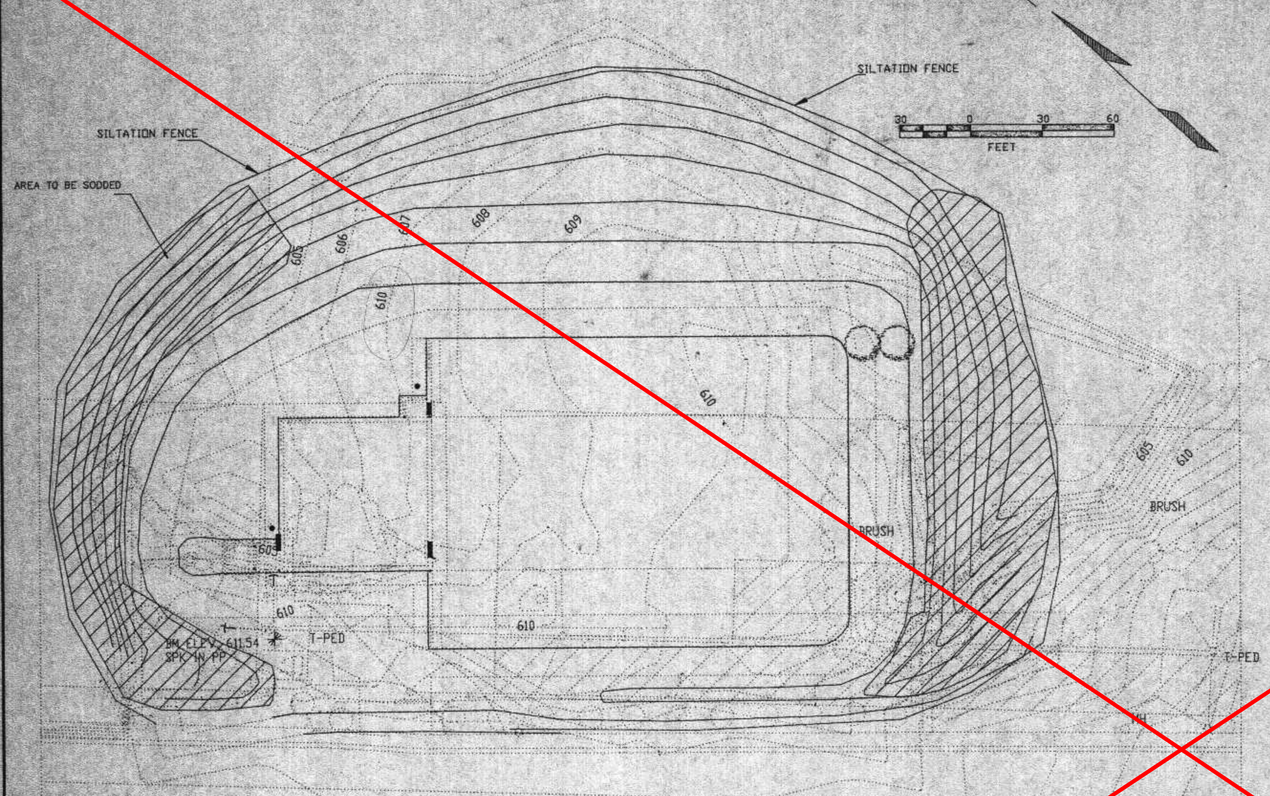
E. 2ND ST.
E. 1ST ST.
44TH AVE
BLUFF CREEK
overhead tracks
B-726-50
SEE SHEET 4 FOR DETAILS
E. 2ND ST. - U.S.H. 2
NOTE: Build a 4"x4" concrete curb in existing manhole as shown, for diversion of normal domestic sewage flow. Make smooth curved invert to connect with outgoing 8" invert.
44TH AVE.
E. 2ND ST. (U.S.H. 2 & 53)
B.M. - Top of Hyd. NE. Cor. E. 2nd St. & 44th Ave. Elev. 640.60
B.M. - Top of Conc. S.W. (Chis. o) N. cor. Bluff Cr. Bridge. Elev. 611.67
47TH AVE.
DIVERSION MANHOLE
640
630
620
610
600
590
300'-10" V.C.P. 0.25 %
885'-6" C.I. FORCE MAIN
65'-6" C.I. " "
LIFT STATION
Fill over shallow lines
130'-8" V.C.P. 0.4 %
210'-8" V.C.P. 0.40 %
264'-8" V.C.P. 4.73 %
107'-8" V.C.P. 0.40 %
37'-8" V.C.P. 15.84 %
31ST AVE E.
32ND AVE. E.
RIVER
B-16-80-49
NEMADJI
PIPE IN PLACE.
PIPE TO BE INSTALLED.
2-7/8" ϕ RIBBED TIGHT-FIT BOLTS
1-PL - 8" x 1/2"
FORCE MAIN HANGER DETAIL
PROVIDE ONE PIPE HANGER AS SHOWN AT EACH PANEL POINT AND THREE BETWEEN PANEL POINTS @ APPROX. 8' O.C. ON SOUTH TRUSS. INSTALL 8" C.I. FORCE MAIN ACROSS BRIDGE; CONNECT TO END OF 8" FORCE MAIN IN PLACE. INSULATE PIPE WITH 2" FIBERGLASS WRAPPED WITH CANVAS. CUT HOLE IN ABUTMENT AT BOTH ENDS OF BRIDGE, AT PROPER ELEVATION.
SECTION B-B
NO SCALE
NEMADJI RIVER BRIDGE.
SECTION A-A
NO SCALE
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
and are hereby ACCEPTED
Region V, Chicago, Illinois
EXAMINED and reported upon by the Section on Environmental Sanitation
O. J. MUEGGE
State Sanitary Engineer
APPROVED by the State Board of Health, as required by Wisconsin Statutes, subject to conditions set forth in the letter of approval
CARL N. NEUPERT, M. D.
State Health Officer
JUL 6 1956
Verification
E. 2ND ST. (U.S.H. 2 & 53)
* EXACT LOCATION AND ELEVATION OF END OF FORCE MAIN IN PLACE IS NOT KNOWN - METHOD OF LOCATING SAME AND COMPLETING INSTALLATION TO BE ACCORDING TO WISCONSIN STATE HIGHWAY COMM. REQUIREMENTS.
8" Transite Force Main
ITASCA INTERCEPTOR SEWER & BLUFF CREEK & NEMADJI RIVER BRIDGE CROSSINGS.
SUPERIOR - WISCONSIN
HITCHCOCK & ESTABROOK INC.
CONSULTING ENGINEERS
300 LINCOLN BLDG. - MINNEAPOLIS, MINNESOTA
DR
TR
CHK
APPR
JOB No.
400
SHEET
2
PLAN
PROFILE
PLATE 2-PLAN-PROFILE
EUGENE DIETZGEN CO.

See LS 7 SITE PLAN (REVISED) page 11

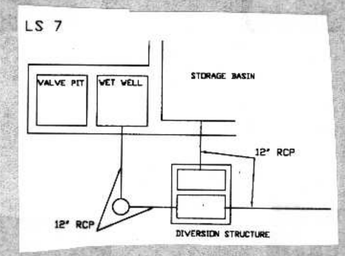


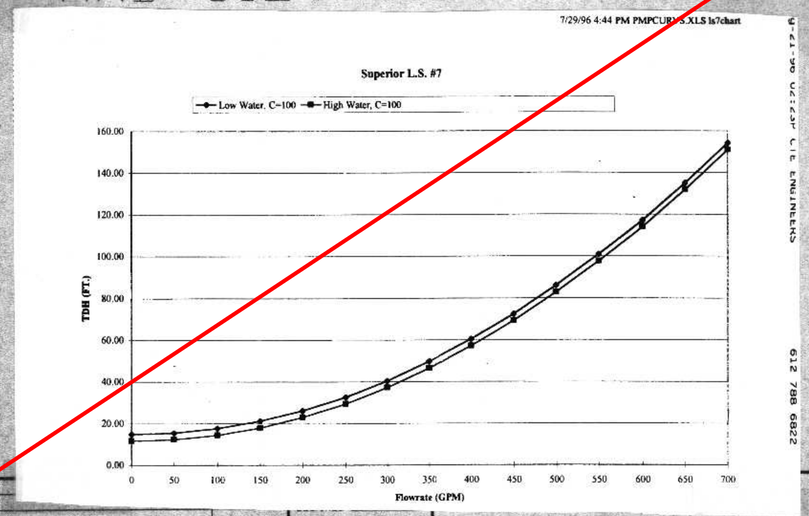
NEW CONTOURS, AREAS TO BE SODDED, AND SILTATION FENCE

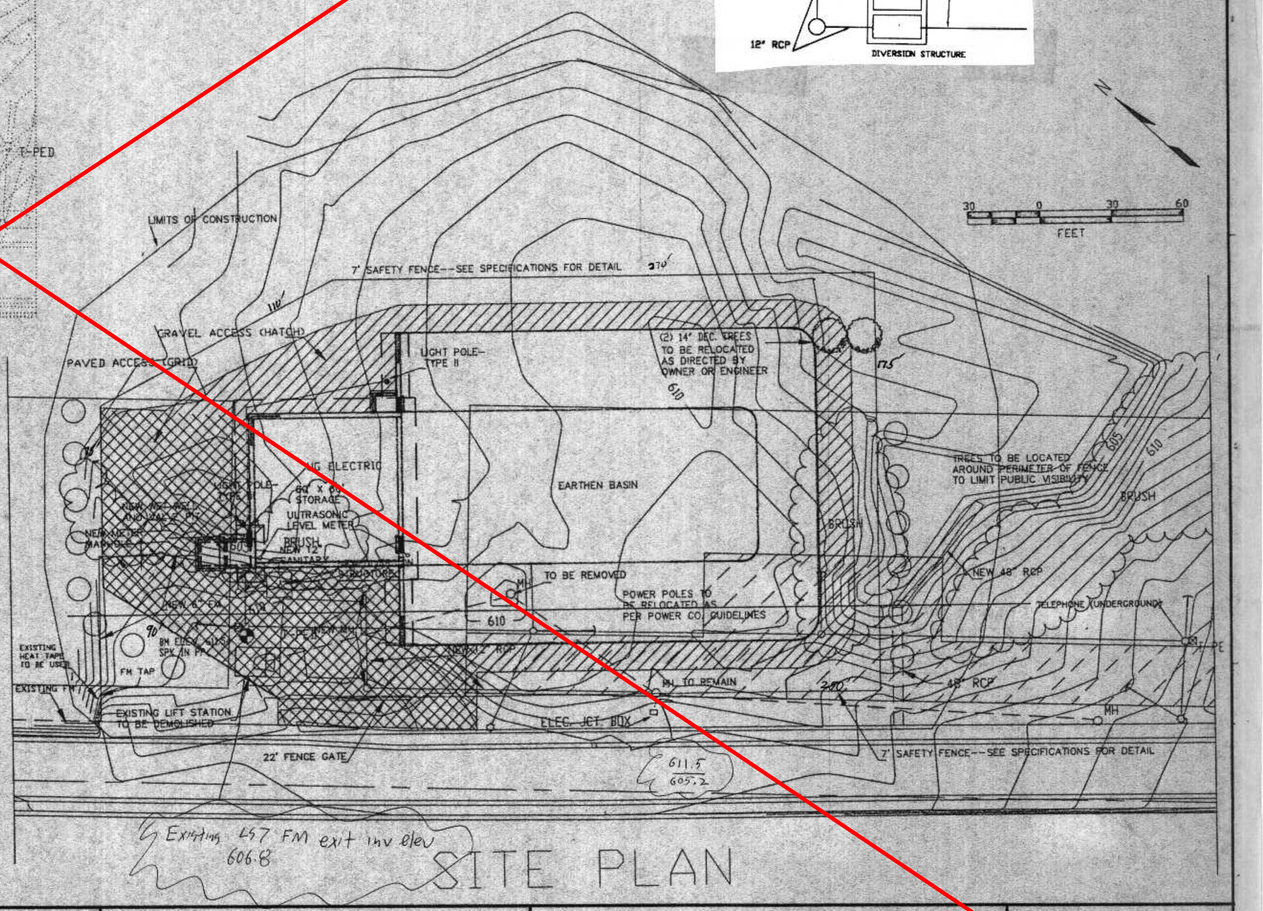
1. Add Note: Existing heat tape on force main under bridge to be tied into LS 7 control system. Underground conduit and cable to be provided.

1. All elevation information shall be verified in field by Contractor.
2. Invert and rim elevations of new MHs to correlate with elevations shown for finished contours and proposed invert elevations of diversion structures, influent/effluent pipes, and other relevant structures.
3. Coordinate pavement removal and replacement with WDOT.

1. Add Note: 2" PVC spare underground electric conduit to be provided from power source and control panel to locations of all slide gates and weir gates. Conduit to be terminated and sealed at outside of structures.
2. Add Note: All electric wires and signal cables to and from control panel to be routed underground.
3. Add Note: Two separate spare ¾ " underground PVC conduit to be provided between meter manhole and control panel.







SITE PLAN

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DRAWN
CHECKED
DATE

CTE ENGINEERS
CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.

BETA ENGINEERING, INC.
Engineers/Planners
1426 PROVIDENCE HIGHWAY, NORWOOD, MA
& BLACKSTONE VALLEY PLACE, LINCOLN, RI

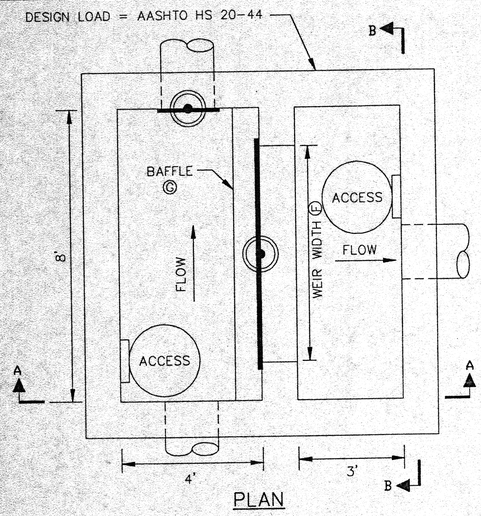
CITY OF SUPERIOR, WISCONSIN
DEPARTMENT OF PUBLIC WORKS

CONTRACT NO. 3

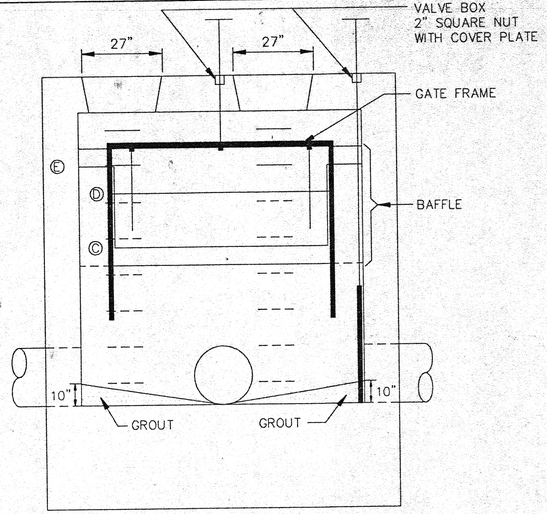
LIFT STATION 7 AND STORAGE PLAN

SHEET G-5
OF SHEETS
PROJECT NO. 3899-03

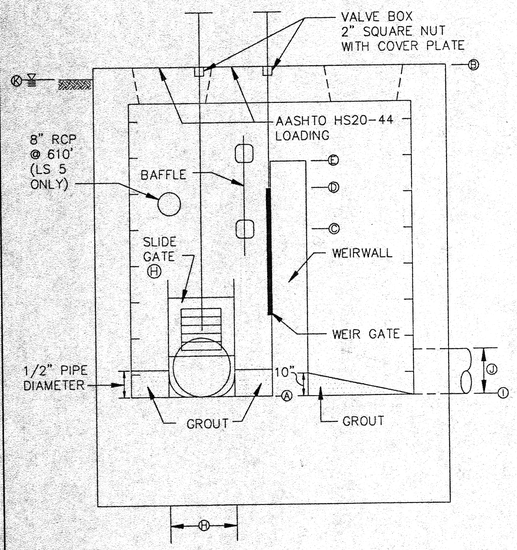
LIFT STATION DIVERSION STRUCTURES



PLAN



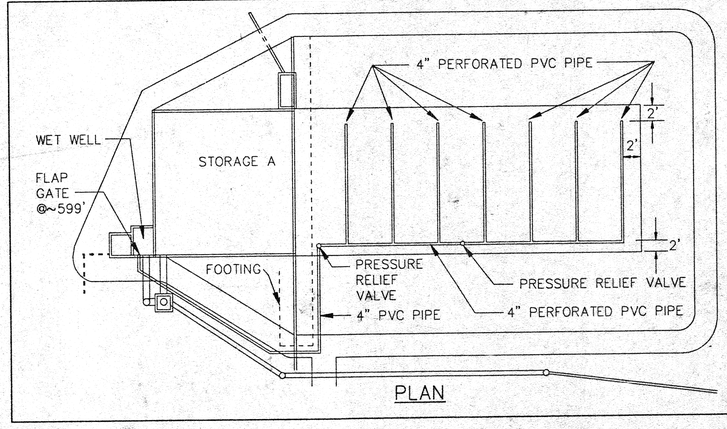
SECTION B – B



SECTION A – A

DIVERSION STRUCTURES–LIFT STATIONS 5, 6, AND 7				
	ATTRIBUTE	LS 5	LS 6	LS 7
A	INVERT ELEVATION (FT)	604.24	605.9	605.1
B	RIM ELEVATION (FT)	~616	~614	~614
C	MINIMUM WEIR ELEVATION (FT)	612.25	609.25	609.25
D	MAXIMUM WEIR ELEVATION (FT)	613.75	610.75	610.75
E	WEIR WALL ELEVATION (FT)	614.5	611.5	611.5
F	WEIR WIDTH (FT)	6.0	6.0	6.0
G	BAFFLE SIZE (FT X FT)	3H X 8W	3H X 8W	3H X 8W
H	SLIDE GATE SIZE-DWF OUT (IN X IN)	24 X 24	12 X 12	12 X 12
I	OVERFLOW INVERT ELEVATION (FT)	605.1	605.0	605.0
J	OVERFLOW PIPE DIAMETER (IN)	24	12	12
K	EXTREME GROUNDWATER LEVEL (FT)	GRADE	GRADE	GRADE
	DESIGN MAXIMUM OVERFLOW (CFS)	10.0	5.4	5.0

LIFT STATION 7 – UNDERDRAIN SCHEMATIC



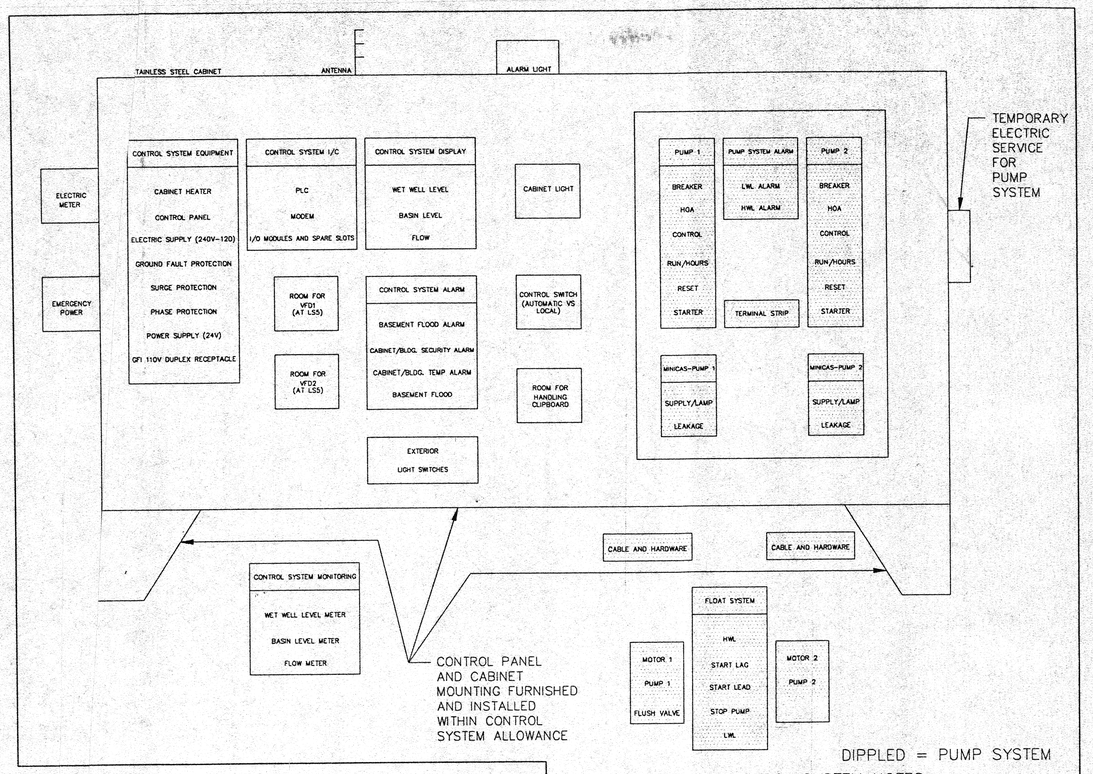
PLAN

PANEL BOARD SCHEDULE

VOLTAGE–120/240V 1ø		MAINS 50 AMP MAIN BREAKER, 100 AMP MAIN	
BRANCH CIRCUIT		BRANCH CIRCUIT	
DESIGNATION	No.	No.	DESIGNATION
MAGMETER	1	2	ULTRASONIC
WEIR GATE OPERATOR	3	4	CONTROL PANEL
*LIGHT POLE	5	6	*LIGHT POLE
GFI	7	8	GFI
*LIGHT POLE	9	10	SPARE
GFI	11	12	SPARE

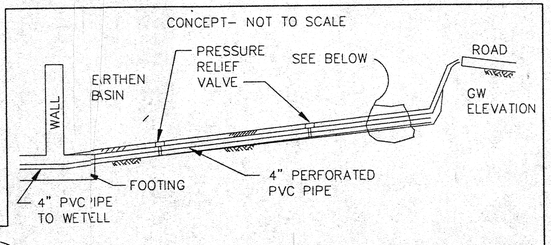
* NUMBER OF GFI CIRCUIT BREAKERS DEPENDENT ON SITE LOCATIONS
ALL CIRCUIT BREAKERS 20 AMP

LFT STATION PUMP AND CONTROL SYSTEMS -- CABINET/SYSTEM SCHEMATIC

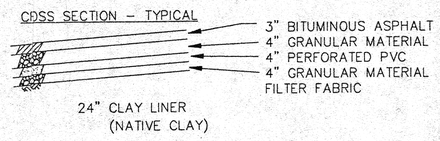


DIPPLED = PUMP SYSTEM

CONCEPT- NOT TO SCALE



CROSS SECTION – TYPICAL



PUMP AND CONTROL SYSTEM NOTES

1. GENERAL CONTRACTOR

INCLUDE ALLOWANCE COST IN BID. INCLUDE ALL INCIDENTAL WORK FOR COMPLETE SYSTEM, COORDINATION, MOUNTING OF PANEL, ALL ELECTRIC SERVICE, ELECTRIC AND CONTROL, CONDUIT AND WIRING. FURNISH AND INSTALL COMPLETE PUMP SYSTEM, PROVIDE COMPLETE LIFT STATION OPERATION, MONITORING AND ALARM IRRESPECTIVE EQUIPMENT/WORK OF THE ALLOWANCE. MOUNTING OF BRACKETS FOR ULTRASONIC LEVEL MONITORS. REMOVE AND STORE EXISTING PLC, AND RADIO SYSTEM. MOUNTING OF BRACKETS FOR ULTRASONIC LEVEL MONITORS. REMOVE AND STORE EXISTING PLC, AND RADIO SYSTEM.

2. CONTROL SYSTEM ALLOWANCE

THIS ALLOWANCE SHALL INCLUDE THE FOLLOWING: CONTROL SYSTEM PER "THIS DRAWING AND SPECIFICATION 16950". PANEL AND PEDESTAL WITH ROOM FOR GENERAL CONTRACTORS PUMP SYSTEM. MOUNTING WET WELL LEVEL MONITORS, SPECIAL CONTROL WIRES, AND METER CALIBRATION.

FEEDER/BRANCH CIRCUIT SCHEDULE

ITEM	VOLTAGE	PH	MOTOR HP	AMPERE	WIRE SIZE	CONDUIT SIZE	REMARKS
SERVICE ENTRANCE	240/120	3		100	2	1-1/4	LOCATION AS REQUIRED
CONTROL PANEL	240	3		100	2	1-1/4	
PUMP MOTOR NO. 1	240	3	20/10•	27/14•	10/12•	3/4	•10 HP AT LIFT STATION NO. 7 ONLY
PUMP MOTOR NO. 2	240	3	20/10•	27/14•	10/12•	3/4	•10 HP AT LIFT STATION NO.7 ONLY
LIGHT POLE	240	1		•	8	3/4	•SEE LIGHT POLE LAYOUT FOR EACH STATION
LIGHT PANEL	240/120	1		50	8	3/4	12 CIRCUIT LIGHTING PANEL 100 AMP MAINS
MAGNETIC FLOW METER POWER	120	1		1	12	3/4	CONNECT AS REQUIRED
MAGNETIC FLOW METER CONTROL					2/C	3/4	MANUFACTURER RECOMMENDED SIGNAL CABLE
ULTRASONIC METER POWER	120	1		1	12	3/4	CONNECT AS REQUIRED
ULTRASONIC METER CONTROL					2/C	3/4	MANUFACTURER RECOMMENDED SIGNAL CABLE
WEIR GATE POWER	120	1	.33	7.2	12	3/4	FUTURE USE
WEIR GATE CONTROL					4/#14	3/4	FUTURE USE

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED D.W
DRAWN B.H.P.
CHECKED
DATE

SCALE
NO SCALE

CTE ENGINEERS
CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.

BETA ENGINEERING, INC.
Engineers/Planners
1420 PROVIDENCE HIGHWAY, NORWOOD, MA
6 BLACKSTONE VALLEY PLACE, LINCOLN, RI

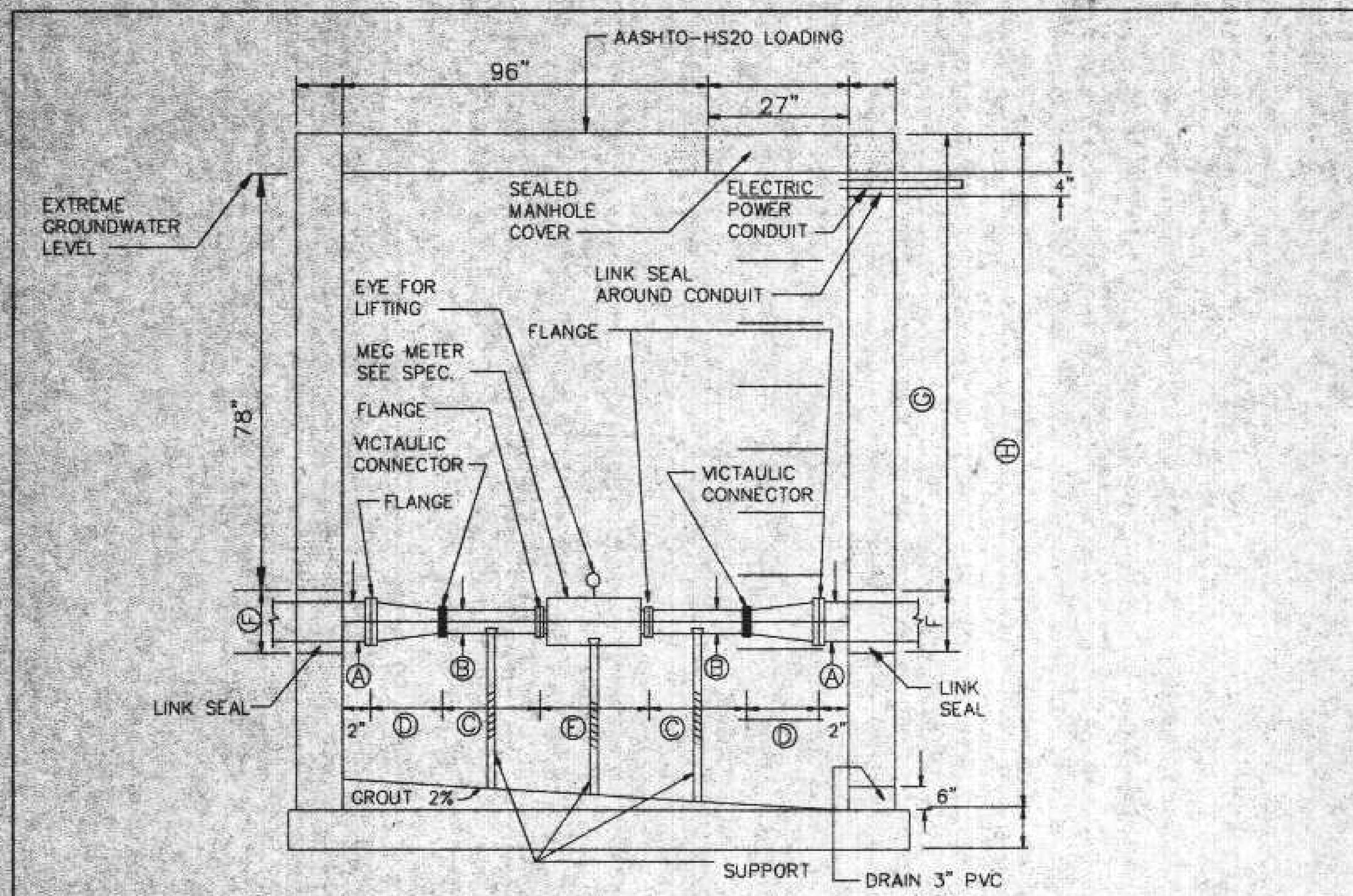
CITY OF SUPERIOR, WISCONSIN
DEPARTMENT OF PUBLIC WORKS

CONTRACT NO. 3
LIFT STATION & STORAGE IMPROVEMENTS

SHEET G-6
OF SHEETS
PROJECT NO. 3899-03

M:\PROJECTS\3899\5-3\WDSEQT1.DWG Plotted on 7/3/1998 @ 2:22 P.M. by MDICENTI

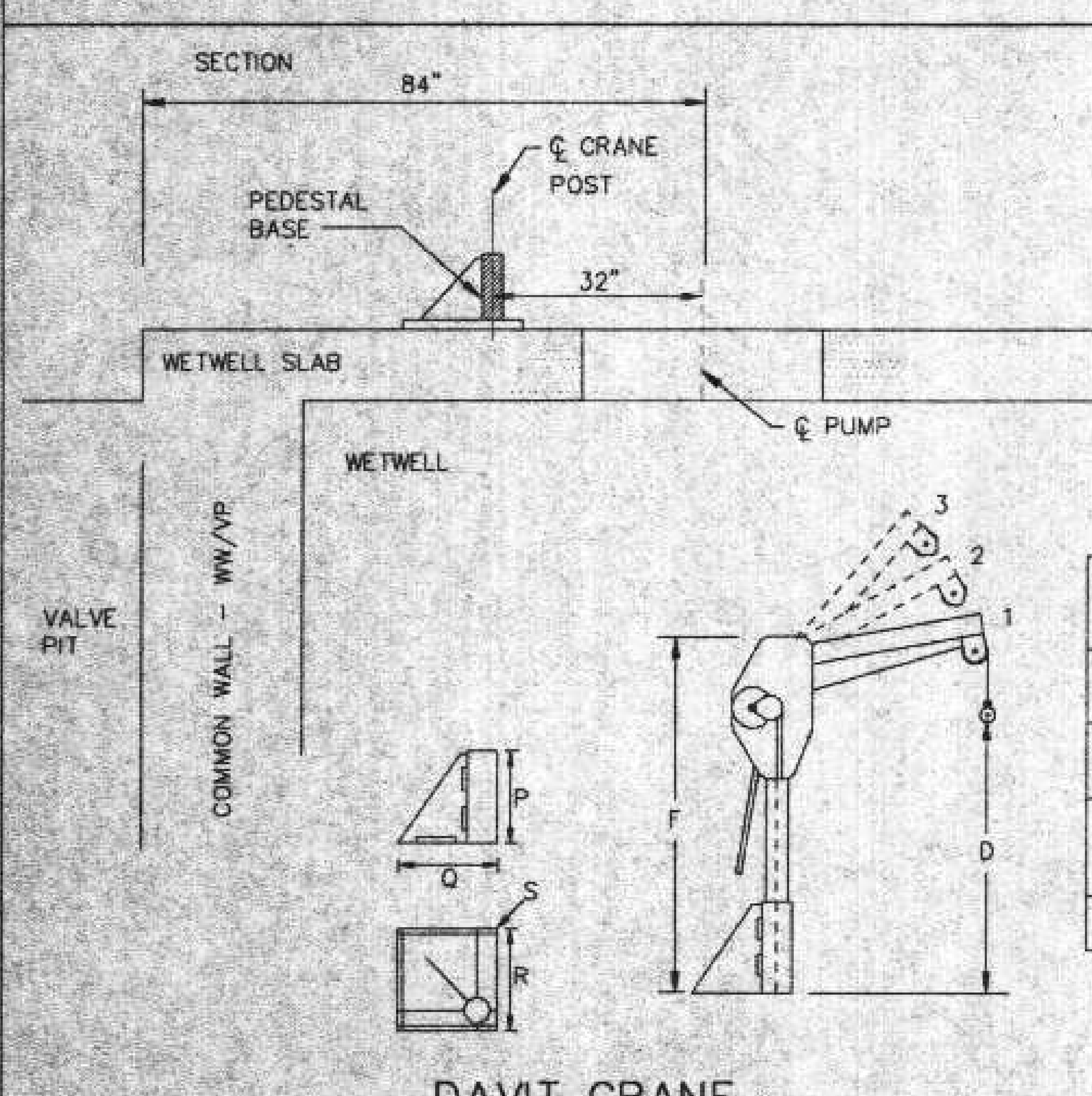
METER MANHOLE



	LS 5	LS 6	LS 7
LINK SEAL/FORCE MAIN OD/ID	10"/6"	10"/6"	8"/4"
LINK SEAL/CONDUIT OD/ID	8"/4"	8"/4"	8"/4"
LINK SEAL/DRAIN OD/ID	8"/4"	8"/4"	8"/4"
FORCE MAIN ø, Ⓐ	8"	8"	6"
MAG METER ø, Ⓑ	6"	6"	4"
MAG METER ℓ, Ⓔ	~12"-18"	~12"-18"	~12"-18"
ENLARGEMENT/REDUCER SMALL ø, LARGE ø	8"/6"	8"/6"	6"/4"
SMALL ø PIPE ℓ, Ⓒ	18"	18"	12"
ENLARGEMENT/REDUCER ℓ, Ⓓ	11"	11"	9"
FORCE MAIN PENETRATION, OD Ⓕ	10"	10"	8"
GRADE TO F.M. INVERT Ⓖ	8'	6.15'	6'
GRADE TO DRAIN INVERT Ⓗ	9'	7.15'	7'

NOTES:

1. EXTREME GROUNDWATER ELEVATION IS AT GRADE.
2. EARTH COVER 0'-0".
3. DESIGN LOADING - AASHTO HS 20-44
4. PLAN VIEW SHAPE = SQUARE OR CIRCULAR.
5. STRUCTURE SHALL BE SEALED TO EXTERNAL WATER SOURCES.
6. D.I.P. SPOOL WITH VITAULIC TYPE ENDS TO BE PROVIDED AT ALL METER MANHOLES. SPOOL LENGTH TO BE 2xC+E. PAINTED AS DIRECTED BY OWNER OR ENGINEER.



DIMENSIONS	MODEL 5123M1SS	
	WITH 523SS BASE	WITH 523SSF BASE
B-1	32.0 IN	32.0 IN
B-2	31.0 IN	31.0 IN
B-3	28.0 IN	28.0 IN
D-1	41.0 IN	27.0 IN
D-2	50.0 IN	36.0 IN
D-3	59.0 IN	45.0 IN
F	56.0 IN	42.0 IN
P	14.0 IN	14.0 IN
Q	14.5 IN	–
R	15.9 IN	9.0 IN
S	.69 IN	–
T	.38 IN	.38 IN

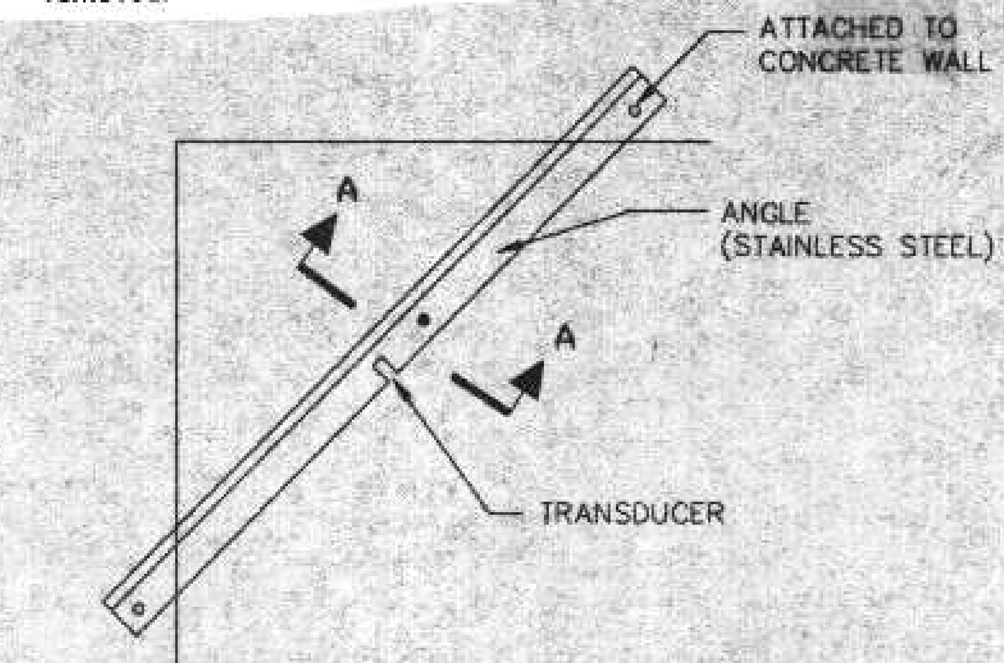
DAVIT CRANE

(THERN PORTABLE DAVIT CRANE MODEL NO. 5123M1SS)

ULTRASONIC LEVEL METER

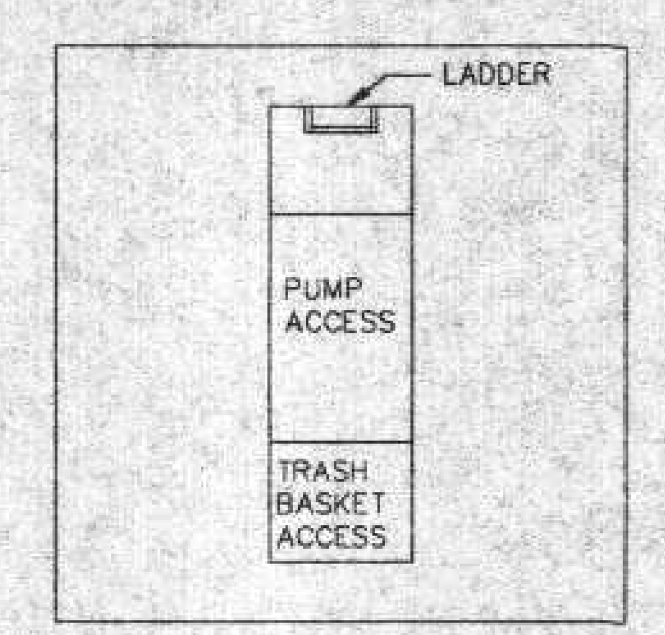
General Notes:

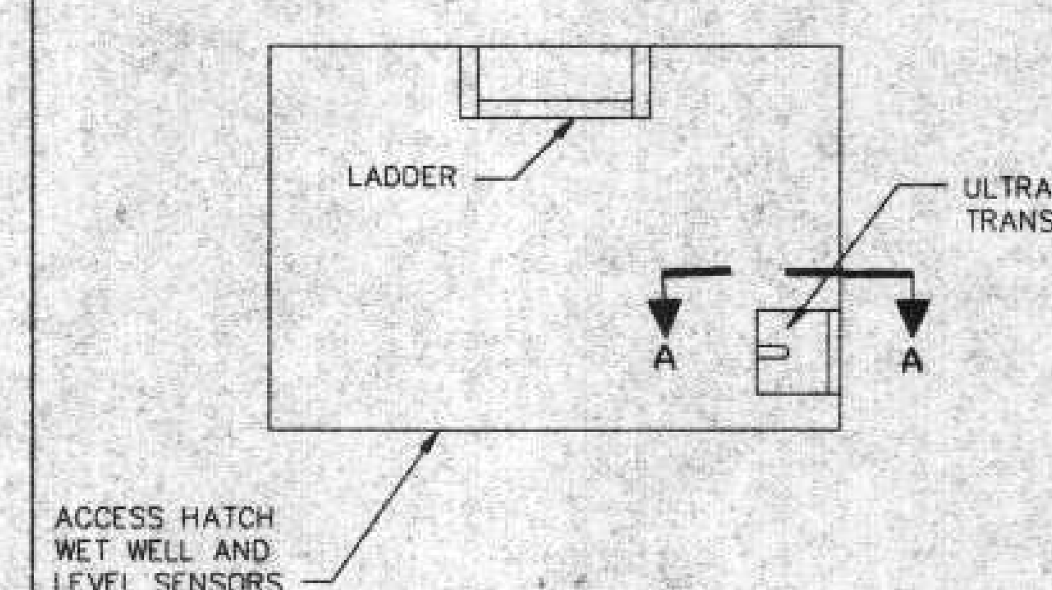
1. Supports to be 316 Grade L stainless steel
2. Provide spare DIP to be available in each meter manhole for replacement of magnetic flow meter and pipe end pieces when removed.



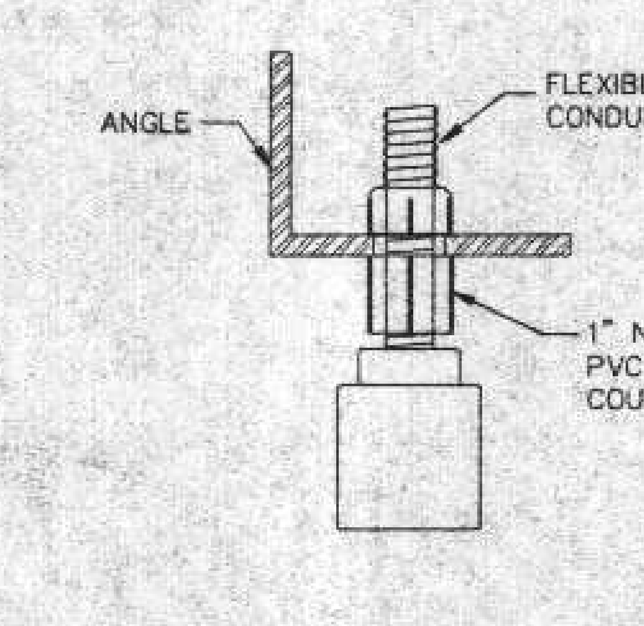
EXTERIOR BRACKET (STORAGE)

PLAN



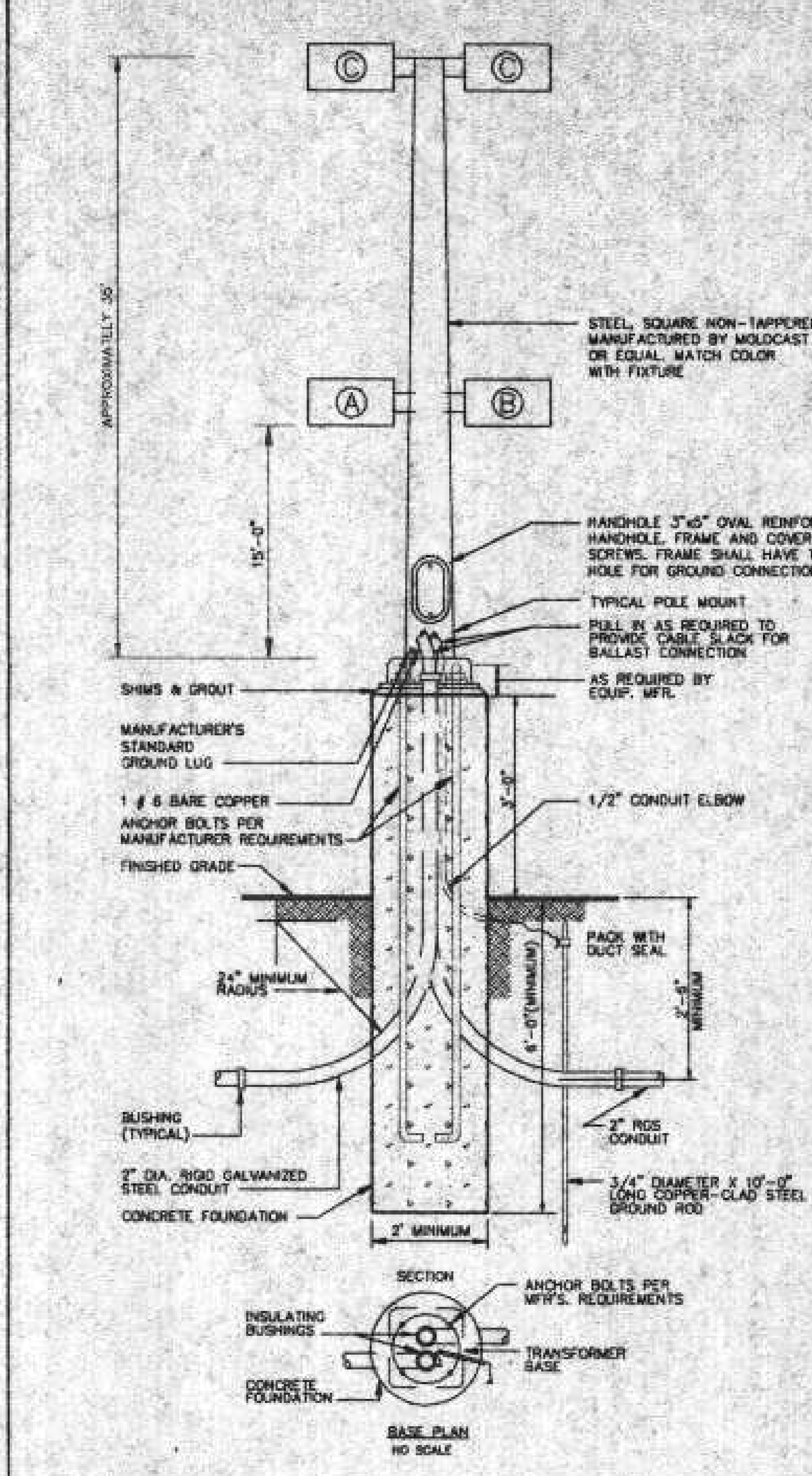


INTERIOR BRACKET (WET WELL)



SECTION A - A

LIGHT POLE



TYPICAL POLE FOUNDATION DETAIL

LIGHTING POLE TYPE	EQUIPMENT REQUIREMENTS		
	FIXTURE TYPE	QUANTITY	CONTROL
I	Ⓐ	1	PHOTO CONTROL
	Ⓑ	1	CONTROL PANEL INTERIOR SWITCH
	Ⓒ	2	CONTROL PANEL INTERIOR SWITCH
II	Ⓒ	2	CONTROL PANEL INTERIOR SWITCH
III	Ⓐ	1	PHOTO CONTROL
	Ⓑ	1	CONTROL PANEL INTERIOR SWITCH
	Ⓒ	3	CONTROL PANEL INTERIOR SWITCH

Ⓐ 150 WATT HIGH PRESSURE SODIUM WITH PHOTO CONTROL, AND TYPE III REFLECTOR AS MANUFACTURED BY MOLDCAST MODEL NO. MF 1325-24-7-3-0-XX-PCR OR EQUAL.

Ⓑ 400 WATT METAL HALIDE SWITCHED, WITH TYPE IV REFLECTOR AS MANUFACTURED BY MOLDCAST MODEL NO. MF 2441-24-7-3-0-XX.

Ⓒ 400 WATT HIGH PRESSURE SODIUM SWITCHED, WITH TYPE III REFLECTOR AS MANUFACTURED BY MOLDCAST MODEL NO. MF 2340-24-N-3-0-XX.

N = # OF FIXTURES REQUIRED AS DESCRIBED IN LIGHTING FIXTURE TYPE SCHEDULE.

XX = COLOR TO BE DETERMINED BY OWNER.

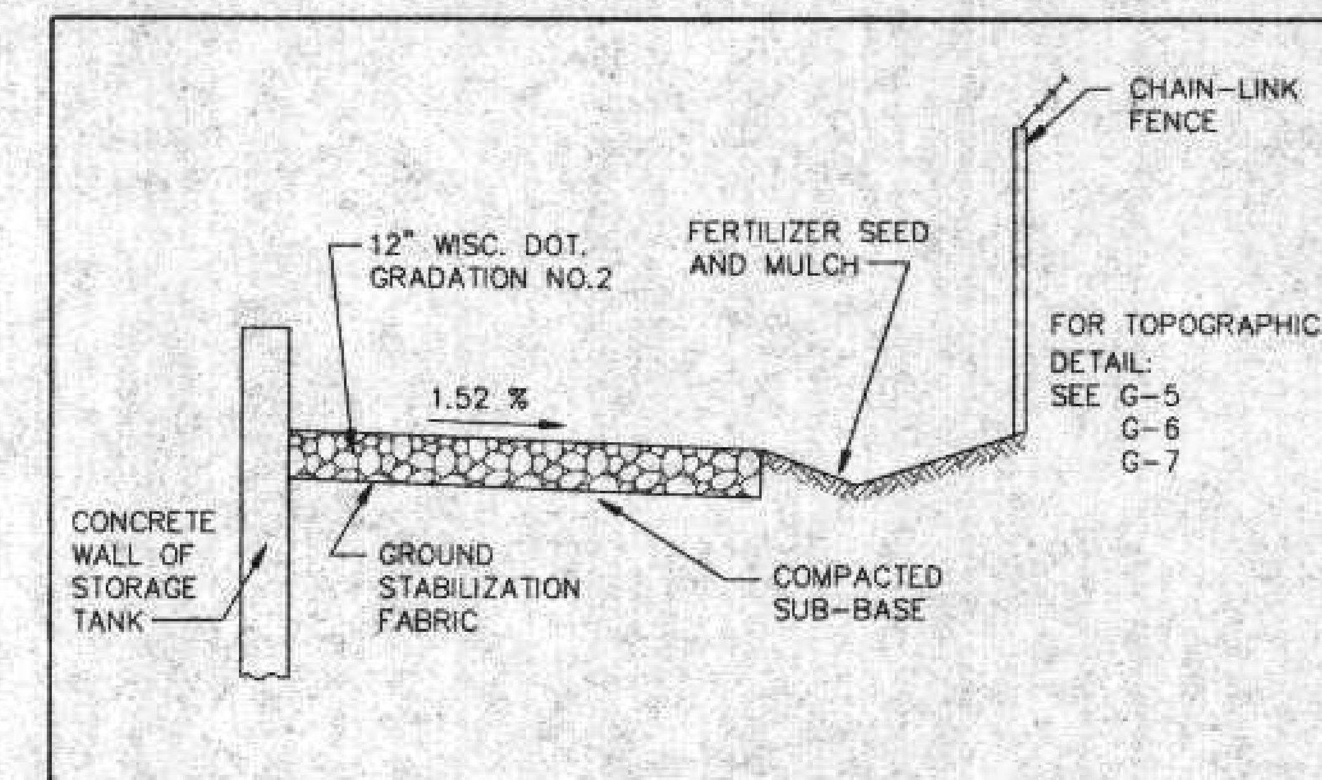
POLE - 35 FEET SQUARE STEEL NON-TAPPERED AS MANUFACTURED BY MOLDCAST MODEL NO. S1635JB, COLOR TO BE DETERMINED BY OWNER.

1. THE VOLTAGE FOR ALL FIXTURES SHALL BE 240 VOLT.
2. SWITCHES MOUNTED IN CONTROL PANEL SHALL BE 20 AMP.
3. MINIMUM WIRE SIZE SHALL BE #10 AWG, THHW. CALCULATE VOLTAGE DROP AND RESIZE WIRE AS NECESSARY.
4. INCLUDE ALL WIRE, CONDUIT, MOUNTING EQUIPMENT AND ALL APPURTENANCES NECESSARY FOR A COMPLETE INSTALLATION.
5. PRIOR TO ORDERING CONSULT WITH OWNER ON DIRECTION AND ANGLE OF FIXTURE MOUNTS.
6. ALL POLES MUST BE FACTORY DRILLED FOR THE FIXTURES SPECIFIED.
7. MODEL NO. WERE AS OF 6/96. VERIFY WITH MANUFACTURER PRIOR TO BIDDING.

Add following to light pole drawing:

1. 120 V, 20 Amp, GFCI, weatherproof duplex receptacle to be provided at base of all light poles. Receptacles to be switched at control panel.
2. Switches to control yard lighting to be housed in control panel.

ACCESS ROAD - BASE



Sheet G-7:

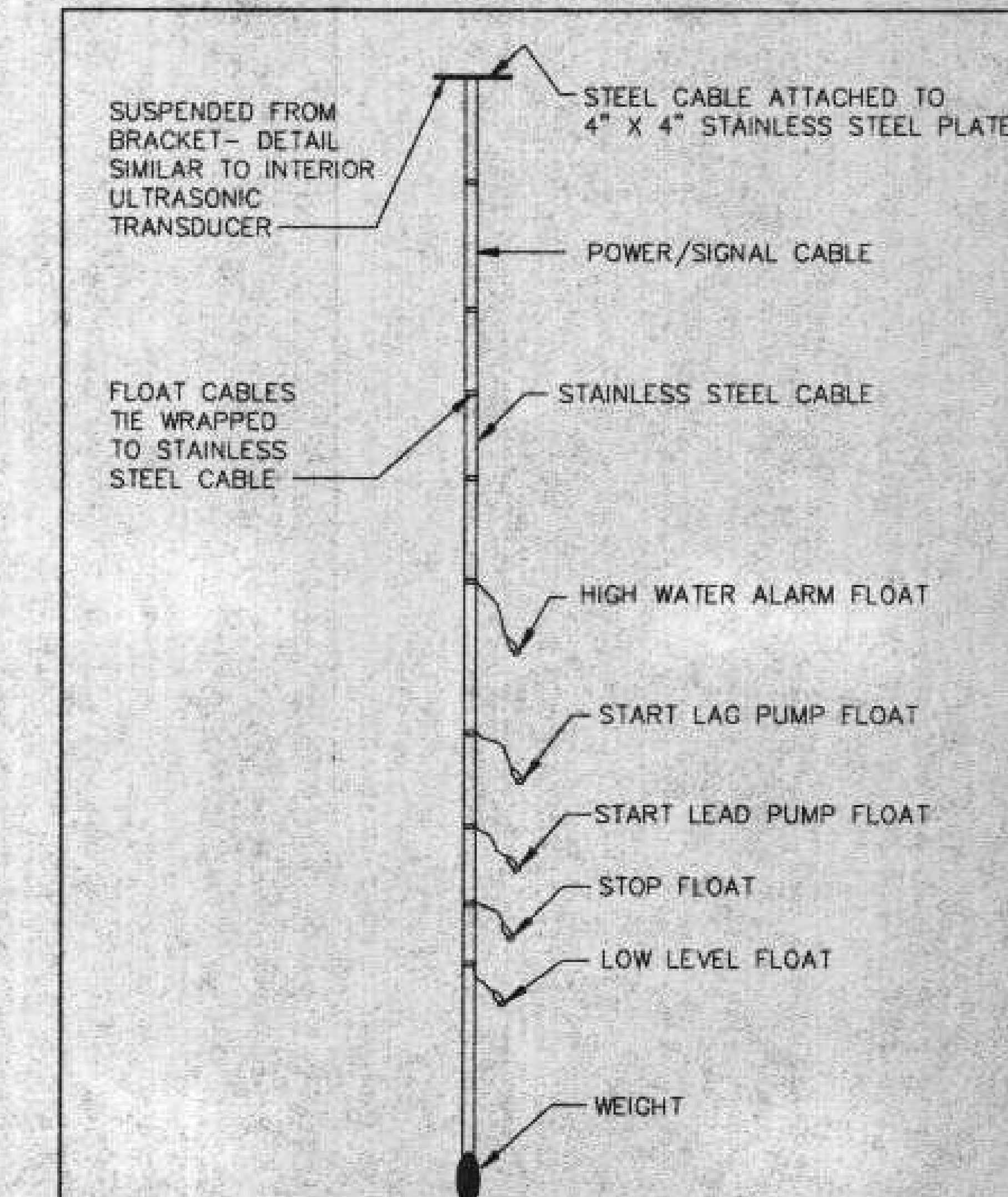
1. Remove davit crane drawing and information (see revised crane in Item 6 of Specifications above).
2. Rename Ultrasonic Level Meter Drawing as Level Meters and modify Section A-A with the following:

   Ultrasonic Level Meter Transducer Bracket/Assembly Notes:
   1. All hardware and brackets to be stainless steel.
   2. ¼ " lip to be provided on bracket.

   Float Tree Bracket/Assembly Notes:
   1. Float tree cable to be stainless steel ahd attached to ¼ " stainless steel plate for placement on bracket.
   2. All hardware and brackets to be stainless steel.
   3. ¼ " lip to be provided on bracket.
   4. Stainless steel handle for lifting of float system to be provided.

3. Add following to meter manhole drawing:

(FLOAT TREE)



WETWELL FLOAT SUPPORT

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED D.W
DRAWN B.H.P.
CHECKED
DATE

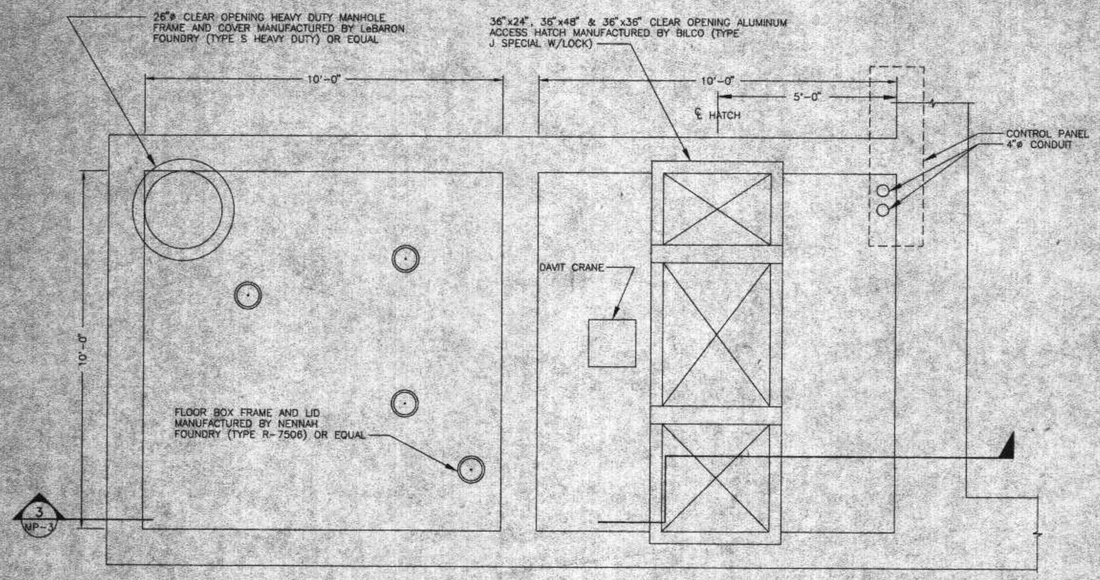
SCALE
NO SCALE

CTE ENGINEERS
CONSOER TOWNSEND ENVIRODYNE ENGINEERS, INC.

CITY OF SUPERIOR, WISCONSIN
DEPARTMENT OF PUBLIC WORKS

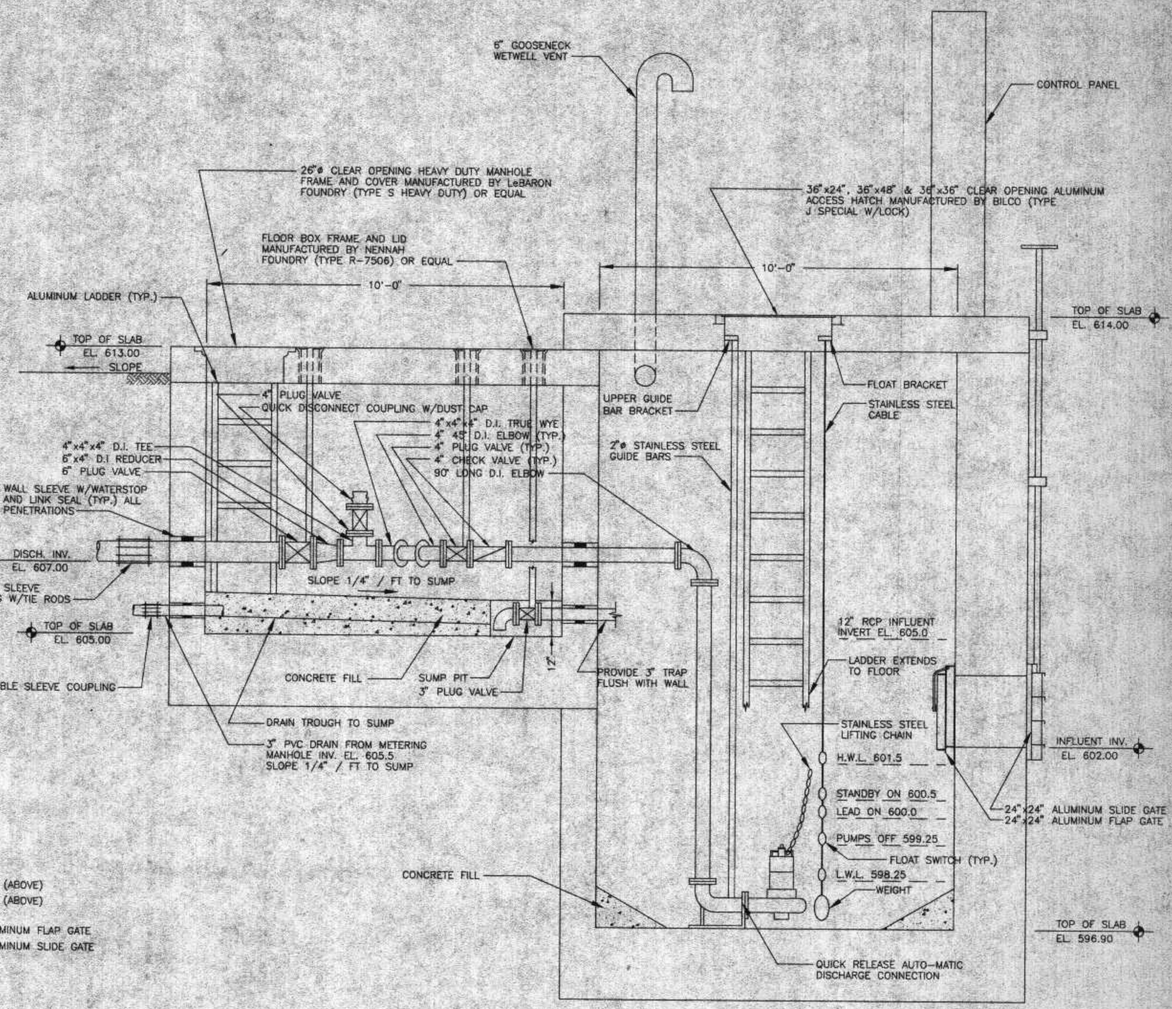
CONTRACT NO. 3
LIFT STATION & STORAGE IMPROVEMENTS

SHEET G-7
OF SHEETS
PROJECT NO. 3899-03



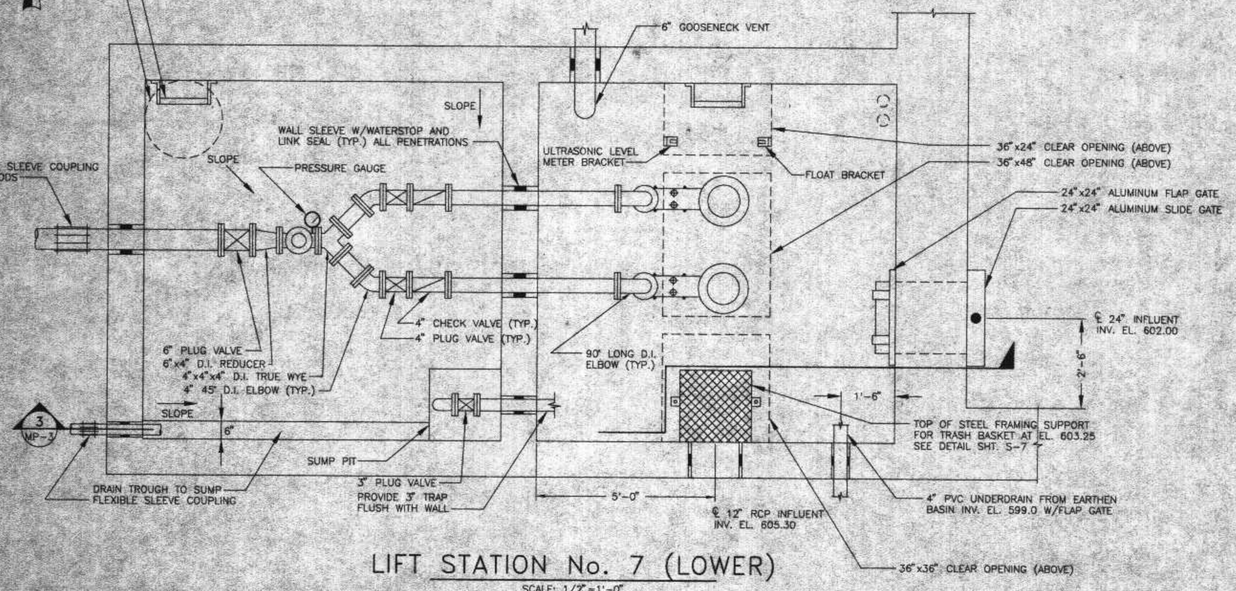
LIFT STATION No. 7 (UPPER)

SCALE: 1/2"=1'-0"



SECTION 3 / MP-3

SCALE: 1/2"=1'-0"



LIFT STATION No. 7 (LOWER)

SCALE: 1/2"=1'-0"

GENERAL NOTES:

1. DIMENSIONS TO SUIT EQUIPMENT MANUFACTURER'S AND ENGINEER'S RECOMMENDATIONS.
2. CONTRACTOR TO PROVIDE PROPER SUPPORT FOR PIPING BOTH DURING AND AFTER CONSTRUCTION. Valve P.1
3. ALL LADDERS TO BE ALUMINUM SURETRACK LADDERS WITH SURETRACK CLIMBING SYSTEM AS MANUFACTURED BY MILLER EQUIPMENT, FRANKLIN, PA.
4. WET WELL NOT DESIGNED TO HANDLE VEHICULAR TRAFFIC
5. wet well is a Class I, Div 2 area
   wet well ladder to be 316 grade L stainless steel
   Fall protection not to be provided
6. Guide rails for pumps and brackets 316 grade L SS
7. SS lifting chain metal 1-ton lons cable for attachment to Davit Crane
8. (1) spare T-handle to be provided for each D.I.

NUMBER	DATE	MADE BY	CHECKED BY	DESCRIPTION

REVISIONS

DRAWN BY: GS
DEPT. CHECK: JF
PROJ. CHECK: JF

BETA ENGINEERING, INC.
Engineers/Planners

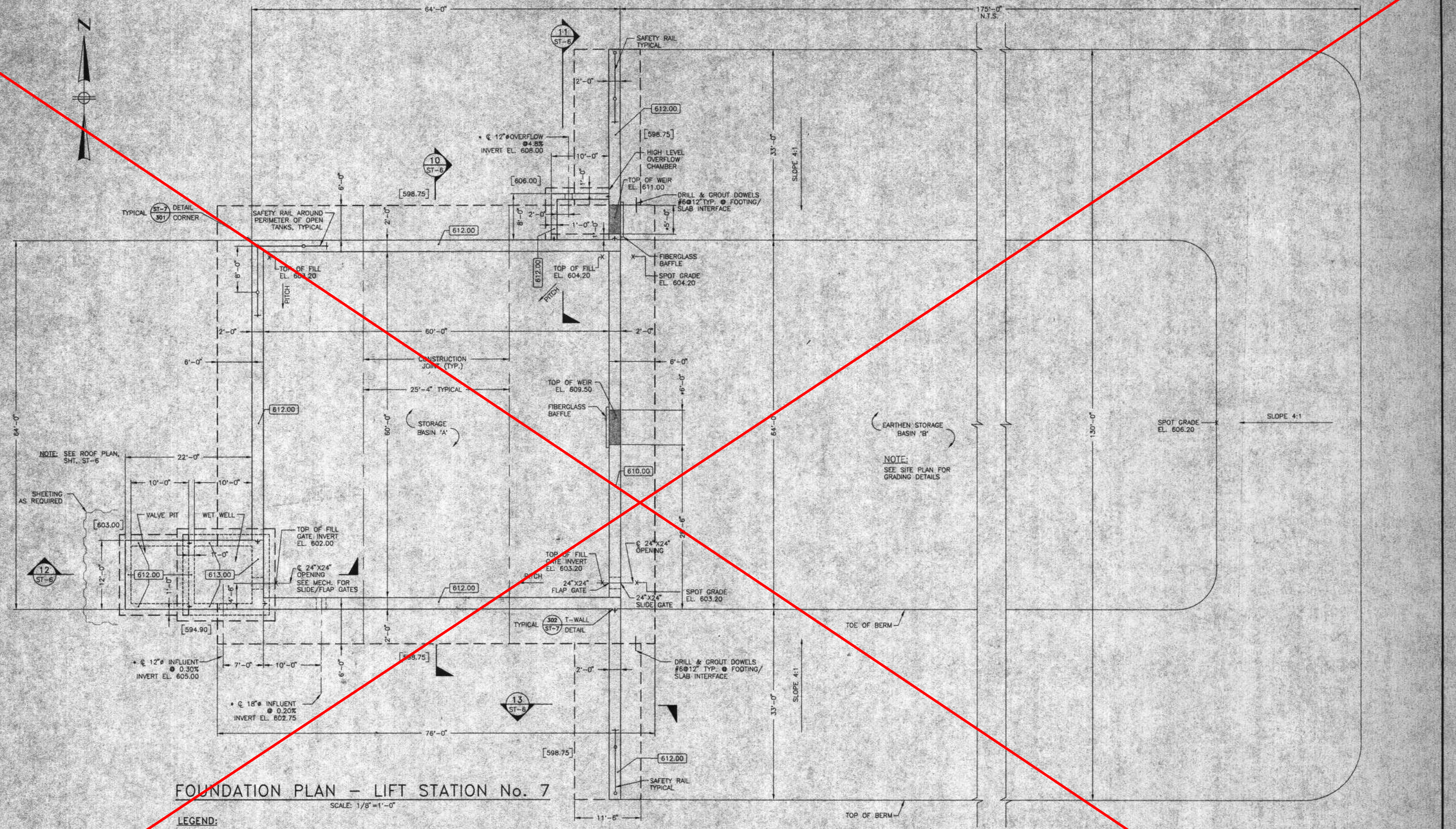
SCALE: 1/2"=1'-0"

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

LIFT STATION NO. 7
SUPERIOR, WISCONSIN
LIFT STATION PLAN / SECTION
MECHANICAL

JOB: 63
DATE: JUNE 2 1996
FILE: 6321S.DWG
SHEET: MP-3

See LS 7 SITE PLAN (REVISED) page 11



FOUNDATION PLAN – LIFT STATION No. 7

SCALE: 1/8"=1'-0"

LEGEND:

1. [601.75] – INDICATES BOTTOM OF FOOTING
2. X – INDICATES TOP OF CONCRETE FILL ELEVATION
3. [615.00] – INDICATES TOP OF CONCRETE WALL
4. • – COORDINATE WITH MECH./PROCESS DRAWINGS

NUMBER	DATE	MADE BY	CHECKED BY	DESCRIPTION
				REVISIONS

DRAWN BY: KAH
DEPT. CHECK: RSW
PROJ. CHECK: JF

BETA ENGINEERING, INC.
Engineers/Planners

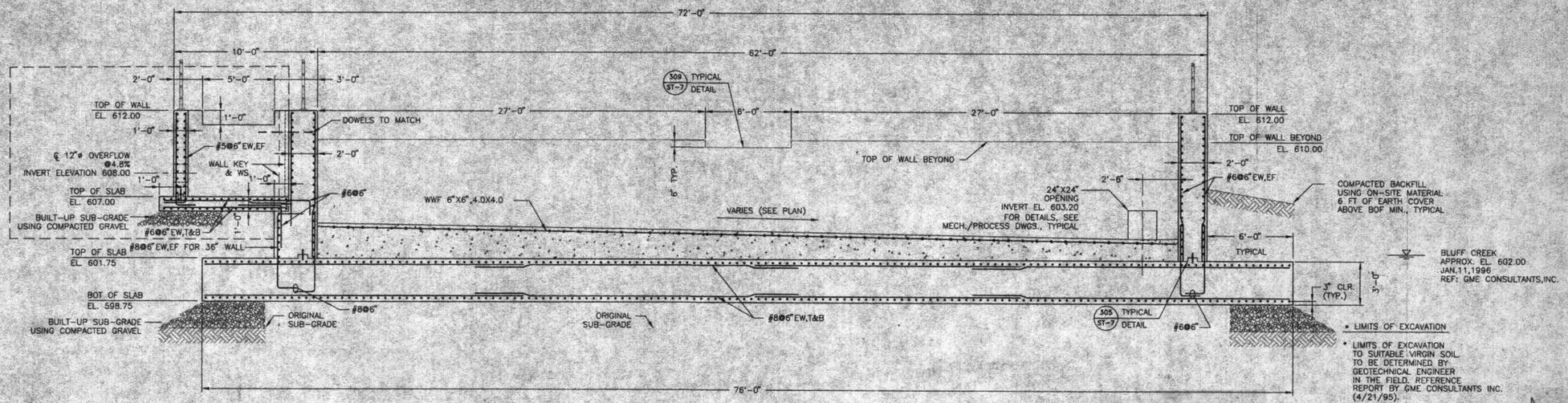
SCALE: SCALE: 1/8"=1'-0"

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

LIFT STATION NO. 7
SUPERIOR, WISCONSIN
FOUNDATION PLAN
STRUCTURAL

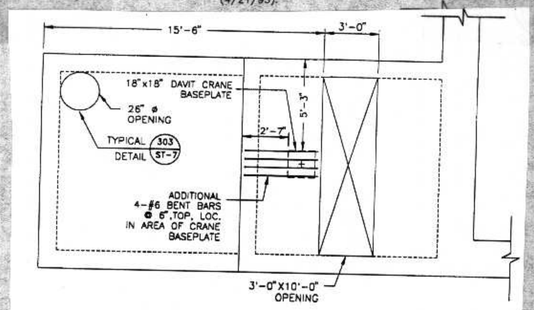
JOB: 632
DATE: JUNE 26, 1996
FILE: 632ST5.DWG
SHEET ST-5

@ SECTION 11 ONLY
OVERFLOW CHAMBER



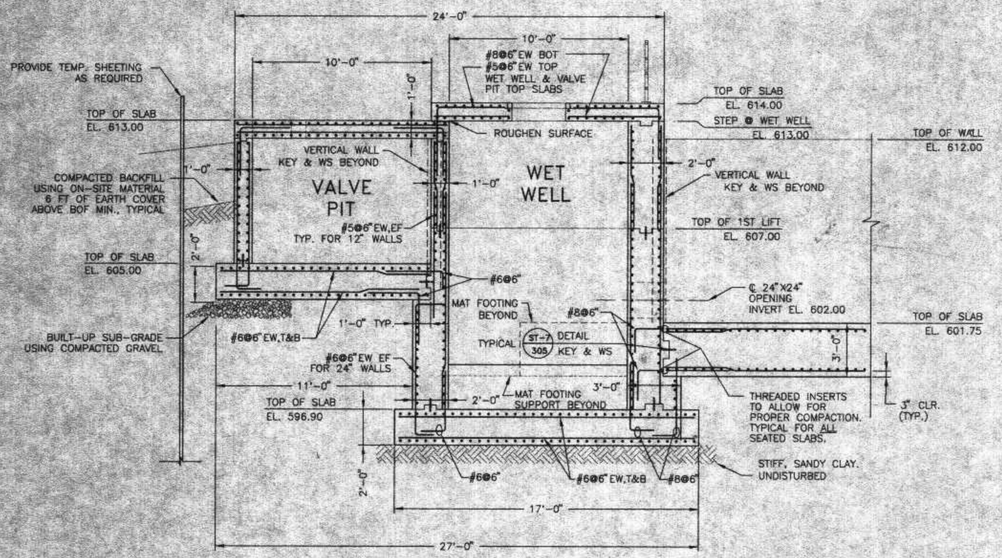
LIFT STATION No. 7

SECTION 10 ST-5
SCALE: 1/4"=1'-0"

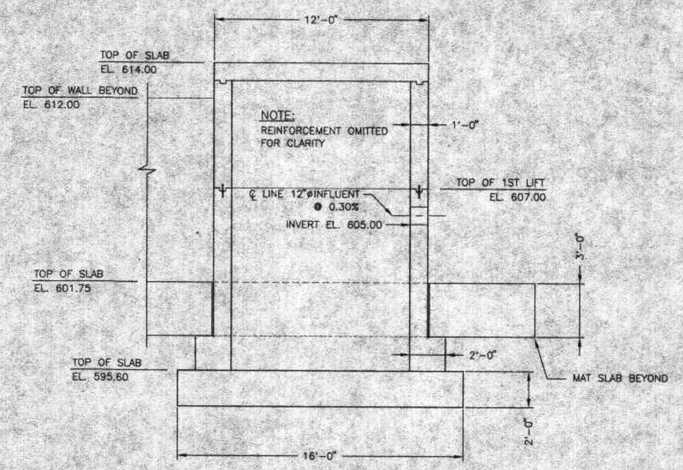


ROOF PLAN: STA. 5,6,&7
SCALE: 1/4"=1'-0"

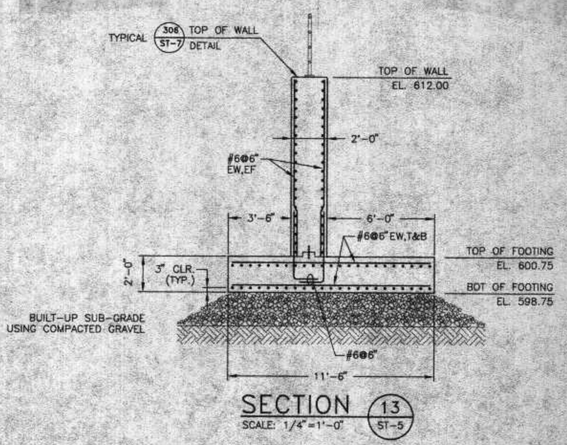
14 S-6



SECTION 12 ST-5
SCALE: 1/4"=1'-0"



SECTION 14 ST-6
SCALE: 1/4"=1'-0"



SECTION 13 ST-5
SCALE: 1/4"=1'-0"

NUMBER	DATE	MADE BY	CHECKED BY	DESCRIPTION

REVISIONS

DRAWN BY: KAH
DEPT. CHECK: RSW
PROJ. CHECK: JF

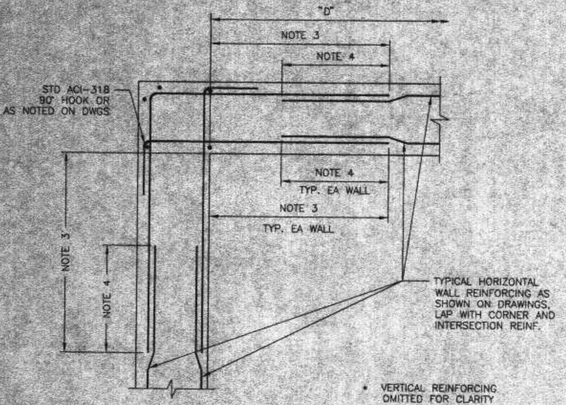
BETA ENGINEERING, INC.
Engineers/Planners

SCALE: 1/4"=1'-0"

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

LIFT STATION NO. 7
SUPERIOR, WISCONSIN
SECTIONS
STRUCTURAL

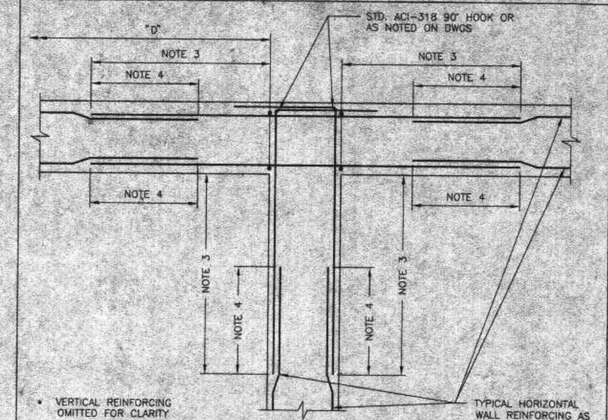
JOB: 632
DATE: JUNE 26, 1996
FILE: 632ST6.DWG
SHEET: ST-6



NOTES:

1. TYPICAL HORIZONTAL WALL CORNER REINFORCING LAYOUT IS SHOWN TO AVOID CONGESTION AND PERMIT PROPER PLACEMENT. FOR SIZE AND SPACING, SEE PLANS. ALL HORIZONTAL REINFORCING AT CORNERS AND INTERSECTIONS SHALL BE FABRICATED AND INSTALLED WITH SPLICES LOCATED WHERE SHOWN REGARDLESS OF BAR SIZE AND SPACING.
2. D = LENGTH OF WALL PARALLEL TO BAR LENGTH IN QUESTION.
3. EXCEPT WHERE OTHERWISE SHOWN ON THE DRAWINGS, THE LENGTH INDICATED AS "NOTE 3" SHALL BE THE LESSER OF D/4, 10 FEET, OR 1.0 TIMES THE HEIGHT OF THE WALL, EXCEPT THAT IN NO CASE SHALL IT BE LESS THAN 2.0 FEET.
4. EXCEPT WHERE OTHERWISE SHOWN ON THE DRAWINGS, THE LENGTH INDICATED AS "NOTE 4" SHALL BE 40 BAR DIAMETERS MINIMUM. USE THE LAP LENGTH AS REQUIRED FOR THE SMALLER OF THE TWO REINFORCING BARS BEING SPLICED.

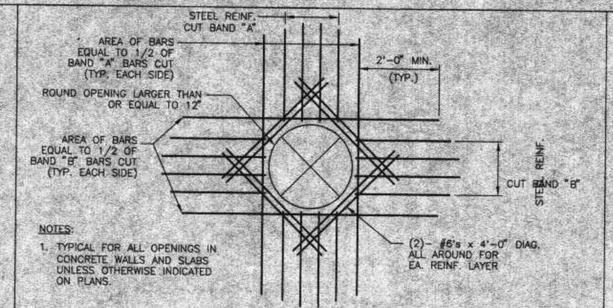
DETAIL 301 ST-7
NOT TO SCALE



NOTES:

1. TYPICAL HORIZONTAL WALL INTERSECTION REINFORCING LAYOUT IS SHOWN TO AVOID CONGESTION AND PERMIT PROPER PLACEMENT. FOR SIZE AND SPACING, SEE PLANS. ALL HORIZONTAL REINFORCING AT CORNERS AND INTERSECTIONS SHALL BE FABRICATED AND INSTALLED WITH SPLICES LOCATED WHERE SHOWN REGARDLESS OF BAR SIZE AND SPACING.
2. D = LENGTH OF WALL PARALLEL TO BAR LENGTH IN QUESTION.
3. EXCEPT WHERE OTHERWISE SHOWN ON THE DRAWINGS, THE LENGTH INDICATED AS "NOTE 3" SHALL BE THE LESSER OF D/4, 10 FEET, OR 1.0 TIMES THE HEIGHT OF THE WALL, EXCEPT THAT IN NO CASE SHALL IT BE LESS THAN 2.0 FEET.
4. EXCEPT WHERE OTHERWISE SHOWN ON THE DRAWINGS, THE LENGTH INDICATED AS "NOTE 4" SHALL BE 40 BAR DIAMETERS MINIMUM. USE THE LAP LENGTH AS REQUIRED FOR THE SMALLER OF THE TWO REINFORCING BARS BEING SPLICED.

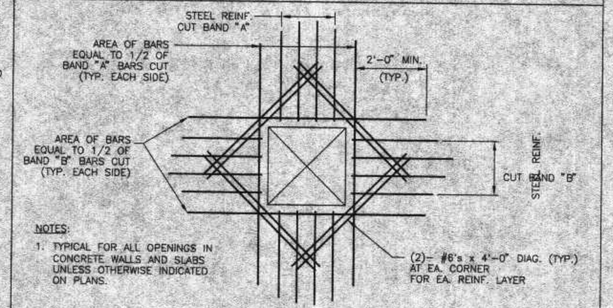
DETAIL 302 ST-7
NOT TO SCALE



NOTES:

1. TYPICAL FOR ALL OPENINGS IN CONCRETE WALLS AND SLABS UNLESS OTHERWISE INDICATED ON PLANS.

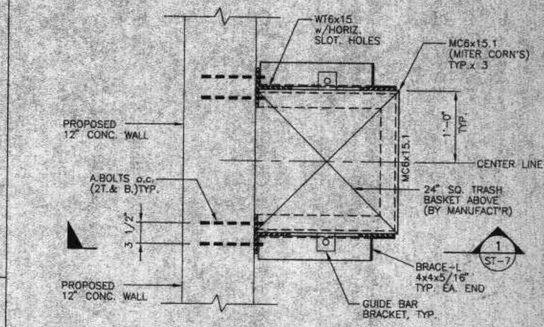
DETAIL 303 ST-7
SCALE: 1/2"=1'-0"



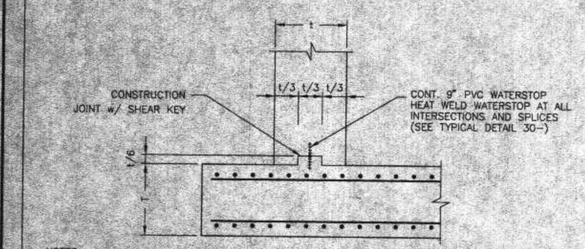
NOTES:

1. TYPICAL FOR ALL OPENINGS IN CONCRETE WALLS AND SLABS UNLESS OTHERWISE INDICATED ON PLANS.

DETAIL 304 ST-7
SCALE: 1/2"=1'-0"



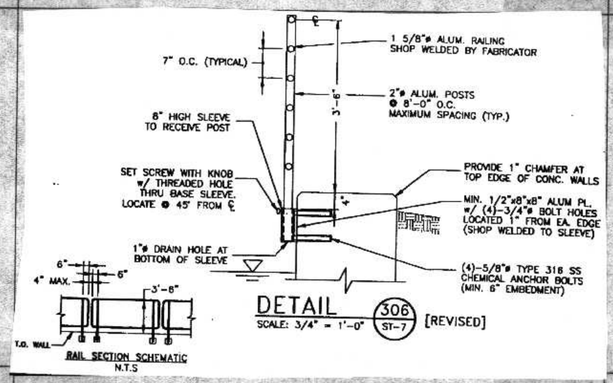
TRASH BASKET PLAN
SCALE: 1"= 1'-0"



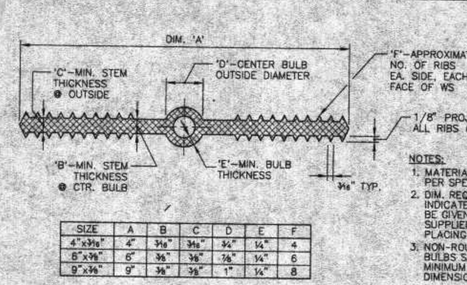
NOTES:

1. T = FOOTING THICKNESS AS DETAILED.
2. t = WALL THICKNESS.

DETAIL 305 ST-7
SCALE: 1/2"=1'-0"



DETAIL 306 ST-7 [REVISED]
SCALE: 3/4" = 1'-0"

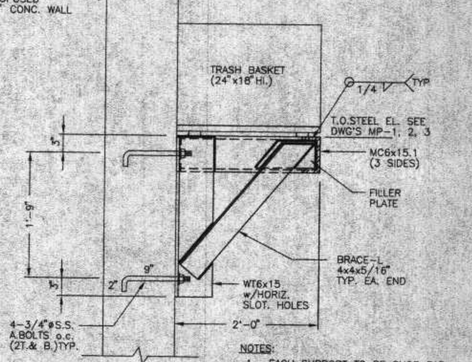


SIZE	A	B	C	D	E	F
4"x3/16"	4"	3/16"	3/16"	3/4"	1/4"	4
6"x3/8"	6"	3/8"	3/8"	1/8"	1/4"	6
9"x3/8"	9"	3/8"	3/8"	1"	1/4"	8

NOTES:

1. MATERIAL QUALITY PER SPECIFICATIONS.
2. DIM. REQUIREMENTS INDICATED SHOULD BE GIVEN TO THE SUPPLIERS PRIOR TO PLACING ORDERS.
3. NON-ROUND CENTER BULBS SHALL HAVE A MINIMUM OUTSIDE DIMENSION OF 'D'.

PVC WATERSTOP DETAIL 307 ST-7
NOT TO SCALE

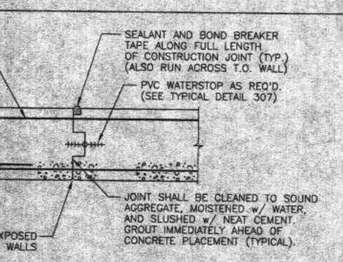


NOTES:

1. EACH SUPPORT TO BE SHOP FAB., FULLY WELDED AND SHIPPED IN ONE PIECE.
2. ALL STEEL MEMBERS TO BE HOT-DIPPED GALVANIZED.
3. COORDINATE W/G.C. OR BASKET MANUF'R FOR SIZES BEFORE FABRICATION.

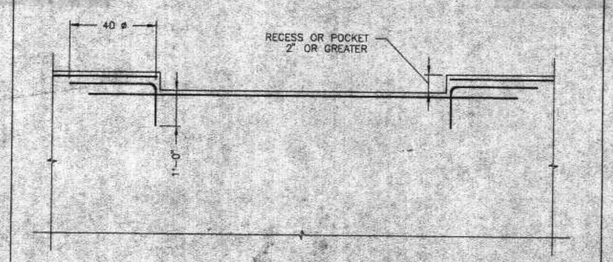
SECTION 1 ST-7
SCALE: 1"= 1'-0"

2 SUPPORTS REQ'D
AT WET WELLS-LIFT STA. 5, 6 & 7
SEE MECH. DWG'S MP-1, MP-2, MP-3



[PLAN @ WALL, SECTION @ MAT SLAB]

CONSTRUCTION JOINT DETAIL 308 ST-7
NOT TO SCALE



RECESSED WALL DETAIL 309 ST-7
NOT TO SCALE

NUMBER	DATE	MADE BY	CHECKED BY	DESCRIPTION

REVISIONS

DRAWN BY: GNB
DEPT. CHECK: RSW
PROJ. CHECK: JF

BETA ENGINEERING, INC.
Engineers/Planners

SCALE: AS SHOWN
UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

LIFT STATION NO. 5,6,&7
SUPERIOR, WISCONSIN
DETAILS STRUCTURAL

JOB: 632
DATE: JUNE 26, 1996
FILE: 632ST7.DWG
SHEET: ST-7

STRUCTURAL ABBREVIATIONS

AL	ALUMINUM	HORZ	HORIZONTAL
ALT	ALTERNATE	IF	INSIDE FACE
BOT	BOTTOM	LONG.	LONGITUDINAL
BOF	BOTTOM OF FOOTING	MAX	MAXIMUM
BM	BEAM	MIN	MINIMUM
BRG	BEARING	NTS	NOT TO SCALE
CJ	CONSTRUCTION JOINT	OC	ON CENTER
℄	CENTER LINE	OF	OUTSIDE FACE
CLR	CLEARANCE	RC	REINFORCED CONCRETE
COL	COLUMN	SIM	SIMILIAR
CONC	CONCRETE	SPECS	SPECIFICATIONS
CONN	CONNECTION	SQ	SQUARE
DIA	DIAMETER	T&B	TOP AND BOTTOM
EA	EACH	TOC	TOP OF CONCRETE
EF	EACH FACE	TRANSV	TRANSVERSE
EL	ELEVATION	TOS	TOP OF STEEL
EW	EACH WAY	TOW	TOP OF WALL
EXP JT	EXPANSION JOINT	TYP	TYPICAL
FDN	FOUNDATION	VERT	VERTICAL
FTG	FOOTING	WS	WATERSTOP
GALV	GALVANIZE (HOT DIPPED)	WWF	WELDED WIRE FABRIC

STRUCTURAL LEGEND

℄ ——— INDICATES CENTER LINE

[602.00] ——— INDICATES BOTTOM OF FOOTING ELEVATION

612.00 ——— INDICATES TOP OF WALL ELEVATION

——— INDICATES PROPOSED WORK

——— INDICATES EXISTING CONDITIONS

- - - - - - - - INDICATES EXISTING HIDDEN CONDITIONS

. . . . . INDICATES NEW CONCRETE/ CONCRETE FILL

NOTE:
CONTRACTOR SHALL PROTECT ALL STRUCTURES FROM BOUYANCY DURING CONSTRUCTION UNTIL ENTIRE STRUCTURE IS COMPLETED AND BACKFILLED AS DIRECTED.

SPECIAL BOUYANCY COMPENSATION IS REQUIRED DURING CONSTRUCTION AND FUTURE MODIFICATIONS SEE GENERAL NOTES.

LIFT STATION No. 5, 6 & 7

GEOTECHNICAL DESIGN CRITERIA
EARTH AND HYDROSTATIC PRESSURES

1. AT REST ABOVE GROUNDWATER TABLE (GWT) EQUIVALENT FLUID PRESSURE (EFP) ..... = 70 PCF
2. AT REST BELOW GWT; EFP ..... = 110 PCF
3. SATURATED SOIL WEIGHT ..... = 120 PCF
4. SURCHARGE ..... = 350 PSF
5. K_a ..... = 0.40
6. K_o ..... = 0.58
7. DESIGN 100 YEAR FLOOD ELEVATION ..... = AT GRADE

STRUCTURAL NOTES

GENERAL

1. DESIGN IS IN ACCORDANCE WITH, AND CONSTRUCTION SHALL CONFORM TO REQUIREMENTS OF THE WISCONSIN ADMINISTRATIVE CODE, DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS, CHAPTERS ILHR 50 TO 64, 'BUILDING AND HEATING, VENTILATING AND AIR CONDITIONING', WITH ALL ITS REVISIONS.
2. INFORMATION REGARDING EXISTING CONSTRUCTION AND CONDITIONS IS BASED ON FIELD INSPECTION, AND IS INCLUDED TO ASSIST THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY OR COMPLETENESS.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN UNANTICIPATED OR APPARENTLY DANGEROUS CONDITIONS ARE UNCOVERED DURING CONSTRUCTION OR DEMOLITION.
4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE PORTION OF THE WORK.
5. OPENINGS LESS THAN 12" MAXIMUM DIMENSION IN SLABS AND WALLS ARE GENERALLY NOT SHOWN ON STRUCTURAL DRAWINGS. SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS (IF ANY) FOR LOCATIONS AND DIMENSIONS OF CHASES, INSERTS, SLEEVES; OPENINGS AND OTHER PROJECT REQUIREMENTS NOT SHOWN ON STRUCTURAL DRAWINGS.
6. DETAILS NOT SPECIFICALLY SHOWN SHALL BE SIMILAR TO THOSE FOR MOST NEARLY SIMILAR CONDITION AS DETERMINED BY THE ENGINEER.
7. THE CONTRACTOR SHALL SHORE, BRACE, SHEETPILE OR OTHERWISE SUPPORT THE STRUCTURE AS REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY AT ALL TIMES.
8. HEADERS SHALL BE PLACED ACROSS TOP OF SHORING POSTS AND SHALL BE TIGHT AGAINST UNDERSIDE OF STRUCTURE ABOVE.
9. SHORING SHALL BEAR ON SLEEPERS TO PREVENT DAMAGE TO STRUCTURE BELOW.
10. TEMPORARY SHORES SHALL BE DESIGNED, ERECTED, SUPPORTED, BRACED AND MAINTAINED BY THE CONTRACTOR TO SUPPORT SAFELY ALL DEAD LOADS PRESENTLY CARRIED BY THE STRUCTURAL WORK BEING SHORED, AND ANY CONSTRUCTION LIVE LOADS.
11. NEW STRUCTURAL SYSTEMS SHALL BE COMPLETELY INSTALLED AND CAPABLE OF SUPPORTING DESIGN LOADS BEFORE SHORES ARE REMOVED. SHORES SHALL BE RELEASED GRADUALLY.

DESIGN LOADS (EXCEPT AS NOTED):

SNOW - (ZONE 1):
LIVE LOAD ..... 40 PSF

STRUCTURAL SLAB - WET WELL AREAS
LIVE LOAD ..... 350 PSF
WHEEL/ AXLE LOAD HS-20

FOUNDATIONS

1. BASE SLABS HAVE BEEN DESIGNED BASED UPON A PRESUMPTIVE BEARING CAPACITY OF:
LIFT STATIONS NO'S 5 & 6 ..... 1500 PSF
LIFT STATION NO. 7 ..... 2000 PSF
THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF UNSUITABLE BEARING MATERIALS EXIST.
2. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE VALIDITY OF SUBSURFACE CONDITIONS WHERE DESCRIBED ON DRAWINGS, SPECIFICATIONS, TEST BORINGS OR TEST PITS. THESE DATA ARE INCLUDED ONLY TO ASSIST THE CONTRACTOR DURING CONSTRUCTION, AND REPRESENT CONDITIONS ONLY AT THESE SPECIFIC LOCATIONS AT THE PARTICULAR TIME THEY WERE PERFORMED.
3. THE FOUNDATION DESIGN IS BASED ON INFORMATION PROVIDED IN GEOTECHNICAL REPORTS; 'SUBSURFACE SOIL EXPLORATION REPORT, SUPERIOR LIFT STATIONS 5 & 6, EAST 2nd STREET SUPERIOR, WISCONSIN, DATED 4/21/95, PREPARED BY TWIN PORTS TESTING, INC., SUPERIOR, WI.
ALSO, 'GEOTECHNICAL EXPLORATION, PROPOSED STORAGE TANK, LIFT STATION #7, CITY OF SUPERIOR, PUBLIC WORKS DEPARTMENT SUPERIOR, WISCONSIN, GME PROJECT NO. D-17700 DATED 7/6/94 PREPARED BY GME CONSULTANTS, INC., SUPERIOR, WI., INCLUDING THE SUPPLEMENTAL DATED 1/11/96.
4. UNSUITABLE BEARING MATERIALS, SUCH AS MISCELLANEOUS FILL AND ORGANIC SOILS MAY EXIST IN AREAS OF NEW FOUNDATIONS. EXISTING UNSUITABLE MATERIALS SHALL BE EXCAVATED TO 1'-0" MIN. AS DIRECTED OR AS INDICATED ON THE DRAWINGS AND SHALL BE FOLLOWED BY PLACEMENT OF COMPACTED GRAVEL FILL OR CRUSHED STONE AS SPECIFIED.
5. WHERE ROCK IS ENCOUNTERED, IT SHALL BE EXCAVATED TO 1'-0" BELOW BOTTOMS OF FOOTINGS AND SLABS AND REPLACED WITH A 1'-0" LAYER OF COMPACTED GRAVEL OR SAND.
6. NO FOUNDATION CONCRETE SHALL BE PLACED IN WATER OR ON FROZEN SOIL.
7. BACKFILL UNDER ANY PORTION OF THE STRUCTURE SHALL BE COMPACTED IN 6" LIFTS.
8. COMPACT SOIL TO 95% OF MAX. DRY DENSITY UNDER FOOTINGS AND SLABS ACCORDING TO ASTM D-1557.
9. PLACE CONSTRUCTION JOINTS AND P.V.C. WATERSTOPS IN SLABS AND FOUNDATION WALLS IN ACCORDANCE WITH DETAILS AND AT LOCATIONS INDICATED ON DRAWINGS.
10. FOUNDATION WALLS ENCLOSING BELOW GRADE AREAS SHALL BE BRACED OR HAVE ROOF SLABS OR FRAMING SECURELY IN PLACE PRIOR TO BACKFILLING. CONCRETE SHALL REACH 75% OF THE DESIGN STRENGTH PRIOR TO BACKFILLING.
11. BACKFILL SHALL BE PLACED AND COMPACTED SIMULTANEOUSLY ON BOTH SIDES OF FOUNDATION WALLS WHEREVER POSSIBLE.
12. CONTRACTOR SHALL MAINTAIN CONTINUOUS CONTROL OF SURFACE AND SUBSURFACE WATER DURING CONSTRUCTION SO THAT WORK IS DONE UNDER DRY CONDITIONS ON UNDISTURBED SUBGRADE MATERIAL OR COMPACTED FILL, AS APPLICABLE. IT IS ANTICIPATED THAT SHEETING & DEWATERING WILL BE REQUIRED.
13. ALL EMBANKMENTS AND BACKFILL AROUND STRUCTURES SHALL BE COMPACTED TO 90%.
14. ALL BELOW GRADE CONCRETE WALLS SHALL BE COATED WITH A BITUMINOUS BASED DAMPPROOFING MATERIAL.
15. STRUCTURES ARE DESIGNED FOR GROUNDWATER ELEVATIONS BASED ON INFORMATION PROVIDED IN THE GEOTECHNICAL REPORTS PREPARED BY GME CONSULTANTS, INC., SEE NOTE 3. ABOVE.
16. ALL EXCAVATIONS MUST COMPLY WITH THE REQUIREMENTS OF OSHA 29 CFR, PART 1926, SUBPART P, "EXCAVATIONS AND TRENCHES."

STRUCTURAL NOTES, CONT.

CONCRETE

1. CONCRETE WORK SHALL CONFORM TO LATEST EDITIONS OF "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301), AND ACI 350 "ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES".
2. CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED UNDER THE SUPERVISION OF THE APPROVED TESTING AGENCY.
3. CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI, UNLESS OTHERWISE NOTED.
4. ALL CONCRETE SHALL BE AIR-ENTRAINED.
5. CONCRETE SHALL BE CURED FOR A MINIMUM OF (7) SEVEN DAYS BEFORE ANY LOADS ARE APPLIED THERETO.
6. CONSTRUCTION JOINTS SHALL BE PLACED AS SHOWN ON THE DRAWINGS. CHANGES SHALL NOT BE MADE WITHOUT APPROVAL OF THE ENGINEER.
7. CONCRETE SHALL BE PLACED SO THAT SLAB THICKNESS IS AT NO POINT LESS THAN THAT INDICATED ON DRAWINGS.
8. CONCRETE SLABS AND WALLS SHALL BE CAST ALTERNATELY OR IN A CHECKERBOARD PATTERN SO THAT SECTIONS ARE PLACED NO SOONER THAN 3 DAYS APART.
9. PROVIDE A SMOOTH RUBBED SURFACE, FREE FROM BURRS, TIE HOLES, HONEYCOMBING, ETC. ON EXPOSED CONCRETE WALLS.
10. PROVIDE A STEEL TROWELED FINISH FOR SLABS AT PITS AND A BROOM FINISH FOR EXPOSED SLABS.
11. AT OPENINGS IN FOUNDATION WALLS LESS THAN 12 INCHES SQUARE, PROVIDE 2-#6S AT EACH EDGE OF OPENING.
12. PORTLAND CEMENT TYPE II SHALL BE USED FOR ALL CONCRETE AND MAXIMUM W/C (WATER CEMENT RATIO) SHALL BE 0.45 AND A MAXIMUM WATER SOLUBLE CL--CONCENTRATION IN HARDENED CONCRETE OF 0.15% BY WEIGHT OF CEMENT.
13. AT ALL CONSTRUCTION JOINTS EPOXY NEW CONCRETE TO HARDENED CONCRETE WITH SIKADUR 32, HI-MOD MANUFACTURED BY SIKA CORP. OR ENGINEER APPROVED EQUIVALENT APPLY PER MANUFACTURED RECOMMENDATION.
14. ELASTOMERIC SEALANT SHALL BE 'SIKA FLEX 1A' AS MANUFACTURED BY SIKA CORP. OR ENGINEER APPROVED EQUIVALENT.
15. ALL EXPOSED CONCRETE EDGES SHALL HAVE A 3/4" CHAMFER (TYP.)
16. ALL CONCRETE SHALL BE PLACED IN THE DRY.
17. WHERE CONSTRUCTION JOINTS ARE NOT SHOWN, OR WHEN ALTERNATE LOCATIONS ARE PROPOSED, DRAWINGS SHOWING LOCATION OF CONSTRUCTION AND CONTROL JOINTS AND CONCRETE PLACING SEQUENCE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PREPARATION OF THE REINFORCEMENT SHOP DRAWINGS.
18. PROCESS AND ELECTRICAL DRAWINGS IDENTIFY AND LOCATE ALL EMBEDDED ITEMS (PIPES, SLEEVES, EQUIPMENT BOLTS, RAILINGS, LIFTING RINGS,, FRAMES, ETC.) AND ARE TO BE USED IN CONJUNCTION WITH STRUCTURAL DRAWINGS DURING CONSTRUCTION.
19. ALL EQUIPMENT ANCHOR BOLTS FURNISHED BY EQUIPMENT MANUFACTURER TO BE INSTALLED BY GENERAL CONTRACTOR, AND SHALL BE STAINLESS STEEL.

REINFORCING STEEL

1. REINFORCING STEEL SHALL BE GRADE 60 NEW BILLET STEEL, CONFORMING TO ASTM A615. WELDED WIRE FABRIC SHALL BE ASTM A185.
2. DETAILING, FABRICATION AND ERECTION OF REINFORCEMENT SHALL CONFORM TO LATEST EDITIONS OF "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) AND "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI 315).
3. MINIMUM LAP OF REINFORCING BARS SHALL BE 40 DIAMETERS, UNLESS SHOWN OTHERWISE.
4. REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.
5. INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT, UNLESS OTHERWISE APPROVED BY ENGINEER.
6. MINIMUM CONCRETE COVER FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
   A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ..... 3.0"
   B. CONCRETE EXPOSED TO EARTH OR WEATHER
      #6 THROUGH #18 BARS ..... 2.0"
      #5 BAR W31 OR D31 WIRE, AND SMALLER ..... 1.5"
   C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND
      #14 AND #18 BARS, SLABS, WALLS, JOISTS ..... 1.5"
      #11 BAR AND SMALLER ..... 1.0"
   D. BEAMS, COLUMNS:
      PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS ..... 2.0"
7. PROVIDE AND SCHEDULE ON SHOP DRAWINGS THE NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY IN POSITION. MINIMUM REQUIREMENTS SHALL BE HIGH CHAIRS, 4'-0" O.C. WITH CONTINUOUS #5 SUPPORT BAR, SLAB BOLSTERS, CONTINUOUS AND 3'-6" O.C., BEAM BOLSTERS, 5'-0" O.C. ALL CHAIRS SHALL BE GALVANIZED AND SHALL BE USED AGAINST ALL FORMS (SLABS, WALLS, PILASTERS, ETC.)
8. WHERE CONTINUOUS REINFORCEMENT IS CALLED FOR IT SHALL BE EXTENDED CONTINUOUS AROUND CORNERS AND LAPPED AT NECESSARY SPLICES OR HOOKED AT DISCONTINUOUS ENDS. LAPS SHALL BE CLASS B TENSION LAP SPLICES UNLESS NOTED OTHERWISE.
9. WHERE REINFORCEMENT IS REQUIRED IN SECTION, REINFORCEMENT IS CONSIDERED TYPICAL WHEREVER THE SECTION APPLIES.
10. WELDED WIRE FABRIC SHALL LAP 6" OR ONE SPACE, WHICHEVER IS LARGER, AND SHALL BE WIRED TOGETHER.
11. REINFORCEMENT SHALL NOT BE TACK WELDED.

STRUCTURAL NOTES, CONT.

STEEL

1. STRUCTURAL STEEL IS DESIGNED IN ACCORDANCE WITH AND WORK SHALL CONFORM TO THE LATEST EDITIONS OF "SPECIFICATIONS FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" (AISC), "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" (AISC) AND "STRUCTURAL WELDING CODE- STEEL (AWS.) STRUCTURAL STEEL SHALL BE NEW STEEL CONFORMING TO ASTM A36, FY =36 KSI, UNLESS OTHERWISE NOTED.
2. TUBE STEEL SECTIONS SHALL BE ASTM A500 GRADE B, FY = 46 KSI.
3. CONNECTIONS:
   A. BEAM CONNECTIONS SHALL BE TYPE-3 "SEMI-RIGID FRAMING" (PARTIAL RESTRAINED), UNLESS NOTED OTHERWISE. REFER TO AISC SPECIFICATIONS AND PROVIDE DETAILS FOR REVIEW AND APPROVAL.
   B. CONNECTIONS SHALL BE BOLTED OR WELDED OR BOTH, AND FABRICATOR SHALL SUBMIT PROPOSED CONNECTION DETAILS FOR APPROVAL PRIOR TO FABRICATION.
   C. BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER 316 STAINLESS STEEL OR A325 HOT DIP GALVANIZED AS NOTED IN DETAIL.
   D. WELDED CONNECTIONS SHALL BE MADE BY A CERTIFIED WELDER IN ACCORDANCE WITH AWS D.1.1, USING CLASS E70 SERIES ELECTRODES. WELDS SHALL DEVELOP THE FULL STRENGTH OF THE MATERIALS BEING WELDED.
   E. COLUMN ANCHOR BOLTS SHALL BE STAINLESS STEEL TYPE 316.
4. ALL STEEL COMPONENTS AND FITTINGS EXPOSED TO WEATHER IN THEIR FINAL STATE SHALL BE HOT DIPPED GALVANIZED.
5. ANCHOR BOLTS AND BEARING PLATES SHALL BE LOCATED BY TEMPLATES OR SIMILAR METHOD. PLATES SHALL BE SET IN FULL BEDS OF NON-SHRINK GROUT. BOTTOM OF BASE PLATES SHALL BE SET APPROXIMATELY 3/4" ABOVE TOP OF BEARING. RESULTING SPACE SHALL BE FILLED WITH DRY PACKED NON-SHRINK GROUT.
6. STEEL FRAMING SHALL BE TRUED AND PLUMB BEFORE CONNECTIONS ARE PERMANENTLY BOLTED OR WELDED.
7. TEMPORARY ERECTION BRACING AND SUPPORTS SHALL BE PROVIDED TO HOLD STRUCTURAL STEEL FRAMING SECURELY IN POSITION. SUCH TEMPORARY BRACING AND SUPPORTS SHALL NOT BE REMOVED UNTIL PERMANENT BRACING HAS BEEN INSTALLED AND FLOOR SLABS HAVE ATTAINED 75% OF SPECIFIED CONCRETE STRENGTH.
8. MILLED STIFFENERS SHALL BE PROVIDED UNDER ALL LOAD CONCENTRATIONS ON SUPPORTING MEMBERS OVER ALL COLUMNS AND WHERE SHOWN ON THE DRAWINGS.
9. *** WELDING SHALL BE INSPECTED IN THE FIELD BY QUALIFIED WELDING INSPECTORS UNDER THE SUPERVISION OF AN APPROVED TESTING AGENCY.
10. FIELD CUTTING OR ANY OTHER FIELD MODIFICATIONS OF STRUCTURAL STEEL SHALL NOT BE MADE WITHOUT APPROVAL FROM ENGINEER FOR EACH SPECIFIC CASE.
11. ALL EXPOSED STRUCTURAL STEEL SHALL BE HOT DIPPED GALVANIZED (2 OZ/ SQ. FT.) AFTER FABRICATION IN COMPLIANCE WITH ASTM-123, A153 OR A386 AS APPLICABLE. GALVANIZER SHALL FURNISH, TO ENGINEER A NOTARIZED CERTIFICATE OF COMPLIANCE WITH THESE SPECIFICATIONS.

NUMBER	DATE	MADE BY	CHECKED BY	DESCRIPTION

REVISIONS

DRAWN BY: RAC
DEPT. CHECK: RSW
PROJ. CHECK: JF

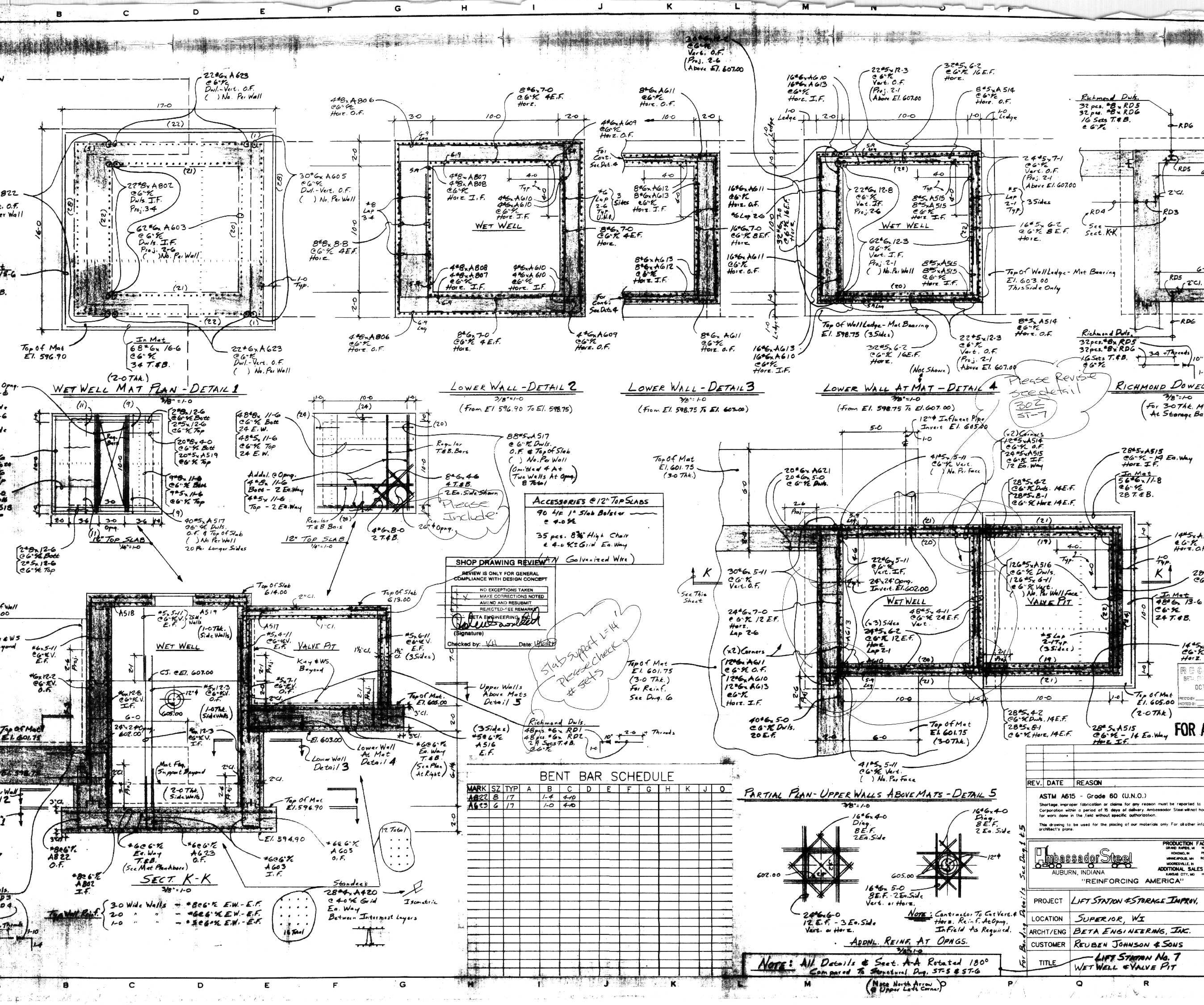
BETA ENGINEERING, INC.
Engineers/Planners

SCALE: SCALE: NONE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

LIFT STATION NO. 5,6,&7
SUPERIOR, WISCONSIN
GENERAL NOTES
STRUCTURAL

JOB: 632
DATE: JUNE 26, 1996
FILE: 632ST8.DWG
SHEET: ST-8



SHOP DRAWING REVIEW

REVIEW IS ONLY FOR GENERAL COMPLIANCE WITH DESIGN CONCEPT

- [ ] NO EXCEPTIONS TAKEN
- [x] MAKE CORRECTIONS NOTED
- [ ] AMEND AND RESUBMIT
- [ ] REJECTED - SEE REMARKS

BETA ENGINEERING, INC.

(Signature)

Checked by: KH Date:

BENT BAR SCHEDULE

MARK	SZ	TYP	A	B	C	D	E	F	G	H	K	J	O
AB22	8	17		1-4	4-10								
A623	6	17		1-0	4-10								

Note: All Details & Sect. A-A Rotated 180° Compared To Structural Dwg. ST-5 & ST-6

(Note North Arrow @ Upper Left Corner)

FOR A

REV.	DATE	REASON

ASTM A615 - Grade 60 (U.N.O.)

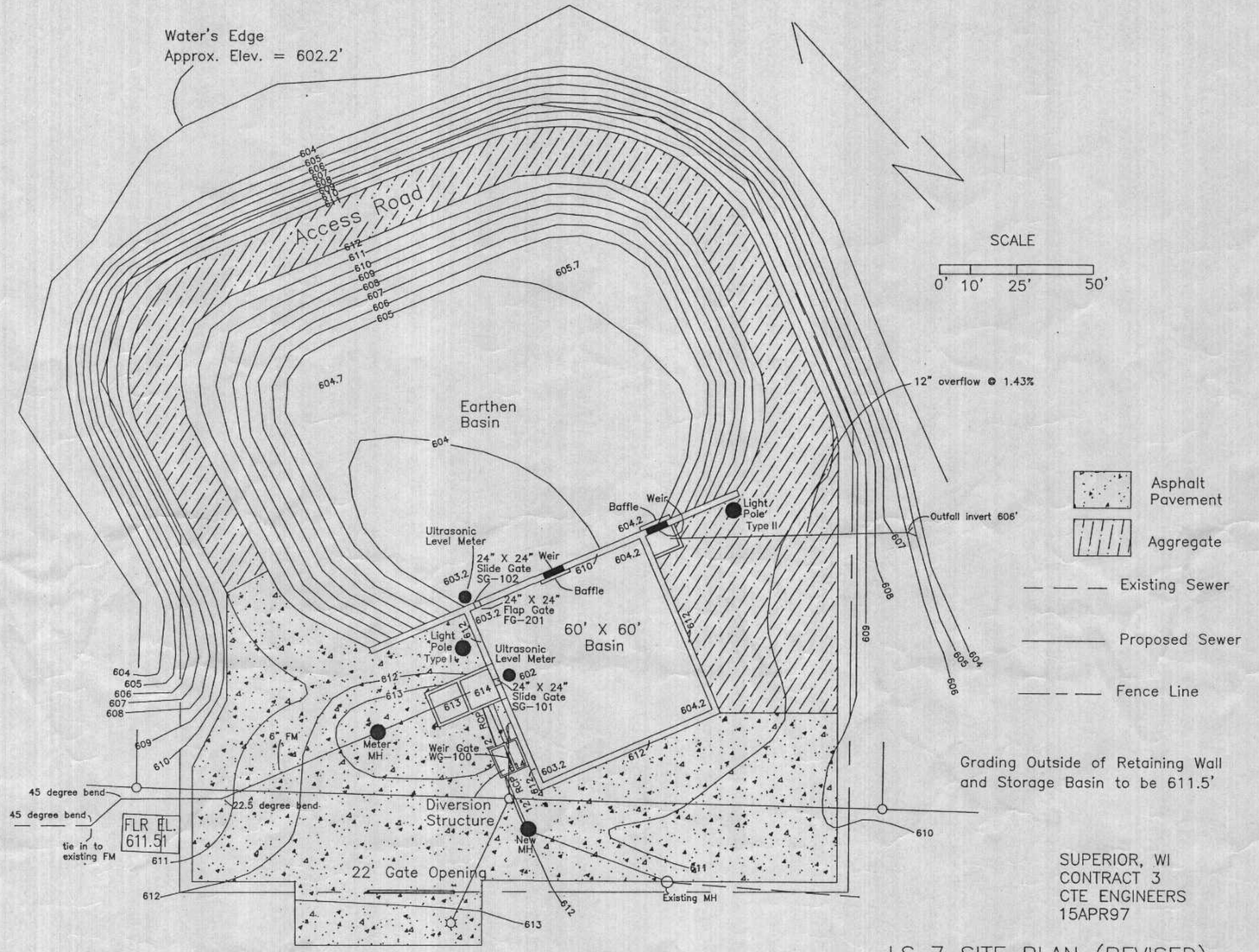
Shortage, improper fabrication or claims for any reason must be reported to Corporation within a period of 15 days of delivery. Ambassador Steel will not ho for work done in the field without specific authorization.

This drawing to be used for the placing of our materials only. For all other info architect's plans.

Ambassador Steel
AUBURN, INDIANA
"REINFORCING AMERICA"

PRODUCTION FAC
GRAND RAPIDS, MI
KOKOMO, IN
MINNEAPOLIS, MN
MOORESVILLE, IN
ADDITIONAL SALES
KANSAS CITY, MO

PROJECT	LIFT STATION & STORAGE IMPROV.
LOCATION	SUPERIOR, WI
ARCHT/ENG	BETA ENGINEERING, INC.
CUSTOMER	REUBEN JOHNSON & SONS
TITLE	LIFT STATION No. 7 WET WELL & VALVE PIT



LS 7 SITE PLAN (REVISED)