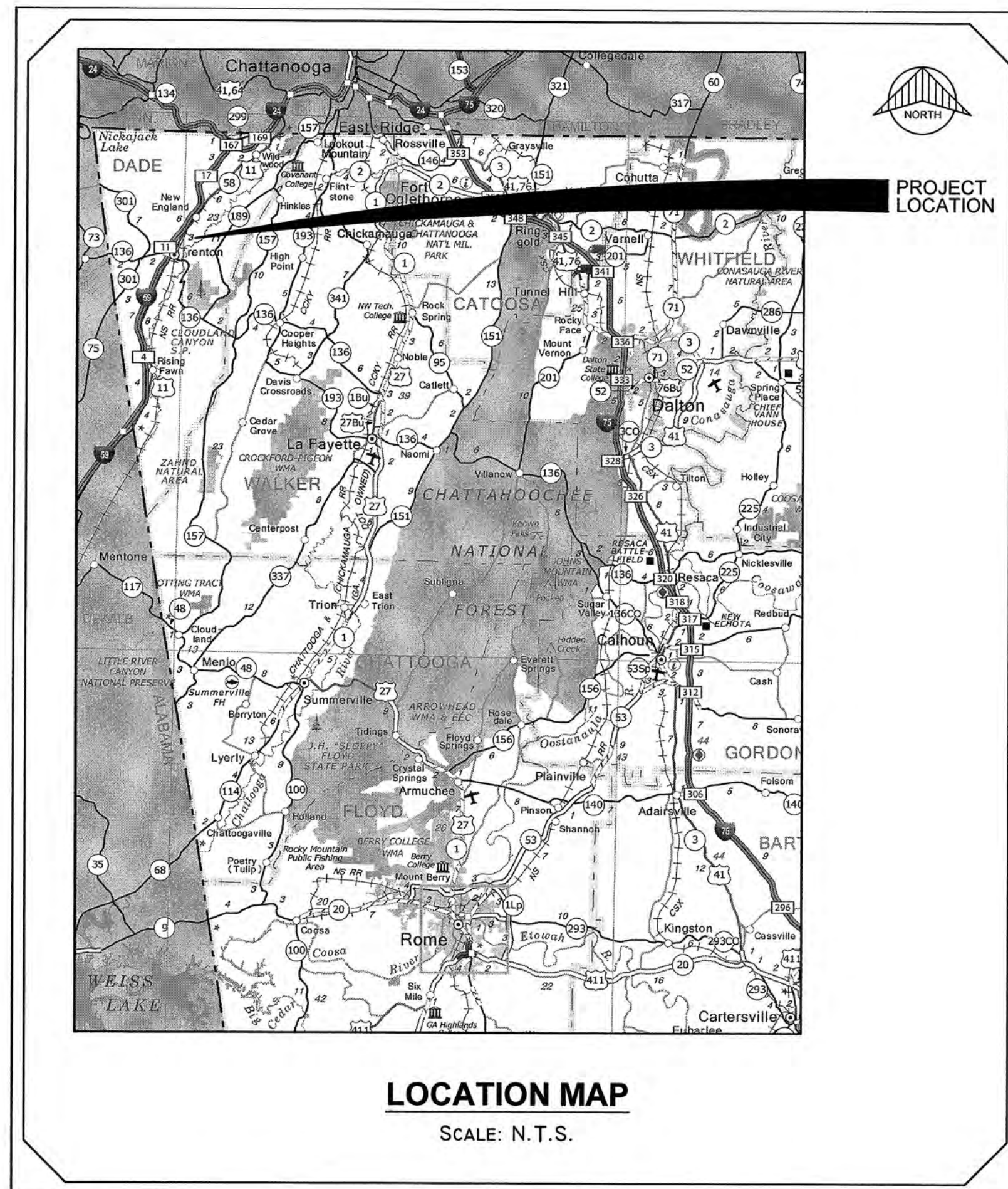


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***All general contractors and subcontractors should obtain plan sets directly from Ladd Environmental.***

# UPGRADES TO TRENTON WASTEWATER TREATMENT PLANT HEADWORKS FOR THE CITY OF TRENTON



PREPARED FOR:  
**THE CITY OF TRENTON**  
12882 NORTH MAIN STREET  
TRENTON, GA 30752

PREPARED BY:  
**LADD ENVIRONMENTAL CONSULTANTS, INC.**  
1207 CHITWOOD AVE. SE  
FORT PAYNE, ALABAMA 35967

DATE: JANUARY, 2023

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S6	STRUCTURAL DETAILS
E1-E2	ELECTRICAL

JOB NO. 2267

FILE: STF



# LADD ENVIRONMENTAL CONSULTANTS, INC.

P.O. BOX 680869 - FORT PAYNE, AL 35968 - 1207 CHITWOOD AVENUE S.E. - FORT PAYNE, AL 35967  
PHONE: (256) 845-5315 - FAX: (256) 845-5383 - ladd@laddenv.com - www.laddenv.com

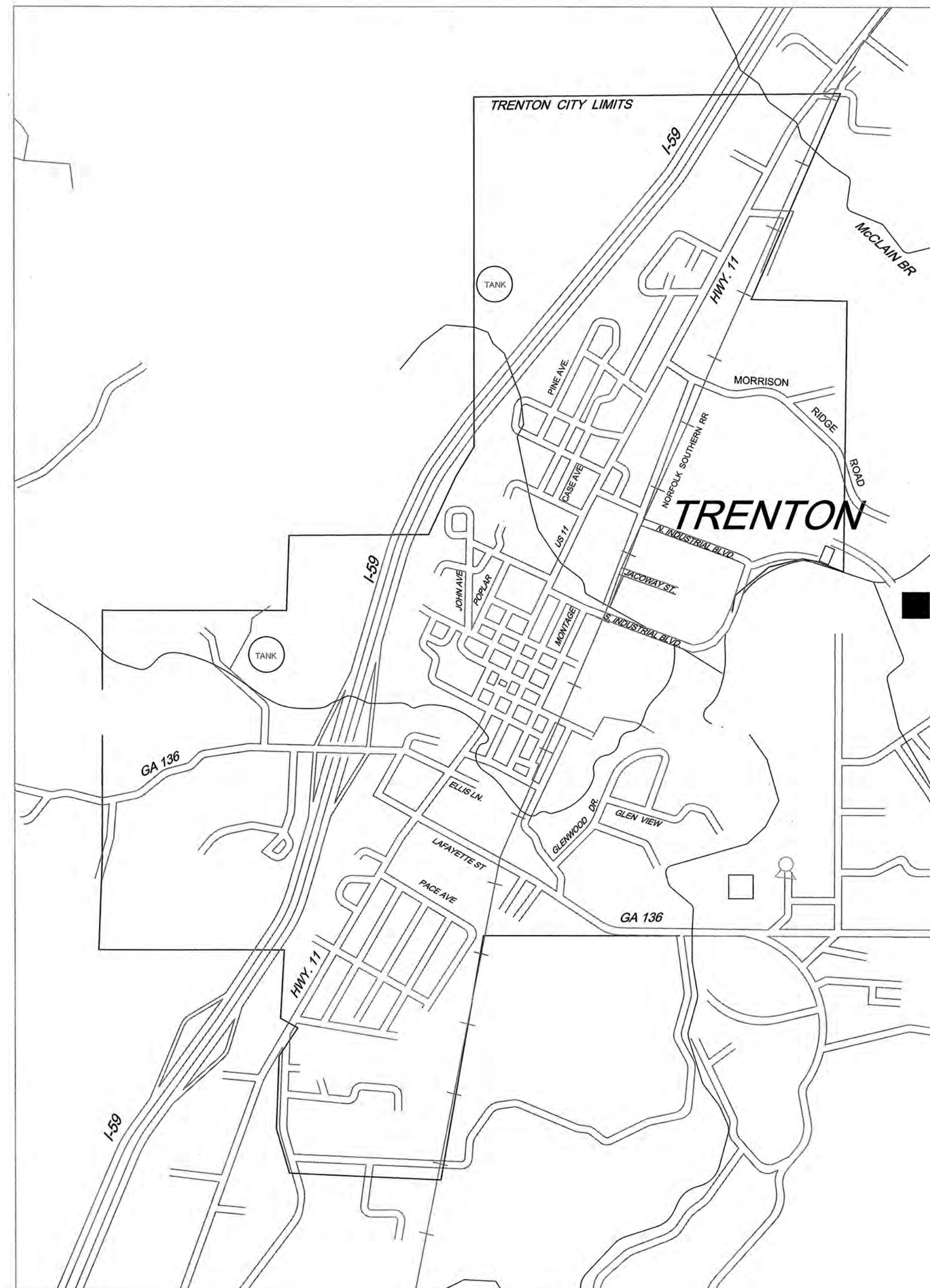




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**GENERAL NOTES:**

1. CONTRACTORS ARE HEREBY MADE AWARE THAT THE EXISTING UTILITIES IN THIS CONSTRUCTION ARE NOT NECESSARILY SHOWN ON THE PLANS. DATA CONCERNING UTILITIES SHOWN SHALL BE CONSIDERED AS APPROXIMATE ONLY. CONTRACTOR SHALL COORDINATE WITH EACH UTILITY OWNER PRIOR TO COMMENCING WORK TO ESTABLISH EXACT LOCATION. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGES TO THESE UTILITIES RESULTING FROM HIS CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
2. IN NO CASE WILL THE OWNER OR ENGINEER BE HELD RESPONSIBLE FOR LOCATING, OR CAUSING TO BE LOCATED, EXISTING UTILITIES AS THIS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. SEE CONTRACT DOCUMENTS AND SPECIFICATIONS.
3. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING OR REPAIRING ANY DAMAGED PUBLIC OR PRIVATE PROPERTY OR FACILITIES TO THE SAME OR BETTER CONDITION AS IT EXISTED PRIOR TO THE INSTALLATION OF THE PROJECT. THE CONTRACTOR WILL COORDINATE THE REPLACEMENT/REPAIRING OF ALL SUCH ITEMS WITH THE ENGINEER AND THE FINAL INSTALLATION SHALL MEET THE APPROVAL OF THE ENGINEER.
4. CONTRACTOR TO WORK AROUND ALL EXISTING UTILITIES. ALL WORKAROUNDS TO PROPOSED IMPROVEMENTS, DUE TO CONFLICTS WITH EXISTING, MUST BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION AND AT NO ADDITIONAL COST TO THE OWNER.
5. CONTRACTOR TO EXERCISE EXTREME CAUTION WHILE WORKING IN THE VICINITY OF EXISTING HIGH VOLTAGE ELECTRICAL LINES.
6. EXISTING BURIED ELECTRICAL UTILITIES ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING ELECTRICAL UTILITIES WHILE WORKING IN THE VICINITY.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ALL VERTICAL AND HORIZONTAL PIPE FITTINGS AND BENDS REQUIRED, EVEN IF THEY ARE NOT SHOWN.
8. CONTRACTOR TO REPLACE ALL EXISTING CONCRETE SIDEWALKS WHEN REMOVAL IS REQUIRED FOR INSTALLATION OF PROPOSED UTILITIES AND STRUCTURES NOT SHOWN.
9. CONTRACTOR IS TO COORDINATE ALL CONNECTIONS AND INTERRUPTIONS OF SERVICE OF EXISTING FACILITIES WITH THE OWNER.
10. INSTALL RETAINER GLAND ON ALL MECHANICAL JOINT AND FITTINGS WHEN REQUIRED TO ELIMINATE PIPE MOVEMENT DUE TO INTERNAL WORKING AND TEST PRESSURES TYPICAL AT ALL PIPING.
11. THESE PLANS DO NOT SHOW THE ELEMENTS NECESSARY FOR JOB SITE SAFETY. THE PROVISIONS OF WHATEVER MAY BE DESIRABLE FOR JOB SITE SAFETY IS THE RESPONSIBILITY SOLELY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEERS ARE RESPONSIBLE FOR PROJECT SAFETY.
12. FOR WASTEWATER LINES LAID PARALLEL TO EXISTING POTABLE WATER LINES, A MINIMUM OF FIVE (5) FEET HORIZONTAL SEPARATION SHALL BE MAINTAINED UNLESS OTHERWISE APPROVED BY THE ENGINEER. THE WASTEWATER LINE AND THE POTABLE WATER LINE SHALL BE LAID IN SEPARATE TRENCHES WITH UNDISTURBED EARTH BETWEEN THEM.
13. FOR WASTEWATER LINES WHICH CROSS POTABLE WATER LINES, THE WASTEWATER LINE SHALL BE LAID WITH THE BOTTOM OF THE WATER LINE A MINIMUM OF 18" INCHES ABOVE THE TOP OF THE WASTEWATER LINE.
14. WHERE THE REQUIRED MINIMUM HORIZONTAL OR VERTICAL SEPARATION MAY NOT BE ACHIEVED, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND SHALL PROVIDE A WELDED STEEL CASING FOR THE WATER AND/OR SEWER LINES, AS NECESSARY TO PROTECT THE POTABLE WATER LINE AND MEET THE APPROVAL OF THE ENGINEER.
15. REFER TO THE SPECIAL CONDITIONS FOR EROSION CONTROL MEASURES.
16. CONTRACTOR IS RESPONSIBLE FOR PUMPING OR PIPING WASTEWATER AROUND STRUCTURES UNDER CONSTRUCTION.
17. THE CONTRACTOR IS TO COORDINATE ALL CONSTRUCTION AROUND EXISTING FACILITIES WITH THE OWNER TO ELIMINATE ANY PROBLEMS WITH NORMAL TREATMENT OPERATION.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL SPOILS, EXCESS EXCAVATION AND DEBRIS. SEE TECHNICAL SPECS.
19. ALL PIPING THROUGH CONCRETE WALLS BELOW WATER LEVEL ARE TO HAVE SEEPAGE COLLARS.
20. THESE PLANS ARE INTENDED TO BE DRAWN TO SCALE, HOWEVER, SOME OF THE EQUIPMENT MAY NOT BE DRAWN TO SCALE. CONSULT THE EQUIPMENT MANUFACTURER FOR EXACT DIMENSIONS. COORDINATE AND VERIFY ALL EQUIPMENT INSTALLATION DIMENSIONS WITH MANUFACTURER.
21. UNLESS NOTED OTHERWISE ALL EXISTING PIPING, VALVES, EQUIPMENT AND MATERIALS TO BE REMOVED IS TO REMAIN THE PROPERTY OF THE OWNER.
22. ALL DISTURBED AREAS ON THE SITE, GRADING AND UTILITY PLANS WITHIN THE WORK LIMITS ARE TO BE GRASSED. SUITABLE FILL AND TOP SOIL MAY HAVE TO BE HAULED IN SOME AREAS.
23. ALL ANCHOR BOLTS, BOLTS, HARDWARE, FASTENERS, PIPE SUPPORTS AND SIMILAR ITEMS SHALL BE STAINLESS STEEL.
24. ALL HANDRAILS, GRATING AND SIMILAR ITEMS SHALL BE ALUMINUM.
25. ALL EQUIPMENT AND FACILITIES TO BE DESIGNED FOR INSTALLATION IN A CORROSIVE ATMOSPHERE OF A WASTE WATER TREATMENT PLANT.
26. SEE ELECTRICAL DRAWINGS AND TECHNICAL SPECS. DIV. 16-ELECTRICAL.
27. CONTRACTOR TO INSTALL ALL CONCRETE STRUCTURES, SIDEWALKS, PADS AND SIMILAR ITEMS. ALL SCOPE ASSOCIATED WITH THIS PROJECT IS TO BE INCLUDED AND PERFORMED BY THE CONTRACTOR.

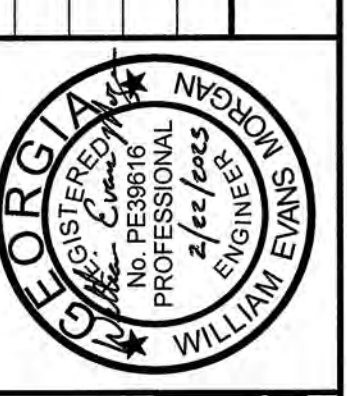


PROJECT LOCATION  
WASTEWATER TREATMENT PLANT  
(1218 NORTH INDUSTRIAL BLVD.,  
TRENTON, GEORGIA 30752)

LOCATION MAP & GENERAL NOTES

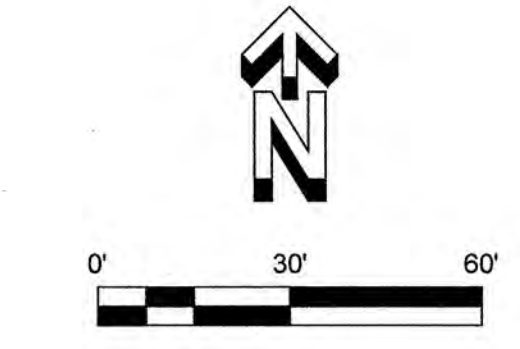
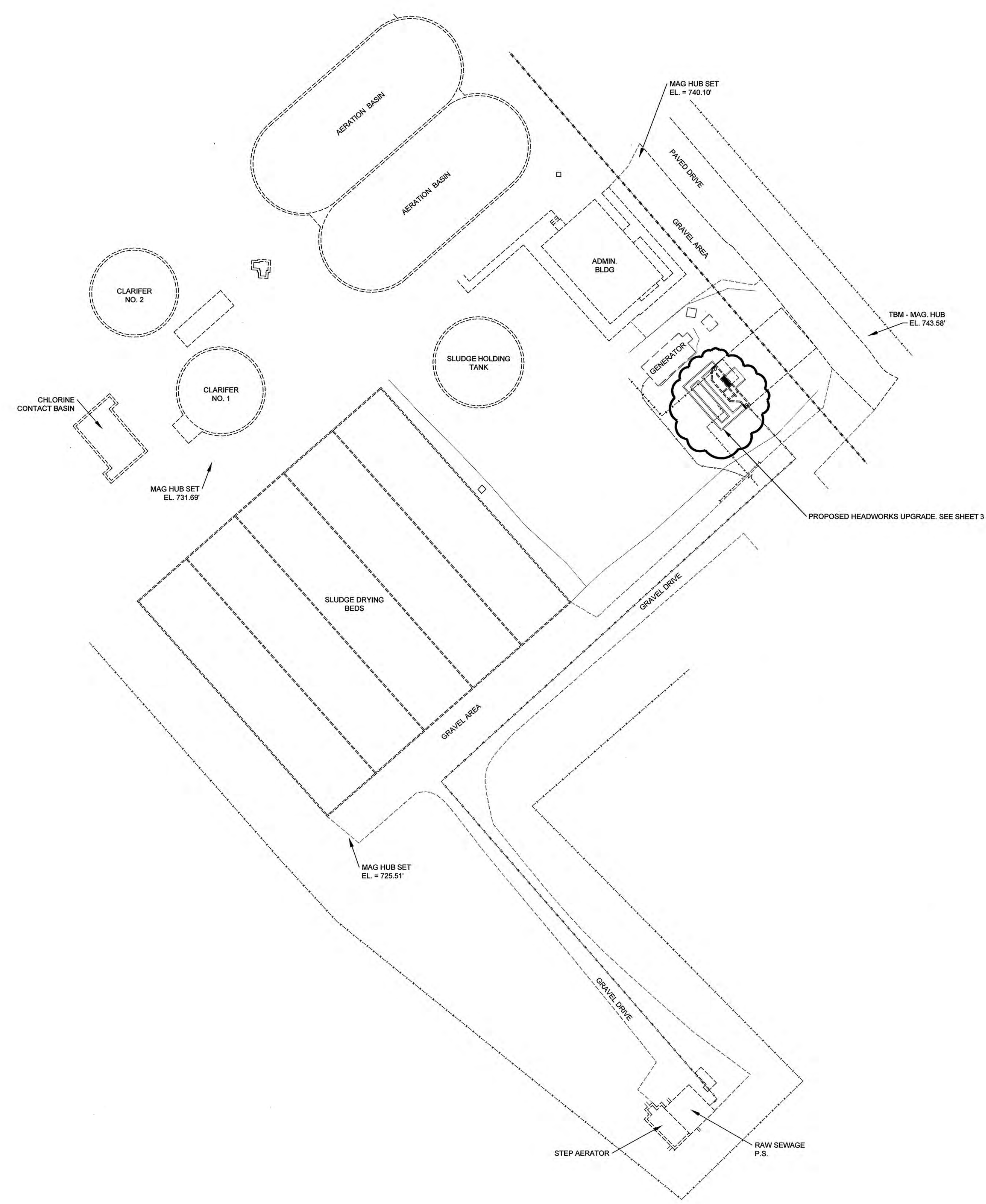
JOB NO: 2287 DRAWN BY: TS SCALE: NONE SHEET: 1	FILE: STF 1/28/27/LOCMAPNOTE CHECKED BY: DATE: DECEMBER, 2022	UPGRADES TO TRENTON WASTEWATER TREATMENT PLANT HEADWORKS THE CITY OF TRENTON <b>LADD ENVIRONMENTAL CONSULTANTS, INC.</b> P.O. BOX 880889 - FORT PAYNE, ALABAMA 35968 PHONE - (256) 845-5916 - FAX - (256) 845-5983 www.laddenv.com	REVISIONS DATE BY
TRENTON <b>LADD ENVIRONMENTAL</b> ENVIRONMENTAL Providing Engineering Solutions			GEORGIA <b>LADD ENVIRONMENTAL</b> ENVIRONMENTAL Providing Engineering Solutions

REVISIONS	DATE	BY





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**LEGEND**

- HORIZONTAL / VERTICAL CONTROL POINT
- EXISTING ELECTRICAL MANHOLE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING TELEPHONE PEDESTAL
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING WATER METER / IRRIGATION VALVE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER CLEANOUT
- EXISTING VALVE / VERTICAL PIPE (UNKNOWN)
- EXISTING 4" SQUARE STEEL BOLLARD
- EXISTING FENCE LINE
- EXISTING OVERHEAD UTILITY LINE
- APPROXIMATE LOCATION OF EXISTING SANITARY SEWER FORCE MAIN BASED ON OUTSIDE PIPING PLAN SHEET BY HENDON ENGINEERING

**ELEVATIONS**

- HEADWORKS EFFLUENT**
- VERTICAL 14" PIPE
- TOP OF WALL AT PIPE EL. = 745.79'
- BOTTOM (INV.) OF SCREEN AT PIPE EL. = 742.30'
- HEADWORKS INFLUENT**
- VERTICAL 12" PIPE
- TOP OF WALL AT PIPE EL. = 745.77'
- BOTTOM (INV.) OF SCREEN AT PIPE EL. = 742.82'

OVERALL SITE PLAN

REVISIONS	DATE	BY



UPGRADES TO TRENTON WASTEWATER TREATMENT PLANT HEADWORKS

FOR THE CITY OF TRENTON

**LADD ENVIRONMENTAL CONSULTANTS, INC.**

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TRENTON

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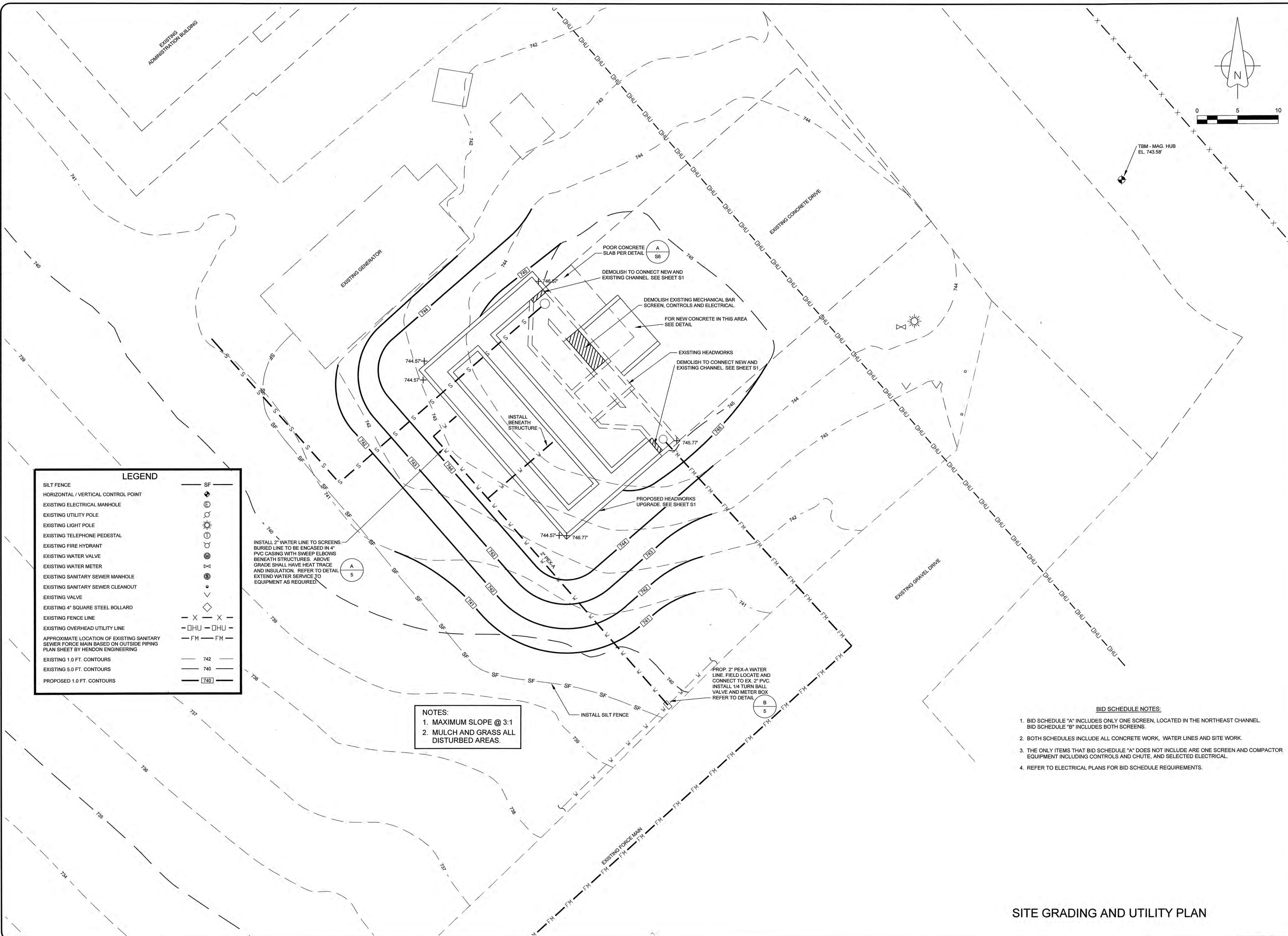
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FILE: 2287 NEWGRADING	CHECKED BY:	DATE: JANUARY, 2023
JOB NO: 2287	DRAWN BY: CBK/MTS	SCALE: 1" = 30'

SHEET 2
---------



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LEGEND	
SILT FENCE	SF
HORIZONTAL / VERTICAL CONTROL POINT	⊕
EXISTING ELECTRICAL MANHOLE	⊙
EXISTING UTILITY POLE	⊙
EXISTING LIGHT POLE	⊙
EXISTING TELEPHONE PEDESTAL	⊙
EXISTING FIRE HYDRANT	⊙
EXISTING WATER VALVE	⊙
EXISTING WATER METER	⊙
EXISTING SANITARY SEWER MANHOLE	⊙
EXISTING SANITARY SEWER CLEANOUT	⊙
EXISTING VALVE	⊙
EXISTING 4" SQUARE STEEL BOLLARD	⊙
EXISTING FENCE LINE	- X - X -
EXISTING OVERHEAD UTILITY LINE	- DHU - DHU -
APPROXIMATE LOCATION OF EXISTING SANITARY SEWER FORCE MAIN BASED ON OUTSIDE PIPING PLAN SHEET BY HENDON ENGINEERING	- FM - FM -
EXISTING 1.0 FT. CONTOURS	--- 742 ---
EXISTING 5.0 FT. CONTOURS	--- 740 ---
PROPOSED 1.0 FT. CONTOURS	--- 740 ---

INSTALL 2" WATER LINE TO SCREENS. BURIED LINE TO BE ENCASED IN 4" PVC CASING WITH SWEEP ELBOWS BENEATH STRUCTURES. ABOVE GRADE SHALL HAVE HEAT TRACE AND INSULATION. REFER TO DETAIL. EXTEND WATER SERVICE TO EQUIPMENT AS REQUIRED.

**NOTES:**  
 1. MAXIMUM SLOPE @ 3:1  
 2. MULCH AND GRASS ALL DISTURBED AREAS.

PROP 2" PEX-A WATER LINE. FIELD LOCATE AND CONNECT TO EX. 2" PVC. INSTALL 1/4 TURN BALL VALVE AND METER BOX. REFER TO DETAIL.

- BID SCHEDULE NOTES:**
- BID SCHEDULE "A" INCLUDES ONLY ONE SCREEN, LOCATED IN THE NORTHEAST CHANNEL. BID SCHEDULE "B" INCLUDES BOTH SCREENS.
  - BOTH SCHEDULES INCLUDE ALL CONCRETE WORK, WATER LINES AND SITE WORK.
  - THE ONLY ITEMS THAT BID SCHEDULE "A" DOES NOT INCLUDE ARE ONE SCREEN AND COMPACTOR EQUIPMENT INCLUDING CONTROLS AND CHUTE, AND SELECTED ELECTRICAL.
  - REFER TO ELECTRICAL PLANS FOR BID SCHEDULE REQUIREMENTS.

JOB NO. 2237	DRAWN BY: CB/KH	CHECKED BY: 	FILE: 2237 NEWGRADING.PLAN	DATE: JANUARY, 2023
SHEET 3		AS NOTED		

UPGRADES TO TRENTON WASTEWATER TREATMENT PLANT FOR THE CITY OF TRENTON

**LADD ENVIRONMENTAL CONSULTANTS, INC.**

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GEORGIA REGISTERED PROFESSIONAL ENGINEER  
**WILLIAM EVANS**  
 No. 42463

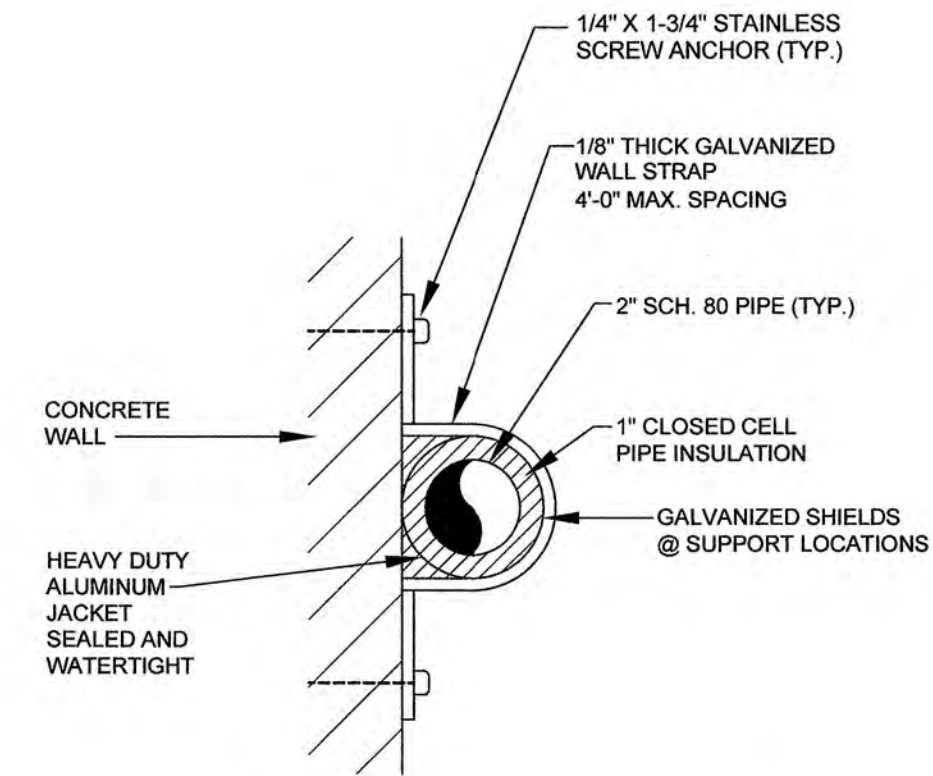
**SITE GRADING AND UTILITY PLAN**





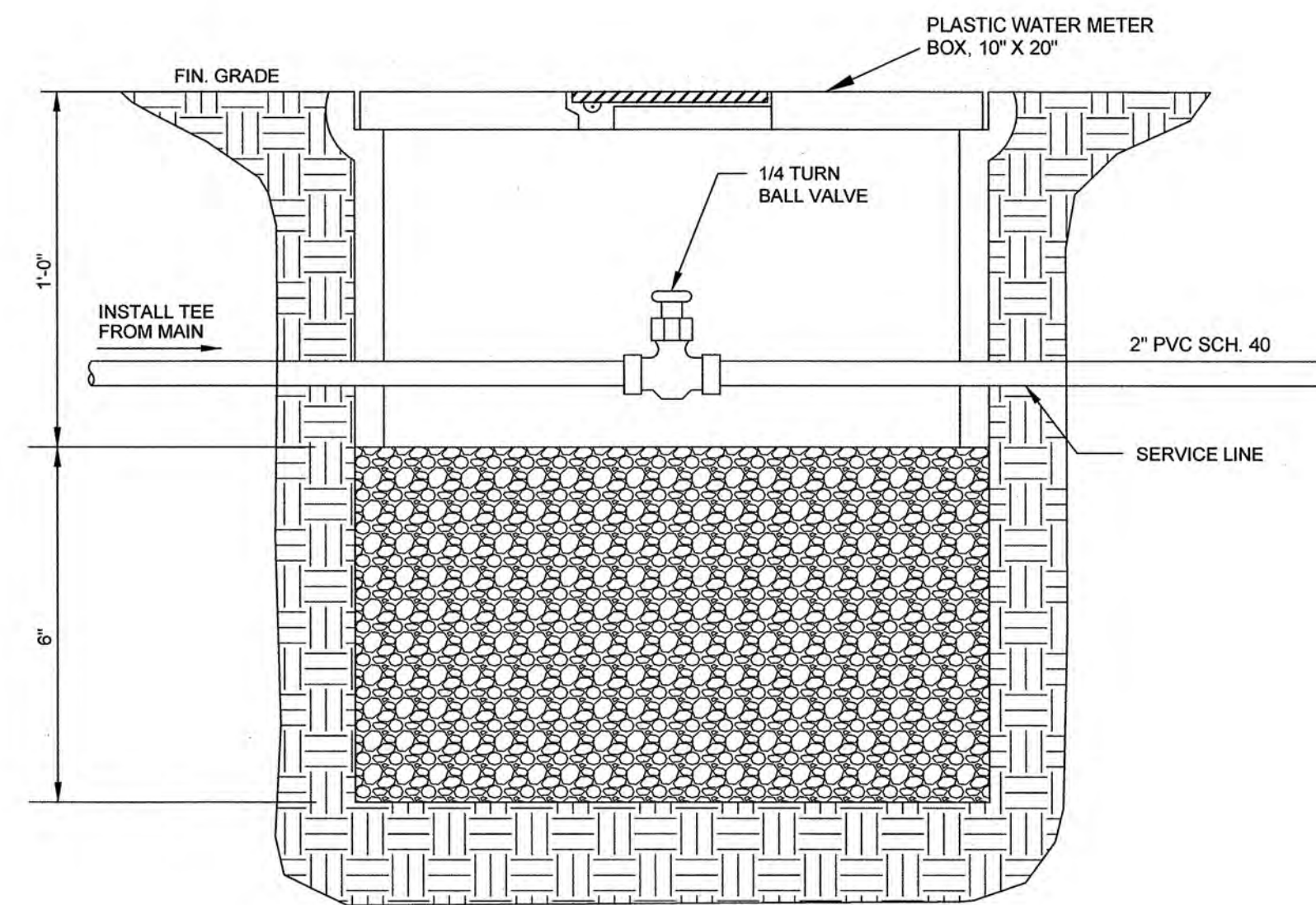


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- NOTES:
1. WRAP HEAT TAPE AROUND PIPE. 2 WATTS PER L.F. OF PIPE (MIN. HEAT REQUIREMENTS).
  2. HEAT TAPE TO BE OPERATED BY THERMOSTAT CONTROL.
  3. HEAT TAPE AND INSULATION REQUIRED FOR ALL EXPOSED PIPE.
  4. SEE ELECTRICAL DRAWINGS AND SPECIFICATIONS.
  5. ALL WATER SERVICE LINES TO THE SCREENS SHALL BE SCHEDULE 80 PVC AT ABOVE GROUND LOCATIONS.
  6. REFER TO SPEC SECTIONS 15061 AND 15260.

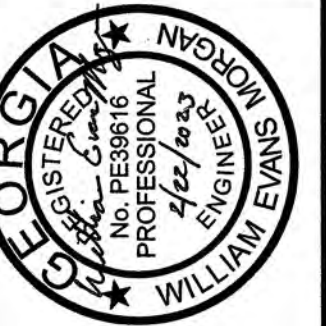
**SECTION**  
**TYPICAL HEAT TAPE DETAIL**  
 NO SCALE



- NOTE:
1. TYPICAL MINIMUM BURY DEPTH OF 18\"/>

**DETAIL**  
**WATER SUPPLY VALVE**  
 NO SCALE

REVISIONS	DATE	BY



UPGRADES TO TRENTON WASTEWATER TREATMENT PLANT HEADWORKS  
 FOR THE CITY OF TRENTON

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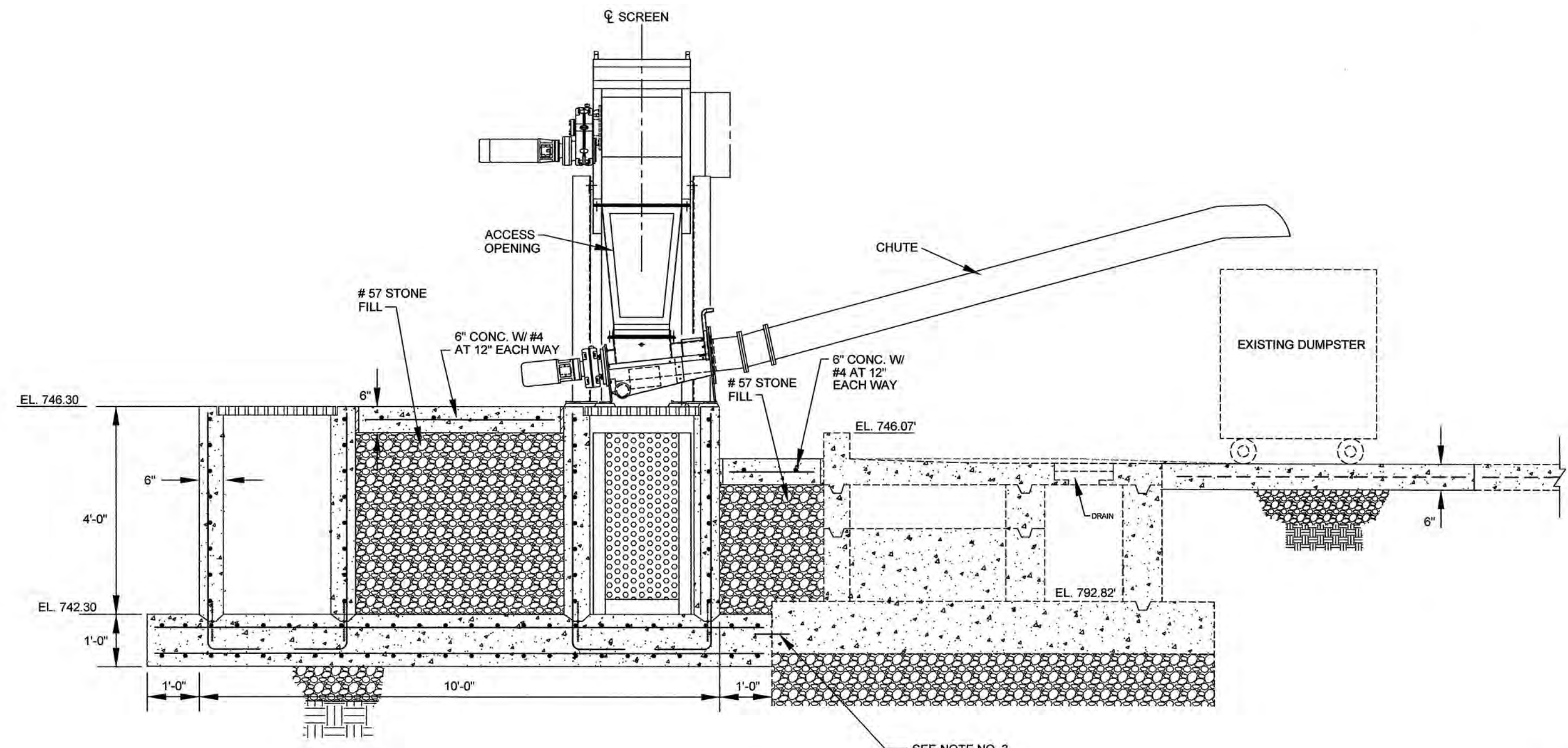
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DRAWN BY:	T.S.	CHECKED BY:	
SCALE:		DATE:	JANUARY, 2023
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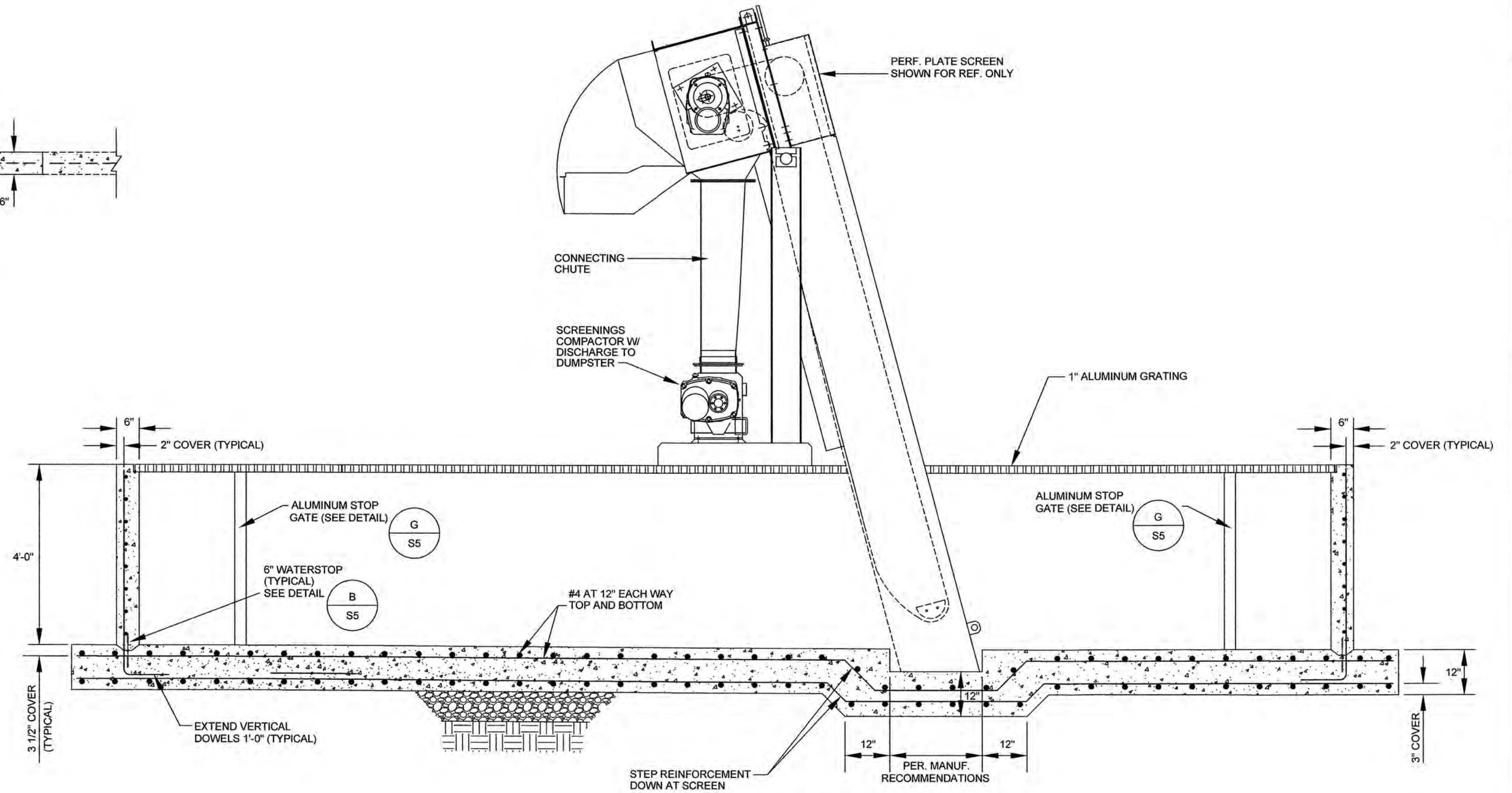




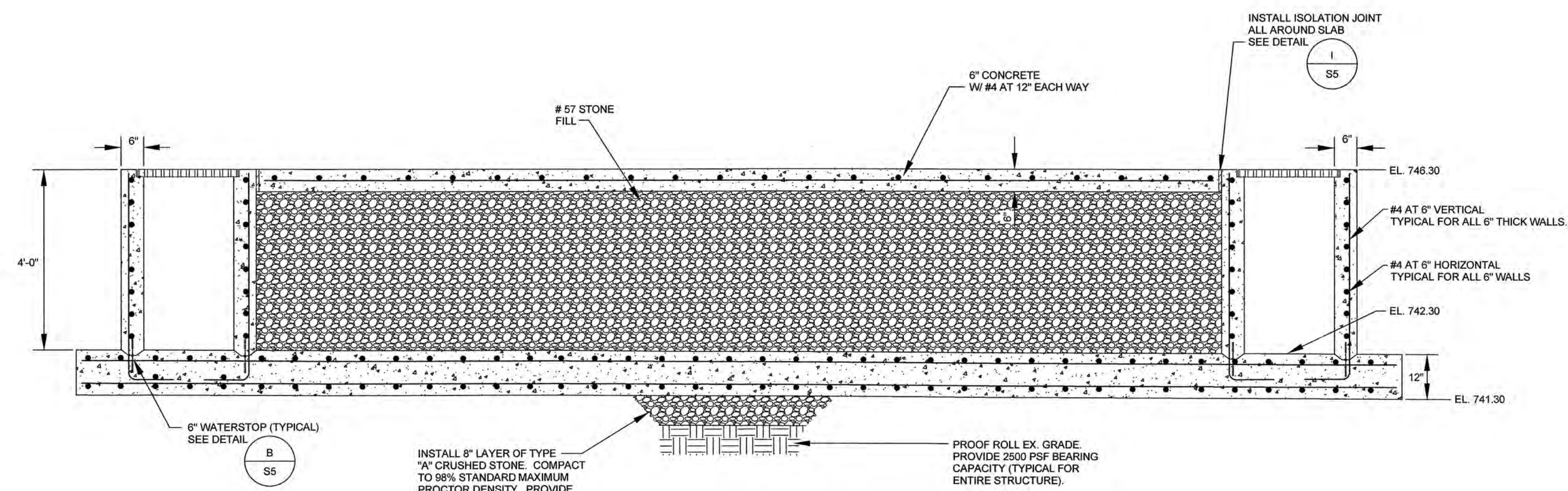
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**SECTION A**  
SCALE: 1/2" = 1'-0"



**SECTION B**  
SCALE: 1/2" = 1'-0"



**SECTION C**  
SCALE: 1/2" = 1'-0"

**STRUCTURAL SCREEN SECTIONS**

REVISIONS	DATE	BY



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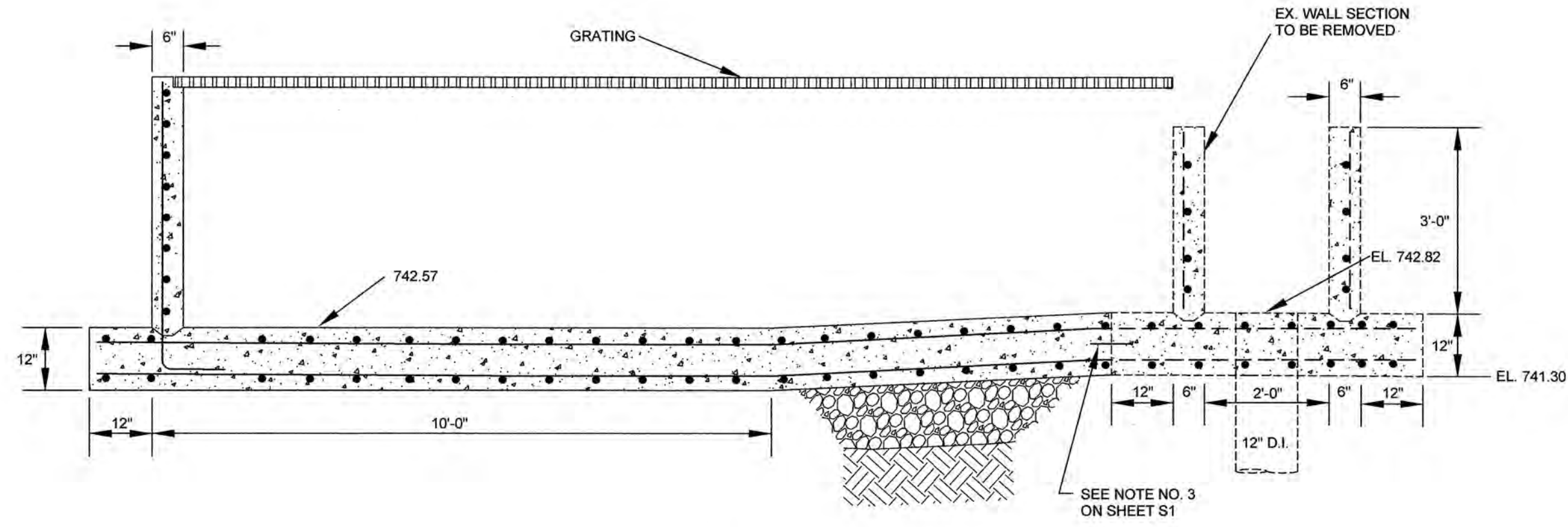
UPGRADES TO TRENTON WASTEWATER TREATMENT PLANT HEADWORKS  
FOR  
THE CITY OF TRENTON  
LADD ENVIRONMENTAL CONSULTANTS, INC.  
P.O. BOX 16844  
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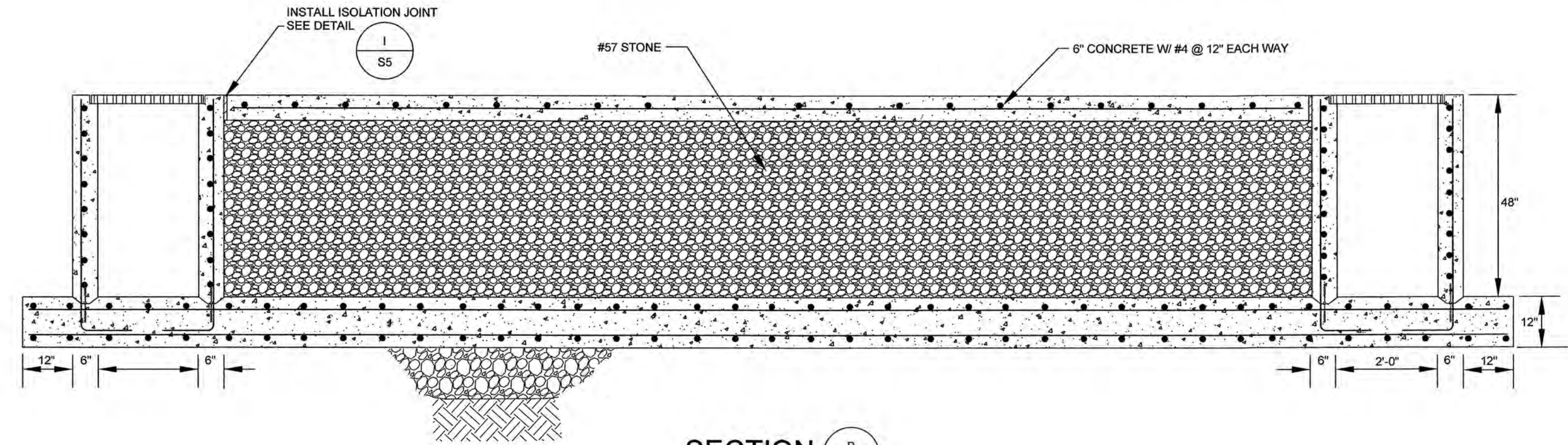
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DRAWN BY: T.S.	SCALE: NOTED	SHEET S2	



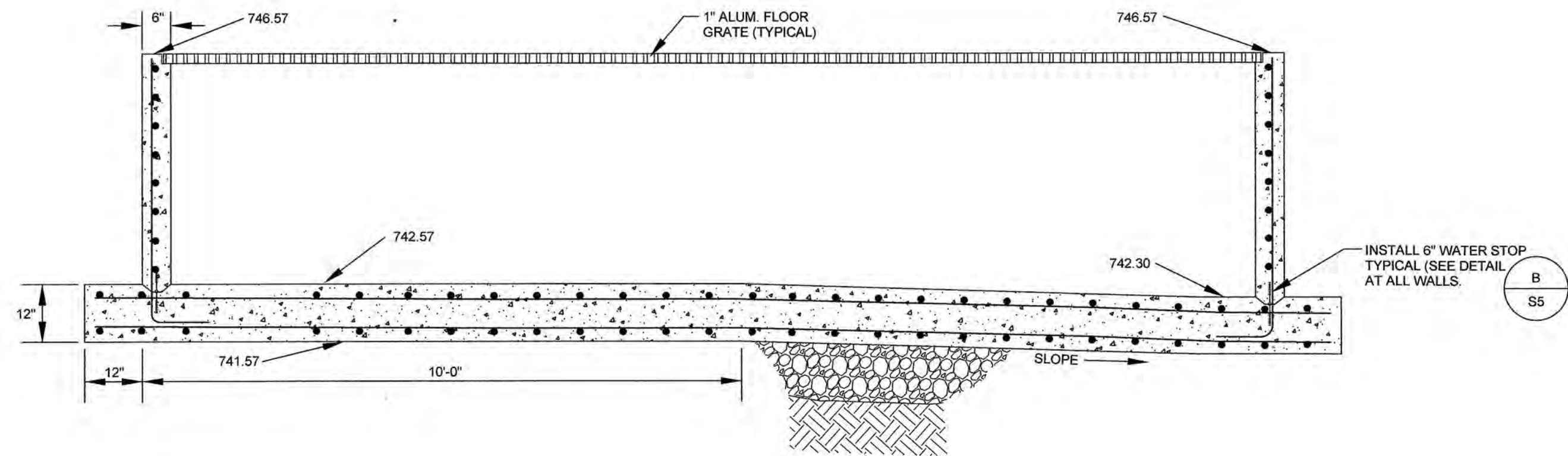
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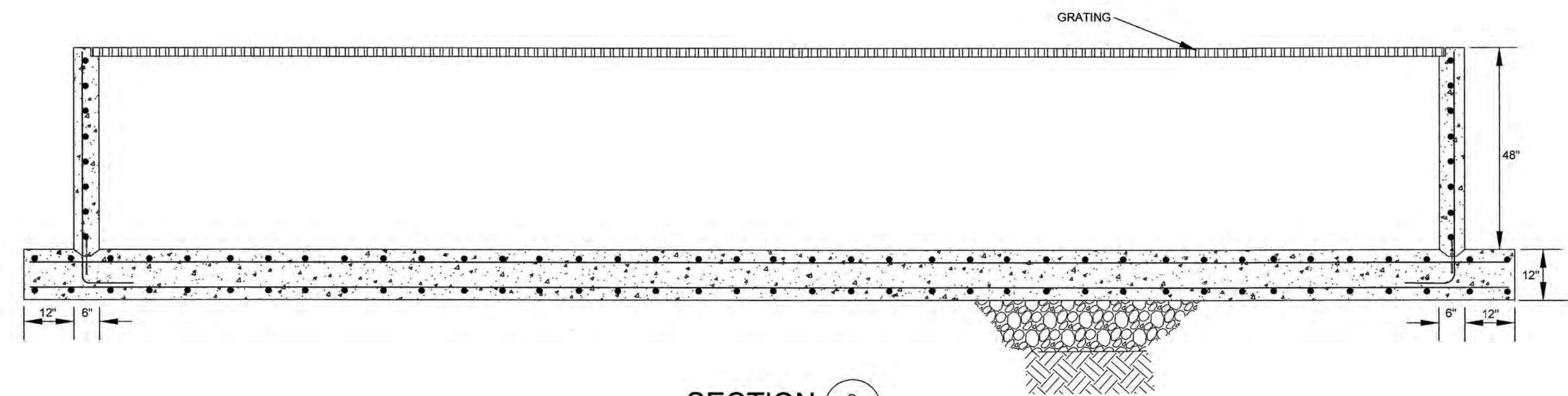
**SECTION A**  
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**SECTION B**  
SCALE: 1/2" = 1'-0"



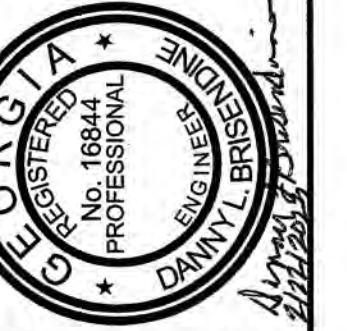
**SECTION C**  
SCALE: 1/2" = 1'-0"



**SECTION D**  
SCALE: 1/2" = 1'-0"

**SCREEN SECTIONS**

REVISIONS	DATE	BY



UPGRADES TO TRENTON WASTEWATER TREATMENT PLANT HEADWORKS  
FOR THE CITY OF TRENTON

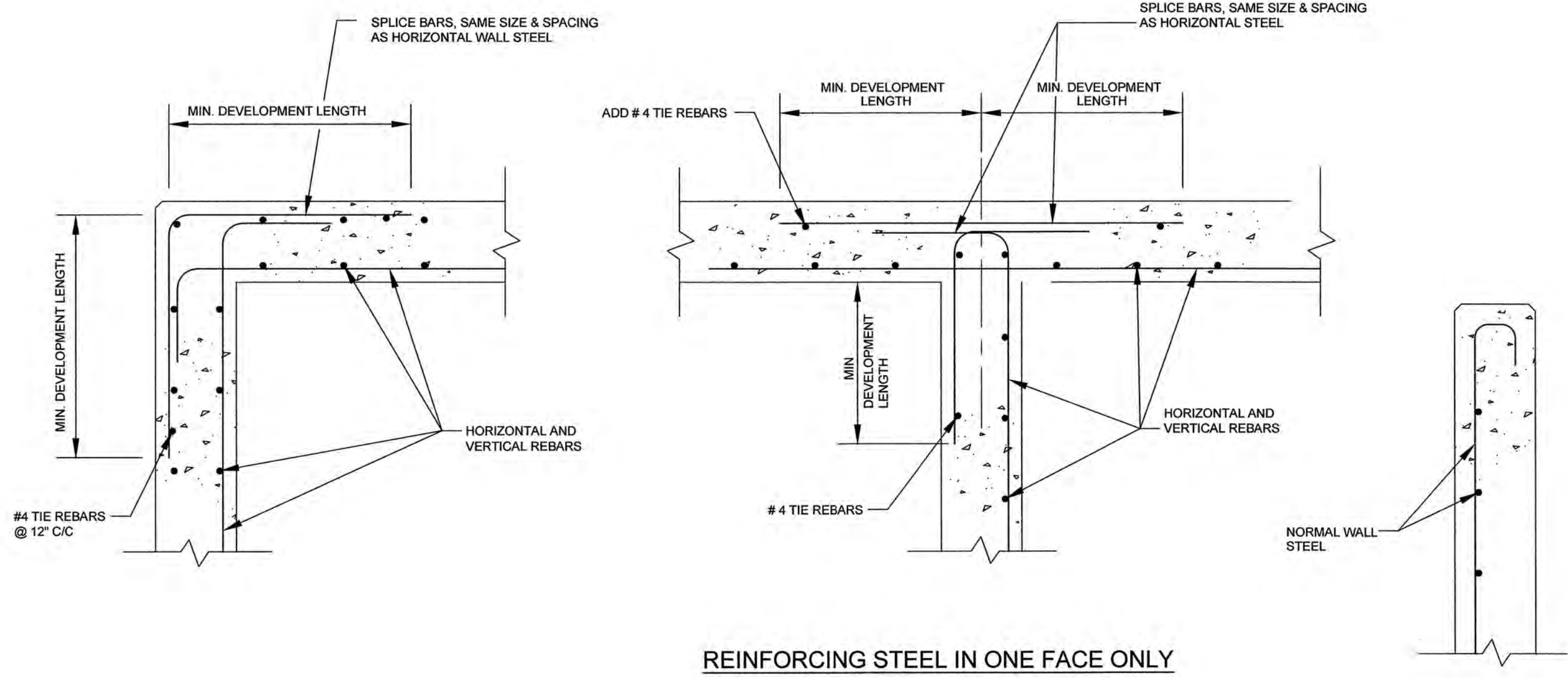
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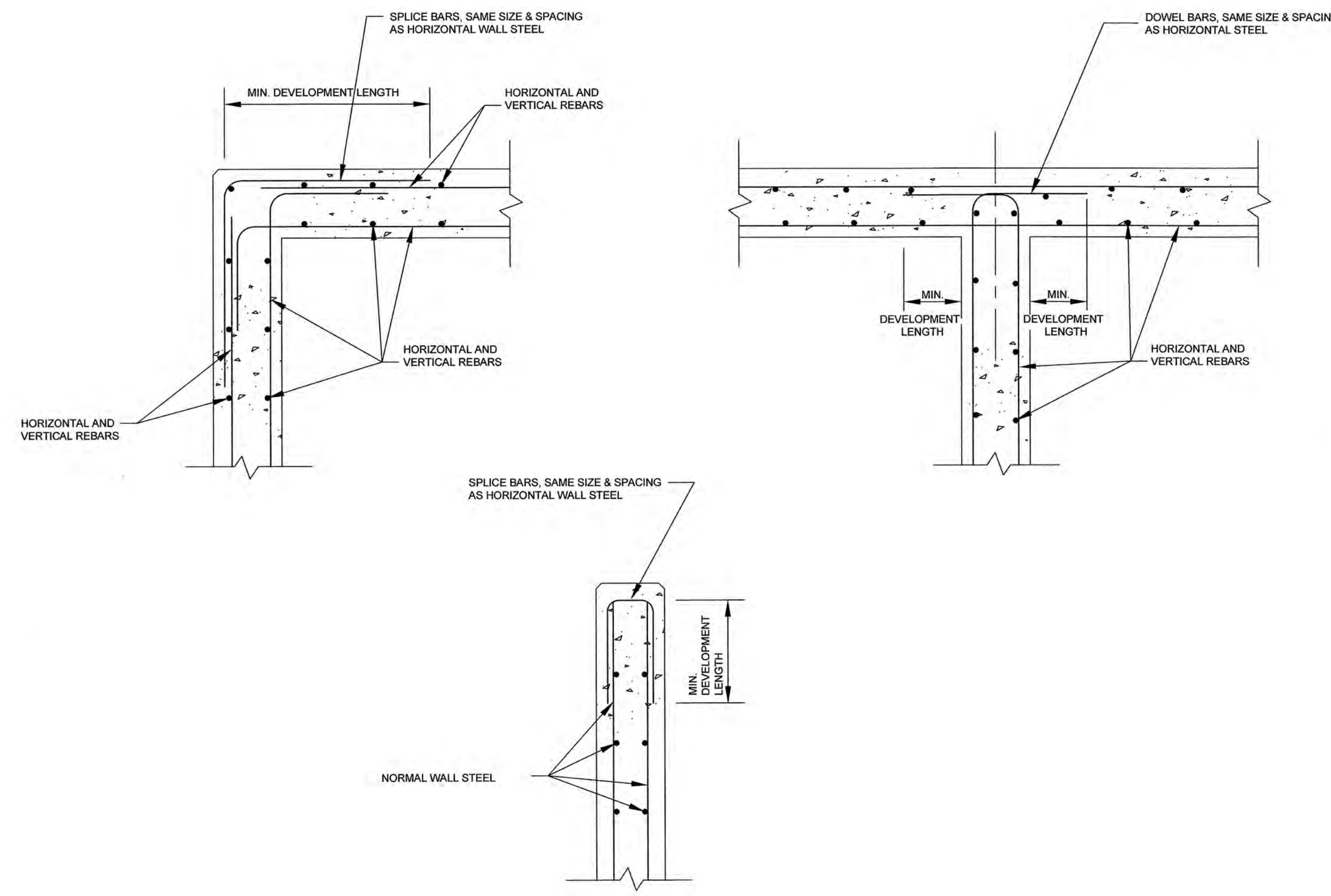
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DRAWN BY:	T.S. ISB	CHECKED BY:	
SCALE:	NOTED	DATE:	JANUARY, 2023
SHEET:	S3		



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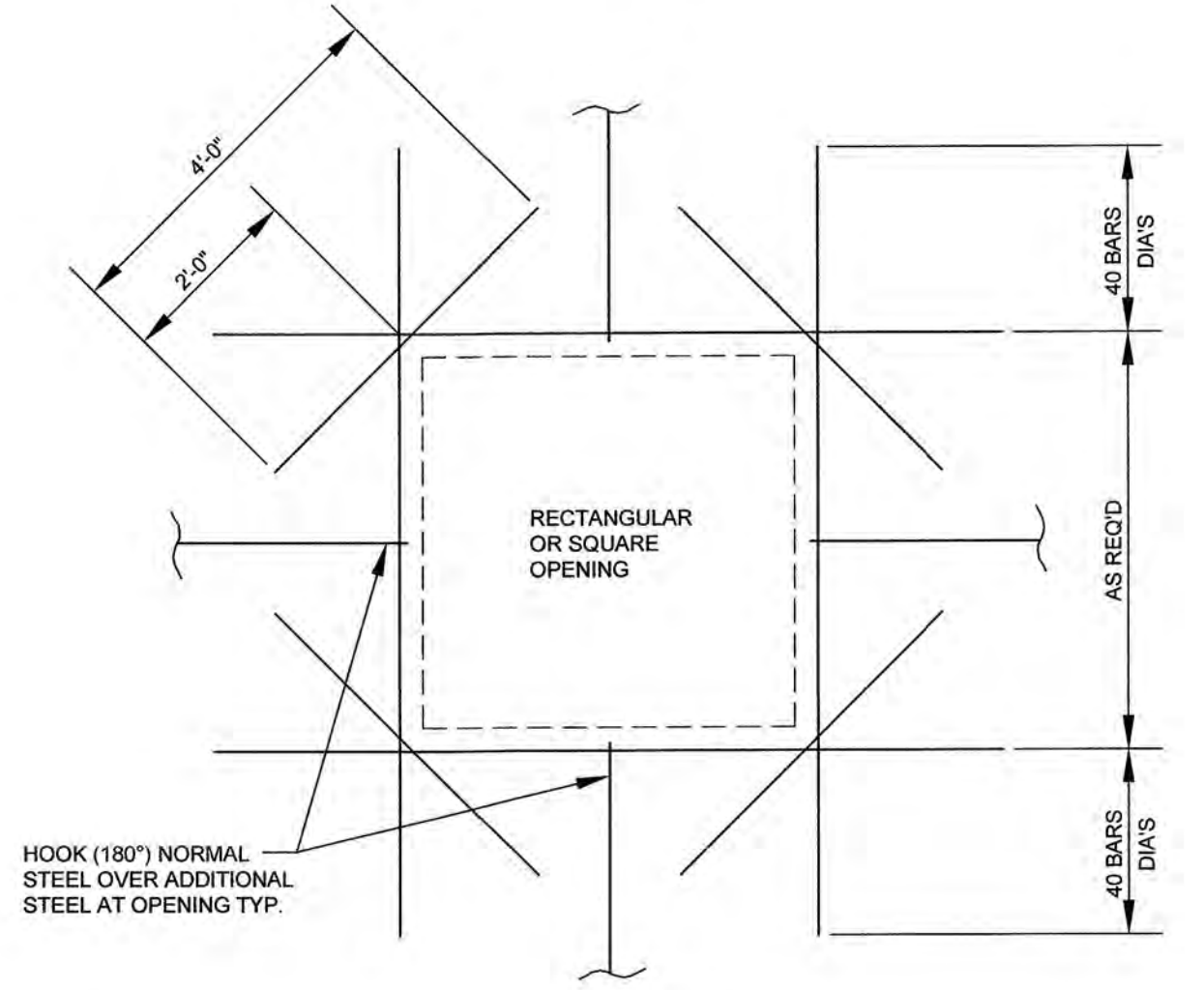
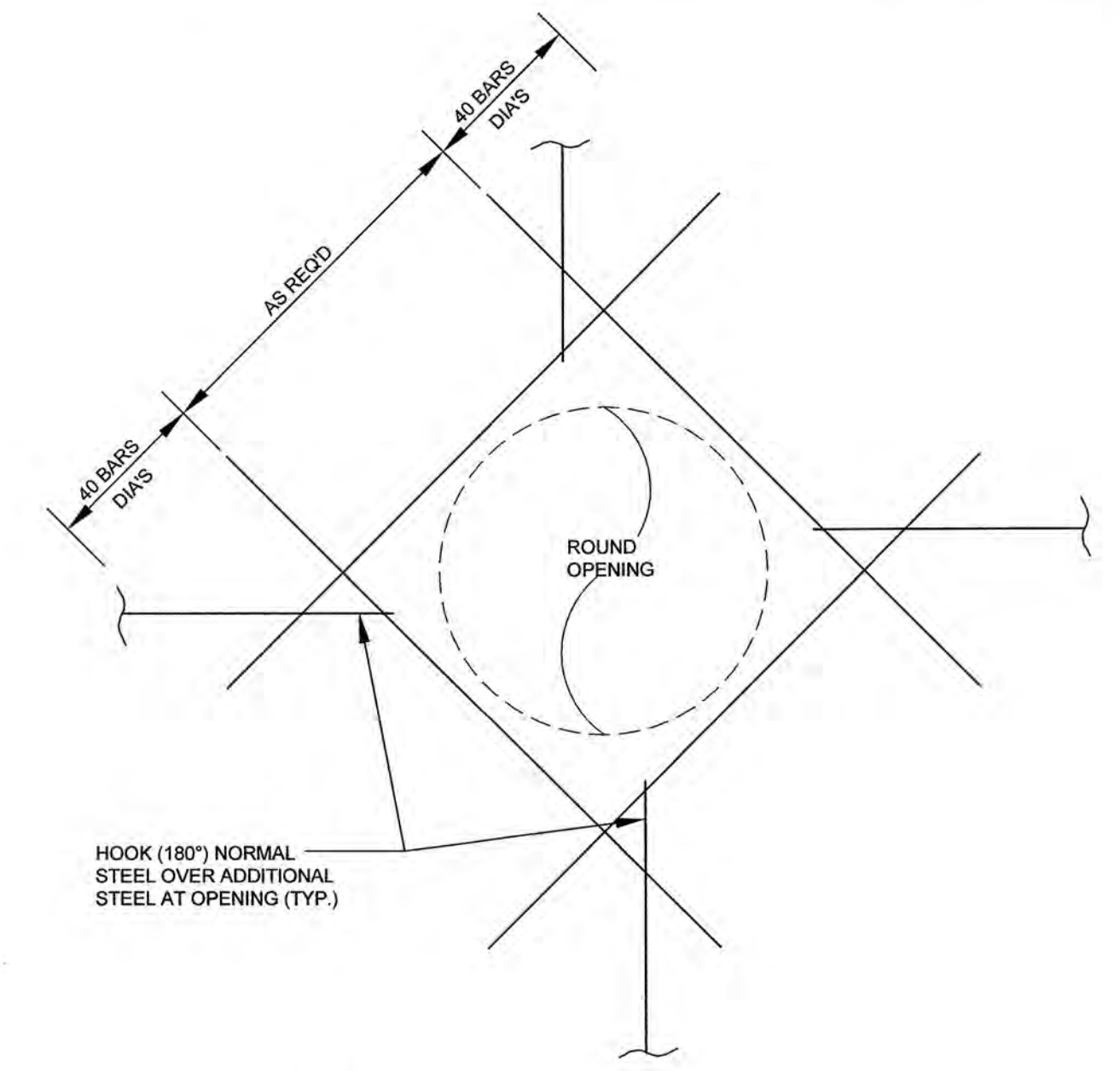
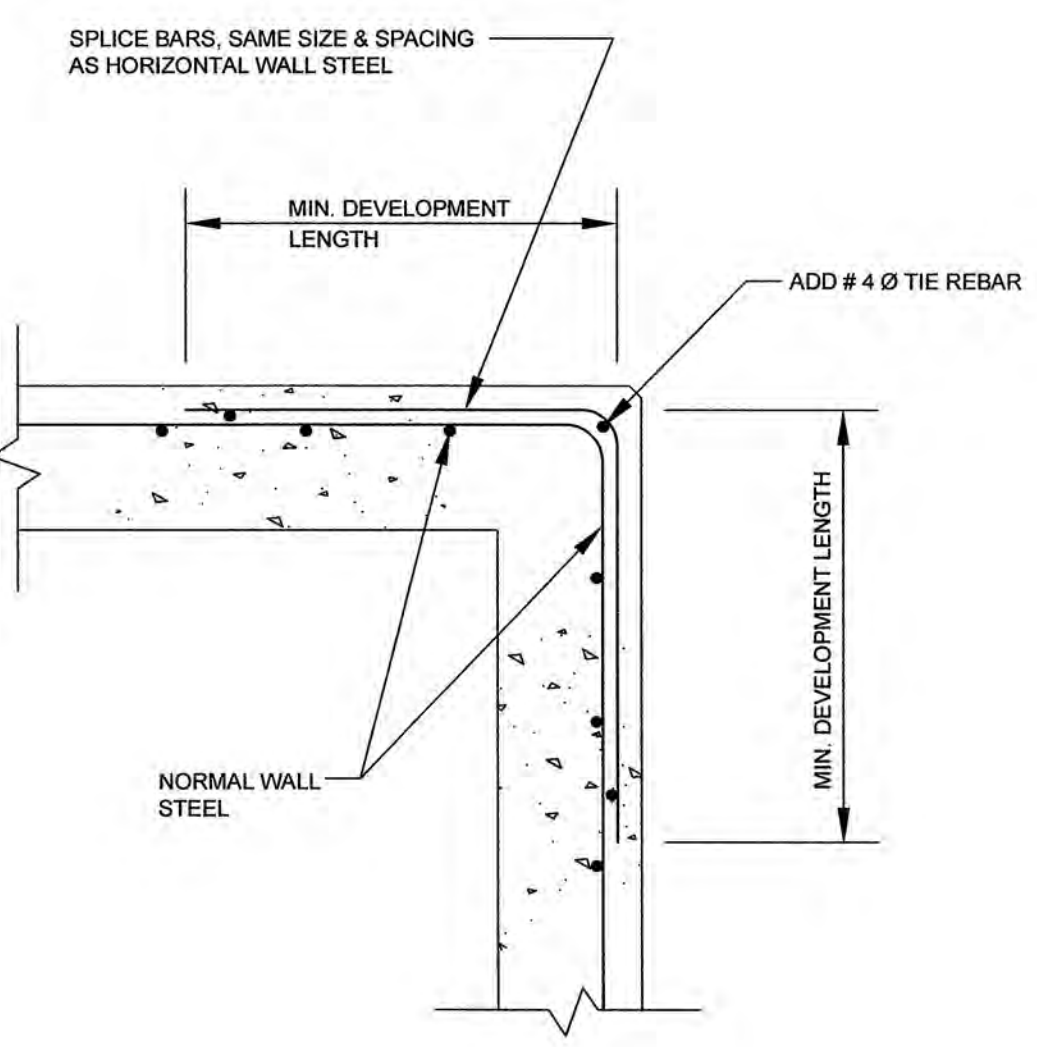
REINFORCING STEEL IN ONE FACE ONLY



REINFORCING STEEL IN BOTH FACES

**STEEL ARRANGEMENT AT WALL CORNERS, INTERSECTIONS, AND ENDS**

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



**REINFORCEMENT STEEL ARRANGEMENT AT OPENINGS IN SLABS AND WALLS**

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

**NOTES:**

- WHERE REINF. STEEL IS IN ONE FACE ONLY PLACE, AS SHOWN, ADDITIONAL REINF. BARS AS FOLLOWS:
- # 4 - BARS IN 4" SLAB OR WALL
  - # 5 - BARS IN 6" SLAB OR WALL
  - # 7 - BARS IN 8" SLAB OR WALL
  - # 8 - BARS IN 12" SLAB OR WALL
  - # 9 - BARS IN 14" AND LARGER SLAB OR WALL
- WHERE REINF. STEEL IS IN BOTH FACES PLACE, AS SHOWN, ADDITIONAL REINF. BARS IN EACH FACE AS FOLLOWS:
- # 6 - BARS IN 8" OR 10" SLAB OR WALL
  - # 7 - BARS IN 12" SLAB OR WALL
  - # 9 - BARS IN 14" AND LARGER SLAB OR WALL
- WHERE POSSIBLE BEND REBAR AROUND OPENINGS.

**GENERAL NOTES:**

1. CONSTRUCTION METHODS, PROCEDURES AND SEQUENCES ARE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL TAKE ALL THE NECESSARY MEANS TO MAINTAIN AND PROTECT THE STRUCTURAL INTEGRITY OF ALL CONSTRUCTION, NEW AND EXISTING, AT ALL STAGES.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO ANY PERTINENT WORK. ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE NOTED ON THE SHOP DRAWINGS.
3. COORDINATE WITH THE CIVIL DRAWINGS, AND OTHER PROJECT REQUIREMENTS.
4. USE MANUFACTURER'S CERTIFIED DRAWINGS AND SPECIFICATIONS FOR BUILDING ANCHORAGE AND DETAILS.
5. ALL CONSTRUCTION JOINTS SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE INCORPORATED INTO THE STRUCTURE. ADDITIONAL CONSTRUCTION JOINTS TO FACILITATE CONSTRUCTION SHALL BE LOCATED AND DETAILED ON THE SHOP DRAWINGS FOR REVIEW. ALL CONSTRUCTION JOINTS TO BE KEYPED. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED IN WALLS AND BEAMS, UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.
6. ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED, SEE DETAIL C 55.
7. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE CIVIL DRAWINGS TO DETERMINE WHERE OPENINGS ARE REQUIRED IN WALLS AND SLABS.
8. ALL STRUCTURES, AS SHOWN, HAVE BEEN DESIGNED TO CARRY IN PLACE DESIGN LOADS ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPORT OF ANY ADDITIONAL LOADS AND FORCES IMPOSED DURING CONSTRUCTION, TRUCKING, ERECTING AND HANDLING.
9. ALL SLABS AND FOOTINGS ON GRADE TO BE PLACED ON 4" MINIMUM THICKNESS OF COMPACTED CRUSHED STONE, UNLESS OTHERWISE NOTED.

**CONCRETE:**

ITEM	28 DAY COMPRESSIVE STRENGTH
A. CONCRETE SCHEDULES	
1. CLASS "A" CONCRETE	4000 PSI NORMAL WEIGHT
B. CONCRETE COVER OVER REINFORCING (I.N.O.)	
1. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3"
2. CONCRETE EXPOSED TO EARTH OR WEATHER, OR IN VESSELS CONTAINING WATER:	2"

**SITE & FOUNDATION NOTES:**

1. STRIP ALL STRUCTURE SITES OF ALL TOPSOIL, ORGANIC MATERIAL, EXISTING PAVEMENT, STRUCTURES, OR ANY OTHER DELETERIOUS MATERIALS.
2. EXCAVATE, WHERE REQUIRED, TO STRUCTURE SUBGRADE.
3. COMPACT THE AREA UNDER EACH STRUCTURE IN ORDER TO LOCATE ANY SOFT AREAS. THE OWNER'S GEOTECHNICAL ENGINEER IS TO BE PRESENT DURING THIS OPERATION. ANY SOFT AREAS DETECTED ARE TO BE UNDERCUT AND REPLACED WITH ENGINEERED FILL.
4. FILL, WHERE REQUIRED, IS TO BE PLACED IN 8" LOOSE LIFTS AND COMPACTED TO 98% STANDARD PROCTOR (ASTM D-998), WITHIN ±2% OF OPTIMUM MOISTURE CONTENT.
5. ALL FOUNDATIONS SHALL BEAR ON MATERIAL CAPABLE OF SUPPORTING 2500 PSF. THE OWNER'S GEOTECHNICAL ENGINEER SHALL VERIFY ALL FOUNDATION EXCAVATIONS.
6. ADHERE TO ALL REQUIREMENTS AND RECOMMENDATIONS AS INDICATED IN THE GEOTECHNICAL ENGINEERING EVALUATION.

**REINFORCING:**

1. ALL REINFORCING SHALL CONFORM TO THE LATEST REVISION OF A.S.T.M. SPECIFICATION A615, GRADE 60.
2. ALL REINFORCING SHALL BE DETAILED IN ACCORDANCE WITH A.C.I. STANDARD 315, OF LATEST REVISION.
3. SPLICES FOR REINFORCING ARE SHOWN SPECIFICALLY ON STRUCTURAL DRAWINGS. WHERE SPLICES ARE NECESSARY OTHER THAN SPECIFICALLY SHOWN, PROVIDE CLASS "B" TENSION LAP SPLICES. REVIEW WITH STRUCTURAL ENGINEER AS NECESSARY.
4. NO REINFORCING BAR SHALL BE WELDED OR HEATED IN ANY MANNER, UNLESS SPECIFICALLY SHOWN OR NOTED ON THE DRAWINGS.
5. PROVIDE FULL EMBEDMENT FOR ALL DOWELS. IF NOT OTHERWISE SPECIFIED, DOWEL SIZE AND SPACING SHALL BE THE SAME AS MAIN REINFORCING.

**DESIGN CRITERIA**

- A. BUILDING CODES AND STANDARDS:
1. AMERICAN CONCRETE INSTITUTE, A.C.I. 318
  2. AMERICAN CONCRETE INSTITUTE, A.C.I. 530
  3. AMERICAN INSTITUTE OF STEEL CONSTRUCTION, A.I.S.C.
  4. STANDARD BUILDING CODE, S.B.C.
  5. AMERICAN WELDING SOCIETY, A.W.S.

**INTERFACE WITH EXISTING STRUCTURE**

1. BEFORE FABRICATION THE CONTRACTOR WILL FIELD-VERIFY ALL DIMENSIONS, ELEVATIONS, AND CONDITIONS. THE ENGINEER WILL BE NOTIFIED AND ALLOWED TO EXAMINE THE AS-BUILT STRUCTURE TO MODIFY DESIGN AS REQUIRED.
2. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND MAINTAINING THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE AT THE INTERFACE CONNECTIONS.

**SHOP DRAWINGS**

1. ALL SHOP DRAWINGS ARE TO BE NEWMY PREPARED. REPRODUCTIONS OF CONTRACT STRUCTURAL DRAWINGS FOR USE AS ERECTION DRAWINGS WILL NOT BE PERMITTED. SHOULD SHOP DRAWING SUBMITTALS CONTAIN ANY REPRODUCTIONS OF CONTRACT STRUCTURAL DRAWINGS, THEY WILL BE REJECTED AND RETURNED WITHOUT ENGINEER REVIEW.
2. CONTRACTOR TO REVIEW ALL SHOP DRAWING SUBMITTALS AND STAMP WITH APPROVAL PRIOR TO SUBMISSION TO ENGINEER. SHOP DRAWINGS BY THE CONTRACTOR WILL BE RETURNED WITHOUT ARCHITECT/ENGINEERS REVIEW.

REVISIONS	DATE	BY

REGISTERED PROFESSIONAL ENGINEER  
 No. 18844  
 CIVIL ENGINEERING  
 STATE OF GEORGIA  
 LADD ENVIRONMENTAL CONSULTANTS, INC.

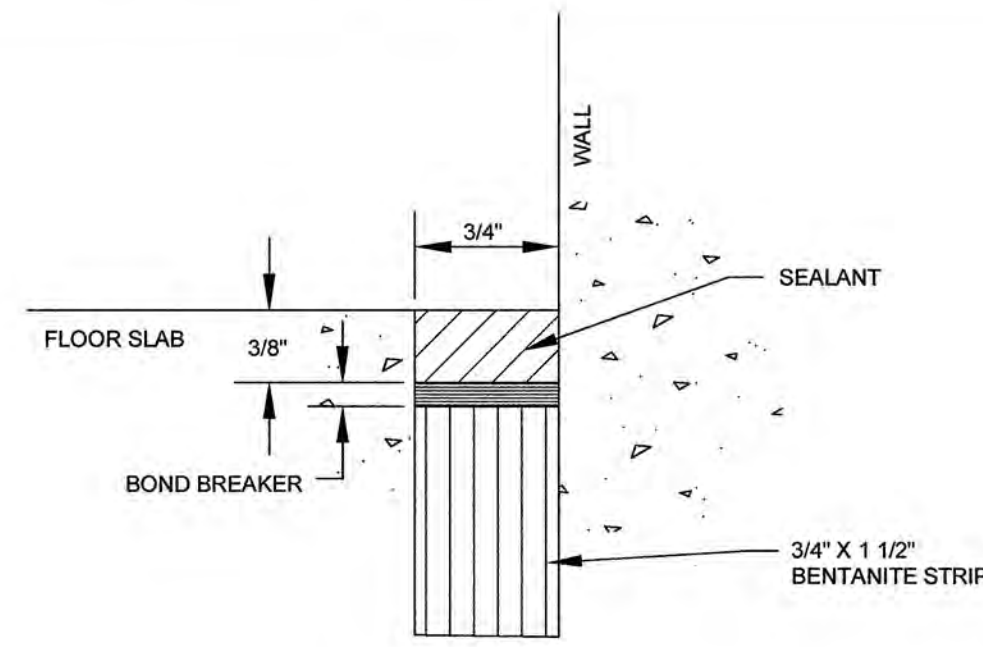
UPGRADES TO TRENTON WASTEWATER TREATMENT PLANT HEADWORKS  
 FOR THE CITY OF TRENTON  
**LADD ENVIRONMENTAL CONSULTANTS, INC.**  
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JOB NO: 2267	DRAWN BY: TS	SCALE: NOTED
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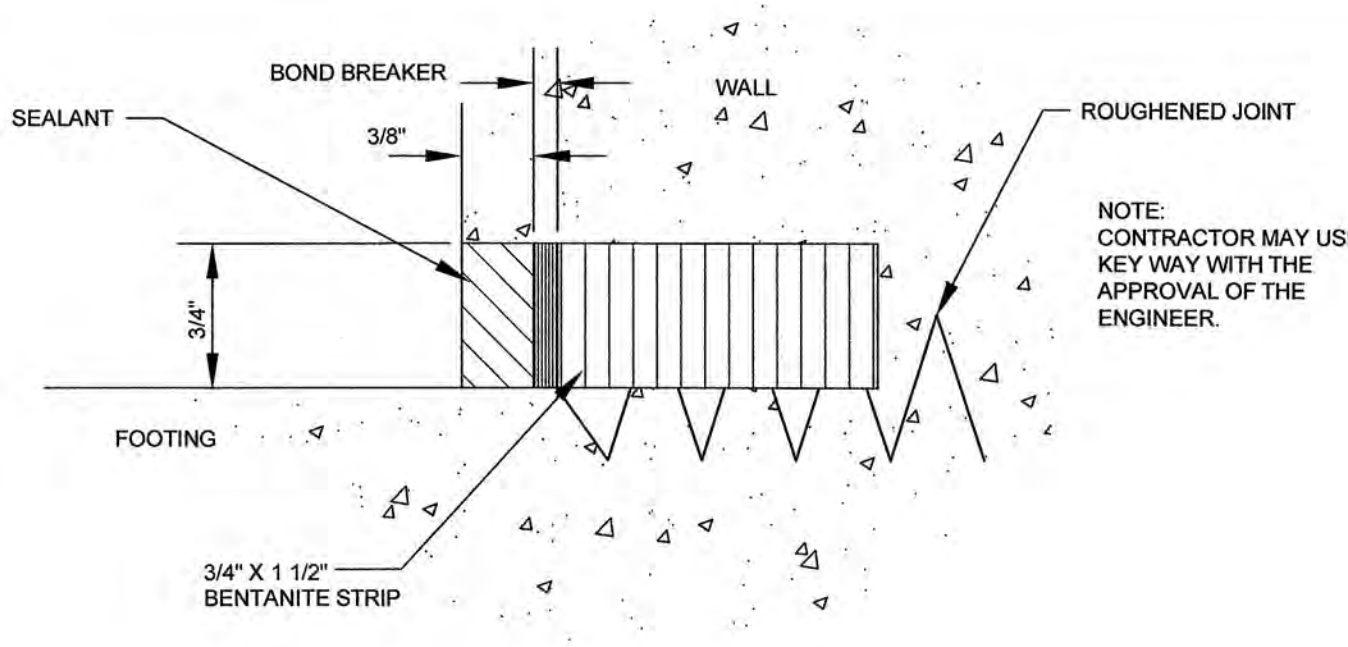


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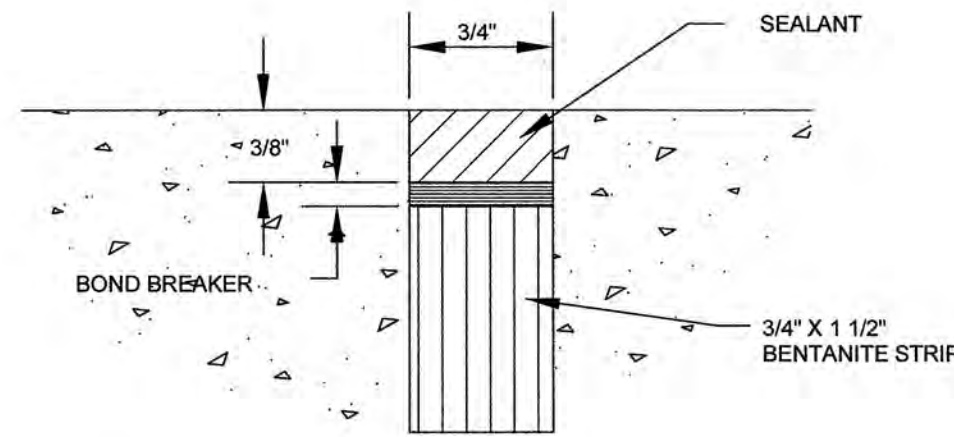
**TYPICAL AT FLOOR SLAB AND WALL INTERSECTIONS**

SCALE: 1"=1'-0"



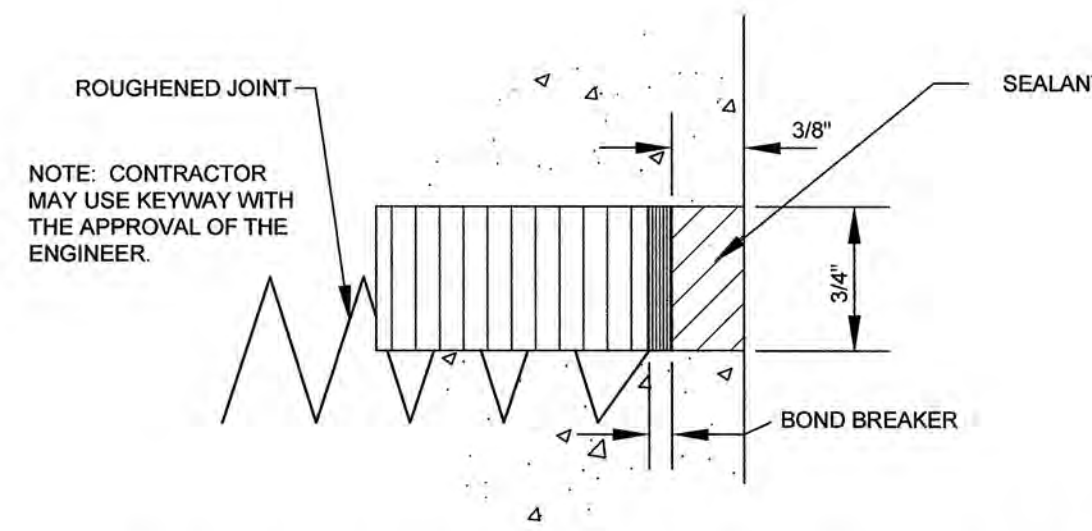
**TYPICAL AT FOOTING AND WALL INTERSECTIONS**

SCALE 1"=1"



**TYPICAL AT FLOOR SLAB**

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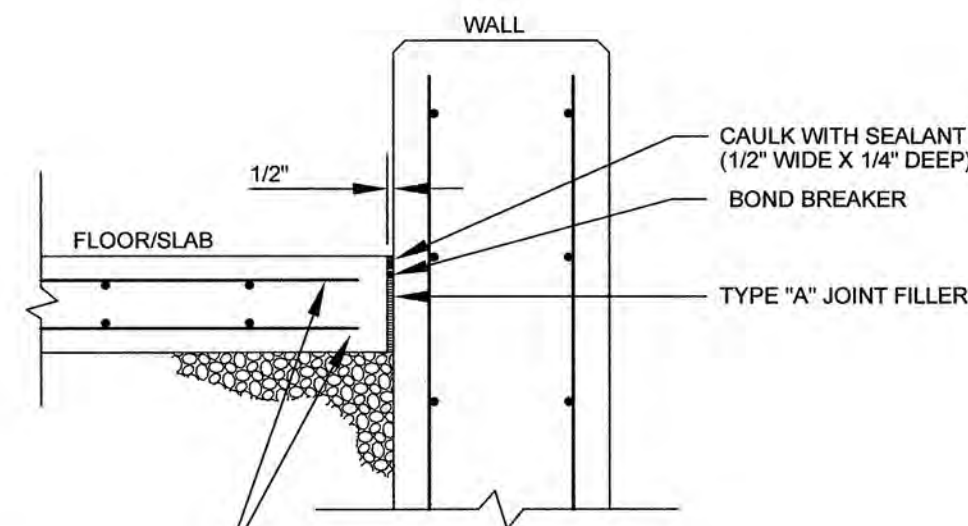
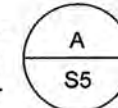


**TYPICAL HORIZONTAL WALL JOINTS**

SCALE 1"=1"

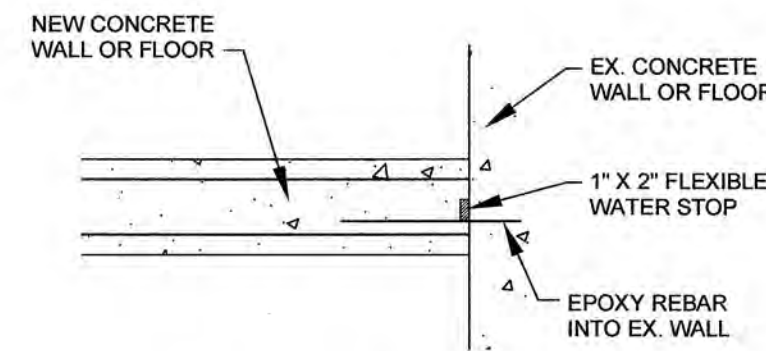
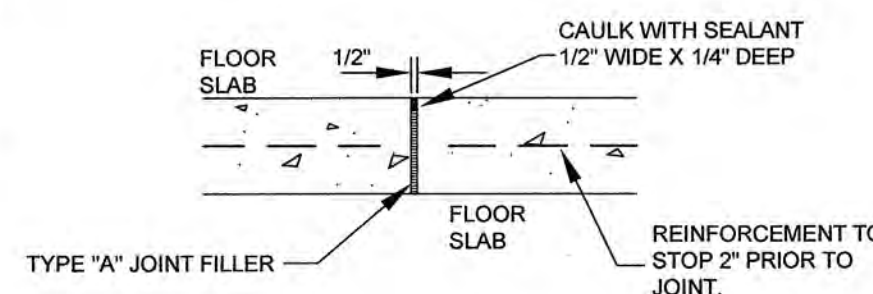
**SEALANT DETAILS**

SCALE 1"=1"



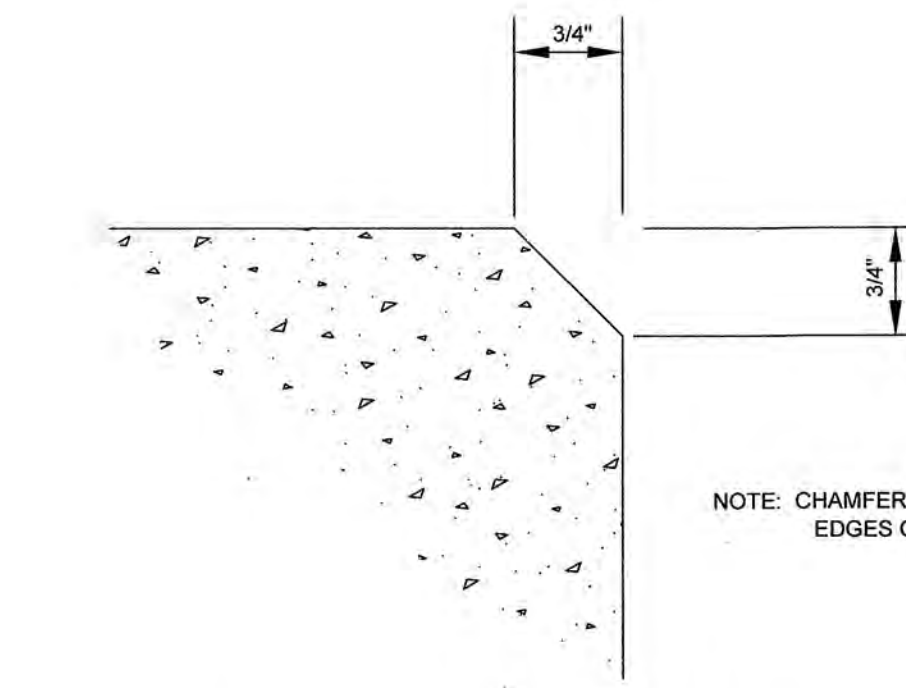
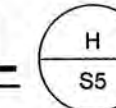
**TYPICAL ISOLATION JOINT DETAIL**

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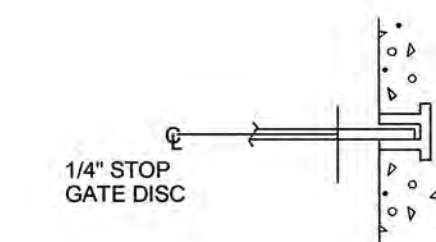
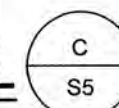
**DETAIL**

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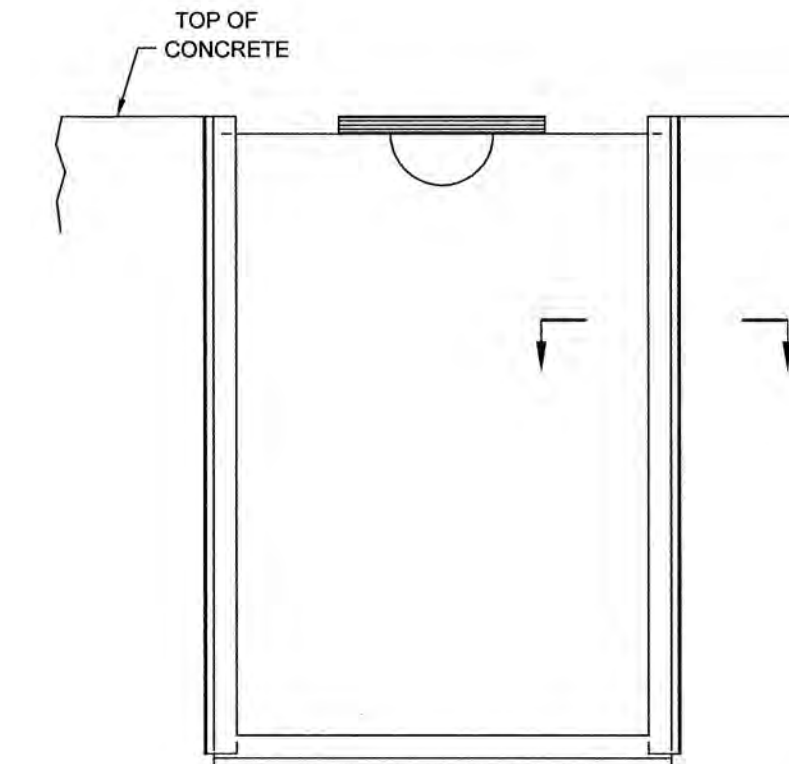


**STANDARD CONCRETE CHAMFER DETAIL**  
(TYPICAL FOR ALL EXPOSED CORNERS)

NO SCALE

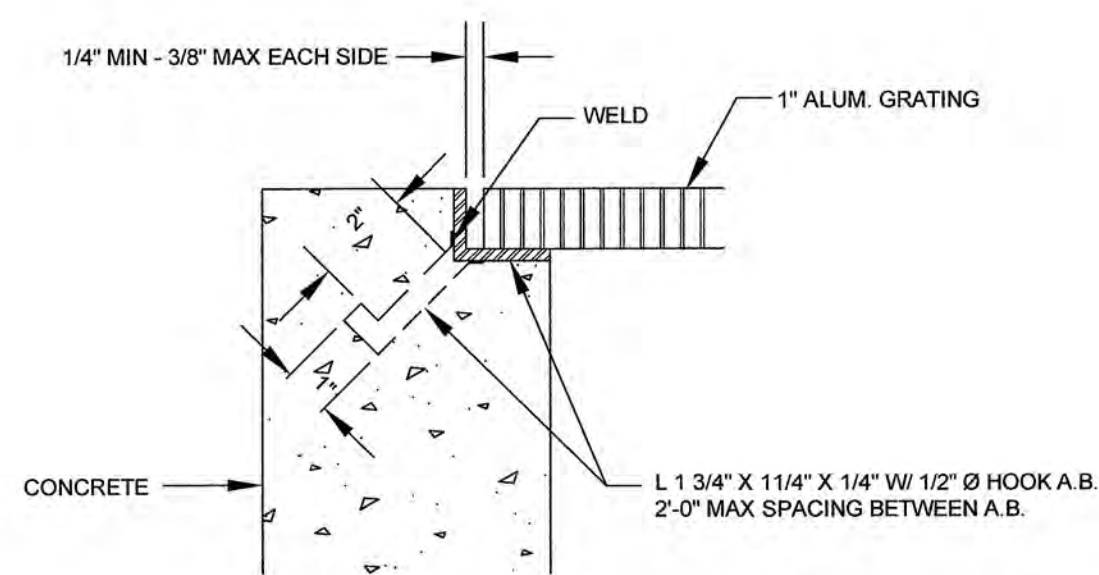
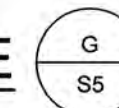


**SECTION THRU STOP GATE**



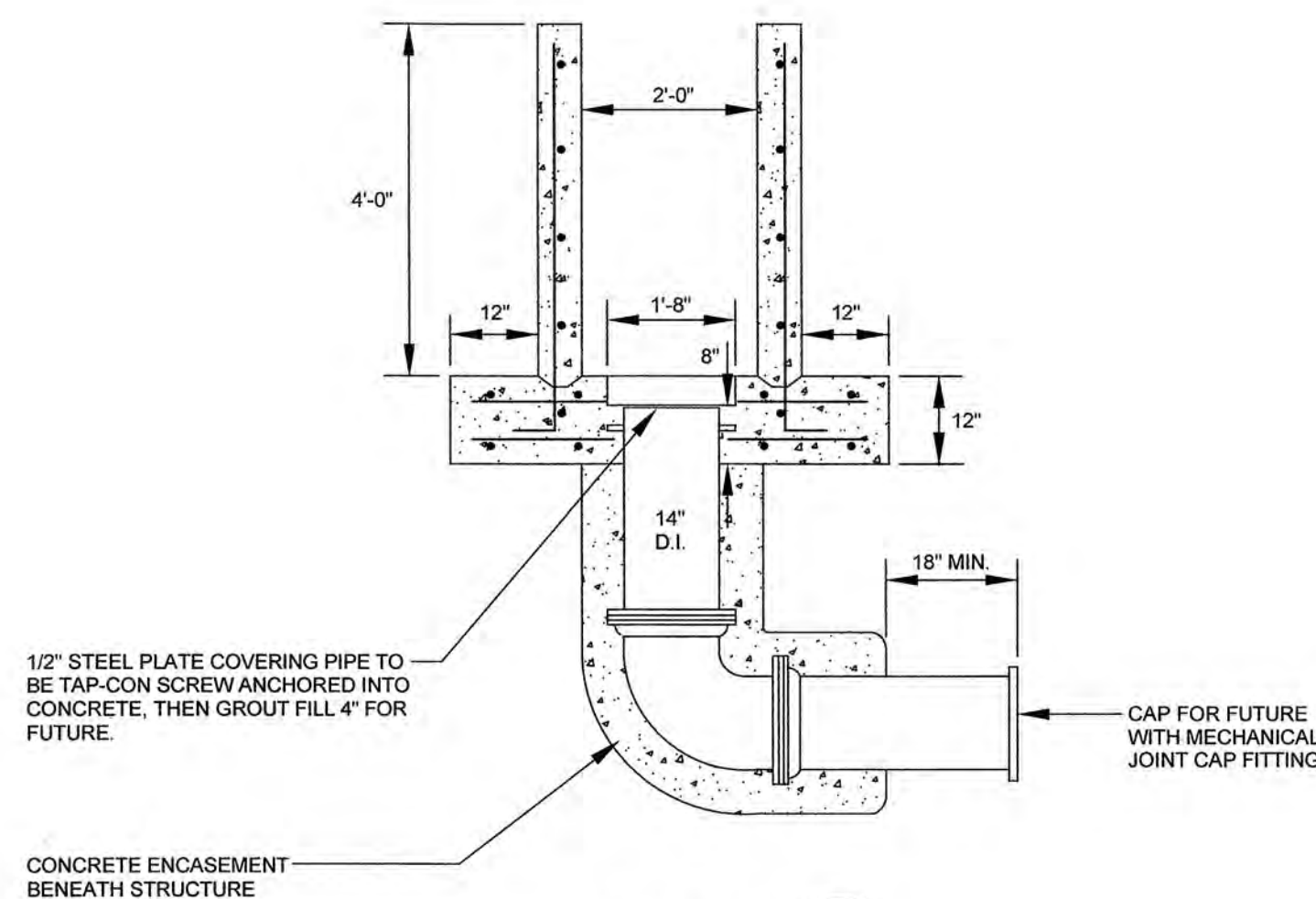
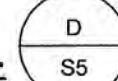
**EMBEDDED STOP GATE**

NO SCALE



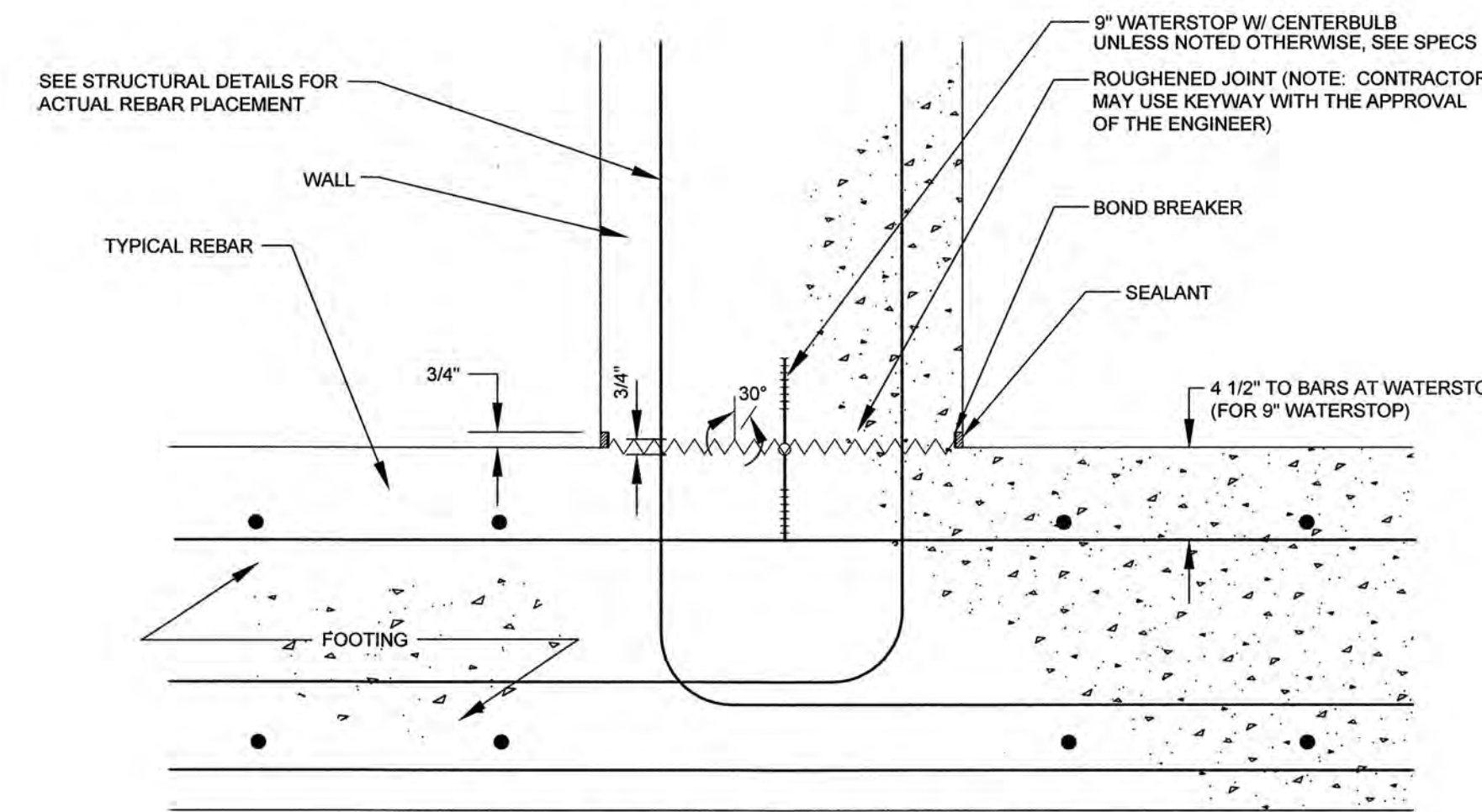
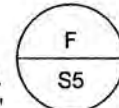
**TYPICAL GRATING DETAIL**

NO SCALE



**DETAIL**

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



**FIXED CONNECTION**

**TYPICAL CONSTRUCTION JOINTS W/ WATERSTOP**

NO SCALE



**GENERAL NOTES:**

- REBAR SHALL NOT CONFLICT W/ CORRECT POSITIONING OF WATERSTOP
- WATERSTOPS SHALL BE ANCHORED W/ WIRE ON OUTER EDGE TO REBAR AT INTERVALS NO GREATER THAN 2'-0" IN ORDER TO ASSURE PROPER LOCATION.
- HORIZONTAL WALL JOINTS WHICH REQUIRE WATERSTOP, ROUGHENED JOINT AND SEALANT ARE SIMILAR TO THIS DETAIL.

DATE	REVISIONS	BY



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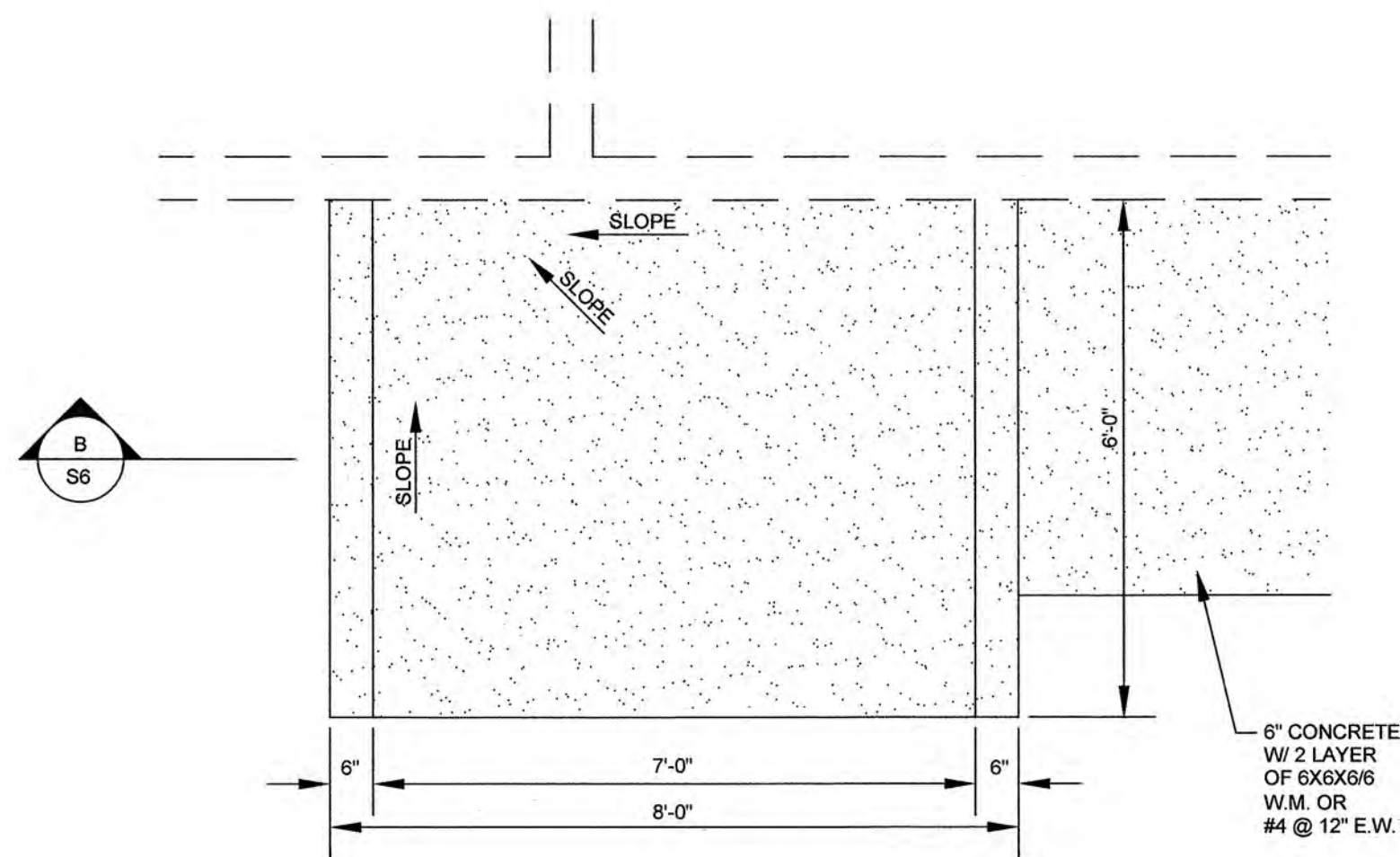
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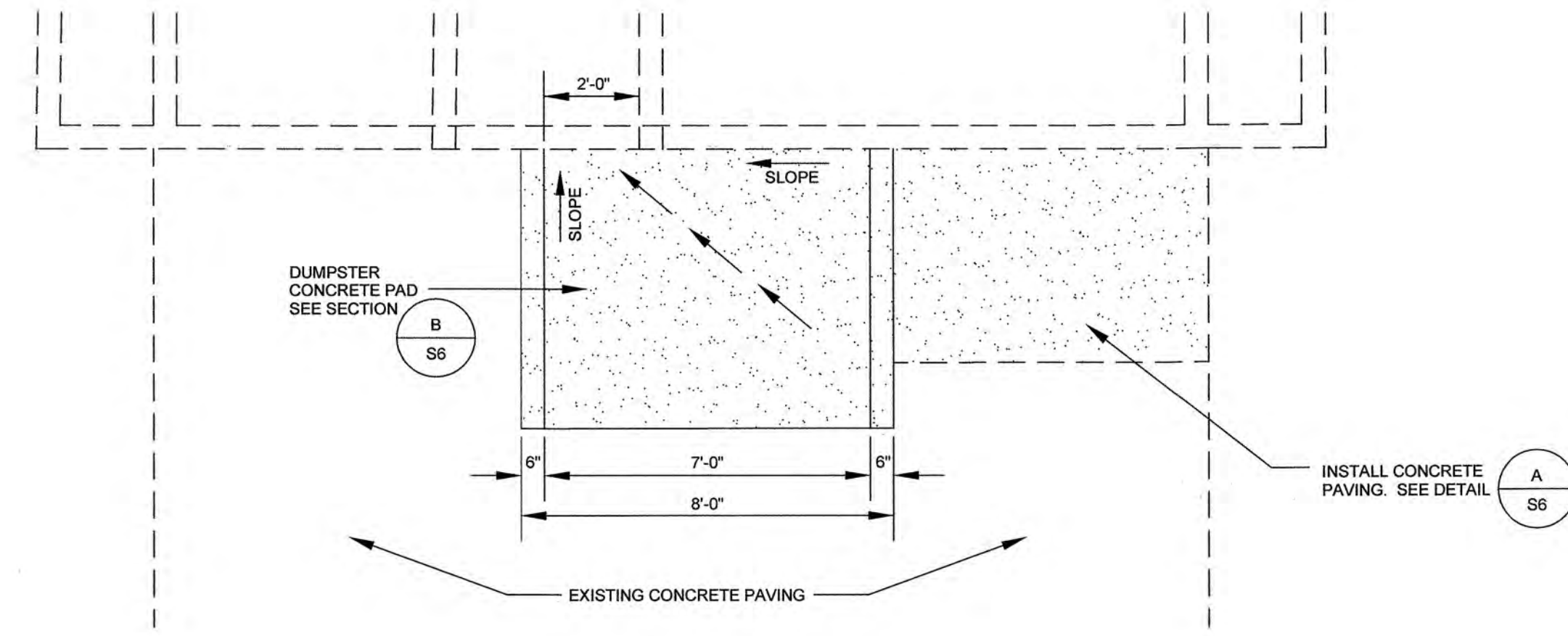
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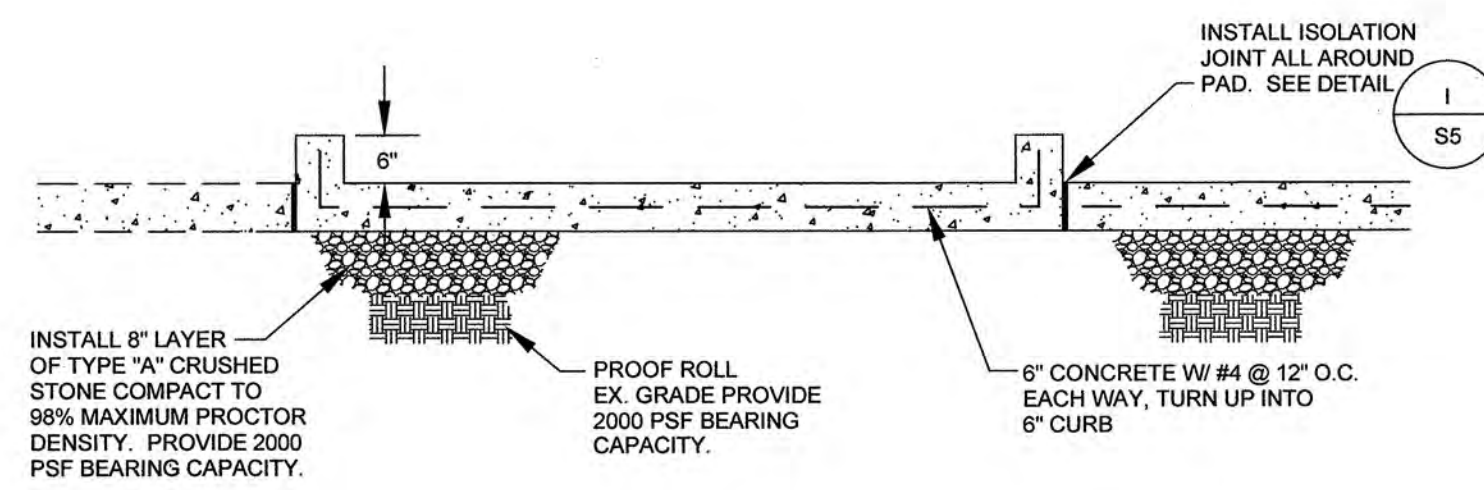
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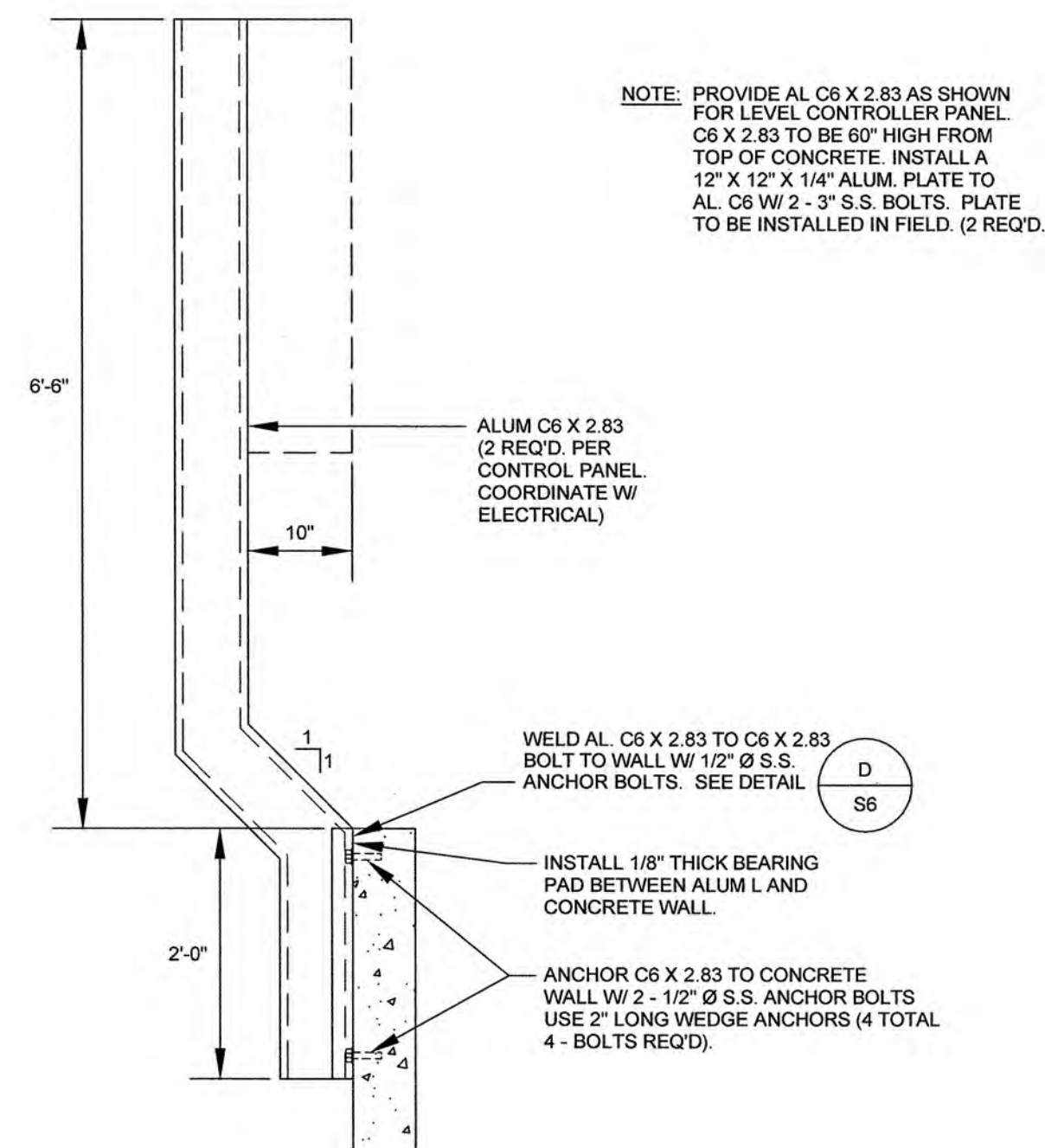
**PLAN DETAIL**  
SCALE: 1/2" = 1'-0"  
A/S6



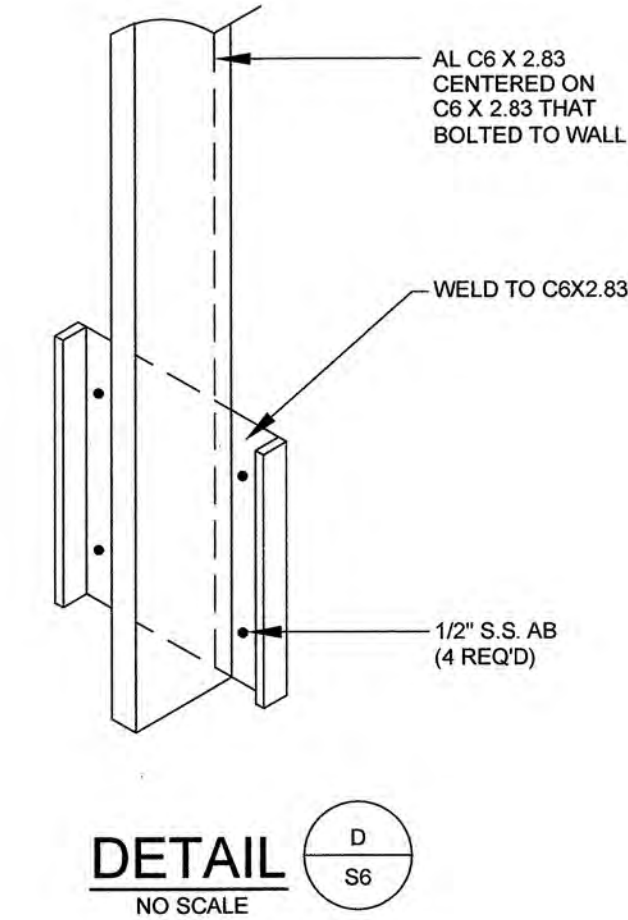
**PLAN**  
NO SCALE  
A/S6



**SECTION**  
SCALE: 1/2" = 1'-0"  
B/S6



**ELECTRICAL CONTROL PANEL SUPPORT DETAIL**  
SCALE: 3/4" = 1'-0"  
C/S6



**DETAIL**  
NO SCALE  
D/S6

REVISIONS	DATE	BY



GEORGIA  
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FOR  
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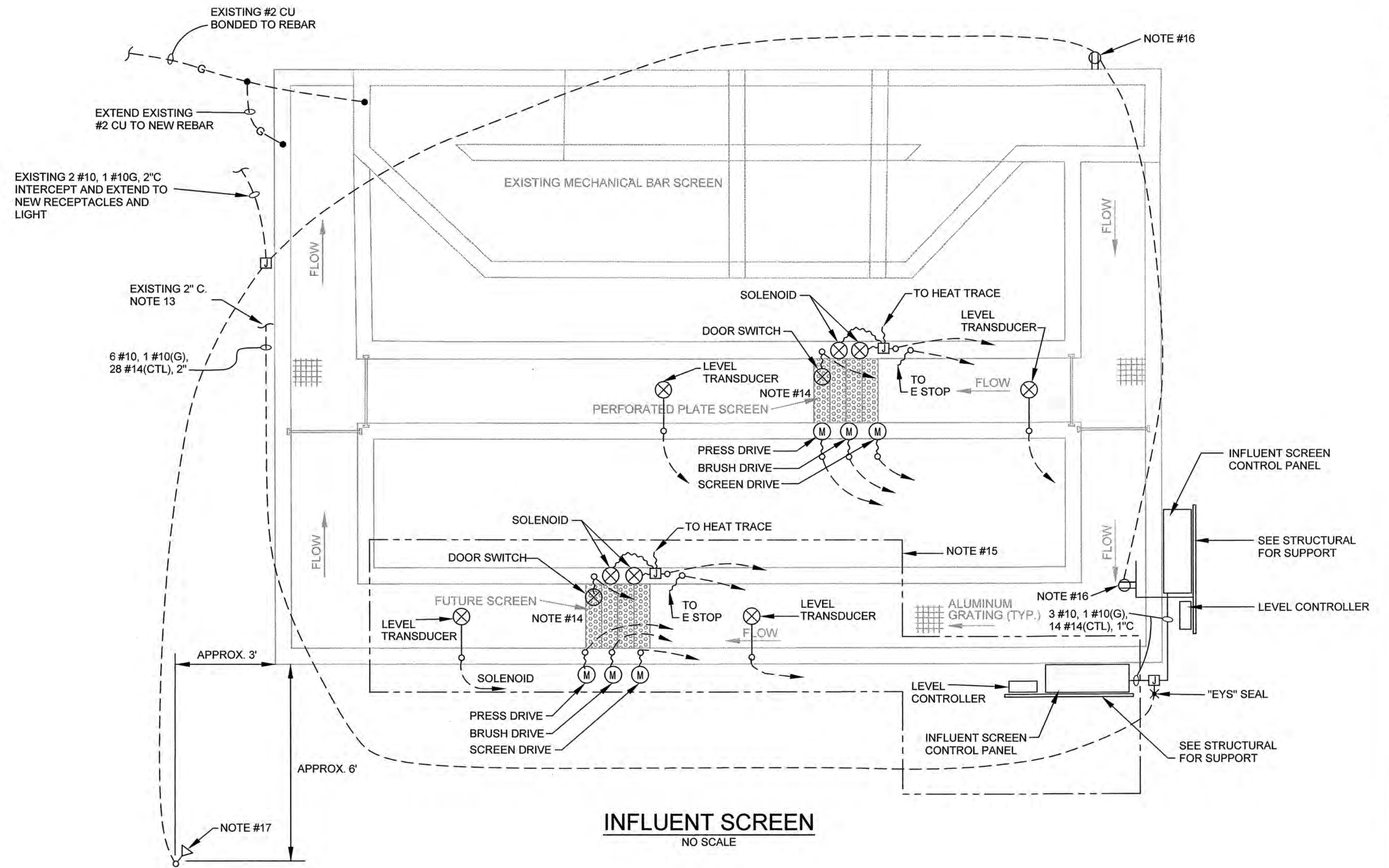
STRUCTURAL DETAILS





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## ELECTRICAL INSTALLATION NOTES

1. SCOPE:
  - A. FURNISH ALL LABOR, MATERIAL, EQUIPMENT AND TOOLS REQUIRED TO COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEM INCLUDING BUT NOT LIMITED TO WIRING, BOXES, LIGHT FIXTURES, PANELS SWITCHES, RECEPTACLES, DISCONNECTS, STARTERS, AND ALL OTHER WORK INDICATED ON THE DRAWINGS OR AS SPECIFIED HEREIN.
  - B. OBTAIN ALL PERMITS, INSPECTIONS, AND APPROVALS AS REQUIRED BY THE LOCAL AUTHORITIES HAVING JURISDICTION AND DELIVER CERTIFICATE OF APPROVAL TO THE GENERAL CONTRACTOR. ALL ASSOCIATED FEES SHALL BE PAID BY THE CONTRACTOR.
  - C. ALL MATERIALS AND EQUIPMENT OF THE ELECTRICAL SYSTEM NECESSARY FOR ITS PROPER OPERATION, BUT NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, SHALL BE FURNISHED AND INSTALLED WITHOUT ADDITIONAL CHARGE.
  - D. WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE 2020 NATIONAL ELECTRICAL CODE, THE LATEST STANDARD BUILDING CODE, NFPA 820, AND LOCAL AUTHORITIES HAVING JURISDICTION.
2. ALL SUBSTITUTIONS FOR EQUIPMENT AND MATERIAL SHALL SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION.
3. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH ALL OTHER TRADES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACTUAL ELECTRICAL REQUIREMENTS AND LOCATION OF EQUIPMENT, DUCTWORK, PIPING ETC. AND COORDINATED THE INSTALLATION ACCORDINGLY. IDENTIFY AND MAINTAIN ALL REQUIRED SERVICE CLEARANCES.
4. ALL CONDUCTORS SHALL BE COPPER #2 AWG MINIMUM CONDUCTOR SIZE FOR POWER AND LIGHTING WIRING. USE #14 AWG MINIMUM CONDUCTOR FOR SIGNAL WIRING. SERVICE ENTRANCE AND MOTOR FEEDERS CONDUCTORS SHALL BE XHHW, ALL OTHERS SHALL BE THWN-2.
5. POWER WIRES SIZES #12 AWG AND #10 AWG SHALL BE SOLID TYPE. ALL OTHER SIZES SHALL BE STRANDED.
6. ALL EXPOSED CONDUIT SHALL BE RIGID ALUMINUM, MINIMUM OF 3/4". ALL BURIED CONDUIT SHALL BE PVC-40, MINIMUM OF 1". ALL UNDERGROUND CONDUITS SHALL BE CONCRETE ENCASED. ALL MOTOR CONNECTIONS SHALL UTILIZE FLEXIBLE METAL CONDUIT - MAXIMUM OF 6 FEET.
7. ALL JUNCTION/OUTLET BOXES AND FITTINGS SHALL BE CAST WITH THREADED HUBS. ALL CONNECTIONS SHALL BE COMPRESSION TYPE. MYERS WATER TITE HUBS SHALL BE USED ON ALL EXTERIOR CONDUITS ENTERING ENCLOSURES, JUNCTION BOXES, PULL BOXES, DISCONNECTS, ETC.
8. ALUMINUM CONDUITS AND CHANNELS SHALL NOT BE INSTALLED IN CONTACT WITH CONCRETE.
9. PROVIDE SEAL-OFF FITTINGS ON ALL CONDUITS BETWEEN CONTROL PANEL / CONTROLLER AND MOTORS, INSTRUMENTS, DEVICES, AND BOXES LOCATED ON SCREENING STRUCTURE. LOCATE SEAL-OFFS DIRECTLY UNDER CONTROL PANEL / CONTROLLER AND INSTALL DUX SEAL.
10. CONTRACTOR IS RESPONSIBLE FOR ALL INTERCONNECTING WIRING AND CONDUIT BETWEEN THE INFLUENT SCREEN CONTROL PANEL AND THE FIELD INSTRUMENT/ DEVICES/ MOTORS. REFER TO SHOP DRAWINGS FOR REQUIREMENTS.
11. PROVIDE NEW 30/3, 42KAIC BREAKER(S) IN EXISTING MCC-1.
  - A. BID SCHEDULES "A" AND "B": PROVIDE NEW BREAKER IN EXISTING SPACE (COMPARTMENT "4UX")
  - B. BID SCHEDULE "B": ALSO REPLACE EXISTING "BAR SCREEN" BREAKER (COMPARTMENT "2IL")
12. REMOVE EXISTING CONDUCTORS AND INSTALL NEW CONDUCTORS FOR NEW SCREENING EQUIPMENT. PROVIDE COILED SLACK IN EXISTING SHOWN ON PLAN ONLY) SCREENING EQUIPMENT. PROVIDE COILED SLACK IN EXISTING SCADA TERMINAL CABINET. PROVIDE FINAL TERMINATION OF NEW CONDUCTORS IN NEW SCREEN CONTROL PANEL(S). FINAL TERMINATION OF CONDUCTORS IN EXISTING TERMINAL CABINET AND SCADA SYSTEM CONFIGURATION PROVIDED BY OTHERS.
13. REMOVE EXISTING CONDUCTORS. EXTEND CONDUIT TO NEW PULL BOX AND INSTALL NEW CONDUCTORS.
14. A. MINIMIZE EXPOSED CONDUIT. ROUTE CONDUIT, BETWEEN CONTROLLERS AND SCREEN DEVICES, BELOW SLAB AND UNDER CHANNEL; RISE IN CHANNEL WALL.  
 B. COMPLY WITH ALL REQUIREMENTS OF NEC ARTICLE 500, 501, 504: AREA WITHIN CHANNEL IS CLASS 1 DIV. 1, AREA WITHIN 10 FT. OF CHANNEL, UP TO 18" HIGH, IS CLASS 1 DIV. 2.  
 C. CONDUIT PASSING THROUGH CLASSIFIED AREA SHALL BE RIGID METAL WITHOUT JOINTS AND SHALL TERMINATE IN UNCLASSIFIED AREA, BOXES SHALL BE LOCATED IN UNCLASSIFIED AREA.  
 D. CONDUIT WITH JOINTS, OR TERMINATING, WITHIN A CLASSIFIED AREA SHALL BE RIGID METAL AND BE FITTED WITH EXPLOSION PROOF SEALS, PER NEC.
15. BID SCHEDULE "A":
  - A. SCREEN AND ASSOCIATED CONTROLS AND DEVICES ARE NOT INSTALLED; PROVIDE CONDUIT, AS REQUIRED UNDER BID SCHEDULE "B", FOR FUTURE SCREEN INSTALLATION.
  - B. INSTALL ALL CONDUIT AND WIRING FROM ADMINISTRATION BUILDING TO CONTROL PANEL SUPPORT STRUCTURE. TERMINATE WITH 6 FT. OF COILED SLACK, IN A JUNCTION BOX MOUNTED AT LOCATION OF FUTURE CONTROL PANEL.
  - C. EXTEND POWER CONDUCTORS TO EXISTING "BAR SCREEN" BREAKER (IN EX MCC-1 COMPT. "2IL") FOR FUTURE TERMINATION.
  - D. EXTEND CONTROL CONDUCTORS TO EXISTING SCADA TERMINAL CABINET FOR FUTURE TERMINATION.
 BID SCHEDULE "B":
  - E. NEW SCREEN AND ASSOCIATED CONTROLS AND DEVICES TO BE INSTALLED; PROVIDE ASSOCIATED WIRING AS REQUIRED.
  - F. REPLACE EXISTING "BAR SCREEN" BREAKER (IN EX MCC-1 COMPT. "2IL") WITH NEW BREAKER AND TERMINATE ASSOCIATED POWER WIRING.
16. RECEPTACLE-HUBBELL #GF5262 RED-DOT #CKMUV COVER. MOUNT 18" MINIMUM ABOVE STRUCTURE, PROVIDE "EYS" SEAL.
17. PROVIDE NEW LITHONIA # RSXF2-P3-40K-AWFD-MVOLT-IS-PER7, 150W LED WIDE AREA FLOOD WITH TWIST LOCK PHOTOCELL ON A # RSA-25-6G-T20-VD-UL-FBC-DNAXD, 25' STRAIGHT ALUMINUM POLE WITH VIBRATION DAMPENER. EXTEND EXISTING UN-SWITCHED RECEPTACLE CIRCUIT TO FIXTURE.

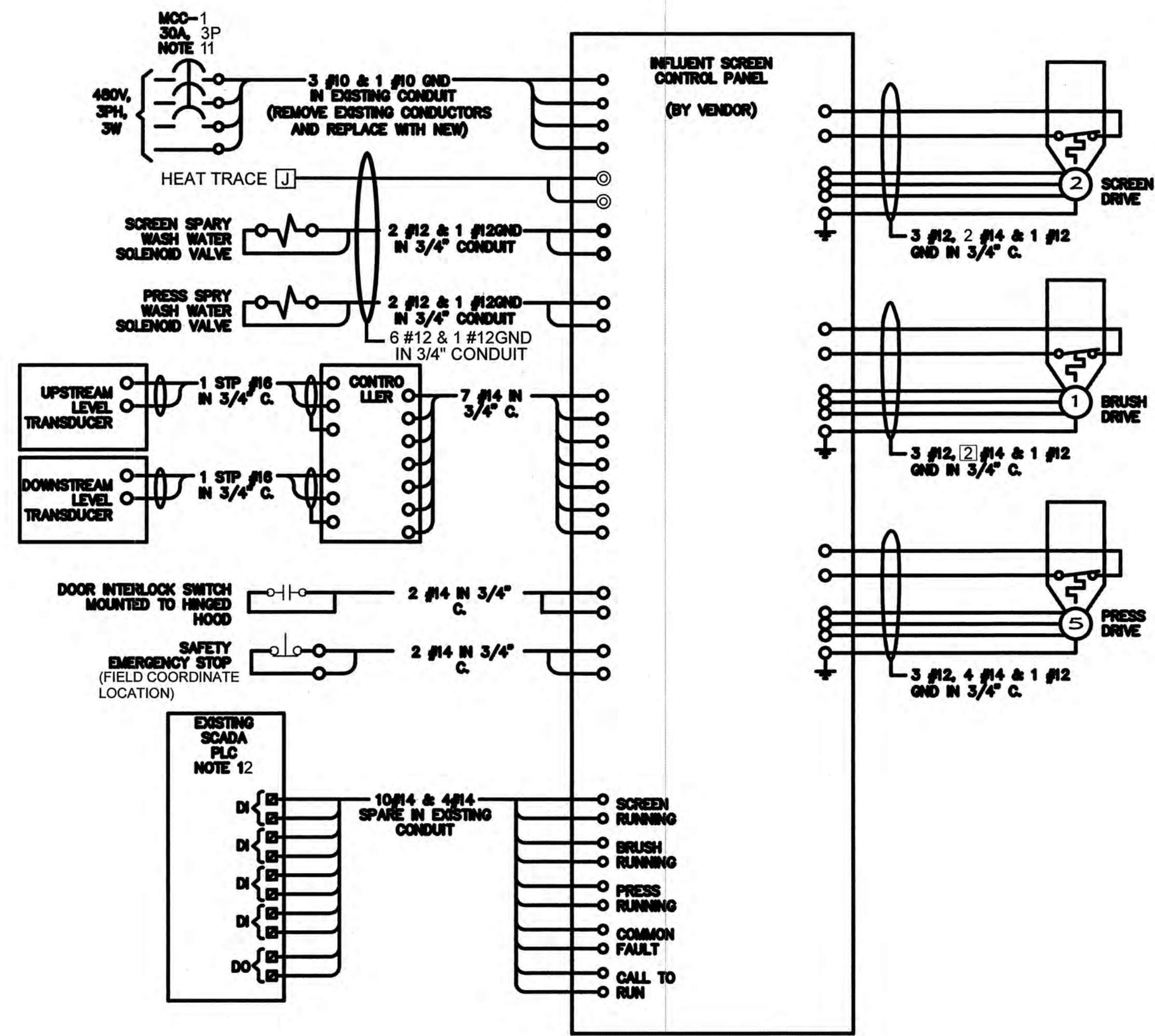


ELECTRICAL

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				LADD ENVIRONMENTAL CONSULTANTS, INC. P.O. BOX 680869 - FORT PAYNE, ALABAMA 35969 1207 CHITWOOD AVENUE S.E. - FORT PAYNE, AL 35687 PHONE - (256) 845-6315 - FAX - (256) 845-6383 ladd@laddenv.com www.laddenv.com		

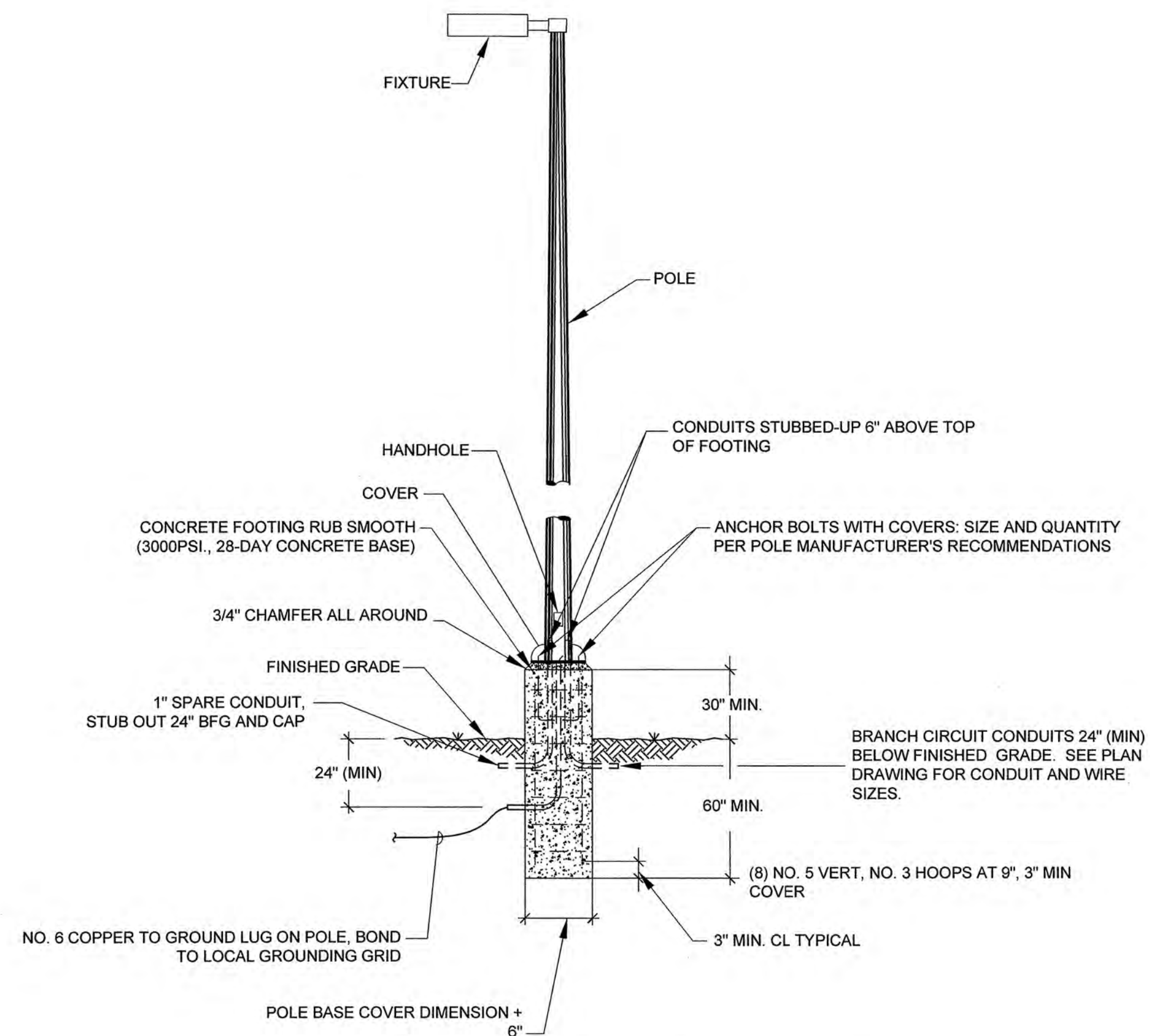


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**TYPICAL INFLUENT SCREEN**

NO SCALE  
SEE SHEET E-1 FOR NOTES



**DETAIL - LIGHT POLE FOUNDATION**

NO SCALE



**DEMOLITION**

NO SCALE

**ELECTRICAL**

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UPGRADES TO TRENTON WASTEWATER TREATMENT PLANT HEADWORKS FOR THE CITY OF TRENTON					
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REGISTERED PROFESSIONAL ENGINEER ALABAMA No. PE030783 ALVIN W. BOYD 2/21/2023					