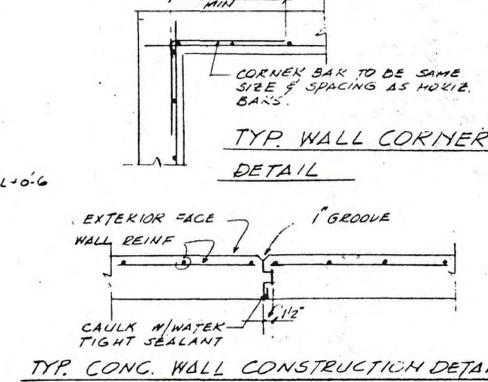
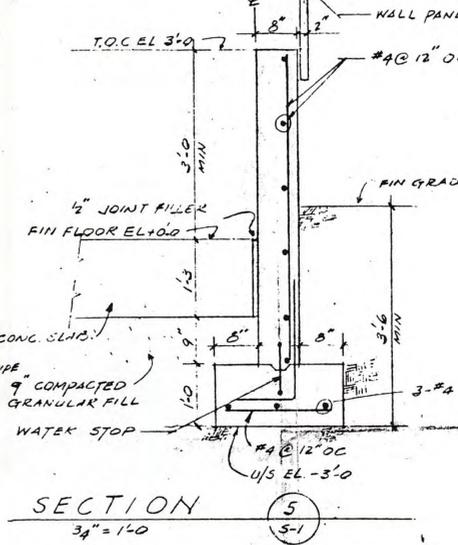
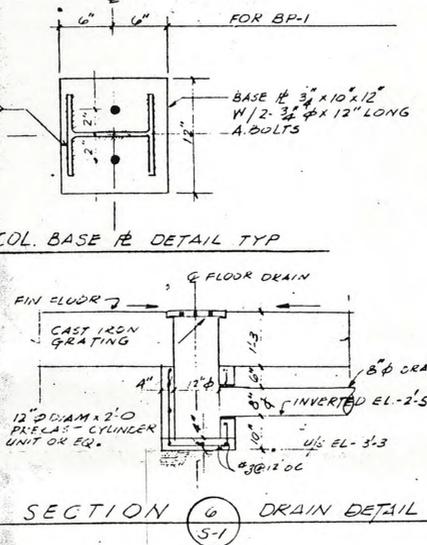
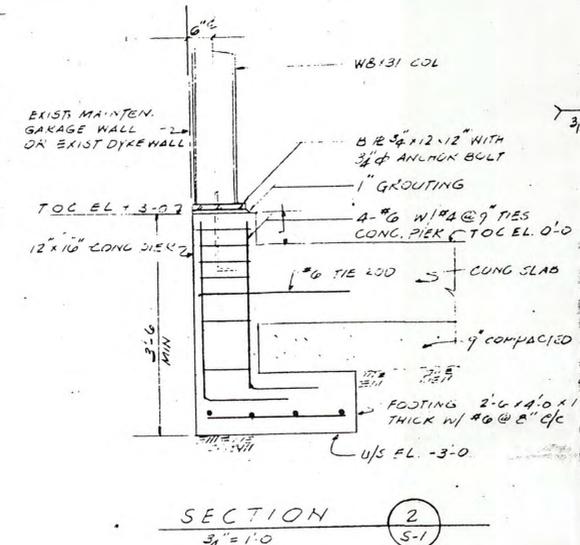
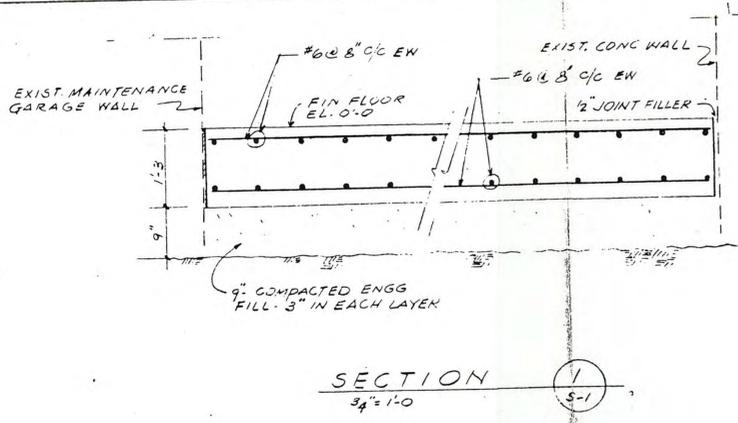
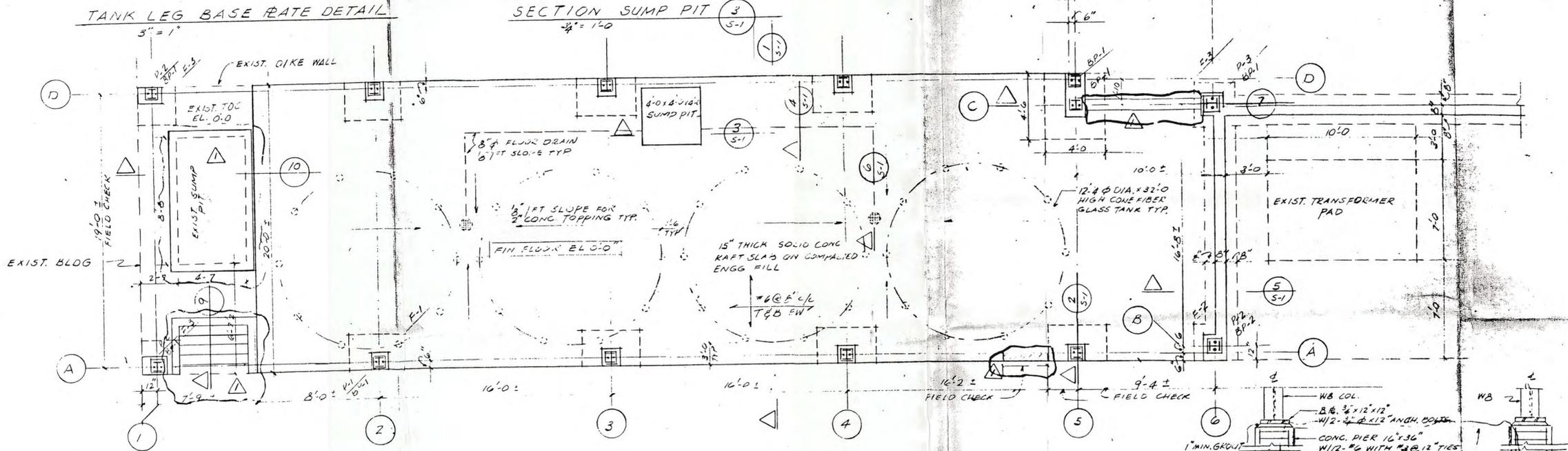
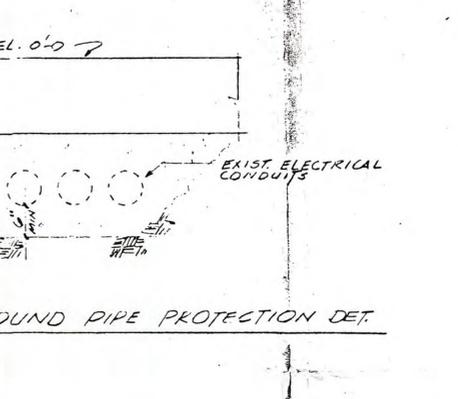
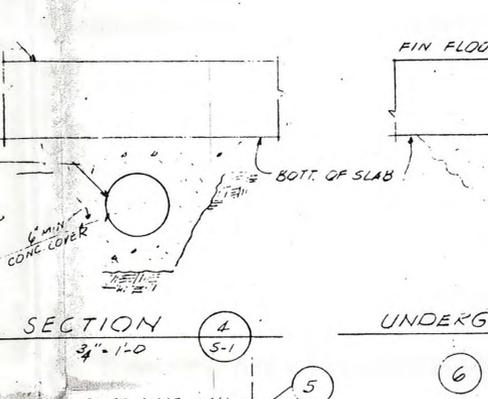
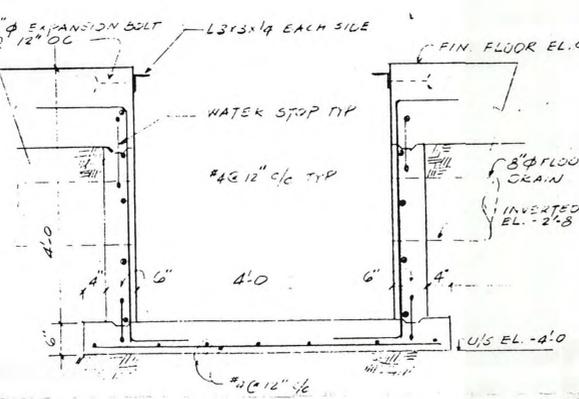
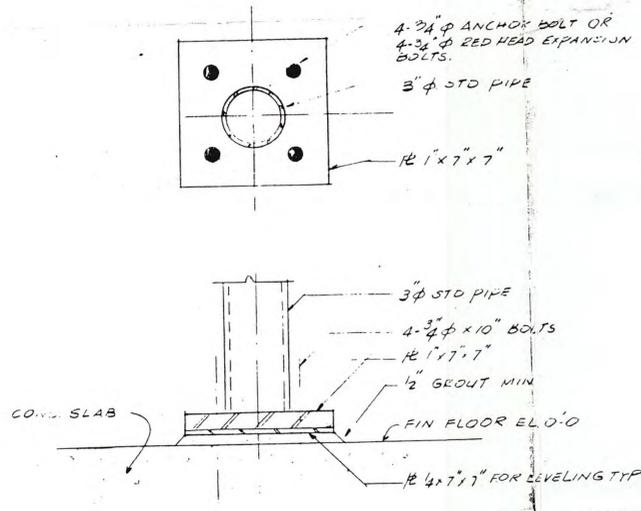


ATTACHMENT 6
ENGINEERING PLANS



- GENERAL NOTE:
- Cone fiberglass tanks raft foundation is designed for soil pressure of 1000 psf and column footing is designed for soil pressure of 2000 psf at the depth indicated. Contact the engineer for correction action.
 - All concrete shall have a 28 day compressive strength of 3000 psi min.
 - Reinforcement steel yield strength shall be grade of 60,000 psi unless noted otherwise.
 - Contractor shall verify location of foundation layout with plant operator before casting footing and slab if plant is required to be shutdown.
 - The standards of ACI Building Code 318-83 and the standards of practice ACI 318-80 shall be followed for all detailing, fabrication and placement of all reinforcing steel and accessories.
 - All fill under slab foundation and footings shall be compacted to 95% of maximum density (Modified Proctor Test) at optimum moisture content.
 - Provide temporary bracing as required to insure the stability of existing and new structures.
 - Contractor shall coordinate with engineer during construction activities for any discrepancy.



FOUNDATION SCHEDULE

MARK	SIZE	REINF.	REMARK
PIER	P-1	12" x 16"	4-#6 W/ #4 @ 9" TIES TO CL EL. 0'-0"
	P-2	16" x 20"	4-#6 W/ #4 @ 9" TIES TO CL EL. 0'-0"
	P-3	16" x 16"	4-#6 W/ #4 @ 9" TIES TO CL EL. 3'-0"
BASE #	BP-1	3/4" x 10" x 12"	2-3/4" x 12" AB
	BP-2		
	BP-3		
FOOTING	F-1	2'-6" x 4'-0" x 1'-0"	#6 @ 8" OC EW U/S EL. -3'-0"
	F-2	2'-4" x 2'-6" x 1'-0"	#6 @ 8" OC EW U/S EL. -3'-0"
	F-3	2'-6" x 2'-6" x 1'-0"	#6 @ 8" OC EW U/S EL. -3'-0"

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△ SUMP PIT & NEW DIKE WALL REFERSHI-A-1	3-31-87
ISSUED FOR CONSTRUCTION	10-2-85
ISSUED FOR REVIEW & APPROVAL	9-30-85

NO. REVISION DATE

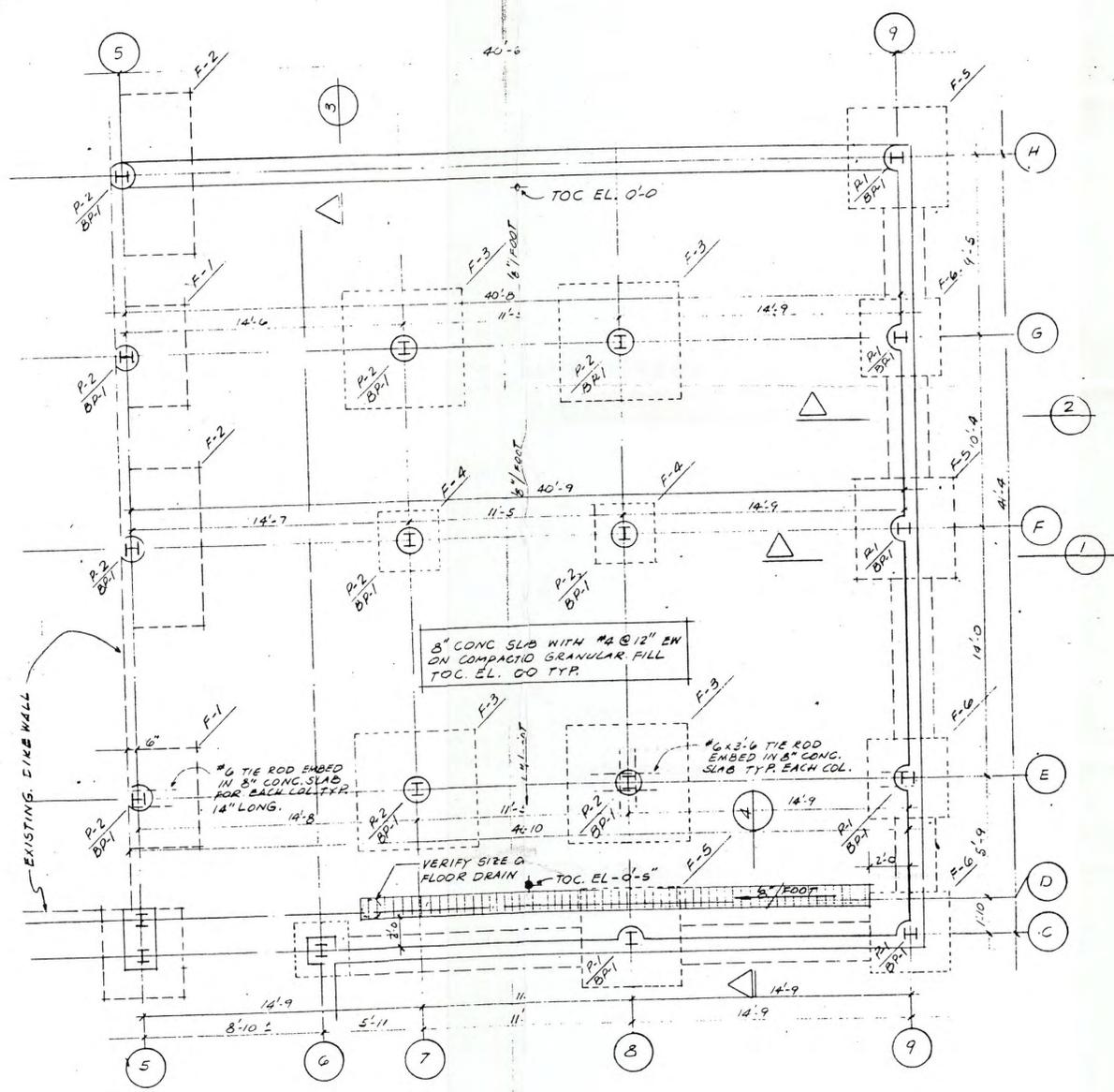
CONSULTING ENGINEERS
CHEMTEC RESEARCH ASSOCIATES, INC.
16241 WESTMORELAND
DETROIT, MICH. 48219

OWNER
DYNACOL, INC.
6520 GEORGIA ST.
DETROIT, MICH. 48211

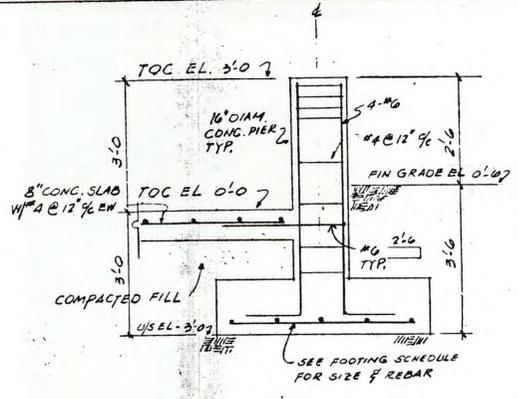
WASTE MANAGEMENT DIVISION
JAN 04 1985
RECEIVED

TITLE
CONE FIBERGLASS TANKS
FOUNDATION PLAN
SECTIONS & DETAILS

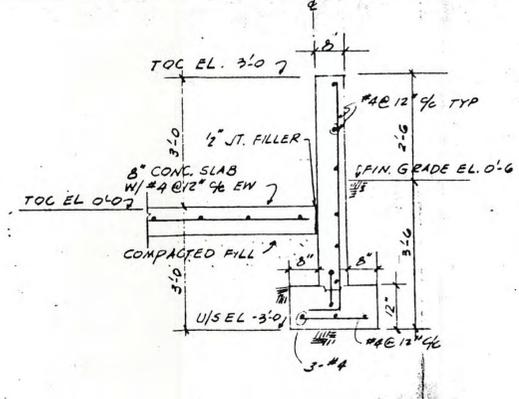
SCALE AS NOTED	DATE 9/30/85	PROJECT NO.
DRAWN BY HB	DESIGNED BY HB	SHEET NO.
CHECKED BY HB, RB	9/30/85	5-1 OF 7
APPROVED BY		



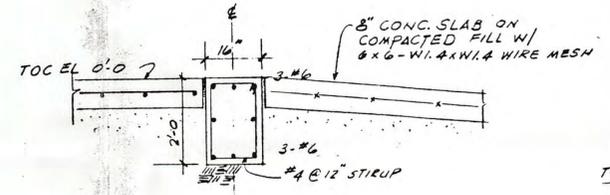
FOUNDATION PLAN
4'-0"



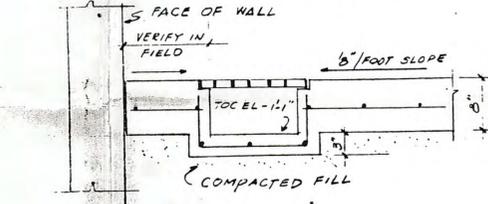
SECTION 1
1/2"=1'-0"



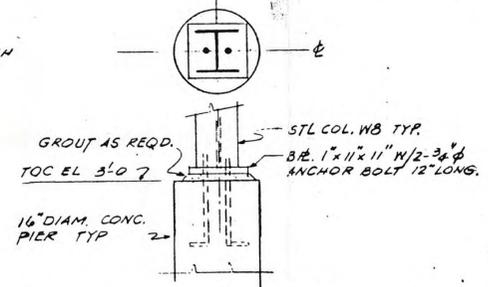
SECTION 2
1/2"=1'-0"



SECTION 3
1/2"=1'-0"



SECTION 4
1"=1'-0"



COL. BASE PLATE DETAIL TYP.

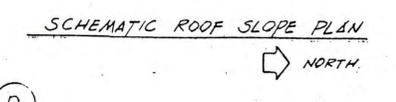
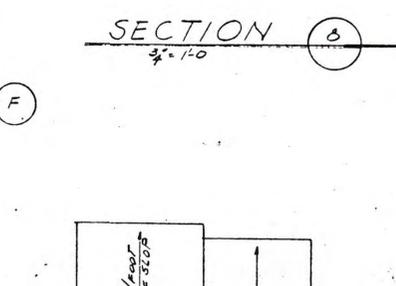
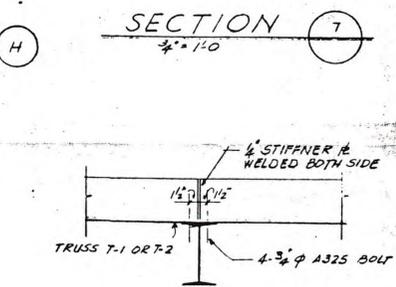
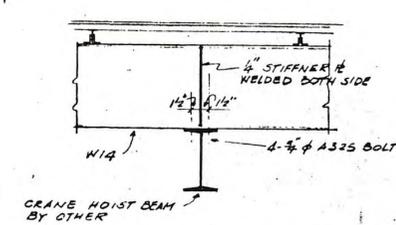
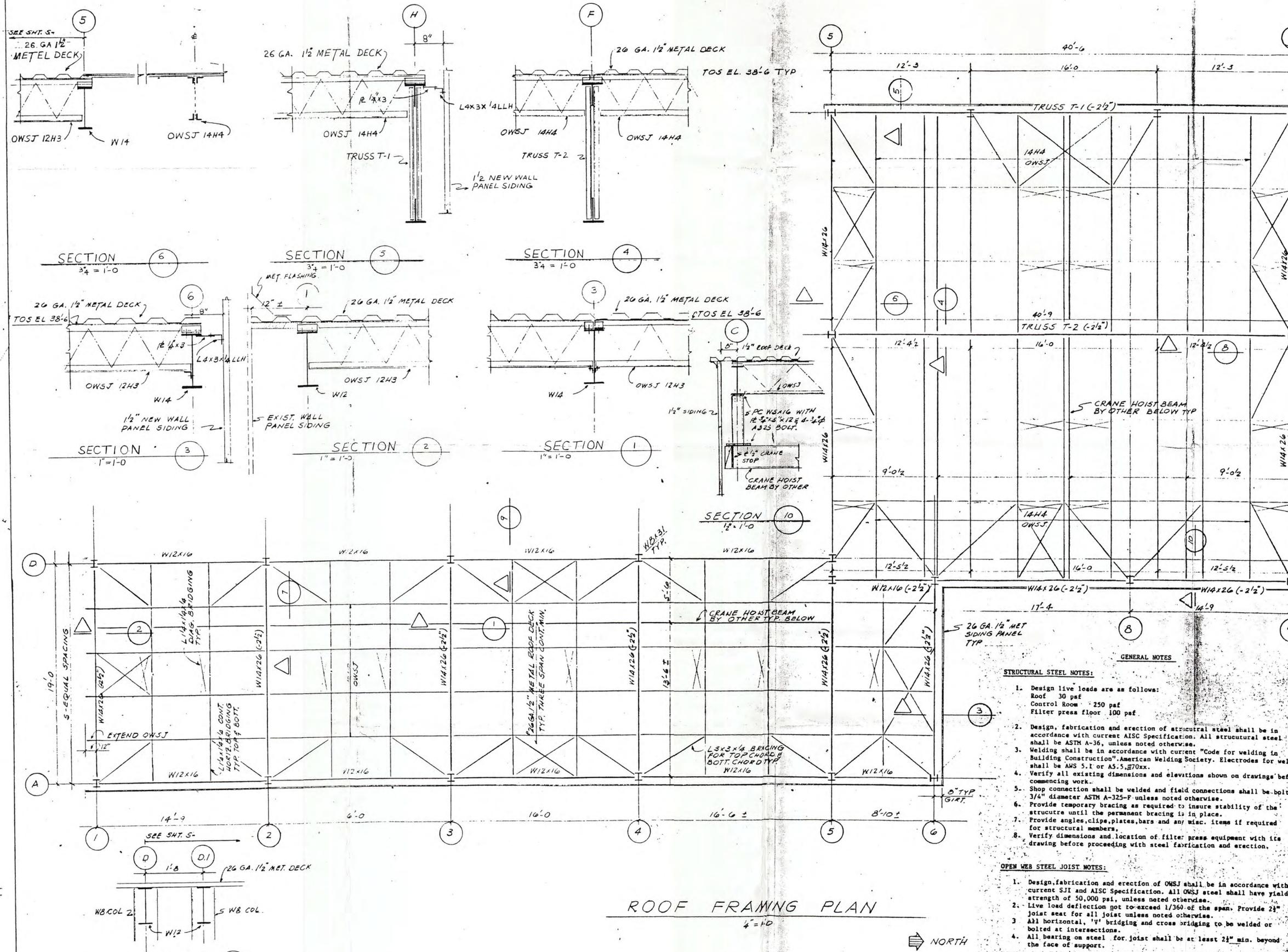
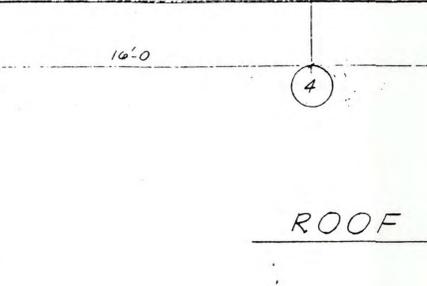
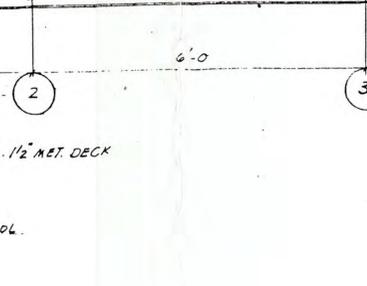
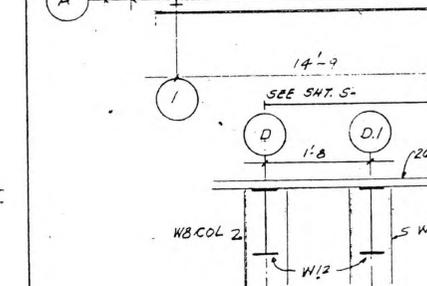
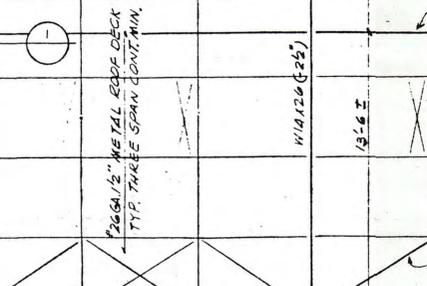
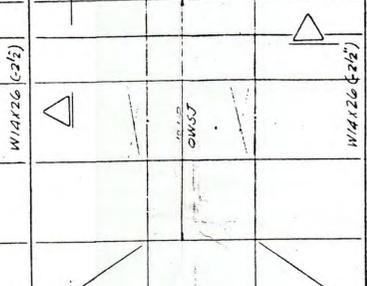
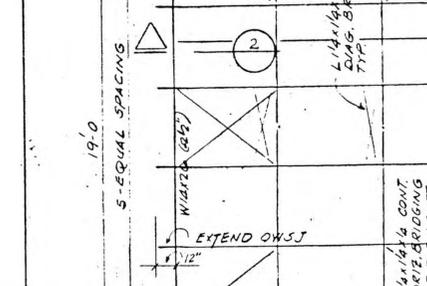
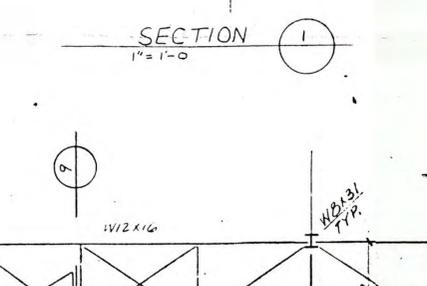
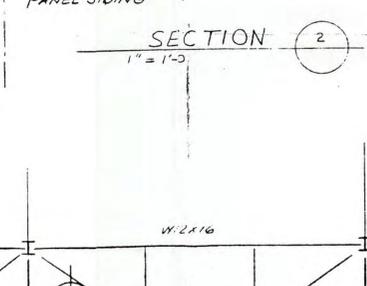
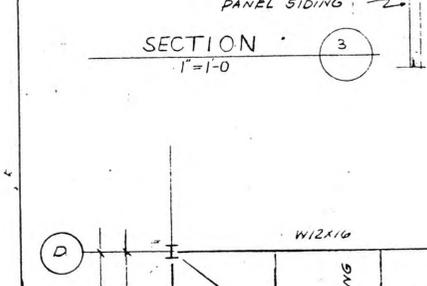
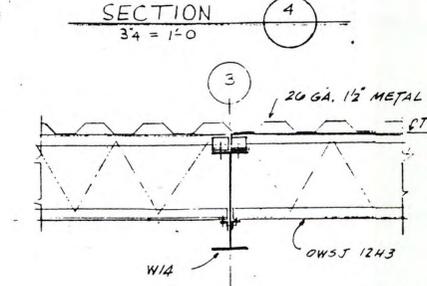
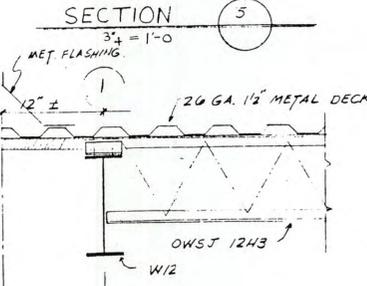
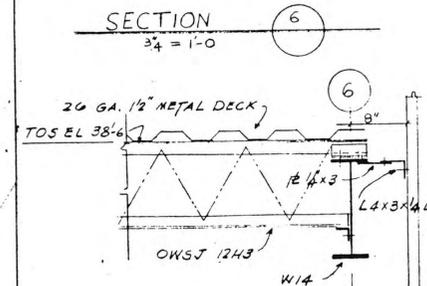
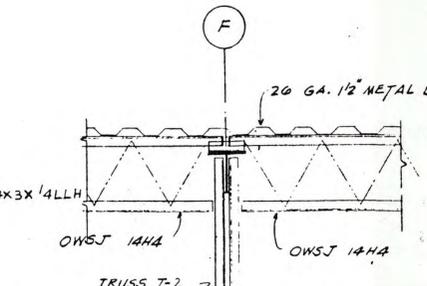
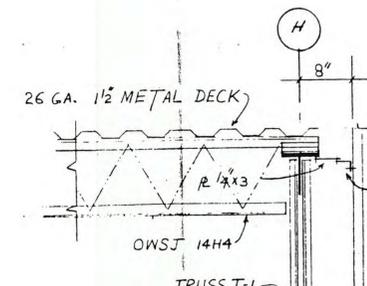
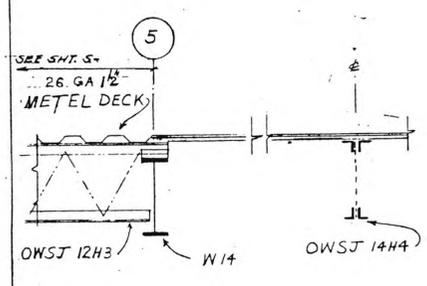
NOTE:
1. REFER SHEET S-1 FOR GENERAL NOTE, SECTION 2 DETAIL CONNECTION WITH THIS DRAWING.

PIER & FOOTING SCHEDULE

MARK	SIZE	REINFORCEMENT	REMARK
P-1	16" DIAM.	4-#6 W/ #4 @ 9" TIES	TOC EL. 3'-0"
P-2	16" DIAM.	4-#6 W/ #4 @ 9" TIES	TOC EL. 0'-0"
BP-1	BR. 1" X 11" X 11"		2-3/4" ANCHOR BOLT
F-1	3'-0" X 3'-0" X 1'-0"	6-#6 NS, 10-#6 EW	U/S EL. -3'-0"
F-2	3'-0" X 3'-0" X 1'-0"	7-#6 NS, 14-#6 EW	U/S EL. -3'-0"
F-3	6'-0" X 6'-0" X 1'-0"	7-#6 EW @ BOT.	U/S EL. -3'-0"
F-4	3'-0" X 3'-0" X 1'-0"	4-#6 EW @ BOT.	U/S EL. -3'-0"
F-5	5'-0" X 5'-0" X 1'-0"	6-#6 EW @ BOT.	U/S EL. -3'-0"
F-6	4'-0" X 4'-0" X 1'-0"	5-#6 EW @ BOT.	U/S EL. -3'-0"

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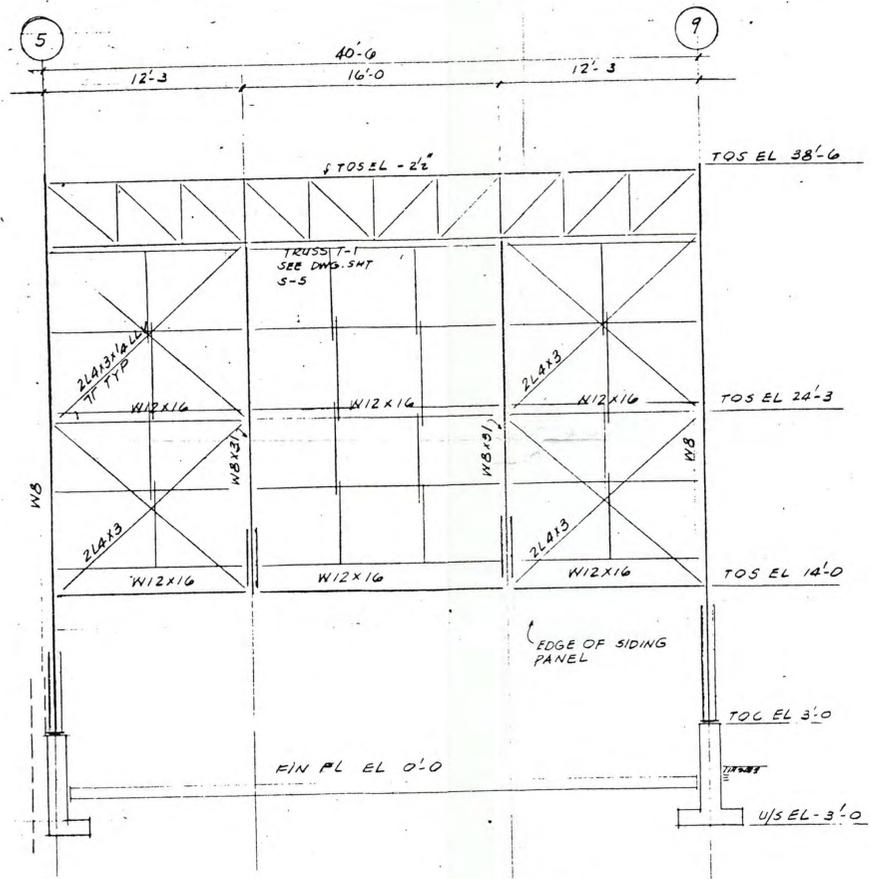
ISSUED FOR CONSTRUCTION	11-11-85	
NO. REVISION	DATE	
CONSULTING ENGINEERS CHEMTEC RESEARCH ASSOCIATES, INC. 16241 WESTMORELAND DETROIT, MICH. 48219		
OWNER WASTE ACID SERVICES, INC. 6520 GEORGIA ST. DETROIT, MICH. 48211 JAN 04 1995		
TITLE: <u>RECEIVED</u> FILTER PRESS		
FOUNDATION PLAN SECTION 4 & DETAIL		
SCALE: AS NOTED	DATE: 10-31-85	PROJECT NO.
DRAWN BY: <u>HS</u>	DESIGNED BY: <u>HS</u>	SHEET NO.
CHECKED BY: <u>HS, RB</u>	APPROVED BY: <u>RB</u>	11-09-85
		5-2 OF



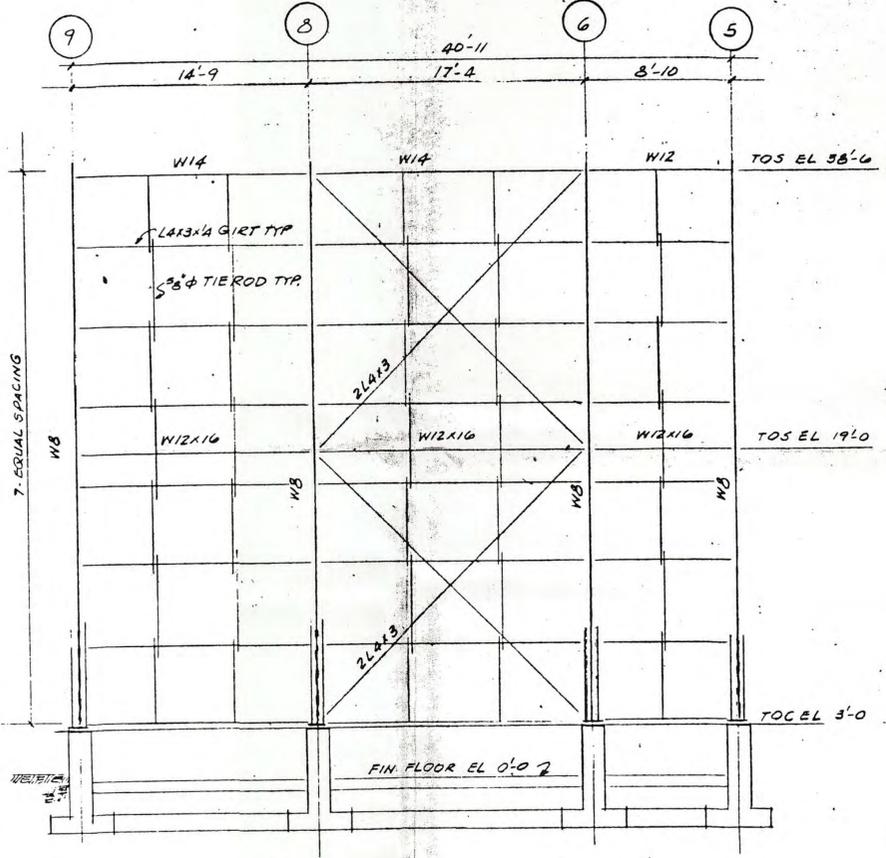
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- GENERAL NOTES**
- Design live loads are as follows:
Roof 30 paf
Control Room 250 paf
Filter press floor 100 paf
 - Design, fabrication and erection of structural steel shall be in accordance with current AISC Specification. All structural steel shall be ASTM A-36, unless noted otherwise.
 - Welding shall be in accordance with current "Code for welding in Building Construction", American Welding Society. Electrodes for welding shall be AWS E1 or AS 5.5, E70xx.
 - Verify all existing dimensions and elevations shown on drawings before commencing work.
 - Shop connection shall be welded and field connections shall be bolted.
 - Provide temporary bracing as required to insure stability of the structure until the permanent bracing is in place.
 - Provide angles, clips, plates, bars and any misc. items if required for structural members.
 - Verify dimensions and location of filter press equipment with its drawing before proceeding with steel fabrication and erection.
- OPEN WEB STEEL JOIST NOTES:**
- Design, fabrication and erection of OWSJ shall be in accordance with current SJI and AISC Specification. All OWSJ steel shall have yield strength of 50,000 psi, unless noted otherwise.
 - Live load deflection not to exceed 1/360 of the span. Provide 2" joint seat for all joist unless noted otherwise.
 - All horizontal, "V" bridging and cross bridging to be welded or bolted at intersections.
 - All bearing on steel for joist shall be at least 2" min. beyond the face of support.

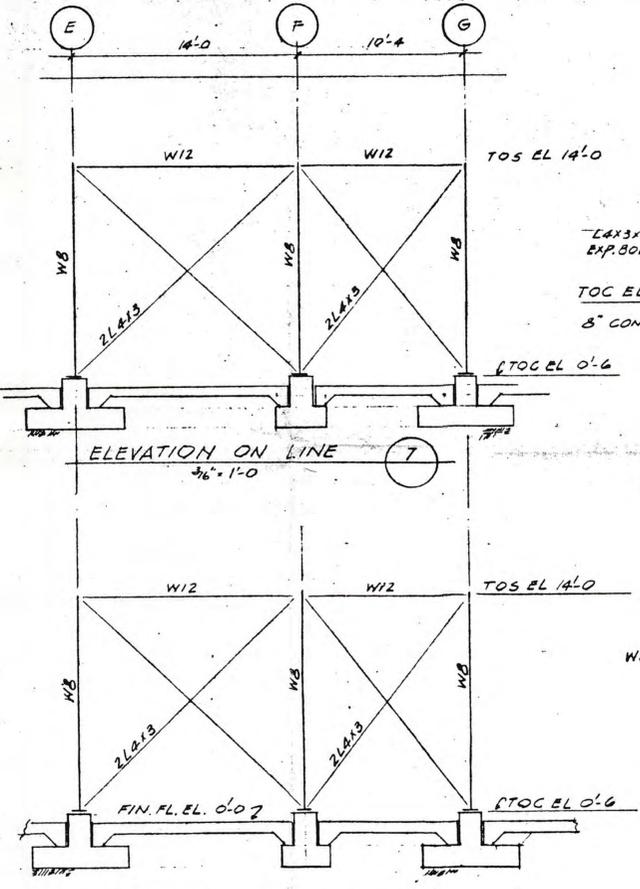
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ISSUED FOR REVIEW		10-21-85
NO.	REVISION	DATE
CONSULTING ENGINEERS		
CHEMTEC RESEARCH ASSOCIATES, INC.		
16241 WESTMORELAND		
DETROIT, MICH. 48219		
OWNER		
WASTE ACID SERVICES, INC.		
6520 GEORGIA ST.		
DETROIT, MICH. 48211		
JAN 04 1985		
RECEIVED		
TITLE CONE FIBERGLASS TANK & FILTER PRESS		
ROOF FRAMING PLAN		
SECTIONS & DETAILS		
SCALE	AS NOTED	DATE
DRAWN BY	HB	10-8-85
DESIGNED BY	HB	10-8-85
CHECKED BY	HB, RB	11-25-85
APPROVED BY	RB	11-25-85
PROJECT NO.		
SHEET NO.		
		5 OF 5



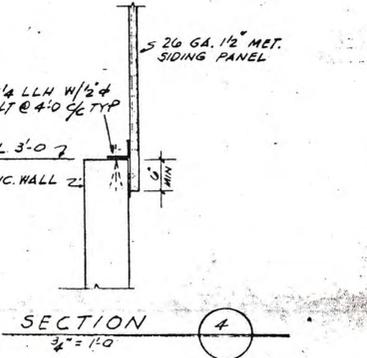
ELEVATION ON LINE (H)
3/16" = 1'-0"



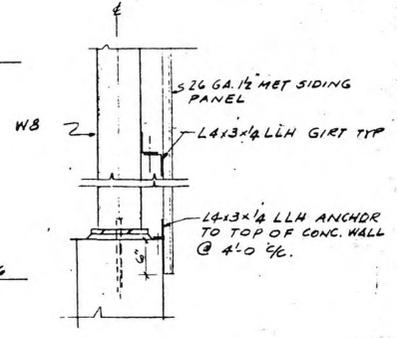
ELEVATION ON LINE (C)
3/16" = 1'-0"



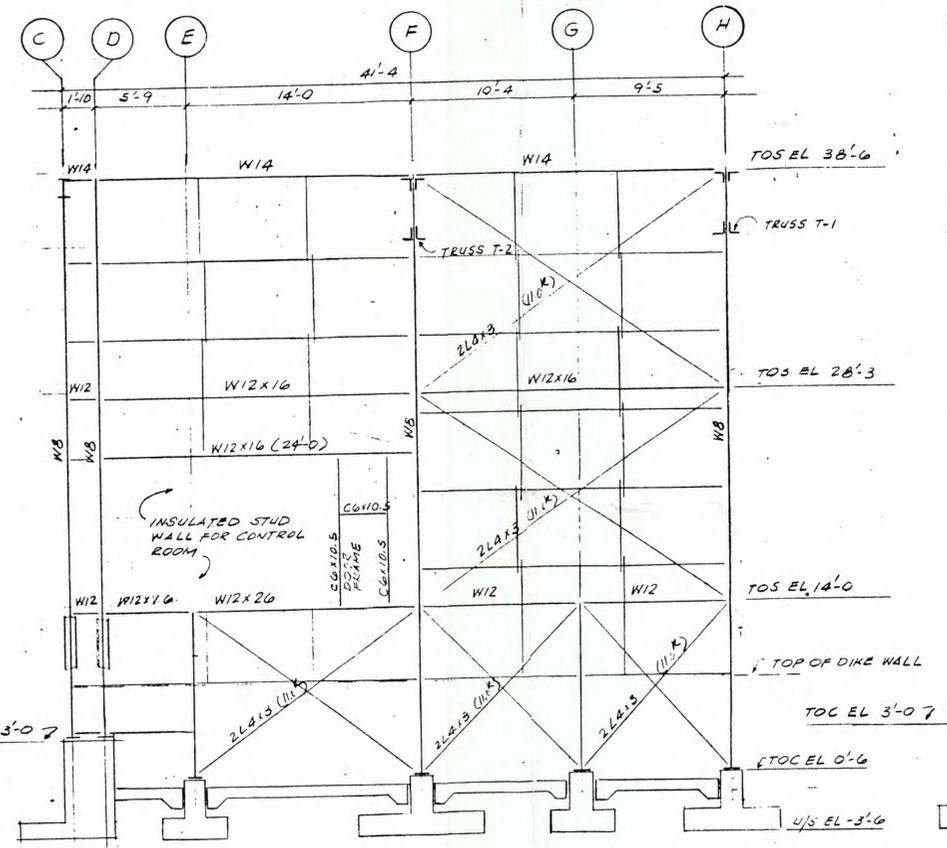
ELEVATION ON LINE (8)
3/16" = 1'-0"



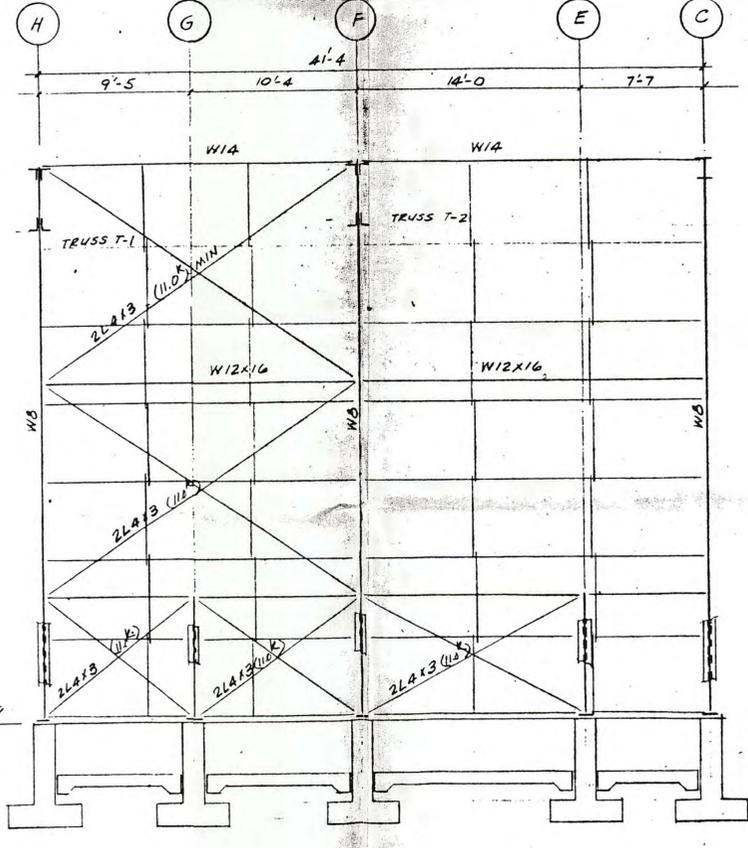
SECTION (4)
3/4" = 1'-0"



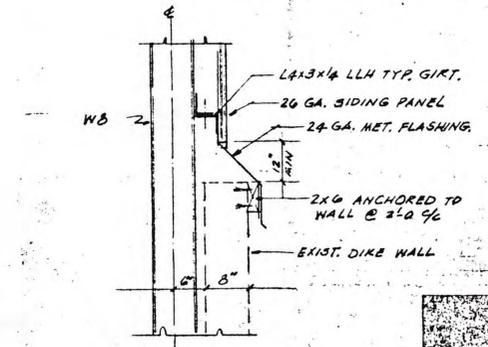
SECTION (3)
3/4" = 1'-0"



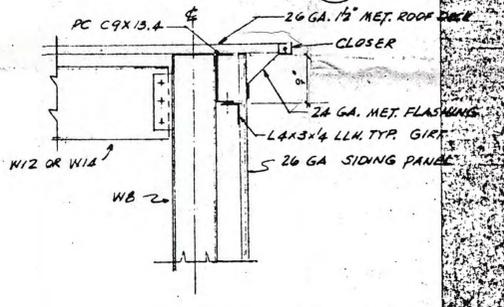
ELEVATION ON LINE (5)
3/16" = 1'-0"



ELEVATION ON LINE (9)
3/16" = 1'-0"



SECTION (1)
3/4" = 1'-0"



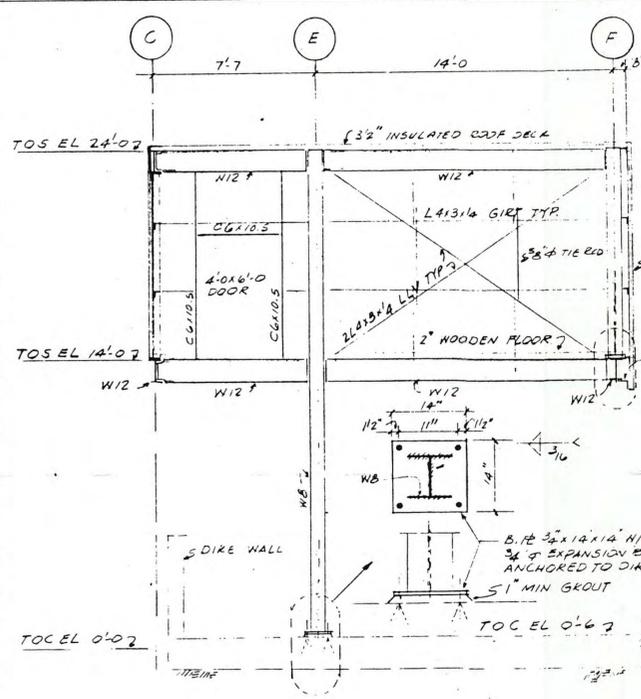
SECTION (2)
3/4" = 1'-0"

NOTE:
1. REFER SMT. 5-3 FOR GENERAL NOTES.

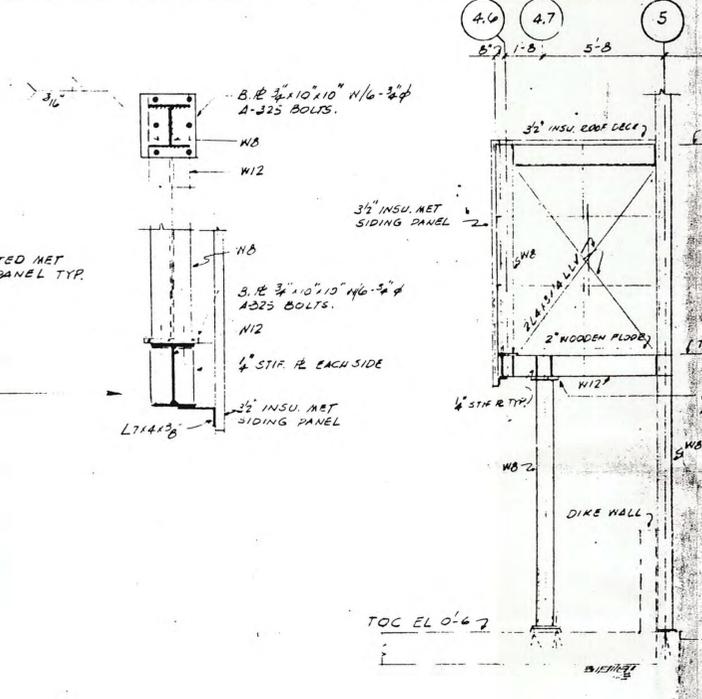
Dynecol, Inc. - 1988 Act 64
License Reapplication

ISSUED FOR CONSTRUCTION	11-23-85	
ISSUED FOR REVIEW	11-21-85	
NO. REVISED	DATE	
CONSULTING ENGINEERS		
CHEMTEC RESEARCH ASSOCIATES, INC.		
6241 WESTMORELAND		
DETROIT, MICH. 48219		
OWNER		
WASTE ACID SERVICES, INC.		
6520 BEDFORD ST.		
DETROIT, MICH. 48211		
TITLE	FILTER PRESS REQUIRY	
ELEVATIONS SECTION	8	
DETAILS		
SCALE AS NOTED	DATE	PROJECT NO.
DESIGNED BY: HB	10-16-85	
DRAWN BY: HB	10-14-85	SHEET NO.
CHECKED BY: HB, RB	11-24-85	56-01
APPROVED BY: RB	11-23-85	

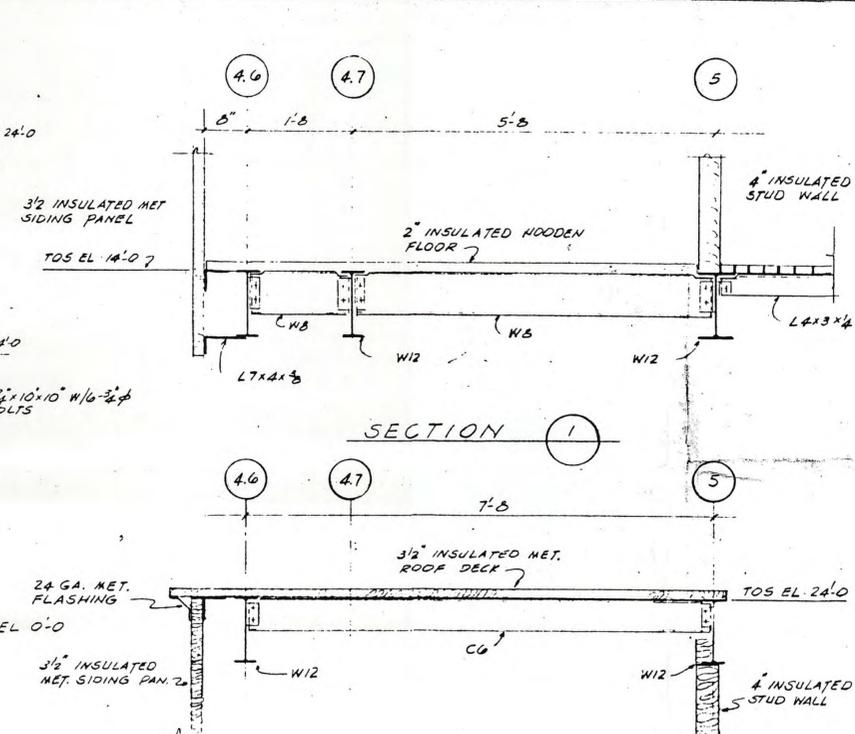
TYPICAL WALL SECTIONS



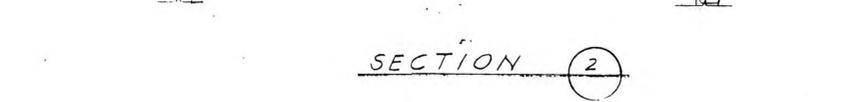
ELEVATION ON LINE 4.6
4" = 1'-0"



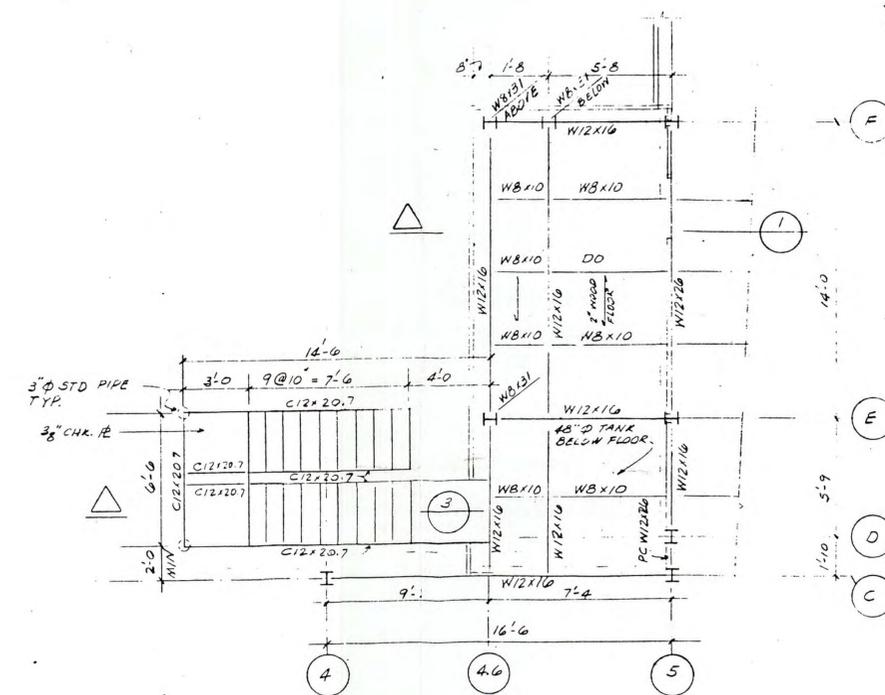
ELEVATION ON LINE - F
4" = 1'-0"



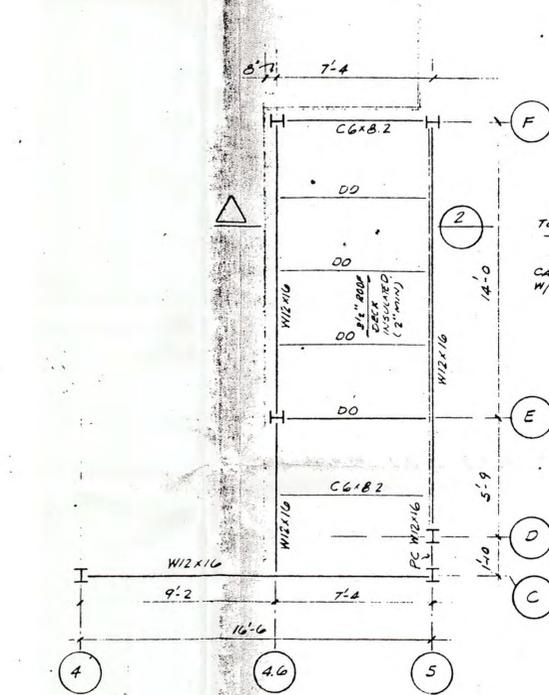
SECTION 1



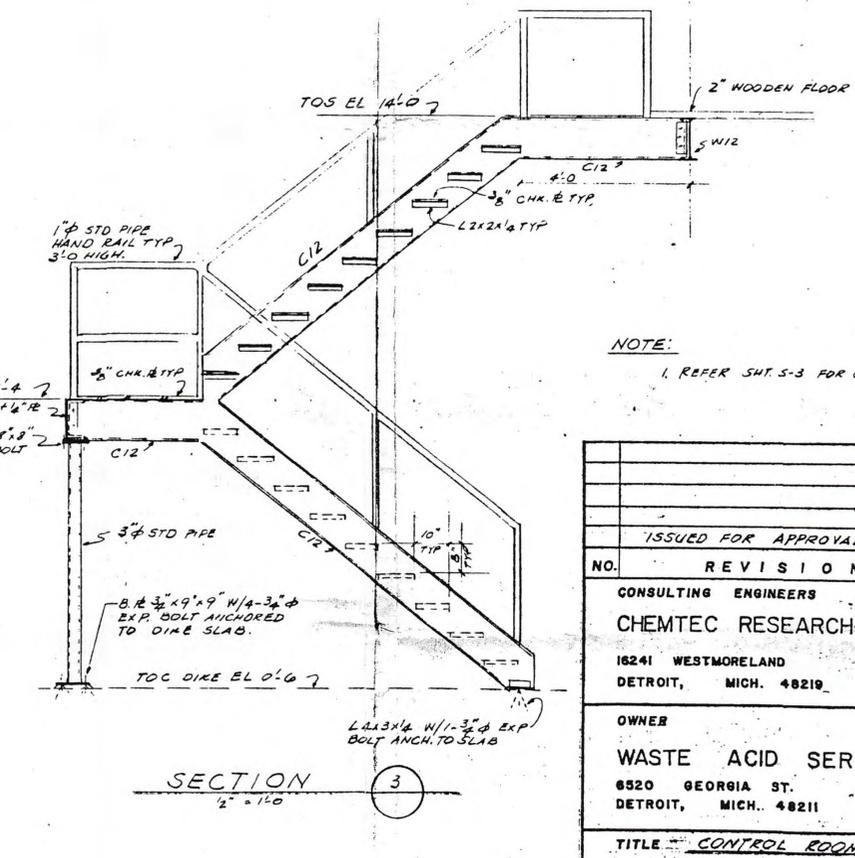
SECTION 2



CONTROL ROOM FLOOR FRAMING PLAN TOS EL 14'-0"
4" = 1'-0"



CONTROL ROOM ROOF FRAMING PLAN TOS EL 24'-0"
4" = 1'-0"

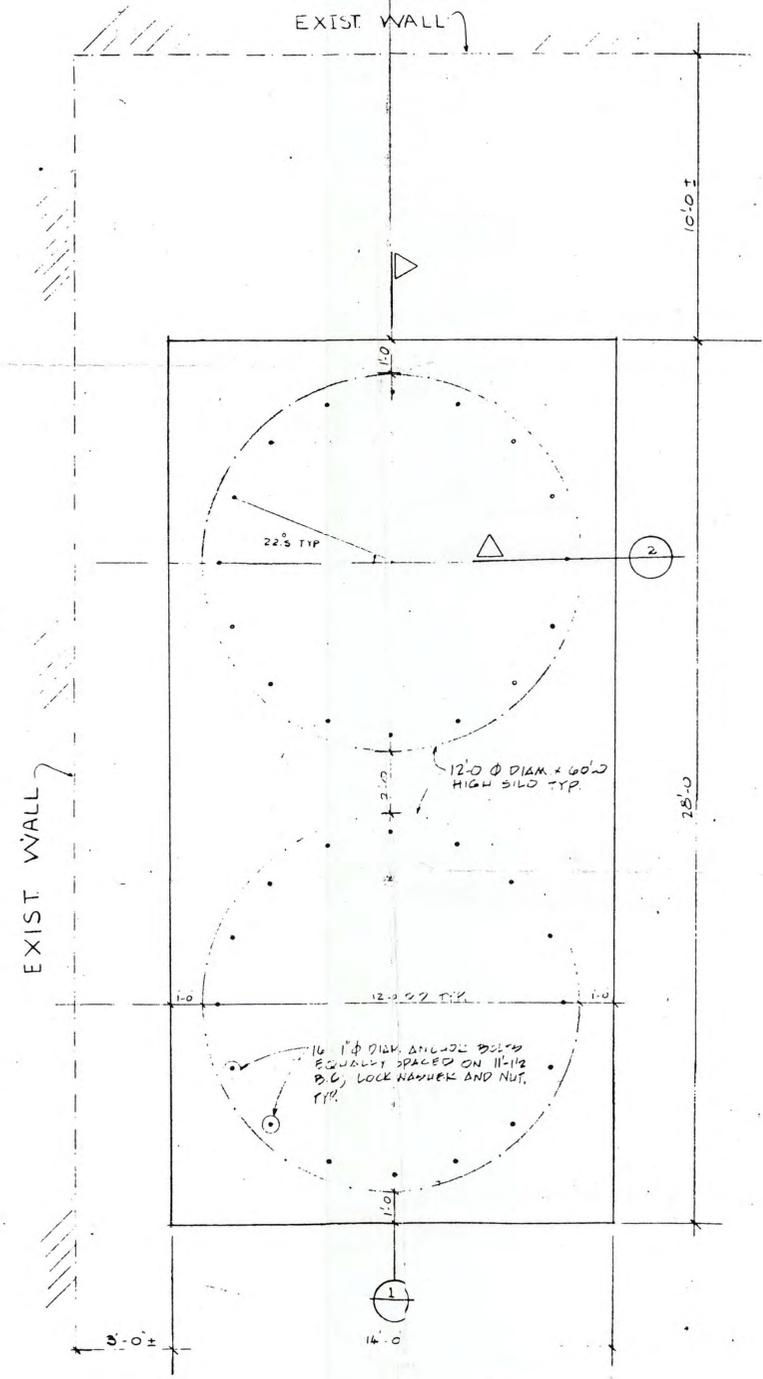


SECTION 3
2" = 1'-0"

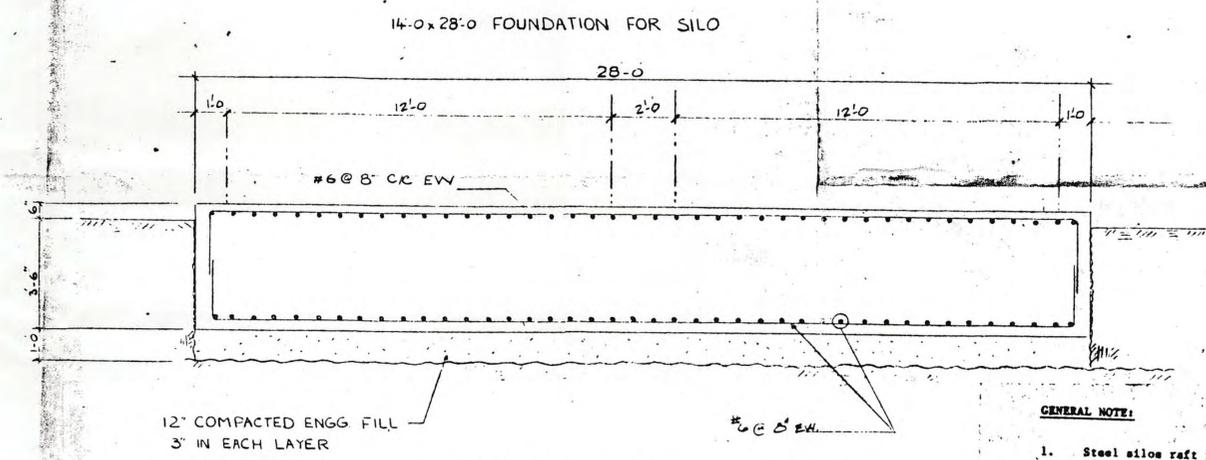
NOTE:
1. REFER SH. 5-3 FOR GENERAL NOTES.

ISSUED FOR APPROVAL		11-25-85
NO.	REVISION	DATE
CONSULTING ENGINEERS		
CHEMTEC RESEARCH ASSOCIATES, INC.		
16241 WESTMORELAND		
DETROIT, MICH. 48219		
OWNER		
WASTE ACID SERVICES, INC.		
6520 GEORGIA ST.		
DETROIT, MICH. 48211		
JAN 04 1995		
TITLE CONTROL ROOM		
FLOOR AND ROOF FRAMING PLAN		
SECTIONS & ELEVATIONS		
SCALE AS NOTED	DATE	PROJECT NO.
DRAWN BY HB	11-18-85	
DESIGNED BY HB	11-15-85	SHEET NO.
CHECKED BY HB RB	11-24-85	
APPROVED BY RB	11-24-85	S-7 OF

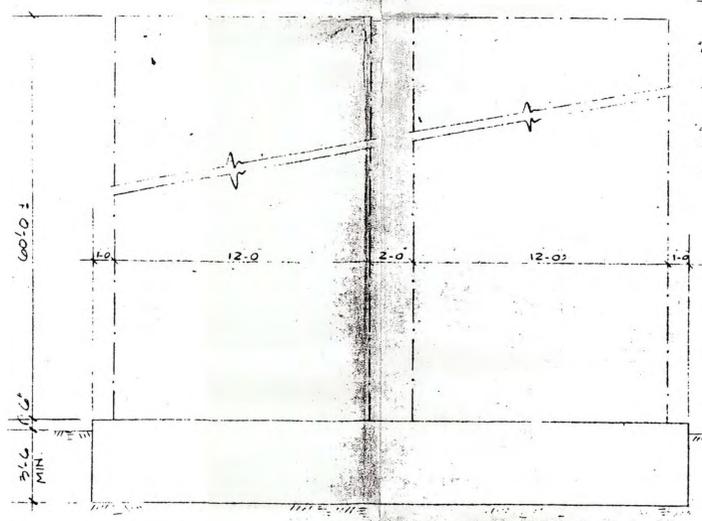
Dynecol, Inc. - 1988 Act 64
License Reapplication



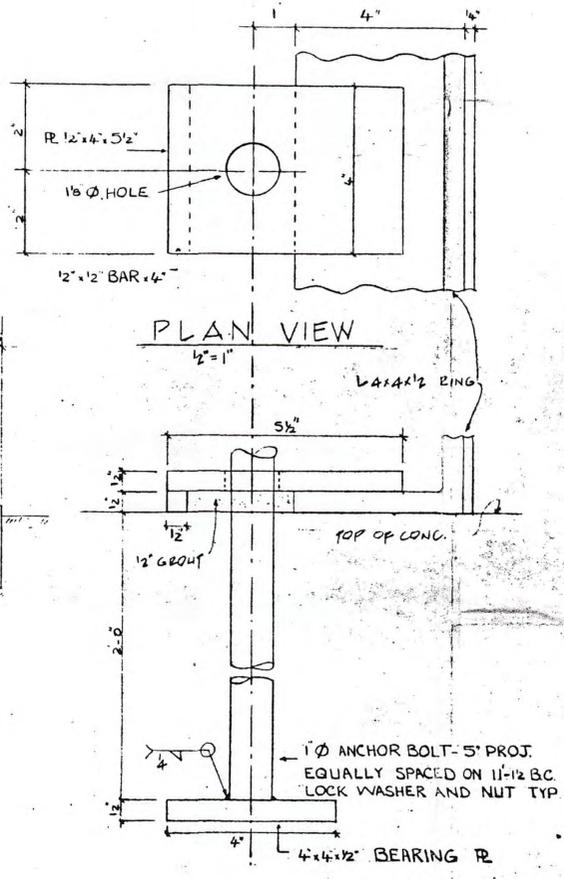
FOUNDATION PLAN
28'-0" x 10'-0"



SECTION 1
3/8" = 1'-0"



SILO TANK SECTIONAL ELEVATION
4'-0" = 1'-0"



SECTION 2
1/2" = 1'-0"

GENERAL NOTE:

1. Steel silo raft foundation is designed for soil pressure of 2000 psf at the depth indicated, Contact the engineer for correction action.
2. All concrete shall have a 28 day compressive strength of 3000 psi min.
3. Reinforcement steel yield strength shall be grade of 60,000 psi unless noted otherwise.
4. Contractor shall verify location of foundation layout with plant operator before casting footing and slab if plant is required to be shutdown.
5. The standards of ACI Building Code 318-83 and the standards of practice ACI 318-80 shall be followed for all detailing, fabrication and placement of all reinforcing steel and accessories.
6. All fill under slab foundation and footings shall be compacted to 95% of maximum density (Modified Proctor Test) at optimum moisture content.
7. Provide temporary bracing as required to insure the stability of existing and new structures.
8. Contractor shall coordinate with engineer during construction activities for any discrepancy.

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License Reapplication

ISSUED FOR CONSTRUCTION		12-05-85
NO.	REVISION	DATE
CONSULTING ENGINEERS CHEMTEC RESEARCH ASSOCIATES, INC. 18241 WESTMORELAND DETROIT, MICH. 48219		
OWNER WASTE ACID SERVICES, INC. 6520 GEORGIA ST. DETROIT, MICH. 48211		
TITLE SILO TANKS FOUNDATION PLAN SECTIONS & DETAILS		
SCALE AS SHOWN	DATE	PROJECT NO.
DRAWN BY SH	11-22-85	
DESIGNED BY SH	11-22-85	SHEET NO.
CHECKED BY HB	12-4-85	5-00P
APPROVED BY RB	11-24-85	