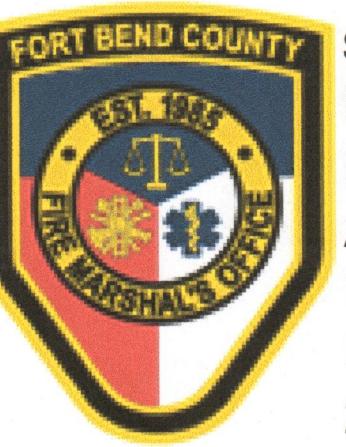


FORT BEND COUNTY M.U.D. NO. 210

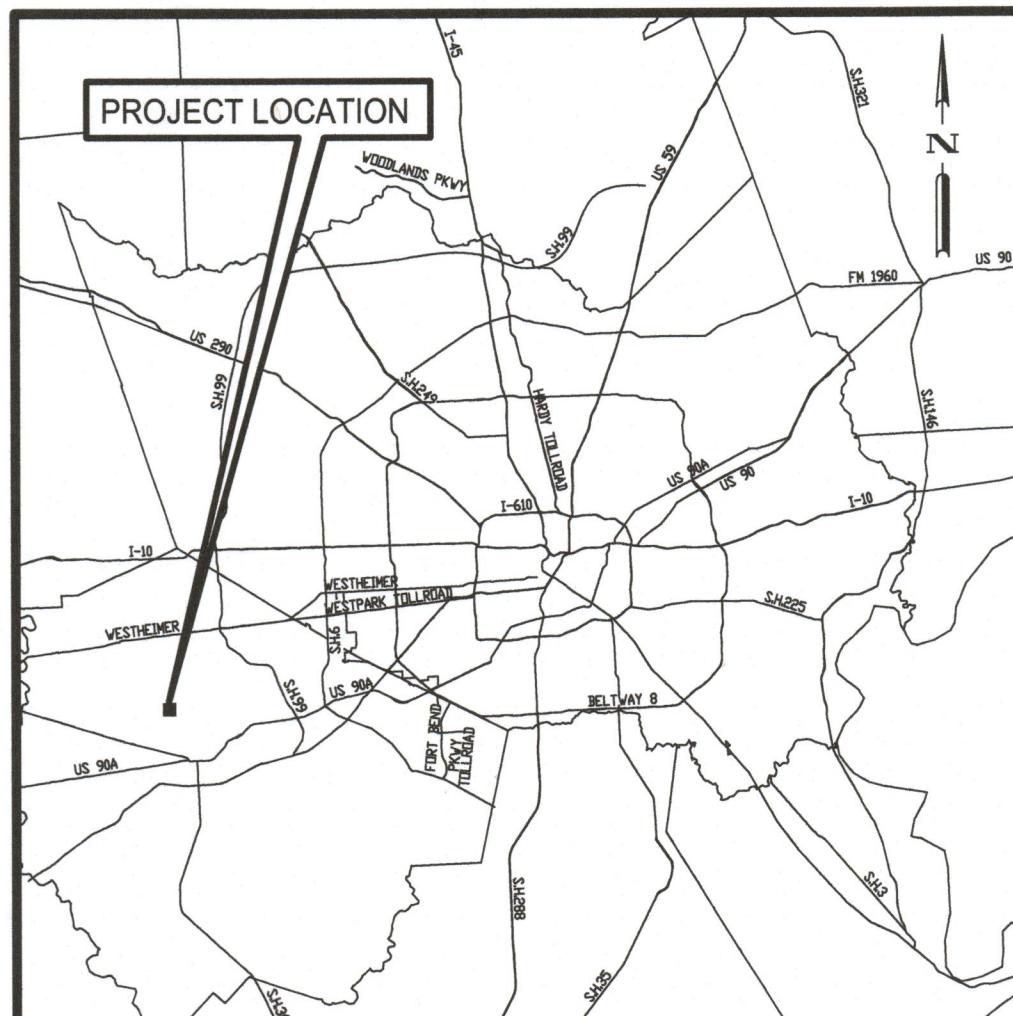
CONSTRUCTION PLANS FOR

LIFT STATION NO. 1



Digitally signed by
Pawlak, Cuyler
Reason: Plans Approved for Permit
Date: 2025.10.08
10:46:17-05'00'

SHORT PROJECT DESCRIPTION: FBCMUD210 / BGE JOB NO. 14451-00



LOCATION MAP

N.T.S.

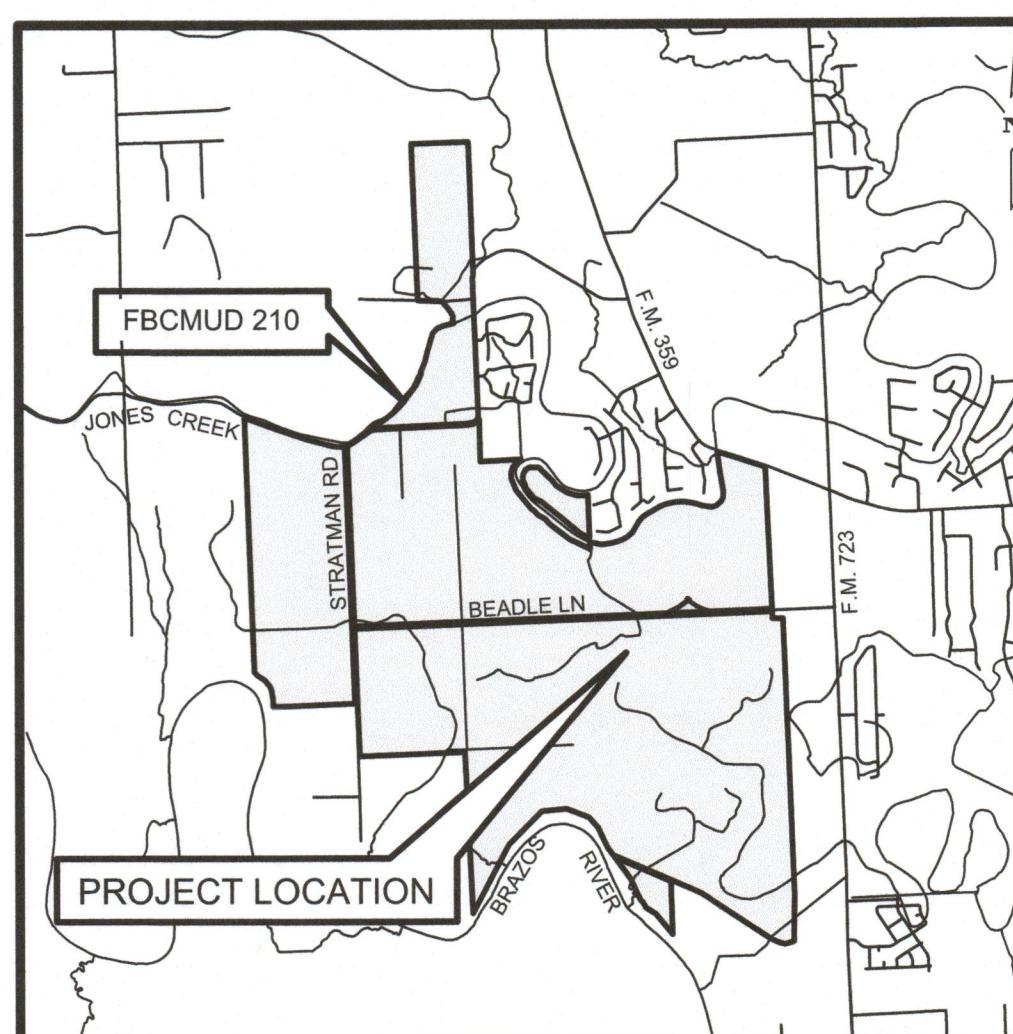
SEPTEMBER 2025

SHEET INDEX

- | | |
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| 2 | GENERAL CONSTRUCTION NOTES |
| 3 | SITE PLAN |
| 4 | PAVING AND DRAINAGE PLAN |
| 5 | GENERAL NOTES (STRUCTURAL) |
| 6 | TYPICAL NOTES (STRUCTURAL) |
| 7 | WET WELL PLAN AND SECTION |
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| 11 | MISCELLANEOUS DETAILS (SHEET 1 OF 3) |
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| 22 | ELECTRICAL DETAILS (SHEET 2 OF 2) |

THIS SITE LIES ENTIRELY IN ZONE AE.
BASE FLOOD ELEVATION: 94.2'
FIRM PANEL 230 OF 575
48157C0230L

ONE-CALL NOTIFICATION SYSTEM
CALL BEFORE YOU DIG!!!
DIAL 811 or 1-(800)-344-8377
AT LEAST 48 HOURS BEFORE
PROCEEDING WITH ANY EXCAVATION



VICINITY MAP

N.T.S.

KEY MAP 564 K
1110 1/2 BEADLE LN
ROSENBERG, TEXAS 77471

CONTRACTOR TO COORDINATE ALL WORK WITHIN THE
COUNTY ROAD R.O.W. WITH THE FORT BEND COUNTY
ENGINEERING, 281-633-7500.

FORT BEND COUNTY ENGINEER

ENGINEER: *Rufi J. Stacy, P.E., PTOE*
for J. STACY SLAWINSKI, P.E.

DATE: 11/31/25

THESE SIGNATURES ARE VOID IF CONSTRUCTION
HAS NOT COMMENCED IN ONE (1) YEAR FROM DATE
OF APPROVAL.

APPROVED: *Ch. G.*
DEVELOPMENT COORDINATOR

DATE: 10-31-25

REV. NO.	DATE	DESCRIPTION	P.E. APPR.
△	11/25/2025	IFB	AD
△			
△			



BGE, Inc.
10777 Westheimer, Suite 400
Houston, TX 77042
Tel: 281-568-8700 • www.bgeinc.com
TBPE Registration No. F-1046



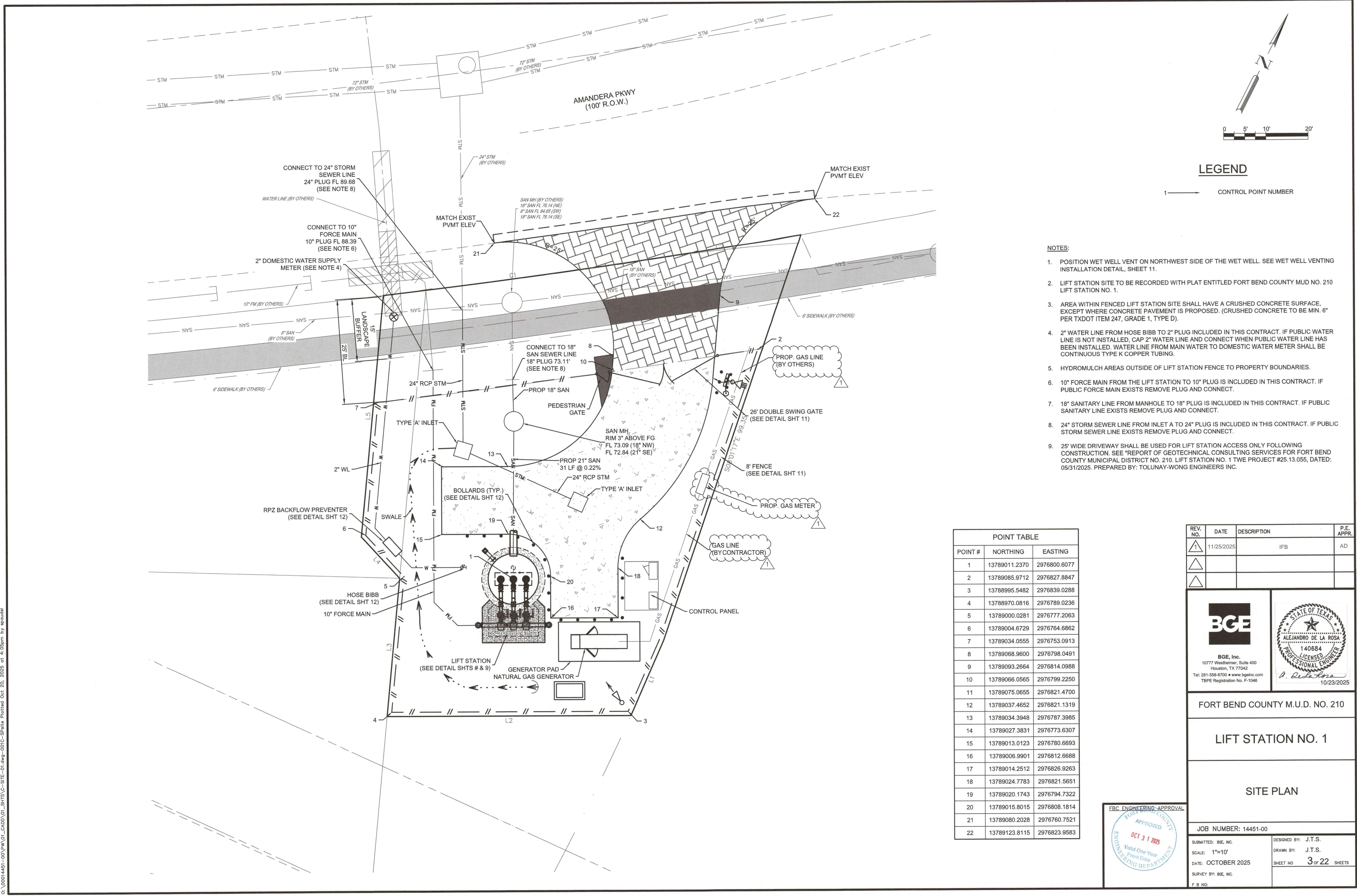
GENERAL

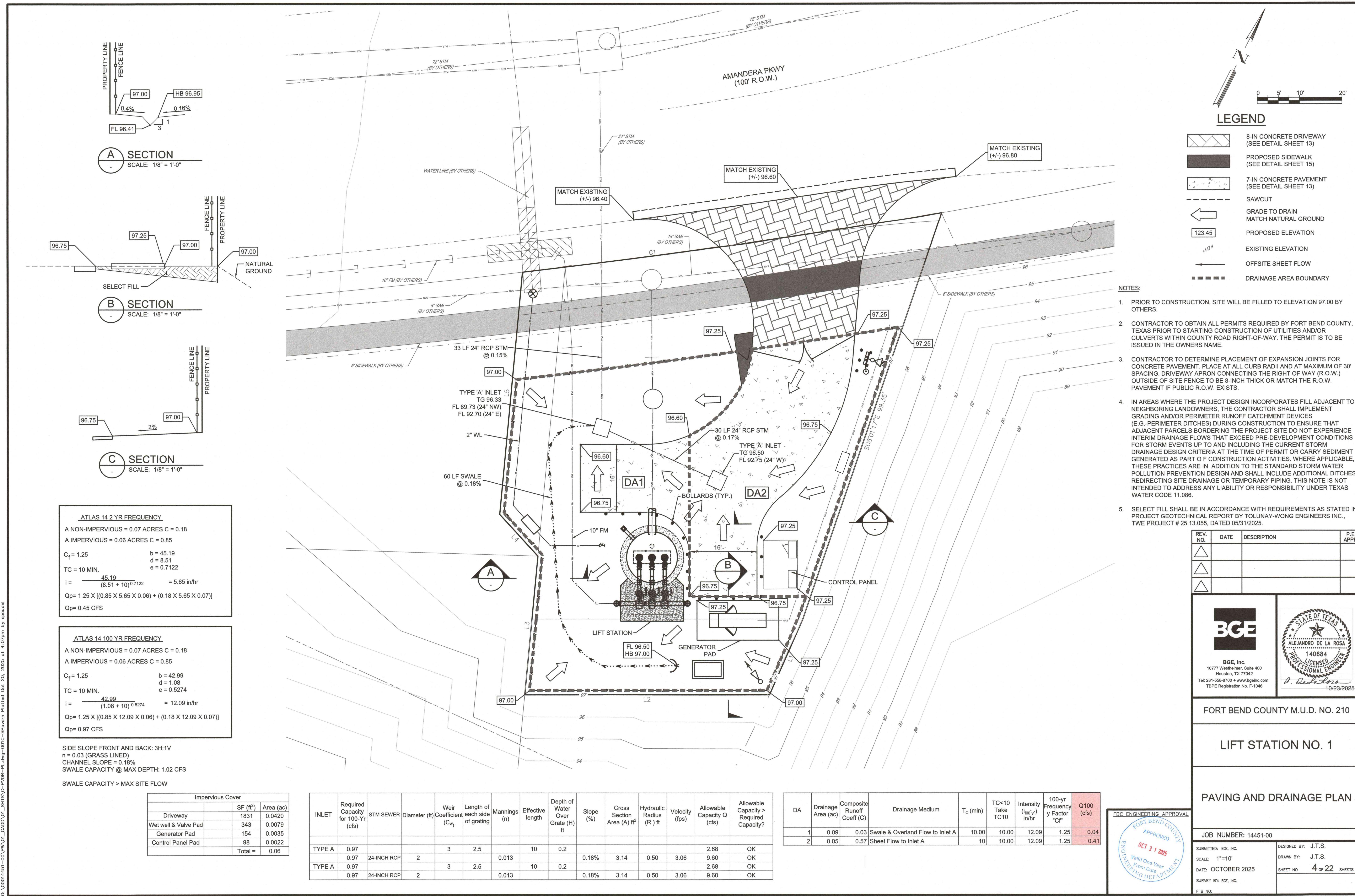
- THESE PLANS WERE PREPARED TO MEET OR EXCEED TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, FORT BEND COUNTY AND CITY OF FULSHEAR RULES AND REGULATION AS CURRENTLY AMENDED. WHEN CONFLICTS ARE NOTED WITH LOCAL STANDARDS, THE MORE STRINGENT SHALL APPLY. CONSTRUCTION FOR PUBLIC WATER SYSTEMS MUST ALWAYS, AT A MINIMUM, MEET TCEQ'S "RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS".
- WATER LINES, WASTEWATER COLLECTION SYSTEMS, AND DRAINAGE SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF FULSHEAR SUBDIVISION ORDINANCE NO. 04-913, UNLESS OTHERWISE NOTED AND APPROVED ON THESE PLANS. THE DESIGN IS CONSISTENT WITH THE MINIMUM STANDARDS ESTABLISHED IN THE SUBDIVISION ORDINANCE NO. 04-913. CONTRACTOR SHALL USE CURRENT COPIES OF DESIGN MANUAL AND STANDARD CONSTRUCTION SPECIFICATIONS ISSUED BY THE CITY OF FULSHEAR. WHERE THE CITY OF FULSHEAR SUBDIVISION ORDINANCE AND/OR FORT BEND COUNTY REGULATIONS CONFLICT WITH THE STANDARDS CONSTRUCTION SPECIFICATIONS, THE CITY OF FULSHEAR AND/OR FORT BEND COUNTY REGULATIONS SHOULD BE USED. FOR ITEMS NOT ADDRESSED WITHIN THE CITY OF FULSHEAR SUBDIVISION ORDINANCES AND/OR FORT BEND COUNTY REGULATIONS, THE CITY OF HOUSTON STANDARD CONSTRUCTION SPECIFICATIONS SHOULD BE USED. THE MORE STRINGENT SPECIFICATION WILL APPLY.
- THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE TO THE EXISTING PUBLIC UTILITY LINES OR PRIVATE UTILITY LINES, INCLUDING BUT NOT LIMITED TO WATER LINES, WASTEWATER COLLECTION SYSTEMS AND STORM SEWERS, DURING CONSTRUCTION. ALL DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF FULSHEAR SUBDIVISION ORDINANCES NO. 04-913 WITH NO COST TO THE PUBLIC. (NO ADDITIONAL PAY TO CONTRACTOR)
- UNLESS SPECIFICALLY INDICATED OTHERWISE ON THE PLANS, UTILITIES WITHIN EASEMENTS SHALL BE LOCATED IN ACCORDANCE WITH STANDARDS OUTLINED BY THE MOST CURRENT UTILITY COORDINATING COMMITTEE DRAWINGS.
- AUTHORIZATION NOTICE ISSUED TO FORT BEND COUNTY PUBLIC INFRASTRUCTURE ENGINEERING DEPARTMENT PERMIT OFFICE REQUIRED PRIOR TO CONSTRUCTION OF UTILITIES OR LEFT TURN LANES WITHIN FORT BEND COUNTY RIGHT-OF-WAY. CONTACT FORT BEND COUNTY PERMIT OFFICE 281-433-7502.
- CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES AND OTHER FACILITIES.
- CONTRACTOR SHALL COMPLY WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION STANDARDS AND ANY OTHER FEDERAL, STATE AND LOCAL REGULATIONS REGARDING TRENCH SAFETY SYSTEMS FOR TRENCH EXCAVATION.
- ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE OWNING AUTHORITY. ALL CONSTRUCTION STORM RUNOFF SHALL COMPLY WITH THE FINAL DRAFT OF STORMWATER MANAGEMENT HANDBOOK FOR CONSTRUCTION ACTIVITIES AS PREPARED BY FORT BEND COUNTY DRAINAGE DISTRICT, AND THE CITY OF FULSHEAR ALL IN COMPLIANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS.
- CONTRACTOR TO OBTAIN ANY CONSTRUCTION PERMITS REQUIRED BY FORT BEND COUNTY AND TEXAS FOR FLOOD PLAIN MANAGEMENT PRIOR TO STARTING CONSTRUCTION.
- CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, UPON COMPLETION OF JOB, SHALL BE AS GOOD OR BETTER THAN CONDITION PRIOR TO STARTING WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL PIPELINE COMPANIES WITHIN THE VICINITY OF CONSTRUCTION ACTIVITIES PRIOR TO THE COMMENCEMENT OF WORK.
- CONTRACTOR SHALL BE REQUIRED TO MAINTAIN ORANGE PROTECTIVE FENCING IN ALL AREAS OF WORK PER THESE CONSTRUCTION PLANS.
- CONTRACTOR SHALL MARK CURB WITH A SAW CUT "IV" INDICATING THE LOCATION OF NON-POTABLE WATER LINE GATE VALVES.
- PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE OWNER OF THE SYSTEM OR HIS REPRESENTATIVE MUST NOTIFY THE APPROPRIATE TCEQ REGIONAL OFFICE IN WRITING OF THE DATE ON WHICH CONSTRUCTION WILL BEGIN.

SANITARY SEWERS

- ALL SEWERS SHALL BE SUBJECT TO A STANDARD EXFILTRATION TEST. TESTS ARE TO BE PERFORMED ON THE TOTAL FOOTAGE OF SEWER LINE INCLUDED IN THE PROJECT. REQUIREMENTS OF 30 TEXAS ADMINISTRATIVE CODE, CHAPTER 317, "DESIGN CRITERIA FOR SEWERAGE SYSTEMS" SHALL BE FOLLOWED WHERE NOT COVERED BY CITY OF FULSHEAR.
- SANITARY SEWER PIPE TO BE SDR 26 P.V.C. PIPE MEETING ASTM SPECIFICATIONS D3034 WITH RUBBER GASKET JOINTS, UNLESS OTHERWISE NOTED.
- SANITARY SEWERS WILL HAVE BEDDING AND BACKFILL PER CITY OF FULSHEAR SUBDIVISION ORDINANCE NO. 04-913 DATED 10/26/05 AND DETAILS INCLUDED IN THIS PLAN SET.
- ALL SANITARY SEWER LINES UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT 1 FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL HAVE BEDDING PER CITY OF FULSHEAR SUBDIVISION ORDINANCE NO. 04-913 DATED 10/26/05 AND DETAILS INCLUDED IN THIS PLAN SET, WITH A MINIMUM 1.5 SACKS CEMENT/TON (MIN. 100 PSI AT 48 HR.), STABILIZED SAND BACKFILL UP TO WITHIN ONE (1) FOOT OF PAVING SUBGRADE. TEST REPORTS TO BE SUBMITTED BEFORE PLACEMENT OF PAVEMENT. SAND SHALL BE PLACED WITHIN 4 HOURS OF BEING MIXED.
- ALL MANHOLES ARE TO BE PER CITY OF FULSHEAR SUBDIVISION ORDINANCE NO. 04-913 DATED 10/26/05 AND DETAILS INCLUDED IN THIS PLAN SET AND SHALL MEET REQUIREMENTS OF ASTM C478 (LATEST REVISION).
- ALL SANITARY SEWERS CROSSING WATER LINES SHALL FOLLOW THE "PROTECTIVE REQUIREMENTS FOR SANITARY SEWER CROSSINGS" CRITERIA PER CITY OF HOUSTON DESIGN MANUAL AND MEET TCEQ RULE 290.44(E)(4)(B)(V) WHICH REQUIRES

 - (S290.44(E)(4)(B)(V)) THAT WHERE A NEW POTABLE WATERLINE CROSSES A NEW, PRESSURE RATED WASTEWATER (OR NON-POTABLE WATER) MAIN OR LATERAL, ONE SEGMENT OF THE WATERLINE SHALL BE CENTERED OVER THE WASTEWATER (OR NON-POTABLE WATER) MAIN OR LATERAL AND SHALL BE LOCATED AT LEAST NINE FEET HORIZONTALLY FROM THE CENTER LINE OF THE WASTEWATER (OR NON-POTABLE WATER) MAIN OR LATERAL. THE CROSSING SHALL BE CENTERED BETWEEN THE JOINTS OF THE WASTEWATER (OR NON-POTABLE WATER) MAIN OR LATERAL. THE WASTEWATER (OR NON-POTABLE WATER) PIPE SHALL HAVE A MINIMUM PRESSURE RATING OF AT LEAST 150 PSI. THE WASTEWATER (OR NON-POTABLE WATER) MAIN OR LATERAL SHALL BE EMBEDDED IN CEMENT STABILIZED SAND (S290.44(E)(4)(B)(V)) FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOINT ON EACH END.
 - (S290.44(E)(4)(B)(V)) REQUIRES THAT WHERE CEMENT STABILIZED SAND BEDDING IS REQUIRED, THE CEMENT STABILIZED SAND SHALL HAVE A MINIMUM OF 10% CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY WEIGHT VOLUME (AT LEAST 2.5 BAGS OF CEMENT PER CUBIC YARD OF MIXTURE). THE CEMENT STABILIZED SAND BEDDING SHALL BE A MINIMUM OF SIX INCHES ABOVE AND FOUR INCHES BELOW THE WASTEWATER (OR NON-POTABLE WATER) MAIN OR LATERAL. THE USE OF BROWN COLORING IN CEMENT STABILIZED SAND FOR EQUIPMENT, JOINTS AND BACKFILL IS NOT ALLOWED. THE USE OF BROWN COLORING IN CEMENT STABILIZED SAND FOR EQUIPMENT, JOINTS AND BACKFILL IS NOT ALLOWED.
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GENERAL NOTES FOR STRUCTURES

CONCRETE

- DESIGN SHALL CONFORM TO THE LATEST BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI-318) WITH SPECIAL REQUIREMENTS OF ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES (ACI - 350).
- ALL REINFORCING BARS SHALL CONFORM TO ASTM A-615, GRADE 60. ARRANGEMENT AND DETAILS OF REINFORCING STEEL, INCLUDING BARS SUPPORTS AND SPACERS, SHALL BE IN ACCORDANCE WITH THE LATEST ACI DETAILING MANUAL, UNLESS OTHERWISE NOTED.
- ALL SLAB AND BEAM REINFORCEMENT SHALL HAVE A MINIMUM EXTENSION INTO THE SUPPORT IN ACCORDANCE WITH THE LATEST ACI CODE. IF SUCH EXTENSION IS NOT POSSIBLE, BARS SHALL TERMINATE IN STANDARD HOOKS.
- HORIZONTAL WALL REINFORCEMENT AND TEMPERATURE REINFORCEMENT SHALL LAP A MINIMUM OF 1.7D AT SPLICES. WALL DOWELS AND WALL BAR EXTENSIONS AND ALL STRESS SPLICES SHALL LAP A MINIMUM OF 1.7 LD, UNLESS OTHERWISE NOTED.
- WALL OR COLUMNS SHALL HAVE DOWELS FROM FOUNDATIONS OR CONSTRUCTION BELOW OF SAME SIZE AND SPACING AS WALL OR COLUMN VERTICAL STEEL.
- UNLESS OTHERWISE NOTED ON THE DRAWINGS, CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS SHALL NOT BE LESS THAN THE FOLLOWING:
 - STRUCTURAL MEMBERS, FOUNDATIONS, WALLS AND SUSPENDED SLABS- 4000 PSI
 - SLABS ON GRADE - 4000 PSI
 - LEAN CONCRETE CLASS B (SEAL SLAB CONCRETE) - 1500 PSI
 - GROUT FILL CLASS H - 3000 PSI
- WHERE WALL OR SLAB SURFACE OF CONCRETE IS IN CONTACT WITH WASTEWATER, THE REINFORCING STEEL COVER SHALL BE 4" (MIN). UNLESS OTHERWISE SHOWN, THE COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

SLABS:	
• TOP AND BOTTOM OF FORMED SLABS	-2"
• TOP OF WALK AND DRIVEWAY SLABS	-2"
• SURFACES IN CONTACT WITH LIQUID	-2"
• BOTTOM OF SLABS ON FILL OR SOIL	-3"

FOOTINGS:	
• TOP AND SIDES	-2 1/2"
• BOTTOM	-3"

WALLS:	
1. LESS THAN 12" THICK	-1 1/2"
2. 12" OR OVER IN THICKNESS WITH POURS LESS THAN 10 FEET HIGH	-2"
3. 12" OR OVER IN THICKNESS WITH POURS MORE THAN 10 FEET HIGH	-2 1/2"

BEAMS AND GIRDERS:	
1. COVER AT TOP, BOTTOM OR SIDES OF LONGITUDINAL REINF	-2"

COLUMNS:	
1. COVER FOR VERTICAL BARS	-2"
- HORIZONTAL AND VERTICAL CONSTRUCTION JOINT SHOWN OR NOTED ON THE PLANS ARE RECOMMENDED. ANY DEVIATION FROM THOSE SHOWN SHALL HAVE APPROVAL OF THE ENGINEER.
- ANY STOP IN FRAMED CONCRETE WORK MUST BE MADE IN THE CENTER OF THE SPAN AND INCORPORATE AN APPROVED KEYWAY. REINFORCEMENT SHALL EXTEND THESE JOINTS IF REQUIRED FOR CONTINUITY.
- USE TYPE 'C2' JOINT FOR ALL CONSTRUCTION JOINTS IN WALLS AND SLABS BELOW GRADE AND WALLS WHICH SEPARATE AREAS OF SOIL OR LIQUID FROM PERMANENTLY DRY AREAS SUCH AS TUNNELS, GALLERIES, BASEMENT ROOMS, ETC. USE TYPE 'C1' JOINT AT ALL OTHER CONSTRUCTION JOINTS, UNLESS OTHERWISE NOTED ON DRAWINGS.
- CONCRETE WALLS AND PARTITIONS SHALL BE POURED IN MAXIMUM LENGTHS OF 40 FEET BETWEEN VERTICAL CONSTRUCTION JOINTS.
- ALL CONCRETE SLABS OVER 8" IN THICKNESS, REINFORCED WITH BARS, AND POURED AGAINST SOIL SHALL BE POURED IN A STRIP PATTERN OF 40 FEET OR LESS IN EACH DIRECTION.
- ALL EXPOSED EDGES OF BEAMS, COLUMNS, SLABS AND WALLS SHALL BE CHAMFERED 3/4" UNLESS MASONRY OR OTHER MEMBERS ARE ERECTED FLUSH WITH THEM.
- REFER TO ARCHITECTURAL, PROCESS, MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL SLEEVES, PIPES, CONDUITS AND MISCELLANEOUS ANCHORING DEVICES TO BE INCORPORATED IN THE CONSTRUCTION.

STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL CONFORM TO THE LATEST AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS". ALL STRUCTURAL STEEL SHALL BE ASTM A36.
- ALL METAL COMPONENTS SUBJECT TO A CORROSIVE ENVIRONMENT SHALL BE STAINLESS STEEL OR ALUMINUM.
- ELEVATIONS OF STEEL BEAMS SHOWN ON FRAMING PLANS REFER TO TOP OF FLANGE, UNLESS OTHERWISE NOTED.
- ALL BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER ASTM A-325 BOLTS EXCEPT AS OTHERWISE SHOWN OR NOTED. ALL CONNECTIONS SHALL BE CAPABLE OF SUPPORTING ONE HALF THE MAXIMUM ALLOWABLE UNIFORM LOAD FOR INDICATED BEAM SIZE AND SPAN IN AISC MANUAL OF STEEL CONSTRUCTION, EXCEPT AS OTHERWISE NOTED.
- FIELD CONNECTIONS SHALL BE BOLTED, EXCEPT AS OTHERWISE SHOWN OR NOTED.
- ALL WELDING SHALL CONFORM TO THE LATEST SPECIFICATION OF THE AMERICAN WELDING SOCIETY. ALL WELDED CONNECTIONS SHALL BE MADE WITH AWS A5.1 OR A5.5 E70 XX ELECTRODE.
- ANCHOR BOLTS AND MISC EMBEDDED STEEL - ASTM A36. ANCHOR BOLTS WHICH ARE SUBMERGED, LOCATED ABOVE A LIQUID SURFACE, OR ARE IN A CORROSIVE ATMOSPHERE
- ALL EQUIPMENT ANCHOR BOLT DIMENSIONS AND LOCATIONS SHALL BE VERIFIED FROM CERTIFIED VENDOR DRAWINGS, PRIOR TO CONSTRUCTION.

THE STRUCTURE IS DESIGNED ACCORDING TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE 2018 (IBC 2018) WITH THE FOLLOWING SPECIFICATIONS:

- ACI 318: BUILDING CODE FOR STRUCTURAL CONCRETE
- ACI 350: CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES
- ACI 364: GUIDE FOR ASSESSMENT OF CONCRETE STRUCTURES BEFORE REHABILITATION
- ACI 315: DETAILS AND DETAILING OF CONCRETE REINFORCEMENT
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION
- ALUMINUM DESIGN MANUAL, THE ALUMINUM ASSOCIATION

DESIGN DEAD LOADS:

SELFWEIGHT OF STRUCTURE..... SELF WEIGHT
MECHANICAL AND CEILING..... 10 PSF

DESIGN LIVE LOADS:
TOP OF SLAB..... 300 PSF
MECHANICAL AREAS, STAIRS, 100 PSF
ALUMINUM COVER, PLATFORM, AND
WALKWAYS AT OR BELOW GRADE..... 150 PSF

LIVE LOAD REDUCTIONS:

LIVE LOAD REDUCTIONS HAVE BEEN TAKEN FOR BEAMS, GIRDERS, AND COLUMNS. THESE REDUCTIONS HAVE BEEN TAKEN ONLY AS ALLOWED BY THE BUILDING CODE.

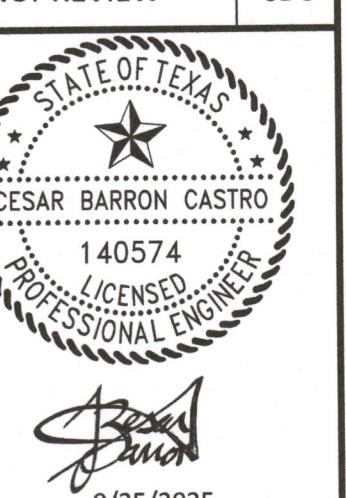
FOUNDATIONS

- THE GEOTECHNICAL REPORT FOR THIS PROJECT WAS PRODUCED BY TOLUNAY-WONG ENGINEERS, INC., PROJECT NUMBER 25.13.055, DATED MAY 31, 2025.
- ALLOWABLE SOIL BEARING PRESSURE, EXCAVATION AND BACKFILL FOR FOUNDATIONS AND STRUCTURES SHALL BE AS RECOMMENDED PER PROJECT GEOTECHNICAL REPORT. GENERAL CONTRACTOR SHALL REVIEW GEOTECHNICAL REPORT(S) PRIOR TO CONSTRUCTION AND FOLLOW RECOMMENDATIONS.
- ALL EXCAVATIONS SHALL BE CARRIED OUT IN THE DRY, AND PROVISIONS SHALL BE MADE TO PREVENT THE BOTTOM OF ALL EXCAVATIONS FROM FREEZING OR FLOODING AT ALL TIMES.
- ALL FOUNDATIONS SHALL BE CONSTRUCTED IN EXCAVATIONS FREE OF STANDING WATER.
- BACKFILL MATERIAL PLACING AND COMPACTION OF BACKFILL SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT(S), AND THE CONTRACT SPECIFICATIONS.

STRUCTURAL ABBREVIATIONS

ADDITIONAL	- ADDL	SCHEDULE(D)	- SCHED
ALTERNATE	- ALT	SECTION	- SECT
AND	- &	SHEET	- SHT
ANCHOR BOLT	- AB	SIMILAR	- SIM
APPROXIMATE	- APPROX	SPACE	- SP
ARCHITECTURAL	- ARCH	SPECIFICATION(S)	- SPEC(S)
AT	- @	SQUARE FOOT (FEET)	- SF
BEAM	- BM	STAINLESS STEEL	- SS
BEARING	- BRG	STANDARD	- STD
BELLOW FINISH FLOOR	- BFF	STEEL	- STL
BETWEEN	- BTWN	STRAIGHT	- STRA
BOTTOM	- BOT	STIRRUPS	- STIR
BOTTOM OF	- B'	STRUCTURAL	- STRUCT'L
BUILDING	- BLDG	SYMMETRICAL	- SYMM
CAST-IN-PLACE	- CIP	TOP	- TOP
CEILING	- CLG	TOP OF	- T/
CENTER LINE	- CL	THICK	- THK
CENTER TO CENTER	- C/C	TOUNGE AND GROOVE	- T & G
CLEAR	- CLR	TOP OF BEAM	- TOB
COLUMN	- COL	TOP OF FOOTING	- TOF
COMPRESSION	- C OR COMP	TOP OF PIER	- TOP
CONCRETE	- CONC	TOP OF SLAB	- TOS
CONCRETE MASONRY UNIT	- CMU	TOP OF WALL	- TOW
CONNECTION(S)	- CONN(S)	TYPICAL	- TYP
CONTINUOUS	- CONT	UNLESS OTHERWISE NOTED	- UON
CONSTRUCTION JOINT	- CJ	VERTICAL	- VERT
CONSTRUCTION	- CONST	VARIES	- VAR
DETAIL	- DET	WELDED WIRE FABRIC	- WWF
DEAD LOAD	- DL	WITH	- W/
DEMOLITION	- DEMO		
DIAGONAL	- DIAG		
DIAMETER	- DIA OR Ø		
DIMENSION(S)	- DIM(S)		
DRAWING(S)	- DWG(S)		
DOUBLE	- DBL		
DOWEL(S)	- DWL(S)		
EACH	- EA		
EACH FACE	- EF		
EACH WAY	- EW		
ELECTRICAL	- ELEC		
ELEVATION	- EL		
EMBEDMENT	- EMBED		
EQUAL	- EQ		
EXPANSION JOINT	- EJ		
EXISTING	- EXIST		
EXTERIOR	- EXT		
FACE-TO-FACE	- F TO F		
FAR SIDE	- FS		
FINISHED FLOOR	- FF		
FOUNDATION	- FDN		
FOOTING	- FTG		
GAGE OR GAUGE	- GA		
GALVANIZED	- GALV		
HEIGHT	- HT		
HORIZONTAL	- HORIZ		
HIGH POINT	- H.P.		
INFORMATION	- INFO		
INSIDE DIAMETER	- ID		
INSIDE FACE	- IF		
INTERIOR	- INT		
INTERMEDIATE	- INTERM		
JOINT	- JT		
JOIST(S)	- JSY(S)		
LOW POINT	- LP		
LIVE LOAD	- LL		
LONG	- LG		
LONGITUDINAL	- LONG		
MANHOLE	- MH		
MAXIMUM	- MAX		
MECHANICAL	- MECH'L		
MINIMUM	- MIN		
MISCELLANEOUS	- MSC		
NEAR SIDE	- NS		
NUMBER	- NOM		
ON CENTER	- NO OR # OR NOS		
OPENING(S)	- OC		
OPPOSITE	- OPNG(S)		
OPPOSITE HAND	- OPR		
OUTSIDE FACE	- OF		
OUTSIDE DIAMETER	- OD		
OVERALL	- OA		
POLYVINYL CHLORIDE	- PVC		
REINFORCEMENT	- REINF.		
RADIUS	- R		
REINFORCED CONCRETE PIPE	- RCP		
REQUIRED	- REQ'D		
ROOF DRAIN	- RD		

REV. NO.	DATE	DESCRIPTION	P.E. APPR.
△			
△			
△	9/25/25	ISSUE FOR AGENCY REVIEW	CBC



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FORT BEND CO MUD NO. 210
LIFT STATION NO. 1

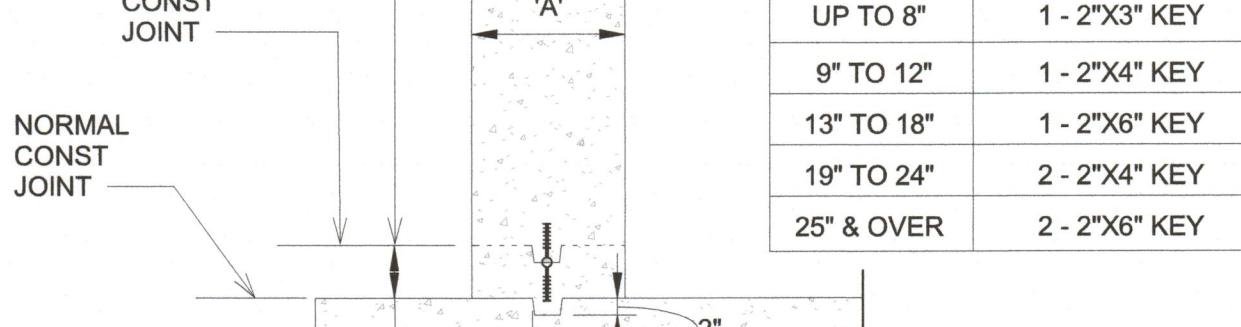
GENERAL NOTES



2405 S. GRAND BLVD., SUITE A,
PEARLAND, TEXAS 77581
832-295-3600
TBPE FIRM No. F-23075

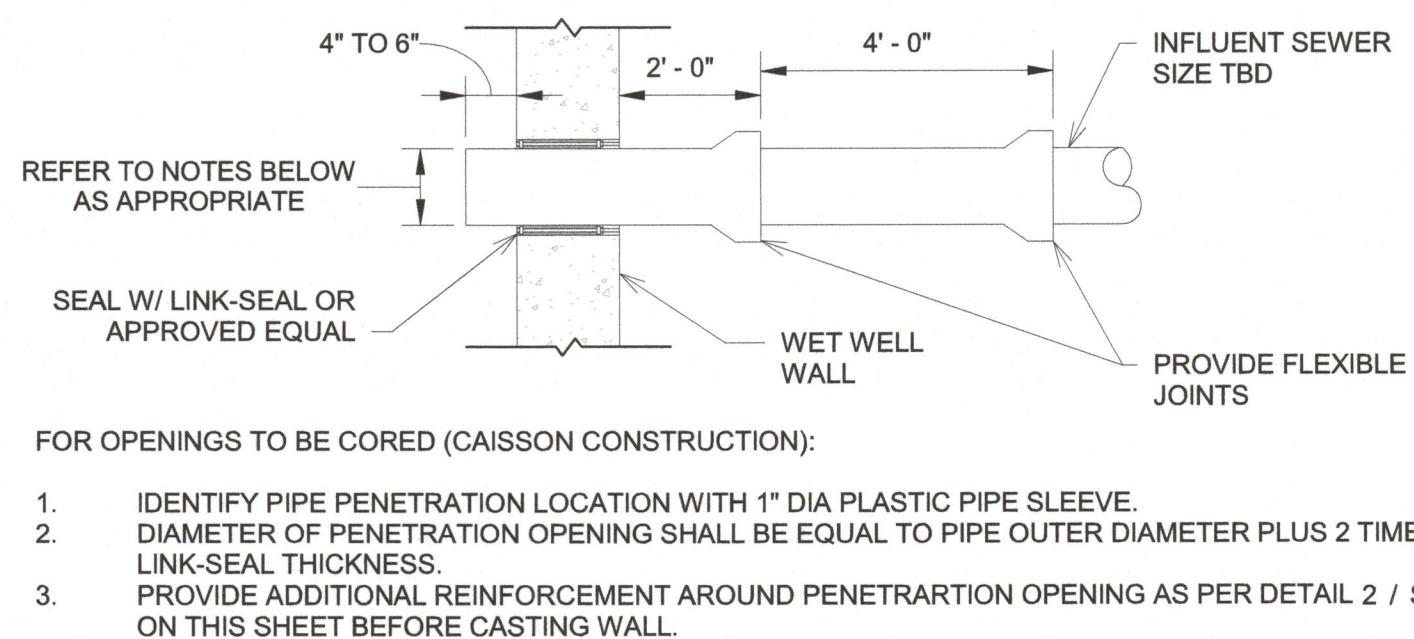
JOB NUMBER:	
SUBMITTED: BGE, INC.	DESIGNED BY: CB
SCALE:	DRAWN BY: MB
DATE:	SHEET NO. 5 OF 22 SHEETS
SURVEY BY: BGE, INC.	F.B. NO:

RAISE CONSTRUCTION JOINT ABOVE STRUCTURAL SLAB WHERE WATERSTOP IS REQUIRED EXCEPT AS OTHERWISE SHOWN ON DRAWINGS.



NUMBER AND SIZE OF KEYS SHOWN APPLY TO JOINTS IN SLABS AND TO BOTH VERTICAL AND HORIZONTAL JOINTS IN WALLS EXCEPT AS OTHERWISE NOTED ON DRAWINGS.

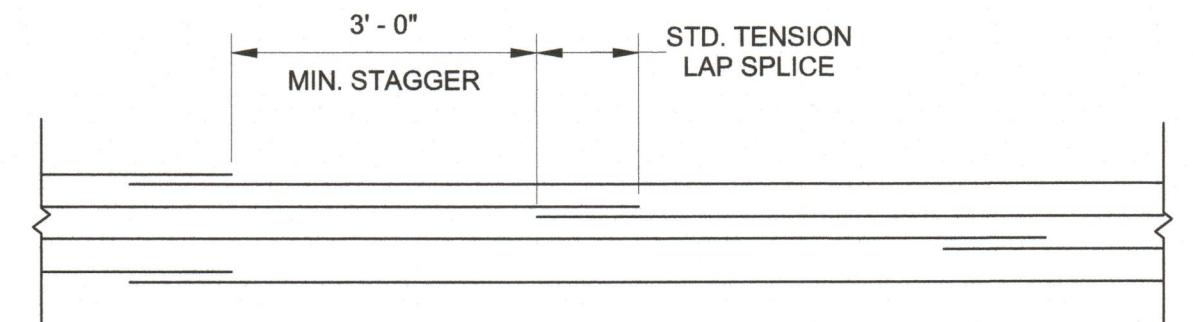
⑪ CONSTRUCTION JOINT KEY DETAILS NTS



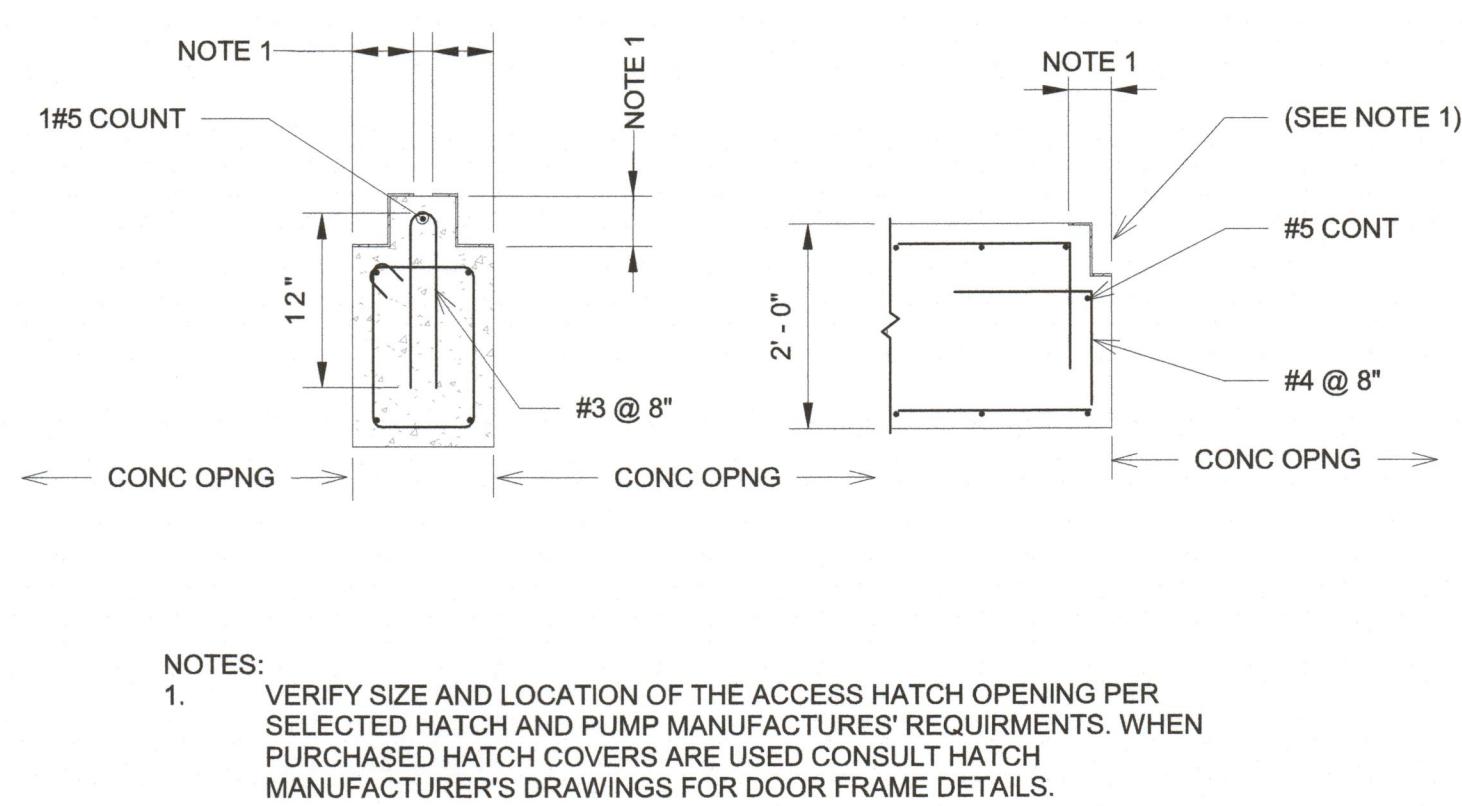
FOR OPENINGS TO BE SLEEVED OF FORMED (CAISSON CONSTRUCTION):
1. IDENTIFY PIPE PENETRATION LOCATION.
2. DIAMETER OF PENETRATION OPENING SHALL BE EQUAL TO PIPE OUTER DIAMETER PLUS 2 TIMES LINK-SEAL THICKNESS. SEE "TYPICAL PIPE BLOCK-OUT DETAIL FOR CAISSON CONSTRUCTION," THIS SHEET.
3. PROVIDE ADDITIONAL REINFORCEMENT AROUND PENETRATION OPENING AS PER DETAIL 2 / S2 ON THIS SHEET BEFORE CASTING WALL.

FOR OPENINGS TO BE FORMED OR SLEEVED (OPEN CUT CONSTRUCTION):
1. IDENTIFY PIPE PENETRATION LOCATION.
2. DIAMETER OF PENETRATION OPENING SHALL BE EQUAL TO PIPE OUTER DIAMETER PLUS 2 TIMES LINK-SEAL THICKNESS.
3. PROVIDE ADDITIONAL REINFORCEMENT AROUND PENETRATION OPENING AS PER DETAIL 2 / S2 ON THIS SHEET BEFORE CASTING WALL.

⑩ TYP INFLUENT SEWER ENTRY DETAIL NTS



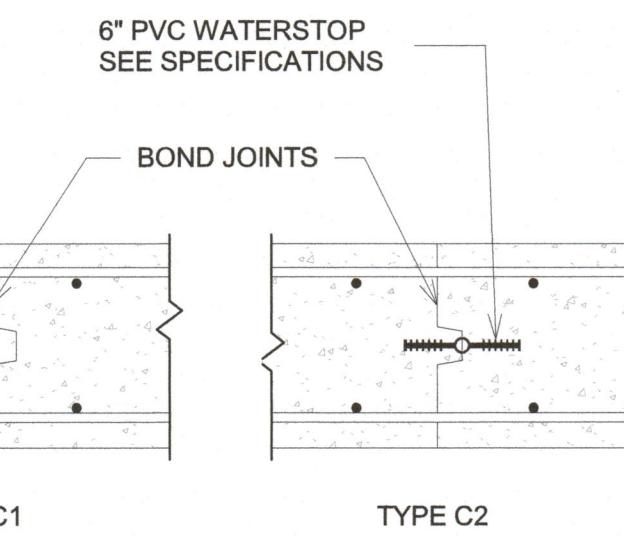
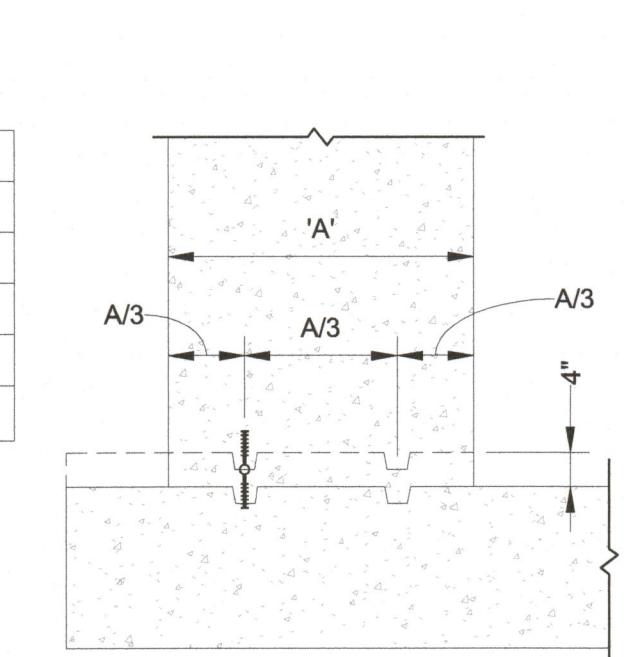
⑨ SPLICE LAYOUT FOR HOOP BARS (WET WELL WALL) NTS



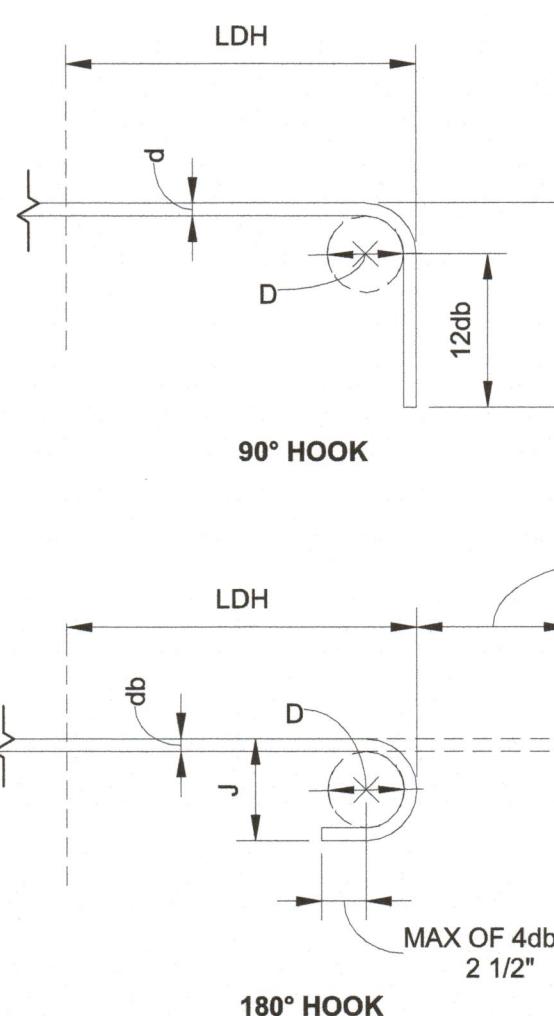
⑧ TYPICAL HATCH FRAME SECTIONS NTS

NOTES:
1. VERIFY SIZE AND LOCATION OF THE ACCESS HATCH OPENING PER SELECTED HATCH AND PUMP MANUFACTURER'S REQUIREMENTS. WHEN PURCHASED HATCH COVERS ARE USED CONSULT HATCH MANUFACTURER'S DRAWINGS FOR DOOR FRAME DETAILS.

⑦ TYPICAL THRUST BLOCK SETAIL NTS



⑤ CONSTRUCTION JOINTS NTS

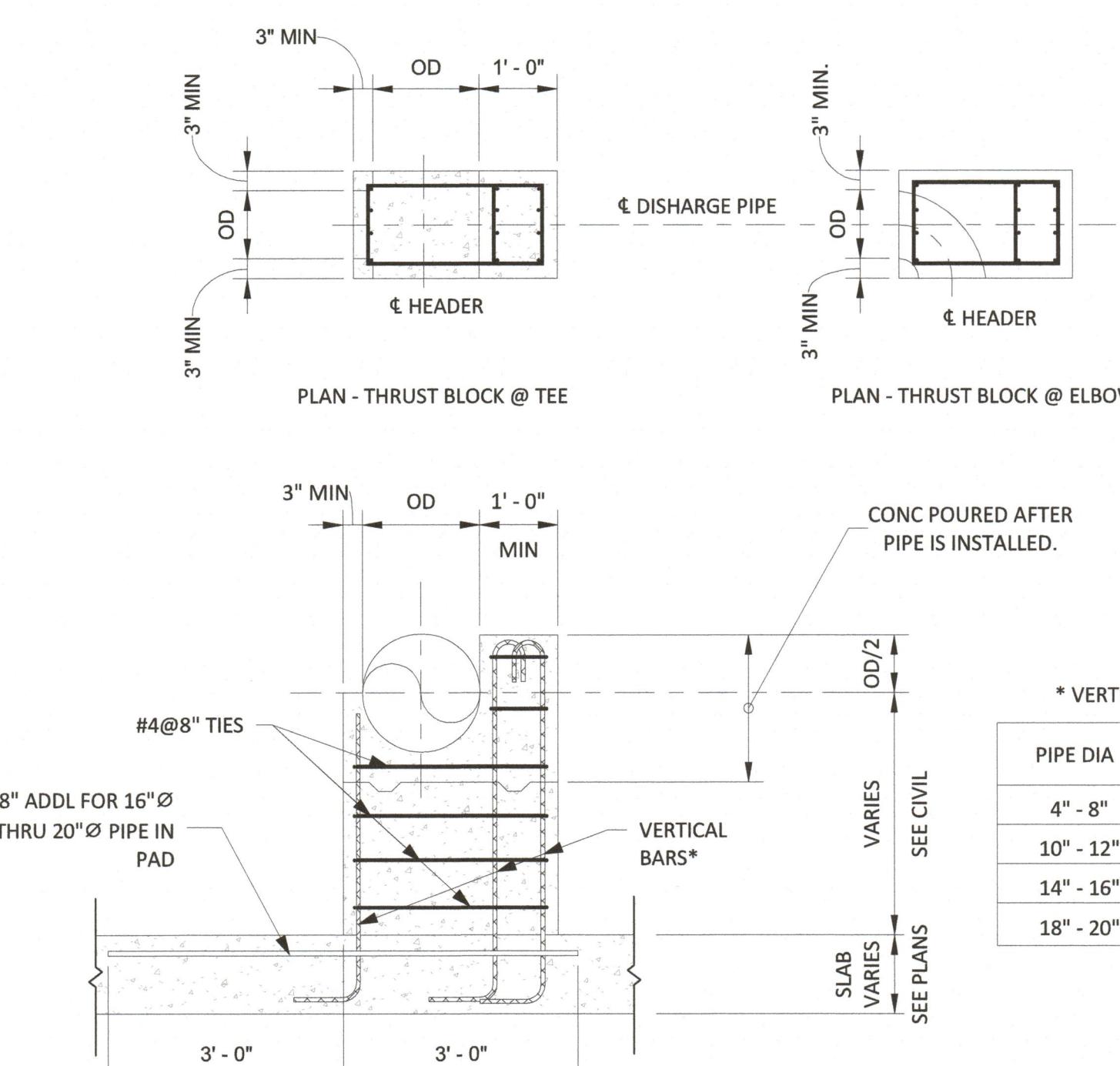


BAR SIZE	D	180° HOOKS		90° HOOKS	
		J	A or G	J	A or G
#3	2 1/4"	3"	6"		
#4	3"	4"	8"		
#5	3 3/4"	5"	10"		
#6	4 1/2"	6"	1'-0"		
#7	5 1/4"	7"	1'-2"		
#8	6"	8"	1'-4"		
#9	9"	11 3/4"	1'-7"		
#10	10"	1'-11 1/4"	1'-10"		

[1] A STANDARD HOOK FOR DEFORMED BARS IN TENSION INCLUDES THE SPECIFIC INSIDE BEND DIAMETER AND STRAIGHT EXTENSION LENGTH. IT SHALL BE PERMITTED TO USE A LONGER STRAIGHT EXTENSION AT THE END OF A HOOK. A LONGER EXTENSION SHALL NOT BE CONSIDERED TO INCREASE THE ANCHORAGE CAPACITY OF THE HOOK.

D - INSIDE DIAMETER OF HOOK
db - BAR DIAMETER

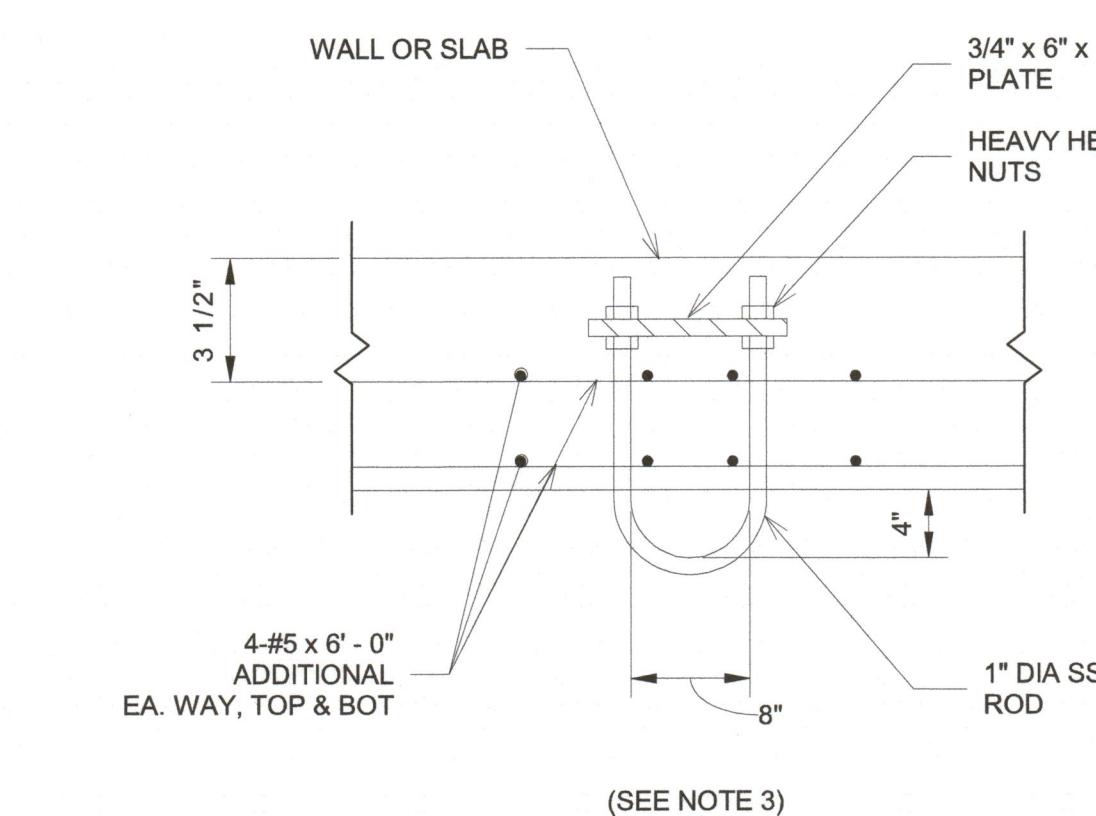
⑥ TYPICAL STANDARD HOOKS NTS



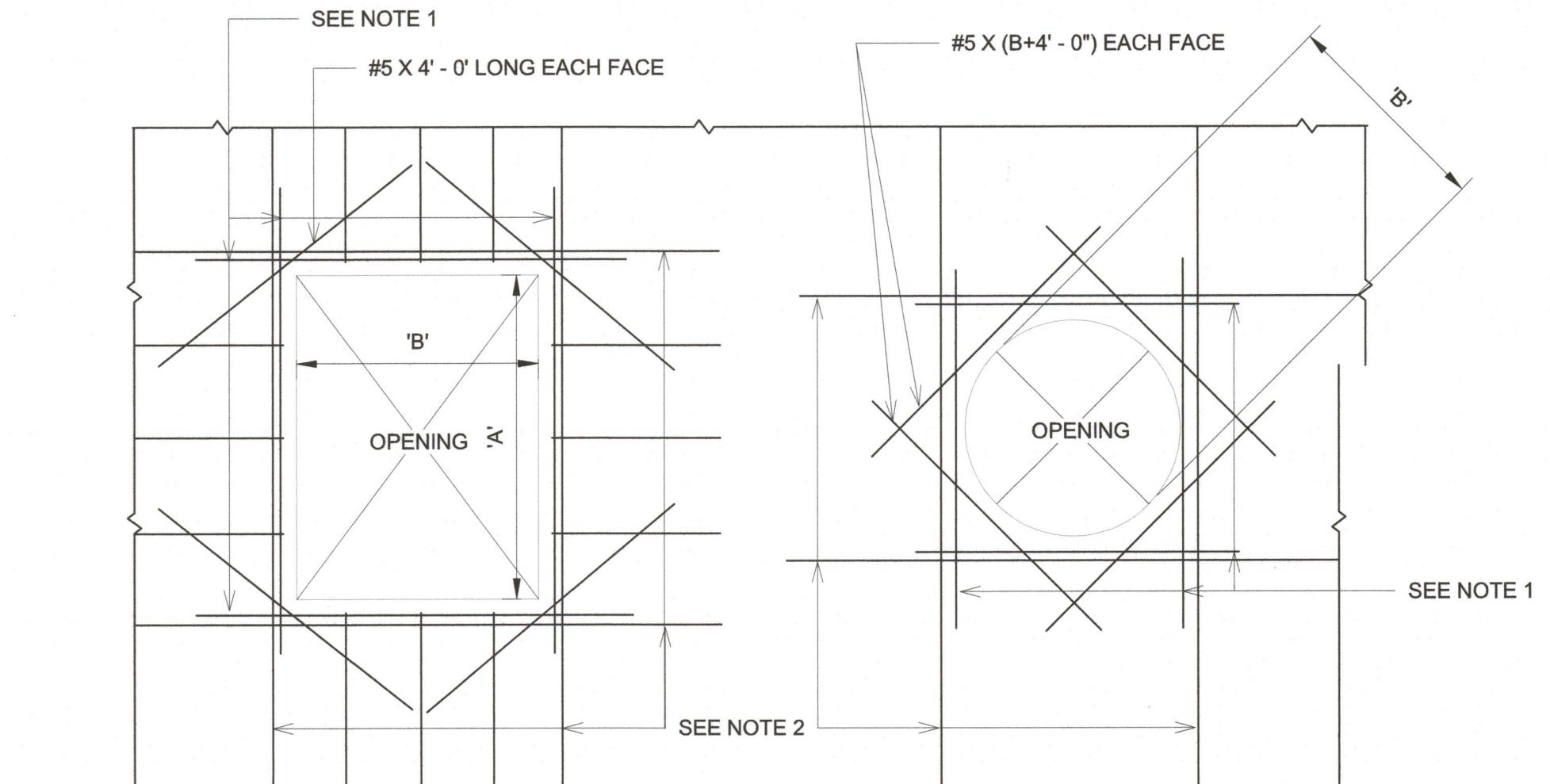
PIPE DIA	NO. OF VERT BARS
4"- 8"	3 x 2 #5
10"- 12"	3 x 3 #5
14"- 16"	3 x 4 #5
18"- 20"	3 x 4 #5

MULTIPLIERS:
ALL EMBEDMENT AND LAP SPLICE LENGTHS SHALL BE INCREASED AS REQ'D BY THE MULTIPLIERS BELOW. APPLY MULTIPLE MULTIPLIERS IF APPLICABLE
1.3 - IF CONC. CONTAINS LIGHT WEIGHT AGGREGATES
1.3 - IF EPOXY COATED REBAR USED

① SPLICE AND DEVELOPMENT LENGTHS NTS



④ TYPICAL WALL AND SLAB LIFTING HOOK NTS



NOTES:
1. PROVIDE 2-#6 X (B+4'-0") ADDITIONAL REBARS @ TOP AND BOTTOM AND 2-#6 X (A+4'-0") ADDITIONAL REBARS AT EACH SIDE OF OPENING IN WALLS ONLY.
2. PROVIDE ADDL BARS EQUAL TO ONE-HALF OF BARS INTERRUPTED AT EACH SIDE OF OPENING AT 3" O.C. THESE BARS SHALL BE ORIGINAL SIZES AND LENGTHS AS THOSE OF THE INTERRUPTED BARS. (TYPICAL FOR OPENINGS IN SLABS AND PRESSURE WALLS.)

② ADDITIONAL REINFORCING STEEL AT OPENING IN WALLS AND SLABS NTS

DEVELOPMENT AND LAP SPLICE SCHEDULE														
EMBEDMENT					LAP SPLICE									
COMPR			TENSION (LTE)		COMPR			TENSION (LTS)		HOOK				
BAR (LCE)	TOP	OTHER	(LCS)	TOP	OTHER	(LDH)	(LCE)	TOP	OTHER	(LCS)	TOP	OTHER		
#3	8	21	16	12	28	21	6	8	18	14	12	24	18	6
#4	11	28	22	15	37	28	8	9	25	19	15	32	25	7
#5	14	36	27	19	46	36	10	12	31	24	19	40	31	8
#6	16	43	33	23	56	43	12	14	37	28	23	48	37	10
#7	19	62	48	26	81	62	13	17	54	42	26	70	54	12
#8	22	71	55	30	93	71	15	19	62	47	40	80	62	13
#9	25	80	62	34	105	80	17	21	70	54	34	91	70	15
#10	28	90	70	38	118	90	19	24	78	60	38	102	78	17
#11	31	100	77	42	131	100	22	27	87	67	42	113	87	19

NOTES (PERTAINING TO TABLE):
1. TOP BARS ARE HORIZONTAL BARS THAT HAVE MORE THAN 12" OF FRESH CONCRETE CAST BELOW THEM.

2. ALL BARS THAT ARE NOT "TOP BARS

3. ABBREVIATIONS:

- LCE - COMPRESSION EMBEDMENT LENGTH

- LTE - TENSION EMBEDMENT LENGTH

- LCS - COMPRESSION LAP SPLICE LENGTH

- LTS - TENSION LAP SPLICE LENGTH

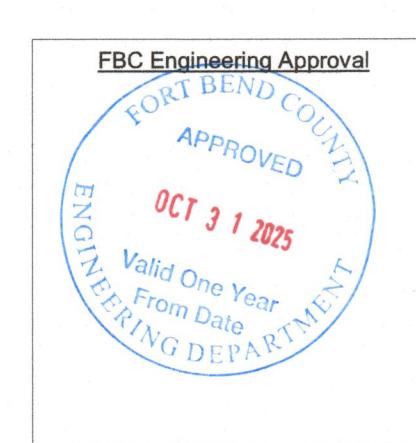
- LDH - HOOKED BAR TENSION EMBEDMENT LENGTH

NOTES (GENERAL):
1. STAGGER ALL SPLICES 12 db MIN. BUT NOT LESS THAN 12"

2. ALL DIMENSIONS INDICATED IN TABLE ARE IN INCHES

3. BARS GREATER THAN #11 SHALL BE MECHANICALLY SPLINED

4. ALL SPLICES SHALL BE WIRED IN CONTACT STACKED VERTICAL



REV NO.	DATE	DESCRIPTION	P.E. APPR.
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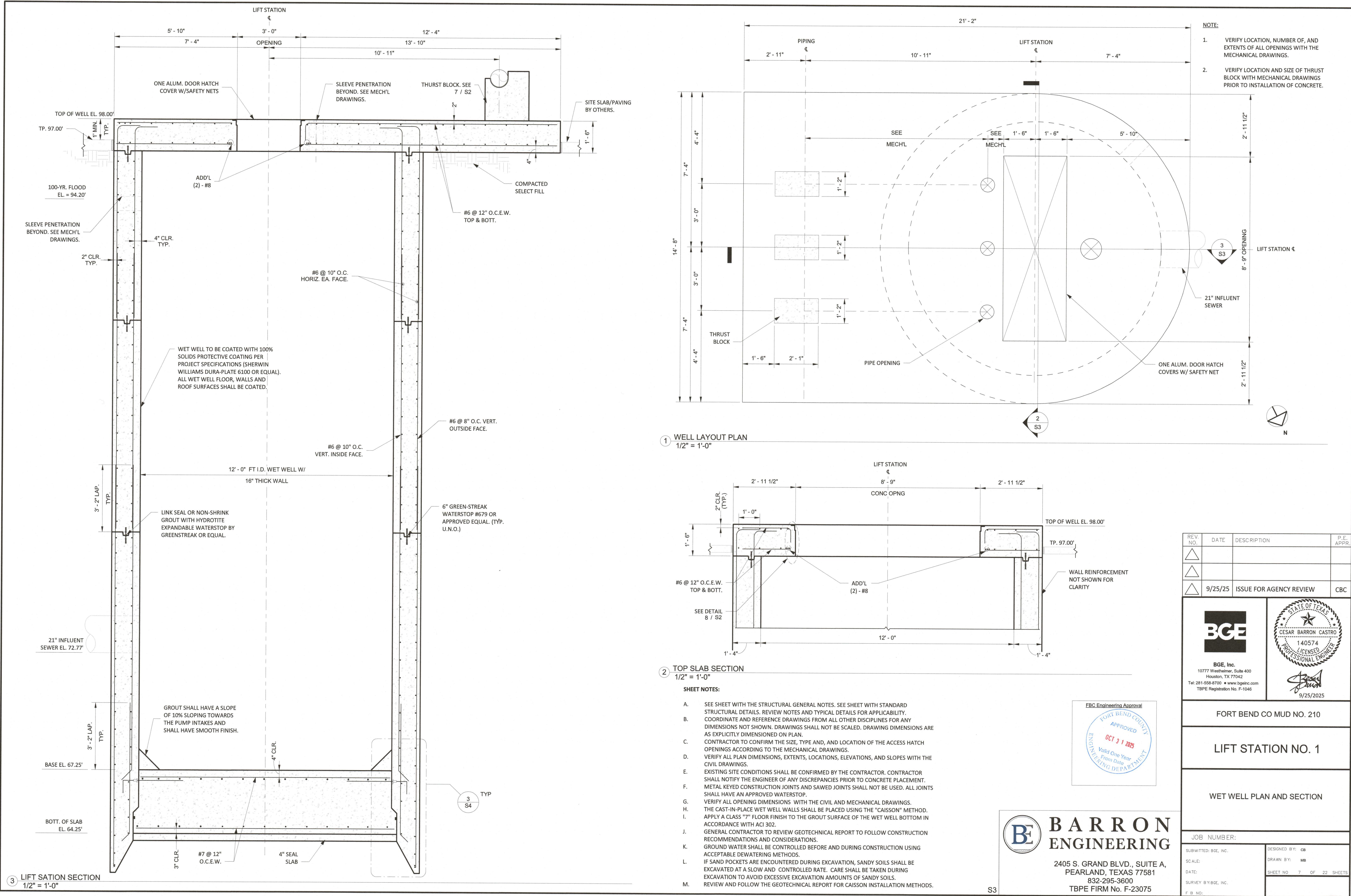
BGE Inc. 10777 Westheimer, Suite 400 Houston, TX 77042 Tel: 281-558-8700 • www.bgeinc.com TBPE Registration No. F-1046	STATE OF TEXAS CESAR BARRON CASTRO 140574 LICENSED PROFESSIONAL ENGINEER Signature
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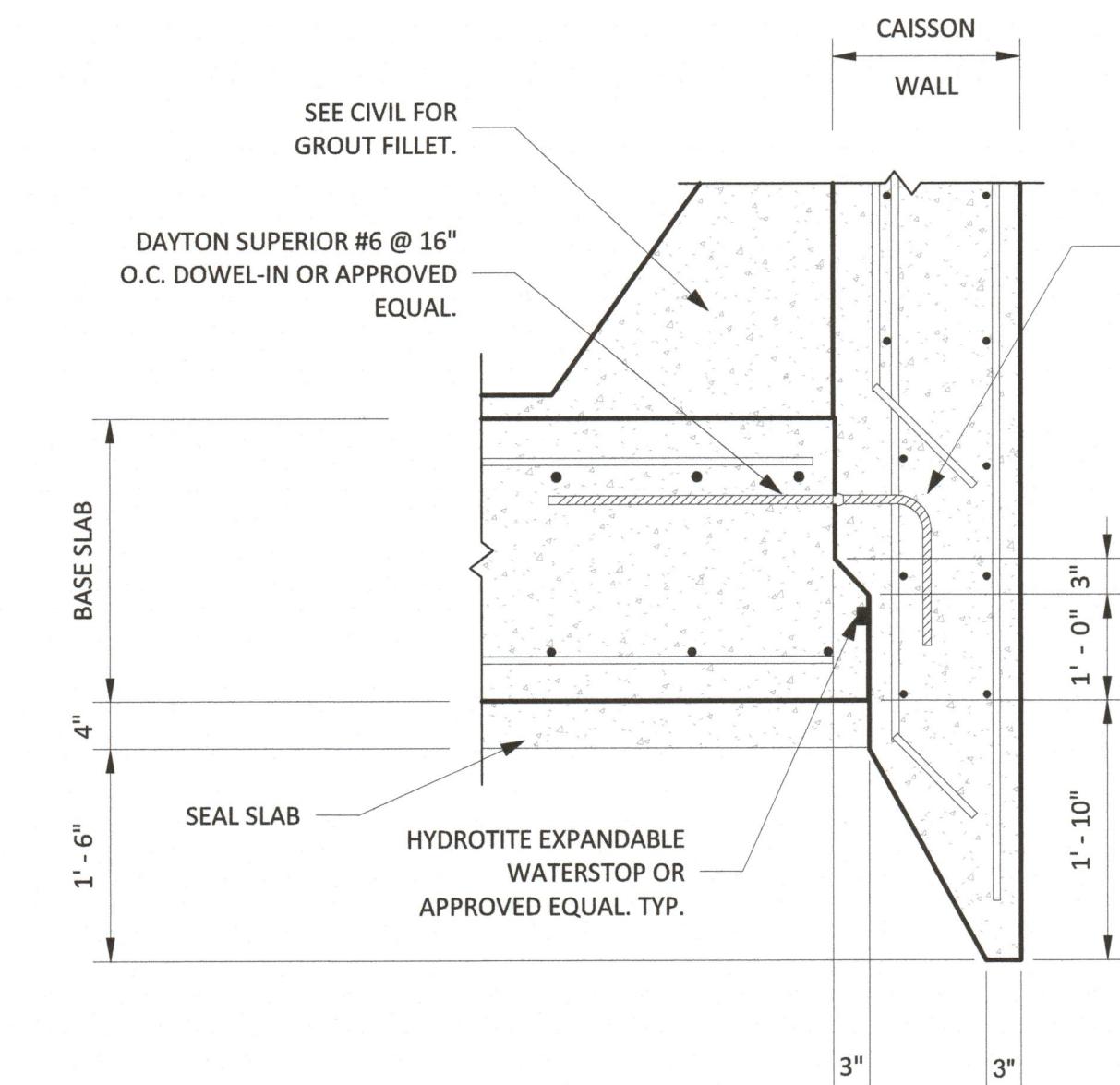
FORT BEND CO MUD NO. 210

LIFT STATION NO. 1

TYPICAL NOTES

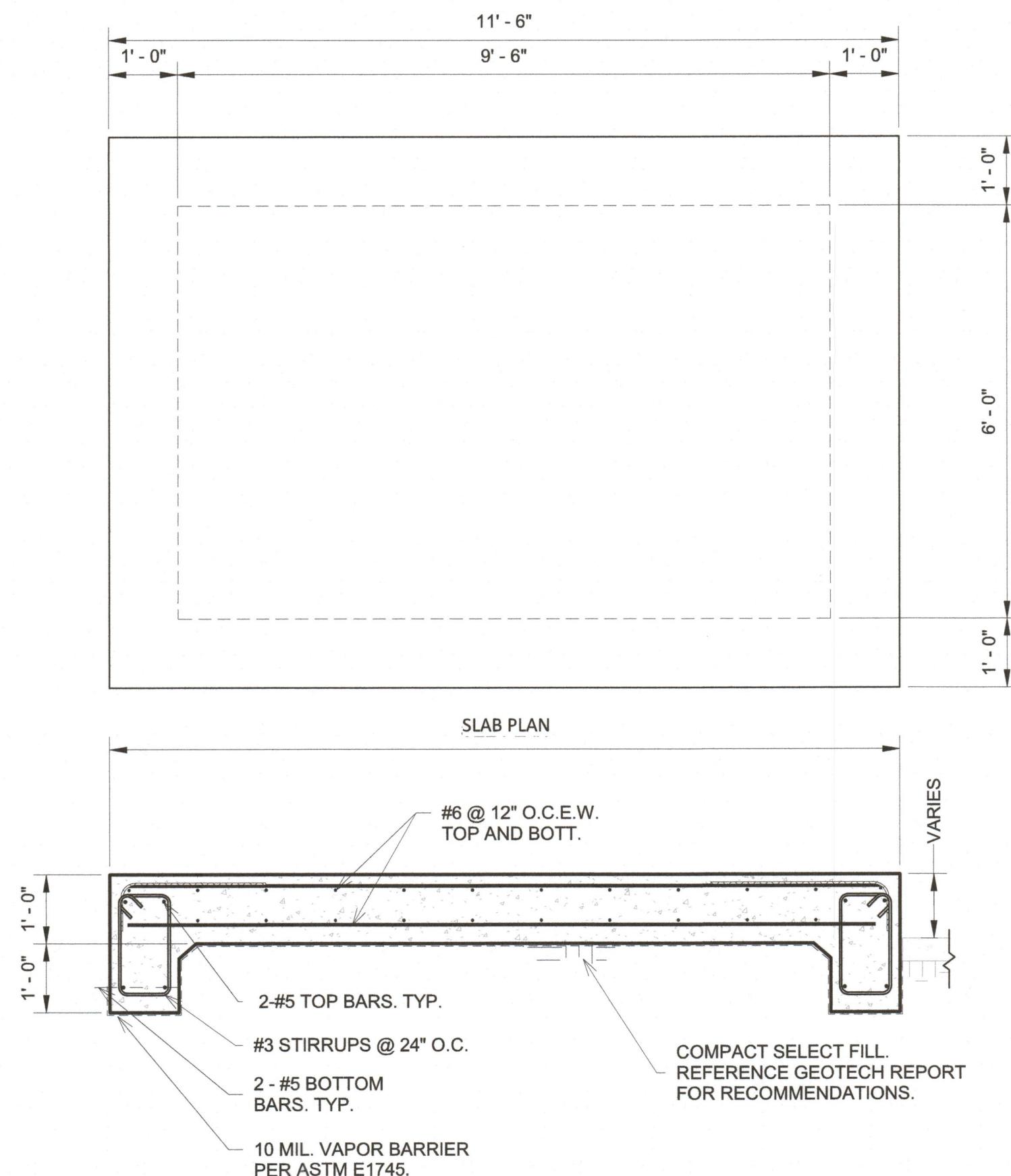
JOB NUMBER:	DESIGNED BY: CB
SUBMITTED: BGE, INC.	DRAWN BY: MB
SCALE:	
DATE:	
SHEET NO. 6 OF 22 SHEETS	F B NO:



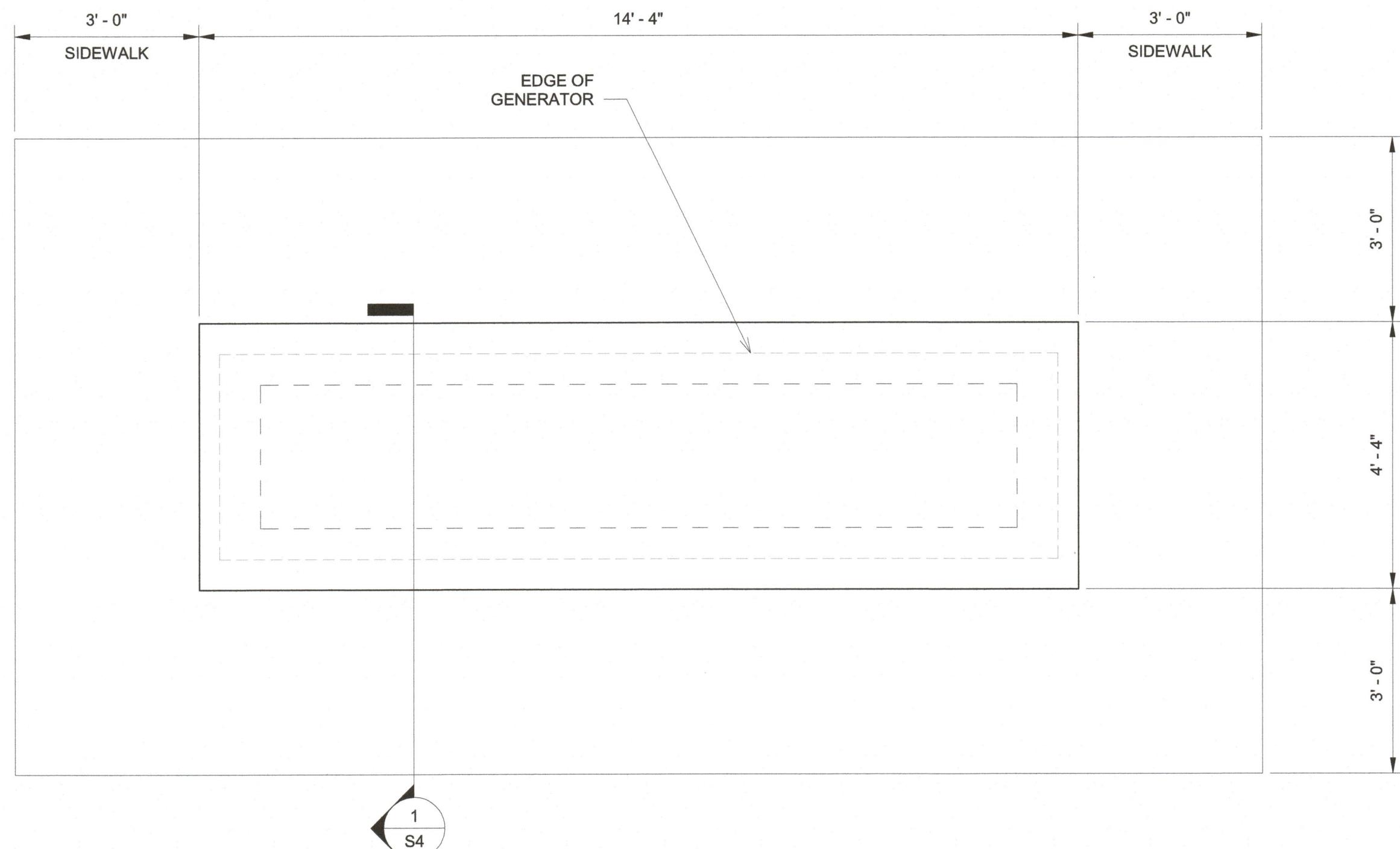


③ CAISSON METHOD BASE DETAIL
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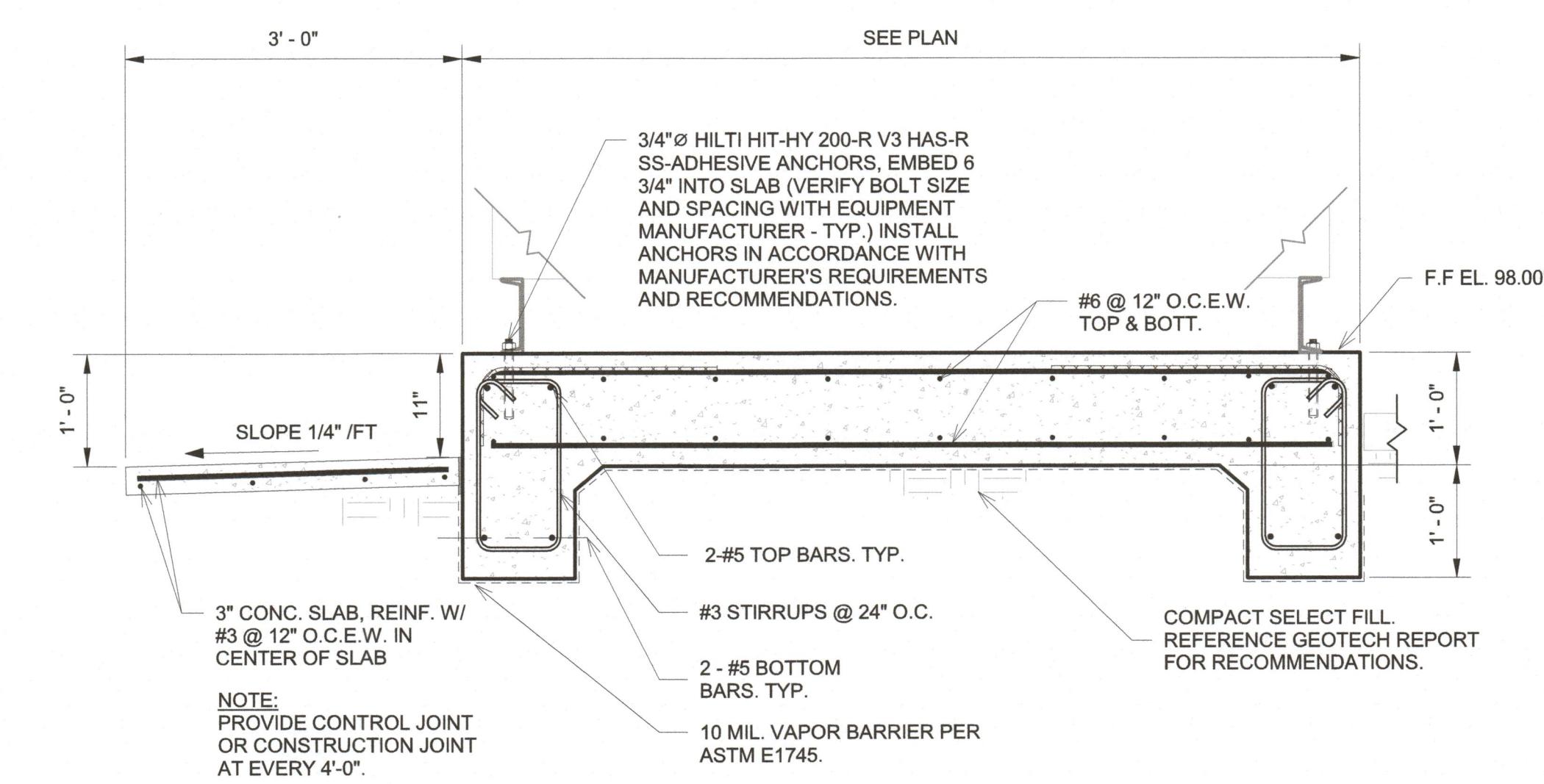
NOTE:
FINAL GENERATOR DIMENSIONS MAY DIFFER FROM DIMENSIONS SHOWN. REINFORCEMENT AND DETAILS SHOWN APPLY FOR A SLAB MEASURING UP TO 7 FT IN WIDTH. GC SHALL NOTIFY EOR IF REQUIRED WIDTH OF GENERATOR SLAB EXCEEDS 7 FT.



② CONTROL PANEL SLAB SECTION
1/2" = 1'-0"



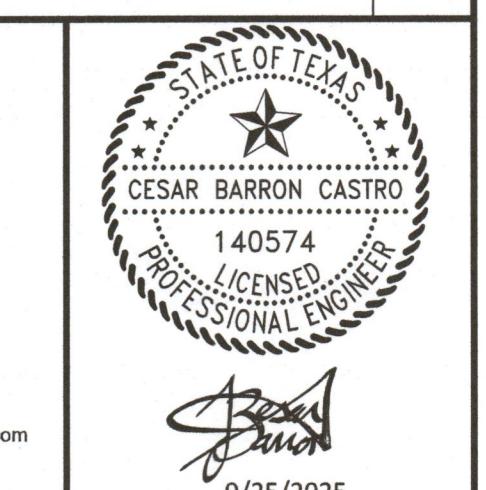
④ GENERATOR SLAB PLAN
1/2" = 1'-0"



① GENERATOR SLAB SECTION
NTS

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GENERATOR AND CONTROL PANEL SLAB