	834.200	425.000	834.000	450.000	834.000	475.000	834.100	500.000
GR	834.000	600.000	834.200	650.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.040	0.040	0.035	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION D									
X1	4650.000	29.000	250.000	281.000	400.000	400.000	400.000	0.000	0.000	0.000
GR	837.200	0.000	837.000	25.000	836.800	50.000	836.600	75.000	836.400	100.000
GR	836.200	125.000	836.000	150.000	835.900	175.000	835.600	200.000	835.400	227.000
GR	834.700	250.000	829.600	258.000	828.700	264.000	830.100	271.000	830.700	274.000
GR	835.400	281.000	835.200	300.000	834.800	325.000	834.800	350.000	834.900	375.000
GR	834.000	400 000	834.200	425.000	834.000	450.000	831.600	475.000	829.700	500.000
GR	829.200	525.000	829.600	550.000	831.600	575.000	834.000	600.000	0.000	0.000
X1	4750.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.300	0.000
X3	0.000	0.000	0.000	250.000	0.000	510.000	0.000	0.000	0.000	0.000
X1	4850.000	27.000	250.000	281.000	100.000	100.000	100.000	0.000	0.800	0.000
GR	837.200	0.000	837.000	25 000	836.800	50.000	836.600	75.000	836.400	100.000
GR	836.200	125.000	836.000	150.000	835.900	175.000	835.600	200.000	835.400	227.000
GR	834.700	250.000	829.600	258.000	828.700	264.000	830.100	271.000	830.700	274.000
GR	835.400	281.000	835.200	300.000	834.800	325.000	834.800	350.000	834.900	375.000
GR	834.000	400.000	834.200	425.000	834.000	450.000	834.000	475.000	834.100	500.000
GR	834.000	600.000	834.200	650.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5050.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.300	0.000
X1	5250.000	0.000	0.000	0.000	200.000	200.000	200.000	0.000	1.000	0.000

X1	5350.000	27.000	250.000	281.000	100.000	100.000	100.000	0.000	3.700	0.000
GR	837.200	0.000	837.000	25.000	836.800	50.000	836.600	75.000	836.400	100.000
GR	836.200	125.000	836.000	150.000	835.900	175.000	835.600	200.000	835.400	227.000
GR	834.700	250.000	829.600	258.000	828.700	264.000	830.100	271.000	830.700	274.000
GR	835.400	281.000	835.200	300.000	834.800	325.000	834.800	350.000	834.900	375.000
GR	834.000	400.000	834.200	425.000	834.000	450.000	834.000	475.000	834.100	500.000
GR	834.000	600.000	834.200	650.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.035	0.035	0.025	0.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	5399.000	28.000	248.000	270.000	49.000	49.000	49.000	0.000	0.000	0.000
GR	855.600	0.000	854.600	25.000	853.600	50.000	852.800	75.000	852.800	100.000
GR	852.100	125.000	851.500	150.000	850.600	175.000	849.800	200.000	848.700	225.000
GR	848.200	248.000	834.000	250.000	833.500	255.000	833.000	260.000	832.600	265.000
GR	832.700	268.000	847.600	270.000	847.500	275.000	847.100	300.000	846.600	325.000
GR	846.000	350.000	845.400	375.000	844.900	400.000	844.500	425.000	844.100	450.000
GR	843.500	475.000	843.300	500.000	843.000	525.000	0.000	0.000	0.000	0.000
	D/S FACE OF STATE ST.									
X1	5400.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	27.000	0.000	855.600	0.000	25.000	854.600	0.000	50.000	853.600	0.000
BT	75.000	852.800	0 000	100.000	852.800	0.000	125 000	852.100	0.000	150.000
BT	851.500	0.000	175.000	850.600	0.000	200.000	849.800	0.000	225.000	848.700
BT	0.000	248.000	848.200	0.000	250.000	848.200	834 000	250.000	848.200	838.800
BT	268.000	847.700	838.000	268.000	848.700	832.700	270.000	847.600	0.000	275.000
BT	847.500	0.000	300.000	847.100	0.000	325.000	846.600	0.000	350.000	846.000
BT	0.000	375.000	845.400	0.000	400.000	844.900	0.000	425 000	844.500	0.000
BT	450 000	844.100	0.000	475.000	843.500	0.000	500.000	843.300	0.000	525.000
BT	843.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF STATE ST.									
X1	5592.000	0.000	0.000	0.000	192.000	192.000	192.000	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	5593.000	0.000	0 000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	5642.000	27.000	250.000	281.000	49.000	49.000	49.000	0.000	4.200	0.000
GR	837.200	0.000	837.000	25.000	836.800	50.000	836.600	75.000	836.400	100.000
GR	836.200	125.000	836.000	150.000	835.900	175.000	835.600	200.000	835.400	227 000
GR	834.700	250.000	829.600	258.000	828.700	264.000	830.100	271.000	830.700	274.000
GR	835.400	281.000	835.200	300.000	834 800	325.000	834.800	350.000	834.900	375.000
GR	834.000	400.000	834.200	425.000	834.000	450.000	834.000	475.000	834.100	500.000
GR	834 000	600.000	834.200	650.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5900.000	0.000	0.000	0.000	258.000	258.000	258.000	0.000	1.300	0.000
X1	6000.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.500	0.000
NC	0.000	0.000	0.035	0.500	1 000	0.000	0.000	0.000	0.000	0.000

CROSS SECTION E

X1	6200.000	31.000	250.000	264.000	300.000	300.000	300.000	0.000	0.000	0.000
GR	844.500	0.000	844.800	25 000	845.100	50.000	845.600	75.000	846.300	100.000
GR	848.700	121.000	849.000	127.000	849.500	136.000	850.000	144.000	850.300	153.000
GR	847.300	175.000	844.400	200.000	841.800	225.000	839.600	250.000	836.700	256.500
GR	835.700	260.000	836.700	263.000	838.500	264.000	844.100	275.000	847.500	283.000
GR	847.100	300.000	847.300	325.000	847.400	340.000	846.000	358.000	846.100	375.000
GR	846.100	400.000	846.000	425.000	845.400	450.000	845.200	475.000	845.200	500.000
GR	845.100	525.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6300.000	0.000	0.000	0.000	100.000	100.000	100.000	0 000	0.600	0.000

CROSS SECTION F

X1	6500.000	35.000	250.000	275.000	200.000	200.000	200.000	0.000	0.000	0.000
GR	847.000	0.000	847.300	25.000	847.200	50.000	847.000	75.000	847.000	100.000
GR	847.000	125.000	847.700	141.000	847.100	154.000	849.500	177.000	849.500	181.000
GR	849.400	188.000	849.100	196.000	849.000	200.000	848.800	206.000	846.800	225.000
GR	842.500	250.000	839.400	258.000	837.800	261.000	837.500	262.000	837.800	264.000
GR	838.900	266.000	843.000	275.000	847.200	286.000	847.200	292.000	845.400	300.000
GR	844.100	307.000	844.100	325.000	844.900	350.000	846.400	375.000	847.300	400.000
GR	847.100	425.000	847.400	450.000	847.600	475.000	847.600	500.000	847.700	525.000
NC	0.050	0.050	0 025	0.500	1.000	0.000	0 000	0.000	0.000	0.000

D/S FACE OF EXIT RAMP FROM E. BOUND I-94 TO STATE ST

X1	6600.000	19.000	150.000	164.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	849.400	0.000	849.500	25.000	849.600	50.000	849.600	75.000	849.600	100.000
GR	849.800	125.000	849.800	150.000	839.900	150.000	839.200	153.000	838.800	155.000
GR	838.800	160.000	839.000	164.000	849.800	164.000	850.000	175.000	850.200	200.000
GR	850.500	225.000	850.600	250.000	850.800	275.000	851.200	300.000	0.000	0.000
SB	0.000	2.180	2.900	0.000	14.000	0.000	51.800	0.000	839.000	839.000

U/S FACE OF EXIT RAMP FROM E. BOUND I-94 TO STATE ST.

X1	6662.000	0.000	0.000	0.000	62.000	62.000	62.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	842.700	849.800	0.000	0.000	0.000	0.000	0.000
BT	16.000	0.000	849.400	0.000	25.000	849.500	0.000	50.000	849.600	0.000
BT	75.000	849.600	0.000	100.000	849.600	0.000	125.000	849.800	0.000	150.000
BT	849.800	839.900	150.000	849.800	842.700	164.000	849.800	842.700	164.000	849.800
BT	839.000	175.000	850.000	0.000	200.000	850.200	0.000	225.000	850.500	0.000
BT	250.000	850.600	0.000	275.000	850.800	0.000	300.000	851.200	0.000	0.000
X1	6712.000	35.000	250.000	275.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	847.000	0.000	847.300	25.000	847.200	50.000	847.000	75.000	847.000	100.000
GR	847.000	125.000	847.700	141.000	847.100	154.000	849.500	177.000	849.500	181.000
GR	849.400	188.000	849.100	196.000	849.000	200.000	848.800	206.000	846.800	225.000
GR	842.500	250.000	839.400	258.000	837.800	261.000	837.500	262.000	837.800	264.000
GR	838.900	266.000	843.000	275.000	847.200	286.000	847.200	292.000	845.400	300.000
GR	844.100	307.000	844.100	325.000	844.900	350.000	846.400	375.000	847.300	400.000
GR	847.100	425.000	847.400	450.000	847 600	475.000	847.600	500.000	847.700	525.000

NC	0.000	0.000	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	6899.000	27.000	240.000	270.000	187.000	187.000	187.000	0.000	0.000	0.000
GR	847.900	0.000	847.200	25 000	847.000	50.000	846.900	75.000	846.900	100.000
GR	846 900	125.000	847.000	150.000	847 100	175.000	847.300	200.000	847.400	225.000
GR	847.500	240.000	839.600	250.000	839.500	255.000	839.500	260.000	839.600	264.000
GR	847.900	270.000	847.900	275.000	848.200	300.000	848.500	325.000	849.000	350.000
GR	849.500	375.000	850.100	400.000	850.800	425.000	851.500	450.000	852.000	475.000
GR	852.700	500.000	853.400	525.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.025	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF I-94 AND N. SIDE OF RAMP TO W. BOUND I-94									
X1	6900.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	27.000	0.000	847.900	0.000	25.000	847.200	0.000	50.000	847.000	0.000
BT	75.000	846.900	0.000	100.000	846.900	0.000	125.000	846.900	0.000	150.000
BT	847.000	0.000	175.000	847.100	0.000	200.000	847.300	0.000	225.000	847.400
BT	0.000	240.000	847.500	0.000	250.000	847.700	839.600	250.000	847.700	844.600
BT	264.000	847.800	844.700	264.000	847.800	839.600	270.000	847 900	0.000	275.000
BT	847.900	0.000	300.000	848.200	0.000	325.000	848.500	0.000	350.000	849.000
BT	0.000	375.000	849.500	0.000	400.000	850.100	0.000	425.000	850.800	0.000
BT	450.000	851.500	0.000	475.000	852.000	0.000	500.000	852.700	0.000	525.000
BT	853.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF I-94 AND N. SIDE OF RAMP TO W. BOUND I-94									
X1	7128.000	0.000	0.000	0.000	228.000	228.000	228.000	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	7129.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
X1	7129.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
QT	4.000	140.000	210.000	240.000	300.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION G									
X1	7259.000	27.000	250.000	282.000	130.000	130.000	130.000	0.000	0.000	0.000
GR	858.800	0.000	858.400	25.000	858.100	50.000	857.400	75.000	857.200	100.000
GR	857.000	125.000	856.300	150.000	855.200	175.000	852.000	200.000	847.300	225.000
GR	844.500	250.000	840.900	258.500	840.700	266.000	840.800	272.000	841.300	275.000
GR	844.400	282.000	846.300	300.000	846.200	320.000	844.900	325.000	843.000	348.000
GR	848.900	378.000	849.500	400.000	850.200	425.000	851.000	450.000	851.600	475.000
GR	852.100	500.000	852.300	525.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.045	0.045	0.035	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF DAM									
X1	7295.000	24.000	250.000	266.000	36.000	36.000	36 000	0.000	0.000	0 000
GR	847.500	0.000	848.000	25.000	848.300	50.000	848.700	75.000	848.400	100 000
GR	848.700	125.000	848 500	150.000	848.100	175.000	848.100	200.000	847.800	225.000
GR	848.600	250 000	838.800	250.000	838.900	266.000	848.700	266.000	847.900	275.000
GR	847.600	300.000	847.700	325.000	847.800	350.000	847.900	375.000	848.200	400.000
GR	849.200	425.000	850.000	450.000	850.100	475.000	850.100	500.000	0.000	0.000
	U/S FACE OF DAM									
X1	7362.000	24.000	250.000	266.000	67.000	67.000	67.000	0.000	0.000	0.000
GR	857.300	0.000	857.800	25.000	858.100	50.000	858.500	75.000	858.200	100 000
GR	858.500	125.000	858.300	150.000	857.900	175.000	857.900	200.000	857.600	225.000
GR	859.300	250.000	854.100	250.000	854.100	266.000	859.300	266.000	857.700	275.000
GR	857.400	300.000	857.500	325.000	857.700	350.000	857.800	375.000	858.000	400.000

GR	859.000	425.000	859.800	450.000	859.900	475.000	859.900	500.000	0.000	0.000
X1	7462.000	8.000	0.000	170.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	858.000	0 000	854.000	25.000	850.000	45.000	846.000	70.000	846.000	105.000
GR	850.000	128.000	854.000	146.000	858.000	170.000	0.000	0.000	0.000	0.000
X1	7962.000	8.000	0.000	140.000	500.000	500.000	500.000	0.000	0.000	0.000
GR	858.000	0.000	854.000	20.000	850.000	45.000	846.000	60.000	846.000	90.000
GR	850.000	105.000	854.000	120.000	858.000	140.000	0.000	0.000	0.000	0.000
X1	8629.000	10.000	0.000	280.000	667.000	667.000	667.000	0.000	0.000	0.000
X5	4.000	861.840	862.210	862.380	862.710	0.000	0.000	0.000	0.000	0.000
GR	868.000	0.000	864.000	65.000	860.000	90.000	856.000	110.000	852.000	125.000
GR	852.000	170.000	856.000	195.000	860.000	230.000	864.000	255.000	868.000	280.000
X1	8899.000	10.000	0 000	305.000	270.000	270.000	270.000	0.000	0.000	0.000
X5	4.000	861.840	862.210	862.380	862.710	0.000	0.000	0.000	0.000	0.000
GR	868.000	0.000	864.000	15.000	860.000	35 000	856.000	60.000	852.000	85.000
GR	852.000	185.000	856.000	210.000	860.000	245.000	864.000	275.000	868.000	305.000
X1	9541.000	10.000	0.000	285.000	642.000	642.000	642.000	0.000	0 000	0.000
X5	4.000	863.960	864.460	864.680	865.090	0.000	0.000	0.000	0.000	0.000
GR	868.000	0.000	864.000	20.000	860.000	40.000	856.000	65.000	852.000	90.000
GR	852.000	195.000	856.000	215.000	860.000	240.000	864.000	260.000	868.000	285.000
X1	9771.000	10.000	0.000	285.000	230.000	230.000	230.000	0.000	0.000	0.000
X5	4.000	863.960	864.460	864.680	865.090	0.000	0.000	0.000	0.000	0.000
GR	868.000	0.000	864.000	20.000	860.000	40.000	856.000	65 000	852.000	90.000
GR	852.000	195.000	856.000	215.000	860.000	240.000	864.000	260.000	868.000	285.000
X1	10481.000	10.000	0.000	130.000	710.000	710.000	710.000	0.000	0.000	0.000
X5	4.000	865.920	866.410	866.640	867.080	0.000	0 000	0.000	0.000	0.000
GR	872.000	0.000	868.000	15.000	864.000	30.000	860.000	50.000	856.000	60.000
GR	856.000	75.000	860.000	85.000	864.000	95.000	868.000	115.000	872.000	130.000
X1	10881.000	10.000	0.000	175.000	400 000	400.000	400.000	0.000	0.000	0.000
X5	4.000	865.920	866.410	866.640	867.080	0.000	0.000	0.000	0.000	0.000
GR	872.000	0.000	868.000	15.000	864.000	35.000	860.000	50.000	856.000	75.000
GR	856.000	90.000	860 000	110.000	864.000	130.000	868.000	155.000	872.000	175.000
EJ	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

THIS RUN EXECUTED 1 NOV 88 15:23:08

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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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T1         CITY OF ANN ARBOR FIS RESTUDY
T2         WEST BRANCH PAAD
T3         100-YEAR FLOOD

J1  ICHECK     INQ        NINV       IDIR       STRT       METRIC     HVINS      Q          WSEL       FQ
       0.         4.         0.         0.   0.001030       0.00       0.0         0.    819.000    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
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SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 0.300 CEHV= 0.500
*SECNO 360.000

3265 DIVIDED FLOW

3280 CROSS SECTION 360.00 EXTENDED 3.75 FEET

CROSS SECTION A

360.00	4.15	813.65	0.00	819.00	813.71	0.06	0.00	0.00	816.00
290.	0.	259.	31.	0	122.	35.	0.	0.	812.60
0.00	0.00	2.13	0.88	0.000	0.045	0.060	0.000	809.50	131.13
0.001029	0.	0.	0.	0	0	7	0.00	71.28	253.00

*SECNO 1050.000
3280 CROSS SECTION 1050.00 EXTENDED 4.49 FEET

3470 ENCROACHMENT STATIONS= 129.0 162.0 TYPE= 1 TARGET= 33.000

1050.00	4.89	814.39	0.00	0.00	814.48	0.09	0 75	0.01	100000.00
290.	0.	290.	0.	0.	120.	0.	2.	1.	100000.00
0.08	0.00	2.41	0.00	0.000	0.045	0.000	0.000	809.50	129.00
0.001150	690.	690.	690.	2	0	0	0.00	33.00	162.00

CCHV= 0.500 CEHV= 1.000
*SECNO 1099.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 245.6 254.4 TYPE= 1 TARGET= 8.800

1099.00	4.85	814.45	0.00	0.00	815.35	0.90	0.06	0.81	100000.00
290.	0.	290.	0.	0.	38.	0.	2.	1.	100000.00
0.08	0.00	7.62	0.00	0.000	0.013	0.000	0.000	809.60	245.60
0.001373	49	49.	49.	0	0	0	0.00	8.80	254.40

*SECNO 1100.000

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	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= 30 MIN ELTRD= 816.60 MAX ELLC= 815.10

3470 ENCROACHMENT STATIONS= 245.6 254.4 TYPE= 1 TARGET= 8.800

D/S FACE OF VARSITY DR.

1100.00	4.85	814.45	0.00	0.00	815.43	0.98	0.00	0.08	100000.00
290.	0.	290.	0.	0.	36	0.	2	1.	100000.00
0.08	0.00	7.96	0.00	0.000	0.013	0.000	0.000	809.60	245.60
0.001713	1.	1.	1.	0	0	0	-1.74	8.80	254 40

*SECNO 1167.000

3370 NORMAL BRIDGE, NRD= 30 MIN ELTRD= 816 60 MAX ELLC= 815.10

3470 ENCROACHMENT STATIONS= 245.6 254.4 TYPE= 1 TARGET= 8 800

U/S FACE OF VARSITY DR.

1167.00	5.06	814 66	0.00	0.00	815.58	0.92	0.11	0.03	100000.00
290.	0.	290.	0.	0.	38.	0.	2.	1.	100000.00
0.08	0.00	7.69	0.00	0.000	0.013	0.000	0.000	809.60	245.60
0.001634	67.	67.	67.	2	0	0	-2.32	8.80	254.40

*SECNO 1168.000

3470 ENCROACHMENT STATIONS= 245.6 254.4 TYPE= 1 TARGET= 8.800

1168.00	5.37	814.97	0.00	0 00	815.68	0.72	0.00	0.10	100000.00
290.	0.	290.	0.	0.	43.	0.	2.	1.	100000.00
0 08	0.00	6.79	0.00	0.000	0.013	0.000	0.000	809.60	245 60
0.001022	1.	1.	1.	3	0	0	0.00	8.80	254.40

*SECNO 1181.000

3301 HV CHANGED MORE THAN HVINS

1181.00	5.49	815.89	0.00	0.00	815.99	0.10	0.00	0.31	820.70
290.	0.	290.	0.	0.	114.	0.	2.	1.	819.70
0.09	0.00	2.54	0.00	0.000	0.013	0.000	0.000	810.40	260.26
0.000108	13.	13.	13.	3	0	0	0.00	34.65	294.91

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 1194.000									
1194.00	5.50	815.90	0.00	0.00	816.00	0.10	0.00	0 00	820.70
290.	0.	290.	0.	0.	115	0.	2.	1.	819.70
0.09	0.00	2.53	0.00	0.000	0.013	0.000	0.000	810.40	260.24
0.000107	13.	13.	13	0	0	0	0.00	34.68	294.93
*SECNO 1217.000									
1217.00	5.50	815.90	0.00	0.00	816.00	0.10	0.00	0.00	820.70
290.	0.	290.	0.	0.	115.	0.	2.	1.	819.70
0.09	0.00	2.53	0.00	0.000	0.013	0.000	0.000	810.40	260.25
0.000107	23.	23.	23.	0	0	0	0.00	34.67	294.92
CCHV= 0.100 CEHV= 0.300									
*SECNO 1480.000									
CROSS SECTION B									
1480.00	5 56	815.96	0.00	0.00	816.06	0.10	0.06	0.00	820.70
290.	0.	290.	0.	0.	117.	0.	3.	1.	819.70
0.12	0.00	2.48	0.00	0 000	0.035	0.000	0.000	810.40	260.11
0.000739	263.	263.	263.	2	0	0	0.00	34.97	295.08
*SECNO 1700.000									
1700.00	5.53	816.13	0.00	0.00	816.22	0.10	0.17	0.00	820.90
290.	0	290.	0.	0.	115.	0.	4.	1.	819.90
0.14	0.00	2.51	0.00	0.000	0.035	0.000	0.000	810.60	260.19
0.000762	220.	220.	220.	2	0	0	0.00	34.80	294.99
CCHV= 0.500 CEHV= 1.000									
*SECNO 1750.000									
3301 HV CHANGED MORE THAN HVINS									
3470 ENCROACHMENT STATIONS= 245.6 254 4 TYPE= 1 TARGET= 8.800									
D/S FACE OF PHOENIX DR.									
1750.00	5.57	816.17	0.00	0.00	816.83	0.67	0.04	0.57100000.00	
290.	0.	290.	0.	0.	44.	0.	4.	1. 100000.00	
0.15	0.00	6.55	0.00	0.000	0.013	0.000	0.000	810.60	245.60
0.000934	50.	50.	50.	0	0	0	0.00	8.80	254.40

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	0.00	7.10	0.00	40.00	0 00	810.60	810.60

*SECNO 1817.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
817.52	816.83	0.00	0.	290	40.	40.	816.20	820.70

3470 ENCROACHMENT STATIONS= 245.6 254.4 TYPE= 1 TARGET= 8.800
U/S FACE OF PHOENIX DR.

1817 00	6.44	817.04	0.00	0.00	817.52	0.48	0.69	0.00100000.00	
290.	0.	290.	0.	0.	52.	0.	4.	1. 100000.00	
0 15	0.00	5.57	0.00	0.000	0.013	0.000	0.000	810.60	245.60
0.000621	67	67.	67.	2	0	0	0.00	8.80	254.40

CCHV= 0.300 CEHV= 0.500
*SECNO 1867.000

1867.00	6.73	817.63	0.00	0.00	817.68	0.05	0.03	0.13	821 20
290.	0.	290.	0.	0.	161.	0	4.	1	820.20
0.16	0.00	1.80	0.00	0.000	0.045	0.000	0.000	810.90	257.62
0.000512	50.	50.	50.	2	0	0	0.00	40.43	298.05

*SECNO 2000.000

2000.00	6.00	817.70	0.00	0.00	817.78	0.07	0.09	0.01	822.00
290.	0.	290.	0.	0.	133.	0.	4.	1.	821.00
0.17	0.00	2.19	0.00	0.000	0.045	0.000	0.000	811.70	259.17
0.000863	133.	133.	133.	0	0	0	0.00	37.04	296.21

*SECNO 2300.000

2300.00	4.59	818.09	0.00	0.00	818.27	0.18	0.43	0.05	823.80
290.	0	290.	0.	0.	85.	0.	5.	2.	822.80
0.20	0.00	3.42	0.00	0.000	0.045	0.000	0.000	813.50	262.20
0.002923	300.	300.	300.	2	0	0	0.00	30.41	292.61

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 2610.000									
2610.00	3.89	819.29	0.00	0.00	819.60	0.31	1.27	0.06	825.70
290.	0.	290.	0.	0.	65.	0.	6.	2.	824.70
0.22	0.00	4.48	0.00	0.000	0.045	0.000	0.000	815.40	263.69
0.006144	310.	310	310.	2	0	0	0.00	27.15	290.84
*SECNO 2626.000									
2626.00	3.89	819.39	0.00	0.00	819 70	0.31	0.10	0.00	825.80
290.	0.	290.	0.	0.	65	0.	6.	2.	824.80
0.22	0.00	4.48	0.00	0.000	0.045	0.000	0.000	815.50	263.69
0.006147	16.	16.	16.	2	0	0	0.00	27.15	290.84
*SECNO 2642.000									
2642.00	3 89	819.49	0.00	0.00	819.80	0.31	0.10	0.00	825.90
290.	0.	290.	0.	0	65.	0.	6.	2.	824.90
0.22	0.00	4.48	0.00	0.000	0.045	0.000	0.000	815.60	263.69
0.006159	16.	16.	16.	0	0	0	0.00	27.14	290.83

*SECNO 2659.000

3470 ENCROACHMENT STATIONS=			246.3	274.0	TYPE=	1	TARGET=	27.700	
2659.00	3.88	819.58	0.00	0.00	820.01	0.43	0.15	0.06	100000.00
290.	0.	290.	0.	0.	55.	0.	6.	2.	100000.00
0 22	0.00	5.29	0.00	0.000	0.045	0.000	0.000	815.70	246.30
0.014287	17.	17.	17.	1	0	0	0.00	27.70	274.00

CCHV= 0.500 CEHV= 1.000
*SECNO 2660.000

3370 NORMAL BRIDGE, NRD= 42 MIN ELTRD= 829.60 MAX ELLC= 821.70

3470 ENCROACHMENT STATIONS=			246.3	274.0	TYPE=	1	TARGET=	27.700	
D/S FACE OF D.T.&I.RR.									
2660 00	3.88	819.58	818.95	0.00	820.39	0.81	0.00	0.37	100000.00
290.	0.	290.	0.	0.	40.	0.	6.	2.	100000.00
0.22	0.00	7.20	0.00	0.000	0.013	0.000	0.000	815.70	246.30
0.001909	1.	1.	1.	0	15	0	-14.68	27.70	274.00

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 3061.000

3370 NORMAL BRIDGE, NRD= 42 MIN ELTRD= 829.60 MAX ELLC= 821.70

3470 ENCROACHMENT STATIONS= 246 3 274 0 TYPE= 1 TARGET= 27.700

U/S FACE OF D.T.&I.RR.

3061.00	4.94	820.64	0.00	0.00	821.14	0.50	0.59	0.15100000.00
290.	0.	290.	0.	0.	51.	0.	6.	2. 100000.00
0.24	0.00	5.65	0.00	0.000	0.013	0.000	0.000	815.70 246.30
0.001179	401.	401.	401.	4	0	0	-32.74	27.70 274.00

*SECNO 3062.000

3470 ENCROACHMENT STATIONS= 246.3 274.0 TYPE= 1 TARGET= 27.700

3062.00	5.48	821.18	0.00	0.00	821.32	0.13	0.00	0.18100000.00
290.	0.	290.	0.	0.	99.	0.	6.	2. 100000.00
0.24	0.00	2.93	0.00	0.000	0.013	0.000	0.000	815.70 246.30
0.000186	1.	1.	1.	3	0	0	0.00	27.70 274.00

*SECNO 3111.000

3111.00	5.30	821.20	0.00	0.00	821.48	0.29	0.01	0.15	826.60
290.	0.	290.	0.	0.	68.	0.	6.	2.	825.20
0.24	0.00	4.29	0.00	0.000	0.013	0.000	0.000	815.90	48 23
0.000449	49.	49.	49.	1	0	0	0.00	25 65	73.88

CCHV= 0 300 CEHV= 0.500

*SECNO 3210.000

CROSS SECTION C

3210.00	5.44	821.34	0.00	0.00	821.59	0.26	0.10	0.01	826.60
290.	0.	290.	0.	0.	71.	0.	7.	2.	825.20
0.25	0.00	4.08	0.00	0.000	0.045	0.000	0.000	815.90	47.81
0.004757	99	99.	99.	2	0	0	0.00	26.46	74.27

*SECNO 3260.000

3260.00	4.77	821.57	0.00	0.00	822.00	0.44	0.32	0.09	827.50
290.	0.	290	0.	0.	55	0.	7.	2.	826.10
0.25	0.00	5.30	0.00	0.000	0.045	0.000	0.000	816.80	49.95
0.009154	50.	50	50	2	0	0	0.00	22.30	72.25

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	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 3310.000									
3310.00	4.34	822.04	0.00	0.00	822.66	0.62	0.56	0.09	828.40
290.	0.	290.	0.	0.	46.	0.	7	2.	827.00
0.25	0.00	6.34	0.00	0.000	0.045	0.000	0.000	817.70	51.32
0.014239	50.	50.	50.	2	0	0	0.00	19.62	70.94
*SECNO 3360.000									
3360.00	4 17	822.77	0.00	0.00	823.49	0.72	0.78	0.05	829.30
290.	0.	290.	0.	0.	42.	0.	7.	2.	827.90
0.26	0.00	6.83	0.00	0.000	0.045	0.000	0.000	818.60	51.87
0.017049	50.	50.	50.	2	0	0	0.00	18.55	70.42
*SECNO 3380.000									
3380.00	4.27	823.17	0.00	0.00	823.83	0.66	0 32	0 02	829.60
290.	0.	290.	0.	0.	44.	0.	7.	2.	828.20
0.26	0.00	6.52	0.00	0 000	0.045	0.000	0.000	818.90	51.53
0.015232	20.	20.	20.	2	0	0	0.00	19.22	70.74
*SECNO 3400.000									
3400.00	4.04	823.44	0.00	0.00	824.25	0.81	0.34	0.08	830.10
290.	0.	290.	0.	0.	40.	0.	7.	2.	828.70
0.26	0.00	7.22	0.00	0.000	0.045	0.000	0.000	819.40	52.27
0.019467	20.	20.	20.	2	0	0	0.00	17.76	70.03

CCHV= 0.500 CEHV= 1.000
*SECNO 3410 000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 246.2 253.7 TYPE= 1 TARGET= 7.500
D/S FACE OF RESEARCH PKWY

3410.00	4.01	823.51	823.51	0.00	825.32	1.81	0.07	1.00	100000.00
290.	0.	290.	0.	0	27.	0.	7.	2.	100000.00
0.26	0.00	10.80	0.00	0.000	0.013	0.000	0.000	819.50	246.20
0.003510	10.	10.	10.	4	5	0	0.00	7.50	253.70

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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	1.73	2.90	0.00	6.30	0.00	29.50	0.00	819.50	819.50

*SECNO 3489.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
826.11	825.32	0.00	0.	290.	30.	30.	824.20	826.60

3470 ENCROACHMENT STATIONS= 246.2 253.7 TYPE= 1 TARGET= 7.500

U/S FACE OF RESEARCH PKWY

3489.00	5.80	825.30	0.00	0.00	826.11	0.80	0.78	0.00100000.00	
290.	0.	290.	0.	0.	40.	0.	7.	2.	100000.00
0.26	0.00	7.20	0.00	0.000	0.013	0.000	0.000	819.50	246.20
0.001246	79.	79.	79.	3	0	0	0.00	7.50	253.70

*SECNO 3509.000

3301 HV CHANGED MORE THAN HVINS

3509.00	6.48	826.28	0.00	0.00	826.44	0.16	0.01	0.32	826.90
290.	0.	290.	0.	0.	91.	0.	7.	2.	826.90
0.26	0.00	3.19	0.00	0.000	0.013	0.000	0.000	819.80	236.33
0.000192	20.	20.	20.	3	0	0	0.00	27.35	263.67

*SECNO 3539.000

3539.00	6.31	826.31	0.00	0.00	826.45	0.14	0.01	0.01	830.70
290.	0.	290.	0.	0.	96.	0.	7.	2.	829.30
0.27	0.00	3.02	0.00	0.000	0.013	0.000	0.000	820.00	45.06
0.000182	30.	30.	30.	0	0	0	0.00	31.84	76.89

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	QLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	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 3700.000

3700.00	4.79	826.39	0.00	0.00	826.82	0.43	0.08	0.29	832.30
290.	0.	290.	0.	0.	55.	0	7.	3.	830.90
0.27	0.00	5.25	0.00	0.000	0.035	0.000	0.000	821.60	49.87
0.005405	161.	161.	161.	2	0	0	0.00	22.45	72.32

*SECNO 3800.000

3800.00	4.51	827.01	0.00	0.00	827.55	0.54	0.62	0.11	833.20
290	0.	290.	0.	0.	49.	0.	7.	3.	831 80
0.28	0.00	5.89	0.00	0.000	0.035	0.000	0.000	822.50	50.77
0.007199	100.	100.	100.	2	0	0	0.00	20.70	71.47

*SECNO 3900 000

3900.00	4.31	827.81	0.00	0.00	828.45	0.64	0.80	0.10	834.20
290.	0.	290.	0.	0.	45.	0.	7.	3.	832.80
0.28	0 00	6.42	0.00	0.000	0.035	0.000	0.000	823.50	51.41
0.008876	100.	100.	100.	2	0	0	0.00	19.44	70.85

*SECNO 4070.000

3470 ENCROACHMENT STATIONS= 250.0 281 0 TYPE= 1 TARGET= 31.000

4070 00	4.16	829.16	0.00	0.00	829.46	0.30	0.84	0.17	831.00
290.	0.	290.	0.	0.	66.	0.	8.	3.	99996.30
0.29	0.00	4.40	0.00	0 000	0.035	0.000	0.000	825.00	252.87
0.003151	170.	170.	170.	1	0	0	0.00	24.35	277.23

CCHV= 0.500 CEHV= 1.000
*SECNO 4120.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 246.2 253.7 TYPE= 1 TARGET= 7.500
D/S FACE OF RESEARCH PKWY

4120.00	3.89	829.39	829.39	0.00	831.20	1.81	0.17	1.51100000.00	
290.	0.	290.	0.	0.	27.	0.	8.	3.	100000.00
0.30	0.00	10.80	0.00	0.000	0.013	0.000	0.000	825.50	246.20
0.003537	50.	50.	50.	2	11	0	0.00	7.50	253.70

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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	1.73	2.90	0.00	6.25	0.00	30.00	0.00	825.50	825 50

*SECNO 4200.000
6870 D.S. ENERGY OF 831.20 HIGHER THAN COMPUTED ENERGY OF 831.19

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
831.90	830.39	0.00	45.	246.	30.	30.	830.30	831.80

U/S FACE OF RESEARCH PKWY

4200.00	5.42	830.92	0.00	0.00	831.20	0.28	0.00	0.00	831.80
290.	0.	290.	0.	1.	69.	0.	8.	3.	831.80
0.30	0.06	4.21	0.00	0.035	0.013	0.000	0.000	825.50	70.40
0.000438	80.	80.	80.	2	0	6	0.00	84.64	262.74

*SECNO 4250 000

3265 DIVIDED FLOW

4250.00	5.34	831.14	0.00	0.00	831.28	0.14	0.01	0.07	831.80
290.	0.	290.	0.	0.	96.	2.	8.	3.	832.50
0.30	0.00	3.01	0.04	0.000	0.013	0.035	0.000	825.80	251.04
0.000149	50.	50.	50.	2	0	0	0.00	119.76	609.40

CCHV= 0.500 CEHV= 1.000
*SECNO 4650.000

3265 DIVIDED FLOW

CROSS SECTION D

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4650.00	2.71	831.41	0.00	0.00	831.45	0.04	0.12	0.05	834.70
290.	0.	62	228.	0.	34.	139.	9.	4.	835.40
0.37	0.00	1.85	1.64	0.000	0.035	0.040	0.000	828.70	255.17
0.001014	400.	400.	400.	2	0	0	0.00	114.93	572.59
*SECNO 4750.000									
3265 DIVIDED FLOW									
3470 ENCROACHMENT STATIONS=		250.0	510.0	TYPE=	1	TARGET=	260.000		
4750.00	2.63	831.63	0.00	0.00	831.95	0.32	0.22	0.28	835.00
290.	0.	164.	126.	0.	32.	35.	9.	4.	835.70
0.38	0.00	5.14	3.62	0.000	0 035	0.040	0.000	829.00	255.29
0.008168	100.	100.	100.	2	0	0	0.00	51.06	510.00
*SECNO 4850 000									
4850.00	3.10	832.60	0.00	0.00	833.36	0.76	0.97	0.44	835.50
290.	0.	290.	0.	0.	42.	0.	9.	4.	836 20
0.38	0.00	6.99	0.00	0.000	0.035	0.000	0.000	829.50	254.56
0.011835	100.	100.	100.	2	0	0	0.00	21.08	275.63
*SECNO 5050 000									
5050.00	3.77	834.57	0.00	0.00	834.98	0.41	1.45	0.17	836.80
290.	0.	290.	0.	0	56.	0.	10.	4.	837.50
0.39	0.00	5.14	0.00	0.000	0.035	0.000	0.000	830.80	253.49
0.004879	200.	200.	200.	2	0	0	0.00	23.15	276.64
*SECNO 5250.000									
5250.00	3.76	835.56	0 00	0.00	835.97	0.41	0.98	0 00	837.80
290.	0.	290.	0.	0.	56.	0.	10.	4	838.50
0.40	0.00	5.17	0.00	0.000	0.035	0.000	0.000	831.80	253.52
0.004963	200.	200.	200.	2	0	0	0.00	23.10	276.62
*SECNO 5350.000									
5350.00	3.68	836.08	0.00	0.00	836.52	0.44	0.52	0.03	838.40
290.	0.	290.	0.	0.	54.	0.	10.	5.	839.10
0.41	0.00	5.34	0.00	0.000	0.035	0.000	0.000	832.40	253.64
0.005464	100.	100.	100.	2	0	0	0.00	22.85	276 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

CCHV= 0.500 CEHV= 1.000

*SECNO 5399.000									
5399.00	3.73	836.33	0.00	0.00	836.71	0.38	0.16	0.03	848.20
290.	0.	290.	0.	0.	58.	0	10.	5.	847.60
0.41	0.00	4.97	0.00	0.000	0.025	0.000	0.000	832.60	249.67
0.002154	49.	49	49.	0	0	0	0.00	18.82	268.49

*SECNO 5400.000

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 843.00 MAX ELLC= 838.80

D/S FACE OF STATE ST.

5400.00	3.73	836.33	0.00	0.00	836.73	0.40	0.00	0.02	848.20
290.	0.	290.	0.	0.	57.	0.	10.	5.	847.60
0.41	0.00	5.09	0.00	0.000	0.025	0.000	0.000	832.60	249.67
0.002319	1.	1	1.	0	0	0	-1.27	18.82	268.49

*SECNO 5592.000

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 843.00 MAX ELLC= 838.80

U/S FACE OF STATE ST

5592.00	4.24	836.84	0.00	0.00	837.13	0.30	0.35	0.05	848.20
290.	0.	290.	0.	0.	66.	0.	10.	5.	847.60
0.42	0.00	4.39	0.00	0.000	0.025	0.000	0.000	832.60	249.60
0.001494	192.	192.	192.	2	0	0	-1.71	18.95	268.56

*SECNO 5593.000									
5593.00	4.27	836.87	0.00	0.00	837.15	0.28	0.00	0.01	848.20
290.	0.	290.	0.	0.	68.	0.	10.	5.	847.60
0.42	0.00	4.24	0.00	0.000	0.025	0.000	0.000	832.60	249.60
0.001342	1.	1.	1.	2	0	0	0.00	18.96	268.56

*SECNO 5642.000									
5642.00	4.04	836.94	0.00	0.00	837.28	0.33	0.08	0.05	838.90
290.	0.	290.	0.	0.	63.	0.	11	5.	839.60
0.43	0.00	4.63	0.00	0.000	0.025	0.000	0.000	832.90	253.08
0.001850	49.	49.	49.	0	0	0	0.00	23.95	277.03

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 5900.000									
5900.00	3.41	837.61	0.00	0.00	838 17	0.56	0.67	0.23	840.20
290.	0.	290.	0.	0.	48.	0.	11.	5.	840.90
0.44	0.00	6.00	0.00	0.000	0.025	0.000	0.000	834.20	254.06
0.003897	258.	258.	258.	2	0	0	0.00	22.04	276.10
*SECNO 6000 000									
6000.00	3.33	838.03	0.00	0.00	838.63	0 61	0.41	0.05	840.70
290.	0.	290	0.	0.	46.	0.	11	5.	841.40
0.44	0.00	6.25	0.00	0.000	0.025	0.000	0.000	834.70	254.20
0.004372	100.	100.	100.	2	0	0	0.00	21.78	275.97
CCHV= 0.500 CEHV= 1 000									
*SECNO 6200.000									
CROSS SECTION E									
6200.00	4.21	839.91	0.00	0.00	840.76	0.85	1.89	0.24	839.60
290.	1.	283.	6.	1.	38.	2.	11.	5.	838.50
0.45	1.21	7.48	3.09	0.035	0.035	0.035	0.000	835.70	246.46
0.009807	300.	300.	300.	2	0	0	0.00	20.32	266.77
*SECNO 6300.000									
6300.00	4.77	841.07	0.00	0.00	841.60	0.52	0.67	0.16	840.20
290.	7.	272.	10.	4.	46.	4.	11.	5.	839.10
0.46	1.69	5.96	2 71	0.035	0.035	0 035	0.000	836 30	240.11
0.004852	100.	100.	100.	3	0	0	0.00	27.76	267.87
*SECNO 6500.000									
CROSS SECTION F									
6500.00	4.72	842.22	0.00	0.00	842.66	0.43	1.02	0.04	842.50
290.	0.	290.	0.	0.	55.	0.	12.	5.	843.00
0.47	0.00	5.29	0.00	0.000	0.035	0.000	0.000	837.50	250.70
0.005319	200.	200	200.	2	0	0	0.00	22.61	273.31
CCHV= 0.500 CEHV= 1.000									
*SECNO 6600.000									
D/S FACE OF EXIT RAMP FROM E. BOUND I-94 TO STATE ST.									
6600.00	3.80	842.60	0.00	0.00	843.12	0 52	0.38	0.08	849.80
290.	0.	290.	0.	0.	50.	0.	12.	5.	849.80
0.47	0.00	5.78	0.00	0.000	0.025	0 000	0.000	838.80	150.00
0.002853	100.	100.	100.	2	0	0	0.00	14.00	164.00

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	GLOB	QCH	QROB	ALOB	ACH	AROB	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	2.18	2.90	0.00	14.00	0.00	51.80	0.00	839.00	839.00

*SECNO 6662.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
843.66	843.27	0.00	0	290.	52.	52.	842.70	849.80

U/S FACE OF EXIT RAMP FROM E. BOUND I-94 TO STATE ST.

6662.00	4.50	843.30	0.00	0.00	843.66	0.36	0.54	0.00	849.80
290.	0.	290.	0.	0.	60.	0.	12	5.	849.80
0.48	0.00	4.83	0.00	0.000	0.025	0.000	0.000	838.80	150.00
0.001717	62.	62.	62.	2	0	0	0.00	14.00	164.00

*SECNO 6712.000

6712.00	6.15	843.65	0.00	0.00	843.81	0.16	0.05	0.10	842.50
290.	2.	288.	0.	4.	90.	1.	12.	5.	843.00
0.48	0.50	3.21	0.33	0.050	0.025	0.050	0.000	837.50	243.28
0.000592	50.	50.	50.	2	0	0	0.00	33.44	276.72

CCHV= 0.100 CEHV= 0.300
*SECNO 6899.000

6899.00	4.29	843.79	0.00	0.00	844.01	0.22	0.18	0.02	847.50
290.	0.	290.	0.	0.	77.	0.	12.	5.	847.90
0.50	0.00	3.76	0.00	0.000	0.035	0.000	0.000	839.50	244.69
0.001836	187.	187.	187.	2	0	0	0.00	22.34	267.03

CCHV= 0.300 CEHV= 0.500
*SECNO 6900.000

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 846.90 MAX ELLC= 844.70

D/S FACE OF I-94 AND N. SIDE OF RAMP TO W. BOUND I-94

6900.00	4.21	843.71	0.00	0.00	844.09	0.38	0.00	0.08	847.50
290.	0.	290	0.	0.	59.	0.	12.	5.	847.90
0.50	0.00	4.96	0.00	0.000	0.025	0.000	0.000	839.50	244.79
0.001911	1.	1.	1.	2	0	0	-16.82	22.18	266.97

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 7128 000

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 846.90 MAX ELLC= 844.70

U/S FACE OF I-94 AND N. SIDE OF RAMP TO W. BOUND I-94

7128.00	4.68	844.18	0.00	0.00	844.49	0.31	0.37	0.02	847.50
290.	0.	290.	0.	0.	65.	0.	13.	5.	847.90
0.51	0.00	4.46	0.00	0.000	0.025	0.000	0.000	839.50	244.20
0.001418	228.	228.	228.	2	0	0	-20.86	23.11	267.31

*SECNO 7129.000

7129.00	4.87	844.37	0.00	0.00	844.53	0.16	0.00	0.04	847.50
290.	0.	290.	0.	0.	90.	0.	13.	5	847.90
0 51	0.00	3.20	0.00	0.000	0.025	0.000	0.000	839.50	243.95
0.000597	1.	1.	1.	2	0	0	0.00	23.50	267.45

*SECNO 7259.000

3265 DIVIDED FLOW

CROSS SECTION G

7259.00	3.82	844.52	0.00	0.00	844.63	0.10	0.07	0.02	844.50
240.	0.	229.	11.	0.	88.	20.	13.	6.	844.40
0.52	0.00	2.60	0.56	0.000	0.025	0.050	0.000	840.70	249.87
0.000528	130.	130.	130.	1	0	0	0.00	59.26	355.70

CCHV= 0.500 CEHV= 1.000

*SECNO 7295.000

D/S FACE OF DAM

7295.00	5.75	844.55	0.00	0.00	844.66	0.11	0.02	0.01	848.60
240.	0.	240.	0.	0.	91.	0.	13.	6.	848.70
0.53	0.00	2.63	0.00	0.000	0.035	0.000	0.000	838.80	250.00
0.000775	36.	36.	36.	0	0	0	0.00	16.00	266.00

*SECNO 7362.000

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL, CWSEL

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

3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
U/S FACE OF DAM

7362.00	1.91	856.01	856.01	0.00	856.97	0.96	0.14	0.85	859.30
240.	0.	240.	0.	0.	30.	0.	13.	6.	859.30
0.53	0.00	7.87	0.00	0 000	0.035	0.000	0.000	854.10	250.00
0.019347	67.	67.	67	20	17	0	0.00	16.00	266.00

*SECNO 7462.000

3301 HV CHANGED MORE THAN HVINS

7462.00	11.45	857 45	0 00	0.00	857.45	0.00	0.00	0 48	858.00
240.	0	240.	0.	0.	1134.	0.	14.	6.	858.00
0.66	0.00	0.21	0.00	0.000	0.035	0.000	0.000	846.00	3.45
0.000002	100.	100.	100.	2	0	0	0.00	163.24	166.69

*SECNO 7962.000

7962.00	11.45	857.45	0.00	0.00	857.45	0.00	0.00	0.00	858.00
240.	0.	240.	0.	0.	904.	0.	26.	8.	858.00
1.18	0.00	0.27	0.00	0.000	0.035	0.000	0.000	846.00	2.75
0.000003	500.	500.	500.	2	0	0	0.00	134.49	137.25

*SECNO 8629.000
WATER EL=X5 CARD= 862.380

8629.00	10.38	862.38	0 00	0.00	862.38	0.00	0.00	0.00	868.00
240.	0.	240.	0.	0.	1079.	0.	41.	10.	868.00
2.02	0.00	0.22	0.00	0.000	0.035	0.000	0.000	852.00	75.13
0.000002	667.	667.	667.	0	0	0	0.00	169.75	244.87

*SECNO 8899.000
WATER EL=X5 CARD= 862.380

8899.00	10 38	862.38	0.00	0.00	862.38	0.00	0.00	0.00	868.00
240.	0.	240.	0.	0.	1755.	0.	50.	11.	868.00
2 57	0.00	0.14	0.00	0.000	0.035	0.000	0.000	852.00	23.10
0.000001	270.	270.	270.	0	0	0	0.00	239.75	262.85

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 9541.000									
WATER EL=X5 CARD=		864.680							
9541.00	12 68	864.68	0.00	0.00	864.68	0.00	0.00	0.00	868.00
240.	0.	240	0.	0	2256.	0.	80.	15.	868.00
4.24	0.00	0.11	0.00	0.000	0.035	0.000	0.000	852.00	16.60
0.000000	642.	642.	642.	0	0	0	0.00	247.65	264.25
*SECNO 9771.000									
WATER EL=X5 CARD=		864.680							
9771.00	12.68	864.68	0.00	0.00	864.68	0.00	0.00	0.00	868.00
240.	0.	240.	0.	0.	2256.	0.	92.	16.	868.00
4.84	0.00	0.11	0.00	0.000	0.035	0.000	0.000	852.00	16.60
0.000000	230.	230.	230.	0	0	0	0.00	247.65	264.25
*SECNO 10481.000									
WATER EL=X5 CARD=		866.640							
10481.00	10.64	866.64	0.00	0 00	866.64	0.00	0.00	0.00	872.00
240.	0.	240.	0.	0.	502.	0.	114.	19.	872.00
5.26	0.00	0.48	0.00	0.000	0.035	0.000	0.000	856.00	20.10
0 000013	710.	710.	710.	0	0	0	0.00	88.10	108.20
*SECNO 10881.000									
WATER EL=X5 CARD=		866.640							
10881.00	10.64	866.64	0.00	0.00	866.64	0.00	0.00	0.00	872.00
240.	0.	240.	0.	0.	750.	0.	120.	20.	872.00
5.60	0.00	0.32	0.00	0.000	0.035	0.000	0.000	856.00	21.80
0.000005	400.	400.	400.	0	0	0	0.00	124.70	146.50

THIS RUN EXECUTED 1 NOV 88 15:23:24

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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

10-YEAR FLOOD

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
360.000	0.00	0.00	0.00	809 50	160.00	812.73	0.00	812.78	10 13	1.75	99.81	50.27
360.000	0.00	0.00	0 00	809.50	250.00	813.40	0.00	813.46	10.18	2.02	140.10	78.34
360.000	0.00	0.00	0.00	809 50	290.00	813 65	0.00	813.71	10.29	2.13	157.02	90.42
360.000	0.00	0.00	0.00	809.50	370.00	814.11	0.00	814.18	10.20	2.28	191.73	115.84
1050 000	690.00	0.00	0 00	809.50	160.00	813.37	0.00	813.42	8.42	1.82	88.03	55.13
1050.000	690.00	0.00	0.00	809 50	250.00	814.12	0.00	814.20	10.76	2.25	111.11	76.22
1050.000	690.00	0.00	0.00	809.50	290.00	814.39	0.00	814.48	11.50	2.41	120.29	85.51
1050.000	690.00	0.00	0 00	809.50	370.00	814.87	0.00	814.99	12.76	2.71	136.31	103.57
1099.000	49.00	0.00	0.00	809.60	160.00	813.41	0.00	813.88	8.57	5.51	29.03	54.65
1099.000	49.00	0.00	0.00	809.60	250.00	814.17	0.00	814.94	12.09	7.01	35.68	71.89
1099.000	49.00	0.00	0.00	809.60	290.00	814.45	0.00	815.35	13.73	7.62	38.07	78.26
1099.000	49.00	0.00	0.00	809.60	370.00	814.94	0.00	816.12	16.88	8.72	42.44	90.04
1100.000	1.00	816.60	815.10	809.60	160.00	813.41	0.00	813.89	8.99	5.58	28.69	53.36
1100.000	1.00	816.60	815.10	809.60	250.00	814.17	0.00	814.99	14.13	7.23	34.58	66.51
1100.000	1.00	816.60	815.10	809.60	290.00	814.45	0.00	815.43	17.13	7.96	36.41	70.07
1100.000	1.00	816.60	815.10	809.60	370.00	814.95	0.00	816.34	28.50	9.49	39.00	69 31
1167.000	67.00	816.60	815.10	809.60	160.00	813 51	0.00	813.96	8.38	5.43	29.47	55.29
1167.000	67.00	816.60	815.10	809 60	250.00	814.34	0.00	815.10	13.22	7.00	35.72	68.76
1167.000	67.00	816.60	815.10	809.60	290.00	814.66	0.00	815.58	16.34	7.69	37.70	71.74
1167.000	67.00	816.60	815.10	809.60	370.00	815.18	0.00	816.56	33.82	9.43	39.24	63.63
1168 000	1.00	0.00	0.00	809.60	160.00	813.53	0.00	813.97	7.77	5.31	30.11	57.40
1168.000	1.00	0.00	0.00	809.60	250.00	814.52	0.00	815.16	9.74	6.45	38.76	80.12
1168.000	1.00	0.00	0.00	809.60	290.00	814.97	0.00	815.68	10.22	6.79	42.69	90.73
1168.000	1.00	0.00	0.00	809.60	370.00	816.10	0.00	816.87	9 75	7.02	52.70	118 47
1181.000	13.00	0.00	0.00	810.40	160.00	814.02	0.00	814.14	2.17	2.78	57.54	108.73
1181 000	13.00	0.00	0.00	810.40	250.00	815.33	0.00	815.43	1.31	2.62	95.47	218.30
1181.000	13 00	0.00	0.00	810.40	290.00	815.89	0.00	815.99	1.08	2.54	114.34	279.19
1181.000	13.00	0.00	0.00	810.40	370.00	817.13	0.00	817.21	0.70	2.30	160.77	443.33

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
1194.000	13.00	0.00	0.00	810.40	160.00	814.02	0.00	814.14	2.15	2.77	57 73	109.22
1194.000	13.00	0.00	0.00	810.40	250.00	815.33	0.00	815.44	1.30	2.61	95.72	219.10
1194.000	13.00	0.00	0.00	810.40	290.00	815.90	0.00	816.00	1.07	2.53	114.61	280.12
1194.000	13.00	0.00	0.00	810.40	370.00	817.13	0.00	817.21	0.69	2.30	161.06	444.39
1217.000	23.00	0.00	0.00	810.40	160.00	814.03	0.00	814.15	2.14	2.77	57.80	109.39
1217.000	23.00	0.00	0.00	810.40	250.00	815.33	0.00	815 44	1.30	2.61	95.67	218.94
1217.000	23.00	0.00	0.00	810.40	290.00	815.90	0.00	816.00	1.07	2.53	114.52	279 80
1217.000	23.00	0.00	0.00	810.40	370.00	817.13	0 00	817.22	0.70	2.30	160.90	443.81
1480.000	263.00	0.00	0.00	810.40	160.00	814 16	0.00	814.26	13.24	2.62	61.18	43 97
1480.000	263.00	0.00	0.00	810.40	250.00	815.41	0.00	815.51	8.81	2.55	98.16	84.23
1480.000	263.00	0.00	0.00	810.40	290.00	815.96	0.00	816.06	7.39	2.48	116.72	106.66
1480.000	263.00	0.00	0.00	810.40	370.00	817.17	0.00	817.25	4.90	2.28	162.54	167.12
1700 000	220 00	0.00	0 00	810.60	160.00	814.44	0.00	814.54	11.98	2.52	63.43	46.22
1700.000	220.00	0.00	0.00	810.60	250.00	815.60	0.00	815.71	8 86	2.55	97.97	84.00
1700.000	220.00	0.00	0.00	810.60	290.00	816.13	0.00	816.22	7.62	2.51	115 45	105.08
1700.000	220.00	0.00	0.00	810.60	370.00	817.28	0.00	817.37	5.22	2.33	158.84	162.00
1750.000	50.00	0.00	0 00	810.60	160.00	814.49	0.00	814.94	8.16	5.40	29.61	56.02
1750.000	50.00	0.00	0.00	810.60	250.00	815.65	0.00	816.26	9.15	6.29	39.75	82.63
1750.000	50.00	0.00	0.00	810.60	290.00	816.17	0.00	816.83	9.34	6.55	44.27	94.91
1750.000	50.00	0.00	0 00	810.60	370.00	817.32	0.00	818.04	9.06	6.81	54.34	122.91
1817.000	67.00	820.70	816.20	810.60	160.00	814.55	0.00	815.00	8.16	5.38	29.74	56.03
1817.000	67.00	820.70	816.20	810.60	250.00	816.16	0.00	816.66	6.92	5.64	44.33	95.07
1817.000	67.00	820.70	816.20	810.60	290.00	817.04	0.00	817.52	6.21	5.57	52.03	116.41
1817.000	67.00	820.70	816.20	810.60	370 00	819.09	0.00	819.52	4.87	5.28	70.03	167.72
1867.000	50.00	0.00	0.00	810.90	160.00	815.09	0.00	815.16	13.27	2.18	73.33	43.91
1867.000	50.00	0.00	0.00	810.90	250.00	816.76	0.00	816.82	7.13	1.96	127 56	93.60
1867.000	50.00	0.00	0.00	810.90	290.00	817.63	0.00	817.68	5.12	1.80	160.81	128.12
1867.000	50.00	0.00	0.00	810.90	370.00	819.64	0.00	819.66	1.93	1.30	396.54	266.01
2000.000	133.00	0.00	0.00	811.70	160.00	815.31	0.00	815.43	26.26	2.79	57.30	31.23
2000.000	133.00	0.00	0.00	811.70	250.00	816.87	0.00	816.96	12.72	2.42	103.16	70 11
2000.000	133.00	0.00	0.00	811.70	290 00	817.70	0.00	817.78	8.63	2.19	132.68	98.73
2000 000	133.00	0.00	0.00	811.70	370.00	819.66	0.00	819.70	3.74	1.71	235.68	191.25
2300.000	300.00	0.00	0.00	813.50	160.00	816.44	0.00	816.68	66.68	3.90	41.05	19.59
2300.000	300.00	0.00	0.00	813.50	250.00	817.45	0.00	817.67	42.77	3.77	66.31	38.23
2300.000	300.00	0.00	0.00	813.50	290.00	818.09	0.00	818.27	29.23	3.42	84.82	53.64
2300.000	300.00	0.00	0.00	813.50	370.00	819.81	0.00	819.91	11.19	2.56	144.26	110.60
2610.000	310.00	0.00	0.00	815.40	160.00	818.41	0.00	818 63	59.49	3.74	42.76	20.75
2610.000	310.00	0 00	0.00	815.40	250.00	819.01	0.00	819.31	63.97	4.36	57.34	31.26
2610.000	310.00	0.00	0.00	815.40	290.00	819.29	0.00	819.60	61.44	4.48	64.76	37.00
2610.000	310.00	0.00	0.00	815.40	370.00	820.31	0.00	820.55	34.92	3.90	94.97	62.61

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
2626.000	16.00	0.00	0.00	815.50	160.00	818.51	0.00	818.73	59 24	3.74	42.82	20.79
2626.000	16.00	0.00	0.00	815.50	250.00	819.12	0.00	819.41	64.16	4.36	57.28	31.21
2626.000	16.00	0.00	0.00	815.50	290.00	819.39	0.00	819.70	61.47	4.48	64.75	36.99
2626.000	16 00	0.00	0.00	815.50	370 00	820.36	0.00	820.61	36.77	3.97	93.19	61.01
2642.000	16.00	0.00	0.00	815.60	160.00	818.60	0.00	818.82	60.16	3.76	42.58	20.63
2642.000	16.00	0.00	0.00	815.60	250.00	819.22	0.00	819.51	63.27	4.34	57.57	31.43
2642.000	16.00	0.00	0.00	815.60	290.00	819.49	0.00	819.80	61.59	4.48	64.70	36.95
2642.000	16 00	0.00	0.00	815.60	370.00	820.42	0.00	820.67	37.98	4.02	92.10	60.04
2659.000	17.00	0 00	0.00	815.70	160.00	818.69	0.00	819.12	292.53	5.28	30.32	9.35
2659.000	17.00	0 00	0.00	815.70	250.00	819.32	0.00	819.75	166.74	5.25	47.63	19.36
2659.000	17.00	0.00	0.00	815.70	290.00	819.58	0.00	820.01	142.87	5.29	54.86	24.26
2659.000	17.00	0.00	0.00	815.70	370.00	820.46	0 00	820.80	72.99	4.67	79.18	43.31
2660.000	1.00	829.60	821.70	815.70	160.00	818.69	0.00	819.17	13.87	5.53	28.93	42.96
2660.000	1.00	829.60	821.70	815.70	250.00	819.32	818.74	820.03	17.56	6.75	37 06	59.66
2660.000	1.00	829.60	821.70	815.70	290.00	819.58	818.95	820.39	19.09	7.20	40.27	66.37
2660.000	1.00	829.60	821.70	815.70	370.00	820.47	819.36	821.32	19.84	7.42	49.86	83 07
3061.000	401.00	829.60	821.70	815.70	160.00	819.37	0.00	819.65	6.93	4.26	37.59	60.76
3061.000	401.00	829.60	821 70	815.70	250.00	820.26	0.00	820.68	9.68	5.21	47.94	80.37
3061.000	401.00	829.60	821.70	815.70	290.00	820.64	0.00	821 14	11.79	5.65	51.32	84.47
3061.000	401.00	829.60	821.70	815.70	370.00	821.49	0.00	822 20	20.11	6.75	54.86	82.51
3062 000	1.00	0.00	0.00	815.70	160.00	819.59	0.00	819.72	3.54	2.89	55.31	85.08
3062.000	1.00	0.00	0.00	815.70	250.00	820.70	0.00	820.83	2.16	2.91	85 92	170.28
3062.000	1.00	0.00	0.00	815.70	290.00	821.18	0.00	821.32	1.86	2.93	99.14	212.57
3062.000	1.00	0.00	0.00	815.70	370.00	822.37	0.00	822.49	1.27	2.80	131.91	328.87
3111.000	49.00	0.00	0.00	815.90	160.00	819.62	0.00	819.95	6.91	4.60	34.78	60.89
3111.000	49.00	0.00	0.00	815.90	250.00	820.71	0.00	821 02	5.40	4.48	55 86	107.59
3111.000	49.00	0.00	0.00	815.90	290.00	821.20	0.00	821.48	4.49	4.29	67.65	136 84
3111.000	49.00	0.00	0.00	815.90	370.00	822.38	0.00	822.58	2.56	3.63	101.88	231.35
3210.000	99.00	0.00	0.00	815.90	160.00	819.86	0.00	820.12	64.42	4.13	38.75	19.93
3210.000	99.00	0.00	0.00	815.90	250.00	820.89	0.00	821.16	54.55	4.18	59.81	33.85
3210.000	99.00	0.00	0.00	815.90	290.00	821.34	0.00	821.59	47.57	4.08	71.02	42.05
3210.000	99.00	0.00	0.00	815.90	370.00	822.45	0.00	822.64	28.85	3.55	104.28	68.88
3260.000	50.00	0.00	0.00	816.80	160.00	820.20	0.00	820.64	122.99	5.34	29.96	14.43
3260 000	50.00	0.00	0.00	816.80	250.00	821.16	0.00	821.62	103.28	5.41	46.20	24.60
3260.000	50.00	0.00	0.00	816.80	290.00	821.57	0.00	822.00	91.54	5.30	54.75	30.31
3260.000	50.00	0.00	0.00	816.80	370.00	822.58	0.00	822 91	56.42	4.60	80.40	49.26
3310.000	50.00	0.00	0.00	817.70	160.00	820.86	0.00	821.43	172.97	6.02	26.56	12.17
3310.000	50.00	0.00	0.00	817.70	250.00	821.70	0.00	822.32	151.34	6.35	39 39	20.32
3310.000	50.00	0.00	0.00	817.70	290.00	822.04	0.00	822 66	142.39	6.34	45.74	24.30
3310.000	50.00	0.00	0.00	817 70	370.00	822.85	0.00	823.37	101.90	5.81	63.72	36.65

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01%
	3360.000	50.00	0.00	0.00	818.60	160.00	821.74	0.00	822.32	180.19	6.11	26.18	11.92
	3360.000	50.00	0.00	0.00	818.60	250.00	822.47	0.00	823.17	173.33	6.73	37 17	18.99
	3360.000	50.00	0.00	0.00	818.60	290.00	822.77	0.00	823.49	170.49	6.83	42.44	22 21
	3360.000	50.00	0.00	0.00	818.60	370.00	823.37	0 00	824.08	148.93	6.76	54.76	30 32
	3380.000	20.00	0.00	0.00	818.90	160.00	822.16	0.00	822.67	150.81	5.74	27.87	13.03
	3380.000	20.00	0.00	0.00	818.90	250.00	822.88	0.00	823.52	153.03	6.38	39.20	20.21
	3380.000	20 00	0.00	0.00	818.90	290.00	823 17	0.00	823.83	152.32	6.52	44.48	23.50
	3380.000	20.00	0.00	0.00	818.90	370.00	823.67	0.00	824.38	149 43	6.77	54.69	30.27
	3400.000	20.00	0.00	0.00	819.40	160.00	822.44	0.00	823.09	208.87	6.44	24 85	11.07
	3400.000	20.00	0.00	0.00	819.40	250.00	823.16	0.00	823.93	194.77	7.07	35.34	17.91
	3400.000	20.00	0.00	0.00	819.40	290.00	823.44	0.00	824.25	194.67	7.22	40.15	20.79
	3400 000	20.00	0.00	0.00	819 40	370.00	823.92	0.00	824.79	191.31	7.48	49.48	26.75
	3410.000	10.00	0.00	0 00	819.50	160.00	822.50	0.00	823 57	25.89	8.30	19.28	31 45
	3410 000	10.00	0.00	0.00	819 50	250.00	823.22	823.18	824 81	32.54	10.13	24.68	43.83
	3410.000	10.00	0.00	0 00	819.50	290.00	823.51	823.51	825.32	35.10	10.80	26.84	48.95
*	3410.000	10.00	0.00	0.00	819.50	370.00	824.14	824.14	826.27	37.53	11.72	31.57	60.40
	3489.000	79.00	826.60	824 20	819 50	160.00	823.27	0.00	823 92	13.84	6.50	24.63	43.01
	3489.000	79.00	826.60	824.20	819.50	250.00	824.21	0.00	825 15	16.36	7.78	32.15	61.81
	3489.000	79.00	826.60	824.20	819.50	290.00	825.30	0 00	826.11	12.46	7.20	40.28	82.15
	3489.000	79.00	826.60	824.20	819.50	370.00	825.88	0.00	826.94	15.76	8.29	44.62	93.19
	3509.000	20.00	0.00	0.00	819.80	160.00	823.82	0.00	824.12	6.63	4.37	36.60	69.12
	3509.000	20.00	0.00	0.00	819.80	250.00	825.30	0.00	825.52	3.33	3.78	66.21	137.03
	3509.000	20.00	0.00	0.00	819.80	290.00	826.28	0.00	826.44	1.92	3.19	90.89	209.39
	3509.000	20.00	0.00	0.00	819.80	370.00	827.28	0.00	827.42	1.32	3.01	158.73	321.89
	3539.000	30.00	0.00	0.00	820.00	160.00	823.85	0.00	824.14	6.00	4.33	36.97	65.31
	3539.000	30.00	0.00	0.00	820.00	250.00	825.33	0.00	825.54	3.27	3.66	68.23	138.32
	3539.000	30.00	0.00	0.00	820.00	290.00	826.31	0.00	826.45	1.82	3.02	96.18	214.74
	3539.000	30.00	0.00	0 00	820.00	370.00	827.30	0 00	827.43	1.32	2.82	131.31	321.90
*	3700.000	161.00	0.00	0.00	821.60	160.00	824.42	824.42	825.26	184.61	7.35	21.76	11.78
	3700.000	161.00	0.00	0.00	821.60	250.00	825.48	0.00	826.18	103.36	6.68	37.40	24.59
	3700.000	161.00	0.00	0.00	821.60	290.00	826.39	0.00	826.82	54.05	5.25	55.28	39.44
	3700.000	161.00	0.00	0.00	821.60	370.00	827.36	0.00	827.70	34.58	4.63	79.99	62.92
	3800 000	100.00	0.00	0.00	822.50	160.00	826.08	0.00	826.45	59.34	4.91	32.56	20.77
	3800.000	100.00	0.00	0.00	822.50	250.00	826.58	0.00	827.16	83.79	6.11	40.89	27.31
	3800.000	100.00	0.00	0.00	822.50	290.00	827.01	0.00	827.55	71.99	5.89	49.23	34.18
	3800.000	100.00	0.00	0.00	822.50	370.00	827.79	0.00	828.26	53.93	5.51	67.18	50.38
	3900.000	100 00	0.00	0.00	823.50	160.00	826.79	0.00	827.28	86.71	5.64	28.38	17.18
	3900.000	100.00	0.00	0 00	823.50	250.00	827 47	0.00	828.11	94.41	6.43	38.88	25.73
	3900.000	100.00	0.00	0 00	823 50	290 00	827.81	0.00	828.45	88.76	6.42	45.17	30.78
	3900.000	100.00	0.00	0.00	823.50	370.00	828.43	0.00	829.05	76.85	6.34	58.37	42.21

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	4070.000	170.00	0.00	0.00	825.00	160.00	828.09	0.00	828.32	36.22	3.86	41.43	26.59
	4070.000	170.00	0.00	0.00	825.00	250.00	828.88	0.00	829.16	31.98	4.24	59.02	44.21
	4070.000	170.00	0.00	0.00	825.00	290.00	829.16	0.00	829.46	31.51	4.40	65 86	51.66
	4070.000	170.00	0.00	0.00	825.00	370.00	829.64	0.00	829.99	32.10	4.76	77.78	65.30
	4120 000	50.00	0.00	0.00	825.50	160.00	828.26	828.22	829.43	29.80	8.71	18.37	29.31
*	4120.000	50.00	0.00	0.00	825.50	250.00	829.05	829.05	830.69	34.14	10.29	24.31	42.79
*	4120.000	50.00	0.00	0.00	825.50	290.00	829.39	829 39	831.20	35.37	10.80	26 84	48 76
*	4120.000	50 00	0 00	0.00	825 50	370.00	830.03	830 03	832.15	37.52	11.69	31.66	60.41
	4200.000	80.00	831.80	830.30	825.50	160.00	829.26	0.00	829.87	12.53	6.27	25.53	45.21
	4200.000	80.00	831.80	830.30	825.50	250.00	830.20	829.03	831.22	22.28	8.09	30.89	52.96
	4200.000	80.00	831 80	830.30	825.50	290.00	830.92	0.00	831 20	4.38	4.21	69.88	138 64
	4200.000	80.00	831.80	830.30	825.50	370.00	832.07	0.00	832.15	1.24	2.62	325.28	332.23
	4250.000	50.00	0.00	0.00	825.80	160.00	830.06	0.00	830.14	1.21	2.35	68.02	145.55
	4250.000	50.00	0.00	0.00	825.80	250.00	831.65	0.00	831.71	0.60	2.01	239.43	323 83
	4250.000	50.00	0.00	0.00	825.80	290.00	831.14	0.00	831.28	1.49	3.01	98.64	237.54
	4250.000	50.00	0.00	0.00	825.80	370.00	832.10	0.00	832.16	0.70	2.30	382.34	441.51
	4650.000	400.00	0.00	0.00	828.70	160.00	830.21	0.00	830.34	81.83	3.39	55.64	17.69
	4650.000	400.00	0.00	0.00	828.70	250.00	831.76	0.00	831.78	4 00	1.27	214.21	124 94
	4650.000	400.00	0.00	0.00	828.70	290.00	831.41	0.00	831.45	10.14	1.85	172.21	91.08
	4650.000	400.00	0.00	0.00	828.70	370.00	832.21	0.00	832.24	4.33	1.46	272.38	177.90
	4750.000	100.00	0.00	0.00	829.00	160.00	831.08	0.00	831 34	92.96	4.53	41.15	16.59
	4750.000	100.00	0.00	0.00	829.00	250.00	831.85	0.00	832.02	39.29	3.79	78.35	39.88
	4750.000	100.00	0.00	0.00	829.00	290.00	831.63	0.00	831.95	81.68	5.14	66.67	32.09
	4750.000	100.00	0.00	0.00	829.00	370.00	832.30	0.00	832.51	37.88	4.14	104.63	60.12
	4850.000	100.00	0.00	0.00	829.50	160.00	832.02	0.00	832 47	95.07	5.37	29.81	16.41
	4850.000	100.00	0.00	0 00	829.50	250.00	832.46	0.00	833.11	108.58	6.47	38.61	23.99
	4850.000	100.00	0 00	0.00	829.50	290.00	832.60	0.00	833.36	118.35	6.99	41.51	26.66
	4850.000	100.00	0.00	0.00	829.50	370.00	832.93	0.00	833.83	122.09	7.61	48.61	33.49
	5050.000	200.00	0.00	0.00	830.80	160.00	833.64	0.00	833.94	53.93	4.43	36.15	21.79
	5050.000	200.00	0.00	0.00	830.80	250.00	834.30	0.00	834.68	51.06	4.99	50.11	34.99
	5050.000	200.00	0.00	0.00	830.80	290.00	834.57	0.00	834.98	48.79	5.14	56.47	41.52
	5050.000	200.00	0.00	0.00	830 80	370.00	835.03	0.00	835.50	48.28	5.50	67.29	53.25
	5250.000	200.00	0.00	0.00	831.80	160.00	834.70	0.00	834.98	49.21	4.29	37.30	22.81
	5250 000	200.00	0.00	0.00	831.80	250.00	835.31	0.00	835.69	49.52	4.94	50.65	35.53
	5250.000	200.00	0.00	0.00	831.80	290.00	835.56	0.00	835.97	49.63	5.17	56.14	41.16
	5250.000	200.00	0.00	0.00	831.80	370.00	836.00	0.00	836.48	49.14	5.53	66.87	52.78
	5350.000	100.00	0.00	0.00	832.40	160.00	835.22	0.00	835.53	56.12	4.49	35.66	21.36
	5350.000	100.00	0.00	0.00	832.40	250.00	835.84	0.00	836.25	55 46	5.13	48.69	33.57
	5350 000	100.00	0.00	0 00	832.40	290.00	836.08	0.00	836.52	54.64	5 34	54.28	39.23
	5350.000	100.00	0.00	0.00	832.40	370.00	836.52	0.00	837.03	54.05	5.72	64.66	50 33

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
5399.000	49.00	0.00	0.00	832.60	160.00	835.50	0.00	835.72	16.73	3.74	42.77	39.12
5399.000	49.00	0.00	0.00	832.60	250.00	836.10	0.00	836.44	20.35	4.64	53.82	55.43
5399.000	49.00	0.00	0.00	832.60	290.00	836.33	0.00	836.71	21.54	4.97	58.31	62.48
5399.000	49.00	0.00	0.00	832.60	370.00	836.71	0.00	837.21	24.91	5.66	65.42	74.14
5400.000	1.00	843.00	838.80	832.60	160.00	835.50	0.00	835.73	17.53	3.80	42.15	38.21
5400.000	1.00	843.00	838.80	832.60	250.00	836.11	0.00	836.45	21.42	4.72	52.97	54.01
5400.000	1.00	843.00	838.80	832.60	290.00	836.33	0.00	836.73	23.19	5.09	56.97	60.22
5400.000	1.00	843.00	838.80	832.60	370.00	836.71	0.00	837.23	26.87	5.79	63.89	71.38
5592.000	192.00	843.00	838.80	832.60	160.00	835.85	0.00	836.02	11.49	3.30	48.43	47.19
5592.000	192.00	843.00	838.80	832.60	250.00	836.56	0.00	836.82	13.94	4.09	61.19	66.96
5592.000	192.00	843.00	838.80	832 60	290.00	836.84	0.00	837.13	14.94	4.39	66.09	75.04
5592.000	192.00	843.00	838.80	832.60	370.00	837.33	0.00	837.71	16.82	4.94	74.97	90.22
5593.000	1.00	0.00	0.00	832.60	160.00	835.87	0.00	836.03	10.81	3.24	49.37	48.65
5593.000	1.00	0.00	0.00	832.60	250.00	836.59	0.00	836.83	12.64	3.96	63.12	70.31
5593.000	1.00	0.00	0.00	832.60	290 00	836.87	0.00	837.15	13.42	4.24	68.40	79.17
5593.000	1.00	0 00	0.00	832.60	370.00	837.37	0.00	837.72	14.83	4.74	78.05	96.07
5642.000	49.00	0.00	0 00	832.90	160.00	835.94	0.00	836.18	20.34	3.99	40.09	35.48
5642.000	49.00	0.00	0.00	832.90	250 00	836.66	0.00	836.97	18.93	4.46	56.02	57.45
5642.000	49.00	0.00	0.00	832.90	290.00	836.94	0.00	837.28	18.50	4.63	62.68	67.42
5642.000	49.00	0.00	0.00	832 90	370.00	837.45	0.00	837.83	17.86	4.91	75.43	87.56
5900.000	258.00	0.00	0.00	834.20	160.00	836.71	0 00	837 17	49.21	5.39	29.67	22 81
5900.000	258.00	0.00	0.00	834.20	250.00	837.36	0.00	837.89	41.20	5.85	42.75	38.95
5900.000	258.00	0.00	0.00	834.20	290.00	837.61	0.00	838.17	38.97	6.00	48.30	46.46
5900.000	258.00	0.00	0.00	834.20	370.00	838.09	0.00	838 69	35.64	6.26	59.08	61.97
6000.000	100.00	0.00	0.00	834.70	160.00	837.21	0.00	837.66	49.50	5.40	29.61	22.74
6000.000	100 00	0.00	0.00	834.70	250.00	837.79	0.00	838.36	45.37	6.05	41.35	37.11
6000.000	100.00	0.00	0.00	834.70	290.00	838.03	0.00	838.63	43.72	6.25	46.41	43.86
6000.000	100.00	0.00	0.00	834.70	370.00	838.47	0.00	839.14	40.84	6.57	56.32	57.90
6200 000	300 00	0.00	0.00	835.70	160.00	839 12	0.00	839.65	85.17	5.87	27.54	17.34
6200.000	300.00	0.00	0.00	835.70	250.00	839.70	0.00	840.46	96.46	7.03	36.48	25.45
6200.000	300.00	0.00	0.00	835.70	290.00	839.91	0.00	840.76	98.07	7.48	40.40	29.28
6200.000	300.00	0.00	0.00	835.70	370.00	840.28	840.11	841.29	99.15	8.19	48.89	37.16
6300.000	100 00	0.00	0.00	836.30	160.00	840.01	0.00	840.41	57.89	5.12	31 79	21.03
6300.000	100.00	0.00	0.00	836.30	250.00	840.78	0.00	841.28	51.76	5.78	46.26	34.75
6300.000	100 00	0.00	0.00	836 30	290.00	841.07	0.00	841.60	48.52	5.96	53.82	41.63
6300.000	100.00	0 00	0.00	836.30	370.00	841.61	0.00	842.14	42.05	6.14	70.72	57 06
6500.000	200.00	0.00	0.00	837.50	160.00	841.24	0.00	841.57	53.82	4.59	34.86	21.81
6500.000	200.00	0.00	0.00	837.50	250.00	841.97	0.00	842.37	52.37	5.07	49.35	34.55
6500.000	200.00	0.00	0 00	837.50	290.00	842.22	0.00	842.66	53.19	5.29	54.87	39.76
6500.000	200.00	0.00	0.00	837.50	370.00	842.59	0.00	843.12	58.10	5.83	63.48	48.54

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	6600 000	100.00	0.00	0.00	838.80	160.00	841.61	0.00	841.91	22.33	4.41	36.28	33.86
	6600.000	100.00	0.00	0.00	838.80	250.00	842.34	0.00	842.79	26.47	5.38	46.45	48.59
	6600 000	100.00	0.00	0.00	838.80	290.00	842.60	0.00	843.12	28.53	5.78	50.18	54.29
	6600 000	100.00	0.00	0.00	838.80	370.00	843.03	0.00	843.70	33.70	6.59	56 16	63.74
	6662.000	62.00	849.80	842.70	838.80	160.00	841.81	0.00	842.07	24.19	4.10	39.06	32.53
	6662.000	62.00	849.80	842.70	838.80	250.00	842.77	0.00	843.12	18.47	4.75	52.66	58.17
	6662.000	62.00	849.80	842.70	838.80	290.00	843.30	0.00	843 66	17.17	4 83	60.01	69.99
	6662.000	62.00	849.80	842.70	838.80	370.00	844.38	0.00	844.76	15.00	4.93	75.10	95 53
	6712.000	50.00	0.00	0.00	837.50	160.00	842.05	0.00	842.20	10.08	3.14	50.90	50 40
	6712.000	50.00	0.00	0.00	837.50	250.00	843.11	0.00	843.27	7.72	3.28	77.23	89 99
	6712.000	50.00	0.00	0.00	837.50	290.00	843.65	0.00	843.81	5.92	3.21	94.23	119 14
	6712.000	50.00	0.00	0.00	837.50	370.00	844.78	0.00	844.91	3.55	2.98	158.04	196.38
	6899.000	187.00	0.00	0.00	839.50	160.00	842.31	0.00	842.49	24.46	3 47	46.11	39.35
	6899.000	187.00	0.00	0.00	839.50	250.00	843.29	0.00	843.51	21.04	3.78	66.20	54.51
	6899.000	187.00	0.00	0.00	839.50	290.00	843.79	0.00	844.01	18.36	3.76	77.09	67.67
	6899.000	187.00	0.00	0.00	839 50	370.00	844.85	0.00	845.05	13.72	3.64	101.74	99.89
	6900.000	1.00	846 90	844.70	839.50	160.00	842.27	0.00	842.54	19.91	4.18	38.27	35.86
	6900.000	1.00	846 90	844.70	839.50	250.00	843.22	0.00	843.59	20.25	4.84	51.68	55.56
	6900.000	1.00	846 90	844.70	839.50	290.00	843.71	0.00	844.09	19.11	4.96	58.52	66 33
	6900.000	1.00	846.90	844.70	839.50	370.00	844.74	0.00	845.16	32.52	5.16	71.65	64 89
	7128.000	228.00	846.90	844.70	839.50	160.00	842.72	0.00	842.92	12.72	3.59	44.58	44.87
	7128.000	228.00	846.90	844.70	839.50	250.00	843.71	0.00	844.00	14.30	4.28	58.38	66.11
	7128.000	228.00	846.90	844.70	839.50	290.00	844.18	0.00	844.49	14.18	4.46	65.07	77 02
	7128.000	228.00	846.90	844.70	839.50	370.00	845.48	0.00	845.90	32.52	5.16	71.65	64.89
	7129.000	1.00	0.00	0.00	839.50	160.00	842.81	0.00	842.94	7.02	2.85	56.22	60.38
	7129.000	1.00	0.00	0.00	839.50	250.00	843.88	0.00	844.04	6.47	3.16	79.11	98.26
	7129.000	1.00	0.00	0.00	839.50	290.00	844.37	0.00	844.53	5.97	3.20	90 49	118.70
	7129.000	1.00	0.00	0.00	839.50	370.00	845.85	0.00	845 98	3.75	2.90	127.42	191.03
	7259.000	130.00	0.00	0.00	840.70	140.00	842.92	0.00	843.09	15.95	3.31	42.32	35.05
	7259.000	130.00	0.00	0.00	840.70	210.00	844.01	0.00	844.13	7.44	2.84	81.25	77.01
	7259.000	130.00	0.00	0.00	840.70	240.00	844.52	0.00	844.63	5.28	2.60	107.71	104 43
	7259.000	130.00	0.00	0.00	840.70	300 00	845.99	0.00	846.04	1.55	1.88	229.33	241.25
	7295.000	36.00	0.00	0.00	838.80	140.00	843.11	0.00	843.18	5.99	2.05	68.17	57.22
	7295.000	36.00	0.00	0.00	838.80	210.00	844.08	0.00	844.17	7.54	2.51	83.62	76.47
	7295.000	36.00	0.00	0.00	838.80	240.00	844.55	0.00	844.66	7.75	2.63	91.12	86.22
	7295.000	36.00	0.00	0.00	838.80	300.00	846.00	0.00	846.11	6.48	2.62	114.45	117.84
*	7362.000	67.00	0.00	0.00	854.10	140.00	855.43	855.43	856.10	201.63	6.58	21.28	9.86
*	7362.000	67.00	0.00	0.00	854.10	210.00	855.84	855.84	856.72	194.99	7.53	27.89	15.04
*	7362 000	67.00	0.00	0.00	854.10	240.00	856.01	856.01	856.97	193.47	7.87	30.49	17.25
*	7362.000	67.00	0.00	0.00	854.10	300.00	856.32	856.32	857.43	190.08	8.46	35.48	21.76

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	7462.000	100.00	0.00	0.00	846.00	140.00	856.44	0.00	856.44	0.01	0.14	975.42	1425.47
	7462.000	100.00	0.00	0.00	846.00	210.00	857.16	0.00	857.16	0.02	0.19	1088.06	1646 20
	7462.000	100.00	0.00	0.00	846.00	240.00	857.45	0.00	857.45	0.02	0.21	1134.11	1738.68
	7462.000	100.00	0.00	0.00	846.00	300.00	857.98	0.00	857.98	0.02	0.25	1223.00	1920.69
	7962.000	500.00	0 00	0.00	846.00	140.00	856.44	0.00	856.44	0.02	0.18	773.59	1096.93
	7962.000	500.00	0.00	0.00	846.00	210.00	857.16	0.00	857.17	0.03	0.24	866.47	1275.92
	7962.000	500.00	0.00	0.00	846.00	240.00	857.45	0.00	857.45	0.03	0.27	904.43	1350.97
	7962 000	500.00	0.00	0.00	846.00	300.00	857.98	0.00	857.99	0.04	0.31	977.67	1498.76
*	8629.000	667.00	0.00	0.00	852.00	140.00	861.84	0.00	861.84	0.01	0.14	988.76	1386.42
*	8629.000	667.00	0.00	0.00	852.00	210.00	862.21	0.00	862.21	0.02	0.20	1049.93	1503.93
*	8629.000	667.00	0.00	0.00	852.00	240.00	862 38	0.00	862.38	0.02	0.22	1078.60	1559.83
*	8629.000	667.00	0.00	0.00	852.00	300.00	862.71	0.00	862.71	0.03	0.26	1135.30	1671.85
*	8899.000	270.00	0.00	0.00	852.00	140.00	861.84	0.00	861.84	0.00	0.09	1627.56	2514.56
*	8899.000	270.00	0.00	0.00	852.00	210.00	862.21	0.00	862.21	0.01	0.12	1714.63	2706.79
*	8899.000	270.00	0.00	0.00	852.00	240.00	862.38	0.00	862.38	0.01	0.14	1755.20	2797.63
*	8899.000	270.00	0.00	0.00	852.00	300 00	862.71	0.00	862.71	0.01	0.16	1835.00	2978.52
*	9541.000	642.00	0.00	0.00	852.00	140.00	863.96	0.00	863.96	0.00	0.07	2080.41	3709.69
*	9541.000	642.00	0.00	0.00	852.00	210.00	864.46	0.00	864 46	0.00	0.10	2201.59	4014.31
*	9541.000	642.00	0.00	0.00	852 00	240.00	864.68	0.00	864.68	0.00	0.11	2255.80	4152.32
*	9541.000	642.00	0.00	0.00	852.00	300.00	865.09	0.00	865.09	0.00	0.13	2358.28	4416.43
*	9771.000	230.00	0.00	0.00	852.00	140.00	863.96	0.00	863.96	0.00	0.07	2080.41	3709.69
*	9771.000	230.00	0.00	0.00	852.00	210.00	864.46	0.00	864.46	0.00	0.10	2201.59	4014.31
*	9771.000	230.00	0.00	0.00	852.00	240.00	864.68	0.00	864.68	0.00	0.11	2255.80	4152.32
*	9771.000	230.00	0.00	0.00	852.00	300.00	865.09	0.00	865.09	0.00	0.13	2358.28	4416.43
*	10481.000	710.00	0.00	0.00	856.00	140.00	865.92	0.00	865.92	0.06	0.32	440.93	561.24
*	10481.000	710.00	0.00	0.00	856.00	210.00	866.41	0.00	866.41	0.11	0.44	482.06	629.63
*	10481.000	710.00	0.00	0.00	856.00	240.00	866.64	0.00	866.64	0.13	0.48	502.09	663.65
*	10481.000	710.00	0.00	0.00	856.00	300.00	867.08	0.00	867.08	0.17	0.55	541.70	732.23
*	10881.000	400.00	0.00	0.00	856.00	140.00	865 92	0.00	865.92	0.02	0.21	663.14	887.11
*	10881.000	400.00	0.00	0.00	856 00	210.00	866.41	0.00	866.41	0.04	0.29	721.62	990.37
*	10881.000	400.00	0.00	0.00	856.00	240.00	866.64	0.00	866.64	0.05	0.32	750 00	1041.49
*	10881 000	400.00	0.00	0.00	856.00	300.00	867.08	0.00	867.08	0.07	0.37	805.96	1144.15

10-YEAR FLOOD

SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
360.000	160.00	812.73	0.00	0.00	-3.27	53.63	0.00
360.000	250.00	813.40	0.67	0.00	-4.60	66 55	0.00
360.000	290.00	813.65	0.25	0.00	-5.35	71.28	0.00
360.000	370.00	814.11	0.46	0.00	-6.89	80.12	0.00
1050.000	160.00	813.37	0.00	0 63	0.00	29.88	690.00
1050.000	250.00	814.12	0.75	0.71	0.00	32.45	690.00
1050.000	290.00	814.39	0.27	0.74	0.00	33.00	690.00
1050.000	370.00	814.87	0.49	0.76	0.00	33.00	690.00
1099.000	160.00	813.41	0.00	0.04	0.00	8.80	49.00
1099.000	250.00	814.17	0.76	0.06	0.00	8.80	49.00
1099.000	290.00	814.45	0.28	0.06	0.00	8.80	49.00
1099.000	370.00	814.94	0.50	0.07	0.00	8.80	49.00
1100.000	160.00	813.41	0.00	0.00	0.00	8.80	1.00
1100.000	250.00	814.17	0.76	0.00	0.00	8.80	1.00
1100.000	290.00	814.45	0 28	0.00	0.00	8.80	1.00
1100.000	370 00	814.95	0 50	0.00	0.00	8.80	1.00
1167.000	160.00	813.51	0.00	0.10	0.00	8.80	67.00
1167.000	250.00	814.34	0.84	0.17	0.00	8.80	67.00
1167.000	290.00	814 66	0.32	0.21	0.00	8.80	67.00
1167 000	370.00	815.18	0.52	0.23	0.00	8.80	67.00
1168.000	160.00	813.53	0.00	0.03	0.00	8.80	1.00
1168 000	250.00	814 52	0.98	0.17	0.00	8.80	1.00
1168.000	290.00	814.97	0.45	0.30	0.00	8.80	1.00
1168.000	370.00	816.10	1.14	0.92	0.00	8.80	1.00
1181.000	160.00	814.02	0.00	0.48	0.00	25.88	13.00
1181.000	250.00	815.33	1 31	0.81	0.00	32.00	13.00
1181.000	290.00	815.89	0.57	0.93	0.00	34.65	13.00
1181.000	370.00	817.13	1 24	1.03	0.00	40.43	13.00
1194.000	160.00	814.02	0.00	0.00	0.00	25.91	13.00
1194.000	250.00	815.33	1.31	0.00	0.00	32.04	13.00
1194.000	290.00	815.90	0.57	0.00	0.00	34.68	13.00
1194.000	370.00	817.13	1.24	0.00	0.00	40.46	13.00
1217.000	160.00	814.03	0.00	0 01	0.00	25.92	23.00
1217.000	250.00	815.33	1.31	0.00	0 00	32.03	23.00
1217.000	290.00	815.90	0.57	0.00	0.00	34 67	23.00
1217.000	370.00	817.13	1.23	0.00	0.00	40.44	23.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
1480.000	160.00	814.16	0.00	0.13	0.00	26 53	263.00
1480.000	250.00	815.41	1.26	0.08	0.00	32.39	263.00
1480.000	290.00	815.96	0.55	0.06	0.00	34.97	263.00
1480.000	370.00	817.17	1.21	0.04	0.00	40.63	263.00
1700.000	160.00	814.44	0.00	0.29	0.00	26.92	220.00
1700.000	250.00	815.60	1.16	0.19	0.00	32.36	220.00
1700.000	290.00	816.13	0.52	0.16	0.00	34.80	220.00
1700.000	370.00	817.28	1 16	0.11	0.00	40.20	220.00
1750.000	160.00	814 49	0.00	0.05	0.00	8.80	50.00
1750.000	250.00	815.65	1.16	0.05	0.00	8.80	50.00
1750.000	290.00	816.17	0.52	0.04	0.00	8.80	50.00
1750.000	370.00	817.32	1.15	0.03	0.00	8.80	50.00
1817.000	160.00	814.55	0.00	0 06	0.00	8 80	67 00
1817.000	250.00	816.16	1.61	0.51	0.00	8.80	67.00
1817.000	290.00	817.04	0.88	0.87	0.00	8.80	67.00
1817.000	370.00	819.09	2.05	1 77	0.00	8.80	67.00
1867.000	160.00	815.09	0.00	0.54	0.00	28.59	50.00
1867.000	250.00	816.76	1 67	0.60	0.00	36.39	50.00
1867.000	290.00	817.63	0.87	0.59	0.00	40.43	50.00
1867.000	370.00	819.64	2.01	0.55	0.00	268.62	50.00
2000.000	160.00	815.31	0.00	0.22	0.00	25.84	133.00
2000.000	250.00	816.87	1.56	0.11	0.00	33.11	133.00
2000.000	290.00	817.70	0.83	0.08	0.00	37.04	133.00
2000.000	370.00	819.66	1.96	0.02	0.00	152.24	133.00
2300.000	160.00	816.44	0.00	1.13	0.00	22.71	300.00
2300.000	250.00	817.45	1.01	0.57	0.00	27.42	300.00
2300.000	290.00	818.09	0.64	0.38	0.00	30.41	300.00
2300 000	370.00	819.81	1.73	0.15	0.00	38.47	300.00
2610.000	160.00	818.41	0.00	1.97	0 00	23.06	310.00
2610.000	250.00	819.01	0.60	1.57	0.00	25.84	310.00
2610 000	290.00	819.29	0.28	1.20	0.00	27.15	310.00
2610.000	370.00	820.31	1.02	0.50	0.00	31.93	310.00
2626.000	160.00	818.51	0.00	0.10	0 00	23.07	16 00
2626.000	250.00	819 12	0 61	0.10	0.00	25.83	16.00
2626 000	290.00	819.39	0 27	0.10	0.00	27.15	16.00
2626 000	370.00	820.36	0.98	0.05	0 00	31.67	16.00
2642.000	160.00	818.60	0 00	0.09	0.00	23.02	16.00
2642.000	250.00	819.22	0.62	0 11	0.00	25.88	16.00
2642.000	290.00	819.49	0 27	0 10	0.00	27.14	16.00
2642.000	370.00	820.42	0.93	0.06	0 00	31.51	16.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
2659.000	160.00	818 69	0 00	0.09	0.00	27.64	17.00
2659.000	250.00	819.32	0.63	0.10	0.00	27.70	17.00
2659.000	290.00	819.58	0.26	0.09	0.00	27.70	17.00
2659 000	370.00	820.46	0.89	0.04	0.00	27.70	17.00
2660.000	160.00	818.69	0.00	0.00	0.00	27.70	1.00
2660.000	250.00	819.32	0.63	0.00	0.00	27.70	1.00
2660.000	290.00	819.58	0.26	0.00	0.00	27.70	1.00
2660.000	370.00	820.47	0.88	0.00	0.00	27.70	1.00
3061.000	160.00	819.37	0.00	0.67	0.00	27.70	401.00
3061.000	250.00	820.26	0.89	0.94	0.00	27 70	401 00
3061.000	290.00	820.64	0.38	1.06	0.00	27.70	401.00
3061.000	370.00	821.49	0.85	1.02	0.00	27.70	401.00
3062.000	160.00	819 59	0.00	0.23	0.00	27.70	1.00
3062.000	250.00	820 70	1.10	0.44	0.00	27.70	1.00
3062.000	290.00	821.18	0.49	0.54	0.00	27.70	1.00
3062.000	370.00	822.37	1.18	0.88	0.00	27 70	1.00
3111.000	160.00	819.62	0.00	0.02	0.00	15.77	49.00
3111.000	250.00	820.71	1 09	0.02	0.00	22.61	49.00
3111.000	290.00	821.20	0.49	0 01	0.00	25.65	49.00
3111.000	370.00	822.38	1.18	0.01	0.00	32.93	49.00
3210.000	160.00	819.86	0 00	0.24	0.00	17.26	99.00
3210.000	250.00	820.89	1.03	0.18	0.00	23.67	99.00
3210.000	290.00	821.34	0.45	0.14	0.00	26.46	99.00
3210.000	370.00	822.45	1.11	0.07	0.00	33.38	99.00
3260.000	160.00	820.20	0.00	0 34	0.00	14.68	50.00
3260.000	250.00	821.16	0.96	0 27	0.00	19.77	50.00
3260.000	290.00	821.57	0.41	0.23	0.00	22.30	50.00
3260 000	370.00	822.58	1.01	0.13	0.00	28.58	50.00
3310.000	160.00	820.86	0.00	0.66	0.00	14.13	50.00
3310.000	250.00	821.70	0.83	0.53	0.00	17.49	50.00
3310.000	290.00	822.04	0.34	0.47	0.00	19.62	50.00
3310.000	370.00	822.85	0.81	0.27	0.00	24.68	50.00
3360.000	160.00	821.74	0 00	0.87	0.00	14 07	50 00
3360 000	250.00	822 47	0.73	0.77	0.00	16.68	50.00
3360.000	290 00	822.77	0.30	0.73	0.00	18.55	50.00
3360.000	370.00	823.37	0.60	0.52	0.00	22.30	50.00
3380.000	160.00	822.16	0.00	0.42	0.00	14.35	20.00
3380.000	250.00	822.88	0.73	0.42	0.00	17.42	20.00
3380.000	290.00	823.17	0.29	0.41	0.00	19.22	20.00
3380.000	370.00	823.67	0.49	0.30	0.00	22.28	20.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	3400.000	160.00	822.44	0.00	0.29	0.00	13.85	20.00
	3400.000	250 00	823.16	0.71	0.27	0.00	15.99	20.00
	3400.000	290.00	823.44	0.28	0 27	0.00	17.76	20.00
	3400.000	370.00	823 92	0.48	0.26	0.00	20.78	20.00
	3410.000	160.00	822.50	0.00	0.06	0.00	7.50	10.00
	3410.000	250.00	823.22	0.72	0.07	0.00	7.50	10.00
	3410.000	290.00	823.51	0 29	0.07	0.00	7.50	10.00
*	3410.000	370.00	824.14	0.63	0.22	0.00	7.50	10.00
	3489.000	160.00	823.27	0.00	0.77	0.00	7 50	79.00
	3489.000	250.00	824.21	0.94	0.99	0.00	7.50	79.00
	3489.000	290.00	825.30	1 09	1.79	0.00	7.50	79.00
	3489.000	370.00	825.88	0.58	1.74	0.00	7.50	79.00
	3509.000	160.00	823.82	0.00	0.56	0.00	16.90	20.00
	3509.000	250.00	825.30	1.48	1.09	0.00	23 19	20.00
	3509.000	290.00	826.28	0.98	0.98	0.00	27 35	20.00
	3509.000	370.00	827.28	1.00	1.40	0 00	192 26	20.00
	3539.000	160.00	823.85	0.00	0.03	0.00	16.61	30.00
	3539.000	250 00	825 33	1.48	0.03	0.00	25.79	30.00
	3539.000	290.00	826.31	0.98	0.03	0.00	31.84	30.00
	3539.000	370.00	827.30	0.99	0.02	0 00	38 10	30.00
*	3700.000	160.00	824.42	0.00	0.56	0.00	13.31	161.00
	3700.000	250.00	825.48	1 07	0.15	0.00	16.77	161.00
	3700.000	290 00	826.39	0.91	0.08	0.00	22.45	161.00
	3700.000	370.00	827.36	0.97	0.06	0.00	28.49	161.00
	3800.000	160.00	826.08	0.00	1.66	0.00	15.19	100.00
	3800.000	250.00	826.58	0.50	1.10	0.00	18.02	100.00
	3800.000	290.00	827.01	0.43	0.62	0.00	20.70	100.00
	3800.000	370.00	827.79	0.78	0.43	0.00	25.54	100.00
	3900.000	160.00	826.79	0.00	0.71	0.00	14.43	100.00
	3900.000	250.00	827.47	0.68	0.89	0.00	17.31	100.00
	3900.000	290.00	827.81	0.34	0.80	0.00	19.44	100.00
	3900.000	370.00	828.43	0.62	0.64	0.00	23.29	100.00
	4070.000	160.00	828.09	0.00	1.30	0.00	21.07	170.00
	4070.000	250.00	828.88	0.79	1.41	0.00	23.48	170.00
	4070.000	290.00	829.16	0.28	1.35	0.00	24.35	170.00
	4070.000	370.00	829.64	0.48	1.21	0.00	25.81	170.00
	4120.000	160.00	828.26	0.00	0.16	0.00	7.50	50.00
*	4120.000	250.00	829.05	0.79	0 17	0.00	7.50	50.00
*	4120.000	290.00	829.39	0.34	0 22	0.00	7.50	50.00
*	4120.000	370.00	830.03	0.64	0.39	0.00	7.50	50.00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
4200 000	160. 00	829. 26	0. 00	1. 00	0. 00	16. 83	80. 00
4200. 000	250. 00	830. 20	0. 95	1. 16	0. 00	21. 74	80. 00
4200. 000	290. 00	830. 92	0. 72	1 54	0. 00	84. 64	80. 00
4200. 000	370. 00	832. 07	1. 15	2. 04	0. 00	283. 38	80. 00
4250. 000	160. 00	830. 06	0. 00	0. 80	0. 00	24. 62	50. 00
4250. 000	250. 00	831. 65	1. 60	1. 45	0. 00	295. 07	50. 00
4250. 000	290. 00	831. 14	-0. 52	0. 21	0. 00	119 76	50. 00
4250. 000	370. 00	832. 10	0. 96	0. 02	0. 00	377. 43	50. 00
4650. 000	160. 00	830. 21	0 00	0. 15	0. 00	78 84	400. 00
4650. 000	250. 00	831. 76	1. 55	0. 10	0. 00	124. 24	400. 00
4650. 000	290. 00	831. 41	-0. 35	0. 27	0. 00	114. 93	400. 00
4650. 000	370. 00	832. 21	0. 80	0. 11	0. 00	134. 96	400. 00
4750. 000	160. 00	831. 08	0. 00	0. 87	0 00	42. 18	100. 00
4750. 000	250. 00	831. 85	0. 77	0. 09	0. 00	54. 64	100. 00
4750. 000	290. 00	831. 63	-0. 22	0. 22	0. 00	51. 06	100. 00
4750. 000	370. 00	832. 30	0 68	0 10	0. 00	60. 91	100. 00
4850. 000	160 00	832. 02	0. 00	0. 94	0. 00	19. 31	100. 00
4850. 000	250. 00	832. 46	0. 44	0. 61	0. 00	20. 65	100. 00
4850. 000	290. 00	832. 60	0. 14	0. 97	0. 00	21. 08	100. 00
4850. 000	370. 00	832. 93	0. 33	0. 63	0. 00	22. 08	100. 00
5050. 000	160. 00	833. 64	0. 00	1. 62	0. 00	20. 28	200. 00
5050. 000	250. 00	834. 30	0. 66	1. 83	0. 00	22. 29	200. 00
5050. 000	290. 00	834. 57	0. 28	1. 97	0. 00	23 15	200. 00
5050. 000	370. 00	835. 03	0. 46	2. 10	0. 00	24. 53	200. 00
5250. 000	160. 00	834. 70	0. 00	1 06	0. 00	20. 46	200. 00
5250. 000	250. 00	835. 31	0. 62	1. 02	0. 00	22. 36	200. 00
5250. 000	290. 00	835. 56	0 24	0. 98	0. 00	23. 10	200. 00
5250. 000	370. 00	836. 00	0. 45	0. 97	0. 00	24. 48	200. 00
5350. 000	160. 00	835. 22	0. 00	0. 52	0. 00	20. 21	100. 00
5350. 000	250. 00	835. 84	0. 62	0. 52	0. 00	22. 09	100. 00
5350. 000	290. 00	836. 08	0 24	0. 52	0. 00	22. 85	100. 00
5350. 000	370. 00	836. 52	0. 44	0 52	0. 00	24. 20	100. 00
5399. 000	160. 00	835. 50	0. 00	0. 28	0. 00	18. 59	49. 00
5399. 000	250. 00	836. 10	0. 60	0. 27	0. 00	18. 75	49. 00
5399. 000	290. 00	836. 33	0. 22	0. 25	0. 00	18. 82	49. 00
5399. 000	370. 00	836. 71	0. 38	0 19	0. 00	18. 92	49. 00
5400. 000	160. 00	835. 50	0. 00	0. 00	0. 00	18. 59	1. 00
5400. 000	250. 00	836. 11	0. 60	0 00	0. 00	18. 75	1. 00
5400. 000	290. 00	836. 33	0. 22	0. 00	0. 00	18. 82	1. 00
5400. 000	370. 00	836. 71	0. 38	0 00	0. 00	18. 92	1. 00

SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
5592.000	160.00	835.85	0.00	0.35	0.00	18.68	192.00
5592.000	250.00	836.56	0.71	0 46	0.00	18.88	192.00
5592.000	290.00	836.84	0.27	0 51	0.00	18.95	192.00
5592.000	370.00	837.33	0.49	0.62	0 00	19.09	192.00
5593.000	160.00	835.87	0.00	0 01	0.00	18.69	1.00
5593.000	250.00	836.59	0 72	0.02	0.00	18.89	1.00
5593.000	290.00	836.87	0.28	0.03	0.00	18.96	1.00
5593.000	370.00	837.37	0.51	0 05	0.00	19.10	1.00
5642.000	160.00	835.94	0.00	0.07	0.00	20.87	49.00
5642.000	250.00	836.66	0 73	0.08	0.00	23.09	49 00
5642.000	290.00	836.94	0.28	0.08	0.00	23.95	49.00
5642.000	370 00	837.45	0.51	0.08	0.00	25.53	49.00
5900.000	160.00	836.71	0.00	0 78	0.00	19.28	258.00
5900.000	250.00	837.36	0 64	0.69	0.00	21.26	258.00
5900.000	290.00	837.61	0.26	0.67	0.00	22.04	258 00
5900.000	370.00	838.09	0.47	0.63	0.00	23.49	258.00
6000.000	160.00	837.21	0 00	0.49	0.00	19.27	100.00
6000.000	250.00	837.79	0.58	0.43	0.00	21.05	100.00
6000.000	290.00	838.03	0.24	0.41	0.00	21.78	100.00
6000.000	370.00	838.47	0.44	0.38	0.00	23.13	100.00
6200.000	160.00	839.12	0.00	1.91	0.00	14.17	300.00
6200.000	250.00	839.70	0.59	1.92	0.00	17.56	300.00
6200.000	290.00	839.91	0.21	1.89	0.00	20.32	300.00
6200.000	370.00	840.28	0.37	1.82	0.00	25.28	300.00
6300 000	160.00	840.01	0.00	0.89	0.00	15.38	100.00
6300.000	250 00	840.78	0.77	1 07	0.00	23.85	100.00
6300 000	290.00	841.07	0.29	1.16	0.00	27.76	100.00
6300.000	370.00	841.61	0.54	1.33	0.00	34.94	100.00
6500 000	160.00	841.24	0.00	1.23	0.00	17.89	200.00
6500.000	250.00	841.97	0.73	1.20	0.00	21.41	200.00
6500.000	290.00	842.22	0.25	1.15	0.00	22.61	200.00
6500.000	370.00	842.59	0.37	0.98	0.00	24.66	200.00
6600.000	160.00	841.61	0.00	0 37	0.00	14.00	100.00
6600.000	250.00	842.34	0.73	0.36	0 00	14.00	100.00
6600.000	290.00	842.60	0.27	0.38	0.00	14.00	100.00
6600.000	370.00	843.03	0.43	0.43	0.00	14.00	100.00
6662.000	160.00	841.81	0.00	0.21	0.00	14.00	62.00
6662.000	250.00	842.77	0.96	0.44	0.00	14.00	62.00
6662.000	290.00	843.30	0.53	0.70	0.00	14.00	62 00
6662.000	370.00	844.38	1.08	1.35	0.00	14.00	62.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	6712.000	160.00	842.05	0 00	0.24	0.00	21.75	50.00
	6712.000	250.00	843.11	1.06	0.33	0.00	28.83	50.00
	6712.000	290.00	843.65	0.55	0.35	0.00	33 44	50.00
	6712.000	370.00	844.78	1.13	0.40	0.00	85.92	50.00
	6899.000	160.00	842.31	0.00	0 26	0.00	19.38	187.00
	6899.000	250.00	843.29	0.99	0 19	0.00	21.34	187.00
	6899.000	290.00	843.79	0.50	0.14	0.00	22 34	187.00
	6899.000	370.00	844.85	1.05	0.06	0.00	24.43	187.00
	6900.000	160.00	842.27	0.00	-0.04	0.00	19.30	1.00
	6900.000	250.00	843.22	0.96	-0.07	0.00	21 21	1.00
	6900.000	290.00	843.71	0.49	-0.08	0.00	22 18	1.00
	6900.000	370.00	844.74	1.03	-0.10	0.00	24.23	1.00
	7128.000	160.00	842.72	0.00	0.45	0.00	20.20	228.00
	7128.000	250.00	843.71	0.99	0.49	0.00	22.16	228.00
	7128.000	290.00	844.18	0.47	0.47	0.00	23.11	228.00
	7128.000	370.00	845.48	1.30	0.74	0 00	25 70	228.00
	7129.000	160.00	842.81	0.00	0.10	0.00	20.39	1.00
	7129.000	250.00	843 88	1.07	0.17	0.00	22.51	1.00
	7129.000	290.00	844.37	0.49	0.19	0.00	23.50	1.00
	7129.000	370.00	845.85	1.48	0.37	0.00	26 44	1.00
	7259.000	140.00	842 92	0.00	0.11	0.00	24.93	130.00
	7259.000	210.00	844.01	1.09	0.13	0.00	47.44	130.00
	7259.000	240.00	844.52	0.51	0.15	0.00	59.26	130.00
	7259.000	300.00	845.99	1.47	0.14	0.00	102.86	130.00
	7295.000	140.00	843.11	0.00	0.19	0.00	16.00	36.00
	7295.000	210.00	844.08	0.97	0.06	0.00	16.00	36.00
	7295.000	240.00	844.55	0.47	0.02	0.00	16.00	36.00
	7295.000	300.00	846.00	1.46	0.01	0.00	16.00	36.00
*	7362.000	140.00	855.43	0.00	12.32	0.00	16.00	67.00
*	7362 000	210.00	855.84	0.41	11.77	0.00	16.00	67.00
*	7362.000	240.00	856.01	0.16	11.46	0.00	16 00	67.00
*	7362.000	300.00	856.32	0.31	10.31	0.00	16.00	67.00
	7462.000	140.00	856.44	0.00	1.01	0.00	150.87	100.00
	7462.000	210.00	857.16	0.73	1.32	0.00	159.75	100.00
	7462.000	240.00	857.45	0.29	1.44	0.00	163.24	100.00
	7462.000	300.00	857.98	0.53	1.66	0.00	169.78	100.00
	7962.000	140.00	856 44	0 00	0.00	0.00	124.39	500.00
	7962.000	210.00	857.16	0.73	0.00	0.00	131.64	500.00
	7962.000	240.00	857.45	0.29	0.00	0.00	134.49	500.00
	7962.000	300.00	857.98	0.53	0.00	0.00	139.83	500.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
*	8629.000	140.00	861 84	0.00	5 40	0.00	163.00	667.00
*	8629.000	210.00	862.21	0.37	5.05	0.00	167.62	667.00
*	8629.000	240 00	862.38	0.17	4 93	0.00	169.75	667 00
*	8629.000	300.00	862.71	0 33	4.73	0.00	173.87	667.00
*	8899.000	140.00	861.84	0.00	0.00	0.00	233.00	270.00
*	8899.000	210 00	862.21	0.37	0.00	0.00	237.62	270.00
*	8899.000	240.00	862.38	0.17	0.00	0.00	239.75	270 00
*	8899.000	300.00	862.71	0.33	0.00	0.00	243.87	270.00
*	9541.000	140.00	863.96	0.00	2.12	0.00	239.60	642.00
*	9541.000	210.00	864.46	0.50	2.25	0.00	245.17	642.00
*	9541.000	240.00	864.68	0.22	2.30	0.00	247.65	642.00
*	9541.000	300.00	865.09	0.41	2.38	0.00	252.26	642.00
*	9771.000	140.00	863 96	0.00	0.00	0.00	239.60	230.00
*	9771.000	210.00	864.46	0 50	0.00	0.00	245.17	230.00
*	9771.000	240.00	864.68	0.22	0.00	0.00	247.65	230.00
*	9771.000	300.00	865.09	0.41	0.00	0.00	252.26	230.00
*	10481.000	140 00	865.92	0.00	1.96	0.00	81.80	710.00
*	10481.000	210.00	866.41	0.49	1.95	0.00	86.09	710.00
*	10481.000	240.00	866.64	0.23	1.96	0.00	88.10	710.00
*	10481.000	300.00	867.08	0.44	1.99	0.00	91.95	710.00
*	10881.000	140.00	865.92	0.00	0.00	0.00	116.60	400.00
*	10881.000	210.00	866 41	0.49	0.00	0.00	122.11	400.00
*	10881.000	240.00	866.64	0.23	0.00	0.00	124.70	400.00
*	10881.000	300.00	867.08	0.44	0.00	0.00	129.65	400.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION   SECNO=   3410.000   PROFILE= 4   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   3410.000   PROFILE= 4   MINIMUM SPECIFIC ENERGY

CAUTION   SECNO=   3700.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   3700.000   PROFILE= 1   MINIMUM SPECIFIC ENERGY

CAUTION   SECNO=   4120 000   PROFILE= 2   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   4120 000   PROFILE= 2   MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=   4120.000   PROFILE= 3   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   4120.000   PROFILE= 3   MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=   4120.000   PROFILE= 4   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   4120.000   PROFILE= 4   MINIMUM SPECIFIC ENERGY

CAUTION   SECNO=   7362.000   PROFILE= 1   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   7362.000   PROFILE= 1   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=   7362.000   PROFILE= 1   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=   7362.000   PROFILE= 2   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   7362.000   PROFILE= 2   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=   7362.000   PROFILE= 2   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=   7362.000   PROFILE= 3   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   7362.000   PROFILE= 3   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=   7362.000   PROFILE= 3   20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION   SECNO=   7362.000   PROFILE= 4   CRITICAL DEPTH ASSUMED
CAUTION   SECNO=   7362.000   PROFILE= 4   PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION   SECNO=   7362.000   PROFILE= 4   20 TRIALS ATTEMPTED TO BALANCE WSEL

NOTE      SECNO=   8629.000   PROFILE= 1   WSEL BASED ON X5 CARD
NOTE      SECNO=   8629.000   PROFILE= 2   WSEL BASED ON X5 CARD
NOTE      SECNO=   8629.000   PROFILE= 3   WSEL BASED ON X5 CARD
NOTE      SECNO=   8629.000   PROFILE= 4   WSEL BASED ON X5 CARD

NOTE      SECNO=   8899.000   PROFILE= 1   WSEL BASED ON X5 CARD
NOTE      SECNO=   8899.000   PROFILE= 2   WSEL BASED ON X5 CARD
NOTE      SECNO=   8899.000   PROFILE= 3   WSEL BASED ON X5 CARD
NOTE      SECNO=   8899.000   PROFILE= 4   WSEL BASED ON X5 CARD

NOTE      SECNO=   9541.000   PROFILE= 1   WSEL BASED ON X5 CARD
NOTE      SECNO=   9541.000   PROFILE= 2   WSEL BASED ON X5 CARD
NOTE      SECNO=   9541.000   PROFILE= 3   WSEL BASED ON X5 CARD
NOTE      SECNO=   9541.000   PROFILE= 4   WSEL BASED ON X5 CARD

NOTE      SECNO=   9771.000   PROFILE= 1   WSEL BASED ON X5 CARD
NOTE      SECNO=   9771.000   PROFILE= 2   WSEL BASED ON X5 CARD
NOTE      SECNO=   9771.000   PROFILE= 3   WSEL BASED ON X5 CARD
NOTE      SECNO=   9771.000   PROFILE= 4   WSEL BASED ON X5 CARD

NOTE      SECNO=  10481.000   PROFILE= 1   WSEL BASED ON X5 CARD
NOTE      SECNO=  10481.000   PROFILE= 2   WSEL BASED ON X5 CARD
NOTE      SECNO=  10481.000   PROFILE= 3   WSEL BASED ON X5 CARD
NOTE      SECNO=  10481.000   PROFILE= 4   WSEL BASED ON X5 CARD
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NOTE      SECNO= 10881.000  PROFILE= 1  WSEL BASED ON X5 CARD
NOTE      SECNO= 10881.000  PROFILE= 2  WSEL BASED ON X5 CARD
NOTE      SECNO= 10881.000  PROFILE= 3  WSEL BASED ON X5 CARD
NOTE      SECNO= 10881.000  PROFILE= 4  WSEL BASED ON X5 CARD
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WEST BRANCH PAAD
ENCROACHMENT RUN
INPUT: WESTENC OUTPUT: WESTENCO

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EEEEEE   EEEEEE   K   K    OOOO    BBBBB    Y    Y   L       IIIII   N    N    SSSS    K   K
E        E        K  K    O    O   B    B    Y  Y    L         I     NN   N   S        K  K
E        E        K K     O    O   BBBBB      YY     L         I     N N  N    SSSS    K K
EEEE     EEEE     KKK     O    O   B    B     Y      L         I     N  N N        S   KKK
E        E        K  K    O    O   B    B    Y       L         I     N   NN   S    S   K  K
EEEEEE   EEEEEE   K   K    OOOO    BBBBB    Y       LLLLLL   IIIII   N    N    SSSS    K   K
```

USACOE DETROIT H800 VOS 5.1.1 PRINTER: 6

EE KOBYLINSK 3 NOV 88 14:25:03

TERMINAL: 105

THIS RUN EXECUTED 3 NOV 88 11:23.59

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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
**************************************************

C
T1         CITY OF ANN ARBOR FIS RESTUDY
T2         WEST BRANCH PAAD
T3        100-YEAR FLOOD
```

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	0.000000	0.00	0.0	0	813.650	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
QT	2.000	290.000	290.000	0 000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.060	0.060	0.045	0 300	0 500	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
	CROSS SECTION A									
X1	360.000	16.000	123.000	173.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	817.800	0.000	817.600	23.000	816.900	48.000	816.100	73.000	816.900	98 000
GR	816.900	113.000	816.000	123.000	809 500	145.500	809 500	152.000	809.700	160.000
GR	812.600	173.000	815.100	193.000	815.500	198.000	814.800	223.000	811.600	248.000
GR	809.900	253.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	129.000	162.000	0.000	0.000	0.000	0.000	0.000
X1	1050.000	0.000	0.000	0.000	690.000	690.000	690.000	0.000	0.000	0.000
NC	0.000	0.000	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	245.600	254.400	0.000	0.000	0.000	0.000	0.000
X1	1099.000	32.000	230.000	275.000	49.000	49.000	49.000	0.000	0 000	0 000
GR	818.000	0.000	818 100	25.000	818.300	50.000	818.400	75.000	818.400	100.000
GR	818.400	125 000	818.300	150.000	818.200	175.000	818.100	200.000	818.000	225.000
GR	817.900	230.000	812.400	238.000	812 400	245.600	811.100	246.000	810.100	247 000
GR	809.700	248.000	809.600	250.000	809.700	252.000	810.100	253.000	811.100	254.000
GR	812.400	254.400	812.400	261.500	817.600	275.000	817.500	300.000	817.500	325.000
GR	817.300	350.000	817.100	375.000	817.100	400.000	816.900	425.000	816.800	450.000
GR	816.700	475.000	816.600	500.000	0.000	0.000	0.000	0.000	0.000	0.000

ET	0.000	4.100	4.100	245.600	254.400	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF VARSITY DR.									
X1	1100.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	30.000	0.000	818.000	0 000	25.000	818.100	0.000	50.000	818.300	0.000
BT	75.000	818.400	0.000	100.000	818.400	0.000	125.000	818.400	0.000	150 000
BT	818.300	0.000	175.000	818.200	0.000	200.000	818.100	0.000	225.000	818 000
BT	0.000	230.000	817 900	0.000	245.600	817.500	812.400	246.000	817.400	813.700
BT	247 000	817.400	814.600	248.000	817.400	814.900	250.000	817.400	815.100	252.000
BT	817.400	814.900	253.000	817.400	814.600	254.000	817 400	813.700	254.400	817.400
BT	812.400	275.000	817.600	0 000	300.000	817.500	0.000	325.000	817.500	0 000
BT	350.000	817.300	0.000	375.000	817.100	0.000	400.000	817.100	0.000	425.000
BT	816.900	0.000	450.000	816.800	0.000	475.000	816.700	0.000	500.000	816.600
BT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	245.600	254.400	0 000	0.000	0.000	0.000	0.000
	U/S FACE OF VARSITY DR.									
X1	1167.000	0.000	0.000	0.000	67.000	67.000	67.000	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
ET	0.000	4.100	4.100	245.600	254 400	0.000	0.000	0.000	0.000	0.000
X1	1168.000	0.000	0.000	0.000	1 000	1.000	1.000	0.000	0.000	0.000
ET	0.000	0 000	4.100	260.000	290 000	0.000	0.000	0.000	0.000	0.000
X1	1181.000	30.000	250.000	304.000	13.000	13.000	13.000	0.000	0.000	0.000
GR	819.900	0.000	819.700	25 000	819.600	50.000	819.300	75.000	819.200	100.000
GR	818.800	125.000	818.500	150.000	817.800	175.000	818.000	200 000	819.100	225.000
GR	819.200	242.000	819.700	242.300	820.700	250.000	811.800	269.000	811.200	273.000
GR	810.400	278.000	811.200	283.000	817.900	300.000	819.700	304.000	820.100	325.000
GR	819.900	350.000	819.900	375.000	820.100	400.000	820.300	425.000	819.900	450.000
GR	819 700	475.000	819.300	500.000	818.800	525.000	818.300	550.000	818.300	600.000
ET	0.000	0.000	4.100	260.000	290.000	0.000	0.000	0.000	0.000	0.000
X1	1194.000	0.000	0.000	0.000	13.000	13 000	13.000	0.000	0.000	0.000
ET	0.000	0.000	4.100	260.000	290.000	0.000	0.000	0.000	0.000	0.000
X1	1217 000	0.000	0.000	0.000	23.000	23.000	23.000	0.000	0.000	0.000
NC	0.000	0.000	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
ET	0.000	0.000	4.100	260.000	290.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION B									
X1	1480.000	0.000	0.000	0.000	263.000	263.000	263.000	0.000	0.000	0.000
ET	0.000	0 000	4 100	260.000	290.000	0.000	0.000	0.000	0.000	0.000
X1	1700.000	0.000	0.000	0.000	220.000	220.000	220.000	0.000	0.200	0.000
NC	0.060	0.060	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	245.600	254.400	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF PHOENIX DR.									
X1	1750.000	33.000	223.000	274.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	820.800	0.000	820.800	25.000	821.000	50 000	821.100	75.000	821.200	100.000
GR	821.100	125 000	821.100	150.000	821.000	175.000	820.900	200.000	820.800	223.000
GR	813.400	240.500	813.400	245.600	812.000	246.000	811.100	247.000	810.800	248.000
GR	810.700	249.000	810.600	250.000	810.700	251.000	810.800	252 000	811.100	253.000

GR	812.000	254.000	813.400	254 400	813.400	260.500	820.500	274.000	820.500	300.000
GR	820.300	325.000	820 300	350.000	820.200	375.000	820.100	400.000	820.000	425.000
GR	819.800	450.000	819.700	475.000	819.600	500.000	0.000	0.000	0.000	0.000
SB	0.000	1.660	2.900	0.000	7.100	0.000	40.000	0.000	810.600	810.600
ET	0.000	4.100	4.100	245 600	254.400	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF PHOENIX DR.									
X1	1817.000	0.000	0.000	0.000	67.000	67.000	67.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	816.200	820.700	0.000	0.000	0.000	0.000	0.000
BT	33.000	0.000	820.800	0.000	25.000	820.800	0.000	50.000	821.000	0.000
BT	75.000	821.100	0.000	100.000	821.200	0.000	125.000	821.100	0.000	150.000
BT	821.100	0.000	175.000	821.000	0.000	200.000	820.900	0.000	223.000	820.800
BT	0.000	240.500	820.700	813.400	245.600	820.700	813.400	246.000	820.700	815.700
BT	247.000	820 700	815.700	248.000	820.700	816.000	249.000	820.700	816.100	250.000
BT	820.700	816.200	251.000	820.700	816.100	252.000	820.700	816.000	253.000	820.700
BT	815.700	254 000	820.700	814.900	254.400	820.700	813.400	260.500	820.600	813.400
BT	274.000	820 500	0.000	300.000	820.500	0.000	325.000	820.300	0.000	350.000
BT	820.300	0.000	375.000	820.200	0.000	400.000	820.100	0.000	425.000	820.000
BT	0.000	450.000	819.800	0.000	475.000	819.700	0.000	500.000	819.600	0.000
NC	0.000	0.000	0.045	0.300	0.500	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	1867.000	30.000	250.000	304.000	50.000	50.000	50.000	0.000	0.500	0 000
GR	819 900	0.000	819.700	25.000	819.600	50.000	819.300	75 000	819.200	100.000
GR	818.800	125 000	818.500	150.000	817.800	175.000	818.000	200 000	819.100	225.000
GR	819.200	242.000	819.700	242.300	820 700	250.000	811 800	269.000	811.200	273.000
GR	810 400	278 000	811.200	283.000	817.900	300.000	819.700	304.000	820.100	325.000
GR	819.900	350.000	819.900	375 000	820.100	400.000	820.300	425.000	819.900	450.000
GR	819.700	475.000	819.300	500.000	818.800	525.000	818.300	550.000	818.300	600.000
X1	2000 000	0.000	0.000	0 000	133.000	133.000	133.000	0.000	0.800	0.000
X1	2300 000	0.000	0.000	0.000	300.000	300.000	300.000	0.000	1.800	0.000
X1	2610.000	30.000	250.000	304.000	310.000	310.000	310.000	0.000	5.000	0.000
GR	819.900	0.000	819.700	25 000	819.600	50.000	819.300	75.000	819.200	100.000
GR	818.800	125.000	818.500	150.000	817.800	175.000	818.000	200.000	819.100	225 000
GR	819.200	242.000	819.700	242.300	820.700	250.000	811 800	269 000	811.200	273.000
GR	810.400	278.000	811.200	283.000	817.900	300.000	819.700	304.000	820.100	325.000
GR	819 900	350.000	819.900	375.000	820.100	400.000	820.300	425.000	819.900	450.000
GR	819.700	475.000	819.300	500.000	818.800	525.000	818.300	550.000	818.300	600.000
X1	2626 000	0.000	0.000	0.000	16.000	16 000	16.000	0 000	0.100	0.000
X1	2642.000	0.000	0.000	0.000	16.000	16.000	16.000	0.000	0.100	0.000
ET	0.000	4.100	4.100	246.300	274.000	0 000	0.000	0.000	0.000	0.000
X1	2659.000	42.000	240.000	280.000	17.000	17.000	17.000	0.000	0.000	0 000
GR	831.300	0.000	831.200	25.000	831.100	50.000	830.900	75.000	830.900	100.000
GR	830.800	125.000	830.700	150.000	830.600	175.000	830.500	200.000	830.500	225.000
GR	830.400	240.000	818.500	245.000	818.500	246.300	817.600	246.500	816.900	247.000
GR	816.300	248 000	816 200	249.000	816.100	250.000	816.200	251.000	816.300	252.000
GR	816.900	253.000	817.600	253.500	818.500	253.700	818.700	268.000	816.500	269.000
GR	815.900	270.000	815.700	271.000	815.900	272 000	816.500	273.000	818.700	274.000

GR	818 700	275.000	830.400	280.000	830.400	300 000	830 300	325.000	830.200	350.000
GR	830.100	375.000	830.000	400.000	829.900	425.000	829 800	450.000	829.700	475.000
GR	829.700	500.000	829.600	525 000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	246.300	274.000	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF D.T.&I.RR									
X1	2660.000	0 000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	42.000	0 000	831.300	0 000	25.000	831.200	0 000	50.000	831.100	0.000
BT	75.000	830.900	0.000	100.000	830.900	0 000	125.000	830.800	0.000	150.000
BT	830.700	0.000	175.000	830.600	0.000	200.000	830.500	0.000	225.000	830.500
BT	0.000	240.000	830.400	0.000	245.000	830.400	818.500	246 300	830.400	818.500
BT	246 500	830.400	819.700	247 000	830.400	820.100	248.000	830.400	820.600	249.000
BT	830.400	820.800	250.000	830.400	820.900	251.000	830.400	820.800	252.000	830.400
BT	820.600	253.000	830.400	820.100	253.500	830.400	819.700	253.700	830.400	818.500
BT	268.000	830.400	818.700	269.000	830.400	821.000	270.000	830.400	821.500	271.000
BT	830.400	821.700	272.000	830.400	821.500	273.000	830.400	821.000	274.000	830.400
BT	818.700	275.000	830.400	818.700	280.000	830.400	0.000	300 000	830.400	0.000
BT	325.000	830.300	0.000	350 000	830.200	0.000	375.000	830 100	0.000	400.000
BT	830 000	0.000	425.000	829.900	0.000	450.000	829.800	0.000	475.000	829.700
BT	0.000	500.000	829.700	0.000	525.000	829.600	0.000	0.000	0.000	0.000
ET	0.000	4.100	4.100	246.300	274.000	0.000	0.000	0.000	0 000	0.000
	U/S FACE OF D.T.&I RR.									
X1	3061.000	0.000	0.000	0.000	401.000	401.000	401.000	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
ET	0.000	4.100	4.100	246.300	274.000	0.000	0.000	0.000	0.000	0.000
X1	3062.000	0 000	0.000	0.000	1.000	1.000	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	3111 000	15.000	31.000	86.000	49.000	49.000	49.000	0.000	0.000	0.000
GR	828.100	0.000	826.100	19.000	826.600	31.000	819 400	54.000	817.300	58.000
GR	816.800	63.000	815.900	65.000	817.300	68.000	819.600	69.000	825.200	86.000
GR	826.200	100.000	826.300	106.000	826.500	131.000	826.600	156.000	826.800	165.000
NC	0.050	0.050	0.045	0.300	0.500	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION C									
X1	3210.000	0.000	0.000	0.000	99.000	99.000	99 000	0.000	0.000	0.000
X1	3260 000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.900	0.000
X1	3310.000	0.000	0.000	0.000	50.000	50.000	50 000	0.000	0.900	0 000
X1	3360.000	0.000	0.000	0.000	50.000	50.000	50.000	0.000	0.900	0.000
X1	3380.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	0.300	0.000
X1	3400.000	0.000	0.000	0.000	20.000	20.000	20.000	0.000	0.500	0.000

NC	0.035	0.035	0 013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0.000	4 100	4 100	246.200	253.700	0 000	0 000	0.000	0.000	0.000
	D/S FACE OF RESEARCH PKWY									
X1	3410.000	33.000	235.000	265.000	10 000	10.000	10.000	0.000	0.000	0.000
GR	827 900	0.000	827 700	25.000	827.500	50.000	827 300	75.000	827.200	100.000
GR	827.000	125 000	826.800	150.000	826.700	175.000	826.500	200.000	826.600	225.000
GR	826.600	235.000	821.900	245.000	821.900	246.200	821.000	246.500	820.100	247.000
GR	819.700	248.000	819.500	250.000	819.700	252.000	820 100	253.000	821.000	253.500
GR	821.900	253.700	821.900	255.000	826.600	265.000	826.800	275.000	826.900	300.000
GR	827.000	325 000	827.200	350.000	827.300	375.000	827 400	400.000	827.500	425.000
GR	827.500	450.000	827.400	475.000	827.300	500.000	0.000	0.000	0.000	0.000
SB	0.000	1.730	2.900	0.000	6.300	0.000	29.500	0.000	819 500	819.500
ET	0.000	4.100	4.100	246.200	253.700	0 000	0.000	0.000	0 000	0.000
	U/S FACE OF RESEARCH PKWY									
X1	3489.000	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	824 200	826.600	0.000	0.000	0.000	0.000	0.000
BT	33.000	0.000	827.900	0.000	25.000	827.700	0.000	50.000	827.500	0.000
BT	75.000	827.300	0.000	100.000	827.200	0.000	125 000	827.000	0.000	150.000
BT	826.800	0.000	175.000	826.700	0.000	200.000	826.500	0.000	225.000	826.600
BT	0.000	235 000	826.600	0.000	245.000	826.600	821.900	246.200	826.600	821.900
BT	246.500	826.600	823.000	247.000	826 600	823.700	248.000	826.600	824.100	250.000
BT	826.600	824.200	252.000	826.600	824.100	253 000	826.600	823.700	253.500	826.600
BT	823.000	253.700	826.600	821.900	255.000	826.600	821.900	265.000	826.600	0.000
BT	275.000	826.800	0.000	300.000	826.900	0.000	325.000	827.000	0.000	350 000
BT	827.200	0.000	375.000	827.300	0.000	400.000	827.400	0.000	425.000	827.500
BT	0.000	450.000	827.500	0.000	475.000	827.400	0.000	500.000	827.300	0.000
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	3509.000	0.000	0.000	0.000	20 000	20.000	20.000	0.000	0.300	0.000
X1	3539.000	15.000	31.000	86.000	30.000	30 000	30.000	0.000	4.100	0.000
GR	828.100	0.000	826.100	19.000	826.600	31 000	819.400	54.000	817.300	58.000
GR	816.800	63.000	815.900	65.000	817.300	68.000	819.600	69.000	825.200	86.000
GR	826.200	100.000	826.300	106.000	826.500	131 000	826.600	156.000	826.800	165.000
NC	0.035	0.035	0.035	0.500	1.000	0.000	0.000	0.000	0.000	0.000
X1	3700.000	0.000	0.000	0.000	161.000	161.000	161.000	0.000	1.600	0.000
X1	3800.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.900	0.000
X1	3900.000	0.000	0.000	0.000	100 000	100.000	100.000	0.000	1 000	0.000
ET	0.000	4.100	0 000	250.000	281.000	0.000	0.000	0.000	0.000	0.000
X1	4070.000	27.000	250.000	281.000	170.000	170.000	170.000	0.000	-3.700	0.000
GR	837.200	0.000	837.000	25.000	836 800	50.000	836.600	75.000	836.400	100.000
GR	836.200	125.000	836.000	150.000	835.900	175.000	835.600	200.000	835.400	227.000
GR	834.700	250.000	829.600	258.000	828.700	264.000	830.100	271.000	830.700	274.000
GR	835.400	281.000	835.200	300.000	834.800	325.000	834.800	350 000	834.900	375.000
GR	834.000	400 000	834.200	425 000	834.000	450 000	834.000	475.000	834.100	500.000
GR	834.000	600.000	834.200	650.000	0.000	0.000	0.000	0.000	0.000	0.000

NC	0.000	0.000	0.013	0.500	1.000	0.000	0.000	0.000	0.000	0.000
ET	0 000	4.100	4.100	246.200	253.700	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF RESEARCH PKWY									
X1	4120.000	35.000	235.000	265.000	50.000	50.000	50 000	0.000	0.000	0.000
GR	831.200	0.000	831.100	25.000	831.000	50.000	830.900	75.000	830.900	100.000
GR	830.900	125.000	831.000	150.000	831.200	175.000	831.400	200.000	831.700	225.000
GR	831.800	235.000	827.900	245.200	827.900	246.200	826.500	246.500	826.000	247.000
GR	825.600	248.000	825.500	249.000	825 500	250.000	825.500	251.000	825.600	252 000
GR	826.000	253.000	826 500	253.500	827.900	253.700	827.900	255.000	831.800	265.000
GR	832.000	275.000	832 200	300.000	832.300	325.000	832.400	350.000	832.600	375 000
GR	832.700	400.000	832.700	425.000	832.700	450.000	832.700	475.000	832.500	500 000
SB	0.000	1.730	2.900	0.000	6.250	0.000	30.000	0.000	825.500	825.500
ET	0.000	0.000	1.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF RESEARCH PKWY									
X1	4200.000	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	830.300	831.800	0.000	0.000	0.000	0.000	0.000
BT	35.000	0.000	831.200	0.000	25.000	831.100	0.000	50.000	831.000	0.000
BT	75.000	830.900	0.000	100.000	830.900	0.000	125.000	830.900	0.000	150.000
BT	831.000	0.000	175.000	831.200	0.000	200.000	831.400	0.000	225.000	831.700
BT	0.000	235.000	831.800	0.000	245.200	831.800	827.900	246.200	831.800	827.900
BT	246.500	831.800	829 200	247.000	831.800	829.700	248.000	831.800	830.200	249.000
BT	831.800	830.300	250.000	831.800	830.300	251.000	831.800	830.300	252.000	831 800
BT	830.200	253.000	831.800	829.700	253.500	831 800	829.200	253 700	831.800	827.900
BT	255.000	831.800	827.900	265.000	831.800	0.000	275.000	832.000	0.000	300.000
BT	832.200	0.000	325.000	832.300	0.000	350.000	832.400	0.000	375.000	832 600
BT	0.000	400.000	832.700	0.000	425.000	832.700	0.000	450.000	832.700	0.000
BT	475.000	832.700	0.000	500.000	832.500	0.000	0.000	0.000	0 000	0.000
X1	4250.000	27 000	250.000	281.000	50.000	50.000	50.000	0.000	-2.900	0.000
GR	837.200	0.000	837.000	25.000	836.800	50.000	836.600	75.000	836.400	100.000
GR	836 200	125.000	836.000	150.000	835.900	175.000	835.600	200.000	835.400	227.000
GR	834.700	250.000	829.600	258.000	828.700	264.000	830.100	271.000	830.700	274.000
GR	835.400	281.000	835.200	300.000	834.800	325.000	834.800	350.000	834.900	375.000
GR	834.000	400.000	834.200	425.000	834.000	450.000	834.000	475.000	834.100	500.000
GR	834.000	600.000	834.200	650.000	0.000	0.000	0.000	0 000	0.000	0.000
NC	0.040	0.040	0.035	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION D									
X1	4650.000	29.000	250.000	281.000	400.000	400.000	400.000	0.000	0.000	0.000
GR	837.200	0.000	837.000	25.000	836.800	50.000	836.600	75.000	836.400	100.000
GR	836.200	125.000	836.000	150.000	835.900	175.000	835.600	200.000	835.400	227.000
GR	834.700	250.000	829.600	258.000	828.700	264.000	830.100	271.000	830.700	274.000
GR	835.400	281.000	835.200	300.000	834.800	325.000	834.800	350.000	834.900	375.000
GR	834.000	400.000	834.200	425.000	834.000	450.000	831 600	475 000	829.700	500.000
GR	829.200	525.000	829.600	550.000	831.600	575.000	834 000	600.000	0.000	0.000
ET	0.000	4.100	0.000	250.000	510.000	0.000	0.000	0.000	0.000	0 000
X1	4750.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.300	0.000

X1	4850 000	27. 000	250. 000	281. 000	100. 000	100. 000	100. 000	0. 000	0. 800	0. 000
GR	837. 200	0. 000	837. 000	25. 000	836. 800	50. 000	836. 600	75 000	836. 400	100. 000
GR	836. 200	125. 000	836. 000	150. 000	835. 900	175. 000	835. 600	200. 000	835 400	227. 000
GR	834 700	250. 000	829 600	258. 000	828. 700	264. 000	830. 100	271 000	830. 700	274. 000
GR	835 400	281. 000	835 200	300. 000	834. 800	325. 000	834. 800	350. 000	834. 900	375. 000
GR	834. 000	400. 000	834. 200	425. 000	834. 000	450 000	834. 000	475. 000	834. 100	500 000
GR	834. 000	600. 000	834. 200	650. 000	0. 000	0. 000	0. 000	0. 000	0. 000	0. 000
X1	5050 000	0 000	0. 000	0. 000	200. 000	200. 000	200. 000	0. 000	1. 300	0. 000
X1	5250. 000	0. 000	0. 000	0. 000	200. 000	200. 000	200. 000	0. 000	1. 000	0. 000
X1	5350. 000	27. 000	250 000	281 000	100. 000	100. 000	100. 000	0. 000	3. 700	0. 000
GR	837 200	0. 000	837. 000	25. 000	836. 800	50. 000	836. 600	75. 000	836. 400	100. 000
GR	836. 200	125. 000	836. 000	150. 000	835. 900	175. 000	835. 600	200. 000	835. 400	227. 000
GR	834. 700	250. 000	829. 600	258 000	828. 700	264. 000	830. 100	271. 000	830. 700	274. 000
GR	835. 400	281. 000	835. 200	300. 000	834. 800	325. 000	834. 800	350. 000	834. 900	375. 000
GR	834. 000	400. 000	834. 200	425. 000	834. 000	450. 000	834. 000	475. 000	834. 100	500. 000
GR	834. 000	600. 000	834. 200	650. 000	0 000	0. 000	0. 000	0. 000	0. 000	0. 000
NC	0. 035	0. 035	0. 025	0. 500	1. 000	0. 000	0. 000	0 000	0. 000	0. 000
X1	5399. 000	28. 000	248. 000	270. 000	49 000	49. 000	49. 000	0. 000	0. 000	0. 000
GR	855. 600	0. 000	854. 600	25. 000	853. 600	50. 000	852 800	75. 000	852. 800	100. 000
GR	852 100	125. 000	851. 500	150. 000	850. 600	175. 000	849. 800	200. 000	848. 700	225. 000
GR	848. 200	248. 000	834. 000	250. 000	833. 500	255. 000	833. 000	260. 000	832. 600	265. 000
GR	832. 700	268. 000	847. 600	270. 000	847. 500	275. 000	847. 100	300. 000	846. 600	325. 000
GR	846. 000	350. 000	845. 400	375. 000	844. 900	400. 000	844. 500	425. 000	844. 100	450. 000
GR	843. 500	475. 000	843. 300	500. 000	843. 000	525. 000	0. 000	0. 000	0. 000	0. 000
	D/S FACE OF STATE ST.									
X1	5400. 000	0. 000	0. 000	0. 000	1. 000	1. 000	1. 000	0. 000	0. 000	0. 000
BT	27. 000	0. 000	855. 600	0. 000	25. 000	854. 600	0. 000	50. 000	853. 600	0. 000
BT	75. 000	852. 800	0. 000	100. 000	852. 800	0. 000	125. 000	852. 100	0. 000	150. 000
BT	851. 500	0. 000	175. 000	850. 600	0. 000	200. 000	849. 800	0. 000	225. 000	848. 700
BT	0. 000	248. 000	848. 200	0. 000	250. 000	848. 200	834. 000	250. 000	848. 200	838 800
BT	268. 000	847. 700	838. 000	268. 000	848. 700	832. 700	270. 000	847. 600	0. 000	275. 000
BT	847. 500	0. 000	300. 000	847. 100	0. 000	325. 000	846. 600	0. 000	350. 000	846. 000
BT	0 000	375. 000	845. 400	0. 000	400. 000	844. 900	0. 000	425. 000	844. 500	0. 000
BT	450. 000	844. 100	0. 000	475. 000	843. 500	0. 000	500. 000	843. 300	0. 000	525. 000
BT	843 000	0. 000	0. 000	0. 000	0. 000	0. 000	0. 000	0. 000	0. 000	0. 000
	U/S FACE OF STATE ST.									
X1	5592. 000	0. 000	0 000	0. 000	192. 000	192. 000	192. 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	5593. 000	0. 000	0. 000	0. 000	1. 000	1. 000	1. 000	0. 000	0 000	0. 000
X1	5642. 000	27. 000	250. 000	281. 000	49. 000	49. 000	49. 000	0. 000	4. 200	0. 000
GR	837. 200	0. 000	837. 000	25. 000	836. 800	50. 000	836. 600	75 000	836. 400	100. 000
GR	836. 200	125. 000	836. 000	150. 000	835. 900	175. 000	835. 600	200. 000	835. 400	227. 000
GR	834. 700	250. 000	829. 600	258. 000	828. 700	264. 000	830. 100	271. 000	830. 700	274. 000
GR	835 400	281. 000	835. 200	300. 000	834. 800	325. 000	834. 800	350. 000	834. 900	375. 000
GR	834. 000	400 000	834. 200	425 000	834. 000	450. 000	834. 000	475. 000	834. 100	500. 000

GR	834.000	600.000	834.200	650.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	5900.000	0.000	0.000	0.000	258.000	258.000	258.000	0.000	1.300	0.000
X1	6000.000	0.000	0.000	0.000	100.000	100.000	100.000	0 000	0.500	0.000
NC	0.000	0.000	0.035	0.500	1.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION E									
X1	6200.000	31.000	250.000	264.000	300.000	300.000	300.000	0.000	0.000	0.000
GR	844.500	0.000	844.800	25.000	845.100	50.000	845.600	75.000	846.300	100.000
GR	848.700	121.000	849.000	127.000	849.500	136.000	850.000	144.000	850.300	153.000
GR	847.300	175.000	844.400	200.000	841.800	225.000	839 600	250.000	836.700	256 500
GR	835.700	260.000	836.700	263.000	838.500	264.000	844.100	275.000	847.500	283.000
GR	847.100	300 000	847.300	325.000	847.400	340.000	846.000	358.000	846.100	375.000
GR	846.100	400.000	846.000	425.000	845.400	450.000	845.200	475.000	845.200	500.000
GR	845.100	525.000	0 000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	6300.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.600	0.000
ET	0.000	0.000	4.100	250.000	270.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION F									
X1	6500.000	35.000	250.000	275.000	200.000	200.000	200.000	0.000	0.000	0.000
GR	847.000	0.000	847.300	25.000	847.200	50.000	847.000	75.000	847.000	100.000
GR	847.000	125.000	847.700	141.000	847.100	154.000	849.500	177 000	849.500	181.000
GR	849.400	188.000	849.100	196.000	849.000	200.000	848.800	206.000	846.800	225.000
GR	842.500	250.000	839.400	258.000	837.800	261.000	837 500	262.000	837.800	264.000
GR	838 900	266.000	843 000	275 000	847.200	286.000	847.200	292.000	845.400	300.000
GR	844.100	307.000	844.100	325.000	844 900	350.000	846.400	375.000	847.300	400.000
GR	847 100	425.000	847 400	450.000	847.600	475.000	847.600	500.000	847.700	525.000
NC	0.050	0.050	0.025	0 500	1.000	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
	D/S FACE OF EXIT RAMP FROM E. BOUND I-94 TO STATE ST.									
X1	6600.000	19.000	150.000	164.000	100.000	100.000	100.000	0.000	0.000	0 000
GR	849.400	0 000	849.500	25.000	849.600	50.000	849.600	75.000	849.600	100.000
GR	849.800	125 000	849.800	150.000	839 900	150.000	839.200	153.000	838.800	155.000
GR	838.800	160.000	839.000	164.000	849.800	164.000	850.000	175.000	850.200	200.000
GR	850.500	225.000	850.600	250.000	850.800	275.000	851.200	300.000	0.000	0.000
SB	0.000	2.180	2.900	0.000	14.000	0.000	51.800	0.000	839.000	839.000
	U/S FACE OF EXIT RAMP FROM E. BOUND I-94 TO STATE ST.									
X1	6662.000	0.000	0.000	0.000	62.000	62 000	62.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	842.700	849.800	0.000	0 000	0.000	0.000	0 000
BT	16.000	0.000	849.400	0.000	25.000	849.500	0.000	50.000	849 600	0.000
BT	75.000	849.600	0.000	100 000	849.600	0.000	125.000	849.800	0.000	150.000
BT	849.800	839 900	150.000	849 800	842.700	164.000	849.800	842.700	164.000	849.800
BT	839.000	175.000	850.000	0.000	200.000	850.200	0.000	225.000	850.500	0.000
BT	250.000	850.600	0.000	275.000	850.800	0.000	300.000	851.200	0.000	0.000

X1	6712.000	35.000	250.000	275.000	50.000	50.000	50.000	0.000	0.000	0.000
GR	847.000	0.000	847.300	25.000	847.200	50.000	847.000	75.000	847.000	100.000
GR	847.000	125.000	847.700	141.000	847.100	154.000	849.500	177.000	849 500	181.000
GR	849.400	188.000	849.100	196 000	849.000	200.000	848 800	206.000	846.800	225 000
GR	842.500	250.000	839.400	258 000	837.800	261.000	837.500	262.000	837 800	264.000
GR	838.900	266.000	843.000	275.000	847.200	286.000	847.200	292.000	845.400	300.000
GR	844.100	307.000	844.100	325 000	844.900	350.000	846.400	375.000	847.300	400.000
GR	847.100	425.000	847.400	450 000	847.600	475.000	847.600	500.000	847.700	525.000
NC	0.000	0.000	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	6899.000	27.000	240.000	270.000	187.000	187.000	187.000	0.000	0.000	0.000
GR	847.900	0.000	847.200	25.000	847 000	50.000	846.900	75.000	846.900	100.000
GR	846.900	125.000	847.000	150.000	847.100	175.000	847.300	200.000	847.400	225.000
GR	847.500	240.000	839.600	250.000	839 500	255.000	839.500	260.000	839.600	264.000
GR	847.900	270 000	847.900	275.000	848.200	300.000	848.500	325.000	849.000	350.000
GR	849.500	375.000	850.100	400.000	850.800	425 000	851.500	450.000	852.000	475.000
GR	852.700	500.000	853.400	525.000	0.000	0.000	0.000	0.000	0.000	0.000
NC	0.050	0.050	0.025	0.300	0 500	0.000	0.000	0.000	0.000	0.000
	D/S FACE OF I-94 AND N. SIDE OF RAMP TO W. BOUND I-94									
X1	6900.000	0.000	0.000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
BT	27.000	0.000	847.900	0.000	25.000	847.200	0.000	50.000	847.000	0.000
BT	75.000	846.900	0.000	100.000	846.900	0.000	125.000	846.900	0.000	150.000
BT	847.000	0.000	175.000	847 100	0.000	200.000	847.300	0.000	225.000	847.400
BT	0.000	240.000	847.500	0.000	250.000	847.700	839.600	250.000	847.700	844.600
BT	264.000	847.800	844.700	264.000	847.800	839.600	270.000	847.900	0.000	275.000
BT	847.900	0.000	300.000	848.200	0.000	325.000	848.500	0 000	350.000	849.000
BT	0.000	375.000	849.500	0.000	400.000	850.100	0.000	425.000	850.800	0.000
BT	450.000	851.500	0.000	475.000	852.000	0.000	500.000	852.700	0.000	525.000
BT	853.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	U/S FACE OF I-94 AND N SIDE OF RAMP TO W. BOUND I-94									
X1	7128.000	0.000	0.000	0.000	228.000	228.000	228.000	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	7129.000	0.000	0 000	0.000	1.000	1.000	1.000	0.000	0.000	0.000
GT	2 000	240.000	240.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CROSS SECTION C									
X1	7259.000	27.000	250.000	282.000	130.000	130.000	130.000	0.000	0.000	0.000
GR	858.800	0.000	858.400	25.000	858.100	50.000	857.400	75.000	857.200	100.000
GR	857.000	125.000	856.300	150 000	855.200	175.000	852.000	200.000	847.300	225.000
GR	844.500	250 000	840.900	258.500	840.700	266.000	840.800	272.000	841.300	275.000
GR	844 400	282.000	846.300	300.000	846 200	320.000	844.900	325.000	843 000	348.000
GR	848.900	378.000	849.500	400 000	850.200	425.000	851.000	450.000	851.600	475.000
GR	852.100	500.000	852.300	525 000	0.000	0.000	0.000	0.000	0 000	0.000
NC	0.045	0.045	0.035	0.500	1.000	0.000	0.000	0.000	0.000	0.000

	D/S FACE OF DAM									
X1	7295 000	24.000	250.000	266.000	36.000	36 000	36.000	0.000	0.000	0.000
GR	847.500	0.000	848.000	25.000	848.300	50.000	848.700	75.000	848.400	100.000
GR	848.700	125.000	848.500	150.000	848.100	175.000	848.100	200 000	847.800	225.000
GR	848 600	250.000	838.800	250.000	838.900	266.000	848.700	266.000	847.900	275.000
GR	847.600	300.000	847.700	325.000	847.800	350.000	847.900	375.000	848.200	400.000
GR	849.200	425.000	850.000	450.000	850.100	475.000	850.100	500.000	0.000	0.000
	U/S FACE OF DAM									
X1	7362.000	24.000	250.000	266.000	67.000	67.000	67.000	0.000	0.000	0.000
GR	857.300	0.000	857 800	25.000	858.100	50.000	858 500	75.000	858.200	100.000
GR	858.500	125.000	858.300	150.000	857.900	175 000	857 900	200 000	857.600	225.000
GR	859.300	250.000	854.100	250.000	854.100	266.000	859.300	266.000	857.700	275.000
GR	857 400	300.000	857.500	325.000	857.700	350.000	857.800	375.000	858.000	400.000
GR	859 000	425 000	859 800	450.000	859.900	475.000	859.900	500.000	0.000	0.000
X1	7462.000	8.000	0.000	170.000	100.000	100.000	100.000	0.000	0.000	0.000
GR	858.000	0.000	854.000	25.000	850.000	45.000	846.000	70.000	846.000	105.000
GR	850.000	128.000	854.000	146.000	858.000	170 000	0.000	0.000	0.000	0.000
X1	7962.000	8.000	0 000	140.000	500.000	500.000	500.000	0.000	0.000	0.000
GR	858.000	0.000	854.000	20.000	850.000	45.000	846.000	60.000	846.000	90.000
GR	850.000	105.000	854.000	120.000	858.000	140 000	0.000	0.000	0.000	0.000
X1	8629.000	10.000	0.000	280.000	667.000	667.000	667.000	0.000	0.000	0.000
X5	2.000	862 380	862.480	0 000	0.000	0.000	0.000	0.000	0.000	0.000
GR	868.000	0.000	864.000	65.000	860.000	90.000	856.000	110.000	852.000	125.000
GR	852.000	170.000	856.000	195.000	860.000	230.000	864 000	255.000	868.000	280.000
X1	8899.000	10.000	0.000	305.000	270.000	270.000	270.000	0.000	0.000	0.000
X5	2.000	862.380	862.480	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	868.000	0.000	864.000	15.000	860.000	35.000	856.000	60 000	852.000	85.000
GR	852.000	185.000	856.000	210.000	860.000	245.000	864.000	275.000	868.000	305.000
X1	9541.000	10 000	0.000	285.000	642.000	642.000	642.000	0.000	0.000	0.000
X5	2.000	864 680	864.780	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	868.000	0.000	864.000	20.000	860.000	40.000	856.000	65.000	852.000	90.000
GR	852.000	195.000	856.000	215.000	860.000	240.000	864.000	260.000	868.000	285.000
X1	9771.000	10.000	0.000	285.000	230.000	230.000	230.000	0.000	0.000	0.000
X5	2.000	864.680	864.780	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	868.000	0.000	864.000	20.000	860.000	40.000	856.000	65.000	852.000	90.000
GR	852.000	195.000	856.000	215.000	860.000	240 000	864.000	260 000	868.000	285.000
X1	10481.000	10 000	0.000	130.000	710 000	710.000	710 000	0.000	0.000	0.000
X5	2.000	866.640	866.740	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	872.000	0.000	868 000	15.000	864.000	30.000	860 000	50.000	856.000	60 000
GR	856.000	75.000	860.000	85.000	864.000	95.000	868.000	115.000	872.000	130.000

X1	10881.000	10.000	0.000	175.000	400.000	400.000	400.000	0.000	0.000	0.000
X5	2.000	866.640	866.740	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	872.000	0.000	868.000	15.000	864.000	35 000	860.000	50.000	856.000	75.000
GR	856.000	90.000	860.000	110.000	864.000	130.000	868.000	155.000	872.000	175.000
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= 0.300 CEHV= 0.500
*SECNO 360.000

3265 DIVIDED FLOW

3280 CROSS SECTION 360.00 EXTENDED 3.75 FEET

CROSS SECTION A

360.00	4.15	813.65	0.00	813.65	813.71	0.06	0.00	0.00	816.00
290.	0.	259.	31.	0.	122.	35.	0.	0.	812.60
0.00	0.00	2.13	0.88	0.000	0.045	0.060	0.000	809.50	131.13
0.001029	0.	0.	0.	0	0	0	0.00	71.28	253.00

*SECNO 1050.000
3280 CROSS SECTION 1050.00 EXTENDED 4.49 FEET

3470 ENCROACHMENT STATIONS= 129.0 162.0 TYPE= 1 TARGET= 33.000

1050.00	4.89	814.39	0.00	0.00	814.48	0.09	0.75	0 01	100000.00
290.	0.	290.	0.	0.	120.	0.	2.	1.	100000.00
0.08	0.00	2.41	0.00	0.000	0.045	0.000	0.000	809.50	129.00
0.001150	690.	690.	690.	2	0	0	0.00	33.00	162.00

CCHV= 0.500 CEHV= 1.000
*SECNO 1099.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 245.6 254.4 TYPE= 1 TARGET= 8.800

1099.00	4.85	814.45	0.00	0.00	815.35	0.90	0.06	0.81	100000.00
290.	0.	290.	0.	0.	38.	0.	2.	1.	100000.00
0.08	0.00	7.62	0.00	0.000	0.013	0.000	0.000	809.60	245.60
0.001373	49.	49	49.	0	0	0	0.00	8.80	254 40

*SECNO 1100 000

180w or PMMD
819

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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS   BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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= 30 MIN ELTRD=  816.60 MAX ELLC=  815.10


3470 ENCROACHMENT STATIONS=     245.6     254.4  TYPE=     1  TARGET=       8 800
          D/S FACE OF VARSITY DR.
  1100.00     4 85   814.45     0.00     0.00   815.43     0.98     0.00     0.08100000.00
     290.       0.     290.       0.       0.       36        0.       2.       1.  100000.00
     0.08     0.00     7.96     0.00    0.000    0.013    0 000    0.000   809.60   245.60
 0.001713       1.       1.       1.        0        0        0    -1.74     8.80   254.40


*SECNO 1167.000

3370 NORMAL BRIDGE,NRD= 30 MIN ELTRD=  816.60 MAX ELLC=  815.10


3470 ENCROACHMENT STATIONS=     245.6     254 4  TYPE=     1  TARGET=       8.800
          U/S FACE OF VARSITY DR.
  1167.00     5.06   814.66     0.00     0.00   815.58     0.92     0.11     0.03100000.00
     290.       0.     290.       0.       0.       38.       0.       2.       1.  100000.00
     0.08     0.00     7.69     0.00    0.000    0.013    0.000    0.000   809.60   245.60
 0 001634      67.      67.      67.        2        0        0    -2.32     8.80   254.40


*SECNO 1168 000

3470 ENCROACHMENT STATIONS=     245.6     254.4  TYPE=     1  TARGET=       8.800
  1168.00     5.37   814.97     0.00     0.00   815.68     0.72     0.00     0.10100000.00
     290        0.     290.       0.       0.       43.       0.       2.       1.  100000.00
     0 08     0.00     6.79     0.00    0.000    0.013    0.000    0.000   809.60   245.60
 0 001022       1.       1.       1.        3        0        0     0.00     8.80   254.40


*SECNO 1181 000

3301 HV CHANGED MORE THAN HVINS

  1181.00     5 49   815.89     0.00     0.00   815.99     0 10     0.00     0.31   820.70
     290        0.     290.       0.       0.      114.       0        2.       1     819.70
     0.09     0 00     2.54     0 00    0.000    0.013    0.000    0.000   810.40   260.26
 0.000108      13.      13.      13.        3        0        0     0.00    34.65   294.91
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100yr on PAAD 819

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 1194.000									
1194.00	5.50	815.90	0.00	0.00	816.00	0.10	0.00	0.00	820.70
290.	0.	290.	0.	0.	115.	0.	2	1.	819.70
0 09	0.00	2 53	0.00	0.000	0.013	0.000	0.000	810.40	260.24
0 000107	13.	13.	13.	0	0	0	0.00	34.68	294.93
*SECNO 1217.000									
1217.00	5.50	815.90	0.00	0.00	816.00	0.10	0.00	0.00	820.70
290.	0.	290.	0.	0.	115.	0.	2.	1.	819.70
0.09	0.00	2.53	0.00	0.000	0.013	0.000	0.000	810.40	260 25
0.000107	23.	23.	23.	0	0	0	0.00	34 67	294.92
CCHV= 0.100 CEHV= 0.300									
*SECNO 1480.000									
CROSS SECTION B									
1480 00	5.56	815.96	0.00	0.00	816.06	0.10	0.06	0.00	820.70
290.	0.	290.	0.	0.	117.	0.	3	1.	819.70
0.12	0 00	2.48	0.00	0.000	0.035	0.000	0.000	810.40	260.11
0.000739	263.	263	263.	2	0	0	0.00	34.97	295.08
*SECNO 1700 000									
1700.00	5.53	816.13	0.00	0.00	816 22	0.10	0.17	0.00	820.90
290.	0.	290.	0.	0.	115.	0.	4.	1.	819.90
0.14	0.00	2 51	0.00	0.000	0.035	0.000	0.000	810.60	260.19
0.000762	220.	220.	220.	2	0	0	0.00	34.80	294.99
CCHV= 0.500 CEHV= 1.000									
*SECNO 1750.000									
3301 HV CHANGED MORE THAN HVINS									
3470 ENCROACHMENT STATIONS= 245.6 254.4 TYPE= 1 TARGET= 8.800									
D/S FACE OF PHOENIX DR									
1750.00	5.57	816.17	0 00	0.00	816.83	0.67	0.04	0.57100000.00	
290.	0.	290.	0.	0.	44.	0.	4.	1. 100000 00	
0.15	0 00	6.55	0.00	0.000	0.013	0.000	0.000	810.60	245.60
0.000934	50.	50.	50.	0	0	0	0.00	8.80	254.40

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

SPECIAL BRIDGE

SB	XK	XKOR	COFG	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	0 00	7.10	0.00	40.00	0.00	810.60	810 60

*SECNO 1817.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
817.52	816.83	0.00	0.	290.	40.	40.	816.20	820.70

3470 ENCROACHMENT STATIONS= 245.6 254.4 TYPE= 1 TARGET= 8.800
U/S FACE OF PHOENIX DR.

1817.00	6.44	817.04	0.00	0.00	817.52	0.48	0.69	0.00	100000.00
290.	0.	290.	0.	0.	52.	0.	4.	1	100000.00
0.15	0.00	5.57	0.00	0 000	0.013	0.000	0.000	810.60	245.60
0.000621	67.	67	67.	2	0	0	0.00	8.80	254.40

CCHV= 0.300 CEHV= 0 500

*SECNO 1867.000

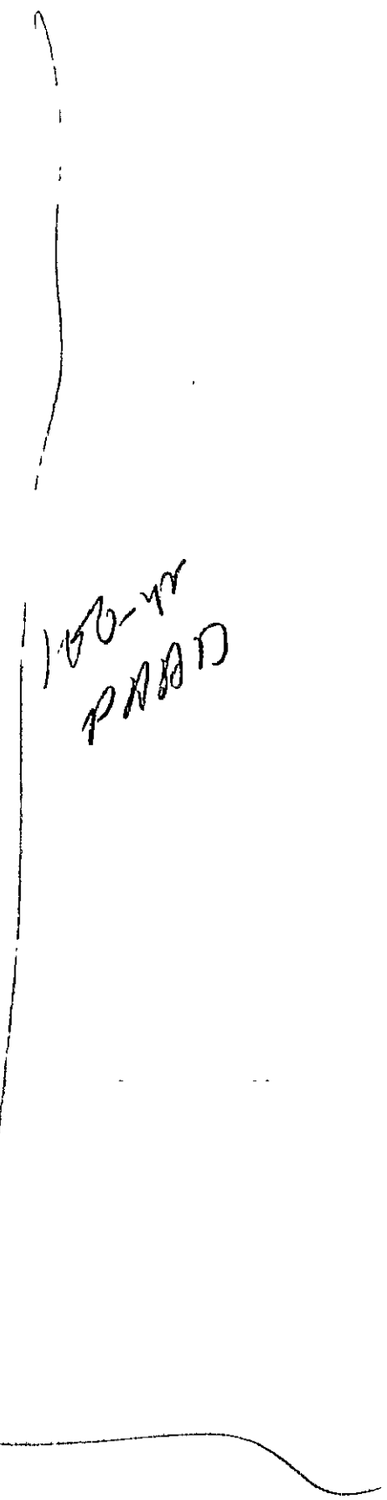
1867.00	6.73	817.63	0.00	0.00	817.68	0.05	0.03	0.13	821.20
290.	0.	290.	0.	0	161.	0.	4	1	820.20
0.16	0.00	1.80	0 00	0.000	0.045	0.000	0.000	810.90	257.62
0.000512	50.	50.	50.	2	0	0	0.00	40.43	298.05

*SECNO 2000.000

2000.00	6.00	817.70	0.00	0.00	817.78	0.07	0.09	0.01	822.00
290.	0.	290.	0.	0.	133.	0.	4.	1.	821.00
0.17	0.00	2.19	0.00	0.000	0.045	0.000	0.000	811.70	259.17
0.000863	133.	132.	133.	0	0	0	0.00	37.04	296.21

*SECNO 2300.000

2300.00	4.59	818.09	0.00	0 00	818.27	0.18	0 43	0.05	823.80
290.	0.	290.	0.	0.	85.	0.	5.	2.	822.80
0.20	0.00	3.42	0.00	0.000	0.045	0.000	0.000	813.50	262.20
0.002923	300.	300.	300.	2	0	0	0.00	30.41	292.61



SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 2610.000									
2610.00	3.89	819.29	0.00	0.00	819.60	0.31	1.27	0.06	825.70
290.	0.	290.	0.	0.	65.	0.	6.	2.	824.70
0.22	0.00	4.48	0.00	0.000	0.045	0.000	0.000	815.40	263.69
0.006144	310.	310.	310.	2	0	0	0.00	27.15	290.84
*SECNO 2626.000									
2626.00	3.89	819.39	0.00	0.00	819 70	0 31	0.10	0.00	825.80
290.	0.	290	0.	0.	65	0.	6.	2.	824 80
0.22	0.00	4.48	0 00	0.000	0.045	0.000	0.000	815 50	263.69
0.006147	16.	16.	16.	2	0	0	0.00	27.15	290.84
*SECNO 2642.000									
2642.00	3.89	819.49	0.00	0.00	819.80	0.31	0.10	0.00	825.90
290.	0.	290.	0.	0.	65.	0.	6.	2.	824.90
0.22	0.00	4.48	0.00	0.000	0.045	0.000	0.000	815.60	263.69
0.006159	16.	16.	16.	0	0	0	0.00	27.14	290.83

*SECNO 2659.000

3470 ENCROACHMENT STATIONS=		246.3	274.0	TYPE=	1	TARGET=	27.700		
2659.00	3.88	819.58	0.00	0.00	820.01	0 43	0.15	0.06	100000.00
290.	0.	290.	0	0.	55.	0.	6.	2.	100000.00
0.22	0.00	5.29	0.00	0.000	0.045	0.000	0.000	815.70	246.30
0 014287	17.	17.	17.	1	0	0	0.00	27.70	274.00

CCHV= 0.500 CEHV= 1.000

*SECNO 2660.000

3370 NORMAL BRIDGE, NRD= 42 MIN ELTRD= 829.60 MAX ELLC= 821 70

3470 ENCROACHMENT STATIONS=		246.3	274.0	TYPE=	1	TARGET=	27.700		
D/S FACE OF D.T.&I.RR.									
2660 00	3.88	819.58	818.95	0 00	820 39	0.81	0 00	0.37	100000.00
290	0.	290.	0.	0.	40.	0.	6.	2.	100000.00
0 22	0.00	7.20	0.00	0.000	0 013	0.000	0.000	815.70	246.30
0.001909	1.	1.	1.	0	15	0	-14.68	27.70	274.00

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 3061.000

3370 NORMAL BRIDGE, NRD= 42 MIN ELTRD= 829.60 MAX ELLC= 821.70

3470 ENCROACHMENT STATIONS= 246.3 274.0 TYPE= 1 TARGET= 27.700

U/S FACE OF D.T.&I.RR.

3061.00	4.94	820.64	0.00	0.00	821.14	0.50	0.59	0.15	100000.00
290.	0	290.	0.	0.	51.	0.	6.	2.	100000.00
0.24	0.00	5.65	0.00	0.000	0.013	0.000	0.000	815.70	246.30
0.001179	401.	401.	401.	4	0	0	-32.74	27.70	274.00

*SECNO 3062.000

3470 ENCROACHMENT STATIONS= 246.3 274.0 TYPE= 1 TARGET= 27.700

3062.00	5.48	821.18	0.00	0.00	821.32	0.13	0.00	0.18	100000.00
290.	0.	290.	0.	0.	99	0.	6.	2.	100000.00
0.24	0.00	2.93	0.00	0.000	0.013	0.000	0.000	815.70	246.30
0.000186	1.	1.	1.	3	0	0	0.00	27.70	274.00

*SECNO 3111.000

3111.00	5.30	821.20	0.00	0.00	821.48	0.29	0.01	0.15	826.60
290.	0.	290.	0.	0.	68.	0.	6.	2.	825.20
0.24	0.00	4.29	0.00	0.000	0.013	0.000	0.000	815.90	48.23
0.000449	49.	49.	49.	1	0	0	0.00	25.65	73.88

CCHV= 0.300 CEHV= 0.500

*SECNO 3210.000

CROSS SECTION C

3210.00	5.44	821.34	0.00	0.00	821.59	0.26	0.10	0.01	826.60
290.	0.	290.	0.	0.	71.	0.	7.	2.	825.20
0.25	0.00	4.08	0.00	0.000	0.045	0.000	0.000	815.90	47.81
0.004757	99.	99.	99	2	0	0	0.00	26.46	74.27

*SECNO 3260.000

3260.00	4.77	821.57	0.00	0.00	822.00	0.44	0.32	0.09	827.50
290.	0.	290.	0.	0.	55	0.	7.	2.	826.10
0.25	0.00	5.30	0.00	0.000	0.045	0.000	0.000	816.80	49.95
0.009154	50.	50.	50.	2	0	0	0.00	22.30	72.25

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 3310 000									
3310.00	4.34	822.04	0.00	0 00	822.66	0 62	0.56	0.09	828.40
290.	0.	290.	0.	0.	46.	0	7.	2.	827.00
0.25	0.00	6.34	0.00	0.000	0.045	0.000	0.000	817.70	51.32
0.014239	50.	50	50.	2	0	0	0.00	19.62	70.94
*SECNO 3360.000									
3360.00	4.17	822.77	0.00	0.00	823.49	0.72	0.78	0.05	829.30
290.	0.	290.	0.	0.	42.	0.	7	2.	827.90
0.26	0.00	6.83	0.00	0.000	0.045	0.000	0 000	818.60	51.87
0.017049	50.	50.	50.	2	0	0	0.00	18.55	70.42
*SECNO 3380.000									
3380 00	4.27	823.17	0.00	0.00	823.83	0.66	0.32	0.02	829.60
290.	0.	290.	0.	0.	44.	0.	7	2.	828.20
0 26	0.00	6.52	0 00	0.000	0.045	0.000	0.000	818.90	51.53
0.015232	20	20.	20.	2	0	0	0.00	19.22	70.74
*SECNO 3400.000									
3400.00	4.04	823.44	0.00	0.00	824.25	0.81	0 34	0.08	830.10
290.	0.	290.	0	0.	40.	0.	7.	2.	828 70
0.26	0.00	7.22	0.00	0.000	0.045	0.000	0.000	819.40	52.27
0.019467	20.	20.	20.	2	0	0	0 00	17.76	70.03

CCHV= 0.500 CEHV= 1.000
*SECNO 3410.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 246.2 253.7 TYPE= 1 TARGET= 7.500
D/S FACE OF RESEARCH PKWY

3410.00	4.01	823.51	823.51	0.00	825.32	1.81	0.07	1.00100000.00	
290.	0.	290	0.	0.	27.	0.	7.	2.	100000.00
0.26	0.00	10.80	0.00	0.000	0.013	0.000	0.000	819.50	246.20
0.003510	10.	10.	10.	4	5	0	0.00	7.50	253.70

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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	1.73	2.90	0.00	6.30	0 00	29.50	0.00	819.50	819.50

*SECNO 3489.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
826.11	825.32	0.00	0.	290.	30.	30.	824.20	826.60

3470 ENCROACHMENT STATIONS= 246.2 253.7 TYPE= 1 TARGET= 7.500

U/S FACE OF RESEARCH PKWY

3489.00	5.80	825.30	0.00	0 00	826.11	0.80	0 78	0 00	100000.00
290.	0.	290.	0.	0.	40.	0.	7.	2.	100000.00
0 26	0.00	7.20	0 00	0.000	0.013	0 000	0 000	819.50	246.20
0.001246	79.	79.	79	3	0	0	0.00	7.50	253.70

*SECNO 3509.000

3301 HV CHANGED MORE THAN HVINS

3509.00	6.48	826 28	0.00	0.00	826.44	0.16	0.01	0.32	826.90
290.	0.	290.	0.	0.	91	0.	7.	2.	826.90
0.26	0.00	3.19	0.00	0.000	0.013	0.000	0.000	819.80	236.33
0 000192	20.	20.	20.	3	0	0	0.00	27.35	263.67

*SECNO 3539.000

3539.00	6 31	826.31	0 00	0.00	826.45	0.14	0.01	0.01	830.70
290.	0.	290.	0.	0.	96.	0.	7.	2.	829.30
0 27	0 00	3.02	0.00	0.000	0.013	0.000	0 000	820.00	45.06
0.000182	30.	30.	30.	0	0	0	0.00	31.84	76.89

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 3700.000									
3700.00	4.79	826.39	0.00	0.00	826.82	0.43	0.08	0.29	832.30
290.	0	290.	0	0.	55.	0.	7.	3.	830.90
0.27	0.00	5.25	0.00	0.000	0.035	0.000	0.000	821.60	49.87
0.005405	161.	161.	161.	2	0	0	0.00	22.45	72.32
*SECNO 3800.000									
3800.00	4.51	827.01	0.00	0.00	827.55	0.54	0.62	0.11	833.20
290.	0.	290.	0.	0	49	0.	7.	3.	831.80
0.28	0.00	5.89	0.00	0.000	0.035	0.000	0.000	822.50	50.77
0.007199	100.	100.	100.	2	0	0	0.00	20.70	71.47
*SECNO 3900.000									
3900.00	4.31	827.81	0.00	0.00	828.45	0.64	0.80	0.10	834.20
290.	0.	290.	0.	0.	45.	0	7.	3.	832.80
0.28	0.00	6.42	0.00	0.000	0.035	0.000	0.000	823.50	51.41
0.008876	100.	100.	100.	2	0	0	0.00	19.44	70.85

*SECNO 4070.000

3470 ENCROACHMENT STATIONS=		250.0	281.0	TYPE=	1	TARGET=		31.000	
4070.00	4.16	829.16	0.00	0.00	829.46	0.30	0.84	0.17	831.00
290.	0.	290.	0.	0.	66.	0	8.	3.	99996.30
0.29	0.00	4.40	0.00	0.000	0.035	0.000	0.000	825.00	252.87
0.003151	170.	170.	170.	1	0	0	0.00	24.35	277.23

CCHV= 0.500 CEHV= 1.000

*SECNO 4120.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=		246.2	253.7	TYPE=	1	TARGET=		7.500	
D/S FACE OF RESEARCH PKWY									
4120.00	3.89	829.39	829.39	0.00	831.20	1.81	0.17	1.51	100000.00
290.	0.	290.	0.	0.	27.	0.	8.	3.	100000.00
0.30	0.00	10.80	0.00	0.000	0.013	0.000	0.000	825.50	246.20
0.003537	50.	50.	50.	2	11	0	0.00	7.50	253.70

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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	1.73	2.90	0.00	6.25	0.00	30.00	0.00	825.50	825 50

*SECNO 4200.000
6870 D.S. ENERGY OF 831.20 HIGHER THAN COMPUTED ENERGY OF 831.19

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

PRESSURE AND WEIR FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
831 90	830.39	0.00	45.	246.	30.	30.	830.30	831.80

U/S FACE OF RESEARCH PKWY

4200.00	5.42	830.92	0.00	0.00	831.20	0.28	0.00	0.00	831.80
290.	0.	290.	0.	1.	69.	0	8.	3.	831.80
0 30	0.06	4.21	0.00	0.035	0.013	0.000	0.000	825.50	70.40
0.000438	80.	80.	80.	2	0	6	0.00	84.64	262.74

*SECNO 4250.000

3265 DIVIDED FLOW

4250.00	5.34	831.14	0.00	0.00	831.28	0.14	0.01	0.07	831.80
290.	0.	290.	0.	0.	96.	2.	8.	3.	832.50
0.30	0.00	3.01	0.04	0.000	0.013	0.035	0.000	825.80	251.04
0.000149	50.	50.	50.	2	0	0	0 00	119.76	609.40

CCHV= 0.500 CEHV= 1.000
*SECNO 4650.000

3265 DIVIDED FLOW

CROSS SECTION D

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	VOL	TWA	LEFT/RIGHT
TIME	VLOB	VCH	VROB	XNL	XNCH	XNR	WTN	ELMIN	SSTA
SLOPE	XLOBL	XLCH	XLOBR	ITRIAL	IDC	ICONT	CORAR	TOPWID	ENDST
4650.00	2.71	831.41	0.00	0.00	831.45	0.04	0.12	0.05	834.70
290.	0.	62.	228.	0.	34.	139.	9.	4.	835.40
0 37	0.00	1.85	1.64	0.000	0.035	0.040	0.000	928.70	255.17
0.001014	400.	400.	400.	2	0	0	0.00	114 93	572.59
*SECND 4750.000									
3265 DIVIDED FLOW									
3470 ENCROACHMENT STATIONS=		250.0	510.0	TYPE=	1	TARGET=		260 000	
4750.00	2.63	831.63	0.00	0.00	831.95	0.32	0.22	0.28	835.00
290.	0.	164.	126.	0.	32.	35.	9.	4.	835.70
0.38	0.00	5.14	3 62	0.000	0.035	0.040	0.000	829.00	255.29
0 008168	100	100.	100.	2	0	0	0.00	51.06	510 00
*SECND 4850.000									
4850 00	3.10	832.60	0.00	0.00	833.36	0.76	0.97	0.44	835.50
290.	0.	290.	0.	0.	42.	0.	9.	4.	836.20
0.38	0.00	6.99	0.00	0.000	0.035	0 000	0.000	829.50	254.56
0.011835	100	100.	100.	2	0	0	0.00	21.08	275.63
*SECND 5050 000									
5050.00	3.77	834.57	0.00	0.00	834.98	0.41	1.45	0.17	836.80
290.	0	290.	0.	0	56.	0.	10.	4.	837.50
0.39	0.00	5.14	0.00	0.000	0.035	0.000	0.000	830.80	253.49
0.004879	200	200.	200.	2	0	0	0.00	23.15	276.64
*SECND 5250.000									
5250.00	3.76	835.56	0.00	0.00	835.97	0.41	0.98	0.00	837.80
290.	0.	290.	0.	0.	56.	0.	10	4.	838.50
0.40	0.00	5.17	0.00	0.000	0.035	0.000	0.000	831.80	253.52
0.004963	200.	200.	200.	2	0	0	0.00	23 10	276.62
*SECND 5350.000									
5350.00	3.68	836.08	0.00	0.00	836.52	0.44	0.52	0.03	838.40
290.	0.	290.	0.	0.	54.	0.	10.	5.	839 10
0.41	0.00	5.34	0.00	0.000	0.035	0.000	0.000	832.40	253.64
0.005464	100.	100	100.	2	0	0	0.00	22.85	276.50

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

CCHV= 0.500 CEHV= 1.000

*SECNO 5399.000									
5399.00	3.73	836.33	0.00	0.00	836.71	0.38	0.16	0.03	848.20
290.	0.	290.	0.	0.	58.	0.	10.	5.	847.60
0.41	0.00	4.97	0.00	0.000	0.025	0.000	0.000	832.60	249.67
0.002154	49.	49.	49.	0	0	0	0.00	18.82	268.49

*SECNO 5400.000

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 843.00 MAX ELLC= 838.80

D/S FACE OF STATE ST.

5400.00	3.73	836.33	0.00	0.00	836.73	0.40	0.00	0.02	848.20
290.	0.	290.	0.	0.	57.	0.	10.	5.	847.60
0.41	0.00	5.09	0.00	0.000	0.025	0.000	0.000	832.60	249.67
0.002319	1.	1.	1.	0	0	0	-1.27	18.82	268.49

*SECNO 5592.000

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 843.00 MAX ELLC= 838.80

U/S FACE OF STATE ST.

5592.00	4.24	836.84	0.00	0.00	837.13	0.30	0.35	0.05	848.20
290.	0	290	0.	0	66.	0.	10	5	847.60
0.42	0.00	4.39	0.00	0.000	0.025	0.000	0.000	832.60	249.60
0.001494	192.	192.	192.	2	0	0	-1.71	18.95	268.56

*SECNO 5593.000									
5593.00	4.27	836.87	0.00	0.00	837.15	0.28	0.00	0.01	848.20
290.	0.	290.	0.	0.	68.	0.	10.	5.	847.60
0.42	0.00	4.24	0.00	0.000	0.025	0.000	0.000	832.60	249.60
0.001342	1.	1.	1.	2	0	0	0.00	18.96	268.56

*SECNO 5642.000									
5642.00	4.04	836.94	0.00	0.00	837.28	0.33	0.08	0.05	838.90
290.	0.	290.	0.	0	63.	0.	11.	5.	839.60
0.43	0.00	4.63	0.00	0.000	0.025	0.000	0.000	832.90	253.08
0.001850	49.	49.	49.	0	0	0	0.00	23.95	277.03

SECNO	DEPTH	CWSEL	CRIWS	WSELK '	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 5900.000									
5900.00	3.41	837.61	0.00	0.00	838.17	0.56	0.67	0.23	840.20
290	0.	290.	0.	0.	48.	0.	11.	5.	840.90
0.44	0.00	6 00	0.00	0.000	0.025	0.000	0.000	834.20	254.06
0.003897	258.	258.	258.	2	0	0	0.00	22.04	276.10
*SECNO 6000.000									
6000.00	3.33	838.03	0.00	0.00	838.63	0.61	0.41	0.05	840.70
290	0.	290.	0.	0.	46.	0.	11.	5.	841.40
0.44	0.00	6.25	0.00	0.000	0.025	0.000	0 000	834.70	254.20
0.004372	100	100.	100.	2	0	0	0.00	21 78	275.97
CCHV= 0.500 CEHV= 1.000									
*SECNO 6200 000									
CROSS SECTION E									
6200.00	4.21	839.91	0.00	0.00	840.76	0.85	1 89	0.24	839.60
290.	1.	283.	6.	1.	38.	2.	11.	5.	838.50
0.45	1 21	7.48	3.09	0.035	0.035	0.035	0.000	835.70	246.46
0.009807	300.	300.	300.	2	0	0	0.00	20.32	266.77
*SECNO 6300.000									
6300.00	4.77	841.07	0.00	0 00	841.60	0 52	0.67	0.16	840.20
290.	7.	272.	10.	4.	46.	4.	11.	5	839.10
0 46	1.69	5.96	2.71	0.035	0.035	0.035	0.000	836.30	240.11
0 004852	100.	100.	100.	3	0	0	0.00	27.76	267.87
*SECNO 6500.000									
CROSS SECTION F									
6500.00	4.72	842.22	0.00	0.00	842.66	0.43	1.02	0.04	842.50
290.	0.	290.	0.	0.	55.	0.	12.	5.	843.00
0.47	0.00	5.29	0.00	0.000	0.035	0.000	0.000	837.50	250.70
0.005319	200.	200.	200.	2	0	0	0.00	22.61	273.31
CCHV= 0.500 CEHV= 1.000									
*SECNO 6600.000									
D/S FACE OF EXIT RAMP FROM E. BOUND I-94 TO STATE ST.									
6600.00	3.80	842.60	0.00	0.00	843.12	0.52	0.38	0.08	849.80
290.	0.	290.	0.	0.	50.	0.	12.	5.	849.80
0.47	0.00	5.78	0.00	0.000	0.025	0.000	0.000	838.80	150.00
0 002853	100.	100.	100.	2	0	0	0.00	14.00	164.00

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

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	2.18	2.90	0 00	14.00	0 00	51.80	0.00	839.00	839.00

*SECNO 6662.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
843.66	843.27	0.00	0.	290.	52.	52.	842.70	849.80

U/S FACE OF EXIT RAMP FROM E. BOUND I-94 TO STATE ST.

6662.00	4.50	843.30	0.00	0.00	843 66	0 36	0.54	0.00	849.80
290.	0.	290.	0.	0.	60.	0.	12	5.	849.80
0.48	0.00	4.83	0.00	0.000	0.025	0.000	0 000	838.80	150.00
0.001717	62.	62	62.	2	0	0	0.00	14.00	164.00

*SECNO 6712.000

6712.00	6.15	843.65	0.00	0.00	843.81	0.16	0.05	0.10	842.50
290.	2.	288.	0.	4.	90.	1.	12.	5.	843.00
0 48	0.50	3.21	0.33	0 050	0.025	0.050	0.000	837.50	243.28
0.000592	50	50.	50.	2	0	0	0.00	33.44	276.72

CCHV= 0.100 CEHV= 0.300
*SECNO 6899.000

6899.00	4 29	843 79	0.00	0.00	844.01	0.22	0.18	0.02	847.50
290.	0.	290.	0	0.	77.	0	12.	5.	847.90
0.50	0.00	3.76	0.00	0.000	0 035	0.000	0.000	839.50	244.69
0.001836	187.	187.	187.	2	0	0	0.00	22.34	267.03

CCHV= 0.300 CEHV= 0 500
*SECNO 6900.000

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 846.90 MAX ELLC= 844.70

D/S FACE OF I-94 AND N. SIDE OF RAMP TO W. BOUND I-94

6900.00	4.21	843.71	0.00	0.00	844.09	0.38	0.00	0.08	847.50
290.	0.	290.	0.	0.	59.	0.	12.	5.	847.90
0.50	0.00	4.96	0.00	0.000	0.025	0 000	0.000	839.50	244.79
0 001911	1.	1.	1.	2	0	0	-16.82	22.18	266.97

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 7128.000

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD= 846.90 MAX ELLC= 844 70

U/S FACE OF I-94 AND N. SIDE OF RAMP TO W. BOUND I-94

7128.00	4.68	844.18	0 00	0.00	844.49	0.31	0.37	0.02	847.50
290.	0.	290.	0.	0.	65.	0	13.	5.	847.90
0.51	0.00	4.46	0.00	0.000	0.025	0.000	0.000	839.50	244.20
0.001418	228.	228.	228.	2	0	0	-20.86	23.11	267 31

*SECNO 7129.000

7129.00	4.87	844.37	0.00	0.00	844.53	0.16	0.00	0.04	847.50
290.	0.	290.	0.	0.	90.	0.	13.	5.	847.90
0.51	0.00	3 20	0.00	0.000	0 025	0.000	0.000	839.50	243.95
0.000597	1.	1.	1.	2	0	0	0.00	23.50	267.45

*SECNO 7259.000

3265 DIVIDED FLOW

CROSS SECTION G

7259.00	3.82	844.52	0.00	0.00	844.63	0.10	0.07	0.02	844.50
240.	0	229.	11.	0.	88.	20.	13.	6.	844.40
0.52	0.00	2.60	0.56	0.000	0.025	0.050	0.000	840.70	249.87
0.000528	130	130.	130.	1	0	0	0.00	59.26	355.70

CCHV= 0.500 CEHV= 1 000

*SECNO 7295 000

D/S FACE OF DAM

7295.00	5.75	844.55	0.00	0.00	844.66	0.11	0.02	0.01	848.60
240.	0.	240.	0.	0.	91.	0.	13.	6.	848.70
0.53	0.00	2.63	0.00	0.000	0.035	0.000	0.000	838.80	250.00
0.000775	36.	36.	36.	0	0	0	0.00	16.00	266.00

*SECNO 7362.000

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL, CWSEL

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

3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
U/S FACE OF DAM

7362.00	1.91	856.01	856.01	0.00	856.97	0.96	0 14	0.85	859.30
240.	0.	240.	0.	0.	30.	0.	13.	6.	859.30
0 53	0.00	7.87	0.00	0.000	0.035	0.000	0.000	854.10	250.00
0.019347	67.	67.	67.	20	17	0	0.00	16.00	266.00

*SECNO 7462.000

3301 HV CHANGED MORE THAN HVINS

7462.00	11.45	857.45	0 00	0.00	857 45	0.00	0.00	0.48	858.00
240.	0.	240.	0	0	1134.	0.	14.	6.	858.00
0.66	0 00	0.21	0.00	0.000	0.035	0.000	0.000	846.00	3.45
0.000002	100.	100.	100.	2	0	0	0.00	163.24	166.69

*SECNO 7962.000

7962.00	11.45	857.45	0.00	0 00	857.45	0.00	0.00	0.00	858.00
240.	0.	240.	0.	0.	904	0.	26.	8.	858.00
1.18	0.00	0.27	0.00	0.000	0.035	0.000	0.000	846.00	2.75
0.000003	500.	500.	500.	2	0	0	0.00	134.49	137.25

*SECNO 8629 000
WATER EL=X5 CARD= 862.380

8629.00	10.38	862.38	0.00	0.00	862.38	0.00	0.00	0.00	868.00
240.	0	240.	0	0.	1079.	0.	41.	10	868.00
2.02	0.00	0.22	0 00	0.000	0.035	0.000	0.000	852.00	75.13
0.000002	667.	667.	667.	0	0	0	0.00	169.75	244.87

*SECNO 8899.000
WATER EL=X5 CARD= 862.380

8899.00	10.38	862.38	0.00	0.00	862.38	0.00	0.00	0.00	868.00
240.	0	240.	0.	0.	1755.	0.	50.	11.	868.00
2.57	0.00	0 14	0.00	0 000	0.035	0.000	0.000	852.00	23 10
0.000001	270.	270.	270.	0	0	0	0.00	239.75	262.85

Series of Ponds

Elev. From HEC 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 9541.000
WATER EL=X5 CARD= 864.680

9541 00	12 68	864.68	0.00	0.00	864 68	0.00	0.00	0.00	868.00
240.	0.	240.	0.	0	2256.	0.	80	15.	868.00
4.24	0.00	0.11	0.00	0 000	0.035	0.000	0.000	852.00	16.60
0.000000	642.	642.	642	0	0	0	0.00	247.65	264.25

*SECNO 9771.000
WATER EL=X5 CARD= 864.680

9771.00	12.68	864.68	0.00	0.00	864.68	0.00	0.00	0.00	868.00
240.	0.	240.	0.	0.	2256.	0.	92.	16	868.00
4.84	0.00	0 11	0.00	0.000	0.035	0.000	0.000	852.00	16.60
0.000000	230.	230.	230.	0	0	0	0.00	247.65	264.25

*SECNO 10481.000
WATER EL=X5 CARD= 866.640

10481.00	10.64	866.64	0.00	0.00	866.64	0.00	0.00	0.00	872.00
240	0.	240	0.	0.	502.	0.	114.	19.	872.00
5.26	0.00	0.48	0.00	0.000	0.035	0.000	0.000	856.00	20.10
0.000013	710.	710.	710	0	0	0	0.00	88.10	108.20

*SECNO 10881.000
WATER EL=X5 CARD= 866.640

10881 00	10 64	866.64	0.00	0.00	866.64	0.00	0.00	0.00	872 00
240.	0.	240.	0.	0.	750.	0.	120.	20.	872.00
5.60	0.00	0.32	0.00	0.000	0.035	0.000	0.000	856.00	21.80
0.000005	400	400.	400.	0	0	0	0.00	124.70	146.50

THIS RUN EXECUTED 3 NOV 88 11:24:46

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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        CITY OF ANN ARBOR FIS RESTUDY
T2        WEST BRANCH PAAD
T3        100-YEAR FLOOD ENCROACHED RUN

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0.        3.        0.        0   0.000000     0.00       0.0       0.   813 750     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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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         GLOB      GCH       GROB      ALOB      ACH       AROB      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=   0.300 CEHV=   0.500
*SECNO 360.000
 2800 NAT Q1=      90.42  WSEL=     813.65  ENC Q1=      90.42  WSEL=     813.75  RATIO=  0.0000
 NAT Q1=     96.   RATIOS LOB,CH,ROB=  0.0000  0.8877  0.1123  WSEL=     813.75

3265 DIVIDED FLOW

3280 CROSS SECTION     360.00 EXTENDED       3.85 FEET


3470 ENCROACHMENT STATIONS=      123.0      248.5  TYPE=      4  TARGET=        0.055
          CROSS SECTION A
   360.00      4 25   813.75      0.00    813.65    813.82      0.07      0 00      0.00    816.00
     290.        0.      272.       18.         0       126.       24.         0.        0.    812.60
     0 00      0.00     2.16      0.75     0.000     0 045     0.060     0.000    809.50    130 79
 0.001024        0.       0.        0.         0         0         0      0.00     68.71    248.50


*SECNO 1050.000
3280 CROSS SECTION    1050.00 EXTENDED       4.56 FEET


3470 ENCROACHMENT STATIONS=      129 0      162.0  TYPE=      1  TARGET=       33.000
  1050 00      4.97    814.47      0.00    814.39    814.55      0.09      0.73      0 01100000.00
     290.        0.      290.        0.        0.       123        0.        2.         1.  100000.00
     0.08      0.00     2.36      0.00     0.000     0.045     0.000     0.000    809.50    129.00
 0.001080       690.     690.      690.         1         0         0      0.00     33.00    162.00


CCHV=   0.500 CEHV=   1.000
*SECNO 1099.000

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      245.6      254.4  TYPE=      1  TARGET=        8.800
  1099.00      4.92    814 52      0.00    814.45    815.39      0.87      0.06      0 78100000.00
     290         0.      290.        0.        0.        39.        0.        2.         1.  100000.00
     0.08      0 00     7 48      0 00     0 000     0.013     0 000     0.000    809.60    245.60
 0.001311       49.      49.       49.         0         0         0      0.00      8.80    254.40
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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 1100.000

3370 NORMAL BRIDGE, NRD= 30 MIN ELTRD= 816.60 MAX ELLC= 815.10

3470 ENCROACHMENT STATIONS= 245.6 254.4 TYPE= 1 TARGET= 8.800

D/S FACE OF VARSITY DR.

1100.00	4.93	814.53	0.00	814.45	815.49	0.96	0.00	0.09	100000.00
290.	0.	290.	0.	0.	37.	0.	2.	1.	100000.00
0.08	0.00	7.86	0.00	0.000	0.013	0.000	0.000	809.60	245.60
0.001670	1.	1.	1.	0	0	0	-1.94	8.80	254.40

*SECNO 1167.000

3370 NORMAL BRIDGE, NRD= 30 MIN ELTRD= 816.60 MAX ELLC= 815.10

3470 ENCROACHMENT STATIONS= 245.6 254.4 TYPE= 1 TARGET= 8.800

U/S FACE OF VARSITY DR.

1167.00	5.12	814.72	0.00	814.66	815.63	0.90	0.11	0.03	100000.00
290.	0.	290.	0.	0.	38.	0.	2.	1.	100000.00
0.09	0.00	7.62	0.00	0.000	0.013	0.000	0.000	809.60	245.60
0.001639	67.	67.	67.	2	0	0	-2.54	8.80	254.40

*SECNO 1168.000

3470 ENCROACHMENT STATIONS= 245.6 254.4 TYPE= 1 TARGET= 8.800

1168.00	5.43	815.03	0.00	814.97	815.73	0.70	0.00	0.10	100000.00
290.	0.	290.	0.	0	43.	0.	2.	1.	100000.00
0.09	0.00	6.70	0.00	0.000	0.013	0.000	0.000	809.60	245.60
0.000987	1.	1	1.	3	0	0	0.00	8.80	254.40

*SECNO 1181.000

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS= 260.0 290.0 TYPE= 1 TARGET= 30.000

1181.00	5.52	815.92	0.00	815.89	816.03	0.11	0.00	0.30	100000.00
290.	0.	290.	0.	0	110.	0.	2.	1	100000.00
0.09	0.00	2.63	0.00	0.000	0.013	0.000	0.000	810.40	260.21
0.000107	13.	13.	13.	3	0	0	0.00	29.79	290.00

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         GLOB      QCH       QROB      ALOB      ACH       AROB      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 1194.000

3470 ENCROACHMENT STATIONS=      260.0      290.0  TYPE=      1  TARGET=       30.000
  1194.00      5 52    815.92      0.00    815.90    816 03      0.11       0.00      0.00100000.00
     290.        0.      290.        0.        0.      111.        0.         2.         1.  100000.00
     0.09      0.00      2.62      0.00     0.000     0.013     0.000     0 000    810.40    260.19
 0.000107       13.       13.       13.         0         0         0      0.00     29 81    290.00

*SECNO 1217.000

3470 ENCROACHMENT STATIONS=      260.0      290.0  TYPE=      1  TARGET=       30.000
  1217.00      5.52    815.92      0.00    815.90    816.03      0.11       0.00      0.00100000.00
     290.        0.      290.        0.        0.      111.        0.         2.         1.  100000.00
     0.09      0.00      2.62      0.00     0.000     0.013     0.000     0.000    810.40    260.19
 0.000107       23.       23        23.         0         0         0      0.00     29.80    290.00

CCHV=    0.100 CEHV=    0 300
*SECNO 1480 000

3470 ENCROACHMENT STATIONS=      260.0      290.0  TYPE=      1  TARGET=       30.000
          CROSS SECTION B
  1480.00      5.59    815 99      0.00    815.96    816.09      0.10       0.06      0.00100000 00
     290.        0.      290.        0.        0.      112.        0.         3.         1.  100000.00
     0.12      0.00      2.58      0 00     0.000     0.035     0 000     0.000    810.40    260.06
 0.000738       263.      263.      263.         2         0         0      0.00     29.94    290.00

*SECNO 1700.000

3470 ENCROACHMENT STATIONS=      260.0      290.0  TYPE=      1  TARGET=       30.000
  1700.00      5 55    816.15      0.00    816.13    816.26      0.11       0.16      0 00100000.00
     290.        0.      290.        0.        0.      111.        0.         4.         1.  100000.00
     0.14      0.00      2.61      0.00     0 000     0.035     0.000     0.000    810.60    260.14
 0.000759       220       220.      220.         2         0         0      0.00     29.86    290.00

CCHV=    0.500 CEHV=    1.000
*SECNO 1750.000

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= 245.6 254.4 TYPE= 1 TARGET= 8.800
D/S FACE OF PHOENIX DR.

1750.00	5.59	816.19	0.00	816.17	816.85	0.66	0.04	0.55	100000.00
290.	0.	290.	0.	0.	44.	0.	4	1.	100000.00
0.14	0.00	6.52	0.00	0.000	0.013	0.000	0.000	810.60	245 60
0.000922	50.	50.	50.	0	0	0	0.00	8.80	254.40

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.66	2.90	0.00	7.10	0.00	40.00	0.00	810.60	810.60

*SECNO 1817.000
PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
817.55	816.85	0.00	0.	290.	40.	40.	816.20	820.70

3470 ENCROACHMENT STATIONS= 245.6 254.4 TYPE= 1 TARGET= 8.800
U/S FACE OF PHOENIX DR.

1817.00	6.47	817.07	0.00	817.04	817.55	0.48	0.70	0.00	100000.00
290.	0	290.	0.	0.	52.	0.	4.	1.	100000.00
0 15	0 00	5 55	0.00	0.000	0.013	0.000	0.000	810.60	245.60
0.000613	67.	67.	67.	2	0	0	0.00	8 80	254.40

CCHV= 0.300 CEHV= 0 500
*SECNO 1867.000
2800 NAT Q1= 128.12 WSEL= 817.63 ENC Q1= 132.44 WSEL= 817.73 RATIO= -0.0337
NAT Q1= 132 RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 817.73

3470 ENCROACHMENT STATIONS= 250.0 304.0 TYPE= 4 TARGET= 0.000

1867.00	6.75	817 65	0.00	817.63	817.70	0.05	0.03	0.13	821.20
290	0.	290.	0.	0.	162.	0.	4	1.	820.20
0.16	0 00	1.79	0.00	0.000	0.045	0.000	0.000	810.90	257.57
0.000504	50.	50.	50.	2	0	0	0.00	40.54	298.11

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 SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
 Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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 2000.000
 2800 NAT Q1=      98.73  WSEL=     817.70  ENC Q1=     102.50  WSEL=     817.80  RATIO= -0.0382
 NAT Q1=     103.   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=     817.80

3470 ENCROACHMENT STATIONS=      250.0      304.0  TYPE=      4  TARGET=        0.000
  2000.00      6.03    817.73      0.00    817.70    817.80      0.07      0.09      0.01    822.00
     290.        0.      290.        0.        0.       134.        0.        4.        1.     821.00
     0.17      0.00      2.17      0.00     0.000     0.045     0.000     0.000    811.70    259.11
 0.000844      133.      133.      133.         1         0         0      0.00     37.17    296.28


*SECNO 2300.000
 2800 NAT Q1=      53.64  WSEL=     818.09  ENC Q1=      56.31  WSEL=     818.19  RATIO= -0.0497
 NAT Q1=      56   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=     818.19

3470 ENCROACHMENT STATIONS=      250.0      304.0  TYPE=      4  TARGET=        0.000
  2300.00      4.60    818.10      0.00    818.09    818.28      0.18      0.43      0.05    823.80
     290.        0.      290.        0.        0.       85.        0.        5.        2.     822.80
     0.20      0.00      3.40      0.00     0.000     0.045     0.000     0.000    813.50    262.17
 0.002882      300.      300.      300.         2         0         0      0.00     30.48    292.64


*SECNO 2610.000
 2800 NAT Q1=      37.00  WSEL=     819.29  ENC Q1=      39.20  WSEL=     819.39  RATIO= -0.0596
 NAT Q1=      39.   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=     819.39

3470 ENCROACHMENT STATIONS=      250.0      304.0  TYPE=      4  TARGET=        0.000
  2610.00      3.89    819.29      0.00    819.29    819.60      0.31      1.26      0.07    825.70
     290.        0.      290.        0.        0.       65.        0.         6        2.     824.70
     0.22      0.00      4.47      0.00     0.000     0.045     0.000     0.000    815.40    263.68
 0.006124      310.      310.      310.         2         0         0      0.00     27.16    290.84


*SECNO 2626.000
 2800 NAT Q1=      36.99  WSEL=     819.39  ENC Q1=      39.17  WSEL=     819.49  RATIO= -0.0589
 NAT Q1=      39.   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=     819.49

3470 ENCROACHMENT STATIONS=      250.0      304.0  TYPE=      4  TARGET=        0.000
  2626.00      3.89    819.39      0.00    819.39    819.70      0.31      0.10      0.00    825.80
     290         0.      290         0.        0.       65.         0         6.        2      824.80
     0.22      0.00      4.49      0.00     0.000     0.045     0.000     0.000    815.50    263.70
 0.006174       16.       16.       16.         0         0         0      0.00     27.13    290.83
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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 2642.000
 2800 NAT Q1=      36.95  WSEL=     819.49  ENC Q1=      39.13  WSEL=     819.59  RATIO= -0.0589
 NAT Q1=      39.   RATIOS LOB,CH,ROB=   0.0000   1.0000   0.0000  WSEL=     819.59

3470 ENCROACHMENT STATIONS=      250.0      304.0  TYPE=      4  TARGET=        0.000
  2642.00      3.89    819.49      0.00    819 49    819.80      0 31      0.10       0.00    825.90
     290.        0.      290.        0.        0.       65.        0.        6.         2.     824.90
     0.22      0.00      4.49      0.00     0.000     0.045     0 000     0.000    815.60    263.70
 0.006189       16.       16        16.         0         0         0      0.00     27.12    290.82


*SECNO 2659.000

3470 ENCROACHMENT STATIONS=      246.3      274.0  TYPE=      1  TARGET=       27.700
  2659.00      3.88    819.58      0.00    819.58    820.01      0.43      0.15       0.06100000.00
     290.        0.      290.        0.        0.       55.        0.        6.         2.  100000.00
     0.22      0.00      5.28      0.00     0.000     0.045     0.000     0.000    815.70    246.30
 0.014238       17.       17.       17.         1         0         0      0.00     27.70    274.00


CCHV=    0.500 CEHV=    1.000
*SECNO 2660.000

3370 NORMAL BRIDGE,NRD= 42 MIN ELTRD=  829.60 MAX ELLC=  821.70


3470 ENCROACHMENT STATIONS=      246.3      274.0  TYPE=      1  TARGET=       27 700
          D/S FACE OF D.T.&I.RR.
  2660.00      3 88    819.58    818.95    819.58    820 39      0.80      0.00       0.37100000.00
     290         0.      290.        0.        0.       40.        0.        6.         2.  100000.00
     0.22      0.00      7.20      0.00     0.000     0.013     0.000     0.000    815.70    246.30
 0 001905         1         1.        1.         0        15         0    -14.72     27.70    274.00


*SECNO 3061.000

3370 NORMAL BRIDGE,NRD= 42 MIN ELTRD=  829.60 MAX ELLC=  821.70


3470 ENCROACHMENT STATIONS=      246 3      274.0  TYPE=      1  TARGET=       27.700
          U/S FACE OF D.T.&I.RR.
  3061 00      4.94    820.64      0.00    820.64    821.14      0.50      0.59       0.15100000.00
     290.        0.      290.        0.        0.       51.        0.        6.         2.  100000.00
     0.24      0 00      5.65      0.00     0.000     0.013     0 000     0.000    815.70    246.30
 0 001179       401.      401       401.         4         0         0    -32.74     27.70    274.00
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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 3062.000

3470 ENCROACHMENT STATIONS=      246.3      274.0  TYPE=      1  TARGET=       27.700
  3062.00      5.48    821.18      0.00    821.18    821.32      0.13       0.00       0.18100000.00
    290.         0.      290.        0.        0.        99.        0.         6.         2.  100000.00
      0.24       0.00      2.93      0.00      0.000     0.013     0.000      0.000    815.70    246.30
 0.000186          1.        1.        1.        3         0         0       0.00     27.70    274.00


*SECNO 3111.000
 2800 NAT Q1=      136.84  WSEL=      821.20  ENC Q1=      142.85  WSEL=      821.30  RATIO= -0.0440
 NAT Q1=      143.   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=      821.30

3470 ENCROACHMENT STATIONS=       31.0       86.0  TYPE=      4  TARGET=        0.000
  3111.00      5.30    821.20      0.00    821.20    821.48      0.29       0.01       0.15    826.60
    290.         0.      290.        0.        0.        67.        0.         6.         2.    825.20
      0.24       0.00      4.30      0.00      0.000     0.013     0.000      0.000    815.90     48.25
 0.000453         49.       49.       49.         0         0         0       0.00     25.60     73.85


CCHV=    0.300 CEHV=    0.500
*SECNO 3210.000
 2800 NAT Q1=       42.05  WSEL=      821.34  ENC Q1=       44.06  WSEL=      821.44  RATIO= -0.0478
 NAT Q1=       44.   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=      821.44

3470 ENCROACHMENT STATIONS=       31.0       86.0  TYPE=      4  TARGET=        0.000
           CROSS SECTION C
  3210.00      5.44    821.34      0.00    821.34    821.60      0.26       0.10       0.01    826.60
    290.         0.      290.        0.        0.        71.        0.         6.         2.    825.20
      0.25       0.00      4.08      0.00      0.000     0.045     0.000      0.000    815.90     47.80
 0.004740         99.       99.       99.         2         0         0       0.00     26.48     74.28


*SECNO 3260.000
 2800 NAT Q1=       30.31  WSEL=      821.57  ENC Q1=       31.87  WSEL=      821.67  RATIO= -0.0514
 NAT Q1=       32.   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=      821.67

3470 ENCROACHMENT STATIONS=       31.0       86.0  TYPE=      4  TARGET=        0.000
  3260.00      4.77    821.57      0.00    821.57    822.01      0.43       0.32       0.09    827.50
    290.         0.      290.        0.        0.        55.        0.         7.         2.    826.10
      0.25       0.00      5.29      0.00      0.000     0.045     0.000      0.000    816.80     49.94
 0.009125         50.       50.       50.         2         0         0       0.00     22.32     72.26
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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       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 3310.000
 2800 NAT Q1=      24.30  WSEL=     822.04  ENC Q1=      25.59  WSEL=     822.14  RATIO= -0.0528
 NAT Q1=      26.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     822.14

3470 ENCROACHMENT STATIONS=       31.0       86.0  TYPE=      4  TARGET=        0.000
  3310.00      4 34    822.04      0.00    822.04    822.66      0.62      0.56      0.09    828.40
      290         0.       290.       0.        0.       46.       0.        7.        2.     827.00
     0.25      0 00      6.34      0.00     0.000     0 045     0.000     0.000    817.70     51.32
 0.014222        50        50.       50.         2         0         0      0 00     19.63     70.94


*SECNO 3360 000
 2800 NAT Q1=      22.21  WSEL=     822.77  ENC Q1=      23.39  WSEL=     822.87  RATIO= -0.0530
 NAT Q1=      23.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0 0000  WSEL=     822.87

3470 ENCROACHMENT STATIONS=       31.0       86.0  TYPE=      4  TARGET=        0.000
  3360.00      4.17    822 77      0.00    822.77    823.49      0.72      0.77      0.05    829.30
      290.        0.       290       0.        0.       43.       0.        7.        2.     827.90
     0.26      0.00      6.81      0.00     0.000     0.045     0.000     0.000    818.60     51.85
 0 016942        50.       50.       50.         1         0         0      0.00     18.58     70.44


*SECNO 3380.000
 2800 NAT Q1=      23.50  WSEL=     823.17  ENC Q1=      24.72  WSEL=     823.27  RATIO= -0.0520
 NAT Q1=      25.   RATIOS LOB,CH,ROB=  0.0000  1 0000  0.0000  WSEL=     823 27

3470 ENCROACHMENT STATIONS=       31.0       86.0  TYPE=      4  TARGET=        0.000
  3380.00      4.26    823.16      0 00    823.17    823.83      0.67      0.32      0.02    829.60
      290         0.       290.       0.        0        44.       0.        7.        2.     828.20
     0.26      0.00      6.56      0 00     0.000     0.045     0.000     0.000    818.90     51.57
 0.015451        20.       20.       20.         2         0         0      0.00     19 13     70.70


*SECNO 3400 000
 2800 NAT Q1=      20.79  WSEL=     823.44  ENC Q1=      21.90  WSEL=     823.54  RATIO= -0.0536
 NAT Q1=      22.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     823.54

3470 ENCROACHMENT STATIONS=       31.0       86.0  TYPE=      4  TARGET=        0.000
  3400.00      4.03    823.43      0.00    823.44    824.25      0.82      0.35      0.07    830.10
      290.        0       290.       0.        0.       40.       0.        7.        2.     828.70
     0.26      0.00      7.25      0.00     0.000     0.045     0.000     0.000    819.40     52.30
 0.019636        20.       20.       20.         2         0         0      0.00     17.71     70.01
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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 3410.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS= 246.2 253.7 TYPE= 1 TARGET= 7.500
D/S FACE OF RESEARCH PKWY

3410.00	4.01	823.51	823.51	823.51	825.32	1.81	0.07	1.00	100000.00
290.	0.	290.	0.	0.	27.	0.	7.	2.	100000.00
0.26	0.00	10.81	0.00	0.000	0.013	0.000	0.000	819.50	246.20
0.003515	10.	10.	10.	2	5	0	0.00	7.50	253.70

SPECIAL BRIDGE

SB	XK	XKOR	COFQ	RDLEN	BWC	BWP	BAREA	SS	ELCHU	ELCHD
	0.00	1.73	2.90	0.00	6.30	0.00	29.50	0.00	819.50	819.50

*SECNO 3489.000

3301 HV CHANGED MORE THAN HVINS

PRESSURE FLOW

EGPRS	EGLWC	H3	QWEIR	QPR	BAREA	TRAPEZOID AREA	ELLC	ELTRD
826.10	825.32	0.00	0.	290.	30.	30	824.20	826.60

3470 ENCROACHMENT STATIONS= 246.2 253.7 TYPE= 1 TARGET= 7.500
U/S FACE OF RESEARCH PKWY

3489.00	5.80	825.30	0.00	825.30	826.10	0.81	0.78	0.00	100000.00
290.	0.	290.	0.	0.	40	0	7.	2.	100000.00
0.26	0.00	7.20	0.00	0.000	0.013	0.000	0.000	819.50	246.20
0.001248	79.	79.	79.	3	0	0	0.00	7.50	253.70

*SECNO 3509.000

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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

 2800 NAT Q1=     209.39  WSEL=     826.28  ENC Q1=     218.11  WSEL=     826.38  RATIO= -0.0417
 NAT Q1=     218   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     826.38

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=      235.0      265.0  TYPE=      4  TARGET=        0.000
  3509.00      6.48    826.28      0.00    826.28    826.43      0.16      0.01      0.32    826.90
     290.        0.      290.        0.        0.        91        0.        7.        2.     826.90
     0.26      0.00      3.19      0.00     0.000     0.013     0.000     0.000    819.80    236.33
 0.000192       20.       20.       20.         3         0         0      0.00     27.34    263.67


*SECNO 3539.000
 2800 NAT Q1=     214.74  WSEL=     826.31  ENC Q1=     224.96  WSEL=     826.41  RATIO= -0.0476
 NAT Q1=     225.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     826.41

3470 ENCROACHMENT STATIONS=       31.0       86.0  TYPE=      4  TARGET=        0.000
  3539.00      6.31    826.31      0.00    826.31    826.45      0.14      0.01      0.01    830.70
     290.        0.      290.        0.         0        96.        0.        7.        2.     829.30
     0.27      0.00      3.01      0.00     0.000     0.013     0.000     0.000    820.00     45.03
 0.000181       30.       30.       30.         2         0         0      0.00     31.89     76.92


CCHV=    0.500 CEHV=    1.000
*SECNO 3700.000
 2800 NAT Q1=      39.44  WSEL=     826.39  ENC Q1=      41.48  WSEL=     826.49  RATIO= -0.0516
 NAT Q1=      41.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     826.49

3470 ENCROACHMENT STATIONS=       31.0       86.0  TYPE=      4  TARGET=        0.000
  3700.00      4.79    826.39      0.00    826.39    826.82      0.43      0.08      0.29    832.30
     290.        0.      290.        0.        0.        55.        0.        7.        2.     830.90
     0.27      0.00      5.25      0.00     0.000     0.035     0.000     0.000    821.60     49.87
 0.005409       161.      161.      161.         2         0         0      0.00     22.45     72.32


*SECNO 3800.000
 2800 NAT Q1=      34.18  WSEL=     827.01  ENC Q1=      36.01  WSEL=     827.11  RATIO= -0.0535
 NAT Q1=      36.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     827.11

3470 ENCROACHMENT STATIONS=       31.0       86.0  TYPE=      4  TARGET=        0.000
  3800.00      4.51    827.01      0.00    827.01    827.55      0.54      0.62      0.11    833.20
     290.        0.      290.        0.        0.        49.        0.        7.        2.     831.80
     0.28      0.00      5.89      0.00     0.000     0.035     0.000     0.000    822.50     50.76
 0.007195       100.      100.      100.         2         0         0      0.00     20.70     71.47
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  SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         DLOSS    BANK ELEV
  Q          GLOB       GCH        QROB       ALOB       ACH        AROB       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 3900.000
 2800 NAT Q1=      30.78  WSEL=     827.81  ENC Q1=      32.43  WSEL=     827.91  RATIO= -0.0536
 NAT Q1=     32.   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=     827.91

3470 ENCROACHMENT STATIONS=       31.0       86.0  TYPE=      4  TARGET=         0.000
  3900.00      4.31    827.81      0.00    827.81    828 45      0.64       0.80       0.10    834.20
     290.        0.      290.        0.        0.       45.        0.          7          3.    832.80
     0 28       0.00      6.42      0.00     0.000     0.035     0.000      0.000    823.50     51.41
 0.008880       100.      100.      100.         2         0         0       0.00     19.44     70.85


*SECNO 4070.000
 2800 NAT Q1=      51.66  WSEL=     829.16  ENC Q1=      54.20  WSEL=     829.26  RATIO= -0.0491
 NAT Q1=     54.   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=     829.26

3470 ENCROACHMENT STATIONS=      250 0      281.0  TYPE=      4  TARGET=         0.000
  4070.00      4.16    829.16      0.00    829.16    829.46     0 30       0.85       0.17    831.00
     290.        0.      290.        0.        0.       66.        0.          8          3.    831.70
     0.29       0.00      4.41      0.00     0.000     0.035    0 000      0.000    825.00    252.88
 0.003175       170.      170.      170.         2         0         0       0.00     24.33    277.22


CCHV=    0.500 CEHV=    1.000
*SECNO 4120.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      246 2      253.7  TYPE=      1  TARGET=         7.500
           D/S FACE OF RESEARCH PKWY
  4120.00      3.89    829 39    829.39    829.39    831.20      1.81       0.17      1.51100000.00
     290         0.      290.        0.        0.       27.        0.          8          3.  100000.00
     0.29       0.00     10.80      0.00     0.000     0.013     0.000      0.000    825.50    246.20
 0.003537        50.       50.       50.         2        11         0       0.00      7.50    253.70
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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
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	1.73	2.90	0.00	6.25	0.00	30.00	0.00	825.50	825.50

*SECNO 4200.000
6870 D.S ENERGY OF 831.20 HIGHER THAN COMPUTED ENERGY OF 831.19
2800 NAT Q1= 138.64 WSEL= 830.92 ENC Q1= 145.86 WSEL= 831.02 RATIO= -0.0521
NAT Q1= 147. RATIOS LOB,CH,ROB= 0.0063 0.9937 0.0000 WSEL= 831.02
WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS= 235.0 265.0 TYPE= 4 TARGET= 0.006
U/S FACE OF RESEARCH PKWY

4200.00	5 42	830.92	0.00	830.92	831.20	0.27	0.08	0.77	831.80
290.	0.	290.	0	0.	69.	0.	8.	3	831.80
0.30	0.00	4.20	0.00	0.000	0.013	0.000	0.000	825.50	237.29
0.000436	80.	80.	80.	0	0	6	0.00	25.46	262.75

*SECNO 4250.000
2800 NAT Q1= 237.54 WSEL= 831.14 ENC Q1= 247.11 WSEL= 831.24 RATIO= -0.0403
NAT Q1= 249. RATIOS LOB,CH,ROB= 0.0000 0 9933 0.0067 WSEL= 831.24

3470 ENCROACHMENT STATIONS= 250.0 281.0 TYPE= 4 TARGET= 0.007

4250.00	5.34	831.14	0.00	831.14	831.28	0.14	0.01	0.07	831 80
290.	0.	290.	0.	0.	96.	0.	8.	3.	832 50
0.30	0.00	3.01	0.00	0.000	0.013	0.000	0.000	825.80	251.04
0.000149	50.	50.	50.	2	0	0	0.00	27.93	278.97

CCHV= 0.500 CEHV= 1.000
*SECNO 4650.000
2800 NAT Q1= 91.08 WSEL= 831.41 ENC Q1= 91.08 WSEL= 831.51 RATIO= 0.0000
NAT Q1= 100. RATIOS LOB,CH,ROB= 0.0000 0.2128 0.7872 WSEL= 831.51

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS= 250.0 550.8 TYPE= 4 TARGET= 0.088
CROSS SECTION D

4650 00	2.69	831.39	0.00	831.41	831.45	0.06	0.13	0.04	834.70
290.	0.	67.	223.	0.	33.	119.	9.	3.	835.40
0.36	0.00	2.02	1.88	0.000	0.035	0.040	0.000	828.70	255.19
0.001213	400.	400.	400.	2	0	0	0.00	92.91	550.80

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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 4750.000
 2800 NAT Q1=      32.09  WSEL=     831.63  ENC Q1=      32.09  WSEL=     831.73  RATIO=  0.0000
 NAT Q1=      93.  RATIOS LOB,CH,ROB=  0.0000  0.2141  0.7859  WSEL=     831.73

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=      250.0      506.5  TYPE=      4  TARGET=        0.655
  4750.00      2.66    831.66      0.00    831.63    832.04      0.39      0.26      0.33    835.00
     290.        0.       183.       107.        0.       33.       29.        9.        3.     835.70
     0.37      0.00      5.62      3.67     0.000     0.035     0.040     0.000    829.00    255.25
 0.009594       100.      100.       100.         2         0         0      0.00     47.98    506.46

*SECNO 4850.000
 2800 NAT Q1=      26.66  WSEL=     832.60  ENC Q1=      28.79  WSEL=     832.70  RATIO= -0.0800
 NAT Q1=      29.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     832.70

3470 ENCROACHMENT STATIONS=      250.0      281.0  TYPE=      4  TARGET=        0.000
  4850.00      3.17    832.67      0.00    832.60    833.38      0.71      1.01      0.32    835.50
     290.        0       290.        0.        0.       43.        0.        9.        3.     836.20
     0.37      0.00      6.75      0.00     0.000     0.035     0.000     0.000    829.50    254.45
 0.010721       100       100.       100.         1         0         0      0.00     21.28    275.73

*SECNO 5050.000
 2800 NAT Q1=      41.52  WSEL=     834.57  ENC Q1=      43.98  WSEL=     834.67  RATIO= -0.0593
 NAT Q1=      44.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     834.67

3470 ENCROACHMENT STATIONS=      250.0      281.0  TYPE=      4  TARGET=        0.000
  5050.00      3.73    834.53      0.00    834.57    834.95      0.42      1.44      0.14    836.80
     290.        0.       290.        0.        0.       55.        0.       10.        4.     837.50
     0.38      0.00      5.23      0.00     0.000     0.035     0.000     0.000    830.80    253.56
 0.005140       200.      200.       200.         2         0         0      0.00     23.01    276.57

*SECNO 5250.000
 2800 NAT Q1=      41.16  WSEL=     835.56  ENC Q1=      43.59  WSEL=     835.66  RATIO= -0.0588
 NAT Q1=      44.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     835.66

3470 ENCROACHMENT STATIONS=      250.0      281.0  TYPE=      4  TARGET=        0.000
  5250.00      3.76    835.56      0.00    835.56    835.97      0.42      1.02      0.00    837.80
     290.        0.       290.        0.        0.       56.        0.       10        4.     838.50
     0.39      0.00      5.18      0.00     0.000     0.035     0.000     0.000    831.80    253.53
 0.005011       200.      200.       200.         2         0         0      0.00     23.08    276.61
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   SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
   Q          QLOB       QCH        QROB       ALOB       ACH        AROB       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 5350.000
 2800 NAT Q1=      39 23  WSEL=     836.08  ENC Q1=      41.63  WSEL=     836.18  RATIO= -0.0611
 NAT Q1=      42.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     836.18

3470 ENCROACHMENT STATIONS=      250.0      281.0  TYPE=      4  TARGET=        0.000
  5350.00      3.68    836.08      0.00    836.08    836.52      0.44      0.52      0.03    838.40
     290.        0.      290.         0        0        54.        0.        10.        4.     839.10
     0.40      0.00      5.34      0.00    0.000     0.035     0.000     0.000    832.40    253.64
 0.005453       100.      100.       100.        2         0         0      0.00     22.86    276.50


CCHV=    0.500 CEHV=    1.000
*SECNO 5399.000
 2800 NAT Q1=      62.48  WSEL=     836.33  ENC Q1=      65.29  WSEL=     836.43  RATIO= -0.0449
 NAT Q1=      65.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     836.43

3470 ENCROACHMENT STATIONS=      248.0      270.0  TYPE=      4  TARGET=        0.000
  5399.00      3.72    836.32      0.00    836.33    836.71      0.39      0.16      0.03    848.20
     290.        0.      290.         0        0.        58.        0.        10.        4.     847.60
     0.40      0.00      4.99      0.00    0.000     0.025     0.000     0.000    832.60    249.67
 0.002173        49.       49.        49.        2         0         0      0.00     18.81    268.49


*SECNO 5400.000
 2800 NAT Q1=      60.22  WSEL=     836.33  ENC Q1=      63.03  WSEL=     836.43  RATIO= -0.0467
 NAT Q1=      63.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     836.43

3370 NORMAL BRIDGE, NRD= 27 MIN ELTRD=  843.00 MAX ELLC=  838.80


3470 ENCROACHMENT STATIONS=      248.0      270.0  TYPE=      4  TARGET=        0.000
           D/S FACE OF STATE ST.
  5400.00      3.73    836.33      0.00    836.33    836.73      0.40      0.00      0.02    848.20
     290.        0.      290.         0        0.        57.        0.        10.        4.     847.60
     0.40      0.00      5.10      0.00    0.000     0.025     0.000     0.000    832.60    249.67
 0.002326         1.        1.         1.        0         0         0     -1.26     18.81    268.49


*SECNO 5592.000
 2800 NAT Q1=      75.04  WSEL=     836.84  ENC Q1=      78.06  WSEL=     836.94  RATIO= -0.0402
 NAT Q1=      78.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     836.94
```

SECNO	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 27 MIN ELTRD= 843.00 MAX ELLC= 838.80

3470 ENCROACHMENT STATIONS= 248.0 270.0 TYPE= 4 TARGET= 0.000

U/S FACE OF STATE ST.									
5592.00	4.24	836.84	0.00	836.84	837.13	0.30	0.35	0.05	848.20
290.	0	290.	0.	0.	66.	0.	10.	4.	847.60
0.41	0.00	4.39	0.00	0.000	0.025	0.000	0.000	832.60	249.60
0.001493	192.	192.	192.	2	0	0	-1.71	18.95	268.56

*SECNO 5593.000
2800 NAT Q1= 79.17 WSEL= 836.87 ENC Q1= 82.43 WSEL= 836.97 RATIO= -0.0411
NAT Q1= 82. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 836.97

3470 ENCROACHMENT STATIONS= 248.0 270.0 TYPE= 4 TARGET= 0.000

5593.00	4.27	836.87	0.00	836.87	837.15	0.28	0.00	0.01	848.20
290.	0.	290.	0.	0.	68.	0.	10.	4.	847.60
0.41	0.00	4.24	0.00	0.000	0.025	0.000	0.000	832.60	249.60
0.001342	1.	1.	1.	2	0	0	0.00	18.96	268.56

*SECNO 5642.000
2800 NAT Q1= 67.42 WSEL= 836.94 ENC Q1= 71.39 WSEL= 837.04 RATIO= -0.0590
NAT Q1= 71. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 837.04

3470 ENCROACHMENT STATIONS= 250.0 281.0 TYPE= 4 TARGET= 0.000

5642.00	4.04	836.94	0.00	836.94	837.27	0.33	0.08	0.05	838.90
290.	0	290.	0.	0	63.	0.	10.	4.	839.60
0.42	0.00	4.62	0.00	0.000	0.025	0.000	0.000	832.90	253.07
0.001843	49.	49.	49.	0	0	0	0.00	23.96	277.04

*SECNO 5900.000
2800 NAT Q1= 46.46 WSEL= 837.61 ENC Q1= 49.61 WSEL= 837.71 RATIO= -0.0679
NAT Q1= 50. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 837.71

3470 ENCROACHMENT STATIONS= 250.0 281.0 TYPE= 4 TARGET= 0.000

5900.00	3.41	837.61	0.00	837.61	838.17	0.56	0.67	0.23	840.20
290.	0.	290.	0.	0.	48.	0.	11.	4	840.90
0.43	0.00	5.99	0.00	0.000	0.025	0.000	0.000	834.20	254.06
0.003879	258.	258.	258.	1	0	0	0.00	22.05	276.11

```
  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 6000.000
 2800 NAT Q1=      43.86  WSEL=     838.03  ENC Q1=      46.89  WSEL=     838.13  RATIO= -0.0691
 NAT Q1=      47.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     838.13

3470 ENCROACHMENT STATIONS=      250 0      281.0  TYPE=      4  TARGET=        0.000
  6000.00      3 32    838.02     0.00    838.03    838.63     0.61      0.41      0.05    840.70
     290         0.      290        0.        0.       46.        0.       11.        4.    841.40
     0.43      0.00      6.26     0.00     0.000     0.025    0.000     0.000    834.70    254.20
 0.004388      100.      100.     100.         2         0         0      0.00     21.77    275.97

CCHV=   0.500 CEHV=   1.000
*SECNO 6200.000
 2800 NAT Q1=      29.28  WSEL=     839 91  ENC Q1=      30.38  WSEL=     840.01  RATIO= -0.0376
 NAT Q1=      31.  RATIOS LOB,CH,ROB=  0.0045  0.9720  0.0234  WSEL=     840.01

3470 ENCROACHMENT STATIONS=      250.0      264.0  TYPE=      4  TARGET=        0.028
          CROSS SECTION E
  6200 00      4.29    839.99     0.00    839.91    840.85     0.86      1.97      0 25    839.60
     290.        0.      290.        0.        0.       39.        0.       11.        4.    838.50
     0.44      0.00      7.45     0.00     0.000     0.035    0.000     0.000    835.70    250 00
 0.010868      300.      300.     300.         1         0         0      0.00     14.00    264.00

*SECNO 6300.000
 2800 NAT Q1=      41.63  WSEL=     841.07  ENC Q1=      41.63  WSEL=     841.17  RATIO=  0.0000
 NAT Q1=      44.  RATIOS LOB,CH,ROB=  0.0318  0.9299  0.0384  WSEL=     841.17

3470 ENCROACHMENT STATIONS=      249.7      264.5  TYPE=      4  TARGET=        0.060
  6300.00      4 81    841.11     0.00    841.07    841.71     0 60      0.73      0.13    840.20
     290.        0.      288.        1.        0.       46        1.       11.        4.    839.10
     0.45      1 06      6.23     1.62     0.035     0.035    0.035     0.000    836.30    249.74
 0.005219      100.      100      100.         3         0         0      0.00     14.73    264.47

*SECNO 6500.000

3470 ENCROACHMENT STATIONS=      250.0      270 0  TYPE=      1  TARGET=       20.000
          CROSS SECTION F
  6500.00      4.86    842.36     0.00    842 22    842.79     0.43      1.00      0 09    842.50
     290.        0.      290        0.        0.       55        0.       11.        4.  100000.00
     0.46      0.00      5.25     0.00     0.000     0.035    0.000     0.000    837.50    250.33
 0.004774      200.      200.     200.         2         0         0      0.00     19.67    270.00
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  SECND     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      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
*SECND 6600.000
 2800 NAT Q1=      54.29  WSEL=     842.60  ENC Q1=      56.48  WSEL=     842.70  RATIO= -0.0403
 NAT Q1=      56.   RATIOS LOB,CH,ROB=  0.0000   1.0000  0.0000  WSEL=     842.70

3470 ENCROACHMENT STATIONS=      150.0      164.0  TYPE=      4  TARGET=        0.000
          D/S FACE OF EXIT RAMP FROM E. BOUND I-94 TO STATE ST.
  6600.00      3.91    842.71      0.00    842.60    843.20      0.49      0.35      0.06    849.80
     290.        0.      290.        0.        0.      52.         0.       11.        4.     849.80
     0 46      0.00      5.61      0.00     0.000     0.025     0.000     0.000    838.80    150.00
 0.002619       100.      100.      100.         2         0         0      0.00     14.00    164.00


SPECIAL BRIDGE

SB  XK          XKOR       COFQ       RDLEN      BWC        BWP        BAREA      SS         ELCHU      ELCHD
     0.00        2.18       2 90        0.00     14.00       0.00       51.80      0.00      839 00     839.00

*SECND 6662.000
 2800 NAT Q1=      69 99  WSEL=     843.30  ENC Q1=      72.21  WSEL=     843.40  RATIO= -0 0317
 NAT Q1=      72.   RATIOS LOB,CH,ROB=  0.0000   1 0000  0.0000  WSEL=     843.40
 WATER EL=CHANGE FROM NATURAL PROFILES BRIDGE

3470 ENCROACHMENT STATIONS=      150.0      164.0  TYPE=      4  TARGET=        0.000
          U/S FACE OF EXIT RAMP FROM E. BOUND I-94 TO STATE ST.
  6662 00      4.61    843 41      0.00    843.30    843.75      0.35      0.13      0.07    849.80
     290.        0.      290.        0.        0.      61.         0.       12.        4.     849.80
     0.47      0.00      4.72      0.00     0.000     0.025     0 000     0.000    838.80    150.00
 0.001604       62.       62.       62.         0         0         0      0 00     14 00    164.00


*SECND 6712.000
 2800 NAT Q1=     119.14  WSEL=     843.65  ENC Q1=     123.71  WSEL=     843.75  RATIO= -0.0384
 NAT Q1=     125    RATIOS LOB,CH,ROB=  0.0079   0 9912  0.0009  WSEL=     843.75

3470 ENCROACHMENT STATIONS=      250 0      275.0  TYPE=      4  TARGET=        0.009
  6712.00      6.24    843.74      0.00    843.65    843.90      0.15      0.05      0.10    842.50
     290.        0.      290         0.        0.      92.         0.       12.        4.     843.00
     0 47      0.00      3.15      0.00     0.000     0.025     0 000     0.000    837 50    250.00
 0.000609        50        50.       50.         2         0         0      0.00     25.00    275.00


CCHV=   0.100 CEHV=   0.300
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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 6899.000
 2800 NAT Q1=      67.67  WSEL=    843.79  ENC Q1=      70.47  WSEL=    843.89  RATIO= -0.0413
 NAT Q1=     70.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    843.89

3470 ENCROACHMENT STATIONS=     240.0     270.0  TYPE=     4  TARGET=       0.000
  6899.00     4.38   843.88     0.00   843.79   844.09     0.21      0.18      0.02   847.50
     290.       0.     290.       0.       0.       79       0.        12.        4.    847.90
     0.49     0.00     3.66     0.00    0.000    0.035    0.000     0.000   839.50   244.58
 0.001705      187.     187.     187.        2        0        0      0.00    22.52   267.10


CCHV=   0.300 CEHV=   0.500
*SECNO 6900.000
 2800 NAT Q1=      66.33  WSEL=    843.71  ENC Q1=      68.58  WSEL=    843.81  RATIO= -0.0340
 NAT Q1=     69.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    843.81

3370 NORMAL BRIDGE,NRD= 27 MIN ELTRD=  846.90 MAX ELLC=  844.70


3470 ENCROACHMENT STATIONS=     240.0     270.0  TYPE=     4  TARGET=       0.000
          D/S FACE OF I-94 AND N  SIDE OF RAMP TO W. BOUND I-94
  6900.00     4.31   843.81     0.00   843.71   844.17     0.36      0.00      0.08   847.50
     290.       0.     290.       0.       0.       60.       0.        12.        4.    847.90
     0.49     0.00     4.85     0.00    0.000    0.025    0.000     0.000   839.50   244.68
 0.001795        1.       1.       1.        2        0        0    -17.60    22.37   267.04


*SECNO 7128.000
 2800 NAT Q1=      77.02  WSEL=    844.18  ENC Q1=      79.34  WSEL=    844.28  RATIO= -0.0302
 NAT Q1=     79.   RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=    844.28

3370 NORMAL BRIDGE,NRD= 27 MIN ELTRD=  846.90 MAX ELLC=  844.70


3470 ENCROACHMENT STATIONS=     240.0     270.0  TYPE=     4  TARGET=       0.000
          U/S FACE OF I-94 AND N. SIDE OF RAMP TO W. BOUND I-94
  7128.00     4.75   844.25     0.00   844.18   844.55     0.30      0.35      0.02   847.50
     290.       0.     290.       0.       0.       66.       0.        12.        5.    847.90
     0.50     0.00     4.39     0.00    0.000    0.025    0.000     0.000   839.50   244.12
 0.001363      228.     228      228.        2        0        0    -21.46    23.24   267.36
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  SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
  Q          QLOB       QCH        QROB       ALOB       ACH        AROB       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 7129.000
 2800 NAT Q1=     118.70  WSEL=     844.37  ENC Q1=     123.03  WSEL=     844.47  RATIO= -0.0364
 NAT Q1=     123.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     844.47

3470 ENCROACHMENT STATIONS=      240.0      270.0  TYPE=      4  TARGET=        0.000
  7129.00      4.94    844.44      0.00    844.37    844.59      0.15      0.00      0.04    847.50
     290.        0.      290.        0.        0.       92.        0.       12.        5.     847.90
     0.50      0.00      3.16      0.00     0.000     0.025     0.000     0.000    839.50    243.88
 0.000571        1.        1.        1.         2         0         0      0.00     23.62    267.50


*SECNO 7259.000
 2800 NAT Q1=     104.43  WSEL=     844.52  ENC Q1=     106.30  WSEL=     844.62  RATIO= -0.0180
 NAT Q1=     112.  RATIOS LOB,CH,ROB=  0.0000  0.9478  0.0522  WSEL=     844.62

3470 ENCROACHMENT STATIONS=      250.0      282.0  TYPE=      4  TARGET=        0.052
          CROSS SECTION @
  7259.00      3.86    844.56      0.00    844.52    844.68      0.11      0.07      0.01    844.50
     240.        0.      240.        0.        0.       90.        0.       13.        5.     844.40
     0.52      0.00      2.68      0.00     0.000     0.025     0.000     0.000    840.70    250.00
 0.000552      130.      130.      130.         2         0         0      0.00     32.00    282.00


CCHV=    0.500 CEHV=    1.000
*SECNO 7295.000
 2800 NAT Q1=      86.22  WSEL=     844.55  ENC Q1=      88.38  WSEL=     844.65  RATIO= -0.0251
 NAT Q1=      88.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     844.65

3470 ENCROACHMENT STATIONS=      250.0      266.0  TYPE=      4  TARGET=        0.000
          D/S FACE OF DAM
  7295.00      5.80    844.60      0.00    844.55    844.70      0.11      0.02      0.00    848.60
     240.        0.      240         0.        0.       92.        0.       13.        5.     848.70
     0 52      0.00      2.61      0.00     0.000     0.035     0.000     0.000    838.80    250.00
 0.000759       36.       36.       36.         0         0         0      0.00     16.00    266.00


*SECNO 7362.000
 2800 NAT Q1=      17.25  WSEL=     856 01  ENC Q1=      18.66  WSEL=     856.11  RATIO= -0.0817
 NAT Q1=      19.  RATIOS LOB,CH,ROB=  0.0000  1.0000  0.0000  WSEL=     856.11

3301 HV CHANGED MORE THAN HVINS

3685 20 TRIALS ATTEMPTED WSEL,CWSEL
```

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

3693 PROBABLE MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=      250.0      266.0  TYPE=      4  TARGET=        0.000
          U/S FACE OF DAM
  7362.00      1.91     856.01     856.01     856.01     856.97      0.96       0.14       0.86     859.30
     240.        0.        240.       0.         0.         30.        0.         13.         5.      859.30
     0.52       0.00       7.87      0.00       0.000      0.035      0.000      0.000     854.10    250.00
 0.019354        67.        67.       67.         20         17          0       0.00      16.00    266.00


*SECNO 7462.000
 2800 NAT Q1=    1738.68  WSEL=     857.45  ENC Q1=    1771.89  WSEL=     857.55  RATIO= -0.0191
 NAT Q1=    1772.   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=     857.55

3301 HV CHANGED MORE THAN HVINS

  7462.00     11.45     857 45      0.00     857.45     857.45      0.00       0.00       0 48     858.00
     240.        0.        240.       0.         0.        1134.        0.        14.         5.      858.00
     0.65       0 00       0 21      0.00       0.000      0.035      0.000      0.000     846.00      3.45
 0.000002        100.       100.      100.          2          0          0       0.00     163.25    166.69


*SECNO 7962 000
 2800 NAT Q1=    1350.97  WSEL=     857.45  ENC Q1=    1378.01  WSEL=     857.55  RATIO= -0.0200
 NAT Q1=    1378.   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=     857.55
  7962 00     11.45     857.45      0.00     857.45     857.45      0.00       0.00       0.00     858.00
     240.        0.        240.       0.         0.        904.         0.        26.         7.      858.00
     1.18       0.00       0.27      0.00       0.000      0.035      0.000      0.000     846.00      2.75
 0.000003        500.       500.      500.          0          0          0       0.00     134.50    137.25


*SECNO 8629.000
 WATER EL=X5 CARD=    862.480
 2800 NAT Q1=    1559.83  WSEL=     862.38  ENC Q1=    1593.29  WSEL=     862.48  RATIO= -0.0214
 NAT Q1=    1593.   RATIOS LOB,CH,ROB=  0.0000   1 0000   0.0000  WSEL=     862.48
  8629.00     10 48     862.48      0.00     862.38     862.48      0.00       0.00       0.00     868.00
     240         0.        240.       0.         0.        1096.        0.        41          9.      868.00
     2.02       0.00       0.22      0.00       0.000      0.035      0.000      0.000     852.00     74 50
 0.000002        667.       667.      667.          0          0          0       0 00     171.00    245 50
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Elevations from HEC-1 Rating Curve

Series of Ponds

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 SECNO      DEPTH      CWSEL      CRIWS      WSELK      EG         HV         HL         OLOSS    BANK ELEV
 Q          QLOB       QCH        QROB       ALOB       ACH        AROB       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 8899.000
 WATER EL=X5 CARD=    862.480
 2800 NAT Q1=    2797.63  WSEL=     862 38  ENC Q1=    2851 80  WSEL=     862.48  RATIO= -0.0194
 NAT Q1=    2852   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=     862.48
  8899.00     10.48    862.48      0.00    862.38    862.48      0.00      0.00      0.00    868.00
     240.        0.       240.        0.        0.     1779.        0.       50.       10.     868.00
     2.58      0.00      0.13      0.00     0.000     0.035     0.000     0.000    852.00     22.60
 0.000001      270.      270.      270.         0         0         0      0.00    241.00    263.60

*SECNO 9541.000
 WATER EL=X5 CARD=    864.780
 2800 NAT Q1=    4152.32  WSEL=     864 68  ENC Q1=    4215 90  WSEL=     864.78  RATIO= -0.0153
 NAT Q1=    4216.   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=     864.78
  9541.00     12.78    864.78      0.00    864 68    864.78      0 00      0.00      0.00    868.00
     240.        0.       240.        0.         0     2281.        0.       80.       14.     868.00
     4.27      0.00      0.11      0.00     0.000     0.035     0.000     0.000    852.00     16.10
 0 000000      642.      642.      642.         0         0         0      0.00    248.77    264.87

*SECNO 9771.000
 WATER EL=X5 CARD=    864.780
 2800 NAT Q1=    4152.32  WSEL=     864.68  ENC Q1=    4215.90  WSEL=     864.78  RATIO= -0.0153
 NAT Q1=    4216   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=     864.78
  9771.00     12.78    864.78      0.00    864.68    864.78      0.00      0.00      0.00    868.00
     240.        0.       240.        0.        0.     2281.        0.       92.       15.     868.00
     4.88      0.00      0.11      0.00     0.000     0.035     0.000     0.000    852.00     16.10
 0.000000      230.      230.      230.         0         0         0      0.00    248.77    264.87

*SECNO 10481.000
 WATER EL=X5 CARD=    866.740
 2800 NAT Q1=     663.65  WSEL=     866.64  ENC Q1=     678.83  WSEL=     866.74  RATIO= -0.0229
 NAT Q1=     679.   RATIOS LOB,CH,ROB=  0.0000   1.0000   0.0000  WSEL=     866.74
 10481 00     10.74    866 74      0.00    866.64    866.74      0.00      0.00      0.00    872.00
     240.        0.       240.        0.        0.      511.        0       115.       18.     872.00
     5.30      0.00      0.47      0.00     0.000     0.035     0.000     0.000    856.00     19.73
 0.000012      710.      710.      710.         0         0         0      0.00     88.97    108.70

*SECNO 10881.000
 WATER EL=X5 CARD=    866.740
```

SECND	DEPTH	CWSEL	CRIWS	WSELK	EG	HV	HL	OLOSS	BANK ELEV
Q	QLOB	QCH	QROB	ALOB	ACH	AROB	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= 1041.49 WSEL= 866.64 ENC Q1= 1064.26 WSEL= 866 74 RATIO= -0.0219
NAT Q1= 1064. RATIOS LOB, CH, ROB= 0.0000 1.0000 0.0000 WSEL= 866.74

10881.00	10.74	866.74	0.00	866 64	866.74	0.00	0.00	0.00	872.00
240.	0.	240.	0.	0	763.	0.	121.	19.	872.00
5.65	0.00	0.31	0.00	0.000	0.035	0.000	0.000	856.00	21.30
0.000005	400.	400	400.	0	0	0	0.00	125.82	147.12

THIS RUN EXECUTED 3 NOV 88 11:25:42

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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

100-YEAR FLOOD

SUMMARY PRINTOUT TABLE 110

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
360.000	813.65	0.00	813.71	71.28	0.00	258.75	31.25	0.00	0.00	123.00	173.00	0.00
360.000	813.75	0.10	813.82	68.71	0.00	271.71	18 29	0.05	123.00	123.00	173.00	248.50
1050 000	814.39	0 00	814.48	33.00	0.00	290.00	0.00	33.00	129.00	123.00	173.00	162.00
1050.000	814.47	0.08	814.55	33.00	0.00	290.00	0.00	33.00	129.00	123.00	173.00	162.00
1099.000	814.45	0.00	815.35	8.80	0.00	290.00	0.00	8.80	245.60	230.00	275.00	254.40
1099 000	814.52	0.08	815.39	8.80	0.00	290 00	0.00	8.80	245.60	230.00	275.00	254 40
1100.000	814.45	0.00	815 43	8.80	0.00	290 00	0.00	8.80	245.60	230.00	275.00	254.40
1100.000	814 53	0.08	815.49	8.80	0.00	290.00	0.00	8.80	245.60	230.00	275.00	254.40
1167.000	814.66	0.00	815.58	8.80	0 00	290.00	0 00	8.80	245.60	230.00	275.00	254.40
1167.000	814.72	0.06	815.63	8.80	0.00	290.00	0.00	8.80	245.60	230.00	275.00	254.40
1168.000	814.97	0.00	815.68	8.80	0.00	290.00	0 00	8.80	245.60	230.00	275.00	254.40
1168.000	815 03	0.07	815.73	8.80	0.00	290.00	0.00	8.80	245.60	230.00	275.00	254.40
1181.000	815.89	0.00	815.99	34.65	0.00	290.00	0.00	0.00	0.00	250.00	304.00	0.00
1181.000	815.92	0.03	816.03	29.79	0.00	290.00	0.00	30.00	260.00	250.00	304.00	290.00
1194.000	815.90	0.00	816.00	34.68	0.00	290.00	0.00	0.00	0.00	250.00	304.00	0.00
1194.000	815.92	0.03	816.03	29.81	0.00	290.00	0.00	30.00	260.00	250.00	304.00	290.00
1217.000	815.90	0.00	816.00	34.67	0.00	290.00	0.00	0.00	0.00	250.00	304.00	0.00
1217.000	815.92	0 03	816.03	29.80	0.00	290.00	0.00	30.00	260.00	250.00	304.00	290.00
1480.000	815.96	0.00	816.06	34.97	0.00	290.00	0.00	0.00	0.00	250.00	304.00	0.00
1480.000	815.99	0.03	816.09	29.94	0.00	290.00	0.00	30.00	260.00	250.00	304.00	290.00
1700.000	816.13	0.00	816.22	34.80	0.00	290.00	0.00	0.00	0.00	250.00	304.00	0.00
1700.000	816.15	0.03	816.26	29.86	0.00	290.00	0.00	30.00	260.00	250.00	304.00	290.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
1750.000	816.17	0.00	816.83	8.80	0.00	290.00	0.00	8 80	245.60	223.00	274.00	254 40
1750.000	816.19	0.02	816.85	8.80	0.00	290.00	0.00	8.80	245 60	223.00	274.00	254.40
1817.000	817.04	0.00	817.52	8.80	0.00	290.00	0.00	8.80	245.60	223.00	274.00	254 40
1817.000	817.07	0.03	817.55	8.80	0.00	290.00	0.00	8.80	245.60	223.00	274.00	254 40
1867.000	817.63	0.00	817.68	40 43	0.00	290.00	0.00	0.00	0.00	250.00	304.00	0.00
1867.000	817.65	0.02	817 70	40.54	0.00	290.00	0.00	0.00	250 00	250.00	304 00	304.00
2000.000	817 70	0.00	817.78	37.04	0.00	290.00	0.00	0.00	0.00	250.00	304 00	0 00
2000.000	817.73	0.02	817.80	37.17	0.00	290.00	0 00	0.00	250.00	250.00	304.00	304 00
2300.000	818 09	0.00	818.27	30.41	0.00	290.00	0.00	0.00	0.00	250.00	304.00	0.00
2300.000	818.10	0.01	818.28	30.48	0 00	290.00	0.00	0.00	250.00	250.00	304.00	304.00
2610.000	819.29	0.00	819.60	27.15	0.00	290.00	0.00	0.00	0.00	250.00	304 00	0.00
2610.000	819.29	0 00	819.60	27.16	0.00	290.00	0.00	0.00	250.00	250.00	304.00	304.00
2626.000	819 39	0.00	819.70	27.15	0.00	290.00	0.00	0.00	0.00	250.00	304 00	0.00
2626.000	819.39	0.00	819.70	27.13	0.00	290.00	0.00	0.00	250.00	250.00	304.00	304.00
2642.000	819.49	0.00	819.80	27.14	0.00	290 00	0.00	0.00	0.00	250.00	304.00	0 00
2642.000	819.49	0.00	819.80	27.12	0.00	290.00	0.00	0.00	250.00	250.00	304.00	304.00
2659.000	819.58	0.00	820.01	27.70	0.00	290.00	0.00	27.70	246.30	240.00	280.00	274.00
2659.000	819.58	0.00	820 01	27.70	0.00	290.00	0.00	27.70	246.30	240.00	280.00	274 00
2660.000	819.58	0.00	820.39	27.70	0.00	290.00	0.00	27 70	246.30	240.00	280.00	274.00
2660.000	819.58	0.00	820.39	27.70	0.00	290.00	0.00	27.70	246.30	240.00	280.00	274.00
3061.000	820.64	0.00	821 14	27.70	0.00	290.00	0.00	27.70	246.30	240.00	280.00	274.00
3061.000	820.64	0.00	821.14	27.70	0.00	290.00	0.00	27.70	246 30	240.00	280.00	274 00
3062.000	821.18	0.00	821.32	27.70	0.00	290.00	0.00	27.70	246.30	240.00	280.00	274.00
3062.000	821.18	0.00	821.32	27.70	0.00	290.00	0.00	27.70	246.30	240.00	280.00	274.00
3111.000	821.20	0.00	821 48	25.65	0.00	290.00	0.00	0.00	0.00	31.00	86.00	0 00
3111.000	821.20	0.00	821.48	25.60	0.00	290.00	0.00	0.00	31.00	31.00	86.00	86.00
3210.000	821.34	0.00	821.59	26.46	0.00	290.00	0.00	0.00	0.00	31.00	86.00	0 00
3210.000	821.34	0.00	821.60	26.48	0.00	290.00	0.00	0.00	31.00	31.00	86.00	86.00
3260 000	821.57	0.00	822.00	22.30	0.00	290.00	0.00	0.00	0.00	31.00	86 00	0.00
3260.000	821.57	0.00	822.01	22.32	0.00	290.00	0.00	0.00	31.00	31.00	86 00	86.00
3310 000	822.04	0.00	822.66	19.62	0 00	290.00	0.00	0.00	0.00	31.00	86.00	0 00
3310.000	822.04	0.00	822.66	19.63	0.00	290.00	0.00	0.00	31.00	31.00	86.00	86.00
3360.000	822.77	0.00	823.49	18.55	0.00	290.00	0 00	0.00	0.00	31.00	86.00	0.00
3360.000	822.77	0.00	823 49	18.58	0.00	290.00	0.00	0.00	31.00	31.00	86.00	86.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	3380.000	823.17	0.00	823.83	19.22	0.00	290.00	0.00	0.00	0.00	31.00	86.00	0.00
	3380.000	823.16	-0.01	823.83	19.13	0.00	290.00	0.00	0.00	31.00	31.00	86.00	86.00
	3400.000	823.44	0.00	824.25	17.76	0.00	290.00	0.00	0.00	0.00	31.00	86.00	0.00
	3400.000	823.43	-0.01	824.25	17.71	0.00	290.00	0.00	0.00	31.00	31.00	86.00	86.00
	3410.000	823.51	0.00	825.32	7.50	0.00	290.00	0.00	7.50	246.20	235.00	265.00	253.70
*	3410.000	823.51	0.00	825.32	7.50	0.00	290.00	0.00	7.50	246.20	235.00	265.00	253.70
	3489.000	825.30	0.00	826.11	7.50	0.00	290.00	0.00	7.50	246.20	235.00	265.00	253.70
	3489.000	825.30	0.00	826.10	7.50	0.00	290.00	0.00	7.50	246.20	235.00	265.00	253.70
	3509.000	826.28	0.00	826.44	27.35	0.00	290.00	0.00	0.00	0.00	235.00	265.00	0.00
	3509.000	826.28	0.00	826.43	27.34	0.00	290.00	0.00	0.00	235.00	235.00	265.00	265.00
	3539.000	826.31	0.00	826.45	31.84	0.00	290.00	0.00	0.00	0.00	31.00	86.00	0.00
	3539.000	826.31	0.00	826.45	31.89	0.00	290.00	0.00	0.00	31.00	31.00	86.00	86.00
	3700.000	826.39	0.00	826.82	22.45	0.00	290.00	0.00	0.00	0.00	31.00	86.00	0.00
	3700.000	826.39	0.00	826.82	22.45	0.00	290.00	0.00	0.00	31.00	31.00	86.00	86.00
	3800.000	827.01	0.00	827.55	20.70	0.00	290.00	0.00	0.00	0.00	31.00	86.00	0.00
	3800.000	827.01	0.00	827.55	20.70	0.00	290.00	0.00	0.00	31.00	31.00	86.00	86.00
	3900.000	827.81	0.00	828.45	19.44	0.00	290.00	0.00	0.00	0.00	31.00	86.00	0.00
	3900.000	827.81	0.00	828.45	19.44	0.00	290.00	0.00	0.00	31.00	31.00	86.00	86.00
	4070.000	829.16	0.00	829.46	24.35	0.00	290.00	0.00	31.00	250.00	250.00	281.00	281.00
	4070.000	829.16	0.00	829.46	24.33	0.00	290.00	0.00	0.00	250.00	250.00	281.00	281.00
*	4120.000	829.39	0.00	831.20	7.50	0.00	290.00	0.00	7.50	246.20	235.00	265.00	253.70
*	4120.000	829.39	0.00	831.20	7.50	0.00	290.00	0.00	7.50	246.20	235.00	265.00	253.70
	4200.000	830.92	0.00	831.20	84.64	0.06	289.94	0.00	0.00	0.00	235.00	265.00	0.00
	4200.000	830.92	0.00	831.20	25.46	0.00	290.00	0.00	0.01	235.00	235.00	265.00	265.00
	4250.000	831.14	0.00	831.28	119.76	0.00	289.91	0.09	0.00	0.00	250.00	281.00	0.00
	4250.000	831.14	0.00	831.28	27.93	0.00	290.00	0.00	0.01	250.00	250.00	281.00	281.00
	4650.000	831.41	0.00	831.45	114.93	0.00	62.17	227.83	0.00	0.00	250.00	281.00	0.00
	4650.000	831.39	-0.01	831.45	92.91	0.00	67.15	222.85	0.09	250.00	250.00	281.00	550.80
	4750.000	831.63	0.00	831.95	51.06	0.00	164.45	125.55	260.00	250.00	250.00	281.00	510.00
	4750.000	831.66	0.03	832.04	47.98	0.00	182.88	107.12	0.65	250.00	250.00	281.00	506.46
	4850.000	832.60	0.00	833.36	21.08	0.00	290.00	0.00	0.00	0.00	250.00	281.00	0.00
	4850.000	832.67	0.07	833.38	21.28	0.00	290.00	0.00	0.00	250.00	250.00	281.00	281.00
	5050.000	834.57	0.00	834.98	23.15	0.00	290.00	0.00	0.00	0.00	250.00	281.00	0.00
	5050.000	834.53	-0.04	834.95	23.01	0.00	290.00	0.00	0.00	250.00	250.00	281.00	281.00

SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
5250.000	835.56	0.00	835.97	23.10	0.00	290.00	0.00	0 00	0.00	250.00	281.00	0.00
5250.000	835.56	0.00	835.97	23.08	0.00	290.00	0.00	0.00	250.00	250.00	281.00	281.00
5350 000	836.08	0.00	836.52	22.85	0.00	290.00	0.00	0.00	0.00	250.00	281 00	0 00
5350 000	836.08	0.00	836.52	22 86	0.00	290.00	0.00	0.00	250.00	250.00	281.00	281.00
5399.000	836.33	0.00	836.71	18.82	0.00	290.00	0.00	0.00	0.00	248.00	270.00	0 00
5399.000	836.32	0.00	836.71	18.81	0.00	290.00	0.00	0.00	248.00	248.00	270.00	270.00
5400.000	836.33	0.00	836.73	18.82	0.00	290.00	0.00	0.00	0.00	248.00	270.00	0 00
5400.000	836.33	0.00	836.73	18.81	0.00	290.00	0.00	0.00	248.00	248.00	270.00	270.00
5592.000	836.84	0.00	837.13	18.95	0.00	290 00	0.00	0.00	0.00	248.00	270.00	0.00
5592.000	836.84	0 00	837.13	18.95	0.00	290.00	0.00	0.00	248.00	248.00	270.00	270.00
5593.000	836.87	0.00	837 15	18.96	0.00	290 00	0.00	0.00	0.00	248.00	270.00	0.00
5593.000	836.87	0.00	837.15	18.96	0.00	290 00	0.00	0.00	248.00	248.00	270.00	270.00
5642.000	836.94	0.00	837.28	23.95	0.00	290.00	0.00	0.00	0.00	250 00	281.00	0.00
5642.000	836.94	0.00	837.27	23 96	0.00	290.00	0.00	0.00	250.00	250.00	281.00	281.00
5900.000	837.61	0.00	838.17	22.04	0 00	290.00	0.00	0.00	0.00	250.00	281.00	0.00
5900.000	837.61	0.00	838.17	22.05	0.00	290.00	0.00	0.00	250.00	250 00	281.00	281.00
6000.000	838.03	0.00	838.63	21 78	0.00	290.00	0.00	0.00	0.00	250.00	281.00	0.00
6000.000	838.02	0.00	838.63	21.77	0.00	290.00	0.00	0.00	250.00	250.00	281.00	281.00
6200.000	839.91	0.00	840.76	20.32	0.67	283.29	6.04	0.00	0.00	250.00	264.00	0 00
6200.000	839.99	0 08	840 85	14.00	0.00	290.00	0.00	0.03	250.00	250.00	264.00	264.00
6300.000	841.07	0.00	841.60	27.76	7.28	272.38	10.33	0.00	0.00	250.00	264.00	0 00
6300.000	841.11	0.04	841.71	14.73	0.24	288.32	1.44	0.06	249.74	250 00	264.00	264.47
6500.000	842.22	0.00	842.66	22.61	0.00	290 00	0.00	0.00	0.00	250 00	275.00	0.00
6500.000	842.36	0.14	842.79	19.67	0.00	290.00	0.00	20.00	250.00	250.00	275.00	270.00
6600.000	842.60	0.00	843.12	14.00	0 00	290.00	0.00	0.00	0.00	150.00	164 00	0.00
6600 000	842.71	0.11	843.20	14.00	0.00	290.00	0.00	0.00	150.00	150.00	164.00	164.00
6662.000	843.30	0.00	843.66	14.00	0.00	290.00	0.00	0.00	0.00	150.00	164.00	0.00
6662.000	843.41	0.11	843.75	14.00	0.00	290.00	0.00	0.00	150.00	150.00	164.00	164.00
6712.000	843.65	0.00	843.81	33.44	1.93	287 89	0.18	0.00	0.00	250.00	275.00	0.00
6712.000	843.74	0.09	843 90	25.00	0.00	290.00	0.00	0.01	250.00	250.00	275.00	275.00
6899.000	843.79	0.00	844.01	22.34	0.00	290.00	0.00	0.00	0.00	240.00	270.00	0 00
6899.000	843.88	0.09	844.09	22.52	0.00	290.00	0.00	0.00	240.00	240.00	270.00	270.00
6900.000	843.71	0.00	844.09	22.16	0.00	290.00	0.00	0.00	0.00	240 00	270.00	0.00
6900.000	843.81	0.09	844.17	22.37	0.00	290.00	0.00	0.00	240.00	240.00	270.00	270.00

	SECNO	CWSEL	DIFKWS	EG	TOPWID	QLOB	QCH	QROB	PERENC	STENCL	STCHL	STCHR	STENCR
	7128.000	844.18	0.00	844.49	23.11	0.00	290.00	0.00	0.00	0.00	240.00	270.00	0.00
	7128.000	844.25	0 07	844.55	23.24	0.00	290.00	0.00	0.00	240.00	240.00	270.00	270 00
	7129.000	844.37	0 00	844.53	23.50	0.00	290.00	0.00	0.00	0.00	240.00	270.00	0.00
	7129.000	844.44	0.06	844.59	23.62	0.00	290.00	0.00	0 00	240.00	240.00	270.00	270.00
	7259.000	844.52	0.00	844 63	59 26	0.00	228.86	11.14	0.00	0.00	250.00	282.00	0.00
	7259.000	844.56	0.04	844.68	32.00	0.00	240.00	0.00	0.05	250.00	250.00	282.00	282 00
	7295.000	844 55	0.00	844.66	16.00	0.00	240.00	0.00	0.00	0.00	250.00	266.00	0.00
	7295.000	844.60	0.05	844.70	16.00	0.00	240.00	0.00	0.00	250.00	250.00	266.00	266 00
*	7362.000	856.01	0.00	856.97	16.00	0.00	240.00	0.00	0.00	0.00	250.00	266.00	0.00
*	7362.000	856.01	0.00	856.97	16.00	0.00	240.00	0.00	0.00	250.00	250.00	266.00	266.00
	7462.000	857 45	0.00	857.45	163.24	0 00	240.00	0.00	0.00	0.00	0.00	170.00	0.00
	7462.000	857.45	0.00	857.45	163.25	0.00	240.00	0.00	0.00	0.00	0.00	170.00	170.00
	7962.000	857.45	0.00	857.45	134.49	0.00	240.00	0.00	0.00	0.00	0.00	140.00	0 00
	7962.000	857.45	0.00	857.45	134.50	0.00	240.00	0.00	0.00	0.00	0.00	140.00	140.00
*	8629.000	862.38	0.00	862.38	169.75	0.00	240.00	0.00	0 00	0.00	0.00	280.00	0.00
*	8629.000	862.48	0.10	862.48	171.00	0.00	240.00	0.00	0.00	0.00	0.00	280.00	280.00
*	8899.000	862.38	0.00	862.38	239.75	0.00	240.00	0.00	0.00	0 00	0.00	305 00	0 00
*	8899.000	862.48	0.10	862.48	241.00	0.00	240.00	0.00	0.00	0.00	0.00	305.00	305.00
*	9541 000	864.68	0.00	864.68	247.65	0.00	240 00	0.00	0.00	0 00	0.00	285.00	0.00
*	9541.000	864.78	0.10	864.78	248 77	0.00	240.00	0.00	0.00	0.00	0.00	285.00	285.00
*	9771.000	864.68	0.00	864.68	247.65	0.00	240.00	0.00	0.00	0.00	0.00	285.00	0.00
*	9771.000	864.78	0.10	864.78	248.77	0 00	240.00	0.00	0.00	0.00	0.00	285.00	285.00
*	10481.000	866.64	0.00	866.64	88.10	0.00	240 00	0.00	0.00	0.00	0.00	130.00	0.00
*	10481.000	866.74	0.10	866.74	88 97	0 00	240.00	0.00	0.00	0.00	0.00	130.00	130.00
*	10881.000	866 64	0.00	866.64	124.70	0.00	240.00	0.00	0.00	0.00	0.00	175.00	0.00
*	10881.000	866.74	0.10	866.74	125.82	0.00	240.00	0 00	0.00	0.00	0.00	175.00	175 00

100-YEAR FLOOD

SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
360.000	0.00	0.00	0.00	809 50	290.00	813.65	0.00	813.71	10.29	2 13	157 01	90.42
360.000	0.00	0.00	0.00	809.50	290.00	813.75	0.00	813.82	10.24	2.16	150.35	90.62
1050 000	690.00	0.00	0.00	809.50	290.00	814.39	0.00	814.48	11.50	2.41	120.29	85.51
1050.000	690.00	0.00	0.00	809.50	290.00	814.47	0.00	814.55	10.80	2.36	122.78	88.25
1099 000	49.00	0.00	0.00	809.60	290.00	814.45	0.00	815.35	13.73	7.62	38.07	78.26
1099.000	49.00	0.00	0.00	809.60	290.00	814.52	0.00	815.39	13.11	7.48	38.75	80.09
1100.000	1.00	816.60	815.10	809.60	290.00	814.45	0.00	815.43	17.13	7.96	36.41	70 07
1100 000	1.00	816.60	815.10	809.60	290 00	814.53	0.00	815.49	16.70	7.86	36.89	70.96
1167.000	67.00	816.60	815.10	809.60	290.00	814.66	0 00	815.58	16.34	7.69	37 70	71 74
1167.000	67.00	816.60	815.10	809.60	290.00	814.72	0.00	815.63	16.39	7.62	38.04	71 63
1168.000	1.00	0.00	0.00	809.60	290.00	814.97	0.00	815.68	10.22	6.79	42.69	90.73
1168.000	1 00	0.00	0 00	809.60	290.00	815.03	0.00	815.73	9.87	6.70	43.27	92.31
1181.000	13.00	0.00	0.00	810.40	290.00	815.89	0.00	815.99	1.08	2.54	114.34	279.19
1181.000	13.00	0.00	0 00	810.40	290.00	815.92	0.00	816.03	1 07	2.63	110.37	280.08
1194.000	13.00	0.00	0.00	810.40	290.00	815.90	0.00	816.00	1.07	2.53	114.61	280.12
1194.000	13.00	0.00	0.00	810.40	290.00	815.92	0.00	816.03	1.07	2.62	110.59	280.89
1217.000	23 00	0.00	0.00	810.40	290.00	815.90	0.00	816.00	1.07	2.53	114.52	279 80
1217.000	23.00	0.00	0.00	810.40	290.00	815 92	0.00	816 03	1.07	2.62	110.52	280.61
1480.000	263.00	0.00	0.00	810.40	290.00	815 96	0.00	816.06	7.39	2.48	116.72	106.66
1480.000	263.00	0.00	0.00	810.40	290.00	815.99	0.00	816.09	7.38	2.58	112.39	106.75
1700.000	220.00	0.00	0.00	810.60	290 00	816.13	0.00	816.22	7.62	2.51	115.45	105.08
1700.000	220.00	0.00	0.00	810.60	290.00	816.15	0.00	816.26	7.59	2.61	111.29	105.27
1750.000	50.00	0.00	0.00	810.60	290.00	816 17	0.00	816.83	9.34	6.55	44.27	94.91
1750.000	50.00	0.00	0.00	810.60	290.00	816.19	0 00	816.85	9.22	6.52	44.49	95.52
1817.000	67.00	820.70	816.20	810.60	290.00	817.04	0.00	817.52	6.21	5.57	52.03	116.41
1817.000	67.00	820.70	816.20	810.60	290.00	817.07	0.00	817.55	6.13	5.55	52.29	117.13
1867.000	50.00	0.00	0.00	810.90	290.00	817 63	0.00	817.68	5.12	1.80	160.81	128.12
1867.000	50.00	0.00	0.00	810.90	290.00	817.65	0.00	817.70	5.04	1.79	161.78	129.16
2000.000	133.00	0.00	0.00	811.70	290.00	817.70	0 00	817.78	8.63	2.19	132.68	98.73
2000.000	133.00	0.00	0.00	811.70	290.00	817.73	0.00	817.80	8.44	2.17	133.74	99.80
2300.000	300.00	0.00	0.00	813.50	290.00	818.09	0.00	818.27	29.23	3.42	84 82	53.64
2300.000	300.00	0.00	0.00	813.50	290.00	818.10	0.00	818.28	28.82	3.40	85.26	54.02

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	2610.000	310.00	0.00	0.00	815.40	290.00	819.29	0.00	819.60	61.44	4.48	64.76	37.00
	2610.000	310.00	0.00	0.00	815.40	290.00	819.29	0.00	819.60	61.24	4.47	64.84	37.06
	2626 000	16.00	0.00	0.00	815.50	290.00	819.39	0.00	819.70	61.47	4.48	64.75	36 99
	2626.000	16.00	0.00	0.00	815.50	290.00	819.39	0.00	819.70	61.74	4.49	64.65	36.91
	2642.000	16.00	0.00	0.00	815.60	290.00	819.49	0.00	819.80	61.59	4.48	64.70	36 95
	2642.000	16.00	0.00	0.00	815.60	290.00	819.49	0.00	819.80	61.89	4.49	64.59	36.86
	2659 000	17 00	0.00	0.00	815.70	290.00	819.58	0.00	820.01	142.87	5.29	54.86	24.26
	2659.000	17 00	0.00	0.00	815.70	290.00	819.58	0.00	820.01	142.38	5.28	54.92	24 30
	2660.000	1 00	829.60	821.70	815.70	290.00	819.58	818.95	820.39	19.09	7.20	40.27	66 37
	2660.000	1.00	829.60	821.70	815.70	290.00	819.58	818.95	820.39	19.05	7.20	40.31	66.44
	3061.000	401.00	829.60	821.70	815.70	290.00	820.64	0.00	821.14	11.79	5.65	51.32	84 47
	3061.000	401.00	829.60	821.70	815.70	290.00	820 64	0 00	821.14	11.79	5.65	51.32	84.47
	3062.000	1.00	0.00	0.00	815.70	290.00	821.18	0.00	821.32	1.86	2.93	99.14	212.57
	3062.000	1.00	0.00	0.00	815.70	290 00	821.18	0.00	821.32	1.86	2.93	99.14	212.58
	3111.000	49.00	0.00	0.00	815.90	290.00	821.20	0.00	821.48	4.49	4.29	67.65	136.84
	3111.000	49.00	0.00	0.00	815.90	290.00	821 20	0.00	821.48	4.53	4.30	67.43	136.27
	3210.000	99.00	0.00	0.00	815.90	290.00	821.34	0.00	821.59	47.57	4.08	71.02	42 05
	3210.000	99.00	0.00	0 00	815.90	290.00	821.34	0.00	821.60	47.40	4.08	71.13	42 12
	3260.000	50 00	0.00	0.00	816.80	290.00	821.57	0.00	822.00	91.54	5.30	54.75	30.31
	3260.000	50 00	0.00	0.00	816.80	290.00	821.57	0.00	822.01	91 25	5.29	54.82	30.36
	3310.000	50.00	0.00	0 00	817 70	290.00	822.04	0.00	822.66	142.39	6.34	45.74	24.30
	3310.000	50.00	0.00	0.00	817.70	290.00	822.04	0.00	822.66	142.22	6.34	45.76	24 32
	3360.000	50 00	0.00	0.00	818.60	290 00	822.77	0.00	823.49	170.49	6.83	42.44	22.21
	3360.000	50.00	0.00	0.00	818.60	290.00	822.77	0.00	823.49	169.42	6.81	42.56	22.28
	3380.000	20.00	0.00	0.00	818.90	290.00	823.17	0.00	823.83	152.32	6.52	44.48	23.50
	3380.000	20.00	0.00	0.00	818.90	290.00	823.16	0.00	823.83	154.51	6.56	44.22	23 33
	3400.000	20.00	0.00	0.00	819.40	290.00	823 44	0.00	824 25	194.67	7.22	40.15	20.79
	3400.000	20.00	0.00	0.00	819.40	290 00	823.43	0.00	824.25	196.36	7.25	40.00	20.70
	3410.000	10.00	0.00	0.00	819.50	290 00	823.51	823.51	825.32	35.10	10.80	26.84	48 95
*	3410.000	10.00	0.00	0.00	819.50	290.00	823.51	823.51	825.32	35.15	10.81	26.83	48 91
	3489.000	79.00	826.60	824.20	819.50	290.00	825.30	0.00	826.11	12 46	7.20	40.28	82.15
	3489.000	79.00	826.60	824.20	819.50	290.00	825.30	0.00	826.10	12.48	7.20	40.26	82.09
	3509.000	20.00	0.00	0.00	819.80	290.00	826.28	0.00	826.44	1.92	3.19	90.89	209.39
	3509.000	20.00	0.00	0.00	819.80	290.00	826.28	0.00	826 43	1.92	3.19	90.84	209 21

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	3539.000	30.00	0.00	0.00	820.00	290.00	826.31	0.00	826.45	1.82	3.02	96.18	214.74
	3539.000	30.00	0.00	0.00	820.00	290.00	826.31	0.00	826.45	1.81	3.01	96.48	215.59
	3700.000	161.00	0.00	0.00	821.60	290.00	826.39	0.00	826.82	54.05	5.25	55.28	39.44
	3700.000	161.00	0.00	0.00	821.60	290.00	826.39	0.00	826.82	54.09	5.25	55.27	39.43
	3800.000	100.00	0.00	0.00	822.50	290.00	827.01	0.00	827.55	71.99	5.89	49.23	34.18
	3800.000	100.00	0.00	0.00	822.50	290.00	827.01	0.00	827.55	71.95	5.89	49.24	34.19
	3900.000	100.00	0.00	0.00	823.50	290.00	827.81	0.00	828.45	88.76	6.42	45.17	30.78
	3900.000	100.00	0.00	0.00	823.50	290.00	827.81	0.00	828.45	88.80	6.42	45.17	30.78
	4070.000	170.00	0.00	0.00	825.00	290.00	829.16	0.00	829.46	31.51	4.40	65.86	51.66
	4070.000	170.00	0.00	0.00	825.00	290.00	829.16	0.00	829.46	31.75	4.41	65.69	51.47
*	4120.000	50.00	0.00	0.00	825.50	290.00	829.39	829.39	831.20	35.37	10.80	26.84	48.76
*	4120.000	50.00	0.00	0.00	825.50	290.00	829.39	829.39	831.20	35.37	10.80	26.84	48.76
	4200.000	80.00	831.80	830.30	825.50	290.00	830.92	0.00	831.20	4.38	4.21	69.88	138.64
	4200.000	80.00	999999.00	0.00	825.50	290.00	830.92	0.00	831.20	4.36	4.20	69.00	138.94
	4250.000	50.00	0.00	0.00	825.80	290.00	831.14	0.00	831.28	1.49	3.01	98.64	237.54
	4250.000	50.00	0.00	0.00	825.80	290.00	831.14	0.00	831.28	1.49	3.01	96.43	237.41
	4650.000	400.00	0.00	0.00	828.70	290.00	831.41	0.00	831.45	10.14	1.85	172.21	91.08
	4650.000	400.00	0.00	0.00	828.70	290.00	831.39	0.00	831.45	12.13	2.02	151.88	83.27
	4750.000	100.00	0.00	0.00	829.00	290.00	831.63	0.00	831.95	81.68	5.14	66.67	32.09
	4750.000	100.00	0.00	0.00	829.00	290.00	831.66	0.00	832.04	95.94	5.62	61.69	29.61
	4850.000	100.00	0.00	0.00	829.50	290.00	832.60	0.00	833.36	118.35	6.99	41.51	24.66
	4850.000	100.00	0.00	0.00	829.50	290.00	832.67	0.00	833.38	107.21	6.75	42.95	28.01
	5050.000	200.00	0.00	0.00	830.80	290.00	834.57	0.00	834.98	48.79	5.14	56.47	41.52
	5050.000	200.00	0.00	0.00	830.80	290.00	834.53	0.00	834.95	51.40	5.23	55.45	40.45
	5250.000	200.00	0.00	0.00	831.80	290.00	835.56	0.00	835.97	49.63	5.17	56.14	41.16
	5250.000	200.00	0.00	0.00	831.80	290.00	835.56	0.00	835.97	50.11	5.18	55.95	40.97
	5350.000	100.00	0.00	0.00	832.40	290.00	836.08	0.00	836.52	54.64	5.34	54.28	39.23
	5350.000	100.00	0.00	0.00	832.40	290.00	836.08	0.00	836.52	54.53	5.34	54.32	39.27
	5399.000	49.00	0.00	0.00	832.60	290.00	836.33	0.00	836.71	21.54	4.97	58.31	62.48
	5399.000	49.00	0.00	0.00	832.60	290.00	836.32	0.00	836.71	21.73	4.99	58.14	62.22
	5400.000	1.00	843.00	838.80	832.60	290.00	836.33	0.00	836.73	23.19	5.09	56.97	60.22
	5400.000	1.00	843.00	838.80	832.60	290.00	836.33	0.00	836.73	23.26	5.10	56.91	60.12
	5592.000	192.00	843.00	838.80	832.60	290.00	836.84	0.00	837.13	14.94	4.39	66.09	75.04
	5592.000	192.00	843.00	838.80	832.60	290.00	836.84	0.00	837.13	14.93	4.39	66.11	75.06

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	5593.000	1.00	0.00	0.00	832.60	290.00	836.87	0.00	837.15	13.42	4.24	68.40	79.17
	5593.000	1 00	0 00	0.00	832 60	290.00	836.87	0.00	837.15	13.42	4.24	68.39	79.17
	5642.000	49 00	0.00	0.00	832.90	290.00	836.94	0.00	837.28	18.50	4.63	62.68	67.42
	5642.000	49.00	0.00	0.00	832.90	290.00	836.94	0.00	837.27	18.43	4.62	62.77	67.55
	5900.000	258.00	0.00	0.00	834.20	290.00	837.61	0.00	838.17	38.97	6.00	48.30	46.46
	5900.000	258.00	0.00	0.00	834.20	290 00	837.61	0.00	838.17	38.79	5.99	48.38	46.56
	6000 000	100.00	0.00	0.00	834.70	290.00	838.03	0.00	838.63	43.72	6.25	46.41	43.86
	6000.000	100.00	0.00	0.00	834.70	290.00	838.02	0.00	838.63	43.88	6.26	46.35	43.78
	6200.000	300.00	0.00	0.00	835.70	290.00	839.91	0.00	840 76	98.07	7.48	40.40	29.28
	6200 000	300.00	0.00	0.00	835.70	290.00	839.99	0.00	840.85	108.68	7.45	38.95	27.82
	6300.000	100.00	0.00	0.00	836.30	290 00	841.07	0.00	841.60	48.52	5.96	53.82	41.63
	6300.000	100.00	0.00	0.00	836.30	290.00	841.11	0.00	841.71	52.19	6.23	47.39	40.14
	6500.000	200.00	0.00	0.00	837.50	290.00	842.22	0.00	842.66	53 19	5.29	54.87	39 76
	6500.000	200.00	0.00	0.00	837.50	290.00	842.36	0.00	842.79	47.74	5.25	55.19	41.97
	6600.000	100.00	0.00	0.00	838.80	290.00	842.60	0.00	843.12	28.53	5.78	50 18	54.29
	6600.000	100.00	0.00	0.00	838.80	290 00	842.71	0.00	843.20	26.19	5.61	51.70	56.67
	6662.000	62.00	849.80	842.70	838.80	290.00	843.30	0.00	843.66	17.17	4.83	60.01	69.99
	6662.000	62.00	999999.00	0.00	838.80	290.00	843.41	0.00	843 75	16.04	4.72	61.48	72.40
	6712.000	50.00	0.00	0.00	837 50	290.00	843.65	0.00	843.81	5.92	3.21	94.23	119.14
	6712.000	50.00	0.00	0.00	837 50	290.00	843.74	0.00	843 90	6.09	3.15	92.02	117.56
	6899.000	187.00	0.00	0.00	839.50	290.00	843.79	0.00	844.01	18.36	3.76	77.09	67.67
	6899.000	187.00	0.00	0.00	839.50	290.00	843.88	0.00	844.09	17 05	3.66	79.15	70.24
	6900.000	1.00	846.90	844.70	839.50	290.00	843.71	0.00	844.09	19.11	4.96	58.52	66.33
	6900.000	1.00	846.90	844.70	839.50	290.00	843.81	0 00	844.17	17.95	4.85	59.84	68.46
	7128 000	228.00	846.90	844.70	839.50	290.00	844.18	0 00	844.49	14.18	4.46	65 07	77.02
	7128.000	228.00	846.90	844.70	839.50	290.00	844.25	0.00	844.55	13.63	4.39	65.99	78.54
	7129.000	1.00	0.00	0.00	839.50	290.00	844.37	0.00	844.53	5.97	3.20	90.49	118.70
	7129.000	1.00	0.00	0 00	839.50	290.00	844.44	0.00	844.59	5.71	3.16	91.92	121.34
	7259.000	130.00	0.00	0.00	840.70	240.00	844.52	0.00	844.63	5.28	2.60	107.71	104.43
	7259.000	130.00	0.00	0.00	840 70	240.00	844.56	0.00	844.68	5.52	2.68	89.52	102.13
	7295.000	36.00	0.00	0.00	838.80	240.00	844.55	0.00	844.66	7.75	2.63	91.12	86.22
	7295.000	36.00	0.00	0.00	838.80	240.00	844.60	0.00	844.70	7.59	2.61	91.80	87.12
*	7362.000	67.00	0.00	0.00	854.10	240.00	856.01	856.01	856.97	193.47	7.87	30.49	17.25
*	7362.000	67.00	0.00	0.00	854.10	240.00	856.01	856.01	856.97	193.54	7.87	30.48	17.25

	SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10K*S	VCH	AREA	.01K
	7462.000	100.00	0.00	0.00	846.00	240 00	857.45	0.00	857.45	0.02	0.21	1134.11	1738 68
	7462.000	100.00	0.00	0.00	846.00	240.00	857.45	0.00	857 45	0 02	0.21	1134.13	1738 71
	7962 000	500.00	0.00	0.00	846.00	240.00	857.45	0.00	857.45	0.03	0.27	904.43	1350.97
	7962.000	500.00	0.00	0 00	846.00	240.00	857.45	0.00	857.45	0.03	0.27	904.49	1351.10
*	8629.000	667.00	0.00	0.00	852.00	240.00	862.38	0.00	862.38	0 02	0.22	1078.60	1559.83
*	8629.000	667.00	0.00	0.00	852.00	240.00	862.48	0.00	862.48	0.02	0.22	1095.64	1593.29
*	8899.000	270.00	0.00	0.00	852.00	240.00	862 38	0.00	862.38	0.01	0.14	1755.20	2797 63
*	8899.000	270.00	0.00	0.00	852.00	240 00	862.48	0.00	862.48	0.01	0.13	1779.24	2851.80
*	9541.000	642.00	0.00	0 00	852.00	240.00	864.68	0.00	864.68	0.00	0.11	2255.80	4152 32
*	9541.000	642.00	0.00	0.00	852.00	240.00	864.78	0.00	864.78	0.00	0.11	2280.62	4215.90
*	9771.000	230.00	0.00	0 00	852.00	240.00	864.68	0.00	864.68	0.00	0.11	2255.80	4152.32
*	9771.000	230.00	0 00	0.00	852.00	240.00	864.78	0.00	864.78	0.00	0.11	2280.62	4215.90
*	10481.000	710.00	0.00	0.00	856.00	240.00	866.64	0.00	866.64	0.13	0.48	502.09	663.65
*	10481.000	710.00	0.00	0.00	856.00	240.00	866.74	0.00	866.74	0.12	0.47	510.95	678.83
*	10881.000	400.00	0.00	0 00	856.00	240.00	866.64	0.00	866.64	0.05	0.32	750.00	1041.49
*	10881.000	400.00	0.00	0 00	856.00	240.00	866 74	0.00	866.74	0.05	0.31	762.53	1064 26

100-YEAR FLOOD

SUMMARY PRINTOUT TABLE 150

SECND	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
360.000	290.00	813.65	0.00	0.00	0.00	71.28	0.00
360.000	290.00	813.75	0.10	0.00	0.10	68 71	0.00
1050.000	290.00	814.39	0.00	0.74	0.00	33.00	690.00
1050.000	290.00	814.47	0.08	0.72	0.08	33.00	690.00
1099.000	290.00	814 45	0.00	0 06	0 00	8.80	49.00
1099.000	290.00	814.52	0.08	0.06	0.08	8.80	49.00
1100.000	290.00	814.45	0.00	0.00	0 00	8.80	1.00
1100.000	290.00	814.53	0.08	0.00	0.08	8.80	1.00
1167.000	290.00	814.66	0.00	0.21	0.00	8.80	67.00
1167.000	290.00	814.72	0.06	0.20	0.06	8.80	67.00
1168.000	290.00	814.97	0.00	0.30	0.00	8.80	1.00
1168.000	290.00	815.03	0.07	0.31	0.07	8.80	1.00
1181.000	290.00	815.89	0.00	0.93	0.00	34 65	13.00
1181.000	290.00	815.92	0.03	0.89	0.03	29 79	13.00
1194.000	290.00	815 90	0.00	0.00	0 00	34.68	13.00
1194.000	290.00	815.92	0.03	0.00	0.03	29.81	13.00
1217 000	290.00	815.90	0.00	0.00	0.00	34.67	23.00
1217.000	290.00	815.92	0.03	0.00	0.03	29.80	23.00
1480.000	290.00	815.96	0.00	0.06	0.00	34.97	263.00
1480.000	290 00	815.99	0.03	0.06	0.03	29.94	263.00
1700.000	290 00	816.13	0.00	0.16	0.00	34.80	220.00
1700.000	290.00	816.15	0.03	0.16	0.03	29.86	220.00
1750 000	290.00	816.17	0.00	0.04	0.00	8.80	50.00
1750.000	290.00	816.19	0.02	0.04	0.02	8.80	50 00
1817.000	290.00	817.04	0.00	0.87	0.00	8.80	67 00
1817.000	290 00	817.07	0.03	0.88	0.03	8.80	67.00
1867.000	290.00	817.63	0.00	0.59	0.00	40.43	50.00
1867.000	290.00	817.65	0.02	0.58	0.02	40 54	50.00
2000.000	290.00	817.70	0.00	0.08	0 00	37.04	133.00
2000.000	290.00	817.73	0.02	0.07	0.02	37.17	133.00
2300.000	290.00	818.09	0.00	0.38	0.00	30.41	300.00
2300 000	290.00	818.10	0.01	0.37	0.01	30.48	300.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	2610.000	290.00	819.29	0.00	1.20	0.00	27.15	310 00
	2610.000	290.00	819.29	0.00	1.19	0.00	27.16	310.00
	2626.000	290.00	819.39	0.00	0.10	0.00	27.15	16.00
	2626.000	290.00	819 39	0.00	0.10	0.00	27.13	16.00
	2642.000	290 00	819.49	0.00	0.10	0.00	27.14	16.00
	2642.000	290.00	819.49	0.00	0.10	0.00	27.12	16.00
	2659.000	290 00	819.58	0.00	0.09	0.00	27.70	17.00
	2659.000	290.00	819.58	0.00	0.09	0 00	27.70	17.00
	2660.000	290.00	819.58	0.00	0.00	0.00	27.70	1.00
	2660.000	290.00	819.58	0.00	0.00	0 00	27.70	1.00
	3061.000	290.00	820.64	0.00	1.06	0.00	27 70	401.00
	3061.000	290.00	820.64	0.00	1.05	0 00	27.70	401.00
	3062.000	290.00	821.18	0.00	0 54	0 00	27.70	1.00
	3062.000	290.00	821.18	0.00	0.54	0.00	27.70	1.00
	3111.000	290.00	821.20	0.00	0.01	0.00	25.65	49.00
	3111.000	290.00	821.20	0.00	0.01	0.00	25 60	49.00
	3210.000	290.00	821.34	0.00	0.14	0.00	26.46	99.00
	3210.000	290.00	821.34	0.00	0.14	0.00	26.48	99.00
	3260.000	290.00	821.57	0 00	0.23	0.00	22.30	50.00
	3260.000	290.00	821.57	0.00	0.23	0.00	22.32	50.00
	3310.000	290.00	822.04	0.00	0.47	0.00	19.62	50.00
	3310.000	290.00	822.04	0.00	0 47	0.00	19.63	50.00
	3360.000	290.00	822.77	0.00	0 73	0.00	18.55	50.00
	3360.000	290.00	822.77	0.00	0 73	0.00	18.58	50.00
	3380.000	290.00	823.17	0 00	0 41	0.00	19.22	20.00
	3380.000	290.00	823.16	-0.01	0.39	-0.01	19.13	20.00
	3400.000	290.00	823.44	0.00	0.27	0.00	17.76	20.00
	3400.000	290.00	823 43	-0.01	0.27	-0.01	17 71	20.00
	3410 000	290.00	823.51	0.00	0.07	0.00	7.50	10.00
*	3410.000	290.00	823.51	0.00	0.08	0.00	7.50	10.00
	3489.000	290.00	825.30	0.00	1.79	0.00	7.50	79.00
	3489.000	290.00	825.30	0.00	1.79	0.00	7.50	79.00
	3509.000	290.00	826.28	0.00	0.98	0.00	27.35	20.00
	3509.000	290.00	826.28	0.00	0.98	0.00	27.34	20.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	3539.000	290.00	826.31	0.00	0.03	0.00	31.84	30.00
	3539.000	290.00	826.31	0.00	0.03	0.00	31.89	30.00
	3700.000	290.00	826.39	0.00	0.08	0.00	22.45	161.00
	3700.000	290.00	826.39	0.00	0.08	0.00	22.45	161.00
	3800.000	290.00	827.01	0.00	0.62	0.00	20.70	100.00
	3800.000	290.00	827.01	0.00	0.62	0.00	20.70	100.00
	3900.000	290.00	827.81	0.00	0.80	0.00	19.44	100.00
	3900.000	290.00	827.81	0.00	0.80	0.00	19.44	100.00
	4070.000	290.00	829.16	0.00	1.35	0.00	24.35	170.00
	4070.000	290.00	829.16	0.00	1.35	0.00	24.33	170.00
*	4120.000	290.00	829.39	0.00	0.22	0.00	7.50	50.00
*	4120.000	290.00	829.39	0.00	0.22	0.00	7.50	50.00
	4200.000	290.00	830.92	0.00	1.54	0.00	84.64	80.00
	4200.000	290.00	830.92	0.00	1.54	0.00	25.46	80.00
	4250.000	290.00	831.14	0.00	0.21	0.00	119.76	50.00
	4250.000	290.00	831.14	0.00	0.21	0.00	27.93	50.00
	4650.000	290.00	831.41	0.00	0.27	0.00	114.93	400.00
	4650.000	290.00	831.39	-0.01	0.26	-0.01	92.91	400.00
	4750.000	290.00	831.63	0.00	0.22	0.00	51.06	100.00
	4750.000	290.00	831.66	0.03	0.26	0.03	47.98	100.00
	4850.000	290.00	832.60	0.00	0.97	0.00	21.08	100.00
	4850.000	290.00	832.67	0.07	1.01	0.07	21.28	100.00
	5050.000	290.00	834.57	0.00	1.97	0.00	23.15	200.00
	5050.000	290.00	834.53	-0.04	1.86	-0.04	23.01	200.00
	5250.000	290.00	835.56	0.00	0.98	0.00	23.10	200.00
	5250.000	290.00	835.56	0.00	1.03	0.00	23.08	200.00
	5350.000	290.00	836.08	0.00	0.52	0.00	22.85	100.00
	5350.000	290.00	836.08	0.00	0.52	0.00	22.86	100.00
	5399.000	290.00	836.33	0.00	0.25	0.00	18.82	49.00
	5399.000	290.00	836.32	0.00	0.24	0.00	18.81	49.00
	5400.000	290.00	836.33	0.00	0.00	0.00	18.82	1.00
	5400.000	290.00	836.33	0.00	0.00	0.00	18.81	1.00
	5592.000	290.00	836.84	0.00	0.51	0.00	18.95	192.00
	5592.000	290.00	836.84	0.00	0.51	0.00	18.95	192.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	5593.000	290.00	836.87	0.00	0 03	0.00	18.96	1.00
	5593.000	290.00	836.87	0 00	0 03	0.00	18.96	1.00
	5642.000	290.00	836.94	0.00	0.08	0.00	23.95	49.00
	5642.000	290.00	836.94	0.00	0.08	0.00	23.96	49.00
	5900.000	290.00	837.61	0 00	0.67	0.00	22.04	258.00
	5900.000	290.00	837.61	0.00	0.67	0.00	22.05	258.00
	6000.000	290.00	838.03	0.00	0.41	0.00	21.78	100.00
	6000.000	290.00	838 02	0.00	0.41	0.00	21.77	100.00
	6200.000	290.00	839.91	0.00	1.89	0.00	20.32	300.00
	6200 000	290.00	839 99	0.08	1.97	0.08	14.00	300.00
	6300.000	290.00	841.07	0 00	1.16	0.00	27.76	100.00
	6300.000	290.00	841.11	0.04	1 12	0.04	14.73	100.00
	6500.000	290.00	842.22	0 00	1.15	0.00	22.61	200.00
	6500.000	290.00	842.36	0.14	1.25	0.14	19.67	200.00
	6600.000	290.00	842.60	0.00	0.38	0.00	14.00	100 00
	6600.000	290 00	842.71	0.11	0.35	0.11	14.00	100.00
	6662.000	290.00	843.30	0.00	0.70	0.00	14.00	62.00
	6662.000	290.00	843.41	0.11	0.70	0.11	14.00	62.00
	6712.000	290.00	843.65	0.00	0.35	0.00	33.44	50.00
	6712.000	290.00	843.74	0.09	0.33	0.09	25.00	50 00
	6899.000	290.00	843.79	0.00	0.14	0.00	22.34	187.00
	6899.000	290.00	843.88	0.09	0.14	0.09	22.52	187.00
	6900.000	290.00	843.71	0.00	-0.08	0.00	22.18	1.00
	6900.000	290.00	843.81	0 09	-0.08	0.09	22.37	1.00
	7128.000	290.00	844.18	0.00	0.47	0 00	23.11	228.00
	7128.000	290.00	844.25	0.07	0.44	0.07	23.24	228.00
	7129.000	290.00	844.37	0.00	0.19	0.00	23.50	1.00
	7129.000	290.00	844.44	0.06	0.19	0.06	23.62	1.00
	7259.000	240 00	844.52	0.00	0.15	0.00	59.26	130.00
	7259.000	240.00	844.56	0.04	0.13	0 04	32.00	130.00
	7295.000	240.00	844.55	0 00	0.02	0 00	16.00	36.00
	7295.000	240.00	844.60	0.05	0.03	0.05	16.00	36.00
*	7362.000	240.00	856.01	0.00	11.46	0.00	16.00	67.00
*	7362.000	240.00	856.01	0.00	11.41	0.00	16.00	67.00

	SECNO	Q	CWSEL	DIFWSP	DIFWSX	DIFKWS	TOPWID	XLCH
	7462.000	240.00	857.45	0.00	1.44	0.00	163.24	100.00
	7462.000	240.00	857 45	0.00	1.44	0.00	163.25	100.00
	7962 000	240.00	857.45	0 00	0.00	0.00	134.49	500.00
	7962.000	240.00	857.45	0.00	0.00	0.00	134.50	500.00
*	8629 000	240.00	862.38	0.00	4.93	0.00	169.75	667.00
*	8629.000	240.00	862.48	0.10	5.03	0.10	171.00	667.00
*	8899.000	240.00	862.38	0.00	0.00	0.00	239.75	270.00
*	8899.000	240.00	862 48	0.10	0.00	0.10	241.00	270.00
*	9541.000	240 00	864 68	0.00	2.30	0.00	247.65	642.00
*	9541.000	240 00	864.78	0.10	2 30	0.10	248.77	642.00
*	9771.000	240.00	864.68	0.00	0.00	0.00	247.65	230.00
*	9771.000	240.00	864.78	0.10	0.00	0.10	248.77	230.00
*	10481.000	240.00	866.64	0.00	1.96	0.00	88..10	710.00
*	10481.000	240.00	866.74	0.10	1 96	0.10	88.97	710.00
*	10881.000	240.00	866.64	0.00	0.00	0.00	124.70	400 00
*	10881.000	240 00	866.74	0.10	0.00	0.10	125 82	400.00

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION  SECNO=  3410.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  3410.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=  4120.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  4120.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  4120.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  4120 000  PROFILE= 2  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO=  7362.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  7362.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  7362.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO=  7362.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO=  7362.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO=  7362.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL

NOTE     SECNO=  8629.000  PROFILE= 1  WSEL BASED ON X5 CARD
NOTE     SECNO=  8629.000  PROFILE= 2  WSEL BASED ON X5 CARD

NOTE     SECNO=  8899.000  PROFILE= 1  WSEL BASED ON X5 CARD
NOTE     SECNO=  8899.000  PROFILE= 2  WSEL BASED ON X5 CARD

NOTE     SECNO=  9541.000  PROFILE= 1  WSEL BASED ON X5 CARD
NOTE     SECNO=  9541.000  PROFILE= 2  WSEL BASED ON X5 CARD

NOTE     SECNO=  9771.000  PROFILE= 1  WSEL BASED ON X5 CARD
NOTE     SECNO=  9771.000  PROFILE= 2  WSEL BASED ON X5 CARD

NOTE     SECNO= 10481.000  PROFILE= 1  WSEL BASED ON X5 CARD
NOTE     SECNO= 10481.000  PROFILE= 2  WSEL BASED ON X5 CARD

NOTE     SECNO= 10881.000  PROFILE= 1  WSEL BASED ON X5 CARD
NOTE     SECNO= 10881.000  PROFILE= 2  WSEL BASED ON X5 CARD
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FLOODWAY DATA, 100-YEAR FLOOD
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
360.000	118.	150.	1.9	813.7	813.6	0.1
1050.000	33.	123.	2.4	814.5	814.4	0.1
1099 000	9.	39.	7.5	814.5	814.4	0.1
1100.000	9.	37.	7.9	814.5	814 4	0 1
1167.000	9.	38.	7.6	814.8	814.7	0.1
1168 000	9.	43.	6.7	815.1	815.0	0.1
1181.000	30.	110.	2 6	815.9	815.9	0.0
1194.000	30.	111.	2.6	815.9	815.9	0.0
1217.000	30.	111.	2.6	815.9	815.9	0.0
1480.000	30.	112.	2.6	816.0	816 0	0 0
1700.000	30.	111	2.6	816.1	816.1	0.0
1750.000	9.	44.	6.5	816.2	816.2	0.0
1817.000	9.	52.	5.5	817.0	817.0	0.0
1867.000	41.	162.	1.8	817.6	817.6	0.0
2000.000	37.	134.	2.2	817.7	817.7	0.0
2300.000	30.	85.	3.4	818.1	818.1	0.0
2610.000	27.	65	4.5	819.3	819.3	0.0
2626.000	27.	65.	4.5	819.4	819.4	0.0
2642.000	27.	65.	4.5	819.5	819.5	0.0
2659.000	28.	55.	5.3	819.6	819.6	0.0
2660.000	28	40.	7.2	819.6	819 6	0.0
3061.000	28.	51.	5.7	820.6	820.6	0 0
3062.000	28.	99.	2.9	821 2	821.2	0.0
3111.000	26.	67.	4.3	821.2	821.2	0.0
3210.000	26.	71.	4.1	821 3	821.3	0.0
3260.000	22.	55.	5.3	821.6	821 6	0.0
3310.000	20.	46.	6.3	822 0	822 0	0.0
3360.000	19.	43.	6.8	822.8	822 8	0.0
3380.000	19.	44.	6.6	823.2	823.2	0 0
3400.000	18.	40.	7.3	823.4	823.4	0.0
3410.000	7	27.	10.8	823 5	823.5	0.0
3489.000	7.	40.	7.2	825 3	825.3	0.0
3509.000	27.	91	3.2	826.3	826 3	0.0
3539.000	32.	96.	3.0	826.3	826 3	0.0
3700.000	22.	55.	5.2	826.4	826.4	0.0
3800.000	21.	49	5.9	827.0	827.0	0.0
3900.000	19.	45.	6.4	827.8	827.8	0.0
4070.000	24.	66.	4.4	829.2	829.2	0.0
4120.000	7.	27.	10.8	829.4	829.4	0.0
4200.000	25.	69.	4.2	830 9	830.9	0.0
4250.000	28.	96.	3.0	831 1	831.1	0.0
4650.000	296.	152.	1.9	831.4	831.4	0.0

FLOODWAY DATA, 100-YEAR FLOOD
PROFILE NO. 2

STATION	FLOODWAY WIDTH	FLOODWAY SECTION AREA	FLOODWAY MEAN VELOCITY	WATER SURFACE ELEVATION WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE
4750.000	251.	62.	4.7	831.6	831.6	0.0
4850.000	21.	43.	6.8	832.7	832.6	0.1
5050.000	23.	55	5 2	834.6	834.6	0.0
5250.000	23.	56.	5.2	835.6	835.6	0 0
5350.000	23.	54	5.3	836.1	836.1	0.0
5399.000	19.	58.	5.0	836.3	836 3	0 0
5400.000	19.	57.	5.1	836.3	836.3	0.0
5592.000	19.	66.	4.4	836.8	836.8	0.0
5593.000	19.	68.	4.2	836.9	836.9	0.0
5642.000	24.	63.	4.6	836.9	836.9	0.0
5900.000	22.	48.	6.0	837.6	837.6	0.0
6000.000	22.	46.	6.3	838.0	838.0	0.0
6200.000	14.	39.	7.4	840.0	839.9	0.1
6300.000	15.	47	6.1	841 1	841 1	0.0
6500.000	20.	55	5.3	842 3	842.2	0.1
6600 000	14.	52.	5.6	842.7	842.6	0.1
6662.000	14	61.	4.7	843.4	843.3	0 1
6712 000	25.	92.	3.2	843.8	843.7	0 1
6899.000	23.	79	3.7	843.9	843.8	0.1
6900.000	22	60.	4.8	843.8	843.7	0.1
7128.000	23.	66.	4 4	844.3	844.2	0.1
7129.000	24.	92.	3.2	844.5	844.4	0.1
7259.000	32.	90.	2.7	844.5	844.5	0.0
7295.000	16.	92.	2.6	844.5	844.5	0.0
7362.000	16.	30.	7.9	856 0	856.0	0.0
7462.000	163.	1134.	0.2	857.4	857.4	0.0
7962.000	134.	904.	0.3	857.4	857.4	0.0
8629.000	171.	1096.	0.2	862.5	862.4	0 1
8899.000	241.	1779.	0.1	862.5	862.4	0.1
9541.000	249	2281.	0.1	864.8	864.7	0.1
9771.000	249.	2281.	0.1	864.8	864.7	0 1
10481 000	89.	511.	0.5	866.7	866.6	0.1
10881.000	126.	763.	0.3	866.7	866.6	0.1