

GROVE CREEK WPCP

CITY OF COMMERCE, GA
GMC PROJECT # CATL230033



CITY OF COMMERCE, GA



LOCATION MAP



MARCH 2025

BID SET



Georgia One-Call Center
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CLIENT PROJECT TEAM

DR. J. CLARK HILL, III	MAYOR
KEITH BURCHETT	MAYOR PRO-TEM
MATTHEW HAILEY	CITY MANAGER
JOSH ALLISON	WATER & SEWER SUPERINTENDENT
TADD EDMONDSON	WASTEWATER SUPERINTENDENT

DESIGN PROJECT TEAM

GOODWYN MILLS CAWOOD, LLC	CIVIL, PROCESS, ARCHITECTURAL
BFIELD ENGINEERING	ELECTRICAL, MECHANICAL, PLUMBING
DAY STRUCTURES	STRUCTURAL

I CERTIFY THAT I HAVE BEEN IN RESPONSIBLE CHARGE OF THE DESIGN OF THIS PROJECT IN ACCORDANCE WITH THE RULES OF THE GEORGIA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS. I FURTHER CERTIFY, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THESE PLANS AND SPECIFICATION WERE PREPARED IN ACCORDANCE WITH CURRENT STANDARD ENGINEERING PRACTICES AND ACCURATELY REFLECT THE DESIGN DEVELOPMENT REPORT (DDR) PREVIOUSLY REVIEWED AND CONCURRED IN BY EPD. I FURTHER CERTIFY THAT THE SYSTEM AS DESIGNED CAN REASONABLY BE EXPECTED TO CONSISTENTLY MEET ALL CURRENTLY APPLICABLE PERMIT LIMITS, CONDITIONS, AND REGULATORY REQUIREMENTS, PROVIDED THE FACILITY IS CONSTRUCTED AS DESIGNED AND PROPERLY OPERATED AND MAINTAINED.

ENGINEER'S SIGNATURE *Graham S. Sizemore*

COMMERCE 2.0 MGD
GROVE CREEK WPCP
COMMERCE, GA

CATL230033

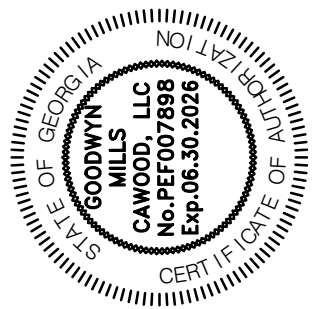


TITLE SHEET

G-001

ISSUE	DATE
30% Submittal	05.30.2024
60% Submittal	08.29.2024
90% Submittal	11.27.2024
Bid Set	03.19.2025

Project Manager:	CW
Engineer:	GS
Designer:	GS
Drawn By:	



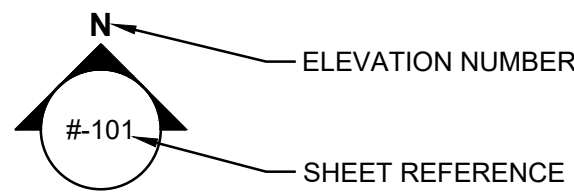
GMC
6120 Powers Ferry Road NW, Suite 200
Atlanta, GA 30339
T 770.952.2481

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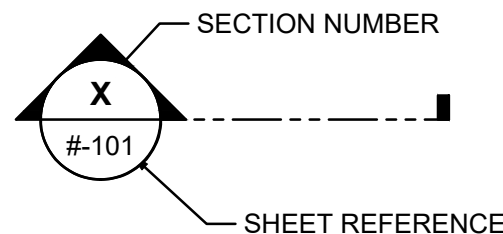
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GRAPHICS LEGEND

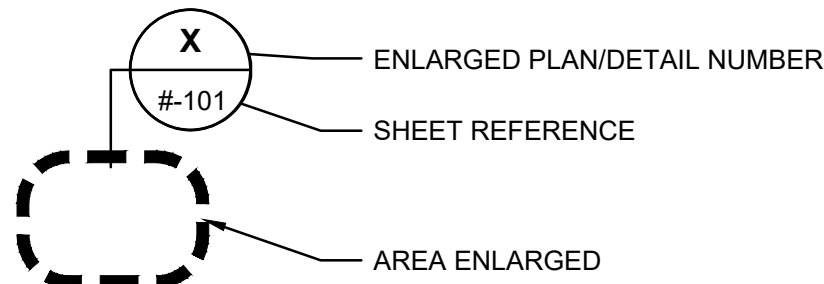
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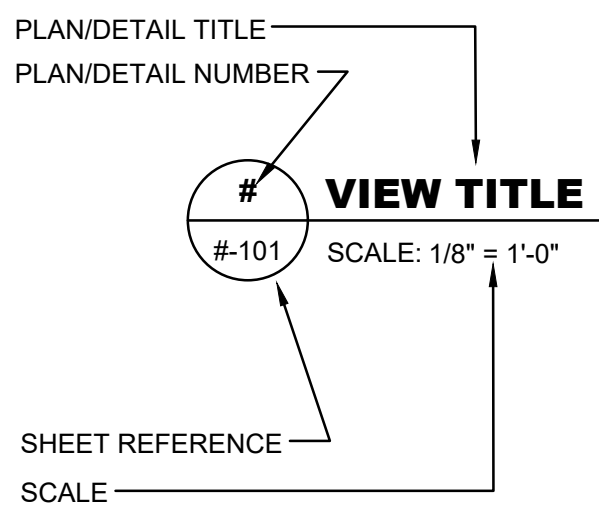
SECTION INDICATOR



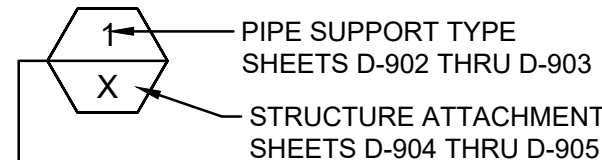
ENLARGED PLAN/DETAIL INDICATOR



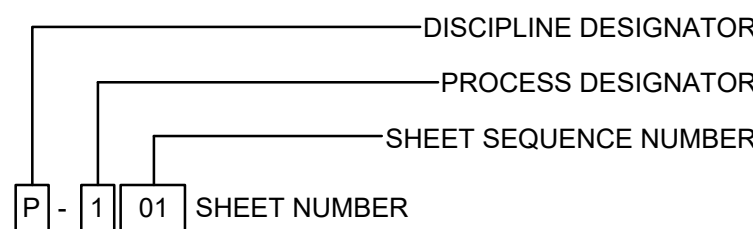
DRAWING TITLE



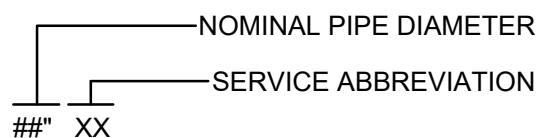
PIPE SUPPORT INDICATOR



SHEET NUMBERING



PIPE LINE IDENTIFICATION



PROCESS DESIGNATORS

PROCESS SHEETS (WASTEWATER)	DESIGNATOR
NOTES, LEGEND, ABBREVIATIONS, DEMOLITION, EXISTING CONDITIONS, ETC.	0
PRELIMINARY TREATMENT	1
PRIMARY TREATMENT	2
BIOLOGICAL TREATMENT	3
SECONDARY TREATMENT	4
TERTIARY TREATMENT	5
DISINFECTION AND EFFLUENT PUMPING	6
SLUDGE STORAGE AND PROCESSING	7
MISCELLANEOUS SYSTEMS	8
DETAILS / SCHEDULES	9

CIVIL DESIGNATORS

CIVIL	DESIGNATOR
NOTES, LEGEND, ABBREVIATIONS, DEMOLITION, EXISTING CONDITIONS, ETC.	0
SITE PLAN AND GEOMETRIC CONTROLS	1
GRADING AND DRAINAGE	2
UTILITIES/YARD PIPING	3
ROAD PLAN AND PROFILES (IF REQUIRED)	4
ROAD CROSS SECTIONS (IF REQUIRED)	5
SEDIMENT AND EROSION CONTROL	6
RESERVED	7
RESERVED	8
DETAILS / SCHEDULES	9

OWNER

DESCRIPTION	NAME	PHONE NUMBER	EMAIL ADDRESS
CITY MANAGER	MATTHEW HAILEY	706.423.5125	MHAILEY@COMMERCEGA.GOV
WWTP SUPERINTENDENT	TAD EDMONSON	770.374.3288	TEDMONSON@COMMERCEGA.GOV

CONTRACTOR

DESCRIPTION	NAME	PHONE NUMBER	EMAIL ADDRESS
PROJECT MANAGER	TBD		
SUPERINTENDENT	TBD		

ENGINEER

DESCRIPTION	NAME	PHONE NUMBER	EMAIL ADDRESS
PROJECT MANAGER	CHARLES WELCH	770.952.2481 EXT. 103	CHARLES.WELCH@GMCNETW RK.COM
ENGINEER	GRAHAM SIZEMORE, PE	770.952.2481 EXT. 143	GRAHAM.SIZEMORE@GMCNETW ORK.COM
INSPECTOR	TONY VAN DE RYT	770.952.2481 EXT. 110	TONY.VANDERYT@GMCNETWOR K.COM

PIPE SYMBOLS

DESCRIPTION	SINGLE LINE	DOUBLE LINE
EXISTING BURIED PIPE		
EXISTING ABOVE GRADE PIPE		
NEW BURIED PIPE		
NEW ABOVE GRADE PIPE		
WELDED JOINT		
FLANGED JOINT		
FLANGED ADAPTOR		
FLANGED COUPLING		
MECHANICAL JOINT		
JOINT		
EXPANSION JOINT		

HATCHING LEGEND

DESCRIPTION	EXISTING	PROPOSED
ASPHALT PAVING (PLAN)		
ALUMINUM GRATING		
CONCRETE (ELEVATION)		
CONCRETE (PLAN)		
CONCRETE (SECTION)		
CRUSHED STONE (SECTION)		
EARTH OR BACKFILL (SECTION)		
GRAVEL DRIVE (PLAN)		
GROUT FILL (PLAN & SECTION)		
LAKE, RIVER OR POND (PLAN)		
REMOVAL OR DEMOLITION (PLAN & SECTION)		
UNPAVED DRIVE (PLAN)		

DISCIPLINE DESIGNATORS

DISCIPLINE	DESIGNATOR
GENERAL	G
HAZARDOUS MATERIALS	H
INSTRUMENTATION	I
DEMOLITION	X
SURVEY/MAPPING	V
GEOTECHNICAL	B
CIVIL	C
LANDSCAPE	L
STRUCTURAL	S
ARCHITECTURAL	A
FIRE PROTECTION	F
MECHANICAL	M
PLUMBING	P
PROCESS	D
ELECTRICAL	E

GENERAL NOTES


1. THE CONTRACTOR IS EXPECTED TO CAREFULLY EXAMINE THE PLAN, PROPOSAL AND SITE OF THE WORK, THEREFORE, IT WILL BE ASSUMED THAT THE BIDDER HAS SATISFIED HIMSELF AS TO THE CONDITIONS TO BE ENCOUNTERED IN REGARDS TO THE CHARACTER, QUALITY, AND QUANTITIES OF WORK TO BE PERFORMED AND MATERIALS TO BE FURNISHED, AND AS TO THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS, SPECIAL PROVISIONS AND CONTRACT. THE SUBMISSION OF A PROPOSAL BY A BIDDER WILL BE CONSIDERED PRIMA FACIE EVIDENCE THAT THE BIDDER HAS MADE SUCH AN EXAMINATION.
2. THE CONTRACTOR IS REQUIRED TO MAINTAIN AN AS-BUILT SET OF DRAWINGS DURING PROJECT CONSTRUCTION. THE COMPLETE AS-BUILT MAP WILL CONTAIN ALL INSTALLED ELECTRICAL, STRUCTURAL ENTITIES, LINES, VALVES, METERS, AND CONNECTIONS WITH REFERENCE DISTANCES TO PERMANENT ABOVE GROUND STRUCTURES.
3. ALL EXISTING UTILITIES SHOWN ABOVE AND BELOW GROUND ARE APPROXIMATE AND ARE NOT NECESSARILY ALL THAT EXIST. THE DETERMINATION OF THE EXISTENCE, LOCATION, AND DEPTH OF ALL UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED BY CONTRACTOR FOR ONE YEAR AFTER ACCEPTANCE BY THE OWNER PER SPECIFICATION 1030.
5. IN THE EVENT THAT THERE IS A DISCREPANCY BETWEEN THE CIVIL DRAWINGS AND THE ARCHITECTURAL/STRUCTURAL DRAWINGS, THE ARCHITECTURAL/STRUCTURAL DRAWINGS SHALL HAVE PRECEDENCE. THE CONTRACTOR SHALL ADVISE THE ENGINEER OF ANY CONFLICT IN THE PLANS/SPECS FOR CLARIFICATION PRIOR TO BID. SHOULD CONFLICTING DOCUMENTS NOT BE CLARIFIED AT THE REQUEST OF THE BIDDING CONTRACTOR, THE MORE COSTLY ALTERNATIVE AS IDENTIFIED IN THE PLAN & SPECS SHALL BE INCLUDED IN THE PRICE BID.
6. ALL HAZARDOUS SUBSTANCES USED FOR THIS PROJECT, INCLUDING, BUT NOT LIMITED TO, PAINT, OIL, GREASE, AND OTHER PETROLEUM PRODUCTS SHALL BE STORED IN ACCORDANCE WITH "SPILL PREVENTION, CONTROL & COUNTERMEASURE" REGULATIONS. THESE SUBSTANCES SHALL BE STORED AWAY FROM STORM DRAINS, DITCHES, AND GUTTERS IN WATERTIGHT CONTAINERS. DISPOSAL OF THESE SUBSTANCES SHALL BE IN ACCORDANCE WITH STATE & FEDERAL AGENCY REGULATIONS. CONTRACTOR SHALL PROVIDE ADEQUATE TRASH CONTAINERS ON SITE FOR THE DISPOSAL OF CONSTRUCTION MATERIALS WASTE. CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING ANY TRASH OR OTHER POLLUTANTS FROM ENTERING STORM DRAINS & WATERS OF THE STATE.

GENERAL NOTES, LEGENDS, & SYMBOLS

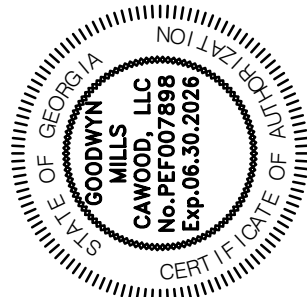
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The GNC logo is displayed in a large, bold, black font, oriented vertically on the right side of the page.

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Bid Set	03/19/2025
Project Manager:	CW
Engineer:	GS
Designer:	GS
Drawn By:	



1. THE FOUNDATION SUBGRADE AND SHALL BE PREPARED IN ACCORDANCE WITH THE REPORT OF GEOTECHNICAL EXPLORATION BY GMC, LLC. DATED FEBRUARY 20, 2025 (GMC PROJ. NO. GATL240047). FOR THE PURPOSE OF THESE STRUCTURAL DRAWINGS, SELECT INFORMATION HAS BEEN EXTRACTED FROM THE REFERENCED GEOTECHNICAL REPORT AND NOTED BELOW; HOWEVER IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, READ, AND FOLLOW ALL RECOMMENDATIONS CONTAINED IN THE REFERENCED GEOTECHNICAL REPORT.
2. SHALLOW FOUNDATIONS ARE SIZED FOR A SOIL BEARING VALUE OF 2000 PSF. FOUNDATION SHALL EXTEND TO A MINIMUM OF FROST PENETRATION DEPTH, TO A DEPTH WHERE SOIL MOISTURE CONTENT DOES NOT FLUCTUATE, A MINIMUM DEPTH OF 12" INTO ORIGINAL SOIL AND A MINIMUM DEPTH TO ACHIEVE 2000 PSF BEARING CAPACITY (WHICHEVER IS GREATER). NOTIFY THE ENGINEER SHOULD ANY UNUSUAL SOIL CONDITIONS BE ENCOUNTERED.
33. STRUCTURAL FILL SHALL BE PLACED IN LIFTS NOT TO EXCEED 8" LOOSE MEASURE AND DENSIFIED TO 98% (MINIMUM) STANDARD PROCTOR DENSITY (ASTM D698).
4. BELOW GRADE WALLS ARE DESIGNED FOR AN "AT REST" EQUIVALENT FLUID DENSITY OF 90 LBS/FT³. BACKFILL SHALL CONSIST OF USC SM, SC, SP, SW, GW, OR GP. THE BACKFILL SHALL EXTEND UPWARD FROM THE TOP OF THE FOOTING ON A LINE 30 DEGREES FROM THE VERTICAL. SAMPLES OF ALL BACKFILL MATERIAL SHALL BE EVALUATED BY A THIRD-PARTY TESTING AGENCY FOR USE AS BACKFILL.

SUBMITTALS PER SPECIFICATIONS.
 2. COMPLY WITH ASTM C 94; ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", ACI 350 "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES"; AND CRSI'S "MANUAL OF STANDARD PRACTICE."
 3. DEFORMED REINFORCING BARS: ASTM A615, GRADE 60.
 4. WELDED WIRE FABRIC: ASTM A 185, FLAT SHEETS.
 5. PORTLAND CEMENT: ASTM C 150, TYPE I OR II.
 6. CONCRETE SHALL HAVE THE FOLLOWING MINIMUM SPECIFIED 28 DAY COMPRESSIVE STRENGTH:
 A. SLABS ON GRADE AND PIPE ENCASMENT----- 3000 PSI
 B. LIQUID RETAINING AND CONTAINMENT STRUCTURES ----- 4000 PSI
 7. UNLESS OTHERWISE NOTED, ALL DETAILING, FABRICATION, AND PLACING OF REINFORCING STEEL SHALL CONFORM IN ACCORDANCE WITH "ACI DETAILING MANUAL", PUBLICATION SP-66, ACI 318-11, AND ACI 315-99, OR LATEST EDITIONS.
 8. REINFORCEMENT SHALL BE FABRICATED TO SHAPES AND DIMENSIONS SHOWN AND SHALL CONFORM TO THE REQUIREMENTS OF CRSI AND ACI 318. REINFORCEMENT SHALL BE COLD BENT UNLESS OTHERWISE AUTHORIZED. BENDING MAY BE ACCOMPLISHED IN THE FIELD OR AT THE MILL. BARS NOT TO BE BENT AFTER EMBEDDED IN CONCRETE. REINFORCEMENT SHALL BE FREE FROM LOOSE RUST AND SCALE, DIRT, OIL, OR OTHER DELETERIOUS COATING THAT COULD REDUCE BOND WITH THE CONCRETE.
 9. ALL REINFORCING BAR SPlice LENGTHS AND LOCATIONS, EMBEDMENT LENGTHS, HOOKS, ETC. SHALL BE MADE AS SHOWN ON THE DRAWINGS. DEVIATIONS SHALL NOT BE MADE UNLESS OTHERWISE AUTHORIZED.
 10. PROVIDE CLASS B LAP SPLICES IN ACCORDANCE WITH ACI 318 UNLESS NOTED OTHERWISE. PROVIDE ACCESSORIES NECESSARY TO PROPERLY SUPPORT REINFORCING AT POSITIONS SHOWN ON THE PLANS.
 TENSION AND COMPRESSION REINFORCEMENT SPLICES SHALL BE MADE AS FOLLOWS:
 >12" FRESH CONCRETE BELOW OTHER BARS
 #4 BARS 32 INCHES 25 INCHES
 #5 BARS 40 INCHES 31 INCHES
 #6 BARS 48 INCHES 37 INCHES
 #7 BARS 70 INCHES 54 INCHES
 #8 BARS 80 INCHES 63 INCHES
 #9 BARS 91 INCHES 70 INCHES
 #10 BARS 103 INCHES 80 INCHES
 11. MINIMUM CONCRETE REINFORCING COVER REQUIREMENTS:
 CONCRETE CAST AGAINST EARTH ----- 3"
 FORMED CONCRETE EXPOSED TO EARTH OR WEATHER:
 #6 BARS AND LARGER ----- 2"
 #5 BARS AND SMALLER ----- 1 1/2"
 12. CONCRETE SLABS ON GRADE SHALL BE REINFORCED AS NOTED ON PLANS.
 13. ALL REINFORCING STEEL AND EMBEDDED ITEMS SUCH AS ANCHOR BOLTS AND WELD PLATES SHALL BE ACCURATELY PLACED IN THE POSITIONS SHOWN AND ADEQUATELY TIED AND SUPPORTED BEFORE CONCRETE IS PLACED TO PREVENT DISPLACEMENT BEYOND PERMITTED TOLERANCES.
 14. REFER TO DRAWINGS OF OTHER TRADES FOR PENETRATIONS IN CONCRETE FLOORS, REQUIRING SLEEVES OR OTHER EMBEDDED ITEMS NOT SHOWN.
 15. CONSTRUCTION JOINTS FOR CONTINUOUS WALLS / FOOTINGS SHALL CONSIST OF BULK-HEAD FORM WITH FOOTING REINFORCING PROJECTING THROUGH FORM 3 FEET OR CLASS B LAP SPlice FOR LONGITUDINAL BARS, WHICHEVER IS GREATER.
 16. CROSS REFERENCE ALL CONSTRUCTION DOCUMENTS FOR DIMENSIONS AND LOCATIONS NOT SPECIFICALLY SHOWN. INFORM THE COTR IN WRITING OF MISSING INFORMATION OR CONFLICTS.
 17. DO NOT ADD WATER TO CONCRETE DURING DELIVERY, AT PROJECT SITE OR DURING PLACEMENT UNLESS APPROVED BY THE ENGINEER.
 18. PROTECT CONCRETE FROM PHYSICAL DAMAGE OR REDUCED STRENGTH DUE TO WEATHER EXTREMES DURING MIXING, PLACING AND CURING.
 19. FORM 1/8" WIDE CONTRACTION JOINTS WITH POWER SAWS WHEN CUTTING ACTION WILL NOT TEAR, ABRABE, OR OTHERWISE DAMAGE CONCRETE SURFACE AND BEFORE CONCRETE DEVELOPS RANDOM CONTRACTION JOINTS. SEE DETAILS FOR ADDITIONAL INFORMATION.
 20. BEGIN CURING UNFORMED CONCRETE AFTER FINISHING. KEEP LIQUID RETAINING CONCRETE CONTINUOUSLY MOIST FOR AT LEAST 7 DAYS. MEMBRANE FORMING CURING COMPOUND MAY BE USED ON NON-LIQUID RETAINING CONCRETE. CONTRACTOR SHALL VERIFY COMPOUND IS COMPATIBLE WITH ALL FLOOR COVERINGS AND COATINGS.
 21. PROTECT CONCRETE FROM DAMAGE. REPAIR CONCRETE SURFACE DEFECTS WITH METHODS AND MATERIALS APPROVED BY COTR.
 22. ANCHORING ADHESIVE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. SUBMIT PRODUCT DATA FOR EACH APPLICATION FOR REVIEW. USE ONE OF THE FOLLOWING PRODUCTS:
 A. HILTI HY 150 INJECTION MAX ADHESIVE ANCHORING SYSTEM
 B. RAMSET / RED HEAD EPON CERAMIC 6 EPOXY ANCHORING SYSTEM
 C. SIMPSON STRONG TIE "AT" OR "SET" DEPENDING ON APPLICATION
 D. ADDITIONALLY, PROVIDE SCREEN TUBE ANCHORS IN HOLLOW CORE MASONRY

1. CONCRETE MASONRY UNITS SHALL BE HOLLOW LOADBEARING CONFORMING TO ASTM C 90 ALL LOCATIONS.
2. MORTAR SHALL BE PROPORTIONED IN ACCORDANCE WITH ASTM C270.
3. GROUT SHALL BE PROPORTIONED IN ACCORDANCE WITH ASTM C476.
4. TYPE M OR S FOR BELOW GROUND LEVEL AND EITHER TYPE N OR S FOR ABOVE GROUND CONFORMING TO ASTM C-270.
 - 4.3. MINIMUM INDIVIDUAL NET AREA COMPRESSIVE STRENGTH OF SINGLE CMU----- 2000 PSI
 - 4.4. MINIMUM DESIGN STRENGTH OF MASONRY (f'm)----- 2000 PSI
 - 4.5. GROUT COMPRESSIVE STRENGTH ----- 3000 PSI
5. HORIZONTAL JOINT REINFORCING SHALL BE LADDER TYPE FABRICATED WITH A SINGLE PAIR OF 9 GAGE SIDE RODS AND 9 GAGE CROSSRODS SPACED NOT MORE THAN 16" O.C. REINFORCEMENT SHALL BE FOR TOTAL WIDTH OF SINGLE AND MULTIPLE WIDTH UNIT WALLS.
6. FILLED CELLS INDICATED ON PLAN SHALL BE FILLED WITH GROUT IN LIFTS OF 48" (MAX). TERMINATE LIFT 1-1/2" BELOW BED JOINT TO CREATE SHEAR KEY TO NEXT LIFT.
7. STARTER DOWELS AND EACH ADDITIONAL VERTICAL BAR SHALL BE TIED IN ACCORDANCE WITH TMS SPECIFICATIONS AND LAPPED PER CMU LAP SCHEDULE.
8. "WET SETTING" DOWELS SHALL NOT BE ALLOWED.
9. MASONRY WALLS ARE UNSTABLE AND REQUIRE TEMPORARY CONSTRUCTION BRACING UNTIL INSTALLATION OF PERMANENT CONNECTION. TEMPORARY CONSTRUCTION BRACING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. MASONRY CONTROL JOINTS (M.C.J.) SHALL BE REQUIRED WITH SPACING SHOWN ON ARCHITECTURAL PLAN, MAXIMUM SPACING OF 25' OR 3 TIMES WALL HEIGHT ALONG WALL LENGTH AND 12'-0" MAX FROM WALL CORNERS.

1. TYPICAL ROOF DECK

1.1. STEEL ROOF DECK SHALL BE 22 GAUGE, TYPE "B" (WIDE RIB) CORRUGATED DECK WHERE INDICATED ON THE ROOF PLAN. WITH THE FOLLOWING MINIMUM PROPERTIES:

1.1.1. MOMENT OF INERTIA, POSITIVE (Ip): 0.155 in⁴/ft

1.1.2. MOMENT OF INERTIA, NEGATIVE (In): 0.183 in⁴/ft

1.1.3. SECTION MODULUS, POSITIVE (Sp): 0.186 in³/ft

1.1.4. SECTION MODULUS, NEGATIVE (Sn): 0.192 in³/ft

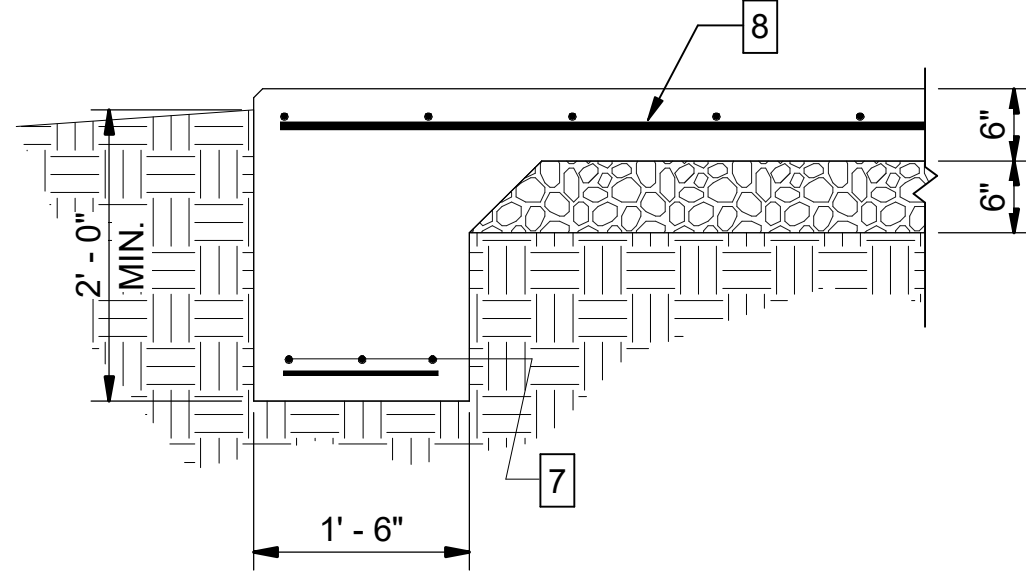
1.2. THE ROOF DECK SHALL BE INSTALLED AND ANCHORED TO THE SUPPORTING STRUCTURE IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND/OR AS INDICATED IN FASTENING PATTERN SCHEDULE ON THESE DRAWINGS (WHICHEVER IS MORE STRINGENT).

1. W-SECTION SHAPES SHALL CONFORM TO ASTM A992.
2. RECTANGULAR HSS SHALL CONFORM TO ASTM A500 GR. C.
3. ROUND HSS SHALL CONFORM TO ASTM A500 GR. C.
4. STRUCTURAL AND MISCELLANEOUS STEEL ITEMS SHALL CONFORM TO ASTM A36.
5. BOLTS SHALL BE ASTM A-325X.
6. NUTS SHALL BE ASTM A563.
7. WASHERS SHALL BE ASTM F436.
8. STEEL HEADED STUDS SHALL BE ASTM A108.
9. DETAIL, FABRICATION, AND ERECTION OF ALL STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH LATEST AISC STANDARDS AND SPECIFICATIONS.
10. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 (LATEST EDITION)
11. ELECTRODES SHALL BE E70XX.
12. UNLESS OTHERWISE NOTED OR DETAILED, ALL SHEAR CONNECTIONS SHALL BE DESIGNED USING THE APPROPRIATE DATA FROM PART 10 - "DESIGN OF SIMPLE SHEAR CONNECTIONS" FROM THE AISC MANUAL OF STEEL CONSTRUCTION, LATEST EDITION. DESIGN END REACTION IS 60% OF TOTAL ALLOWABLE LOAD ($60\% \times W_c$) FROM THE ALLOWABLE LOAD OF BEAM TABLE FROM PART 9 - "DESIGN OF CONNECTING ELEMENTS" OF THE AISC MANUAL OF STEEL CONSTRUCTION, LATEST EDITION.

1. STEEL JOIST MANUFACTURER SHALL BE A CURRENT MEMBER OF THE STEEL JOIST INSTITUTE (SJI)
2. STEEL JOISTS AND JOIST GIRDERS SHALL CONFORM TO THE SPECIFICATIONS AND REQUIREMENTS OF THE LATEST EDITION OF THE SJI STANDARD SPECIFICATIONS FOR OPEN WEB STEEL (K AND LH SERIES) AND JOIST GIRDERS.
3. JOIST BRIDGING SHALL BE FURNISHED AND INSTALLED TO MEET THE DESIGN AND SPACING REQUIREMENTS OF THE SJI STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS. UPLIFT BRIDGING AS REQUIRED SHALL BE PROVIDED BY THE JOIST MANUFACTURER AND CLEARLY SHOWN ON THE ERECTION DRAWINGS. BRIDGING AND BRIDGING ANCHORS SHALL BE COMPLETELY INSTALLED BEFORE CONSTRUCTION LOADS ARE PLACED ON THE JOISTS.
4. PRIOR TO FABRICATION, SUBMIT SHOP AND LAY-OUT DRAWINGS IN SUFFICIENT DETAIL TO DEFINE THE LOCATION OF THE JOISTS, BRIDGING, EMBEDS, OPENINGS, HEADERS AND OTHER ACCESSORIES FOR REVIEW BY THE ENGINEER OF RECORD.

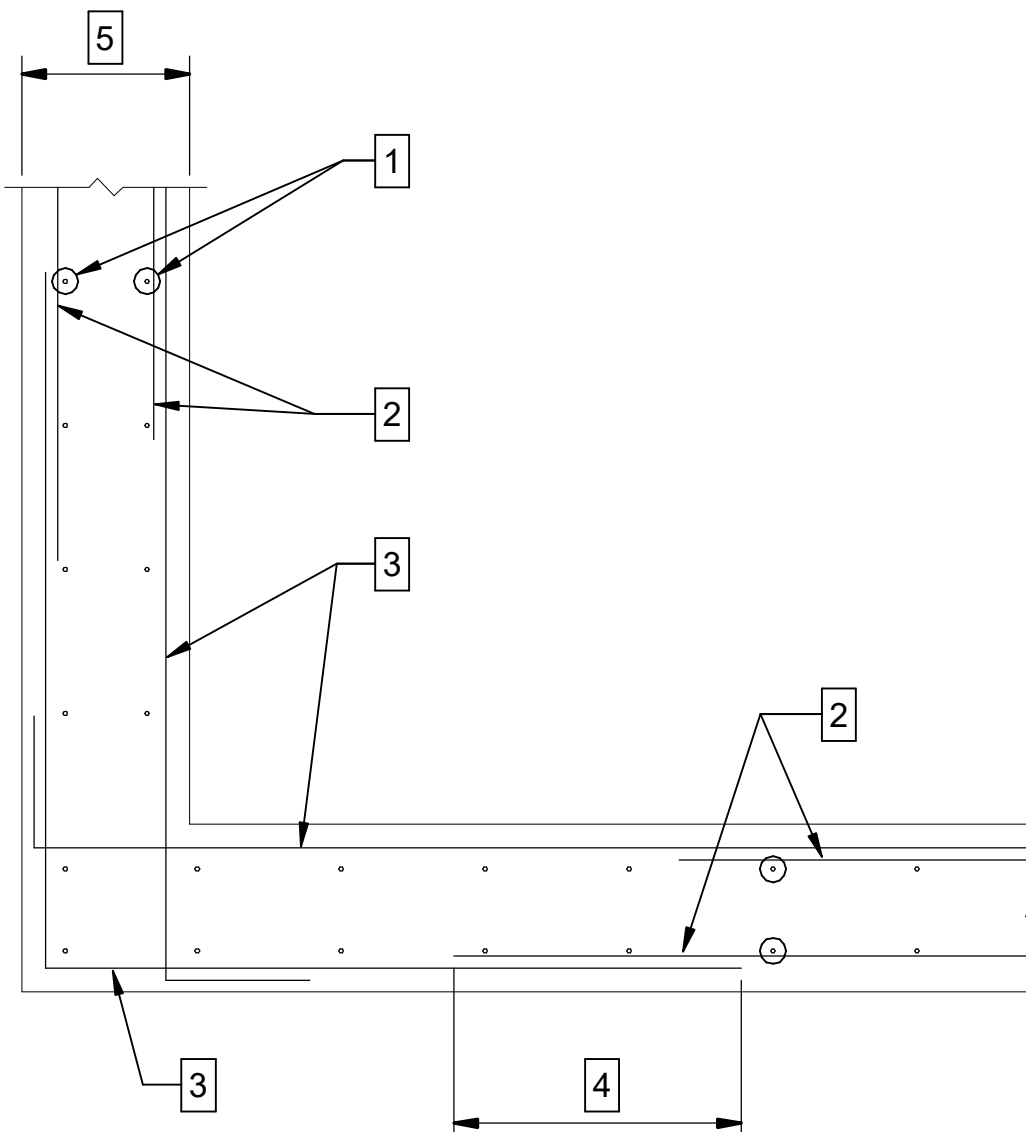
LIVE LOADS:	
ELEVATED PLATFORMS -----	150 PSF
ROOF -----	20 PSF (REDUCIBLE)
WIND LOADS:	
BASIC WIND VELOCITY -----	119 MPH (ULT., 3-SEC. GUST)
OCCUPANCY CATEGORY -----	IV
WIND EXPOSURE -----	C
INTERNAL PRESSURE COEFFICIENTS -----	+/- 0.18
SEISMIC LOADS:	
SEISMIC USE GROUP -----	IV
SEISMIC IMPORTANCE FACTOR (Ie) -----	1.25
MAPPED SPECTRAL RESPONSE ACCELERATION:	
Ss -----	0.210
S1 -----	0.088
SITE CLASS -----	C
SPECTRAL RESPONSE COEFFICIENTS:	
Sds -----	0.224
Sd1 -----	0.140
SEISMIC DESIGN CATEGORY -----	D

IBC 2018	INTERNATIONAL BUILDING CODE w/ GEORGIA AMENDMENTS
ASCE 7-16	MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES
ACI 350	AMERICAN CONCRETE INSTITUTE
AISC 360	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI S100	NORTH AMERICAN SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS
AISI S202	CODE OF STANDARD PRACTICE FOR COLD-FORMED STEEL MEMBERS
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS (AS SPECIFIED IN CODES)
AWS D.1.1	AMERICAN WELDING SOCIETY
SDI-RD	STANDARD FOR STEEL ROOF DECK
SDI-QA/QC	STANDARD FOR QUALITY CONTROL AND QUALITY ASSURANCE FOR INSTALLATION OF STEEL DECK
TMS 402	BUILDING CODE FOR MASONRY STRUCTURES
TMS 602	SPECIFICATION FOR MASONRY STRUCTURES

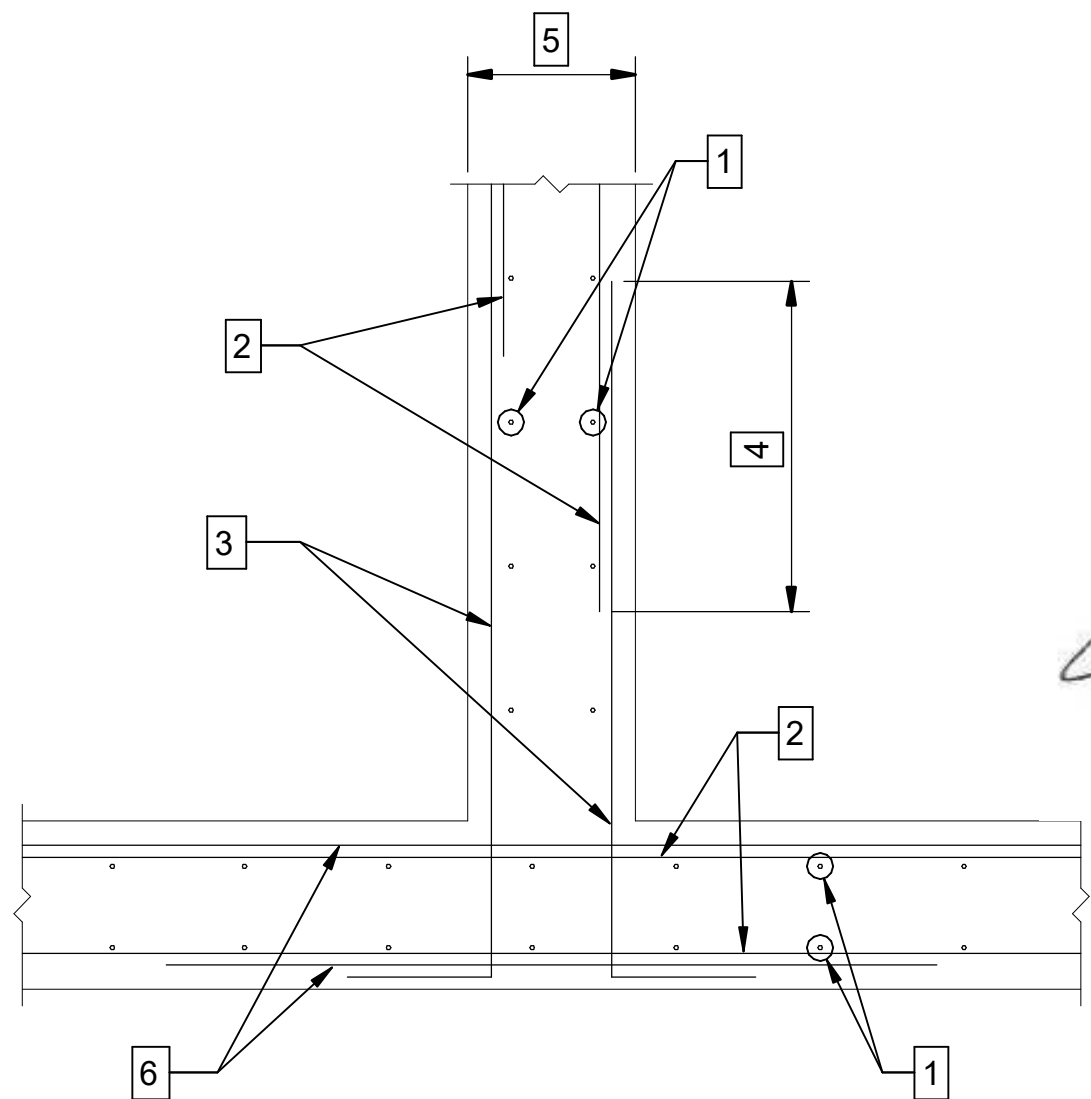


C S-001 TYPICAL SLAB ON GRADE / EQUIPMENT PAD SCALE: 3/4" = 1'-0"

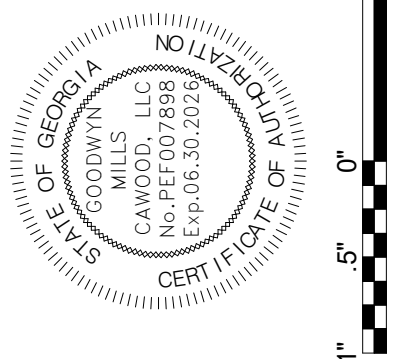
1. TYPICAL VERTICAL WALL REINFORCING
2. TYPICAL HORIZONTAL WALL REINFORCING
3. CORNER REINFORCING. SEE PLANS FOR SIZE AND SPACING (TYPICAL)
4. CLASS B TENSION LAP SPLICE (TYP.)
5. WALL THICKNESS
6. ADDITIONAL HORIZONTAL REINFORCING. SEE PLAN FOR SIZE AND SPACING (TYP.)
7. (3) #5 CONT. w/ #5 TIES @ 24" O.C.
8. #5 @ 12" O.C. EACH WAY (TYPICAL)



A TYPICAL CORNER REINFORCING



B
S-001 **TYPICAL INTERSECTING WALLS**
SCALE: 3/4" = 1'-0"



ISSUE	DATE
90% Submittal	11/27/24
Bid Set	03/19/25
Confirmed Set	
Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD

COMMERCE 2.0 MGD
GROVE CREEK WPCP
COMMERCE, GA

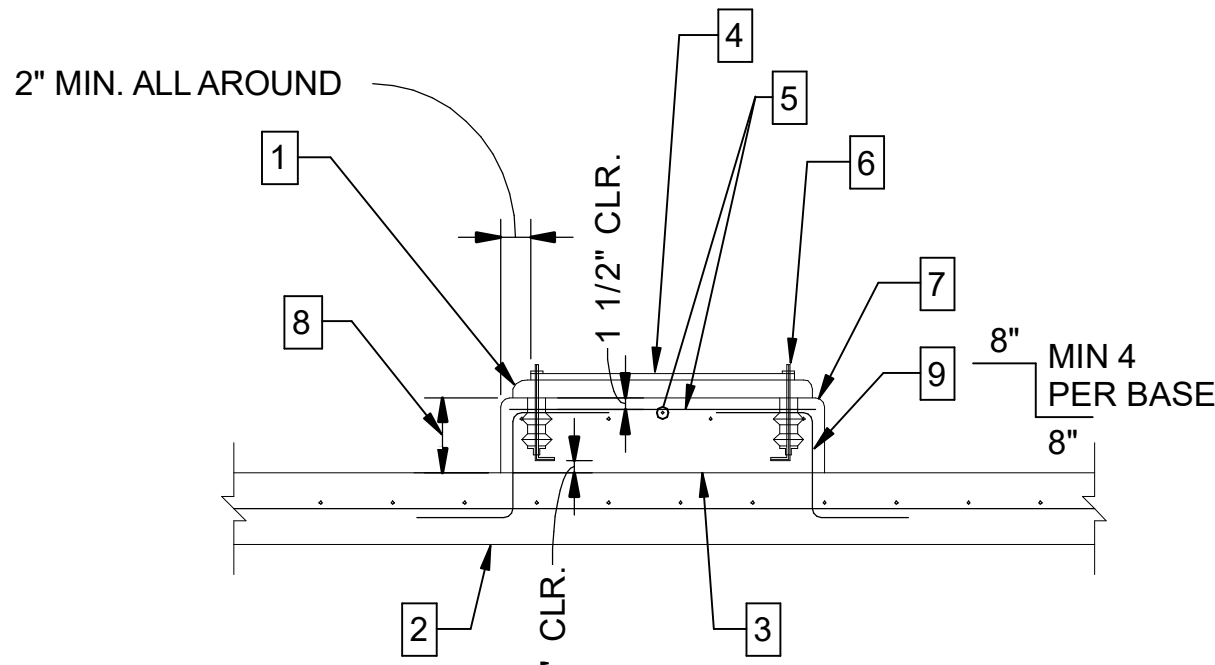
GMC PROJECT #CATL230033



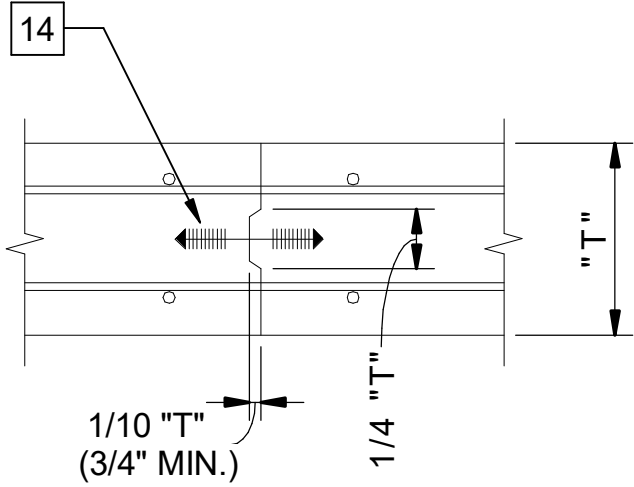
STRUCTURAL NOTES & TYPICAL DETAILS

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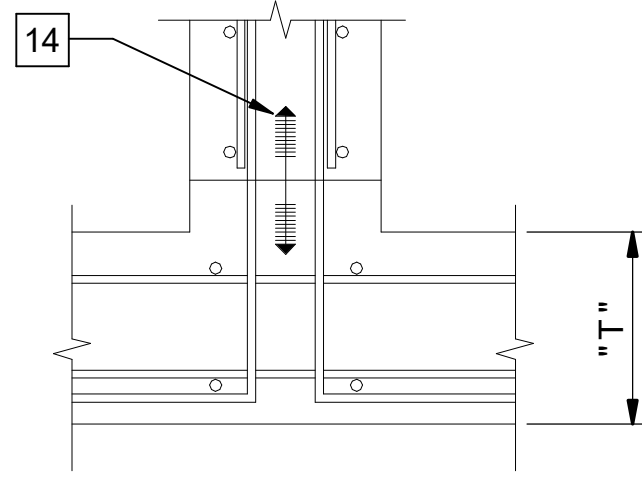
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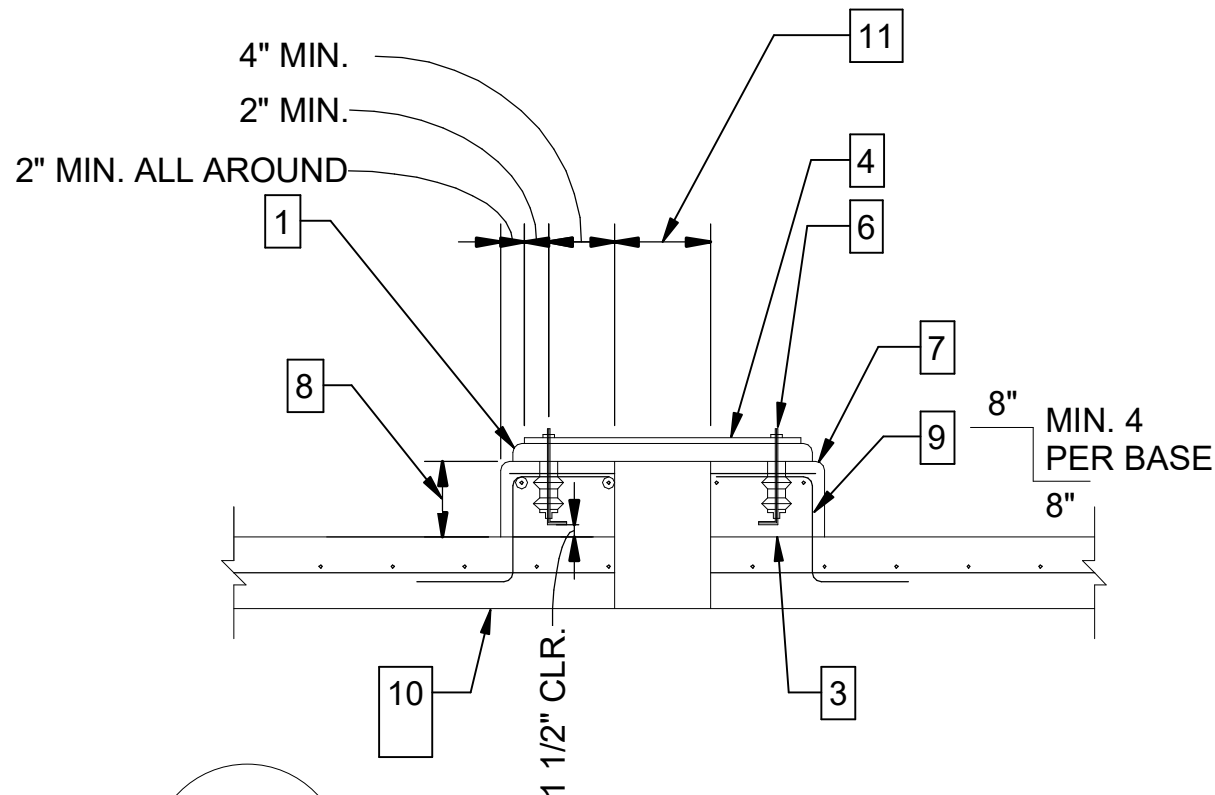
A
S-002
EQUIPMENT PAD TYPE A
SCALE: 3/4" = 1'-0"



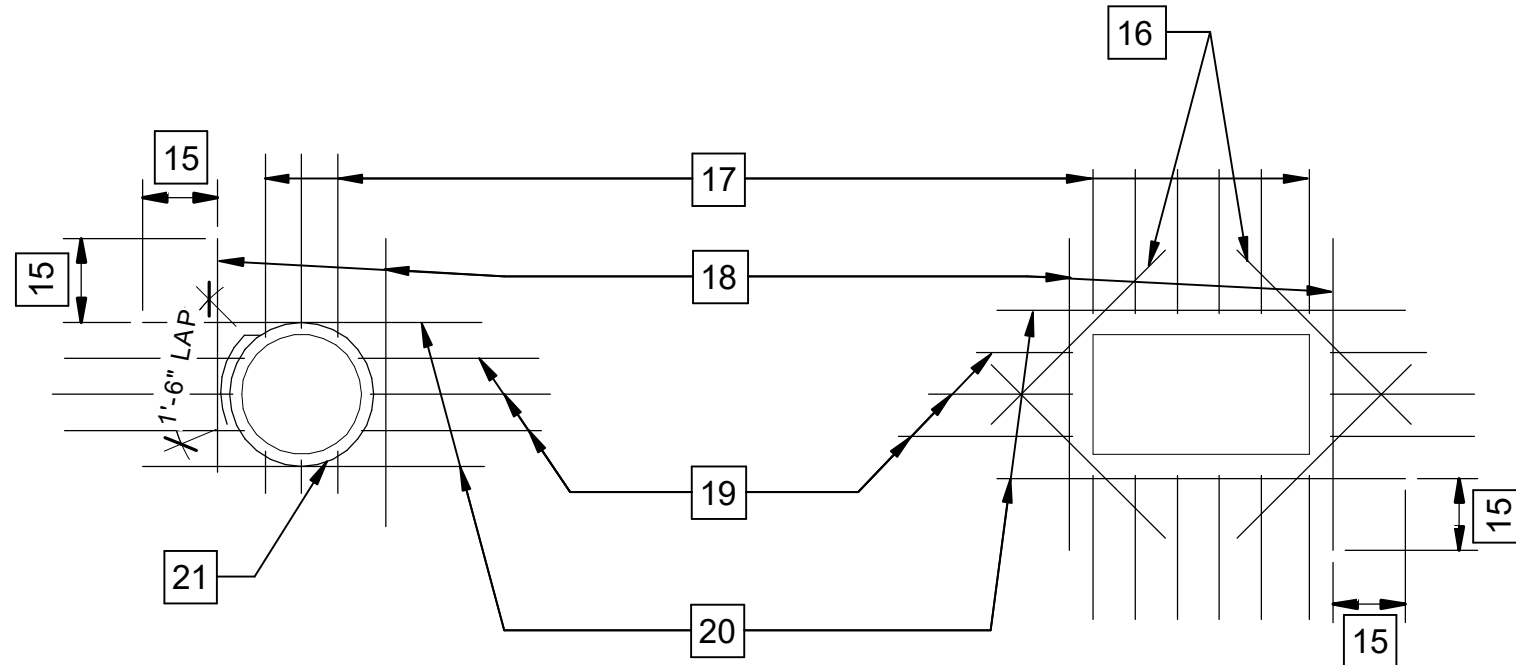
D
S-002
CONSTRUCTION JOINT
SCALE: 3/4" = 1'-0"



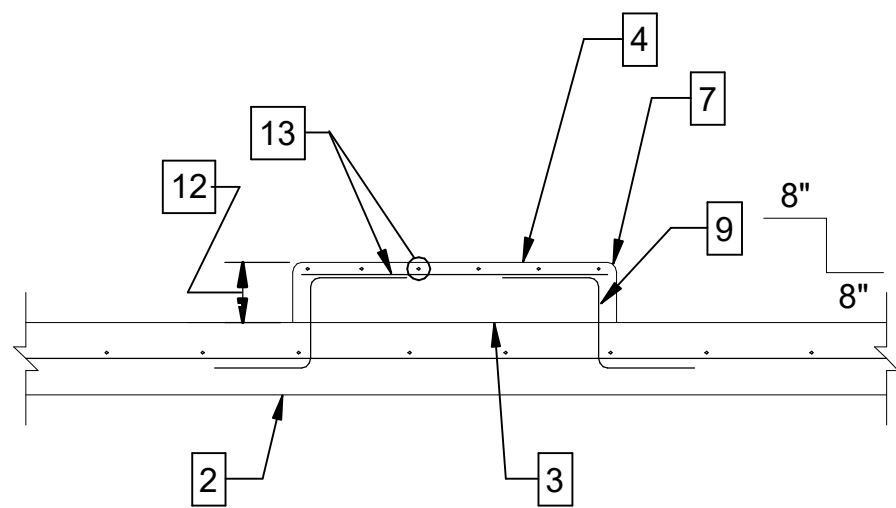
E
S-002
CONSTRUCTION JOINT
SCALE: 3/4" = 1'-0"



B
S-002
EQUIPMENT PAD TYPE C
SCALE: 3/4" = 1'-0"



F
S-002
OPENING REINFORCEMENT
SCALE: 3/4" = 1'-0"



C
S-002
EQUIPMENT PAD TYPE F
SCALE: 3/4" = 1'-0"

REQUIRED NOTES: #

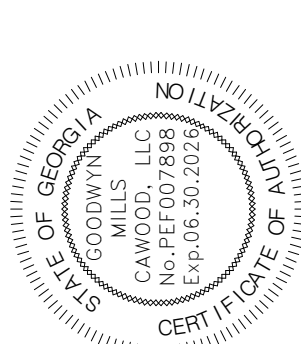
- 1 1/2" FLOWABLE NON-SHRINK GROUT (TYP.)
- SUSPENDED SLAB OR SLAB ON GRADE, FOR THICKNESS, SEE PLANS
- CONSTRUCTION JOINT. LEAVE ROUGH & CLEAN
- EQUIPMENT BASE
- #4 @ 12" O.C. EACH WAY
- MINIMUM ANCHOR BOLT DIMENSIONS, SEE NOTES AND ANCHOR BOLT DETAILS
- TOOLED EDGES (3/4")
- AS REQUIRED FOR EQUIPMENT, BOLTS AND PIPING (5 1/2" MINIMUM)
- #4 @ 12" O.C.
- SUSPENDED SLAB ONLY, SEE PLANS
- OPENING SIZE, VERIFY w/ PLANS & EQUIPMENT MFR. FORM TO RETAIN GROUT
- PAD HEIGHT AS REQ'D, 5" MAX.
- #3 @ 12" O.C. EA. WAY, 1" CLR.
- WATERSTOP (SEE SECTIONS FOR SIZE AND TYPE)
- PROVIDE MIN LAP AS NOTED OR SHOWN ON PLANS (TYP.)
- ADD 1-#5x4'-0" DIAG AT EA CORNER FOR EA LAYER OF REINF.
- STEEL REINF. CUT BAND "B"
- AREA OF BARS EQUAL BAND "B" BARS CUT
- STEEL REINF. CUT BAND "A"
- AREA OF BARS EQUAL BAND "A" BARS CUT
- 1-#5 HOOP, DIA OF OPNG +8", IN EA LAYER OF REINF FOR OPNGS LARGER THAN 8"

EQUIPMENT PAD NOTES:

- PAD SIZE SHALL BE MINIMUM INDICATED OR AS SHOWN ON THE PLANS OR AS INDICATED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER.
- THE SIZE, NUMBER, TYPE, LOCATION AND THREAD PROJECTION OF THE ANCHOR BOLTS SHALL BE DETERMINED BY THE EQUIPMENT MANUFACTURER, AND SHALL BE AS APPROVED BY THE ENGINEER. ANCHOR BOLTS SHALL BE HELD IN POSITION WITH A TEMPLATE WHILE PAD IS BEING POURED.
- ANCHOR BOLT SLEEVES SHALL BE USED TO PROVIDE THE ANCHOR BOLT A MINIMUM MOVEMENT OF 1/2" IN ALL DIRECTIONS. THE MINIMUM SLEEVE LENGTH SHALL BE 8 TIMES THE BOLT DIAMETER. SLEEVES SHALL BE FILLED WITH NON-SHRINK GROUT.
- ANCHOR BOLT SLEEVES SHALL HAVE A MINIMUM INTERNAL DIAMETER 1" GREATER THAN BOLT DIAMETER AND A MAXIMUM INTERNAL DIAMETER 3" GREATER THAN ANCHOR BOLT DIAMETER. SLEEVES SHALL BE FILLED WITH NON-SHRINK GROUT.
- EQUIPMENT BASES SHALL BE INSTALLED LEVEL UNLESS SPECIFIED OTHERWISE.
- WEDGES OR SHIMS SHALL BE USED TO SUPPORT THE BASE WHILE THE NON-SHRINK GROUT IS PLACED. TEMPORARY LEVELING NUTS SHALL BE BACKED OFF. IF LEFT IN, THE WEDGES OR SHIMS SHALL NOT BE EXPOSED TO VIEW.

GMC

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ISSUE	DATE
90% Submittal	11/27/24
Bid Set	03/19/25
Conformed Set	
Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD

COMMERCE 2.0 MGD
GROVE CREEK WPCP
COMMERCE, GA

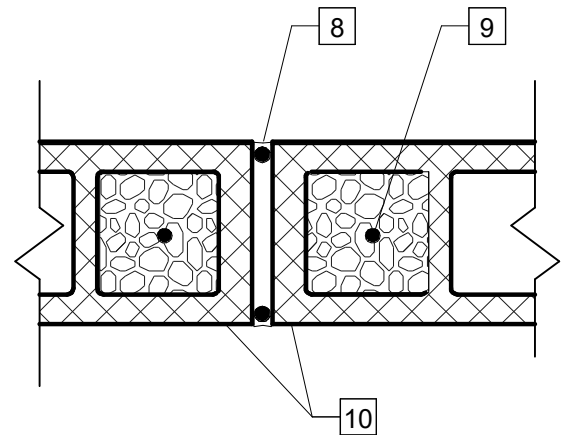
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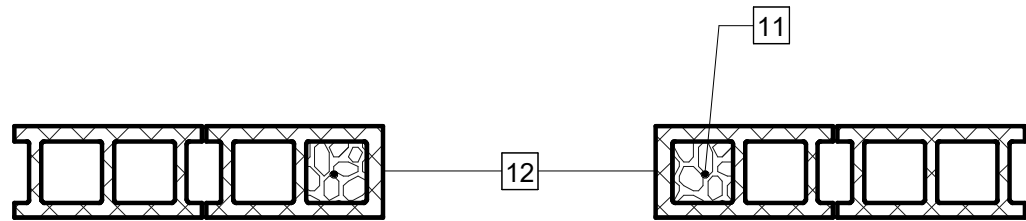
TYPICAL DETAILS

S-002

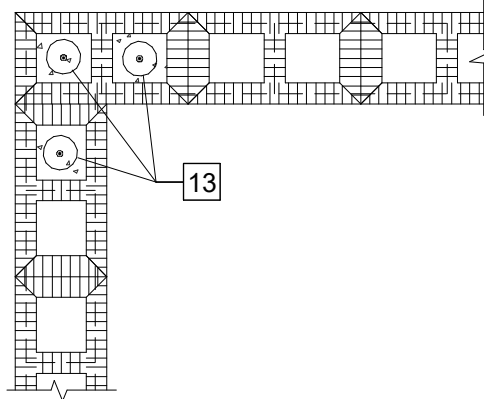
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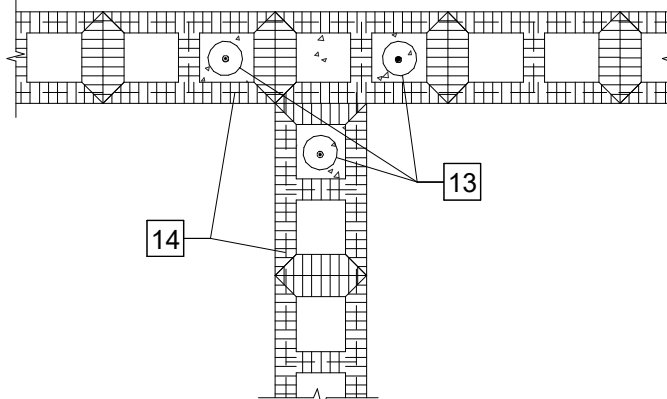
A
S-003 **TYPICAL CMU CONTROL JOINT**
SCALE: 1 1/2" = 1'-0"



B
S-003 **TYPICAL CMU JAMB OPENING**
SCALE: 3/4" = 1'-0"



EXTERIOR CORNER



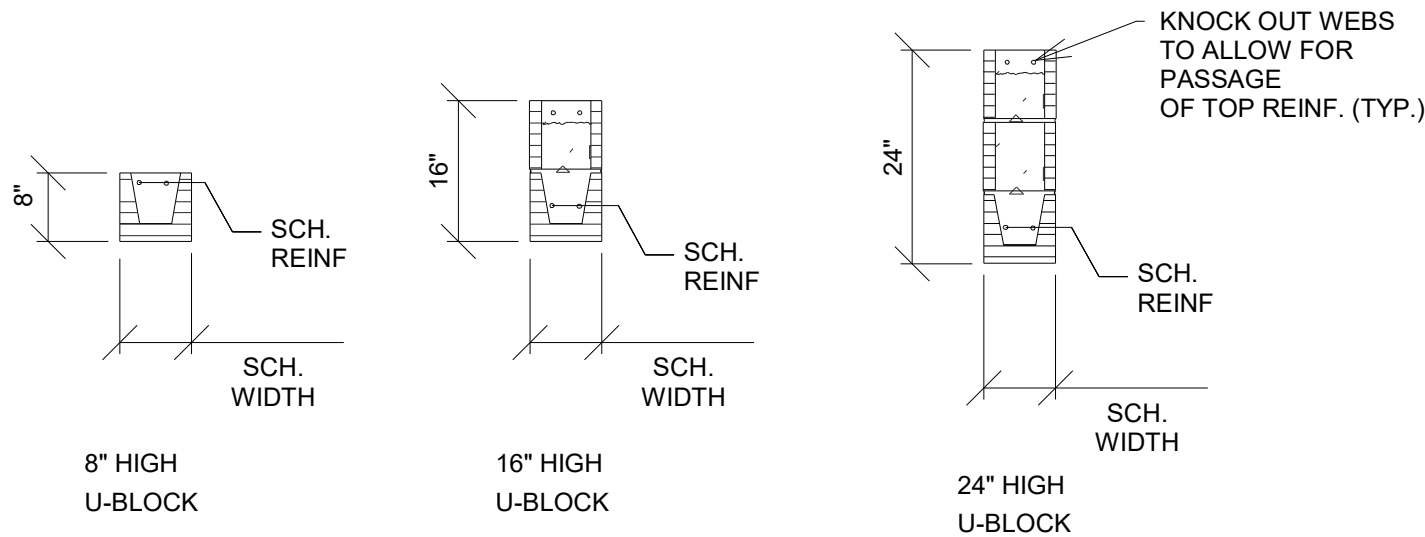
INTERIOR CORNER

C
S-003 **TYPICAL CORNER REINFORCING**
SCALE: 3/4" = 1'-0"

8" CMU LINTEL SCHEDULE					
MARK	MAX SPAN	TYPE	SIZE	REINFORCEMENT	REMARKS
	4'-0"	U-BLOCK	8"	2-#5 BOTT.	8" HIGH U-BLOCK
	8'-0"	U-BLOCK	8"	2-#5 TOP & BOTT.	16" HIGH U-BLOCK
	15'-0"	U-BLOCK	8"	2-#6 TOP & BOTT.	24" HIGH U-BLOCK

LINTEL SCHEDULE NOTES:

- BEAR U-BLOCKS 8" MINIMUM EA. END. PROVIDE #5 @ EA. JAMB FILL CELLS W/ GROUT FULL HEIGHT OF WALL
- AT JAMBS REINFORCING SHALL BE CONTINUOUS THROUGH U-BLOCK BEARING



8" CMU REINFORCEMENT LAP SPLICE SCHEDULE			
MASONRY STRENGTH (f'm) (PSI)	BAR SIZE (#)	DEVELOPMENT LENGTH/ LAP SPLICE (IN.)	NOTES
2500	3	18	REINF. TO BE CENTERED IN CELL (U.N.O.)
	4	24	
	5	30	
	6	40	

CONCRETE REINFORCEMENT LAP SPLICE SCHEDULE (3000 PSI CONCRETE)		
BAR SIZE (#)	DEVELOPMENT LENGTH (IN.)	CLASS B TENSION SPLICE (IN.)
3	17	22
4	22	29
5	28	36
6	33	43
7	48	63
8	55	72
9	62	81
10	70	91
11	78	101

CONCRETE REINFORCEMENT LAP SPLICE SCHEDULE (4000 PSI CONCRETE)		
BAR SIZE (#)	DEVELOPMENT LENGTH (IN.)	CLASS B TENSION SPLICE (IN.)
3	15	19
4	19	25
5	24	31
6	29	37
7	42	54
8	48	62
9	54	70
10	61	79
11	67	87

REQUIRED NOTES: #

- 8" CMU WALL
- #5 VERTICAL @ 48" MAX. O.C. - FILL REINF. CELLS FULL HEIGHT
- HORIZ. MASONRY REINF. @ 16" MAX. O.C.
- 8" CONT. BOND BEAM w/ (2) #5 CONT.
- PREFABRICATED LIGHT GAUGE STEEL ROOF TRUSSES - SEE ROOF FRAMING PLAN FOR SPACING
- SIMPSON HETA20 TRUSS TIES OR EQUIVALENT @ EACH TRUSS
- 1.5B22 STEEL ROOF DECK
- BACKER ROD AND CAULK AT EA. M.C.J.
- (1) #5 EA. SIDE OF M.C.J.
- HORIZONTAL MASONRY REINFORCEMENT TO BE DISCONTINUOUS ACROSS M.C.J.
- (1) #5 IN EA. JAMB CELL - GROUT FULL HT. AT REINFORCING
- DOOR OR WINDOW OPENING
- (3) #5 - GROUT FULL HT. AT REINFORCING
- HORIZ. REINF. @ 16" O.C. VERTICAL

ISSUE	DATE	90% Submittal	11/27/24
Bid Set	03/19/25		
Confirmed Set			
Project Manager:	GS		
Engineer:	JD		
Designer:	TS		
Drawn By:	JD		

COMMERCE 2.0 MGD
GROVE CREEK WPCP
COMMERCE, GA

GMC PROJECT #CATL230033



TYPICAL DETAILS

S-003

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REQUIRED STRUCTURAL OBSERVATIONS FOR STRUCTURE IN ACCORDANCE WITH IBC 1704.6			
IBC REFERENCE	CONDITION REQUIRING STRUCTURAL OBSERVATION	DOES CONDITION EXIST ON THIS PROJECT (Y/N)	ADDITIONAL OBSERVATIONS REQUIRED
1704.6.1.1	RISK CAT. III OR IV	Y	SEE PROJECT DRAWINGS
1704.6.1.2	HIGH RISE BUILDING	N	
1704.6.1.3	SEISMIC DESIGN CATEGORY E & GREATER THAN 2 STORIES	N	
1704.6.1.4	ADDITIONAL OBSERVATIONS REQUIRED BY SEQR	N	
1704.6.1.5	ADDITIONAL OBSERVATION REQUIRED BY BUILDING OFFICIAL	VERIFY WITH AUTHORITY HAVING JURISDICTION	VERIFY WITH AUTHORITY HAVING JURISDICTION

DESIGNATED SEISMIC / WIND RESISTANCE SYSTEM			
IBC REFERENCE	PROJECT CONDITION	DOES CONDITION EXIST (Y/N)	DESIGNATED WIND RESISTANCE SYSTEM IN ACCORDANCE IBC 1704.3.3
1705.12.1	WIND EXPOSURE B, WHERE V=150MPH OR GREATER	N	SEE PROJECT DRAWINGS
1705.12.2	WIND EXPOSURE C OR D WHERE V=140 MPH OR GREATER	Y	
IBC REFERENCE	PROJECT CONDITION	DOES CONDITION EXIST (Y/N)	DESIGNATED SEISMIC RESISTANCE SYSTEM IN ACCORDANCE IBC 1704.3.2
1705.13.1.1	STRUCTURAL STEEL SFRS IN SEISMIC DESIGN CATEGORIES B, C, D, E, AND F	N	SEE PROJECT DRAWINGS
1705.13.1.2	STRUCTURAL STEEL ELEMENTS FOR THE SFRS IN SEISMIC DESIGN CATEGORIES B, C, D, E, AND F	N	

IBC REFERENCE	MATERIAL / SYSTEMS / COMPONENTS / WORK	REQ'D (Y/N)	TYPE / EXTENT INSPECTION OR TEST REFERENCED STANDARD	PERIODIC / CONTINUOUS	ADDITIONAL REQUIREMENTS
SPECIAL CASES					
1705.1.1.1	MATERIAL & SYSTEMS ALTERNATIVES TO THAT PRESCRIBED BY CODE	N		P	
1705.1.1.2	UNUSUAL DESIGN APPLICATIONS	N		P	
1705.1.1.3	MATERIALS & SYSTEMS REQUIRED TO BE INSTALLED IN ACCORDANCE WITH ADDITIONAL MANUFACTURER'S INSTRUCTIONS	N		P	
STEEL CONSTRUCTION					
1705.2.1	STRUCTURAL STEEL	Y	AISC 360 REQUIREMENTS	SEE AISC CHAPTER N	
1705.2.2	COLD-FORMED STEEL DECK	Y	SDI QA/QC REQUIREMENTS	SEE SDI QA/QC APPENDIX 1	
1705.2.3	OPEN-WEB STEEL JOISTS AND JOIST GIRDERS	Y	SEE IBC TABLE 1705.2.3		
1705.3.4	COLD-FORMED TRUSSES SPANNING 60' OR GREATER	N	VERIFY ALL DETAILS IN ACCORDANCE W/ APPROVED TRUSS DRAWINGS	P	
CONCRETE CONSTRUCTION					
1705.3.1	WELDING OF REINFORCING BARS	N	AWS D1.4 REQUIREMENTS	SEE SPEC	
1705.3.2	MATERIAL TEST	N	ACI 318 CH. 19 & 20 REQUIREMENTS	SEE SPEC	
MASONRY CONSTRUCTION					
1705.4.1	GLASS UNIT MASONRY AND MASONRY VENEER IN RISK CATEGORY IV	N	TMS 602 LEVEL 2	SEE TMS 602 TABLE 4	
1705.4.2	VERTICAL MASONRY FOUNDATION ELEMENTS	Y	TMS 602 LEVEL 2	SEE TMS 602 TABLE 4	
WOOD CONSTRUCTION					
1705.5.1	HIGH LOAD DIAPHRAGMS	N	VERIFY ALL CONSTRUCTION IN ACCORDANCE WITH CONSTRUCTION DOCUMENTS	P	
1705.5.2	METAL PLATE CONNECTED WOOD TRUSSES SPANNING 60' OR GREATER	N	VERIFY ALL DETAILS IN ACCORDANCE W/ APPROVED TRUSS DRAWINGS	P	
1705.5.3	MASS TIMBER CONSTRUCTION (TYPE I-A, IV-B, AND IV-C CONSTRUCTION)	N		P	
SOILS					
1705.6	SPECIAL INSPECTION AND TEST OF EXISTING SITE SOIL CONDITIONS	Y		P	
FOUNDATIONS					
1705.7	SPECIAL INSPECTION AND TEST OF DURING INSTALLATION OF DRIVEN DEEP FOUNDATION ELEMENTS	N		C	
1705.8	SPECIAL INSPECTION AND TEST OF DURING INSTALLATION OF CAST-IN-PLACE DEEP FOUNDATION ELEMENTS	N		C	
1705.9	EQUIPMENT USED, PILE DIMENSIONS, TIP ELEVATIONS, FINAL DEPTH, FINAL INSTALLATION TORQUE, & ANY OTHER REQUIRED DATA	N		C	
1705.10	WHEN THERE IS A REASONABLE DOUBT AS TO THE STRUCTURAL INTEGRITY OF A DEEP FOUNDATION ELEMENT, AN ENGINEERING ASSESSMENT SHALL BE REQUIRED	N		C	
FABRICATED ITEMS					
1705.11	SPECIAL INSPECTION OF FABRICATED ITEMS IN ACCORDANCE WITH IBC 1704.2.5	N		P	
SPECIAL INSPECTIONS FOR WIND RESISTANCE					
1705.12.1	STRUCTURAL WOOD	N		P	
	FIELD GLUING	N		C	
	NAILING, BOLTING, ANCHORING, AND OTHER FASTENING OF ELEMENTS IN THE MWFRS	N		P	
1705.12.2	COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION	N		P	
	WELDING	N		P	
	SCREW ATTACHMENT, BOLTING, ANCHORING, OTHER FASTENING OF ELEMENTS IN THE MWFRS	N		P	
1705.12.3.1	ROOF COVERING, ROOF DECKING, AND ROOF FRAMING CONNECTIONS	Y		P	
1705.12.3.1	EXTERIOR WALL COVERING AND WALL CONNECTIONS TO ROOF AND FLOOR DIAPHRAGMS AND FRAMING	N		P	
SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE					
1705.13.1	STRUCTURAL STEEL	N		P	
1705.13.1.1	SFRS IN SEISMIC DESIGN CATEGORIES B, C, D, E, AND F	N		P	NOTE EXCEPTIONS
1705.13.2	SFRS ASSIGNED TO DESIGN CATEGORIES C, D, E, AND F	N		P	
	FIELD GLUING	N		C	
	NAILING, BOLTING, ANCHORING, AND OTHER FASTENING OF ELEMENTS IN THE MWFRS	N		P	
1705.13.3	COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION	N		P	
	WELDING	N		P	
	SCREW ATTACHMENT, BOLTING, ANCHORING, OTHER FASTENING OF ELEMENTS IN THE MWFRS	N		P	
1705.13.4	DESIGNATED SEISMIC SYSTEMS	N		P	
1705.13.5	ARCHITECTURAL COMPONENTS	N		P	NOTE EXCEPTIONS
1705.13.6	PLUMBING, MECHANICAL AND ELECTRICAL COMPONENTS	N		P	NOTE EXCEPTIONS
1705.13.7	STORAGE RACKS	N		P	
1705.13.8	SEISMIC ISOLATIONS SYSTEMS	N		P	
1705.13.9	COLD-FORMED STEEL SPECIAL BOLTED MOMENT FRAMES	N		P	
TESTING FOR SEISMIC RESISTANCE					
1705.14.1	STRUCTURAL STEEL	N		P	
1705.14.1.1	SEISMIC FORCE-RESISTING SYSTEMS	N		P	NOTE EXCEPTIONS
1705.14.1.2	STRUCTURAL STEEL ELEMENTS	N		P	
1705.14.2	NONSTRUCTURAL COMPONENTS	N		P	
1705.14.3	DESIGNATED SEISMIC SYSTEMS	N		P	
1705.14.4	SEISMIC ISOLATION SYSTEMS	N		P	

CONCRETE INSPECTIONS AND TEST SHALL NOT BE REQUIRED FOR:
1. ISOLATED SPREAD CONCRETE FOOTINGS OF BUILDING THREE STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK
2. CONTINUOUS CONCRETE FOOTINGS SUPPORTING WALLS OF BUILDING THREE STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK WHERE
2.1. THE FOOTINGS SUPPORT WALLS OF LIGHT-FRAME CONSTRUCTION
2.2. THE FOOTINGS ARE DESIGNED IN ACCORDANCE WITH TABLE 1809.7
2.3. THE STRUCTURAL DESIGN OF THE FOOTING IS BASED ON A SPECIFIED COMPRESSIVE STRENGTH (f'_c) NOT MORE THAN 2500 PSI, REGARDLESS OF THE COMPRESSIVE STRENGTH SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS
3. NONSTRUCTURAL CONCRETE SLABS SUPPORTED DIRECTLY ON THE GROUND, INCLUDING PRESTRESSED SLABS ON GRADE, WHERE THE EFFECTIVE PRESTRESS IN THE CONCRETE IS LESS THAN 150 PSI
4. CONCRETE FOUNDATION WALLS CONSTRUCTED IN ACCORDANCE WITH TABLE 1807.1.6.2
5. CONCRETE PATIOS, DRIVEWAYS AND SIDEWALKS ON GRADE

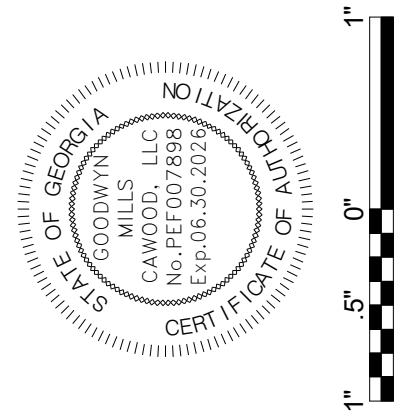
MASONRY SPECIAL INSPECTIONS AND TESTS SHALL NOT BE REQUIRED FOR:
1. EMPIRICALLY DESIGNED MASONRY, GLASS UNIT OR MASONRY VENEER DESIGNED IN ACCORDANCE WITH SECTIONS 2109, SECTION 2110, OR CHAPTER 14, RESPECTIVELY, WHERE THEY ARE PART OF THE A STRUCTURE CLASSIFIED AS RISK CATEGORY I, II, OR III
2. MASONRY FOUNDATION WALLS CONSTRUCTED IN ACCORDANCE WITH TABLE 1807.1.6.3(1), 1807.1.6.3(2), 1807.1.6.3(3), or 1807.1.6.3(4)
3. MASONRY FIREPLACES, MASONRY HEATERS OR MASONRY CHIMNEYS INSTALLED OR CONSTRUCTED IN ACCORDANCE WITH SECTION 2111, 2112, OR 2113, RESPECTIVELY

TYPE	CONTINUOUS	PERIODIC	REFERENCED STANDARD
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT		X	ACI 318: 20, 25.2, 25.5, 26.6.1-26.6.3
2. REINFORCING BAR WELDING			AWS D1.4, ACI 318: 26.6.4
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706		X	
B. INSPECT SINGLE PASS FILLET WELDS, MAXIMUM $\frac{1}{8}$ "		X	
C. INSPECT ALL OTHER WELDS		X	
3. INSPECT ANCHORS CAST IN CONCRETE	X		ACI 318: 17.8.2
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS		X	ACI 318: 17.8.2.4, 17.8.2
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARD INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	X		
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A		X	
5. VERIFY USE OF REQUIRED DESIGN MIX		X	ACI 318: 19, 26.4.3, 26.4.4, IBC 1904.1.1904.2
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, DETERMINE THE TEMPERATURE OF THE CONCRETE	X		ASTM C31, ASTM C172, ACI 318: 26.5, 26.12
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X		ACI 318: 26.5
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X	ACI 318: 26.5.3-26.5.5
9. INSPECT PRESTRESSED CONCRETE			ACI 318: 26.10
A. APPLICATION OF PRESTRESSING FORCES	X		
B. GROUTING OF BONDED PRESTRESSING TENDONS	X		ACI 318: 26.10
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS		X	ACI 318: 26.10
11. FOR PRECAST CONCRETE DIAPHRAGM CONNECTION OR REINFORCEMENT AT JOISTS CLASSIFIED AS MODERATE OR HIGH DEFORMABILITY ELEMENTS (MSE OR HSE) IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C,D,E, OR F, INSPECT SUCH CONNECTIONS AND REINFORCEMENT IN THE FIELD			ACI 318: 26.13.1.3 ACI 550.5
A. INSTALLATION OF THE EMBEDDED PARTS	X		
B. COMPLETION OF THE CONTINUITY OF REINFORCEMENT ACROSS JOINTS	X		
C. COMPLETION OF CONNECTIONS IN THE FIELD	X		ACI 318: 26.13.1.3
12. INSPECT INSTALLATION TOLERANCES OF PRECAST CONCRETE DIAPHRAGM CONNECTIONS FOR COMPLIANCE WITH ACI 550.5		X	ACI 318: 26.11.2
13. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS		X	ACI 318 26.11.1.2(b)
14. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBERS BEING FORMED.			

TYPE	CONTINUOUS	PERIODIC
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		X
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS		
DURING FILL PLACEMENT, VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PREVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL		X
PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT THE SITE HAS PREPARED PROPERLY.	X	
CONGEALED CONNECTIONS		X

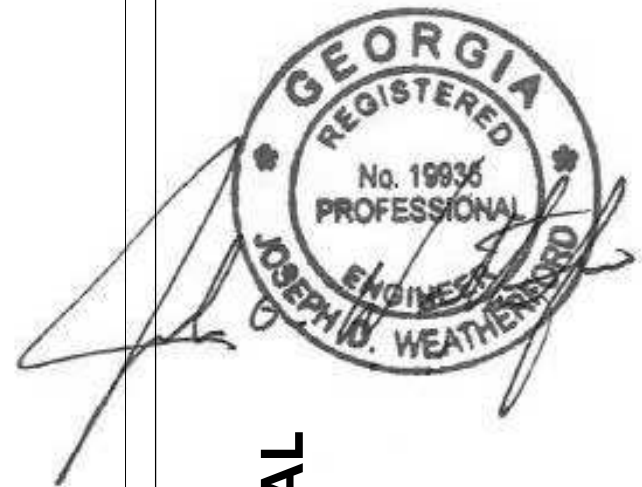
TYPE	CONTINUOUS	PERIODIC	REFERENCED STANDARD
1. INSTALLATION OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS			
a. END CONNECTIONS - WELDING OR BOLTED		X	SJI SPEC SECTION 2207.1
b. BRIDGING - HORIZONTAL OR DIAGONAL			
1. STANDARD BRIDGING		X	SJI SPEC SECTION 2207.1
2. BRIDGING THAT DIFFERS FROM THE SJI SPEC LISTED IN SECTION 2207.1		X	

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ISSUE	DATE	
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Bid Set	03/19/25	JD
Confirmed Set		TS
		JD
Project Manager:		
Engineer:		
Designer:		
Drawn By:		

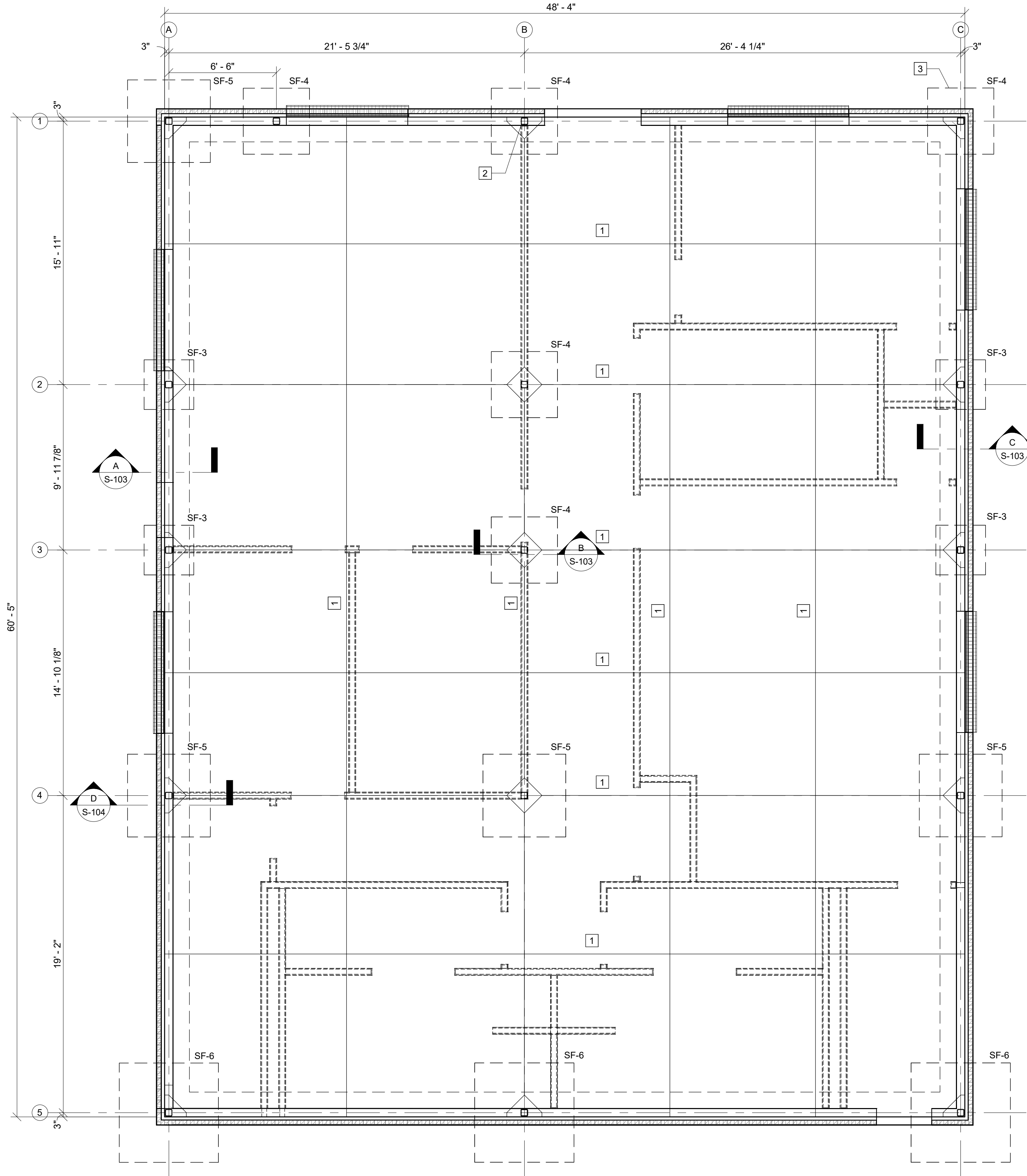
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SCHEDULE OF
STRUCTURAL SPECIAL
INSPECTIONS

S-004

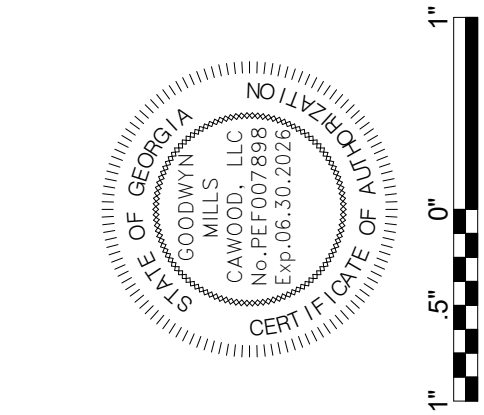
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**ADMINISTRATION & LAB BUILDING
FOUNDATION PLAN**
1
S-101
SCALE: 1/4" = 1'-0"

KEY NOTES: #

1. CONTROL JOINT
2. HSS5x5x3/8 COLUMN - TYPICAL
3. SPREAD FOOTING - SEE SCHEDULE FOR SIZE AND REINFORCING



ISSUE	DATE
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Conformed Set	
Project Manager:	
Engineer:	GS
Designer:	JD
Drawn By:	TS

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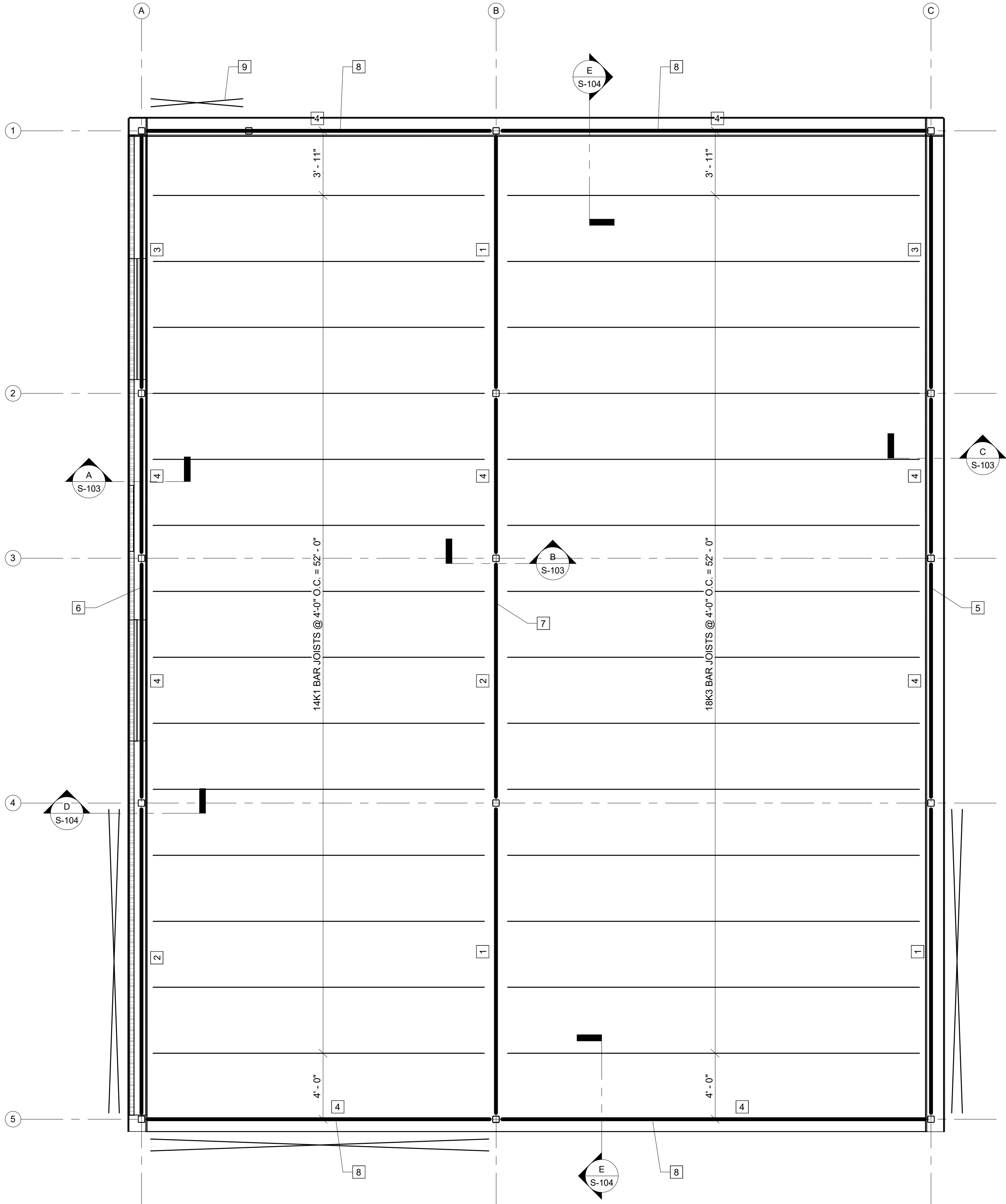
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ADMINISTRATION &
LAB BUILDING
FOUNDATION PLAN

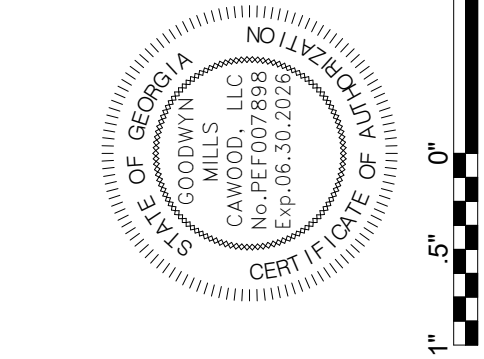
S-101

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**ADMINISTRATION & LAB BUILDING ROOF
FRAMING PLAN**
SCALE: 1/4" = 1'-0"

- KEY NOTES:** #
- W16x40
 - W16x31
 - W16x26
 - W14x26
 - TOP OF STEEL EL. = +14'-1" A.F.F.
 - TOP OF STEEL EL. = +12'-9 1/2" A.F.F.
 - TOP OF STEEL EL. = + 13'-6" A.F.F.
 - TOP OF STEEL SLOPES
 - HSS5x5x3/8 X-BRACING - TYPICAL 4 LOCATIONS



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Engineer:	JD
Designer:	TS
Drawn By:	JD

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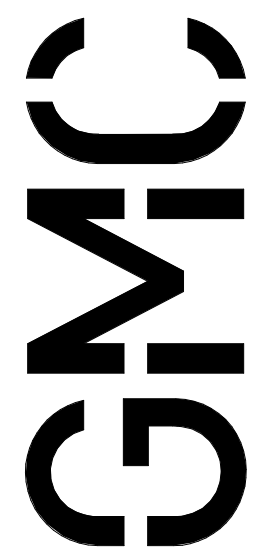
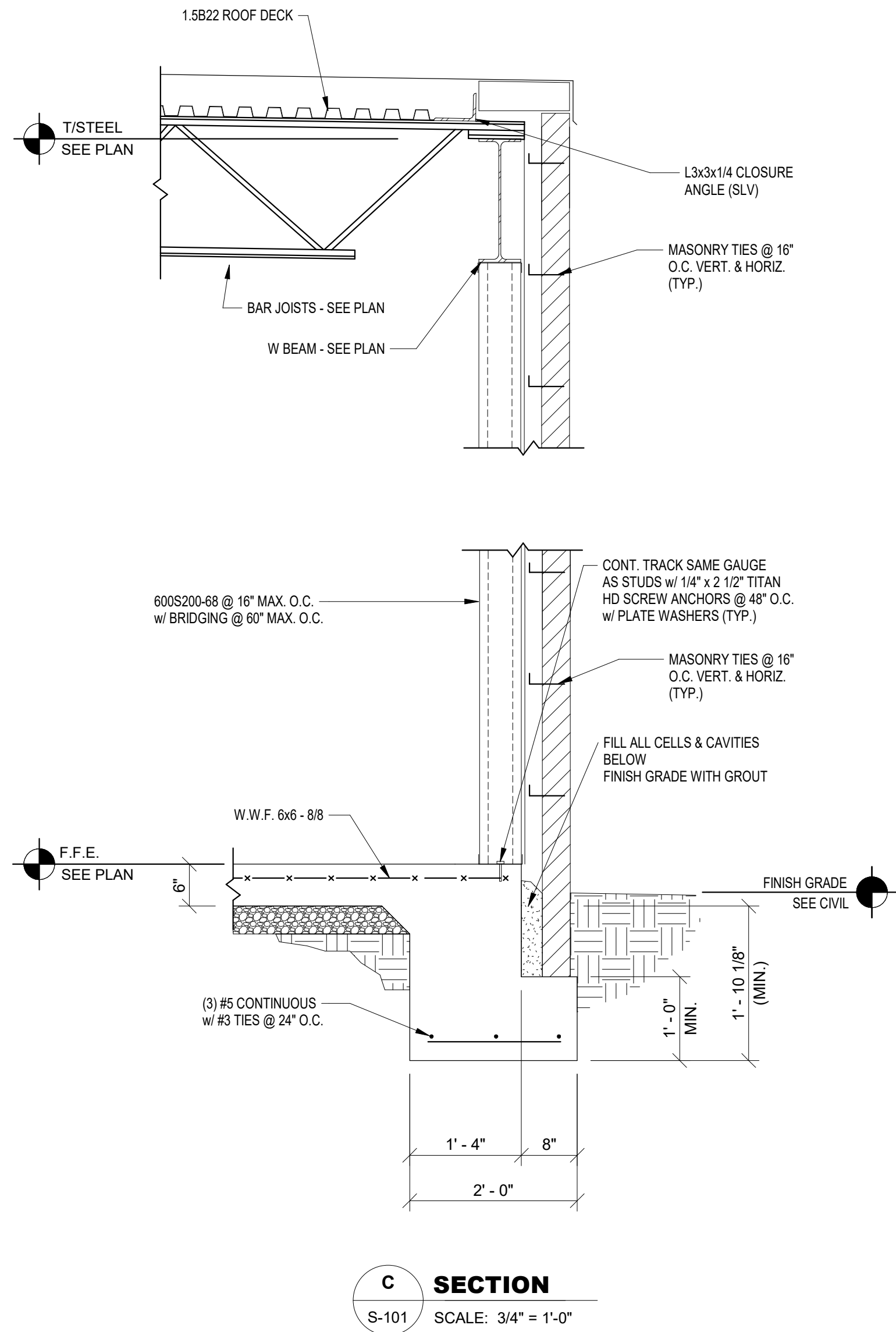
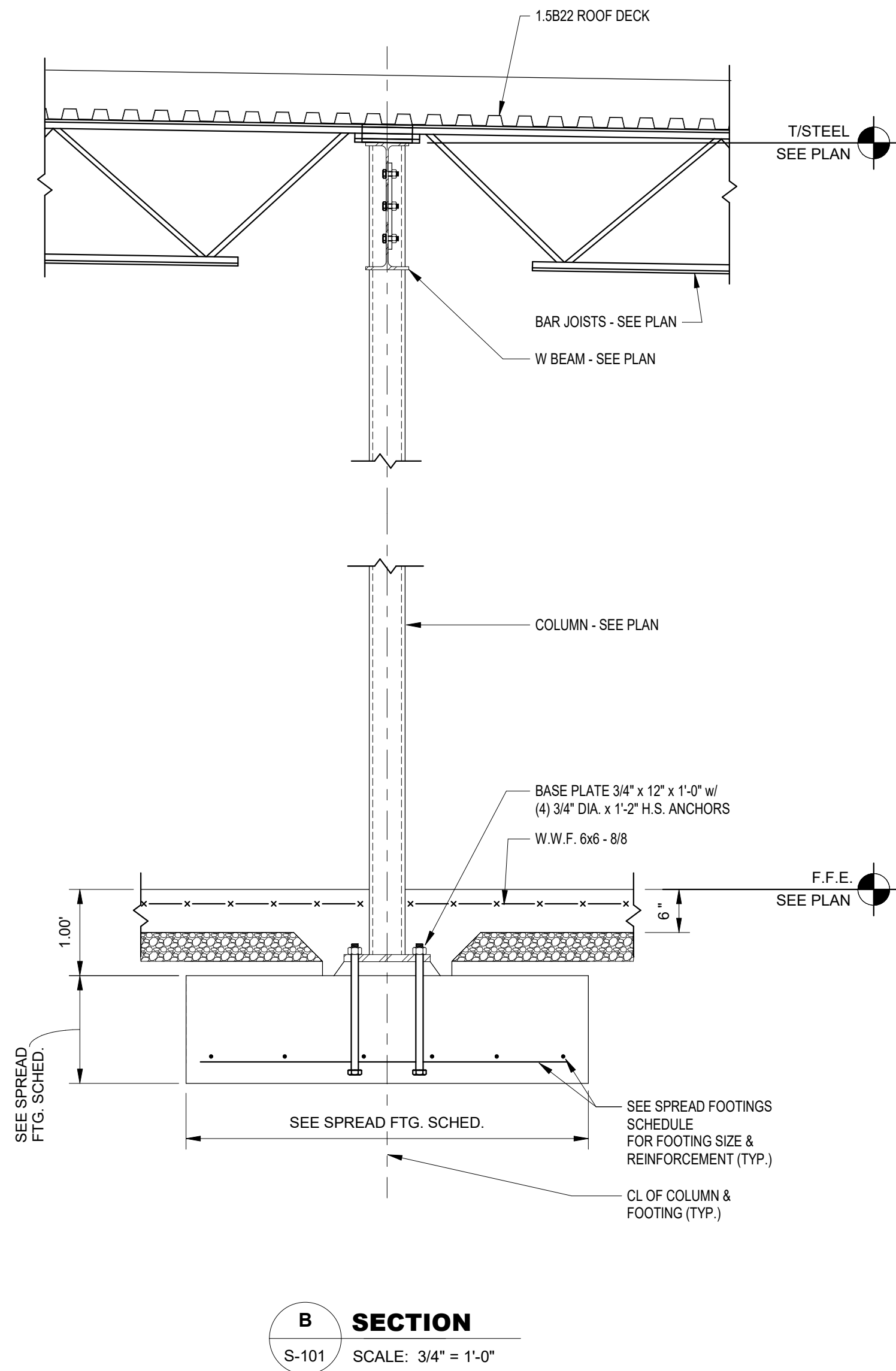
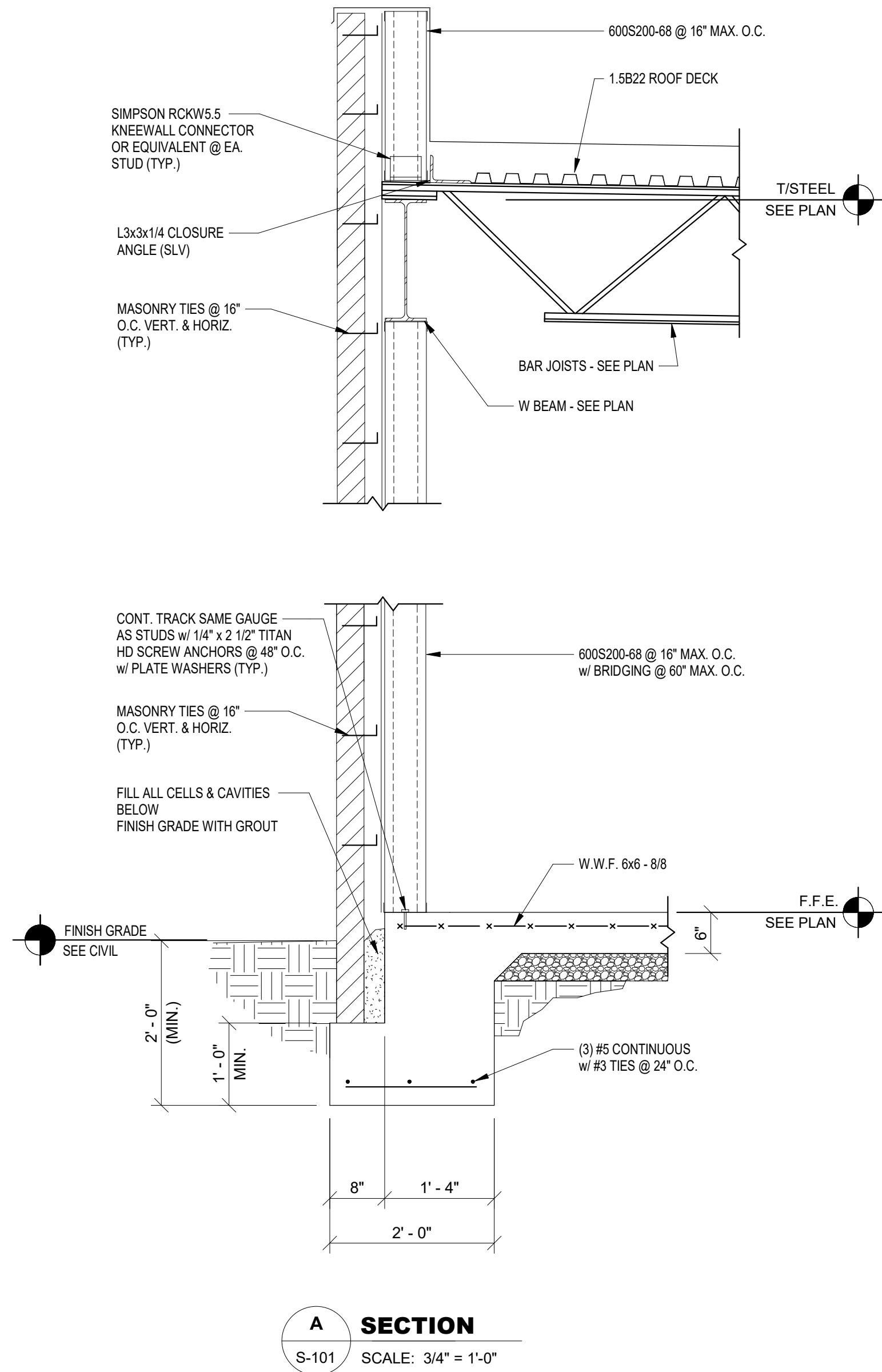
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ADMINISTRATION &
LAB BUILDING ROOF
FRAMING PLAN

S-102

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Designer:	TS
Drawn By:	JD

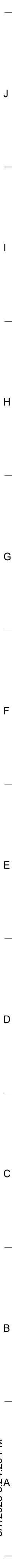
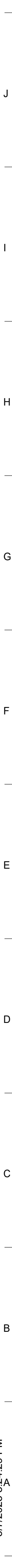
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ADMINISTRATION &
LAB BUILDING -
SECTIONS

S-103



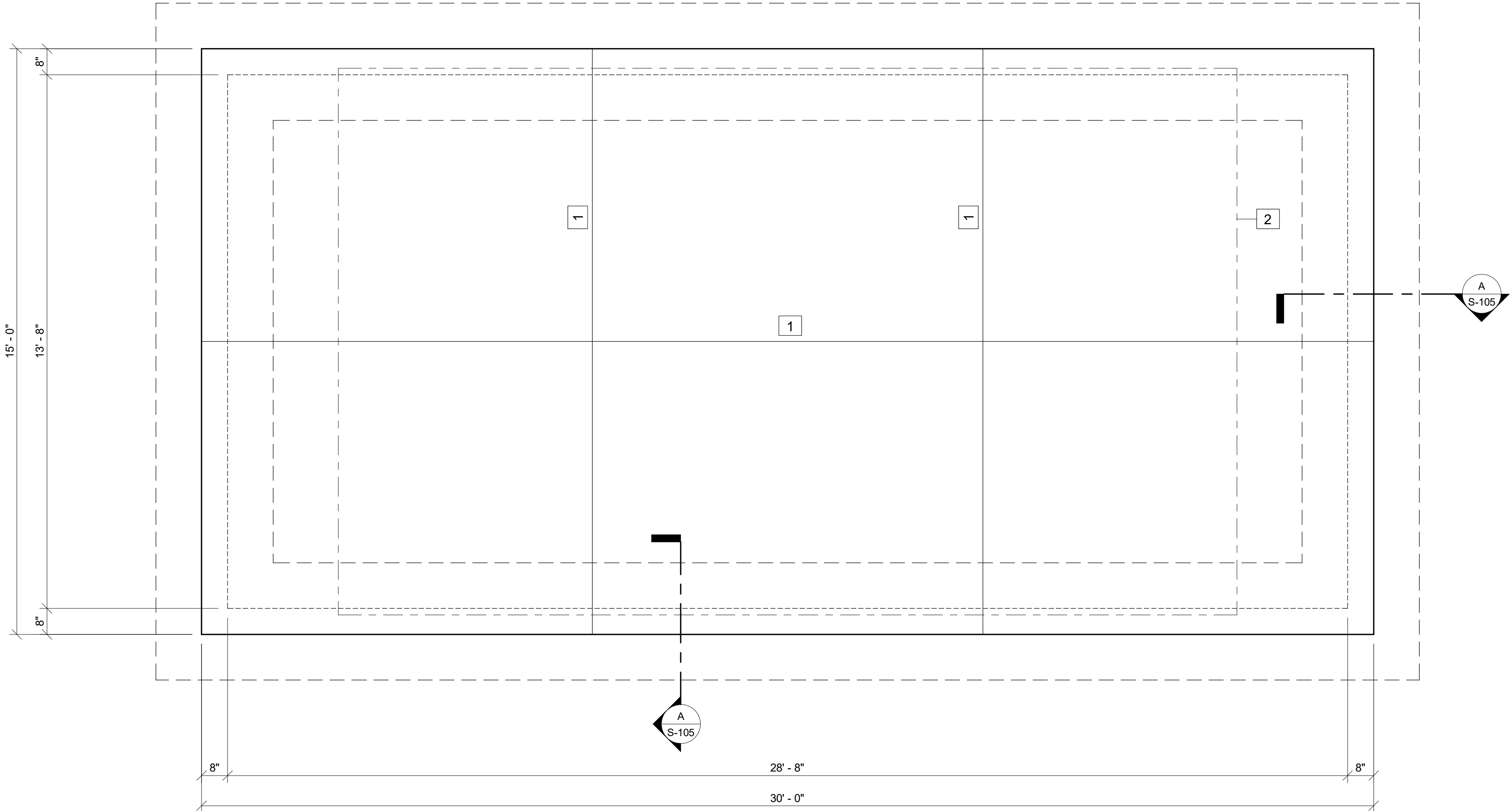
A circular professional engineer seal for the State of Georgia. The outer ring contains the text "GEORGIA" at the top and "REGISTERED" at the bottom, separated by two stars. The center of the seal contains the text "No. 19936" and "PROFESSIONAL ENGINEER". Below this, the name "JOSEPH H. WEATHERFORD, INC." is written in a curved path following the bottom edge of the seal. The seal is crossed out with two large, diagonal handwritten lines.

S-104

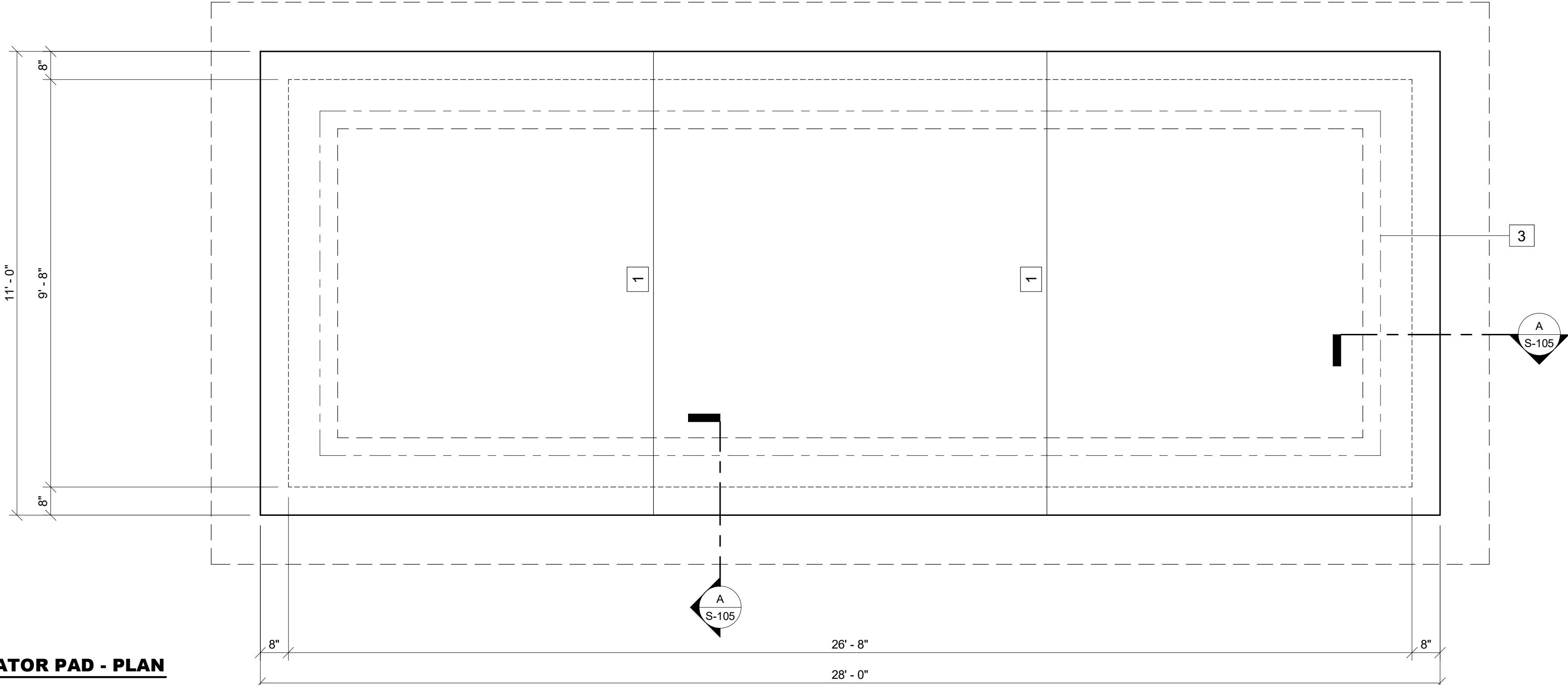
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1 ELECTRICAL BUILDING PAD - PLAN
S-105 SCALE: 1/2" = 1'-0"

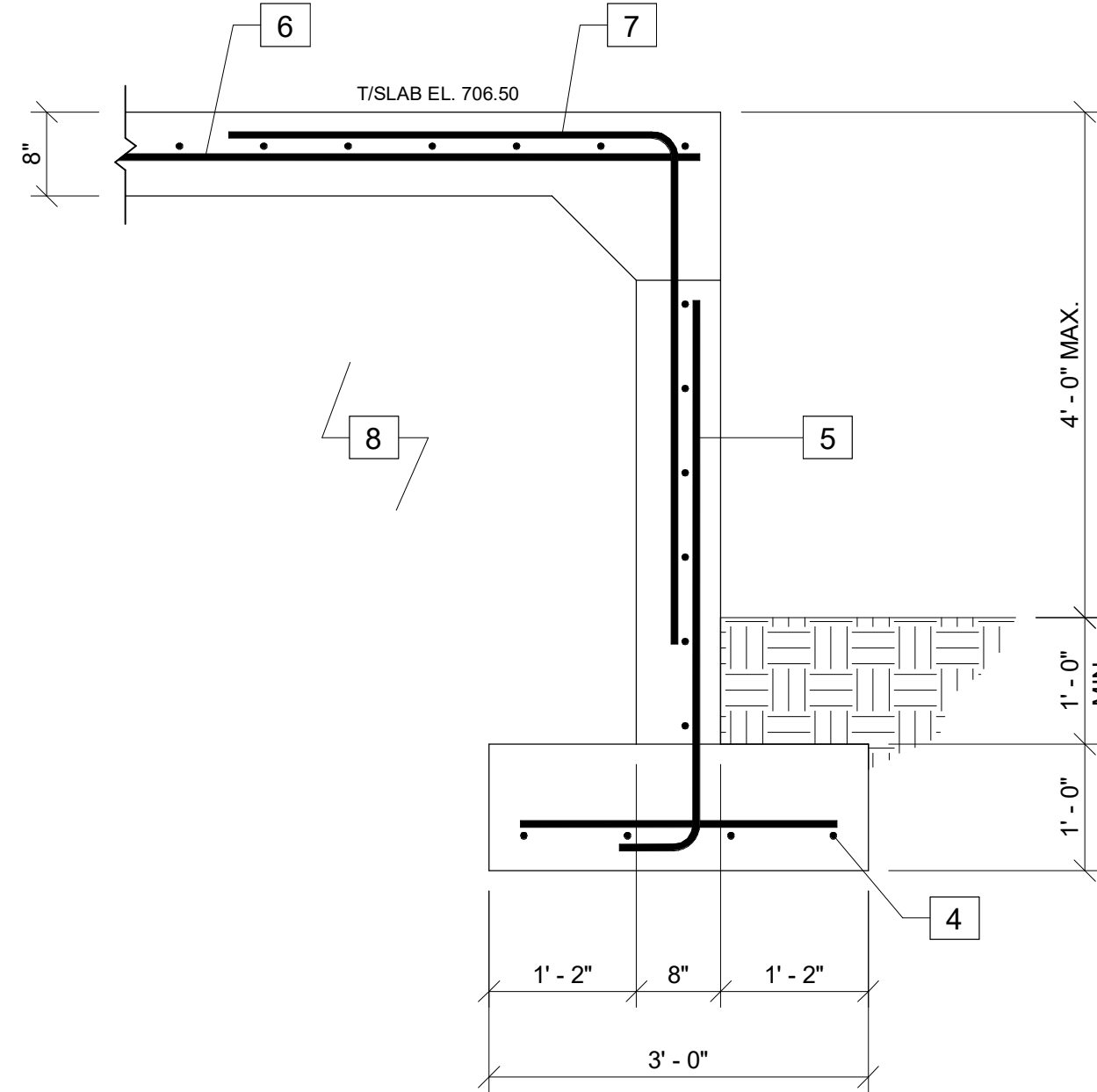


2 GENERATOR PAD - PLAN
S-105 SCALE: 1/2" = 1'-0"



REQUIRED NOTES: #

- CONTROL JOINT
- FOOTPRINT OF ELECTRICAL BUILDING BY OTHERS
- FOOTPRINT OF GENERATOR BY OTHERS
- (4) #5 CONTINUOUS w/ #5 TRANSVERSE @ 16" MAX. O.C.
- #5 @ 8" MAX. O.C. EACH WAY - 2" CLEAR FROM OUTSIDE FACE OF WALL
- #5 @ 8" MAX. O.C. EACH WAY - CENTERED IN SLAB
- #5 x 3'-6" BENT BARS @ 24" MAX. O.C.
- COMPACTED GRANULAR FILL PER GEOTECHNICAL ENGINEER



A SECTION
S-105 SCALE: 3/4" = 1'-0"

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Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD

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GENERATOR &
ELECTRICAL BUILDING
FOUNDATION -
PLANS & SECTION

S-105

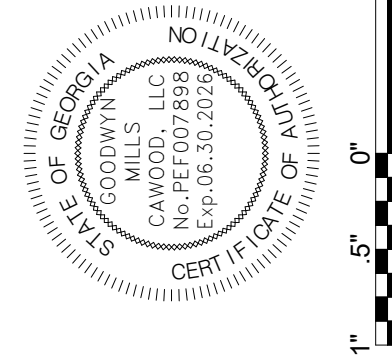


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1. 6061-T6 ALUMINUM W10x11.4 GRATING SUPPORT BEAM
2. 6061-T6 ALUMINUM HSS4x4x1/4 COLUMN w/ 3/4"x12"x1'-0" BASE PLATE w/ (4) 3/4" DIA. x 1'-2" H.S. ANCHORS - SEPARATION MEMBRANE REQUIRED BETWEEN ALUMINUM AND STEEL
3. CAST-IN-PLACE CONCRETE FOOTING 2'-0" x 2'-0" x 1'-0" THICK
4. PREFABRICATED STAIR - SEE PROCESS
5. EXTENTS OF WALKWAY COVER - SEE PROCESS
6. 3/8" 6061-T6 ALUMINUM COVER PLATE - SEE S-002 FOR TYPICAL ATTACHMENT DETAILS
7. PROVIDE BLOCKOUTS FOR FUTURE EMBEDDED GATE FRAME - TYPICAL



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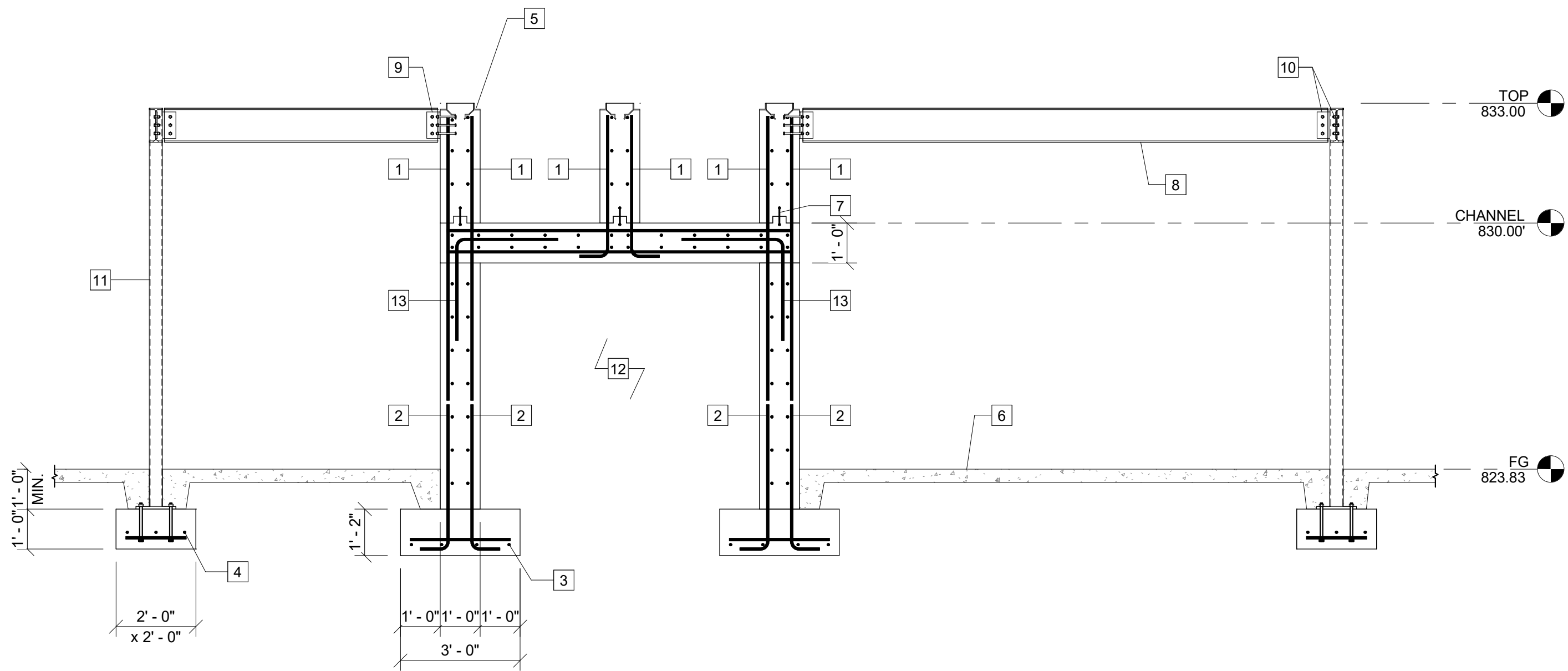
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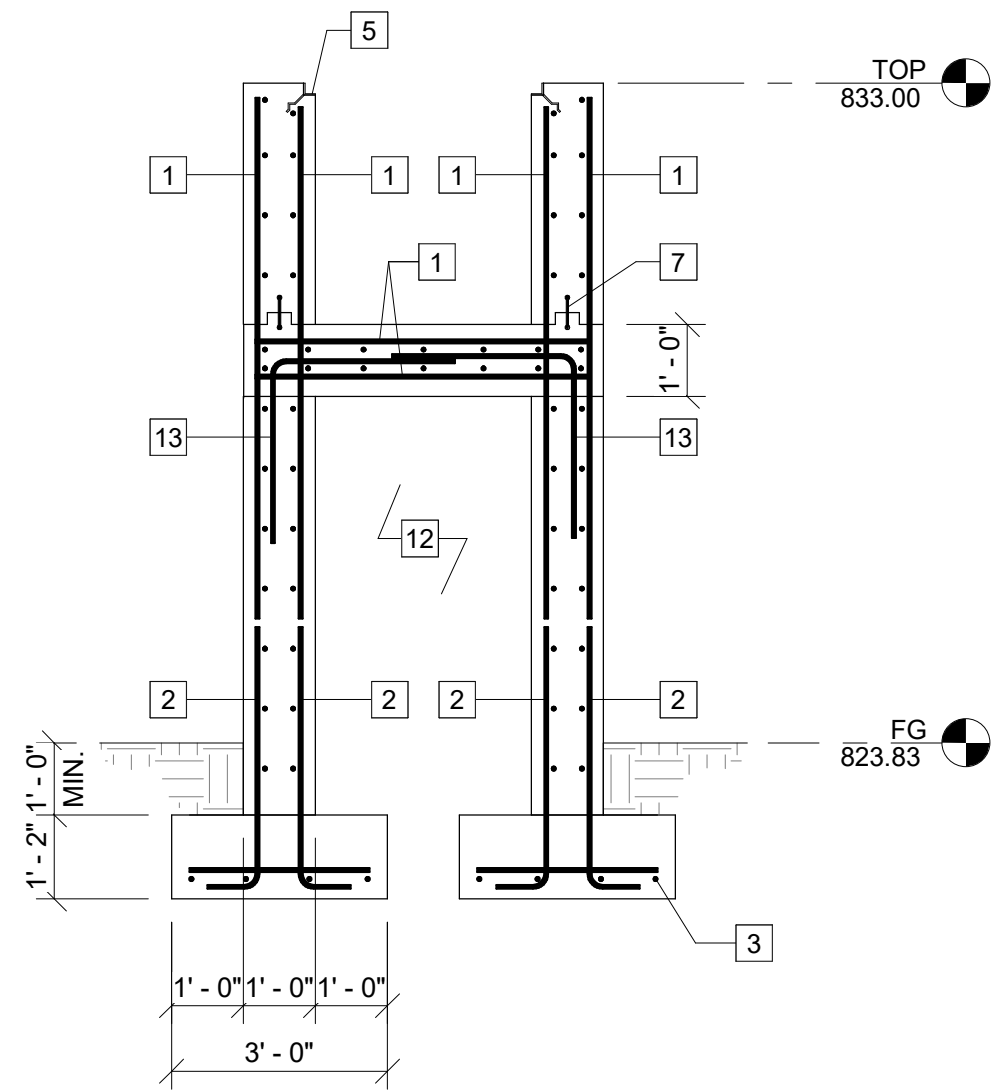
HEADWORKS - PLAN

S-111

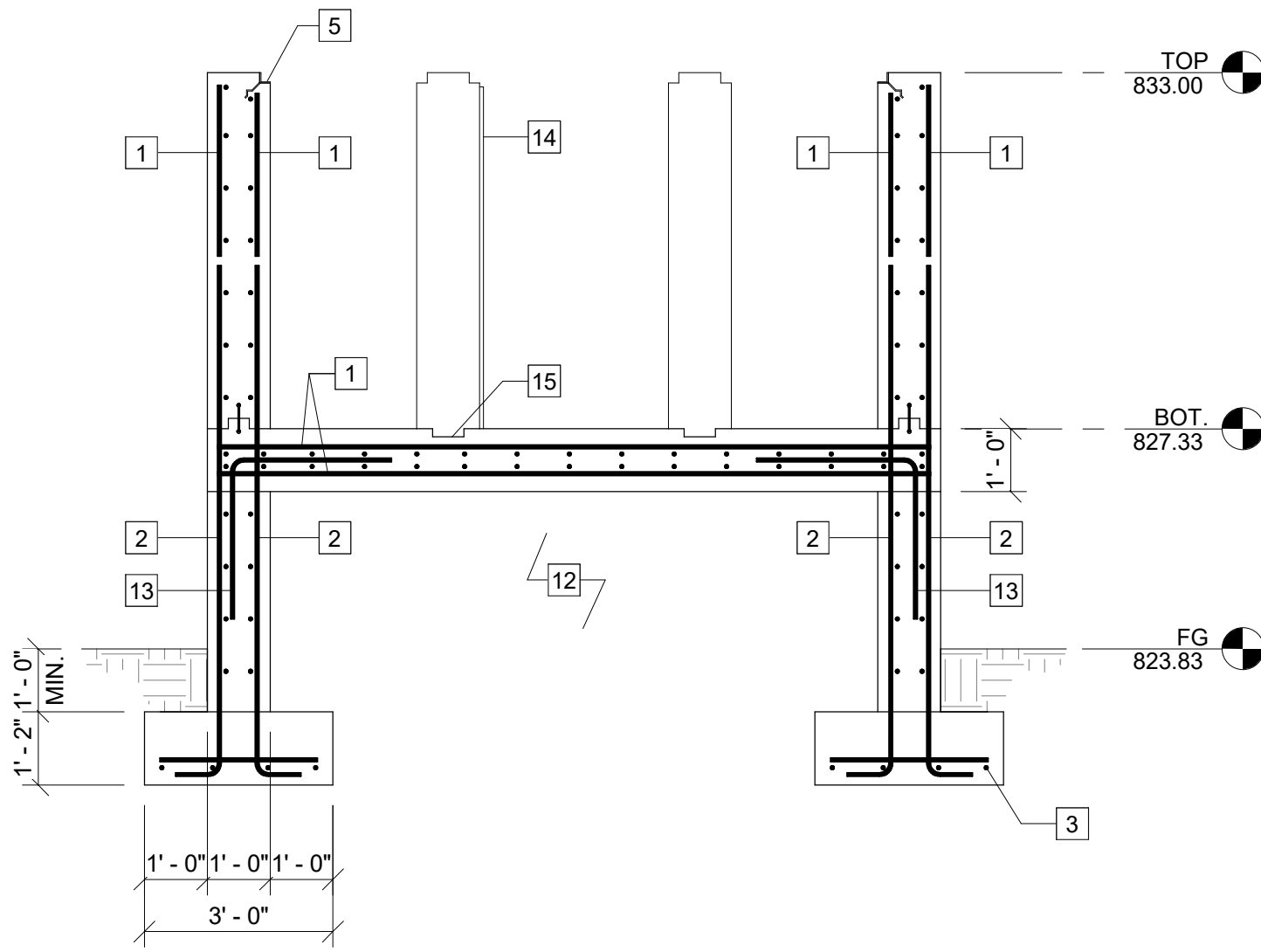
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A SECTION
S-111 SCALE: 3/8" = 1'-0"



B SECTION
S-111 SCALE: 3/8" = 1'-0"



C SECTION
S-111 SCALE: 3/8" = 1'-0"

KEY NOTES: #

- #5 @ 10" O.C. EACH WAY
- DOWELS SAME SIZE AND SPACING AS VERTICAL REINFORCING
- (4) #5 CONT. w/ #5 TRANSVERSE @ 12" O.C.
- (3) #5 EACH WAY
- PREFABRICATED GRATING SEAT EMBED
- CONCRETE PAVING - SEE CIVIL
- 6" PVC WATERSTOP - TYPICAL
- ALUMINUM GRATING SUPPORT BEAM - SEE PLAN
- 6061-T6 ALUMINUM L4x4x3/8 w/ (3) 1/2" DIA. THRU-BOLTS INTO BEAM AND (3) 1/2" DIA. x 6" H.S. ANCHORS INTO WALL - SEPARATION MEMBRANE REQUIRED BETWEEN ALUMINUM AND STEEL
- 6061-T6 TAB PL 3/8"x4"x0'-8" w/ (3) 1/2" DIA. THRU-BOLTS - SEPARATION MEMBRANE REQUIRED BETWEEN ALUMINUM AND STEEL
- 6061-T6 ALUMINUM HSS4x4x1/4 w/ BASE PL 3/4"x12"x1'-0" w/ (4) 3/4" DIA. x 1'-2" H.S. ANCHORS - SEPARATION MEMBRANE REQUIRED BETWEEN ALUMINUM AND STEEL
- BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER
- #4 x 2'-6" BENT BARS @ 30" MAX. O.C.
- 3/8" 6061-T6 ALUMINUM COVER PLATE
- BLOCK OUT FOR FUTURE GATE EMBED

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Drawn By:	JD

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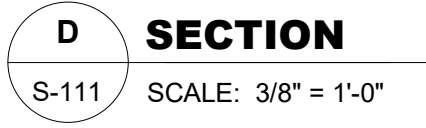
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HEADWORKS -
SECTIONS

S-112





-
- The seal of the State of Georgia is circular, featuring the text "STATE OF GEORGIA" at the top and "GOODWIN MILLS" at the bottom. In the center, it reads "CAWOOD, LLC", "No. REF007898", and "Exp. 06.30.2026". Below the seal is a graphic scale bar with markings for 1", 5", and 0".

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HEADWORKS - SECTIONS

S-113

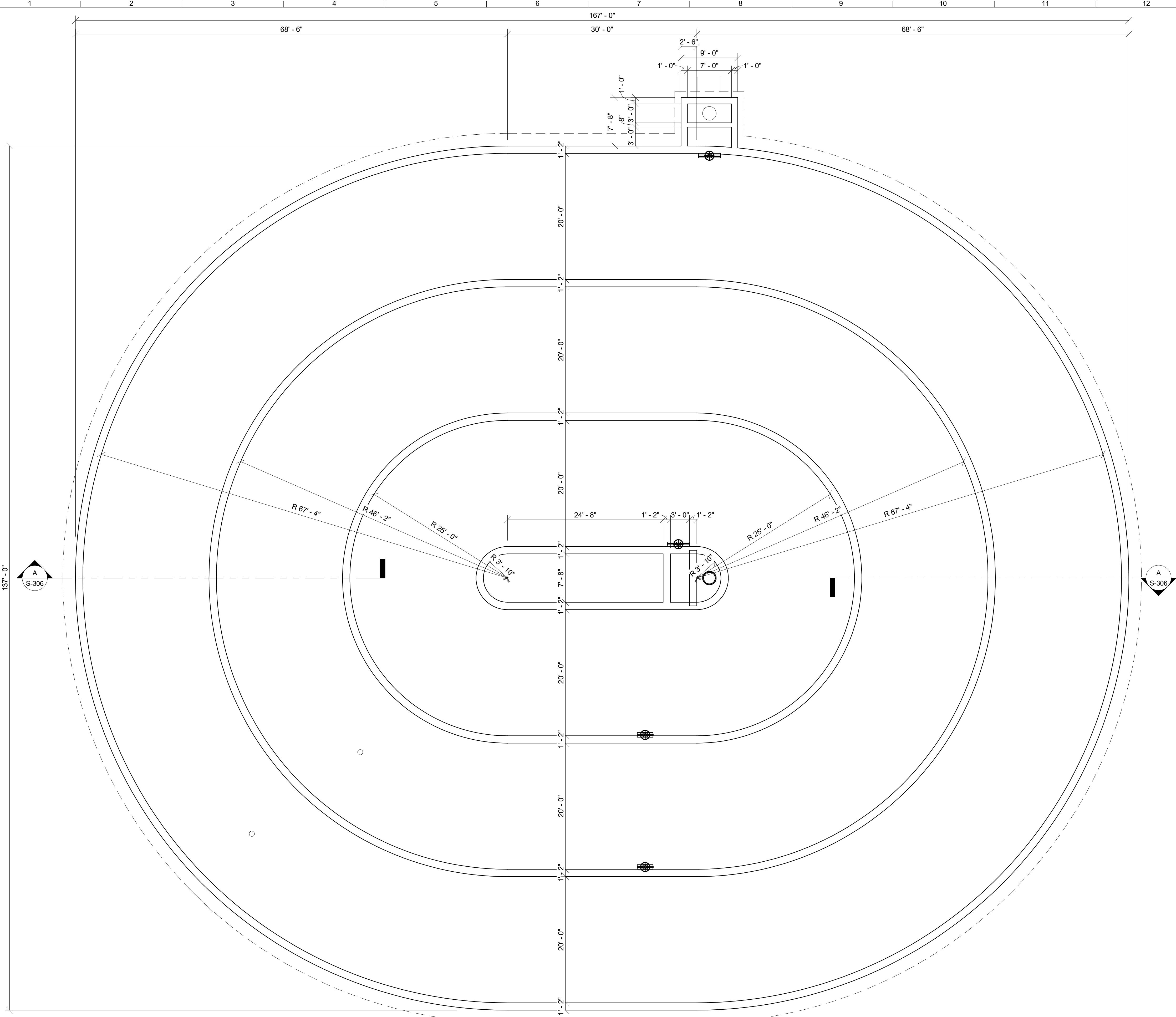
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1
S-301

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



KEY NOTES: #

ORBAL AERATION -
LOWER PLAN

S-301

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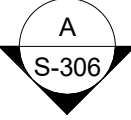
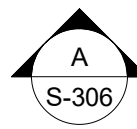


1

S-302

UPPER PLAN

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



2A
S-303

1C
S-305

1D
S-305

1B
S-304

2B
S-303

1A
S-304

2
1

4

3

ORBAL AERATION - UPPER PLAN

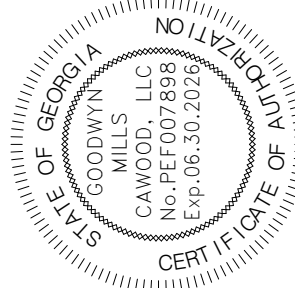
S-302

COMMERCE 2.0 MGD
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GMC PROJECT #CATL230033



ISSUE	DATE
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Designer:	TS
Drawn By:	JD



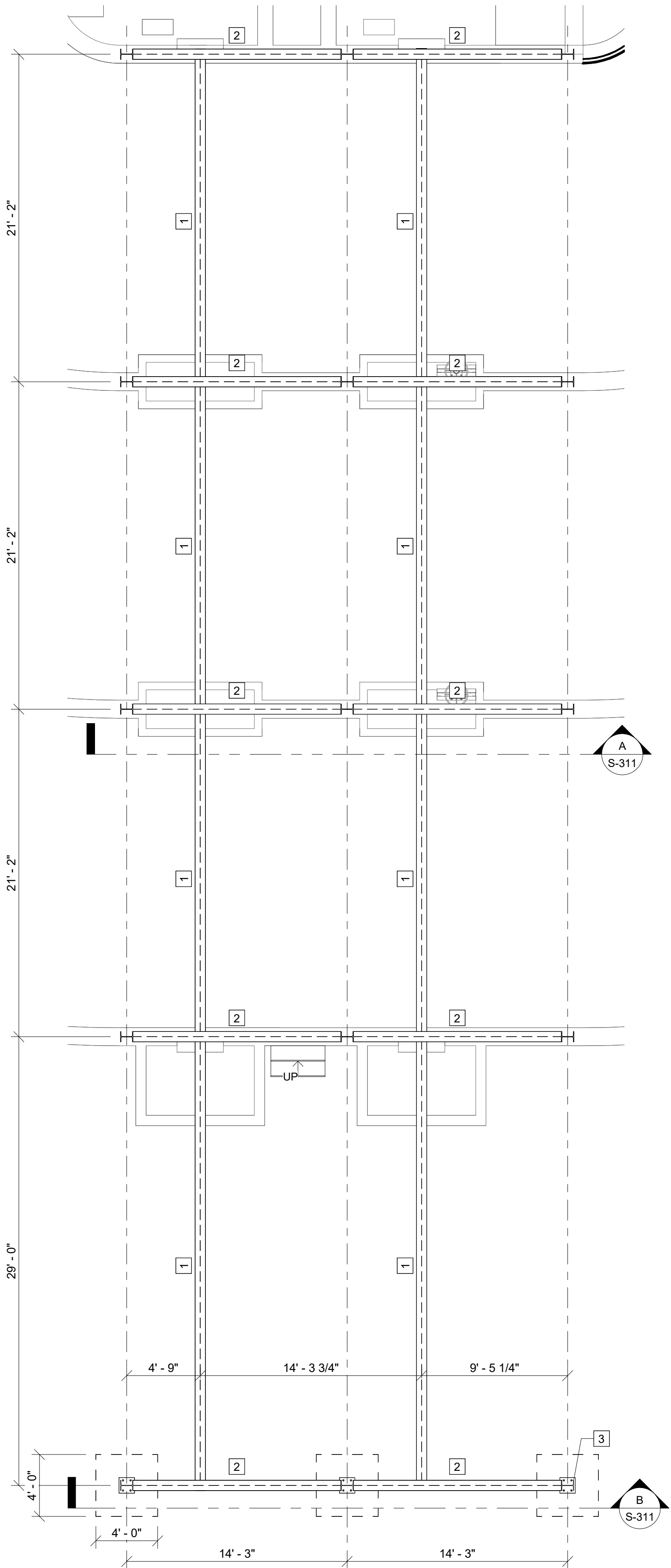
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KEY NOTES:

1. PREFABRICATED STAIR BY OTHERS - SEE PROCESS
2. 6061-T6 ALUMINUM W8x5.9 GRATING SUPPORT BEAM
3. EXTENTS OF WALKWAY GRATING - SEE PROCESS
4. ORBAL EQUIPMENT BY OTHERS - SEE PROCESS

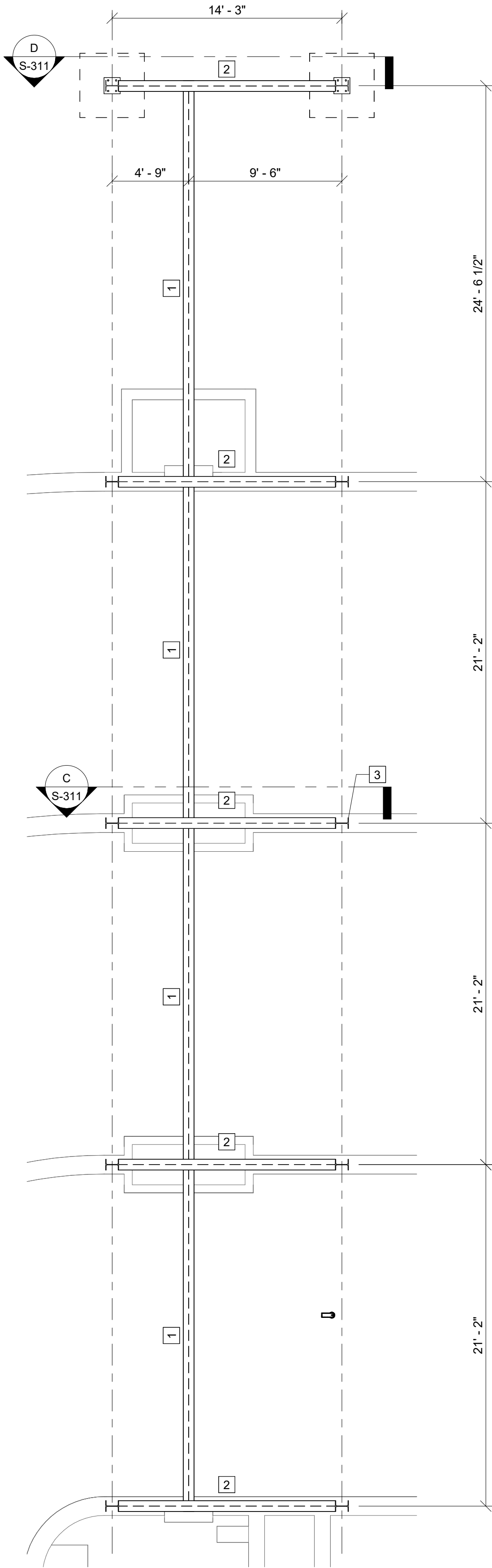
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2A
S-302

TROLLEY FRAME PARTIAL PLAN

SCALE: 3/16" = 1'-0"



2B
S-302

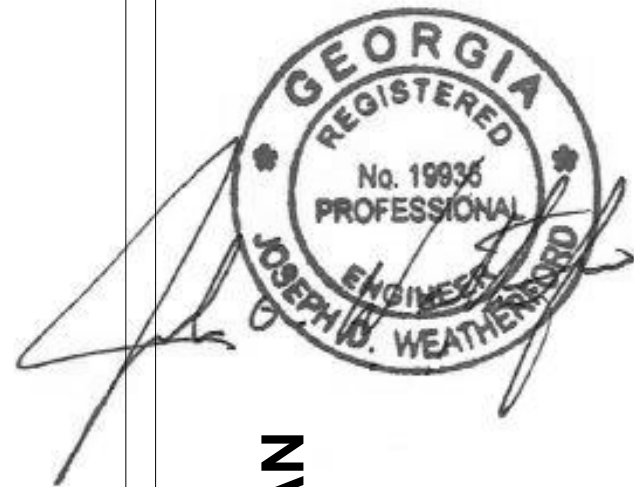
TROLLEY FRAME PARTIAL PLAN

SCALE: 3/16" = 1'-0"

KEY NOTES: #

1. 316SS W12x40 TROLLEY BEAM
2. 316SS W10x30 TROLLEY SUPPORT BEAM
3. 316SS W8x21 TROLLEY SUPPORT COLUMN

ORBAL AERATION -
TROLLEY FRAME PLAN



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Engineer:	JD
Designer:	TS
Drawn By:	JD



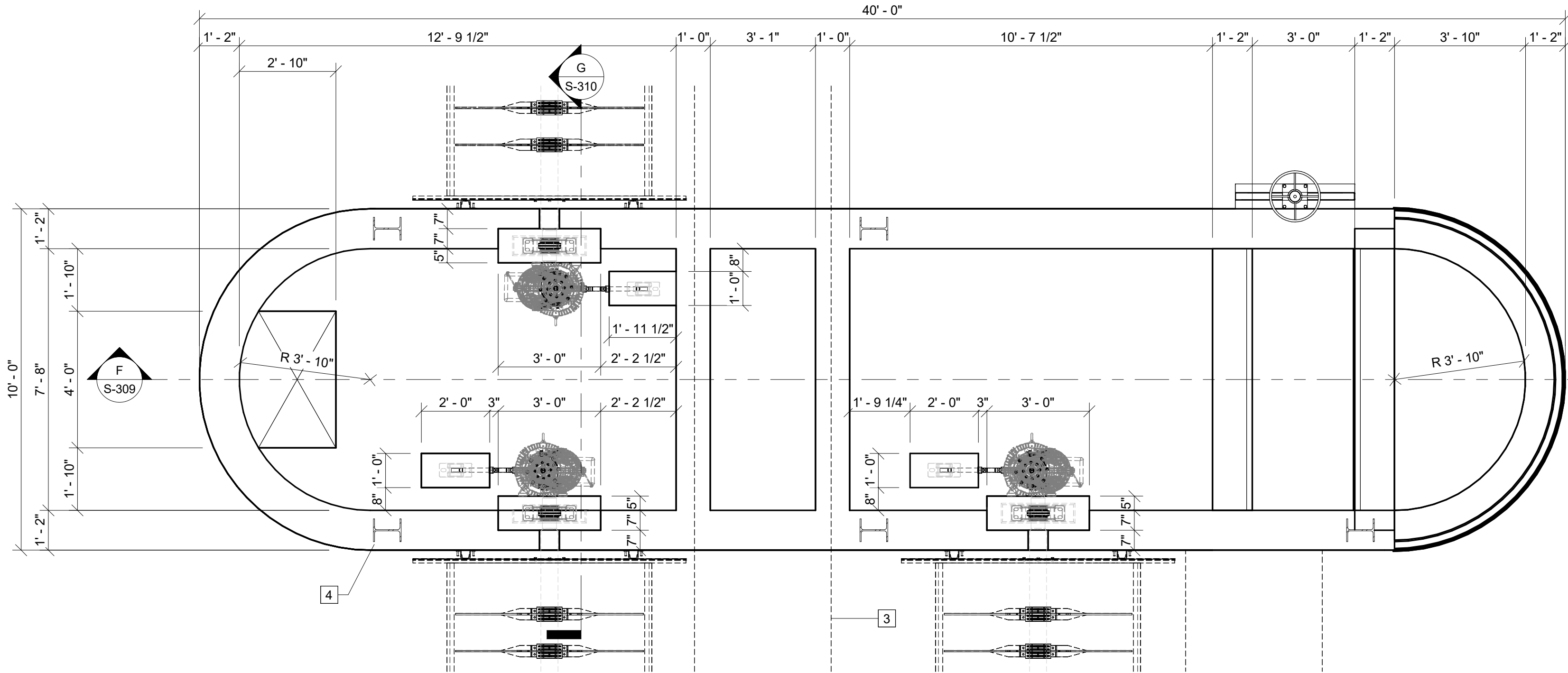
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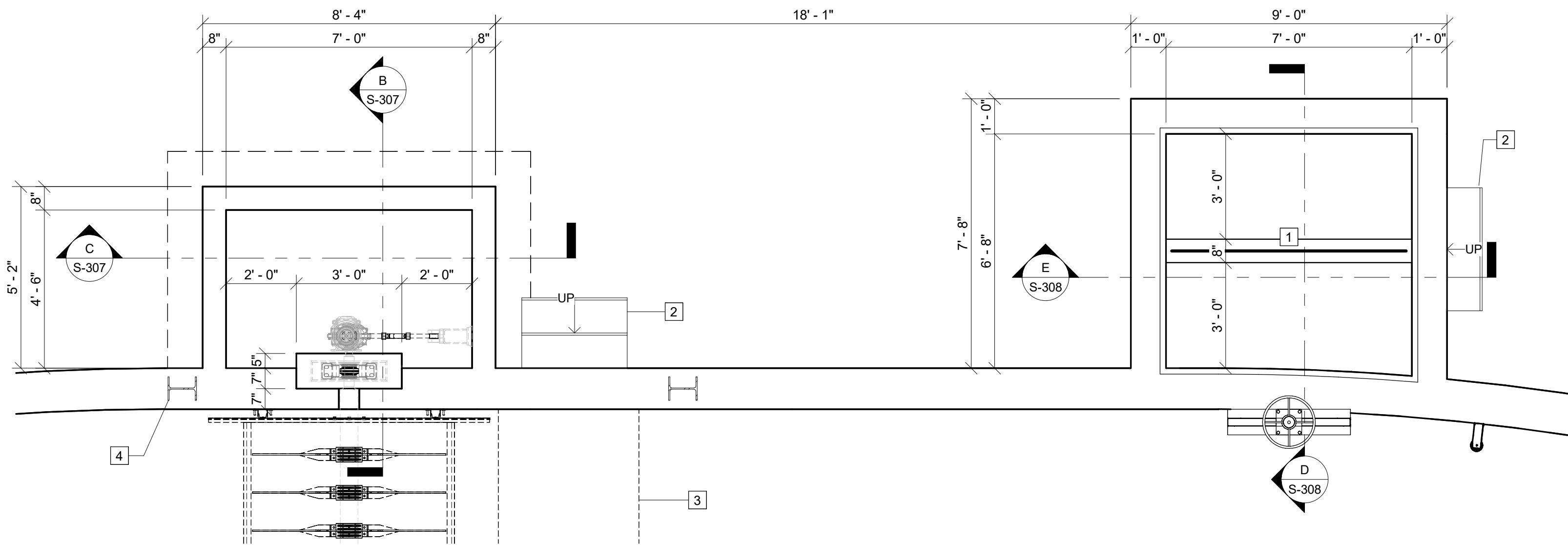


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1B CENTER ISLAND PLAN
S-302 SCALE: 3/8" = 1'-0"



1A EFFLUENT PLAN
S-302 SCALE: 3/8" = 1'-0"



KEY NOTES: #

- 6061-T6 ALUMINUM W8x5.9 GRATING SUPPORT BEAM
- PRE-FABRICATED STAIR - SEE PROCESS
- EXTENTS OF WALKWAY GRATING - SEE PROCESS
- TROLLEY FRAME COLUMN (TYPICAL) - SEE S-303 FOR DETAILS

ORBAL AERATION -
ENLARGED PLANS

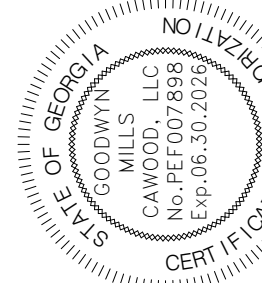
S-304

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GROVE CREEK WPCP
COMMERCE, GA

GMC PROJECT #CATL230033



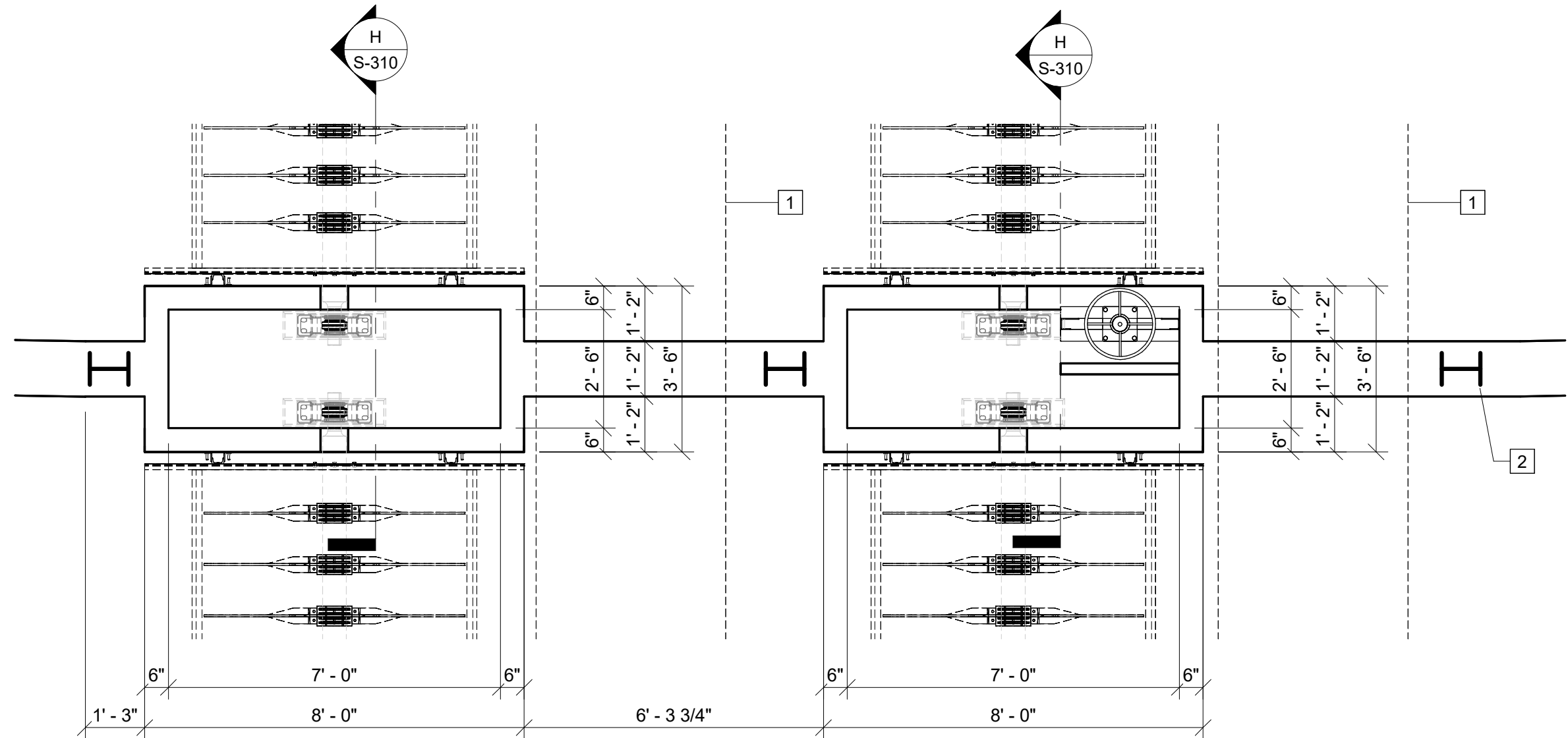
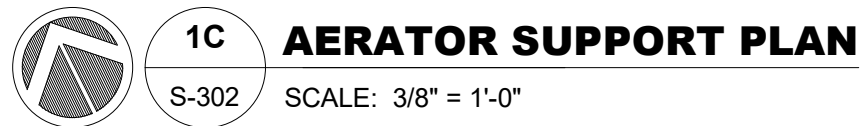
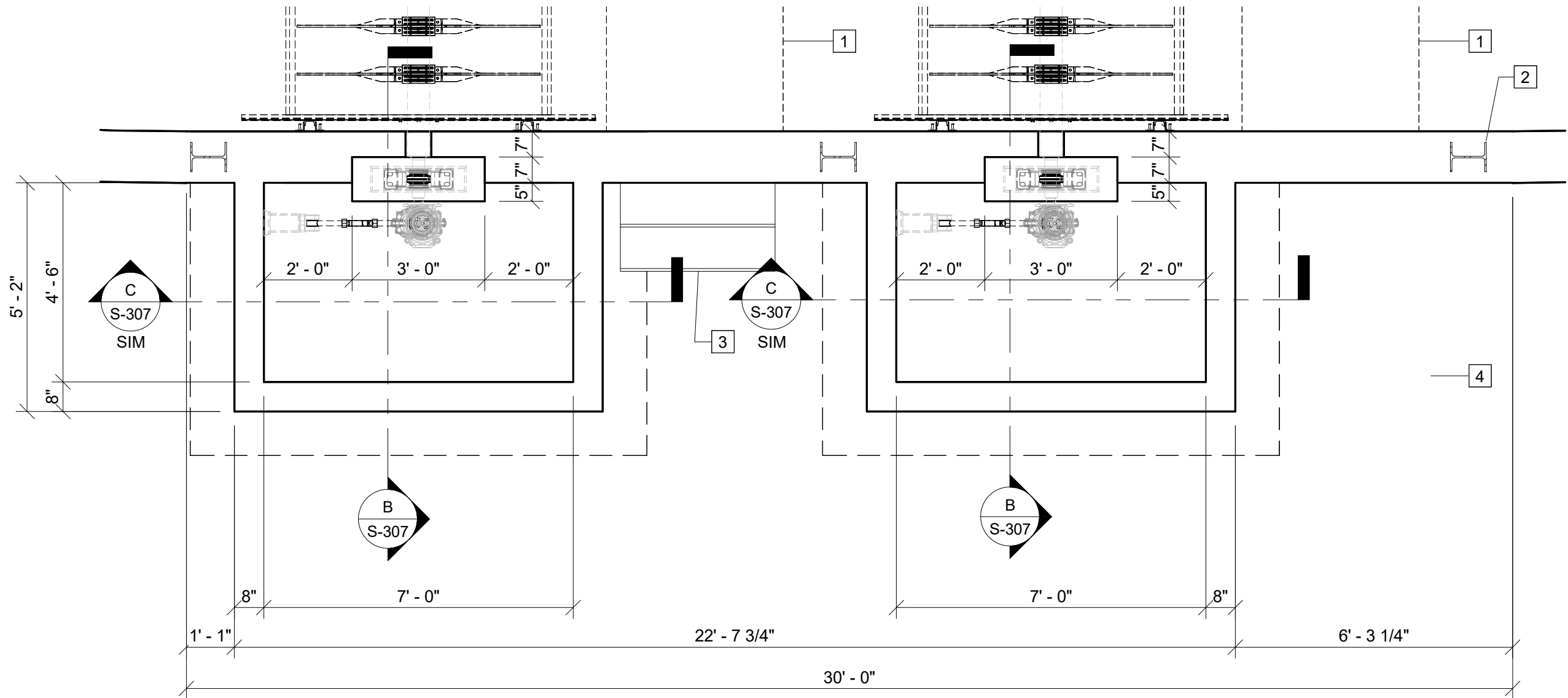
ISSUE	DATE
90% Submittal	11/27/24
Bid Set	03/19/25
Conformed Set	
Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD



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KEY NOTES: #

1. EXTENTS OF WALKWAY GRATING - SEE PROCESS
2. TROLLEY FRAME COLUMN (TYPICAL) - SEE S-303 FOR DETAILS
3. PRE-FABRICATED STAIR - SEE PROCESS

ORBAL AERATION -
ENLARGED PLANS

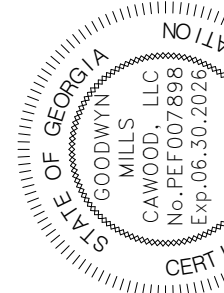
S-305

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GROVE CREEK WPCP
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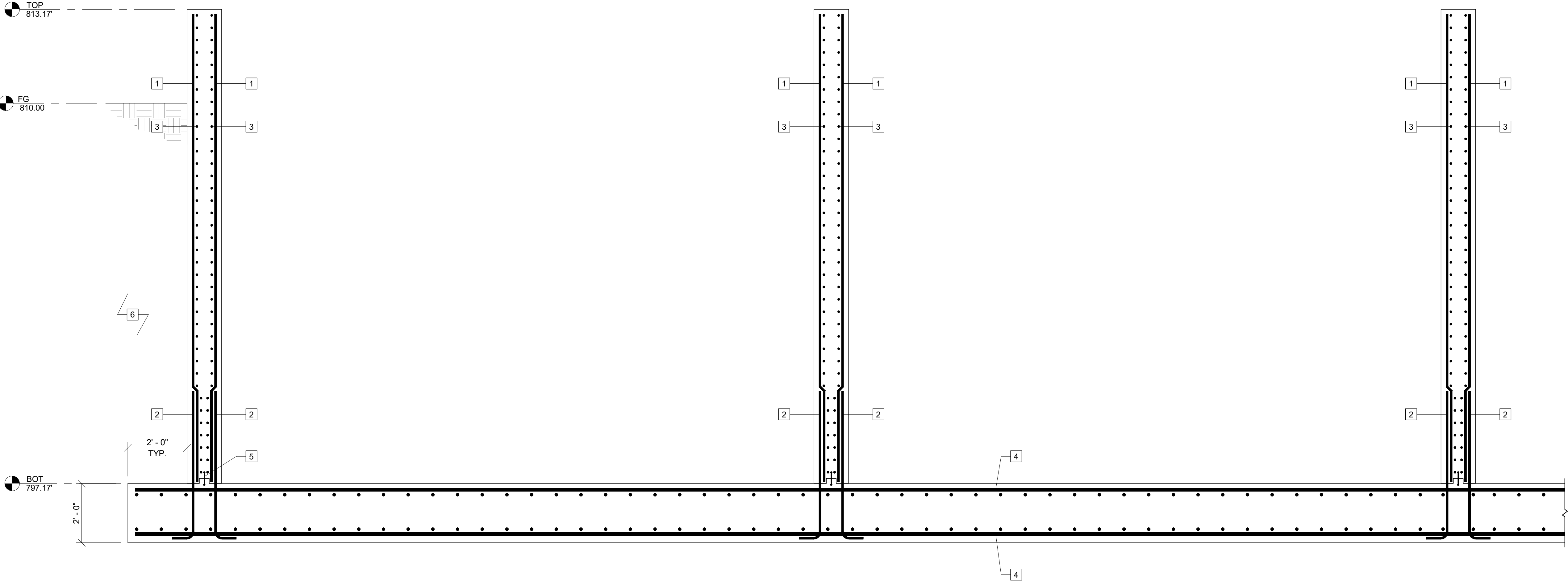
ISSUE	DATE
90% Submittal	11/27/24
Bid Set	03/19/25
Conformed Set	
Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD



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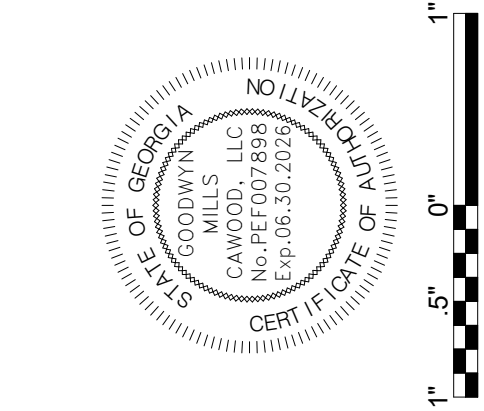
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A SECTION
S-301 SCALE: 1/2" = 1'-0"

KEY NOTES: #

1. #6 VERTICAL @ 10" MAX. O.C.
2. DOWELS SAME SIZE AND SPACING AS VERTICAL REINFORCEMENT
3. #6 HORIZONTAL @ 5" MAX. O.C.
4. #9 @ 10" MAX. O.C. EACH WAY
5. 6" PVC WATERSTOP - TYPICAL
6. BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER



ISSUE	DATE
90% Submittal	11/27/24
Bid Set	03/19/25
Conformed Set	
Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD

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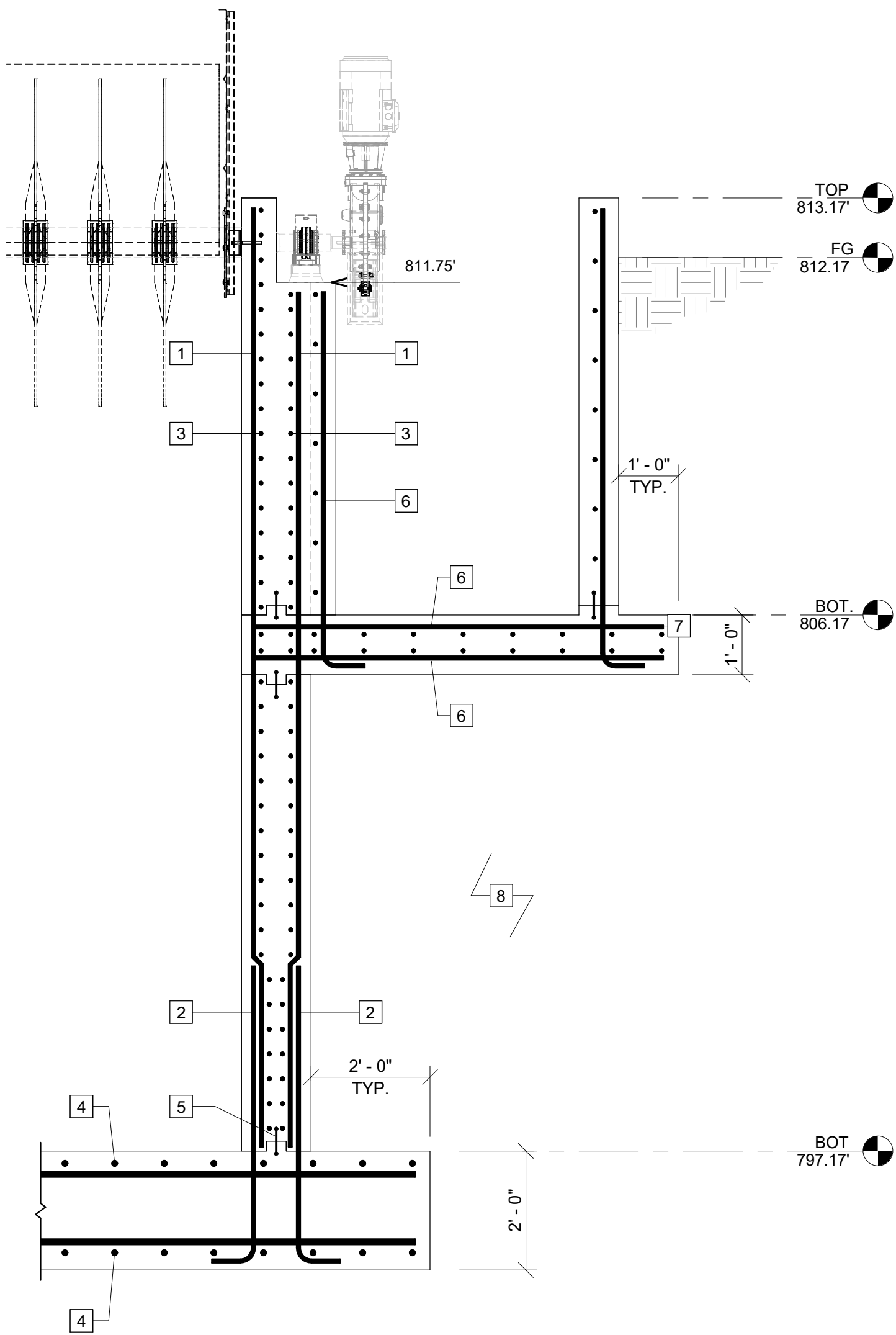
ORBAL AERATION -
SECTIONS

S-306

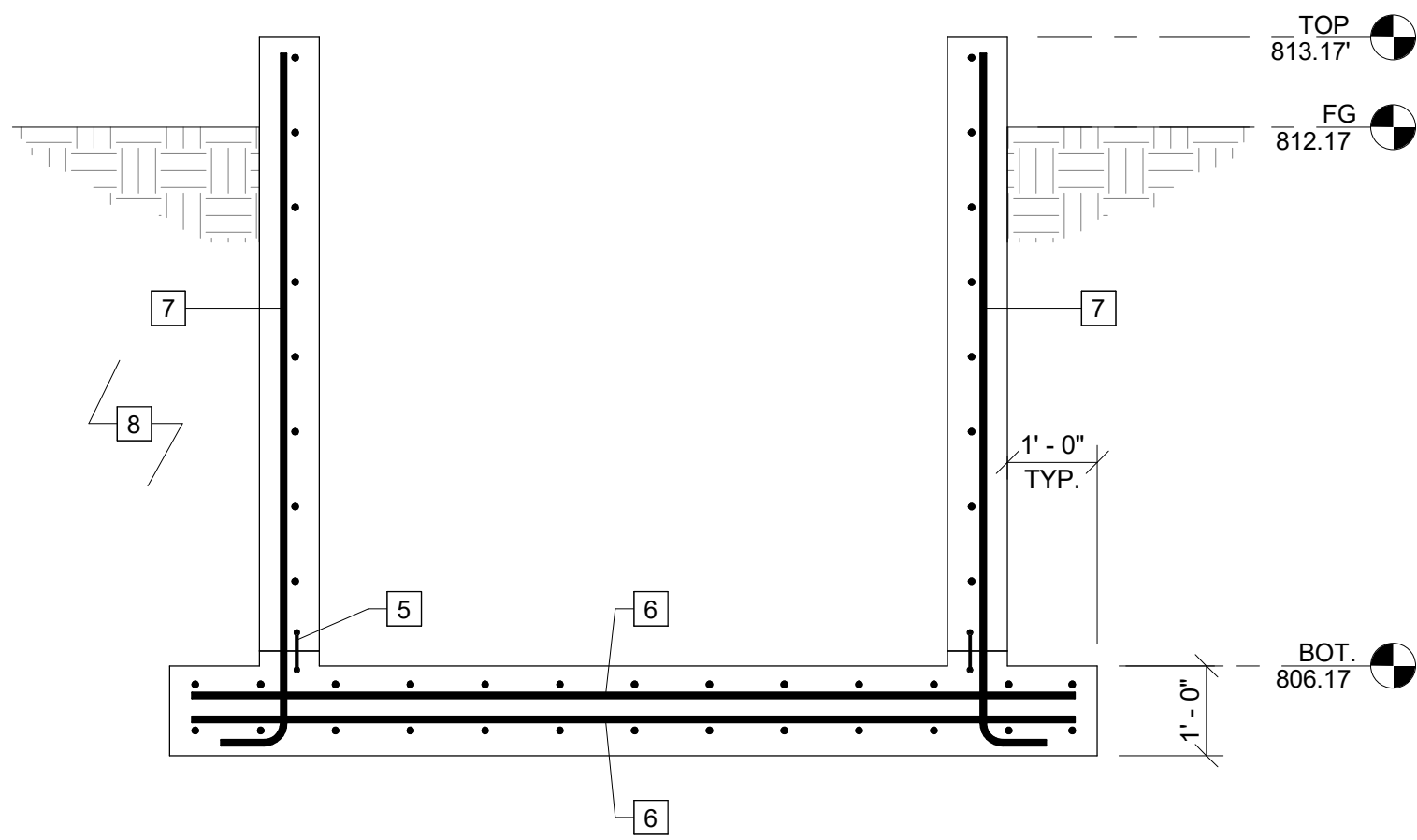
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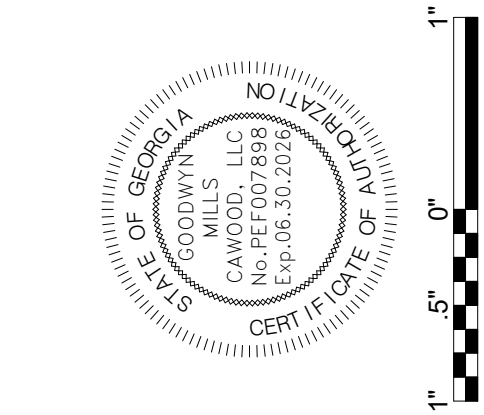
B SECTION
S-304 SCALE: 1/2" = 1'-0"



C SECTION
S-304 SCALE: 1/2" = 1'-0"

KEY NOTES: #

1. #6 VERTICAL @ 10" MAX. O.C.
2. DOWELS SAME SIZE AND SPACING AS VERTICAL REINFORCEMENT
3. #6 HORIZONTAL @ 5" MAX. O.C.
4. #9 @ 10" MAX. O.C. EACH WAY
5. 6" PVC WATERSTOP - TYPICAL
6. #6 @ 10" MAX. O.C. EACH WAY
7. #6 @ 10" MAX. O.C. EACH WAY - CENTERED IN WALL
8. BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER



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Confirmed Set	
Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD

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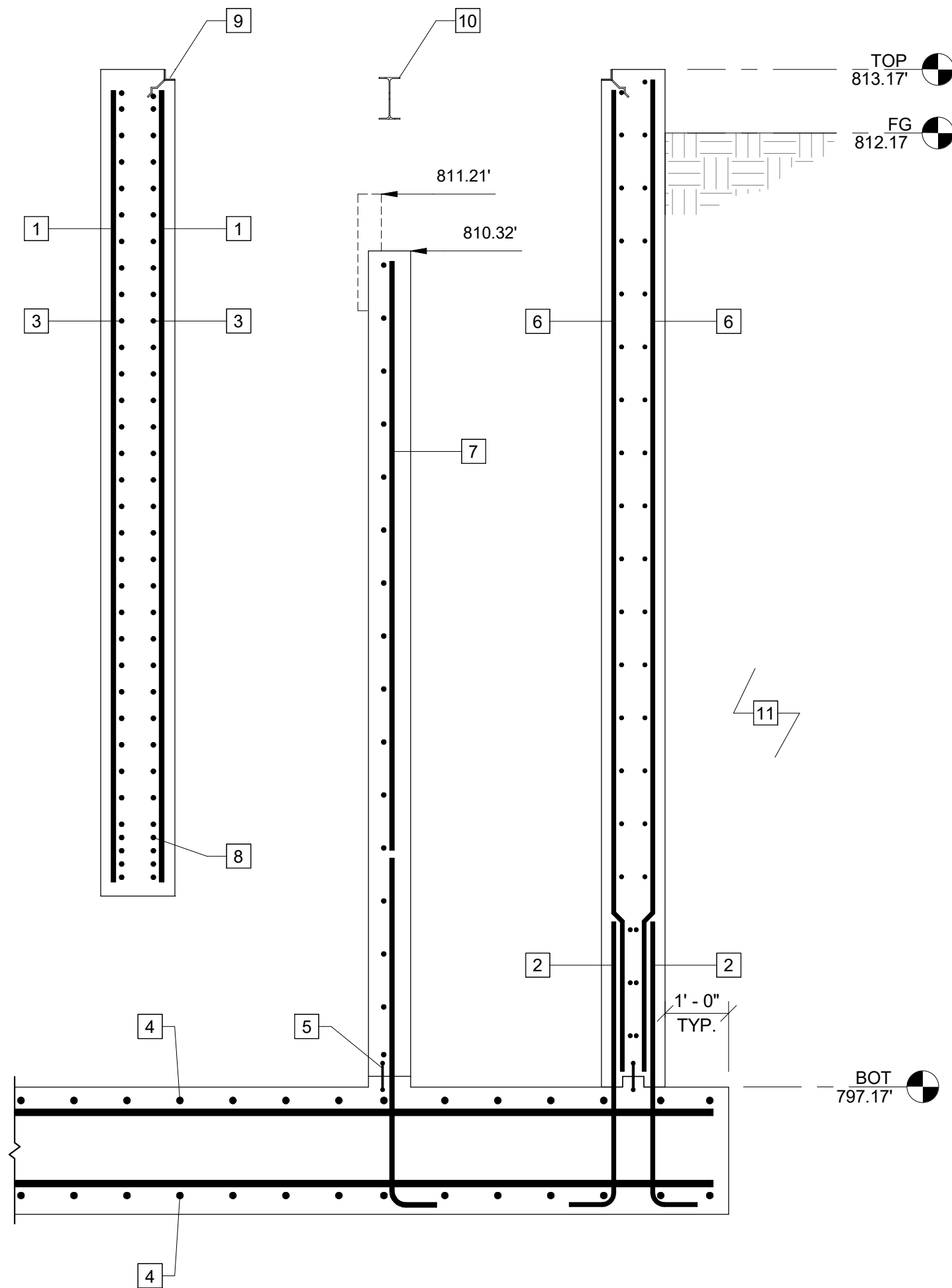
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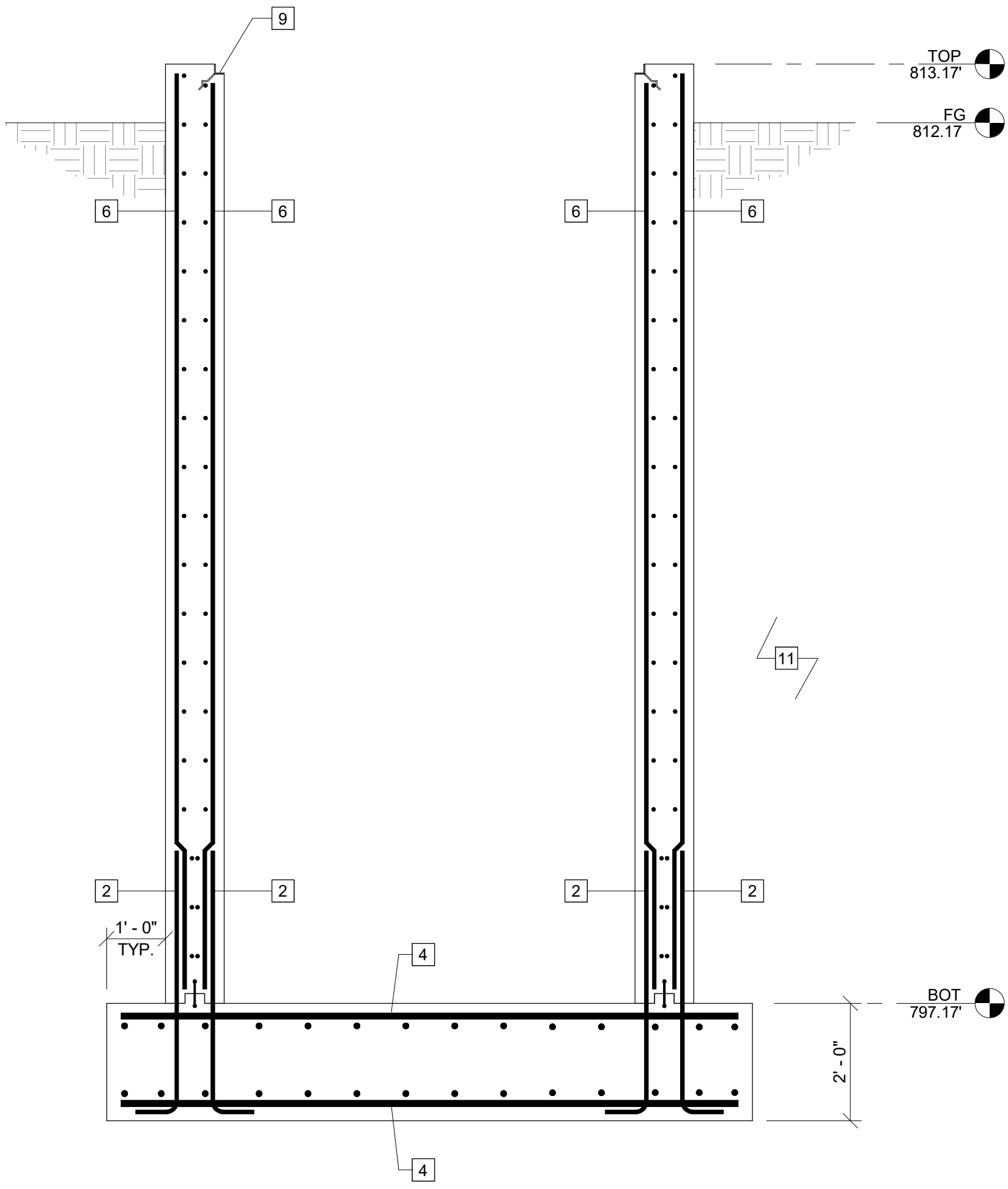
ORBAL AERATION -
SECTIONS

S-307

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D SECTION
S-304 SCALE: 1/2" = 1'-0"



E SECTION
S-304 SCALE: 1/2" = 1'-0"

KEY NOTES: #

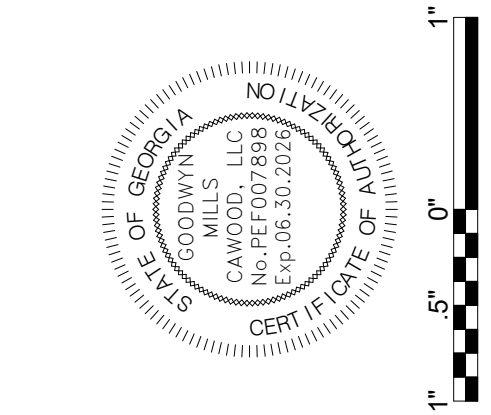
1. #6 VERTICAL @ 10" MAX. O.C.
2. DOWELS SAME SIZE AND SPACING AS VERTICAL REINFORCEMENT
3. #6 HORIZONTAL @ 5" MAX. O.C.
4. #9 @ 10" MAX. O.C. EACH WAY
5. 6" PVC WATERSTOP - TYPICAL
6. #5 @ 10" MAX. O.C. EACH WAY
7. #6 @ 10" MAX. O.C. EACH WAY - CENTERED IN WALL
8. ADDITIONAL REINFORCEMENT OVER OPENING - SEE S-001 FOR DETAILS
9. PREFABRICATED GRATING SEAT EMBED -TYPICAL
10. ALUMINUM GRATING SUPPORT BEAM - SEE PLAN
11. BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER

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ORBAL AERATION -
SECTIONS

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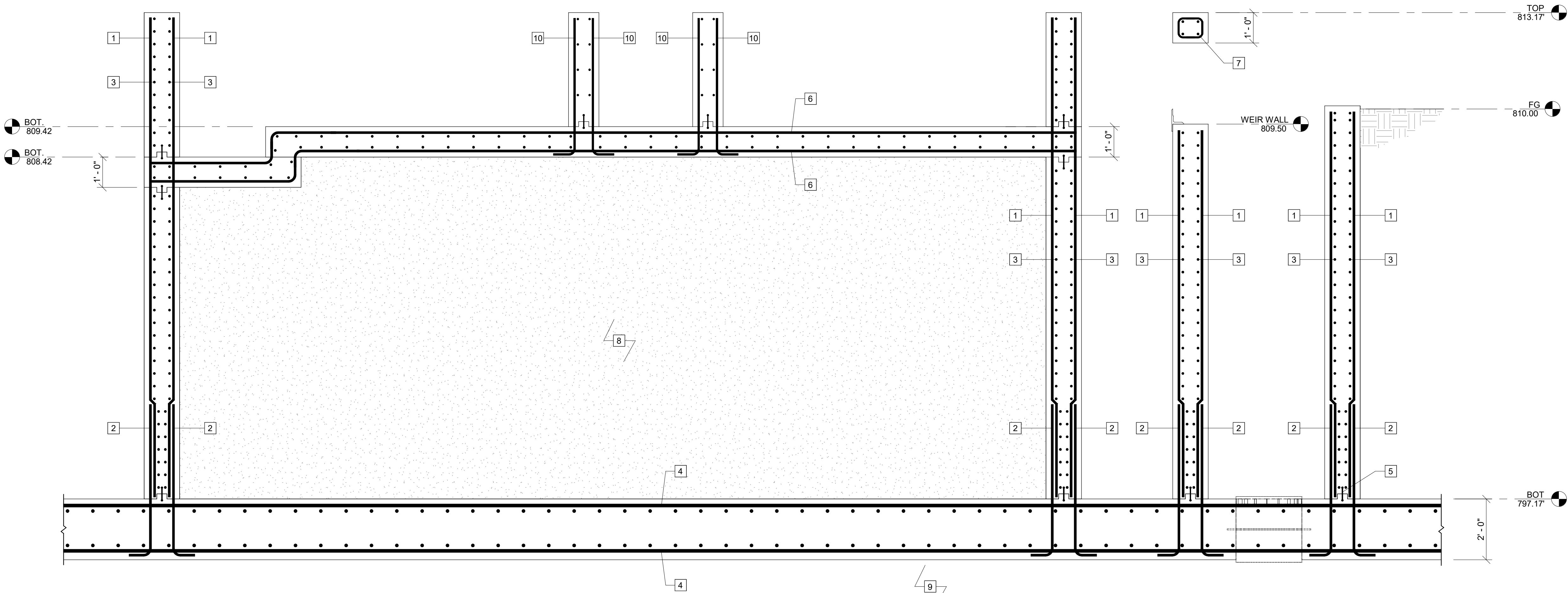
ISSUE	DATE
90% Submittal	11/27/24
Bid Set	03/19/25
Confirmed Set	
Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD



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F SECTION
S-304 SCALE: 1/2" = 1'-0"

KEY NOTES: #

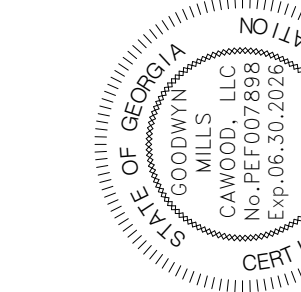
1. #6 VERTICAL @ 10" MAX. O.C.
2. DOWELS SAME SIZE AND SPACING AS VERTICAL REINFORCEMENT
3. #6 HORIZONTAL @ 5" MAX. O.C.
4. #9 @ 10" MAX. O.C. EACH WAY
5. 6" PVC WATERSTOP - TYPICAL
6. #6 @ 10" MAX. O.C. EACH WAY
7. (2) #6 TOP & BOTTOM w/ #3 STIRRUPS @ 6" MAX. O.C.
8. CLEAN COMPACTED GRANULAR FILL
9. BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER
10. #5 @ 10" MAX. O.C. EACH WAY

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ORBAL AERATION -
SECTIONS

S-309



ISSUE	DATE
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Bid Set	03/19/25
Conformed Set	
Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD

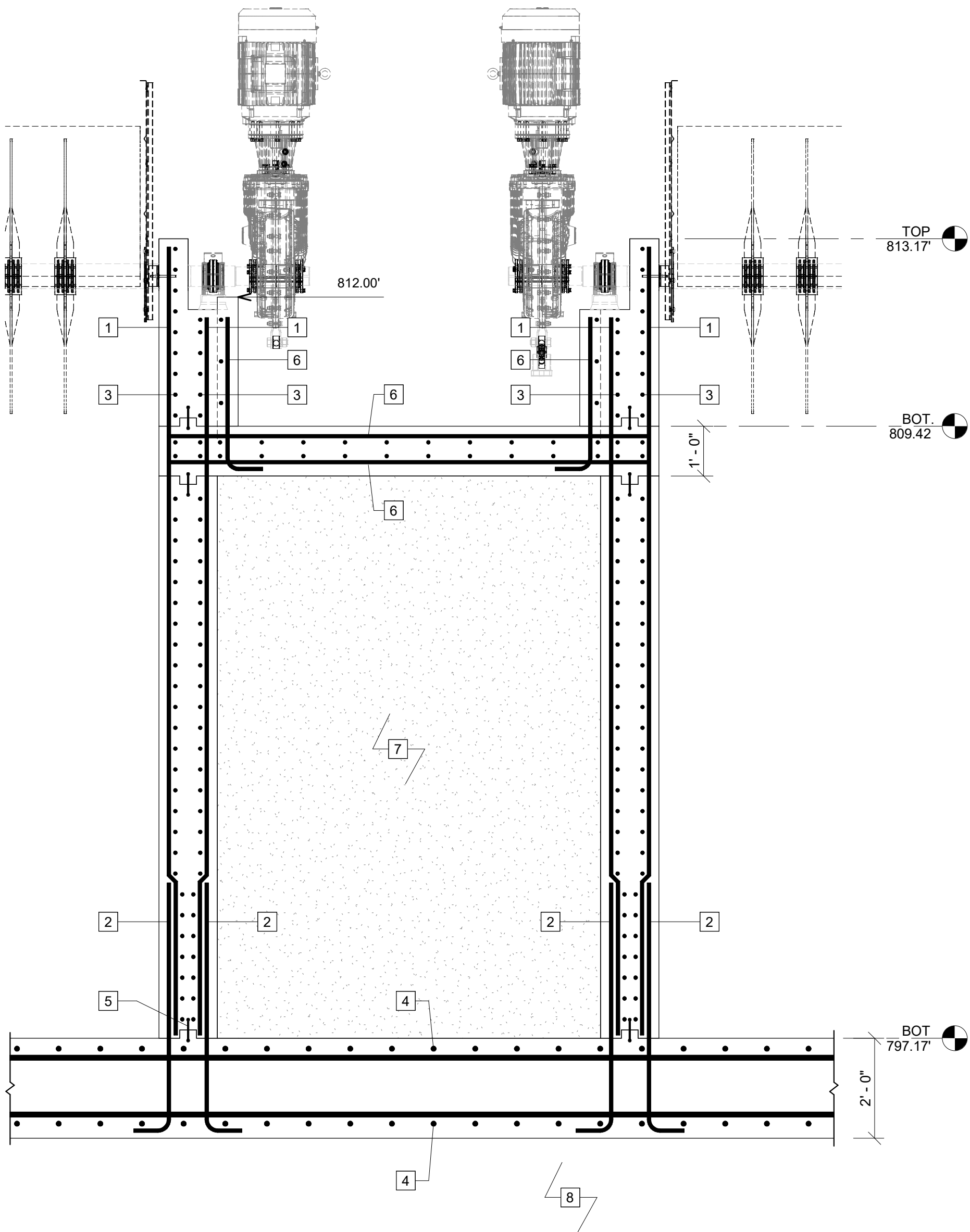


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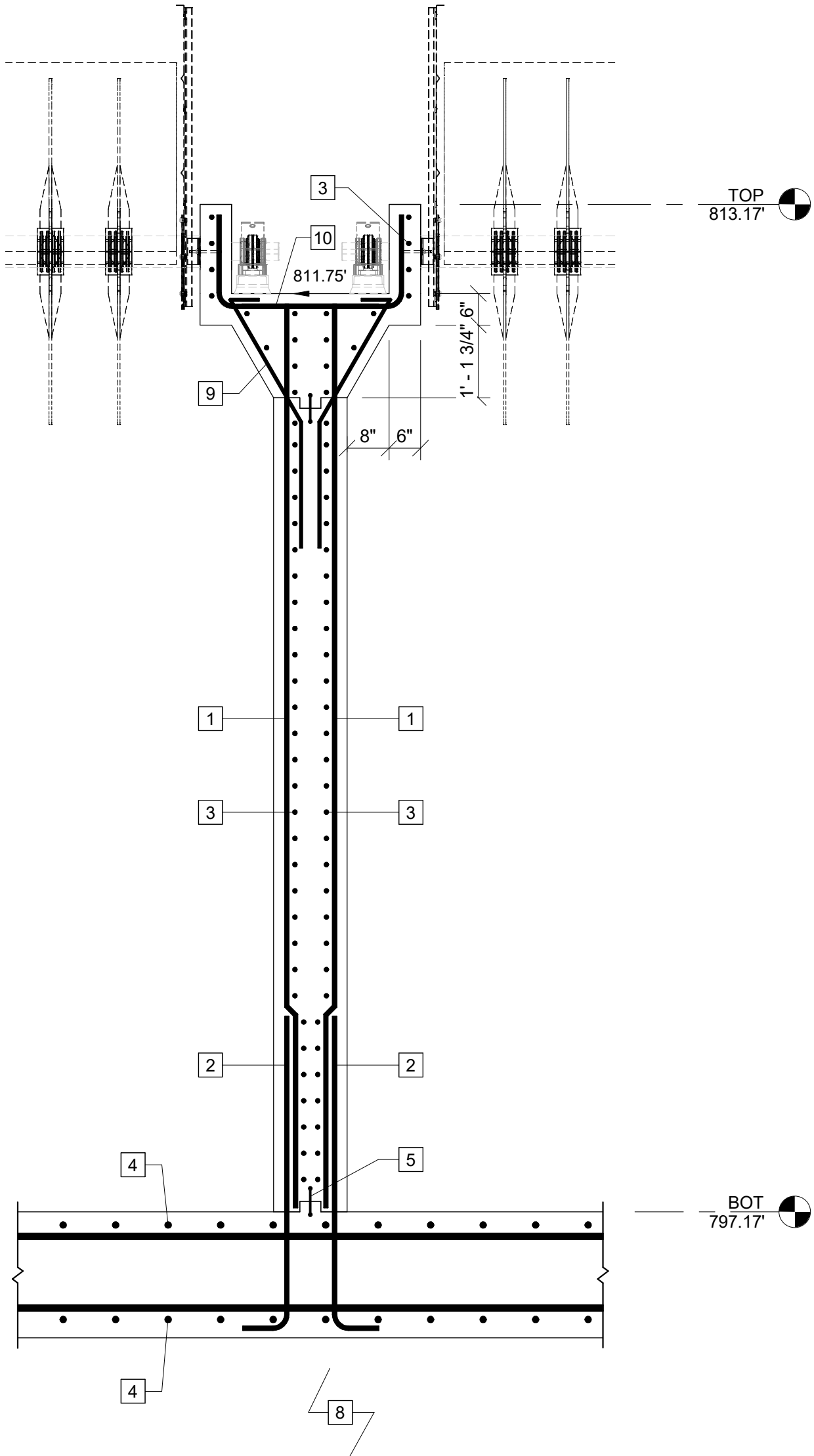
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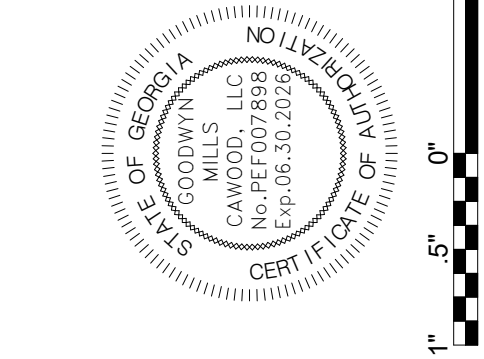
G SECTION
S-304 SCALE: 1/2" = 1'-0"



H SECTION
S-305 SCALE: 1/2" = 1'-0"

KEY NOTES: #

1. #6 VERTICAL @ 10" MAX. O.C.
2. DOWELS SAME SIZE AND SPACING AS VERTICAL REINFORCEMENT
3. #6 HORIZONTAL @ 5" MAX. O.C.
4. #9 @ 10" MAX. O.C. EACH WAY
5. 6" PVC WATERSTOP - TYPICAL
6. #6 @ 10" MAX. O.C. EACH WAY
7. CLEAN COMPACTED GRANULAR FILL
8. BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER
9. #4 BENT BARS @ 10" MAX. O.C.
10. #5 BENT BARS @ 10" MAX. O.C.



ISSUE	DATE
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Drawn By:	JD

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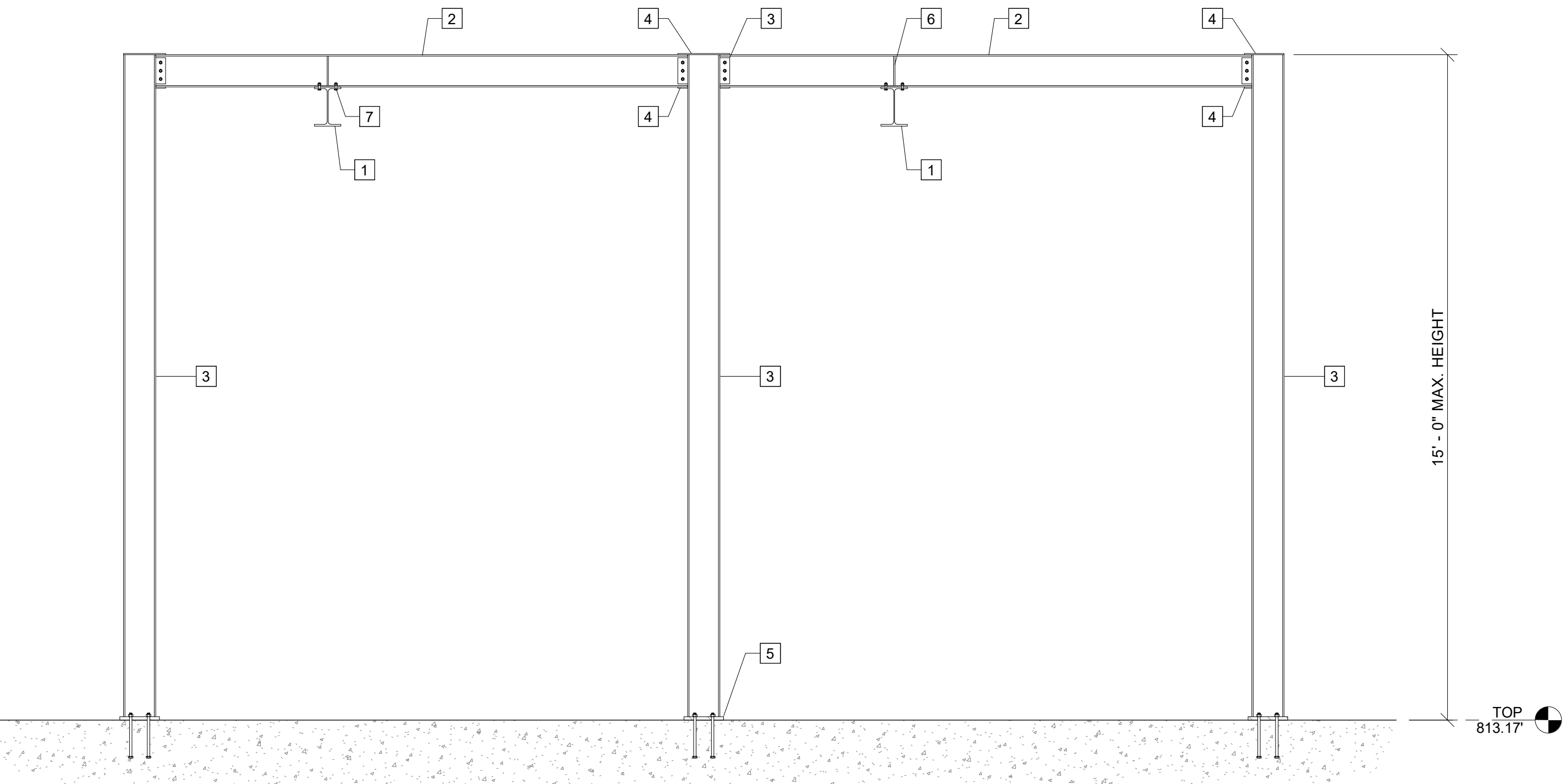
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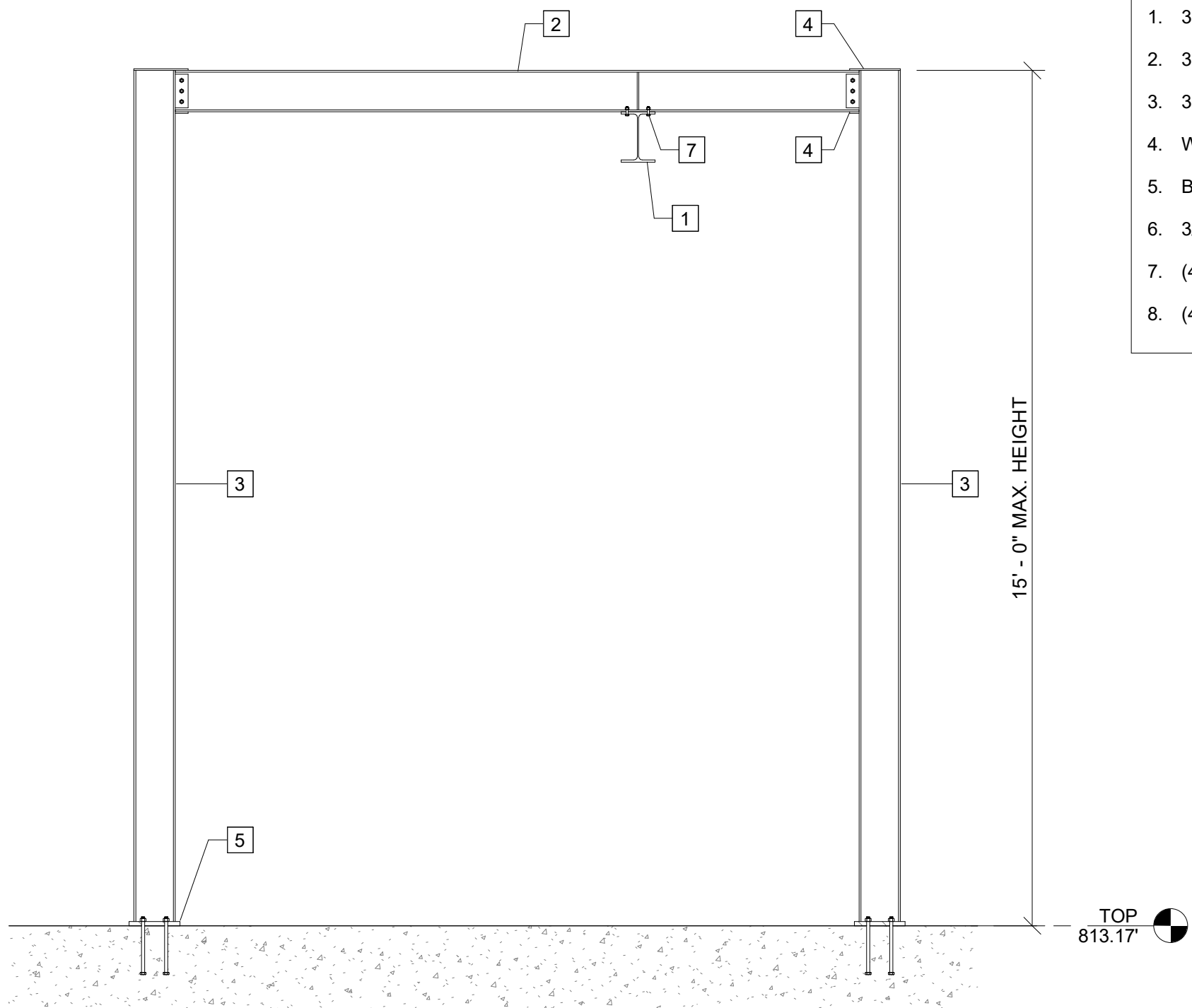
**ORBAL AERATION -
SECTIONS**

S-310

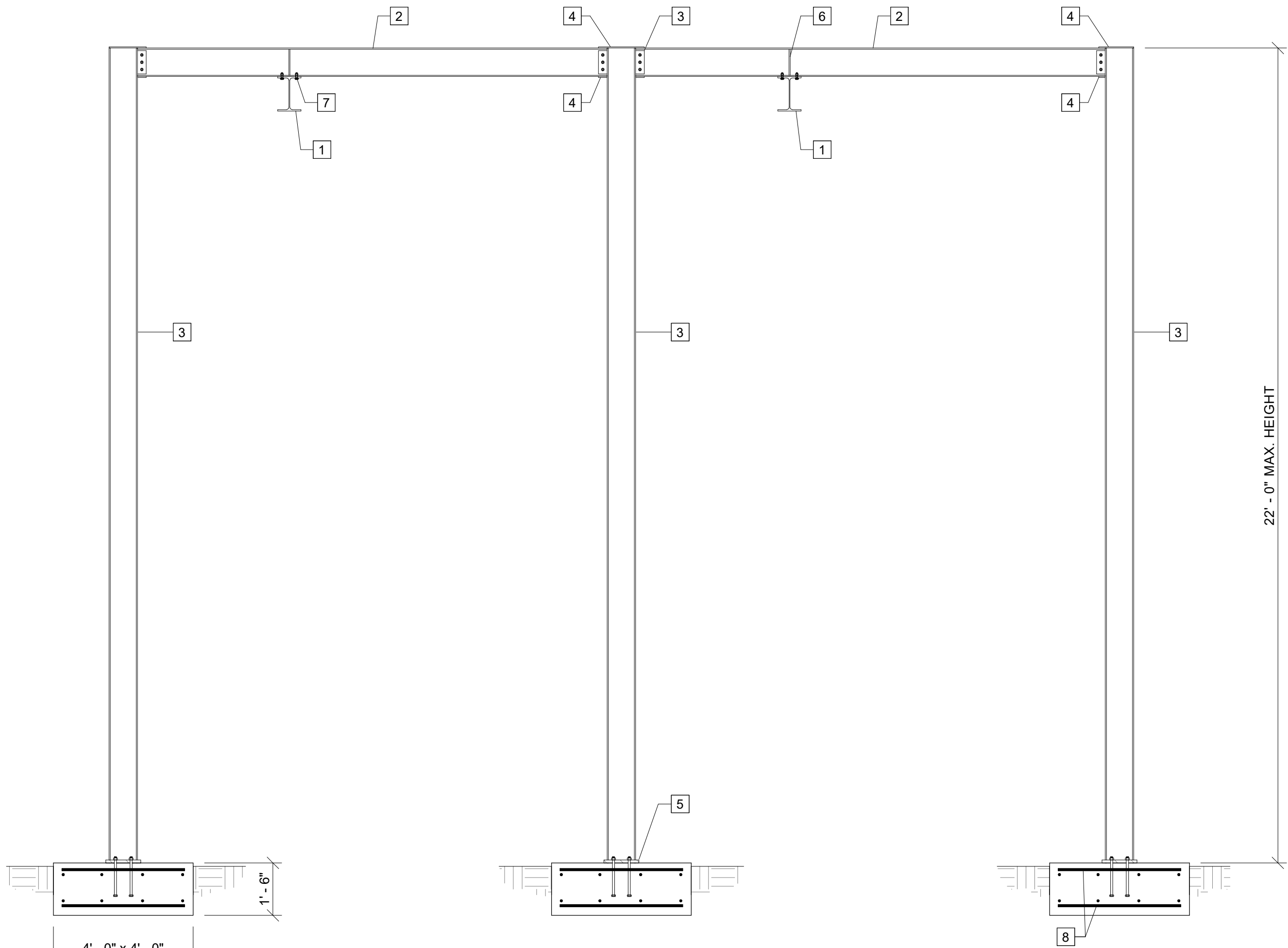
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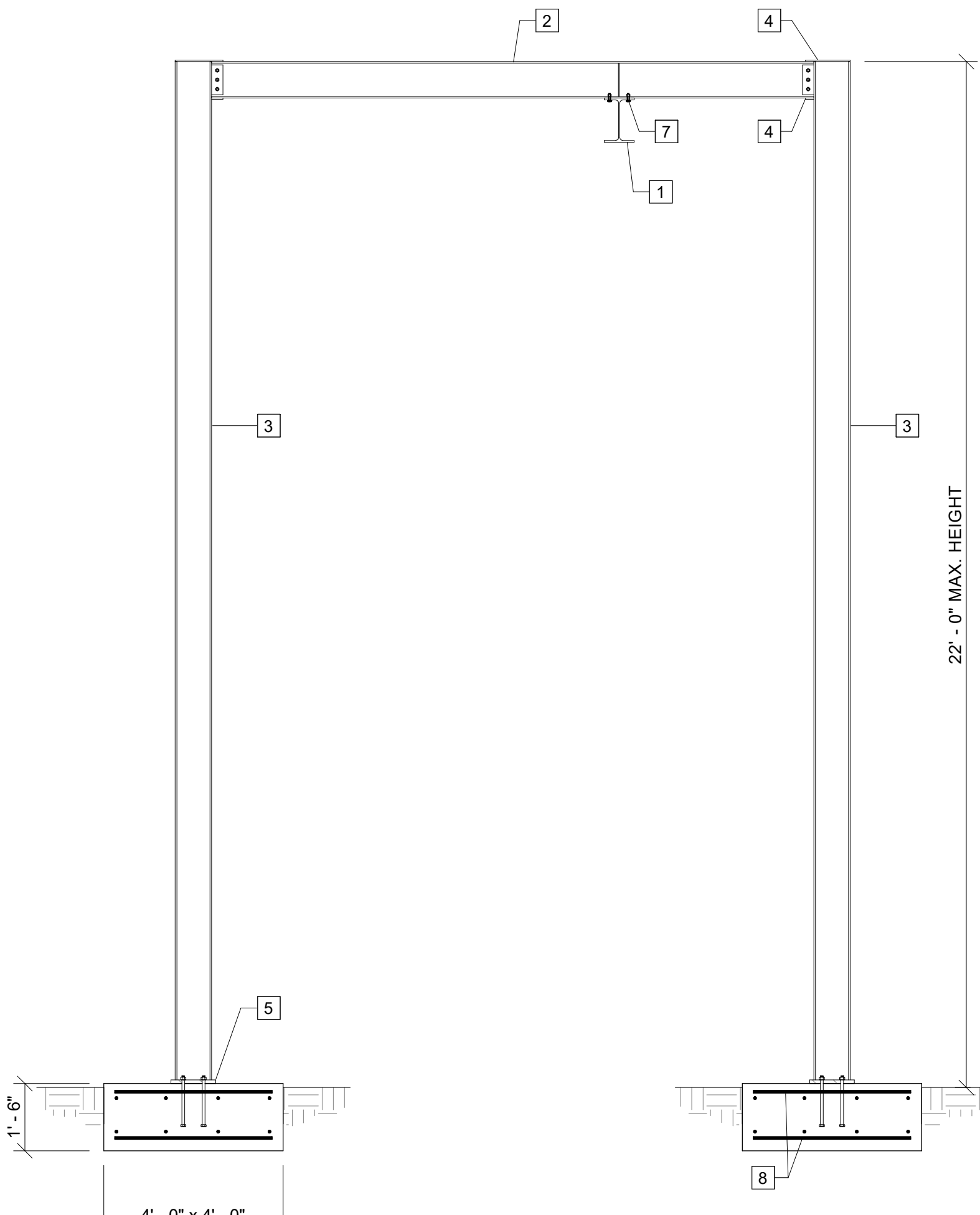
A ELEVATION
S-303 SCALE: 3/8" = 1'-0"



C ELEVATION
S-303 SCALE: 3/8" = 1'-0"



B ELEVATION
S-303 SCALE: 3/8" = 1'-0"



D ELEVATION
S-303 SCALE: 3/8" = 1'-0"

KEY NOTES: #

1. 316SS W12x40 TROLLEY BEAM
2. 316SS W10x30 TROLLEY SUPPORT BEAM
3. 316SS W8x21 TROLLEY SUPPORT COLUMN
4. WELD PL 3/8" x 3" x 0'-6"
5. BASE PL 1" x 12" x 1'-0" w/ (4) 3/4" DIA. x 1'-0" H.S. ANCHORS
6. 3/8" WEB STIFFENERS @ BEAM ATTACHMENT
7. (4) 1/2" DIA. THRU-BOLTS
8. (4) #6 EACH WAY TOP & BOTTOM



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ORBAL AERATION -
TROLLEY ELEVATIONS

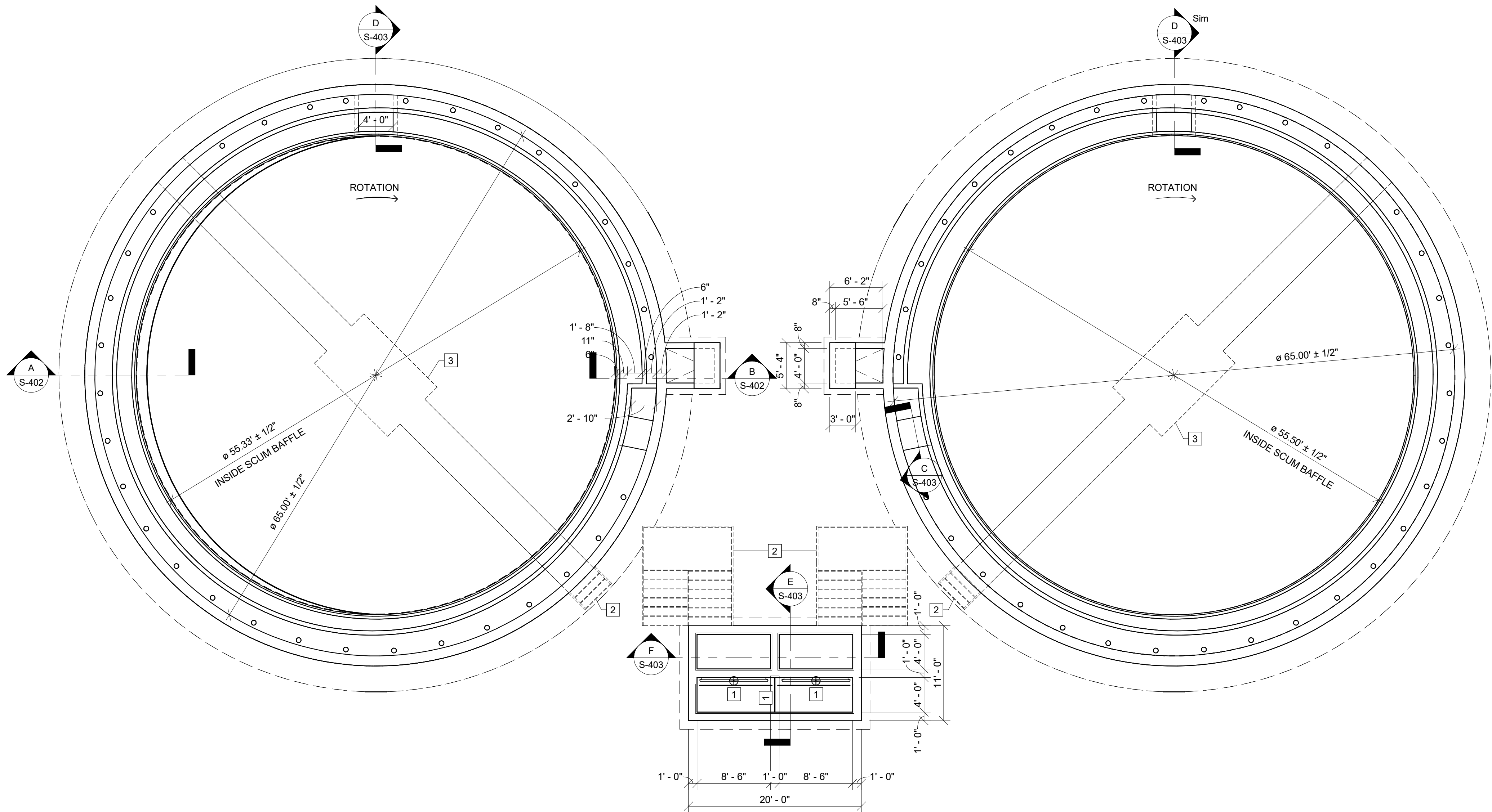
S-311

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3/7/2025 9:36:59 AM



1
S-401

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



KEY NOTES: #

- 6061-T6 ALUMINUM WF8x10.7 GRATING SUPPORT BEAM
- PREFABRICATED STAIR BY OTHERS - SEE PROCESS
- CLARIFIER EQUIPMENT & ACCESS WALK BY OTHERS - SEE PROCESS



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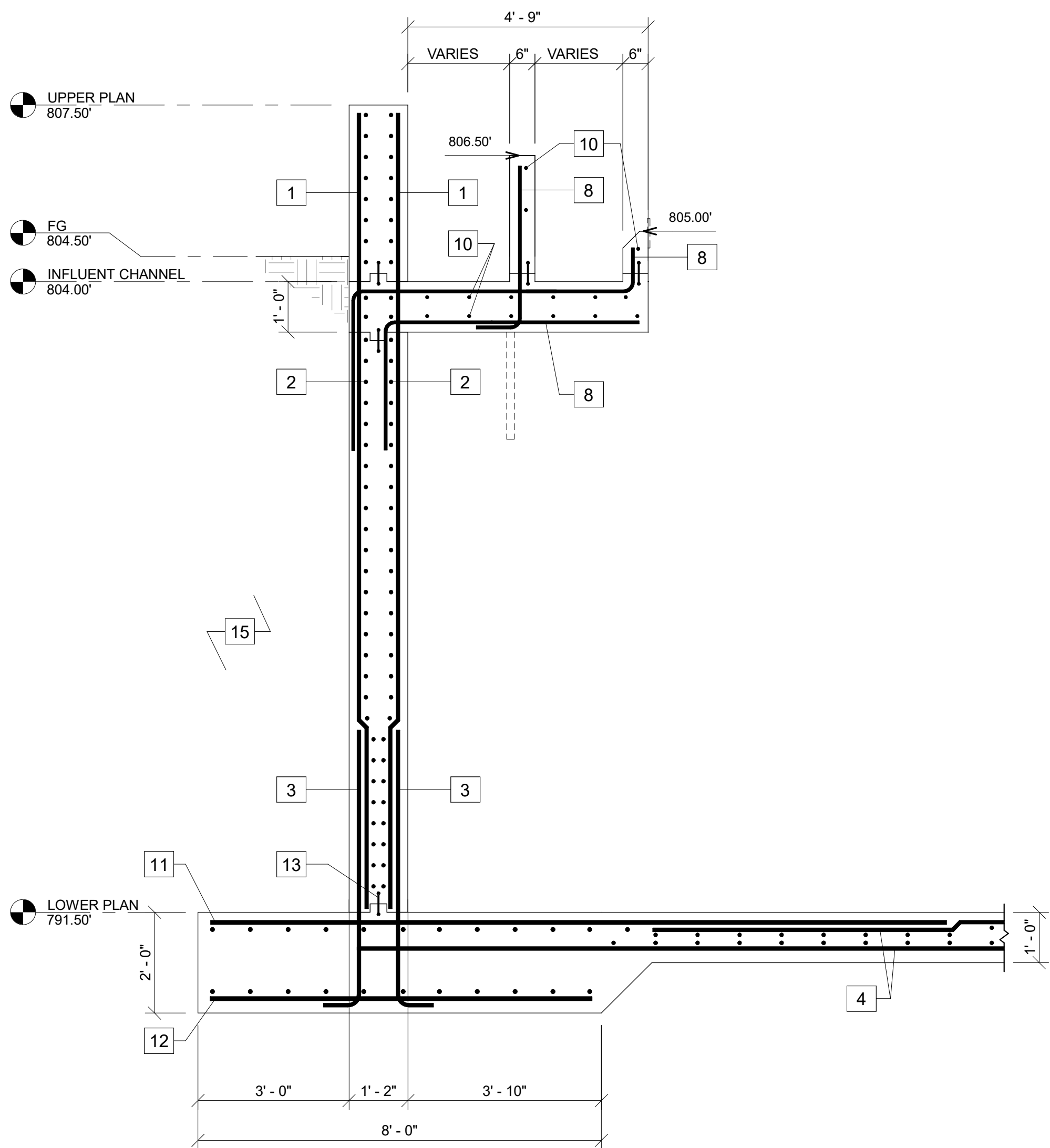
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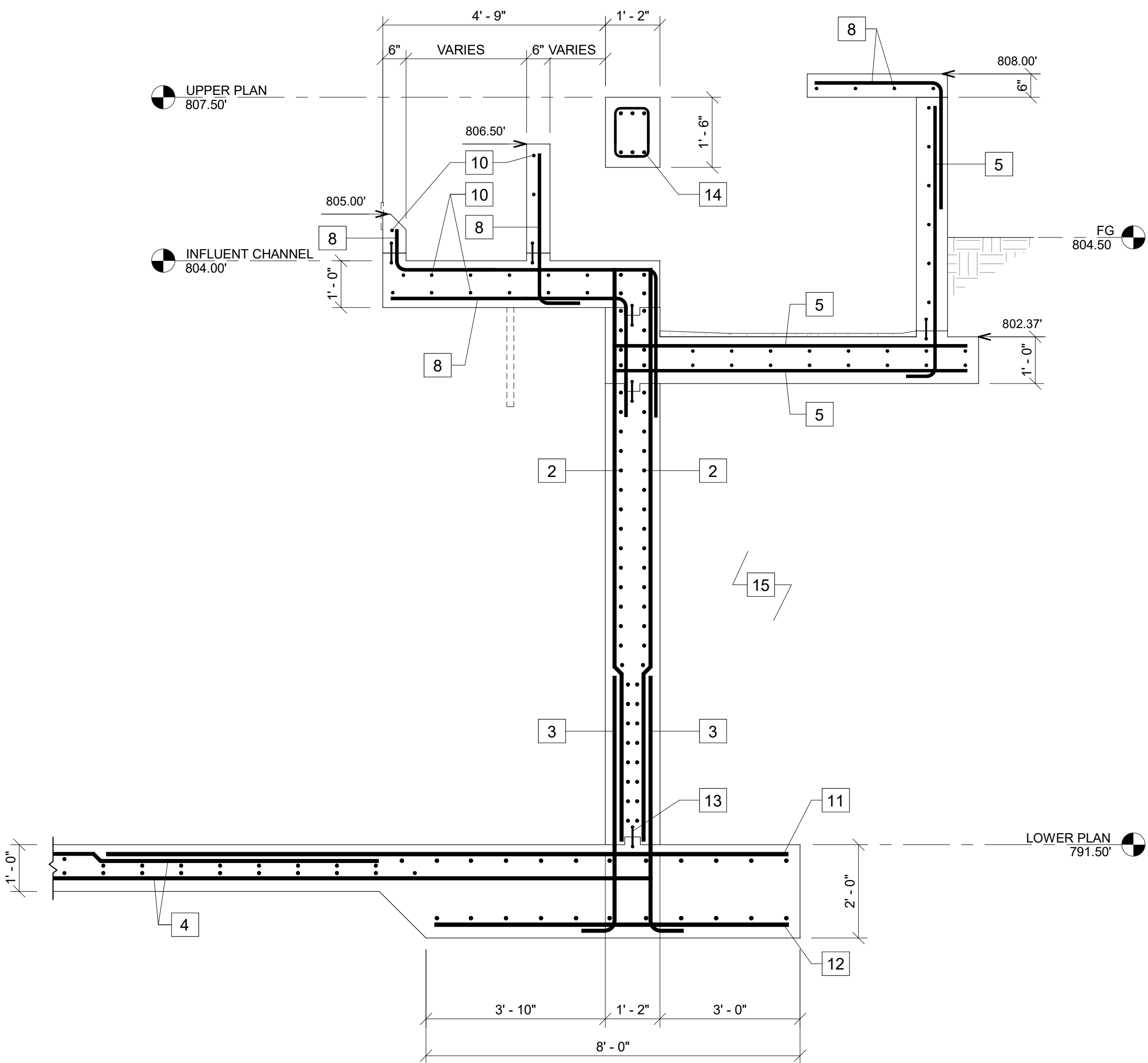
**CLARIFIERS & SPLITTER
BOX - UPPER PLAN**

S-401

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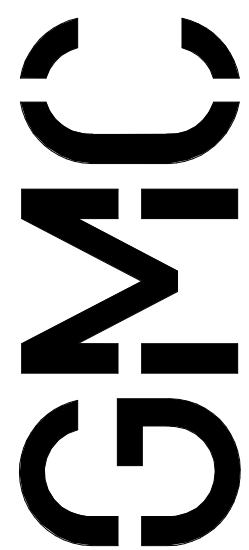
A SECTION
S-401 SCALE: 1/2" = 1'-0"



B SECTION
S-401 SCALE: 1/2" = 1'-0"

KEY NOTES: #

- #6 VERTICAL @ 10" MAX. O.C.
- #6 HORIZONTAL RADIUSED BARS @ 5" MAX. O.C.
- DOWELS SAME SIZE AND SPACING AS VERTICAL REINFORCING
- #6 @ 10" MAX. O.C. EACH WAY
- #5 @ 10" MAX. O.C. EACH WAY
- #5 VERTICAL @ 10" MAX. O.C.
- #5 HORIZONTAL @ 5" MAX. O.C.
- #5 BENT BAR @ 10" MAX. O.C.
- (5) #5 CONTINUOUS
- #5 RADIUSED BARS @ 10" MAX. O.C.
- (12) #7 RADIUSED BARS EQ. SPACED w/ #7 RADIAL @ 10" O.C. (MEASURED AT CENTERLINE OF WALL)
- (11) #7 RADIUSED BARS EQ. SPACED w/ #7 RADIAL @ 10" O.C. (MEASURED AT CENTERLINE OF WALL)
- 6" PVC WATERSTOP - TYPICAL
- (3) #5 CONT. T&B w/ #3 STIRRUPS @ 5" MAX. O.C.
- BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER



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ISSUE	DATE
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Designer:	TS
Drawn By:	JD

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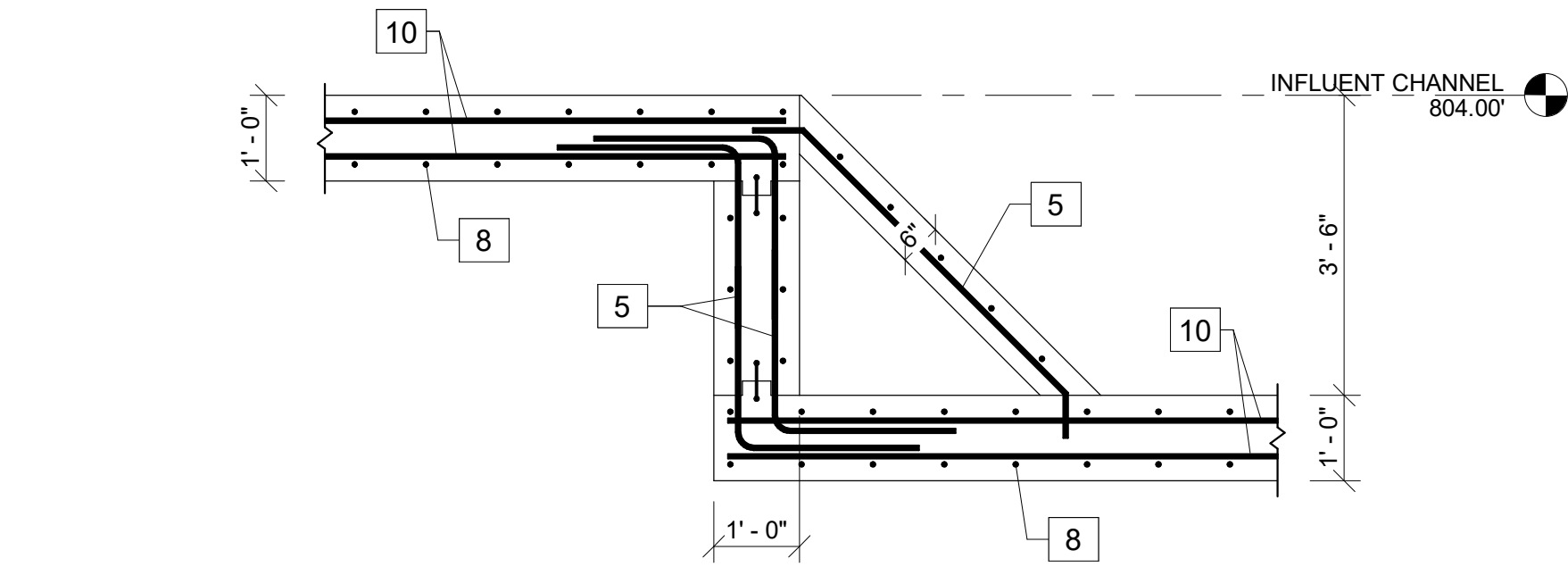
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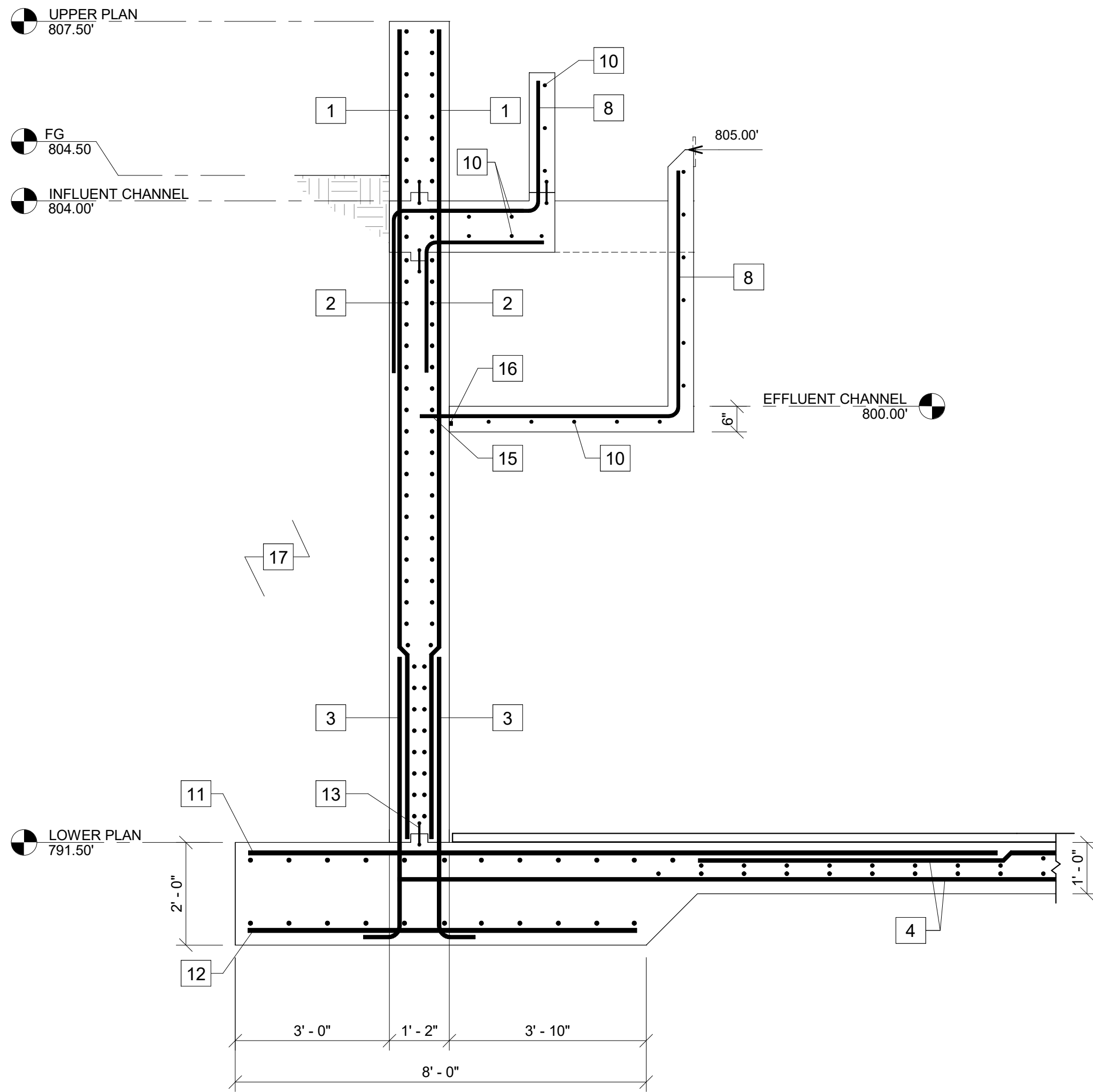
CLARIFIERS -
SECTIONS

S-402

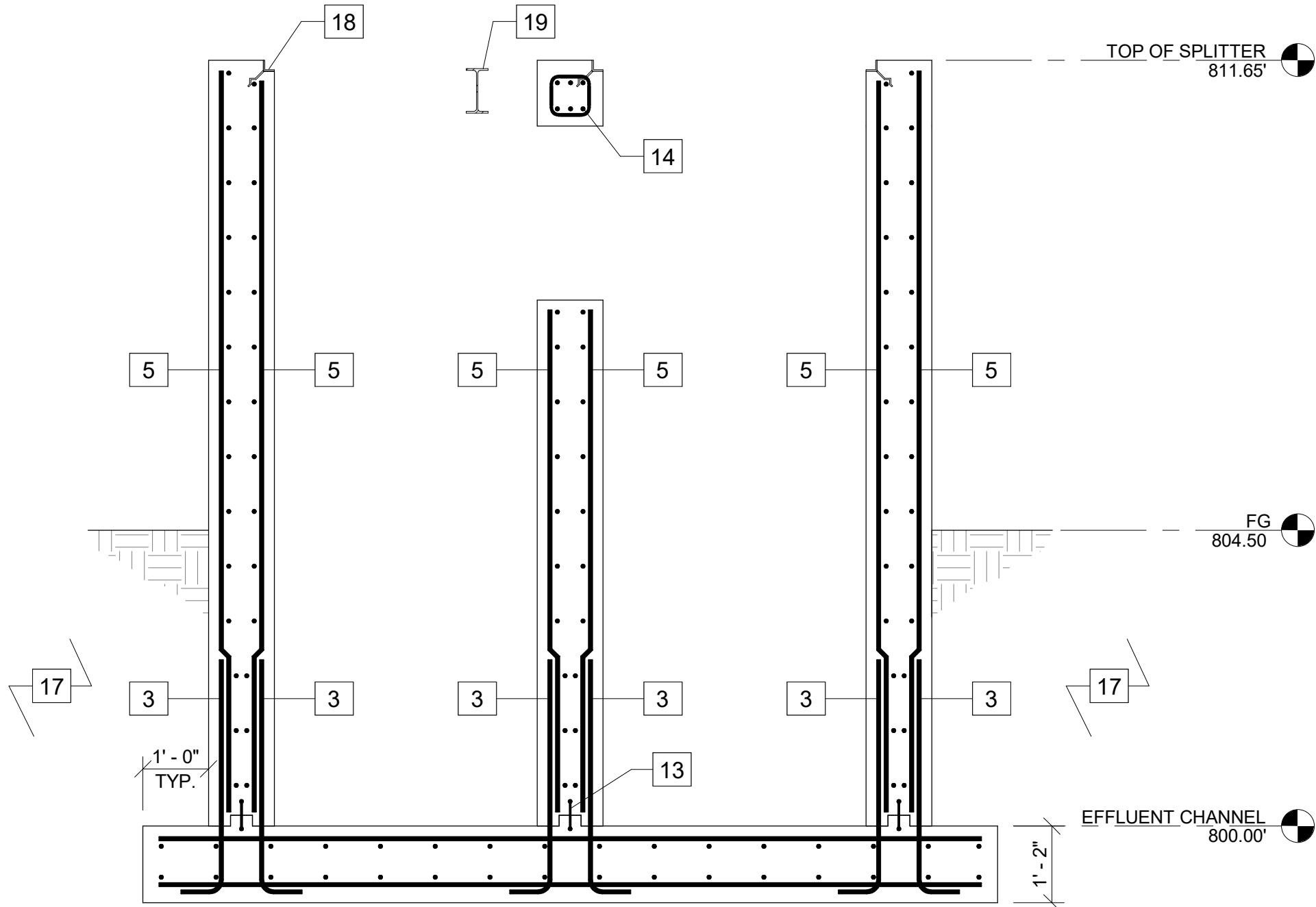
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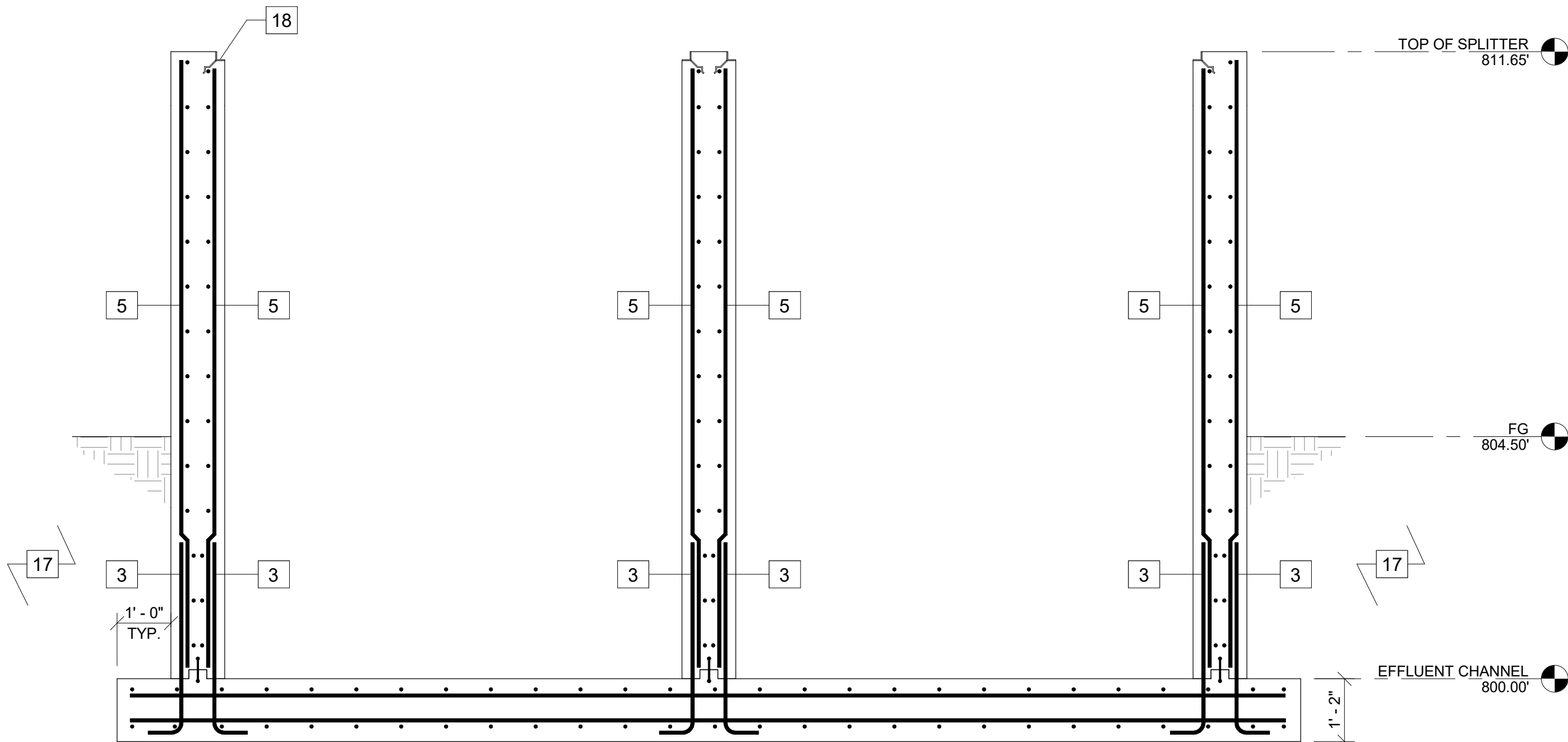
C SECTION
S-401 SCALE: 1/2" = 1'-0"



D SECTION
S-401 SCALE: 1/2" = 1'-0"



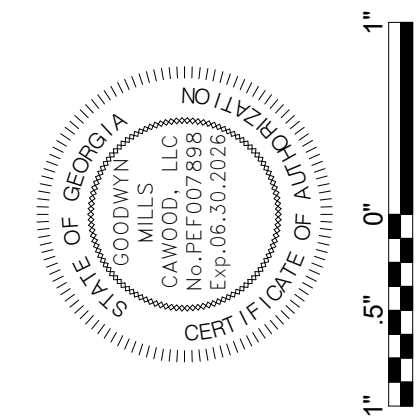
E SECTION
S-401 SCALE: 1/2" = 1'-0"



F SECTION
S-401 SCALE: 1/2" = 1'-0"

- KEY NOTES:**
- #6 VERTICAL @ 10" MAX. O.C.
 - #6 HORIZONTAL RADIUSED BARS @ 5" MAX. O.C.
 - DOWELS SAME SIZE AND SPACING AS VERTICAL REINFORCING
 - #6 @ 10" MAX. O.C. EACH WAY
 - #5 @ 10" MAX. O.C. EACH WAY
 - #5 VERTICAL @ 10" MAX. O.C.
 - #5 HORIZONTAL @ 5" MAX. O.C.
 - #5 BENT BAR @ 10" MAX. O.C.
 - (5) #5 CONTINUOUS
 - #5 RADIUSED BARS @ 10" MAX. O.C.
 - (12) #7 RADIUSED BARS EQ. SPACED w/ #7 RADIAL @ 10" O.C. (MEASURED AT CENTERLINE OF WALL)
 - (11) #7 RADIUSED BARS EQ. SPACED w/ #7 RADIAL @ 10" O.C. (MEASURED AT CENTERLINE OF WALL)
 - 6" PVC WATERSTOP - TYPICAL
 - (3) #5 CONT. T&B w/ #3 STIRRUPS @ 5" MAX. O.C.
 - DRILL & EPOXY BARS INTO WALL 6" MINIMUM
 - 5/8" x 1" BITUMINOUS WATERSTOP AT EFFLUENT CHANNEL
 - BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER
 - PREFABRICATED GRATING SEAT EMBED - TYPICAL
 - 6061-T6 ALUMINUM WF8x10.7 GRATING SUPPORT BEAM

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Drawn By:	JD

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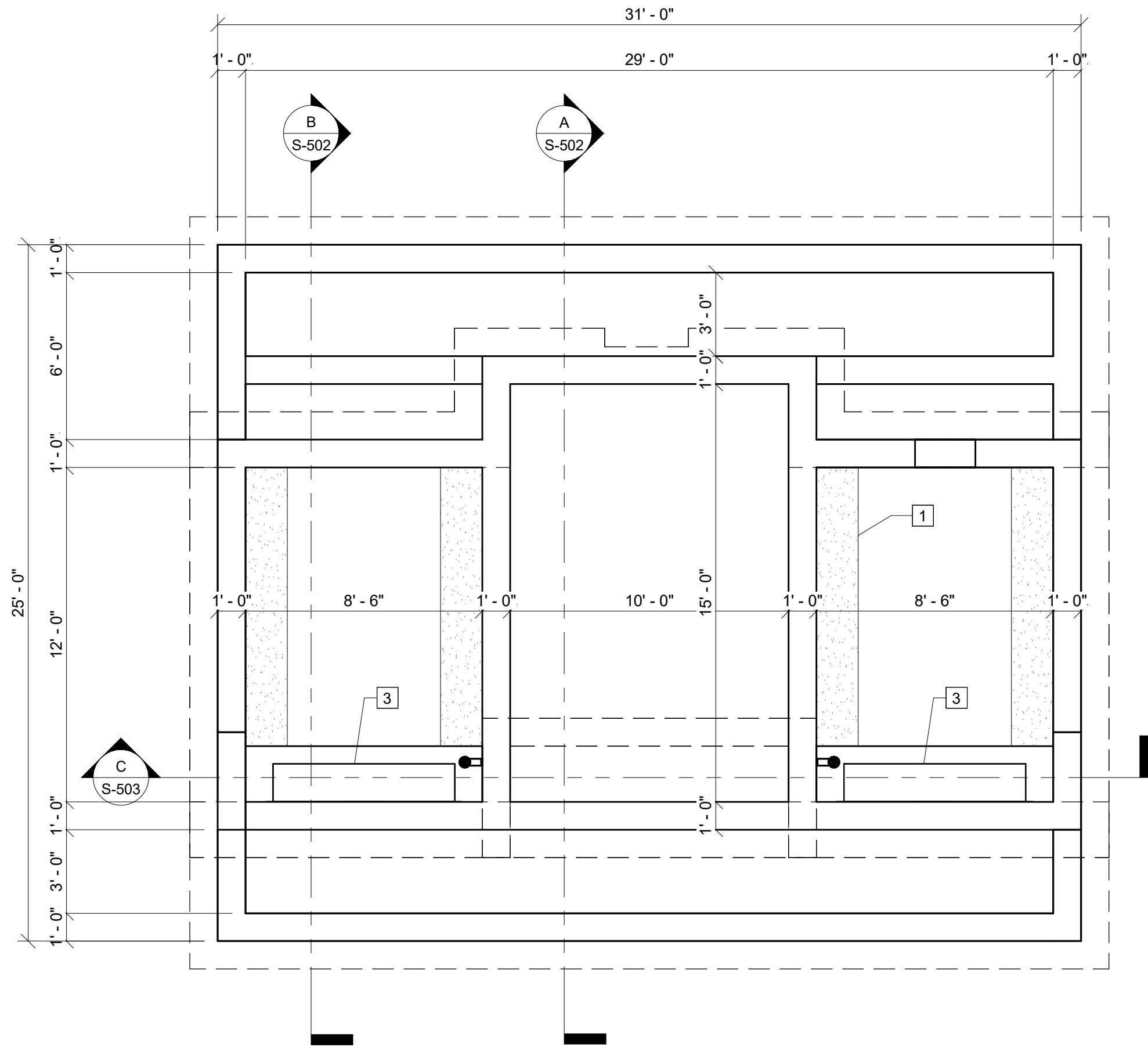
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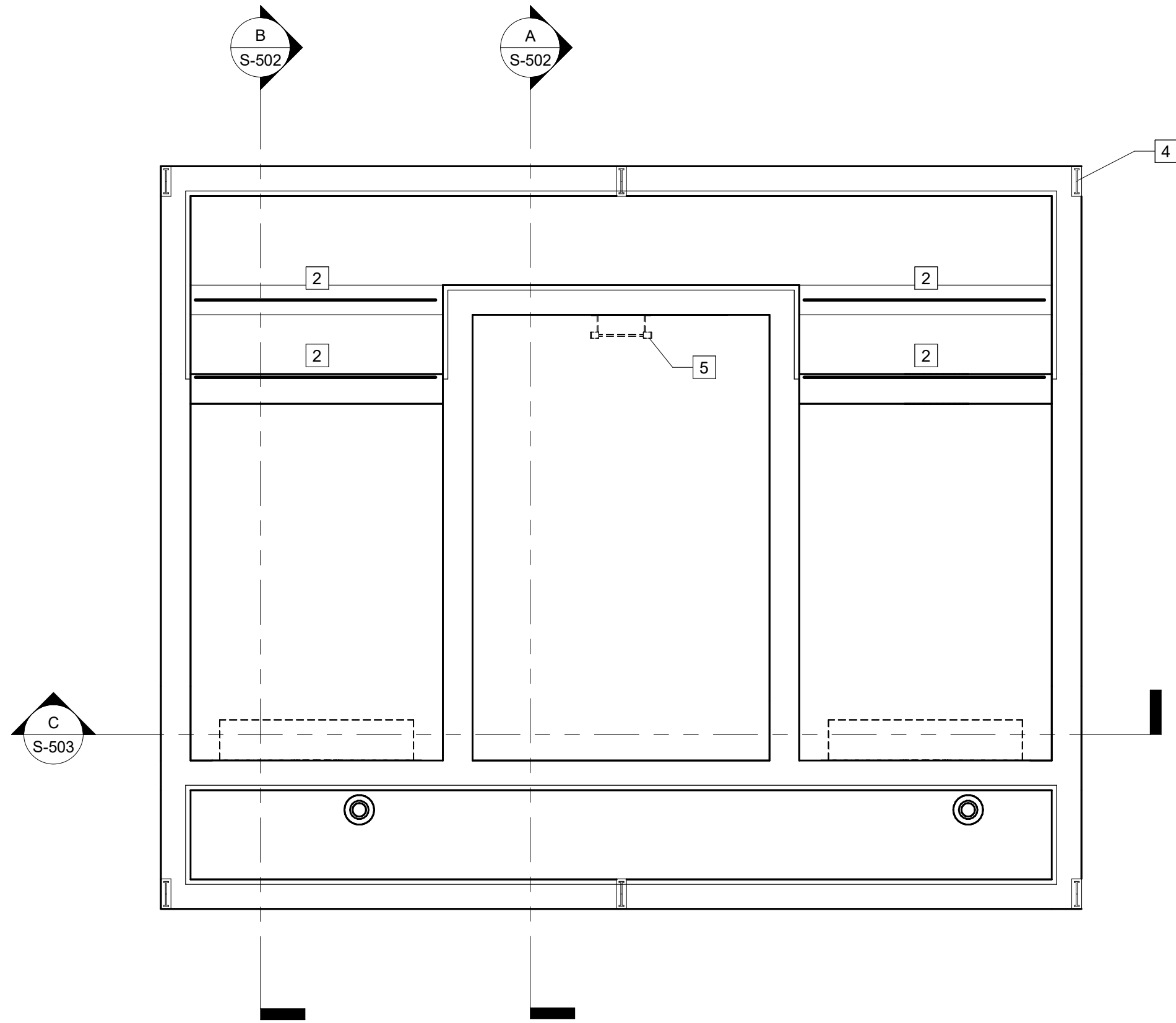
CLARIFIERS & SPLITTER
BOX - SECTIONS

S-403

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3/19/2025 8:12:25 AM



1 LOWER PLAN
S-501 SCALE: 1/4" = 1'-0"



2 UPPER PLAN
S-501 SCALE: 1/4" = 1'-0"

KEY NOTES: #

1. SLOPED GROUT FILL - SEE PROCESS
2. 6061-T6 ALUMINUM WF8x10.7 GRATING SUPPORT BEAM
3. PREFABRICATED WEIR BOX - SEE PROCESS
4. PREFABRICATED CANOPY COLUMN - SEE PROCESS
5. PREFABRICATED STEEL LADDER - SEE PROCESS

**TERTIARY FILTERS -
PLANS**

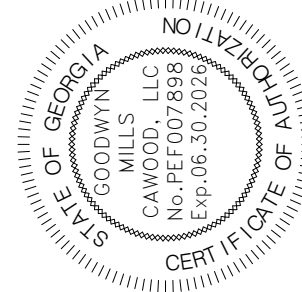
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Conformed Set	
Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD



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14

15

16

KEY NOTES:

1. #7 @ 12" MAX. O.C. EACH WAY
2. #6 @ 12" MAX. O.C. EACH WAY
3. DOWELS SAME SIZE AND SPACING AS VERTICAL REINFORCEMENT
4. 6061-T6 ALUMINUM WF8x10.7 GRATING SUPPORT BEAM
5. PREFABRICATED GRATING SEAT EMBED
6. 6" PVC WATERSTOP - TYPICAL
7. BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER
8. PREFABRICATED WEIR BOX - SEE PROCESS
9. PREFABRICATED WEIR - SEE PROCESS
10. 6061-T6 ALUMINUM WF8x10.7 GRATING SUPPORT BEAM

**TERTIARY FILTERS -
SECTIONS**

S-502

**COMMERCE 2.0 MGD
GROVE CREEK WPCP
COMMERCE, GA**

GMC PROJECT #CATL230033

ISSUE

DATE

90% Submittal 11/27/24

Bid Set 03/19/25

Confirmed Set

Project Manager: GS

Engineer: JD

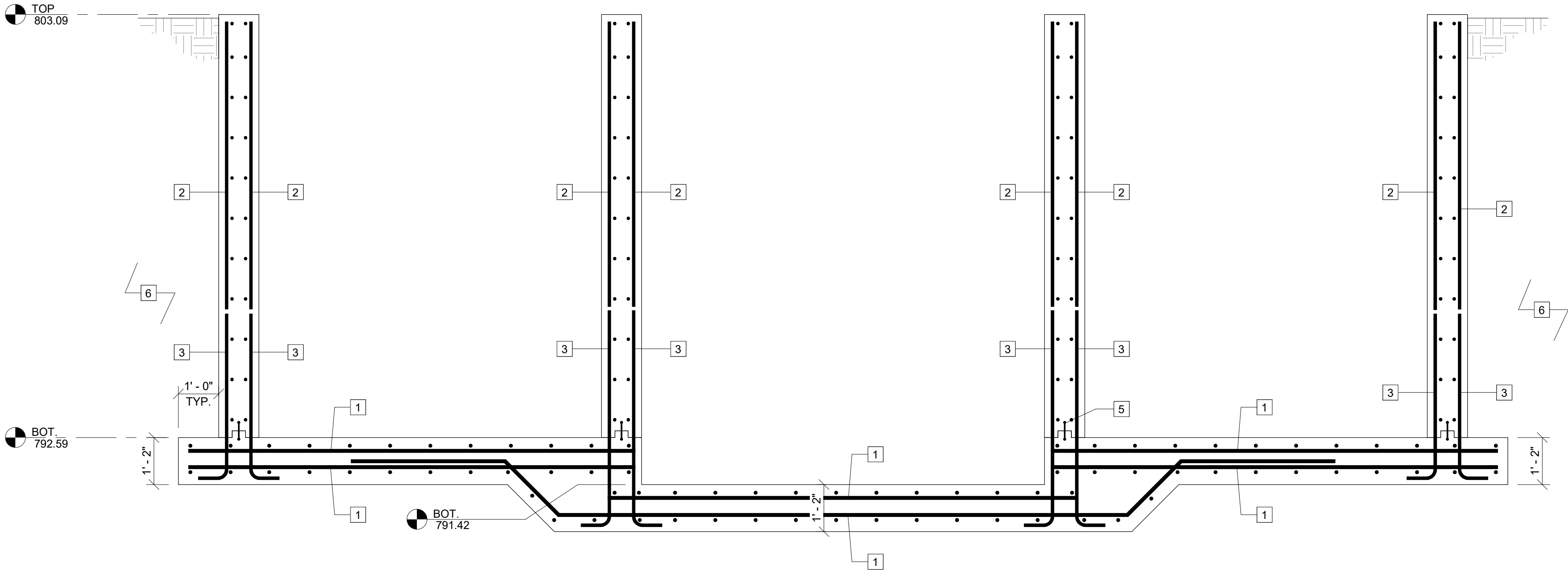
Designer: TS

Drawn By: JD

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C SECTION
S-501 SCALE: 1/2" = 1'-0"

KEY NOTES: #

1. #7 @ 12" MAX. O.C. EACH WAY
2. #6 @ 12" MAX. O.C. EACH WAY
3. DOWELS SAME SIZE AND SPACING AS VERTICAL REINFORCEMENT
4. PREFABRICATED GRATING SEAT EMBED
5. 6" PVC WATERSTOP - TYPICAL
6. BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER



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Bid Set	03/19/25
Conformed Set	
Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD

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GROVE CREEK WPCP
COMMERCE, GA

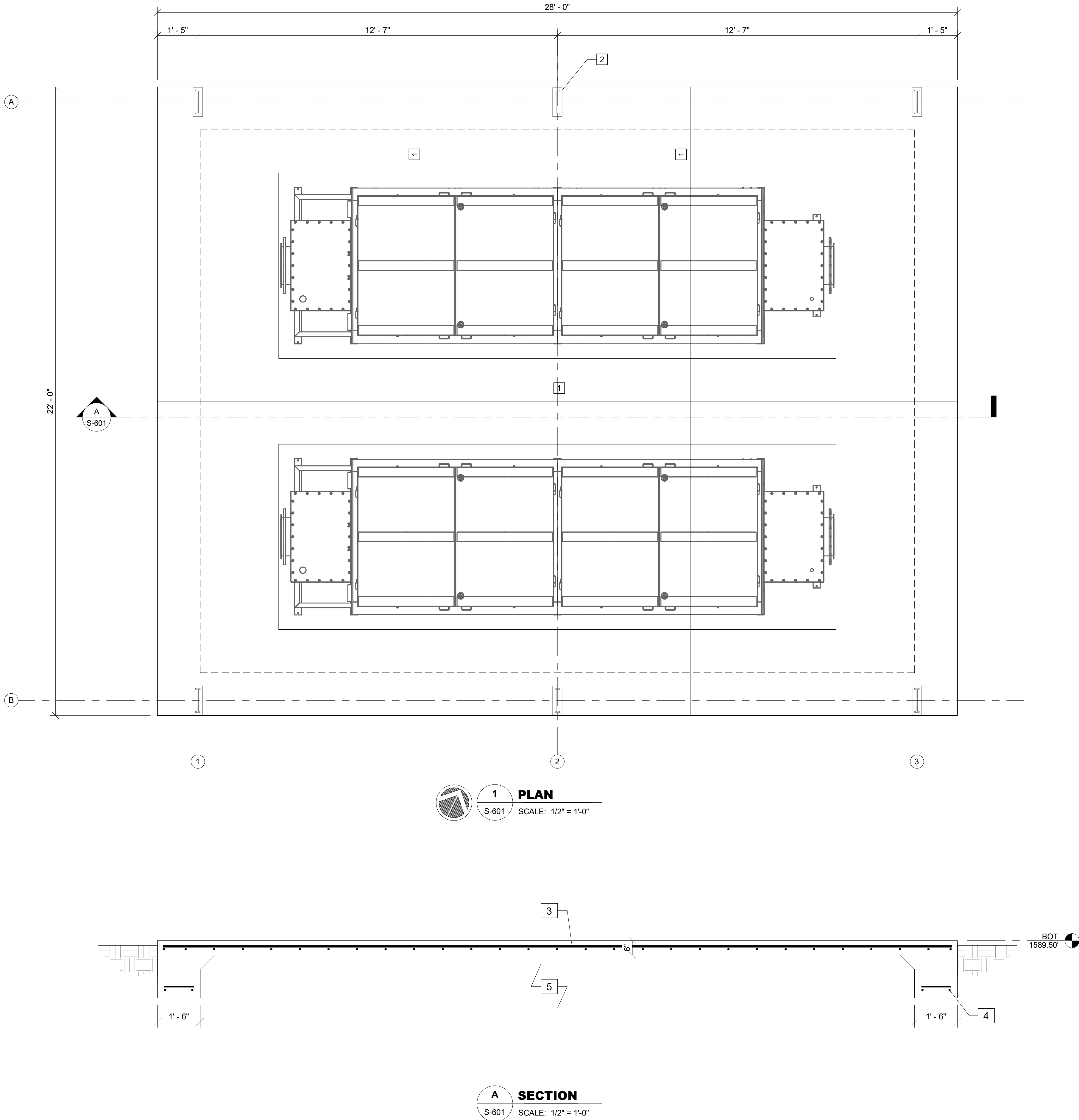
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TERTIARY FILTERS -
SECTIONS

S-503

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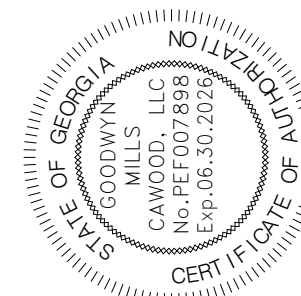


KEY NOTES: #

1. CONTROL JOINT
2. PREFABRICATED CANOPY COLUMN - SEE PROCESS
3. #5 @ 12" MAX. O.C. EACH WAY - CENTERED IN SLAB
4. (2) #5 CONTINUOUS W/ #3 TRANSVERSE @ 24" O.C.
5. BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER.

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GMC PROJECT #CATL230033



ULTRAVIOLET
DISINFECTION - PLAN
AND SECTION

S-601



PLANT REUSE WATER PUMP STATION AND POST AERATION - LOWER PLAN

S-611

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ISSUE	DATE
90% Submittal	11/27/24
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Conformed Set	
Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD



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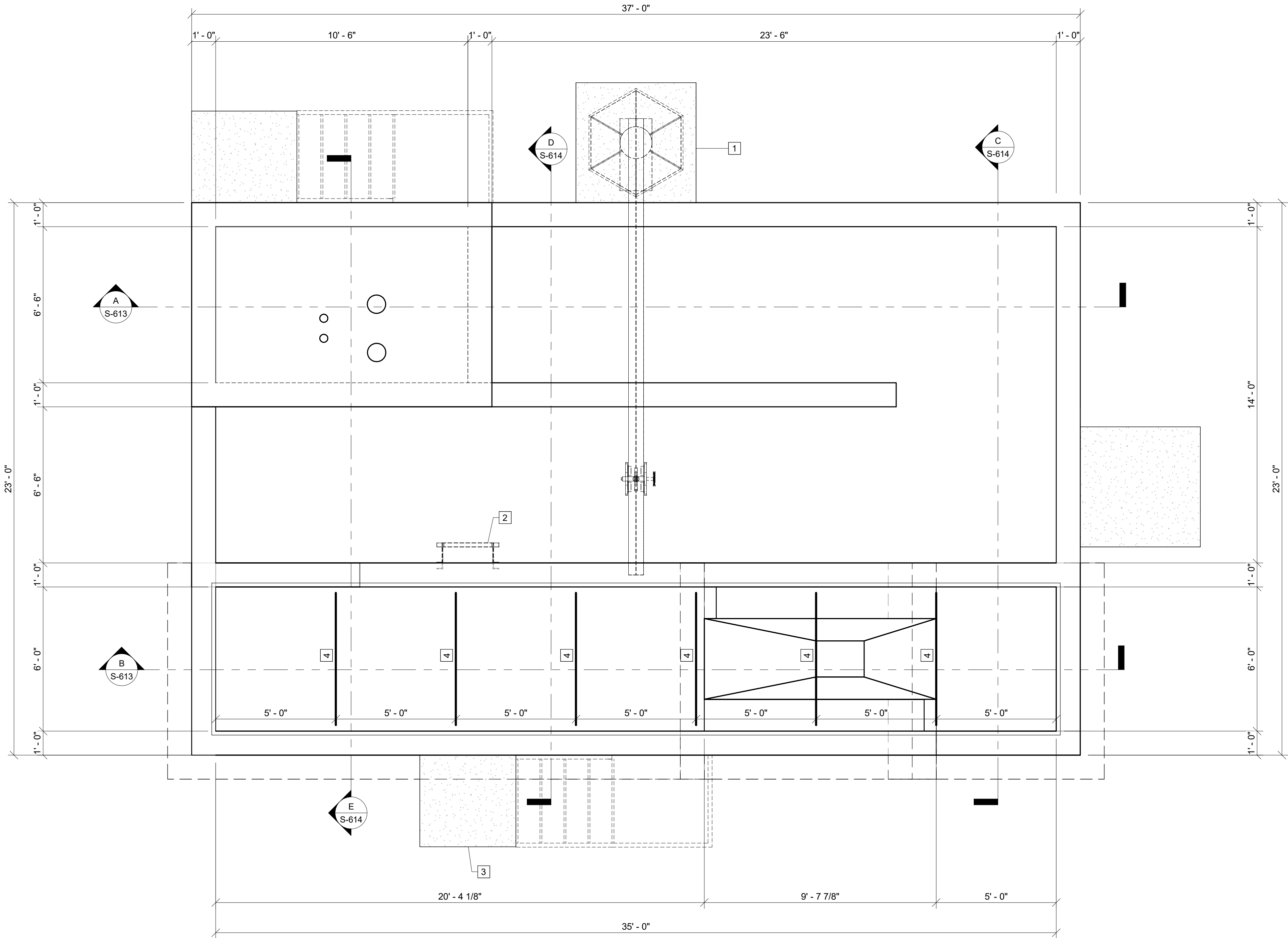
6120 Powers Ferry Road NW, Suite
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1
S-612

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



KEY NOTES: #

1. PREFABRICATED JIB CRANE - SEE PROCESS
2. PREFABRICATED LADDER - SEE PROCESS
3. CONCRETE PAD - SEE CIVIL
4. 6061-T6 ALUMINUM W8x5.9 GRATING SUPPORT BEAM

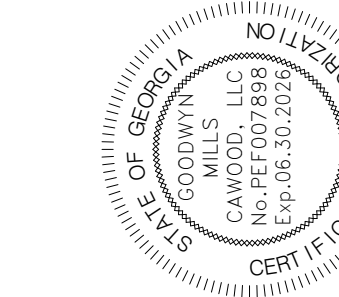
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COMMERCE, GA

GMC PROJECT #CATL230033



**PLANT REUSE WATER
PUMP STATION AND
POST AERATION -
UPPER PLAN**

S-612

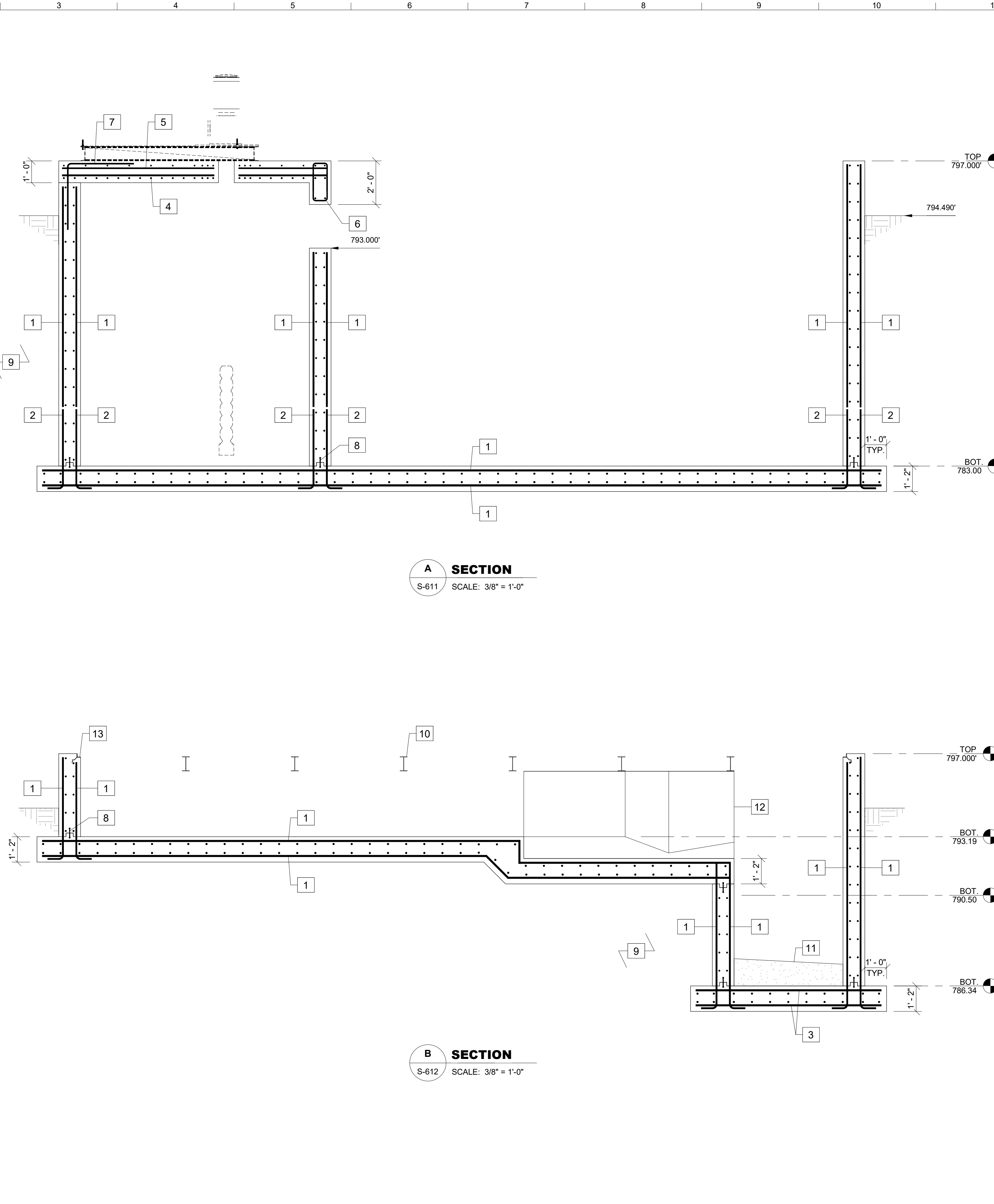
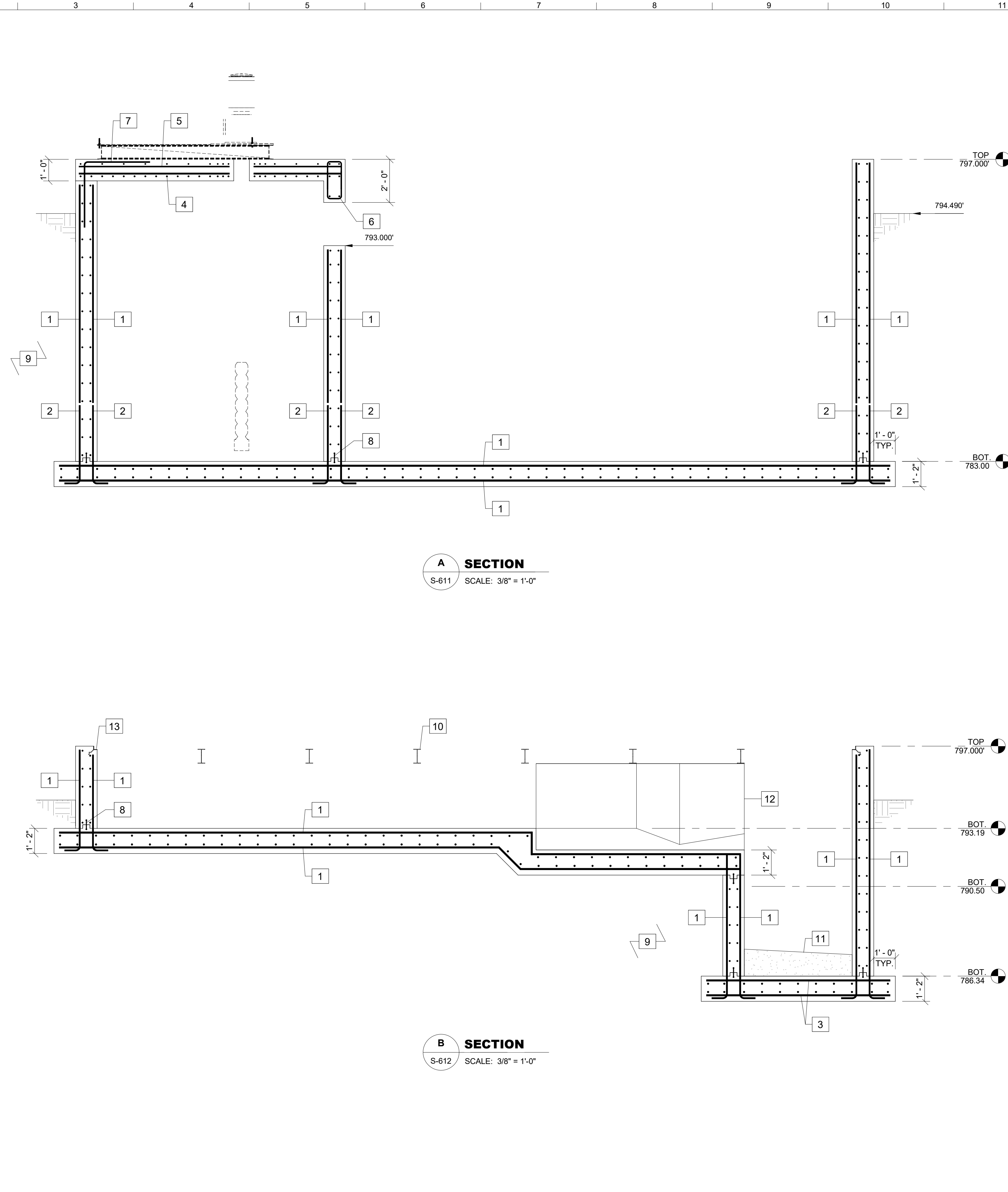


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Conformed Set	
Project Manager:	GS
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Designer:	TS
Drawn By:	JD



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13

KEY NOTES:

#

1. #6 @ 10" MAX. O.

2. DOWELS SAME AS

3. PREFABRICATED

4. #5 @ 6" O.C. SH

5. #4 @ 12" O.C. EA

6. (2) #5 TOP AND B

7. #4 x 3'-0" BENT B

8. 6" PVC WATERST

9. BACKFILL, DRAIN

REQUIRED BY GI

10. GRATING SUPPO

11. GROUT FILL - SE

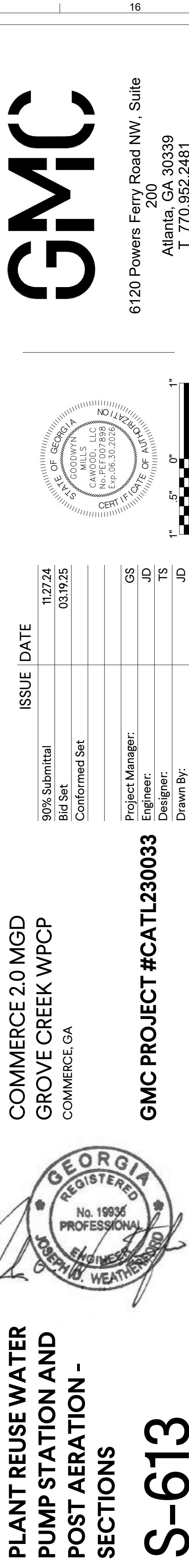
12. FLUME - SEE PR

- 13

14

KEY NOTES: #

 1. #6 @ 10" MAX. O.C. EACH WAY
 2. DOWELS SAME SIZE AND SPACING AS VERTICAL REINFORCING
 3. PREFABRICATED GRATING SEAT EMBED - TYPICAL
 4. #5 @ 6" O.C. SHORT DIRECTION, 12" O.C. LONG DIRECTION
 5. #4 @ 12" O.C. EACH WAY
 6. (2) #5 TOP AND BOTTOM w/ #3 STIRRUPS @ 6" MAX. O.C.
 7. #4 x 3'-0" BENT BAR @ 12" MAX. O.C.
 8. 6" PVC WATERSTOP - TYPICAL
 9. BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER
 10. GRATING SUPPORT BEAM - SEE PLAN
 11. GROUT FILL - SEE PROCESS
 12. FLUME - SEE PROCESS



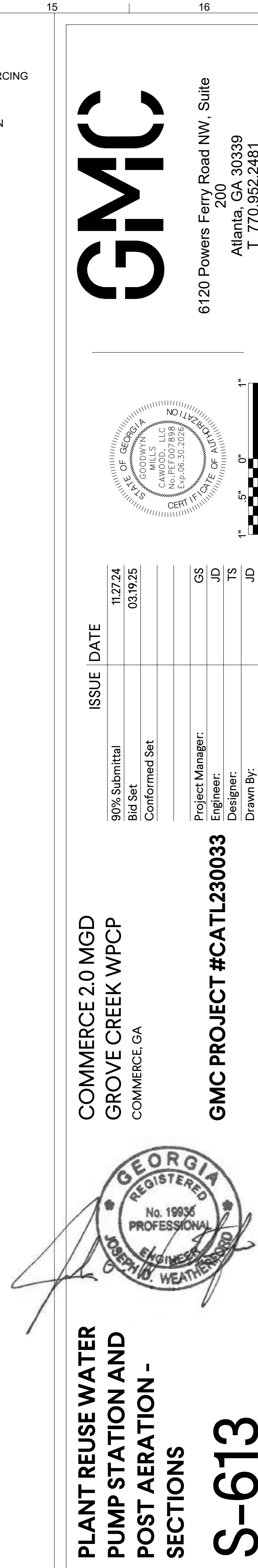
**PLANT REUSE WATER
PUMP STATION AND
BOST AERATION**

**COMMERCE 2.0 MGD
GROVE CREEK WPCP
COMMERCE, GA**

ISSUE	DATE
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 Project Manager: _____ GS
 Engineer: _____ JD
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 1000 N. WILSON AVE., SUITE 200
 CHICAGO, IL 60642
 TEL: 312.280.1000 FAX: 312.280.1001
 WWW.COMMERCIALENGRCHG.COM

SEAL: COMMERCIAL ENGINEER
 No. 1937
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF ILLINOIS
 EXPIRATION DATE: 12/31/2028

PROJECT: PLANT REUSE WATER PUMP STATION AND POST AERATION - SECTIONS
LOCATION: GROVE CREEK WPCC
 COMMERCIAL, GA

SHEET NO. 1 OF 1

S-613

GMC PROJECT #CATL230033

Project Manager: JD

Engineer: JD

Designer: TS

Drawn By: JD


200

Atlanta, GA 30339

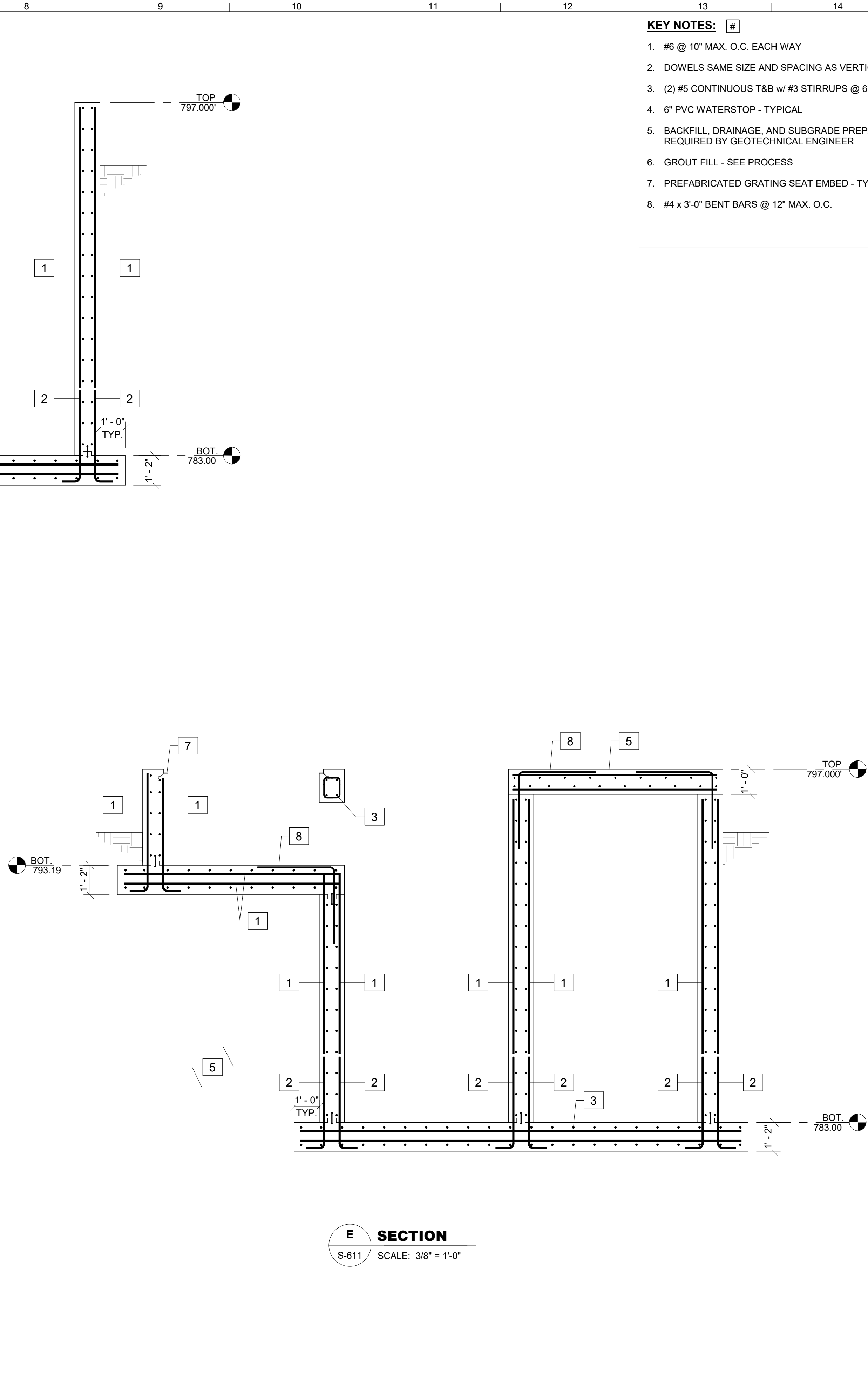
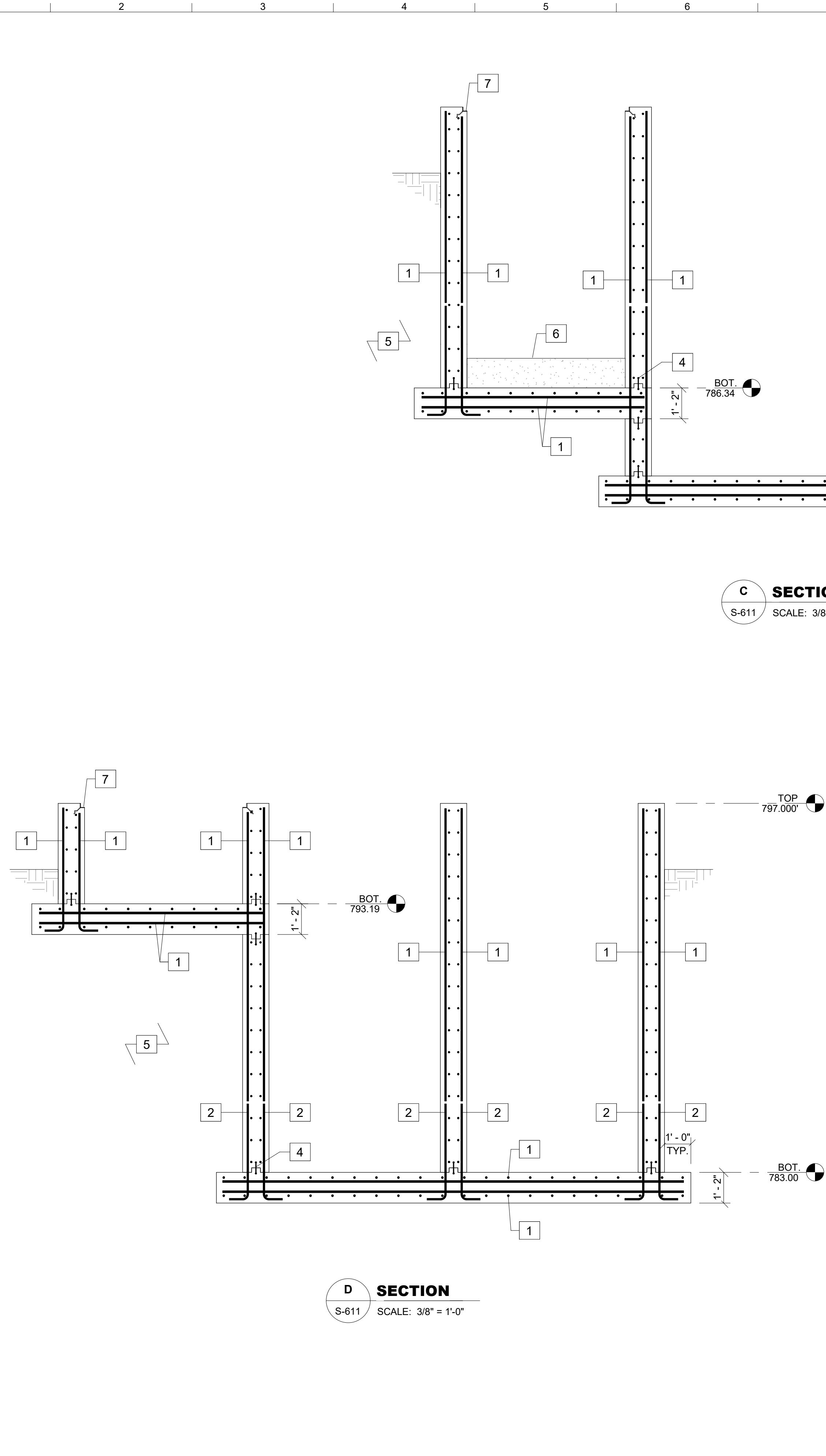
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1" = 5' 0"



- | 13 | 14 |
|--|-----------------|
| <u>KEY NOTES:</u> | <u>#</u> |
| 1. #6 @ 10" MAX. O.C. EACH WAY | |
| 2. DOWELS SAME SIZE AND SPACING AS VERTICAL REINFORCING | |
| 3. (2) #5 CONTINUOUS T&B w/ #3 STIRRUPS @ 6" MAX. O.C. | |
| 4. 6" PVC WATERSTOP - TYPICAL | |
| 5. BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER | |
| 6. GROUT FILL - SEE PROCESS | |
| 7. PREFABRICATED GRATING SEAT EMBED - TYPICAL | |
| 8. #4 x 3'-0" BENT BARS @ 12" MAX. O.C. | |

OT.
34





C

SECTION

S-611 SCALE: 3/8" = 1'-0"

E SECTION
S-611 SCALE: 3/8" = 1'-0"


PLANT REUSE WATER PUMP STATION AND POST AERATION - SECTIONS

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Project manager:	GS	JD	
Engineer:	JD	TS	
Designer:		JD	
Drawn By:		JD	

1" = 5' 0"




STATE OF GEORGIA
COUNTY OF FULTON

**PLANT REUSE WATER
PUMP STATION AND
BIOST AERATION**

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GROVE CREEK WPCP
COMMERCE, GA**

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CITY OF COMMERCE, GA


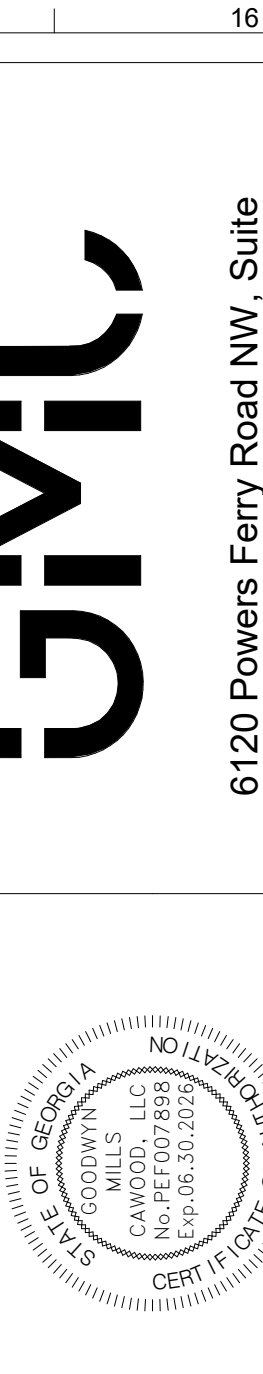
GMC PROJECT #CATL230033

Project manager:	GS
Engineer:	JD
Designer:	TS

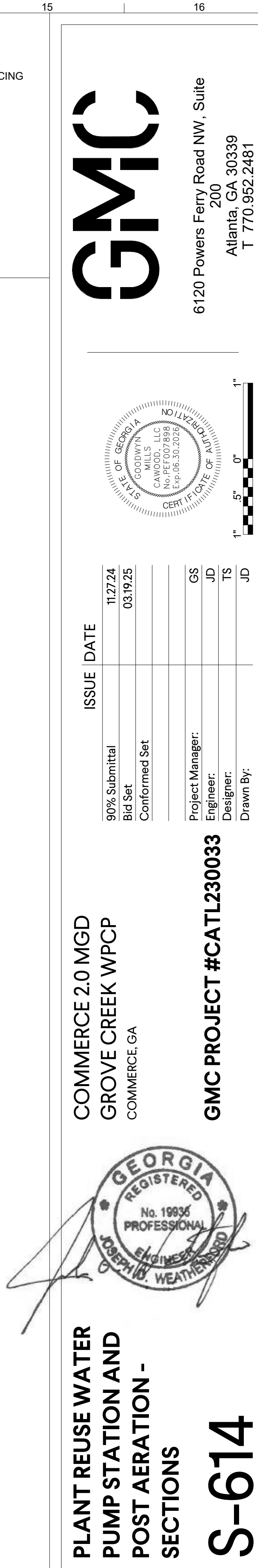
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Atlanta, GA 30320

DATE OF
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10/10/2023



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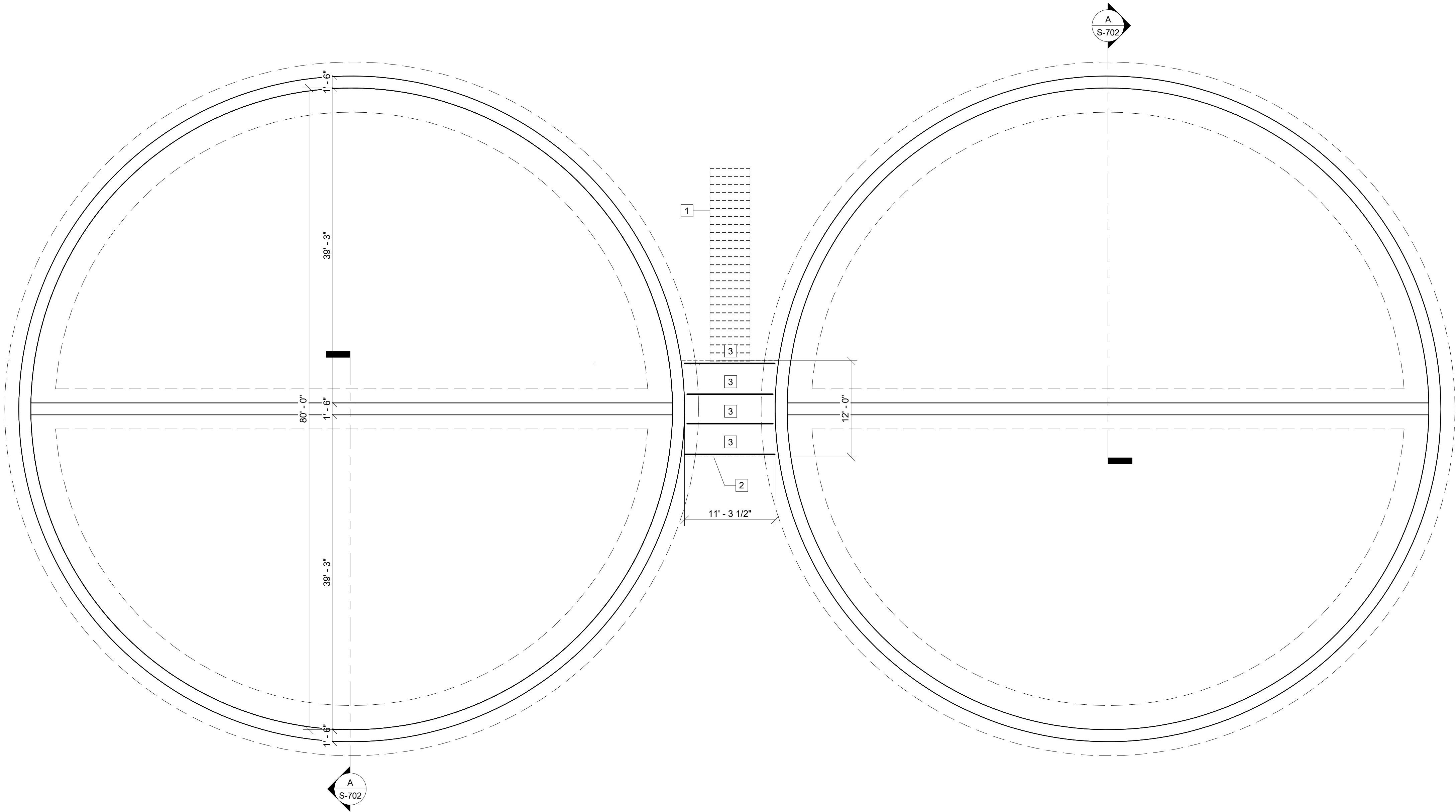
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1
S-701

PLAN

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



KEY NOTES: #

1. PREFABRICATED STAIR - SEE PROCESS
2. EXTENTS OF WALKWAY GRATING - SEE PROCESS
3. 6061-T6 ALUMINUM W14x16 GRATING SUPPORT BEAM

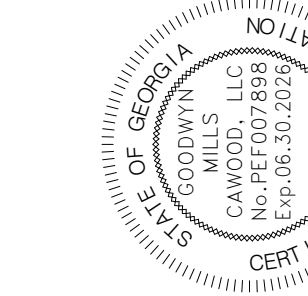
COMMERCE 2.0 MGD
GROVE CREEK WPCP
COMMERCE, GA

GMC PROJECT #CATL230033



**AEROBIC DIGESTERS -
PLAN**

S-701



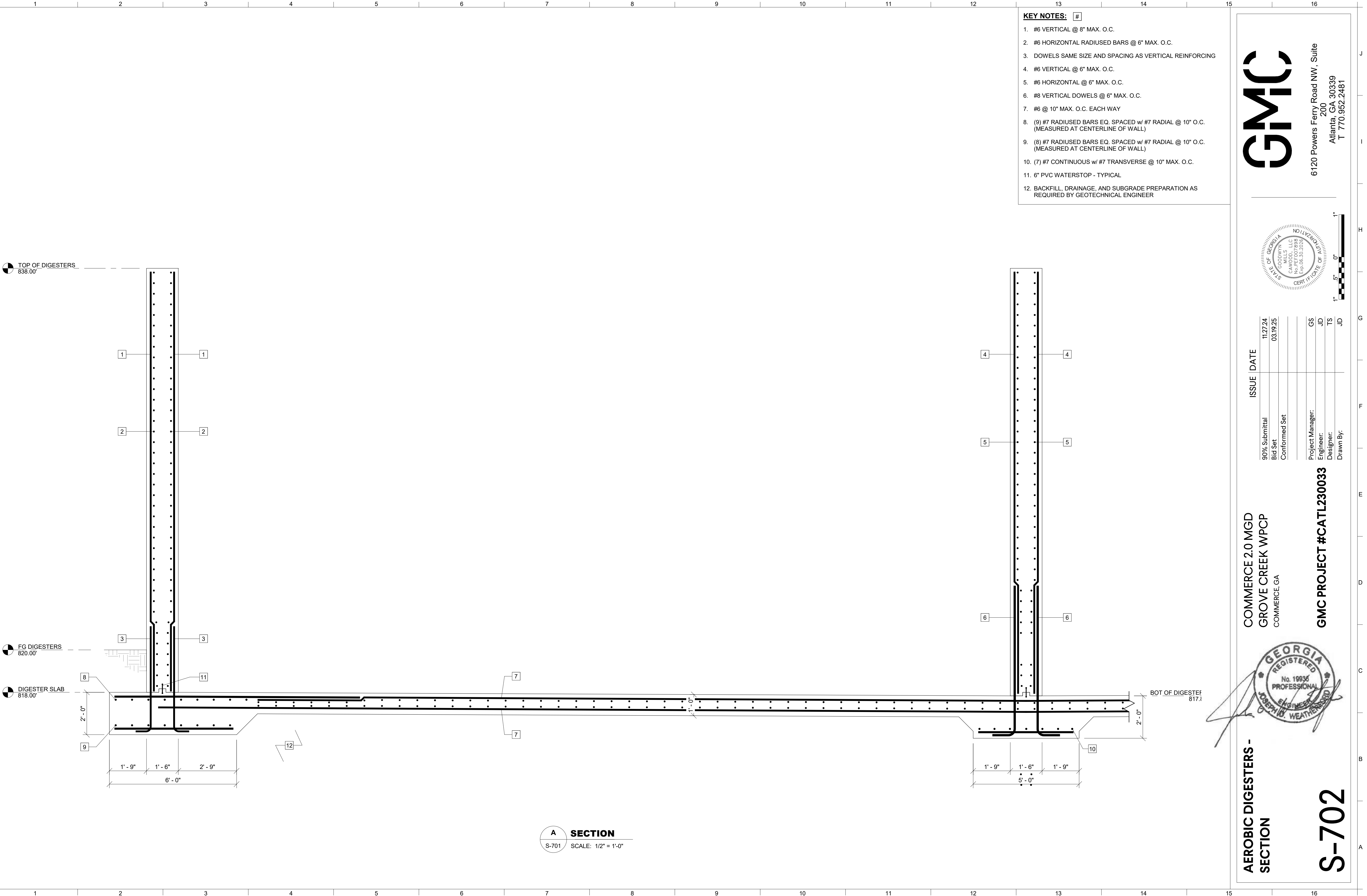
ISSUE	DATE
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Bid Set	03/19/25
Conformed Set	
Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD



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A SECTION
S-701 SCALE: 1/2" = 1'-0"

- KEY NOTES:** #
- #6 VERTICAL @ 8" MAX. O.C.
 - #6 HORIZONTAL RADIUS BARS @ 6" MAX. O.C.
 - DOWELS SAME SIZE AND SPACING AS VERTICAL REINFORCING
 - #6 VERTICAL @ 6" MAX. O.C.
 - #6 HORIZONTAL @ 6" MAX. O.C.
 - #8 VERTICAL DOWELS @ 6" MAX. O.C.
 - #6 @ 10" MAX. O.C. EACH WAY
 - (9) #7 RADIUS BARS EQ. SPACED w/ #7 RADIAL @ 10" O.C. (MEASURED AT CENTERLINE OF WALL)
 - (8) #7 RADIUS BARS EQ. SPACED w/ #7 RADIAL @ 10" O.C. (MEASURED AT CENTERLINE OF WALL)
 - (7) #7 CONTINUOUS w/ #7 TRANSVERSE @ 10" MAX. O.C.
 - 6" PVC WATERSTOP - TYPICAL
 - BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER



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90% Submittal	11/27/24
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Confirmed Set	
Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD

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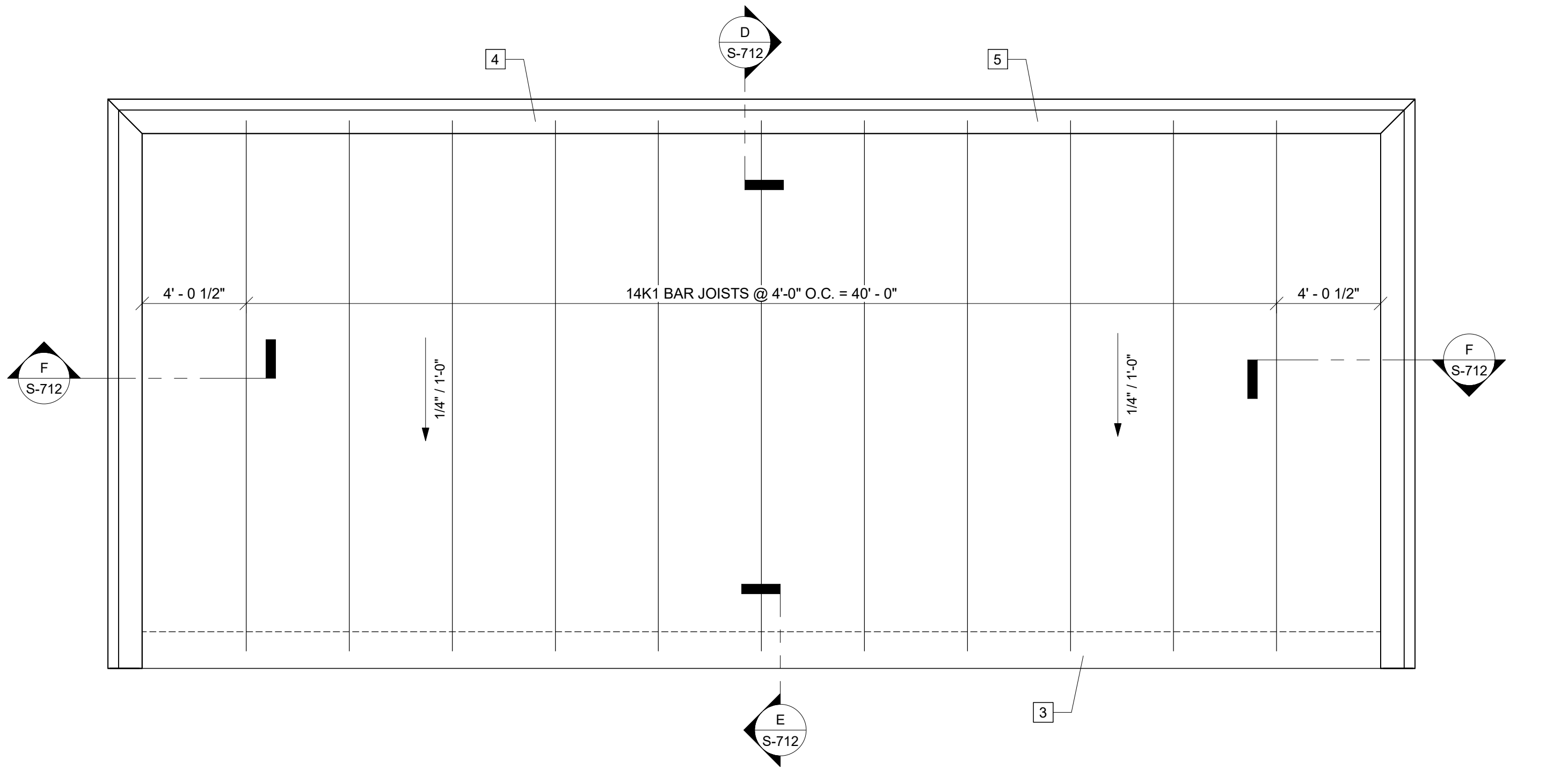
AEROBIC DIGESTERS -
SECTION

S-702

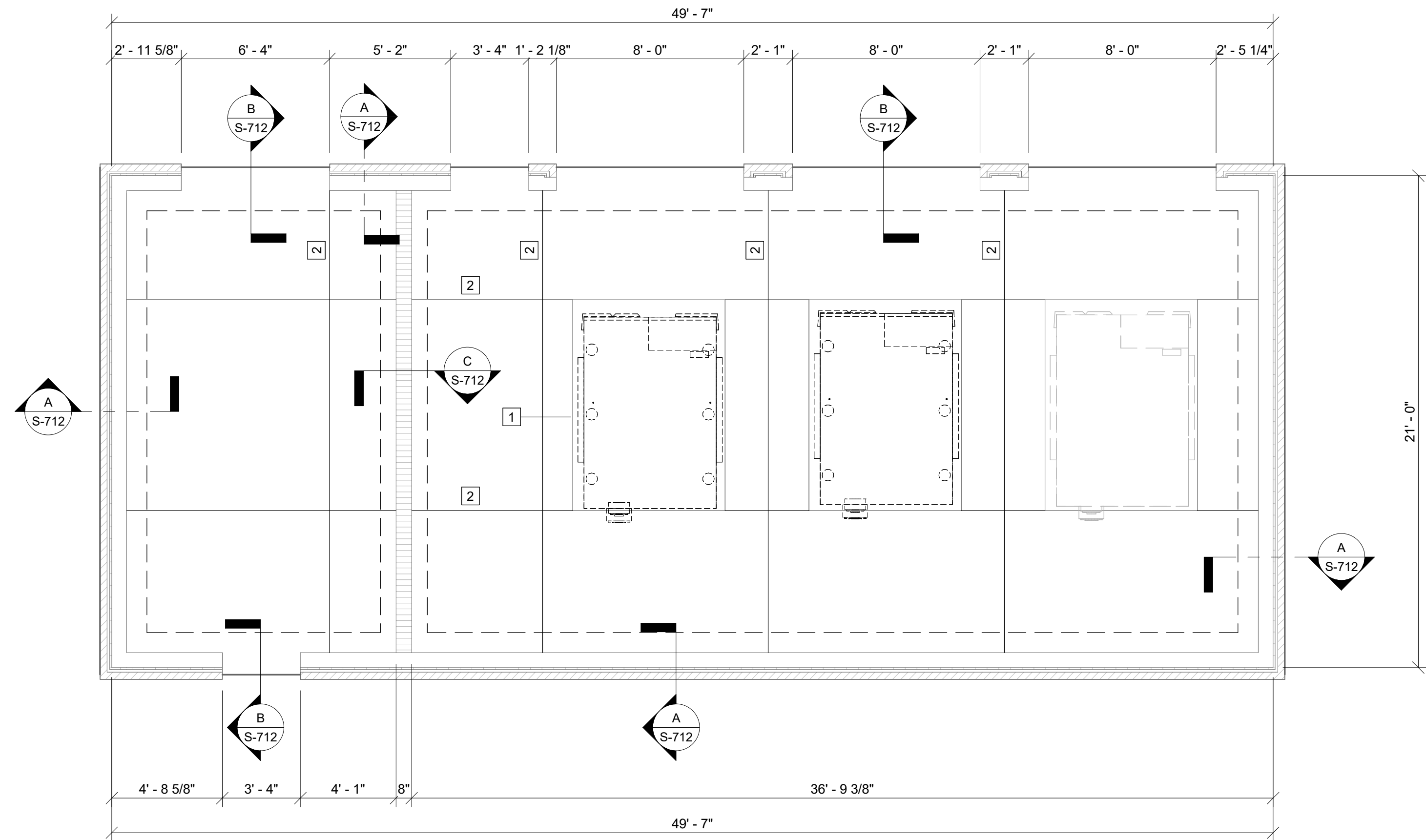
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2 ROOF FRAMING PLAN
S-711 SCALE: 1/4" = 1'-0"



1 FOUNDATION PLAN
S-711 SCALE: 1/4" = 1'-0"

KEY NOTES: #

1. EQUIPMENT PAD - SEE S-002 FOR REINFORCEMENT DETAILS
2. CONTROL JOINT
3. JOIST BEARING EL. = 829.00
4. JOIST BEARING EL. = 829.43
5. TOP OF PARAPET EL. = 830.92



ISSUE	DATE
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Project Manager:	GS
Engineer:	JD
Designer:	TS
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GROVE CREEK WPCP
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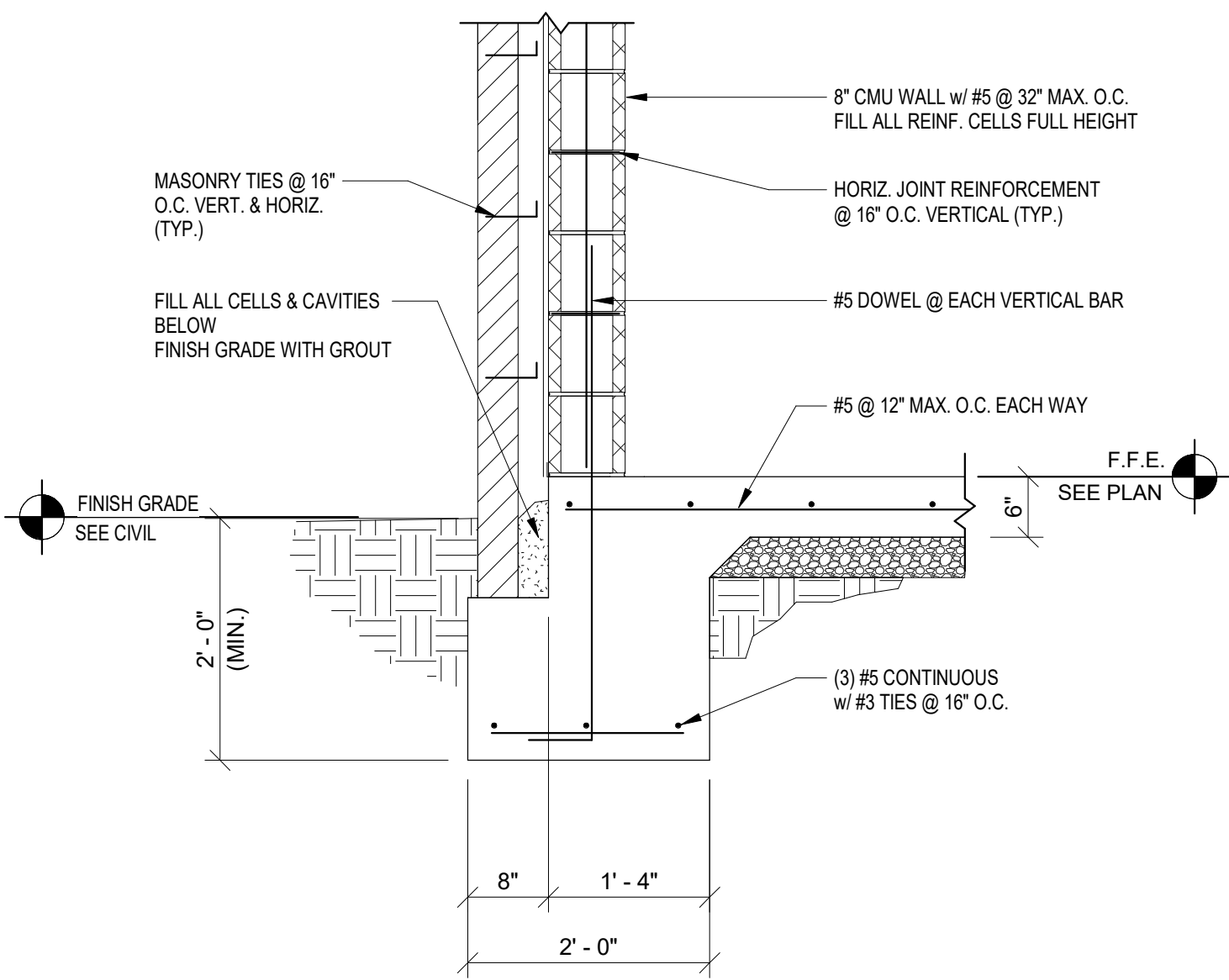
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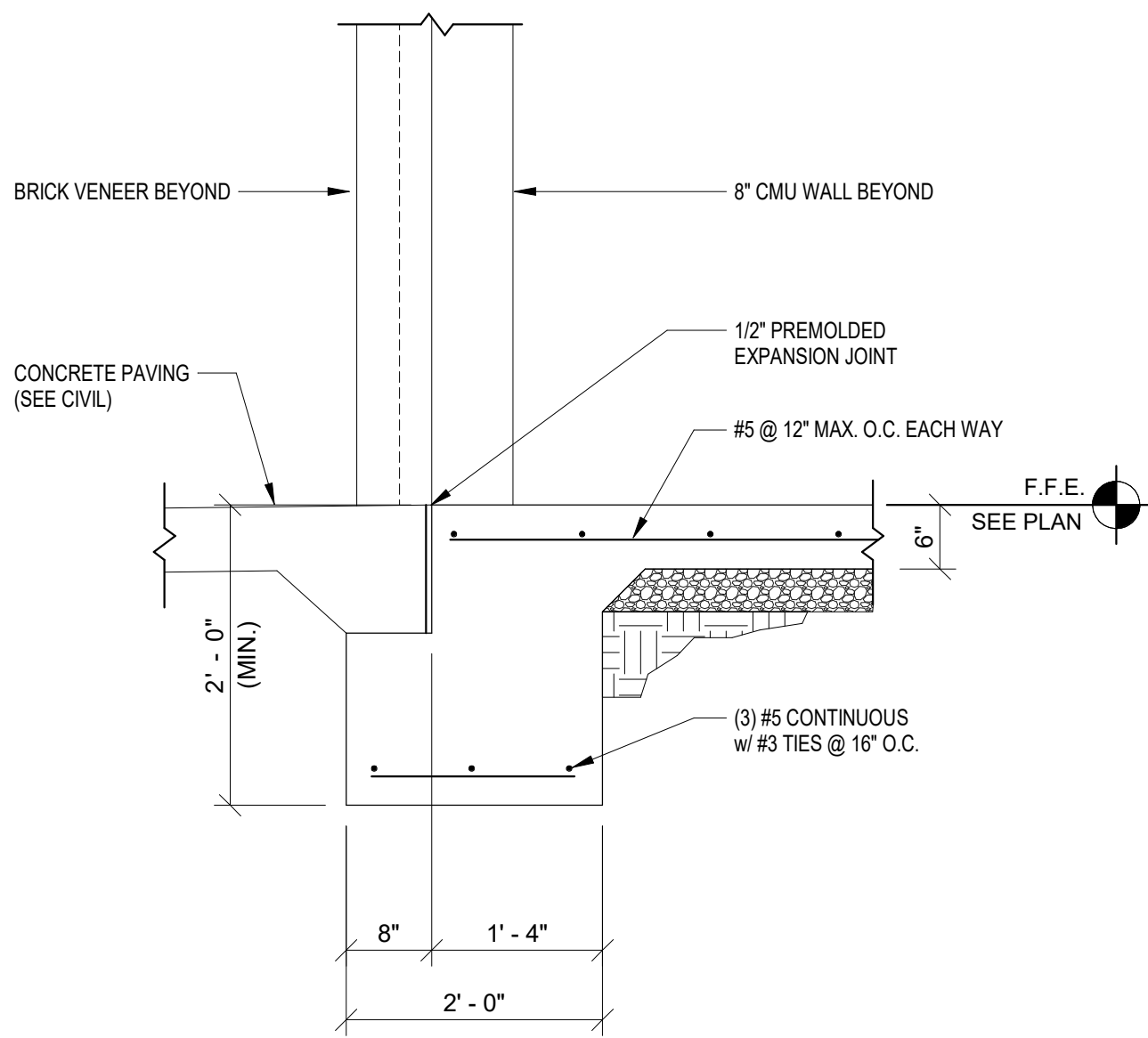
BLOWERS BUILDING -
PLANS

S-711

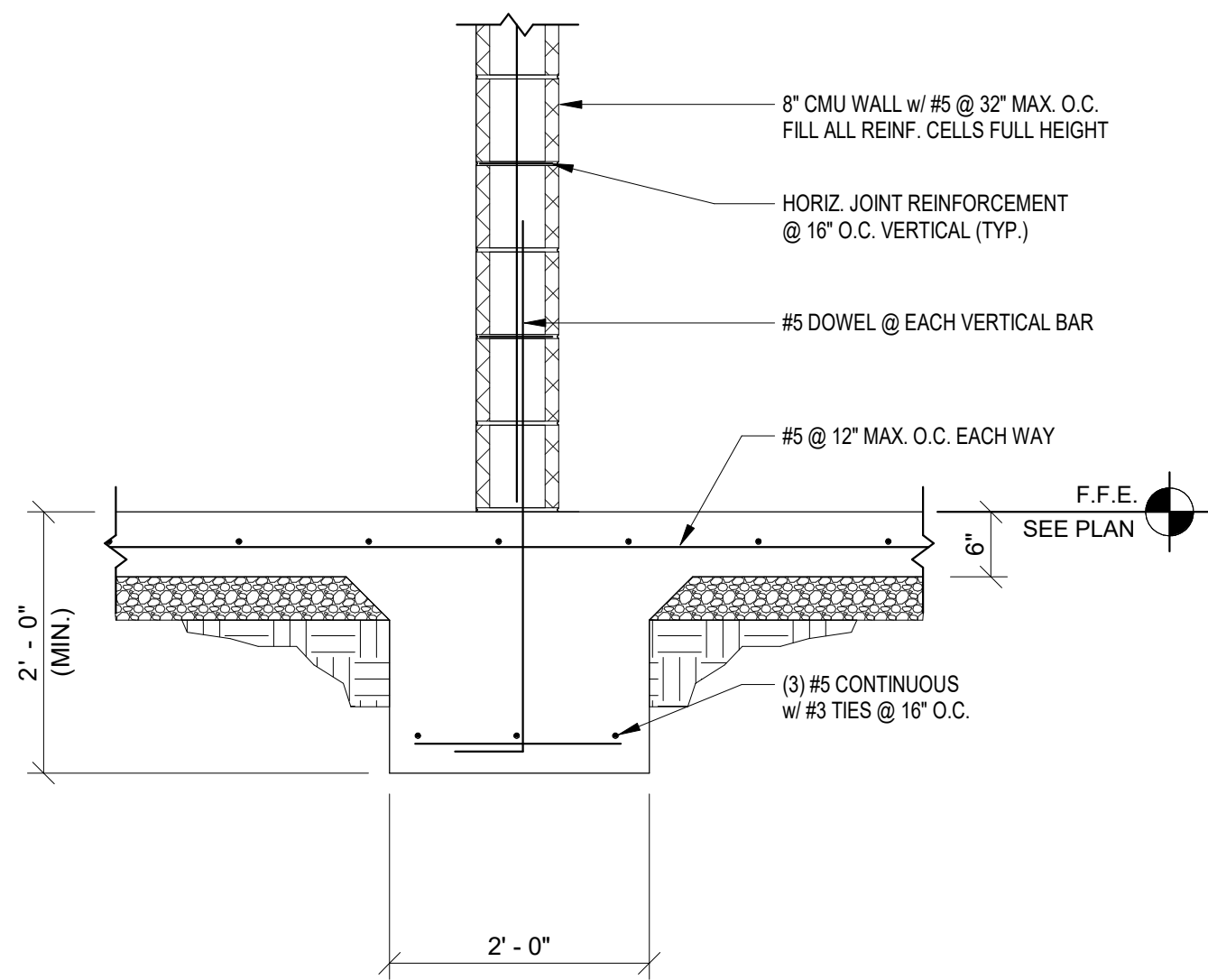
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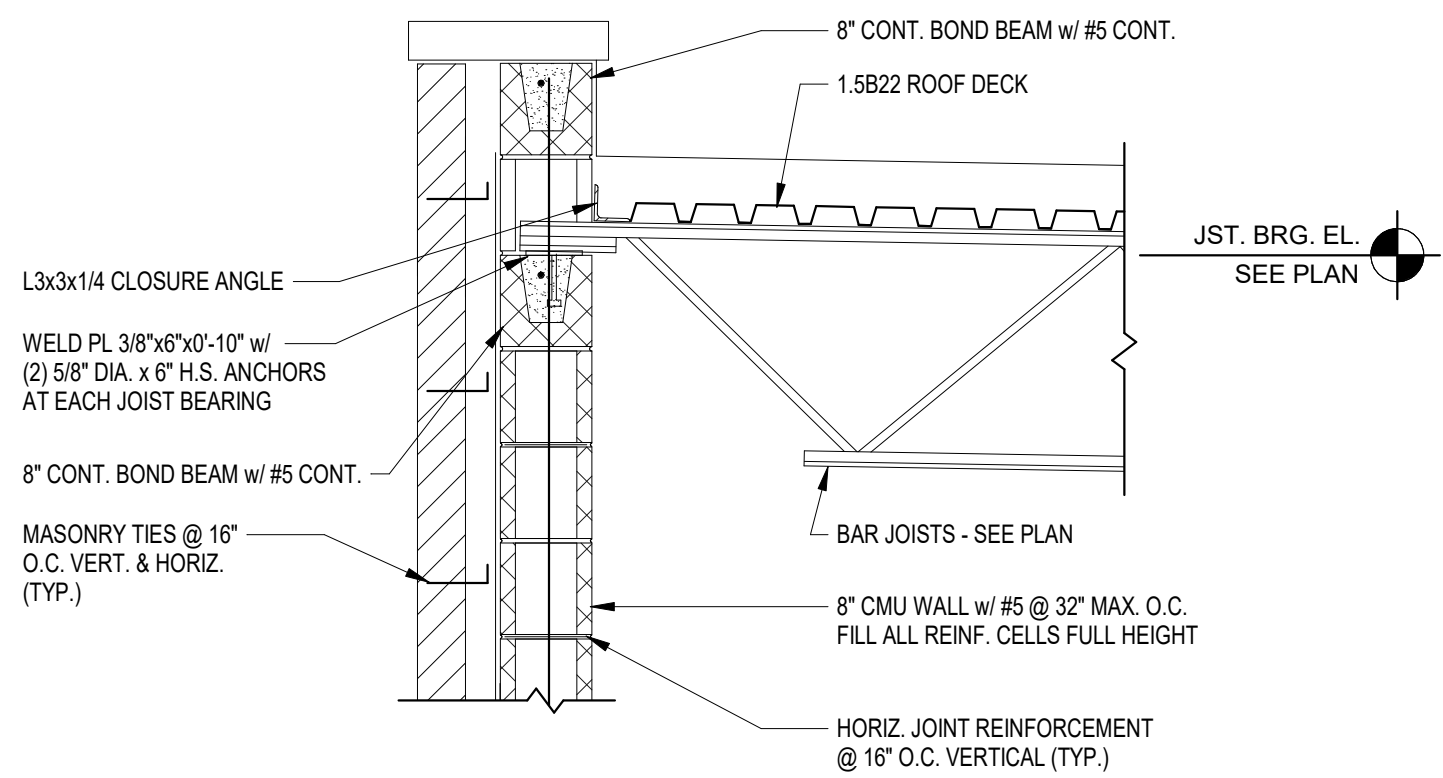
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S-711 SCALE: 3/4" = 1'-0"



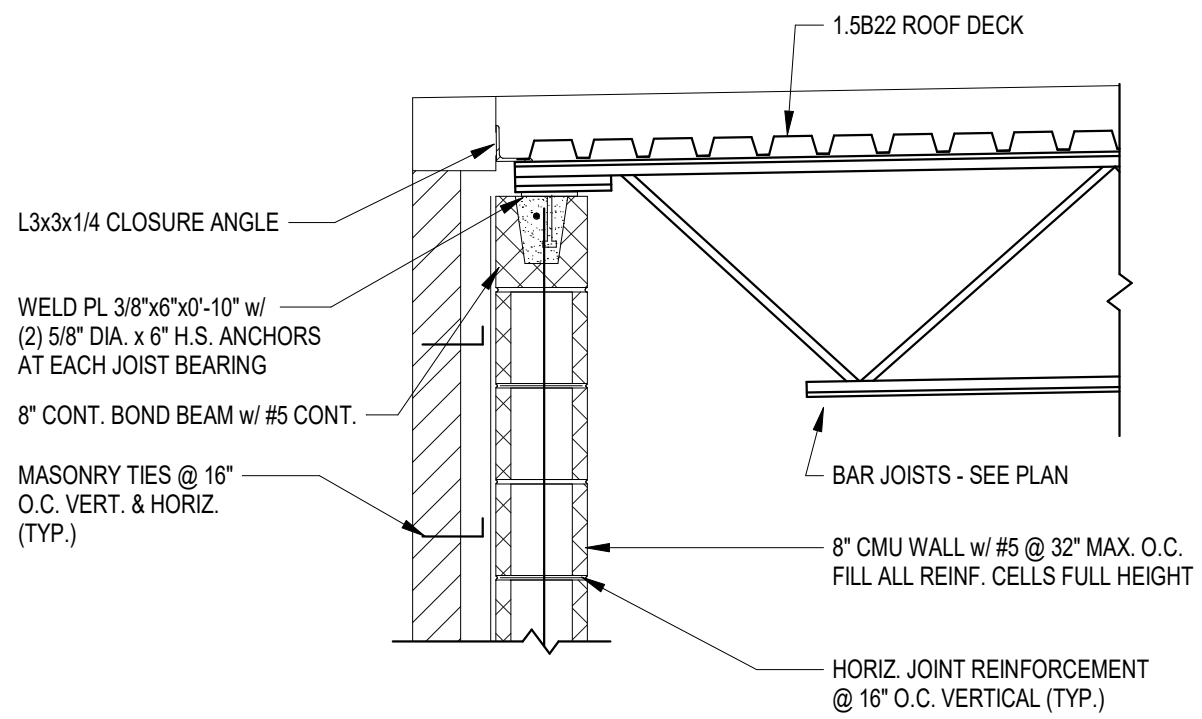
B SECTION
S-711 SCALE: 3/4" = 1'-0"



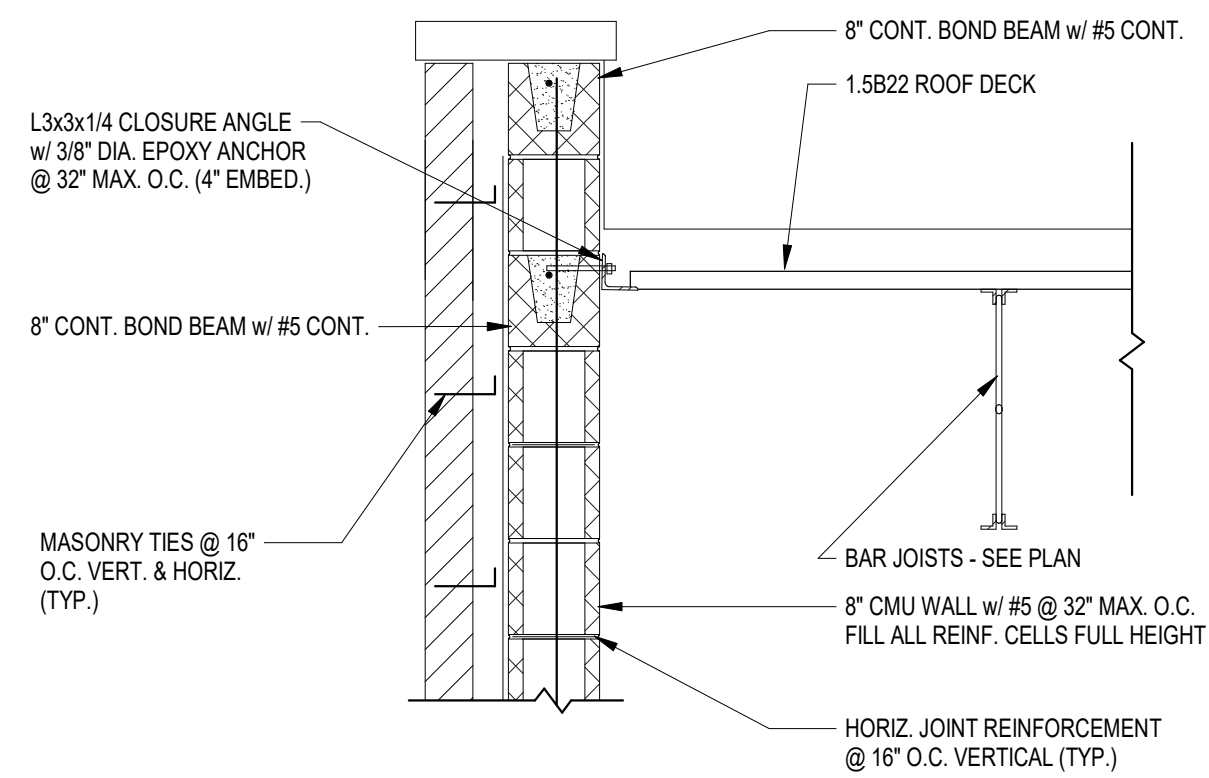
C SECTION
S-711 SCALE: 3/4" = 1'-0"



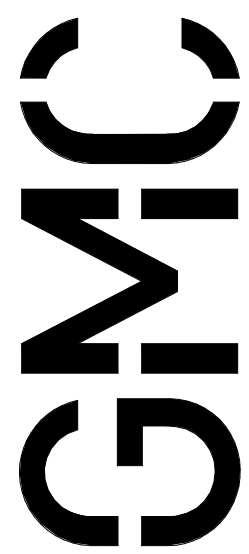
D SECTION
S-711 SCALE: 3/4" = 1'-0"



E SECTION
S-711 SCALE: 3/4" = 1'-0"



F SECTION
S-711 SCALE: 3/4" = 1'-0"



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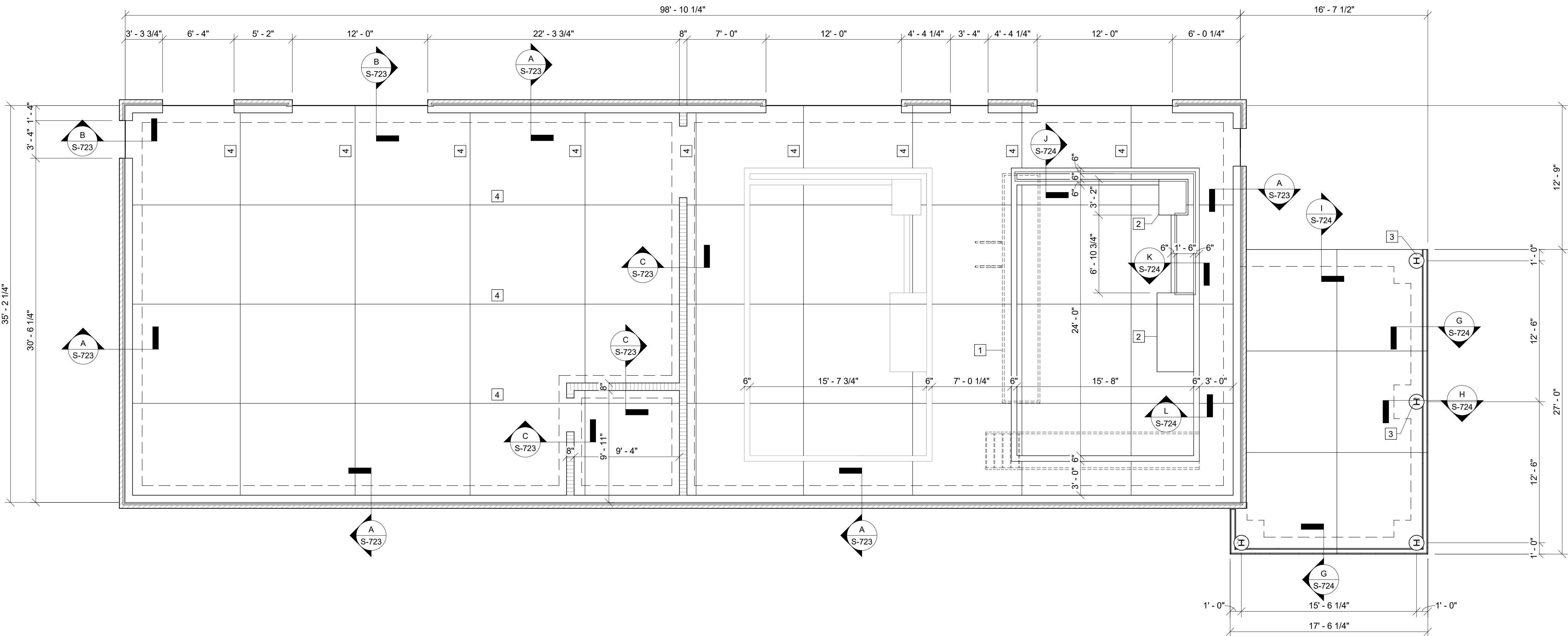
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BLOWERS BUILDING -
SECTIONS

S-712

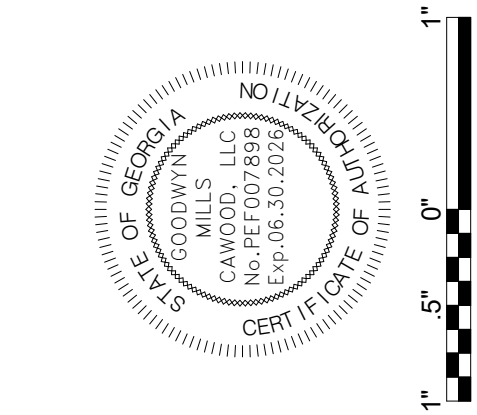
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1 FOUNDATION PLAN
S-721 SCALE: 3/16" = 1'-0"

KEY NOTES: #

1. PREFABRICATED ACCESS PLATFORM BY OTHERS - SEE PROCESS
2. EQUIPMENT PAD - SEE S-002 FOR REINFORCEMENT DETAILS
3. PRE-ENGINEERED METAL BUILDING COLUMN BY PEMB SUPPLIER
4. CONTROL JOINT



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Engineer:	JD
Designer:	TS
Drawn By:	JD

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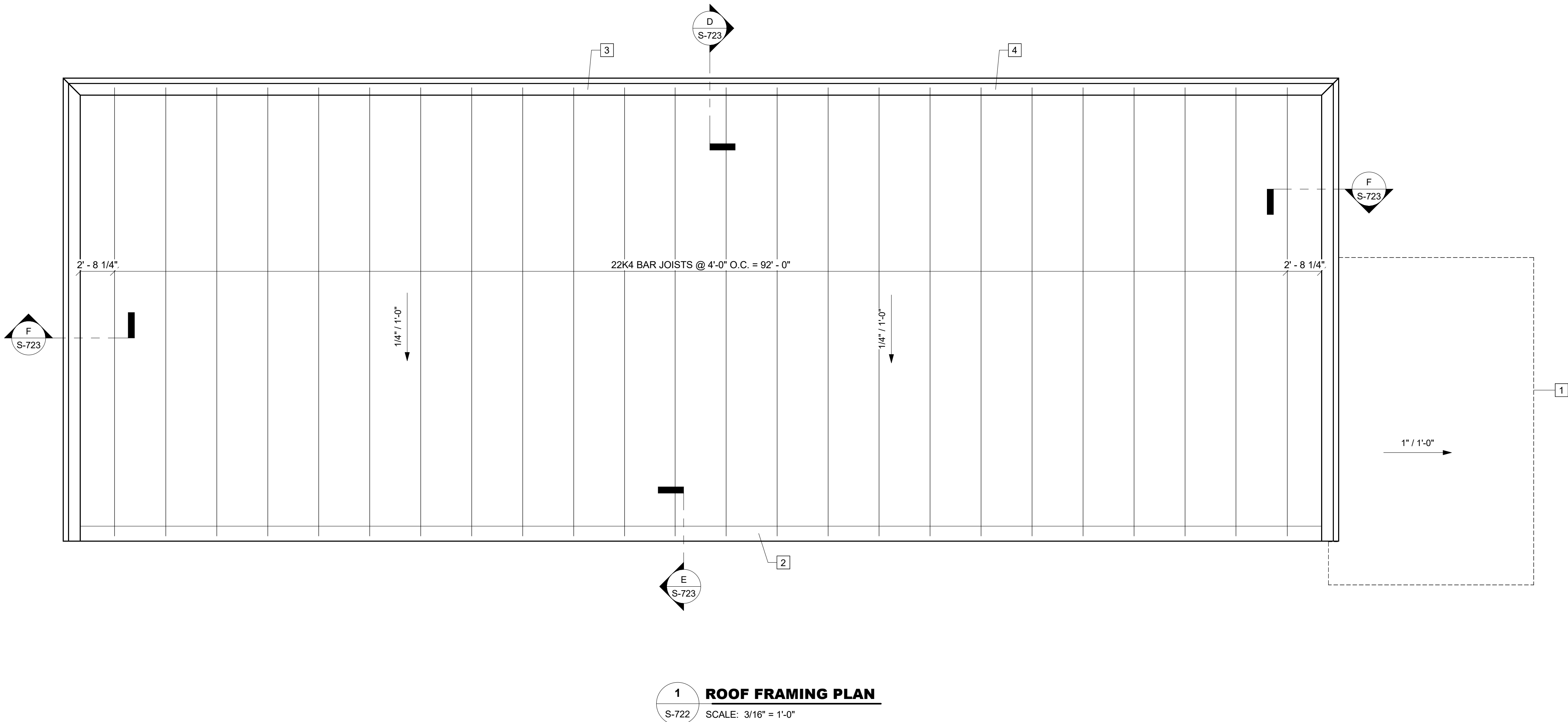
DEWATERING
BUILDING -
FOUNDATION PLAN

S-721

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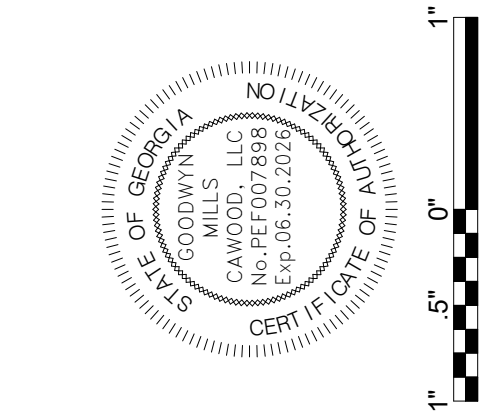
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1 ROOF FRAMING PLAN
SCALE: 3/16" = 1'-0"

KEY NOTES: #

1. PRE-ENGINEERED METAL BUILDING CANOPY BY PEMB SUPPLIER
2. JOIST BEARING EL. = +17'-4" A.F.F.
3. JOIST BEARING EL. = +18'-0 1/2" A.F.F.
4. TOP OF PARAPET EL. = +19'-4" A.F.F.



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Designer:	TS
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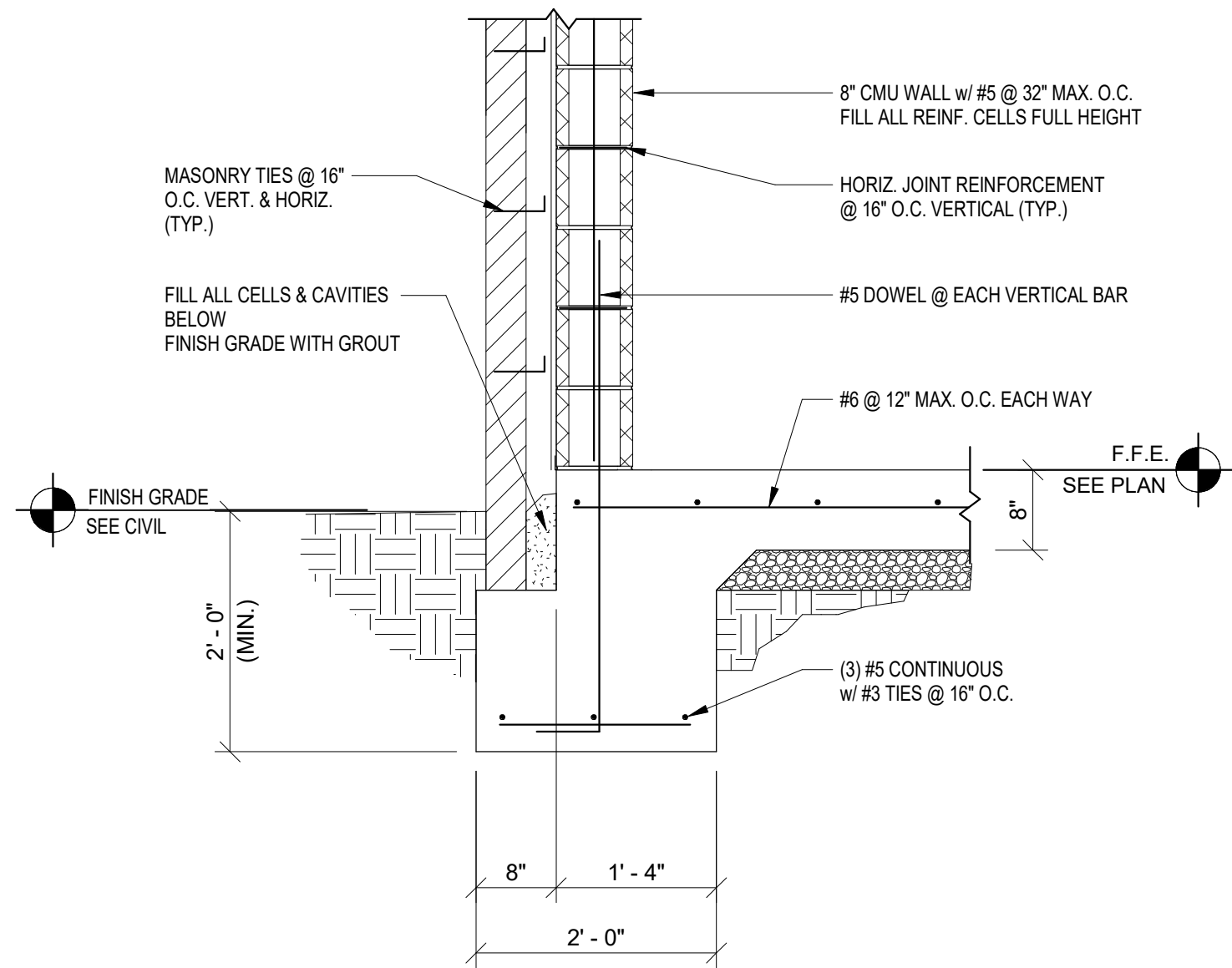
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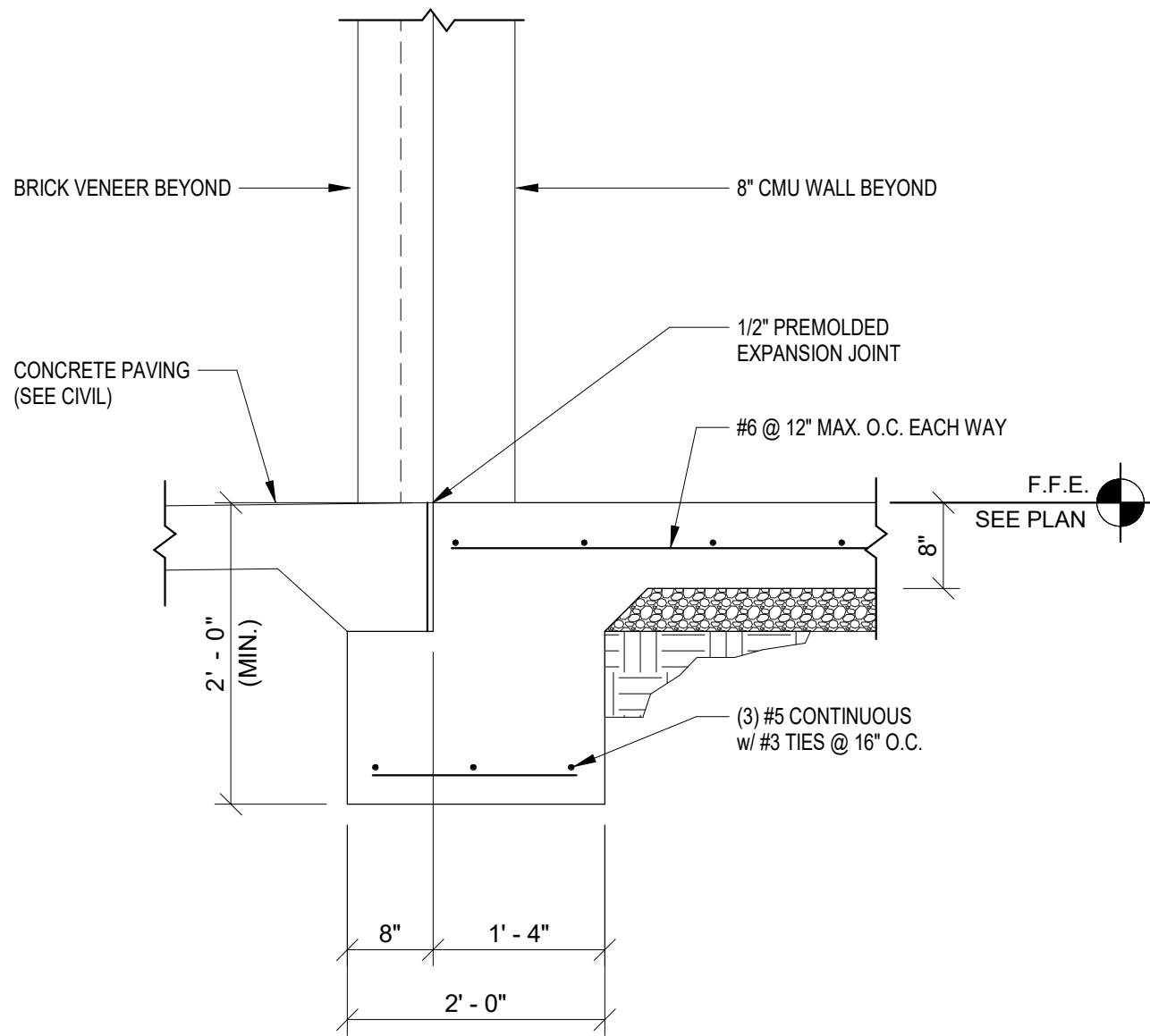
DEWATERING
BUILDING - ROOF
FRAMING PLAN

S-722

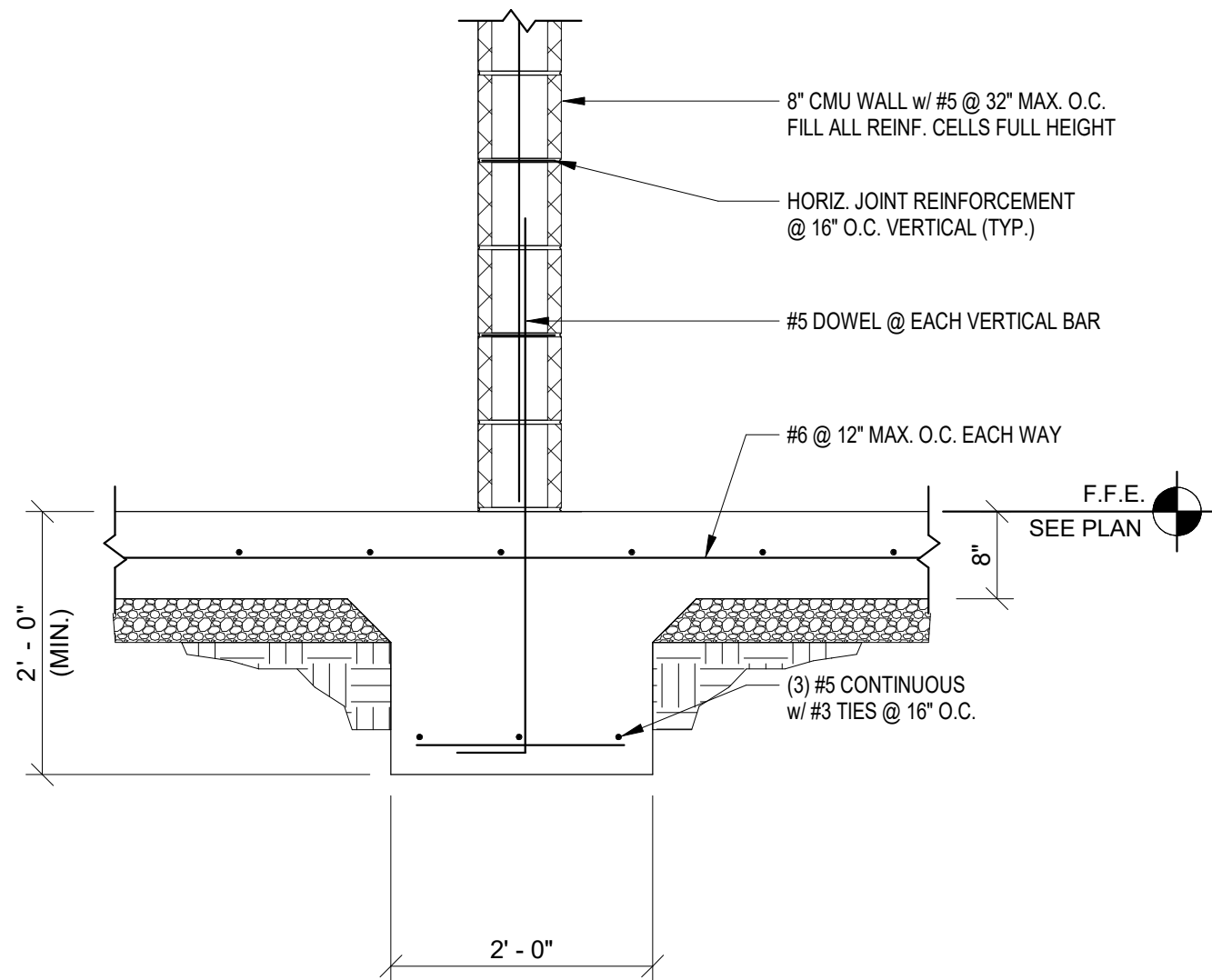
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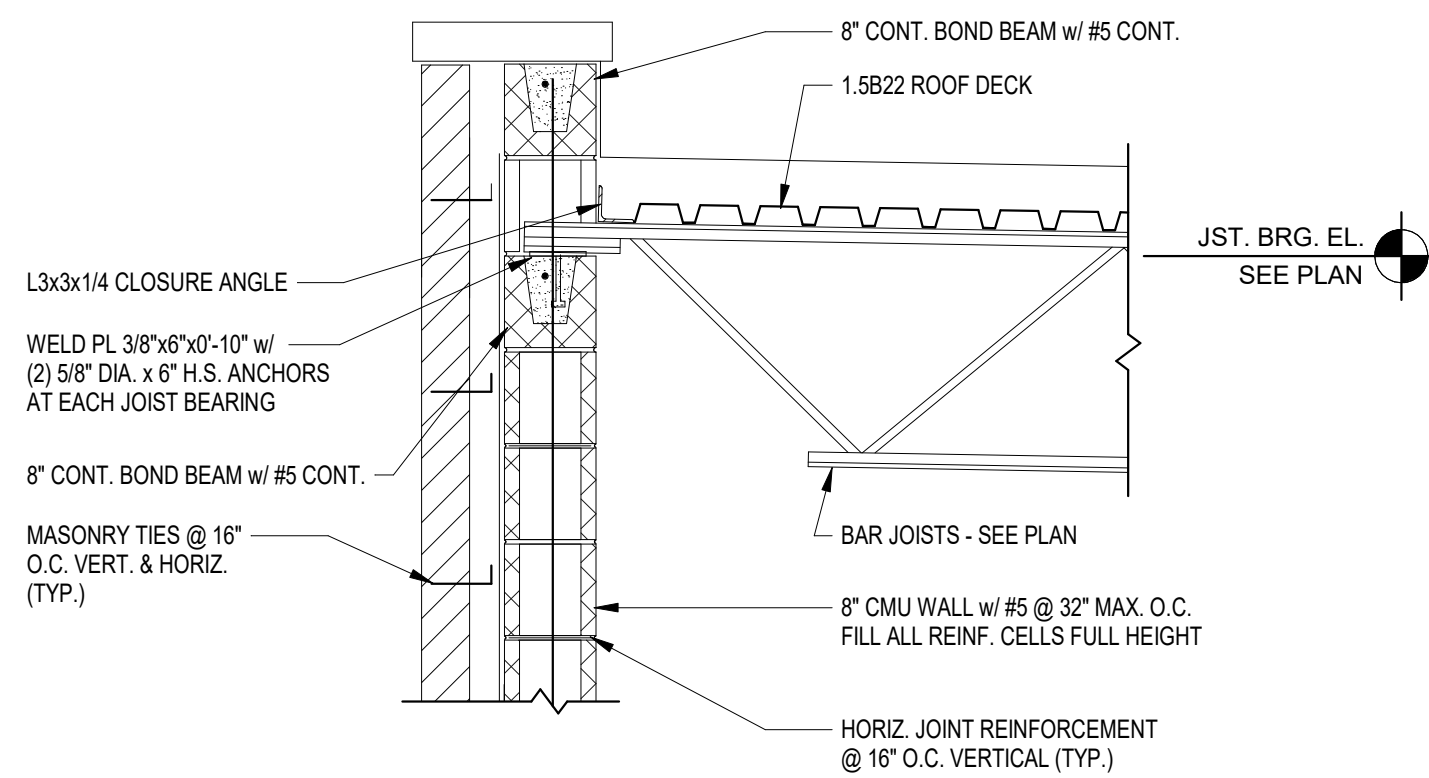
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S-721 SCALE: 3/4" = 1'-0"



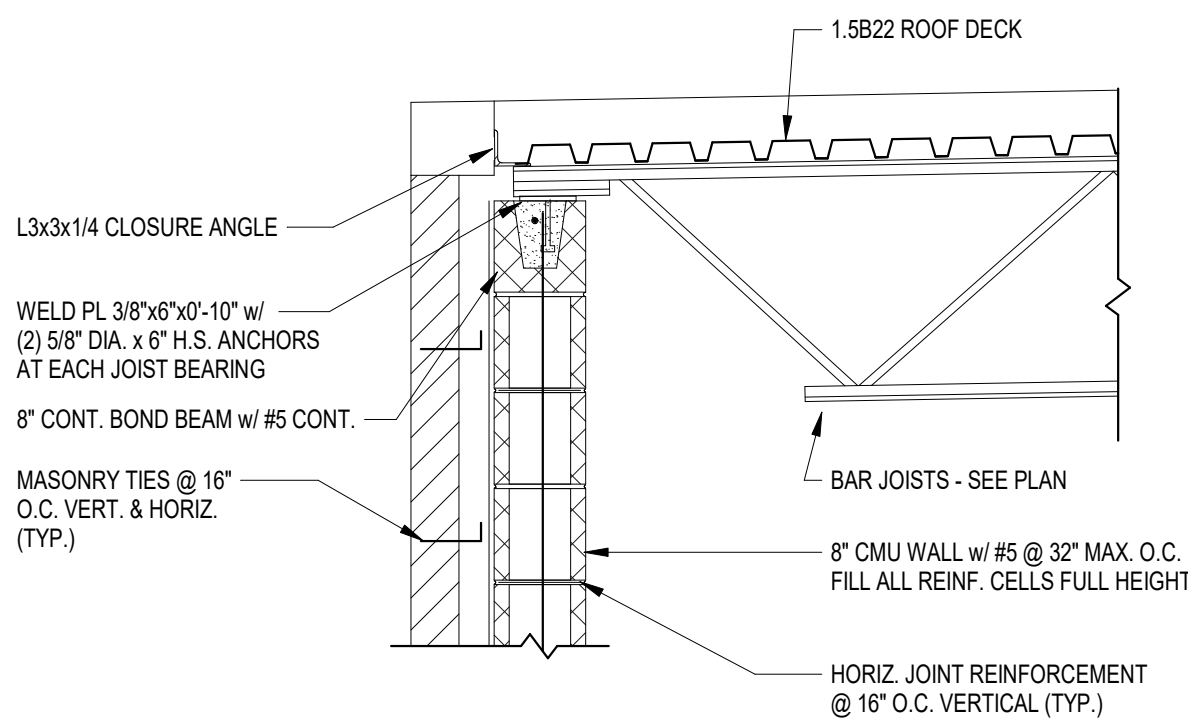
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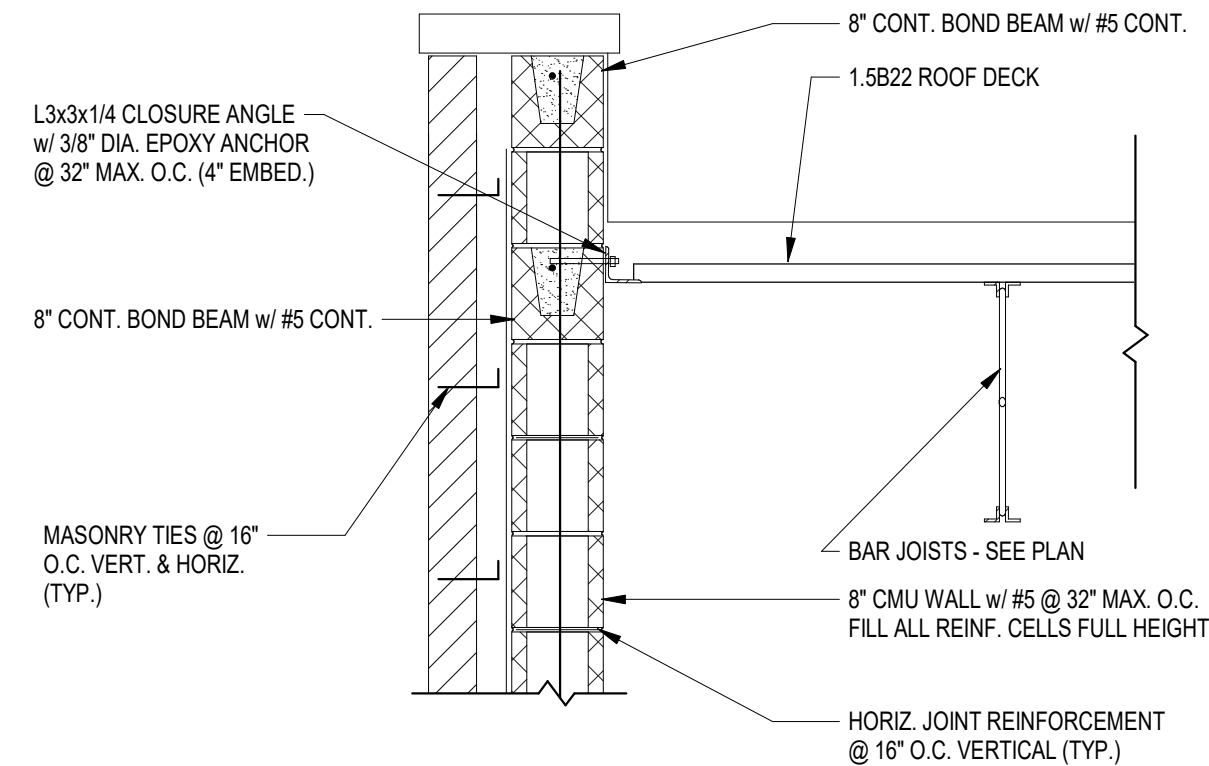
C SECTION
S-721 SCALE: 3/4" = 1'-0"



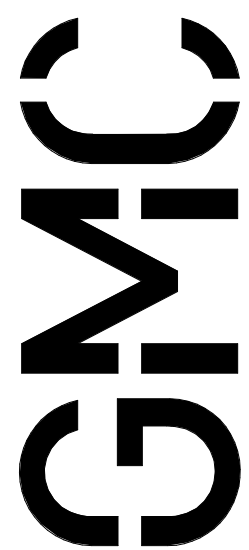
D SECTION
S-722 SCALE: 3/4" = 1'-0"



E SECTION
S-722 SCALE: 3/4" = 1'-0"



F SECTION
S-722 SCALE: 3/4" = 1'-0"



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Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD

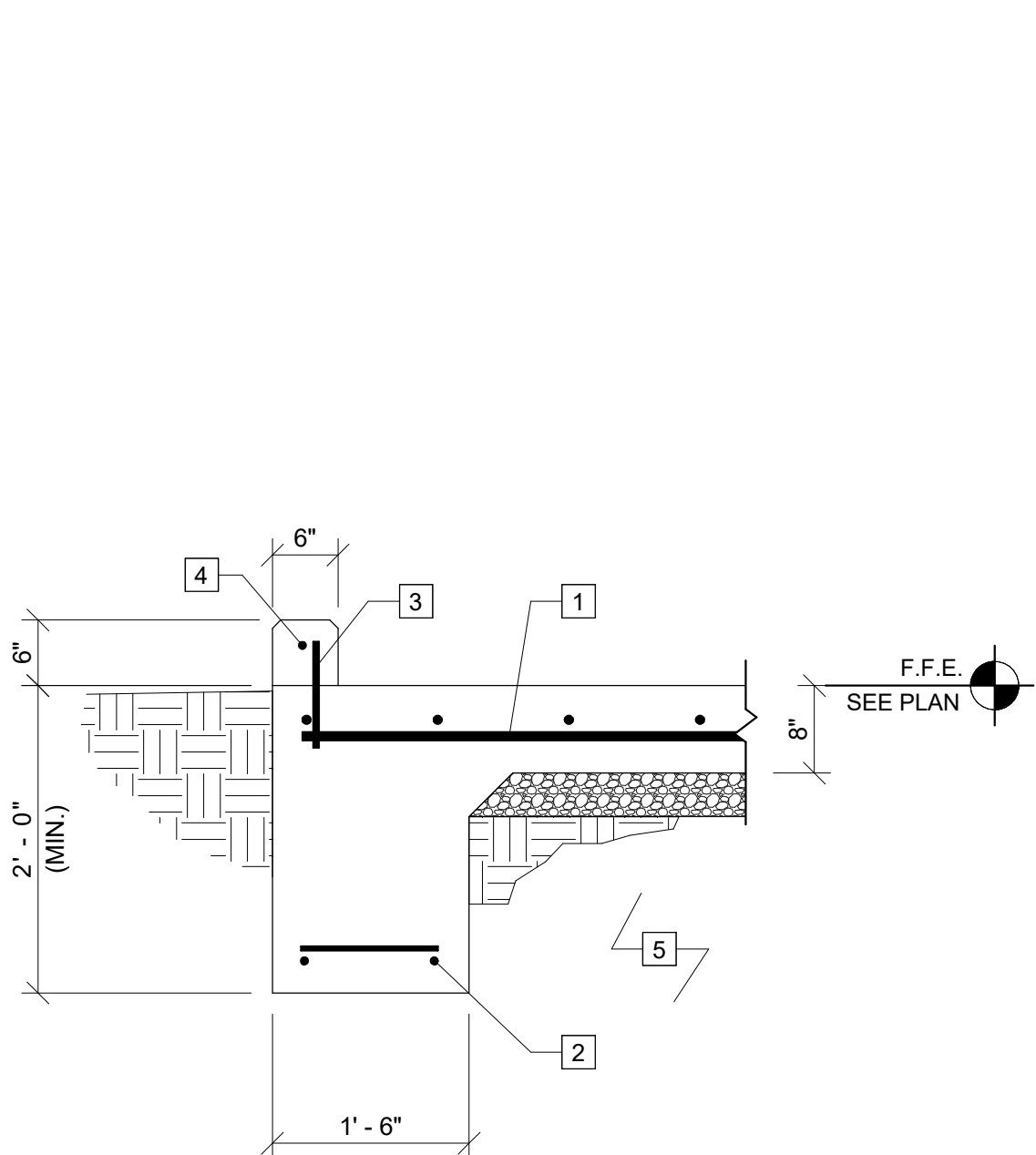
COMMERCE 2.0 MGD
GROVE CREEK WPCP
COMMERCE, GA

GMC PROJECT #CATL230033

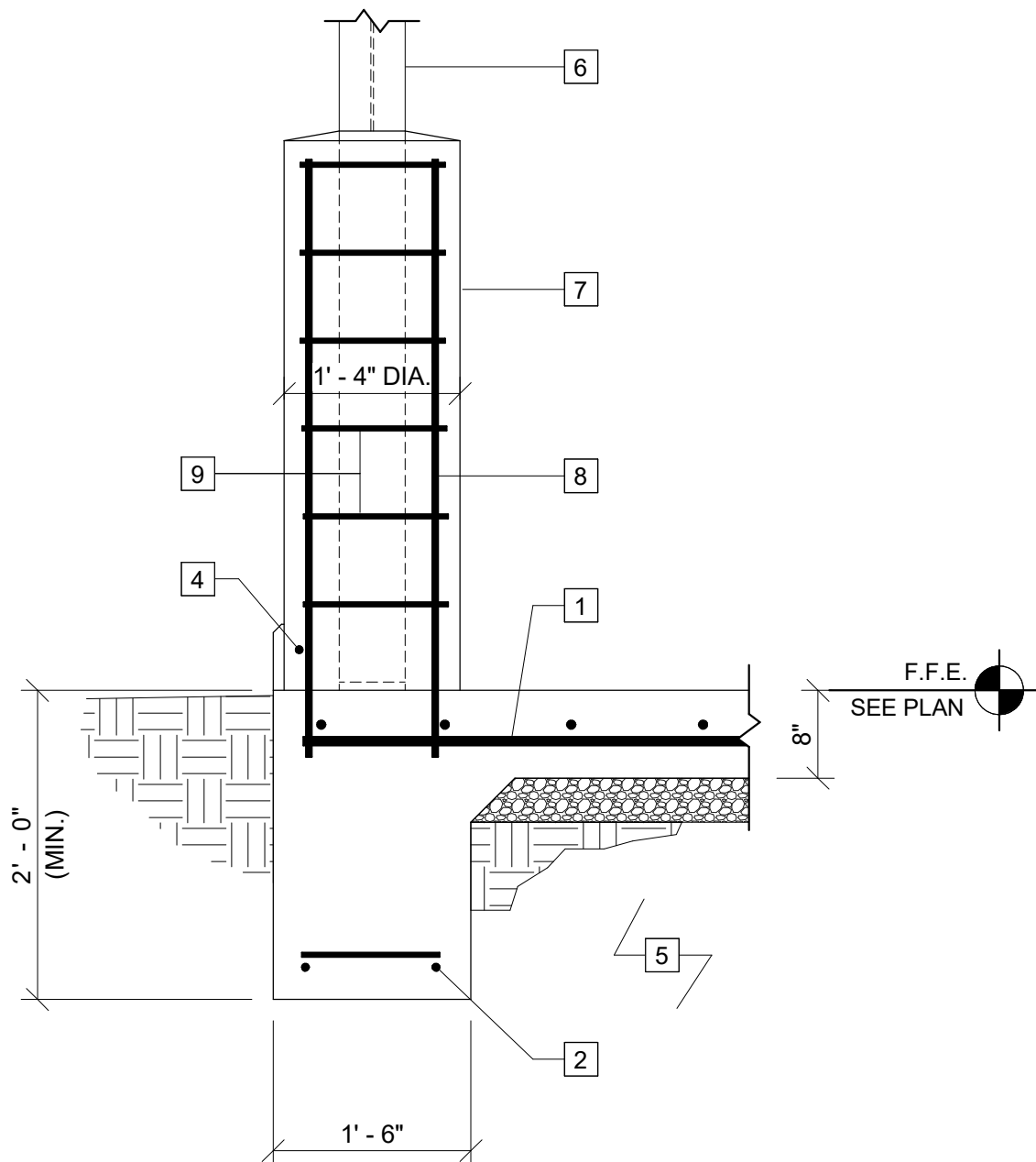
DEWATERING
BUILDING - SECTIONS

S-723

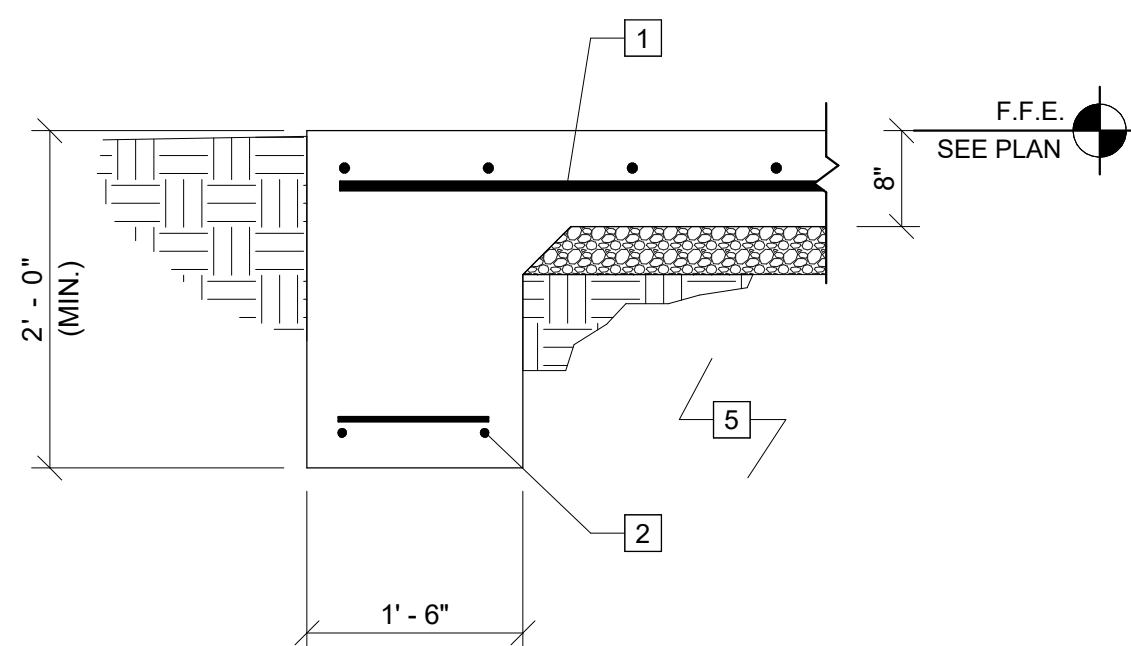
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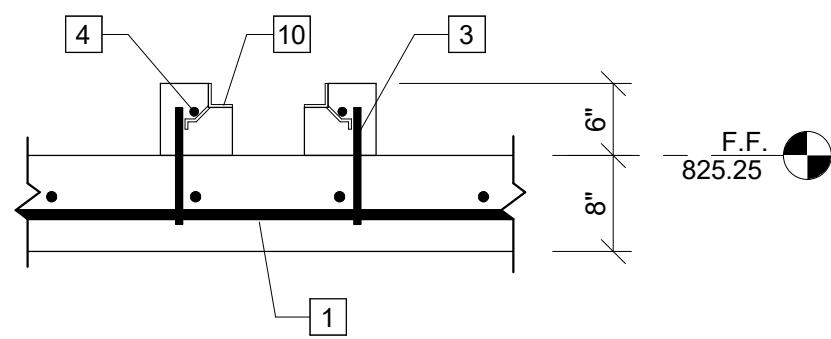
G SECTION
S-721 SCALE: 3/4" = 1'-0"



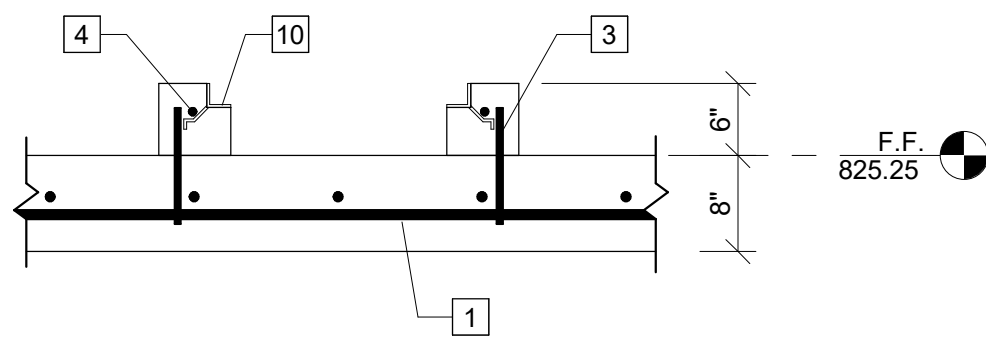
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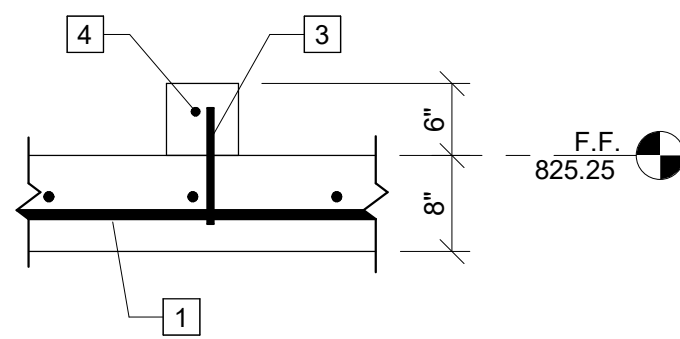
I SECTION
S-721 SCALE: 3/4" = 1'-0"



J SECTION
S-721 SCALE: 3/4" = 1'-0"



K SECTION
S-721 SCALE: 3/4" = 1'-0"



L SECTION
S-721 SCALE: 3/4" = 1'-0"

KEY NOTES: #

- #6 @ 12" MAX. O.C. EACH WAY - CENTERED IN SLAB
- (2) #5 CONTINUOUS w/ #3 TRANSVERSE @ 24" MAX. O.C.
- #4 DOWELS @ 12" MAX. O.C. - DRILL & EPOXY 6" MIN.
- #5 CONTINUOUS
- SUBGRADE PREPARATION, BACKFILL & DRAINAGE PER GEOTECHNICAL ENGINEER
- PRE-ENGINEERED METAL BUILDING CANOPY COLUMN AND CONNECTION BY PEMB SUPPLIER
- 1'-4" DIAMETER CONCRETE PIER AROUND COLUMN
- (6) #4 VERTICALS EQUALLY SPACED - DRILL & EPOXY 6" MIN.
- #3 HOOPS @ 8" MAX. O.C.
- PREFABRICATED GRATING SEAT EMBED - TYPICAL

GMC

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ISSUE	DATE
90% Submittal	11/27/24
Bid Set	03/19/25
Confirmed Set	
Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD

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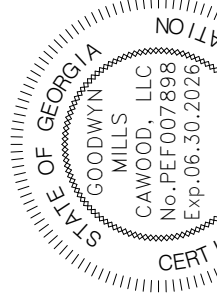
GMC PROJECT #CATL230033



**DEWATERING
BUILDING - SECTIONS**

S-724

1. PRE-MANUFACTURED FIBERGLASS BUILDING - SEE PROCESS
2. PREFABRICATED STAIR - SEE PROCESS
3. FOOTPRINT OF CHEMICAL TANK - SEE PROCESS
4. CONTROL JOINT
5. #6 @ 12" O.C. EACH WAY
6. #5 @ 12" O.C. EACH WAY - CENTERED IN SLAB
7. (3) #5 CONTINUOUS w/ #3 TRANSVERSE @ 24" O.C.
8. #6 @ 12" O.C. EACH WAY - CENTERED IN WALL
9. 6" PVC WATERSTOP - TYPICAL
10. BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER



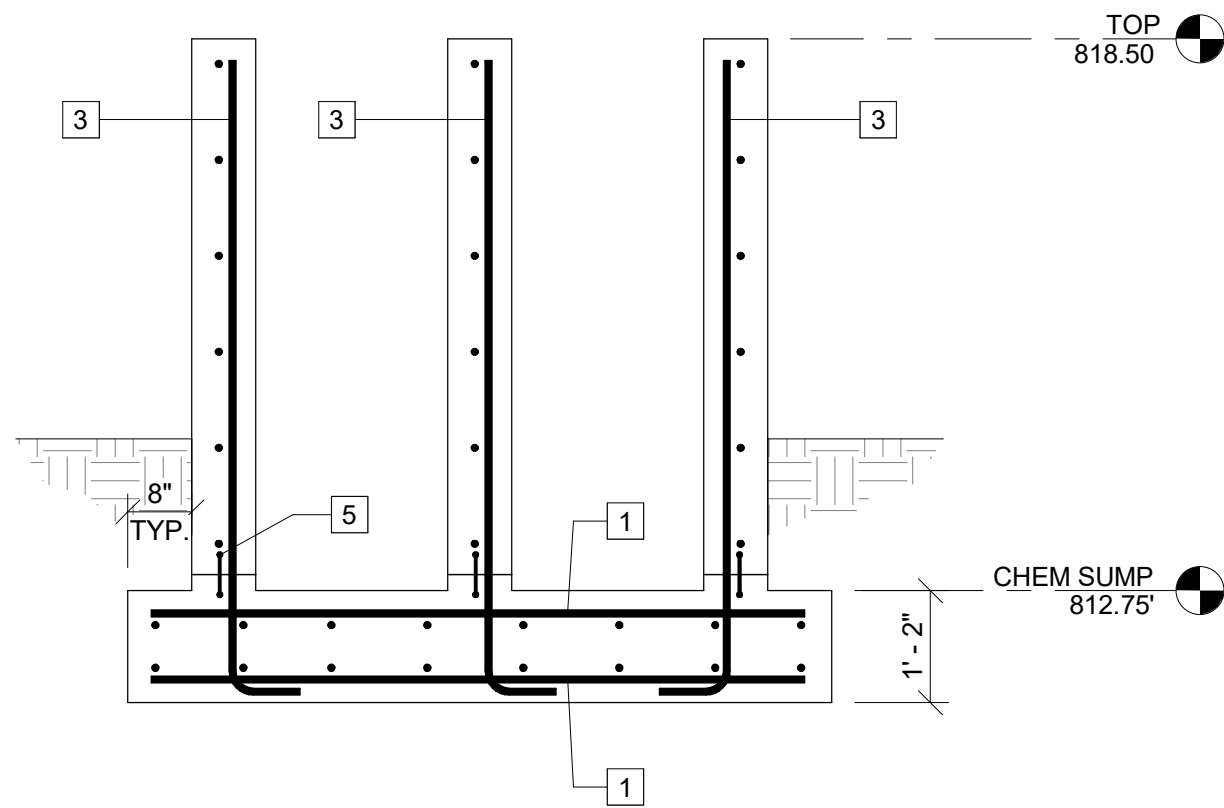
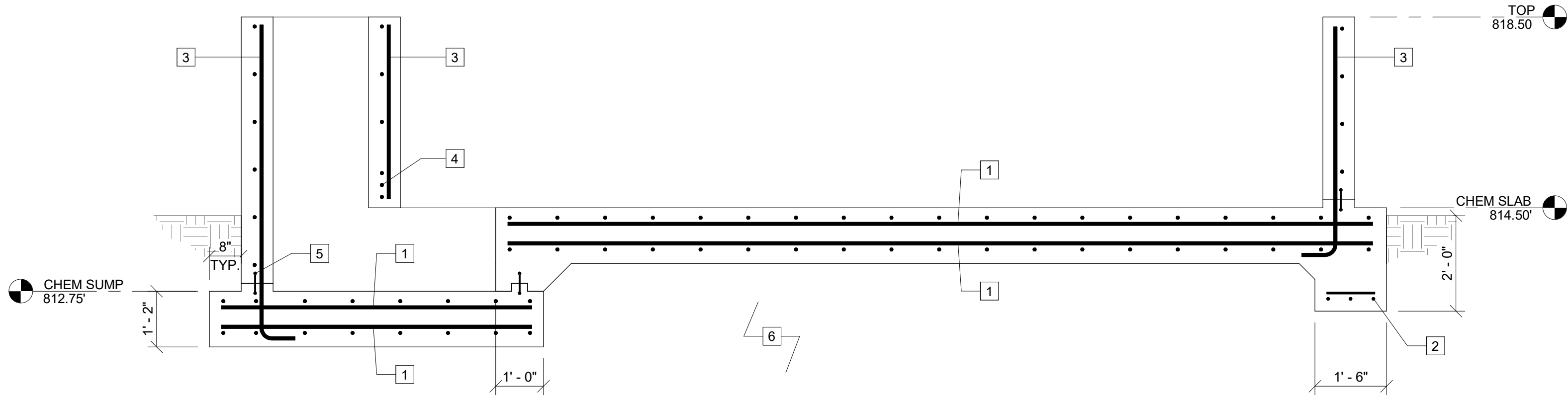
ISSUE	DATE
90% Submittal	11/27/24
Bid Set	03/19/25
Conformed Set	
Project Manager:	GS
Engineer:	JD
Designer:	TS
Drawn By:	JD

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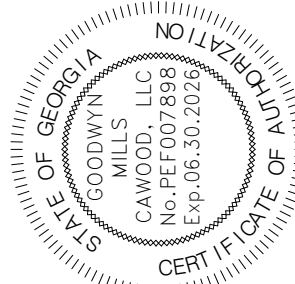


KEY NOTES: #

1. #6 @ 12" O.C. EACH WAY
2. (3) #5 CONTINUOUS w/ #3 TRANSVERSE @ 24" O.C.
3. #6 @ 12" O.C. EACH WAY - CENTERED IN WALL
4. (3) #5 HORIZONTAL OVER OPENING
5. 6" PVC WATERSTOP - TYPICAL
6. BACKFILL, DRAINAGE, AND SUBGRADE PREPARATION AS REQUIRED BY GEOTECHNICAL ENGINEER

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CHEMICAL TANK
FARM - SECTIONS

S-802