

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

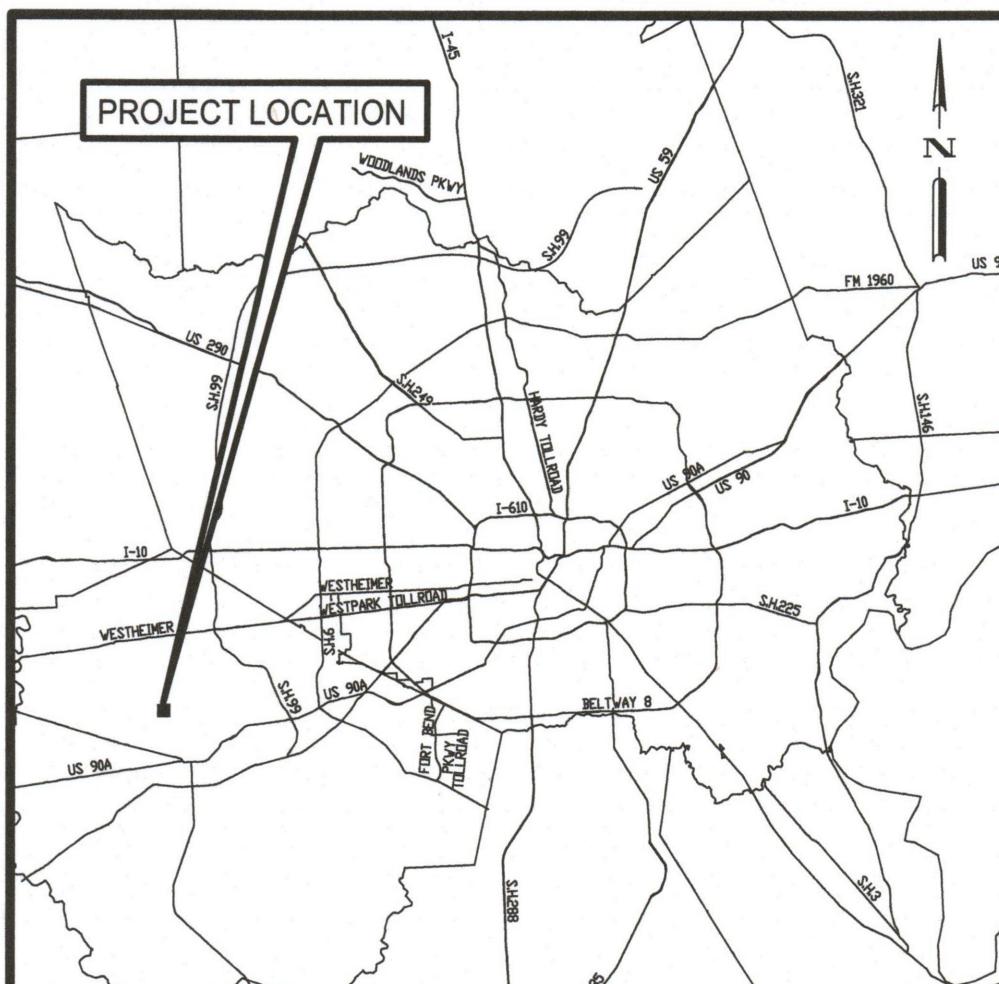
## CONSTRUCTION PLANS FOR

# LIFT STATION NO. 1

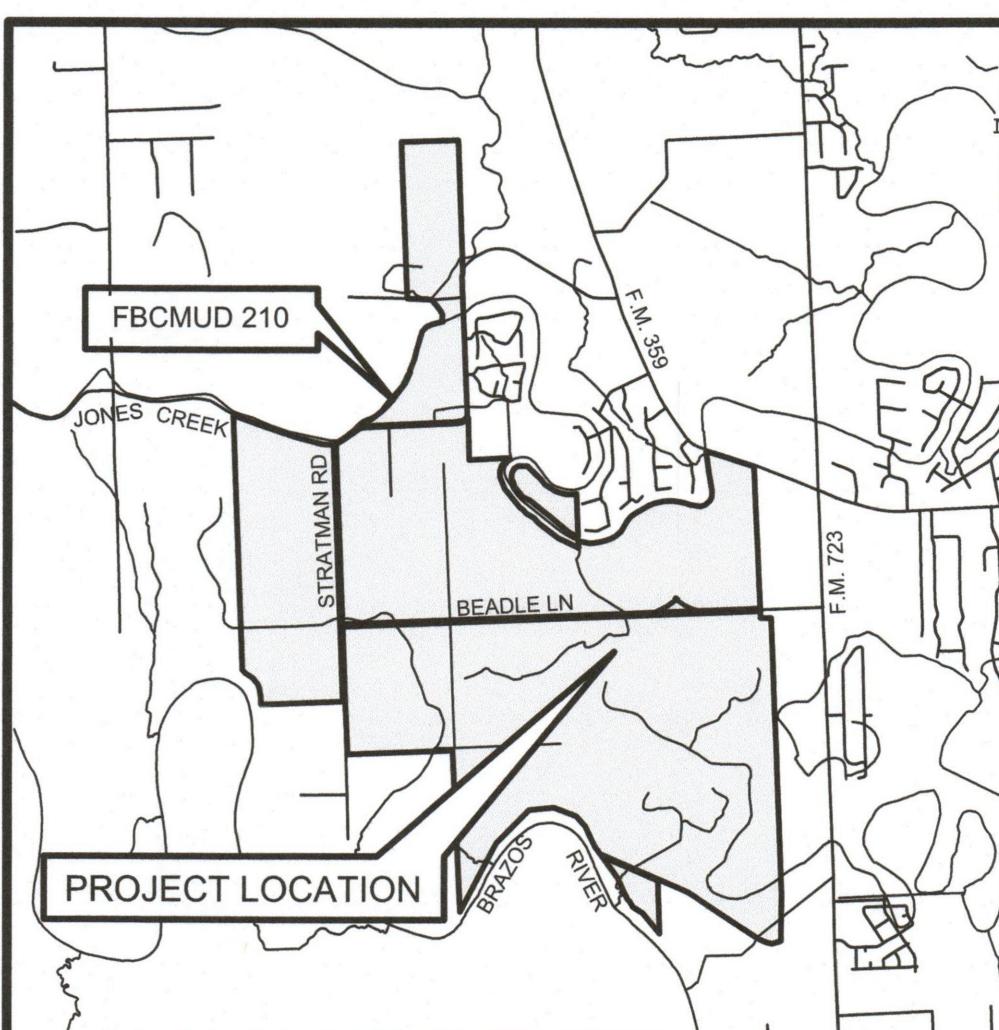


Digitally signed by  
Pawlak, Cuyler  
Reason: Plans Approved for Permit  
Date: 2025.10.08  
10:46:17-05'00'

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



LOCATION MAP  
N.T.S.



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.

SEPTEMBER 2025

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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

### FORT BEND COUNTY ENGINEER

ENGINEER: *Rig J. Slawinski, P.E.*  
for J. STACY SLAWINSKI, P.E.

DATE: 11/3/25

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

APPROVED: *Ch. Cuyler*  
DEVELOPMENT COORDINATOR

DATE: 10-31-25

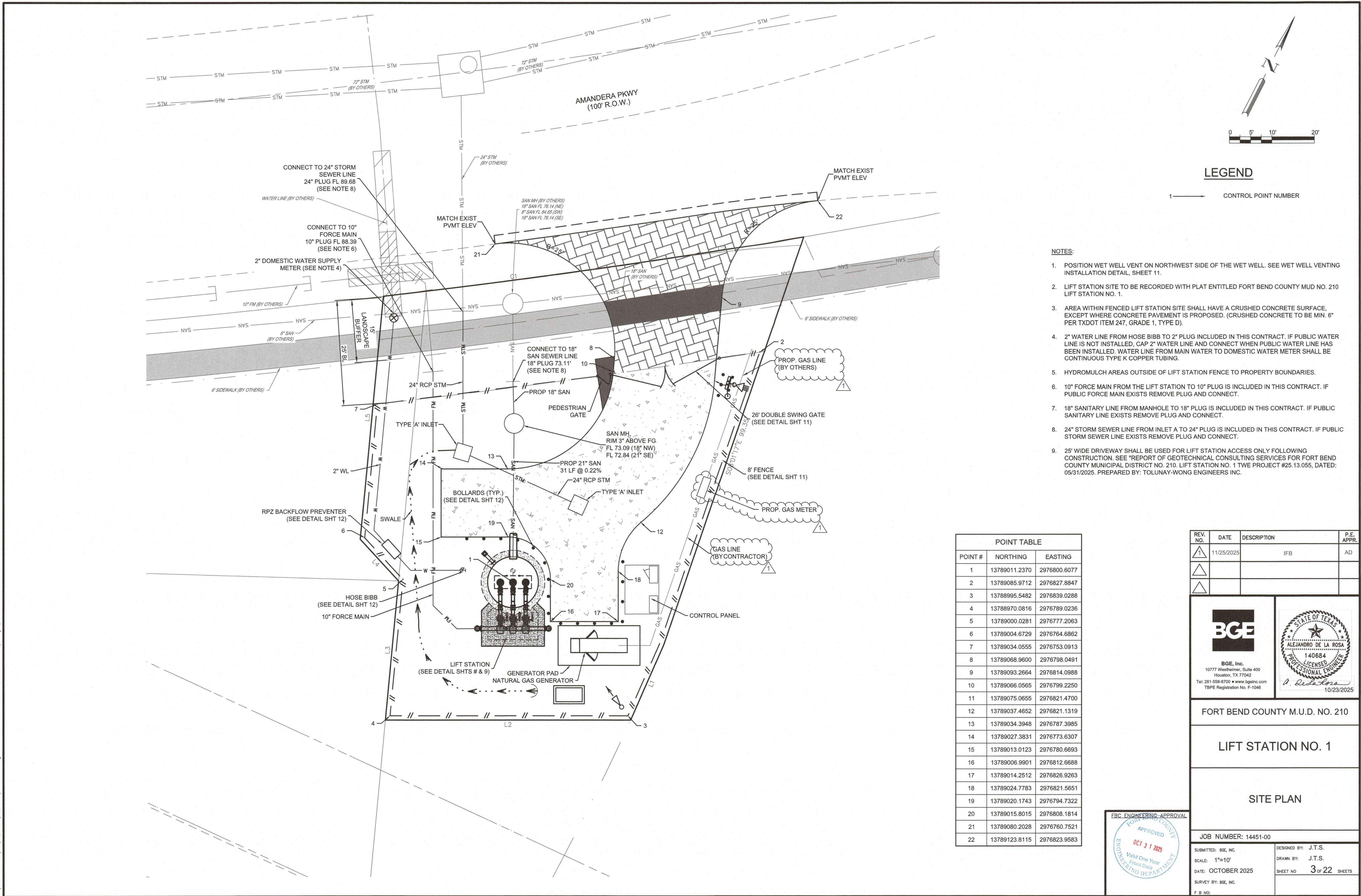
REV. NO.	DATE	DESCRIPTION	P.E. APPR.
1	11/25/2025	IFB	AD
△			
△			
△			

BGE, Inc.  
10777 Westheimer, Suite 400  
Houston, TX 77042  
Tel: 281-558-8700 • www.bgeinc.com  
TBPE Registration No. F-1046

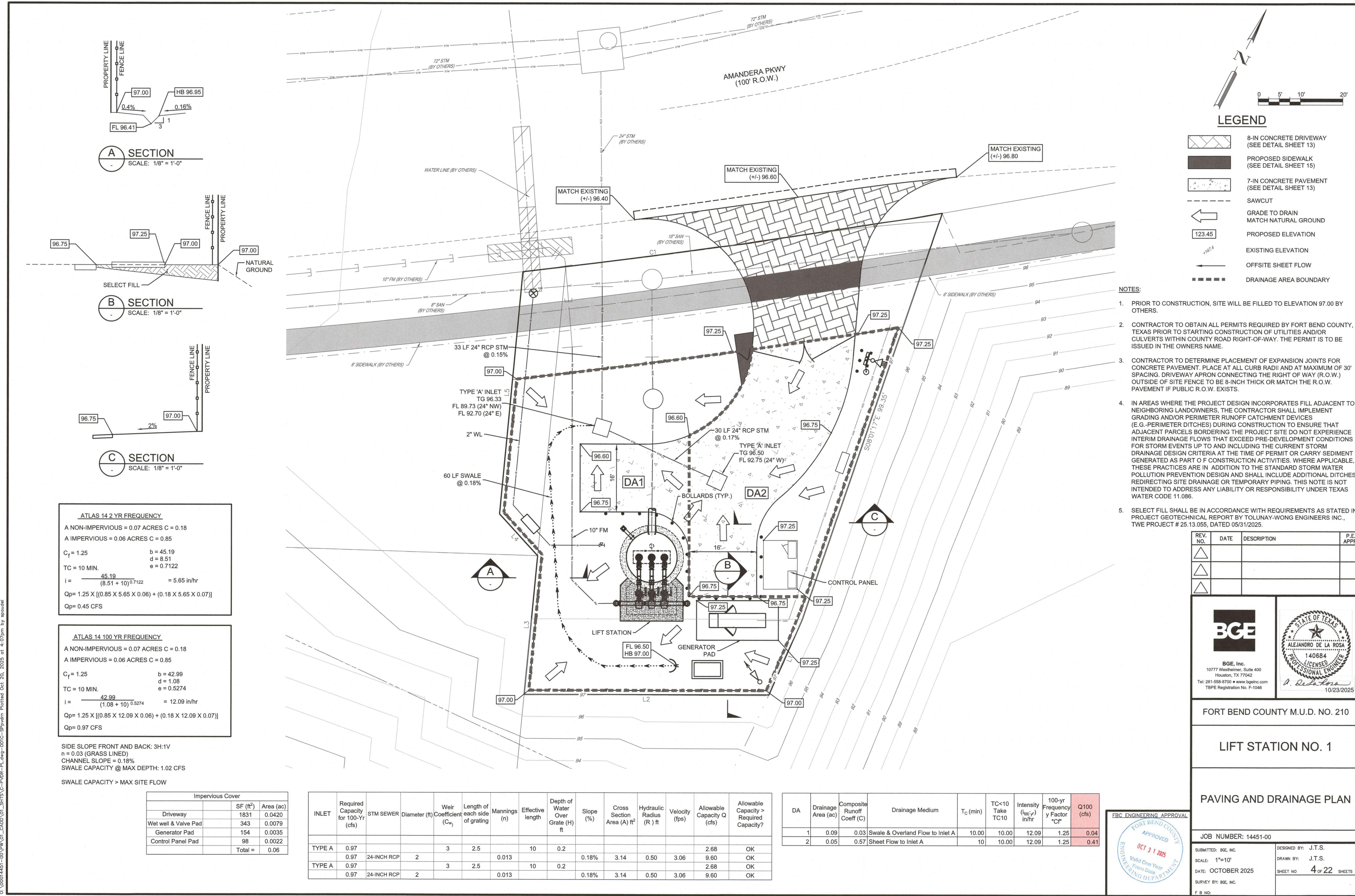
ALEJANDRO DE LA ROSA  
140684  
LICENSED PROFESSIONAL ENGINEER  
A. De La Rosa  
09/29/2025

SHEET NO: 1 OF 22





O:\00014451-00\PW\01\_CADD\01\_SHTS\C-SITE-01.dwg-001C-SPsite Plotted Oct 20, 2025 at 4:05pm by spaudel



**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 1.7LD 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 - 4000PSI
  - 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:
 

<b>SLABS:</b>	TOP AND BOTTOM OF FORMED SLABS ----- 2"
	TOP OF WALK AND DRIVEWAY SLABS ----- 2"
	SURFACES IN CONTACT WITH LIQUID ----- 3"
	BOTTOM OF SLABS ON FILL OR SOIL ----- 3"
- FOOTINGS:**

TOP AND SIDES ----- 2 1/2"
BOTTOM ----- 3"
- WALLS:**
  - LESS THAN 12" THICK ----- 1 1/2"
  - 12" OR OVER IN THICKNESS WITH POURS LESS THAN 10 FEET HIGH ----- 2"
  - 12" OR OVER IN THICKNESS WITH POURS MORE THAN 10 FEET HIGH ----- 2 1/2"
- BEAMS AND GIRDERS:**
  - COVER AT TOP, BOTTOM OR SIDES OF LONGITUDINAL REINF----- 2"
- COLUMNS**
  - COVER FOR VERTICAL BARS ----- 2"

8. HORIZONTAL AND VERTICAL CONSTRUCTION JOINT SHOWN OR NOTED ON THE PLANS ARE RECOMMENDED. ANY DEVIATION FROM THOSE SHOWN SHALL HAVE APPROVAL OF THE ENGINEER.

9. 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.

10. 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.

11. CONCRETE WALLS AND PARTITIONS SHALL BE POURED IN MAXIMUM LENGTHS OF 40 FEET BETWEEN VERTICAL CONSTRUCTION JOINTS.

12. 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.

13. ALL EXPOSED EDGES OF BEAMS, COLUMNS, SLABS AND WALLS SHALL BE CHAMFERED 3/4" UNLESS MASONRY OR OTHER MEMBERS ARE ERECTED FLUSH WITH THEM.

14. 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 ----- 316 SS.
- 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:

- A. ACI 318: BUILDING CODE FOR STRUCTURAL CONCRETE
- B. ACI 350: CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES
- C. ACI 364: GUIDE FOR ASSESSMENT OF CONCRETE STRUCTURES BEFORE REHABILITATION
- D. ACI 315: DETAILS AND DETAILING OF CONCRETE REINFORCEMENT
- E. 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, ALUMINUM COVER, PLATFORM, AND WALKWAYS AT OR BELOW GRADE ..... 100 PSF  
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	- SHEET
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
BELOW 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	TOUGUE AND GROOVE	- T & G
CLEAR	- CLR	TOP OF BEAM	- TOB
COLUMN	- COL	TOP OF FOOTING	- TOP
COMPRESSION	- C OR COMP	TOP OF PIER	- TOS
CONCRETE	- CONC	TOP OF SLAB	- TOW
CONCRETE MASONRY UNIT	- CMU	TOP OF WALL	- TOW
CONNECTION(S)	- CONNS	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	- EXP		
EXISTING	- EXIST OR EX		
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		
NOMINAL	- NOM		
NUMBER	- NO OR # OR NOS		
ON CENTER	- OC		
OPENING(S)	- OPNG(S)		
OPPOSITE	- OPP		
OPPOSITE HAND	- OH		
OUTSIDE FACE	- OF		
OUTSIDE DIAMETER	- OD		
OVERALL	- OA		
POLY(VINYL CHLORIDE	- PVC		
REINFORCEMENT	- REINF.		
RADIUS	- R		
REINFORCED CONCRETE PIPE - RCP	- RD		
REQUIRED	- REQ'D		
ROOF DRAIN	- RD		

SCHEDULE(D)  
SECTION  
SHEET  
SIMILAR  
SPACE

STANDARD  
STEEL

STRAIGHT

STIRRUPS

STRUCTURAL

SYMMETRICAL

TOP

TOP OF

THICK

TOUGUE AND GROOVE

TOP OF BEAM

TOP OF FOOTING

TOP OF PIER

TOP OF SLAB

TOP OF WALL

TYPICAL

UNLESS OTHERWISE NOTED

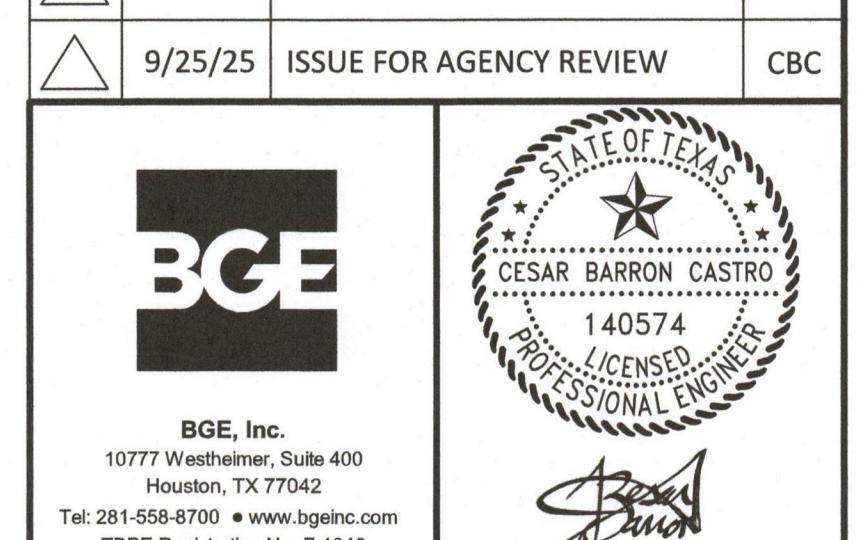
VERTICAL

VARIES

WELDED WIRE FABRIC

WITH

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



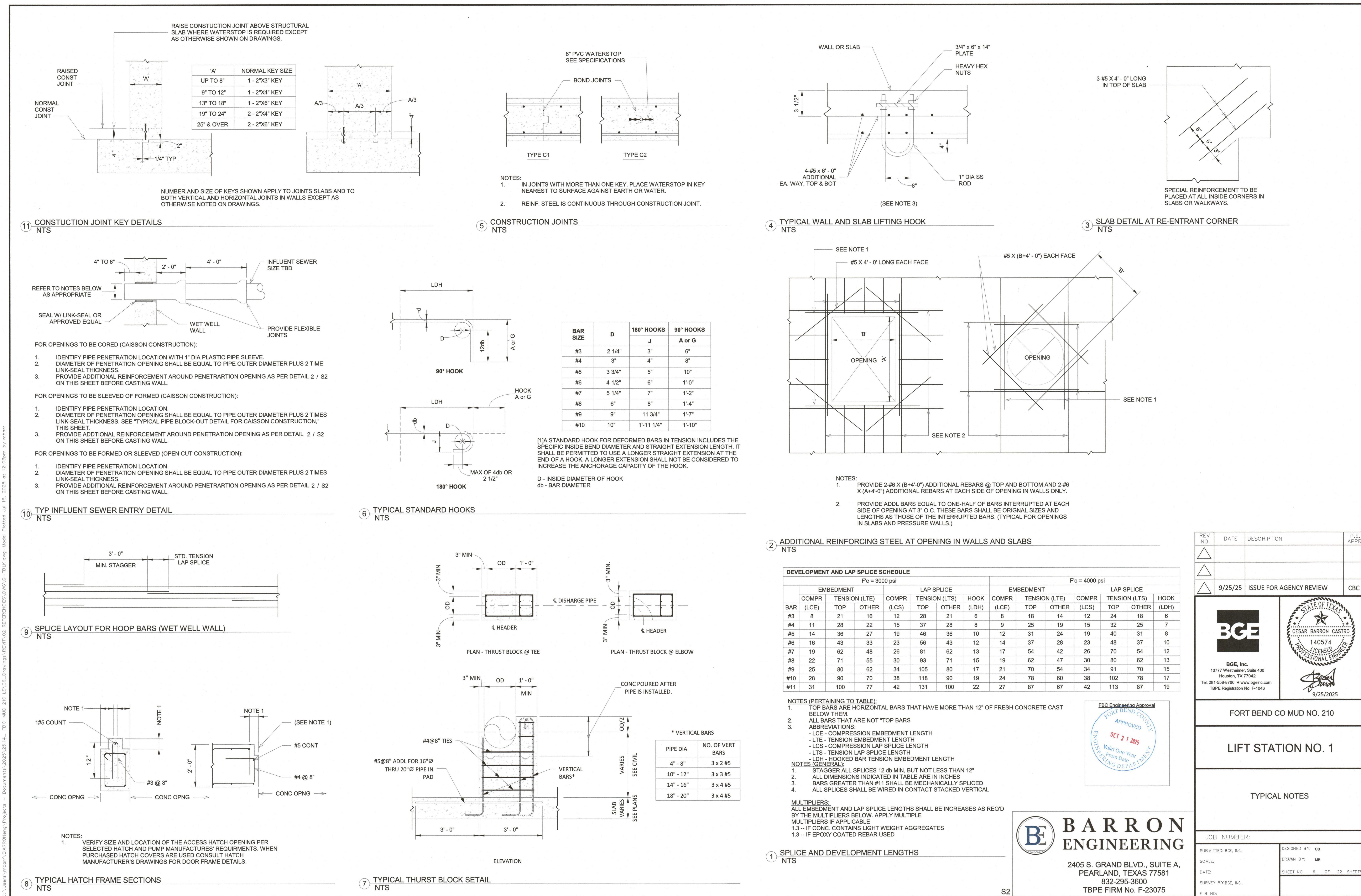
FORT BEND CO MUD NO. 210

LIFT STATION NO. 1

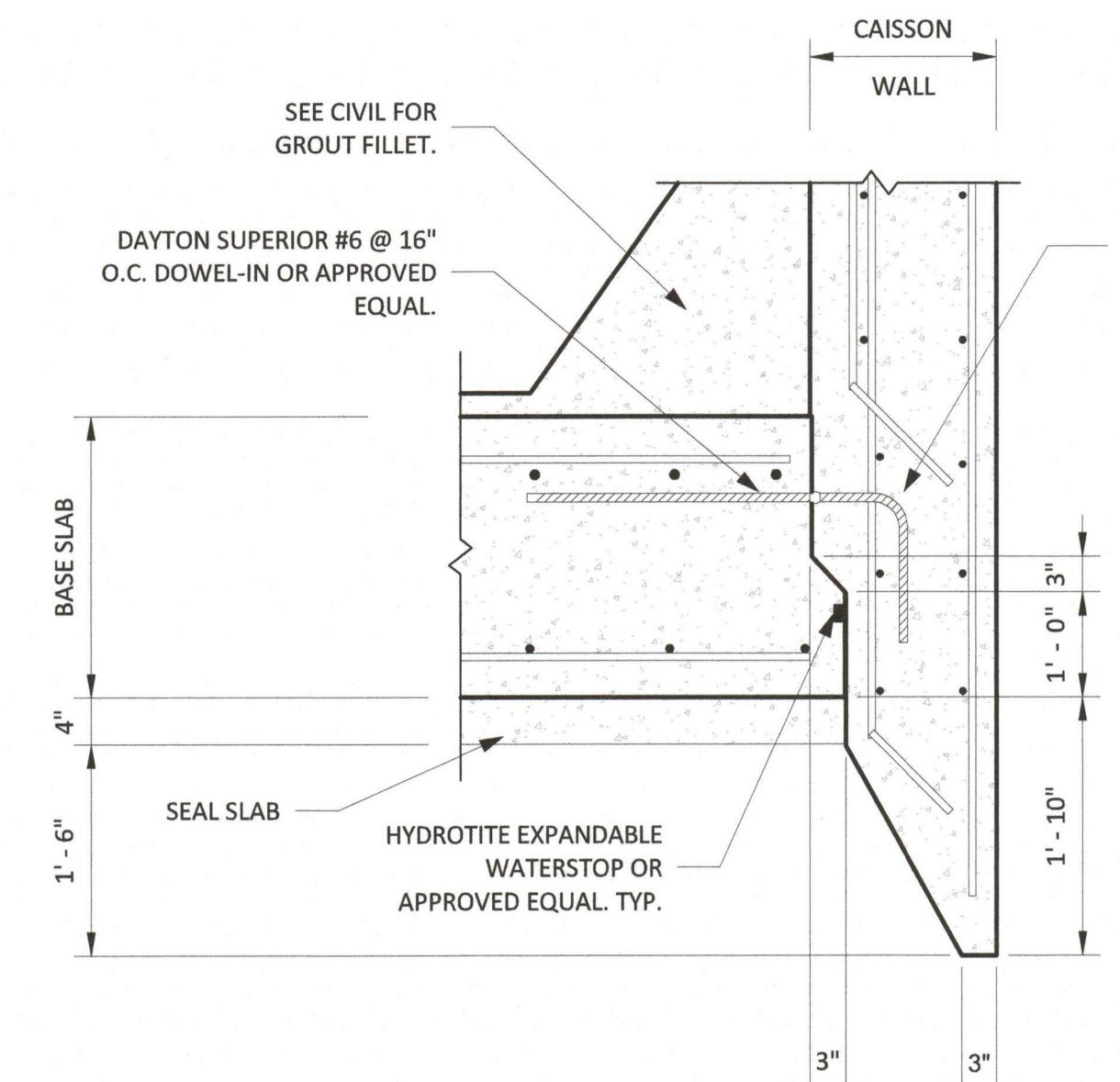
GENERAL NOTES

**BARRON ENGINEERING**  
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:	SURVEY BY: BGE, INC.
Sheet No 5 of 22 Sheets	F.B. NO:

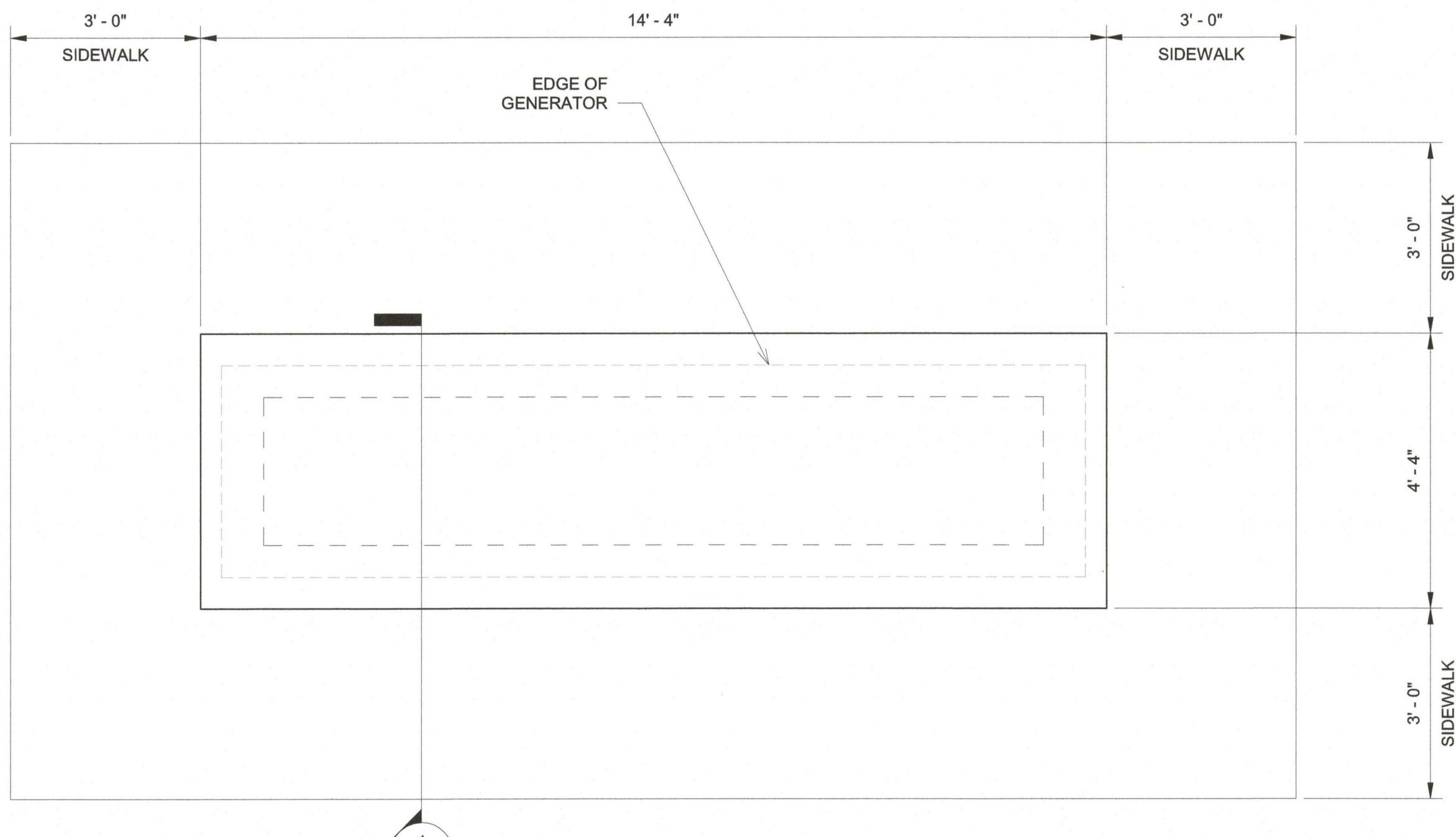




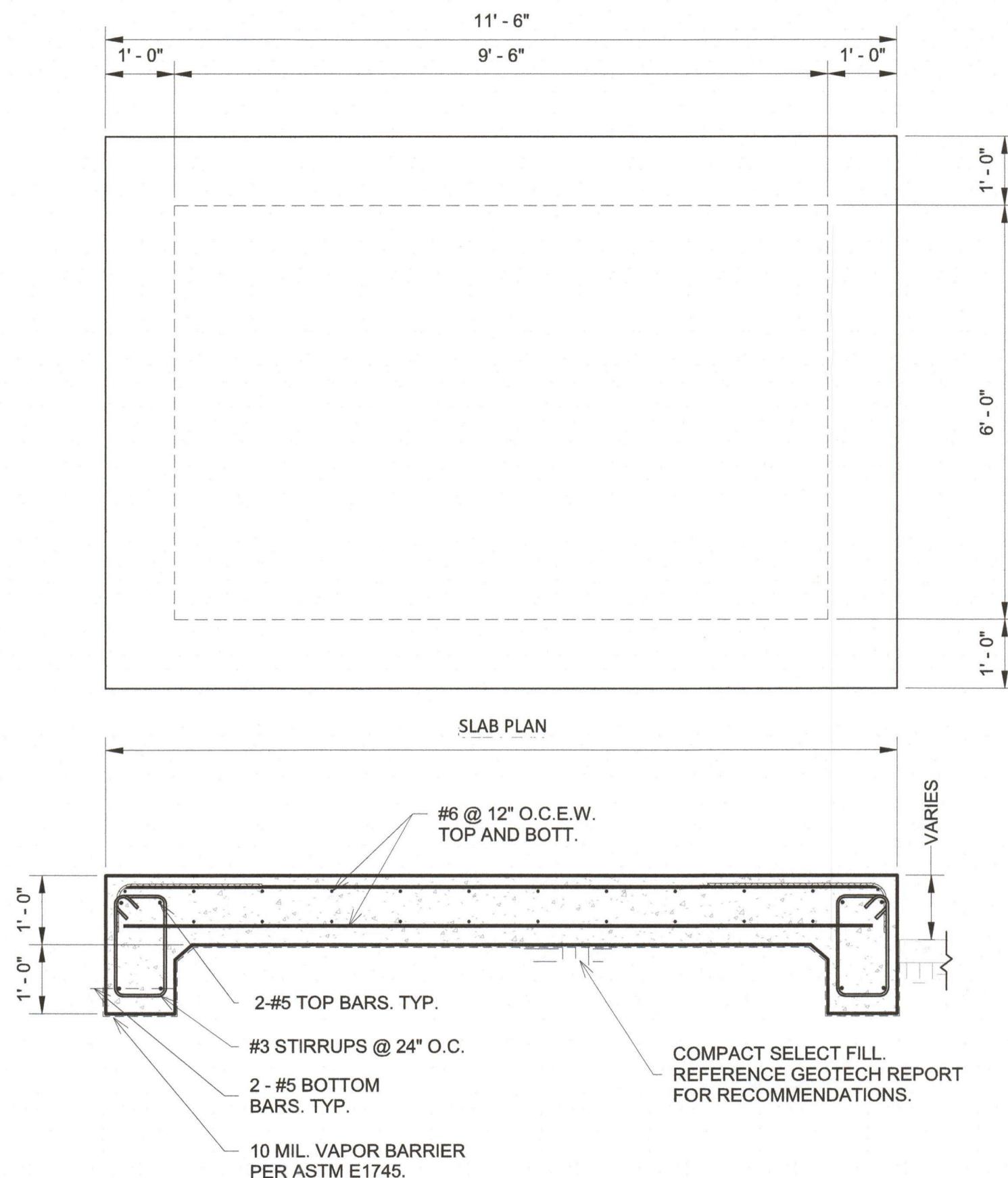


③ CAISSON METHOD BASE DETAIL  
NTS

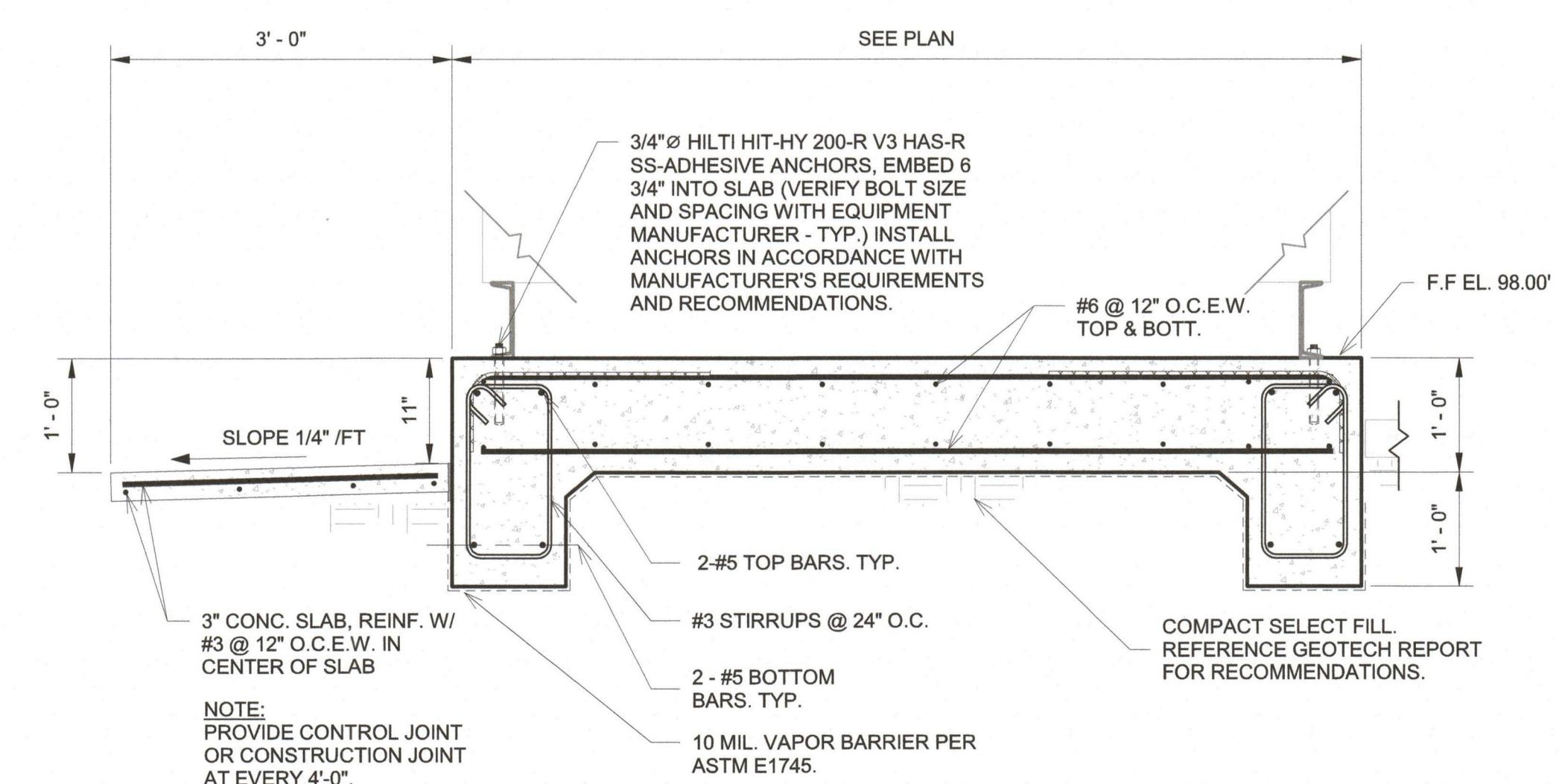
**NOTE:**  
FINAL GENERATOR DIMENSIONS MAY DIFFER FROM DIMENSIONS SHOWN. REINFORCEMENT AND DETAILS SHOWN APPLY FOR A SLAB MEASURING UP TO 7 FT IN WIDTH. GC SHALL NOTIFY EOR IF REQUIRED WIDTH OF GENERATOR SLAB EXCEEDS 7 FT.



④ GENERATOR SLAB PLAN  
1/2" = 1'-0"



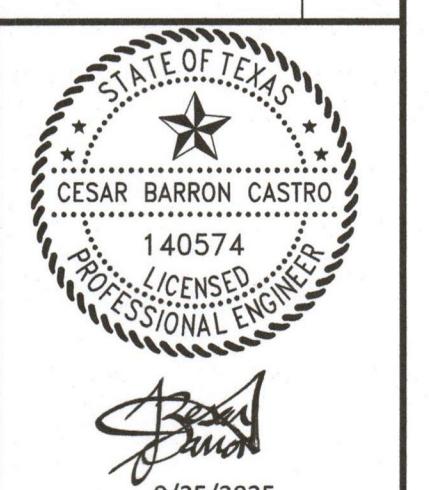
② CONTROL PANEL SLAB SECTION  
1/2" = 1'-0"



① GENERATOR SLAB SECTION  
NTS

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10777 Westheimer, Suite 400  
Houston, TX 77042  
Tel: 281-558-8700 • www.bgeinc.com  
TBPE Registration No. F-1046

9/25/2025



FORT BEND CO MUD NO. 210

LIFT STATION NO. 1

GENERATOR AND CONTROL PANEL SLAB

JOB NUMBER:	
SUBMITTED: BGE, INC.	DESIGNED BY: CB
SCALE:	DRAWN BY: MB
DATE:	
SHEET NO. 8 OF 22 SHEETS	
F B NO.:	