

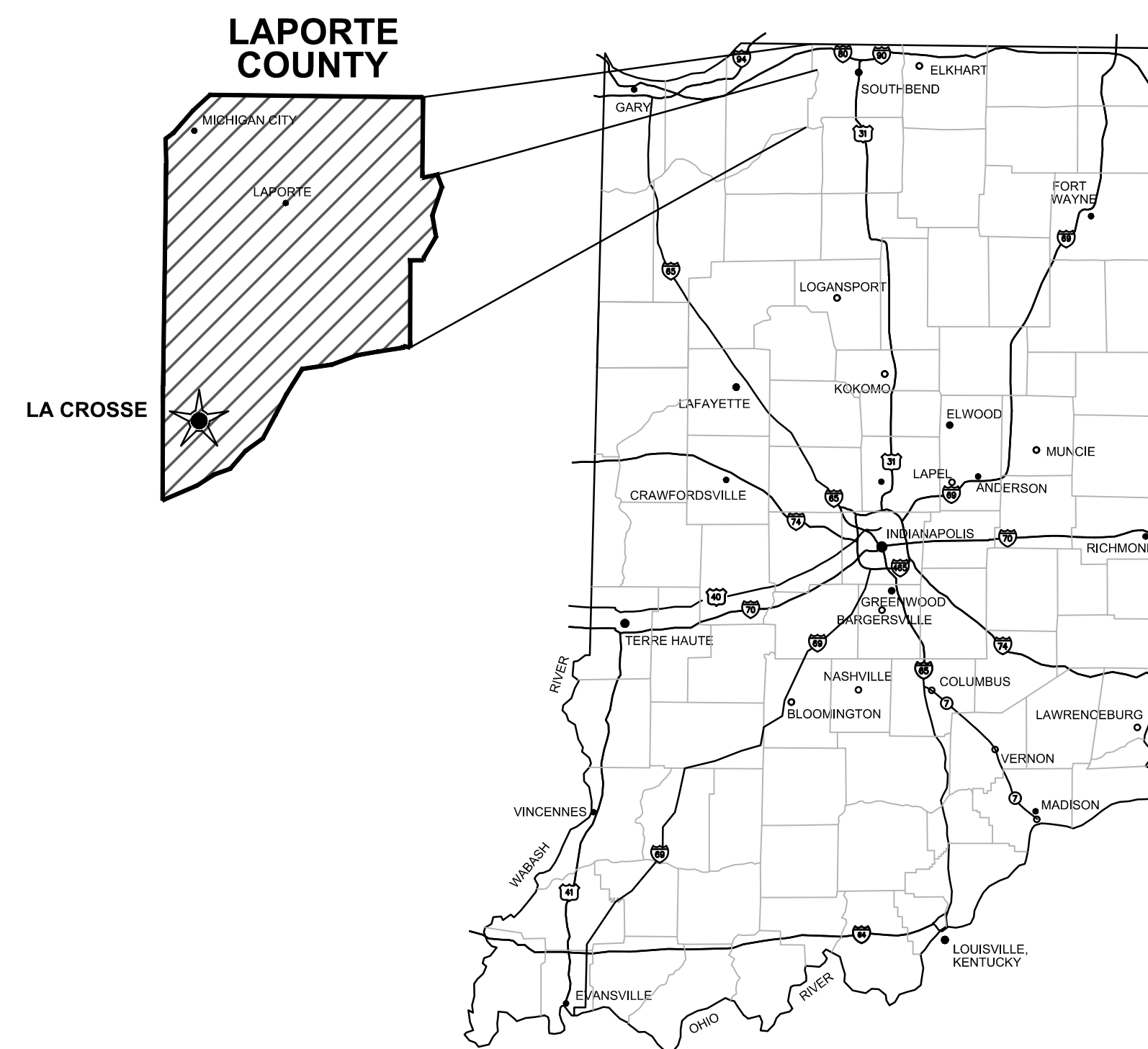
TOWN OF LA CROSSE LAPORTE COUNTY, INDIANA

WASTEWATER TREATMENT PLANT IMPROVEMENTS PROJECT

MAY 2025

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QA/QC BY : ROBERT BELLUCCI 05/29/2025
DATE :

CERTIFIED BY :  05/29/2025
CHRIS A. LIMCACO
INDIANA P.E. No. 19700338
DATE :

CDBG GRANT NUMBER WW-23-125**CONTRACT NO. : S25052**



SCALE: 1"=1,500'-0"



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GENERAL ABBREVIATIONS

AB	AIR	FLD	FILTRATE DRAIN		MATERIAL
AFF	ANCHOR BOLT	FLG	FLANGE	P/L	PROPERTY LINE
ALT	ABOVE FINISH FLOOR	FL	FLUSHING LINE	POJ	PUSH ON JOINT
ALUM	ALTERNATE	FLR	FLOOR	PSF	POUNDS PER SQUARE FOOT
@	ALUMINUM	FM	FORCE MAIN	PSI	POUNDS PER SQUARE INCH
APP.	AT	FRP	FIBER REINFORCED PLASTIC	PVC	POLYVINYL CHLORIDE
ATT	APPARENT	FT	FEET OR FOOT	PW	POTABLE WATER
AUTO	AERATION TANK TRANSFER	FTG	FOOTING		
AVG	AUTOMATIC	FW	FINISHED WATER	R	RECIRCULATION
	AVERAGE			RAD	RADIUS
		G	GAS	RAS	RETURN ACTIVATED SLUDGE
B	BAFFLE	GALV	GALVANIZED	RCP	REINFORCED CONCRETE PIPE
BLDG	BUILDING	GEN	GENERAL	RD	ROOF DRAIN
BM	BENCH MARK	GRD	GROUND OR GRADE	REINF	REINFORCING
BOT	BOTTOM			REQ'D	REQUIRED
BRG	BEARING	HB	HOSE BIBB	R/W (ROW)	RIGHT-OF-WAY
		HORIZ	HORIZONTAL		
CFM	CUBIC FEET PER MINUTE	HP	HORSEPOWER	SAN	SANITARY
CL	CENTERLINE	HW	HOT WATER	SAS	SANITARY SEWER
CO	CLEAN OUT			SCH	SCHEDULE
COL/C	COLUMN	ID	INSIDE DIAMETER	SECT	SECTION
CONC	CONCRETE	IJ	ISOLATION JOINT	SF	SQUARE FEET
COP	COPPER	INV	INVERT	SHT	SHEET
CJ	CONSTRUCTION JOINT	IP	IRON PIN	SL	SAMPLE LINE
CW	COLD WATER			SOS	STORM SEWER
CY	CUBIC YARD	LAV	LAVATORY	SP	STOP PLATE
		LB	POUND	SQ	SQUARE
D	DRAIN	LL	LIVE LOAD	STD	STANDARD
DEC	DECANT	LLV	LONG LEG VERTICAL	S STL, SS	STAINLESS STEEL
DIA	DIAMETER	LTG	LIGHTING	STL	STEEL
DIM	DIMENSION			SUP	SUPERNATANT
DI	DUCTILE IRON PIPE	MAX	MAXIMUM	SY	SQUARE YARD
DL	DEAD LOAD	MCC	MOTOR CONTROL CENTER		
DSPT	DOWN SPOUT	MGD	MILLIONS GALLONS PER DAY	TOS	TOP OF SLAB
DWG	DRAWING	MH	MANHOLE	TOW	TOP OF WALL
		MIN	MINIMUM, MINUTE	TW	TERTIARY WATER
E	ELECTRICAL CONDUIT	MJ	MECHANICAL JOINT	TYP	TYPICAL
EA	EACH				
EF	EACH FACE	NC	NORMALLY CLOSED	V	VACUUM OR VALVE
EFFL	EFFLUENT	NG	NATURAL GAS	VAR	VARIES
EL	ELEVATION	NIC	NOT IN CONTRACT	VERT	VERTICAL
EW	EACH WAY	NO	NORMALLY OPEN		
EXISTING	EXISTING	NO.	NUMBER	W	WEIR
EXF	EXHAUST FAN	NPW	NON-POTABLE WATER	W/	WITH
EXP JP	EXPANSION JOINT			W/O	WITHOUT
		OC	ON CENTER	WAS	WASTE ACTIVATED SLUDGE
F	FILTER	OD	OUTSIDE DIAMETER	WC	WATER CLOSET
FCAR	FLANGED COUPLING ADAPTER,	OPG	OPENING	WH	WATER HEATER
	RESTRAINED	OPP	OPPOSITE	WL	WATER LINE
FD	FLOOR DRAIN			WWF	WELDED WIRE FABRIC
FDN	FOUNDATION	PB	PULL BOX		
FH	FIRE HYDRANT	PE	POLYETHYLENE EXP. JT.	YH	YARD HYDRANT

GENERAL NOTES

1. ALL PROPERTY AND RIGHT-OF-WAY LINE INFORMATION SHOWN IN DRAWING SET ARE APPARENT AND SHALL NOT BE DEEMED EXACT LOCATIONS, UNLESS OTHERWISE NOTED. INFORMATION WAS OBTAINED VIA "INDIANA ON-LINE" GIS SHAPE FILES.
2. EXISTING UTILITY INFORMATION SHOWN IN DRAWING SET, MEETS "ASCE 36-02" QUALITY LEVEL "C", UNLESS OTHERWISE NOTED.

UTILITY COORDINATION AND PROJECT DEPICTION OF EXISTING SUBSURFACE UTILITY DATA:

UTILITY QUALITY LEVEL DESCRIPTIONS:

UTILITY QUALITY LEVEL A - PRECISE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES OBTAINED BY THE ACTUAL EXPOSURE (OR VERIFICATIONS OF PREVIOUSLY EXPOSED AND SURVEYED UTILITIES) AND SUBSEQUENT MEASUREMENT OF SUBSURFACE UTILITIES, USUALLY AT A SPECIFIC POINT. ACCURACY OF LOCATION MATCHES PROJECT SURVEY TOLERANCE.

UTILITY QUALITY LEVEL B - INFORMATION OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION SUBSURFACE UTILITIES. THE RELIABILITY OF THIS INFORMATION IS SURVEYED TO PROJECT CONTROL AND SUBJECT TO ACCURACY LEVELS OF THE GEOPHYSICAL TOLERANCE DEFINED BY THE PROJECT.

UTILITY QUALITY LEVEL C - INFORMATION OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE GROUND UTILITY FEATURES AND CORRELATING QUALITY LEVEL "D" INFORMATION.

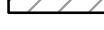



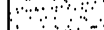
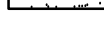
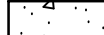
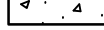
UTILITY QUALITY LEVEL D - INFORMATION DERIVED FROM EXISTING RECORDS OR VERBAL RECOLLECTIONS.

3. NORTHING AND EASTING COORDINATES SHOWN ON ALL MANHOLE, INLETS, ETC. ARE SHOWN FROM CENTER OF STRUCTURE NOT CASTING, UNLESS OTHERWISE NOTED.
4. ALL MANHOLES THAT HAVE PIPE INVERT DIFFERENTIAL OF 2' OR GREATER, SHALL BE CONSIDERED A DROP MANHOLE. CONTRACTOR SHALL REFER TO MISCELLANEOUS DETAILS AND DETAILED SPECIFICATIONS FOR MORE INFORMATION.

GENERAL SCHEMATIC LEGEND

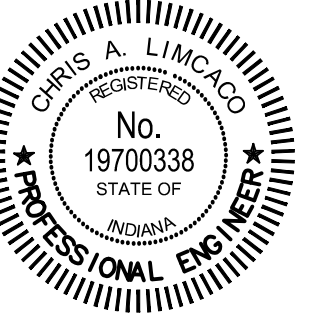
	QUICK DISCONNECT		BOOSTER PUMP
	FLANGED SPOOL SECTION		AIR RELIEF VALVE
PRV	PRESSURE REDUCER VALVE		FLOW METER
	FLANGED COUPLING ADAPTER		GATE VALVE
	BALL CHECK VALVE		FLOW CONTROL VALVE
	MOTOR ACTUATOR		VALVE
	FLEXIBLE CONNECTION		ECCENTRIC PLUG VALVE
	FLANGE FILLER & S.S. MESH SCREEN		CHECK VALVE
W V90	90° V-NOTCH WEIR		INCREASER / REDUCER
	MAGNETIC FLOW METER		BUTTERFLY VALVE
	ULTRASONIC SENSOR		PIPE THROUGH FLOOR / WALL
	SUBMERSIBLE PUMP		BALL VALVE
	NEW PIPING AND EQUIPMENT		BLIND FLANGE OR PLUG
	EXISTING PIPING AND EQUIPMENT		HOSE BIBB
	FUTURE PIPING AND EQUIPMENT		STOP PLATE
			WEIR

HATCHING SYMBOLS

	-CMU WALL (PLAN VIEW)
	-GRANULAR BACKFILL (PROFILE VIEW)
	- DEMOLITION (CONTRACTOR SHALL REFER TO DETAILED SPECIFICATIONS)
	- GROUT
	- CONCRETE
	- STEEL
	- COMPACTED GRANULAR BACKFILL OR COMPACTED FOUNDATION
	- ABANDONED IN PLACE

DRAWING SET LEGEND

	EXISTING OVERHEAD TELEPHONE LINE		AC UNIT		TELEPHONE MANHOLE
	EXISTING GAS LINE AND VALVE		BOLLARD		TELEPHONE LINE MARKER
	EXISTING WATER LINE AND VALVE		BOULDER / LARGE ROCK		TRAFFIC MANHOLE
	EXISTING FIBER OPTIC LINE		CENTER LINE MONUMENT		WATER LINE MARKER
	EXISTING OVERHEAD ELECTRIC LINE		ROW MONUMENT		WATER METER
	EXISTING BURIED ELECTRIC		CONTROL POINT / BENCH MARK		VALVE
	EXISTING NON-POTABLE WATER LINE		DRILL HOLE		IRRIGATION CONTROL VALVE
	EXISTING POTABLE WATER LINE		MAIL BOX		FIRE HYDRANT
	EXISTING BURIED TELEPHONE LINE		FLAG POLE		FLUSH HYDRANT
	EXISTING FENCE		POST		YARD HYDRANT
	APPARENT RIGHT-OF-WAY		STUMP		WALL SPIGOT
	APPARENT PROPERTY LINE		BUSH / HEDGE		EXISTING PIPE PLUG
	EDGE OF ROAD		DECIDUOUS TREE		STORM CATCH BASIN (SQUARE)
	EDGE OF ROAD WITH CURB		CONIFEROUS TREE		STORM CATCH BASIN (ROUND)
	EXISTING MAJOR CONTOUR LINE		SIGN		STORM CURB INLET
	EXISTING MINOR CONTOUR LINE		UTILITY LOCATE FLAG		STORM MANHOLE
	NEW WATER LINE		GAS LINE MARKER		SANITARY MANHOLE
	PROPOSED MAJOR CONTOUR LINE		GAS VALVE		SANITARY VALVE
	PROPOSED MINOR CONTOUR LINE		GAS METER		CLEANOUT
			GUY POLE		VENT
			POWER POLE		NEW VALVE
			LIGHT POLE		NEW FIRE HYDRANT
			GUY WIRE		NEW FLUSH HYDRANT
			ELECTRIC METER		NEW WET SADDLE AND VALVE BODY
			ELECTRIC PANEL		NEW PLUG
			ELECTRIC TRANSFORMER		NEW LINE STOP
			HAND HOLE BOX		NEW CUT AND CAP
			FIBER OPTIC MARKER		NEW SANITARY MH
			TEL/TV PEDESTAL		



Signature 05/29/2025
Date

TOWN OF LA CROSSE
LAPORTE COUNTY, INDIANA
WASTEWATER TREATMENT PLANT
IMPROVEMENTS PROJECT

[illegible]

Designed By: CAL	Drawn By: SSE	Checked By: RMB
Issue Date: APR 2025	Project No: S25052	Scale: AS SHOWN

GENERAL ABBREVIATIONS, SYMBOLS, LEGENDS, AND NOTES

Drawing No:

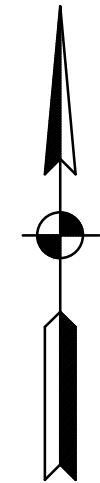
G3

Sheet: 03 OF 40



PLAN VIEW

SCALE: 1"=100'-0"



CONTROL POINT INFORMATION			
IDENTIFIER	NORTHING	EASTING	DESCRIPTION
CP-1	2212829.97	3008094.06	CAPPED REBAR
CP-2	2213469.96	3008707.85	CAPPED REBAR
CP-3	2213460.10	3009243.90	CAPPED REBAR
CP-4	2213943.60	3008785.93	CAPPED REBAR

TEMPORARY BENCHMARK INFORMATION		
IDENTIFIER	ELEVATION	DESCRIPTION
TBM-2632	683.10	CUT X NE CORNER RIM OF SQUARE METAL LID

EXISTING STRUCTURE LEGEND	
IDENTIFIER	DESCRIPTION
A	EXISTING LAGOON #1
B	EXISTING LAGOON #2
C	EXISTING OUTFALL STRUCTURE
D	EXISTING MANHOLE 1000 - LAGOON #1 EFFLUENT STRUCTURE
E	EXISTING MANHOLE 1001
F	EXISTING MANHOLE 1002 - EFFLUENT FLOW METER STRUCTURE
G	EXISTING MANHOLE 1003 - INFLUENT STRUCTURE
H	EXISTING MANHOLE 1004 - LAGOON #2 EFFLUENT STRUCTURE
I	EXISTING MANHOLE 1005 - LAGOON TRANSFER STRUCTURE

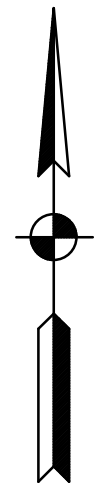
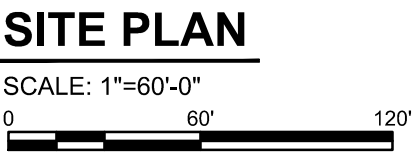
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HORIZONTAL-US State plane coordinates: NAD83 (*North American Datum*) Indiana West Zone (1302)
VERTICAL- USGS 1988 NAVD (North American Vertical Datum)-per GPS observations (Not verified by physical location of published USGS monuments)



NOT TO SCALE



NOT TO SCALE



EXISTING STRUCTURE LEGEND		
IDENTIFIER	DESCRIPTION	DEMO NOTES
A	EXISTING LAGOON #1	TO REMAIN
B	EXISTING LAGOON #2	TO REMAIN
C	EXISTING OUTFALL STRUCTURE	TO REMAIN
D	EXISTING MANHOLE 1000 - LAGOON #1 EFFLUENT SEWER	TO BE MODIFIED
E	EXISTING MANHOLE 1001	TO REMAIN
F	EXISTING MANHOLE 1002 - EFFLUENT FLOW METER STRUCTURE	TO REMAIN
G	EXISTING MANHOLE 1003 - INFLUENT STRUCTURE	TO REMAIN
H	EXISTING MANHOLE 1004 - LAGOON #2 EFFLUENT STRUCTURE	TO REMAIN
I	EXISTING MANHOLE 1005 - LAGOON TRANSFER STRUCTURE	TO REMAIN

LEGEND:

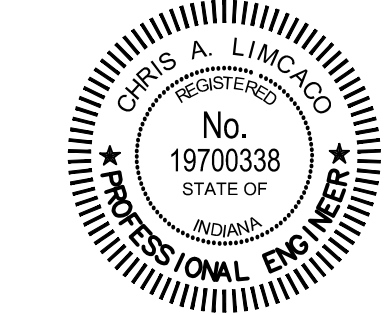
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Signature 05/29/2025
Date

TOWN OF LA CROSSE
LAPORTE COUNTY, INDIANA
WASTEWATER TREATMENT PLANT
IMPROVEMENTS PROJECT

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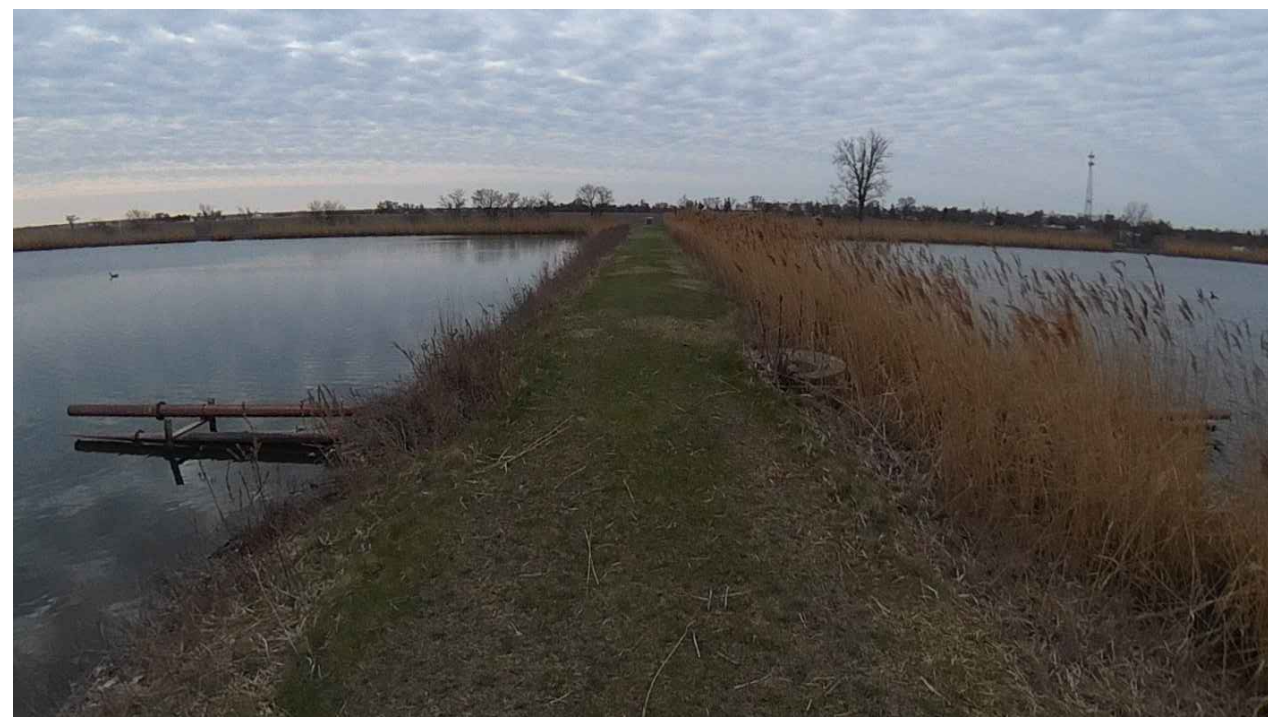
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[illegible]

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Issue Date: APR 2025	Project No: S25052	Scale: AS SHOWN

EXISTING AERIAL SITE PLAN AND PHOTO LOG INDEX

Drawing No:
C01
Sheet: 06 OF 40



	05/29/2025
Signature	Date

TOWN OF LA CROSSE
LAPORTE COUNTY, INDIANA
WASTEWATER TREATMENT PLANT
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PHOTO LOG

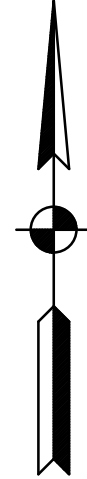
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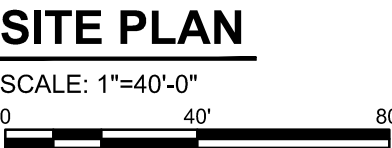
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SCALE: 1"=40'-0"

0 40' 80'

EXISTING STRUCTURE LEGEND		
IDENTIFIER	DESCRIPTION	DEMO NOTES
A	EXISTING LAGOON #1	TO BE MODIFIED
B	EXISTING LAGOON #2	TO REMAIN
C	EXISTING OUTFALL STRUCTURE	TO REMAIN
D	EXISTING MANHOLE 1000 - LAGOON #1 EFFLUENT SEWER	TO BE MODIFIED
E	EXISTING MANHOLE 1001	TO REMAIN
F	EXISTING MANHOLE 1002 - EFFLUENT FLOW METER STRUCTURE	TO REMAIN
G	EXISTING MANHOLE 1003 - INFLUENT STRUCTURE	TO REMAIN
H	EXISTING MANHOLE 1004 - LAGOON #2 EFFLUENT STRUCTURE	TO REMAIN
I	EXISTING MANHOLE 1005 - LAGOON TRANSFER STRUCTURE	TO REMAIN



EXISTING STRUCTURE LEGEND		
IDENTIFIER	DESCRIPTION	DEMO NOTES
A	EXISTING LAGOON #1	TO BE MODIFIED
B	EXISTING LAGOON #2	TO REMAIN
C	EXISTING OUTFALL STRUCTURE	TO REMAIN
D	EXISTING MANHOLE 1000 - LAGOON #1 EFFLUENT SEWER	TO BE MODIFIED
E	EXISTING MANHOLE 1001	TO REMAIN
F	EXISTING MANHOLE 1002 - EFFLUENT FLOW METER STRUCTURE	TO REMAIN
G	EXISTING MANHOLE 1003 - INFLUENT STRUCTURE	TO REMAIN
H	EXISTING MANHOLE 1004 - LAGOON #2 EFFLUENT STRUCTURE	TO REMAIN
I	EXISTING MANHOLE 1005 - LAGOON TRANSFER STRUCTURE	TO REMAIN



SCALE: 1"=10'-0"

0 10' 20'

A horizontal graphic scale bar with alternating black and white segments. It is marked with '0' at the left end, '10'' at the midpoint, and '20'' at the right end.

NEW STRUCTURE LEGEND	
IDENTIFIER	DESCRIPTION
01	NEW CHLORINE CONTACT TANK
02	NEW CHEMICAL BUILDING

CHRIS A. LIMCACO
REGISTERED
No.
19700338
STATE OF
INDIANA
PROFESSIONAL ENGINEER

TOWN OF LA CROSSE
LAPORTE COUNTY, INDIANA
WASTEWATER TREATMENT PLANT
IMPROVEMENTS PROJECT

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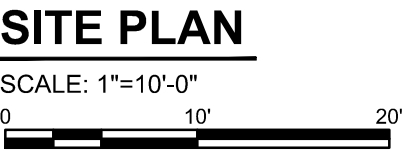
1-800-382-5544
(IT'S THE LAW)

[illegible]

Issue Date: APR 2025	Project No: S25052	Scale: AS SHOWN
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EXISTING SITE
IMPROVEMENTS -
ENLARGED SITE PLAN

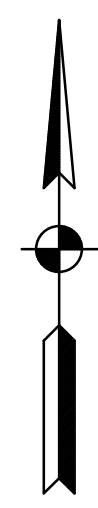
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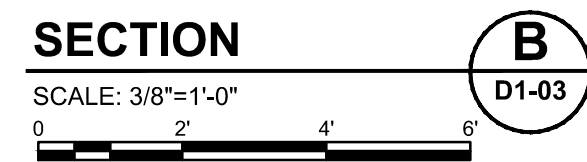
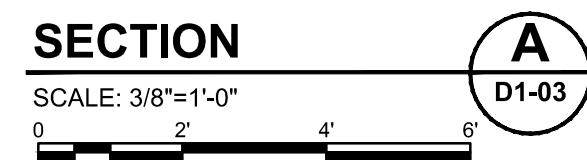


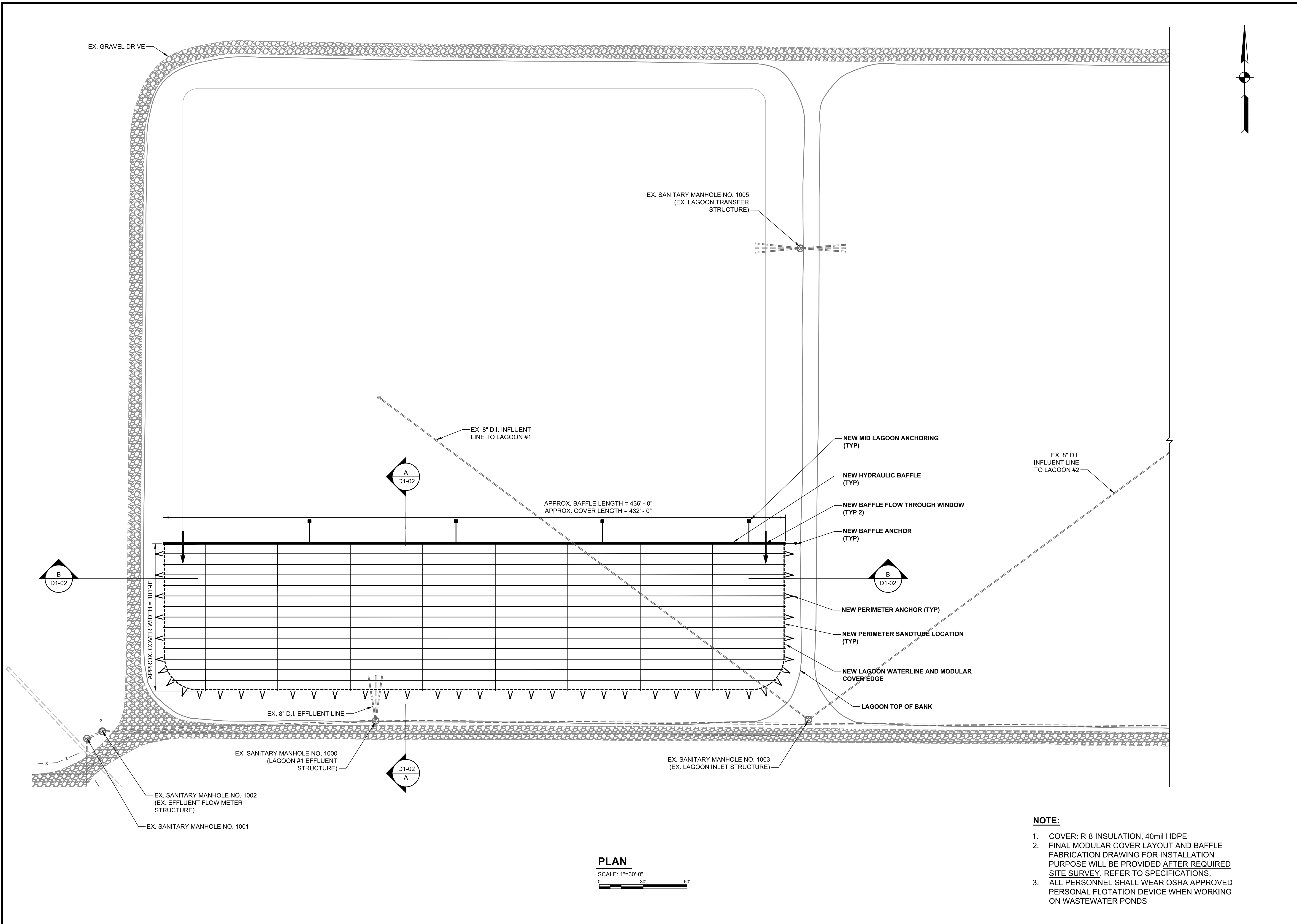
NEW PROCESS PIPING LEGEND	
IDENTIFIER	DESCRIPTION
N-A	NEW 12" INFLUENT LINE FROM NEW SANITARY DOGHOUSE MH NO. 102 TO NEW CHLORINE CONTACT TANK
N-B	NEW 12" EFFLUENT LINE FROM NEW CHLORINE CONTACT TANK TO NEW SANITARY DOGHOUSE MH NO. 101
N-C	NEW 3/4" SODIUM HYPOCHLORITE LINE IN A 3" CASING PIPE FROM NEW CHEMICAL BUILDING TO NEW CHLORINE CONTACT TANK
N-D	NEW 3/4" SODIUM BISULFITE LINE IN A 3" CASING PIPE FROM NEW CHEMICAL BUILDING TO NEW CHLORINE CONTACT TANK

Designed By: CAL	Drawn By: SSE	Checked By: RMB
Issue Date: APR 2025	Project No: S25052	Scale: AS SHOWN

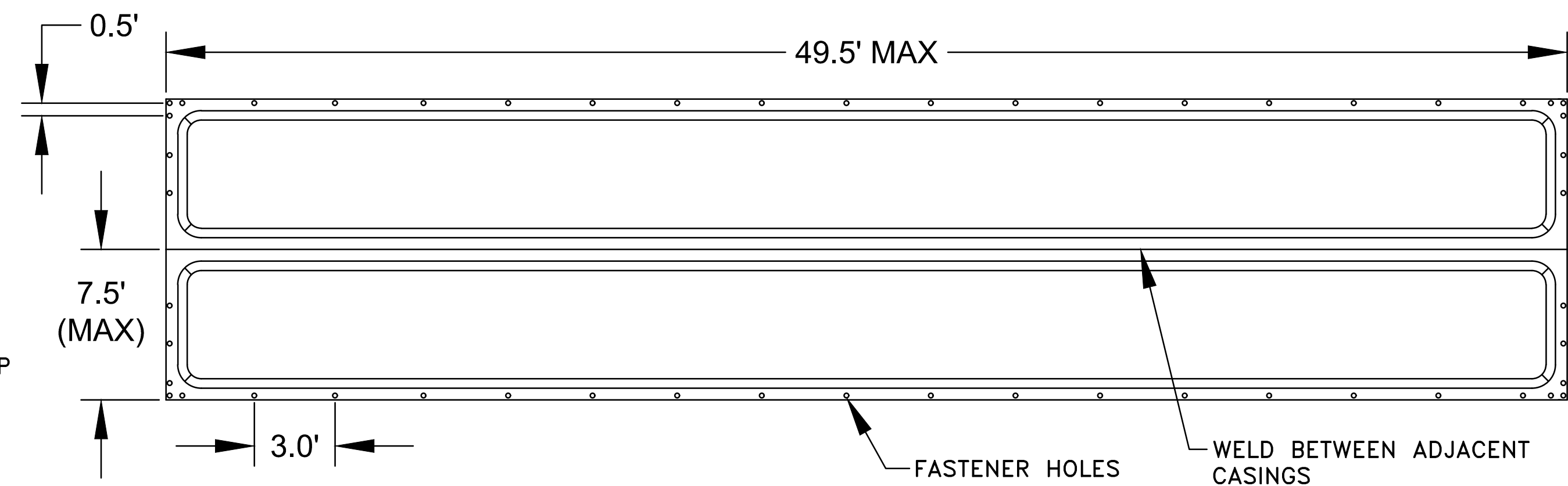
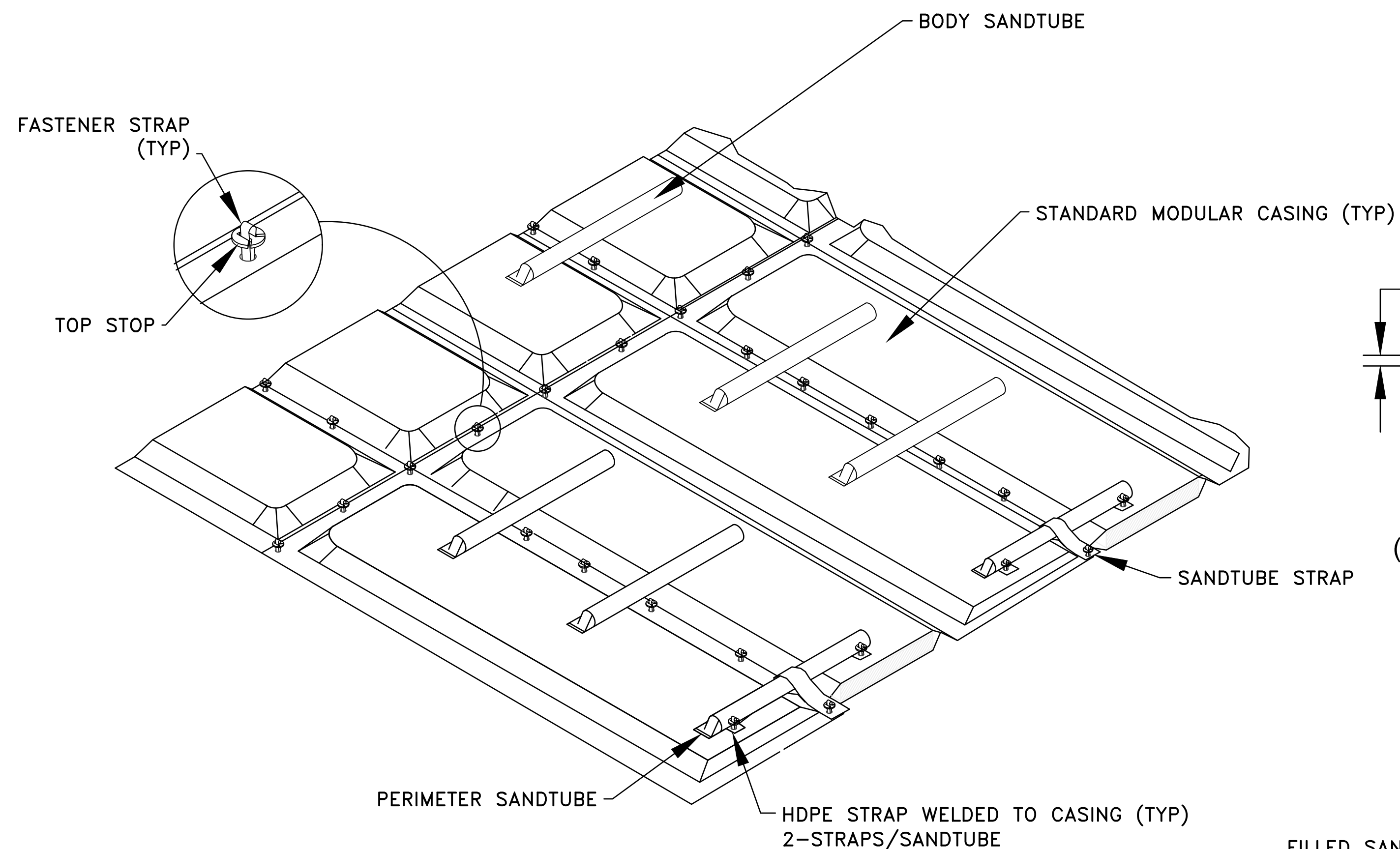
Drawing No:
C07



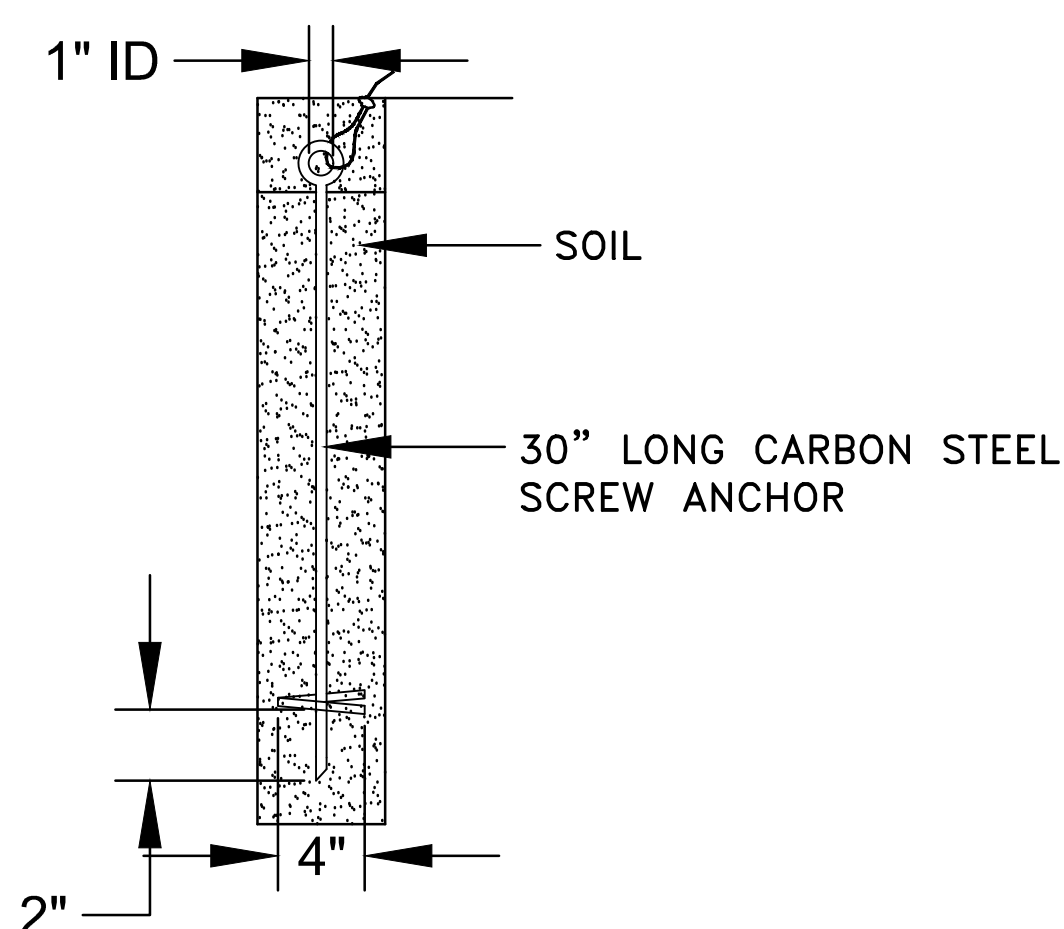




1. COVER: R-8 INSULATION, 40mil HDPE
2. FINAL MODULAR COVER LAYOUT AND BAFFLE FABRICATION DRAWING FOR INSTALLATION PURPOSE WILL BE PROVIDED AFTER REQUIRED SITE SURVEY. REFER TO SPECIFICATIONS.
3. ALL PERSONNEL SHALL WEAR OSHA APPROVED PERSONAL FLOTATION DEVICE WHEN WORKING ON WASTEWATER PONDS



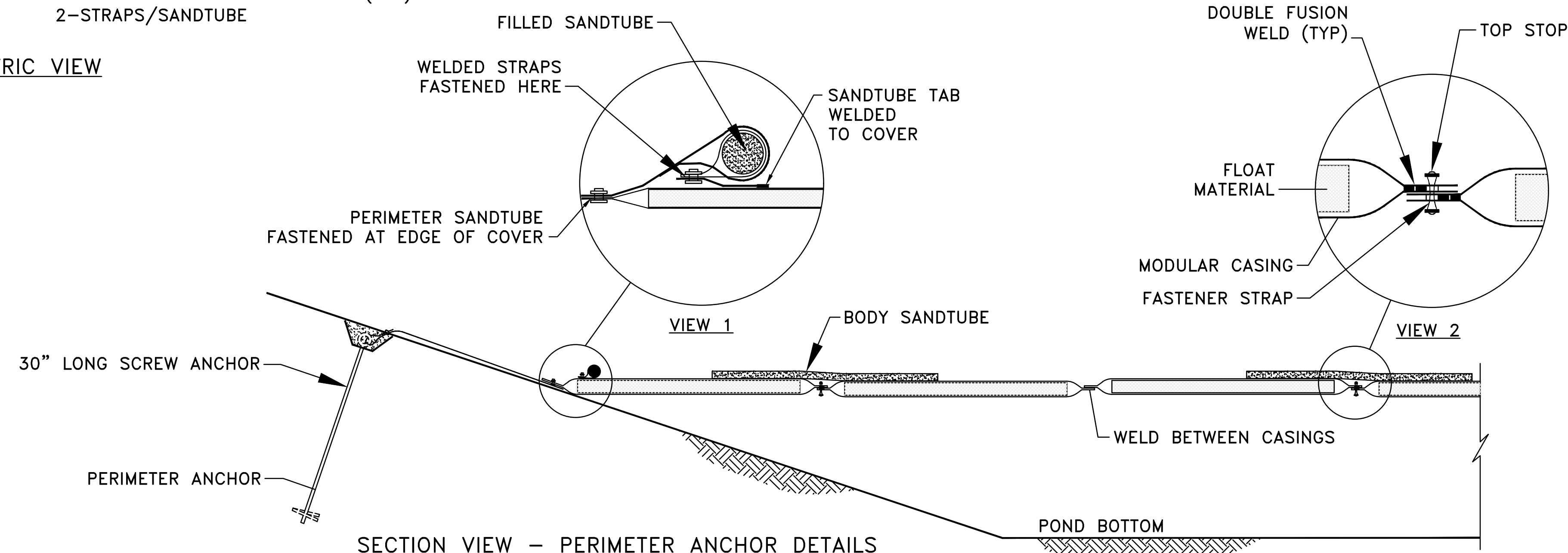
TOP VIEW — MODULAR BI-FOLD CASING



MODULAR COVER ANCHOR DETAIL

NOTES:

1. ANCHOR CABLE TO BE 1/8" PVC COATED STAINLESS STEEL
2. IF POND HAS SYNTHETIC LINER, ANCHOR TO BE LOCATED 1' BEYOND LINER ANCHOR TRENCH
3. IF POND IS UNLINED, ANCHOR TO BE LOCATED APPROXIMATELY 3' BEYOND HIGH WATER LINE

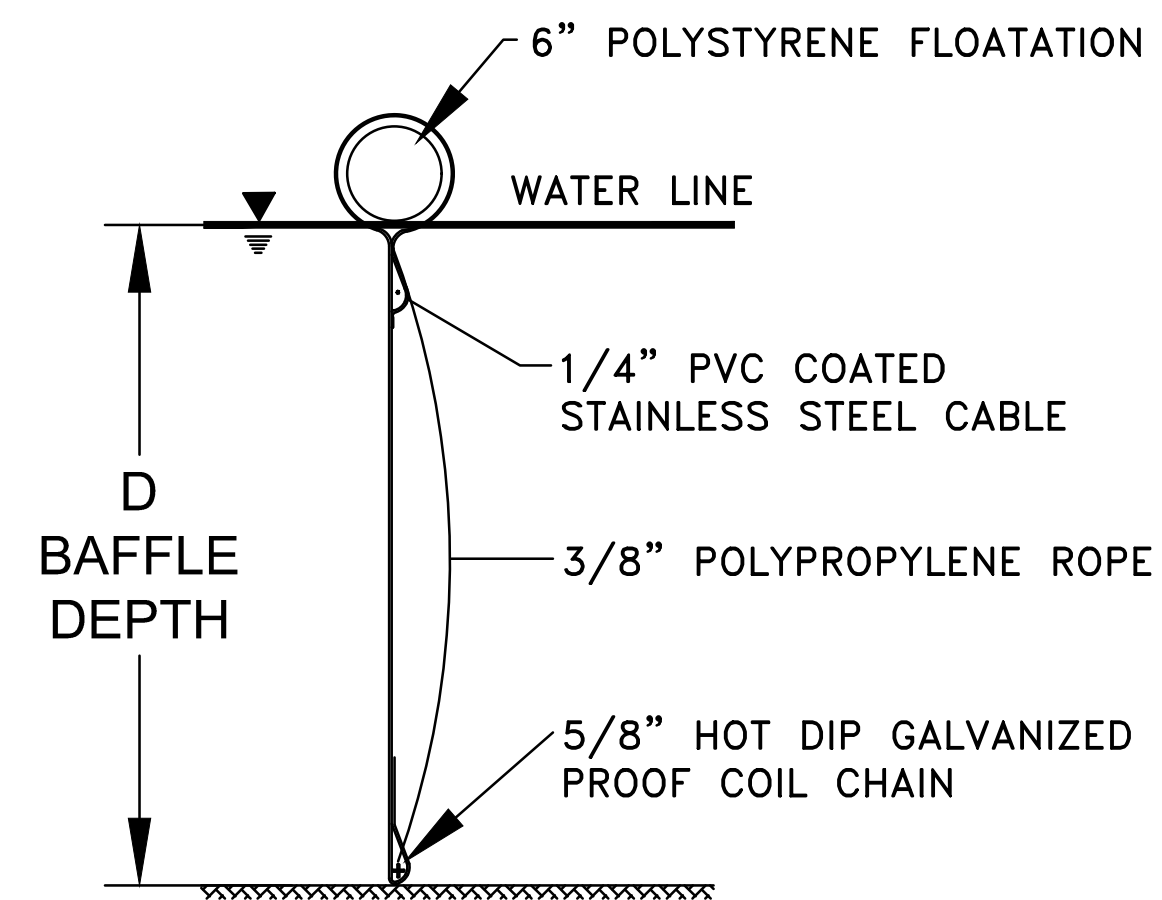


DISCLAIMER NOTE:

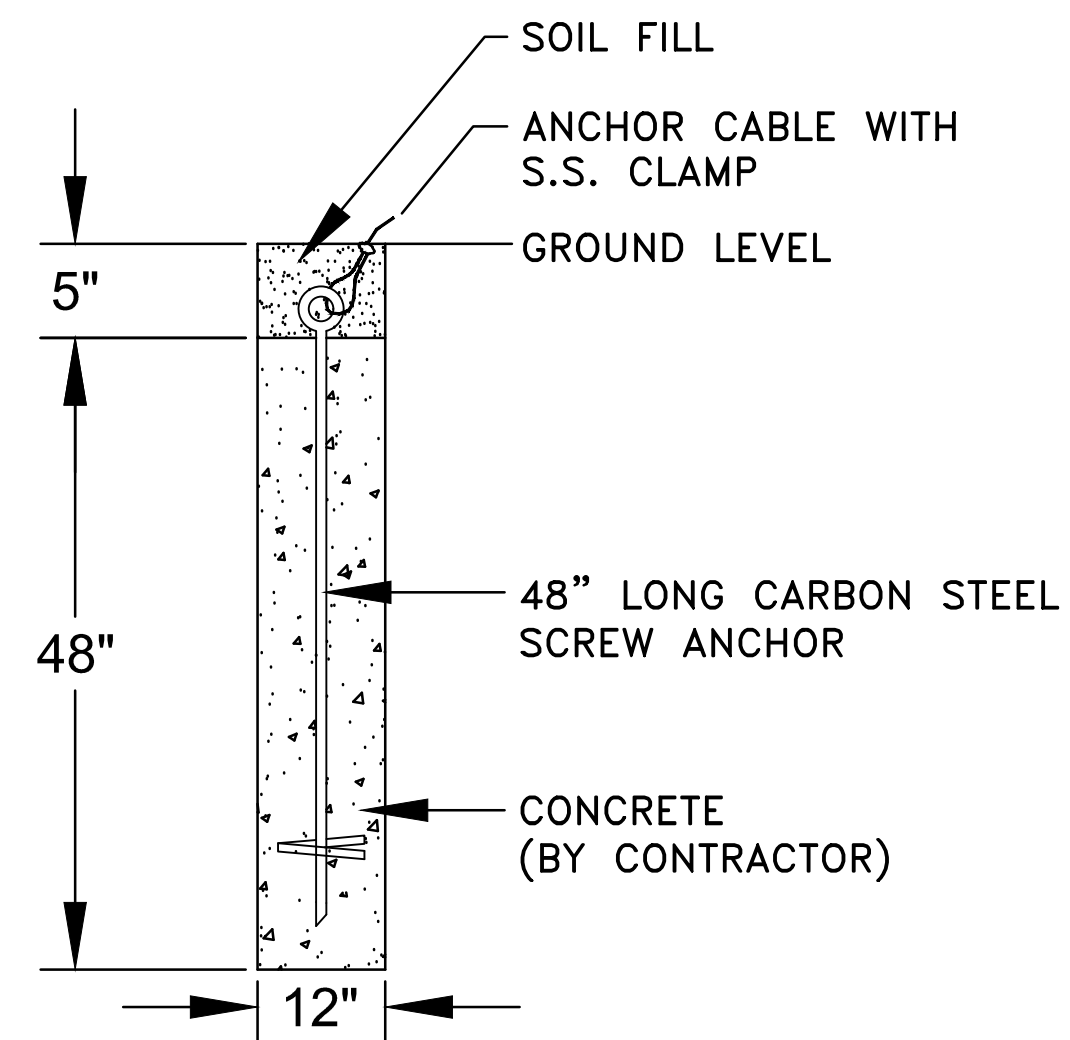
1. ALL DETAILS WERE OBTAINED FROM LEMTEC AND SHALL BE USED AS REFERENCE ONLY.

[illegible]

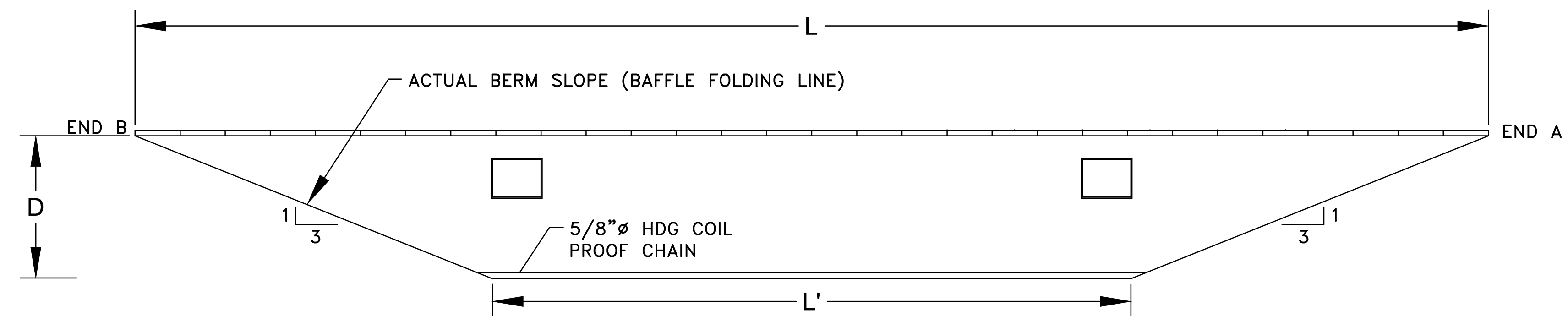
Designed By: CAL	Drawn By: SSE	Checked By: RMB
Issue Date: APR 2025	Project No: S25052	Scale: AS SHOWN



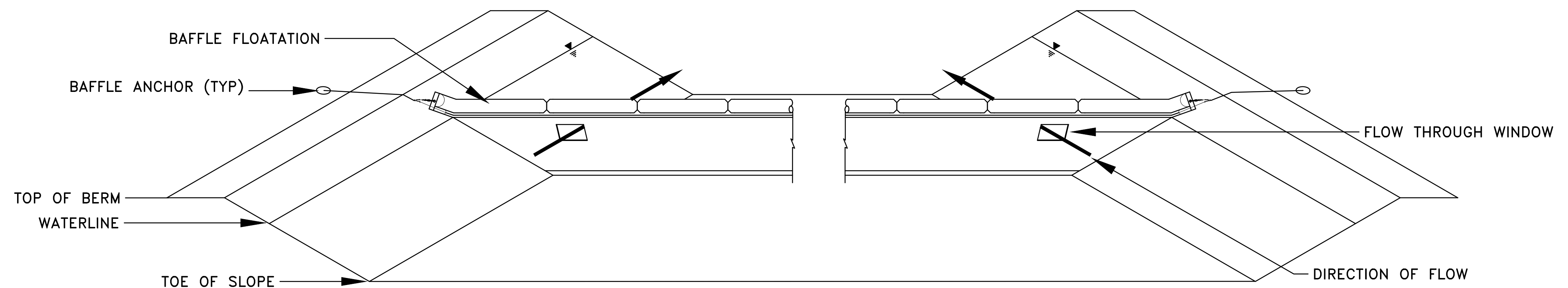
HYDRAULIC BAFFLE
SECTION



BAFFLE ANCHOR
DETAIL



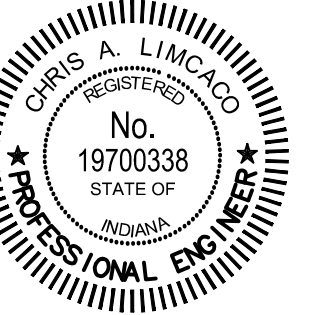
BAFFLE ELEVATION DETAIL
D= MAX. WATER DEPTH +1.0= BAFFLE DEPTH



BAFFLE ISOMETRIC VIEW

DISCLAIMER NOTE:

1. ALL DETAILS WERE OBTAINED FROM LEMTEC AND SHALL BE USED AS REFERENCE ONLY.



Signature 05/29/2025
Date

TOWN OF LA CROSSE
LAPORTE COUNTY, INDIANA
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[illegible]

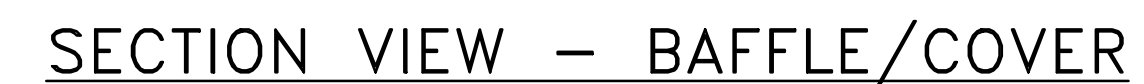
Designed By: CAL	Drawn By: SSE	Checked By: RMB
Issue Date: APR 2025	Project No: S25052	Scale: AS SHOWN

LAGOON BAFFLE
DETAILS

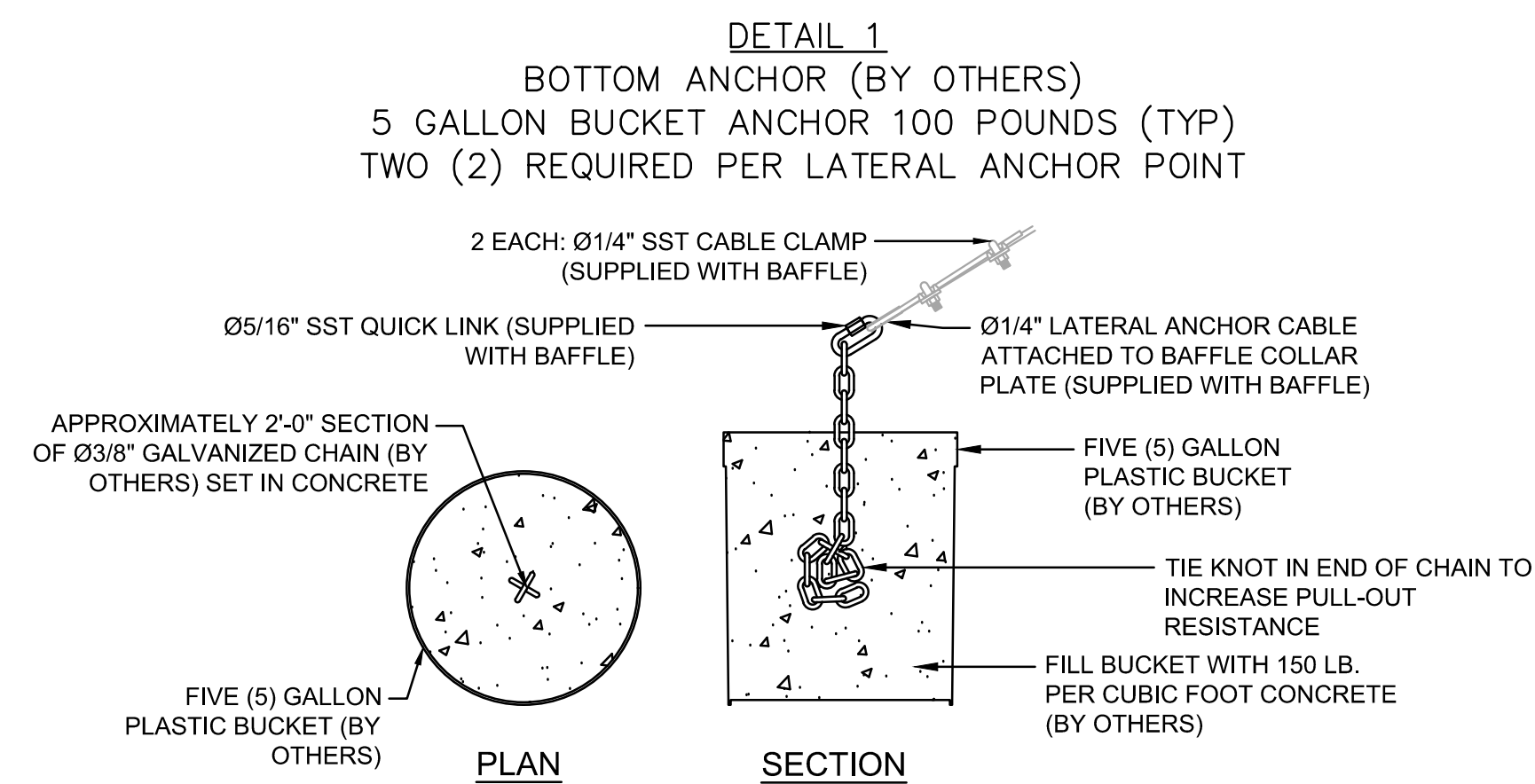
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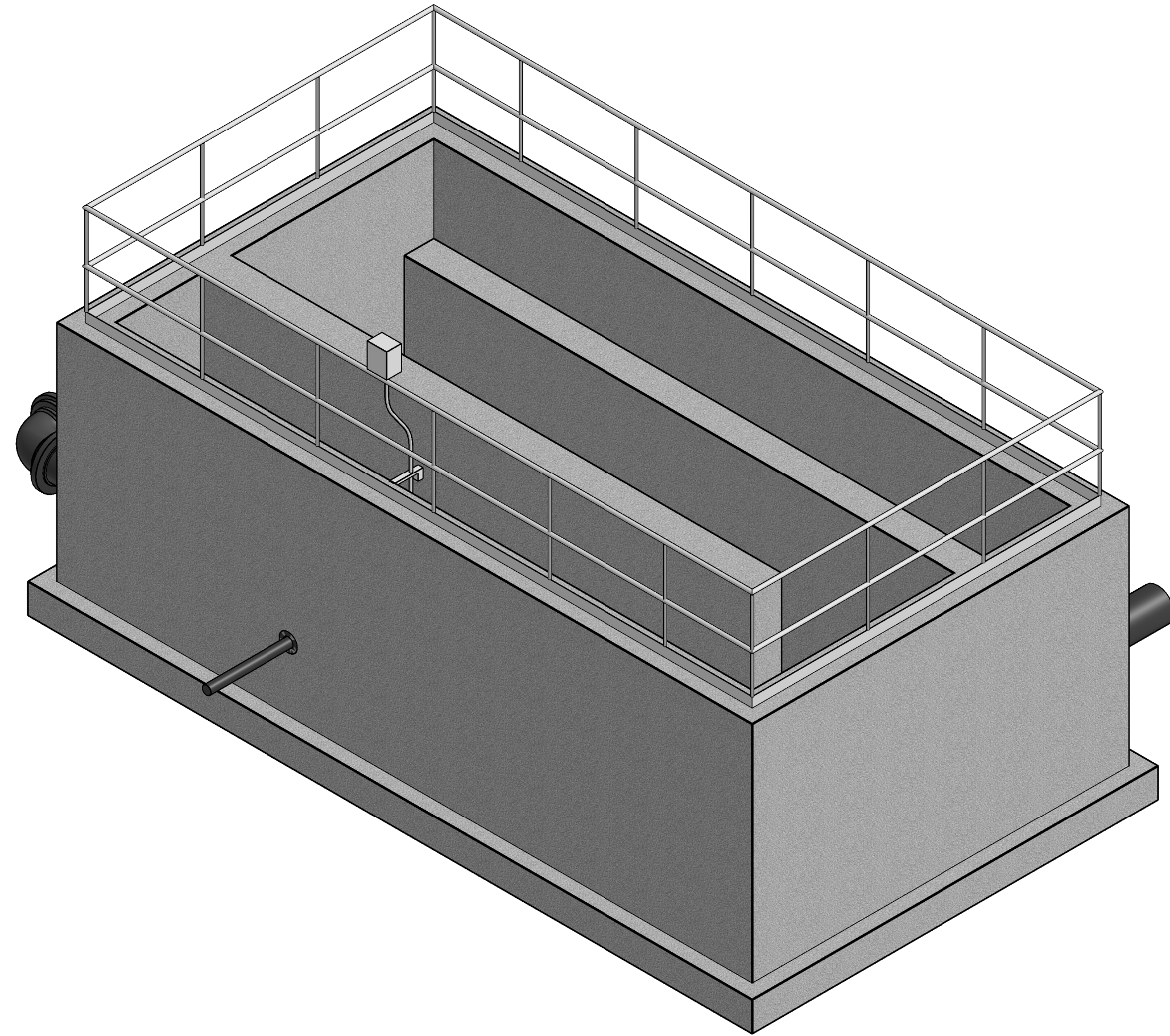
D1-05

Sheet: 19 OF 40



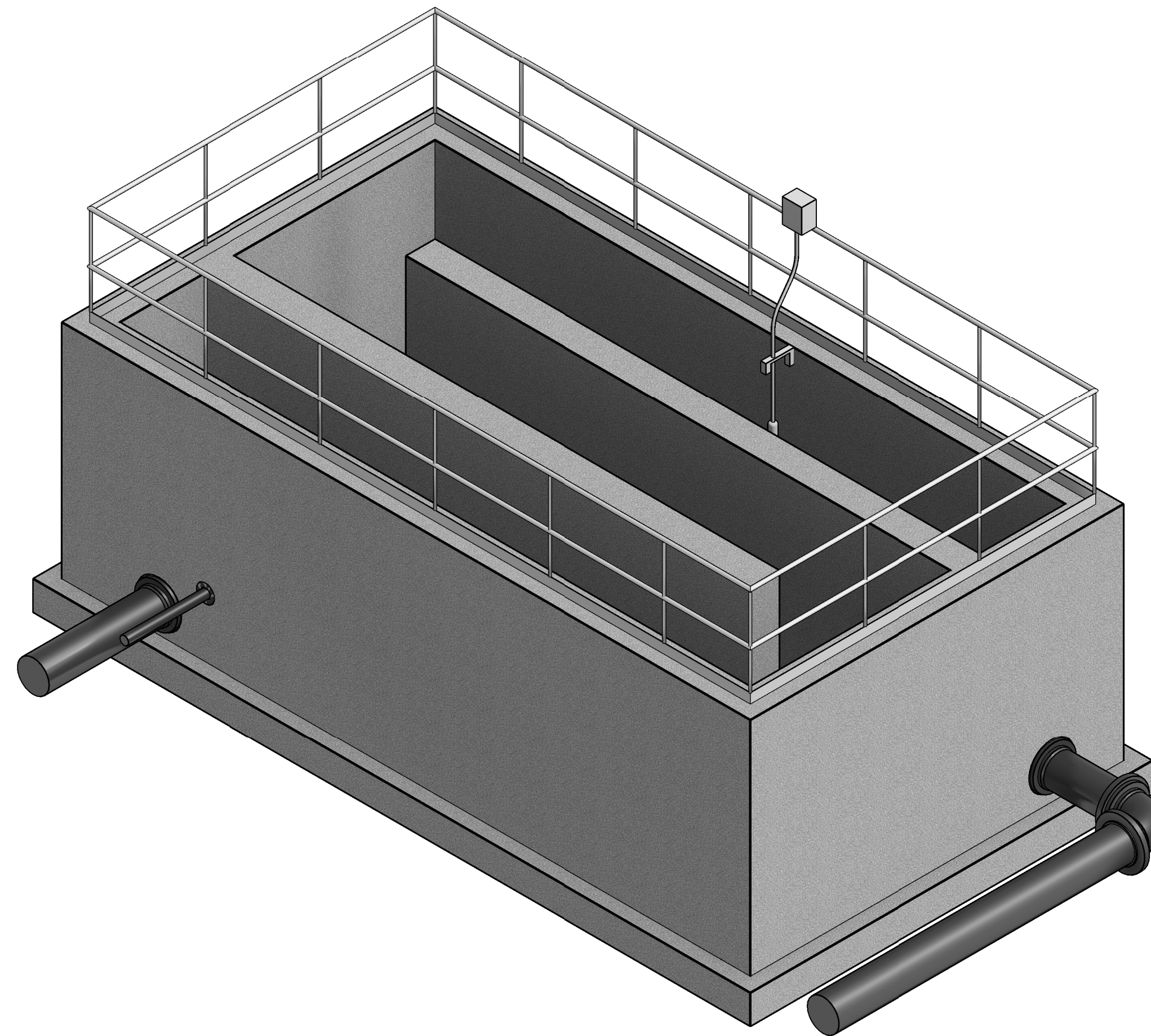
1. ALL DETAILS WERE OBTAINED FROM LEMTEC AND SHALL BE USED AS REFERENCE ONLY.





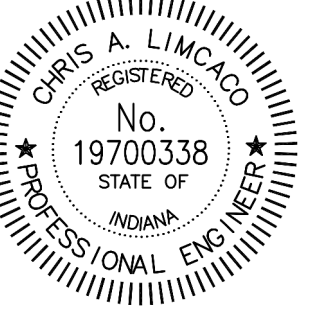
NORTHEAST ISOMETRIC

SCALE: NOT TO SCALE



SOUTHWEST ISOMETRIC

SCALE: NOT TO SCALE



Signature 05/29/2025
Date

TOWN OF LA CROSSE
LAPORTE COUNTY, INDIANA
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Indiana811

Know what's below. 811 before you dig.

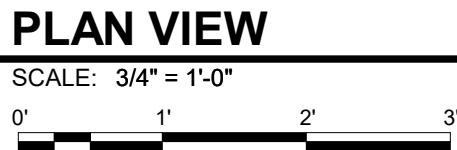
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(IT'S THE LAW)

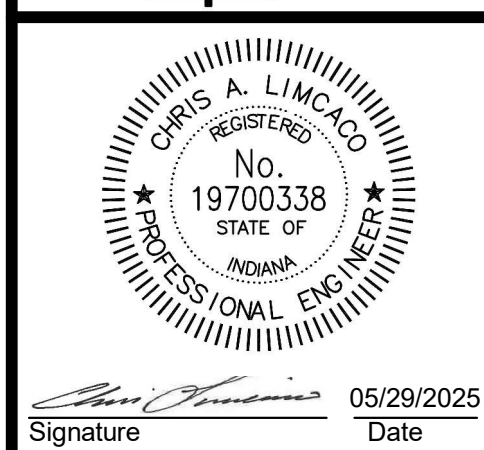
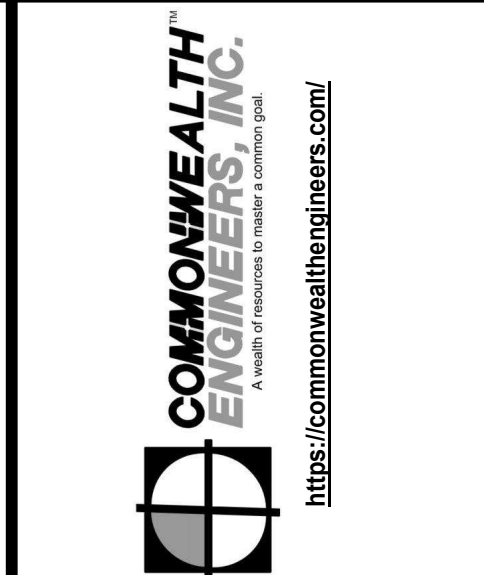
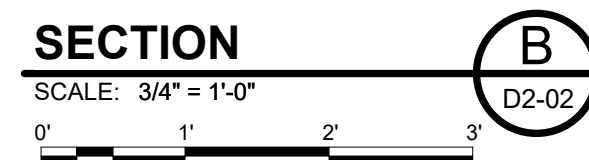
[illegible]

Designed By: CAL	Drawn By: SSE	Checked By: RMB
Issue Date: APR 2025	Project No: S25052	Scale: AS SHOWN

NEW CHLORINE CONTACT TANK SOMETRIC VIEWS

Drawing No:
D2-01





TOWN OF LA CROSSE
LAPORTE COUNTY, INDIANA

WASTEWATER TREATMENT PLANT
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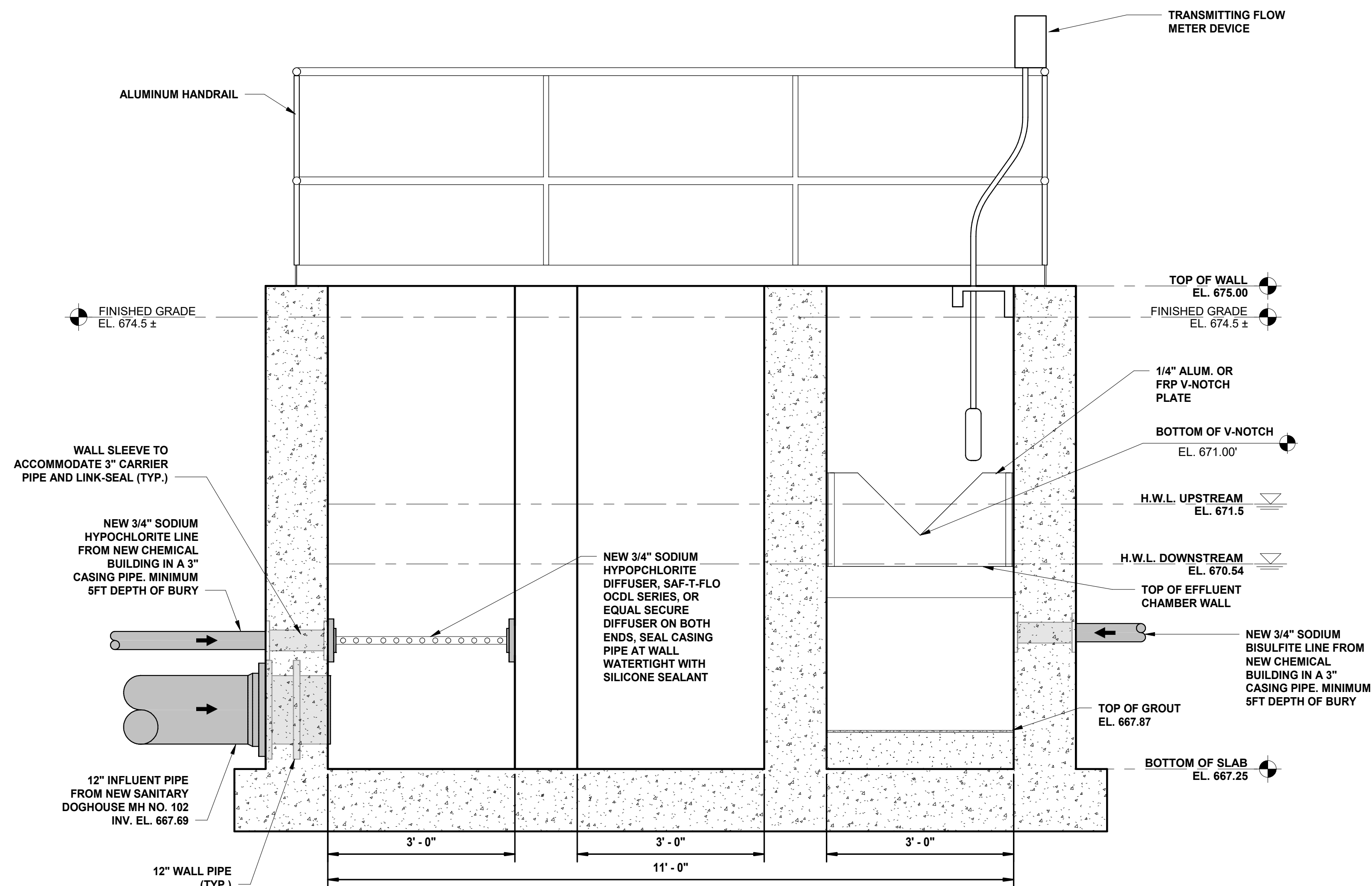
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(IT'S THE LAW)

[illegible]

Designed By: CAL	Drawn By: SSE	Checked By: RMB
Issue Date: APR 2025	Project No: S25052	Scale: AS SHOWN

NEW CHLORINE CONTACT TANK SECTION VIEWS

Drawing No:
D2-03
Sheet: 24 OF 40



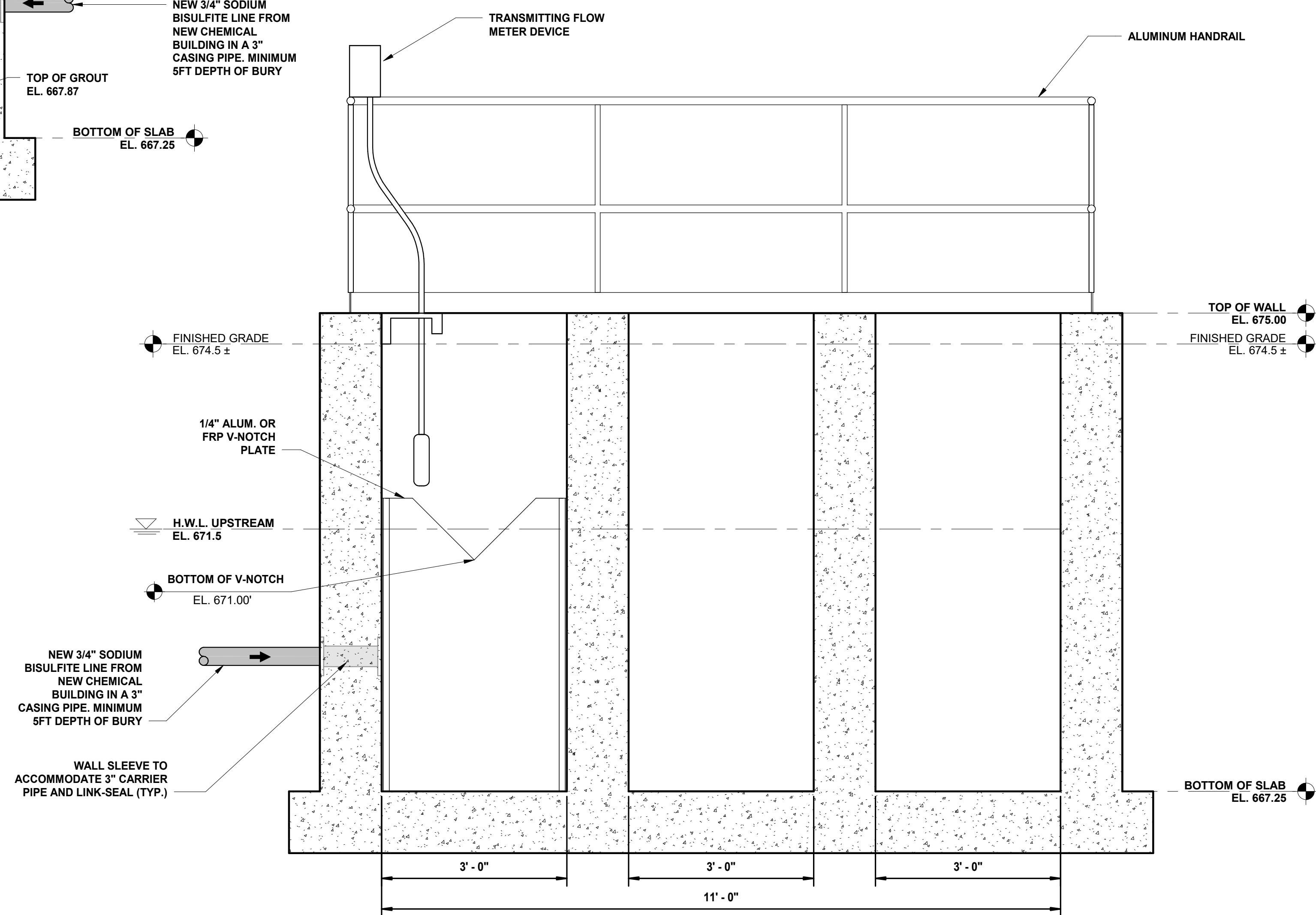
SECTION

SCALE: $3/4" = 1'-0"$

0' 1' 2' 3'

C

D2-02



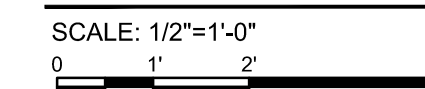
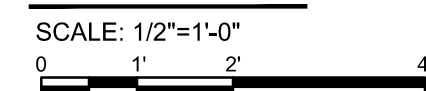
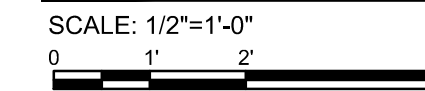
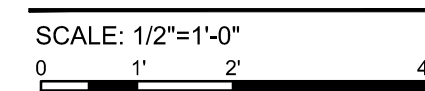
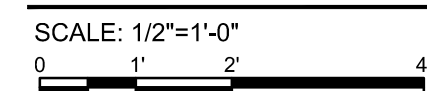
SECTION

SCALE: 3/4" = 1'-0"

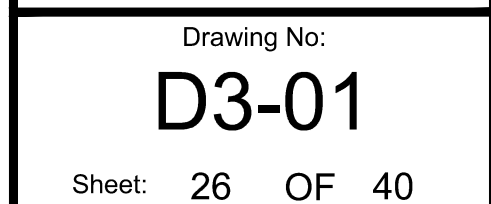
0' 1' 2' 3'

D

D2-02



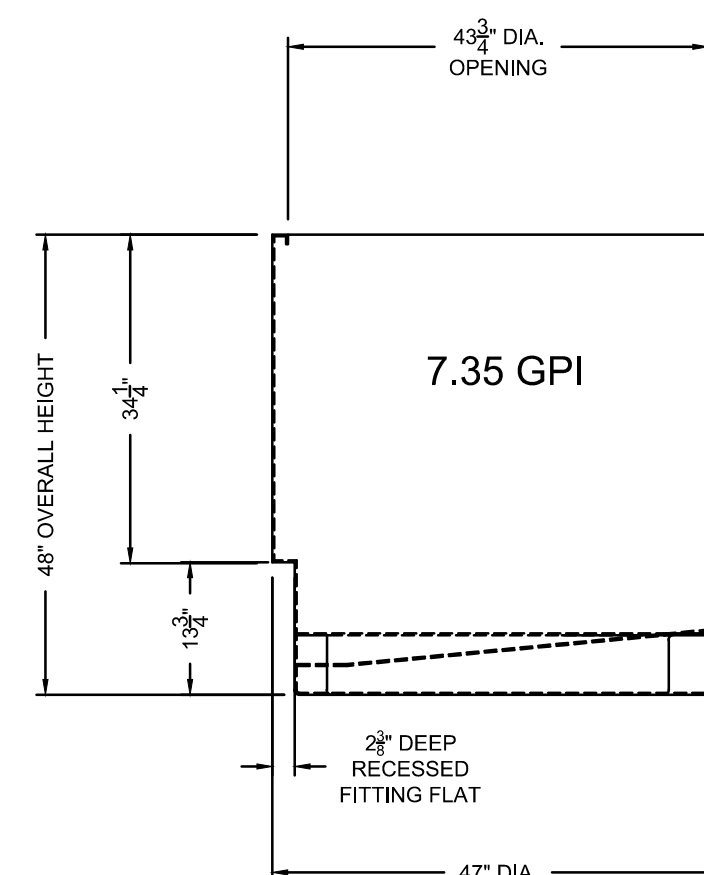
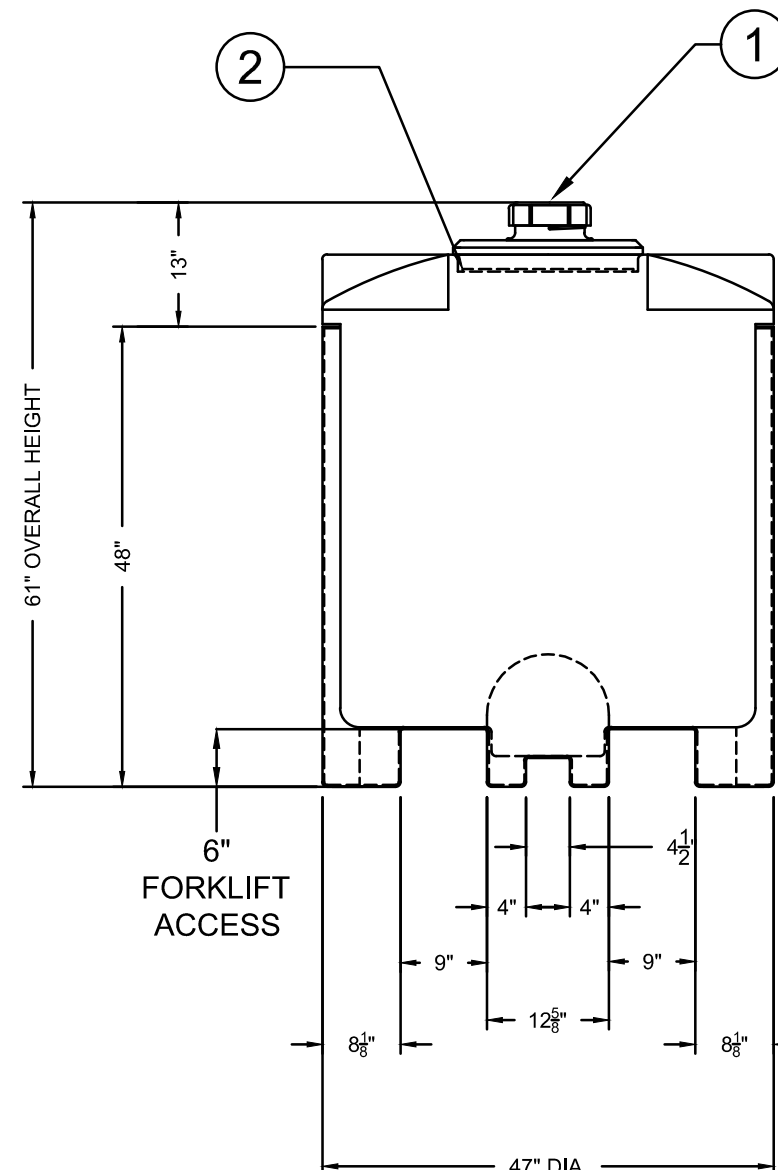
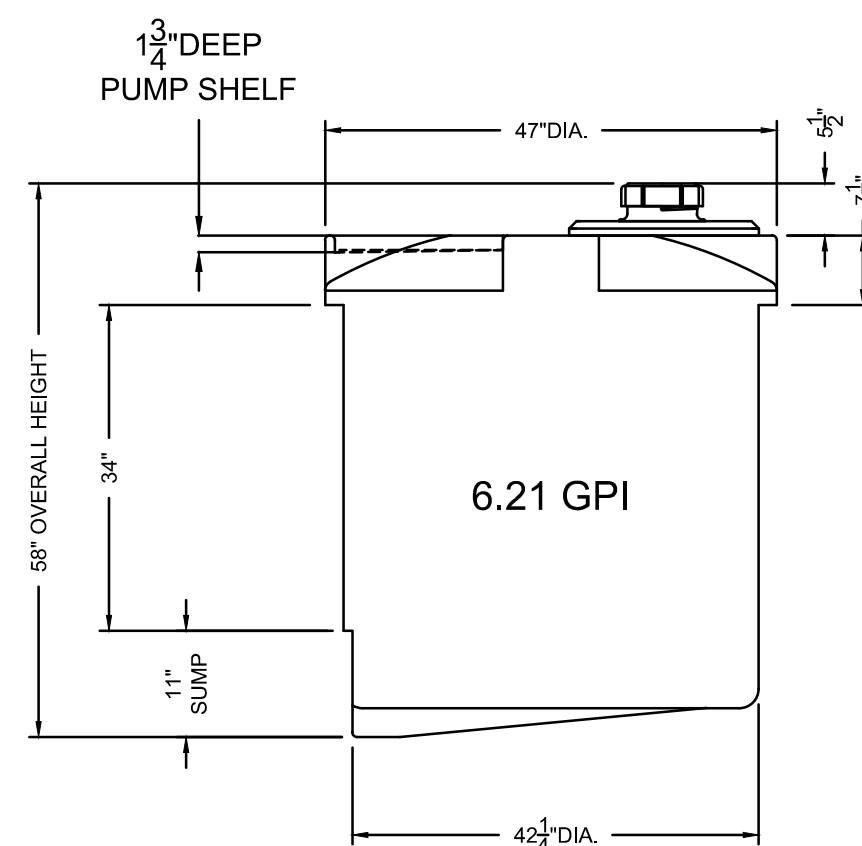
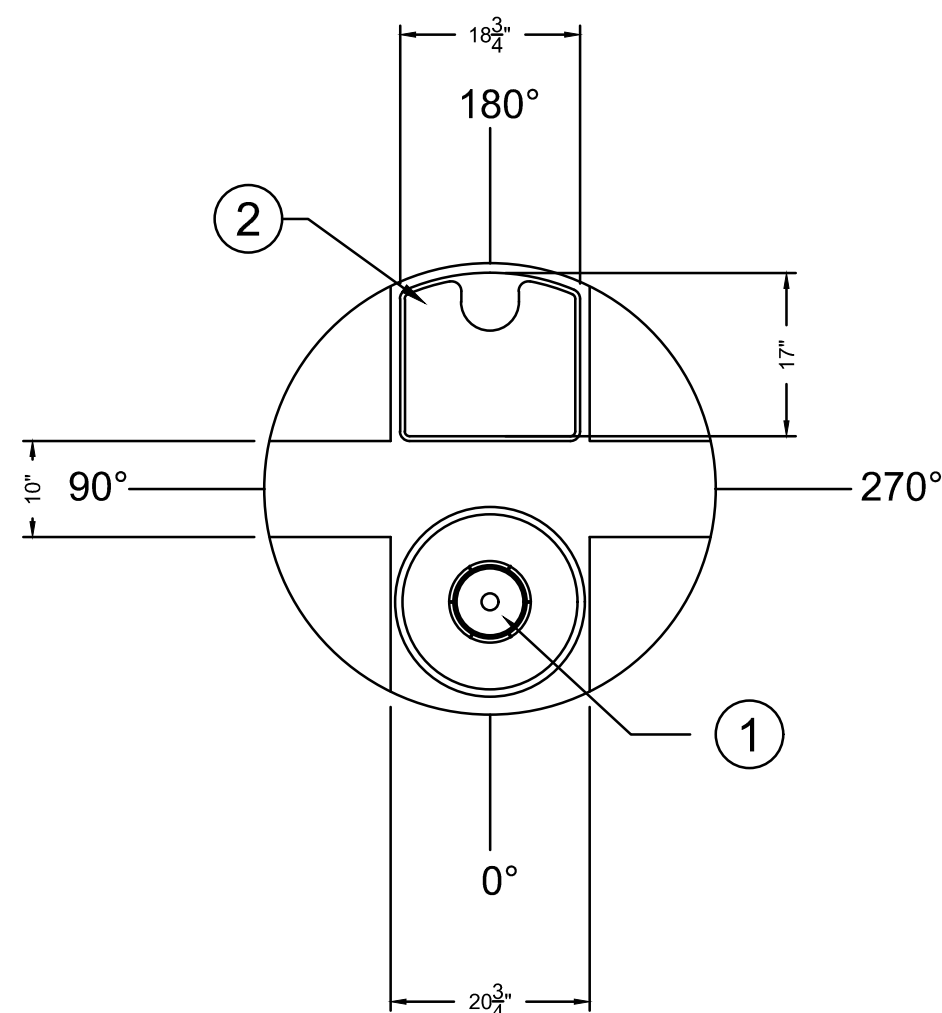
1. ALL DETAILS WERE OBTAINED FROM TRACOM AND SHALL BE USED AS REFERENCE ONLY.



The diagram illustrates a chemical process flow. It begins with a 'Chemical Inlet' at the bottom left, passing through valve V-1 and switch S-1. The flow then goes through valve U-1 and junction U-2. From U-2, the process splits into two main paths. One path goes through valve V-2 into a large vertical storage tank labeled 'CC-1'. The other path goes through valve U-3 to a pump 'P'. The pump 'P' is connected to a heat exchanger 'U-4', then to another heat exchanger 'U-5', and finally to a control valve 'CV-1'. After 'CV-1', the flow passes through a pressure detector 'PD-1' and valve V-3. The main process line continues through a pressure-reducing valve 'PRV-1' and valve U-6. This line then branches again: one branch goes through valve V-4 to a gas inlet 'G-1' and valve V-5, and another branch goes through valve V-6 to a 'Chemical Outlet' at the top right. The 'Chemical Outlet' line also passes through valve V-7, a backpressure valve 'BPV-1', and valve V-8. Other instruments include a flow transmitter 'FT' (labeled 'MS6') and a pressure switch 'PSH-1' (labeled 'PSH') connected to the main process line between 'PRV-1' and 'V-4'. A switch 'S-2' is also connected to the main process line between 'PD-1' and 'FT'.

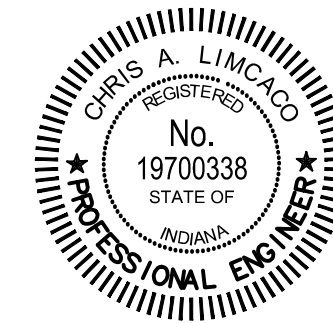
[illegible]

NOT TO SCALE



- 1 7" ACCESS W/ THREADED LID AND RIM
- 2 MOLDED IN PUMP SHELF
- 3 PRIMARY CALCULATED GALLONS PER INCH: 6.21 GPI
- 4 CALCULATED STRAIGHT SIDE CAPACITY: 250 GAL.
- 5 SECONDARY CALCULATED GALLONS PER INCH: 7.35 GPI
- 6 CALCULATED STRAIGHT SIDE CAPACITY: 336 GAL.

1. ALL DETAILS WERE OBTAINED FROM ASSMANN AND SHALL BE USED AS REFERENCE ONLY.



	05/29/2025
Signature	Date

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Designed By: CAL	Drawn By: SSE	Checked By: RMB
Issue Date: APR 2025	Project No: S25052	Scale: AS SHOWN

NEW CHEMICAL BUILDING EQUIPMENT DETAILS

Drawing No:
D3-02
Sheet: 27 OF 40

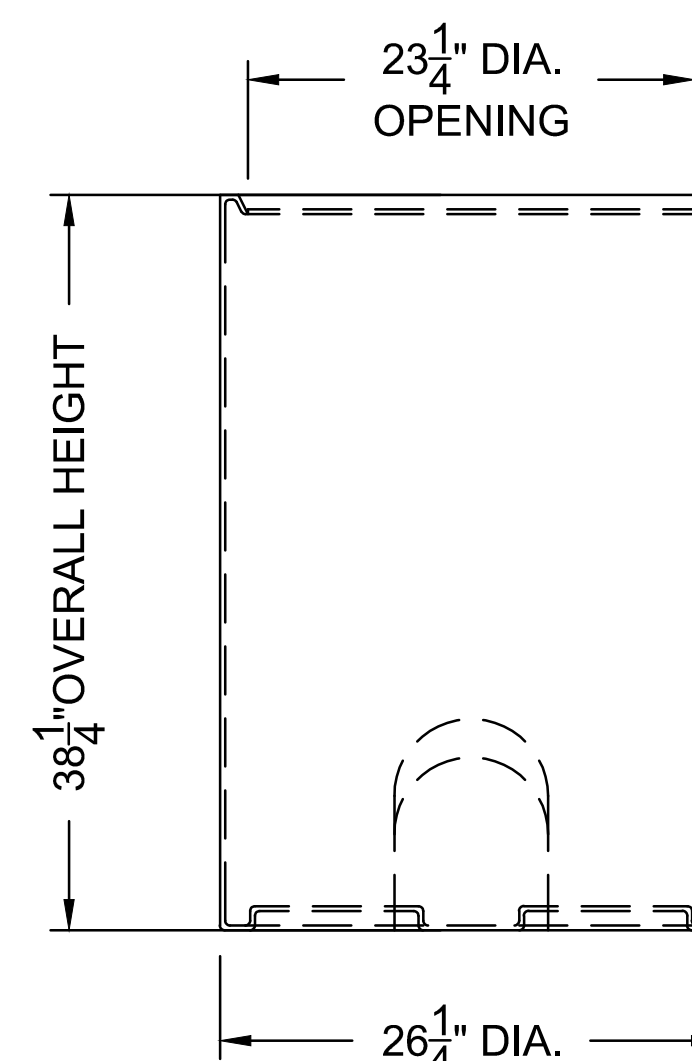
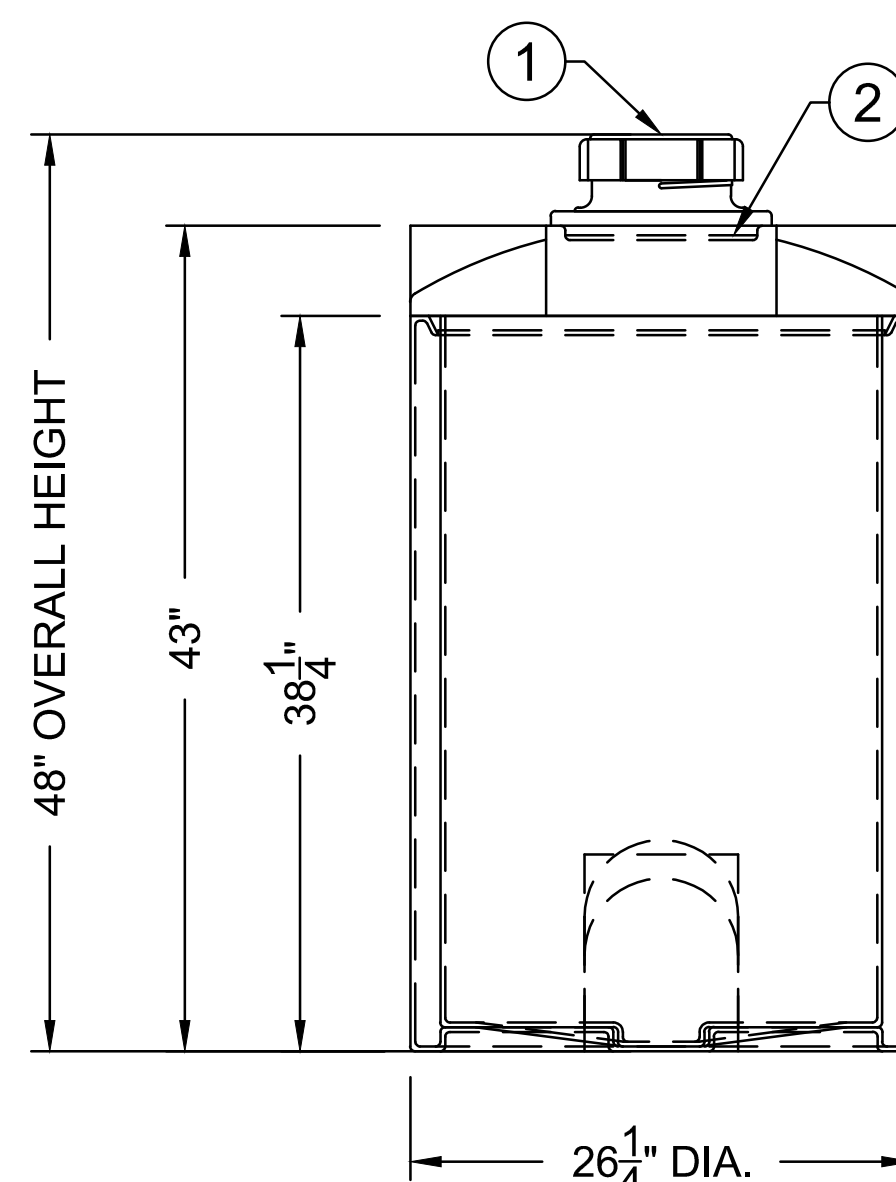
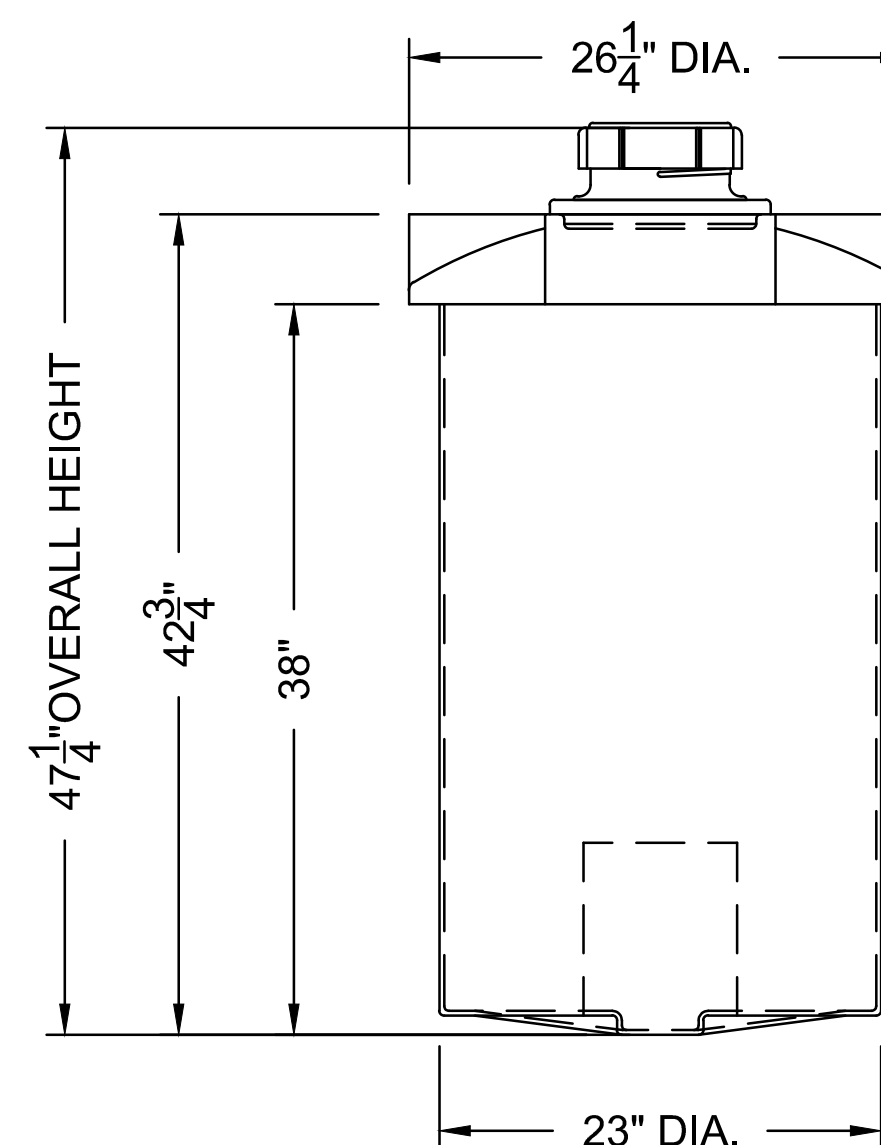
The diagram illustrates a chemical process flow. It begins with a 'Chemical Inlet' at the bottom left, passing through valve V-1 and switch S-1. The flow then goes through valve U-1 and valve U-2. A branch from this line goes through valve U-3 to a pump (P) and then through valve U-4 and U-5 to a storage tank (CC-1). The main line continues through a pressure-reducing valve (PRV-1) and valve U-6. From here, the flow splits into several paths: one through valve V-3 to a pressure detector (PD-1), another through valve V-4 to a flow transmitter (FT) labeled MS6, and a third through valve V-5 to a pressure switch (PSH-1). The flow from the pump (P) also goes through valve V-2 to the storage tank (CC-1). The output from the storage tank (CC-1) goes through valve V-7 and valve V-8 to a 'Chemical Outlet' at the top right. The diagram also shows a control valve (CV-1) and a switch (S-2) on the line between the pump and the storage tank.

Technical drawings of the 1000 Series 1000L and 1000S units. The left drawing shows the front view with dimensions A (width), B (depth), and C (height). The right drawing shows the side view with dimensions D (height) and E (width).

Dim	Inch	cm
A	14.75"	37.5
B	30.00"	76.2
C	48.00"	121.9

Dim	Inch	cm
D	46.63"	118.4
E	16.25"	41.3

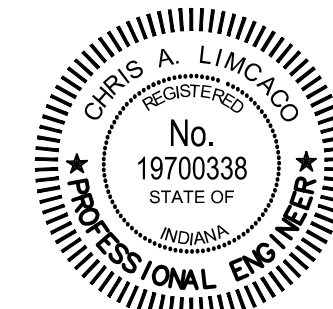
Technical drawing of a circular valve with four ports. The top port is labeled '2' and the bottom port is labeled '1'. Dimensions include a 10-inch width for the top port, a 12-inch width for the bottom port, and a 13 1/4 inch height for the right side. Angles of 180°, 90°, 270°, and 0° are indicated. A 6-inch dimension is shown on the left side.



- NOTES:
- 1 7" ACCESS W/ THREADED LID AND RIM
 - 2 MOLDED IN PUMP SHELF
 - 3 PRIMARY CALCULATED GALLONS PER INCH: 1.743 GPI
 - 4 CALCULATED STRAIGHT SIDE CAPACITY: 64,141 GAL.
 - 5 SECONDARY CALCULATED GALLONS PER INCH: 2.257 GPI
 - 6 CALCULATED STRAIGHT SIDE CAPACITY: 83,509 GAL.

SODIUM BISULFITE TANK DETAIL

1. ALL DETAILS WERE OBTAINED FROM ASSMANN AND SHALL BE USED AS REFERENCE ONLY.



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LAPORTE COUNTY, INDIANA

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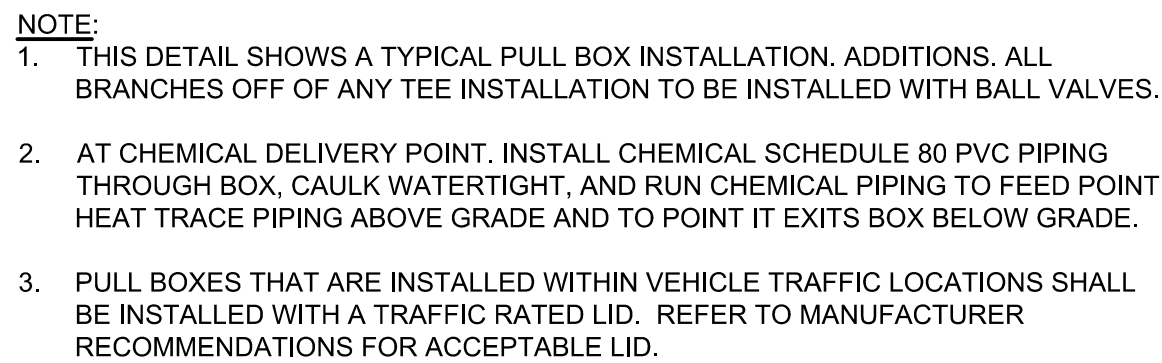
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[illegible]

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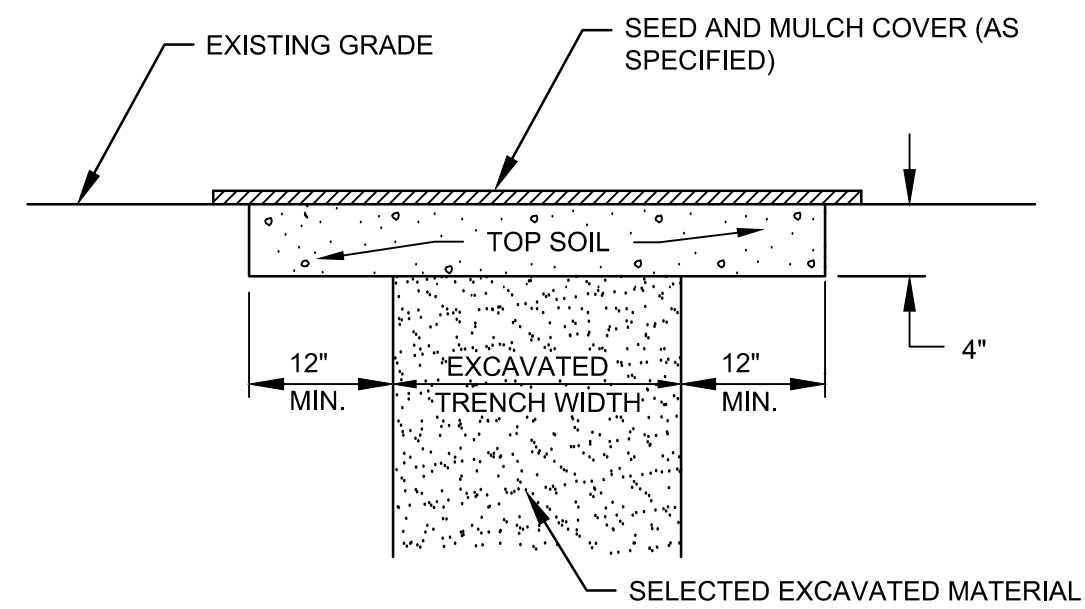
NEW CHEMICAL BUILDING EQUIPMENT DETAILS

Drawing No:
D3-03
Sheet: 28 OF 40



A cross-sectional diagram of a trench repair. The diagram shows a horizontal line representing the ground surface. Below this line, there is a layer of material labeled "8\" #53 COMPACTED AGGREGATE DRIVE". A section of this layer is labeled "EXISTING DRIVE". In the center, there is an "EXCAVATED TRENCH WIDTH" which is a rectangular pit. The width of this pit is indicated as "12\" MIN." on both sides. The pit is filled with a stippled pattern. To the right of the pit, there is a layer of "COMPACTED GRANULAR MATERIAL" which is shown as a cross-hatched pattern. This material is 8 inches thick, as indicated by a vertical dimension line and the label "8\"". An arrow points down into the trench, and another arrow points up from the granular material layer.

NO SCALE



NO SCALE

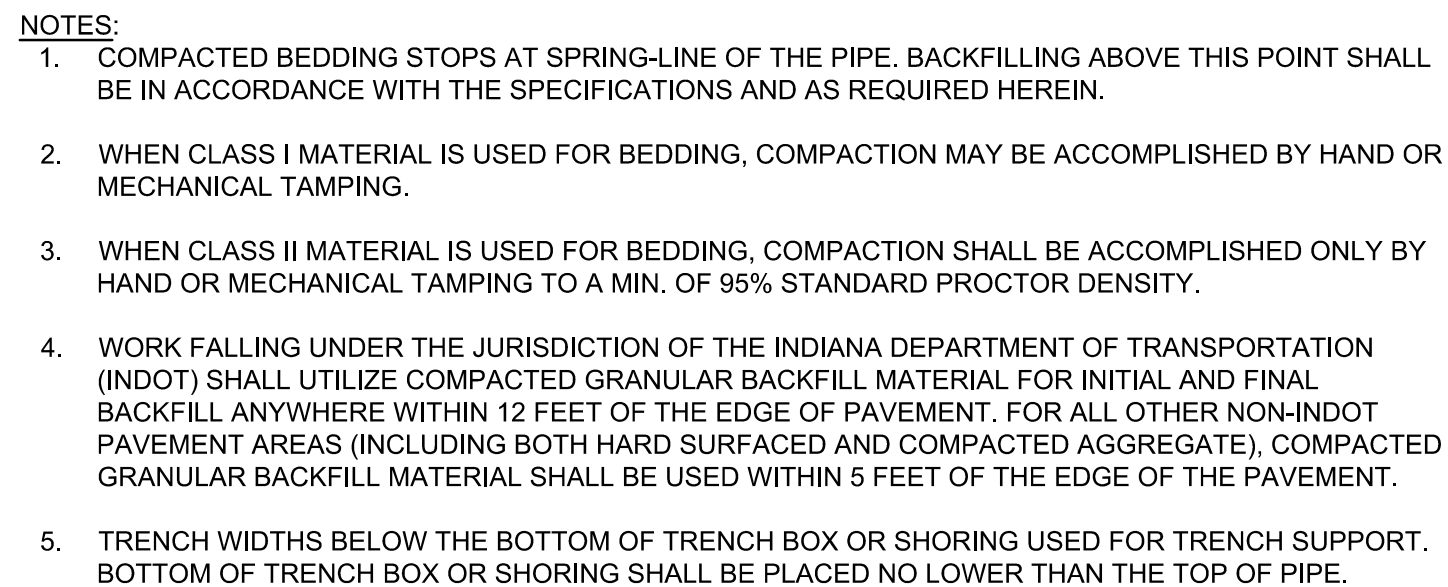


GENERAL NOTES:

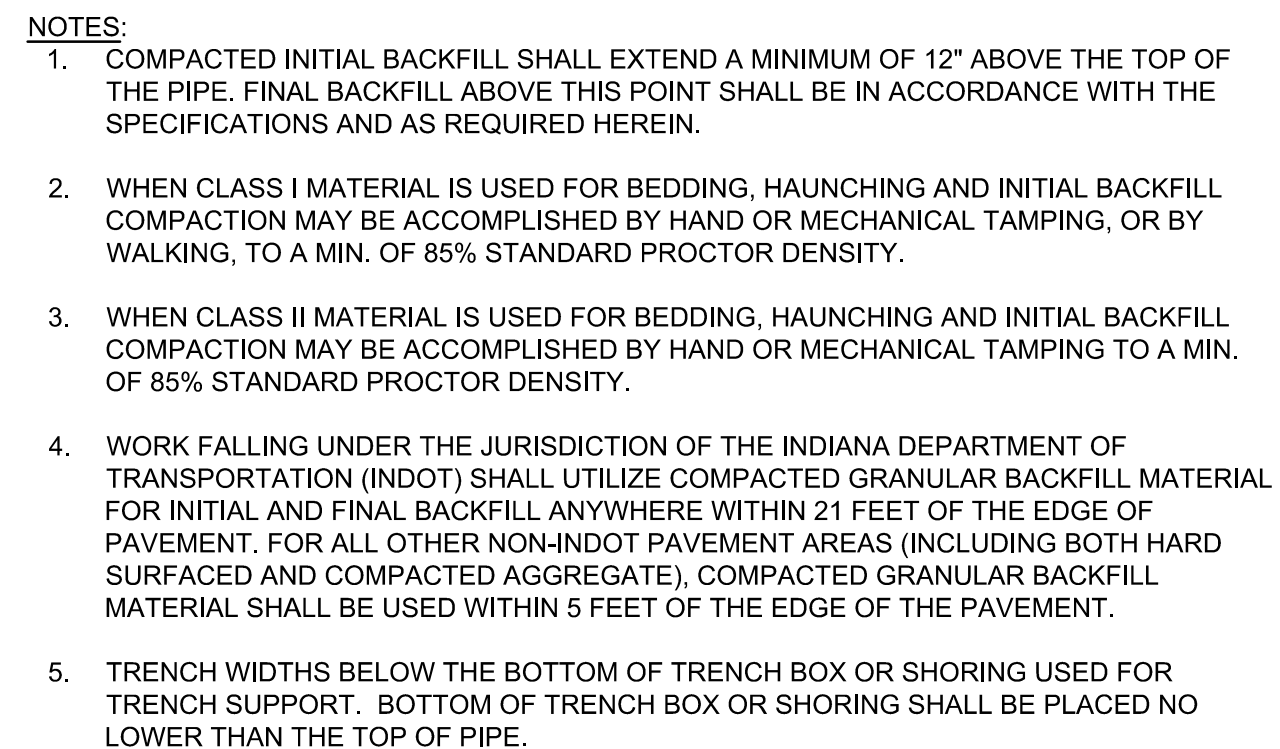
1. NEW "DOG-HOUSE" MANHOLE SHALL BE AS SPECIFIED FOR STANDARD MANHOLES IN WM-9 "STANDARD MANHOLES"
2. ALL REINFORCING SHALL MEET ASTM C-478
3. HOLES IN PRECAST UNITS SHALL BE 4" MIN. TO 8" MAX. LARGER THAN THE OUTSIDE DIAMETER OF THE PROPOSED PIPE

NO SCALE

- GENERAL NOTES:**
1. MANHOLE CONFORMS TO ASTM C-478
 2. NO BRICK OR BLOCK WILL BE ALLOWED IN MANHOLE
 3. O-RING GASKETED JOINT BETWEEN ALL RISER AND CONE SECTIONS PER ASTM C-443 PLUS 1/2" EXTRUDABLE GASKET (KENT SEAL OR EQUAL)



TRENCH DETAIL FOR RIGID CONDUITS



TRENCH DETAIL FOR FLEXIBLE CONDUITS

[illegible]

Designed By: CAL	Drawn By: SSE	Checked By: RMB
Issue Date: APR 2025	Project No: S25052	Scale: AS SHOWN

MISCELLANEOUS DETAILS

1. The structure has been designed for the in-service loads only. The methods, procedures, and sequences of construction are the responsibility of the Contractor. Supporting formwork for the concrete construction shall not be removed before the concrete has gained sufficient strength to safely support the dead and superimposed loads which will be subsequently applied. The Contractor shall take all necessary precautions to maintain and ensure the integrity of the structure at all stages of construction.
2. All work shall be performed in accordance with the Indiana Building Code, 2014 Edition (2012 International Building Code, first printing, with Indiana Amendments)
3. Do not determine dimensions by "scaling" off the plans. The Contractor shall accept all risk associated with "scaling" and shall be responsible for all inadequate work resulting therefrom. Questions regarding missing or conflicting dimensions shall be directed, in writing, to the Structural Engineer.
4. All work shall be performed without damage to adjacent retained work. Adequate protection of areas nearby work against dust, dirt and debris accumulation shall be maintained at all times.
5. Principal openings in the structure are indicated on the structural drawings. Refer to the architectural, mechanical, electrical, and plumbing drawings for sleeves, curbs, inserts, etc. not herein indicated. Openings in slabs with a maximum side dimension or diameter of 10 inches or less shall not require additional framing or reinforcement, unless noted otherwise. The location of sleeves or openings not shown in structural members shall be approved by the Structural Engineer.
6. The location of sleeves or openings not shown in structural members shall be approved by the Structural Engineer.

1. Exterior footings shall bear 3'-0" minimum below finish grade and shall bear on undisturbed soil.
2. Foundation excavation and all other soils related work shall be performed in accordance with the geotechnical engineering report prepared by SME (project number: 099564.00) dated May 14, 2025 and all associated supplements.
3. Foundation and soils related work shall be performed under the direct supervision of a qualified Geotechnical Engineer.
4. Foundation excavations shall be made to plan elevations. The soil conditions beneath foundations shall then be inspected by a qualified Geotechnical Engineer. If the underlying soils are found to be unacceptable, one of the following procedures shall be followed:
 - A. Remove the unacceptable soil and backfill with an engineered structural fill in accordance with the geotechnical engineering report or inspecting Geotechnical Engineer.
 - B. Lower the footing to an acceptable soil. Contact the Structural Engineer for potential modifications to the foundation system.
5. Subgrade structural elements subjected to differential lateral soil pressure shall be adequately braced until the structural elements which provide lateral restraint have been placed and allowed to cure for a minimum of 7 days.
6. Excavations for continuous footings and mat foundations shall be cleaned and hand tamped to a uniform surface. Foundation excavations shall be adequately protected against detrimental change in condition from disturbance, rain, freezing, etc. Surface runoff shall not be allowed to enter the excavation.
7. Foundation conditions noted during construction, which differ from those described in the geotechnical report shall be reported to the Structural Engineer and Geotechnical Engineer before further construction is attempted.

3. Reinforced concrete has been designed in accordance with the latest edition of the Building Code Requirements for Reinforced Concrete (ACI 318) and Environmental Engineering Concrete Structures (ACI 350R) by the American Concrete Institute (ACI).
4. Slabs-on-grade shall be constructed in accordance with the latest edition of the Guide for Concrete Floor and Slab Construction (ACI 302.1R).
5. Mixing, transporting, and placing of concrete shall conform to the latest edition of the Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete (ACI 211.1) and the Standard Specifications for Structural Concrete (ACI 301). The special provisions of ACI 211.1 Appendix 5 (Mass Concrete Mix Proportioning) shall be used in proportioning the concrete mixture for the mat foundation to control temperature rise during hydration. In addition, the provisions of ACI 207.1R (Mass Concrete) shall apply. Concrete curing shall conform to the latest editions of the Standard Practice for Concrete Curing (ACI 308) and the Standard Specification for Curing Concrete (ACI 308.1). In case of a discrepancy, the plans and specifications shall govern.
6. Unless noted otherwise, concrete shall have natural sand fine aggregate and normal weight coarse aggregates conforming to ASTM C33, and Type I or III Portland Cement conforming to ASTM C150. Type III Portland Cement shall not be used in mass concrete. The Contractor shall submit a mix design for each proposed class of concrete. Mix designs shall indicate proportions by weight, water-cement ratio, slump, air content, synthetic fiber size and quantity, coarse aggregates and coarse aggregates, standard deviation analysis, and required average strength and documentation of average strength verifying compliance with ACI 318. The Contractor shall not vary from the mix design without approval from the Structural Engineer.
7. Unless noted otherwise, fly ash may be used as a pozzolan to replace a portion of the Portland Cement in a concrete mix. Fly ash, when used, shall conform to ASTM C618, Type C (except in mass concrete, ASTM C618, Type F shall be used). Concrete mixes using fly ash shall be proportioned to account for the properties of the specific fly ash used and to account for the specific properties of the fly ash concrete thus resulting. The ratio of the amount of the fly ash to the total amount of fly ash plus cement in the mix shall not exceed 25 percent.
8. Water-reducing admixtures conforming to ASTM C494 may be used in the concrete mix design. Maximum slump shall be 5 inches for mixes containing water-reducing admixtures and 5 to 8 inches for mixes containing high range water-reducing admixtures.
9. Concrete compressive strength tests shall be performed in accordance with ASTM C39. Copies of the test results shall be forwarded to the Structural Engineer. One set of specimens shall be taken for each day's pour of appreciable size and for each 50 cubic yards in accordance with the latest edition of ASTM C31. Each set shall include one specimen tested at 7 days, 2 specimens tested at 28 days and one specimen retained in reserve.
10. When the ambient temperature is expected to fall below 40 degrees during the course of a concrete pour or subsequent curing period, it shall be placed and cured in accordance with the latest edition of Cold Weather Concreting (ACI 306R) and an additional set of concrete test cylinders shall be made. These cylinders shall be stored immediately adjacent to and under the same conditions as the building concrete. Special curing boxes are not permitted for these test cylinders.
11. Concrete mixed, transported, placed, and cured under conditions of high ambient temperature, low humidity, solar radiation, or high winds shall conform to the latest edition of Hot Weather Concreting (ACI 305R) and an additional set of concrete test cylinders shall be made. These cylinders shall be stored immediately adjacent to, and cured under the same conditions as the building concrete. Special curing boxes are not permitted for these test cylinders.
12. Slump tests shall be made prior to and following the addition of plasticizers. Where concrete is placed by pumping methods, concrete for test cylinders and slump tests shall be taken at the point of final placement.
13. Water shall not be added to the concrete at the job site. The Contractor is responsible for coordinating a pumpable and workable mix without the addition of water at the job site. The use of plasticizers, retardants and other additives shall be at the option of the Contractor subject to the approval of the Structural Engineer. Follow the recommendations of the manufacturer for the proper use of additives. Use of calcium chloride or other chloride bearing salts is prohibited.
14. Place concrete in a manner so as to prevent segregation of the mix. Delay floating and trowelling operations until the concrete has lost surface water sheen or all free water. Do not sprinkle free cement on the slab surface. Finishing of slab surfaces shall conform to the latest editions of ACI 302.1R and ACI 304R (Guide for Measuring, Mixing, Transporting and Placing Concrete).
15. Where an epoxy adhesive is specified for bonding plastic concrete to hardened concrete, it shall conform to the latest edition of the Standard Specification for Bonding Plastic Concrete to Hardened Concrete with a Multi-Component Epoxy Adhesive (ACI 503.2).

14. Maintain concrete in a moist condition for at least 5 days at ambient temperatures above 70 degrees, and at least 7 days at ambient temperatures above 50 degrees. Curing compounds or moisture retention covers shall be used for all non-formed surfaces. Formed surfaces shall be cured by leaving forms in place. During hot, dry weather, keep forms moist by sprinkling. When forms are removed prior to the end of the curing period, apply curing compound to the exposed surfaces.
15. All interior slabs shall receive a hard "troweled finish". Exterior slabs, sidewalks, and stoops shall receive a "broom (or other type of slip resistant) finish". All formed surfaces not exposed to public view shall receive a "rough form finish", exposed surfaces shall receive a "smooth form finish". Concrete finishes shall be as defined in ACI 301.
16. Protect finished concrete surfaces from damage, rain, hail, running water, other injurious effects.
17. Protect the concrete surface between finishing operations on hot, dry days or any time plastic shrinkage cracks could develop by using wet burlap, plastic membranes or fogging.
18. Horizontal and vertical joints are not permitted in concrete construction except where indicated.
19. Construction joints and/or contraction joints at locations other than where indicated shall be submitted to the Structural Engineer for approval.
20. Construction joints shall be prepared by roughening the contact surface in an approved manner to a full amplitude of approximately 1/4 inch leaving the contact surface clean and free of laitance.
21. Control joints shall be made in concrete slabs-on-grade at major column centerlines, at points of discontinuity, at reentrant corners, and at other locations shown on the plans.
22. Provide 3/4 inch chamfers on all exposed corners of concrete except those abutting masonry.
23. The Contractor shall verify the location of sleeves, openings, embedded items, etc. and shall ensure that they are in place prior to the placement of the concrete.
24. Earth cuts shall not be used as forms ("bank forming") for vertical or sloping surfaces unless otherwise approved by the Structural Engineer. Where bank forming is permitted, the concrete element shall be increased at least 3 inches on all sides exposed to earth to account for possible soil contamination during concrete placement.
25. Unless noted otherwise, concrete slab on grade shall have minimum values of flatness, F(F) 30 and levelness F(L) 20, with minimum local values of flatness, F(F) 24 and levelness, F(L) 15.

CONCRETE SCHEDULE						
CLASS	f'_c	AIR CONTENT	MIN. CEMENT: LB/CY (SACKS/CY)	MAX. WATER/ CEMENT: RATIO	CONCRETE PLACEMENT	REMARKS
A	4,500 psi	6% ± 1.5%	611 (6.5)	0.45	Chlorine contact tank	crystalline waterproofing admixture
B	4,500 psi	6% ± 1.5%	611 (6.5)	0.40	exterior slabs-on-grade, stairs, curbs, & sidewalks exposed to de-icers	synthetic fibers (1.5 lbs/cys)

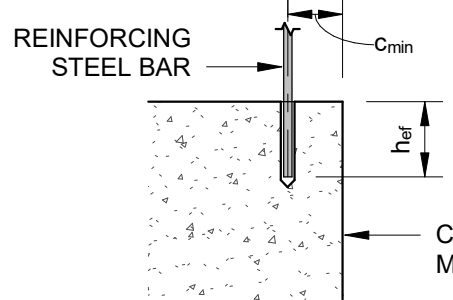
1. Reinforcing bar detailing, fabricating, and placing shall conform to the latest edition of the following standards: Specifications for Structural Concrete for Buildings (ACI 301), ACI Detailing Manual (SP66). The latest editions of Concrete Reinforcing Steel Institute's Reinforcing Bar Detailing and Placing Reinforcing Bars may also be used.
2. Provide standard bar chairs, slab bolsters, spacers, etc. as required to maintain concrete protection specified. Reinforcing steel shall be tied to prevent displacement during concrete placement.
3. Reinforcement bars shall not be tack welded, welded, heated or cut unless otherwise indicated or approved by the Structural Engineer.
4. Welding of reinforcement bars, when approved by the Structural Engineer, shall conform to the latest edition of American Welding Society Standard D1.4. Electrodes for shop and field welding of reinforcement bars shall conform to ASTM A233, Class E90XX.
5. Unless noted otherwise, synthetic fibers shall be used for temperature and shrinkage reinforcement in concrete slab-on-grade. Synthetic fibers shall be virgin (non-recycled) nylon or polypropylene fibers conforming to ASTM C1116, Type III. Fibers shall be introduced into the mix at the plant in accordance with the manufacturer's recommendations. The Contractor shall submit the mix design, including the fiber size and quantity, to the Structural Engineer for approval prior to construction. The Contractor shall take adequate measures to manage any difficulty in concrete finishing associated with the use of the fibers.
6. Concrete cover over reinforcement, unless otherwise noted, shall be as specified in the latest editions of ACI 318 and ACI 350 with the most stringent requirements governing.
7. Unless noted otherwise, splicing of reinforcing bars shall conform to the latest edition of ACI 318.

CONCRETE REINFORCING STEEL LAP SPLICE SCHEDULE			
BAR SIZE	TENSION SPLICE		COMPRESSION SPLICE
	TOP BAR	OTHER	
#3	21"	16"	12"
#4	28"	24"	15"
#5	35"	30"	19"
#6	42"	36"	23"
#7	49"	42"	26"
#8	56"	48"	30"
#9	63"	57"	34"
#10	76"	66"	38"
#11	93"	72"	42"

8. Horizontal bars in walls, and continuous wall footings shall be bent at corners and intersections in such a way that continuity is provided through the joint. Separate corner bars of the same size and spacing as the horizontal reinforcing may be substituted for the bent portion of the continuous bars.
9. Unless noted otherwise, provide 2-#5 bars (one each face) around unframed openings and diagonally at reentrant corners of vertical height offsets in concrete walls. Place bars parallel to the sides of the opening and extend 24 inches beyond corners.
10. Unless noted otherwise, splicing of reinforcing shall conform to the latest edition of ACI 318. Where the length of the lap is not indicated, provide a class "B" lap at tension splices or box bar diameter at compression splices. If splice type is not defined as tension or compression, provide.
11. The Contractor shall prepare detailed working or shop drawings to enable him to fabricate, erect and construct all parts of the work in accordance with the drawings and specifications and shall submit one reproducible copy and one blue line copy to the Structural Engineer for review prior to fabrication. These shop drawings will be reviewed for design concepts only. The Contractor shall be responsible for all dimensions, accuracy, and fit of work.

1. Post-installed anchors shall only be used where specified on the Construction Documents. The Contractor shall obtain approval from the Structural Engineer prior to installing the post-installed anchors in place of missing or misplaced cast-in-placed anchors.
2. Care shall be taken in placing post-installed anchors to avoid conflicts with existing reinforcing steel.
3. Post-installed anchors shall be installed by qualified personnel in accordance with the drawings and specifications.
4. Post-installed anchors shall be installed by qualified personnel in accordance with the Manufacturer's Printed Installation Instructions (MPII), the drawings and specifications. Installation of adhesive anchors shall be performed by personnel trained to install adhesive anchors. Contractor shall submit installer training cards with anchor package.
5. Post-installed anchors shall be HILTI type as manufactured by HILTI Fastening Systems or approved equivalent. Substitution requests must be submitted by the Contractor to the Structural Engineer for review. Provide back-up technical data that demonstrates that the substituted product is capable of achieving the equivalent performance values (minimum) of the specified products using the appropriate design procedure and/or standard(s) as required by the building code.
6. Masonry cores receiving post-installed anchors shall be filled with course grout. Grout must comply with IBC Section 2103.12 or IRC Section R609.1.1, as applicable. Alternatively, the grout must have a minimum compressive strength, when tested in accordance with ASTM C1019, equal to its specified strength, but not less than 2,000 psi. Post-installed anchors shall not be installed in a masonry mortar joint.
7. The Contractor shall inspect the masonry or concrete surface at each proposed post-installed anchor location prior to installation. If the anchor locations align with mortar joints or the masonry or concrete is honeycombed, cracked or otherwise unsound, the post-installed anchors shall be repositioned so as to be located in sound material and be in accordance with the manufacturer's minimum spacing and edge distance requirements.
8. Adhesive anchors shall be subject to the following additional requirements:
 - A. Anchors shall meet the requirements of ACI 355.2 (mechanical anchors) and ACI 355.4 (adhesive anchors).
 - B. Proof loading of adhesive anchors is not required.
 - C. Anchors shall not be installed in concrete cured less than 21-days
 - D. Anchors shall not be installed until the concrete has reached a minimum compressive strength of 2,500 psi.
 - E. Concrete temperature must be greater than 50 °F and less than 80 °F prior to installation of the anchors unless otherwise permitted by the MPII.
 - F. Anchors shall be installed in holes drilled with the HILTI Hollow Drill Bit (TE-CD (SDS Plus) or TE-YD (SDS Max)) and HILTI VC 20/40 Vacuum (WC 20-U or VC 40-U). Follow the MPII for size and depth of holes required.
 - G. The acceptability of certification other than the ACI/CRSI Adhesive Anchor Installer Certification shall be the responsibility of the Structural Engineer.
 - H. Adhesive anchors installed in horizontal or upwardly inclined orientations to resist sustained tension loads shall be continuously inspected during installation by an inspector specially approved for that purpose by the building official. The special inspector shall furnish a report to the licensed design professional and building official that the work covered by the report has been performed and that the materials used and the installation procedures used conform to the approved contract documents and MPII.

REINFORCING STEEL EPOXY DOWEL SCHEDULE						
BAR SIZE	#3	#4	#5	#6	#7	#8
STANDED EFFECTIVE EMBED, h_{ef}	3-3/8"	4-1/2"	5-5/8"	6-3/4"	7-7/8"	9"
MINIMUM EDGE DISTANCE, c_{min}	2"	2-1/2"	3-1/8"	3-3/4"	4-3/8"	5"



1. EPOXY DOWELS SHALL UTILIZE HILTI HIT-HY 200 ADHESIVE SYSTEM OR APPROVED EQUIVALENT.
2. STANDARD EMBED DEPTH AND MIN EDGE DISTANCES PROVIDED IN THIS SCHEDULE APPLY AT ALL LOCATIONS UNLESS OTHERWISE NOTED ON SECTIONS AND DETAILS.

1. Grout shall be a high early strength, non-metallic, shrinkage resistant (when tested in accordance with the latest edition of ASTM C827 or CRD-C621), premixed, non-corrosive, non-staining product conforming to the requirements of the latest edition of ASTM C1107 and containing Portland Cement, silica sands, shrinkage compensating agents and fluidity improving compounds.
2. Grout compressive strength tests shall be performed in accordance with the latest edition of ASTM C109, with a restraining plate placed over the molds.
3. Grout shall be installed in accordance with the manufacturer's instructions.
4. Grout shall be placed in a non-sag flowable state and shall have forms built around it for confinement. Grout shall be cured according to manufacturer's recommendations.

1. The Contractor shall coordinate and check all dimensions relating to architectural finishes, structural framing, mechanical openings, equipment, etc. The Structural Engineer shall be notified of any discrepancies before proceeding with work in an area under question.

1.	Building Code: Indiana Building Code, 2014 Edition (2012 International Building Code, first printing, with Indiana Amendments).	
2.	Soil information:	
	Allowable net bearing pressure:	
	Chlorine Contact Tank	2500 psf
	Chemical Feed Building	1500 psf
	Unit weight of soil	115 pcf
	Soil Subgrade modulus, Ks	150 pci
	Equivalent fluid pressure on tank walls	95 psf / ft
	Equivalent surcharge uniform pressure coefficient	0.50
	Coefficient of friction between soil and concrete footing	0.30 (assumed)
3.	Concrete:	
	28 day compressive strength (f'c)	See Schedule
4.	Reinforcing steel (deformed bars of new billet steel):	
	Stirrups and tie	ASTM A615, Grade 60
	Weldable (Low-Alloy)	ASTM A706, Grade 60
	Otherwise	ASTM A615, Grade 60
	Welded wire fabric (smooth)	ASTM A185
5.	Non-shrink grout:	
	28 day compressive strength	5,000 psi
6.	Risk Category	III
7.	Dead Loads	
	Self Weight of structure	As required
	Special Equipment Weight	As required
8.	Seismic loads:	
	Importance factor, I _E	1.25
	Mapped MCE Seismic Spectral Response Acceleration at Short Periods, S _s	11.3% g
	Mapped MCE Seismic Spectral Response Acceleration at 1 Second, S ₁	6.4% g
	Site Class	D
	Design Seismic Spectral Response Acceleration at Short Periods, S _{0S}	12.1% g
	Design Seismic Spectral Response Acceleration at 1 Second, S ₀₁	10.3% g
	Seismic Design Category	B



TOWN OF LACROSSE LAPORTE,
INDIANA

WASTEWATER UTILITY IMPROVEMENTS PROJECT

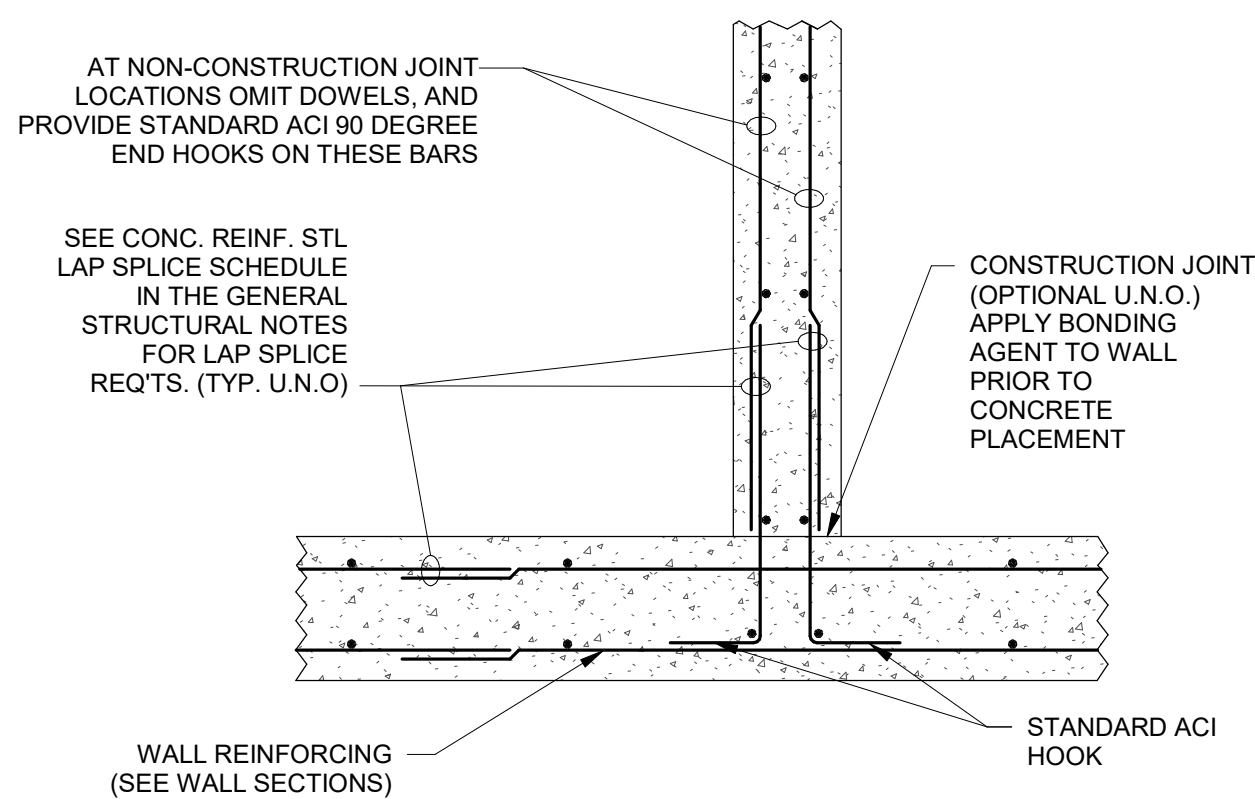
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GENERAL STRUCTURAL NOTES

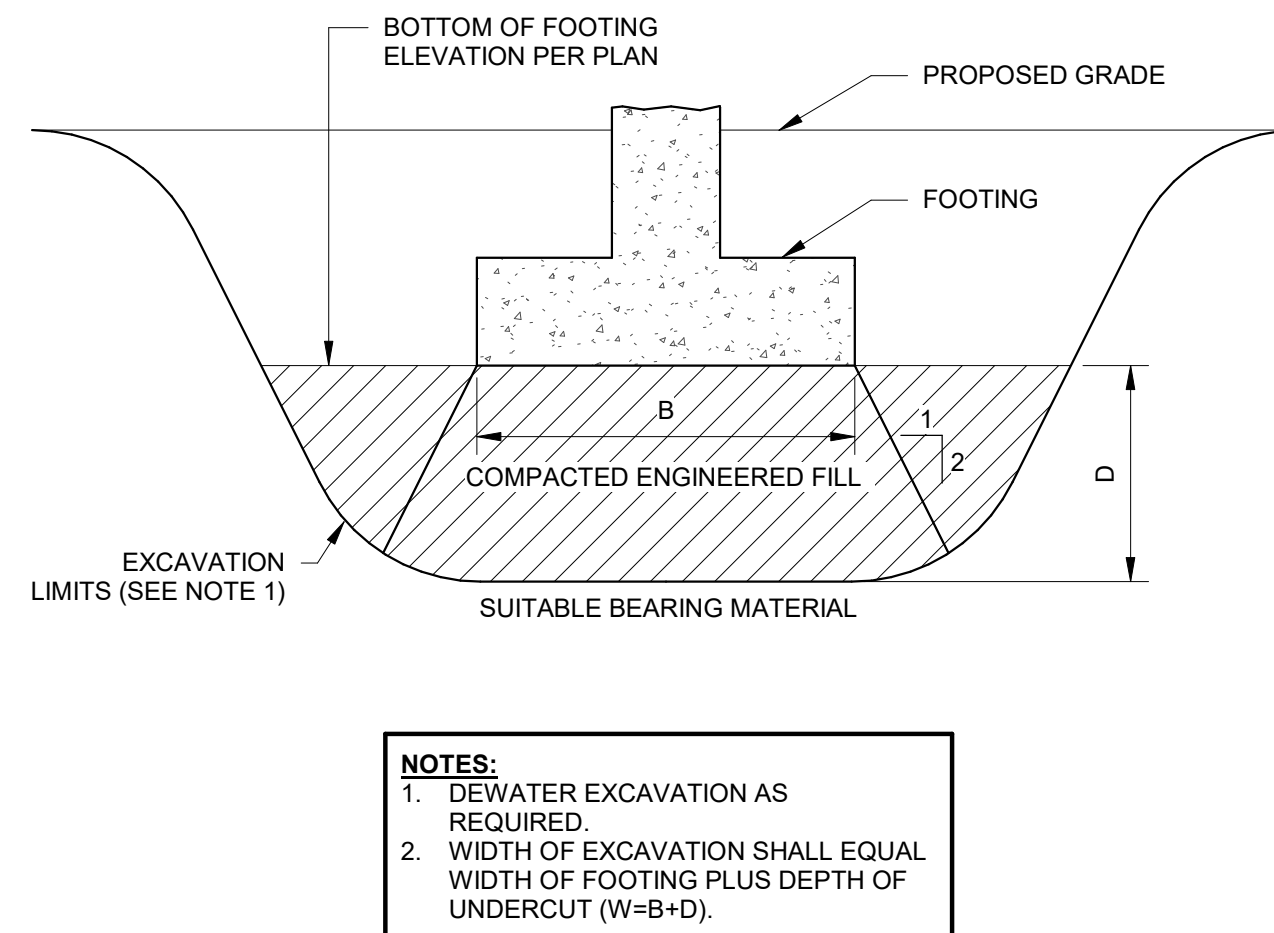
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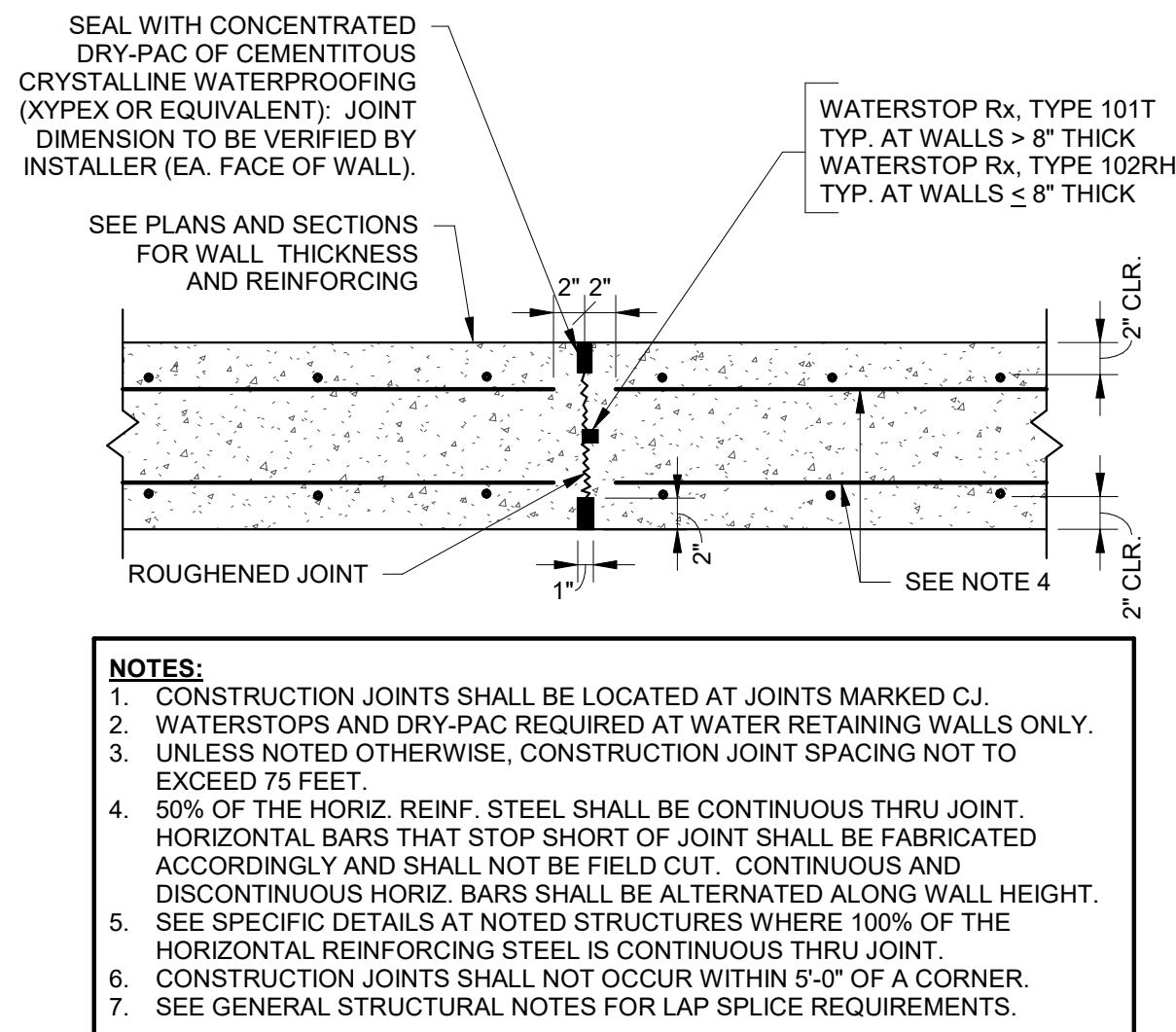
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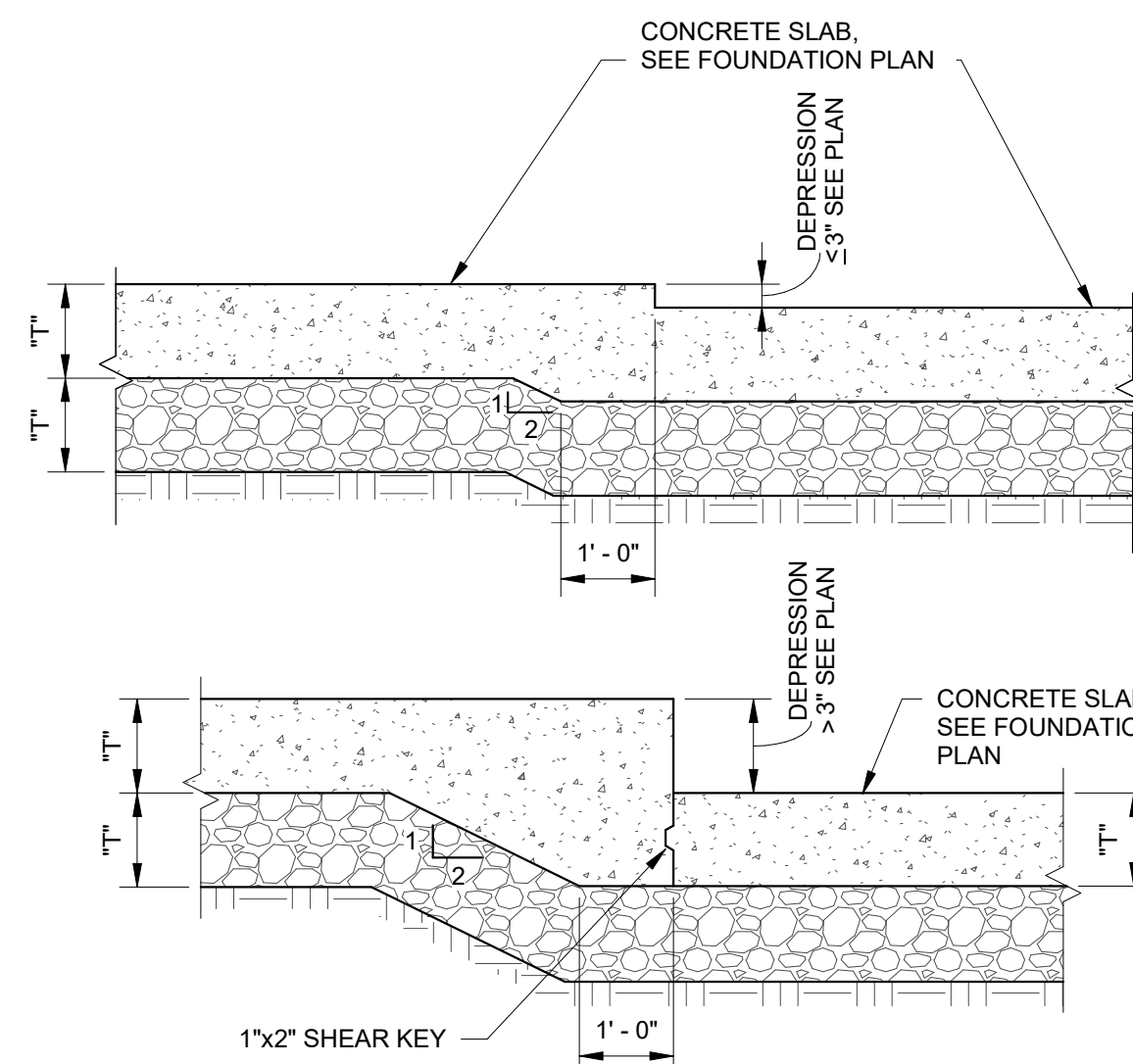
WALL REINFORCING - PLAN VIEW
(BOTH FACES)



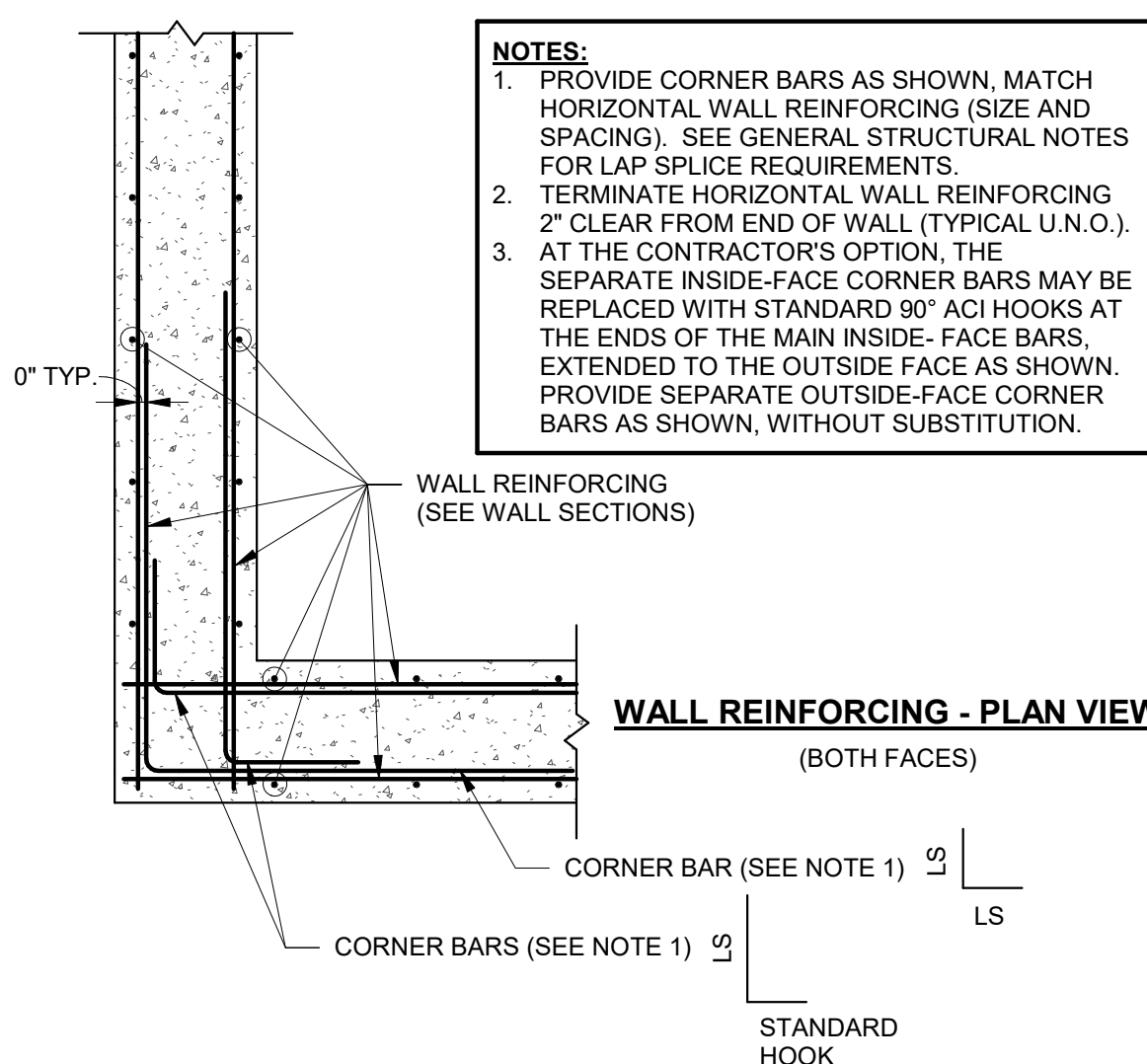
TYP. FOOTING IN UNDERCUT AREA



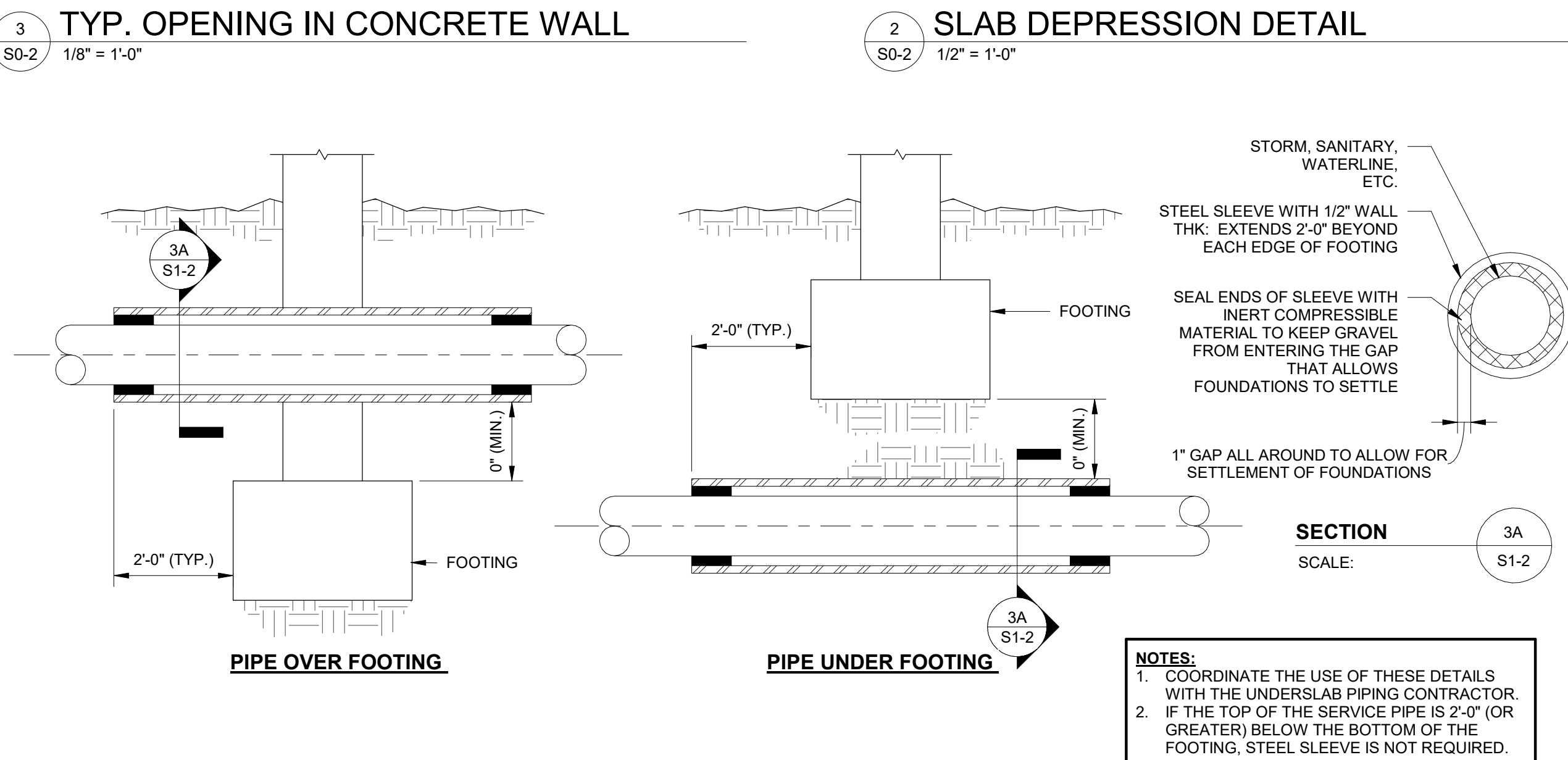
TYP. WALL CONSTRUCTION JOINT



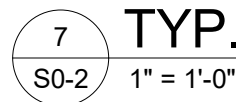
SLAB DEPRESSION DETAIL

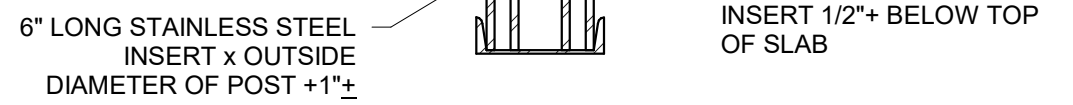


TYPICAL CONCRETE WALL CORNER REINFORCEMENT - PLAN VIEW

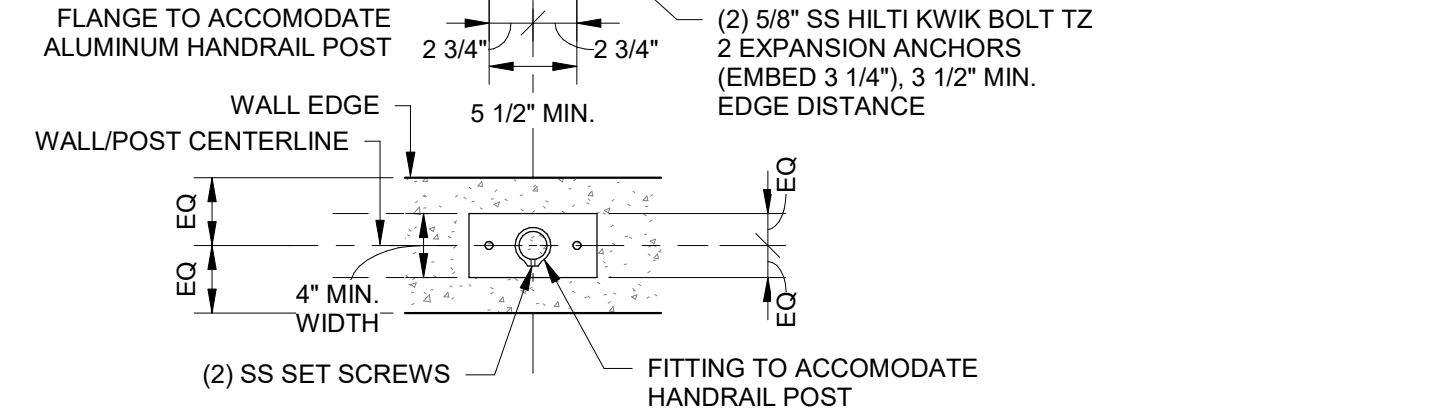


TYP. UNDERGROUND SERVICE PIPE DETAIL AT WALL FOUNDATION





1
S0-3



2 HANDRAIL SECTION - CONC. ATTACHMENT
S0-3 1" = 1'-0"



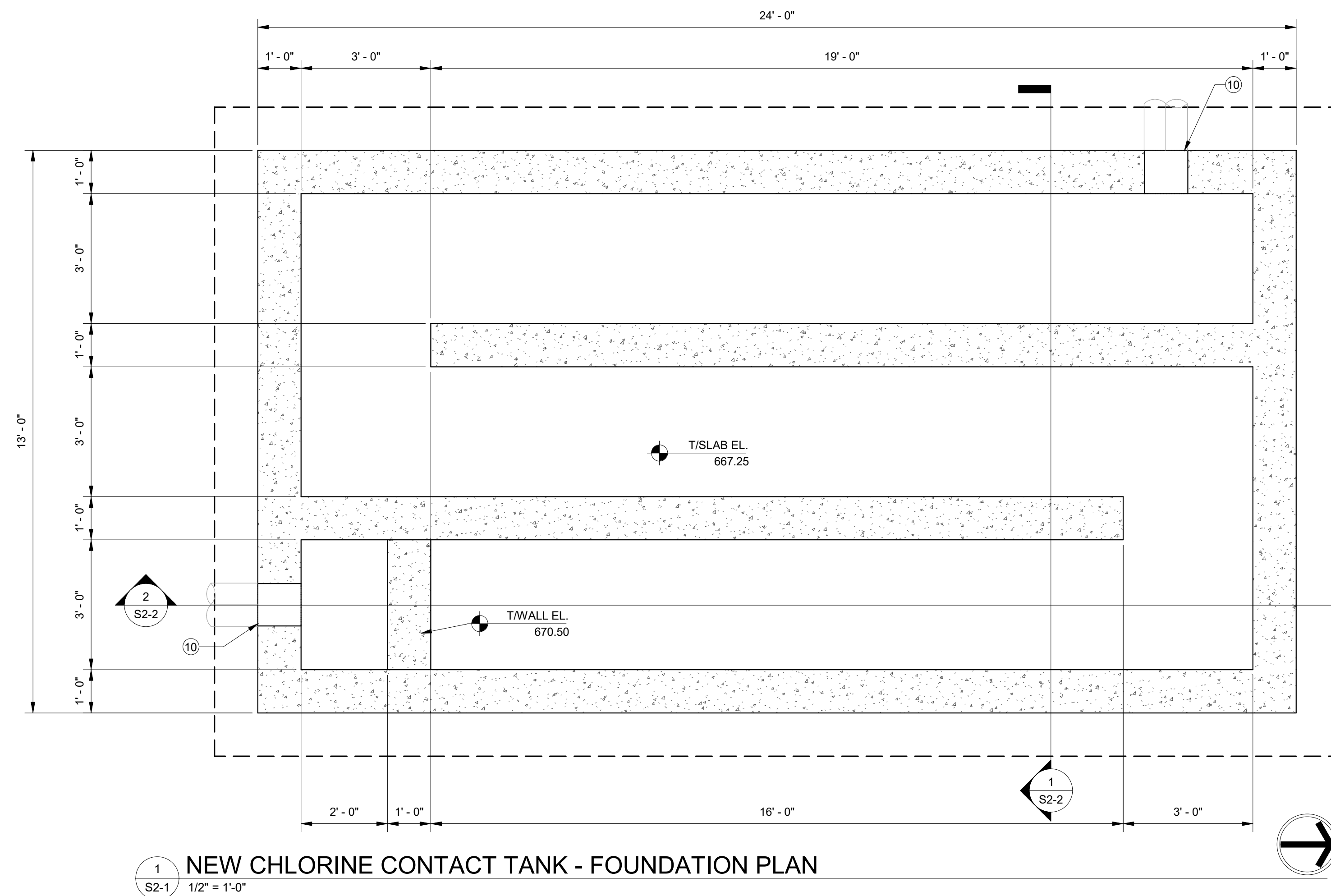
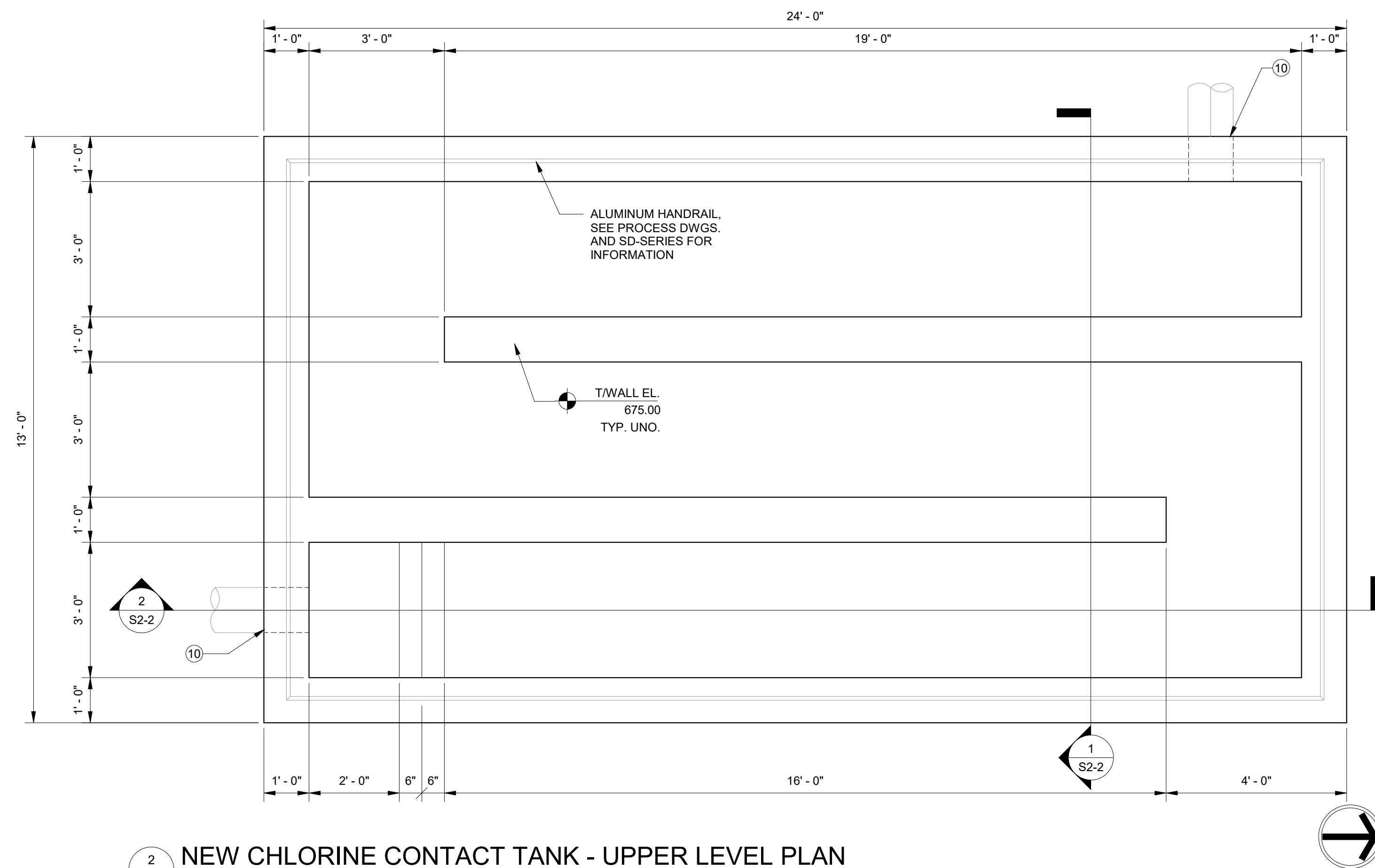
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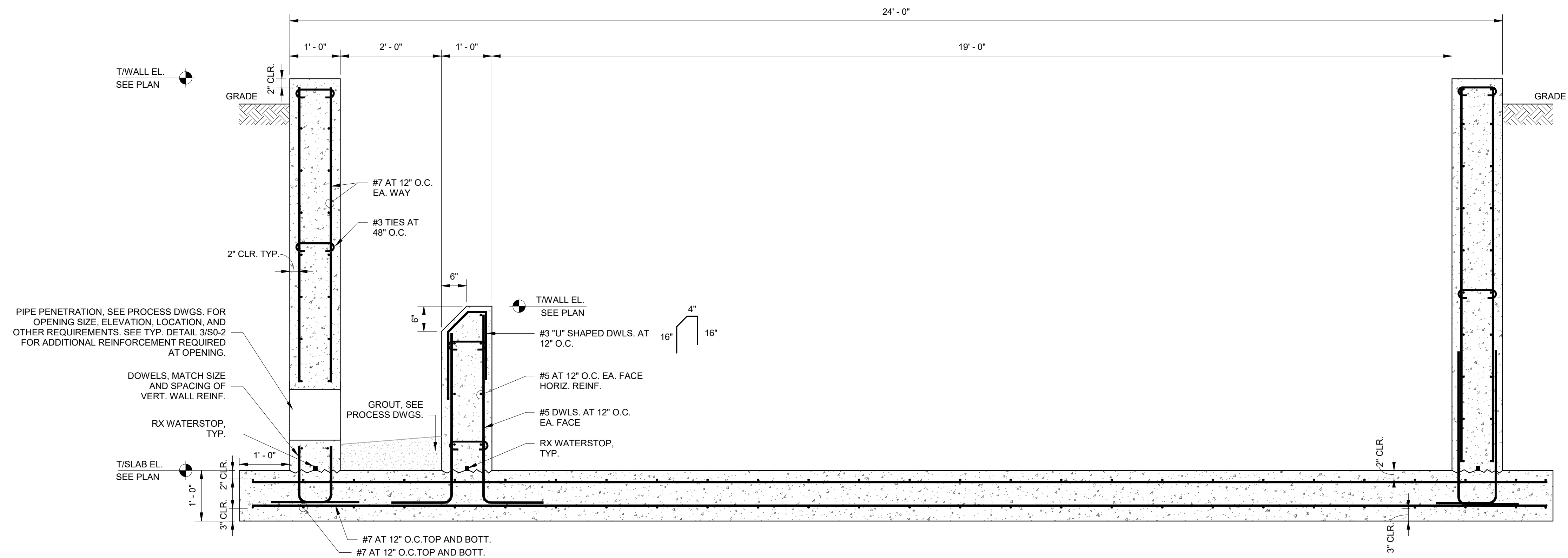
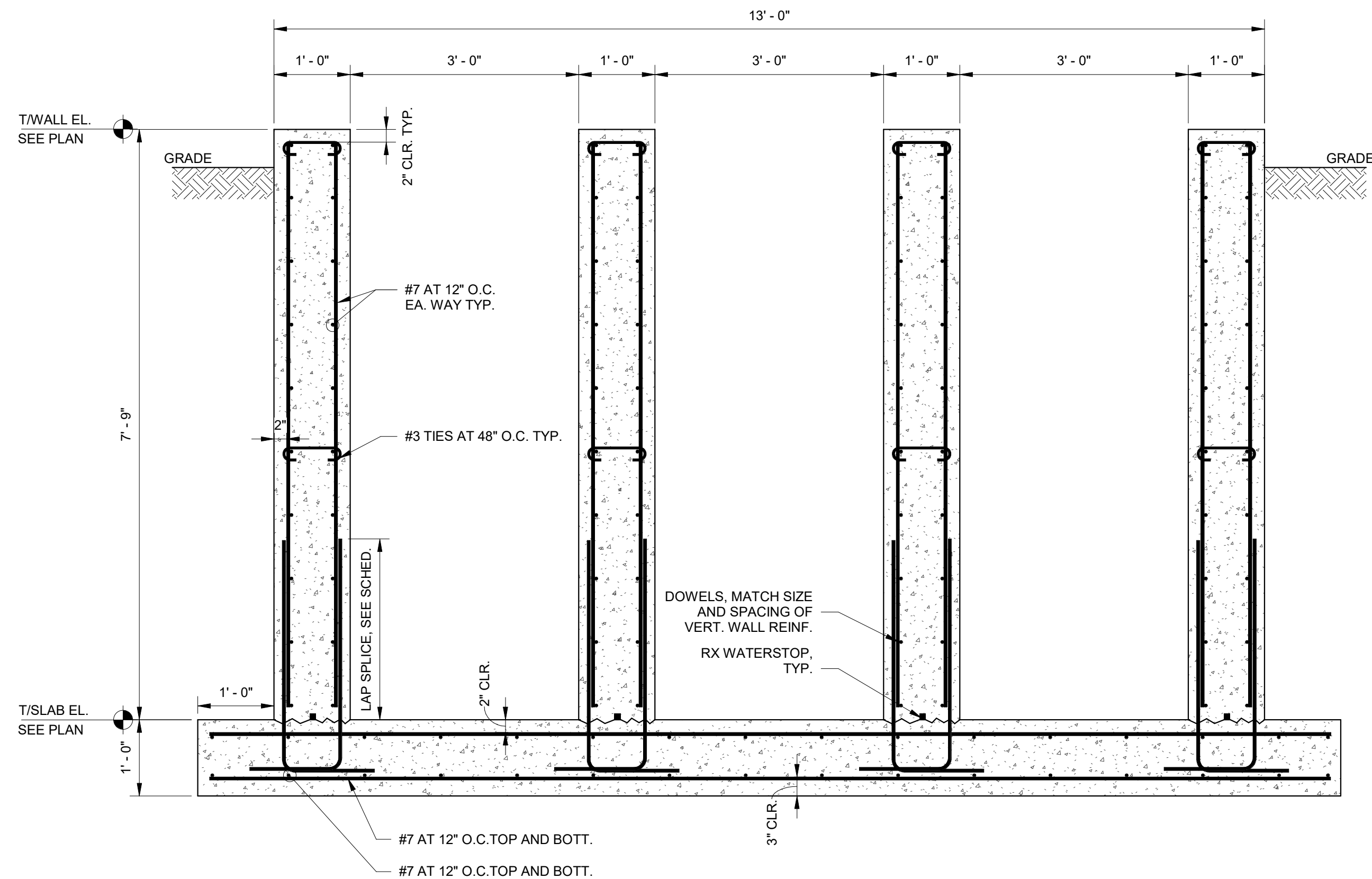
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Issue Date: 07/10/2025	Project No: 25-145	Scale: 1" = 1'-0"

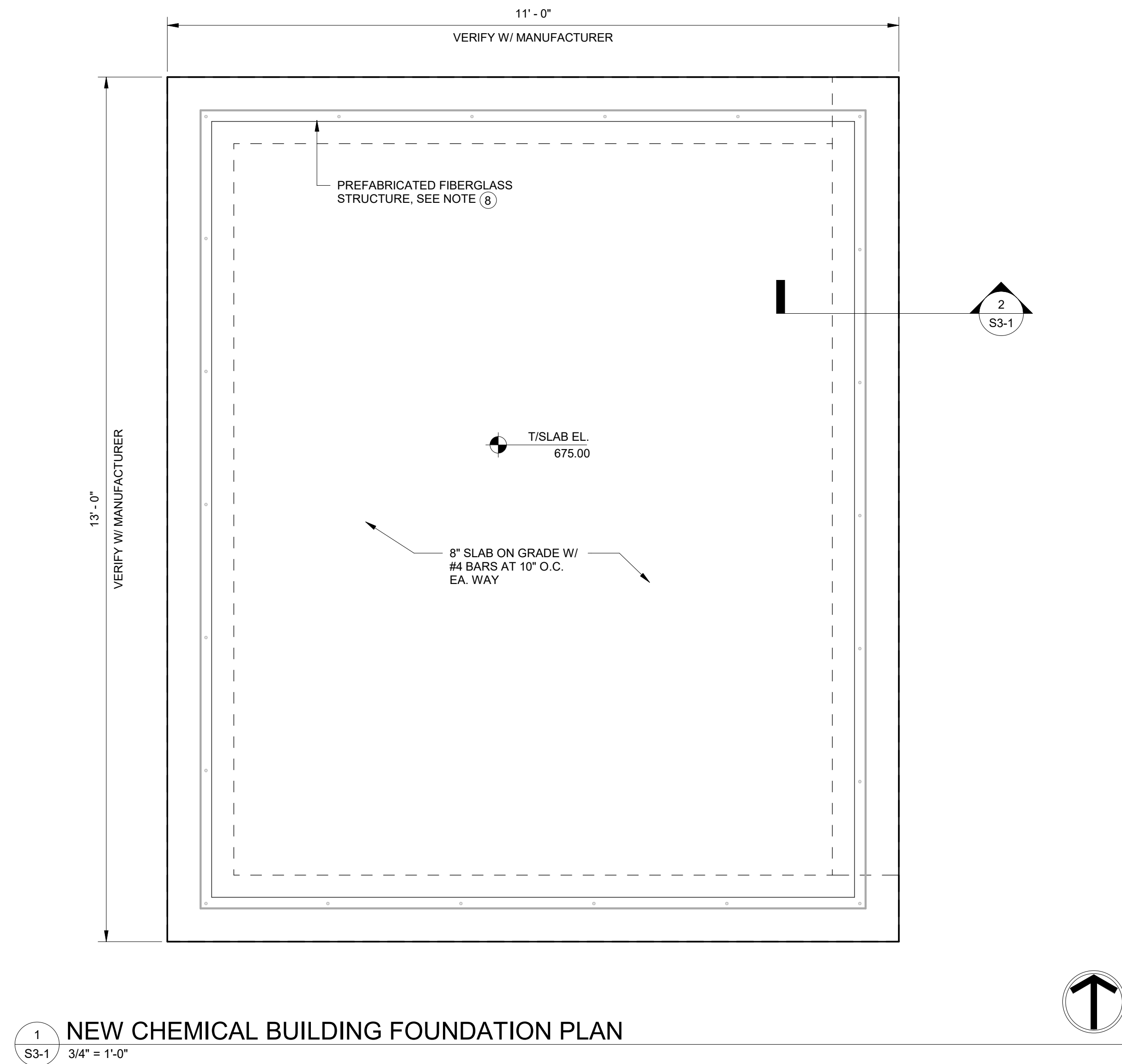
TYPICAL STRUCTURAL DETAILS - HANDRAIL DETAIL

Drawing No:
S0-3
Sheet: 33 OF 40

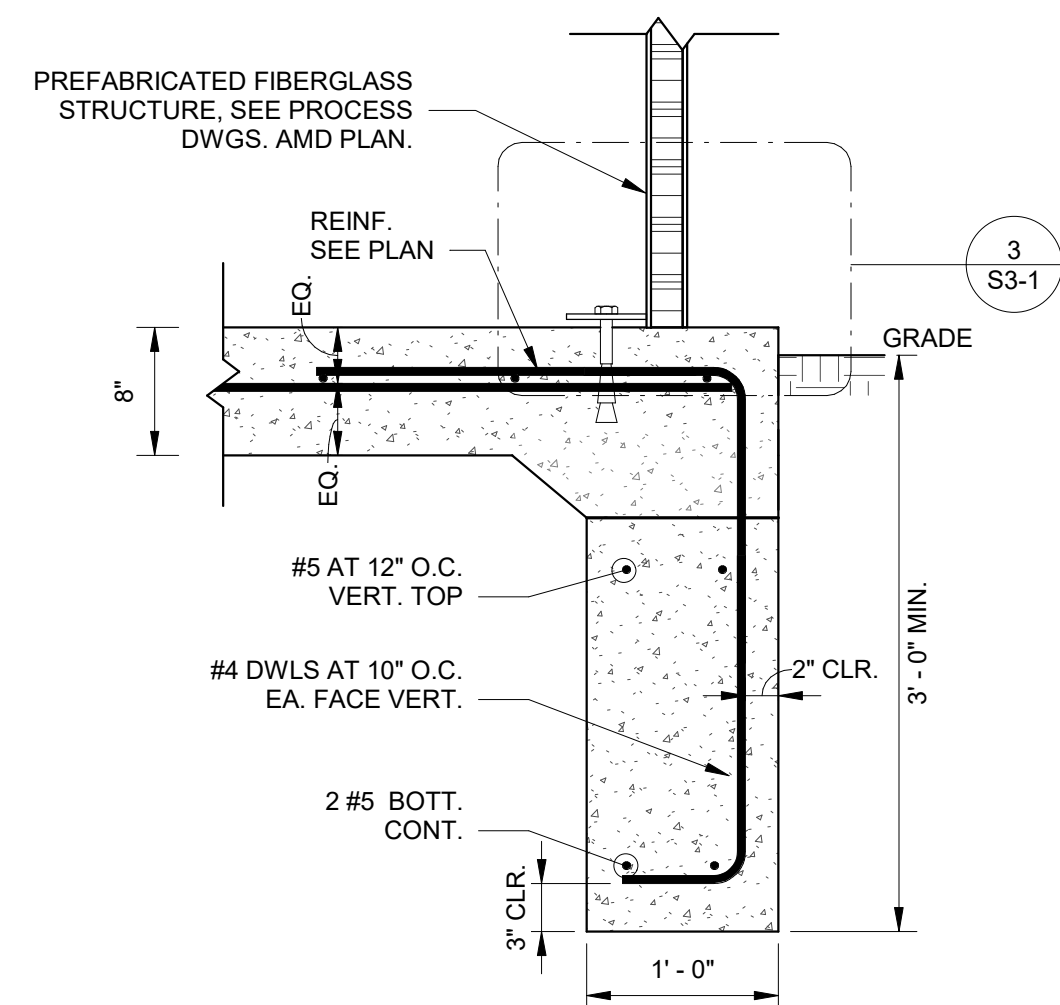
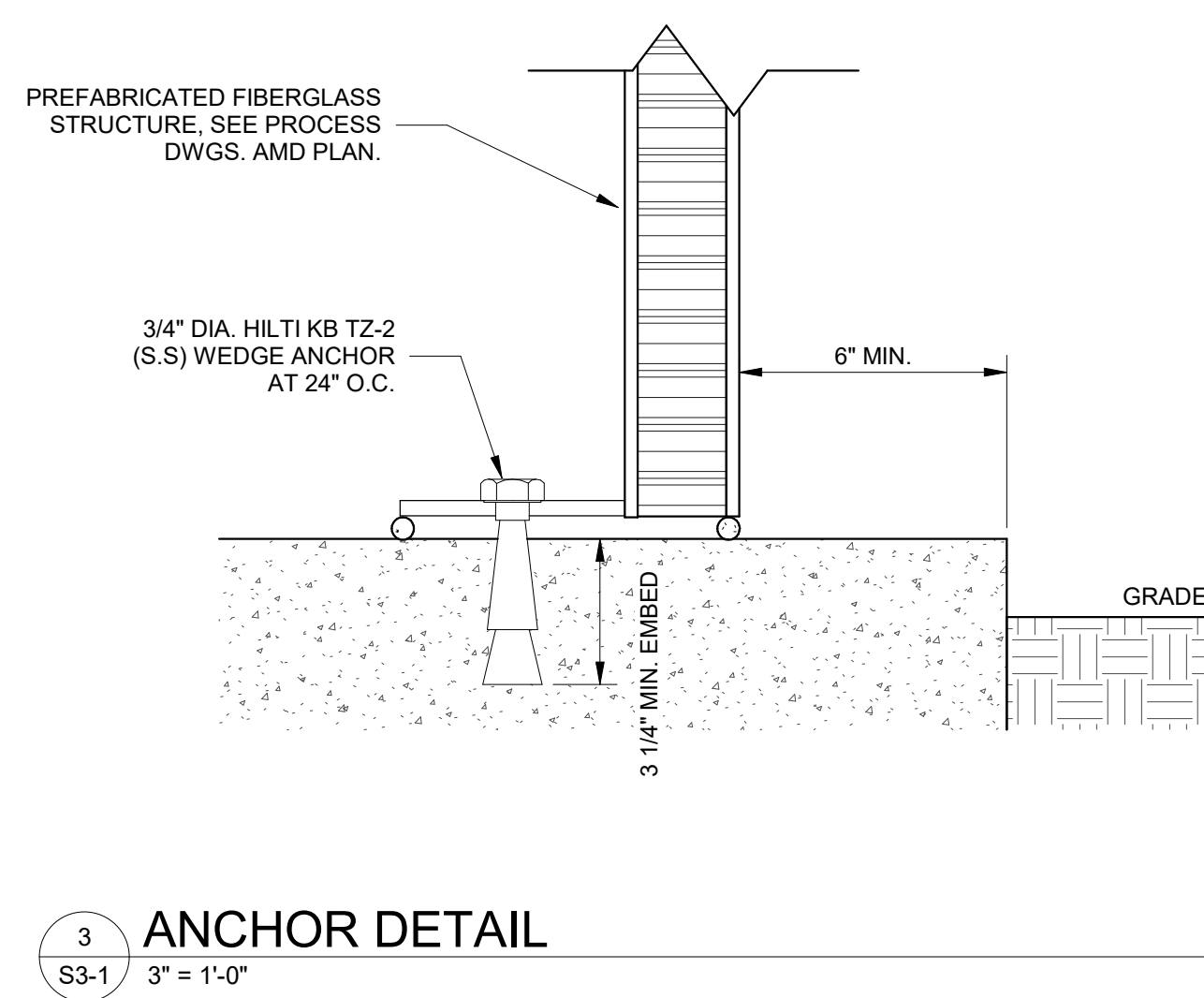


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Issue Date: 07/10/2025	Project No: 25-145	Scale: 3/4" = 1'-0"



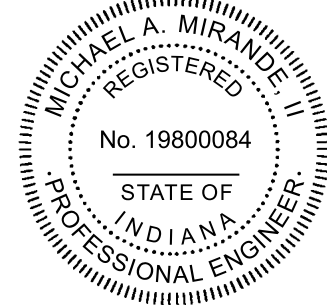
- FOUNDATION PLAN NOTES**
- INDICATES NOTE REFERENCED IN PLAN
1. SEE THE S0-SERIES SHEETS FOR GENERAL STRUCTURAL NOTES AND TYPICAL STRUCTURAL DETAILS.
 2. GENERAL CONTRACTOR TO COORDINATE ALL OPENING, PIPE SLEEVES, EMBEDDED ITEMS, HANDRAILS, GRATING, ETC. WITH THE PROCESS DRAWINGS.
 3. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED PRIOR TO FABRICATION, CONSTRUCTION OR ERECTION. THE GENERAL CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DISCREPANCIES.
 4. SEE SITE PLAN FOR ALL FINAL GRADE ELEVATIONS.
 5. SEE GEOTECHNICAL REPORT FOR ALL BACKFILLING AND COMPACTION REQUIREMENTS BEHIND WALLS AND UNDER BASE SLABS.
 6. GENERAL CONTRACTOR SHALL SUBMIT A CONSTRUCTION JOINT (CJ) AND CONTRACTION JOINT (CT) LOCATION PLAN TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO CONCRETE PLACEMENT.
 7. MAINTAIN STRUCTURAL SLAB THICKNESSES AT ALL FLOOR SLOPES AND DEPRESSIONS.
 - ⑧. PREFABRICATED FIBERGLASS STRUCTURE SHALL BE AS SPECIFIED IN THE PROCESS DRAWINGS AND SPECIFICATIONS. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE EXTENT OF THE PAD AND THE ANCHORING REQUIREMENTS WITH THE SELECTED FIBERGLASS BUILDING MANUFACTURER PRIOR TO PLACEMENT OF CONCRETE PAD.





SCALE: 3/8"=1'-0"

1. SEE E0.0 FOR PROJECT CONDUIT REQUIREMENTS.



Signature Michael A. Minde II Date 07/11/2025

TOWN OF LA CROSSE
LAPORTE COUNTY, INDIANA

WASTEWATER TREATMENT PLANT
IMPROVEMENTS PROJECT

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Designed By: CM	Drawn By: CM	Checked By: MAM
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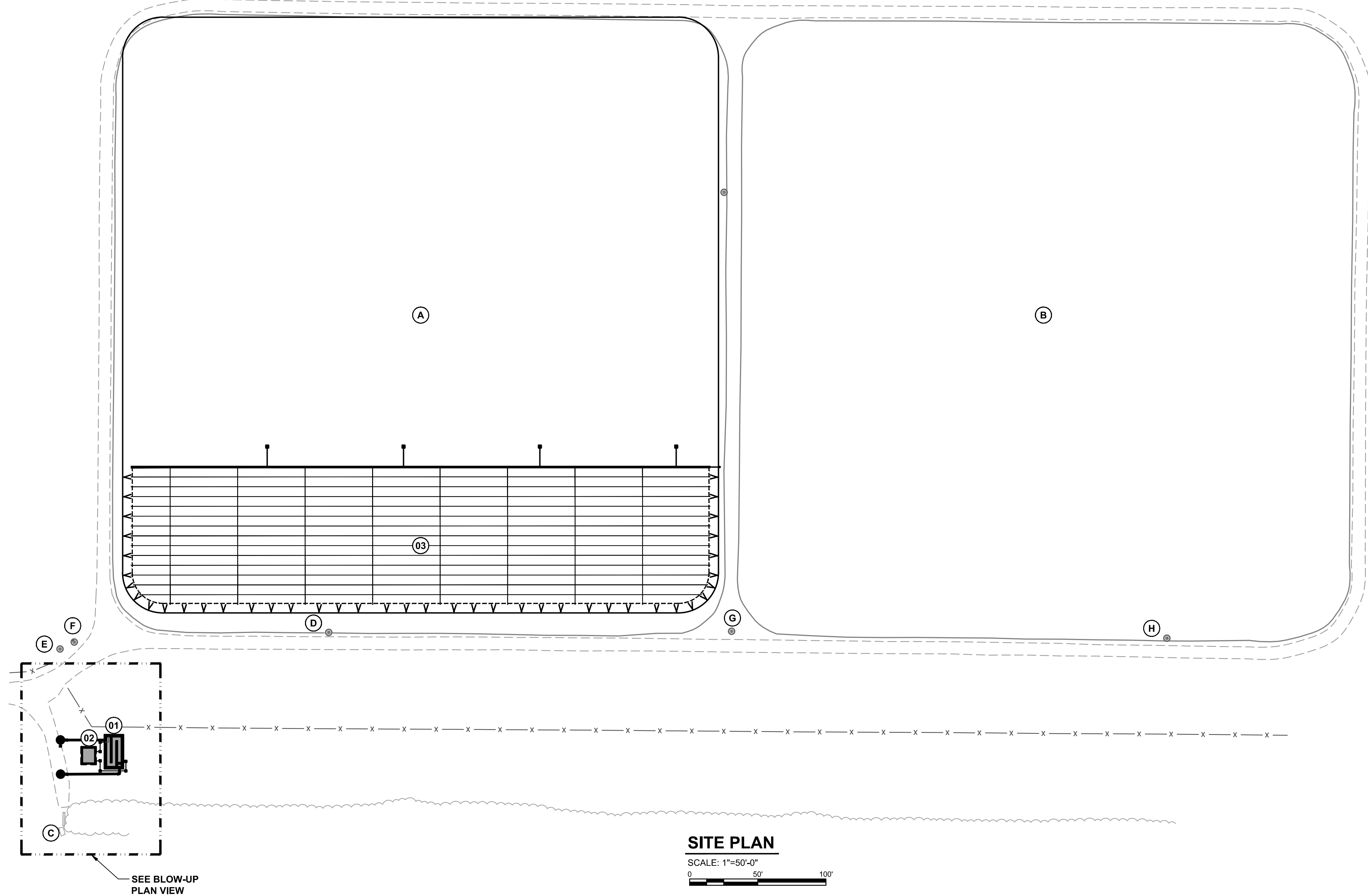
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RISER DIAGRAM

Drawing No:

E1-0

Sheet: 38 OF 40

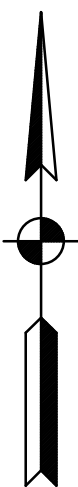
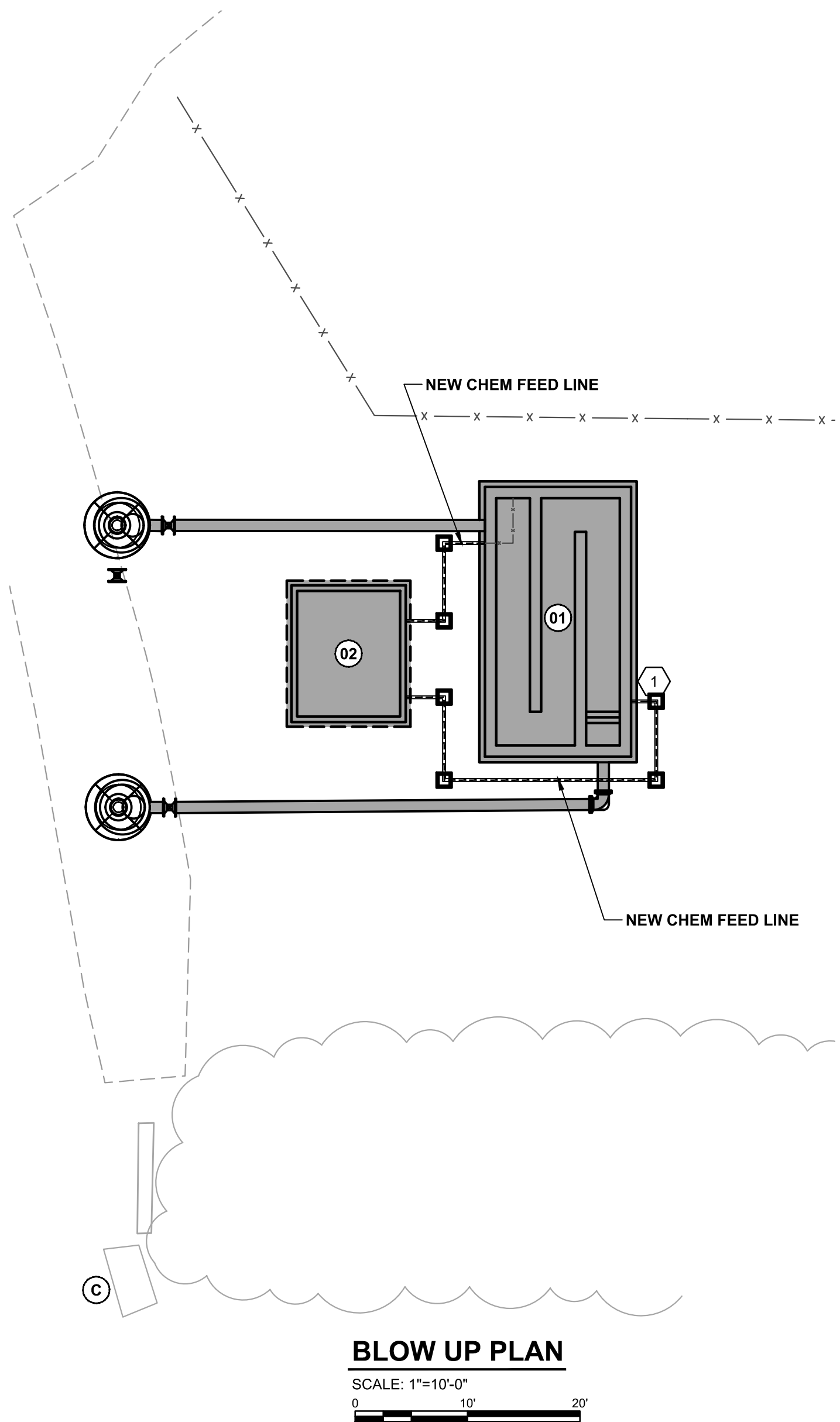


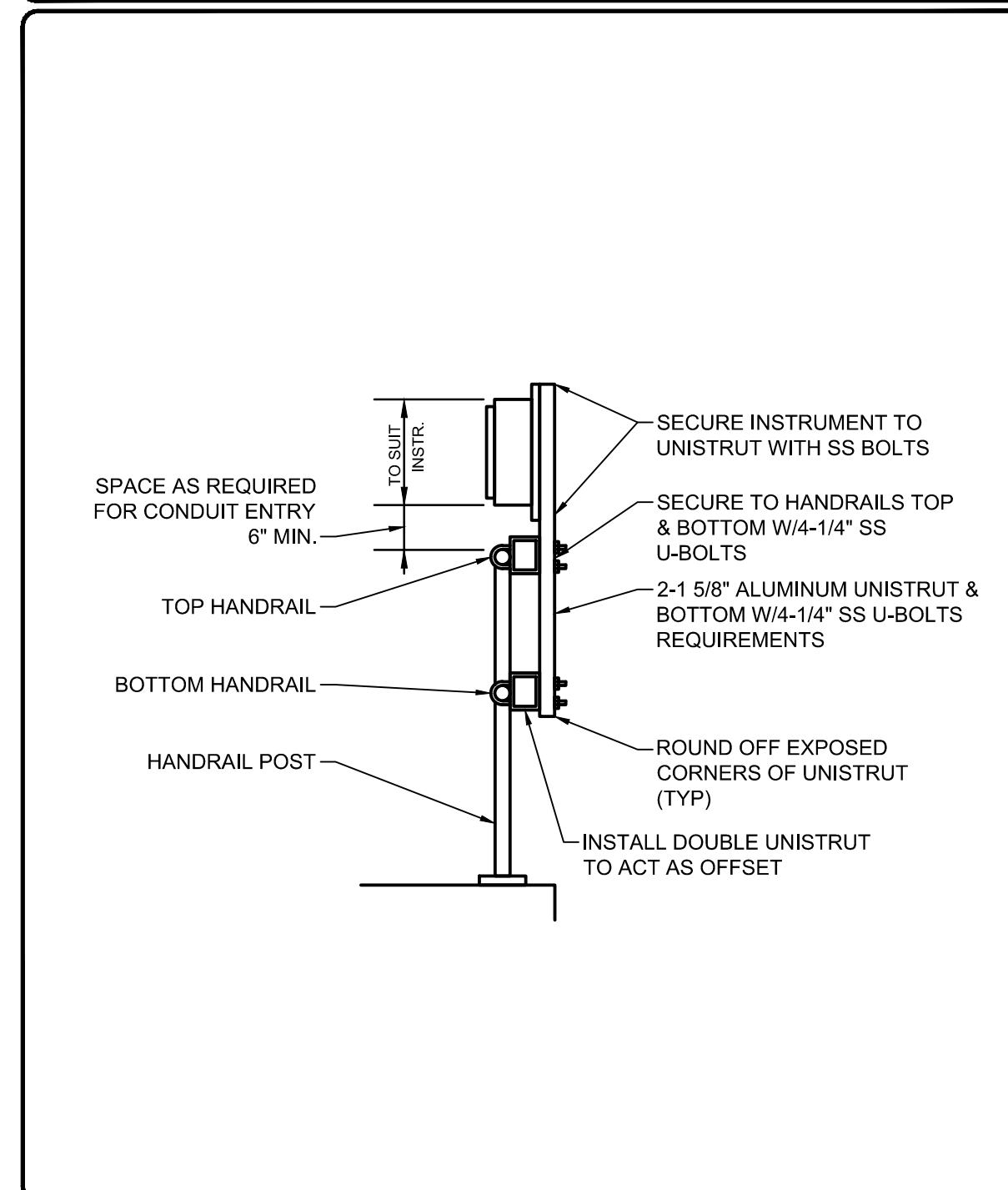
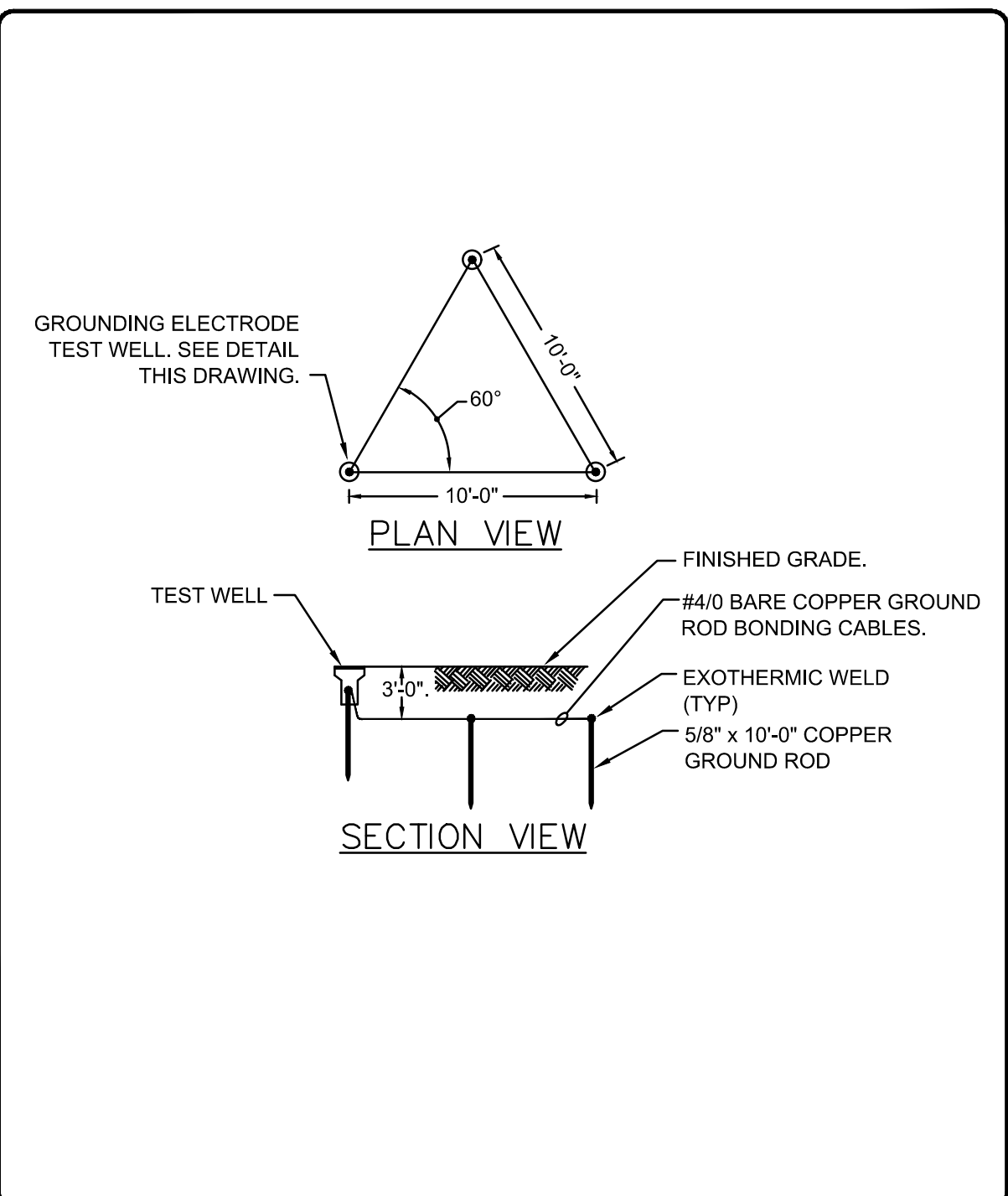
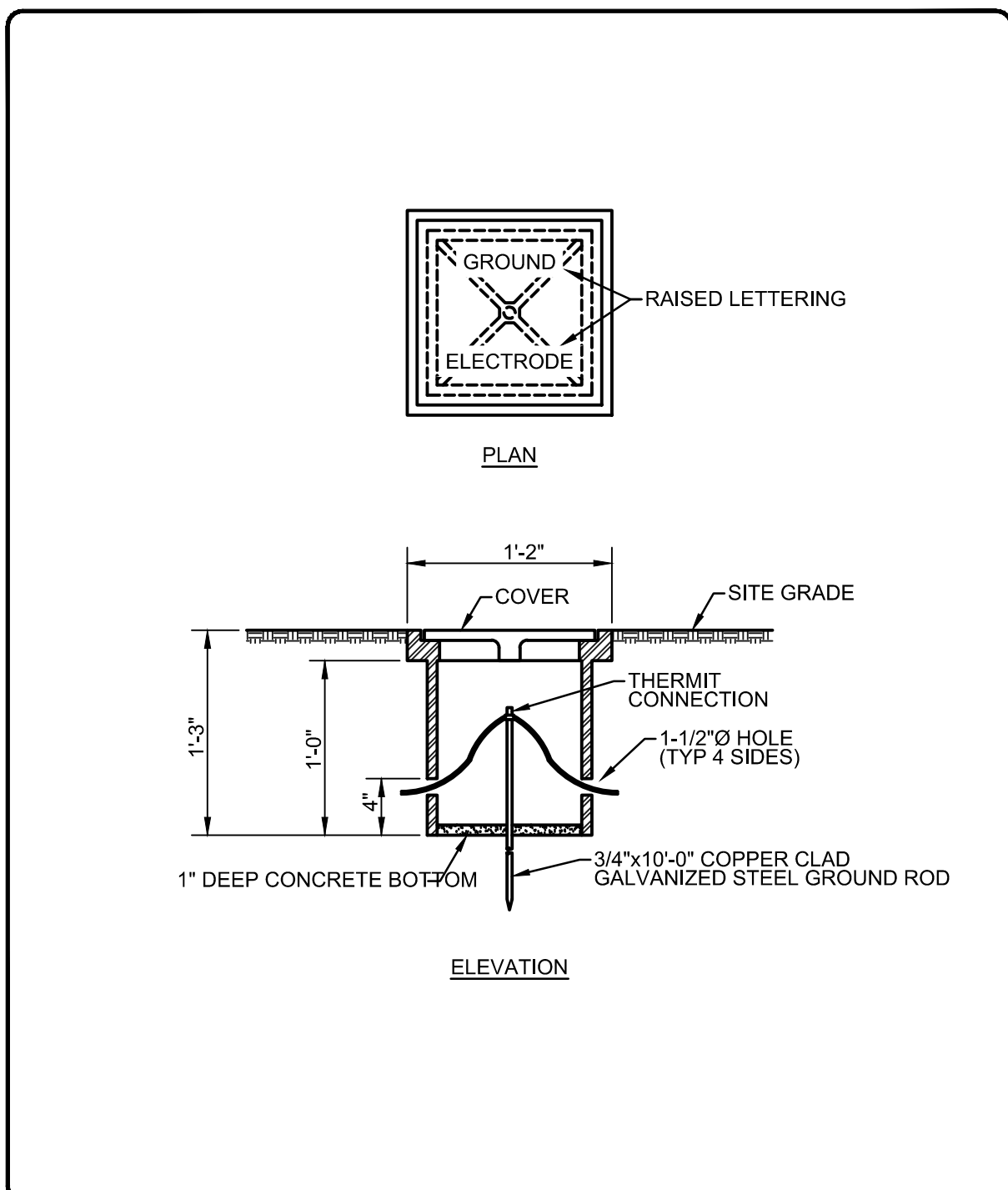
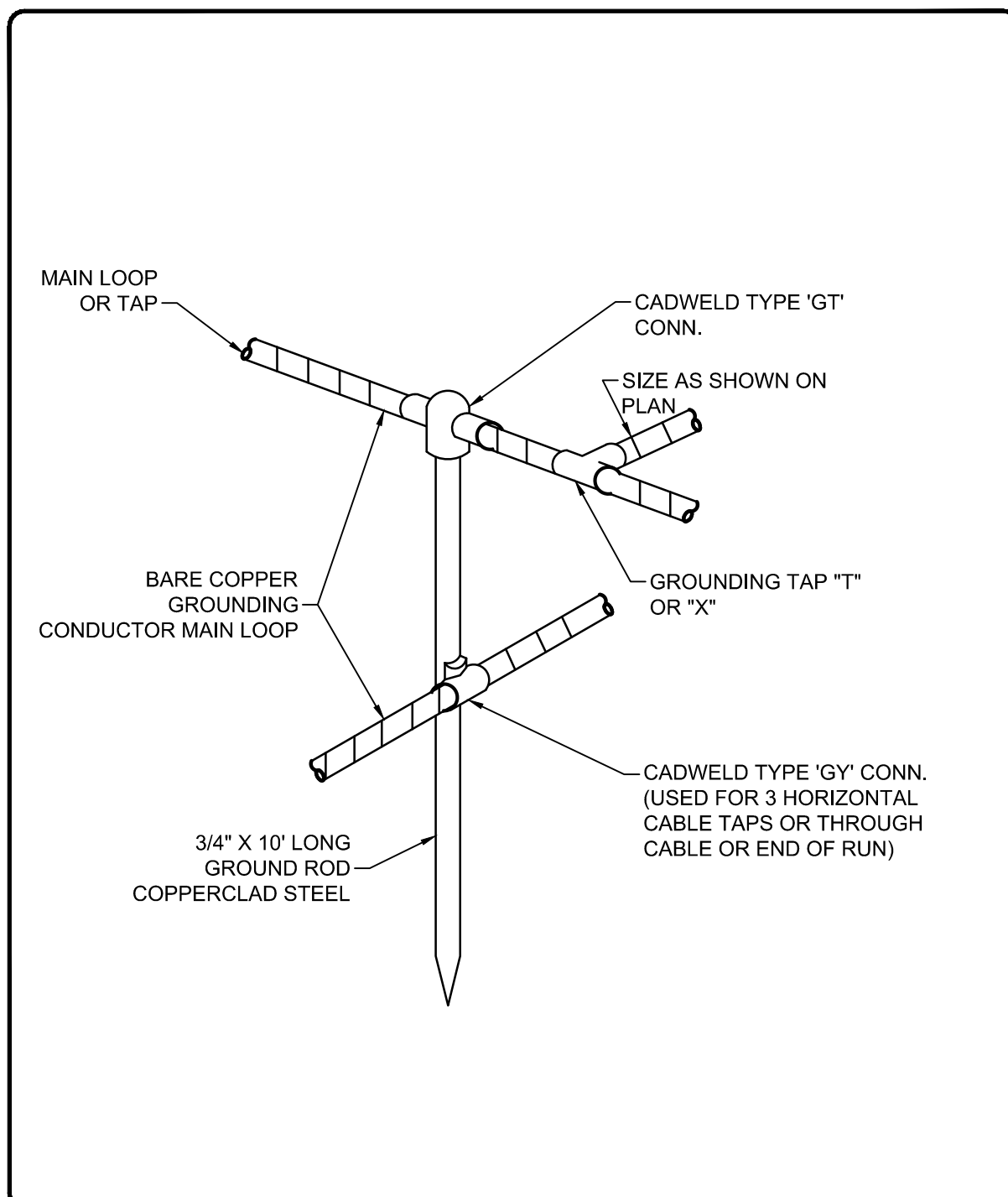
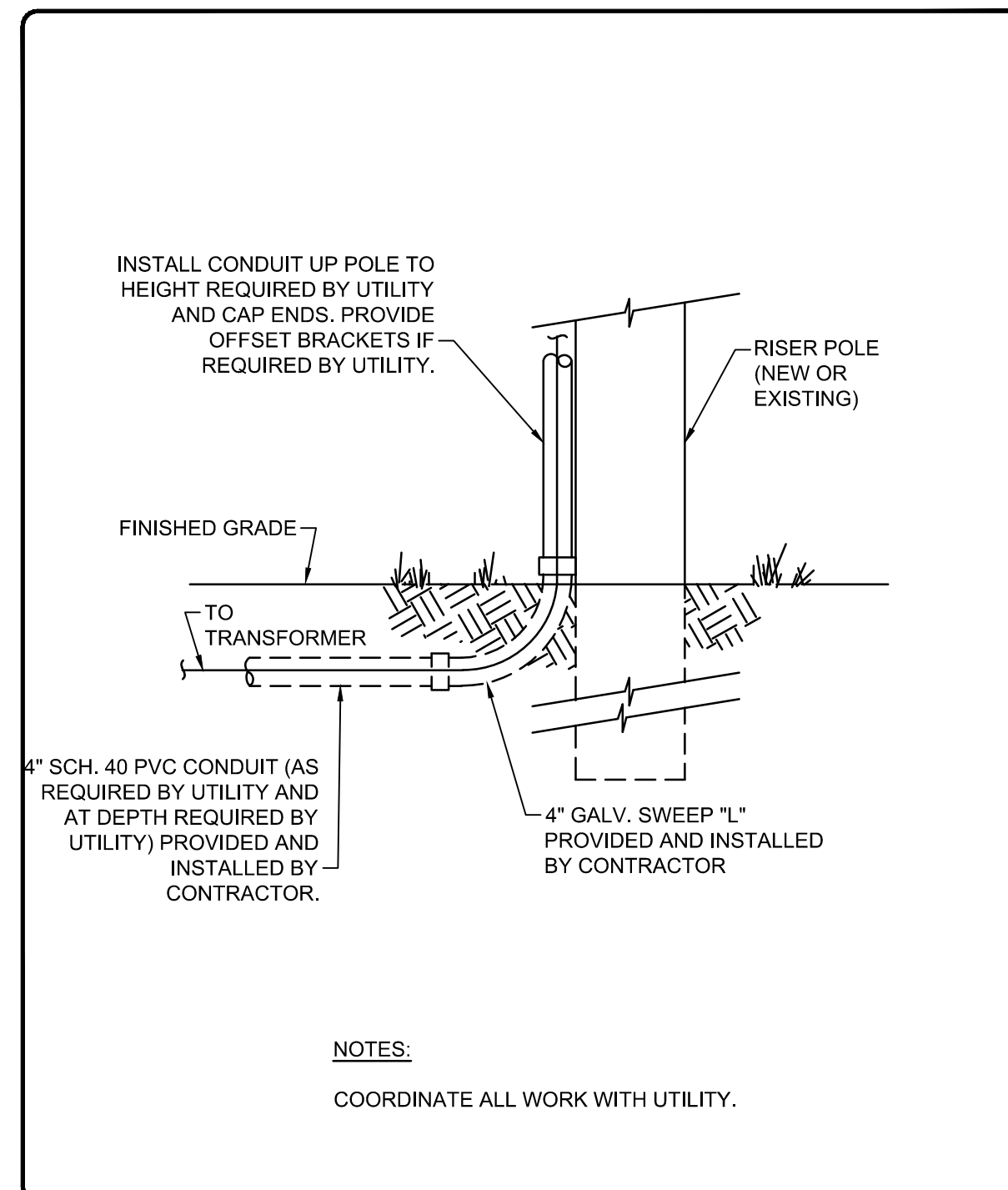
EXISTING STRUCTURE LEGEND		
IDENTIFIER	DESCRIPTION	DEMO NOTES
A	EXISTING LAGOON #1	TO BE MODIFIED
B	EXISTING LAGOON #2	TO REMAIN
C	EXISTING OUTFALL STRUCTURE	TO REMAIN
D	EXISTING MANHOLE 1000 - LAGOON #1 EFFLUENT SEWER	TO BE MODIFIED
E	EXISTING MANHOLE 1001	TO REMAIN
F	EXISTING MANHOLE 1002 - EFFLUENT FLOW METER STRUCTURE	TO REMAIN
G	EXISTING MANHOLE 1003 - INFLUENT STRUCTURE	TO REMAIN
H	EXISTING MANHOLE 1004 - LAGOON #2 EFFLUENT STRUCTURE	TO REMAIN
I	EXISTING MANHOLE 1005 - LAGOON TRANSFER STRUCTURE	TO REMAIN

NEW STRUCTURE LEGEND	
IDENTIFIER	DESCRIPTION
01	NEW CHLORINE CONTACT TANK
02	NEW CHEMICAL BUILDING
03	NEW LAGOON MODULAR COVER SYSTEM

ELECTRICAL NOTES

- 1 CONTRACTOR TO HANDRAIL MOUNT RECEPTACLE IN OUTDOOR RATED ENCLOSURE FOR SUMP PUMP. RUN 120V POWER FROM PANELBOARD LOCATED IN CHEMICAL BUILDING.



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Designed By: CM	Drawn By: CM	Checked By: MAM
Issue Date: APR 2025	Project No: S25052	Scale: AS SHOWN