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TRANSMITTAL COVER SHEET

DATE: 21 June, 2024
TO: ALL PLAN HOLDERS OF RECORD
FROM: HUNTER SWATEK, AIA, PROJECT MANAGER
PROJECT: RAINBOW CITY RECREATION CENTER
GMC PROJECT NO. ABHM230021
RE: ADDENDUM NO. 3 AND
ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM NO. 3

ACKNOWLEDGEMENT OF RECEIPT:

PLEASE PRINT RECIPIENT'S NAME, FIRM, AND DATE RECEIVED.

THEN E-MAIL BACK TO alyssa.martin@gmcnetwork.com FOR OUR RECORDS AND
TO ACKNOWLEDGE YOUR RECEIPT OF THIS ADDENDUM.

NAME (PLEASE PRINT)

FIRM (PLEASE PRINT)

DATE RECEIVED (PLEASE PRINT)

If there are any problems with this transmittal, please contact sender, at the number listed above.

ADDENDUM NUMBER 03

June 21, 2024

**PROJECT: RAINBOW CITY RECREATION CENTER
GM&C PROJECT NO. ABHM230021**

AD3-1 GENERAL:

- A. The following revisions and/or additions to the Drawings and Project Manual are hereby made a part of same, and shall be incorporated in the Work of the Contract the same as if originally included in the Bid and Construction Documents.
- B. Bidders shall acknowledge receipt of this Addendum in writing, as provided on the Proposal Form.
- C. When a revision and/or addition is called for to the Drawings or Project Manual, they shall be fully coordinated with and carried through all applicable Drawings and portions of the Project Manual, including in part, all related Civil, Landscaping, Architectural, Structural, Plumbing, Mechanical, Electrical, and other Documents.

AD3-2 PROJECT MANUAL AND SPECIFICATIONS:

- A. **Section 01 2200** – Allowances
 - a. Paragraph 3.01, K
 - i. REVISED 3.b. to “Quantity of FOUR THOUSAND FOUR HUNDRED (4,400) Cubic Yards (CY)”
- B. **Section 01 2300** – Alternates
 - a. REVISED for clarity
- C. **Section 02 3213** – Subsurface Investigation
 - a. REMOVED Section
- D. **Section 02 4100** – Demolition
 - a. REMOVED Section
- E. **Section 07 2129** – Sprayed Insulation
 - a. REMOVED Section
- F. **Section 07 4300** – Composite Wall Panels
 - a. Paragraph 2.01
 - i. REVISE Cladding dimensions to read as “Dimensions: Nominal – 18”(h) x 6' (l); “
- G. **Section 08 1416** – Flush Wood Doors
 - a. Paragraph 2.04
 - i. REVISE item A to “White Birch”
 - b. Paragraph 2.06
 - i. REVISE stain to “Manufacturer to include full range of Standard and Custom stains”
- H. **Section 08 7100** – Door Hardware
 - a. ADD acceptable manufacturers
 - 1. B. Geared Continuous Hinges: Pemko
 - C. Power Transfer: Securitron CEPT-10
 - F. Deadlocks: Sargent 4870 Series
- I. **Section 09 6566** – Resilient Athletic Flooring
 - a. Paragraph 1.08
 - i. ADDED missing Guarantee paragraph
- J. **Section 09 7800** – Interior Wall Paneling

- a. ADDED Section to Specifications
- K. **Section 10 7316** – Canopies
 - a. ADDED Section to Specifications
- L. **Section 11 6623** – Gymnasium Equipment
 - a. Paragraph 1.02, B
 - i. REVISE “Section 11 480 Scoreboards” to “Section 11 6643 – Scoreboards”
 - b. Paragraph 2.03
 - i. REMOVE “H. Portable Basketball Goals”
 - c. Paragraph 2.05
 - i. REMOVE paragraph “2.05 Safety Pads”
- M. **Section 11 6643** – Scoreboards
 - a. ADDED Section to Specifications
- N. **Section 11 6653** – Gymnasium Divider Curtain
 - a. Paragraph 2.01, A
 - i. ADD to Other Manufacturers “Porter Athletic Equipment Co. : www.gillporter.com”
- O. **Section 12 6613** – Telescoping Seating systems
 - a. Paragraph 2.02, B
 - i. REVISED Item 6 to “Wall attached, manually operated”
- P. **Section 13 1100** – Swimming pool
 - a. ADDED Section to Specifications
- Q. **Section 32 8400** – Irrigation Work
 - a. ADDED Section to Specifications
- R. **Section 32 9219** – Seeding
 - a. ADDED Section to Specifications
- S. **Section 32 9223** – Sodding
 - a. ADDED Section to Specifications
- T. **Section 32 9300** – Plants
 - a. ADDED Section to Specifications

AD3-3 DRAWINGS:

- A. **A2.01** – Reflected Ceiling Plan – Level 1
 - a. REVISED Concessions and Catering ceiling type
- B. **A9.01** - Pool Equipment Building
 - a. REVISED sheet drawings
 - b. ADJUSTED structural overhang depth in RCP
- C. **A9.02** - Pool Equipment Building Sections & Details
 - a. CREATED new sheet with roof details
- D. **A9.03** - Dumpster Enclosure
 - a. CREATED new sheet with plan, sections and details
- E. **A9.04** – Amphitheatre
 - a. REVISED sheet
- F. **C-101** – Site Layout Plan
 - a. ADDED Pool Collector Tank location
 - b. ADDED Wheel stops at parking adjacent to pool
 - c. REVISED Dumpster pad enclosure
- G. **C-102** – Alternate Site Layout Plan
 - a. REVISED Notes
 - b. REVISED Playground
- H. **C-201** – Grading Plan
 - a. REVISED grading around pool house and playground
- I. **C-202** – Alternate Grading Plan

- a. REVISED Notes
- J. **C-301** – Site Utility Plan
 - a. REVISED Pool house connections
- K. **C-304** – Drainage Plan
 - a. REVISED Drainage
- L. **C-601** – Erosion and Sediment Control Plan
 - a. REVISED Construction exit pad
 - b. REVISED Outlet protection
 - c. REVISED silt fence extents
 - d. REVISED Erosion control extents
- M. **C-602** – Alternate Erosion and Sediment Control plan
 - a. REVISED Notes and measures
- N. **C-903** – Storm Drainage Details
 - a. REVISED Outlet Control Detail
 - b. ADDED Detail for outlet protection and concrete encasement
- O. **L1.01** – Materials Plan: Base
 - a. REVISED Notes
- P. **L1.02** – Materials Plan: Alternate
 - a. REVISED Notes
- Q. **L4.01** – Hardscape Details
 - a. ADDED Details
- R. **S1.01** – Joist Loading Diagrams
 - a. REVISED Loads
- S. **S1.08** – Joist Loading Diagrams
 - a. REVISED Loads
- T. **S2.01** – Floor and Foundation Plan
 - a. ADDED Partitions and thickened slab
 - b. ADDED Section
- U. **S2.03** – High Roof Framing Plan
 - a. REVISED To match MEP
- V. **S2.04** – Pool Building Plans
 - a. REVISED Partitions and thickened slab
 - b. ADDED Sump pits
- W. **S2.05** – Amphitheatre Plans
 - a. ADDED Dimensions
 - b. ADDED Section
- X. **S3.01** – Sections
 - a. ADDED Sections
- Y. **S3.02** – Sections
 - a. REVISED Angle size
- Z. **S3.03** – Sections
 - a. REVISED Angle size
- AA. **S3.04** – Sections
 - a. REVISED Sizes
- BB. **S3.05** – Sections
 - a. REVISED Angle size
- CC. **S3.06** – Sections
 - a. REVISED Angle size
- DD. **P1.01** – Floor Plan L1 – Sanitary Piping
 - a. REVISED Finish floor and piping elevations
- EE. **P3.01** – Partial Floor Plans – Plumbing
 - a. REVISED finished floor elevations on Enlarged Pool House Plan

- b. REVISED Discharge pump tag
 - c. ADDED Pool filter sump along with 8" storm piping connecting to the 6" FS
- FF. SP1.01, SP1.02, SP2.01, SP2.02, SP2.03, SP2.04 – Pool Addendum 03**
- a. Pool main drains have been updated from (3) 24"x24" Drains to (1) 18"x36" Drain.
 - b. Note added on Pool reinforcement.
 - c. Note added regarding gutter warranty requirement.
 - d. Note added regarding alternate vendors requirement.
 - e. Specifications sheets have been provided for pool.

AD3-4 MISCELLANEOUS:

- A. Substitution Requests (See attached for information)
- a. Approved
 - i. 07 1400 - Sopraseal 204 VP
 - ii. 07 5146 - Fibertite 45 mil
 - iii. 08 7100 - Pemko
 - iv. 08 7100 - Securiton CEPT
 - v. 08 7100 - Sargent Deadlock
 - vi. 09 6466 - Rezill Base - Connor
 - vii. 09 6466 - Action Floor Systems
 - viii. 09 8400 - Soundcore Folded Baffles
 - ix. 11 6653 - Jaypro Sports Roll Up
 - b. Rejected
 - i. 07 5146 - Fibertite 36 mil
 - ii. 07 5416 - GAF Everguard
 - iii. 08 3313 - Overhead Door Company
 - iv. 08 4413 - Coral Industries FL300T / FL200T
 - v. 08 4413 - Coral Industries PW251
 - vi. 08 7100 - Medeco x4
 - vii. 09 6566 - Monoflex Champion Flooring
 - viii. 11 6623 - Nevco Shot Clock and Scorer Table
 - ix. 12 6613 - Kodiak Bleachers
 - x. 14 2100 - Mowry Elevator
 - xi. 28 3100 - Honeywell Gamewell

AD3-5 ATTACHMENTS:

- A. RFI Log Addendum 03
- B. Spec Section 01 2200
- C. Spec Section 01 2300
- D. Spec Section 09 6566
- E. Spec Section 09 7800
- F. Spec Section 10 7316
- G. Spec Section 11 6643
- H. Spec Section 13 1100
- I. Spec Section 32 8400
- J. Spec Section 32 9219
- K. Spec Section 32 9223
- L. Spec Section 32 9300
- M. Substitution Requests Listed Above

N. Drawings Listed Above

END OF ADDENDUM NUMBER 03

PREPARED BY

GMC

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Tel 205.879.4462 | GMCNETWORK.COM
Goodwyn Mills Cawood, LLC.

NO.	Question	ADD #	Response
1	Per the prebid, clarify the city will furnish and deliver dirt to the job site	1	Yes, city will furnish and deliver select fill to the project site
2	Provide civil CAD file	1	We will not provide CAD file
3	Per the prebid, clarify who is responsible for tap, meter, impact fees	1	Sheet C-001 - General Note 15, Section Sheet L6.01 – Irrigation Note 3, Section 33 1000 Paragraph 1.2, and Section 33 3000 Paragraph 1.2 indicate that all utility costs shall be paid by the Contractor and included in the bid. NOTE: The Owner/Utility will waive the impact and tap fees ONLY. All other work and materials associated with the sewer and water services shall be provided by the Contractor in the base bid. The Contractor shall coordinate with the Utility regarding an acceptable meter and any required installation details.
4	Per the prebid, clarify if the city will waive the building permit/plan review fees	1	Yes, city will waive bulding permit / plan review fees
5	Per the prebid, clarify that although the project is tax exempt, bidders are to include an occupational tax of 2%	1	Yes
6	Please provide the total R value of the roof insulation	1	Provide minimum R-25 c.i
7	There seems to be some discrepancy in the intent of alternates 2 and 3 between the Alternates spec, the Bid Form / Tax Form, and the drawings. Are these supposed to be additive alternates or deductive alternates? Please provide more info and clarification on these alts	3	See revised Alternates section and Civil drawings
8	Sheet L1.01 references Arch dwgs for outdoor showers, but cannot seem to locate on arch drawings. Provide spec/detail if to be included by GC in base bid or alt 2	3	Outdoor showers will be included in base bid. Shower location can be found on updated sheet L1.01. Refer to Addendum 02 Plumbing for piping information.
9	Provide detail for seat walls shown at brick paver areas and amphitheater area	3	See attached - L4.01
10	Provide subslab / subgrade prep requirements for brick pavers	3	See attached - L4.01
11	Provide spec for WDP-1 Parklex Wood Paneling	3	See Attached - Addendum 03

NO.	Question	ADD #	Response
13	Please provide a spec section for the pool.	3	See Attached - Addendum 03
14	Please provide the basis of design or brand type for the cement fiber board.	2	Please refer to section 07 4300 in the IFB Specs
15	Please reference Drawings A7.05 and A7.06-Specialty Equipment Schedule: Item 25 is shown as a Scoreboard, which is to be CFCL. Specification Section 11 6623, Part 1.02, B, 4 lists Section 11480-Scoreboard as a Related Section to Section 11 6623. However, Section 11480-Scoreboard is not in the Project Specifications. Please provide specification requirements for the Scoreboard.	3	See Attached - Addendum 03
16	Reference Specification Section 28 78 00, Part 1.01 A: Is the Fire Alarm Contractor the only contractor allowed to conduct the radio signal survey for the Emergency Responder Radio Coverage System? There are other companies that specialize in this scope of work.	2	The company testing the emergency responder radio coverage does not have to be the fire alarm contractor, but the testing company needs to have the proper FCC licenses to allow them to test emergency radio systems.
17	A2.02 shows height to baffles to be 26"-4" . Is this meant to be 26'-4"?	2	25'- 6" to Bottom of Baffle, see revised A2.02
18	A6.02 - detail H4 shows honeycomb material above door header. What is this supposed to represent?	2	Closed Cell Foam Insulation
19	Please confirm if windows (SF9, 10, 13 & 17) on A6.12 are actually curtainwall?	2	SF 9, 10, 13 & 17 are all Storefront
20	Please clarify the square drawn to the left of the concession window with no label shown in detail C3/A7.03	2	See ELEC.
21	There is no tag for E11 on A7.03 in any of the enlarged drawings on the page. Please indicate where the detail for the on-wall watercooler/drinking fountain is located.	2	Refer to Floor Plan - Level 1 on sheet A1.01
22	The Finish plans show a WOC-1 condition at entry/exits, while the finish legend shows a WOM-1 condition. Is this the same condition?	2	Yes, it is same condition. Finish legend has been updated to match
23	Is the WDF-1 condition the same as spec section 096466 Wood Athletic Flooring Assemblies? WDF-1 is not included in Finish Legend.	2	WDF - 1 is meant to be WFS - 1, WFS - 1 is referenced in the finish legend
24	On signage type details on A8.51, it shows types A1, A8, & A10. However, there are none of these shown on signage schedule on A8.52. Please clarify if these are included & their quantities & locations.	2	Correct, A1, A8, and A10 are not included in the project
25	Please provide details for the stairs for the amphitheater. Either the landscape or civil plans provide details for the stairs.	3	See attached - L4.01

NO.	Question	ADD #	Response
26	Crushed stone walkway P-102 references detail 7/L4.00. Page L4.00 was not provided, please confirm 7/L4.01 is the correct detail.	3	Detail 7/L4.01 is correct. See attached with updated reference numbers
27	Please provide details of the brick pavers shown on civil plan C-101. Detail not provided in landscape as stated on C-101. Spec section not provided, please issue spec section.	3	Refer to L1.01 - Materials Plan for materials locations. Unilock paver detail is on L4.01, see updated sheet.
28	Please confirm flagpole detail 3 & 4 on L4.01 are correct for F-102 & F-103 type flagpoles	3	These details are correct, see attached with updated reference numbers
29	Civil plan C-101 shows concrete sidewalk 4" & landscape plan L1.01 shows Unilock Paver 8"x24" in same locations. Please clarify what material is to be used	3	See Landscape Materials Plan L1.01 for materials
30	Please clarify the elements of the splash pad, amphitheatre, and playground that are to be included in the base bid vs those to be included in the alternate. The civil plans C-101 & C-102 & landscape plans L1.01 & L1.02 show conflicting information & spec section 01.2300 is unclear.	3	See attached Alternates section
31	Please clarify the number of carousel tables F-101 landscape plan L1.01 shows 5 each, however civil plan C-101 only shows 3 each.	3	Refer to Landscape L1.01 for furniture locations and quantity
32	Please confirm detail 5/L4.01 is the correct detail for the Ameristar fence FE-101 shown on L1.01	3	Detail 05/L4.01 is correct
33	Please provide detail for the Ameristar gate FE-102 shown on L1.01.	3	See attached - L4.01
34	Please provide detail for the bonded rubber surfacing PG-101 shown on L1.01. No detail provided for this material in landscape plans.	3	See attached - L4.01
35	Detail 8/L4.01 looks to be the a 10'x10' detail for the plank pavers P-103 shown on L1.01 & L1.02, please confirm this is the correct detail	3	Detail 8/L4.01 shows a sample area of the Unilock Paver in plan view to show paver layout and color mix. Refer to L1.01 - Materials Plan for location of paver material.
36	Detail H3, A7.03 shows full height wall tile, & is also indicated on A8.03 via the red line indicating full height wall tile. Please indicate what finish the other 3 walls are for this restroom.	2	The other 3 walls to receive PNT-1
37	Please indicate what the wall finish is on CMU walls at men's & women's locker rooms 103,105,107, & 109 that are not full height wall tile as indicated by the red lines on A8.03.	2	Walls that do not receive tile are to receive PNT-1

NO.	Question	ADD #	Response
38	Please confirm the Substitution Request deadline for the project is June 22nd & that the Substitution Request Form has to be provided for the consideration to be considered. Spec 000800 states substitution requests can be submitted up to 5 calendars days prior to the bid; AIA A701 Instruction to Bidders states substitutions are to be submitted 10 days prior to the bid.	2	Correct, substitution requests can be submitted until 5 days prior
39	Please clarify the RFI deadline for the project. AIA A701 Instructions to Bidders states RFIs are to be submitted 7 days prior to the bid.	2	RFI Deadline is 48 hours prior to Bidding - refer to 01.3000, 3.02 A
40	Please confirm if the GC is to pay the Alabama CICT Fee.	2	Yes, GC must pay Alabama CICT Fee
41	Please confirm if the owner is to pay for all final & temporary power usage costs.	2	Temporary Utilities are Contractor's responsibilities - refer to 01.5000, 1.03
42	Please confirm if the owner is to pay for all final & temporary power company fees.	2	Temporary Utilities are Contractor's responsibilities - refer to 01.5000, 1.04
43	Please confirm if the owner will pay for the ADEM permit.	2	Refer to 31.2500 1.3 B
44	Please clarify all the staffing requirements for the project. 001700 Supplementary Conditions 3-f states the only requirement is a superintendent with 5 years' experience, Spec 010150 Special Conditions 1.17-B states the only requirement is a superintendent with 7 years' experience, so based on this, no other qualifications are required for any additional staff on the project. We recommend additional staffing requirement be provided for Project Managers & QA/QC Staff Member & any other personnel that the owner & architect deem needed for this project.	2	Refer to 01.0150 1.17 for the applicable requirements of all contractor personnel
45	Please confirm if BIM modeling & coordination will be required for the project.	2	BIM Modeling and Coordination is not required
46	Please confirm that the substantial completion date will be 425 days from the Owner's official Notice to Proceed. Spec 010150 - 1.02 C doesn't provide a date, but at the pre-bid 425 days was stated on the meeting agenda. Also, please clarify when the notice to proceed will be issued to the awarded GC.	2	Correct. Notice to Proceed will be issued approximately 1 week after bidding. Refer to Addendum 01.
47	Please confirm that the liquidated damages are 6% per annum of the total contract amount plus \$250 per day for delay in completion & \$250 after 10 additional days beyond the contract completion date for the reimbursement of architect.	2	Refer to Section 01.0150 1.02, section is correct and applicable
48	Please confirm that Procore is the required software for construction management & that all cost associated with this software.	2	Procore is not the only possible software, see revised Section 01.3000

NO.	Question	ADD #	Response
49	Please clarify location of interior mock-up referenced in Spec 014000. The spec references both an exterior & interior mock-up, & to see the drawings for additional information. G1.03 provided information on the exterior mock-up, but no information can be found regarding location of an interior mock-up.	2	Interior Mock-Up not required, see revised Spec 01 4000
50	Please clarify if the owner is to pay for all material & laboratory testing for the project.	2	Contractor is responsible for the cost of all required testing except Divisions 3-5 and 31-32
51	Doors 131 & 203 are missing on the hardware set. Is it understood to apply to opening 131 to "2" and opening 203 to "1"?	2	See Revised Door Schedule A6.01
52	On drawing G1.02, division 5. states edge angles, embed plates, and similar to be hot-dipped galvanized. Is this to apply to the slab edge material at composite slabs?	2	Yes, apply to edge slab material at composite slab
53	Confirm gym equipment required. Wall pads are included in specs but not shown in drawings. Other equipment per the spec does not specify a quantity (ex. Portable basketball goals)	3	Revised gym equipment specs. We will not have wall pads nor portable basketball goals.
54	Per 09 6466 Section 3.03 B, how many coats of seal and finish are required?	3	Manufacturer's recommendations
	Specification Section 32 3300 Site Furnishings is missing from the Specifications. Please provide this Specification section.	3	Removed from Specs
	Drawing L1.01 has note "Pool by Others"; however SP Drawings are included in the Bid Documents. Please confirm all work at the Pool and shown on the SP Drawings is not included in our scope of work.	3	Pool is included in GC scope, note has been updated
	Drawing L1.01 has not at custom splash pad with Base Bid to include 3" water line stub up, splash pad drainage stub up, and concrete surfacing in Base Bid. Note state blue band shall be concrete with integral color blue. If the blue concrete is to be in our scope of work, a more detailed layout is required for us to consider pricing of this work. Please provide more detailed layout of splash pad area and blue color selection so that we can obtain pricing of this work.	3	See revised Alternates section
	Can the pool surge tank be relocated to the pool deck, closer to the pool to eliminate the long run of piping? IF approved, we propose the tank be inside the fenced deck area. We would suggest a Bilco TER-1 hatch door in lieu of a metal hatch, as it could be filled with concrete when the deck is poured.	3	Surge Tank shall be located as shown in the docuemnts - see attached.
	Please allow for Non-AISC steel companies who may not be part of the AISC program but follow the AISC practice and standards on this project. This will help with competitive steel pricing.	3	Non-AISC Companies will be allowed but they shall follow the AISC practice and quality standards and shall have a minimum of 5 years experience on similar projects.

NO.	Question	ADD #	Response
	For the 2% tax that was mentioned in Addendum #1. Please advise if this 2% tax is added on top the base bid price. Please advise if subs must carry the 2% in their price as well.	3	Any required taxes shall be paid by the contractor. Contractor is responsible to understand the requirements of the city of Rainbow City.
	Please confirm the exterior letter size on page A4.01.	3	Exterior signage to be designed and confirmed in the future. See 01 2100, Allowance No. 5
	Specification Section 07 5416, Part 3.06 G requires mechanically fastened and adhered insulation. When mechanically fastening the first layer of insulation, we will penetrate the vapor barrier. Please advise.	3	Acknowledged; if mechanical fasteners are required to satisfy the windstorm resistance classification, then they will penetrate the vapor barrier
	Spec Section 07 54 16, Part 2.02. C2 requires a Hail-Resistance Rating: SH. I have been told a cover board is required to be installed for a 20 year warranty, but a cover board is not shown on the roofing details. Please advise.	3	Refer to G1.20 - Typical Construction Types
	Section 07 5416, Part 3.04 required installation of a substrate board. Again, the substrate board installation is not shown on the roofing details. Please advise.	3	Refer to G1.20 - Typical Construction Types
	Specification Section 01 2100, Part 3.01 E is Allowance 5 for exterior signage. Is this Allowance for the signage shown on Detail J1/A4.4 (letters & logo) or the monumental sign shown on Drawing E:01 (I do not see the monumental sign anywhere else in the Bid Documents). Please clarify.	3	The building mounted Exterior Signage to be covered by allowance No. 5, "EXTERIOR BUILDING SIGN". The Monumental sign to be covered by allowance No. 09, "CONTINGENCY". Electrical for monumental sign to be included in base bid.
	Simplex is the specified fire alarm system. Will equivalents be considered? Please advise if I need to submit a substitution request for the proposed equivalent.	3	See 28 3100 Paragraph 2.15.
	The pool designer called out the rebar spacing for the wall but not the floor. See SP1.01, wall detail. Is the floor rebar also 9" OC or different? It appears to be different, please advise	3	See updated Pool Drawings
	Specification Section 12 6613, Part 2.02 A requires seating to be manually operated. However, Part 2.02, B 6 requires electrically operated. Please clarify.	3	All telescoping bleachers to be manually operated.
	Porter is specified for the Gymnasium Equipment. However, they are not specified for Section 116653-Gymnasium Dividers. Do they need to submit a Substitution Request to be allowed to bid the Gymnasium Dividers? Usually Gymnasium Equipment and Dividers are supplied by the same vendor.	3	Porter is approved for both gymnasium equipment and dividers.
	The specifications are calling for the metals to be a 3-coat finish. The supplier just reached out and said that we could not get a quote on this due to the size, we would not meet the minimum order quantity for special finishes. Please advise if we should quote the standard 2-coat finish.	3	The metal panels in 07 4291 can be finished in a 2-coat Fluoropolymer (Kynar) finish

NO.	Question	ADD #	Response
	<p>On Details E11 & C11/ A7.01, HTW-1 is shown on the face of the bulkheads for the shower stalls but the cross section detail H1/A2.04 shows gyp bd on this face. Which is correct? Also, is the ceiling in the shower stalls tile of gyp bd?</p>	3	<p>H1/A2.04 is a typical detail. E11 & C11 on A7.01 show the intent for that specific instance - use HTW-1 for the bulkheads as referenced by E11 & C11. See RCP for ceiling materials.</p>
	<p>The following plans listed on the drawings index were not included in the set. Please provide the drawings. If not applicable, please remove from the table of contents.</p> <p>L4.02 - HARDSCAPE DETAILS – ALTERNATE L5.02 - LANDSCAPE PLAN – ALTERNATE L7.02 - IRRIGATION PLAN – ALTERNATE M0.05 - OSA SCHEDULES – HVAC M0.06 - OSA SCHEDULES – HVAC M0.07 - OSA SCHEDULES – HVAC M1.00 - SITE PLAN – HVAC M4.01 - PIPING DIAGRAMS – HVAC M4.02 - PIPING DIAGRAMS – HVAC M6.02 - CONTROLS – HVAC</p>	2	<p>Refer to revised Drawing Index</p>
	<p>Please confirm the following drawings not included on the drawings index are applicable to the project.</p> <p>C102 - ALTERNATE SITE LAYOUT PLAN C202 - ALTERNATE GRADING PLAN C602 - ALTERNATE EROSION AND SEDIMENT CONTROL PLAN A1.21 - PLAN DETAILS A1.22 - PLAN DETAILS A2.04 - RCP PLAN DETAILS A3.02 - ROOF DETAILS E2.05 - UPPER ROOF HVAC ELECTRICAL PLAN</p>	2	<p>Refer to revised Drawing Index</p>

SECTION 01 2100
ALLOWANCES

PART 1 GENERAL

1.01 DESCRIPTION OF REQUIREMENTS:

- A. Definitions and Explanations: Certain requirements of the work related to each allowance are shown and specified in contract documents. The allowance has been established in lieu of additional requirements for that work, and further requirements thereof (if any) will be issued by change order.
- B. Types of allowances scheduled herein for the work included the following:
 - 1. Unit cost allowances.
 - 2. Lump sum allowances.
- C. Selection and Purchase:
 - 1. At earliest feasible date after award of Contract, advise Architect/Engineer of scheduled date when final selection and purchase of each product or system described by each allowance must be accomplished in order to avoid delays in performance of the work.
 - 2. As requested by the Architect/Engineer, obtain and submit proposals for the work of each allowance for use in making final selections; include recommendations for selection which are relevant to the proper performance of the work.
 - 3. Purchase products and systems as specified, and as selected (in writing) by the Architect/Engineer.
 - 4. Submit proposals and recommendations, for purchase of products or systems of allowances, in form specified for change orders.
- D. Change Order Data: Include in each change order proposal both the quantities of products being purchased and unit costs, along with total amount of purchases to be made. Where requested, furnish survey-of-requirements data to substantiate quantities. Indicate applicable delivery charges, amounts of applicable trade discounts, and other relevant details as requested by the Architect.
 - 1. Each change order amount for allowances shall be based on the unit price difference between the actual purchase amount and the allowance, multiplied by the final measure or count of work-in-place, with reasonable allowances, where applicable, for cutting losses, tolerances, mixing wastes, normal product imperfections and similar margins.
 - 2. Include overhead and profit in the Contractor's Allowance.
 - 3. When requested, prepare explanations and documentation to substantiate the quantities, costs, and margins as claimed.
- E. Change Order Mark-Up:
 - 1. Except as otherwise indicated, comply with provisions of General Conditions. For each allowance, Contractor's claims for increased costs (for either purchase amount or Contractor's handling, labor, installation, overhead, and profit), because of a change in scope or nature of the allowance work as described in contract documents, must be submitted within 60 days of initial change order authorizing work to proceed on that allowance; otherwise, such claims will be rejected.
 - 2. Where it is not economically feasible to return unused material to the manufacturer/supplier for credit, prepare unused material for the Owner's storage, and deliver to the Owner's storage space as directed. Otherwise, disposal of excess material is the Contractor's responsibility.
- F. Time and Allowance Amounts:
 - 1. Nothing in the Bid or Contract Documents shall be so construed or interpreted as to provide a Contract time extension, due to use or non-use of any Allowance amount.
 - 2. Nothing in the Bid or Contract Documents shall be so construed or interpreted as to allow unused Allowances or any portion thereof, nor any overhead and profit therefor to be retained by or paid to the Contractor.
 - a. Full amount of unused allowances shall be returned to the Owner.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 SCHEDULE OF ALLOWANCES:

- A. **Allowance No. 01 - EMERGENCY RESPONDER RADIO COVERAGE SYSTEM (Cash Allowance)**
1. Allow a lump sum price of ONE-HUNDRED THOUSAND DOLLARS (\$100,000) for work associated with the purchase and installation of an Emergency Responder Radio Coverage System if found to be required after testing of the facility.
 2. See Section 28 7800 - Emergency Radio Responder Coverage System for requirements. Costs associated with testing to identify if the system is required shall be included in the Base Bid, and NOT as part of Allowance.
 3. Include overhead and profit in Base Bid and not as part of Allowance.
- B. **Allowance No. 02 - PERMANENT CORES AND KEYS (Cash Allowance)**
1. Allow a lump sum price of TEN THOUSAND DOLLARS (\$10,000) for purchase of permanent keyed cores and keys, as directed by owner. Cores to be used in lock cylinder housings supplied under Division 08 Section 08 7100-Finish Hardware.
 2. See Section 08 7100 - Door Hardware for requirements.
 3. Provide each core with one operating key. New key system shall include five (5) master keys per master key group created, two (2) permanent control keys and five (5) grand master keys and one-hundred (100) blanks.
 4. Installation of the permanent cores, including installation material costs, shall be included in the Base Bid, and not as part of Allowance.
 5. Include overhead and profit in Base Bid and not as part of Allowance.
- C. **Allowance No. 3 - MASONRY MORTAR (Cash Allowance)**
1. Allow a unit cost of \$14.00 per bag, for the purchase of up to one (1) color of colored mortar, delivered to the job site, including all related expenses.
 2. Include overhead and profit in Base Bid, and not as part of Allowance.
 3. Masonry, standard gray mortar at interior (painted and unpainted walls - see Finish Schedule), concealed masonry work, and all mortar installation and installation materials (grout, ties, reinforcing, etc.) with the exception of the mortar of the interior brick masonry walls shall be included in Base Bid, and not as part of Allowance.
 4. Mortar color will be selected by the Architect, after award of the Contract for construction of this project.
- D. **Allowance No. 4 - BRICK MASONRY: (Cash Allowance)**
1. Field Brick & Brick Pavers: Allow a unit cost of \$500.00 per thousand for brick units, including purchase, delivery to the job site, and all related costs. Colors to be selected by Architect.
 2. Include overhead and profit in Base Bid, and not as part of Allowance.
 3. Installation of brick masonry and mortar installation and installation materials (grout, ties, reinforcing, etc.) shall be included in Base Bid, and not as part of Allowance.
 4. Concrete masonry units (CMU), mortar, installation, and installation materials (grout, ties, reinforcing, etc.) shall be in Base Bid, and not as part of Allowance.
 5. The brick will be modular (7-5/8" x 2-1/4" x 3-5/8" depth), unless otherwise indicated, selected by Architect after bidding, with special shapes as indicated and specified.
- E. **Allowance No. 5 - EXTERIOR BUILDING SIGN (Cash Allowance)**
1. Allow a lump sum price of FOURTY-FIVE THOUSAND DOLLARS (\$45,000) for work associated with the design, purchase, and installation of an exterior building sign as indicated in the Drawings.
 2. Installation and installation materials costs shall be included in Allowance, and not as a part of the Base Bid.
 3. Include overhead and profit in Base Bid.
 4. Electrical provisions outlined in the Drawings are to be included in the Base Bid, and not as a part of the Allowance.
- F. **Allowance No. 06 - ACCESS CONTROL SYSTEM (Cash Allowance)**

1. Allow a lump sum price of TWENTY-FIVE THOUSAND DOLLARS (\$25,000) for work associated with the purchase and installation of the access control system to be installed in the facility.
 2. The Access Control System itself (including readers, cabling, head-end equipment, and installation) is not specified in the Contract Documents, however certain provisions including raceways and power service are included in the scope of work and shall be included in the Base Bid, and NOT as part of Allowance.
 3. Include overhead and profit in Base Bid and not as part of Allowance.
- G. Allowance No. 07 - SECURITY CAMERA SYSTEM (Cash Allowance)**
1. Allow a lump sum price of TWENTY-FIVE THOUSAND DOLLARS (\$25,000) for work associated with the purchase and installation of a security camera system to be installed in the facility.
 2. The Security Camera System itself (including cameras, head-end equipment, and installation) is not specified in the Contract Documents, but certain provisions including raceways, power service, and cabling are included in the scope of work and shall be included in the Base Bid, and NOT as part of Allowance.
 3. Include overhead and profit in Base Bid and not as part of Allowance.
- H. Allowance No. 08 - AUDIO VISUAL / LOW VOLTAGE CONTINGENCY (Cash Allowance)**
1. Allow a lump sum price of ONE-HUNDRED THOUSAND DOLLARS (\$100,000) as an Audio Visual / Low Voltage Contingency Allowance.
 2. Include overhead and profit in Base Bid and not as part of Allowance.
- I. Allowance No. 09 - CONTINGENCY (Cash Allowance)**
1. Allow a lump sum price of ONE HUNDRED THOUSAND DOLLARS (\$100,000) as a Contingency Allowance.
 2. Include overhead and profit in Base Bid and not as part of Allowance.
- J. Allowance No. 10 - UNDERCUT AND BACKFILL IN BUILDING CONTROL AREA**
1. In accordance with Section 01 2200 - Unit Prices and Section 31 2000 - Earth Moving, include an Allowance for the quantity identified. The Allowance value will be adjusted up or down based on the actual quantity of the Work.
 2. See Section 01 2200 - Unit Prices for costs to be included and procedures for payment of Unit Price work.
 3. Calculating Allowance No. 10:
 - a. Unit Price Item A: Undercut and Backfill in Building Control Area
 - b. Quantity of SIX HUNDRED SEVENTY FIVE (675) Cubic Yards (CY)
 - c. Unit Price for each CY \$ _____.
 - d. Total Allowance No. 10 Value (b x c): \$ _____.
- K. Allowance No. 11 - UNDERCUT AND BACKFILL IN PAVEMENT CONTROL AREA**
1. In accordance with Section 01 2200 - Unit Prices and Section 31 2000 - Earth Moving, include an Allowance for the quantity identified. Undercut and Backfill illustrated in the drawings and specified herein shall be included in the Base Bid, not as part of Allowance. The Allowance value will be adjusted up or down based on the actual quantity of the Work.
 2. See Section 01 2200 - Unit Prices for costs to be included and procedures for payment of Unit Price work.
 3. Calculating Allowance No. 11:
 - a. Unit Price Item B: Undercut and Backfill in Pavement Control Area
 - b. Quantity of FOUR THOUSAND (4000) Cubic Yards (CY)
 - c. Unit Price for each CY \$ _____.
 - d. Total Allowance No. 11 Value (b x c): \$ _____.

END OF SECTION

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**SECTION 01 2300
ALTERNATES**

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Description of alternates.
- B. Procedures for pricing alternates.

1.02 ACCEPTANCE OF ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted alternates will be identified in the Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work to integrate the Work of each alternate.

1.03 SCHEDULE OF ALTERNATES

- A. Alternate No. 1 - Addition of the Exterior Amphitheater:
 - 1. Base Bid Item: Construction of the project according to the documents as issued with the exclusion of the Exterior Amphitheater and associated Work.
 - 2. Alternative Item: This alternate item should include the addition of the Exterior Amphitheater with all required utilities, grading, drainage, and coordination outlined in the Drawings.
- B. Alternate No. 2 - Omission of the Splash Pad as an OFOI Item:
 - 1. Base Bid Item: Construction of the project according to the documents as issued with the inclusion of the necessary splash pad components outlined in the drawings to facilitate the remaining splash pad scope as a Owner Furnished Owner Installed item. The Base Bid should include all associated Work outlined in the Drawings to provide all hardscape, grading and drainage provisions for the area outside of the indicated splash pad (OFOI).
 - 2. Alternative Item: This alternate item should include the addition of all Work required for hardscape, grading, and drainage for the area inside of the splash pad as indicated in the drawings.
- C. Alternate No. 3 - Addition of the Playground as an OFOI Item:
 - 1. Base Bid Item: Construction of the project according to the documents as issued with the exclusion of the playground and associated Work.
 - 2. Alternative Item: Construction of the project according to the documents with the inclusion of pad preparation, fencing, sidewalk, and all other required Work for the installation and coordination of the playground components as an Owner Furnished Owner Installed item.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

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SECTION 09 6566
RESILIENT ATHLETIC FLOORING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Fluid-applied, homogeneous polyurethane flooring.
- B. Fluid-applied polyurethane flooring over rubberized base mat.
- C. Painted game lines.

1.02 RELATED REQUIREMENTS

- A. Section 03 3000 - Cast-in-Place Concrete: Restrictions on curing compounds for concrete slabs and floors to receive adhesive-applied flooring.
- B. Section 09 0561 - Common Work Results for Flooring Preparation: Removal of existing floor coverings, cleaning, and preparation.
- C. Section 09 6500 - Resilient Flooring.

1.03 REFERENCE STANDARDS

- A. ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers--Tension; 2016 (Reapproved 2021).
- B. ASTM D2240 - Standard Test Method for Rubber Property--Durometer Hardness; 2015 (Reapproved 2021).
- C. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring; 2022.
- D. ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride; 2023.
- E. ASTM F2170 - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes; 2019a.
- F. ASTM F2772 - Standard Specification for Athletic Performance Properties of Indoor Sports Floor Systems; 2011 (Reapproved 2019).
- G. DIN EN 14904 - Surfaces for Sports Areas – Indoor Surfaces for Multi-Sports Use – Specification; 2006.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's printed data sheets for products specified.
- C. Shop Drawings: Fabrication and installation details, and layout, colors, and widths of game lines and equipment locations.
- D. Selection Samples: Manufacturer's color charts for flooring materials specified and game line paints, indicating full range of colors and textures available.
- E. Test Reports: Submit test reports showing compliance with DIN EN 14904.
- F. Concrete Subfloor Test Report: Submit a copy of the moisture and alkalinity (pH) test reports.
- G. Manufacturer's Instructions: Indicate standard and special installation procedures.
- H. Installer's qualification statement.
- I. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 01 6000 - Product Requirements, for additional provisions.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with at least three years of documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to project site in unopened containers clearly labeled with manufacturer's name and identification of contents.
- B. Store materials in dry and clean location until needed for installation. During installation, handle in a manner that will prevent marring and soiling of finished surfaces.

1.07 FIELD CONDITIONS

- A. Maintain temperature in spaces to receive adhesively installed resilient flooring within range of 70 to 95 degrees F for not less than 48 hours before the beginning of installation and for not less than 48 hours after installation has been completed. Subsequently, do not allow temperature in installed spaces to drop below 50 degrees F or to go above 100 degrees F.

1.08 GUARANTEE

- A. Manufacturer's Warranty (or Equivalent):
 - 1. Guarantee shall not cover damage caused in whole or in part by casualty, ordinary wear and tear, abuse, use for which material is not designed, faulty construction of the building, settlement of the building walls, failure of the other contractors to adhere to specifications, separation of the concrete slab and excessive dryness or excessive moisture from humidity, spillage, migration through the slab or wall, or any other source.
 - 2. Robbins, Inc. hereby warrants the Pulastic Classic 90 material to be free from manufacturing defects for a period of 25 years. This warranty is in lieu of all other warranties, expressed or implied including but not limited to any warranty of merchantability or fitness for a particular purpose, and of any other obligations on the part of Robbins. In the event of breach of any warranty, the liability of Robbins shall be limited to repairing or replacing Pulastic Classic 90 material and system components supplied by Robbins and proven to be defective in manufacture, and shall not include any other damages, either direct or consequential.
- B. Warranty Period: Free from manufacturing defects for a period of at least 25 years

PART 2 PRODUCTS

2.01 FLUID-APPLIED ATHLETIC FLOORING

- A. Manufacturers: All products by the same manufacturer.
 - 1. Action Floor Systems; Herculac MF: www.actionfloors.com/#sle.
 - 2. Connor Sports Flooring; ____: www.connorfloor.com/#sle.
 - 3. Dynamic Sports Construction Inc; ____: www.dynamicsportsconstruction.com/#sle.
 - 4. Robbins Sports Surface : www.robbinsfloor.com/#sle. (BASIS OF DESIGN) Pulastics Classic 90
 - 5. Substitutions: See Section 01 6000 - Product Requirements.
- B. Homogeneous Polyurethane Flooring System, Type ____:
 - 1. Total System Thickness: Minimum 23/64 inch.
 - 2. Primer: Manufacturer's recommended standard for project substrate.
 - 3. Resin: Two-component, solid, pigmented, self-leveling polyurethane without fillers, with properties as follows:
 - a. Formulation: Mercury catalyzed.
 - b. Tensile Strength: Minimum 400 psi, per ASTM D412.
 - c. Hardness: 50 to 60, when tested in accordance with ASTM D2240 using Type A durometer.
 - d. Temperature Stability: Unaffected over range of 0 to 120 degrees F.
 - e. Ultimate Elongation: Minimum 250 percent, per ASTM D412.
 - 4. Finish Coating: Manufacturer's standard pigmented, two-component polyurethane wear layer.
 - a. Color: As selected from manufacturer's standard range.
 - b. Finish: Smooth gymnasium.
- C. Polyurethane Flooring Over Rubberized Base Mat: Robbins Pulastics Classics 90
 - 1. Total System Thickness: Minimum 1/4 inch; with minimum 0.07 inch polyurethane.
 - 2. Base Mat: Prefabricated rubber mat of recycled rubber granules in polyurethane binder.

3. Sealer: Manufacturer's standard two-component polyurethane compound designed to seal base mat before application of resin topcoat.
4. Resin: Two-component, solid, pigmented, self-leveling polyurethane without fillers, zero mercury formulation, with properties as follows:
 - a. Tensile strength: Minimum 1000 psi, per ASTM D412.
 - b. Durometer Hardness, Type A: Minimum of 70, when tested in accordance with ASTM D2240.
 - c. Ultimate Elongation: Minimum 100 percent, per ASTM D412.
5. Finish: Manufacturer's standard pigmented two-component polyurethane topcoat, matte finish, in color as selected from manufacturer's standard range.

2.02 ACCESSORIES

- A. Leveling Compound: Latex-modified cement formulation as recommended by flooring manufacturer for substrate conditions.
- B. Flooring Adhesive: Waterproof; types recommended by flooring manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine substrates for conditions detrimental to installation of athletic flooring. Proceed with installation only after unsatisfactory conditions have been corrected.
- B. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and other chemicals that might interfere with bonding of athletic flooring to substrate.
- C. Cementitious Subfloor Surfaces: Verify that substrates are ready for resilient flooring installation by testing for moisture and alkalinity (pH).
 1. Test in accordance with Section 09 0561.
 2. Test as Follows:
 - a. Alkalinity (pH): ASTM F710.
 - b. Internal Relative Humidity: ASTM F2170.
 - c. Moisture Vapor Emission: ASTM F1869.
 3. Obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer.

3.02 PREPARATION

- A. Prepare floor substrates as recommended by flooring and adhesive manufacturers.
- B. Concrete: Use leveling compound as necessary to achieve substrate flatness of plus or minus 1/8 inch within 10 ft radius.
- C. Remove coatings that are incompatible with flooring adhesives, using methods recommended by flooring manufacturer.
- D. Broom clean areas to receive athletic flooring immediately before beginning installation.

3.03 INSTALLATION

- A. Starting installation constitutes acceptance of subfloor conditions.
- B. Install in accordance with manufacturer's written instructions.
- C. Fluid-Applied, Homogeneous Polyurethane Flooring:
 1. Mix components in strict accordance with manufacturer's written instructions. Apply at manufacturer's recommended rates using airless spray equipment. Allow sufficient time to dry completely between coatings.
 2. Apply primer over prepared substrate.
 3. Apply base layer and one or more top layers in strict compliance with manufacturer's recommendations to achieve minimum thickness specified.
 4. Apply finish coating to achieve an even, consistent appearance.

5. Lay out game lines using tape and taping machine approved by flooring manufacturer. Apply game line paint with roller, and allow to dry before removing tape.
- D. Fluid-Applied Polyurethane Flooring Over Base Mat:
1. Mix components in strict accordance with manufacturer's written instructions, and apply at manufacturer's recommended rates. Allow sufficient curing time between coatings.
 2. Unroll base mat and allow to relax before beginning installation.
 3. Apply adhesive to substrate with notched trowel, and roll base mat into fresh adhesive. Do not allow compression fit at any seams. Roll mat with weighted linoleum roller immediately upon application of base mat and again after 45 minutes to insure that base mat is firmly adhered to substrate.
 4. Thoroughly mix and apply seal coat to surface of base mat with steel trowel.
 5. Apply resin wear layer in number of lifts recommended by manufacturer, applying wet-into-wet to achieve a seamless surface. Sand any imperfections in surface after wear layer has cured.
 6. Thoroughly mix and apply finish coat with airless sprayer to achieve uniform appearance.
 7. Lay out game lines using tape and taping machine approved by flooring manufacturer. Apply game line paint with roller, and allow to dry before removing tape.

3.04 CLEANING

- A. Clean flooring using methods recommended by manufacturer.

3.05 PROTECTION

- A. Protect finished athletic flooring from construction traffic to ensure that it is without damage upon Date of Substantial Completion.

END OF SECTION

SECTION 09 7800
INTERIOR WALL PANELING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes
 - 1. Interior high pressure laminate natural wood veneer panels at walls.

1.02 ADMINISTRATIVE REQUIREMENTS

- A. Coordination Procedures:
 - 1. Coordinate work results of this Section with .
- B. Preinstallation Meeting Attendees and Procedures:
 - 1. Conduct meeting one week, minimum, before starting Work of this Section.
 - 2. Additional Attendees: awarded subcontractor, general contractor, and any directly related trades.
 - 3. Additional Agenda Items: .

1.03 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Initial selection color samples.
- B. Shop Drawings.
 - 1. Show fabrication and installation layouts including direction of wood grain finish on panels, details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, accessories; and special details.
- C. Samples:
 - 1. Panels: Submit three 11 by 8 inches (297mm by 210 mm) for each finish.
 - 2. Accessories: 8 inch (20 cm) long section.
 - 3. Assembly Samples: Assembled panel, 11 by 8 inches (297mm by 210 mm) in size showing subframe and fasteners.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Refer to manufacturer user manual.
 - 1. Transport panels strapped down horizontally to avoid sliding; protect edges and corners.
- B. Storage: Refer to manufacturer user manual.
 - 1. Maintain in original protective package until use.
 - 2. Store in a clean, dry, enclosed, and ventilated area.
 - a. Temperature: 50 degrees F (10 degrees C), minimum, 80 degrees F (27 degrees C), maximum.
 - b. Humidity: 30 percent, minimum, 70 percent, maximum.
 - 3. Store horizontally on elevated platforms, with supports 24 inches (60 cm) apart, maximum.
 - 4. Cover panels to match original packaged condition while not in use.
- C. Handling: Lift and move panels evenly to avoid scratching the decorative surface.

1.05 FIELD CONDITIONS

- A. Existing Conditions: Verify field measurements before fabrication. Show field measurements on Shop Drawings.

1.06 WARRANTY

- A. Manufacturer Warranty:
 - 1. Interior Wall Panels: Warrant against product failure.
 - a. Warranty Period: 10 years.

PART 2 - PRODUCTS

2.01 INTERIOR WALL PANELS

- A. Panels: Interior high pressure laminate natural wood veneer panels, thermoset phenolic resin core, with moisture-resistant, scratch-resistant, and antibacterial finish.
 - 1. Basis of Design: NATURPANEL-W S manufactured by PARKLEX PRODEMA.
 - 2. Substitutions: Reference Section 01 6000 - Product Requirements.
 - 3. Panel Thickness: 9/16 inch (14mm)
 - 4. Size: See Drawings
 - 5. Color: Beech.
 - 6. Installation Method: Tongue and groove system on battens

2.02 ACCESSORIES

- A. Manufacturer standard components as required for complete installation.

2.03 PERFORMANCE

- A. Surface Burning Performance: ASTM E84, Class C.
 - 1. Flame Spread Index: 40 maximum.
 - 2. Smoke Developed Index: 165, maximum.
- B. Antibacterial Surface: ISO 22196, procedure JIS Z 2801.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Condition product per manufacturer recommendations.

3.03 INSTALLATION, GENERAL

- A. Follow manufacturer instructions.
- B. Anchor panels and sub-framing securely per engineering recommendations and approved Shop Drawings to allow for necessary movement and structural support.
- C. Cut and drill panels, confirming fixed and floating points, and locate fastener hole spacing according to manufacturer recommendations.
- D. Install plumb, level, and accurately spaced according to manufacturer recommendations and approved submittals and Shop Drawings.
- E. Fasten panels with fasteners approved for use with supporting substrate.
- F. Maintain 3/8 inch (10 mm) minimum air gap clearance behind panels.
- G. Maintain perimeter clearance of 1/4 inch (6 mm), minimum between each panel and to adjacent materials.
- H. Fastener to edge distance within manufacturer recommendation.
- I. Replace damaged panels.

3.04 INSTALLATION, CONCEALED FASTENING WITH PLUGS

- A. Install [vertical] [horizontal] aluminum channels spaced per manufacturer recommendations.
- B. Drill attachment points in panels and screw to channels per manufacturer recommendations.
- C. Maintain gap between panels of 5/16 inch (8 mm), minimum.
- D. Install caps over screws.

3.05 INSTALLATION, TONGUE AND GROOVE SYSTEM

- A. Install vertical wooden battens, spaced per manufacturer recommendations.
- B. Starting at base or edge of wall, install adhesive on battens to suit width of the panel being installed. Use spacer at edge to provide 5/16 inch (8 mm), minimum gap at base or edge of wall.
- C. Install slats tongue side up and nail through tongue into batten.
- D. Install adhesive bead at inside groove of vertical panel edges and panel for next row. Gently tap to close seam and immediately remove excess adhesive.
- E. For ceiling installation, provide a temporary block at edges until adhesive cures.

3.06 INSTALLATION, ADHESIVE

- A. Install adhesive on panels at rate recommended by manufacturer.

3.07 CLEANING

- A. Remove protection film immediately after installation.
- B. Clean finished surfaces as recommended by panel manufacturer; do not use abrasive cleaners.

END OF SECTION

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SECTION 10 7316
CANOPIES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Work in this section includes furnishing and installation of extruded aluminum canopy of the following types:
 - 1. Column Supported Type (post and beam).
 - 2. Wall Supported Type.

1.02 RELATED REQUIREMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. Section 04 2000 - Unit Masonry: Masonry work.
- C. Section 05 5000 - Metal Fabrications: Miscellaneous metals.
- D. Section 07 6200 - Sheet Metal Flashing and Trim: Sheet metal flashing.
- E. Section 07 9005 - Joint Sealers: Sealants.

1.03 REFERENCE STANDARDS

- A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels; 2005.
- B. Aluminum Design Manual 2000, Specifications & Guidelines for Aluminum Structures.A.
- C. ASCE 7, Minimum Design Loads for Buildings and Other Structures.
- D. American Architectural Manufacturer's Association (AAMA).
- E. American Society for Testing and Materials (ASTM).

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's product information, specifications and installation instructions for building components and accessories.
- C. Shop Drawings: Indicate all necessary plan dimensions, elevations and details. General Contractor shall verify all dimensions and provide elevations at each column, finish floor, and related soffit before releasing to manufacturer for fabrication.
- D. Certification: Submit design calculations signed by a Registered Professional Engineer, licensed in Alabama. Design calculations shall state that the canopy system complies with the wind requirements of ASCE 7-95, the applicable building code, and all other governing criteria.
- E. Warranty: Submit manufacturer's warranty (as described below) and ensure that forms have been completed in Owner's name and registered with manufacturer.

1.05 QUALITY ASSURANCE

- A. Designer Qualifications: Perform design under direct supervision of a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.
- B. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.
- C. Installer Qualifications: Company specializing in performing the work of this section with minimum three years of experience, and approved by manufacturer.
- D. Wind Uplift: Provide roof and vertical panel systems including supports meeting requirements of Underwriters Laboratories, Inc. for Class 90 wind uplift resistance.
 - 1. Minimum Code Wind Load at Site: 90 mph (IBC 2006).

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store all canopy components in protected areas.

1.07 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Canopy system, including materials and workmanship, shall be warranted from defects for a period of one year from substantial completion of installation.
- C. Provide 10 year manufacturer warranty for canopy system remaining intact (without perceptible deformation) and completely leak-free for 10-years from date of acceptance of project (this warranty need not cover damage from winds exceeding the velocities and/or loading required by the International Building Code).
- D. Provide 10 year manufacturer warranty covering finish of canopy when finished with fluoropolymer coating.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Column Supported Canopy System:
 - 1. Architectural Shade Products: www.architecturalshade.com.
 - 2. Mitchell Metals: www.mitchellmetals.net.
 - 3. Superior Mason Products LLC: www.superiormetalproducts.com.
 - 4. Tennessee Valley Metals, Inc.: www.tvmetals.com.
 - 5. Substitutions: See Section 01 6000 - Product Requirements.
- B. Wall Supported Canopy System:
 - 1. Architectural Shade Products: www.architecturalshade.com.
 - 2. Mitchell Metals: www.mitchellmetals.net.
 - 3. Superior Mason Products LLC: www.superiormetalproducts.com.
 - 4. Tennessee Valley Metals, Inc.: www.tvmetals.com.
 - 5. Substitutions: See Section 01 6000 - Product Requirements.

2.02 MATERIALS:

- A. Structural Components (including but not limited to decking, beams, posts, fascia, channels, tubes, angles, mounting plates and hanger rods) shall be extruded aluminum, alloy 6063-T6.
- B. Fasteners: aluminum, 18-8 stainless steel or 300 series stainless steel.

2.03 COMPONENTS:

- A. Columns: Columns shall be radius-cornered tubular extrusion of size indicated (4" square minimum), with cutout and internal diverter for drainage where required.
- B. Beams: Beams shall be open-top tubular extrusion of size and shape indicated, top edges thickened for strength and designed to receive deck members in self-flashing manner. Provide structural ties in tops of all beams.
- C. Channels, Tubes, Angles, Hanger Rods, and Mounting Plates: Structural aluminum extrusions.
- D. Deck: Deck shall be extruded self-flashing sections interlocking into a composite unit.
- E. Fascia: Fascia shall be size and shape as indicated.
- F. Flashing: Flashing shall be .040" aluminum (min.).

2.04 FABRICATION (COLUMN-SUPPORTED TYPE):

- A. Columns and gutter beams shall be designed such that the columns will be notched to receive and secure the gutter beams.
- B. Support channels and beams shall be designed to receive and secure the gutter beams.
- C. Beams and Columns shall be positively connected with neatly mitered corners.
- D. Deck shall be manufactured of extruded modules that interlock in a self-flashing manner. Assemble deck with sufficient camber to offset dead load deflection.

- E. Concealed drainage: Water shall drain from covered surfaces into integral gutter beam and be directed to ground level discharge via one or more designated support posts.

2.05 FABRICATION (WALL-SUPPORTED TYPE):

- A. Canopy shall use perimeter extruded gutter and extruded decking.

2.06 FACTORY FINISHING:

- A. 70% Fluoropolymer (Kynar) finish: AAMA 2605, three coat.
- B. Color: Selected from manufacturer's standard colors.

2.07 ACCESSORIES:

- A. Splash Pads: Precast concrete type, size and profiles indicated. (Standard profile, if not indicated.) minimum 3,000 psi at 28 days, with minimum 5 percent air entrainment.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that substrates are ready to receive work.

3.02 PREPARATION

- A. Erection shall be performed after all concrete, masonry, and roofing work in the vicinity is complete and cleaned.
- B. Any blocking necessary to install wall supported canopy shall be in place and installed according to approved shop drawings prior to canopy installation.

3.03 INSTALLATION

- A. Installation shall be in strict accordance with manufacturer's recommendations and approved shop drawings.
- B. Blockouts, if required, shall be provided by manufacturer, and installed by General Contractor.
- C. Erect columns and beams true to line, level and plumb.
- D. Aluminum columns embedded in concrete shall be protected by acrylic.
- E. Downspout columns shall be filled with grout to the discharge level to prevent standing water.
- F. Non-draining columns shall have weep holes installed at top of concrete to remove condensation.
- G. All fasteners penetrating building face shall be sealed.
- H. Canopies shall be installed with slope of 1/8" per foot for water to drain from top of canopy to draining scuppers/downspouts and eliminate ponding.
- I. All exposed fasteners shall be painted to match canopy color.
- J. Decking shall be aligned and secured to aluminum frame structure.
- K. Set splash pad under each downspout column outlet.

3.04 CLEANING

- A. After installation, entire system shall be left in a clean condition.

3.05 PROTECTION

- A. Protect the finish during handling and erection.
- B. Take all precautions needed to protect entire canopy system from damage during subsequent construction activity until time of Substantial Completion.

END OF SECTION

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SECTION 11 6643
INTERIOR SCOREBOARDS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes: Interior, electronic scoreboard[s] including control center, and other accessories for complete functional installation.
 - 1. Basketball Scoreboard for Competition Gym.

1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM) Publications:
 - 1. ASTM B221 - Aluminum-Alloy Extruded Bar, Rod, Wire, Shape, and Tube.
- B. National Electrical Code.
- C. Federal Communications Commission, Part 15 Rules & Regulations.
- D. UL and C-UL Standard for Electric Signs, UL 48

1.03 SUBMITTALS

- A. Provide in accordance with Section 01300 - Administrative Procedures:
 - 1. Product data for scoreboards, controls, and accessories. Include descriptions of control functions.
 - 2. Shop Drawings: Include installation drawings, face layout, dimensions, construction, electrical wiring diagrams, and method of anchorage.
 - 3. Finish samples.
 - 4. Copy of guarantee required by Paragraph 1.5 for review by Architect.
 - 5. Manufacturer's installation instructions.

1.04 QUALITY ASSURANCE

- A. Source limitation: All components including scoreboard, control center, control cable, and other accessories and installation hardware shall be products of a single manufacturer.
- B. Manufacturer qualifications: Company specializing in manufacturing electronic scoreboards with 10 years minimum successful world-wide experience.
- C. Scoreboards and other electrical components shall be certified for use in United States and Canada by Underwriter Laboratories, (UL), Inc. and shall bear either UL or C-UL label only.
- D. Scoreboards and other electrical components shall be electrically grounded in accordance with National Electrical Code (NEC), Article 600.

1.05 GUARANTEE

- A. Provide under provisions of Section 01780 - Closeout Submittals: Guarantee to cover defects in materials and workmanship.
 - 1. 5 years parts and factory labor guarantee for scoreboards and accessories from invoice date.
 - 2. 2 years part and factory labor guarantee for wireless controls and receivers from invoice date.
 - 3. Lifetime telephone support.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Daktronics: www.daktronics.com [Basis of Design].
- B. Electro-Mech Scoreboard Company: www.electro-mech.com.
- C. Fair-Play Scoreboards: www.fair-play.com.
- D. Nevco; : www.nevco.com.
- E. Sportable Scoreboards: www.sportablescoreboards.com.
- F. Requests to use equivalent products of other manufacturers shall be submitted in accordance with Section 01600 - Product Requirements.

2.02 MATERIALS

- A. All aluminum construction: Fabricated from 0.063 inch minimum thickness, ASTM B221 aluminum sheet, with reinforcement and slotted mounting brackets top and bottom.
- B. Cabinet withstands high-velocity impact from air-filled sports balls without the need for protective screens.
- C. LED (light emitting diode) units: Seven-bar, segmented digits in protective aluminum cover, rated typical life 100,000 hours, and designed to provide excellent visibility from all angles and sides.
- D. Provide location specific universal power cord with plug for world-wide installation.

2.03 SCOREBOARDS

- A. Basketball Scoreboard for Competition Gym
 - 1. Type: Basis of Design: Model BB-2142 as manufactured by Daktronics. Single sided basketball scoreboard displays period time to 99:59, HOME and GUEST scores to 199, PERIOD to nine and indicates possession and bonus. During the last minute of the period, scoreboard displays time to 1/10th of a second. Scoreboard can also score volleyball, wrestling and any sport requiring a clock, score, and period function.
 - a. Size: 6'- 6" long x 3'-0" high x 0'-6" deep.
 - b. Approximate hanging weight: 80 pounds (36 kg).
 - c. LED displays:
 - 1) LED digit technology:
 - (a) UniView® (UV) - enhanced digits with diffusant lenses over the LEDs that blend the light for a uniform bar look and 140°
 - 2) LED Color:
 - (a) Amber clock/colon and PERIOD digits and bonus indicators with Red score digits and possession indicators
 - 3) Timing: Super bright red 10-inch high digits with lit colon.
 - 4) Team scores: Super bright amber 10-inch high digits.
 - 5) Period: Super bright amber 7-inch high digits.
 - 6) Next possession: Super bright 3-inch amber arrow for each team.
 - 7) Bonus and double bonus in the form of a 4-inch super bright red LED "B".
 - d. Captions
 - 1) Vinyl applied directly to scoreboard face
 - 2) HOME and GUEST captions 4-inches high
 - 3) PERIOD caption 3-inches high
 - 4) Color: As selected by Architect from Manufacturer's full range of colors
 - e. Horn
 - 1) Vibrating horn mounted inside the scoreboard cabinet behind the face
 - 2) Sounds automatically when period clock counts down to zero
 - 3) Sounds manually as directed by operator
 - f. Provide suspension mounting attachments.
 - g. Power requirements: 110 watts. 100-240 VAC, with power factor correction.
 - h. Provide shot clock.

2.04 ACCESSORIES/OPTIONS

- A. Provide each scoreboard or accessory with control cable of length required. Electrical junction boxes, conduits, mounting hardware, and other accessories as required for installation are to be provided by others.
- B. Vinyl striping applied around the clock and scoreboard face
- C. Double bonus indicators in place of single bonus indicators
- D. Standalone Time of Day (scoreboard acts as a clock when control console is unplugged/off)
- E. Different sounding 12 VDC horn in place of buzzer horn

2.05 CONTROL CENTER

- A. Console is an All Sport® 5000 controller
 - 1. Unit shall comply with Part 15 of FCC Rules regarding interference.
 - 2. Features:
 - a. Control can be used to operate both wireless and wired scoreboards.
 - b. Power on-off switch.
 - c. Scores multiple sports using changeable keyboard inserts
 - d. Controls multiple scoreboards, stats displays and shot clocks
 - e. Recalls clock, score, and period information if power is lost
 - f. Runs Time of Day and Segment Timer modes
 - g. Console Includes:
 - 1) Rugged aluminum enclosure to house electronics
 - 2) Sealed membrane water-resistant keyboard
 - 3) 32-character backlit LCD to verify entries and recall information currently displayed
 - 4) Power cord that plugs into a standard grounded outlet
 - 5) Control cable to connect to the control receptacle junction box (wired system only)
 - 6) Hand-held switch for main clock start/stop and horn
 - 7) Soft sided carrying case
 - 8) Accessory Equipment
 - (a) 2.4 GHz spread spectrum radio system with frequency hopping technology and 64 non-interfering channels; system includes a transmitter installed inside the console and a receiver installed inside the scoreboard(s)
 - (b) Hard carrying case
 - (c) Battery Pack

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify exact scoreboard and control center quantities and junction box locations with Architect.
- B. Coordinate requirements for electrical power, wall blocking, auxiliary framing and supports, suspension cables, and other components to be provided under other Specification Sections to ensure adequate provisions are made for complete, functional installation of scoreboards. [Ensure that building roof structure has been designed for loads of suspended scoreboards.]
- C. Coordinate scoreboard electrical requirements to ensure proper power source, conduit, wiring, and boxes are provided. Prior to installation, verify type and location of power supply.

3.02 INSTALLATION

- A. Install scoreboards and accessories in accordance with manufacturer's instructions and approved installation drawings.
- B. Before installation, field test scoreboards and accessories for operating functions. Ensure that scoreboards accurately perform all operations. Correct deficiencies.
- C. Rigidly mount scoreboards and accessories level and plumb with brackets and fasteners.
- D. Clean exposed surfaces.
- E. Protect scoreboards and finishes from other construction operations.

3.03 DEMONSTRATING AND TRAINING

- A. Starting, Adjusting, and Demonstrating, provide demonstration and training session for Owner's representative covering operation and maintenance of electronic scoreboard.

END OF SECTION

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**SECTION 13 1100
SWIMMING POOL**

PART 1 - GENERAL

1.01 RELATED DOCUMENTS AND GENERAL INFORMATION

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to work of this section.

1.02 SCOPE

- A. The work specified in this section is the complete construction of the swimming pool together with all equipment listed on the drawings and specified herein.
- B. The work shall include, but is not necessarily limited to, the furnishing and installation of completely operational and finished swimming pools, pool filtration systems, piping, pool deck equipment and other accessories in accordance with the drawings and specifications.
- C. Bidders should take note of all other sections.
- D. It is the intention of these specifications and drawings to call for documented finished work, tested and ready for operation meeting all regulatory and operational requirements of the authorities having jurisdiction and the drawings and specifications for this project. Furnish all labor, materials, equipment, supervision, regulatory documentation, permits, submittals and services necessary to install the aquatic venue per the intent of the complete construction documents to include the pool structure, gutter and tile, depth markers, signage, deck equipment, filter system, sanitation system, safety and maintenance equipment. This contractor shall coordinate the swimming pool work as directed by the general contractor. The plans are not intended to show in complete detail all the work to be done; but are for the purpose of illustrating the scope of work and special conditions considered necessary for the experienced contractor to take off his materials and lay out his work. This contractor shall be responsible for taking such measurements as may be necessary at the job and adapting his work to local conditions.

1.2 QUALITY ASSURANCE

- A. Qualifications of Pool Contractor: The contractor and his mechanics, to be eligible, must have had at least 5 years experience in the construction of school, municipal and large commercial type swimming pools of similar construction; and must be able to list at least three pools of this type, each with a water surface area of not less than 5,000 square feet which he has constructed and which, upon investigation, would be found by the Owner to have been completed in a satisfactory manner.
- B. Contractors with limited experience are advised that very close tolerances will be strictly enforced on all phases of this work. Improper work will be immediately rejected.
- B. The contractor shall furnish complete evidence to the owner that he has the facilities, equipment, and personnel to perform the work involved in the pool structure, pool gutter, trim and finish, plumbing and installation of mechanical and deck equipment with his own organization and/or obtain prior approval before entering into any subcontract for this work.

1.3 QUALITY CONTROL

- A. The architect, and owner shall be the sole judge whether work installed under this contract has met the quality required. The contractor, at no additional expense to the owner, is subject to replacing or correcting any work not judged acceptable by the architect.
- B. Execute preconstruction submittals
- C. Submit for approval for all changes, modifications or clarifications of the original contract

- D. Execute the sealed drawings approved by the authority having jurisdiction
- E. Execute work per drawings and specifications as directed by the general contractor
- F. Provide all reports as directed by the general contractor.
- G. Schedule inspections as required by the authority having jurisdiction

1.4 SUBMITTALS

- A. Equipment cut sheets, product data, and shop drawings of all items shall be submitted as specified unless equal or greater substitution is approved following ALTERANTE MATERIALS procedure in section below.

1.5 POOL AS-BUILT DOCUMENTS

- A. The as-built information shall be combined with the construction documents to provide a complete set of final record documents. The contractor shall have sole responsibility to provide a complete set of as-built documents to be included in the project closeouts. All changes or modifications to be included. provide photos, sketches, and product data. Provide the owner and architect one hard copy and a .pdf electronic document.

1.6 ATTIC STOCK

- A. Material to be left with the owner for future repair purposes shall include 3% of the ordered amount of tile, caulk, backer rod, grout, mortar mix, coping, and gutter grating pieces.

1.7 START UP AND TRAINING

- A. The pool contractor shall provide all the necessary chemicals, labor and materials to bring the pool water chemistry into compliance with all state and local regulations. Beginning at the initial fill-up the pool contractor shall ensure the water chemistry meets the requirements for the pH Saturation Index (+/- 0.3) for balancing pool water. The pH of Saturation shall be maintained until after the pool has been turned over to the owner.

- B. Accurate operational records and water chemistry levels per local or state health code requirements and/or per owner shall be kept including, but not limited to, the following:

- a. Chemical testing of the pool water to maintain proper levels of halogens, pH, total alkalinity and total hardness
- b. Automatic feed controller readings
- c. Vacuum and Pressure readings for pumps and filters
- d. Water level controller readings as to timer settings and position of the high and low water probe from the top of the plate support
- e. Flow rate for all systems
- f. Heater or cooler settings
- g. Water temperature and heater thermostat setting
- h. Execute the required documents.

- C. **PROTECTING THE INSTALLED CONSTRUCTION:** The pool contractor shall be responsible for operating the pools until a certificate of occupancy is issued and all startup, initial training and close out submittal requirements have been met. The pool contractor shall coordinate the time and day for the required owner training. The pool contractor shall train the owner using and maintaining all components of the swimming pool. Notes from the training shall be documented at the facility including an owner sign off stating that the training has occurred and has posted operating instructions and understands the instructions provided.

1.6 WARRANTY AND GUARANTEE

- A. The Contractor shall furnish an extended one-year guarantee covering the pool structure, interior permanent pool finish, and all pool recirculating piping or as stated in the following detailed specification sections below.
- B. The guarantee shall specifically include the following:

1. 100% repair of any defective materials, structural failures or other damages to the filter face piping and filter chamber not caused by deliberate or abusive action by persons not employed by the Contractor or attributable to normal wear and usage.
 2. Filters will perform in complete accordance with the specifications.
 3. 100% repair of the pool structure covering any defects, cracks, and/or leaking in the pool shell caused by defective workmanship or materials.
 4. 100% repair of any failure to the "plaster" pool finishes and ceramic tile due to defective workmanship or materials within 3 years of substantial completion.
- C. Correct defective Work within a one year period after Date of Substantial Completion. Provide one year manufacturer warranty for the new portion of the installation against defects due to faulty materials, faulty workmanship or failure due to negligence of the Contractor. This warranty shall exclude undisturbed structure and pool equipment. This warranty shall exclude normal wear and tear, maintenance, lubrication, replacement of expendable components or abuse. The warranty period shall begin on the date of the final acceptance and shall continue for a period of 12 months during which time the Contractor shall make good such defective workmanship and materials and any damage resulting there from, within a reasonable time of notice given by the Owner. Equipment warranties shall be provided in the submittal data prior to installation and shall be included in this work and the standard warranty duration listed within these specifications or honored by the manufacturer. Product warranties shall be transferred to the owner. The plaster shall remain attached to the subsurface for three years from the date of substantial completion of the pool providing that the pool is emptied and filled under the supervision of the installing contractor. If the plaster surface does release from the subsurface then the contractor shall repair that area at no additional cost of materials or labor. The cost of the water and the necessary chemicals to bring the water back into balance is the responsibility of the contractor. Provide completed manufacturer's 5 Year Limited Warranty to commercial pool owner. Warranty must state products, colors, and production batch numbers for all quartz plaster products used on job in order to be accepted as valid. A copy of the warranty shall be included in the close out submittal.

1.7 ALTERNATE MATERIALS

- A. A level of quality has been established by the selection of specific manufacturers' model numbers for the various equipment and materials for this work. Equal equipment and materials by other manufacturers and supplies are acceptable providing the equipment and materials meet or exceed the specifications. Cut sheets for any variances to be submitted with the bid. The cut sheet shall include necessary description of the equipment, product or materials. Substitution of any materials or equipment specified under this division shall be in accordance with the General Conditions. Brand names used in this section are to establish a standard. Swimming pool equipment which will perform substantially the same as the specified design will be considered equally acceptable provided the material or equipment so proposed is, in the opinion of the Designer and Owner, of equal substance and function.

1.8 MANUFACTURER'S DIRECTIONS

- A. The contractor shall provide services of a competent and experienced representative for a period of at least 3 days to inspect and test the completed installation, place in operation and give operating instructions relative to care and use. During the installation of the equipment he shall give adequate assistance and help for proper installation.
- B. Upon completion and acceptance of all work under this section, the Contractor shall furnish to the Owner three complete copies of Operating and Maintenance Instructions for all items of equipment which normally require instructions prior to operation and/or periodic maintenance. A typed or lettered sheet of instructions, embracing the operating functions and recurring maintenance processes involved in connection with the complete filtration and chemical treatment system and

manufacturer's literature embracing the characteristics, care and operation of the special items of equipment, such as chemical feeders, pumps, motors, etc.

- C. A data plate shall be attached to the filter plant, containing the following information (minimum):
 - 1. Manufacturer's Name and Address
 - 2. Filter Model Number
 - 3. Filter Serial Number
 - 4. Effective Filter Area in Square Feet
 - 5. Design Flow Rate for Filtration and Backwash in USGPM
 - 6. Maximum Working Pressure

- D. A data plate shall be attached to the face of the swimming pool control center, containing the following information:
 - 1. Start Up Data
 - 2. Operating Data
 - 3. Chemical and Temperature Ranges
 - 4. Shut-Off Data
 - 5. Other Pertinent Data concerning System Operation

- E. Layout of work shall be accomplished in accordance with the provision of the General Conditions. The Contractor and equipment manufacturer shall provide all sleeve diagrams and templates necessary for coordinating and construction of all work of this section and related work.

1.9 ASSEMBLY AND INSTALLATION

- A. The Contractor shall coordinate, assemble, and/or install the complete system of filtration equipment, overflow gutter, and recirculation system, including pumps, motors, special parts and accessories, as shown on the drawings and in accordance with the intent of these specifications and the detailed layouts and shop drawings of the equipment supplier.

- B. The Contractor shall provide all the necessary water piping and drainage work necessary to complete the job. The drawings indicate in diagrammatic form the desired arrangement of the principal apparatus, piping and equipment and shall be followed by the equipment supplier and the Contractor as closely as practicable, exercising care in the work to secure proper headroom access, and space conditions, with a neat and workmanlike arrangement of piping and valving.

- C. Contractor shall seal all penetrations, all walls and floors where pool piping enters and exits with approved sealant.

- D. In addition to the material hereinafter indicated to be furnished by the equipment supplier, the Contractor shall furnish all other material and parts necessary to complete the installations, including pipe, fittings, and certain special items such as the reducing tees to receive the chemical feeders, plastic injection nozzles, and the copper tubing, adapters, etc., as shown on the drawings or required for operation.

- E. The contractor shall install gutter system for the pool so that pool water level shall not be lower than the lip of the gutter when pool is not occupied.

- F. The equipment supplier shall attach valve tags to conform to the numbered valve schedule and shall mount the instruction panel as directed.

- G. Special Precaution: For the installation of the flow meter sensor, allow a straight run of pipe on the upstream side equal in length to 10 times the inside diameter of the pipe or as recommended by the manufacturer.

1.10 EXCAVATION AND GRADING

- A. The rough excavation and hand trim shall be carried on as one operation to aid in eliminating over excavation. In order to obtain an even wall line, templates shall be used. The floor area shall be fine graded by placing of screeds at intervals.
- B. As the pool is excavated, all excavated materials shall be disposed of as directed by the General Contractor.
- C. Porous fill shall be installed under pool floor to a minimum thickness of 6" (12" at drains) or as specified in drawings.
- D. Porous fill shall be free draining limestone or river gravel meeting ASTM C33 size number 57. All porous fill shall be tamped in place for consolidation and compaction.
- E. Contractor shall take note of main drain installation and hydrostatic relief devices.
- F. Before completion of the pool excavation, the beam at the top of the pool wall, which is a monolithic portion of the pool shell, shall be formed to the dimensions shown on the drawings. A header shall be installed completely around the pool, the inside face of which shall be anchored in place by 2 x 4 or 2 x 6 braces. A taut cutting line shall be so anchored to ensure the dimensional integrity of the pool structure. The purpose of this wire is to act as a cutting line for the interior face of the shotcrete wall.

1.11 PLACE FITTINGS

- A. The Contractor shall place, before concrete work, all special pool fittings that are to be embedded in concrete and shall be responsible for their correct positioning and grounding as needed.

1.12 GROUNDING

- A. The Pool contractor shall ground all pool reinforcing steel, pumps and motors, lighting and all deck equipment and anchoring according to all electrical standards pertinent to swimming pool installations. The contractor shall adhere to the National Electrical Code for swimming pool grounding. Provide a 15' minimum #4 solid copper pigtail at six locations around the pool for connection by others.

PART 2 PRODUCTS

2.1 CONCRETE POOL STRUCTURE

- A. This work includes swimming pools, aprons, and other related items necessary to complete the project indicated by contract documents unless specifically excluded.
- B. The swimming pool will be constructed by using steel reinforcement cast-in-place concrete or shotcrete floors and walls. Comply with Section 03 3000 (Cast-in place Concrete) for all cast-in-place concrete and shotcrete as specified in this division. Ratio of the shotcrete concrete and mix design for the concrete and water cement ratios shall be submitted to the Owner for approval before commencing any work. (Shotcrete walls of same strength will be acceptable with prior approval.)

C. Materials:

A. STEEL REINFORCING BARS

1. Steel reinforcing bars shall be in the sizes and configuration shown on the applicable sections of the Drawings. Space shall be provided for splicing bars in an approved manner
2. All steel reinforcing bars and associated materials shall be Grade 60 bars and shall be new, free of rust and scale, and satisfy the applicable standards specified in Section 1.8(E), "Applicable Industry Standards".

B. CONCRETE

1. Spray applied or air placed concrete may be "Shotcrete" as specified in Section 2.5.
2. The terms "Shotcrete" and "Gunitite" as used in this Specification (and the applicable ACI Publications) are defined as follows:
3. Gunitite (or "Shotcrete - dry method"), as herein specified, is a trade name used to designate a mixture of Portland cement and thoroughly dried sand, passed through a cement gun and conveyed by air through a flexible hose, hydrated at the nozzle at the end of the hose and deposited by air pressure in its place of final repose. The method of mix may be factory blended, delivered, and stored at the site in a weathertite tanker truck, or site mixed using caution in the preparation of said mix to insure the quality of the final product.
4. Gunitite is not allowed on this project unless this Engineer provides specific written approval.
5. Shotcrete ("Shotcrete - wet method"), as herein specified, is a trade name used to designate ready-mixed concrete that is pneumatically and mechanically applied by the use of a concrete pump and mixed with air at the nozzle located at the applicator's end of a hose. The Shotcrete cement/sand mixture must have a minimum 4,000 psi [27,579 kPa] mix-design. Note that "near-zero" porosity is vital in the mix design. A water / cement ratio can be no greater than 0.45, is hereby mandatory, shall be observed in the mix design for the pool structure, and be verified by the concrete delivery tickets.

D. Curing:

1. Concrete shall be kept wet for at least 7 days after placing. No Concrete may be placed when the temperature is below 40 degrees F. without approval of the Architect. Concrete shall not be placed against frosted surfaces.

E. Tests:

1. Cast in Place Concrete:
 - a. A minimum of four test cylinders shall be taken each day for each 50 cubic yards or fraction thereof unless otherwise directed by the Architect. The test cylinders shall be typical of the quality of the concrete placed in the structure.
 - b. Separate test cylinders shall be taken at the same place and time. Compressive strength tests shall be made at the age of 7 days and 28 days. One cylinder shall be broken at 7 days and two cylinders shall be broken at 28 days. One cylinder shall be made and held in reserve should additional tests be necessary. The cylinders tested at 7 days shall develop a minimum compressive strength of 3,000 psi and at the age of 28 days, 4,000 psi.

F. Shell Preparation For Finishes:

1. Concrete pool shall be free from cracks, honeycombing, spalls or other defects.

2. Cut back all tie wire to not less than one inch (1") below surface and fill holes with neat cement.
3. Finish of surface to receive tile and plaster to be a medium rough bush hammer to pointer surface.
4. Surface to be true to plane, plumb, and level with true radii and curves.

G. Ceramic Tile:

1. **Materials:**

- a. **Tile:** Standard grade, frostproof, cushion edge, dust pressed white non-vitreous body, machine made, self spacing, bright glazed tile, 6"x6" as shown in drawings. Colors and patterns shall be as selected by the Architect/Owner. Tile indicated to be placed on horizontal surfaces shall have a slip resistant finish.
- b. **Portland Cement:** ASTM C-150 Type I.
- c. **Sand:** ASTM C-144.
- d. **Lime:** ASTM C-205 Type S or ASTM C-207 Type S.
- e. **Water:** Potable.
- f. **Metal Lath:** Diamond mesh, galvanized steel weighing 340# per square yard.

2. **Installation of Other Tile:** Apply with mortar bed consisting of one (1) part Portland Cement, 1/2 part lime and four (4) parts dry sand. Apply tile with bond coat of Portland Cement paste.
3. **Grouting:** Mix one part Portland Cement and one part 30 mesh sand by volume. Force grout into joints, avoiding air traps and voids. Tool joints slightly concave. Cut off excess mortar and wipe from face of tile.
4. **Curing:** Immediately after grouting has had its initial set, give wall surface protective coat of non-corrosive soap or protect by other approved method and damp cure joints for 72 hours.

H. Interior Finish:

1. **Materials:** White plaster specially formulated for interior swimming pool surfaces; equal to "Diamond Brite" Exposed Aggregate Finish by Southern Grouts & Mortars, Inc. Submit samples for owner and architect selection prior to ordering materials.
2. **Preparation of Surfaces:** Clean base surfaces of projections, dust loose particles, grease, bond breakers and foreign matter; make sufficiently rough to provide a strong mechanical bond. Sandblast if required to provide proper bonding. Do not apply plaster directly to the surfaces of masonry or concrete that are coated with any membrane-forming curing compound or similar agent until compound or agent is completely removed by sandblasting. Prior to plastering thoroughly wash entire surface with 200 psi high pressure water. Wet cementitious base surfaces with a fine fog water spray to produce a uniformly moist condition and check screeds, pool equipment, and accessories for correct alignment before plastering is started. Do not apply plaster to base surfaces containing frost. Install

temporary coverings as required to protect adjoining surfaces from staining or damage by plastering operations.

3. Workmanship: Apply finish plaster in two coats by "double back" method with second coat applied as soon as first coat is tamped and initially floated. Apply plaster with sufficient pressure to provide a good bond on bases. Work plaster to screeds at intervals of from 5 feet to 8 feet, or closer as required on curved surfaces. Finish plaster to tolerance of -0 to +1/8 inch in thickness and to 1/8 inch in 10 feet on straight surfaces. Apply smooth trowel finish without waves, cracks, trowel marks, ridges, pits, crazing, discoloration, projections, or other imperfections. Form plaster carefully around curves and angles, well up to screeds. Take special care to prevent sagging and consequent drooping of applications. Produce surfaces free of visible junction marks in finish coat where one day's work adjoins another.
4. Curing: Cure plaster with fine fog water spray applied to finish coat as frequently as required to prevent dry-out of plaster. Keep plaster damp until pool is filled. Prevent damage or staining of plaster by troweling or curing.
5. Plaster shall not be applied until the deck areas are completely poured and finished, until all painting of ceiling and/or walls and fixtures is completed and all hanging of ceiling and wall fixtures is completed. The plastering phase of the pool shall be conducted as one part of the final phase of the project to avoid the possibility of stains due to dust, nails, etc.

PART 3. POOL PIPING, EQUIPMENT AND ACCESSORIES

3.1 GENERAL

- A. Scope: Furnish all plans, labor, equipment, applications, and materials and perform all operations in connection with the installation of all pool piping, equipment, and accessories.
- B. All work in connection with the pool shall be subject to all requirements of the General Conditions. All work shall be done in a neat, workmanlike arrangement with ample headroom and operating space. If other equipment is approved as being equal to that specified, the Contractor shall be responsible for the physical size and arrangement of the other equipment so that it will fit in the allotted space. Enlarging the spaces and/or relocation of the equipment will be at the expense of the Contractor without cost to the Owner. All equipment and materials shall be new, shall be essentially the standard product of the manufacturer and shall be installed in accordance with the recommendation of the manufacturer.
- C. Coordination
 1. The Contractor shall coordinate his work with that of other trades and shall install his work in accordance with the General Contractor's erection schedule.
 2. The successful Bidder shall furnish to the designer within 20 days after signing the contract, five (5) complete sets of shop drawings of all equipment, fittings, and accessories including installation details. Approval of shop drawings shall denote only approval of general characteristics and shall not be construed to mean approval of hydraulics or mechanical characteristics. Final approval will not be given until all work is installed and found to meet the requirements of the specifications.

3.2 MATERIAL AND INSTALLATION

- A. Pool Piping and Fittings for circulation, vacuum, skimming, main drain and filter room piping, unless otherwise noted, shall be solvent weld Schedule 40 PVC plastic pipe. All weights, outside diameter and inside diameter dimensions shall be in accordance with specifications approved by the Plastic Pipe Institute. All pipe shall bear the NSF seal of approval.
- B. All piping shall be pressure tested prior to concrete being poured.
- C. Valves: Circulation system valves located above ground in the filter building shall be wafer valves or gate valves of appropriate size. Valves located underground shall be all bronze and each valve shall be provided with a cast iron valve box. Valves for the pool fill lines, new and old, located above ground shall be iron body bronze mounted wheel operated.
- D. Main Drains shall be installed per the drawings.
- E. Main Drain Sump, frame, and grate, shall meet the dimensions per the drawings.
- E. Hydrostatic relief valve shall be 2" as shown on drawings and as manufactured Hayward SP-1057. Collection Tube shall be Hayward SP-1055.
- F. Automatic Water Level Controller: Water Level Controller shall be an integral part of the collector tank. Pool contractor shall be responsible for fresh water line from filter equipment room to water level controller as well as all necessary valves, valve deck boxes and valve handles.
- G. Pipe work shown on the drawings and/or specifications or implied herein and required for a complete and operating system shall be done by experienced plumbers in a neat and workmanlike manner and subject to the approval of the Consultant. Because of the small scale of the drawings, it is not possible to indicate all offsets, fittings and accessories which may be required and it shall be the responsibility of the Contractor to furnish and install all materials and equipment required for the operating systems. The piping shall be installed as shown on the plans with strict conformity to the sizes listed and due provisions for expansion and contraction. Vacuuming operations. Draining the pool of water. Operation of kill switch. All controls and interconnections. Pool chemicals for initial pool startup. Storage of the pool if seasonal.

3.3 PIPING IDENTIFICATION

- 1. Main color bands shall be painted on each pipeline. Approved pressure sensitive tape may be acceptable – submit for approval in accordance with the Specifications.
- 2. Main color bands shall be 3 in. [75 mm] wide and shall be placed at 10 ft [3 m] intervals along all pipe runs, immediately preceding the passage of the line through a wall, ceiling, or floor, and at each equipment connection or line valve.
- 3. Adjacent to each color band, an abbreviation of the name of the pipe / valve function shall be stenciled / placed.
- 4. Stencil letters shall be 0.5 in. [13 mm] high uppercase, applied with black Effecto Enamel, or approved pressure sensitive tape.

3.3 PERIMETER RECIRCULATION SYSTEM

- A. The method of water recirculation specified and shown on the detailed drawings is intended as the basis for receiving bids.
- B. It is not the intent of the specifications to in any way limit competition or restrict the bidder in the preparation of his bid. Each bidder shall submit prior to or with their bid, a full equipment list of all items he intends to supply, showing filter tank, gutter system, automatic features and other pertinent data as outlined in the specification.

3.4 GUTTER SYSTEM

- A. Work Included: System per the drawings, Installed, finished product for required Deck-level water surface swimming pool construction, covering integral Surge Trench into which pool recirculating water and deck runoff flow.
- B. Products: Approved manufacturer: Products shall provide a minimum 5 year warranty.

- C. Installation: Determine levelness of walls to provide level perimeter gutter system with 1/8" or a tolerance of 1/16" variance from true level.

3.6 FILTRATION EQUIPMENT

A. General

- 1. It is the intent of these specifications to describe a filtering unit complete with all accessory items. It is the further intent of these specifications that the filter, from pump strainer to the backwash and filter control valves as hereinafter specified with all accessories, be supplied as a complete filtering unit and guaranteed by one manufacturer.

B. Filters

- 1. Filtration System specified shall be a dual tank system. All tanks shall be of the pressure, high rate sand type with a minimum total square footage as noted. The manufacturer shall be as noted below. The filter shall be the product of a manufacturer regularly engaged in the fabrication of water filtration equipment and shall have a minimum of 5 years experience in this field. The filter shall be approved by the National Sanitation Foundation Testing Laboratory and the local Health Department.
- 3. Pool Filter Tank: Per drawings
- 4. Filter tanks shall pass a hydrostatic pressure test of 80 PSIG (777kPa), and shall comply with all governing Pressure Vessel Code requirements. All hydrostatic pressure tests must be verified at the place of manufacture by a Professional Engineer and must be accompanied by a certificate to that effect signed by such a professional engineer.
- 5. An integrally mounted combination media dump port and drain complete with an ABS media retainer shall be located in the filter tank(s) body.
- 6. Influent and effluent connections shall be integrally molded. A continuous, water tight exterior seal at the influent and effluent ports of the filter tank shall be provided with the use of integrally molded flanged connections on the influent and effluent distribution connections. Support brackets shall be provided for the upper distribution and lower collection headers on the interior of the dished head opposite to the influent and effluent flanged connections.
- 7. Filter tanks shall be tested in compliance to ANSI/NSF Sanitation Standard 50-1992 by a government certified and recognized testing agency. Filters shall have passed all applicable tests outlined in this standard and shall bear a label complete with registration number to confirm compliance. Filters lacking accreditation of compliance to this standard will not be considered equal and shall not be acceptable.
- 8. Internal Distribution/Collection System
 - a. Internal filter tank equipment shall include an upper distribution system and a lower collection system, hydraulically balanced to prevent turbulence and/or displacement of the filter media during service operation or backwash. Standard pipe arrangements or an internal valving system will not be acceptable.
 - b. The upper distribution system include hydraulic distribution lenses, injection molded ABS plastic, located over the filter bed. They shall be joined to the influent connection by means of a 4" Schedule 80 PVC header, 1 1/4" nipples and elbows.

- c. The lower collection system shall consist of a 4" Schedule 80, PVC header and 1 ½" molded ABS plastic laterals designed to retain filter media with a minimum head loss. The internal collection system shall be designed to promote media bed circulation during backwash.
9. External face piping shall be 4" Schedule 80 PVC pipe and fittings. Flanges shall be located so as to allow for easy dismantling of face piping. All fittings shall be solvent cemented and joint welded by suitable heat gun using 5/32" PVC welding rod.
10. Piping shall be drilled and tapped where necessary to accommodate gauge tubing connectors.
11. Valves shall be a single multi-port type for each filter. Multi-port valves with six (6) positions, Filter, Backwash, Waste, Rinse (filter-to-waste), closed and Recirculate. All valves shall be provided with ten position latch lock handle for manual operation. All bolts and nuts shall be corrosion resilient zinc plated steel with plated washers to be used when secured to PVC flanges.
12. Standard accessory items shall include 1 1/2" bronze sight glass with "Pyrex" glass, remote mounted gauge panel with two 4" diameter pressure gauges scaled from 0-60 P.S.I.G. The pressure gauges shall be connected to influent and effluent pressure points with air relief cocks, compression fittings and semi rigid PVC tubing.
13. Air Release: An air release system shall be provided for the tank.
14. Filter Media: Tank shall be supplied with filter media of uniformly graded silica sand and shall clean and free from any clay or limestone. The media shall be #20, effective size range 0.45-0.55 mm with a uniformity coefficient of 1.6 maximum. The filter will require a filter bed depth which shall extend to an approximate level of 12" below the top of the hydraulic distribution lenses.

3.7 PUMPS AND ACCESSORIES

- A. Circulating Pump and Motor: Per drawings
- B. Pump Strainer: There shall be supplied one integral pump strainer with quick removable cover plate, gasket, and yolk bolts. The basket shall be perforated and its open area shall exceed the pipe size. Pump strainer shall be of size to match suction piping with a spare basket.
- C. Pump starter motors shall be provided with an auxiliary contact which will energize a duplex receptical to prevent the chemical feeder from operating when the pump is off. Pool Contractor shall provide the duplex outlet and a separate 20 amp circuit to the equipment room electrical panel.
- E. Guarantee: The filter manufacturer shall guarantee, in writing, that if the filter supplied is operated in accordance with written instructions given and accepted by the Owner, it will perform in complete accord with specifications and all requirements of local and State Health Departments.
- F. Flow Meter Indicator: There shall be supplied one pitot tube type flow meter designed specifically for swimming pools. Indicator shall be calibrated to read required flow of filter. Install in line flowing clean, filtered water.

3.8 SWIMMING POOL SANITIZING EQUIPMENT

- A. General

1. Equipment shall be furnished in accordance with the list of equipment. In each case, manufacturer's full catalog specifications shall apply and installation shall be in strict accordance with the manufacturer's recommendations and approved shop drawings.

B. Equipment

1. Chemical Testing Kit shall have the following features: DPD type testing procedure for chlorine reading, PH reading, test for total alkalinity, acid/base demand, cyanuric acid test as manufactured by Taylor (Model 2006-Salt) or equal.
 2. Automated chemical control shall be provided with the specified system to function with the sanitation and pH control equipment provided.
 3. Liquid fed chlorinators shall be installed according to manufacturer's instructions. Chlorinators shall be equipped with flow meter and all other items necessary for a complete installation.
 4. Salt/Chlorine generator shall be provided as the main sanitizer for the pool. Owner training and chemical control automation setup shall be provided by the pool contractor and equipment manufacturers.
3. Chemical Feeder: Furnish one Stenner Chemical Feeder Model No. 45M5 or equal for each pool or as noted on drawings. The chemical feeder shall be electrically interlocked with the filter pump such that no chemicals will be fed when the filter pump is off. The unit shall be capable of feeding 50 gallons of water treatment solution per day. There shall be one 50 gallon crock furnished.

3.9 SWIMMING POOL DECK EQUIPMENT

- A. Ladders: Provide 6, 3-tread stainless steel, cross braced ladders and 2, 4-tread stainless steel, cross braced ladders for the competition pool. Tubes shall be 1.900" x 0.065" and steps shall be stainless steel with a deeply formed non-skid surface. Ladders shall be custom fabricated by S.R. Smith or approved equal.
- B. Handrail; 2 required: Handrail shall be 1.900" x 0.065" stainless steel tube and shall have verticals equally spaced at a maximum of 6'-0" on center.
- C. Anchor Sockets, 26 required: Sockets shall be Frost #A-41653 or equal. The body shall be of cast bronze 4 1/4" and be made to receive a 1.900" O.D. tubing. Two longitudinal ridges shall run the full depth of the inside diameter to prevent sideways. The locking wedge shall be bronze and bolt shall be 18-8 stainless steel.
- D. Escutcheon Plates, 26 required: Escutcheon plates shall be Frost #A-41663 or equal. It shall be Deluxe stainless Steel and it shall slip over 1.900" O.D. tubing.
- E. Lifeguard Chairs, 1 required: Lifeguard Chairs shall be KDI Paragon ParaFlyte Club #21001, or equal. The Chairs shall provide a molded plastic swivel seat above the deck and have a stainless steel, sloping support. Each chair shall be mounted upon a platform of laminated hardwood which is coated with polyester resin and be impregnated with a grit to provide a non-skid surface. The platform shall be reached by a 20" wide sloping ladder at the rear of each chair. The framework of the chairs shall be rigidly bolted and shall be fabricated of stainless steel tubing, 1.900" O.D. x .049 wall thickness, Type 304, polished to a 320 grit. The steps shall be injection- molded Cyclicolac, 20" long x 5" wide, with raised, nonskid, pattern.

- F. Handicap Lift Anchor, 1 required: Pool Lift Anchor shall match the provided lift as noted in the equipment list. Locate as noted on the pool plan. The lift anchor shall have a flush fitting plug.
- G. Starting Platform Anchors, 8 required: Standard Starting Platform anchors shall be a single socket for each platform. This socket shall be of cast bronze and shall be furnished with a closure plate. The sockets shall be furnished and installed by the Pool Contractor. Coordinate with the Owner for the exact platform model required.
- H. Racing Lane Dividers Anchors, 9 required: Integral anchor by Kenematics.
- ~~I. Safety Line, 1 required: One safety line shall be installed as noted in the drawings. Safety line shall be 3/4", made from color safe, strong, floating polypropylene. As manufactured by Rainbow or equal. Floats shall be self locking 5" x 9", non fading polyethylene floats, as manufactured by Rainbow or equal at 5' 0" on center maximum.~~
- K. Stanchion Posts Anchors, six (6) required: Provide two (2) anchors for the false start stanchions and four (4) for the back-stroke line stanchions.

3.10 CLEANING AND MAINTENANCE EQUIPMENT

- A. All vacuuming for the competition pool shall be remotely.
- B. Vacuum: provide portable cleaning system.
- C. Vacuum cleaner head shall be Rainbow Model 207 or equal.
- D. Vacuum Hose and Handle hose shall be 50' in length 2 inch inside diameter, of smooth bore, wire reinforced, white, complete with clamps. Handles shall be fabricated of seamless aluminum tubing, with screw joints Frost No. A-41426 and A- 41428 at one end and shall consist of two Rainbow 820 12 feet.
- E. Leaf Skimmer head shall have a nonferrous handle bracket with high plastic rim which holds a plastic net. The handle bracket shall have a quick detachable mount for use with standard 1 1/4 inch diameter cleaning tool handles. Standard net shall have a minimum 3 inch depth. Skimmer shall be Rainbow 126 or equal.
- F. Telescopic Handle: Provide one telescopic handle consisting of two 8 foot lengths of anodized aluminum tubing, a 1 inch tube fitting inside a 1 1/4 inch tube. Handle shall be adjustable from 8 feet to approximately 16 feet having a threaded bushing type clamp to lock handle at desired position. The attachment shall have a quick disconnect arrangement which will attach to the cleaning tools. Handle shall be Rainbow 812-16 or equal.
- G. Pool Brush: Provide one pool brush, 18 inch curved type. Handle bracket shall be quick detachable mount to fit standard 1 1/4 inch diameter handles. Brush shall be Rainbow 920 or equal.

3.11 SAFETY EQUIPMENT

- A. All safety equipment shall be sized and shall conform to the local health department code.
- B. Two (2) 20" ring buoys with 60' of 1/4" rope shall be provided by the Owner.
- C. Shepherd's Crook with 16' pole, Rainbow 10138 or equal. Two (2) shall be provided.

- D. Signage: All signage shall be to conform to the local health department code. Coordinate sign rules with drawings and owner requirements. Two signs minimum required (min. 1" high letters) containing at least the following (See drawings for additional sign requirements):
1. NO GLASS OR BREAKABLE CONTAINERS
 2. ADULT SUPERVISION REQUIRED FOR CHILDREN
 3. NO SOLO SWIMMING
 4. NO RUNNING
 5. NO ROUGH PLAY
 6. NO SHARP ITEMS

3.12 POOL MARKINGS AS FOLLOWS:

- A. Depth markings must be placed within the pool gutter and on the deck per the swimming pool code, no greater than 25' apart with numerals minimum 4" in height. Color shall be contrasting with background. Deck depth markers shall be ceramic tile.
- B. "NO DIVING" shall be painted (stenciled) on the deck a minimum of four places on each side of the length and three places at each end, minimum of 6" high letters for both pools.

PART 4. EXECUTION

4.1 INSTALLATION

- A. Install equipment, accessories and fittings in accordance with manufacturer's instructions.
- B. Install piping to conserve building space, not to interfere with use of space and other work. Route piping in orderly manner, and maintain gradient. Group whenever practical at common elevations.
- C. Install piping to allow for expansion and contraction with stressing pipe, joints, or connected equipment. Provide access to valves and fittings.
- D. Pipe relief valve outlet to nearest floor drain and backwash to the backwash pit. Install unions downstream of valves and at equipment or apparatus connections.
- D. Prior to decks being poured, the indoor pool and outdoor pool must be thoroughly cleaned and filled with water. The pool system shall be placed in circulation and all lines tested for leaks. Pools shall be run a minimum of three days and monitored. All leaks must be repaired prior to decks being poured and final plaster applied.

END OF SECTION

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**SECTION 32 8400
IRRIGATION WORK**

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes valves, piping, sprinklers, accessories, controls, and wiring for automatic irrigation systems.
- B. Extent of underground irrigation system is shown on the Drawings and in Schedules.
- C. Provide all labor, materials and equipment required by or inferred from the Drawings and Specifications to complete the Work of this Section.
 - 1. Provide a complete and operable system for the irrigation of all landscaped areas on the project site, unless indicated otherwise. The Drawings and specifications are intended to include all items obviously necessary and requisite for the proper irrigation of the Project. The Contractor is responsible to furnish any additional labor, materials and equipment required for a proper system.
 - 2. Contractor shall be responsible for adjusting head location, head/nozzle type and size, and any other system components so that irrigation system layout is coordinated with actual field conditions. Such adjustments shall be made at no cost to the Owner except, when authorized in writing, such adjustments which will be compensated for at an agreed upon cost.

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 1 Specifications, apply to this Section.

1.3 QUALITY CONTROL

- A. Qualifications:
 - 1. Installer Qualifications: Engage a firm or firms specializing in irrigation installation. Installer shall have successfully completed five projects similar in material, size, scope and complexity to that indicated for this Project that have resulted in construction with a record of successful in-service performance.
 - a. Firm Experience Period: Five (5) years of experience.
 - b. Field Foreman Experience: Five (5) years of experience with installing firm.
- B. Codes and Standards: Perform the work in compliance with applicable requirements of governing authorities having jurisdiction. County regulations supersede these specifications. Notify the Architect in writing of all discrepancies immediately.
 - 1. American Society for Testing and Materials (ASTM):

- a. C 33-99 - Specification for Concrete Aggregates.
 - b. C 150-99a - Specification for Portland Cement.
 - c. D 1785-96b - Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.
 - d. D 2241-96b - Specification for Poly(Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)
 - e. D 2464-96b - Specification for Threaded Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80.
 - f. D 2466-94a - Specification for Threaded Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40.
 - g. D 2467-96b - Specification for Socket-Type Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80.
 - h. D 2564-96a - Specification for Solvent Cements for Poly(Vinyl Chloride) (PVC) Plastic Piping Systems.
 - i. D 2672-94 - Specification for Joints for IPS PVC Pipe Using Solvent Cement.
 - j. D 2774-94 - Practice for Underground Installation of Thermoplastic Pressure Piping.
 - k. D 2855-96 - Practice for Making Solvent-Cemented Joints with Poly(Vinyl Chloride) (PVC) Pipe and Fittings.
 - l. D 3139-96a - Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals.
2. National Fire Protection Association (NFPA):
 - a. 70 - National Electrical Code.
 3. National Electrical Manufacturer's Association (NEMA):
 - a. 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
- C. Do Not Make Substitutions: If the Contractor desires to make substitutions of materials, sufficient descriptive literature and material samples must be furnished to establish the material as an equal substitute. In addition, the Contractor must state his reasons for desiring substitute materials. Submit this request and information to the Architect.
- D. Approval and Selection of Materials and Work: The selection of all materials and the execution of all operations required under the Drawings and Specification is subject to the approval of the Owner and Architect. They have the right to reject any and all materials and any and all Work which, in their opinion, does not meet the requirements of the Contract Documents at any stage of the operations. Remove rejected Work and or materials from project site and replace promptly.
- E. Workmanship: Install materials and equipment in a neat and professional manner following manufacturer's recommendations.

1.4 PRE-INSTALLATION MEETING

- A. Conduct a conference/meeting at the Project site. Review methods and procedures related to the site landscape irrigation system including, but not limited to the following:
 1. The General Contractor is to contact the Irrigation Consultant and Owner a minimum of 30 days prior to the scheduled date of commencement of the irrigation installation.

2. Meet with Owner and Irrigation Consultant to review Contract Documents.
3. Verify current drawing release date with contractor's documents.
4. Review submittal procedure including codes, substitutions, product data, qualifications, and AS-BUILT.
5. Review project conditions including tap & meter size, permits, utility locations and water conditions.
6. Review methods and procedures related to irrigation installation.
7. Review and finalize construction schedule and verify availability of materials, contractor's personnel, equipment, and facilities needed to make progress and avoid delays.
8. Review warranty guidelines.

1.5 DEFINITIONS

- A. Supply Piping: Piping from water source to connection to irrigation system pressure piping. Piping is under same pressure as water supply.
- B. Pressure Piping: Piping downstream from supply piping to and including control valves. Piping is under irrigation system pressure. Piping in this category includes pressure regulators, water meters, and backflow preventers, when used.
- C. Circuit Lateral Piping: Piping downstream from control valves to irrigation system sprinklers, emitters, devices and drain valves. Piping is under pressure during flow.
- E. The following are industry abbreviations for plastic materials:
 1. ABS: Acrylobitrile - butadiene - styrene plastic.
 2. NP: Nylon plastic.
 3. PE: Polyethylene plastic.
 4. PTFE: Polytetrafluoroethylene plastic.
 5. PVC: Polyvinylchloride plastic.

1.6 SYSTEM PERFORMANCE REQUIREMENTS

- A. The Drawings are diagrammatic and generally indicate the Work to be installed. The Drawings do not indicate all offset fitting, and sleeves. The Contractor shall furnish such items as may be required to complete the work.
- B. Location of Sprinklers and Devices: Design location is approximate. Make minor adjustments necessary to avoid plantings and obstructions such as signs and light standards.
- C. Minimum Water Coverage: Not less than:
 1. Turf Areas: 100 percent
 2. Other Planting Areas: 80 percent

1.7 SUBMITTALS

- A. Section Cross Reference: Refer to Division 1 Submittals Section for general requirements.

- B. As-Built Drawings: Any changes in the layout and/or arrangements of the proposed irrigation system, or any other differences between the proposed system and actual installed conditions are to be recorded by the Irrigation Contractor in the form of an "As-Built" Drawing. Provide the Owner and the Architect with a copy of the As-Built Drawings before Work under this Contract will be considered for Acceptance. All automatic and manual valves, hose bibs or quick couplers, and wire splice locations shall be shown with actual dimensions to reference points so they may be located easily in the field.
- C. Product Data: Submit, for information only, manufacturer's specifications, product data, installation instructions and general recommendations for **ALL** components of the irrigation system. Individual copies of product data shall be submitted with the specific product name and model number visibly identified with specific product and model number being identified using a highlighter, asterisk or underlining.
- D. Installer Certification: Submit written documentation certifying that Installer complies with requirements of "Installer Qualifications" above.
- E. Five sets of a site map showing the individual zones using numbers and color code of the installed irrigation system. One of the site maps is to be laminated and placed in the door of the irrigation control clock for on-site reference.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials and equipment in such a manner as to not damage the parts or decrease the useful life of equipment.
- B. Store materials away from detrimental elements. Coordinate with Owner or General Contractor to secure a safe staging area. Security of stored materials shall be provided by the contractor at all times.
- C. Handle, load, unload, stack and transport materials for irrigation system carefully to avoid damage. Handle pipe in accordance with manufacturer's recommendations.

1.9 PROJECT CONDITIONS

- A. The site irrigation system is comprised of an irrigation distribution and sprinkler system. The Contractor shall connect the distribution network to the domestic water source.
- B. The location of water source connection and irrigation controller location for this project shall be verified with the Owner. A new water meter, backflow preventer, and controller have been included for this project but it may be possible to connect to the existing irrigation system and water source.
- C. Obtain all required permits and pay all required fees, at no additional cost to the Owner. Any penalties imposed due to failure to obtain permits or pay fees are the responsibility of the Contractor.
- D. Provide and maintain all passageways, guard fences, warning lights and other protection devices required by the local authorities.
- E. Existing Grades: Determine condition of existing grades prior to beginning the Work. When

irregular or incomplete grading conditions are encountered, notify the Owner in writing before beginning the Work. Determine location of existing drainage patterns and maintain patterns in completed Work. Perform Work in a manner which will avoid damage to finished grading and drainage patterns. All damage to finished grading and drainage resulting from Work covered in these Contract Documents shall be repaired at the Contractor's expense.

- F. Existing Utilities: Determine location of underground utilities. Perform Work in a manner which will avoid possible damage. Excavate as required. Maintain grade stakes set by others unless removal is mutually agreed upon by parties concerned. All damage to utilities resulting from Work covered in these Contract Documents shall be repaired at the Contractor's expense.
- G. Existing Conditions: Perform irrigation work in existing or previously completed landscape areas to avoid damage and disturbance to these areas. Limit work in these areas to only that necessary to perform work specified herein and shown on the Drawings. Return and repair and areas damaged or disturbed while performing the Work to the existing conditions encountered prior to the Work.
- H. Existing Site Improvements: Perform Work in a manner which will avoid possible damage to other work. The Contractor is responsible for any damage of mechanical nature as well as damage resulting from leaks in the irrigation system whether due to negligence or otherwise.
 - 1. Protect improvements on adjoining properties and on Owner's property.
 - 2. Restore damaged improvements to their original condition at the Contractor's expense.
- I. Test Water Conditions: The Contractor shall check the pressure downstream of the irrigation meter and/or the pump station discharge and confirm minimum operating pressure noted in this Specification. If minimum operating pressure cannot be obtained, notify the Architect.
 - 1. In the event the water pressure does not meet minimum operating pressure at the meter as noted in this Specification, notify the Architect, state conditions and submit a proposal for altering the booster pump system/up-sizing booster pump system capable for increasing the pressure to the minimum noted in this Specification
 - 2. In the event the water pressure significantly exceeds the operating pressure noted in this Specification, provide a pressure regulator downstream of the backflow preventer.
- J. Damages resulting from irrigation installation to work of other trades must be repaired at the expense of the Irrigation Contractor in a timely fashion.
- K. Make minor adjustments to system layout as may be required and requested at no additional cost to the Owner.
- L. Keep project site clean and orderly at all times during construction.

PART 2 PRODUCTS

2.1 PIPES AND FITTINGS

- A. Polyvinyl Chloride (PVC) Plastic Pipe: ASTM D 2241; PVC 1120 compound, SDR 21 of the following size and class:
 - 1. Irrigation Sleeves: PVC Sch 40.
 - 2. Irrigation Main Line: PVC Sch. 40.

3. Irrigation Lateral Line: PVC Class 200.
 - B. Polyvinyl Chloride (PVC) Plastic Pipe: Exposed pipe; ASTM D 1785, PVC 1120 compound, Schedule 80, 250 psig (1725 kPa) minimum pressure rating for eight (8) inch and smaller sizes, with plain and threaded ends.
 - C. Pipe three (3) inch and larger shall be PVC pipe with bell and rubber ring gasket, unless otherwise indicated.
 - D. Pipe smaller than three (3) inch shall be solvent weld PVC pipe.
 - E. Fittings for integral bell rubber ring gasketed pipe (three (3) inch and larger) shall have the gasket type ductile iron fittings with joint restraints.
 - F. Solvent weld PVC pipe shall be rigid PVC pipe and shall be assembled using appropriate PVC pipe cleaner/primer and solvent cement in accordance with the manufacturer's recommendations. Solvent cement shall be No. 717 NSF approved.
 - G. All solvent weld fittings shall conform to Schedule 40 or Schedule 80 PVC dimensions and specifications for solvent weld fittings.
 - H. Expansion Joints: Shall consist of integral bell and rubber gasket coupling, install every three hundred (300) feet of solvent weld piping.
 - I. Runs of pipe over twenty (20) feet length must be installed with standard twenty (20) feet length sections.
 - J. PVC Pipe Couplings located Within Sleeves: Four (4) inches and smaller shall be solve weld. Six (6) inches and larger shall be mechanical joints. Upon exiting sleeves, pipe solvent weld or integral bell and rubber gasket, as specified.
 - K. Polyvinyl Chloride (PVC) Plastic Pipe Fittings: ASTM D 2466, Schedule 40, socket-type.
 - L. Exposed Pipe: Polyvinyl Chloride (PVC) Plastic Pipe Fittings: ASTM D 2467, Schedule 80, socket-type.

2.2 JOINING MATERIALS

- A. Solvent Cement: ASTM F 656 primer and ASTM D 2564 solvent cement in color other than orange.
- B. Gaskets for Plastic Flanged Joints: Materials recommended by plastic pipe and fittings manufacturer.

2.3 ELECTRIC WIRING

- A. 120 Volt AC Wiring: 120 volt service to controller and booster pump shall consist of three wires: one black, one white, and one ground. Electrical service to be provided by Contractor.
- B. Splices in the field control wiring shall be waterproof UL listed for 600 volts.

1. Acceptable Manufacturers:
 - a. 3M
 - b. Paige
- C. Control wiring shall be 600 volt solid single conductor wire U.L. approved for direct burial in ground. Minimum wire size: 14 gauge. Control wiring and wiring connections from the controller to the valves is included in this Contract.

1. Acceptable Manufacturers:
 - a. Paige Electric Co.
 - b. King Wire and Cable
 - c. Regency Wire Corporation

2.4 BACKFLOW PREVENTERS

- A. Contractor is responsible for coordinating the installation of new irrigation water meter, tap, and backflow preventer. Backflow preventer to be local authority approved standard, size as indicated or required.
- B. Owner may elect to connect new irrigation to existing irrigation system. Contractor to coordinate with Shelton State Community College Facilities staff for location of new connection to existing irrigation system if Owner chooses this option.

2.5 MASTER VALVES

- A. Valves for isolation purposes shall be brass manually operated globe valves, normally closed, durable construction for dirty water applications.

2.6 ISOLATION VALVES_

- A. Install plastic or brass shut-off valves as indicated on plans to allow zone isolation for repairs.

2.7 CONTROL VALVES_

- A. Description: Manufacturer's standard control valves for irrigation zones, of type and size indicated, and as follows:
 1. Valve to have preinstalled solenoid for two-wire controller.
 2. One-piece, durable body construction for heavy-duty pressure performance.
 3. Slow closing to prevent water hammer.
 4. Low flow operating capacity.
- B. Acceptable Manufacturers:
 1. Rain Bird Corp.
 2. Hunter Industries, Inc.

2.8 VALVE BOXES

- A. Plastic Valve Boxes: Box and cover, with open bottom and opening for piping; designed for installing flush with grade.

1. Control Valves: Shall be in a twelve (12) by eighteen (18) inch standard valve box with non-hinged cover.
 2. Backflow Preventer & 1 ½”, 2” Drip Valve Assemblies: Shall be in a twenty (20) by thirty four (34) inch valve box with non-hinged cover.
 3. Isolation Valves, Wire Splices and Quick Coupling Valves: Shall be in a ten (10) inch round valve box with cover.
- B. All valve boxes are to be green or black with matching colored covers.
- C. Acceptable Manufacturers:
1. Rain Bird
 2. Carson Industries, Inc.
 3. Armor Access Boxes

2.9 SPRINKLERS

- A. Pop-up Spray Heads: Full or part circle nozzles with matched precipitation rates, pressure regulation, and check valve.
- B. Rotor Heads: As specified on drawings:
1. 4” Pop-up rotor with matched precipitation rate nozzles, pressure regulation, and check valve.
- C. All spray sprinkler bodies are to be produced by the same manufacturer a mix of product manufacturer’s is not acceptable.
- D. Acceptable Manufacturers and Products: Subject to compliance with requirements, provide products by one of the following:
1. Acceptable Manufactures:
 - a. Rain Bird Corp.
 - b. Hunter Industries, Inc.

2.10 AUTOMATIC CONTROLLER

- A. Provide modular controller capable of fully automatic and manual operation of the system, made for control of irrigation system automatic control valves and flow sensors. Controller housing shall be wall mounted, as indicated on the Drawings, in a weatherproof and lockable cabinet.
- B. Controller shall have water management features for rain delay, water usage optimization, cycle/soak, and flow management to run multiple zones at one time to reduce water time.
- C. The controller shall have a calendar for setting the programmed start-days, and a 24-hour clock for programming the irrigation cycle start time. A master “on-off: switch shall allow the valve power output to be interrupted without affecting the controller.

- D. The controller shall be constructed so that all internal parts are accessible through the controller door without disturbing the cabinet installation.
- E. The controller will be equipped with a commercial grade remote control capabilities either as a manufacturers option or a peripheral produced by a reputable manufacturer that their equipment interfaces with controller that has been installed.

2.11 WATER HAMMER ARRESTERS

- A. Water Hammer Arresters: ASME A112.26.1M, ASSE 1010, or PDI WH-201, bellows or piston-type with pressurized cushioning chamber. Sizes are based on water-supply fixture units, ASME A112.26.1M and PDI WH-201 Sizes "A" to "F".

2.12 IDENTIFICATION

- A. Section Cross Reference: Refer to Division 2, Earthwork Section, for plastic underground warning tape requirements.

2.13 SLEEVES

- A. Schedule 40 PVC Pipe Type: Size as indicated on Drawings.

2.14 LIGHTNING AND SURGE PROTECTION EQUIPMENT

- A. Provide lightning arrestor for controllers not equipped with primary surge protection. Protection to be installed as per manufacturer's recommendations.

2.15 MISCELLANEOUS SYSTEM COMPONENTS

- A. Provide risers, reducers, couplings, adapters, fittings as necessary to complete the irrigation system.

PART 3 EXECUTION

3.1 GENERAL

- A. Observation of Work in Progress: During the installation, the Landscape Architect and Irrigation Consultant will make regular site visits and reject any work and materials which do not meet the requirements called for in the Contract Documents.
- B. Inspect project site prior to start of Work to determine that all site conditions are acceptable for Work to begin. Inform the Architect of unsuitable conditions. Do not proceed with installation of irrigation system until unsatisfactory conditions have been corrected in a manner acceptable to Installer.
- C. Locate all existing underground utilities prior to trenching and/or boring operations and protect them against damage during the Work. Obtain utility locations from Owner and/or General Contractor and utilize utility locating services when necessary.

3.2 EXAMINATION

- A. Investigate and determine available water supply, water pressure and flow characteristics.

- B. When unanticipated utilities that conflict with the intended function or design are encountered, investigate and measure the nature and extent of the conflict. Promptly submit a written report to the Owner for action.

3.3 PREPARATION

- A. Layout of Mains and Laterals: Layout sprinkler mainlines and perform line adjustments and site modifications to laterals prior to execution.
- B. Coordinate all installation with landscape planting work, especially fine grading, and soil preparation for planting areas.
- C. Coordinate and cooperate with all other contractors to enable the work to proceed as rapidly and efficiently as possible.
- D. Layout of Sprinkler Heads: Stake sprinkler head locations and check for uniformity of coverage and correctness of pattern. Minor adjustments to layout should be made based on actual field conditions. If there is a discrepancy of the actual site configuration that may cause sprinklers to cast precipitation into any public roads or walks that were not indicated on the drawings, notify the Architect and the Irrigation Consultant so revisions can be made.
- E. Valve Location: Locate valves to assure ease of access for maintenance and that no physical interference with other elements of the project that are existing or planned. Valve boxes shall be placed a minimum of five (5) feet from walkways and roads. Valve boxes shall be located in mulched planting beds and away from view of pedestrians. If there are no mulched areas within forty feet of a proposed valve location valves may be located in turf areas provided no more than two valve boxes are located next to each other.
- F. Furnish temporary support, adequate protection and maintenance of all underground and surface utilities, structures, drains, sewers and other obstructions encountered in the progress of the work.
- G. Contractor shall acquaint himself with all site conditions. Should utilities not shown on the plans be found during excavations, Contractor shall promptly notify the Owner for instructions as to further actions. Failure to do so will make Contractor liable for any and all damage thereto rising from his operations subsequent to discovery of such utilities not shown on the Drawing.
- H. Where the grade or alignment of the pipe is obstructed by existing utility structures such as conduit, ducts, pipe branch connections to sewer mains, main drains, water services, etc., the obstruction shall be permanently supported, relocated, removed, or reconstructed by the Contractor in cooperation with the Owner of such utility. No deviation from the required line or grade shall be made without the written direction of the Architect.

3.4 EXCAVATION

- A. All excavation is unclassified and includes all materials encountered that are not classified as rock excavation.
- B. Report exceptions to the Architect before excavation. An adjustment in price will be established which includes removal and disposal of the unsuitable material, and the acquiring of additional backfill material.

- C. Excavation in Newly Sodded Areas: Prior to excavation, remove sod, preserve and replace after backfilling is completed.
- D. Excavation in Established Grass or Newly Seeded Areas: After excavation and backfilling is completed, re-grade trenched area consistent with surrounding area and re-seed, or re-sod with 100 percent pure seed of grass type existing. Mulch with straw and water.
- E. Excavation through existing asphalt, cutting, removal and replacement of asphalt, as noted on the Drawing, is the responsibility of the Irrigation Contractor.

3.5 BACKFILL

- A. Backfill material shall be free from rocks, large stones, and other unsuitable substance which could damage the pipe or create unusual settling problems. Backfill in six (6) inch layers and tamp after each layer to prevent excessive settling.
- B. Backfill trenches containing plastic pipe when pipe is cool to avoid excessive contraction in cold water. Such backfilling can be done in early morning hours or the pipe may be water cooled prior to backfilling procedures.
- C. Minimum depth of cover of all pipe is as follows:
 - 1. Irrigation Lateral Line - minimum depth cover is 12 inches.
 - 2. Irrigation Main Line - minimum depth cover is 18 inches.
 - 3. Irrigation Sleeve - minimum depth is 18 inches.

3.6 PAVING WORK

- A. Section Cross Reference: Refer to Division 2 Hot-Mix Asphalt Paving Section for cutting and patching of asphalt paving.
- B. Section Cross Reference: Refer to Division 2 Portland Cement Concrete Paving Section for cutting and patching of concrete paving.

3.7 SLEEVING

- A. Locate sleeving as shown on the Drawings. Contractor to make adjustments necessary to accommodate existing vegetation, utilities and other existing conditions.
- B. Repair of damage to existing utilities, structures or other construction resulting from installation of sleeves is the responsibility of the Contractor.

3.8 PIPING INSTALLATION

- A. General Locations and Arrangements: Drawings indicate general location and arrangement of piping systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, and in other design considerations. Install piping as indicated, except where deviations to layout are approved on coordination drawings.
- B. Install piping free of sags and bends.

- C. Install groups of pipes parallel to each other, spaced to permit valve servicing.
- D. Install underground thermoplastic piping according to ASTM D 2774 and ASTM F 690.
- E. Lay piping on solid subbase, uniformly slopes without humps or depressions.
- F. Tunneling: Install pipe under streets or other obstructions that cannot be disturbed by tunneling, boring or jacking.
- G. Install piping under sidewalks and paving in sleeves.
- H. Main Line: Install according to Manufacturer's Recommendations. Provide concrete thrust blocks at all directional changes on all pipe 3-inches and larger that is of the gasketed variety, as per drawings.
- I. Lateral Lines and Risers:
 - 1. Install according to Manufacturer's Recommendations using standard techniques.
 - 2. Combine lateral lines and main supply lines in common trenches wherever possible.
 - 3. Plug lines immediately upon installation to minimize infiltration of foreign matter.
 - 4. Flush lateral lines and risers prior to installation of sprinkler heads.

3.9 JOINT CONSTRUCTION

- A. Polyvinyl Chloride (PVC) Piping Solvent-Cemented Joints: Construct joints according to ASTM D 2672 and ASTM D 2855.
 - 1. Use PVC pipe cleaner/primer and solvent cement according to pipe manufacturer's recommendations.
- B. Dissimilar Materials Piping Joints: Construct joints using adapters that are compatible with both piping materials, outside diameters, and system working pressure.

3.10 VALVE INSTALLATION

- A. Valves: Install underground valves in valve boxes or pits.
 - 1. Install according to manufacturer's recommendations, and as indicated on the Drawings. Position boxes at a height that will not cause them to interfere with maintenance machinery (e.g., mowers) and such that soil and mulch do not wash into the box. Locate valve box in mulched or natural areas one (1) foot inside the bed line. Where no mulched areas or natural areas exist within forty (40) feet of proposed valve box locations install valve box in turf area. Install no more than two (2) valve boxes together.

3.11 SPRINKLER INSTALLATION

- A. Pop-up Sprinkler Heads: Install in such a manner that top is one (1) inch above finish grade. Where finish grade has not been established extend a riser a minimum of twelve (12) inches above existing grade to mark location of head. After finish grade is established, install heads as shown on Drawings.

- B. All spray sprinklers installed below grade should be accessed through the bottom inlet so as not to void the internal check valve feature.
- C. Backfill around sprinkler head assembly in such a manner as to stabilize the sprinkler head so that no lateral motion is exhibited during operation.

3.12 CONTROL WIRE INSTALLATION

- A. Install control wires in orderly fashion, locate in main line trench. Bundle wires together and tape at ten (10) foot intervals. Position wires to the right of the water supply line in the direction of the water flow.
- B. Provide looped slack at directional changes in supply line to allow for contraction of wires.
- C. Keep wires splices to a minimum and provide ten (10) inch round valve box at each splice location.
- D. Pass wires under existing or future paving, construction, etc., through PVC sleeves.
- E. For each open station on any given controller, there shall be spare wires to the furthest two (2) control valves located in diametrically opposed directions from the controller, plus one (1) additional spare wire.

3.13 AUTOMATIC CONTROL SYSTEM INSTALLATION

- A. Install controllers according to manufacturer's written instructions and as indicated.
 - 1. Install surge protection equipment, grounding, and lightning protection as per manufacturer's recommendations.

3.14 CONNECTIONS

- A. Connect piping to sprinklers, devices, valves, control valves, specialties, and accessories.
- B. Electrical Connections: Connect to power source, controllers, and automatic control valves.

3.15 FIELD QUALITY CONTROL

- A. Leak Test: Leakage shall be defined as the evidence of water moving through the pressurized mainline when no irrigation is taking place. After installation, charge system and test for leaks. If leakage is noted, leaks shall be found and repaired. Retest until no leaks exist.
 - 1. Upon completion of the irrigation system, and after head installation, test the entire system for proper operation. Flush all air from the system and check components for proper operation.

3.16 BALANCING AND ADJUSTING

- A. Balance and adjust the various components of the sprinkler system so that the overall operation of the system is most efficient. This includes synchronization of the controllers, adjustments to

- pressure regulators, part circle sprinkler heads, and individual station adjustments on the controllers.
- B. Adjust automatic control valves to provide flow rate of rate of operating pressure required for each sprinkler circuit.
 - C. Carefully adjust lawn sprinklers so they will be flush with, or not more than one-half (1/2) inch above, finish grade after completion of landscape work.
 - D. Upon completion of the irrigation system, perform a coverage test with the Owner's representative to determine if the irrigation coverage is adequate. Correct any inadequacies.
 - E. Adjust settings of controllers and automatic control valves.

3.17 CLEANUP AND PROTECTION

- A. Flush dirt and debris from piping before installing sprinklers and other devices.
- B. Upon completion of Work, clear grounds of debris, superfluous materials and all equipment. Remove from site to the satisfaction of the Architect.
- C. Protect the Work and materials from damage due to irrigation operations, operations by other contractor and trades and trespassers. Maintain protection until Date of Substantial Completion.
- D. Cover all openings into the system as it is being installed to prevent obstructions in the pipe and the breakage, misuse or disfigurement of the equipment.
- E. Theft: Irrigation Contractor is responsible for theft of equipment and material at the job site before, during and after installation, until Date of Substantial Completion of the Work in total.

3.18 OWNER ORIENTATION

- A. Upon completion of the Work and at a time and place acceptable to the Architect and Owner, the Irrigation Contractor is responsible for the orientation of the Owner's maintenance personnel in the operation, maintenance, and repair of the system. Furnish copies of all available parts lists, troubleshooting lists and specification sheets, to the Architect.
 - 1. Operating and Maintenance Manuals shall constitute the basis of orientation.
- B. Set the initial watering schedules and programming of the automatic controllers at direction of Landscape Contractor.

3.19 WARRANTY

- A. Warranty all Work for a period of one year and 20 days, starting on the Date of Final Completion, against defects in materials, equipment, workmanship and any repairs required resulting from leaks or other defects of workmanship, material or equipment.
- B. Emergency repairs may be made by the Owner without relieving the Contractor of his warranty obligations.

- C. Repair settling of backfilled trenches occurring during the warranty period, including restoration of damaged plantings, paving or improvements resulting from settling of trenches or repair operations.
- D. Respond to Owner's request for repair work within ten (10) days. If not, Owner may proceed with such necessary repairs at the Contractor's expense.

3.20 OBSERVATION AND ACCEPTANCE

- A. Periodic site visits will be made by the Architect or Irrigation Consultant to review the quality and progress of the work. Work found to be unacceptable must be corrected within five (5) calendar days. Remove rejected materials promptly from the project.
- B. Upon completion of the work, the Architect or Irrigation Consultant will issue a punch list for work to be corrected. Where work does not comply with requirements, replace rejected Work.
- C. It will be the responsibility of the Irrigation Contractor to provide a reliable communication system (i.e.: Two way radios or remote radio control activation system) for Substantial Completion and all periodic site visits.
- D. If a site visit to verify Substantial Completion has been scheduled and the Architect or Irrigation Consultant arrives at the site and determines that the irrigation system is not substantially complete (all system components in place, operational and checked) the Contractor shall be responsible for all costs incurred by the Architect or Irrigation Consultant to visit the site. Reimbursable expenses include but are not limited to the following: Mileage, airfare, consultants time, parking fee, meals, rental car, etc. All incurred expenses will be deducted from the final contract amount.

END OF SECTION

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SECTION 32 9219
SEEDING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preparation of subsoil.
- B. Placing topsoil.
- C. Hydroseeding, mulching and fertilizer.

1.02 DEFINITIONS

- A. Weeds: Include Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel, and Brome Grass.

PART 2 PRODUCTS

2.01 REGULATORY REQUIREMENTS

- A. Comply with regulatory agencies for fertilizer and herbicide composition.
- B. Provide certificate of compliance from authority having jurisdiction indicating approval of seed mixture.

2.02 SEED MIXTURE

- A. Seed Mixture:

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that prepared soil base is ready to receive the work of this Section.

3.02 PREPARATION

- A. Prepare subgrade in accordance with Section 31 2200.
- B. Place topsoil in accordance with Section 31 2200.
- C. Install edging at periphery of seeded areas in straight lines to consistent depth.

3.03 HYDROSEEDING

- A. Apply seeded slurry with a hydraulic seeder at a rate of 30 lbs per 1000 sq ft evenly in two intersecting directions.
- B. Do not hydroseed area in excess of that which can be mulched on same day.
- C. Immediately following seeding, apply mulch to a thickness of 1/8 inches. Maintain clear of shrubs and trees.
- D. Apply water with a fine spray immediately after each area has been mulched. Saturate to 4 inches of soil.
- E. Following germination, immediately re-seed areas without germinated seeds that are larger than 4 by 4 inches.

END OF SECTION

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SECTION 32 9223
SODDING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preparation of subsoil.
- B. Fertilizing.
- C. Sod installation.

1.02 RELATED REQUIREMENTS

- A. Section 31 2200 - Grading: Preparation of subsoil in preparation for work of this section.

1.03 DEFINITIONS

- A. Weeds: Includes Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel, and Brome Grass.

1.04 REFERENCE STANDARDS

- A. TPI (SPEC) - Guideline Specifications to Turfgrass Sodding; 2006.

1.05 QUALITY ASSURANCE

- A. Sod Producer: Company specializing in sod production and harvesting with minimum five years experience, and certified by the State of Alabama.

PART 2 PRODUCTS

2.01 REGULATORY REQUIREMENTS

- A. Comply with regulatory agencies for fertilizer and herbicide composition.

2.02 MATERIALS

- A. Sod: TPI (SPEC), Certified Turfgrass Sod quality; cultivated grass sod; type indicated in plant schedule on Drawings; with strong fibrous root system, free of stones, burned or bare spots; containing no more than 5 weeds per 1000 sq ft. Minimum age of 18 months, with root development that will support its own weight without tearing, when suspended vertically by holding the upper two corners.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that prepared soil base is ready to receive the work of this section.

3.02 PREPARATION

- A. Prepare subgrade in accordance with Section 31 2200.

3.03 FERTILIZING

- A. Apply fertilizer in accordance with manufacturer's instructions.
- B. Apply after smooth raking of topsoil and prior to installation of sod.
- C. Apply fertilizer no more than 48 hours before laying sod.
- D. Mix thoroughly into upper 2 inches of topsoil.
- E. Lightly water to aid the dissipation of fertilizer.

3.04 LAYING SOD

- A. Moisten prepared surface immediately prior to laying sod.
- B. Lay sod immediately after delivery to site to prevent deterioration.
- C. Lay sod smooth and tight with no open joints visible, and no overlapping; stagger end joints 12 inches minimum. Do not stretch or overlap sod pieces.

- D. Where sod is placed adjacent to hard surfaces, such as curbs, pavements, etc., place top elevation of sod 1/2 inch below top of hard surface.
- E. On slopes 6 inches per foot and steeper, lay sod perpendicular to slope and secure every row with wooden pegs at maximum 2 feet on center. Drive pegs flush with soil portion of sod.
- F. Water sodded areas immediately after installation. Saturate sod to 4 inches of soil.
- G. After sod and soil have dried, roll sodded areas to ensure good bond between sod and soil and to remove minor depressions and irregularities. Roll sodded areas with roller not exceeding ____ lbs.

END OF SECTION

SECTION 32 9300
PLANTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preparation of subsoil.
- B. Topsoil bedding.
- C. New trees, plants, and ground cover.
- D. Mulch and Fertilizer.

1.02 RELATED REQUIREMENTS

- A. Section 31 2200 - Grading: Topsoil material.
- B. Section 31 2323 - Fill: Topsoil material.

1.03 DEFINITIONS

- A. Weeds: Include Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel, and Brome Grass.
- B. Weeds: Any plant life not specified or scheduled.
- C. Plants: Living trees, plants, and ground cover specified in this Section , and described in ANSI Z60.1.

1.04 REFERENCE STANDARDS

- A. ANSI/AHIA Z60.1 - American National Standard for Nursery Stock; 2014.

1.05 QUALITY ASSURANCE

- A. Nursery Qualifications: Company specializing in growing and cultivating the plants with three years documented experience.
- B. Maintenance Services: Performed by installer.
- C. Non-native, Invasive Plant Species: Do not introduce, grow, or cultivate plant species that are non-native to the ecosystem of the project site, and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.
 - 1. Comply with laws regulating non-native and invasive plant species in the State in which the Project is located.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.
- B. Protect and maintain plant life until planted.
- C. Deliver plant life materials immediately prior to placement. Keep plants moist.

1.07 FIELD CONDITIONS

- A. Do not install plant life when ambient temperatures may drop below 35 degrees F or rise above 90 degrees F.
- B. Do not install plant life when wind velocity exceeds 30 mph.

1.08 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Provide one year warranty.
- C. Warranty: Include coverage for one continuous growing season; replace dead or unhealthy plants.
- D. Replacements: Plants of same size and species as specified, planted in the next growing season, with a new warranty commencing on date of replacement.

PART 2 PRODUCTS

2.01 REGULATORY REQUIREMENTS

- A. Comply with regulatory agencies for fertilizer and herbicide composition.
- B. Plant Materials: Certified by federal department of agriculture; free of disease or hazardous insects.

2.02 PLANTS

- A. Plants: Species and size identified in plant schedule, grown in climatic conditions similar to those in locality of the work.

2.03 MULCH MATERIALS

2.04 TOP SOIL MIX

- A. A uniform mixture of 1 part peat and 3 parts topsoil by volume.

PART 3 EXECUTION

3.01 PREPARATION OF SUBSOIL

- A. Prepare subsoil to eliminate uneven areas. Maintain profiles and contours. Make changes in grade gradual. Blend slopes into level areas.
- B. Remove foreign materials, weeds and undesirable plants and their roots. Remove contaminated subsoil.
- C. Scarify subsoil to a depth of 3 inches where plants are to be placed. Repeat cultivation in areas where equipment, used for hauling and spreading topsoil, has compacted subsoil.
- D. Dig pits and beds 6 inches larger than plant root system.

3.02 PLACING TOPSOIL

- A. Spread topsoil to a minimum depth of 4 inches over area to be planted. Rake smooth.
- B. Place topsoil during dry weather and on dry unfrozen subgrade.
- C. Remove vegetable matter and foreign non-organic material from topsoil while spreading.
- D. Grade topsoil to eliminate rough, low or soft areas, and to ensure positive drainage.
- E. Install topsoil into pits and beds intended for plant root balls, to a minimum thickness of 6 inches.

END OF SECTION

SUBSTITUTION REQUEST

Project: Rainbow City recreation center

Substitution Request Number: 007

To: Goodwyn Mills and Cawood

From: Rafe Stewart

Attn: Alyssa Martin

Date: 6/14/2024

Re: Fluid Applied Air Barrier

A/E Project No.: ABHM230021

Contract For: Dominguez & Persons, LLC

Specification Title: Fluid applied air barriers

Description: _____

Section: 071400

Page and Paragraph: page 2 2.01

Proposed Substitution: Sopraseal 204 vp

Trade Name: Sopraseal 204 vp by Soprema

Manufacturer: Soprema Model No.: 204vp

Mfg. Address: 310 Quadral Drive City, State, zip: Wadsworth, OH 44281 Phone: 1 800 356 3521

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Ryan Mayberry

Signed by: *Ryan Mayberry*

Firm: Pillar Building Solutions LLC

Address: _____

323 Dixon ave Birmingham AL 35209

Telephone: 251 656 1144 E-mail: ryan@pillar-sales.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

NOTE: GC shall confirm system compatibility with all related specified sealants and adjacent materials

Signed by: Daniel Mejia *[Signature]*

Date: 20 June, 2024

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION REQUEST

Project: Rainbow City Recreational Center

Substitution Request Number: 003

To: Goodwyn Mills Cawood, LLC

From: Dominguez & Persons, LLC

Attn: Alyssa Martin

Date: 6/11/2024

Re: Roofing

A/E Project No.: ABHM230021

Contract For: Ragland Construction

Specification Title: Ethylene Interpolymer (KEE) Roofing Description: Manufacturers

Section: 075416

Page and Paragraph: Page 3 Paragraph 2.01

Proposed Substitution: GAF Everguard PVC XK 50

Trade Name: Everguard PVC XK

Manufacturer: GAF Model No.: 50 mil

Mfg. Address: 1 Campus Drive City, State, zip: Parsippany, NJ 07054 Phone: 800-766-3411

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Bruce Manning/Ragland Construction Co., LLC

Signed by: *Bruce Manning*

Firm: Ragland Construction Co., LLC

Address: 1483 Wall Rd.
Brownsboro, Al. 35741

Telephone: 334-405-4051 E-mail: Bruce@raglandconstruction.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: Daniel Mejia 

Date: 21 June, 2024

Supporting Data Attached: Drawings Product Data Samples Tests Reports

CSI Form 1.5C

SUBSTITUTION REQUEST (During the Bid Period)

Project: Rainbow City Recreation Center
Rainbow City, AL
Goodwyn, Mills & Cawood, Inc.
Birmingham, AL
Substitution Request
Substitution Request Number:
From: Overhead Door Company of Chattanooga
Date: 6/11/2024
A/E Project Number: ABHM230021
Contract For: Coiling Counter Door

Specification Title: Coiling Counter Doors
Section: 08 3313 Page: 1 of 2
Description:
Article/Paragraph: 2.01, A

Proposed Substitution: Overhead Door Model 652
Manufacturer: Overhead Door Address: Chattanooga, TN Phone: 423-502-6302
Trade Name: Overhead Door Company Model No.: 652

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

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Proposed substitution does not affect dimensions and functional clearances.
Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Mitch Stophel
Signed by: Mitch Stophel
Firm: Overhead Door Company of Chattanooga
Address: 3500 Alton Park Blvd.
Chattanooga, TN 37410
Telephone: 423-502-6302 mstophel@wmstrimble.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
[X] Substitution rejected - Use specified materials.
Substitution Request received too late - Use specified materials.

Signed by: Daniel Mejia [Signature] Date: 21 June, 2024

Supporting Data Attached: [] Drawings [X] Product Data [] Samples [] Tests [] Reports [] _____

SUBSTITUTION REQUEST

Project: Rainbow City Rec Center

Substitution Request Number: 009

To: Goodwyn Mills and Cawood

From: Rafe Stewart

Attn: Alyssa Martin

Date: 06/14/2024

Re: Aluminum Storefront

A/E Project No.: ABHM230021

Contract For: Dominguez & Persons, LLC

Specification Title: Aluminum - Framed Storefront

Description: Storefront System

Section: 08 4313

Page and Paragraph: Pg 527 & 2.01 Manufacturers

Proposed Substitution: Coral Industries FL300T & FL200

Trade Name: _____

Manufacturer: Coral Industries Model No.: FL300T & FL200

Mfg. Address: 600 64th Ave City, State, zip: Northport, AL, 35476 Phone: 800-772-7737

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

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Submitted by: Kriss Avery

Signed by: _____ 

Firm: BluView Glass

Address: 612 64th Ave Northport, AL 35475

Telephone: 205-881-0762 E-mail: kavery@bluviewglass.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: Daniel Mejia 

Date: 21 June, 2024

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION REQUEST

Project: Rainbow City Rec Center
To: Goodwyn Mills and Cawood
Attn: Alyssa Martin
Re: Aluminum Curtain Wall

Substitution Request Number: 010
From: Rafe Stewart
Date: 6/14/2024
A/E Project No.: ABHM230021
Contract For: Dominguez & Persons, LLC

Specification Title: Glazed Aluminum Curtain Wall
Section: 08 4413

Description: Curtain Wall System
Page and Paragraph: Pg 534 & 2.01 Manufacturers

Proposed Substitution: Coral Industries PW251 2-1/2" x 7" Curtain Wall


Trade Name: _____
Manufacturer: Coral Industries Model No.: PW251
Mfg. Address: 600 64th Ave City, State, zip: Northport, AL, 35476 Phone: 800-772-7737

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Submitted by: Kriss Avery
Signed by: 
Firm: BluView Glass
Address: 612 64th Ave Northport, AL 35475
Telephone: 205-881-0762 E-mail: kavery@bluviewglass.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: Daniel Mejia  Date: 21 June, 2024

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION REQUEST

Project: **Rainbow City Recreation Center**
To: **GMC**
Attn: **Jeff Miller**
Re: _____

Substitution Request Number: _____
From: **ASSA ABLOY, Donovan Errett**
Date: **6/10/24**
A/E Project No.: **ABHM230021**
Contract For: _____

Specification Title: **Door Hardware**
Section: **8710**

Description: **Cylinders and Keying**
Page and Paragraph: **6, D. 1.**

Proposed Substitution: **Medeco X4**
Trade Name: **Medeco**
Manufacturer: **Medeco** Model No.: **X4**
Mfg. Address: **3625 Alleghany Drive** City, State, zip: **Salem, VA 24153** Phone: **877-633-3261**

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Submitted by: **Donovan Errett**
Signed by: **Donovan Errett**
Firm: **ASSA ABLOY Door Security Solutions**
Address: **465 Riverhills Business Park, Birmingham, AL 35242**
Telephone: **205-451-6808** E-mail: **donovan.errett@assaabloy.com**

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: **Daniel Mejia** 

Date: **21 June, 2024**

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION REQUEST

Project: **Rainbow City Recreation Center**
To: **GMC**
Attn: **Jeff Miller**
Re: _____

Substitution Request Number: _____
From: **ASSA ABLOY, Donovan Errett**
Date: **6/10/24**
A/E Project No.: **ABHM230021**
Contract For: _____

Specification Title: **Door Hardware**
Section: **8710**

Description: **Geared Continuous Hinges**
Page and Paragraph: **6, B. 1.**

Proposed Substitution: **Replace Markar with Pemko. Markar doesn't manufacture this product.**

Trade Name: **Pemko**

Manufacturer: **Pemko** Model No.: **FM Series**

Mfg. Address **5535 Distribution Dr** City, State, zip: **Memphis, TN 38141** Phone: **800-824-3018**

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Submitted by: **Donovan Errett**

Signed by: **Donovan Errett**

Firm: **ASSA ABLOY Door Security Solutions**

Address: **465 Riverhills Business Park, Birmingham, AL 35242**

Telephone: **205-451-6808** E-mail: **donovan.errett@assaabloy.com**

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: **Daniel Mejia** 

Date: **21 June, 2024**

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION REQUEST

Project: **Rainbow City Recreation Center**
To: **GMC**
Attn: **Jeff Miller**
Re: _____

Substitution Request Number: _____
From: **ASSA ABLOY, Donovan Errett**
Date: **6/10/24**
A/E Project No.: **ABHM230021**
Contract For: _____

Specification Title: **Door Hardware**
Section: **8710**

Description: **Power Transfer**
Page and Paragraph: **6, C. 1.**

Proposed Substitution: **Securitron CEPT**
Trade Name: **Securitron**
Manufacturer: **Securitron** Model No.: **CEPT**
Mfg. Address: **10027 s. 51st Street** City, State, zip: **Phoenix, AZ 85044** Phone: **800-626-7590**

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Submitted by: **Donovan Errett**
Signed by: **Donovan Errett**
Firm: **ASSA ABLOY Door Security Solutions**
Address: **465 Riverhills Business Park, Birmingham, AL 35242**
Telephone: **205-451-6808** E-mail: **donovan.errett@assaabloy.com**

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: **Daniel Mejia**  Date: **21 June, 2024**

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION REQUEST

Project: **Rainbow City Recreation Center**
To: **GMC**
Attn: **Jeff Miller**
Re: _____

Substitution Request Number: _____
From: **ASSA ABLOY, Donovan Errett**
Date: **6/10/24**
A/E Project No.: **ABHM230021**
Contract For: _____

Specification Title: **Door Hardware**
Section: **8710**

Description: **Deadlocks**
Page and Paragraph: **8, F. 1.**

Proposed Substitution: **Sargent Deadlock**

Trade Name: **Sargent**

Manufacturer: **Sargent** Model No.: **4870**

Mfg. Address: **100 Sargent Drive** City, State, zip: **New Haven, CT 06511** Phone: **800-727-5477**

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Submitted by: **Donovan Errett**

Signed by: **Donovan Errett**

Firm: **ASSA ABLOY Door Security Solutions**

Address: **465 Riverhills Business Park, Birmingham, AL 35242**

Telephone: **205-451-6808** E-mail: **donovan.errett@assaabloy.com**

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: **Daniel Mejia** 

Date: **21 June, 2024**

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION REQUEST

Project: Rainbow City Recreation
Center
To: GMC
Attn: Alyssa Martin & Daniel Mejia
Re: Equal Product Prior Approval

Substitution Request Number: _____
From: Ram Enterprises, Inc.
Date: 6/20/24
A/E Project No.: ABHM 230021
Contract For: _____

Specification Title: Wood Athletic - Flooring Assemblies Description: Manufacturers / Product

Section: 09 6466 Page and Paragraph: Pg. #3, Part 2 - Products,
202 - Materials

Proposed Substitution: Anchor Flex (Gym Floor)

Trade Name: _____

Manufacturer: Action Floor Systems Model No.: _____

Mfg. Address: 4781 N. US Hwy. 5A City, State, zip: Mercer, WI 54547 Phone: (800) 746-3512

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Submitted by: Jennifer Pate

Signed by: Jennifer Pate

Firm: Ram Enterprises, Inc.

Address: 2540 E. Fifth St.,
Montgomery, AL 36107

Telephone: (334) 834-6789 E-mail: jennifer@ramfloors.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: Daniel Mejia [Signature] Date: 21 June, 2024

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

CSI Form 1.5C

SUBSTITUTION REQUEST (During the Bid Period)

Project: Rainbow City Recreation Center
Substitution Request Number:
From: Sports Floors, Inc.
To: Goodwyn Mills Cawood, LLC.
Date: 06/03/2024
Re: Comparable Athletic Wood Flooring
Contract For:
Specification Title: Finishes
Description: Wood Athletic Flooring
Section: 09 6466 Page: 3 of 4
Article/Paragraph: Materials/Subfloor

Proposed Substitution: Rezill Base RP-222
Manufacturer: Connor Sports Floors Address: 251 Industrial Park Rd. Amasa, MI 49903 Phone: 630-641-9184
Trade Name: Athletic Floor Manufacturer Model No.:

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.
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Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Sydney Agerton
Signed by: S Agerton
Firm: Sports Floors Inc
Address: 6651 Reese Rd. Memphis, TN 38133
Telephone: 901-452-9492

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
Substitution rejected - Use specified materials.
Substitution Request received too late - Use specified materials.

Signed by: Daniel Mejia
Date: 21 June, 2024

Supporting Data Attached: [X] Drawings [X] Product Data [] Samples [] Tests [] Reports []

CSI Form 1.5C

SUBSTITUTION REQUEST (During the Bid Period)

Project: Rainbow City Recreation Center
Substitution Request Number:
From: Sports Floors, Inc.
To: Goodwyn Mills Cawood, LLC.
Date: 06/03/2024
A/E Project Number: ABHM230021
Re: Comparable Resilient Athletic Flooring
Contract For:

Specification Title: Finishes
Description: Resilient Athletic Flooring
Section: 09 6566 Page: 3 of 4
Article/Paragraph: Materials/Subfloor

Proposed Substitution: MonoFlex 7+2
Manufacturer: Champion Flooring Address: 1820 E. 27th Terrace PO BOX 1174 Phone: 620-232-2671
Trade Name: Athletic Floor Manufacturer Pittsburg, KS 66762 Model No.:

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

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Submitted by: Sydney Agerton

Signed by: S Agerton

Firm: Sports Floors Inc

Address: 6651 Reese Rd. Memphis, TN 38133

Telephone: 901-452-9492

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
Substitution rejected - Use specified materials.
Substitution Request received too late - Use specified materials.

Signed by: Daniel Mejia
Date: 21 June, 2024

Supporting Data Attached: Drawings Product Data Samples Tests Reports

SUBSTITUTION REQUEST

Project: Rainbow City Recreational Center Substitution Request Number: 01
From: Sport Pro Surfacing
To: Rainbow City Recreational Center Date: 6/17/2024
Attn: T'Ana Yebba A/E Project No.: ABHM230021
Re: _____ Contract For: 096566 Resilient Athletic Flooring

Specification Title: 096566 Resilient Athletic Flooring Description: Polyurethane Flooring Over Rubberized Base Mat
Section: 09 6566 Resilient Athletic Flooring Page and Paragraph: PART 2 PRODUCTS, 2.01, C

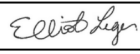
Proposed Substitution: Tarkett Polyturf Pad & Pour 7+2
Trade Name: Tarkett Polyturf Pad & Pour 7+2
Manufacturer: Tarkett Model No.: Polyturf Pad & Pour 7+2
Mfg. Address: 175 N. Industrial Blvd. NE. City, State, zip: Calhoun, GA 30701 Phone: 800-364-6541

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

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Submitted by: Elliot Leger, Estimator
Signed by: 
Firm: Sport Pro Surfacing
Address: 892 Plain St Ste 1, Marshfield, MA 02050
Telephone: +1 (508) 816-2604 E-mail: elliott@spsurfacing.org

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: Daniel Mejia  Date: 21 June, 2024

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION REQUEST

Project: Rainbow City Recreation Center Substitution Request Number: 11
 From: Rafe Stewart
 To: Goodwyn Mills and Cawood Date: 6/20/2024
 Attn: Alyssa Martin A/E Project No.: ABHM230021
 Re: section 096566 Contract For: Dominguez & Persons, LLC

Specification Title: Resilient athletic flooring Description: fluid applied athletic flooring
 Section: 096566 Page and Paragraph: page 2, 2.01

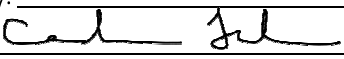
Proposed Substitution: RFS SPORTS Polysport 7+2
 Trade Name: RFS Sports Polysport
 Manufacturer: RFS Sports Model No.: Polysport 7+2
 Mfg. Address: 375 Columbia Memorial Pkwy. City, State, zip: Kemah, TX 77565 Phone: 281-334-6800

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the date are clearly identified.

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Submitted by: Candice Tucker
 Signed by: 
 Firm: RFS Sports
 Address: 375 Columbia Memorial Pkwy. Kemah, TX 77565
 Telephone: 281-334-6800 (office) For any questions, please call Kirk Sandifer 512-626-0582 (cell) E-mail: candice @teamrfs.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: Daniel Mejia  Date: 21 June, 2024

Supporting Data Attached: Drawings Product Data Samples Tests Reports

SUBSTITUTION REQUEST

Project: New Rainbow City Rec Center
To: Goodwin Mills Cawood, LLC
Attn: Alyssa Martin
Re: Acoustical PET Felt Baffles

Substitution Request Number: 004
From: Dominguez & Persons, LLC
Date: 06/11/2024
A/E Project No.: ABHM230021
Contract For: CSI Creative

Specification Title: Sound - Absorbing Ceiling Units
Section: 09 8400

Description: (ACB-1, ACB-2) Frasch Blade BAFL
Page and Paragraph: Page 2 Part 2/2.01 A

Proposed Substitution: Soundcore Folded Baffles FR007

Trade Name: CSI Creative

Manufacturer: CSI Creative Model No.: _____

Mfg. Address 9901 W. 74th Street City, State, zip: Eden Prairie, MN 55344 Phone: 281-369-9373

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the date are clearly identified.

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- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Adrian Hudson

Signed by: Adrian Hudson

Firm: CSI Creative

Address: 9901 W. 74th Street; Eden Prairie, MN 55344

Telephone: 281-369-9373 E-mail: adrian@csicreative.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

NOTE: GC must confirm and ensure this meets baffle dimensions and installations stated in drawings

Signed by: Daniel Mejia 

Date: 21 June, 2024

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____



SUBSTITUTION REQUEST (During the Bidding Phase)

Project: Rainbow City Rec Center
Substitution Request Number: 1
From: Brett Fogarty
To:
Date: 6/20/24
Re: Nevco
A/E Project Number:
Contract For: Gymnasium Equipment

Specification Title: Gymnasium Equipment
Description: Scorer Table & Shot Clocks
Section: 116623
Page:
Article/Paragraph:

Proposed Substitution: Nevco
Manufacturer: Nevco
Address: Greenville, IL 62246
Phone: 618-664-0360
Trade Name: Nevco
Model No.: Scorer Table & Shot Clocks

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
Same warranty will be furnished for proposed substitution as for specified product.
Same maintenance service and source of replacement parts, as applicable, is available.
Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
Proposed substitution does not affect dimensions and functional clearances.
Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Brett Fogarty
Signed by: Brett Fogarty
Firm: Toadvine Enterprises
Address: 14800 Taylorsville Rd. Fishersville, KY 40023
Telephone: 502-241-6010

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 01330.
Substitution approved as noted - Make submittals in accordance with Specification Section 01330.
Substitution rejected - Use specified materials.
Substitution Request received too late - Use specified materials.

Signed by: Daniel Mejia
Date: 21 June, 2024

Supporting Data Attached: Drawings Product Data Samples Tests Reports

SUBSTITUTION REQUEST

Project: Rainbow City Rec Center

To: Goodwyn Mills Cawood, LLC
Attn: Alyssa Martin
Re: Gym Divider Curtain

Substitution Request Number: 001
From: Dominguez Design-Build, Inc.
Date: 6/6/2024
A/E Project No.: ABHM230021
Contract For: National Sports Equipment

Specification Title: GYMNASIUM DIVIDER CURTAIN
Section: SECTION 11 6653

Description: ROLL UP DIVIDER CURTAIN
Page and Paragraph: 2.03

Proposed Substitution: Jaypro Sports Roll Up style gym divider curtain
Trade Name: gymnasium equipment
Manufacturer: JAYPRO SPORTS Model No.: RC-690
Mfg. Address: 976 HARTFORD TPKE City, State, zip: WATERFORD, CT 06385 Phone: 860.447.3001

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Greg Ferrara
Signed by: *Greg Ferrara*
Firm: NATIONAL EQUIPMENT
Address: 166 Masons Island Rd, Mystic CT 06355
Telephone: 203-530-7361 E-mail: gr_ferrara@nefacsales.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: Daniel Mejia *[Signature]*

Date: 21 June, 2024

Supporting Data Attached: Drawings Product Data Samples Tests Reports _____

SUBSTITUTION REQUEST

Project: Rainbow City Rec Center

To: Goodwyn Mills Cawood, LLC
Attn: Alyssa Martin
Re: Telescoping Seating System

Substitution Request Number: 002
From: Dominguez Design-Build, Inc.
Date: 6/6/2024
A/E Project No.: ABHM230021
Contract For: National Sports Equipment

Specification Title: TELESCOPING SEATING SYSTEMS Description: powered telescoping seating systems
Section: 12 6613 Page and Paragraph: 2.20

Proposed Substitution: KODIAK POWERED TELESCOPING BLEACHERS
Trade Name: TELESCOPING BLEACHERS
Manufacturer: RSL MANUFACTURING Model No.: 2400 SERIES
Mfg. Address: 240 IXL Crescent City, State, zip: Lockport, MB R1A 3R9 Phone: (204) 224-3221

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Greg Ferrara
Signed by: *Greg Ferrara*
Firm: NATIONAL EQUIPMENT
Address: 166 Masons Island Rd, Mystic CT 06355

Telephone: 203-530-7361 E-mail: gr_ferrara@nefacsales.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: Daniel Mejia *[Signature]* Date: 21 June, 2024

Supporting Data Attached: Drawings Product Data Samples Tests Reports

SUBSTITUTION REQUEST

Project: Rainbow City Recreation Center Substitution Request Number:
From: Mowrey Elevator Co. of FL, Inc.
To: Whom it may concern Goodwyn Mills Cawood, LLC Date: 06/20/24
Attn: Rainbow City Recreation Center A/E Project No.: ABHM230021
Re: Rainbow City Recreation Center Contract For:

Specification Title: 14 2100 Description: Elevator
Section: Elevator Substitution Request Page and Paragraph:

Proposed Substitution: Holeless hydraulic MRL elevator

TradeName:

Manufacturer: Mowrey Elevator Model No.: ME200

Mfg. Address 4518 Lafayette St. City, State, zip: Marianna, FL 32446 Phone: 800-441-4449

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
Same warranty will be furnished for proposed substitution as for specified product.
Same maintenance service and source of replacement parts, as applicable, is available.
Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
Proposed substitution does not affect dimensions and functional clearances.
Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Grace Bush, Construction Sales Manager

Signed by: [Signature]

Firm: Mowrey Elevator Co. of FL, Inc.

Address:

Telephone: 800-441-4449 E-mail: grace@mowreyelevator.com

A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
Substitution rejected - Use specified materials.
Substitution Request received too late - Use specified materials.

Signed by: Daniel Mejia [Signature] Date: 21 June, 2024

Supporting Data Attached: Q Drawings [x] Product Data Q Samples Q Tests Q Reports Q

SUBSTITUTION REQUEST

Project: Rainbow City Recreation Center
To: Goodwin Mills Cawood, LLC
Attn: Alyssa Martin
Re: Submitting Honeywell Gamewell-FCI fire alarm as equal

Substitution Request Number: 005
From: Dominguez & Persons, LLC
Date: 6/12/2024
A/E Project No.: ABHM230021
Contract For: PCI Technology

Specification Title: Fire Alarm System
Section: 28 31 00

Description: Fire Alarm System
Page and Paragraph: 985

Proposed Substitution: Honeywell Gamewell-FCI fire alarm equipment (as equal to Notifier, EST, Simplex - parts in specs are discontinued)

Trade Name: Fire Alarm through Electrical Contractor

Manufacturer: Honeywell Model No.: E3 with Voice Evac

Mfg. Address: 12 Clintonville Road City, State, zip: Northford, CT 06472 Phone: 203-484-7161

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: William Mills

Signed by: *William Mills*

Firm: PCI Technologies

Address: 1909 27th Street Northport, AL 35476 (Tuscaloosa office)

Telephone: 205-534-0702 E-mail: wmills@pci-tec.com

A/E's REVIEW AND ACTION

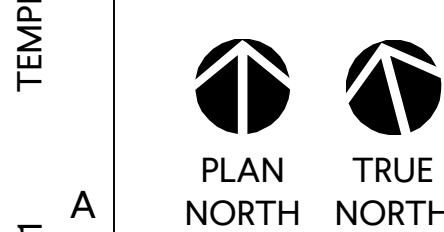
- Substitution approved - Make submittals in accordance with Specifications, Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specifications Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: Daniel Mejia 

Date: 21 June 2024

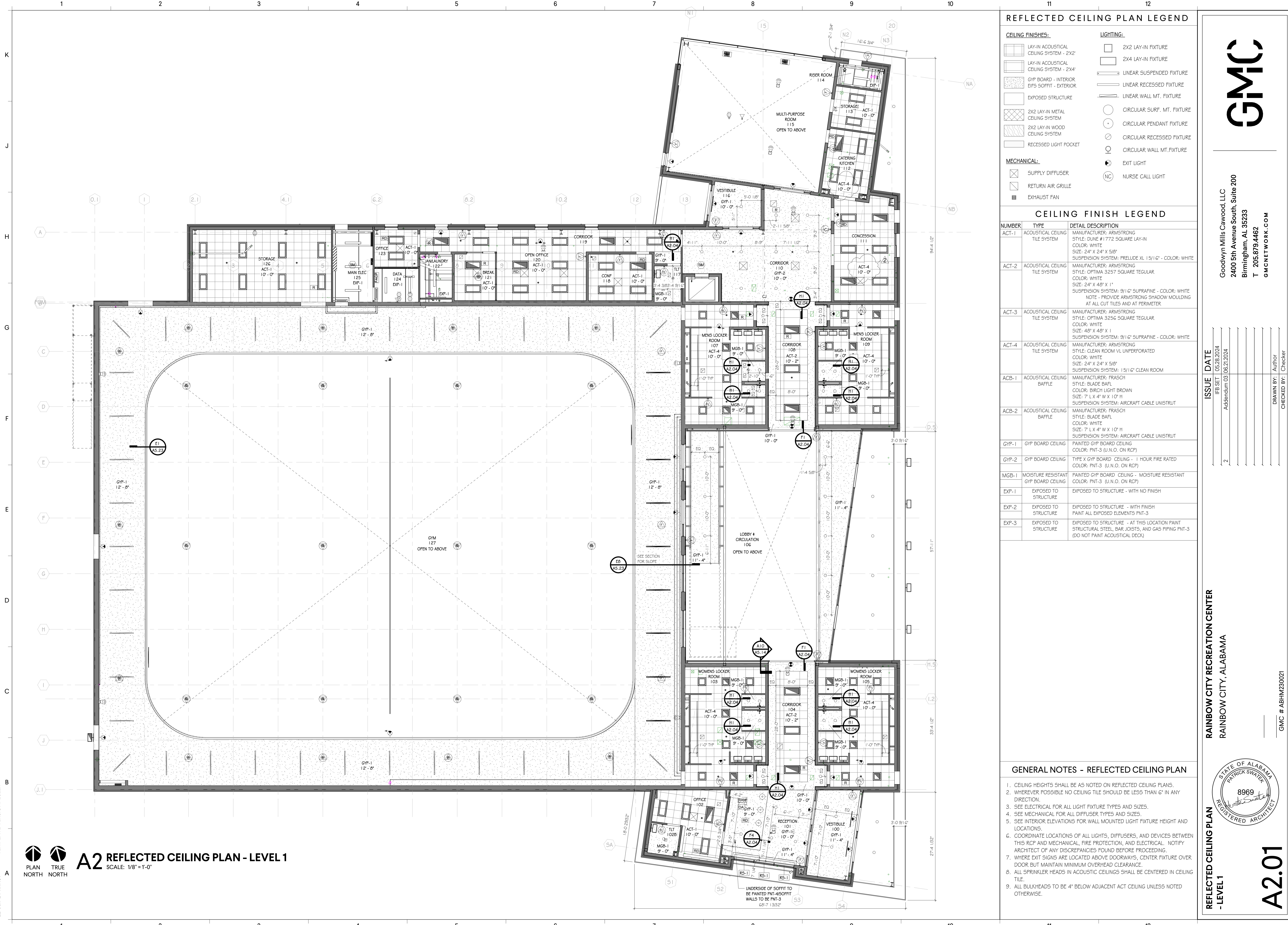
Supporting Data Attached: Drawings Product Data Samples Tests Reports List of similar projects

22-Jun-24 11:17:01



A2 REFLECTED CEILING PLAN - LEVEL 1

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



REFLECTED CEILING PLAN LEGEND

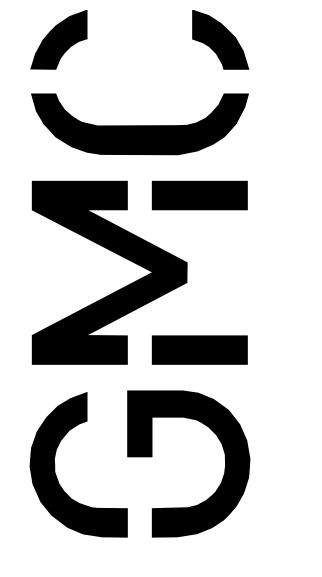
CEILING FINISHES:	LIGHTING:
MECHANICAL:	

CEILING FINISH LEGEND

NUMBER:	TYPE	DETAIL DESCRIPTION
ACT-1	ACOUSTICAL CEILING TILE SYSTEM	MANUFACTURER: ARMSTRONG STYLE: DUNE #1772 SQUARE LAY-IN COLOR: WHITE SIZE: 24" X 24" X 5/8" SUSPENSION SYSTEM: PRELUDE XL 1 5/16" - COLOR: WHITE
ACT-2	ACOUSTICAL CEILING TILE SYSTEM	MANUFACTURER: ARMSTRONG STYLE: OPTIMA 3257 SQUARE REGULAR COLOR: WHITE SIZE: 24" X 48" X 1" SUSPENSION SYSTEM: 9/16" SUPRAFINE - COLOR: WHITE NOTE - PROVIDE ARMSTRONG SHADOW MOULDING AT ALL CUT TILES AND AT PERIMETER
ACT-3	ACOUSTICAL CEILING TILE SYSTEM	MANUFACTURER: ARMSTRONG STYLE: OPTIMA 3256 SQUARE REGULAR COLOR: WHITE SIZE: 48" X 48" X 1" SUSPENSION SYSTEM: 9/16" SUPRAFINE - COLOR: WHITE
ACT-4	ACOUSTICAL CEILING TILE SYSTEM	MANUFACTURER: ARMSTRONG STYLE: CLEAN ROOM VL UNPERFORATED COLOR: WHITE SIZE: 24" X 24" X 5/8" SUSPENSION SYSTEM: 1 5/16" CLEAN ROOM
ACB-1	ACOUSTICAL CEILING BAFFLE	MANUFACTURER: FRASCH STYLE: BLADE BAFL COLOR: BIRCH LIGHT BROWN SIZE: 7' L X 4' W X 10" H SUSPENSION SYSTEM: AIRCRAFT CABLE UNISTRUT
ACB-2	ACOUSTICAL CEILING BAFFLE	MANUFACTURER: FRASCH STYLE: BLADE BAFL COLOR: WHITE SIZE: 7' L X 4' W X 10" H SUSPENSION SYSTEM: AIRCRAFT CABLE UNISTRUT
GYP-1	GYP BOARD CEILING	PAINTED GYP BOARD CEILING COLOR: PNT-3 (U.N.O. ON RCP)
GYP-2	GYP BOARD CEILING	TYPE X GYP BOARD CEILING - 1 HOUR FIRE RATED COLOR: PNT-3 (U.N.O. ON RCP)
MGB-1	MOISTURE RESISTANT GYP BOARD CEILING	PAINTED GYP BOARD CEILING - MOISTURE RESISTANT COLOR: PNT-3 (U.N.O. ON RCP)
EXP-1	EXPOSED TO STRUCTURE	EXPOSED TO STRUCTURE - WITH NO FINISH
EXP-2	EXPOSED TO STRUCTURE	EXPOSED TO STRUCTURE - WITH FINISH PAINT ALL EXPOSED ELEMENTS PNT-3
EXP-3	EXPOSED TO STRUCTURE	EXPOSED TO STRUCTURE - AT THIS LOCATION PAINT STRUCTURAL STEEL, BAR JOISTS, AND GAS PIPING PNT-3 (DO NOT PAINT ACOUSTICAL DECK)

GENERAL NOTES - REFLECTED CEILING PLAN

1. CEILING HEIGHTS SHALL BE AS NOTED ON REFLECTED CEILING PLANS.
2. WHEREVER POSSIBLE NO CEILING TILE SHOULD BE LESS THAN 6" IN ANY DIRECTION.
3. SEE ELECTRICAL FOR ALL LIGHT FIXTURE TYPES AND SIZES.
4. SEE MECHANICAL FOR ALL DIFFUSER TYPES AND SIZES.
5. SEE INTERIOR ELEVATIONS FOR WALL MOUNTED LIGHT FIXTURE HEIGHT AND LOCATIONS.
6. COORDINATE LOCATIONS OF ALL LIGHTS, DIFFUSERS, AND DEVICES BETWEEN THIS RCP AND MECHANICAL, FIRE PROTECTION, AND ELECTRICAL. NOTIFY ARCHITECT OF ANY DISCREPANCIES FOUND BEFORE PROCEEDING.
7. WHERE EXIT SIGNS ARE LOCATED ABOVE DOORWAYS, CENTER FIXTURE OVER DOOR BUT MAINTAIN MINIMUM OVERHEAD CLEARANCE.
8. ALL SPRINKLER HEADS IN ACOUSTIC CEILINGS SHALL BE CENTERED IN CEILING TILE.
9. ALL BULKHEADS TO BE 4" BELOW ADJACENT ACT CEILING UNLESS NOTED OTHERWISE.



Goodwyn Mills Caswood, LLC
2400 5th Avenue South, Suite 200
Birmingham, AL 35233
T 205.879.4462
GMCNETWORK.COM

ISSUE DATE: 05/28/2024
 1. IFS SET
 2. Addendum 03 06/21/2024

RAINBOW CITY RECREATION CENTER
RAINBOW CITY, ALABAMA

REFLECTED CEILING PLAN - LEVEL 1

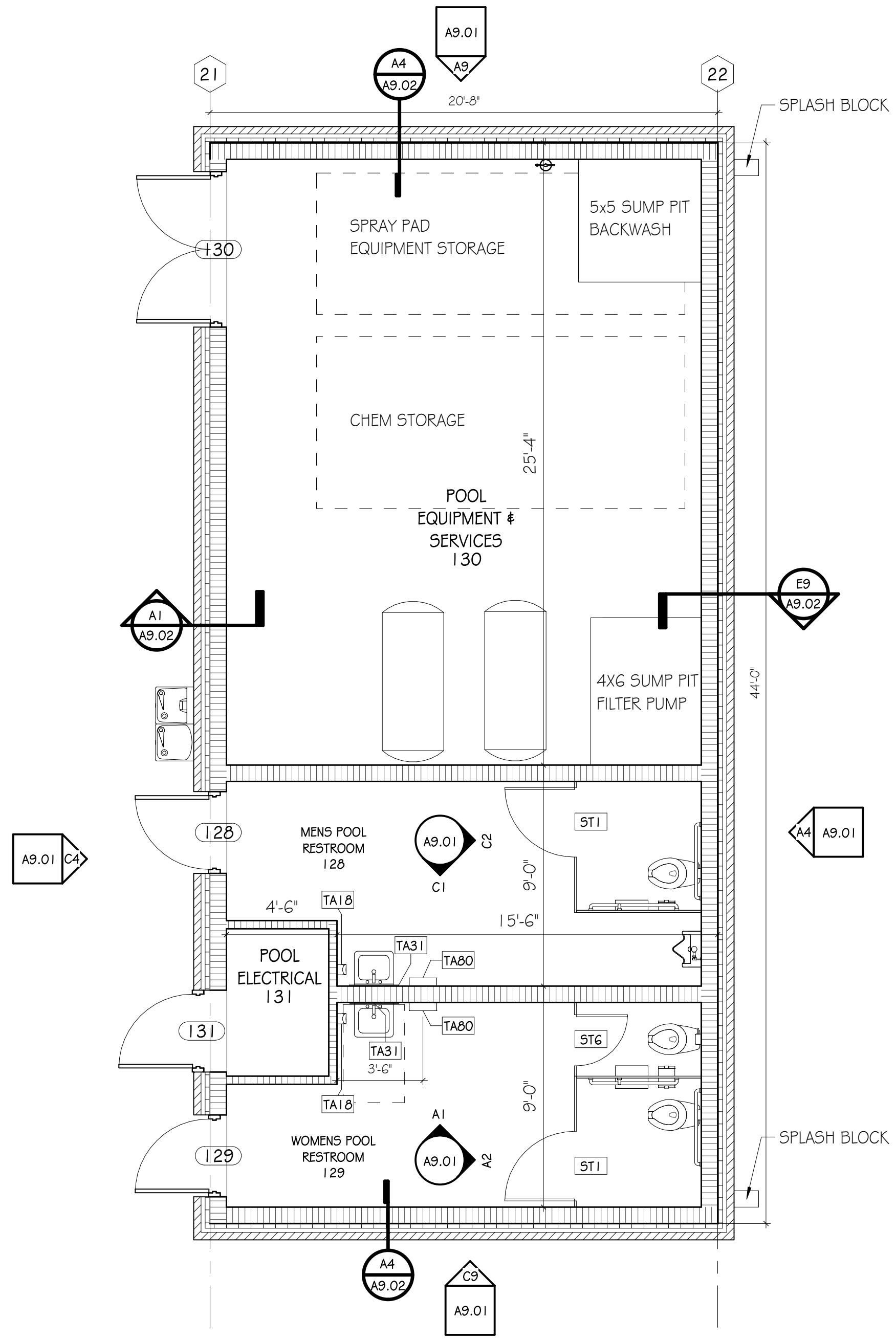
STATE OF ALABAMA
 PATRICK SWATER
 8969
 REGISTERED ARCHITECT

DRAWN BY: Author
 CHECKED BY: Checker

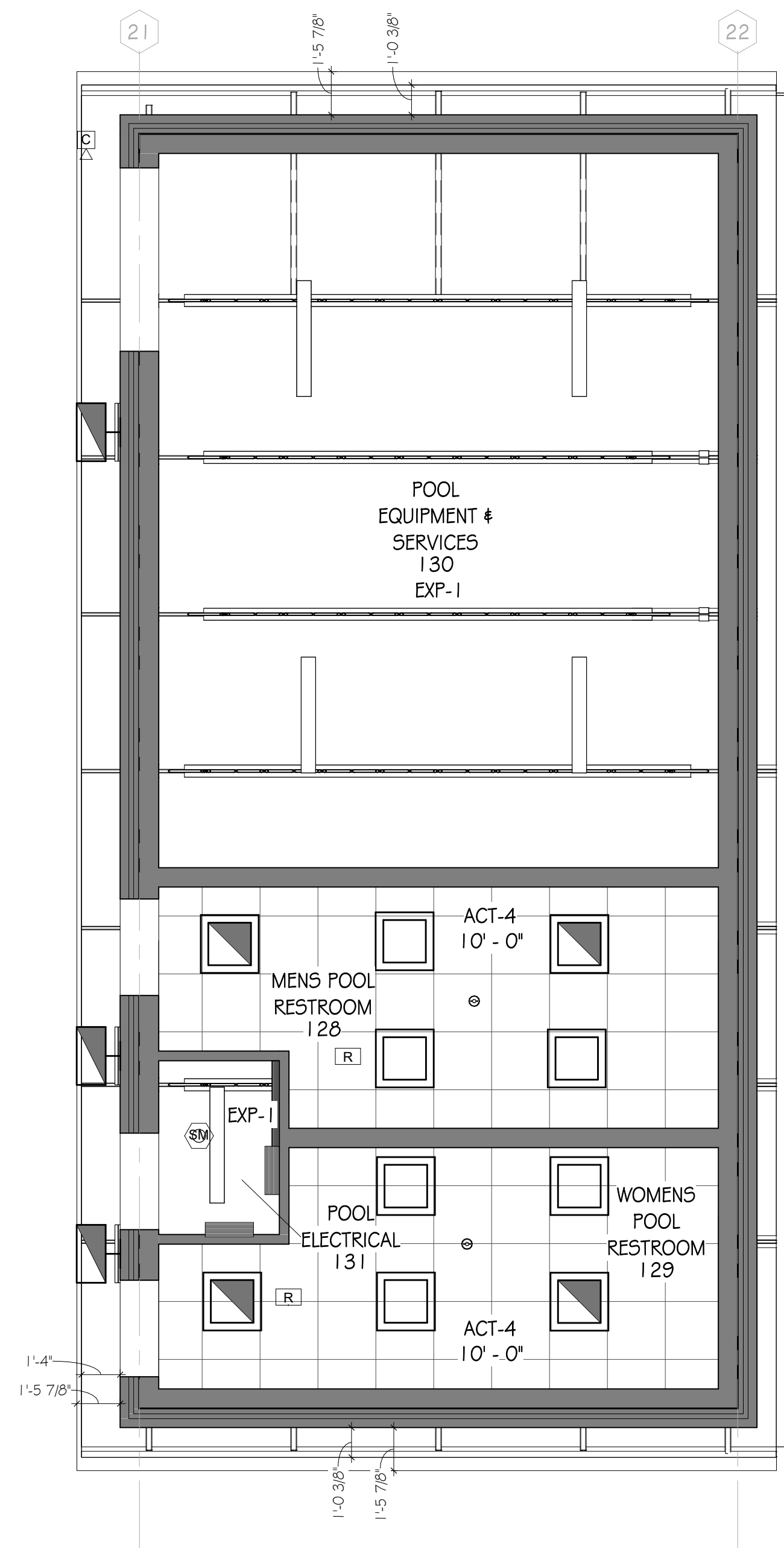
GMC # ABHM230021

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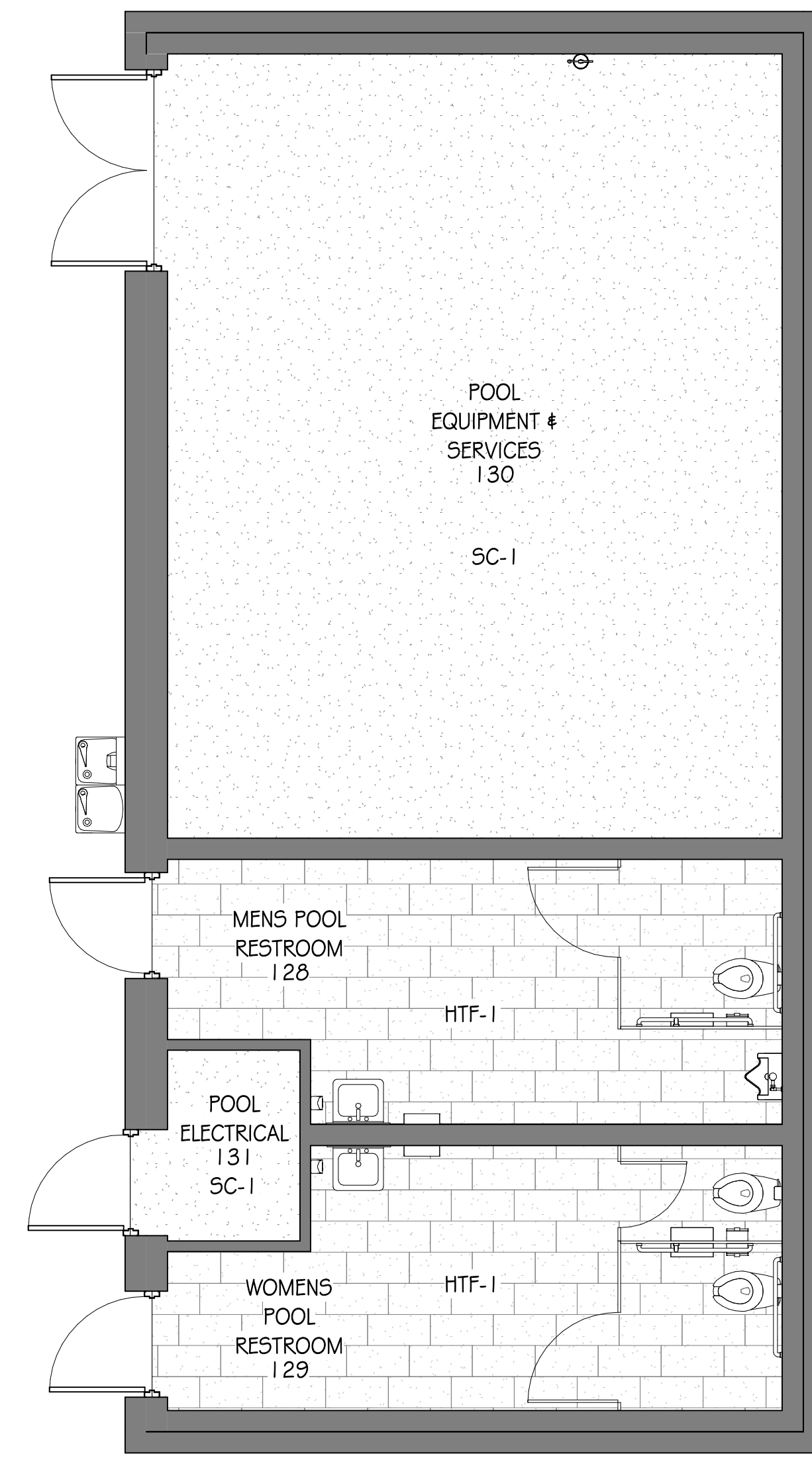
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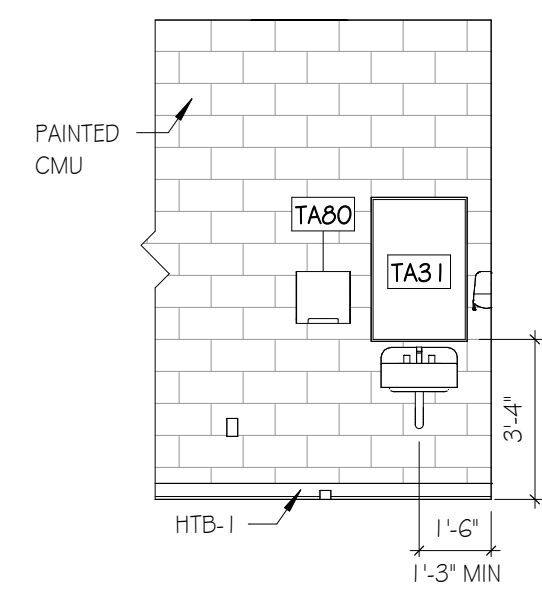
F1 POOL EQUIPMENT BLDG PLAN
SCALE: 1/4"=1'-0"



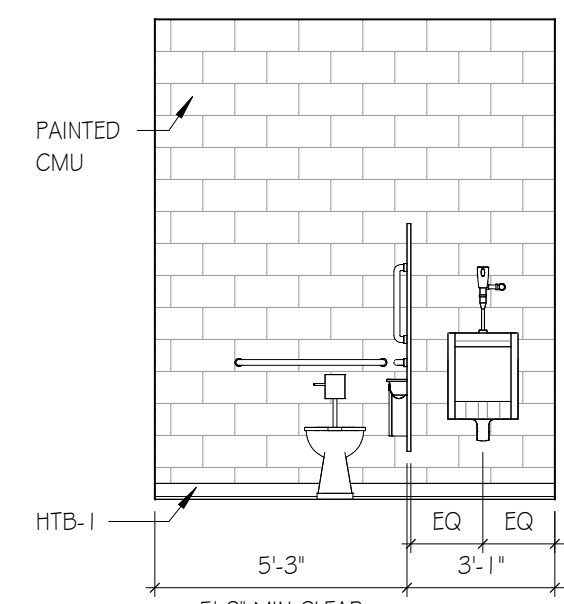
F5 POOL EQUIPMENT RCP
SCALE: 1/4"=1'-0"



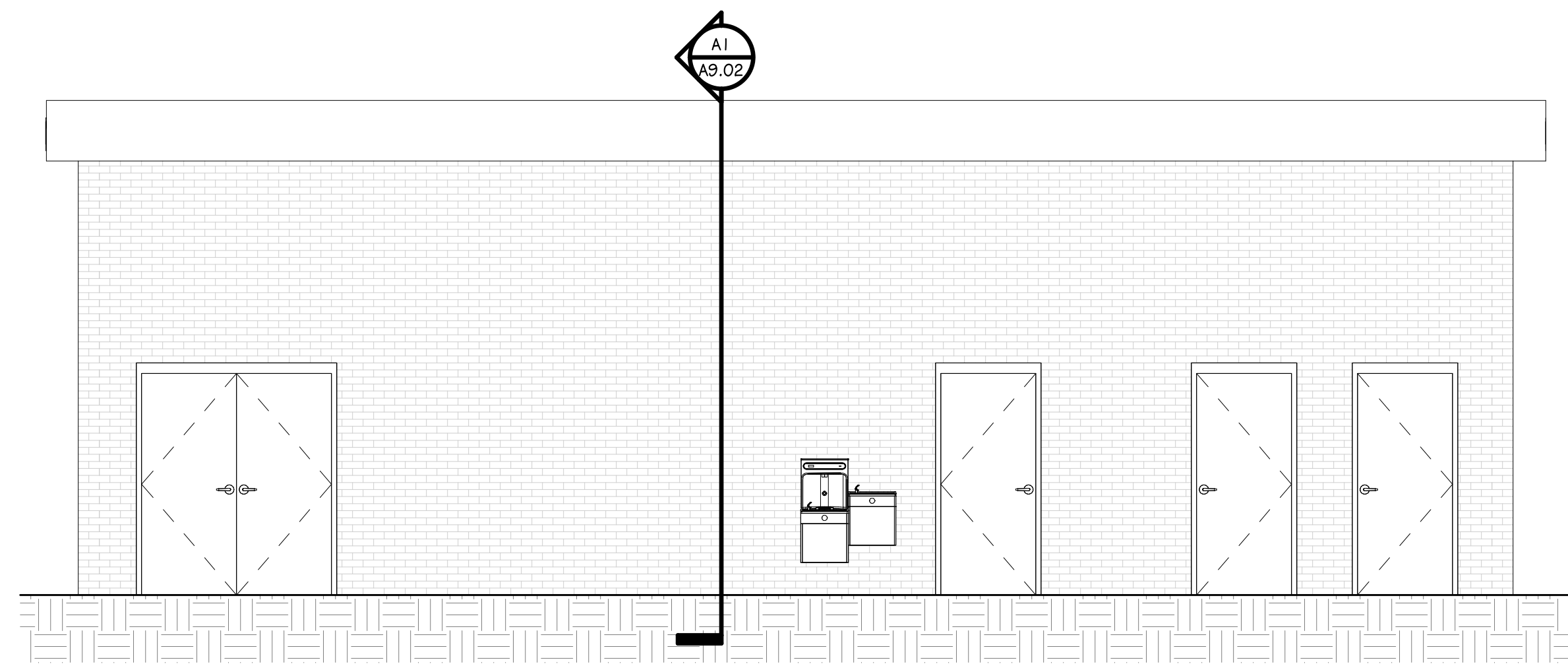
F9 POOL EQUIPMENT BLDG - FINISH PLAN
SCALE: 1/4"=1'-0"



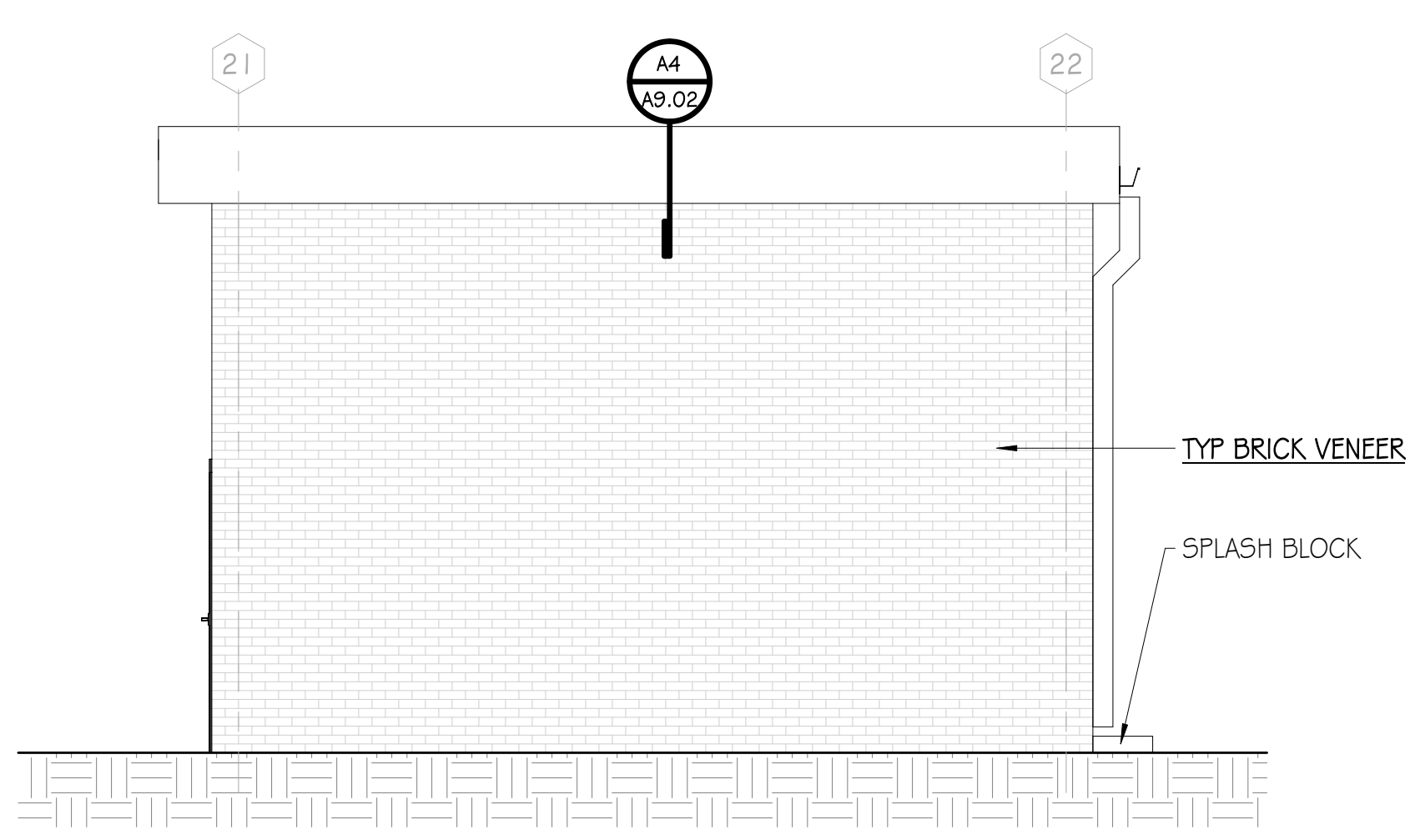
C1 MENS POOL RR - 1
SCALE: 1/4"=1'-0"



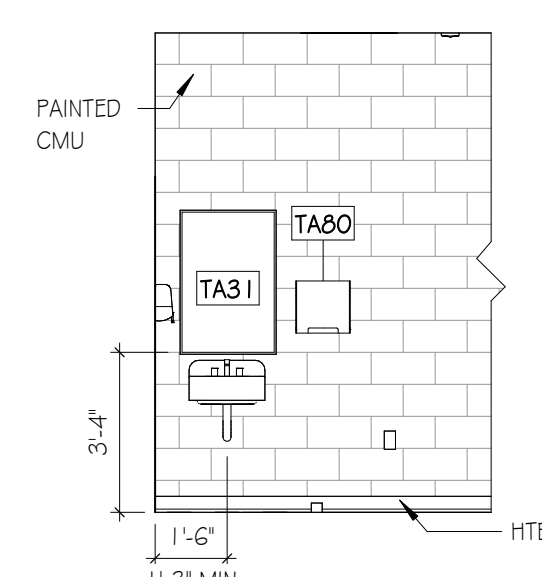
C2 MENS POOL RR - 2
SCALE: 1/4"=1'-0"



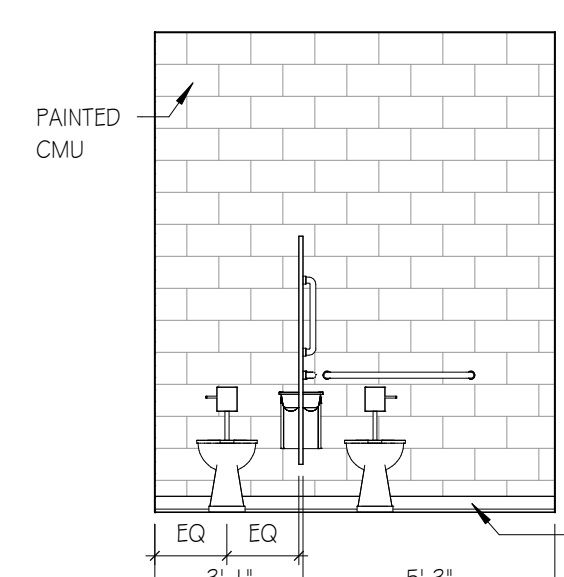
C4 WEST
SCALE: 1/4"=1'-0"



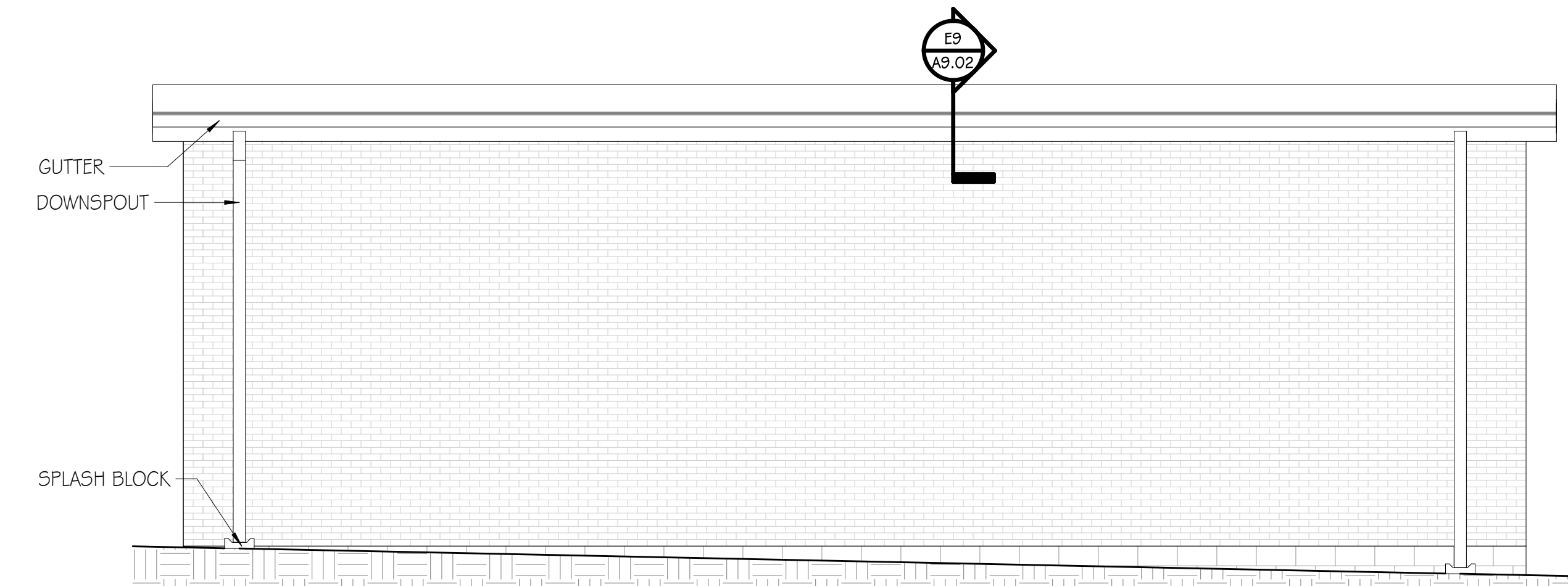
C9 SOUTH
SCALE: 1/4"=1'-0"



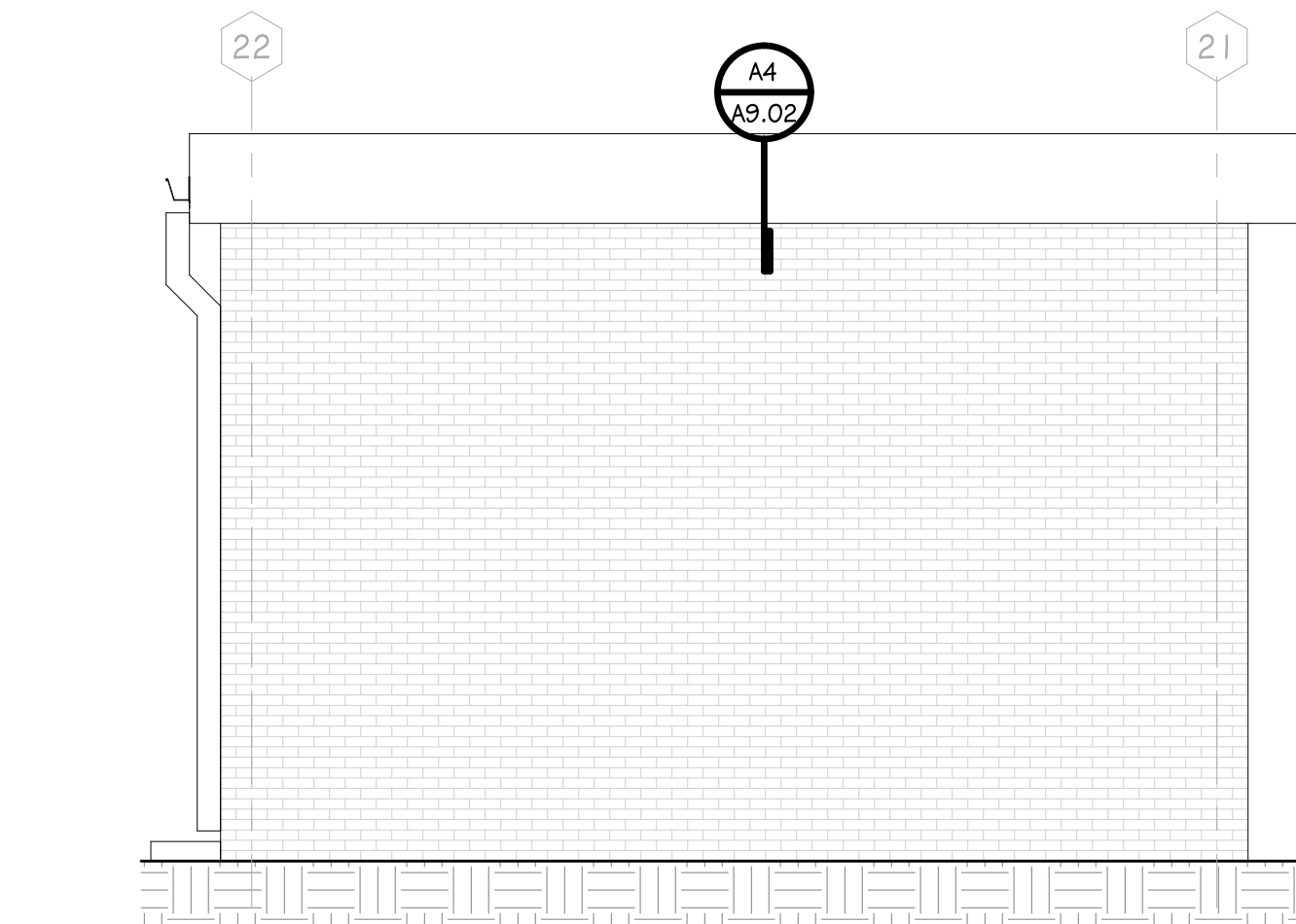
A1 WOMENS POOL RR - 1
SCALE: 1/4"=1'-0"



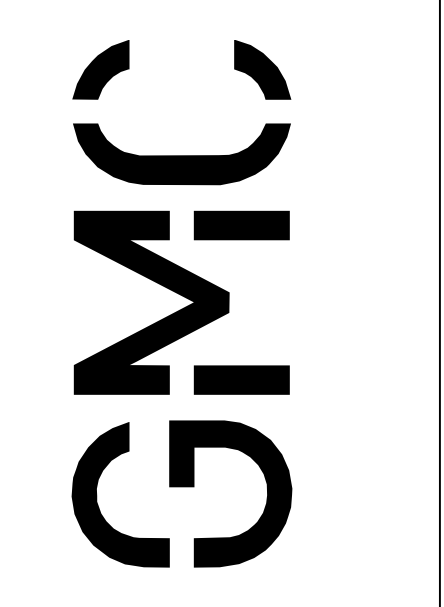
A2 WOMENS POOL RR - 2
SCALE: 1/4"=1'-0"



A4 EAST
SCALE: 1/4"=1'-0"



A9 NORTH
SCALE: 1/4"=1'-0"

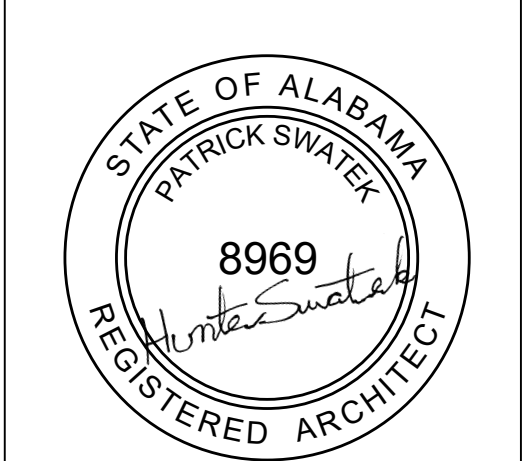


Goodwyn Mills Cawood, LLC
2400 5th Avenue South, Suite 200
Birmingham, AL 35233
T 205.879.4462
GMCNETWORK.COM

ISSUE	DATE
1	IFB SET 05/28/2024
2	Addendum 03 06/21/2024

DRAWN BY: Author
CHECKED BY: Checker

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RAINBOW CITY, ALABAMA

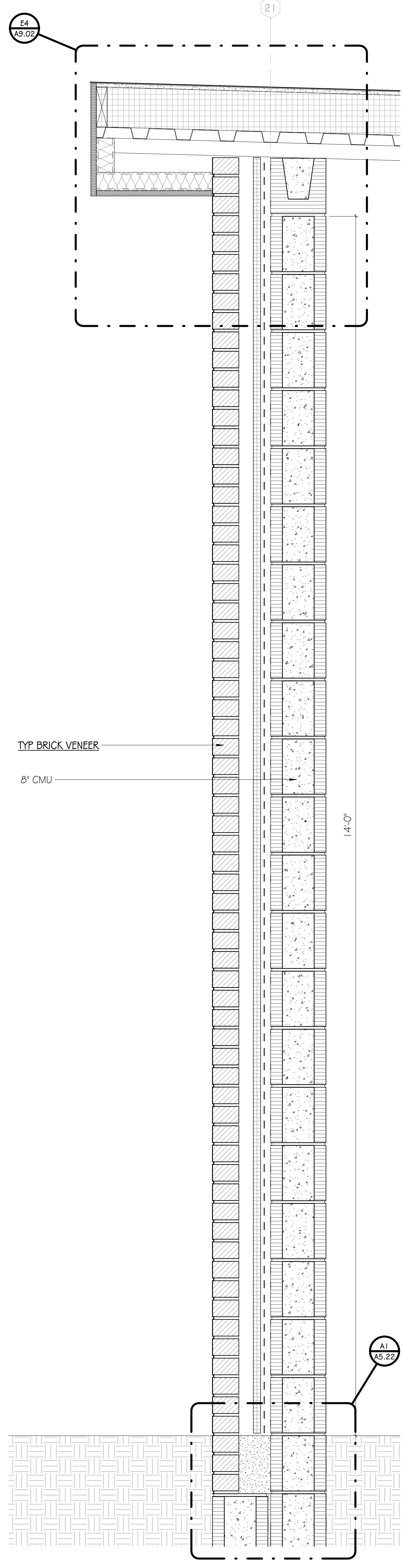


POOL EQUIPMENT BUILDING

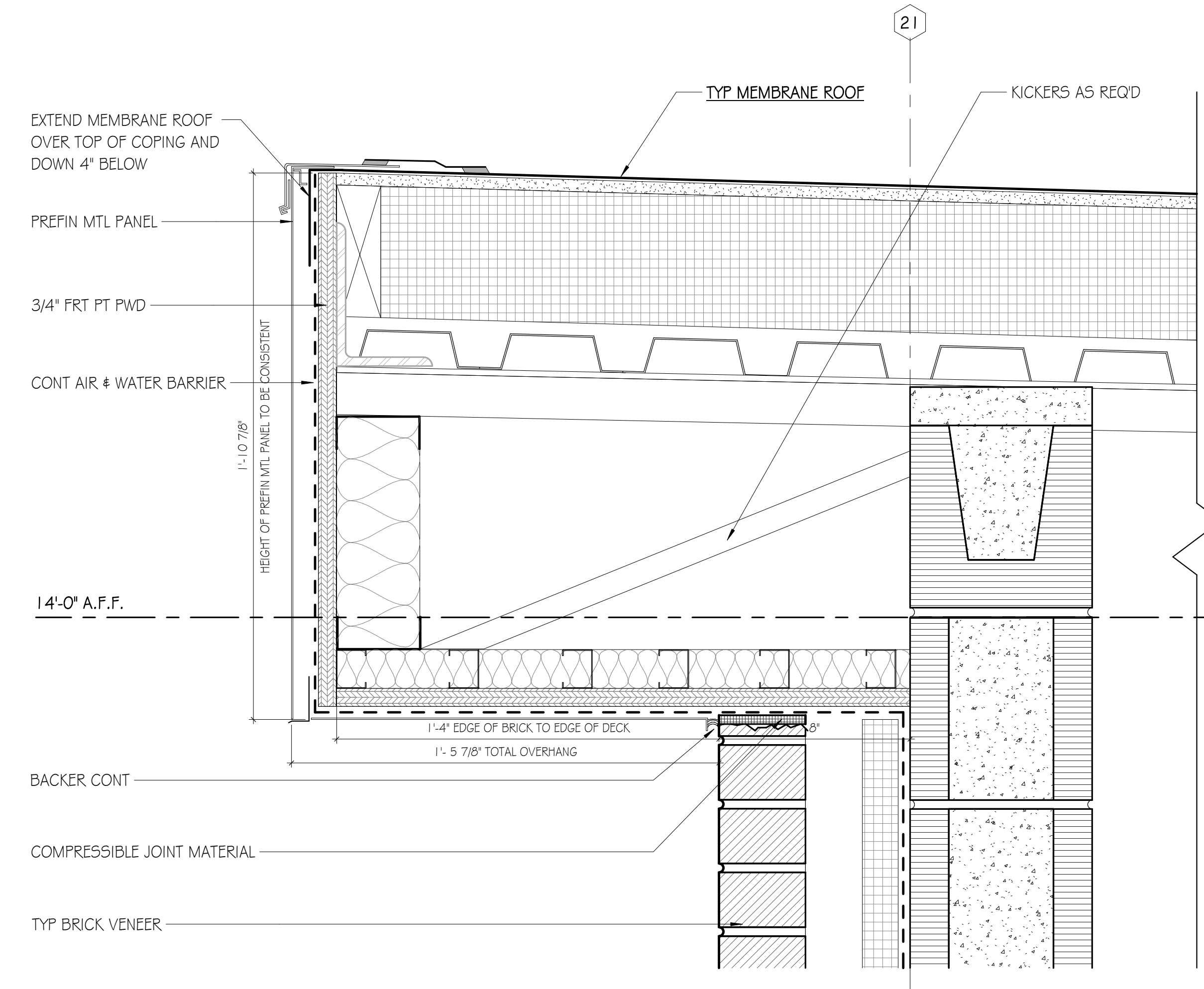
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GMC # ABHM230021

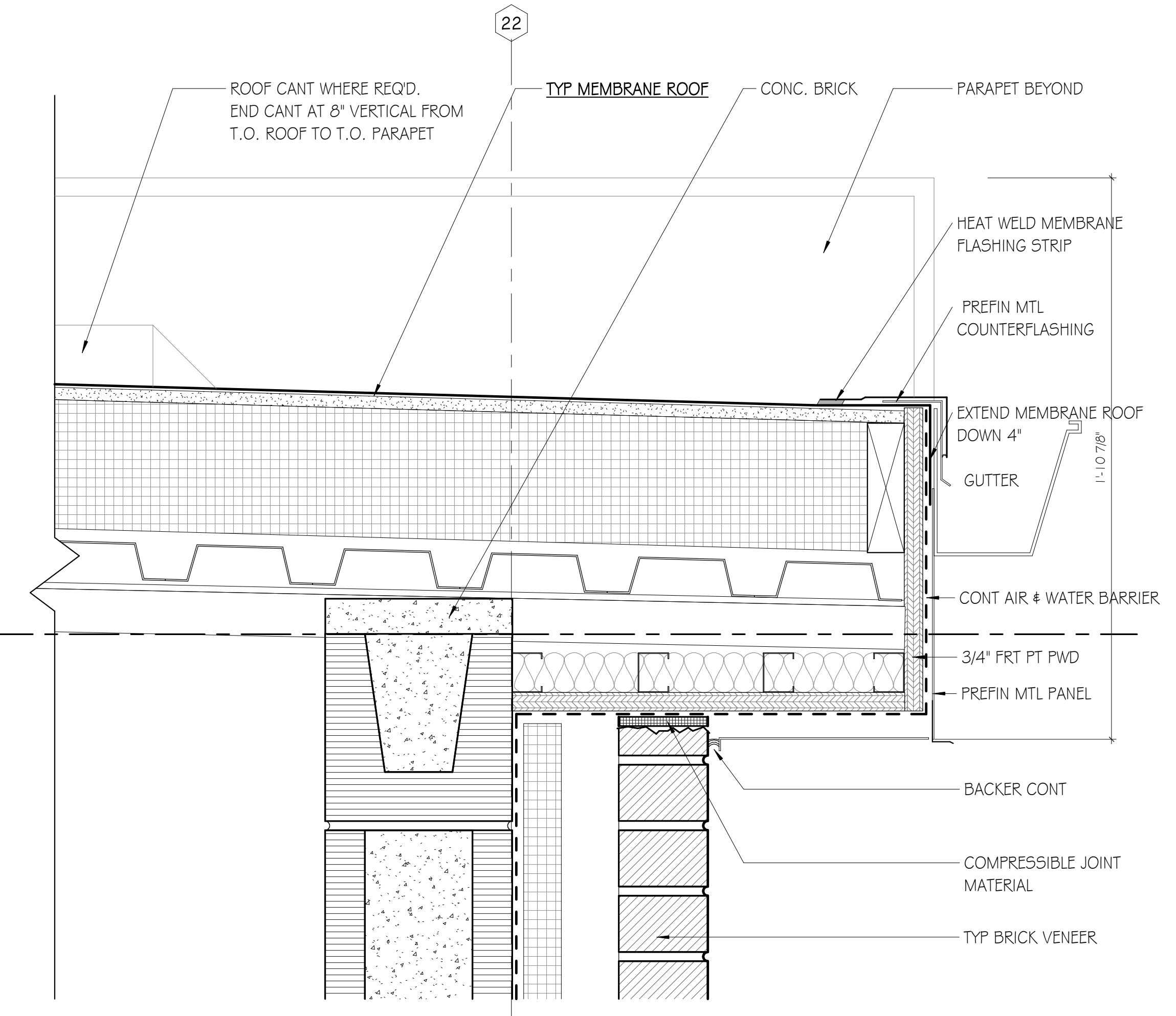
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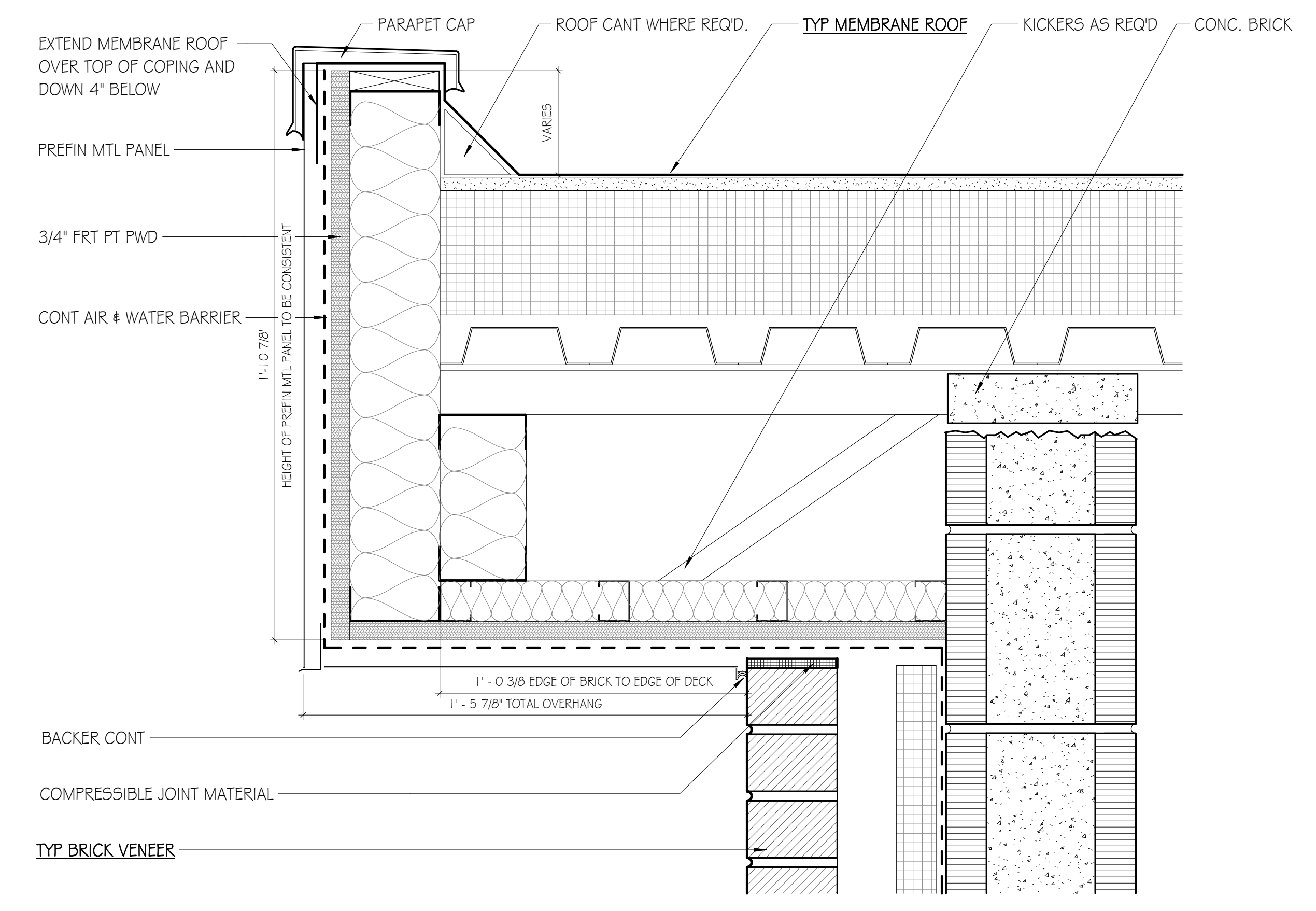
A1 WEST - POOL EQUIP. BLDG.
SCALE: 1/2" = 1'-0"



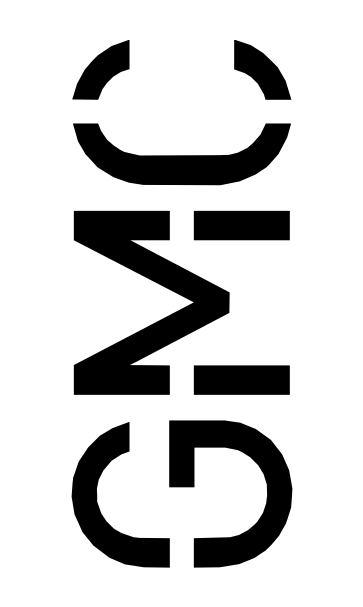
E4 POOL EQUIP. BLDG. - ROOF WEST
SCALE: 3" = 1'-0"



E9 POOL EQUIP. BLDG. - ROOF EAST
SCALE: 3" = 1'-0"



A4 POOL EQUIP. BLDG. - ROOF NORTH
SCALE: 3" = 1'-0"



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ISSUE	DATE
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DRAWN BY: Author
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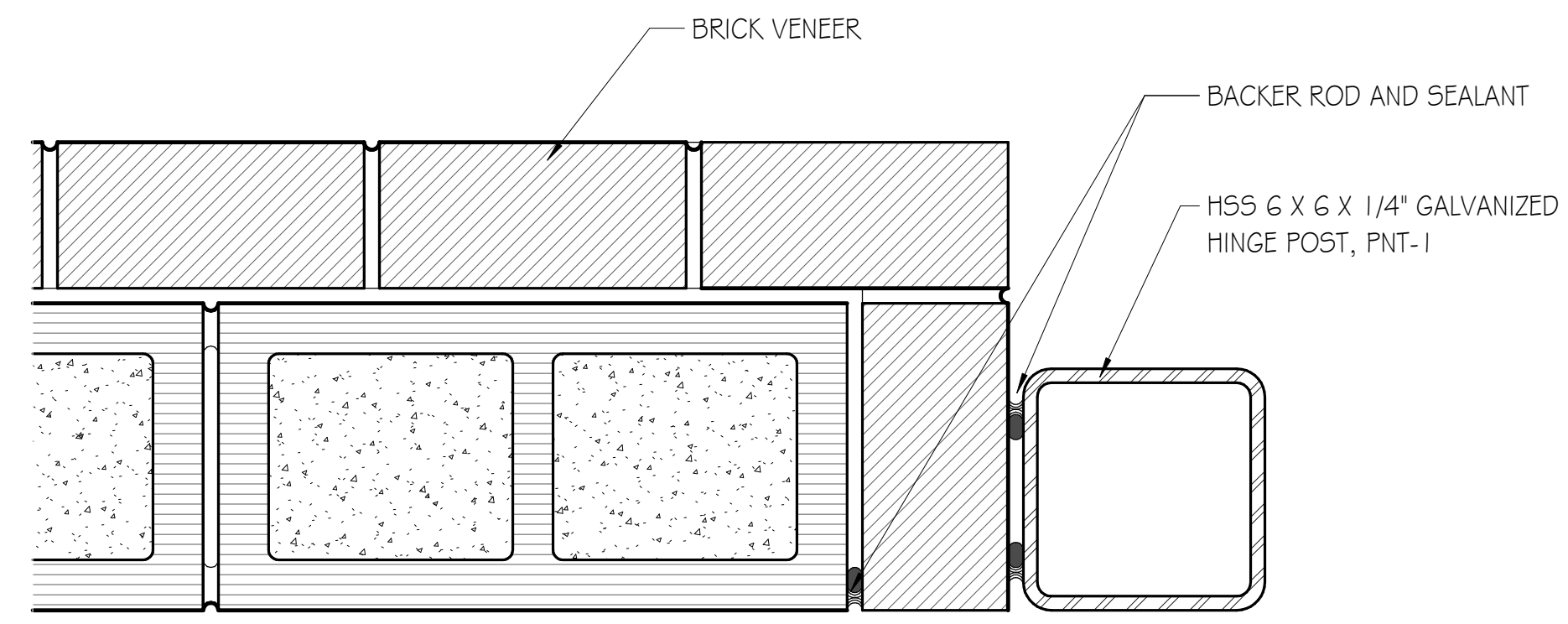
RAINBOW CITY RECREATION CENTER
RAINBOW CITY, ALABAMA



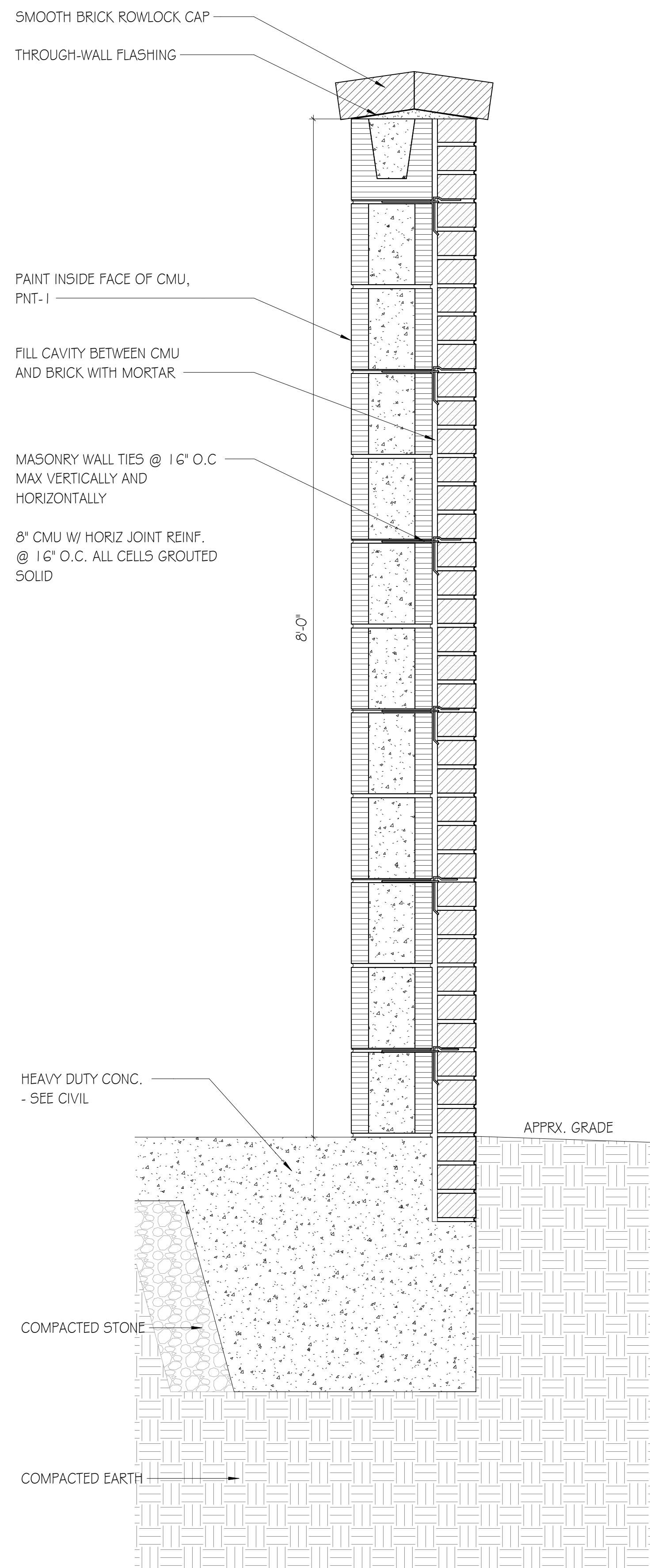
POOL EQUIPMENT
BUILDING SECTIONS &
DETAILS

A9.02

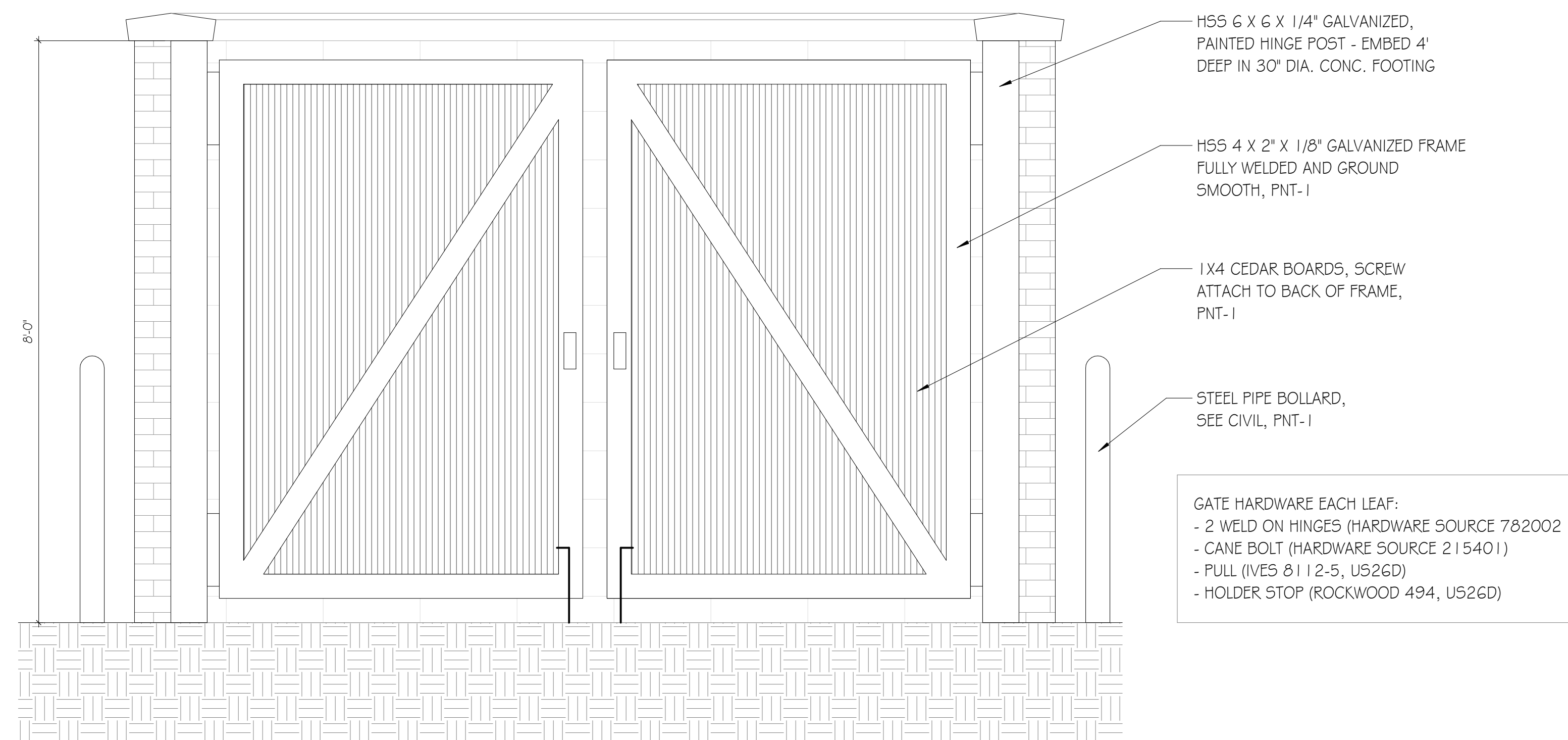
GMC # ABHM230021



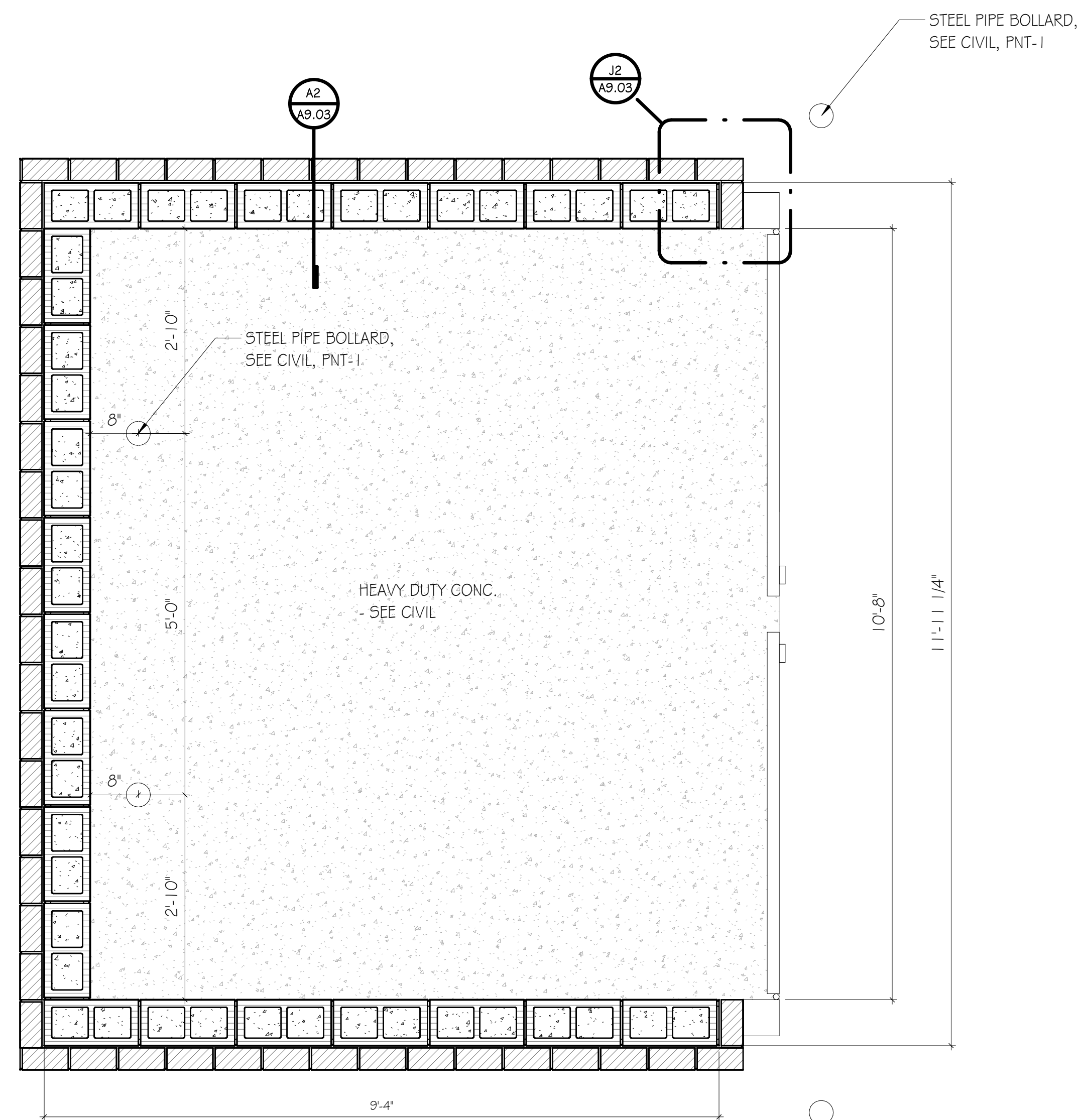
J2 DUMPSTER ENCLOSURE PLAN DETAIL
SCALE: 3" = 1'-0"



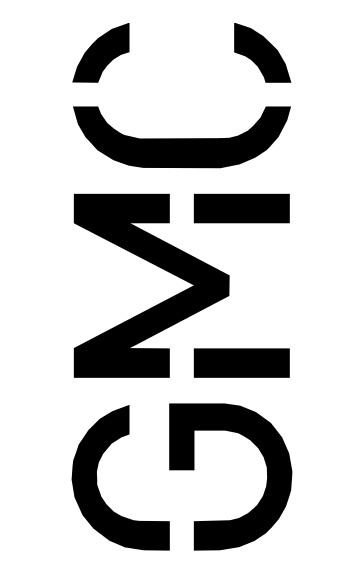
A2 DUMPSTER ENCLOSURE WALL SECTION
SCALE: 1 1/2" = 1'-0"



G6 DUMPSTER ENCLOSURE - SOUTH
SCALE: 3/4" = 1'-0"



A6 DUMPSTER ENCLOSURE PLAN
SCALE: 3/4" = 1'-0"



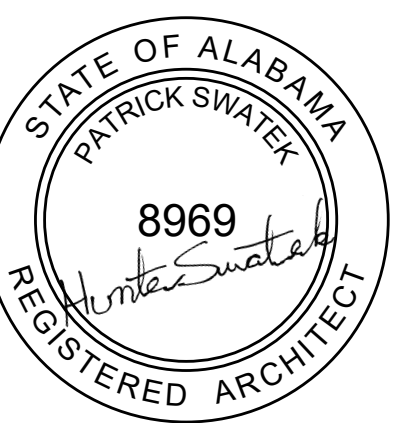
Goodwyn Mills Cawood, LLC
2400 5th Avenue South, Suite 200
Birmingham, AL 35233
T 205.879.4462
GMCNETWORK.COM

ISSUE	DATE
IFB SET	05/28/2024
Addendum 03	06/21/2024
2	

DRAWN BY: Author
CHECKED BY: Checker

RAINBOW CITY RECREATION CENTER
RAINBOW CITY, ALABAMA

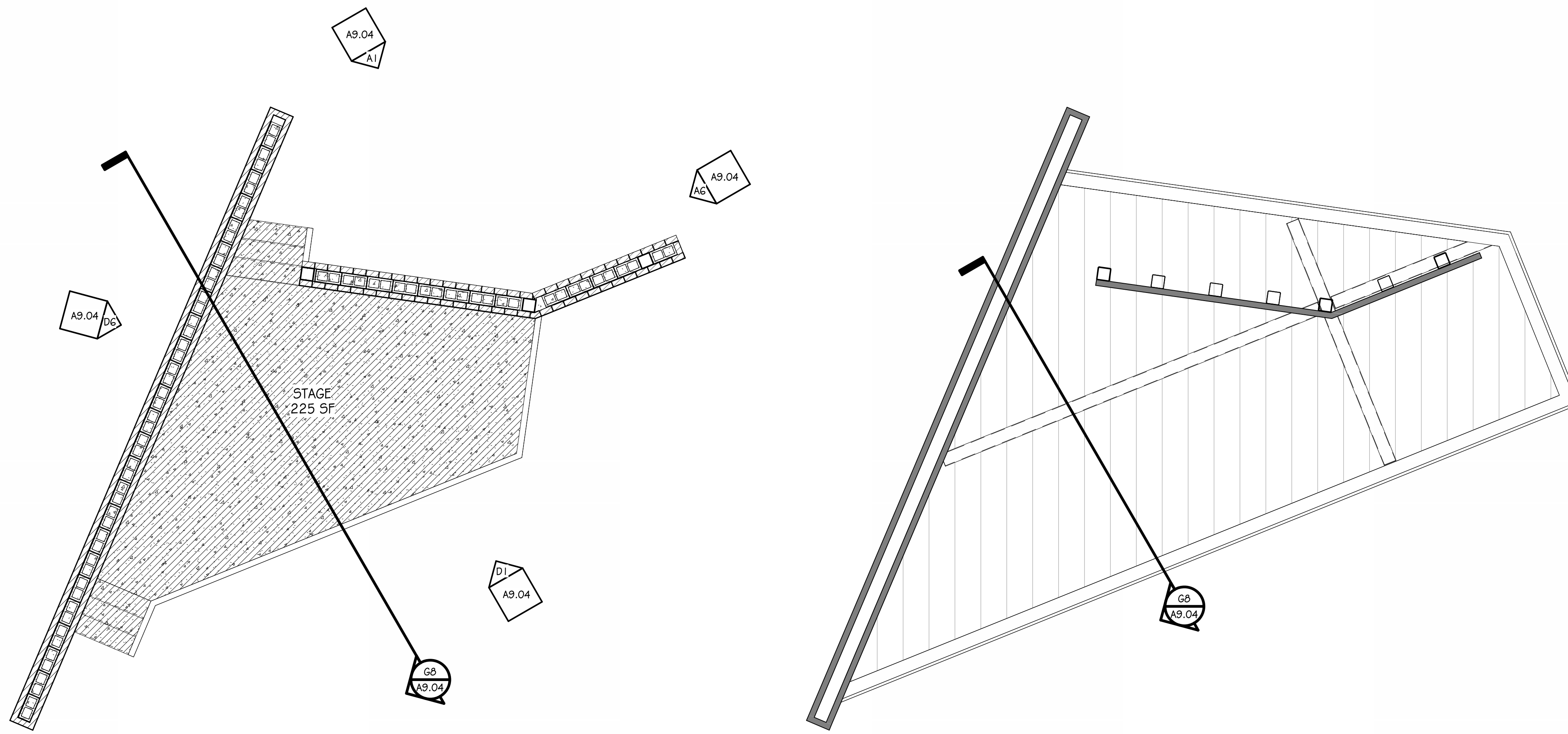
GMC # ABHM230021



DUMPSTER ENCLOSURE

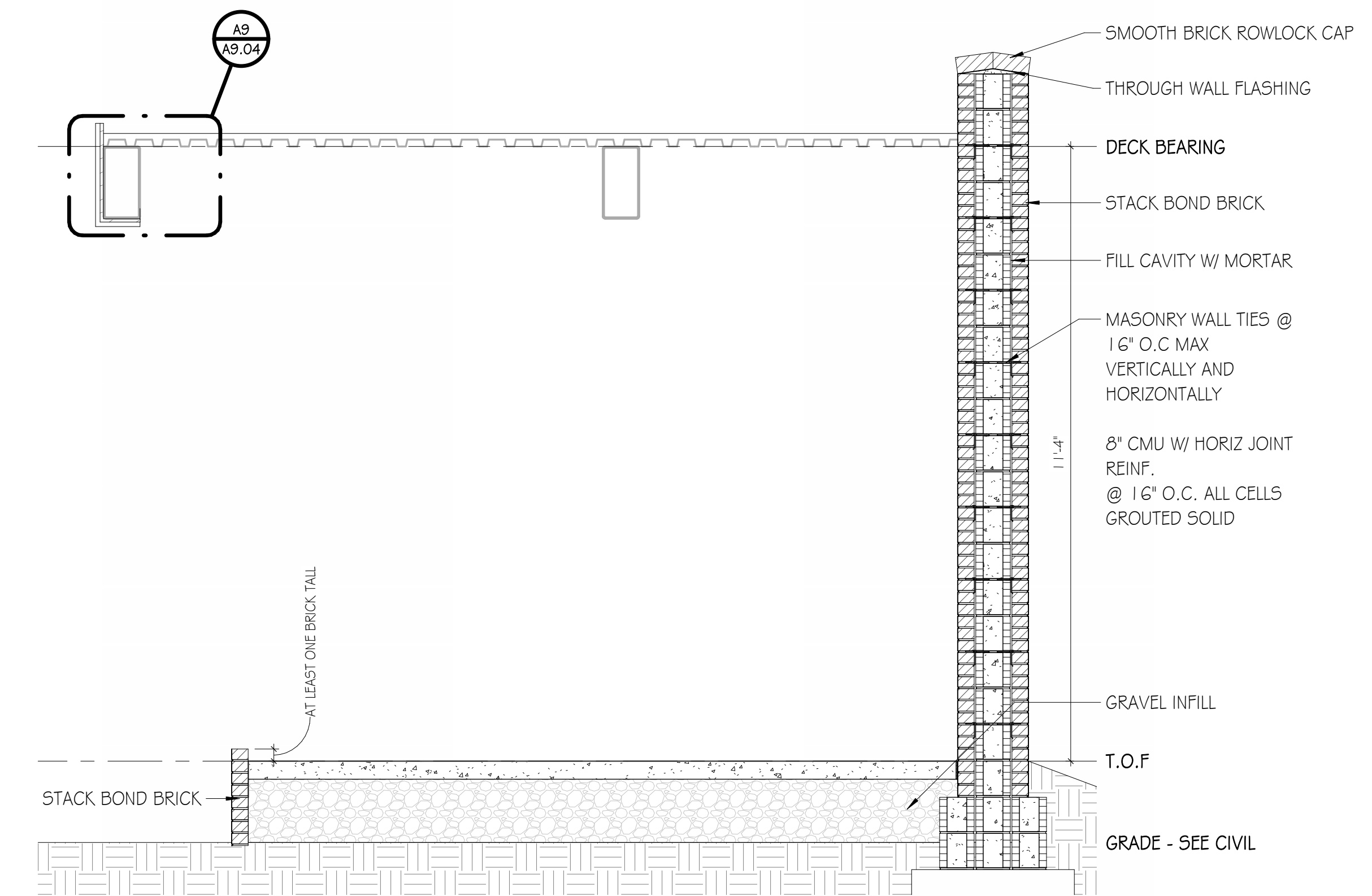
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*NOTE: SEE GRADING PLAN FOR AMPHITHEATRE CONTEXT

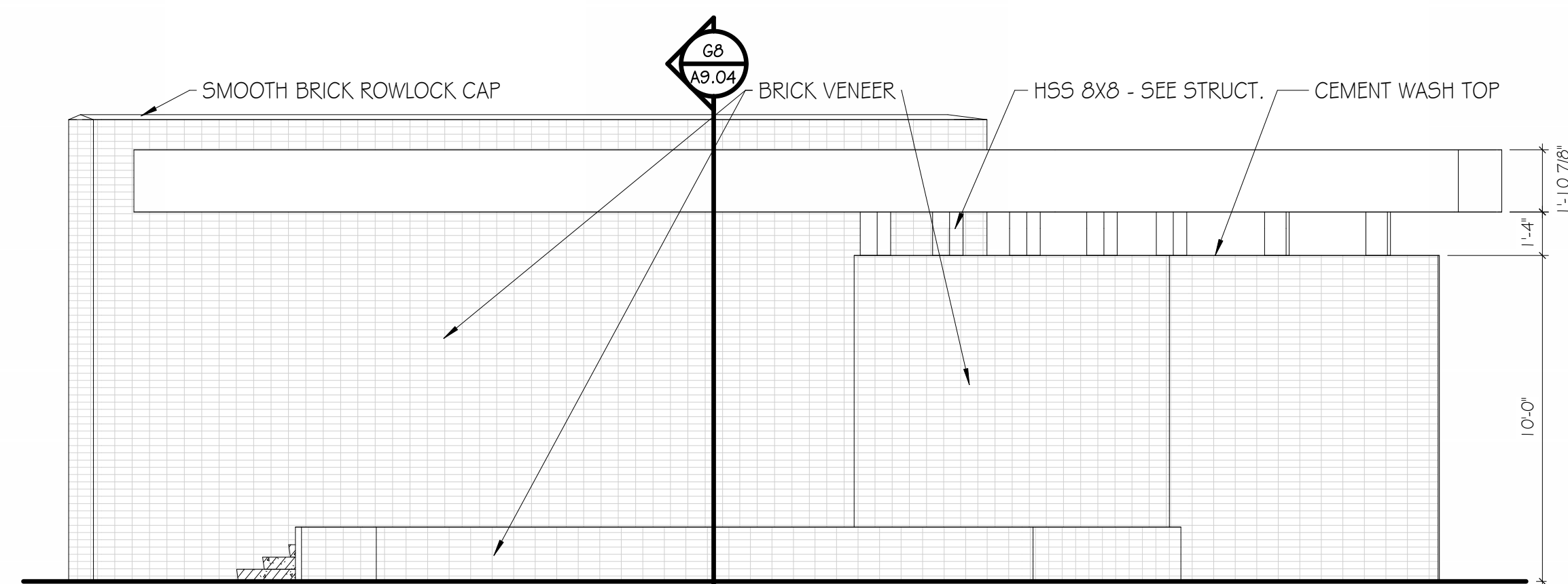


G1 AMPHITHEATRE PLAN
SCALE: 1/4" = 1'-0"

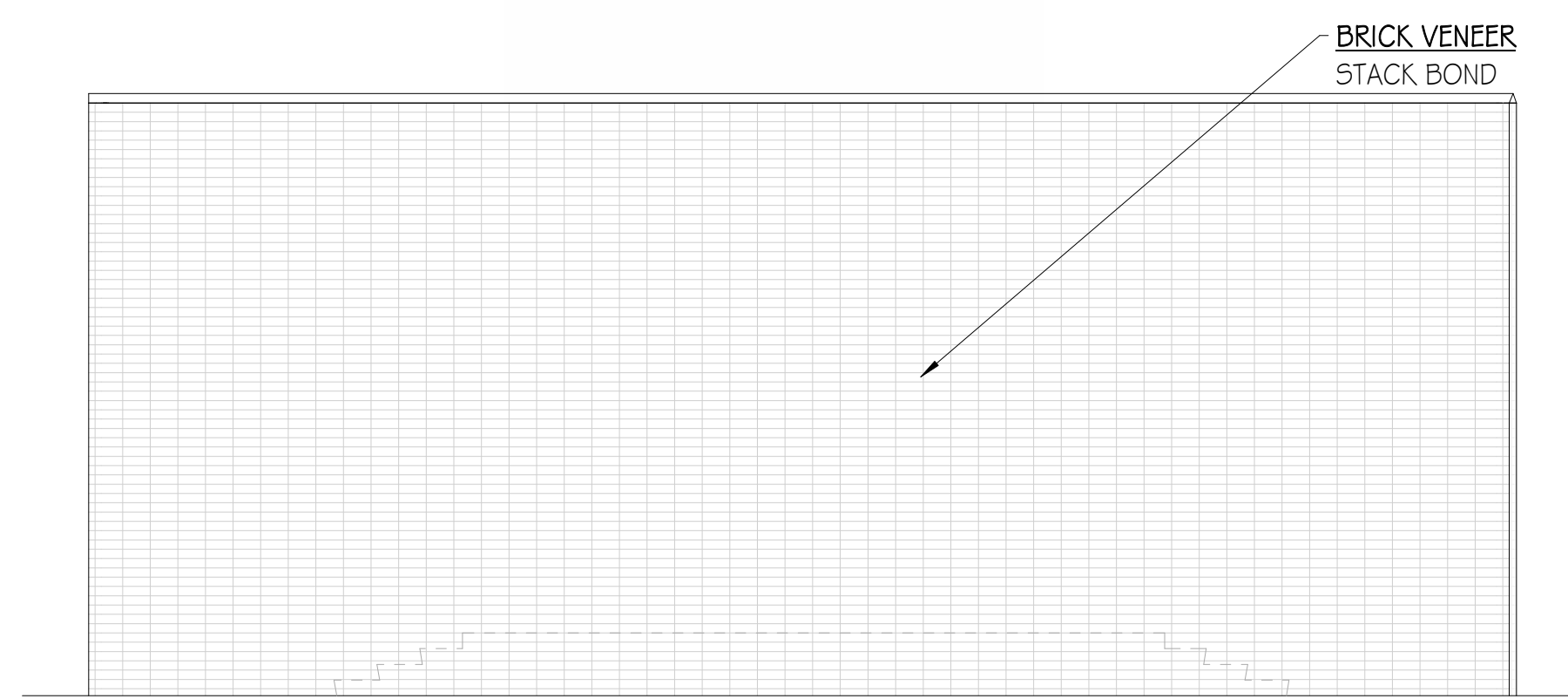
G5 AMPHITHEATRE RCP
SCALE: 1/4" = 1'-0"



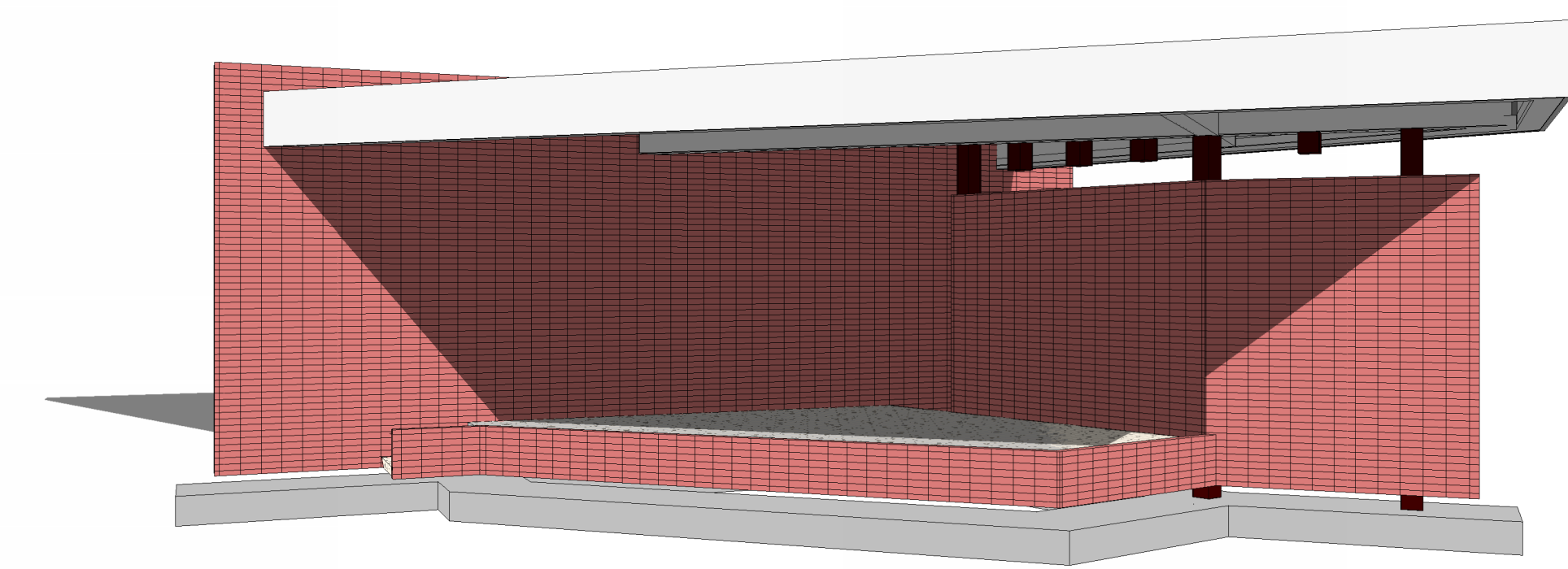
G8 AMPHITHEATRE SECTION
SCALE: 1/2" = 1'-0"



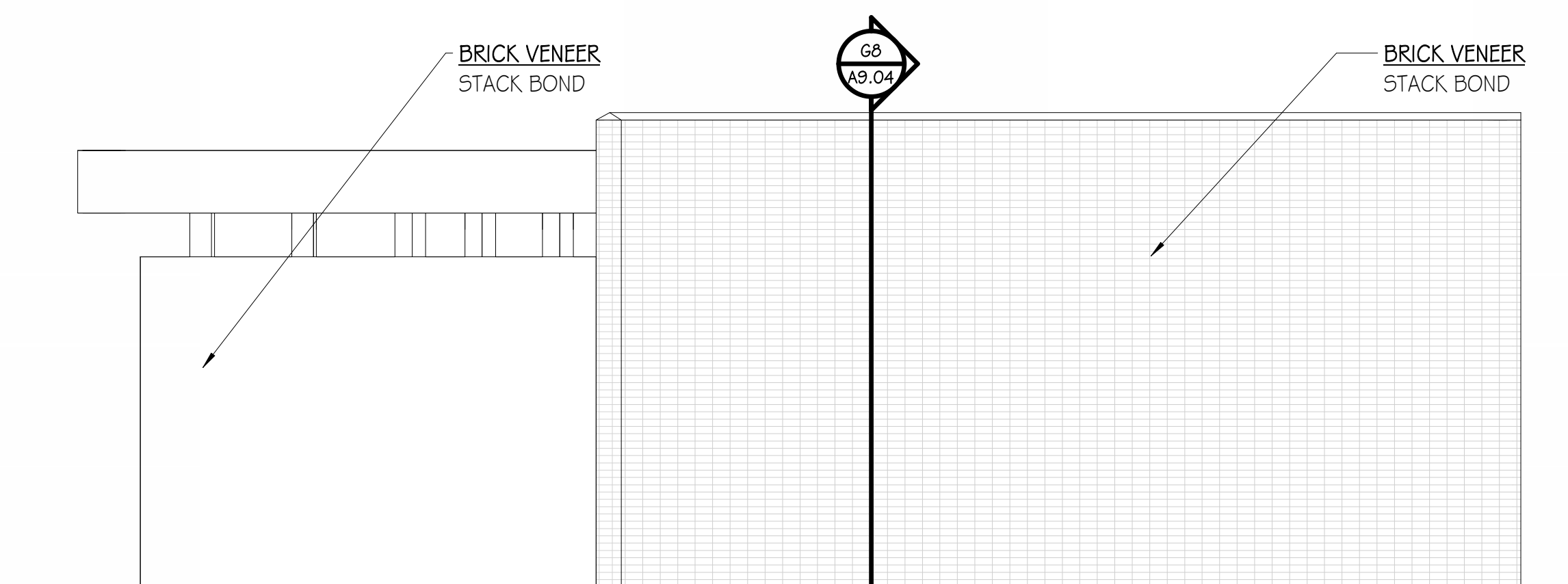
D1 SOUTH AMPHITHEATRE
SCALE: 1/4" = 1'-0"



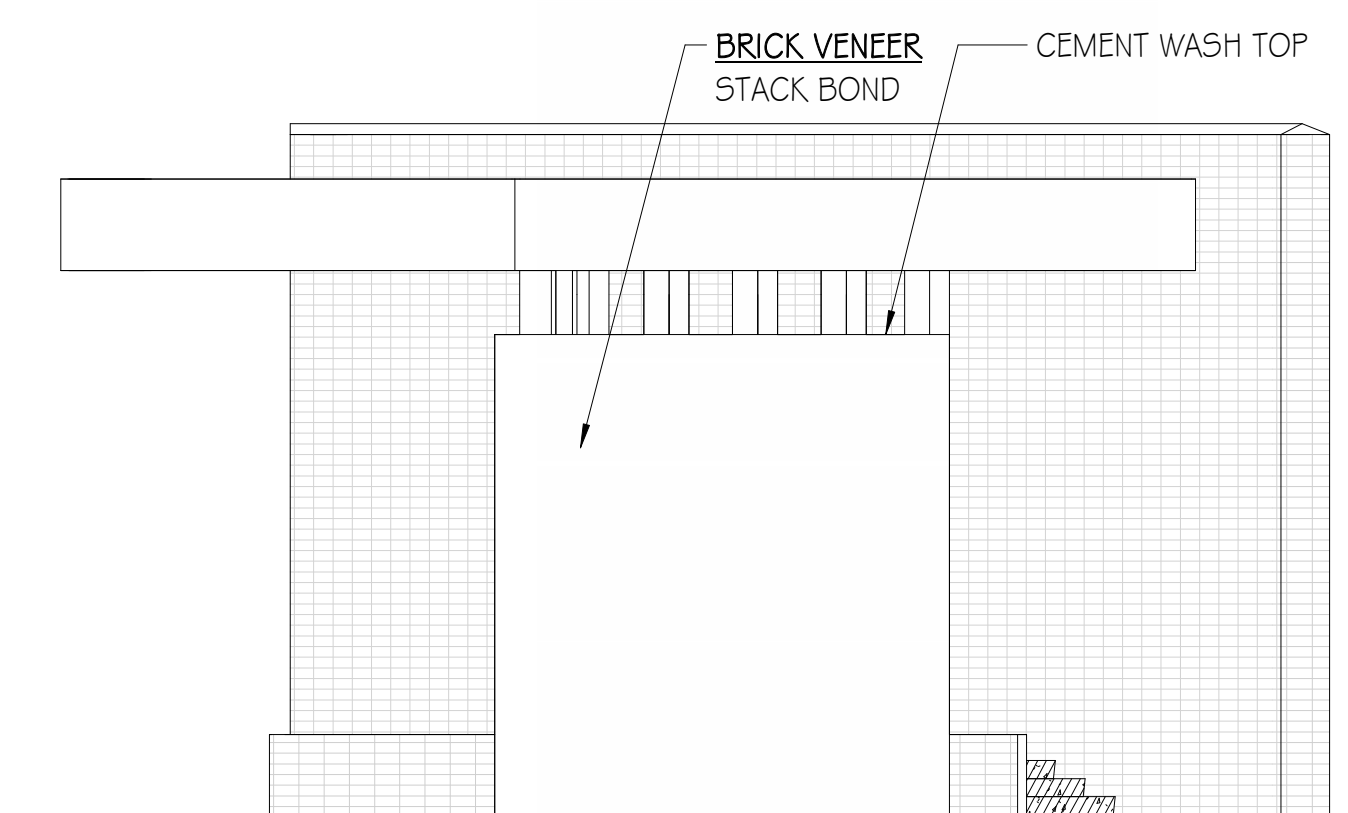
D6 WEST AMPHITHEATRE
SCALE: 1/4" = 1'-0"



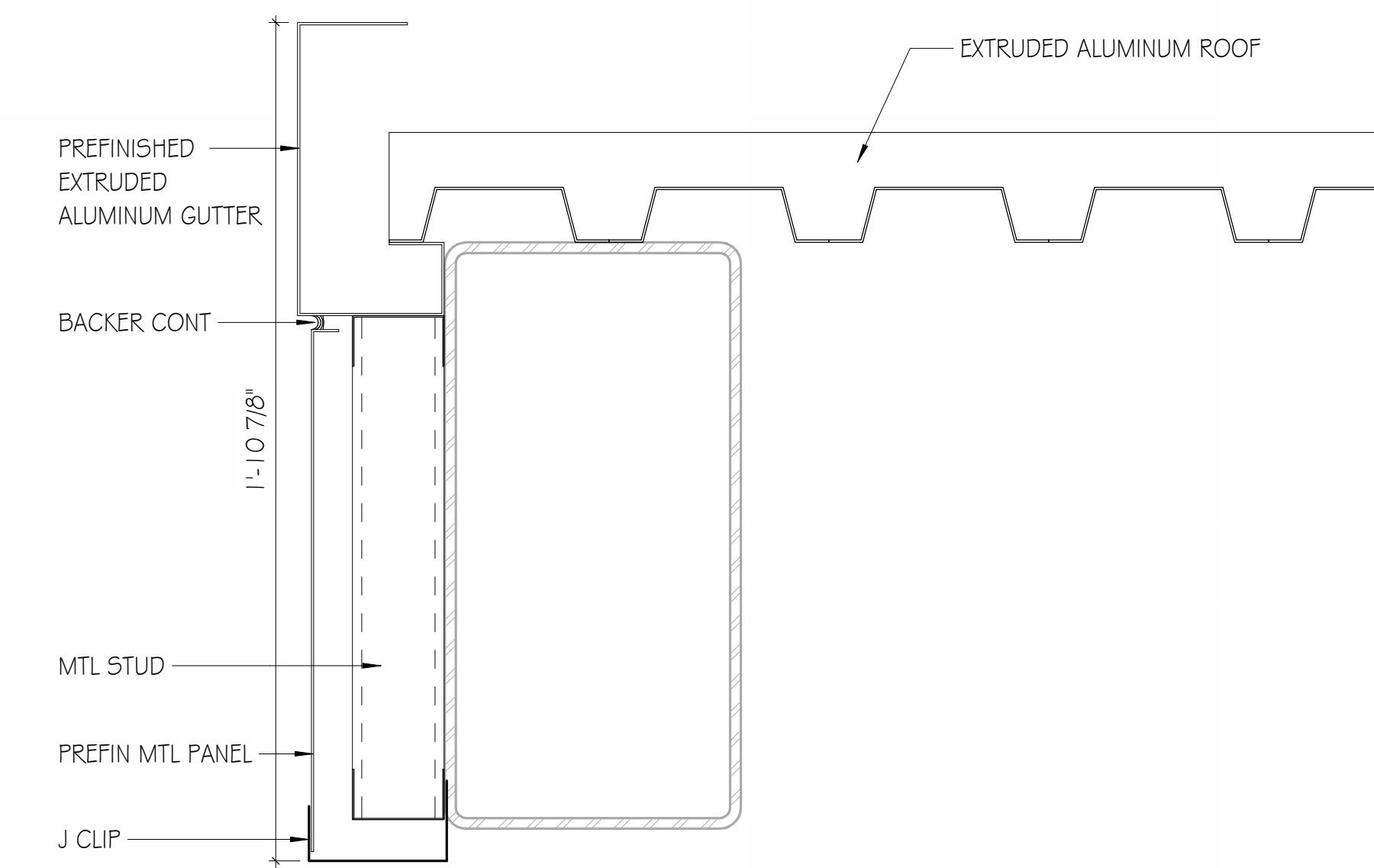
D9 AMPHITHEATRE 3D VIEW
SCALE:



A1 NORTH AMPHITHEATRE
SCALE: 1/4" = 1'-0"



A6 EAST AMPHITHEATRE
SCALE: 1/4" = 1'-0"



A9 AMPHITHEATRE SECTION DETAIL
SCALE: 3" = 1'-0"

GMC

Goodwyn Mills Caswood, LLC
2400 5th Avenue South, Suite 200
Birmingham, AL 35233
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ISSUE	DATE
1	IFB SET 05/28/2024
2	Addendum 03 06/21/2024

DRAWN BY: Author
CHECKED BY: Checker

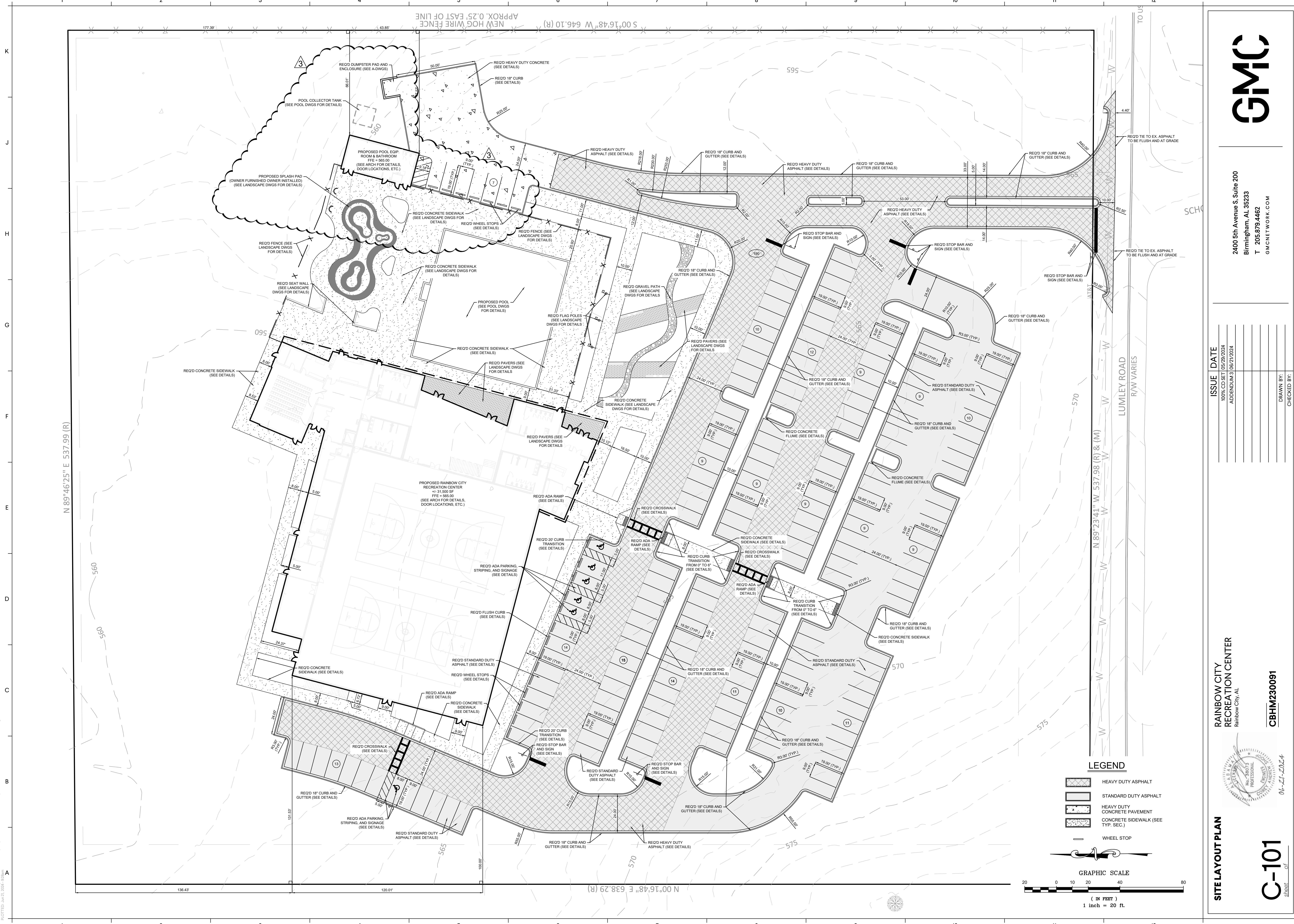
RAINBOW CITY RECREATION CENTER
RAINBOW CITY, ALABAMA



AMPHITHEATRE

A9.04

GMC # ABHM230021



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 CBHM230091



SITE LAYOUT PLAN
C-101
 SHEET OF 101

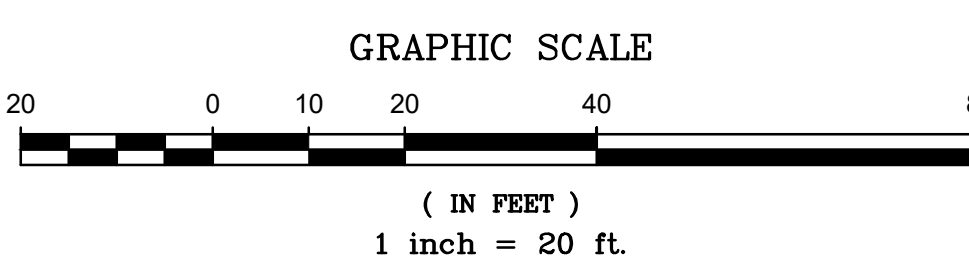
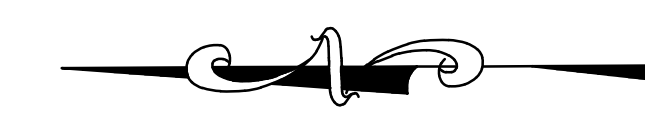


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 PLOTTED: JAN 11, 2024 - 10:53

8" PVC 160.10' @ 1.98% SLP RM= 560.91 INV. IN= 555.59 INV. OUT= 555.68
 8" PVC 241.17' @ 1.93% SLP RM= 563.76 INV. IN= 560.11 INV. OUT= 560.28
 8" PVC 160.10' @ 1.98% SLP RM= 565.76 INV. IN= 560.11 INV. OUT= 560.28

LEGEND

- ✕ (711.3) EXISTING SPOT ELEVATION
- ✕ 710.14 PROPOSED SPOT ELEVATION
- 710 — FINISHED GRADE CONTOUR LINE
- 711 — EXISTING GRADE CONTOUR LINE



GRADING PLAN

RAINBOW CITY RECREATION CENTER
 Rainbow City, AL



C-201
 SHEET OF

06-21-2024

CBHM230091

ISSUE DATE

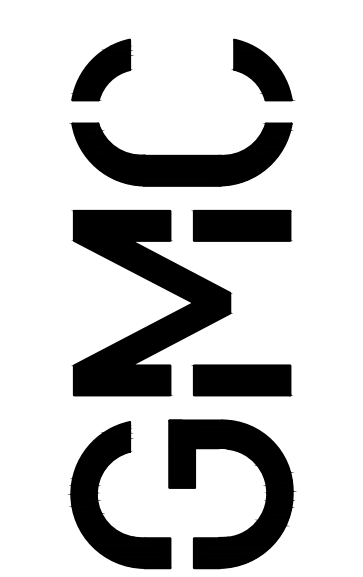
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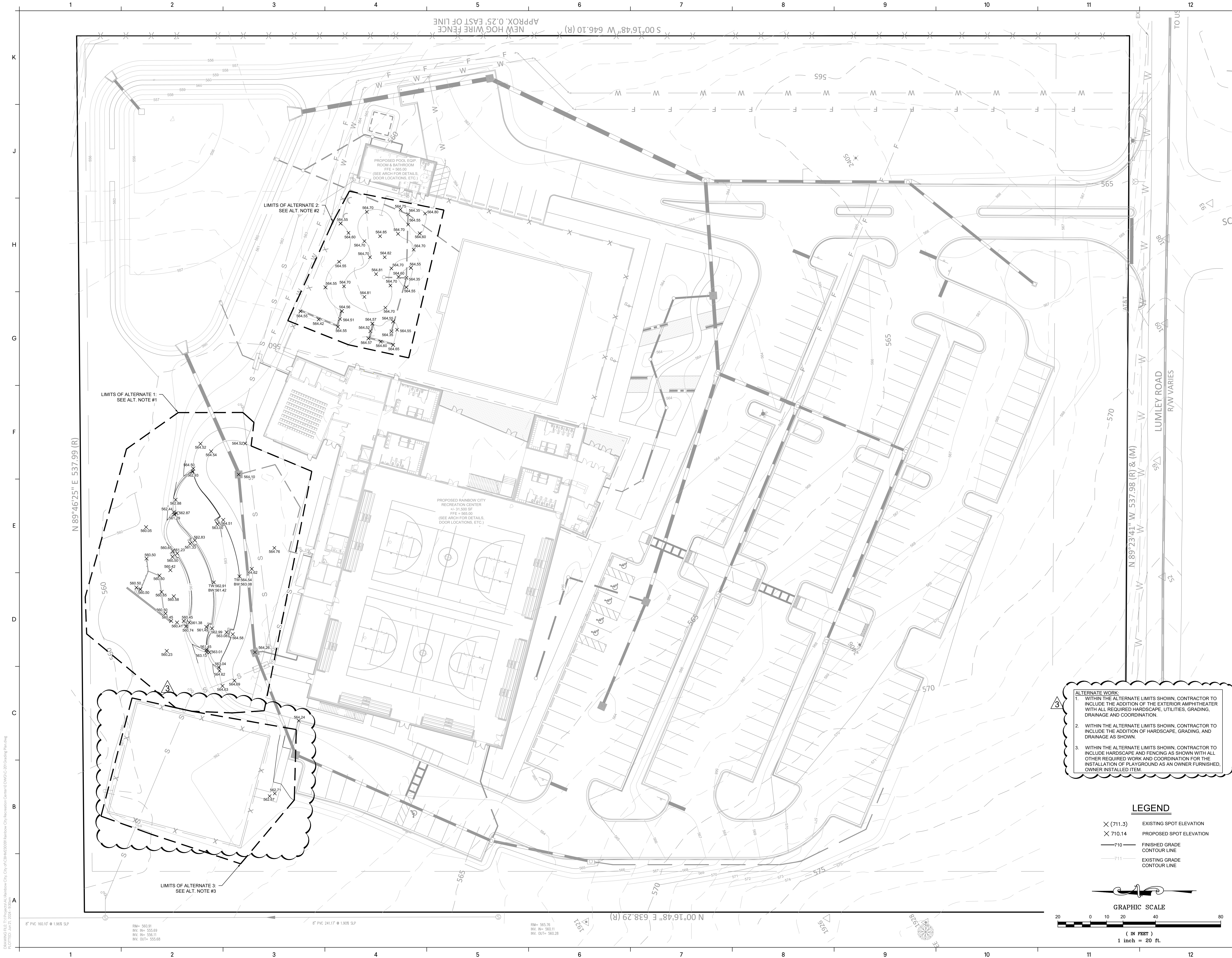
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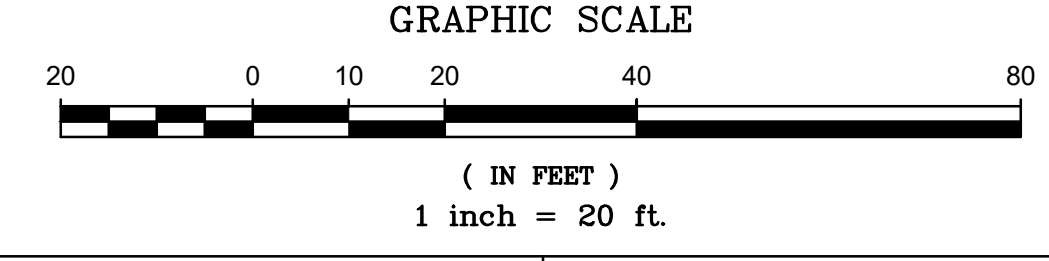


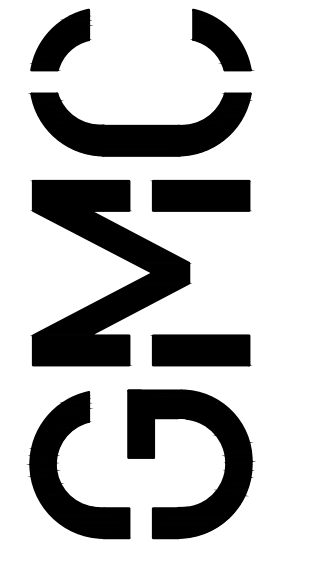


- ALTERNATE WORK:**
- WITHIN THE ALTERNATE LIMITS SHOWN, CONTRACTOR TO INCLUDE THE ADDITION OF THE EXTERIOR AMPHITHEATER WITH ALL REQUIRED HARDSCAPE, UTILITIES, GRADING, DRAINAGE AND COORDINATION.
 - WITHIN THE ALTERNATE LIMITS SHOWN, CONTRACTOR TO INCLUDE THE ADDITION OF HARDSCAPE, GRADING, AND DRAINAGE AS SHOWN.
 - WITHIN THE ALTERNATE LIMITS SHOWN, CONTRACTOR TO INCLUDE HARDSCAPE AND FENCING AS SHOWN WITH ALL OTHER REQUIRED WORK AND COORDINATION FOR THE INSTALLATION OF PLAYGROUND AS AN OWNER FURNISHED, OWNER INSTALLED ITEM.

LEGEND

- X (711.3) EXISTING SPOT ELEVATION
- X (710.14) PROPOSED SPOT ELEVATION
- 710 — FINISHED GRADE CONTOUR LINE
- 711 — EXISTING GRADE CONTOUR LINE






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Rainbow City, AL

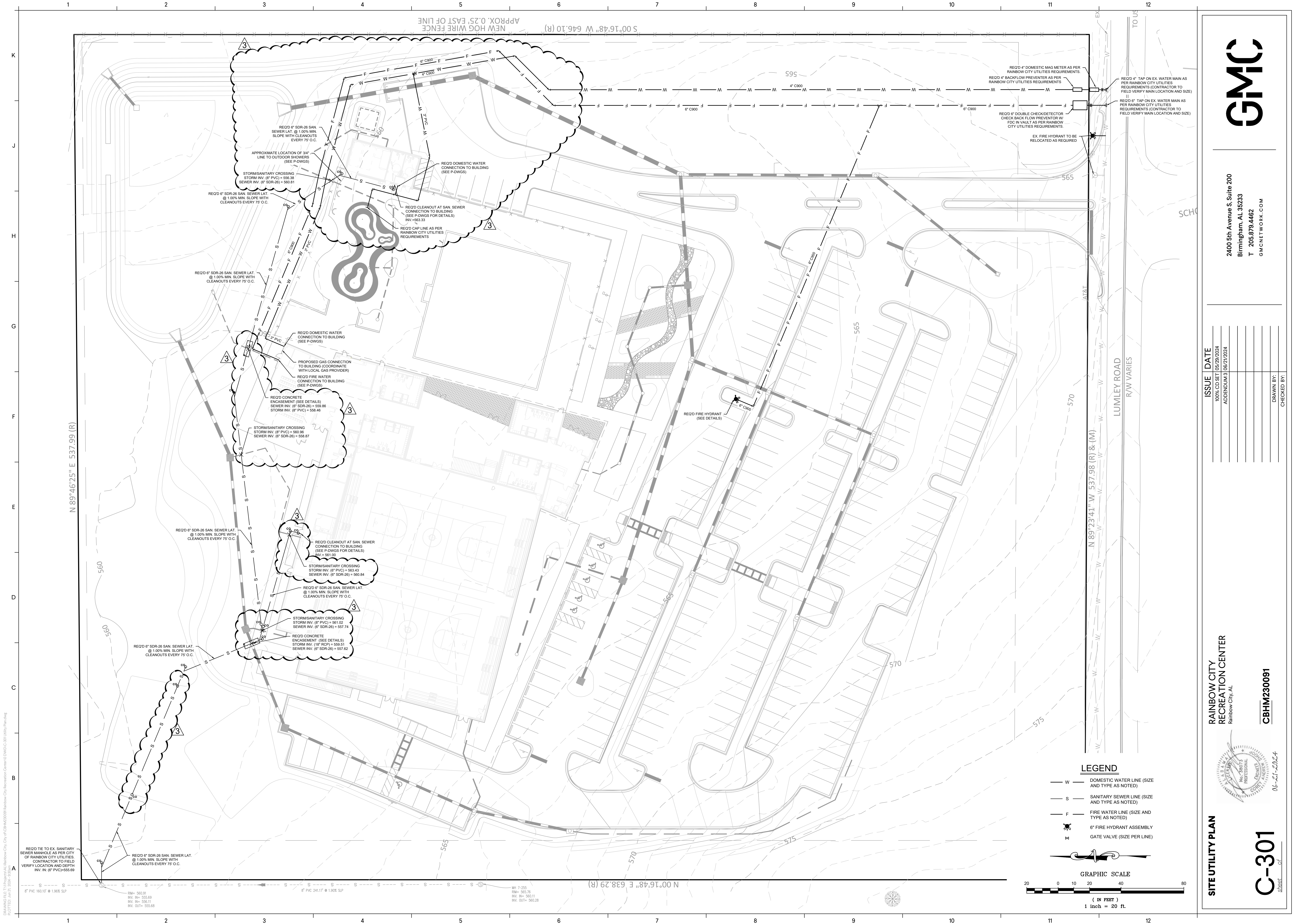
CBHM230091



06-21-2024

ALTERNATE GRADING PLAN

C-202
SHEET OF



NEW HOG WIRE FENCE
APPROX. 0.25' EAST OF LINE
S 00°16'48" W 646.10 (R)

K
J
H
G
F
E
D
C
B
A

N 89°46'25" E 537.99 (R)

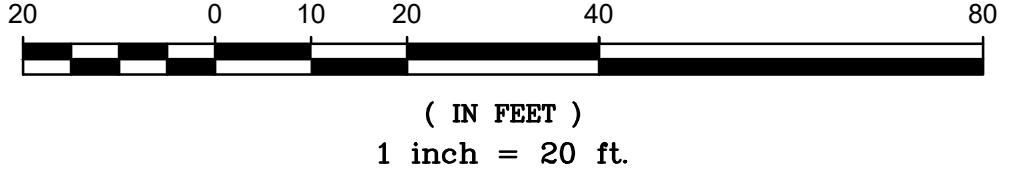
LUMLEY ROAD
R/W VARIES
N 89°23'41" W 537.98 (R) & (M)

N 00°16'48" E 638.29 (R)

LEGEND

- W DOMESTIC WATER LINE (SIZE AND TYPE AS NOTED)
- S SANITARY SEWER LINE (SIZE AND TYPE AS NOTED)
- F FIRE WATER LINE (SIZE AND TYPE AS NOTED)
- 6" FIRE HYDRANT ASSEMBLY
- GATE VALVE (SIZE PER LINE)

GRAPHIC SCALE



REQ'D TIE TO EX. SANITARY SEWER MANHOLE AS PER CITY OF RAINBOW CITY UTILITIES. CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH. INV. IN (6" PVC) 555.69

REQ'D 8" SDR-26 SAN. SEWER LAT. @ 1.00% MIN. SLOPE WITH CLEANOUTS EVERY 75' O.C.

REQ'D 6" SDR-26 SAN. SEWER LAT. @ 1.00% MIN. SLOPE WITH CLEANOUTS EVERY 75' O.C.

REQ'D 6" SDR-26 SAN. SEWER LAT. @ 1.00% MIN. SLOPE WITH CLEANOUTS EVERY 75' O.C.

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REQ'D 6" SDR-26 SAN. SEWER LAT. @ 1.00% MIN. SLOPE WITH CLEANOUTS EVERY 75' O.C.

REQ'D CONCRETE ENCASEMENT (SEE DETAILS) STORM INV. (18" RCP) = 559.51 SEWER INV. (6" SDR-26) = 557.62

REQ'D CONCRETE ENCASEMENT (SEE DETAILS) STORM INV. (6" PVC) = 561.02 SEWER INV. (6" SDR-26) = 560.24

REQ'D CONCRETE ENCASEMENT (SEE DETAILS) STORM INV. (6" SDR-26) = 558.86 SEWER INV. (6" PVC) = 558.46

REQ'D 6" SDR-26 SAN. SEWER LAT. @ 1.00% MIN. SLOPE WITH CLEANOUTS EVERY 75' O.C.

REQ'D 6" SDR-26 SAN. SEWER LAT. @ 1.00% MIN. SLOPE WITH CLEANOUTS EVERY 75' O.C.

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REQ'D 6" SDR-26 SAN. SEWER LAT. @ 1.00% MIN. SLOPE WITH CLEANOUTS EVERY 75' O.C.

REQ'D CLEANOUT AT SAN. SEWER CONNECTION TO BUILDING (SEE P-DWGS FOR DETAILS) INV. = 551.00

REQ'D CLEANOUT AT SAN. SEWER CONNECTION TO BUILDING (SEE P-DWGS FOR DETAILS) INV. = 563.33

REQ'D CLEANOUT AT SAN. SEWER CONNECTION TO BUILDING (SEE P-DWGS FOR DETAILS) INV. = 563.33

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REQ'D CLEANOUT AT SAN. SEWER CONNECTION TO BUILDING (SEE P-DWGS FOR DETAILS) INV. = 563.33

MH 7-255
RM= 565.76
INV. IN= 560.11
INV. OUT= 560.28

REQ'D 4" DOMESTIC MAG METER AS PER RAINBOW CITY UTILITIES REQUIREMENTS.

REQ'D 4" BACKFLOW PREVENTER AS PER RAINBOW CITY UTILITIES REQUIREMENTS

REQ'D 6" DOUBLE CHECK/DETECTOR CHECK BACK FLOW PREVENTER W/ FDC IN VAULT AS PER RAINBOW CITY UTILITIES REQUIREMENTS.

EX. FIRE HYDRANT TO BE RELOCATED AS REQUIRED

REQ'D 4" TAP ON EX. WATER MAIN AS PER RAINBOW CITY UTILITIES REQUIREMENTS (CONTRACTOR TO FIELD VERIFY MAIN LOCATION AND SIZE)

REQ'D 4" TAP ON EX. WATER MAIN AS PER RAINBOW CITY UTILITIES REQUIREMENTS (CONTRACTOR TO FIELD VERIFY MAIN LOCATION AND SIZE)

REQ'D 6" TAP ON EX. WATER MAIN AS PER RAINBOW CITY UTILITIES REQUIREMENTS (CONTRACTOR TO FIELD VERIFY MAIN LOCATION AND SIZE)

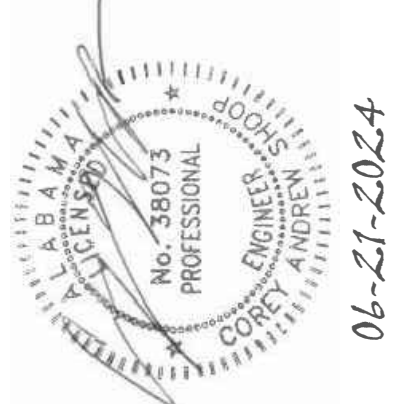
REQ'D 6" TAP ON EX. WATER MAIN AS PER RAINBOW CITY UTILITIES REQUIREMENTS (CONTRACTOR TO FIELD VERIFY MAIN LOCATION AND SIZE)

SITE UTILITY PLAN

RAINBOW CITY RECREATION CENTER
Rainbow City, AL

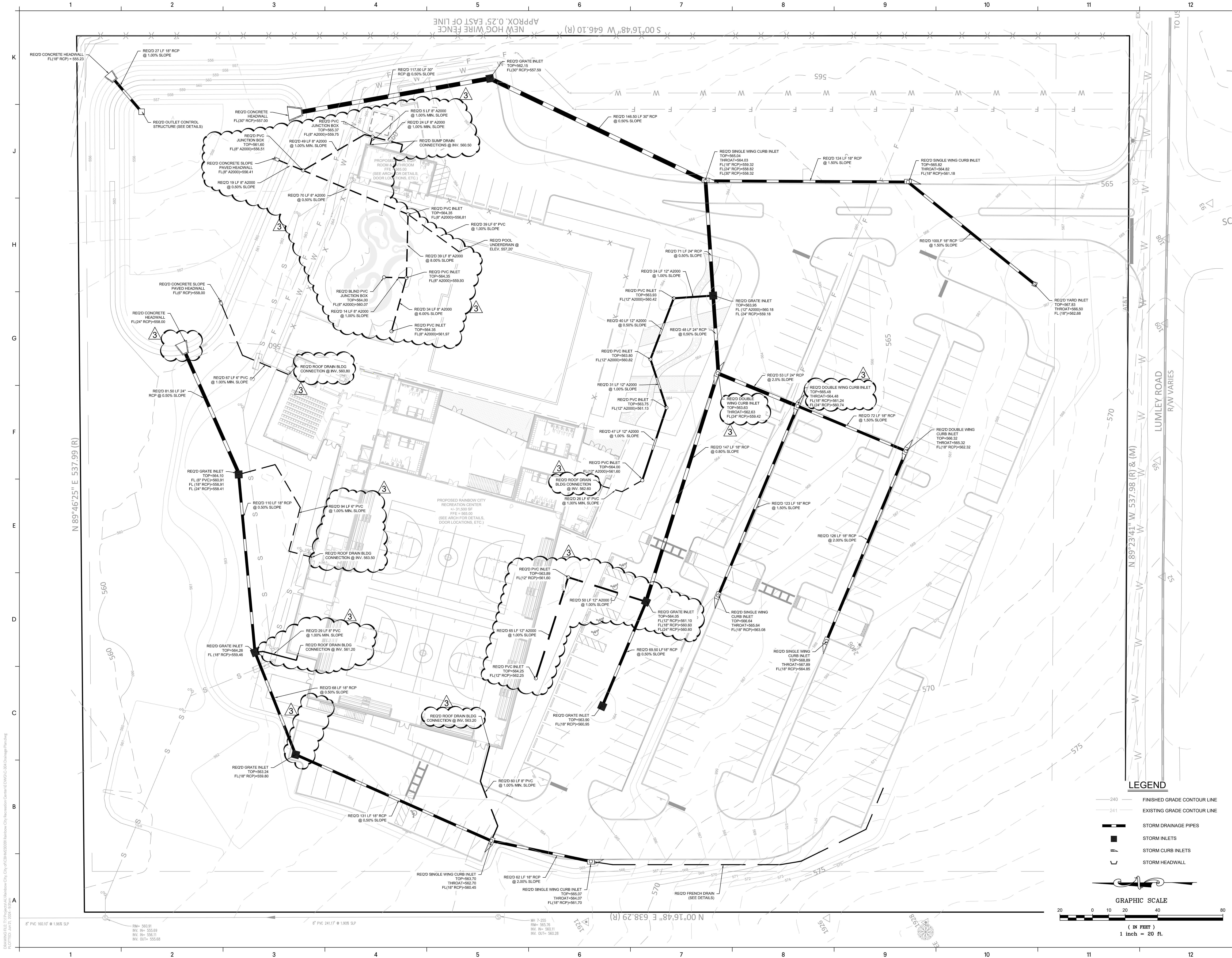
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CBHM230091



C-301
SHEET OF

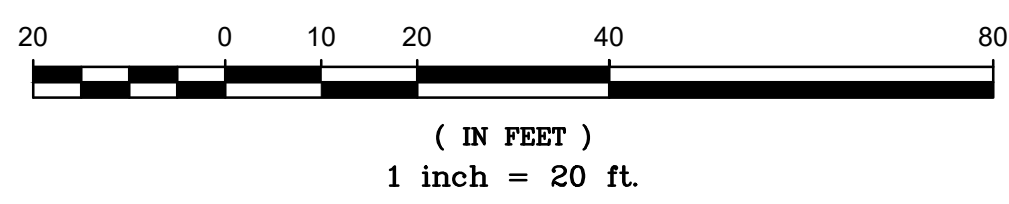
GMC
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Birmingham, AL 35233
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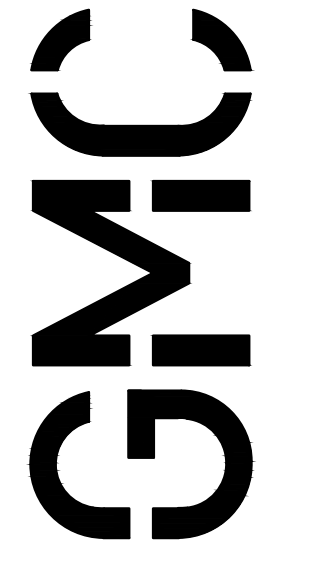


LEGEND

- 240 — FINISHED GRADE CONTOUR LINE
- 241 — EXISTING GRADE CONTOUR LINE
- — STORM DRAINAGE PIPES
- STORM INLETS
- ▣ STORM CURB INLETS
- ▤ STORM HEADWALL


GRAPHIC SCALE





RAINBOW CITY RECREATION CENTER
Rainbow City, AL

CBHM230091



C-304

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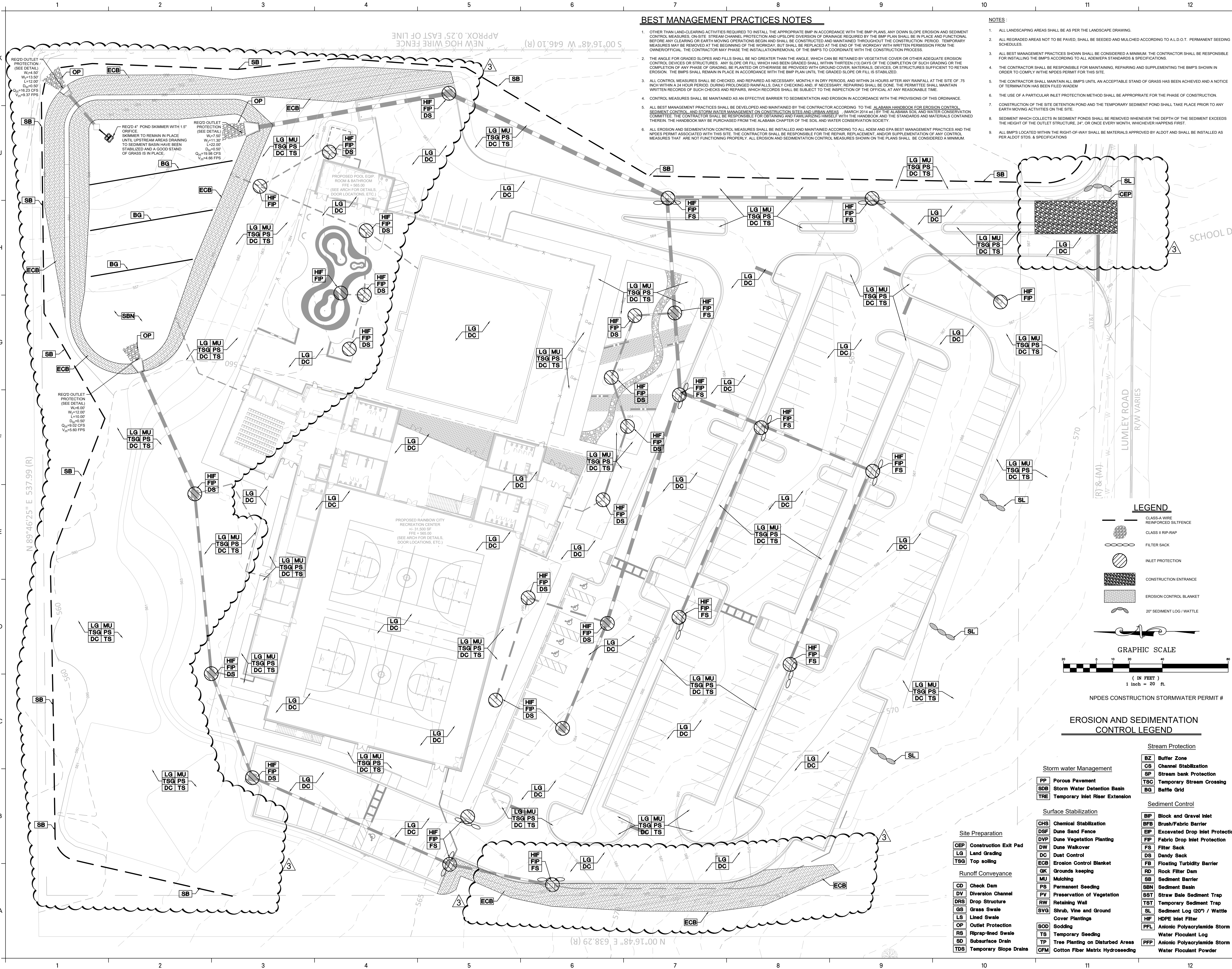
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BEST MANAGEMENT PRACTICES NOTES

- OTHER THAN LAND-CLEARING ACTIVITIES REQUIRED TO INSTALL THE APPROPRIATE BMP IN ACCORDANCE WITH THE BMP PLANS, ANY DOWN SLOPE EROSION AND SEDIMENT CONTROL MEASURES, ON-SITE STREAM CHANNEL PROTECTION AND UP-SLOPE DIVERSION OF DRAINAGE REQUIRED BY THE BMP PLAN SHALL BE IN PLACE AND FUNCTIONAL BEFORE ANY CLEARING OR EARTH MOVING OPERATIONS BEGIN AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT SHALL BE REPLACED AT THE END OF THE WORKDAY WITH WRITTEN PERMISSION FROM THE OWNER/OFFICIAL. THE CONTRACTOR MAY PHASE THE INSTALLATION/REMOVAL OF THE BMP'S TO COORDINATE WITH THE CONSTRUCTION PROCESS.
- THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE WHICH CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. ANY SLOPE OR FILL WHICH HAS BEEN GRADED SHALL WITHIN THIRTEEN (13) DAYS OF THE COMPLETION OF SUCH GRADING OR THE COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE BE PROVIDED WITH GROUND COVER, MATERIALS, DEVICES, OR STRUCTURES SUFFICIENT TO RETAIN EROSION. THE BMP'S SHALL REMAIN IN PLACE IN ACCORDANCE WITH THE BMP PLAN UNTIL THE GRADED SLOPE OR FILL IS STABILIZED.
- ALL CONTROL MEASURES SHALL BE CHECKED, AND REPAIRED AS NECESSARY, MONTHLY IN DRY PERIODS, AND WITHIN 24 HOURS AFTER ANY RAINFALL AT THE SITE OF 75 INCH WITHIN A 24 HOUR PERIOD. DURING PROLONGED RAINFALLS, DAILY CHECKING AND, IF NECESSARY, REPAIRING SHALL BE DONE. THE PERMITTEE SHALL MAINTAIN WRITTEN RECORDS OF SUCH CHECKS AND REPAIRS, WHICH RECORDS SHALL BE SUBJECT TO THE INSPECTION OF THE OFFICIAL AT ANY REASONABLE TIME.
- CONTROL MEASURES SHALL BE MAINTAINED AS AN EFFECTIVE BARRIER TO SEDIMENTATION AND EROSION IN ACCORDANCE WITH THE PROVISIONS OF THIS ORDINANCE.
- ALL BEST MANAGEMENT PRACTICES SHALL BE DEVELOPED AND MAINTAINED BY THE CONTRACTOR ACCORDING TO THE ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS (MARCH 2014 ed) BY THE ALABAMA SOIL AND WATER CONSERVATION COMMITTEE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND FAMILIARIZING HIMSELF WITH THE HANDBOOK AND THE STANDARDS AND MATERIALS CONTAINED THEREIN. THE HANDBOOK MAY BE PURCHASED FROM THE ALABAMA CHAPTER OF THE SOIL AND WATER CONSERVATION SOCIETY.
- ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED ACCORDING TO ALL ADEN AND EPA BEST MANAGEMENT PRACTICES AND THE NPDES PERMIT ASSOCIATED WITH THIS SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR, REPLACEMENT, AND/OR SUPPLEMENTATION OF ANY CONTROL MEASURES THAT ARE NOT FUNCTIONING PROPERLY. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THE PLANS SHALL BE CONSIDERED A MINIMUM.

NOTES:

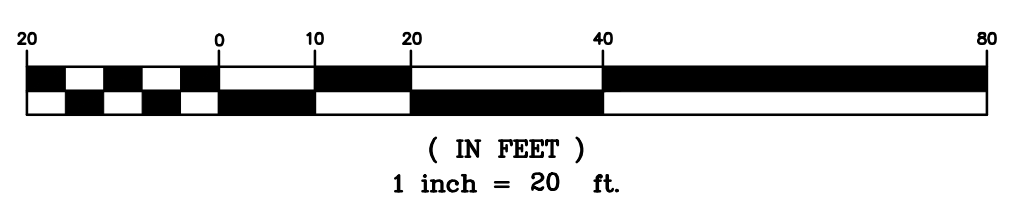
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- CONSTRUCTION OF THE SITE DETENTION POND AND THE TEMPORARY SEDIMENT POND SHALL TAKE PLACE PRIOR TO ANY EARTH MOVING ACTIVITIES ON THE SITE.
- SEDIMENT WHICH COLLECTS IN SEDIMENT POND SHALL BE REMOVED WHENEVER THE DEPTH OF THE SEDIMENT EXCEEDS THE HEIGHT OF THE OUTLET STRUCTURE 24" OR ONCE EVERY MONTH, WHICHEVER HAPPENS FIRST.
- ALL BMP'S LOCATED WITHIN THE RIGHT-OF-WAY SHALL BE MATERIALS APPROVED BY ALDOT AND SHALL BE INSTALLED AS PER ALDOT STDS. & SPECIFICATIONS.



LEGEND

- CLASS-A WIRE REINFORCED SILT FENCE
- CLASS II RIP-RAP
- FILTER SACK
- INLET PROTECTION
- CONSTRUCTION ENTRANCE
- EROSION CONTROL BLANKET
- 20" SEDIMENT LOG / WATTLE

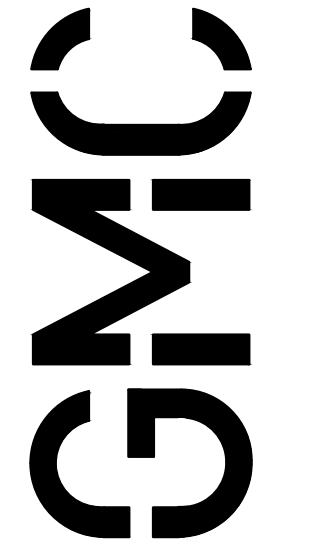
GRAPHIC SCALE



NPDES CONSTRUCTION STORMWATER PERMIT #

EROSION AND SEDIMENTATION CONTROL LEGEND

- | | | | |
|-----------------------------------|--|---|--|
| Storm water Management | | Stream Protection | |
| PP Porous Pavement | SDB Storm Water Detention Basin | TRE Temporary Inlet Riser Extension | BZ Buffer Zone |
| Surface Stabilization | | CS Channel Stabilization | SP Stream bank Protection |
| GHS Chemical Stabilization | DSF Dune Sand Fence | DVP Dune Vegetation Planting | DS Dandy Sack |
| DW Dune Walkover | DC Dust Control | ECB Erosion Control Blanket | FB Floating Turbidity Barrier |
| GK Grounds keeping | MU Mulching | RS Rock Filter Dam | SB Sediment Barrier |
| PS Permanent Seeding | PV Preservation of Vegetation | RET Retaining Wall | SST Straw Bale Sediment Trap |
| TS Temporary Seeding | TP Tree Planting on Disturbed Areas | CFM Cotton Fiber Matrix Hydroseeding | TST Temporary Sediment Trap |
| CD Check Dam | DV Diversion Channel | GS Grass Swale | SL Sediment Log (20") / Wattle |
| DRS Drop Structure | LS Lined Swale | OP Outlet Protection | HIF HDPE Inlet Filter |
| RS Riprap-lined Swale | RS Riprap-lined Swale | SD Subsurface Drain | PPL Anionic Polycrylamide Storm Water Flocculant Log |
| TS Temporary Slope Drains | | | PPP Anionic Polycrylamide Storm Water Flocculant Powder |



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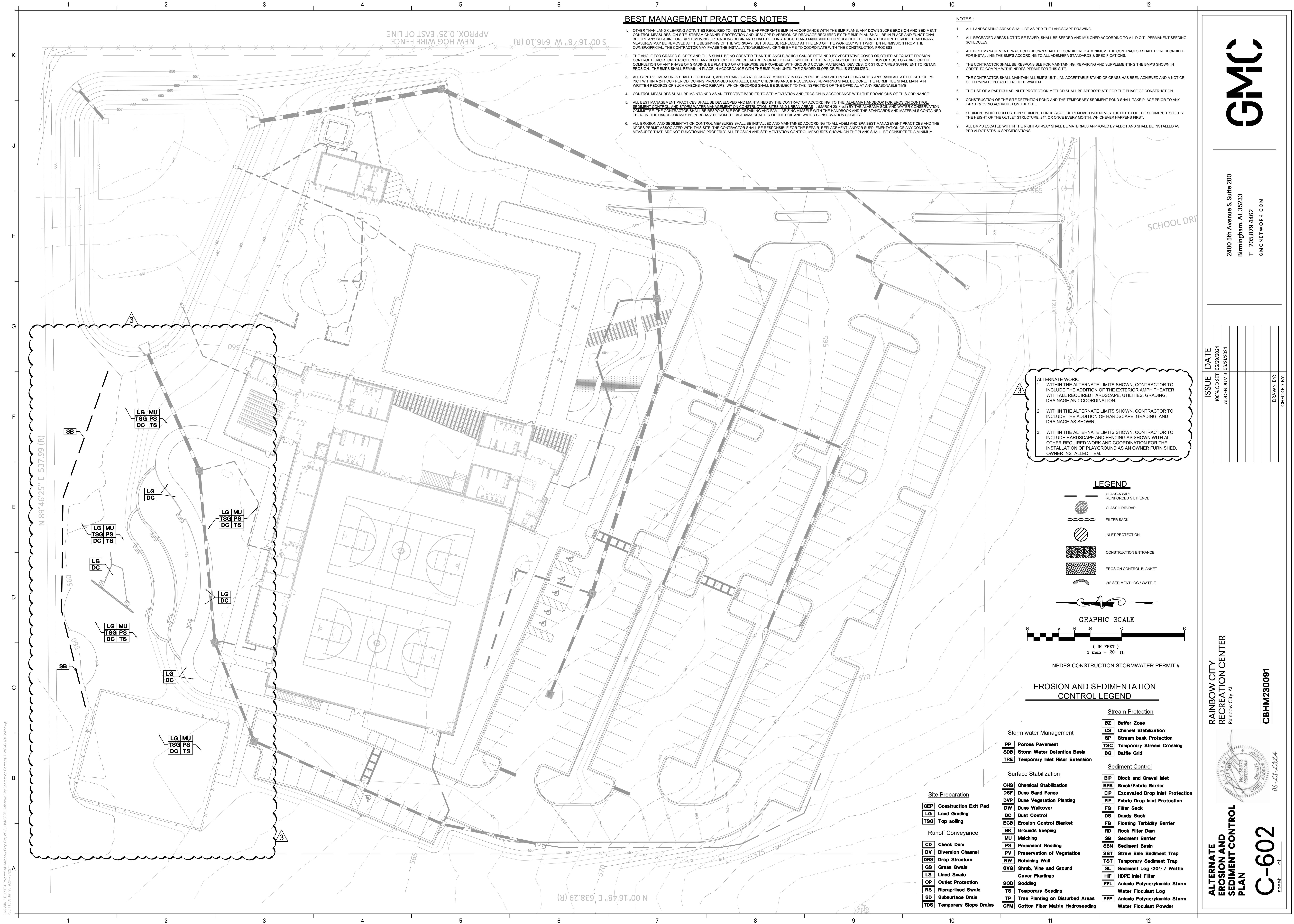
RAINBOW CITY RECREATION CENTER
Rainbow City, AL



EROSION AND SEDIMENT CONTROL PLAN
C-601

CBHM230091

06-21-2024



BEST MANAGEMENT PRACTICES NOTES

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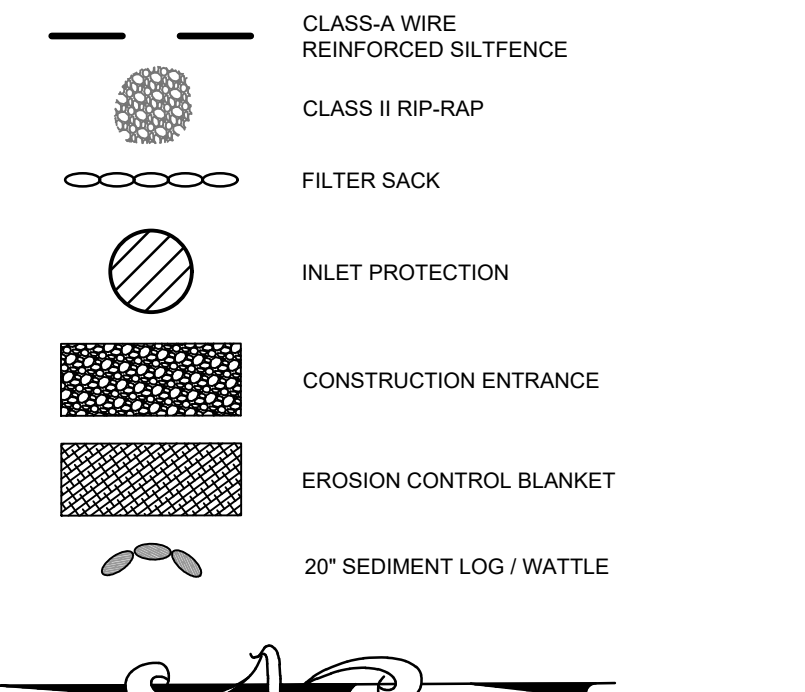
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- THE USE OF A PARTICULAR INLET PROTECTION METHOD SHALL BE APPROPRIATE FOR THE PHASE OF CONSTRUCTION.
- CONSTRUCTION OF THE SITE DETENTION POND AND THE TEMPORARY SEDIMENT POND SHALL TAKE PLACE PRIOR TO ANY EARTH MOVING ACTIVITIES ON THE SITE.
- SEDIMENT WHICH COLLECTS IN SEDIMENT POND SHALL BE REMOVED WHENEVER THE DEPTH OF THE SEDIMENT EXCEEDS THE HEIGHT OF THE OUTLET STRUCTURE 24" OR ONCE EVERY MONTH, WHICHEVER HAPPENS FIRST.
- ALL BMP'S LOCATED WITHIN THE RIGHT-OF-WAY SHALL BE MATERIALS APPROVED BY ALDOT AND SHALL BE INSTALLED AS PER ALDOT STDS. & SPECIFICATIONS.

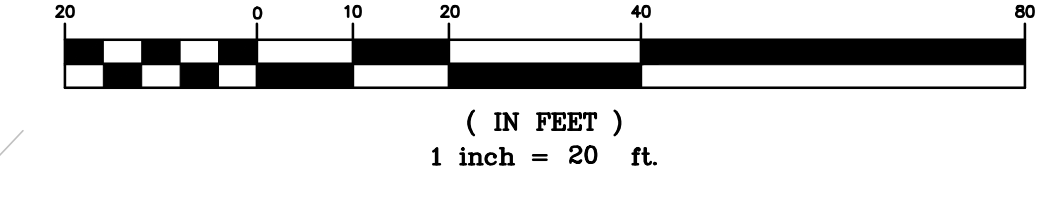
ALTERNATE WORK:

- WITHIN THE ALTERNATE LIMITS SHOWN, CONTRACTOR TO INCLUDE THE ADDITION OF THE EXTERIOR AMPHITHEATER WITH ALL REQUIRED HARDSCAPE, UTILITIES, GRADING, DRAINAGE AND COORDINATION.
- WITHIN THE ALTERNATE LIMITS SHOWN, CONTRACTOR TO INCLUDE THE ADDITION OF HARDSCAPE, GRADING, AND DRAINAGE AS SHOWN.
- WITHIN THE ALTERNATE LIMITS SHOWN, CONTRACTOR TO INCLUDE HARDSCAPE AND FENCING AS SHOWN WITH ALL OTHER REQUIRED WORK AND COORDINATION FOR THE INSTALLATION OF PLAYGROUND AS AN OWNER FURNISHED, OWNER INSTALLED ITEM.

LEGEND



GRAPHIC SCALE



NPDES CONSTRUCTION STORMWATER PERMIT #

EROSION AND SEDIMENTATION CONTROL LEGEND

- | | | |
|---|--------------------------------------|--|
| Stream Protection | BZ Buffer Zone | BP Block and Gravel Inlet |
| CS Channel Stabilization | SP Stream bank Protection | BFB Brush/Fabric Barrier |
| DC Dust Control | TSC Temporary Stream Crossing | EP Excavated Drop Inlet Protection |
| ECB Erosion Control Blanket | BG Baffle Grid | FP Fabric Drop Inlet Protection |
| GK Grounds Keeping | | FS Filter Sack |
| MU Mulching | | DS Dandy Sack |
| PS Permanent Seeding | | FB Floating Turbidity Barrier |
| PV Preservation of Vegetation | | RD Rock Filter Dam |
| RW Retaining Wall | | SB Sediment Barrier |
| SVG Shrub, Vine and Ground Cover Plantings | | SBN Sediment Basin |
| SOD Sodding | | SST Straw Bale Sediment Trap |
| TS Temporary Seeding | | TST Temporary Sediment Trap |
| TP Tree Planting on Disturbed Areas | | SL Sediment Log (20") / Wattle |
| CFM Cotton Fiber Matrix Hydroseeding | | HF HDPE Inlet Filter |
| | | PPL Anionic Polycrylamide Storm Water Flocculant Log |
| | | PPP Anionic Polycrylamide Storm Water Flocculant Powder |

- Storm water Management**
- PP** Porous Pavement
 - SDB** Storm Water Detention Basin
 - TRE** Temporary Inlet Riser Extension
- Surface Stabilization**
- CHS** Chemical Stabilization
 - DSF** Dune Sand Fence
 - DVP** Dune Vegetation Planting
 - DW** Dune Walkover
 - LG** Land Grading
 - ECB** Erosion Control Blanket
 - GK** Grounds Keeping
 - MU** Mulching
 - PS** Permanent Seeding
 - PV** Preservation of Vegetation
 - RW** Retaining Wall
 - SVG** Shrub, Vine and Ground Cover Plantings
 - SOD** Sodding
 - TS** Temporary Seeding
 - TP** Tree Planting on Disturbed Areas
 - CFM** Cotton Fiber Matrix Hydroseeding
- Site Preparation**
- CEP** Construction Exit Pad
 - LG** Land Grading
 - TSG** Top soiling
- Runoff Conveyance**
- CD** Check Dam
 - DV** Diversion Channel
 - DRS** Drop Structure
 - GS** Grass Swale
 - LS** Lined Swale
 - OP** Outlet Protection
 - RS** Riprap-lined Swale
 - SD** Subsurface Drain
 - TDS** Temporary Slope Drains

DRAWING FILE: T:\Projects\AL\Rainbow City\City of Rainbow City\Recreation Center\DWG\C-602.RMF.dwg
PLOT FILE: J:\11_2024-15

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100% CD SET	05/29/2024
ADDENDUM 3	06/27/2024

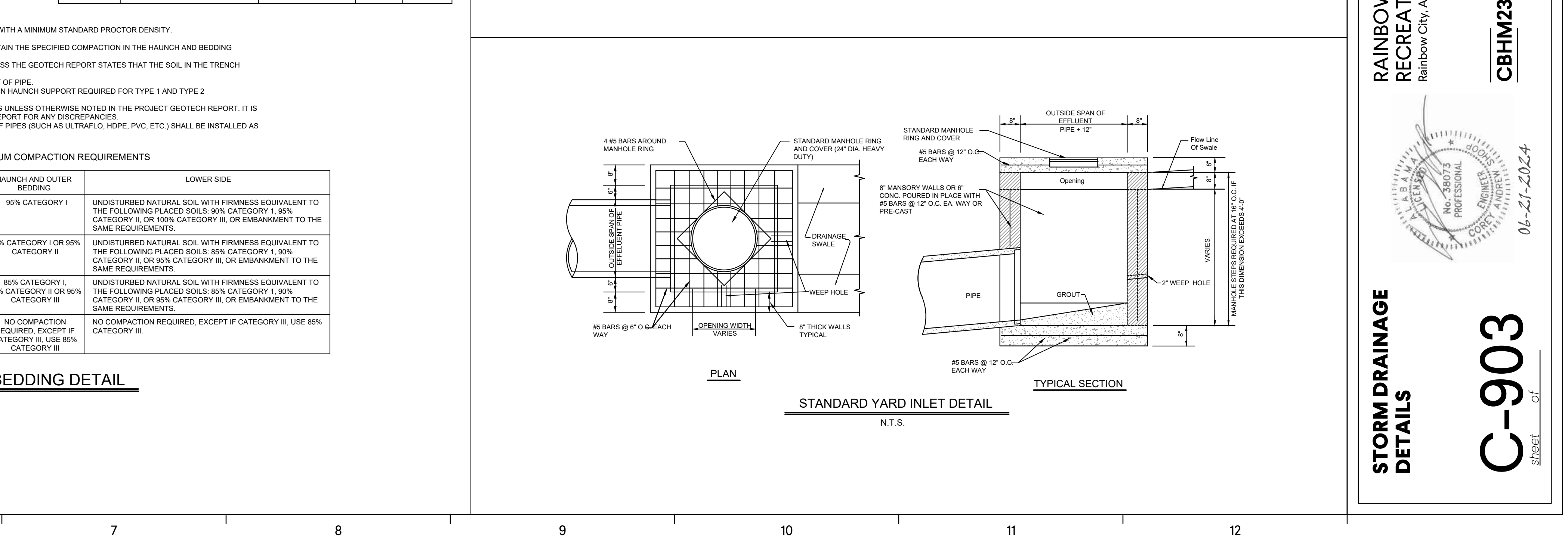
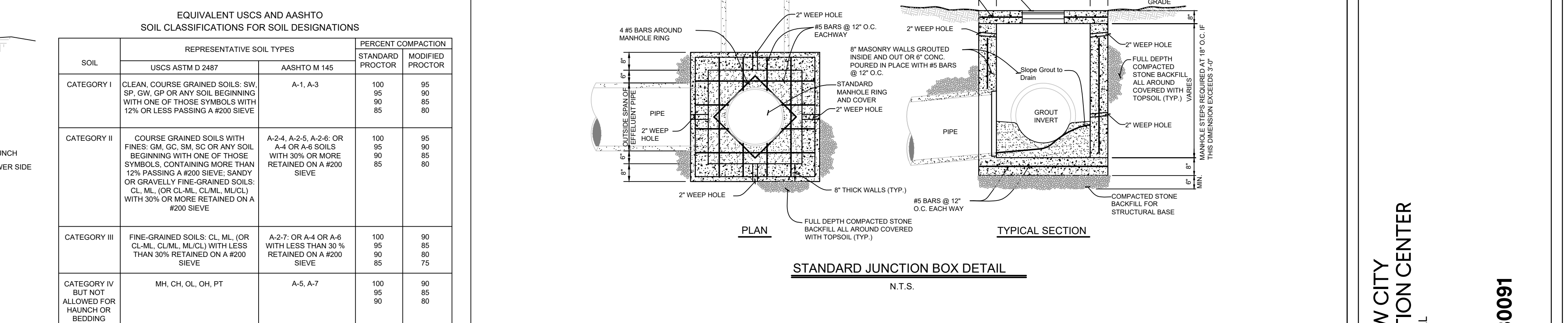
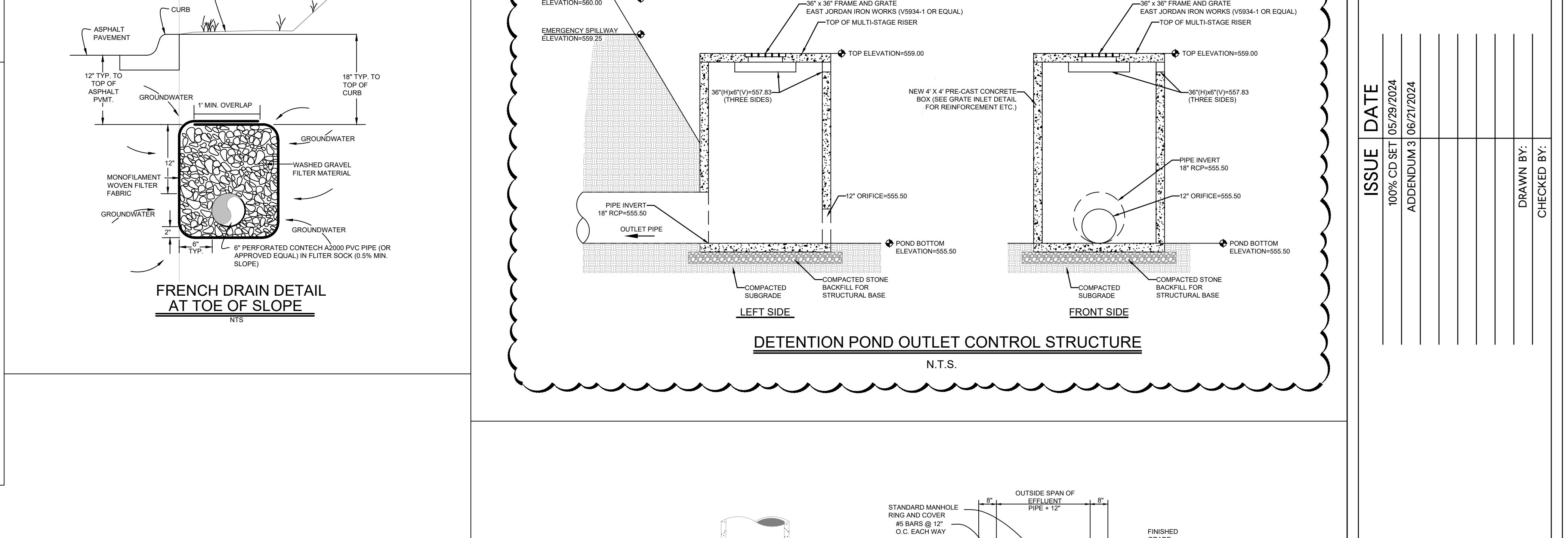
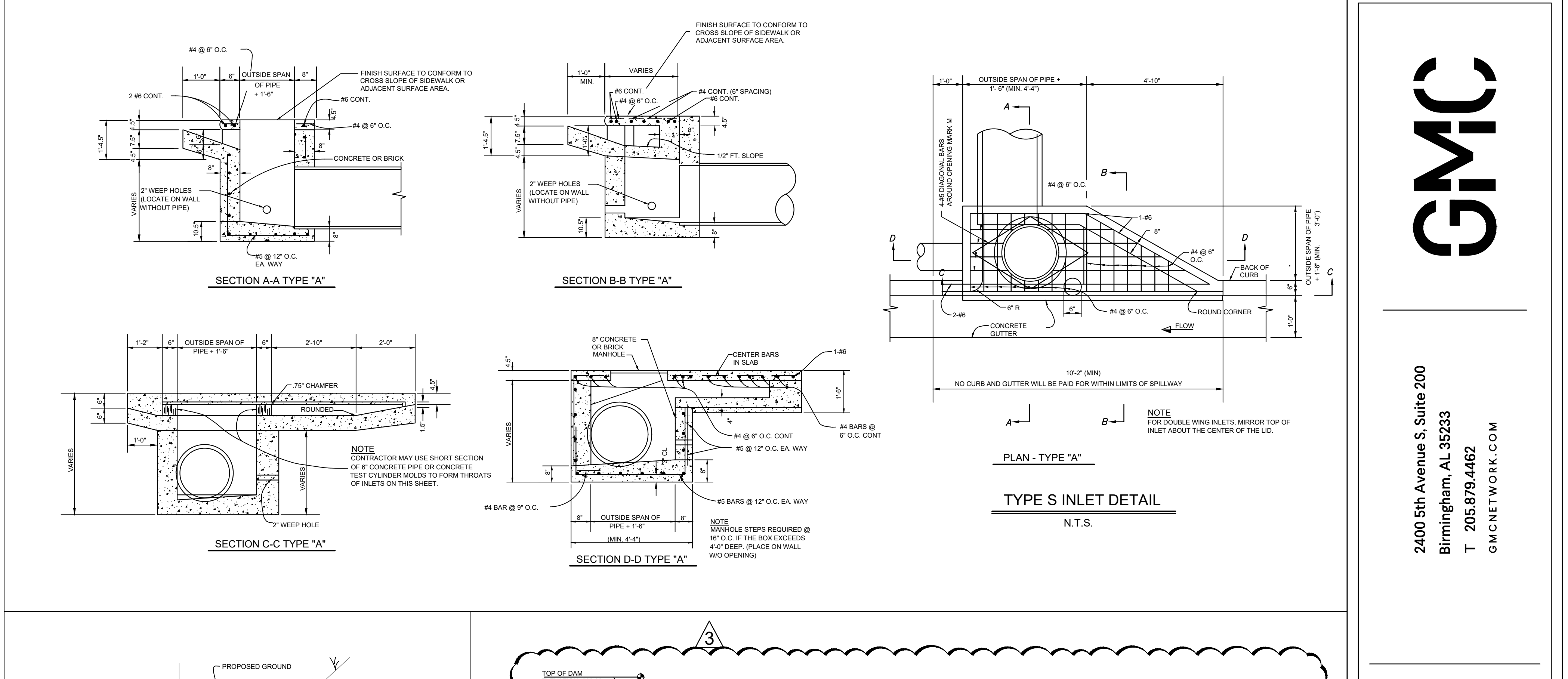
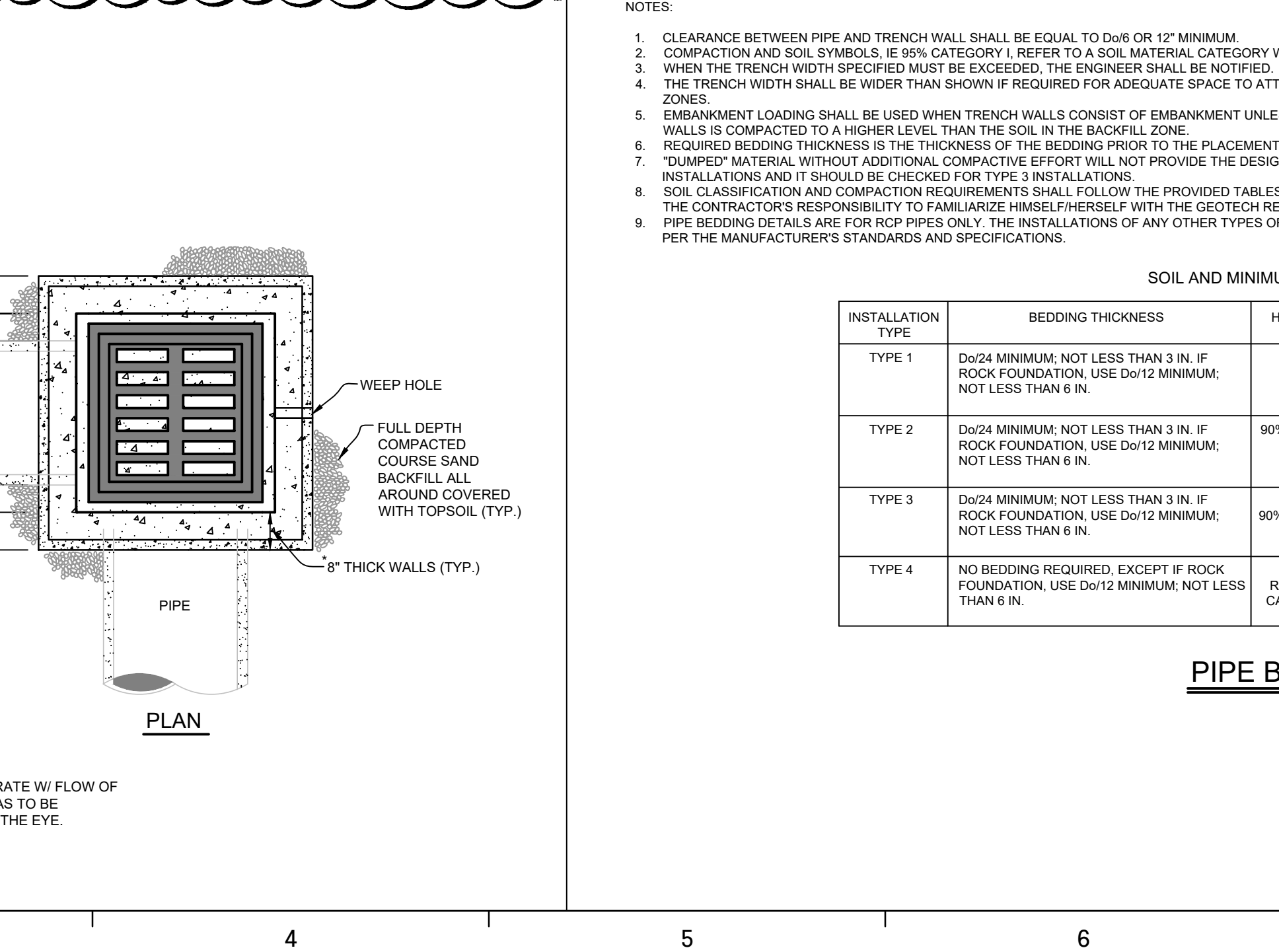
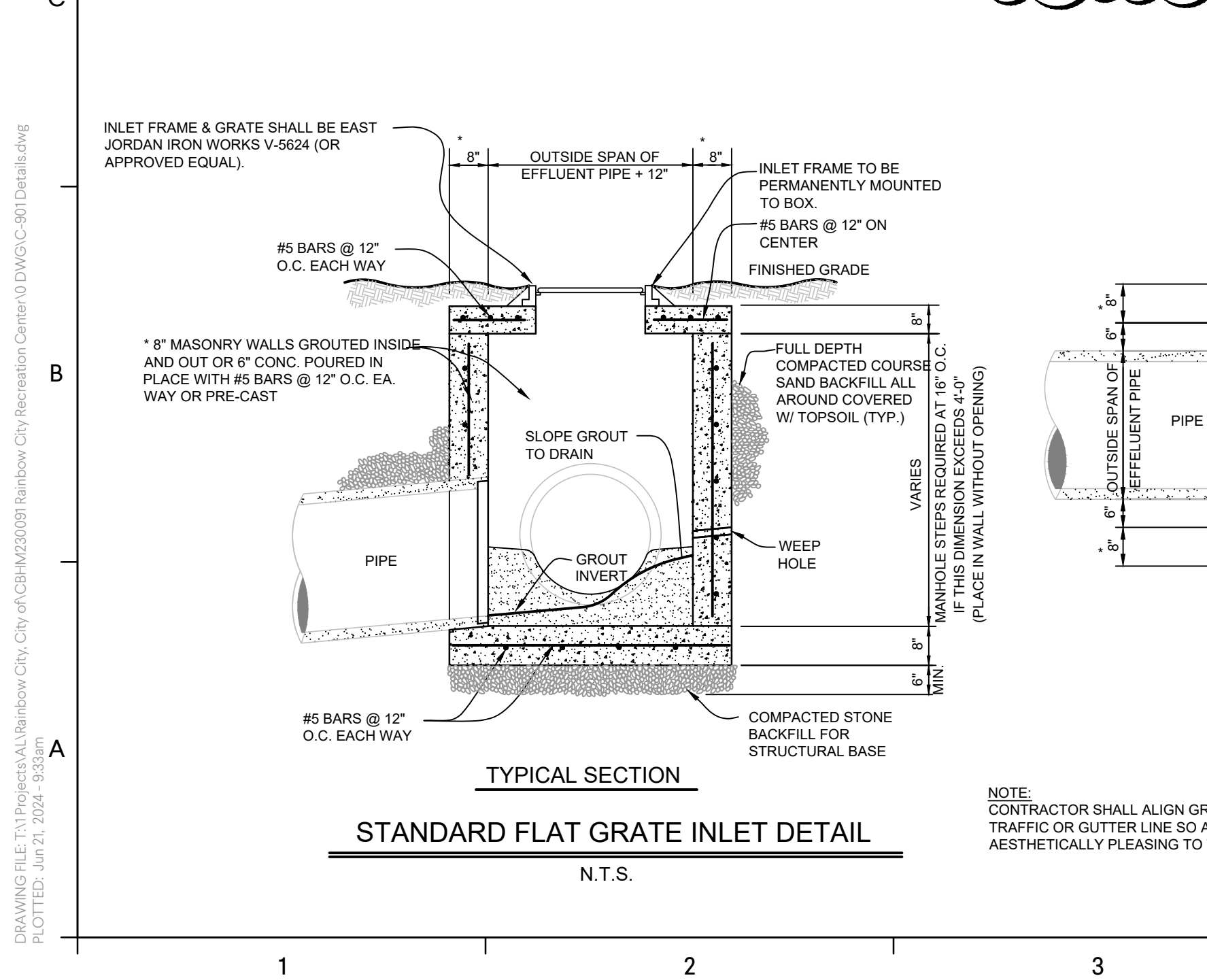
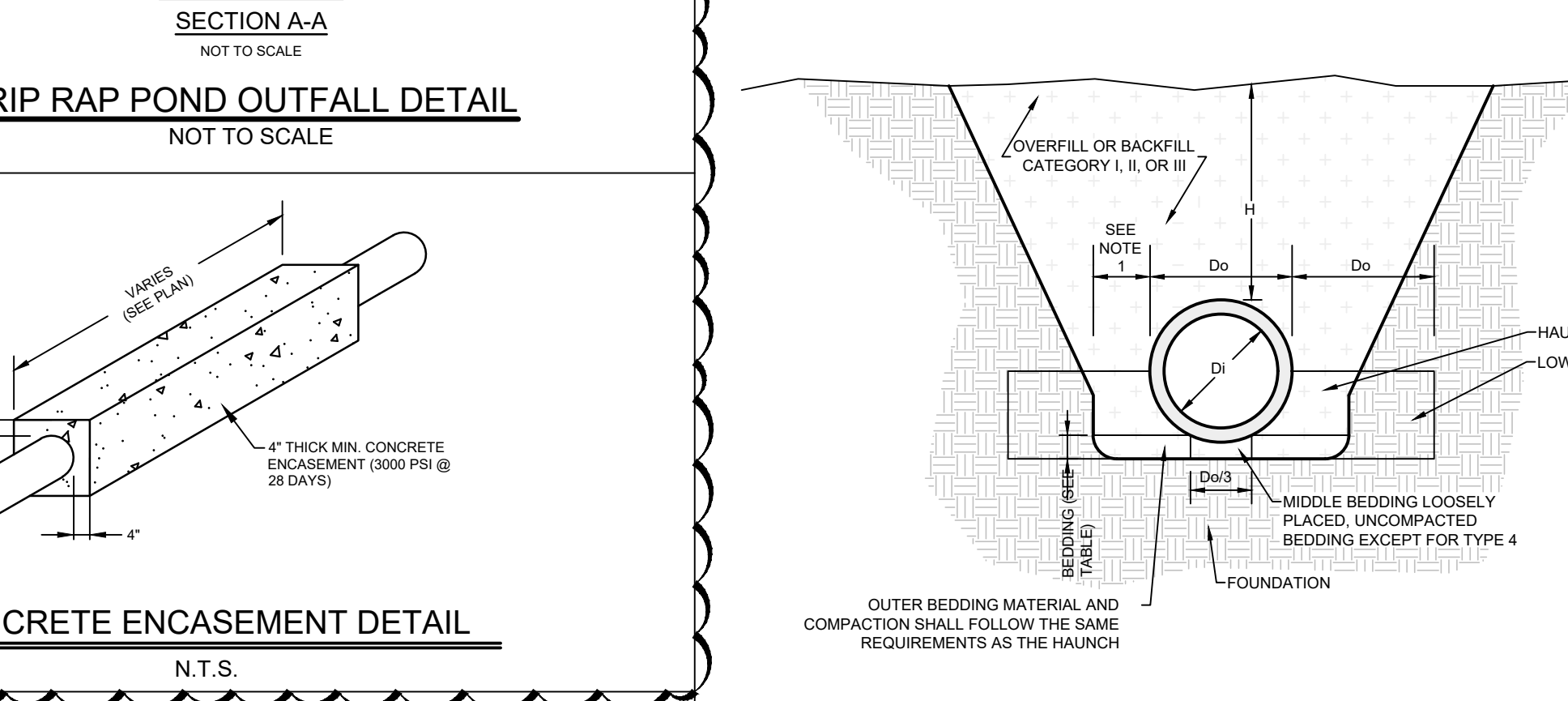
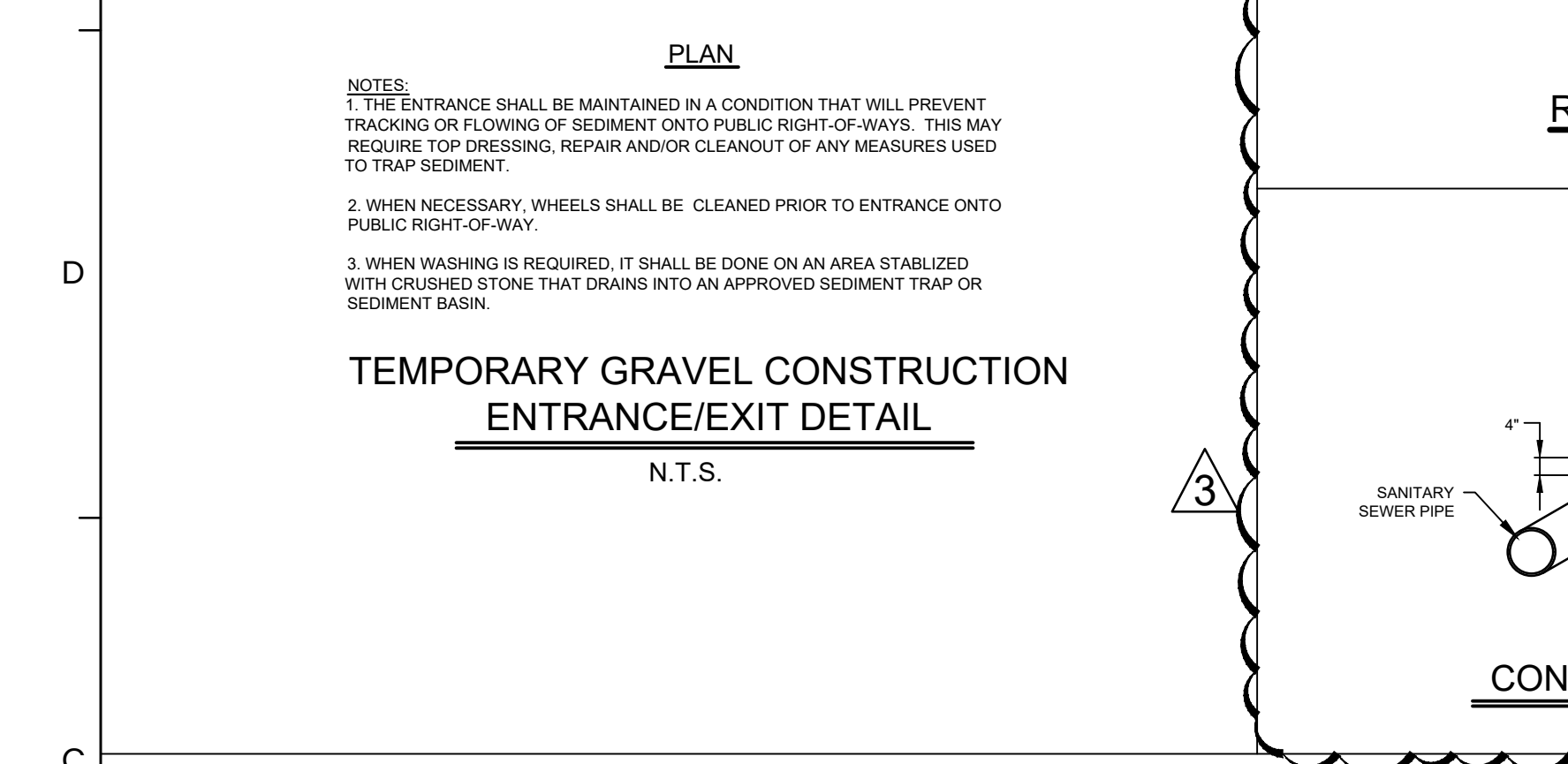
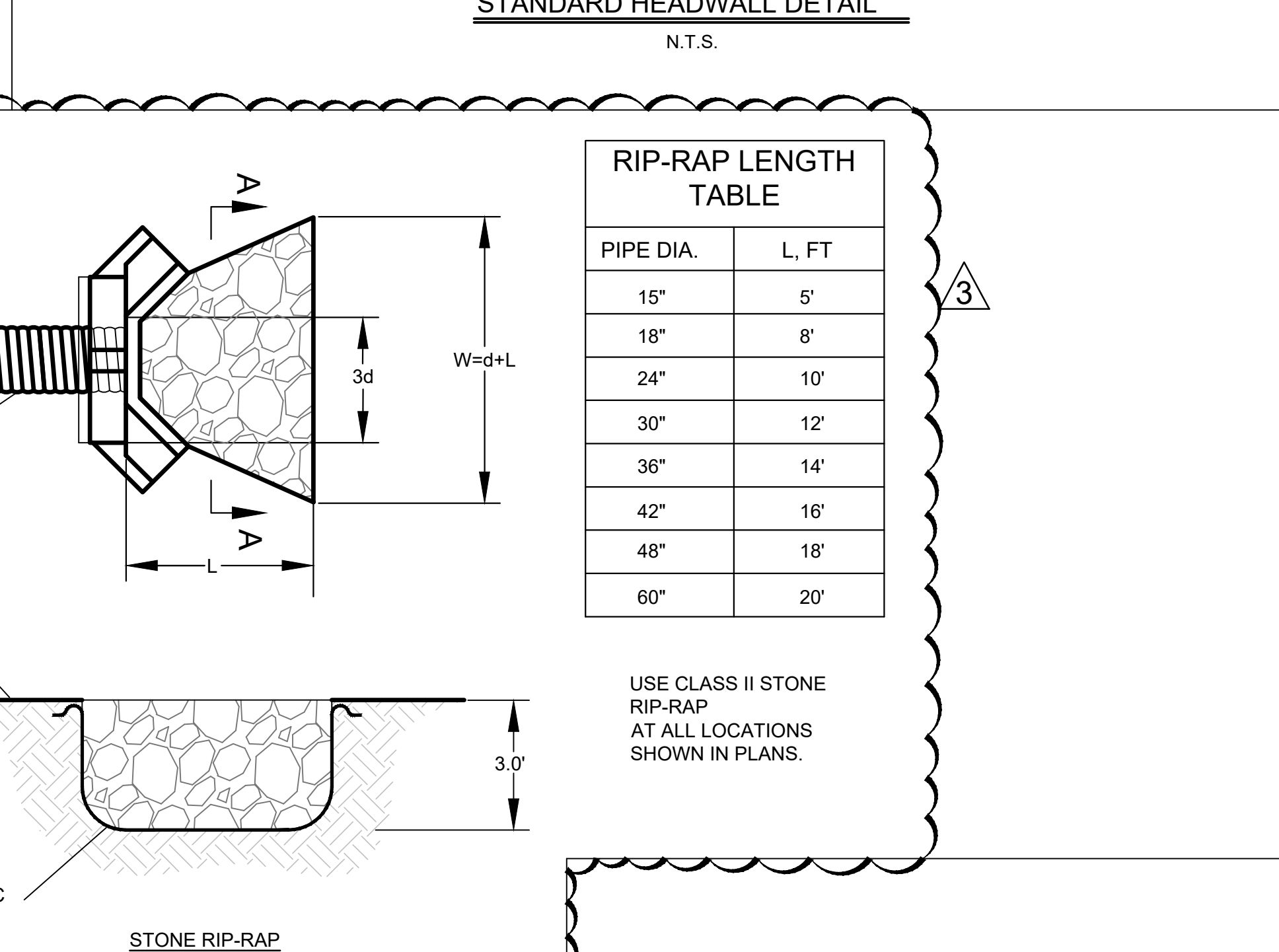
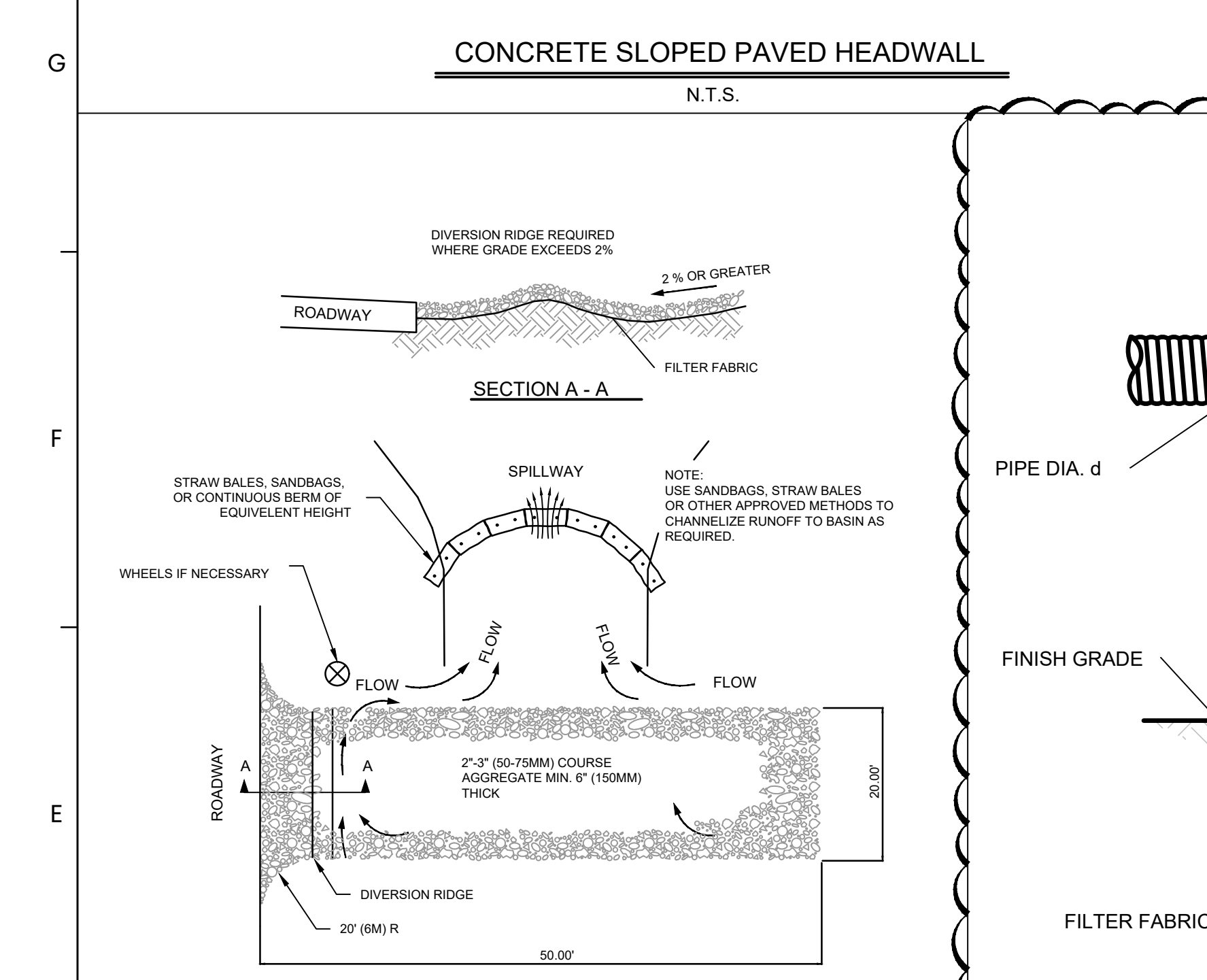
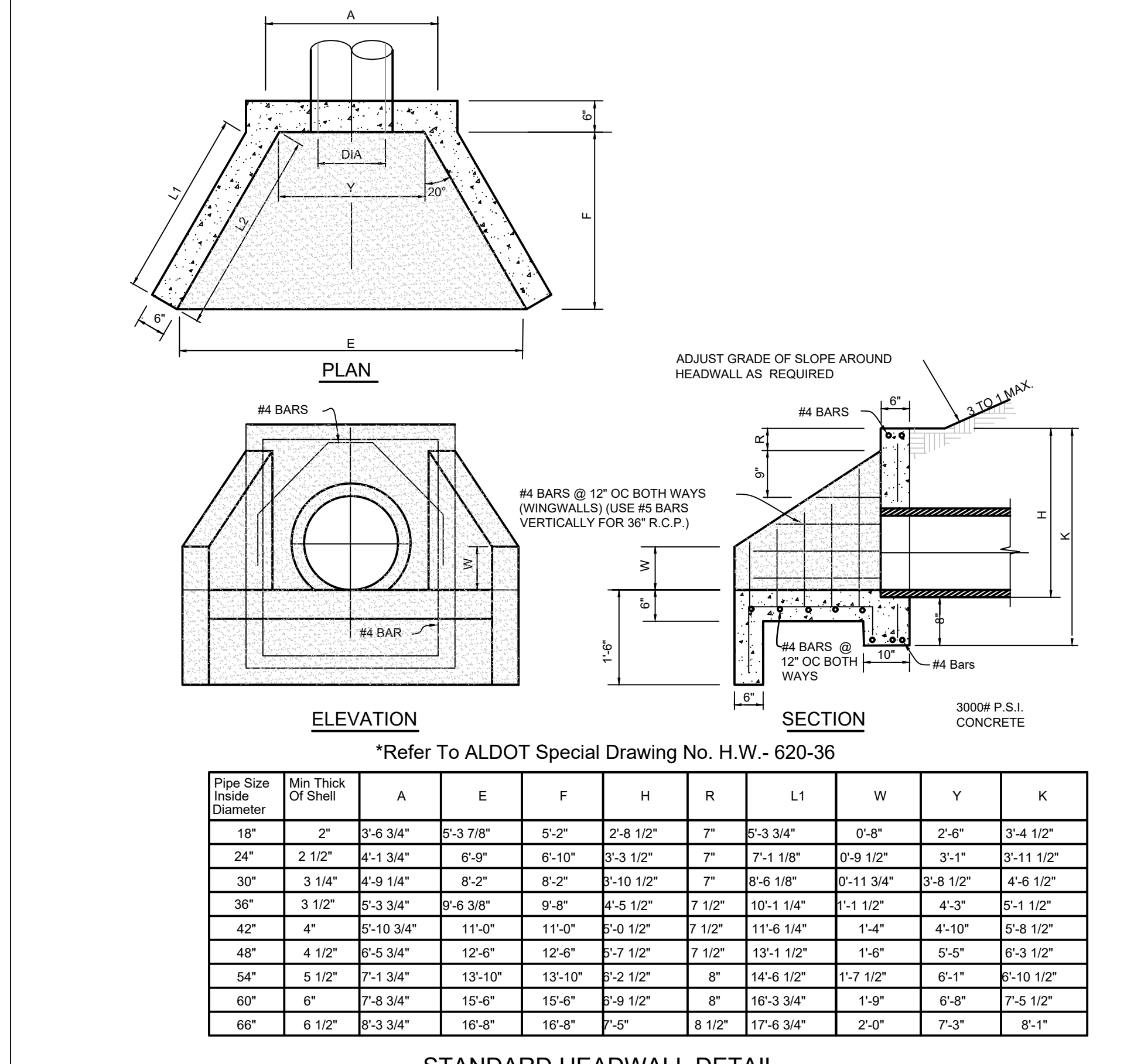
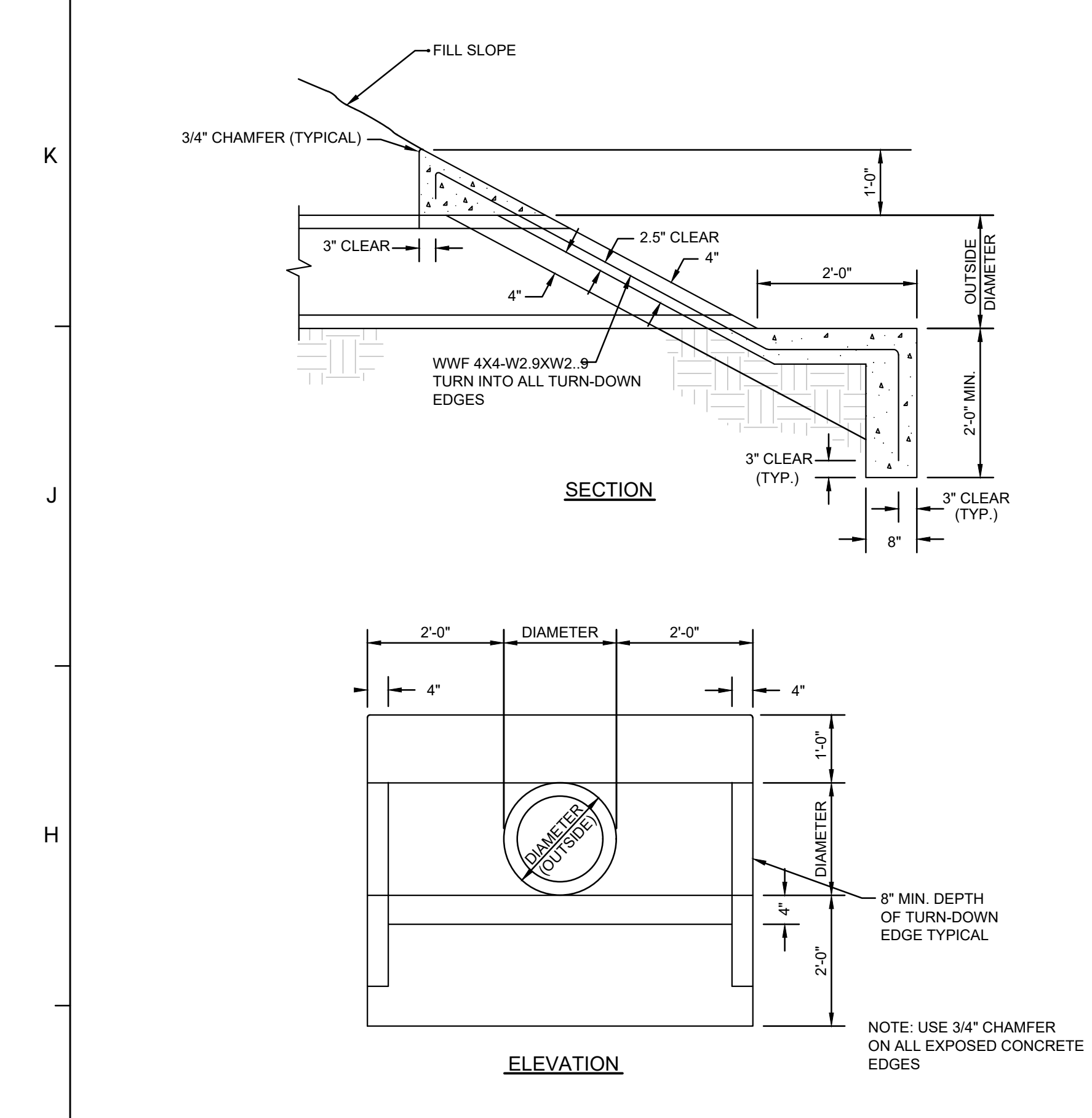
RAINBOW CITY RECREATION CENTER
Rainbow City, AL

ALTERNATE EROSION AND SEDIMENTATION CONTROL PLAN

CBHM230091

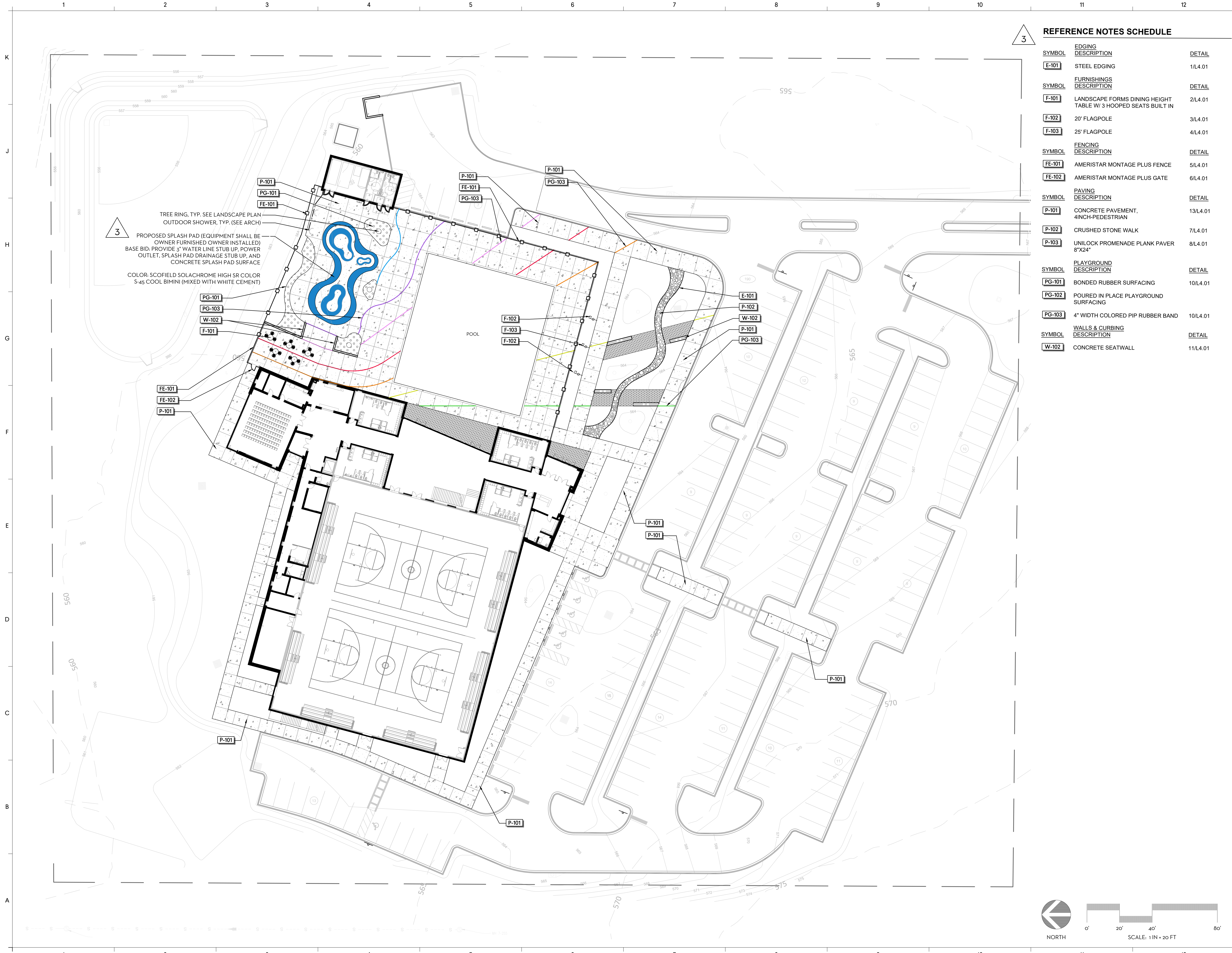
C-602

DRAWN BY: _____
CHECKED BY: _____



ISSUE DATE

ISSUE	DATE
100% CD SET	05/29/2024
ADDENDUM 3	06/27/2024



3
 TREE RING, TYP. SEE LANDSCAPE PLAN
 OUTDOOR SHOWER, TYP. (SEE ARCH)
 PROPOSED SPLASH PAD (EQUIPMENT SHALL BE
 OWNER FURNISHED OWNER INSTALLED)
 BASE BID. PROVIDE 3" WATER LINE STUB UP, POWER
 OUTLET, SPLASH PAD DRAINAGE STUB UP, AND
 CONCRETE SPLASH PAD SURFACE
 COLOR: SCOFIELD SOLACHROME HIGH SR COLOR
 S-45 COOL BIMINI (MIXED WITH WHITE CEMENT)

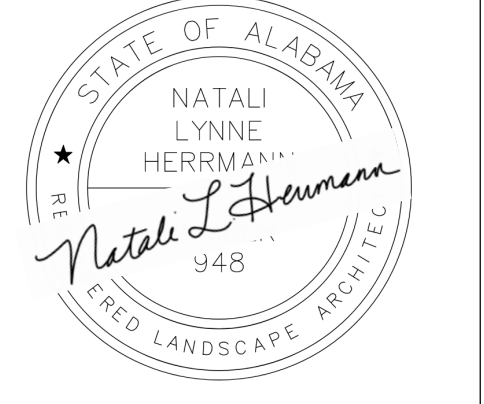
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REFERENCE NOTES SCHEDULE

SYMBOL	EDGING DESCRIPTION	DETAIL
E-101	STEEL EDGING	1/L4.01
SYMBOL	FURNISHINGS DESCRIPTION	DETAIL
F-101	LANDSCAPE FORMS DINING HEIGHT TABLE W/ 3 HOOPED SEATS BUILT IN	2/L4.01
F-102	20' FLAGPOLE	3/L4.01
F-103	25' FLAGPOLE	4/L4.01
SYMBOL	FENCING DESCRIPTION	DETAIL
FE-101	AMERISTAR MONTAGE PLUS FENCE	5/L4.01
FE-102	AMERISTAR MONTAGE PLUS GATE	6/L4.01
SYMBOL	PAVING DESCRIPTION	DETAIL
P-101	CONCRETE PAVEMENT, 4INCH-PEDESTRIAN	13/L4.01
P-102	CRUSHED STONE WALK	7/L4.01
P-103	UNILOCK PROMENADE PLANK PAVER 8"X24"	8/L4.01
SYMBOL	PLAYGROUND DESCRIPTION	DETAIL
PG-101	BONDED RUBBER SURFACING	10/L4.01
PG-102	POURED IN PLACE PLAYGROUND SURFACING	
PG-103	4" WIDTH COLORED PIP RUBBER BAND	10/L4.01
SYMBOL	WALLS & CURBING DESCRIPTION	DETAIL
W-102	CONCRETE SEATWALL	11/L4.01

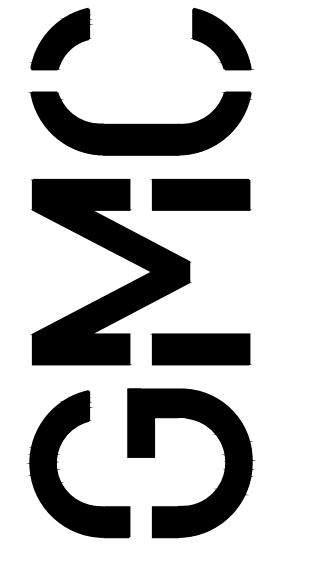
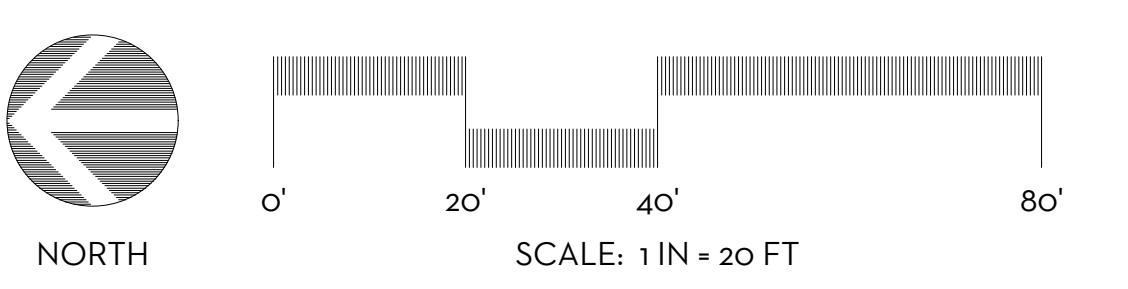
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 CHECKED BY: BRP

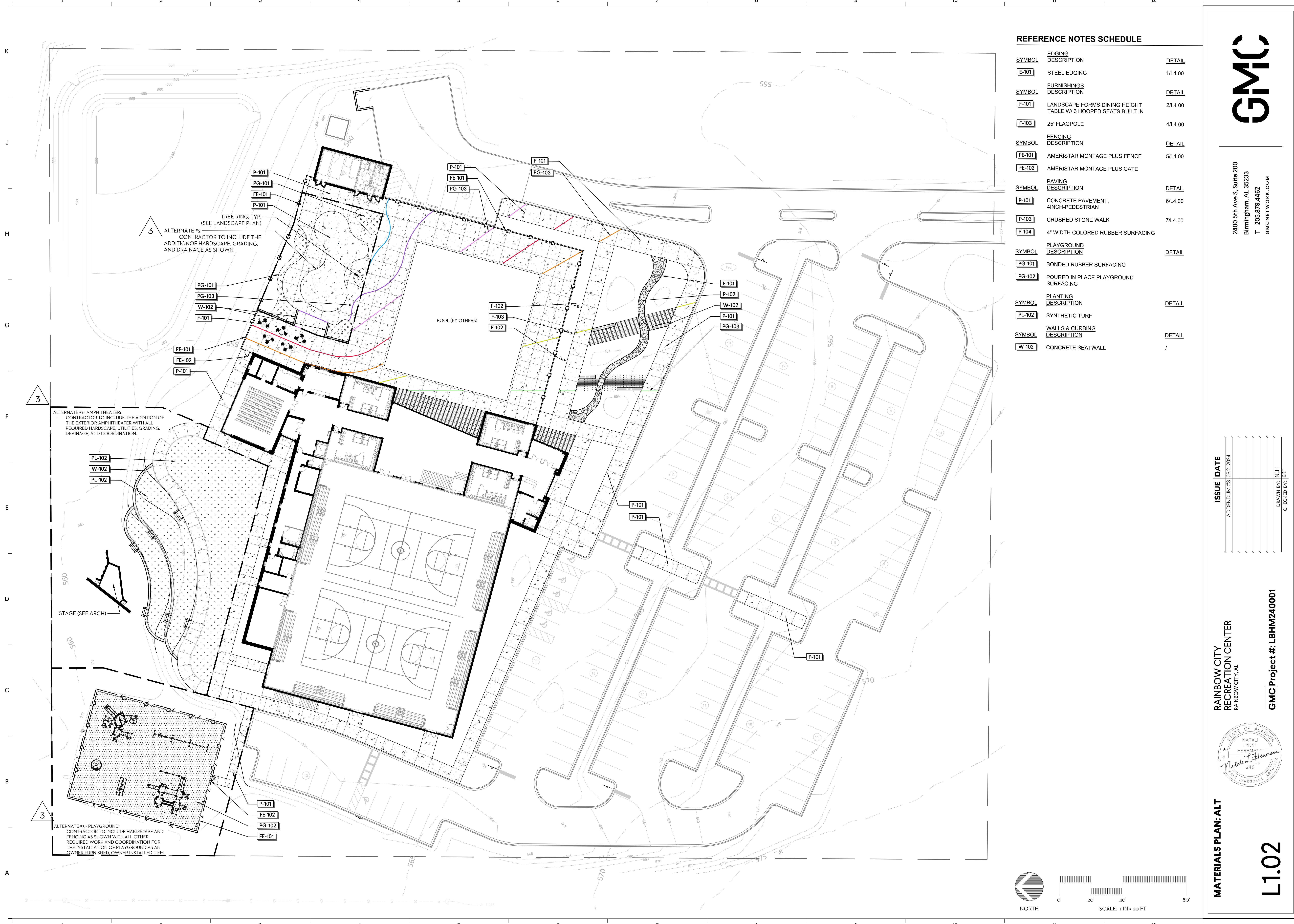
RAINBOW CITY RECREATION CENTER
 RAINBOW CITY, AL
GMC Project #: LBHM240001



MATERIALS PLAN: BASE
L1.01



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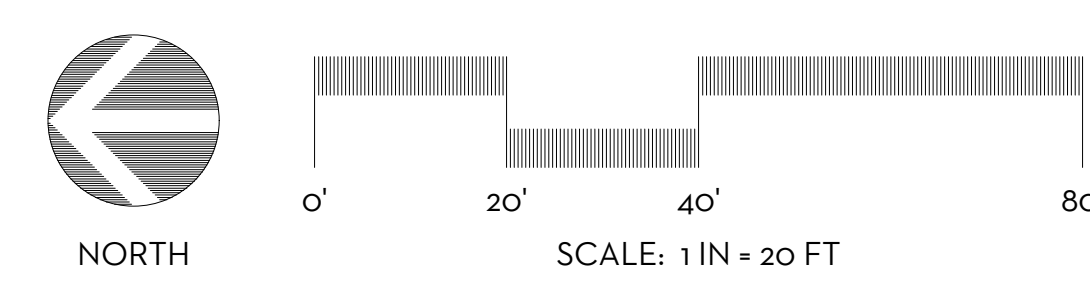
REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	DETAIL
E-101	STEEL EDGING	1/L.4.00
F-101	LANDSCAPE FORMS DINING HEIGHT TABLE W/ 3 HOOPED SEATS BUILT IN	2/L.4.00
F-103	25' FLAGPOLE	4/L.4.00
FE-101	AMERISTAR MONTAGE PLUS FENCE	5/L.4.00
FE-102	AMERISTAR MONTAGE PLUS GATE	
P-101	CONCRETE PAVEMENT, 4INCH-PEDESTRIAN	6/L.4.00
P-102	CRUSHED STONE WALK	7/L.4.00
P-104	4" WIDTH COLORED RUBBER SURFACING	
PG-101	BONDED RUBBER SURFACING	
PG-102	POURED IN PLACE PLAYGROUND SURFACING	
PL-102	SYNTHETIC TURF	
W-102	CONCRETE SEATWALL	/

3
 ALTERNATE #2
 TREE RING, TYP.
 (SEE LANDSCAPE PLAN)
 CONTRACTOR TO INCLUDE THE
 ADDITION OF HARDSCAPE, GRADING,
 AND DRAINAGE AS SHOWN

3
 ALTERNATE #1- AMPHITHEATER
 CONTRACTOR TO INCLUDE THE ADDITION OF
 THE EXTERIOR AMPHITHEATER WITH ALL
 REQUIRED HARDSCAPE, UTILITIES, GRADING,
 DRAINAGE, AND COORDINATION.

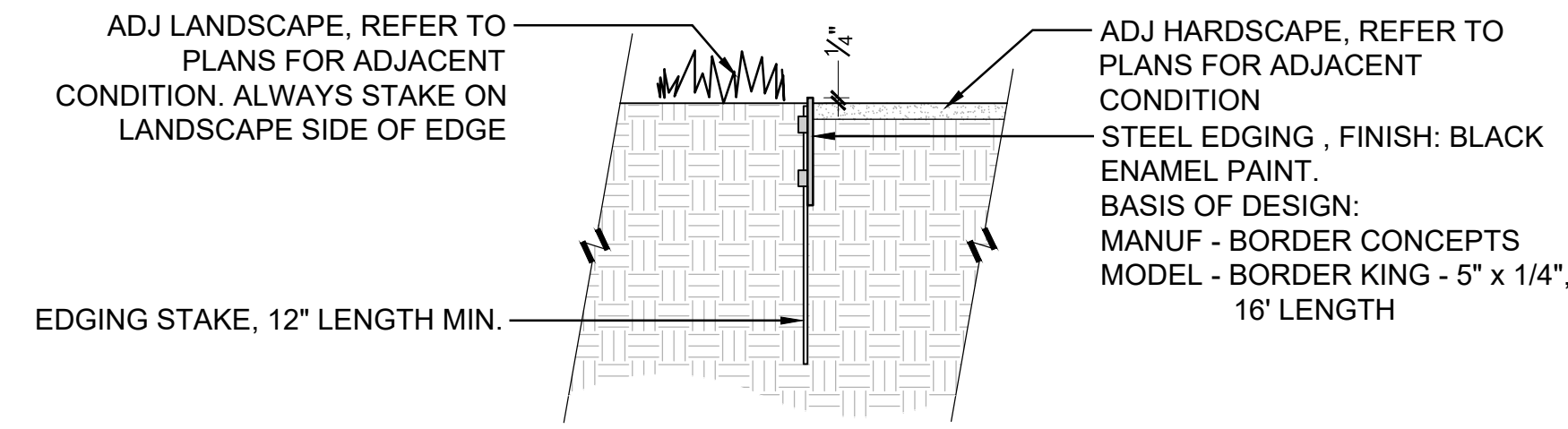
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 ALTERNATE #3- PLAYGROUND
 CONTRACTOR TO INCLUDE HARDSCAPE AND
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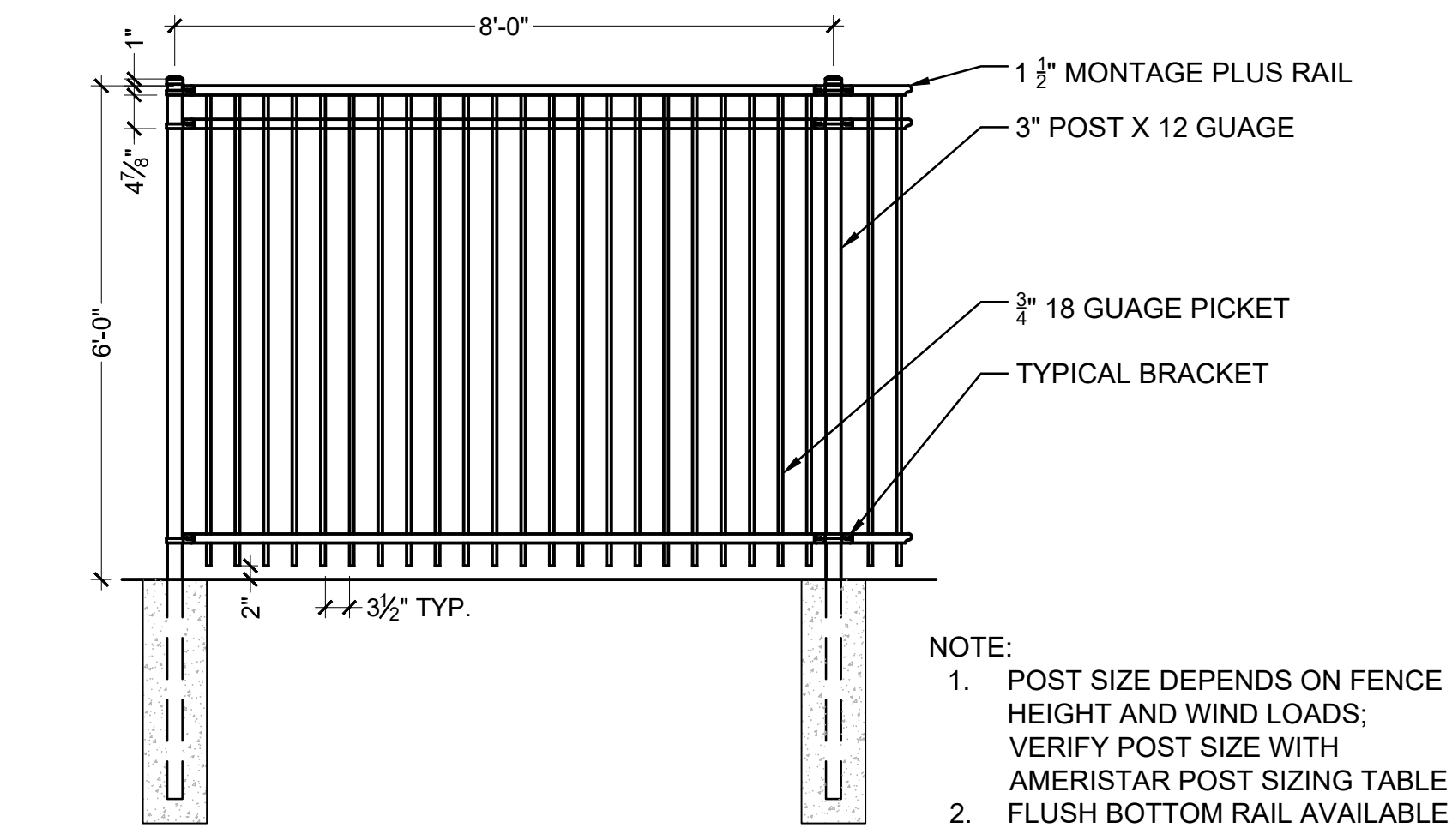
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RAINBOW CITY
 RECREATION CENTER
 RAINBOW CITY, AL
 GMC Project #: LBHM240001

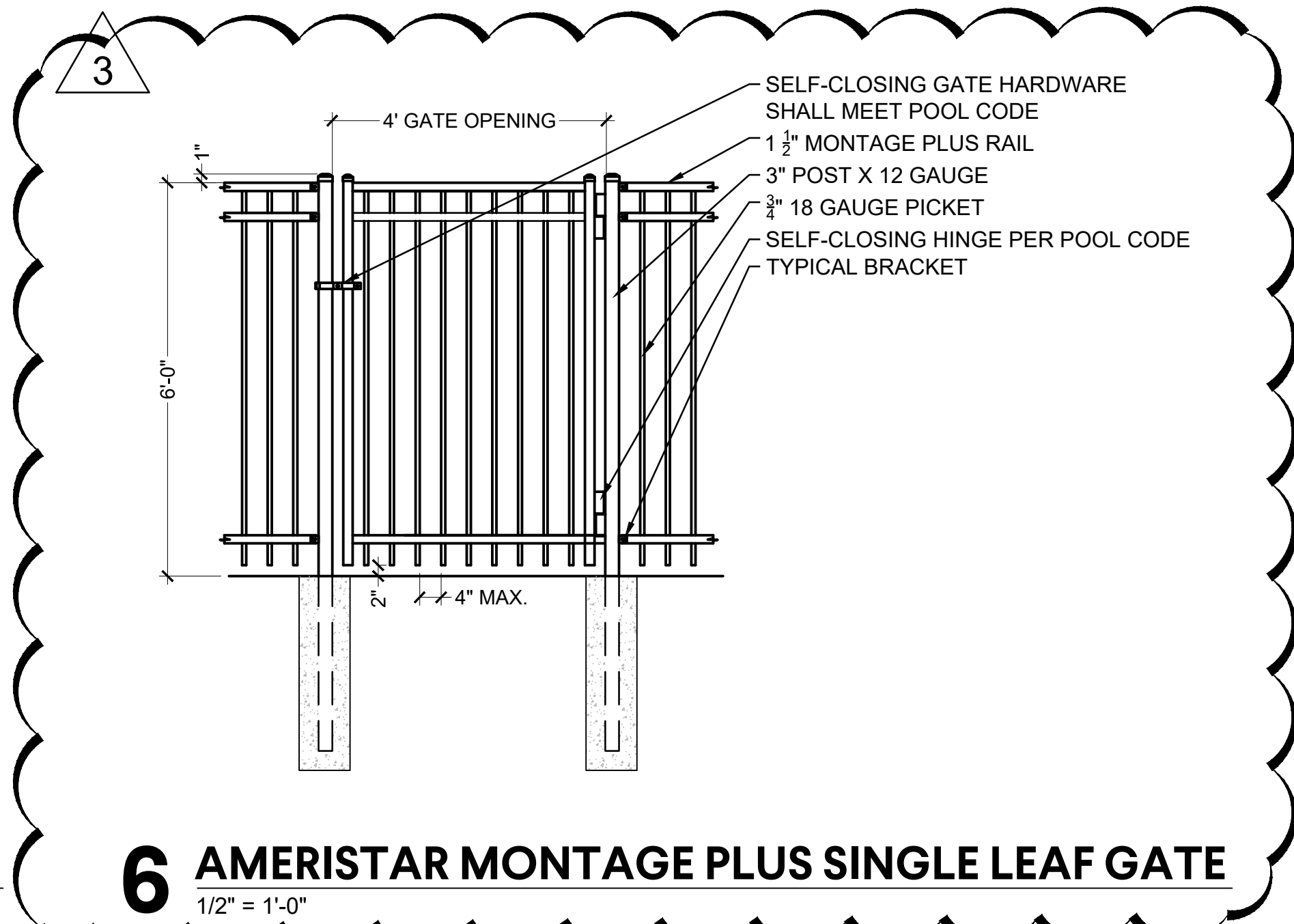




1 STEEL EDGING
1 1/2" = 1'-0"

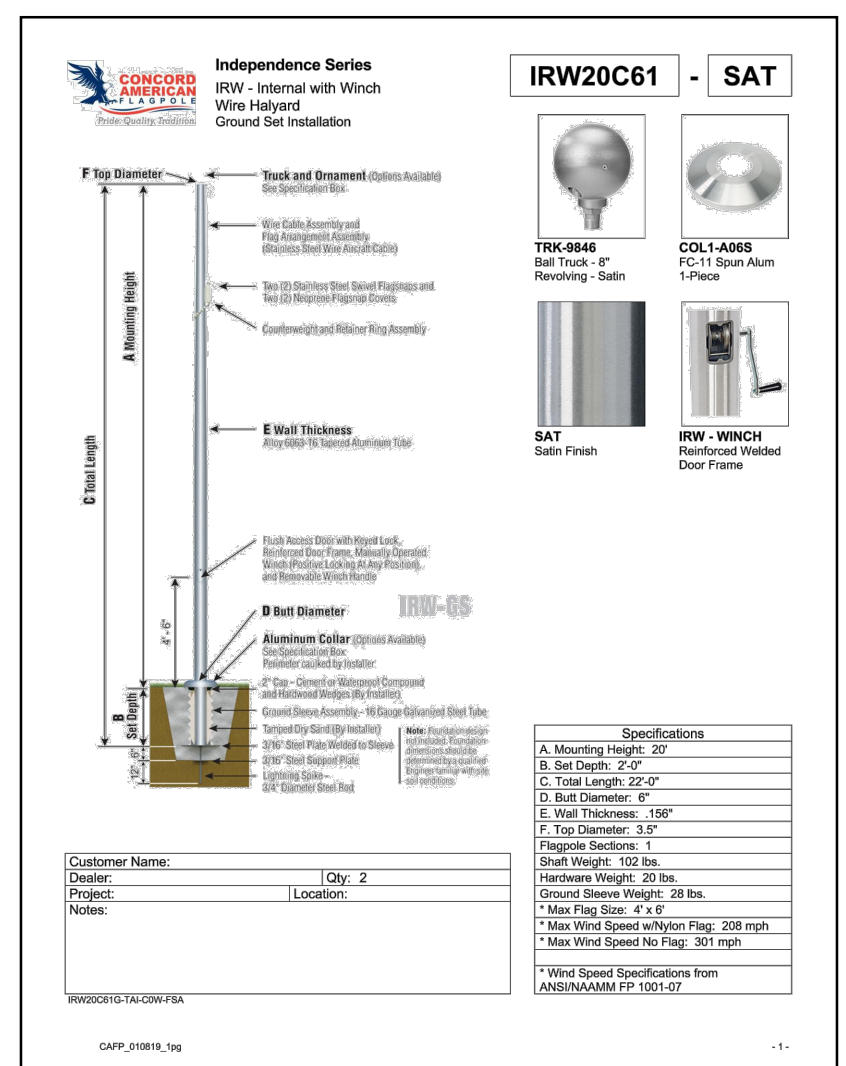


2 LANDSCAPE FORMS CAROUSEL TABLE
3/8" = 1'-0"

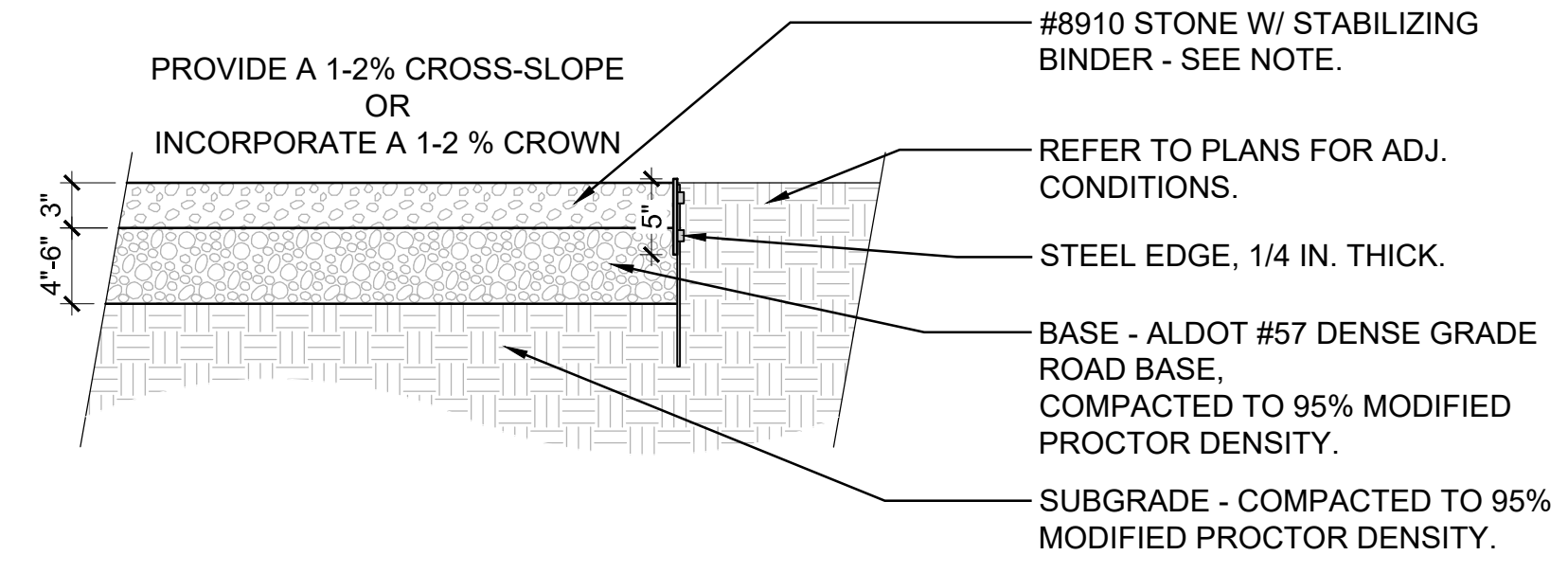


6 AMERISTAR MONTAGE PLUS SINGLE LEAF GATE
1/2" = 1'-0"

3 20' FLAGPOLE
NOT TO SCALE

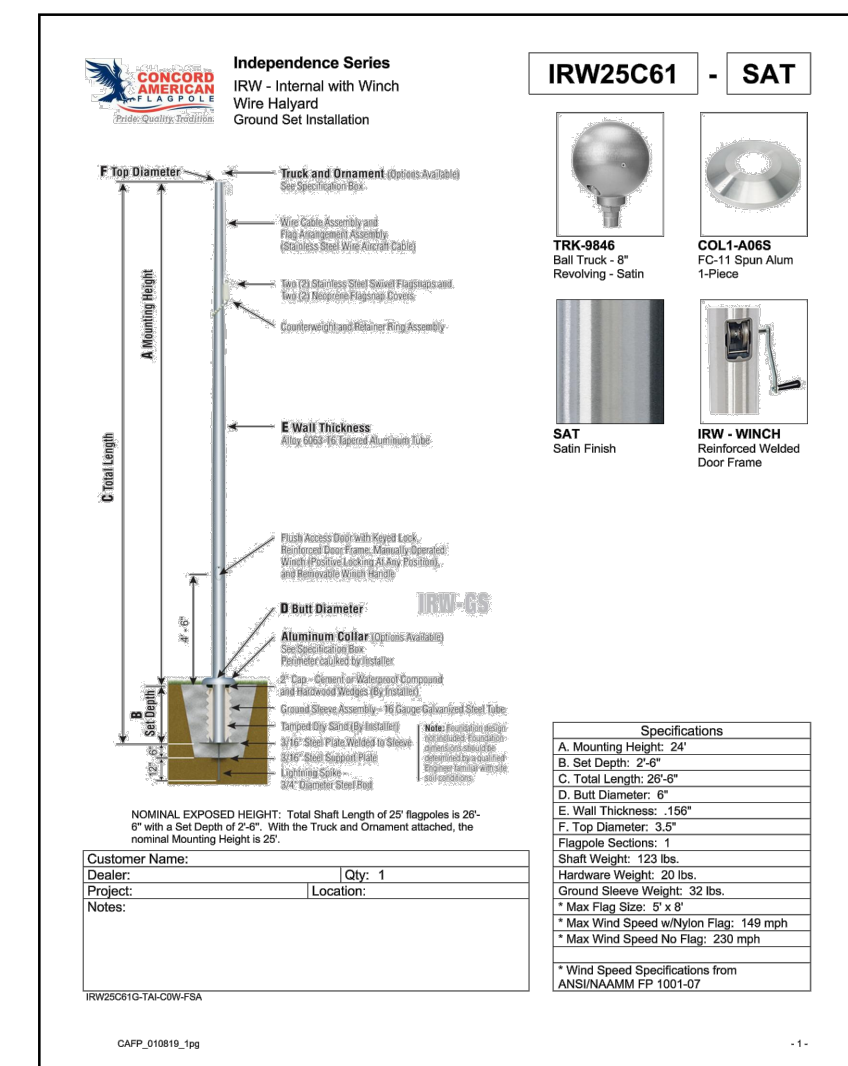


7 STABILIZED CRUSHED STONE
1" = 1'-0"

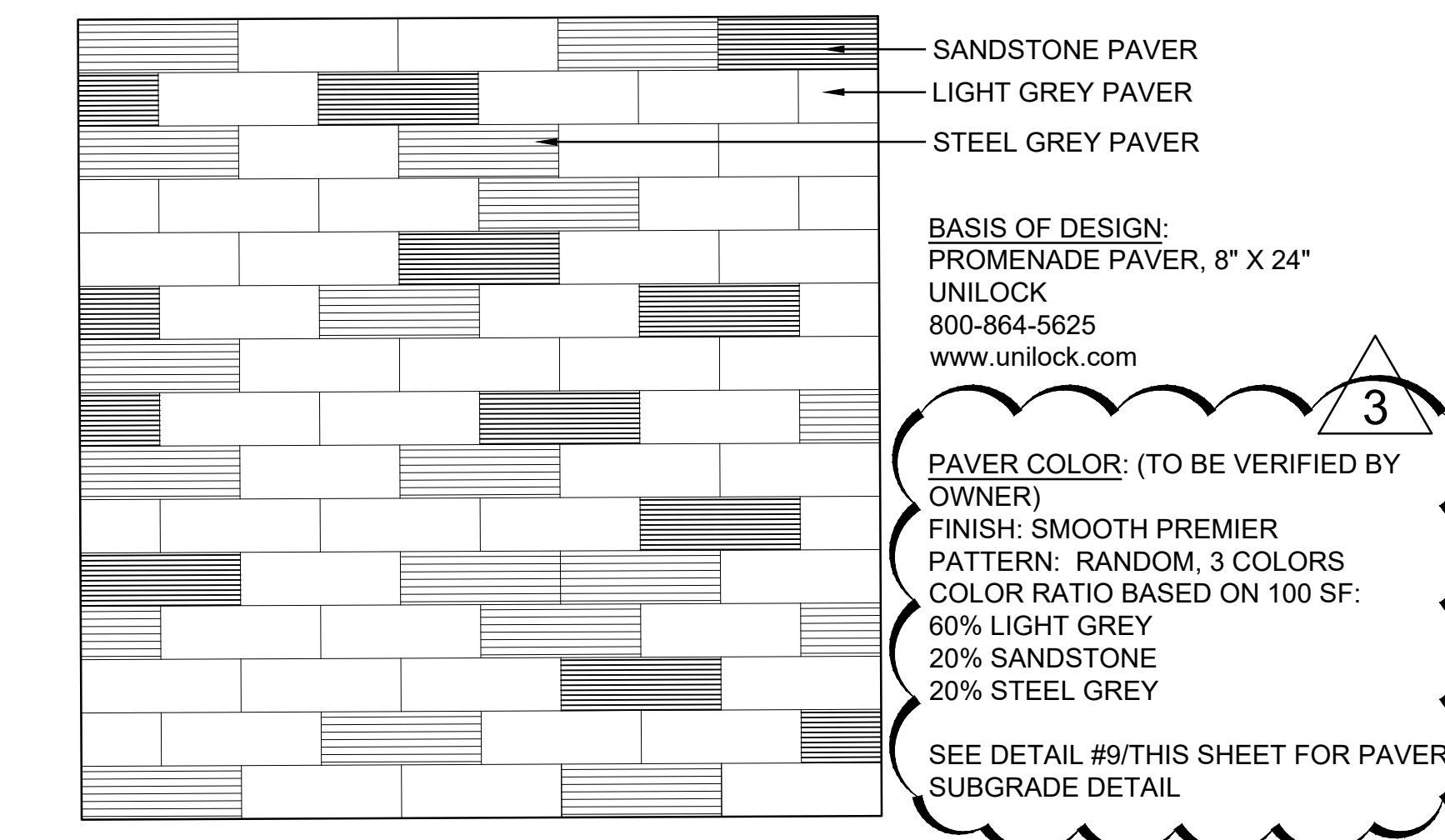


NOTES:
1. ACCEPTABLE STABILIZING BINDERS:
A) ORGANIC-LOCK, ENVIROBOND PRODUCTS CORP (416) 628 - 3709 WWW.ORGANIC-LOCK.COM
B) STABILIZER STABILIZER SOLUTIONS, INC. 1-800-336-2468 WWW.STABILIZERSOLUTIONS.COM

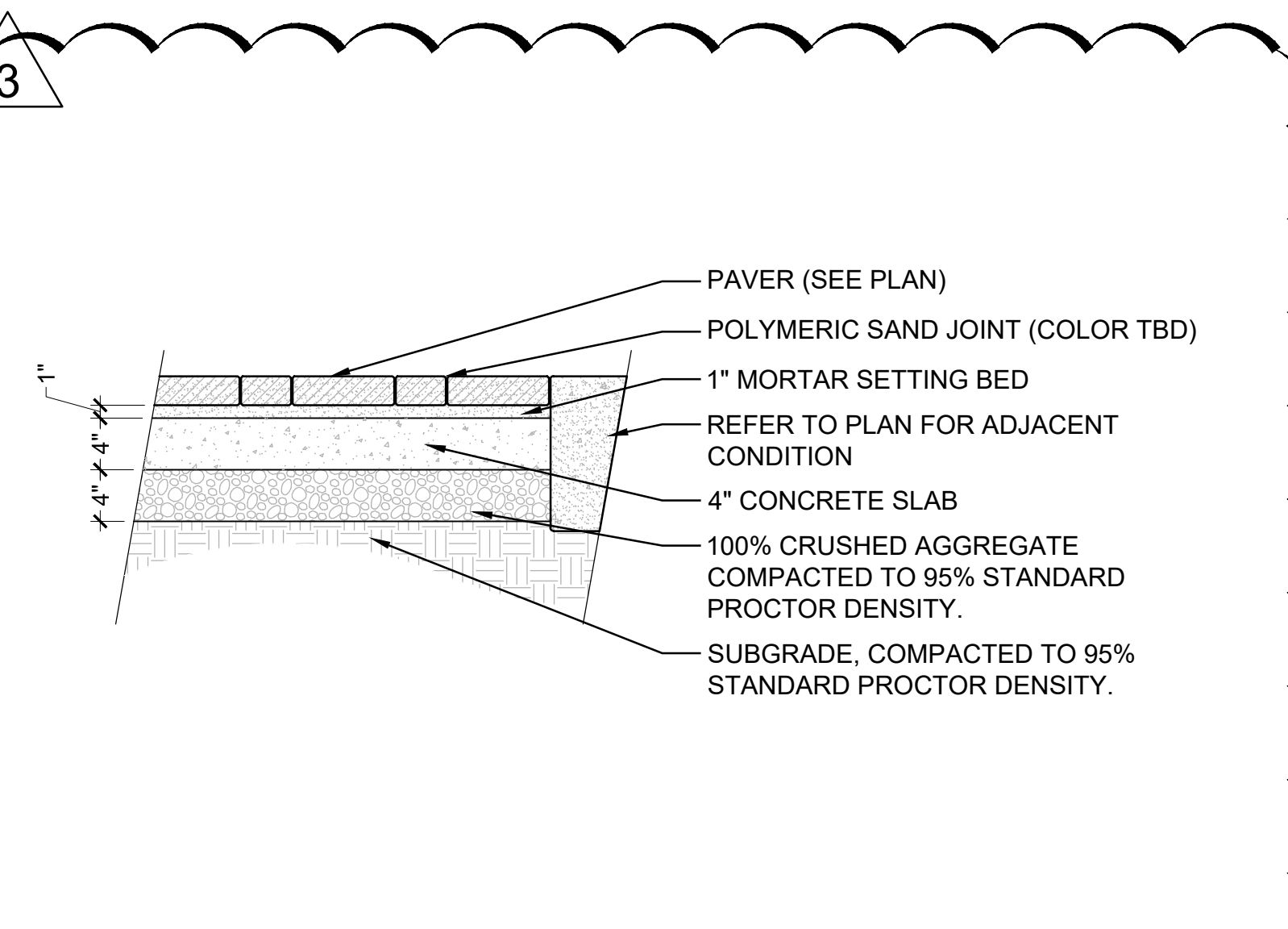
4 25' FLAGPOLE
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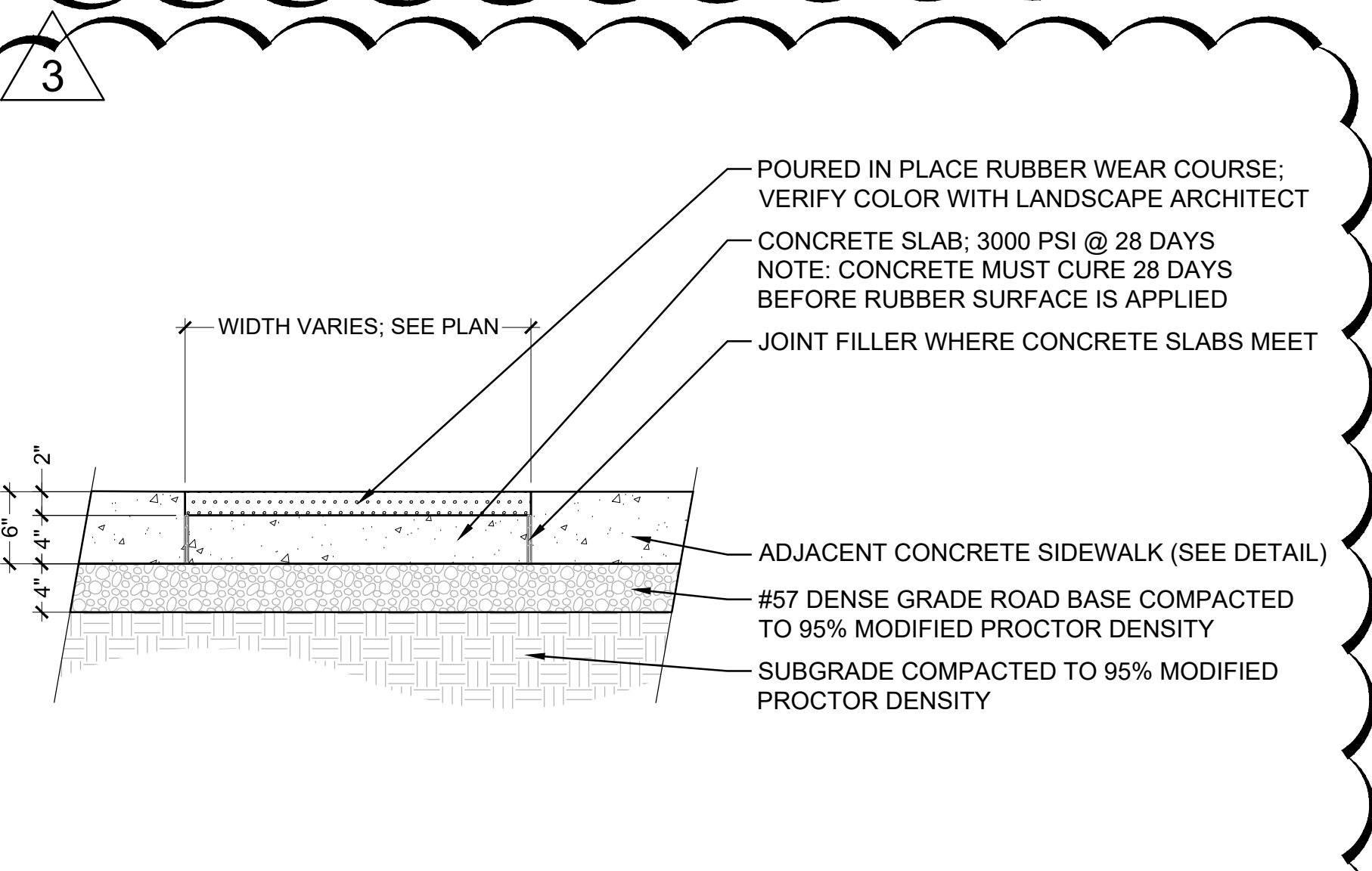
8 PROMENADE PLANK PAVER
1/2" = 1'-0"



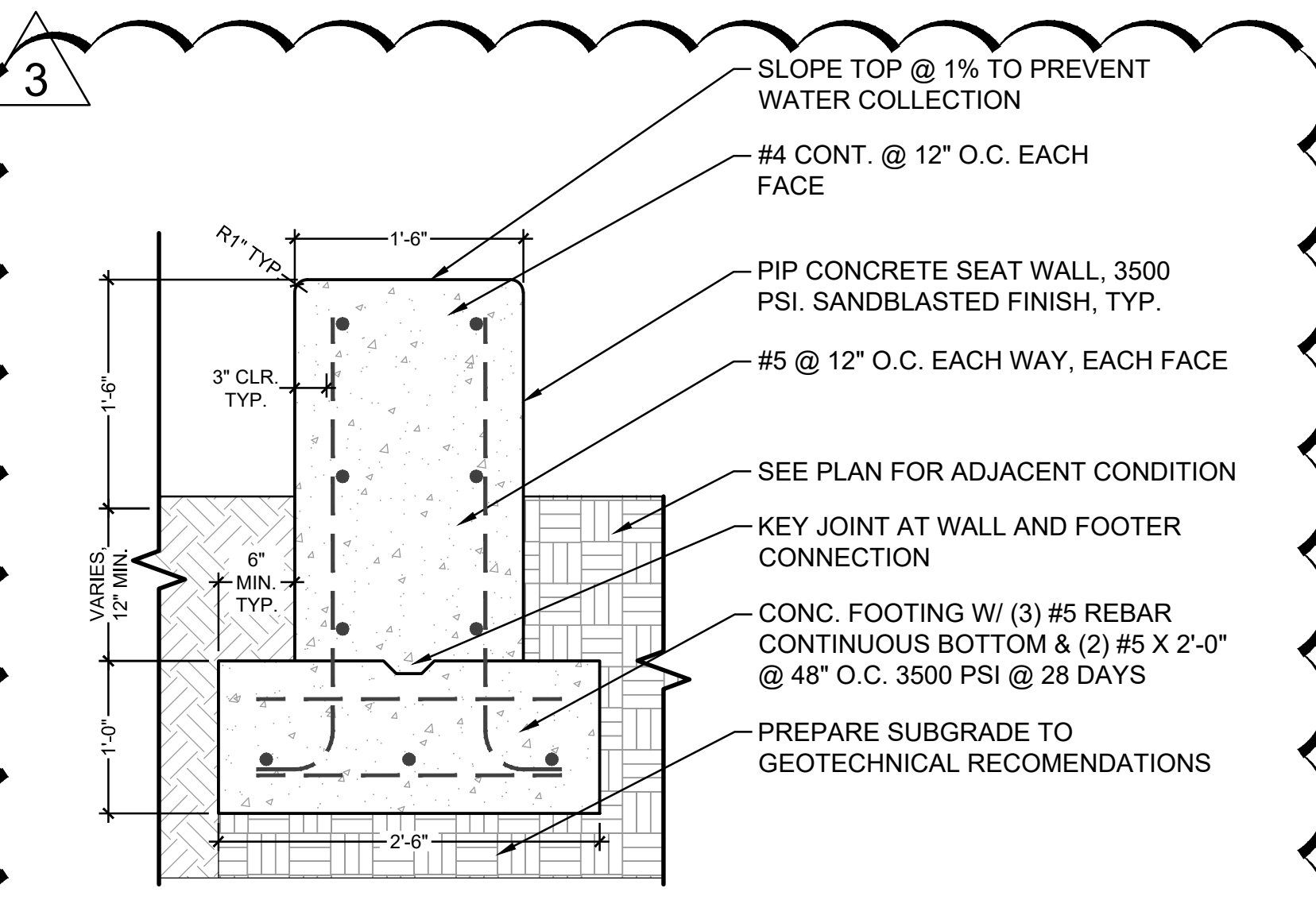
5 AMERISTAR MONTAGE PLUS FENCE
1/2" = 1'-0"



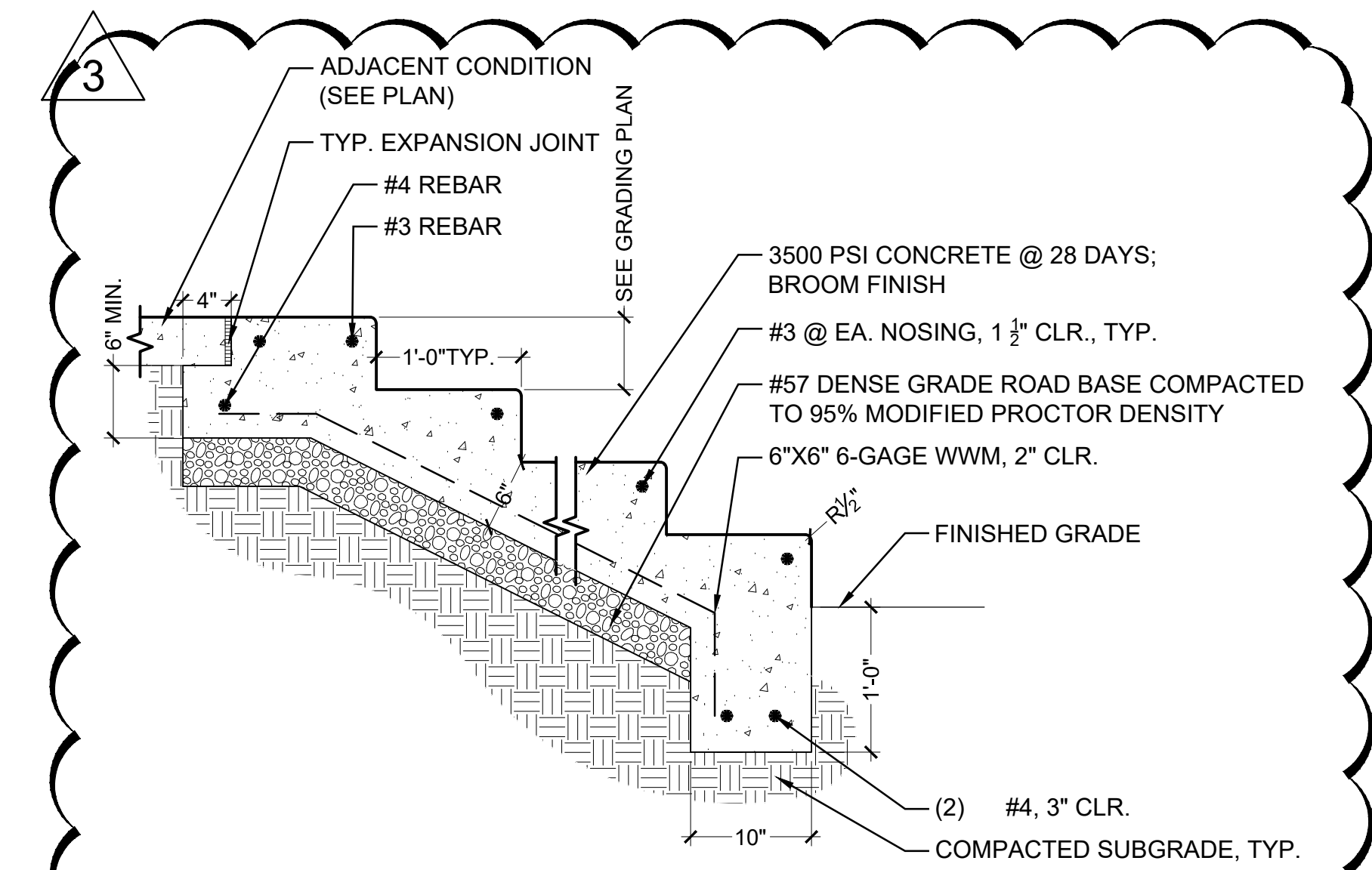
9 PAVER WITH CONCRETE BASE SECTION
1" = 1'-0"



10 COLORED PIP RUBBER BAND
1" = 1'-0"

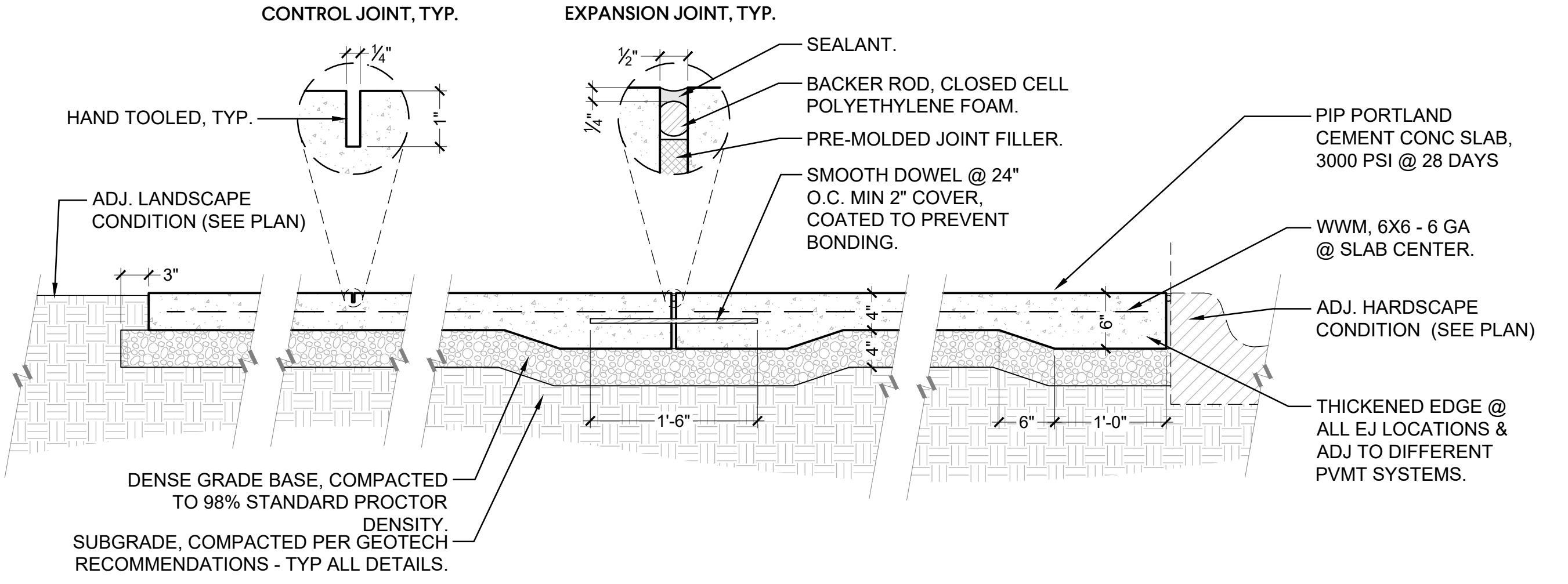


11 CONCRETE SEAT WALL
1" = 1'-0"



12 TYP. CONCRETE STAIR DETAIL
1" = 1'-0"

- DECORATIVE CONCRETE PAVING NOTES:**
1. CONCRETE SHALL HAVE INTEGRAL COLOR: OCHRE.
 2. BROOM FINISH ALL CONCRETE PERPENDICULAR TO TRAFFIC FLOW UNLESS OTHERWISE NOTED.
 3. SEAL ALL BROOM FINISHED CONCRETE W/ SILANE OR SILOXANE BASED SEALER.
 4. SEAL ANY EXPOSED AGGREGATE SURFACES W/ LM SCOFIELD REPELLO AS BASIS OF DESIGN.
 5. EXPANSION JOINTS (EJ) TO OCCUR ADJACENT TO ALL COLD POURS, VERTICAL SURFACES, AND AS SHOWN ON PLANS.
 6. SPACE EJ MAX. 30 FT O.C. UNLESS SHOWN OTHERWISE ON PLANS.
 7. CONTROL JOINTS (CJ) TO OCCUR IN ALL CONCRETE SLABS AND BANDS AS SHOWN ON PLANS. WHERE NOT SHOWN ON PLANS, SPACE JOINTS EQUAL TO SLAB WIDTH - 12 FT MAX.



13 CONCRETE PAVEMENT, 4 INCH - PEDESTRIAN
1" = 1'-0"

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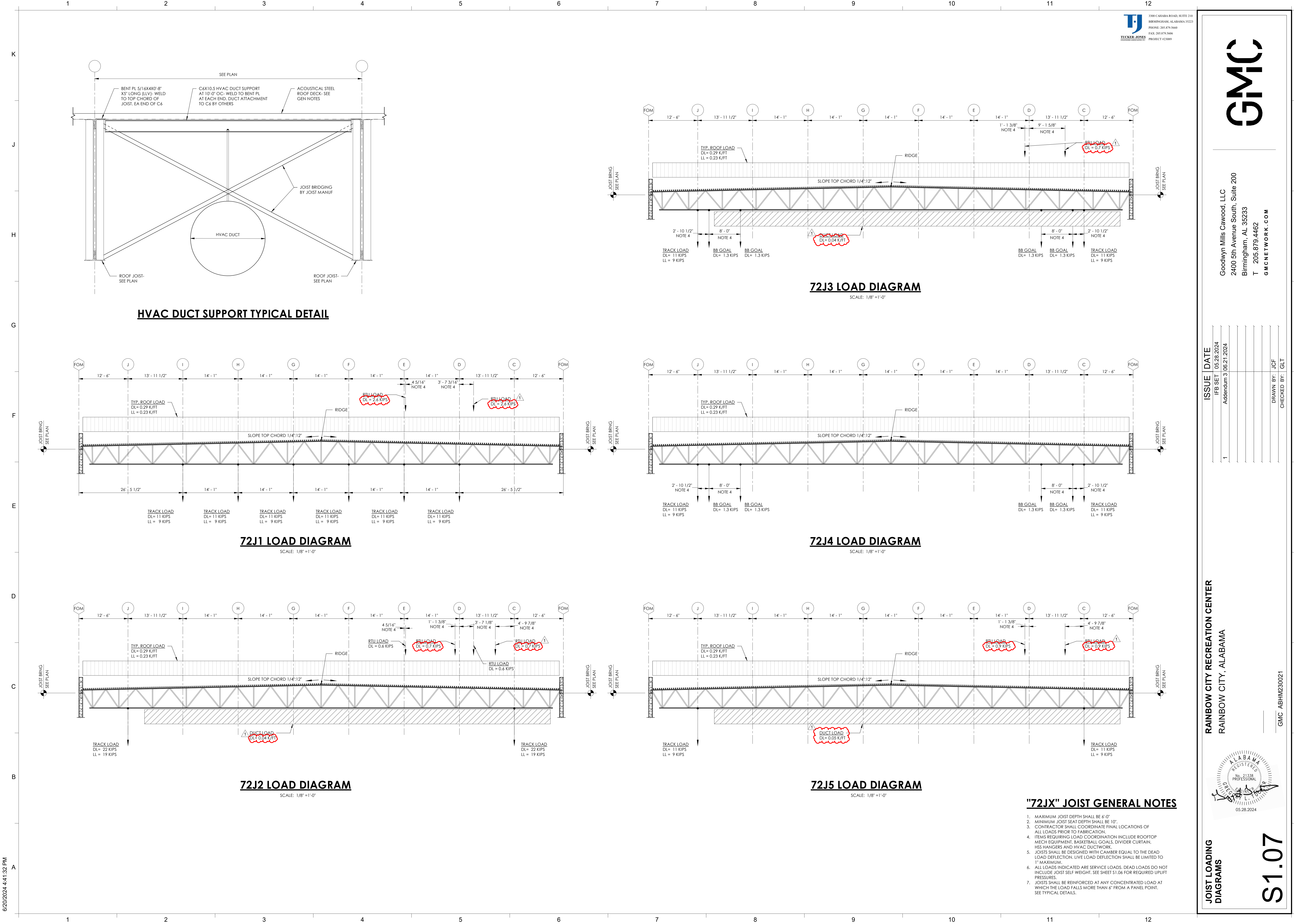
ISSUE	DATE
1	05/28/2024
IFB SET	
Addendum 3 06/21/2024	

RAINBOW CITY RECREATION CENTER
 RAINBOW CITY, ALABAMA

JOIST LOADING
 DIAGRAMS

S1.07

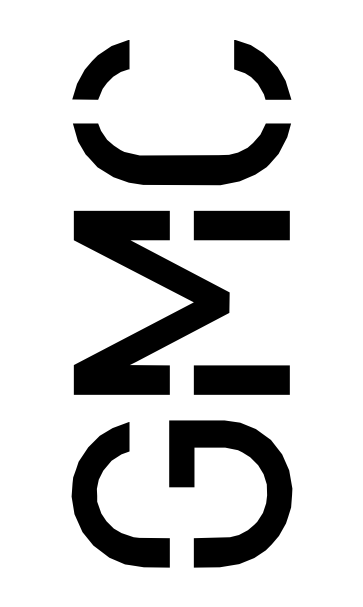
GMC ABHM230021



6/20/2024 4:41:32 PM

"72JX" JOIST GENERAL NOTES

- MAXIMUM JOIST DEPTH SHALL BE 6'-0"
- MINIMUM JOIST SEAT DEPTH SHALL BE 10"
- CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF ALL LOADS PRIOR TO FABRICATION.
- ITEMS REQUIRING LOAD COORDINATION INCLUDE ROOFTOP MECH EQUIPMENT, BASKETBALL GOALS, DIVIDER CURTAIN, HSS HANGERS AND HVAC DUCTWORK.
- JOISTS SHALL BE DESIGNED WITH CAMBER EQUAL TO THE DEAD LOAD DEFLECTION. LIVE LOAD DEFLECTION SHALL BE LIMITED TO 1" MAXIMUM.
- ALL LOADS INDICATED ARE SERVICE LOADS. DEAD LOADS DO NOT INCLUDE JOIST SELF WEIGHT. SEE SHEET S1.06 FOR REQUIRED UPLIFT PRESSURES.
- JOISTS SHALL BE REINFORCED AT ANY CONCENTRATED LOAD AT WHICH THE LOAD FALLS MORE THAN 6" FROM A PANEL POINT. SEE TYPICAL DETAILS.



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 2400 5th Avenue South, Suite 200
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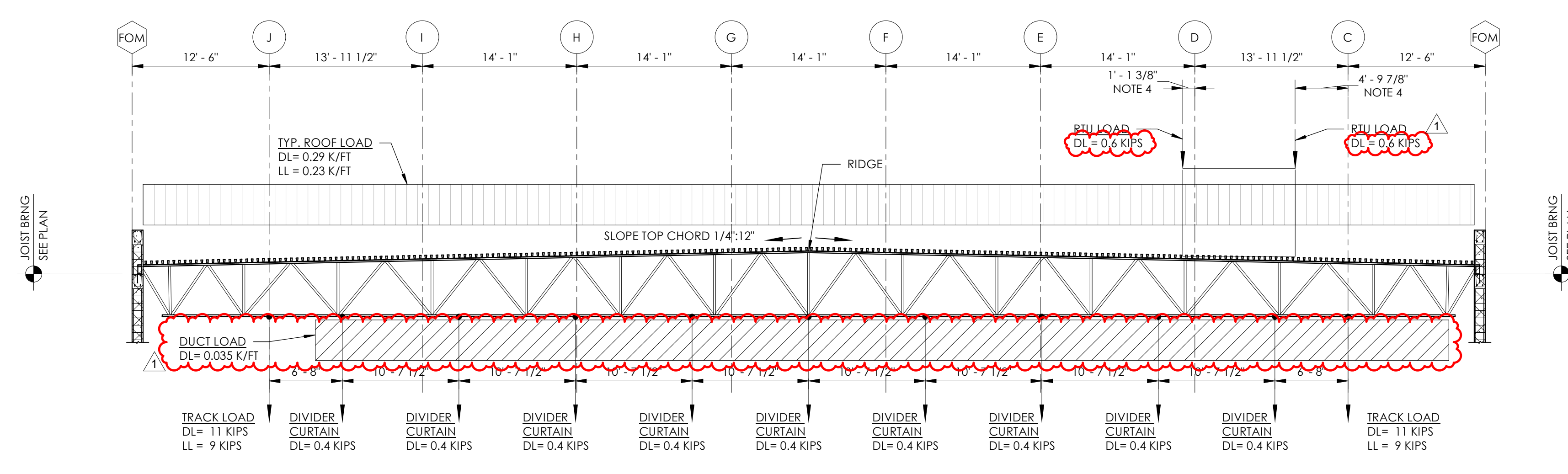
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Addendum 3 06/21/2024	

RAINBOW CITY RECREATION CENTER
 RAINBOW CITY, ALABAMA

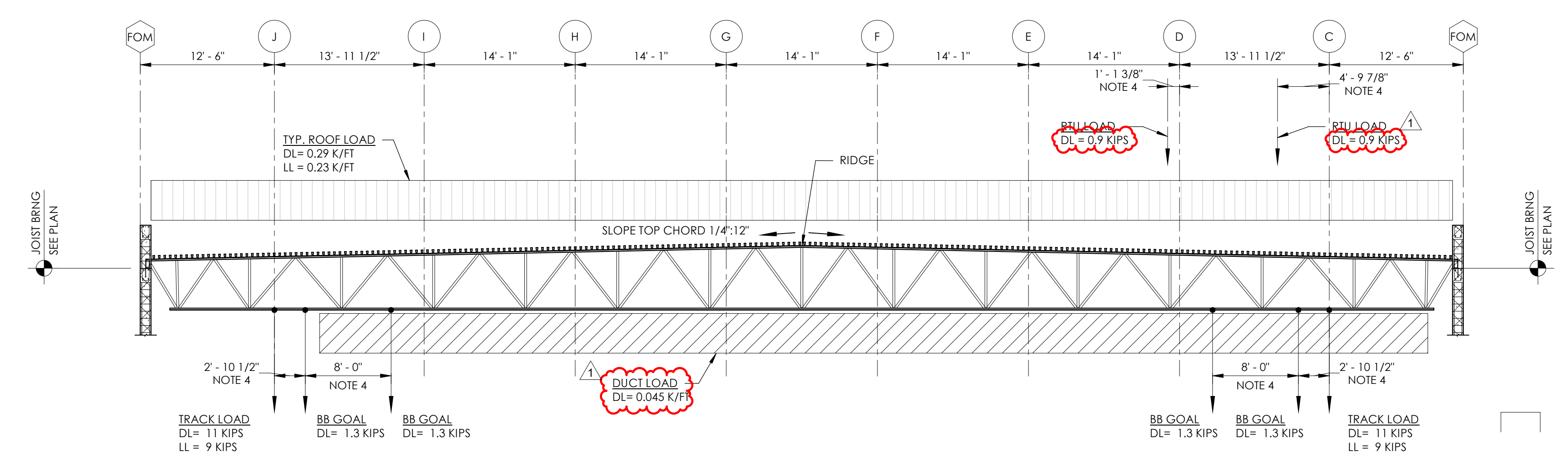


JOIST LOADING
 DIAGRAMS

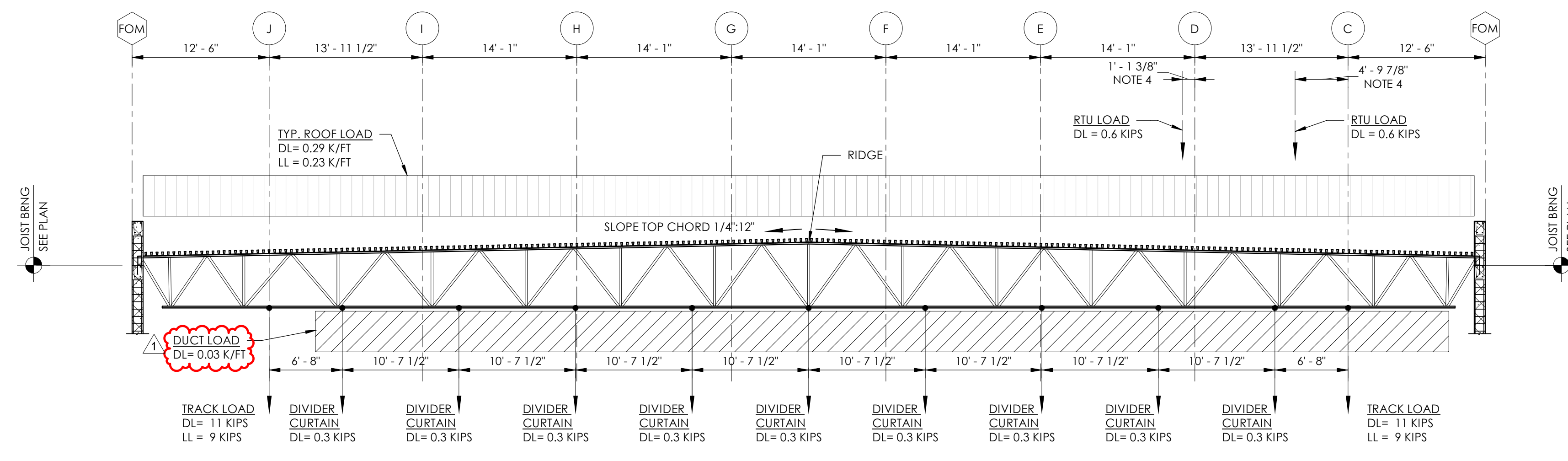
S1.08



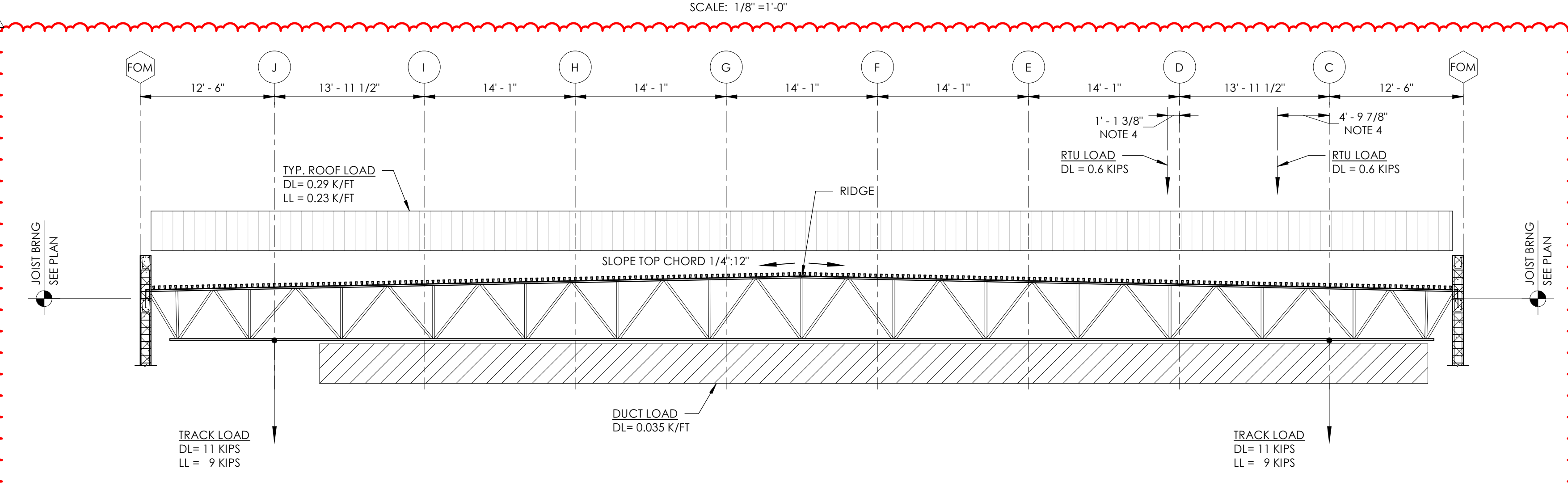
72J6 LOAD DIAGRAM
 SCALE: 1/8"=1'-0"



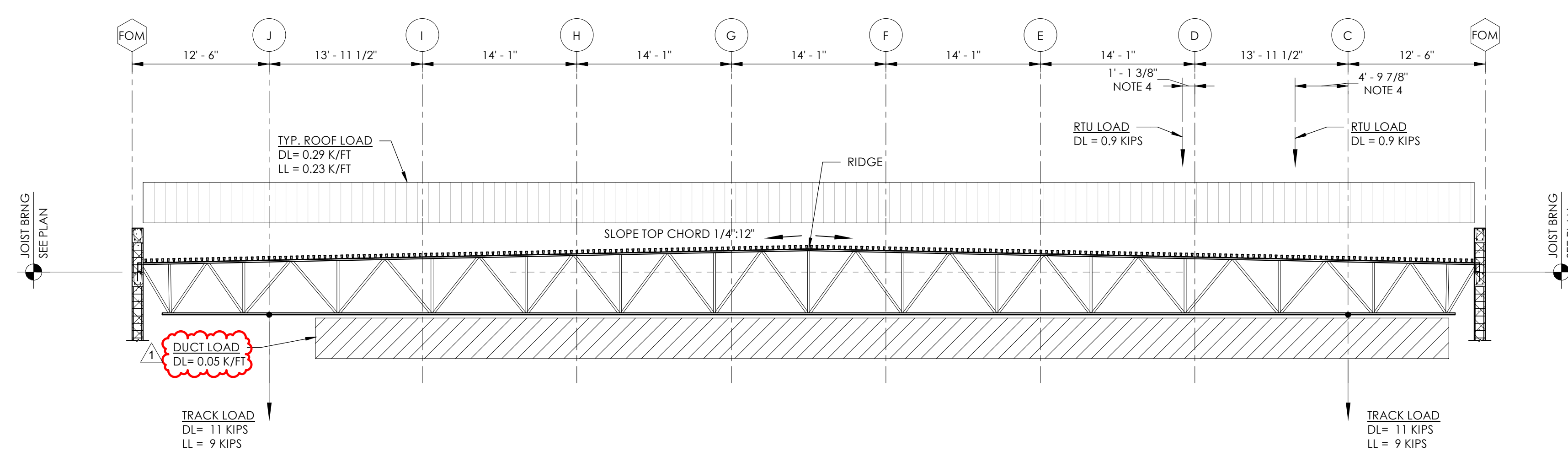
72J10 LOAD DIAGRAM
 SCALE: 1/8"=1'-0"



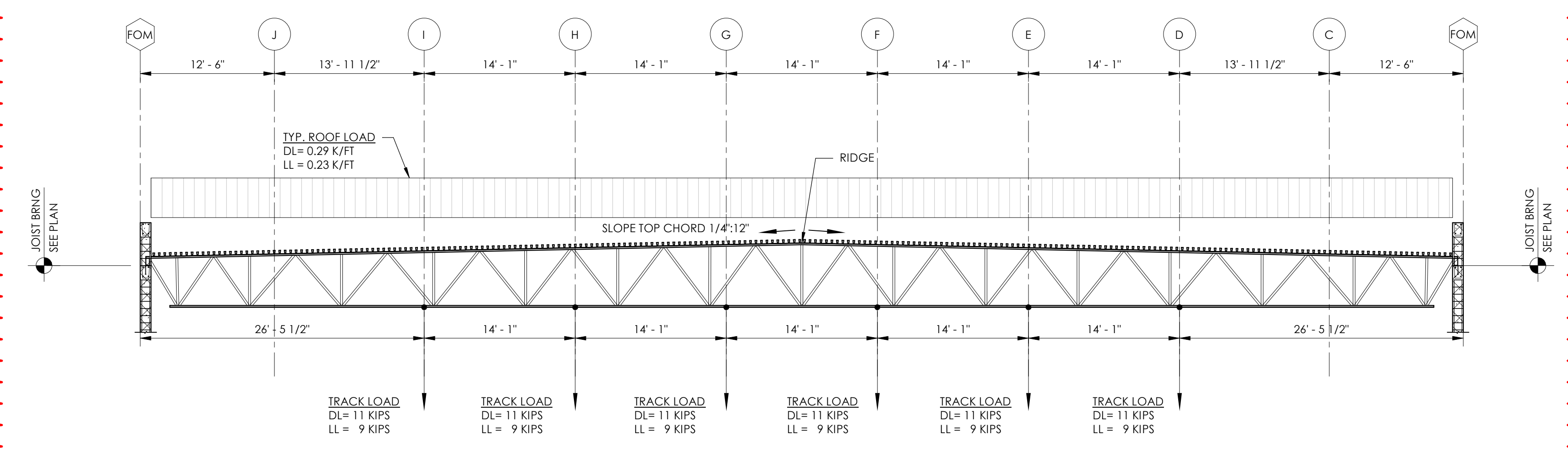
72J7 LOAD DIAGRAM
 SCALE: 1/8"=1'-0"



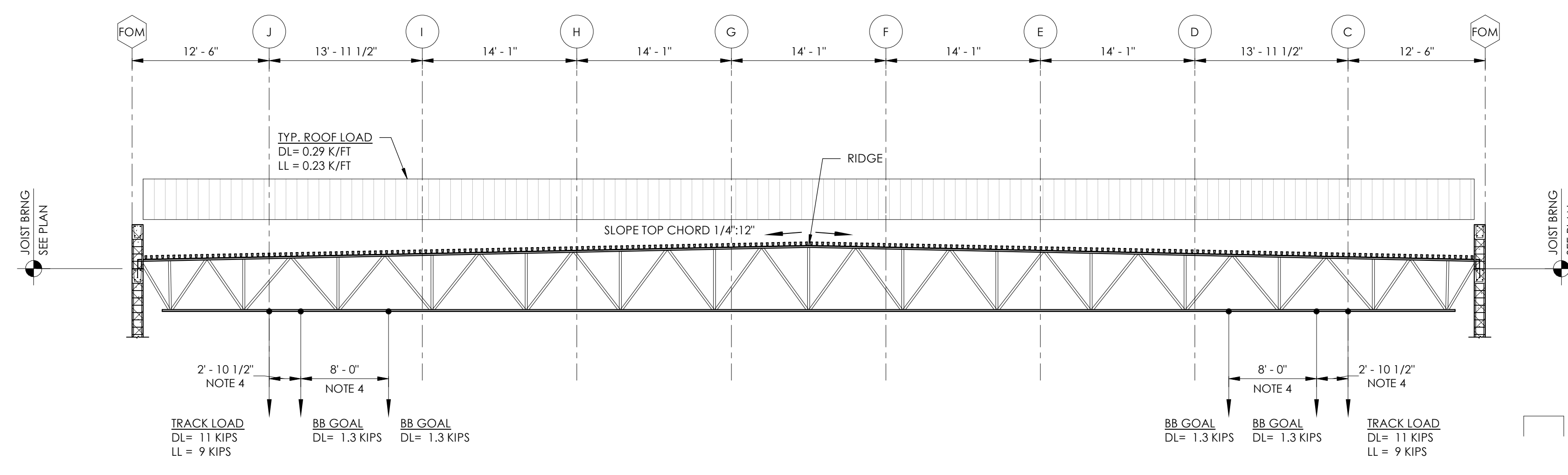
72J11 LOAD DIAGRAM
 SCALE: 1/8"=1'-0"



72J8 LOAD DIAGRAM
 SCALE: 1/8"=1'-0"



72J12 LOAD DIAGRAM
 SCALE: 1/8"=1'-0"



72J9 LOAD DIAGRAM
 SCALE: 1/8"=1'-0"

"72JX" JOIST GENERAL NOTES

1. MAXIMUM JOIST DEPTH SHALL BE 6'-0".
2. MINIMUM JOIST SEAT DEPTH SHALL BE 10".
3. CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF ALL LOADS PRIOR TO FABRICATION.
4. ITEMS REQUIRING LOAD COORDINATION INCLUDE ROOFTOP MECH EQUIPMENT, BASKETBALL GOALS, DIVIDER CURTAIN, HSS HANGERS AND HVAC DUCTWORK.
5. JOISTS SHALL BE DESIGNED WITH CAMBER EQUAL TO THE DEAD LOAD DEFLECTION. LIVE LOAD DEFLECTION SHALL BE LIMITED TO 1" MAXIMUM.
6. ALL LOADS INDICATED ARE SERVICE LOADS. DEAD LOADS DO NOT INCLUDE JOIST SELF WEIGHT. SEE SHEET S1.06 FOR REQUIRED UPLIFT PRESSURES.
7. JOISTS SHALL BE REINFORCED AT ANY CONCENTRATED LOAD AT WHICH THE LOAD FALLS MORE THAN 6" FROM A PANEL POINT. SEE TYPICAL DETAILS.

ISSUE	DATE
1	05.28.2024
2	06.21.2024

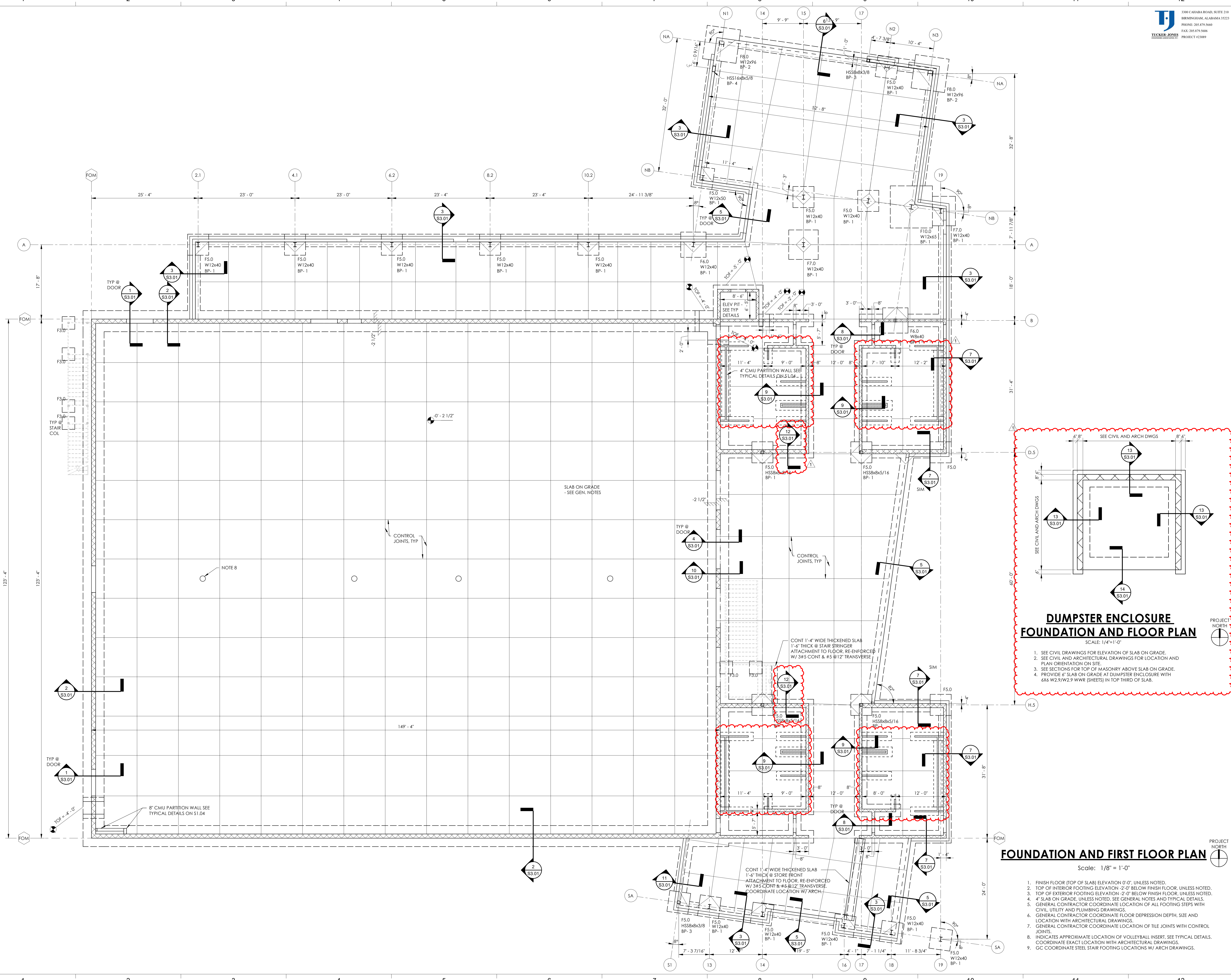
IFB SET
 Addendum 3

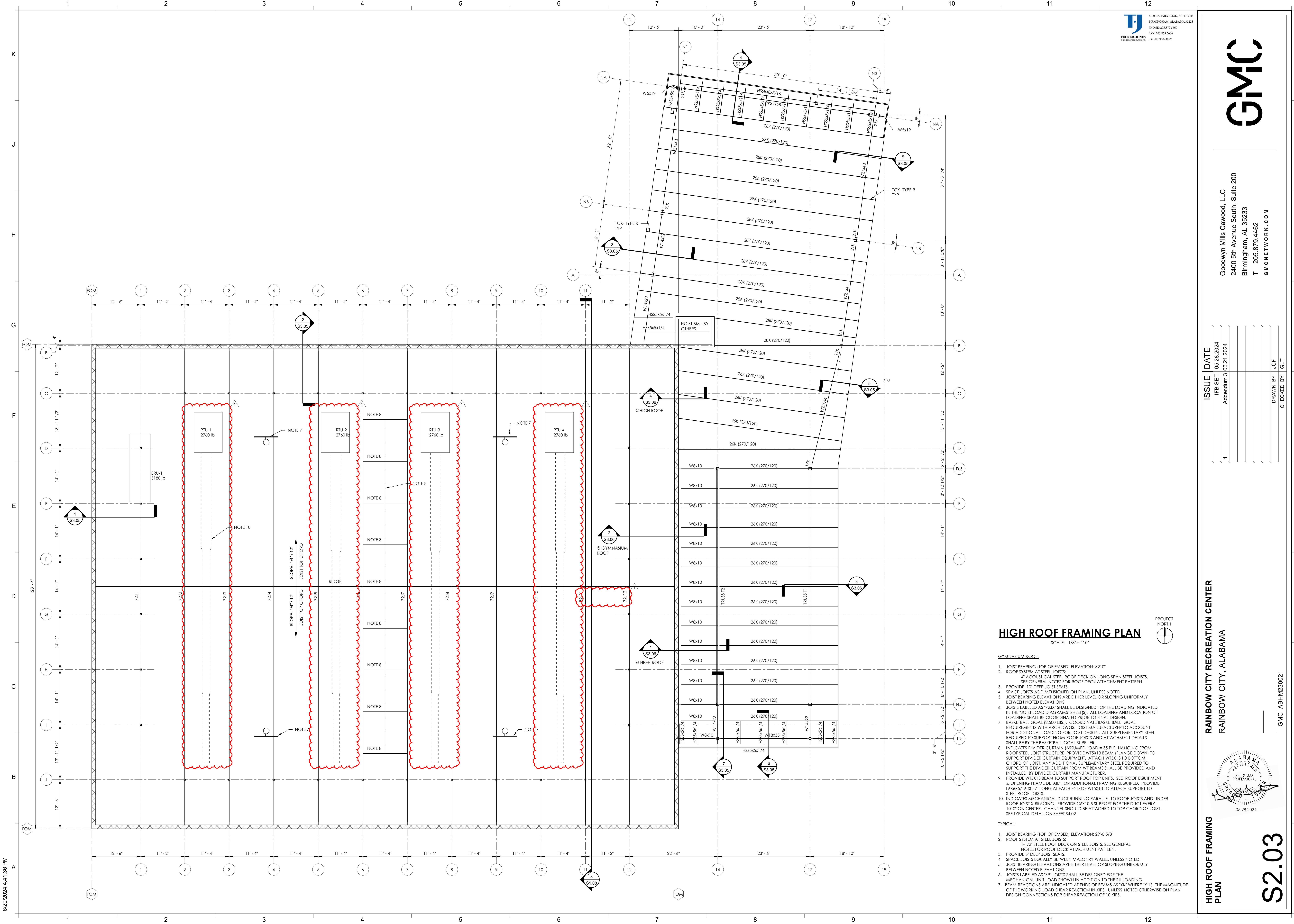
RAINBOW CITY RECREATION CENTER
 RAINBOW CITY, ALABAMA

FLOOR AND FOUNDATION PLAN

S2.01

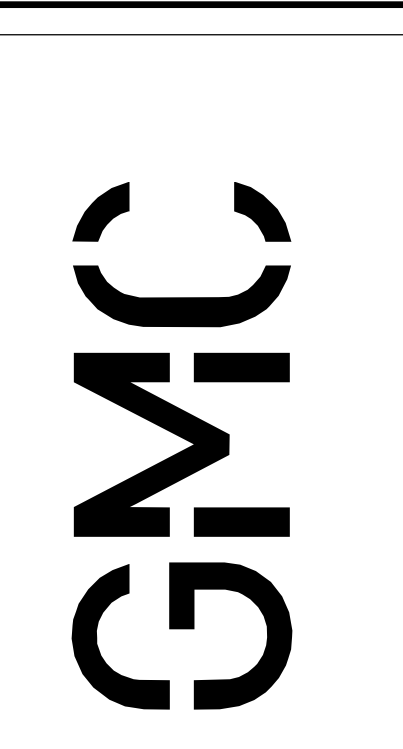
GMC ABHM230021





HIGH ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0"

- GYMNASIUM ROOF:**
1. JOIST BEARING (TOP OF EMBED) ELEVATION: 32'-0"
 2. ROOF SYSTEM AT STEEL JOISTS:
4" ACoustical STEEL ROOF DECK ON LONG SPAN STEEL JOISTS.
SEE GENERAL NOTES FOR ROOF DECK ATTACHMENT PATTERN.
 3. PROVIDE 10" DEEP JOIST SEATS.
 4. SPACE JOISTS AS DIMENSIONED ON PLAN, UNLESS NOTED.
 5. JOIST BEARING ELEVATIONS ARE EITHER LEVEL OR SLOPING UNIFORMLY BETWEEN NOTED ELEVATIONS.
 6. JOISTS LABELED AS "72JK" SHALL BE DESIGNED FOR THE LOADING INDICATED IN THE "JOIST LOAD DIAGRAMS" SHEETS. ALL LOADING AND LOCATION OF LOADINGS SHALL BE COORDINATED PRIOR TO FINAL DESIGN.
 7. BASKETBALL GOAL (2,500 LBS.). COORDINATE BASKETBALL GOAL REQUIREMENTS WITH ARCH DWGS. JOIST MANUFACTURER TO ACCOUNT FOR ADDITIONAL LOADING FOR JOIST DESIGN. ALL SUPPLEMENTARY STEEL REQUIRED TO SUPPORT FROM ROOF JOISTS AND ATTACHMENT DETAILS SHALL BE BY THE BASKETBALL GOAL SUPPLIER.
 8. INDICATES DIVIDER CURTAIN (ASSUMED LOAD = 35 PLF) HANGING FROM ROOF STEEL JOIST STRUCTURE. PROVIDE WTSX13 BEAM (FLANGE DOWN) TO SUPPORT DIVIDER CURTAIN EQUIPMENT. ATTACH WTSX13 TO BOTTOM CHORD OF JOIST. ANY ADDITIONAL SUPPLEMENTARY STEEL REQUIRED TO SUPPORT THE DIVIDER CURTAIN FROM W1 BEAMS SHALL BE PROVIDED AND INSTALLED BY DIVIDER CURTAIN MANUFACTURER.
 9. PROVIDE WTSX13 BEAM TO SUPPORT ROOF TOP UNITS. SEE "ROOF EQUIPMENT & OPENING FRAME DETAIL" FOR ADDITIONAL FRAMING REQUIRED. PROVIDE L6x6x5/16 X0'-7" LONG AT EACH END OF WTSX13 TO ATTACH SUPPORT TO STEEL ROOF JOISTS.
 10. INDICATES MECHANICAL DUCT RUNNING PARALLEL TO ROOF JOISTS AND UNDER ROOF JOIST X-BRACING. PROVIDE C6x10.5 SUPPORT FOR THE DUCT EVERY 10'-0" ON CENTER. CHANNEL SHOULD BE ATTACHED TO TOP CHORD OF JOIST. SEE TYPICAL DETAIL ON SHEET S4.02
- TYPICAL:**
1. JOIST BEARING (TOP OF EMBED) ELEVATION: 29'-0 5/8"
 2. ROOF SYSTEM AT STEEL JOISTS:
1-1/2" STEEL ROOF DECK ON STEEL JOISTS. SEE GENERAL NOTES FOR ROOF DECK ATTACHMENT PATTERN.
 3. PROVIDE 5" DEEP JOIST SEATS.
 4. SPACE JOISTS EQUALLY BETWEEN MASONRY WALLS, UNLESS NOTED.
 5. JOIST BEARING ELEVATIONS ARE EITHER LEVEL OR SLOPING UNIFORMLY BETWEEN NOTED ELEVATIONS.
 6. JOISTS LABELED AS "SP" JOISTS SHALL BE DESIGNED FOR THE MECHANICAL UNIT LOAD SHOWN IN ADDITION TO THE SJI LOADING.
 7. BEAM REACTIONS ARE INDICATED AT ENDS OF BEAMS AS "X" WHERE "X" IS THE MAGNITUDE OF THE WORKING LOAD SHEAR REACTION IN KIPS. UNLESS NOTED OTHERWISE ON PLAN DESIGN CONNECTIONS FOR SHEAR REACTION OF 10 KIPS.



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RAINBOW CITY, ALABAMA



HIGH ROOF FRAMING PLAN
S2.03

GMC ABHM230021

6/20/2024 4:41:36 PM

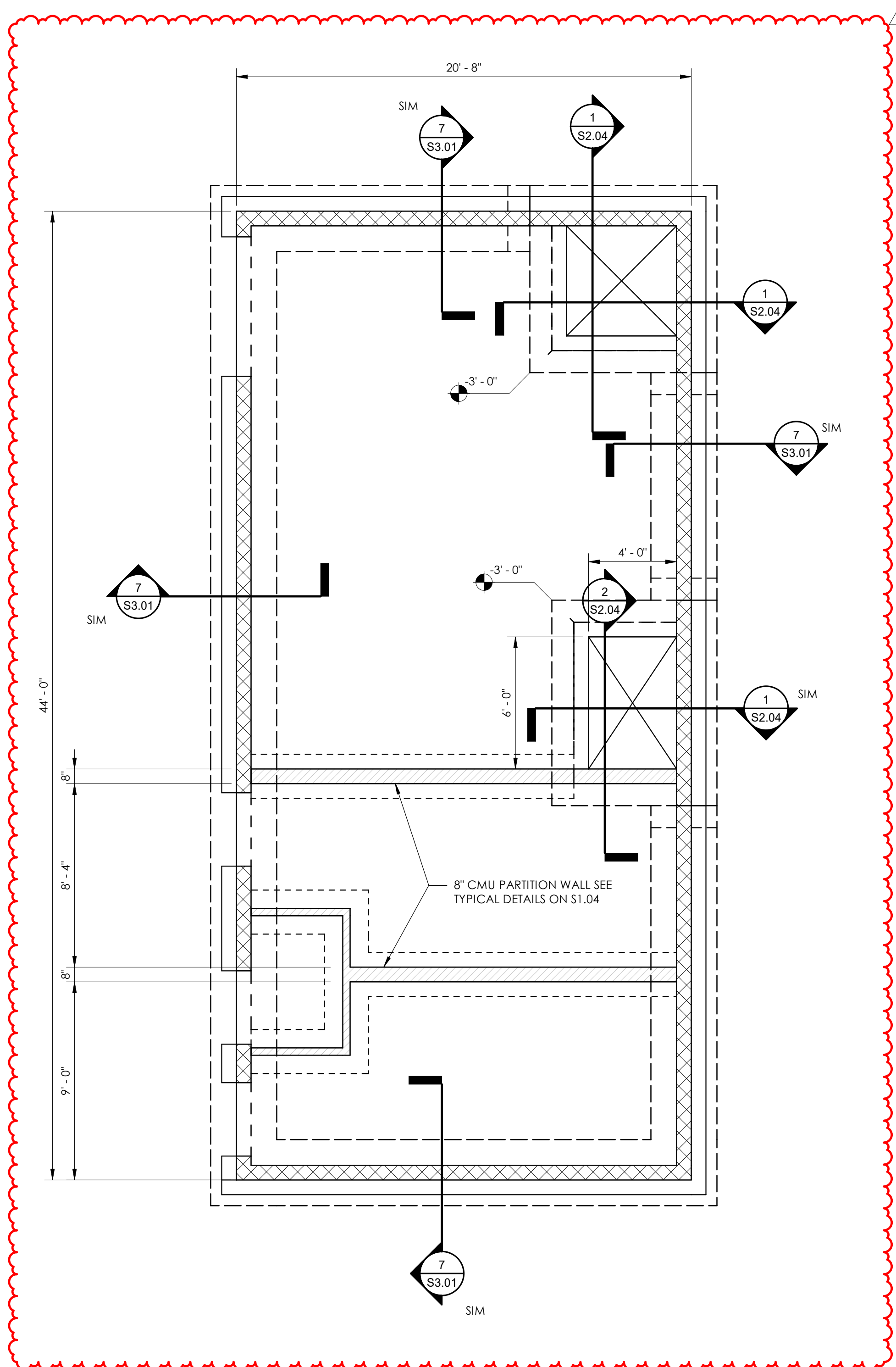
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DRAWN BY: JCF
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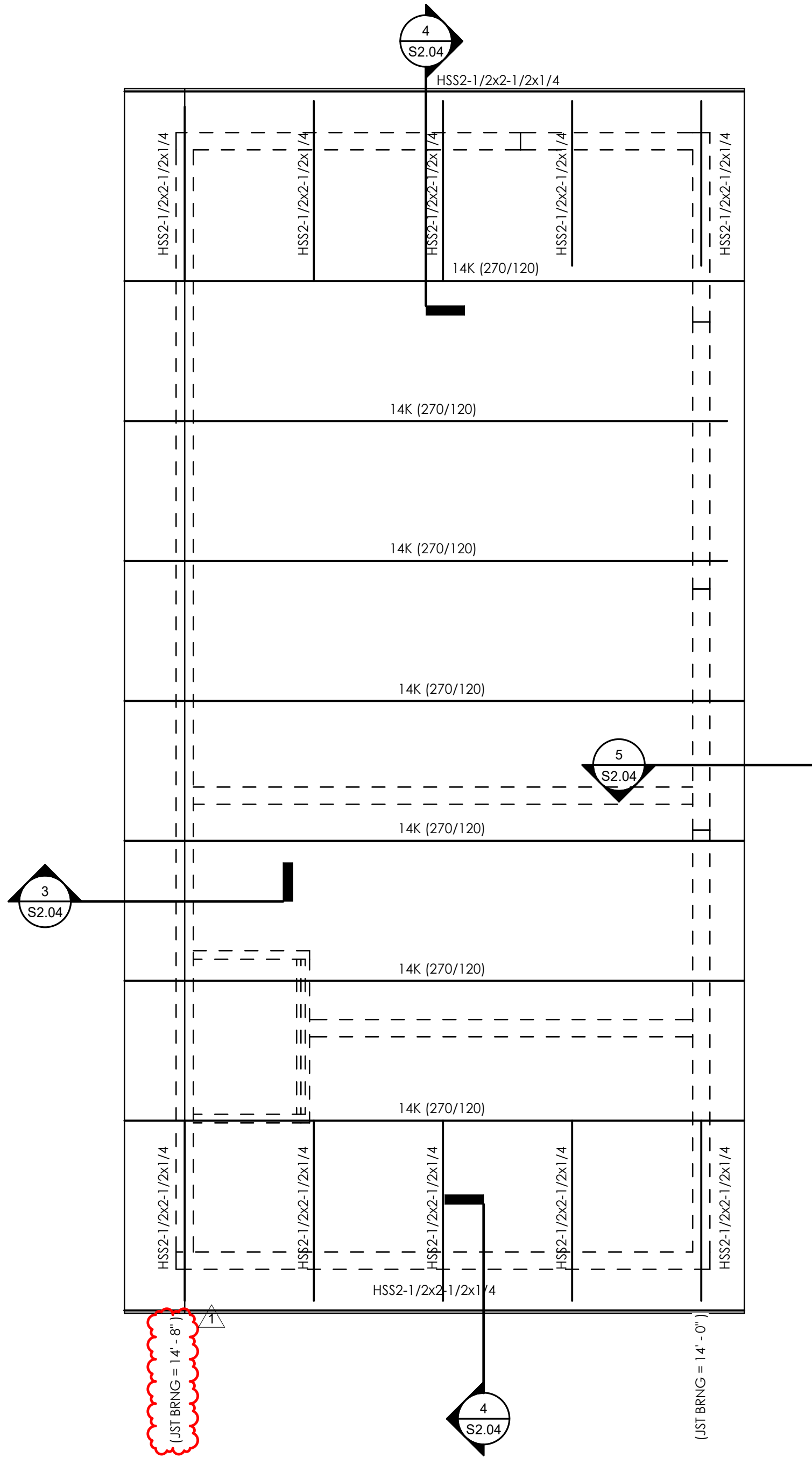
S2.04



POOL BUILDING FOUNDATION AND FLOOR PLAN

Scale: 1/4" = 1'-0"

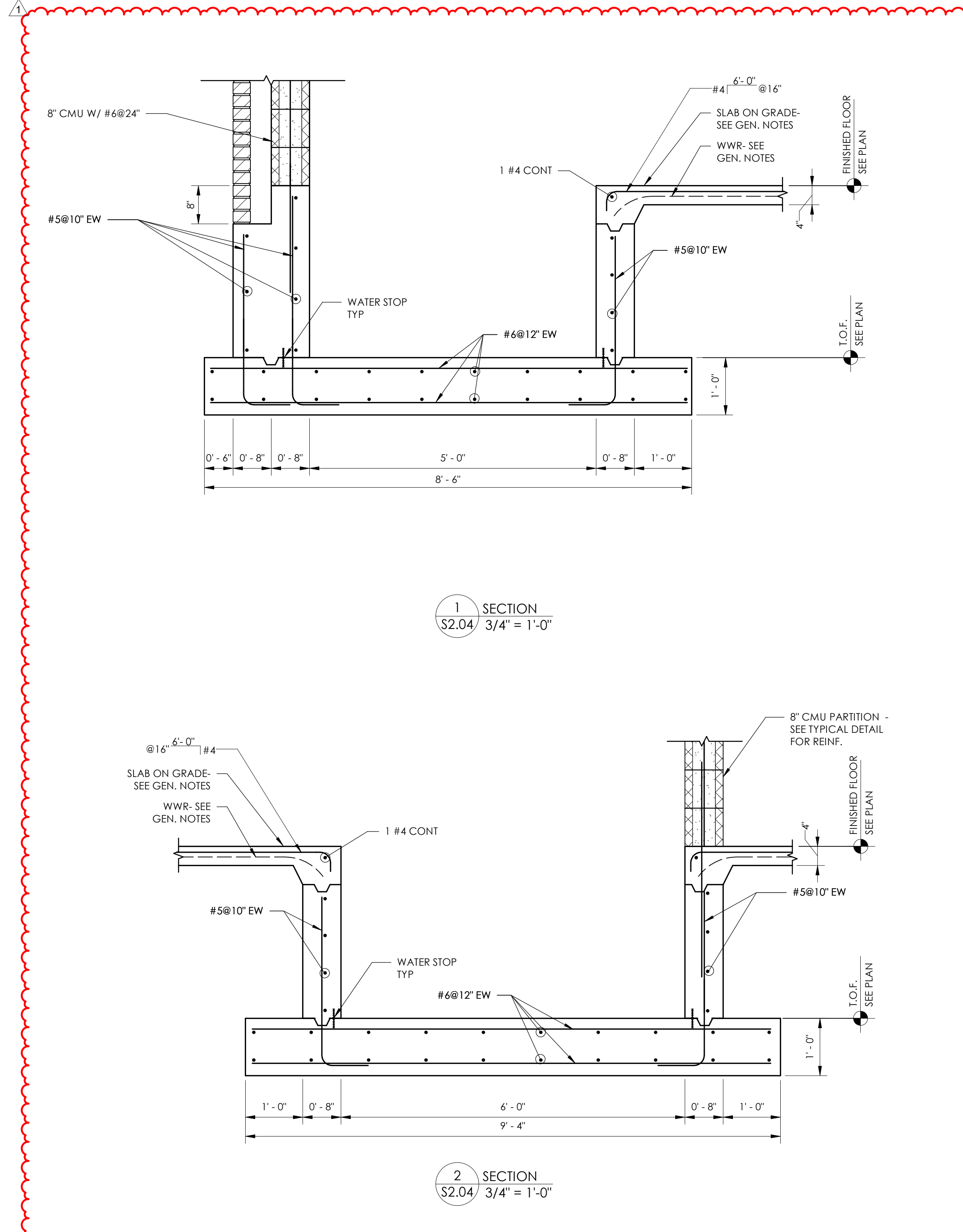
1. FINISH FLOOR (TOP OF SLAB) ELEVATION 0'-0". UNLESS NOTED.
2. TOP OF INTERIOR FOOTING ELEVATION -2'-0" BELOW FINISH FLOOR, UNLESS NOTED.
3. TOP OF EXTERIOR FOOTING ELEVATION -2'-0" BELOW FINISH FLOOR, UNLESS NOTED.
4. 4" SLAB ON GRADE, UNLESS NOTED. SEE GENERAL NOTES AND TYPICAL DETAILS.
5. GENERAL CONTRACTOR COORDINATE LOCATION OF ALL FOOTING STEPS WITH CIVIL, UTILITY AND PLUMBING DRAWINGS.
6. GENERAL CONTRACTOR COORDINATE FLOOR DEPRESSION DEPTH, SIZE AND LOCATION WITH ARCHITECTURAL DRAWINGS.
7. GENERAL CONTRACTOR COORDINATE LOCATION OF FILE JOINTS WITH CONTROL JOINTS.



POOL BUILDING ROOF FRAMING PLAN

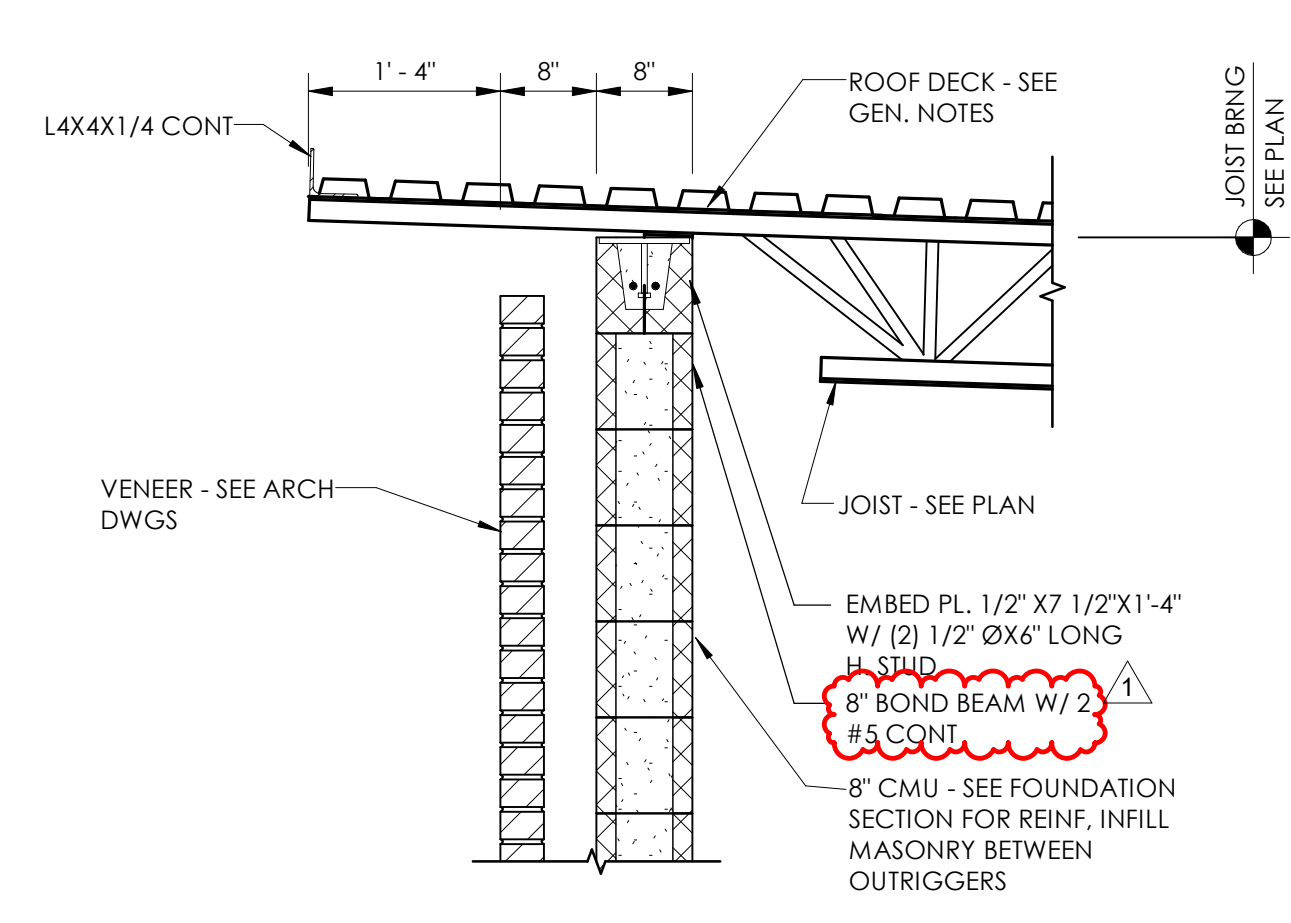
Scale: 1/4" = 1'-0"

1. SEE PLAN FOR JOIST BEARING (TOP OF EMBED) ELEVATION
2. ROOF SYSTEM AT STEEL JOISTS:
1-1/2" STEEL ROOF DECK ON STEEL JOISTS, SEE GENERAL NOTES FOR ROOF DECK ATTACHMENT PATTERN.
3. PROVIDE 2 1/2" DEEP JOIST SEATS.
4. SPACE JOISTS EQUALLY BETWEEN MASONRY WALLS, UNLESS NOTED.
5. JOIST BEARING ELEVATIONS ARE EITHER LEVEL OR SLOPING UNIFORMLY BETWEEN NOTED ELEVATIONS.

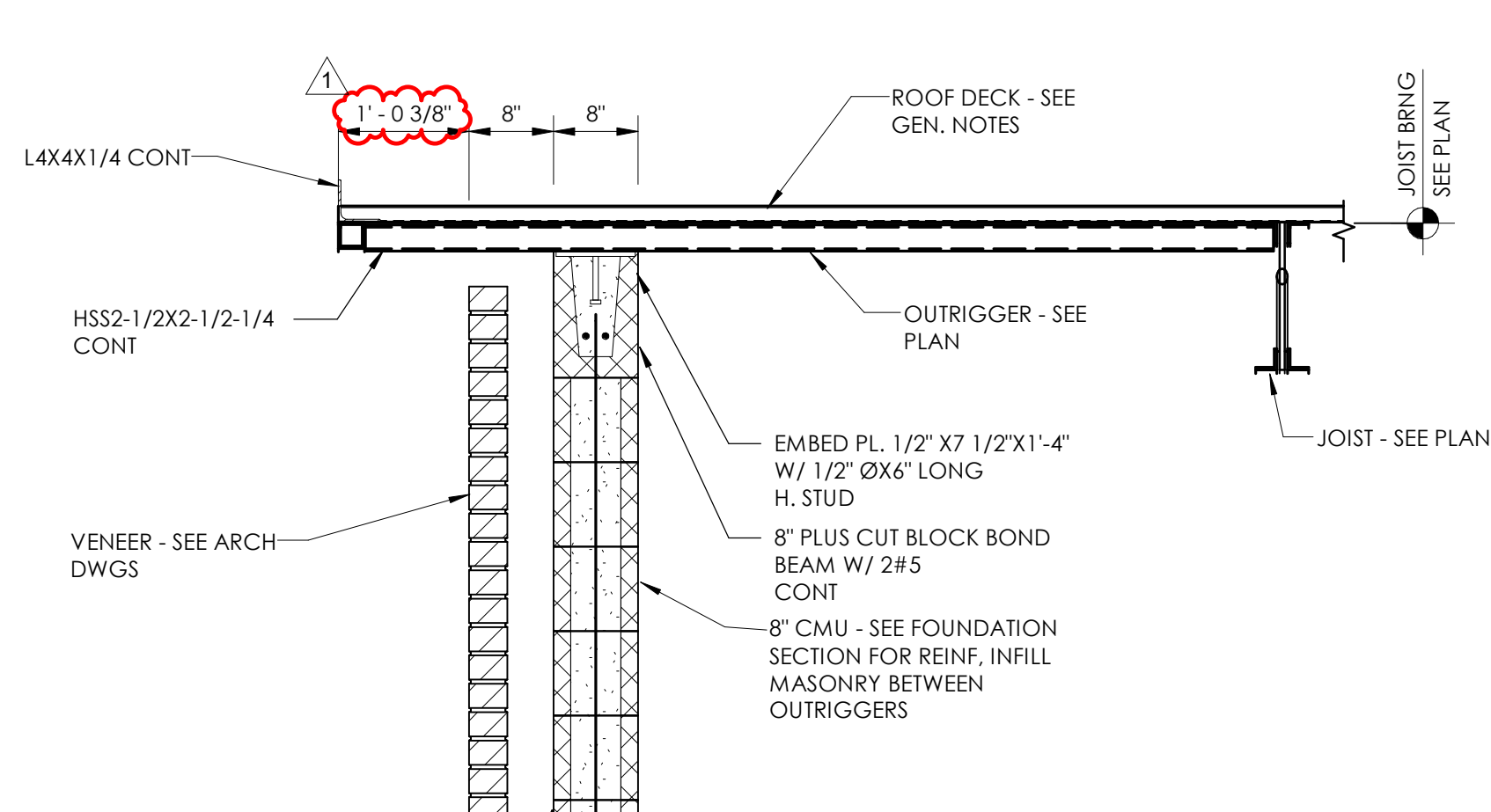


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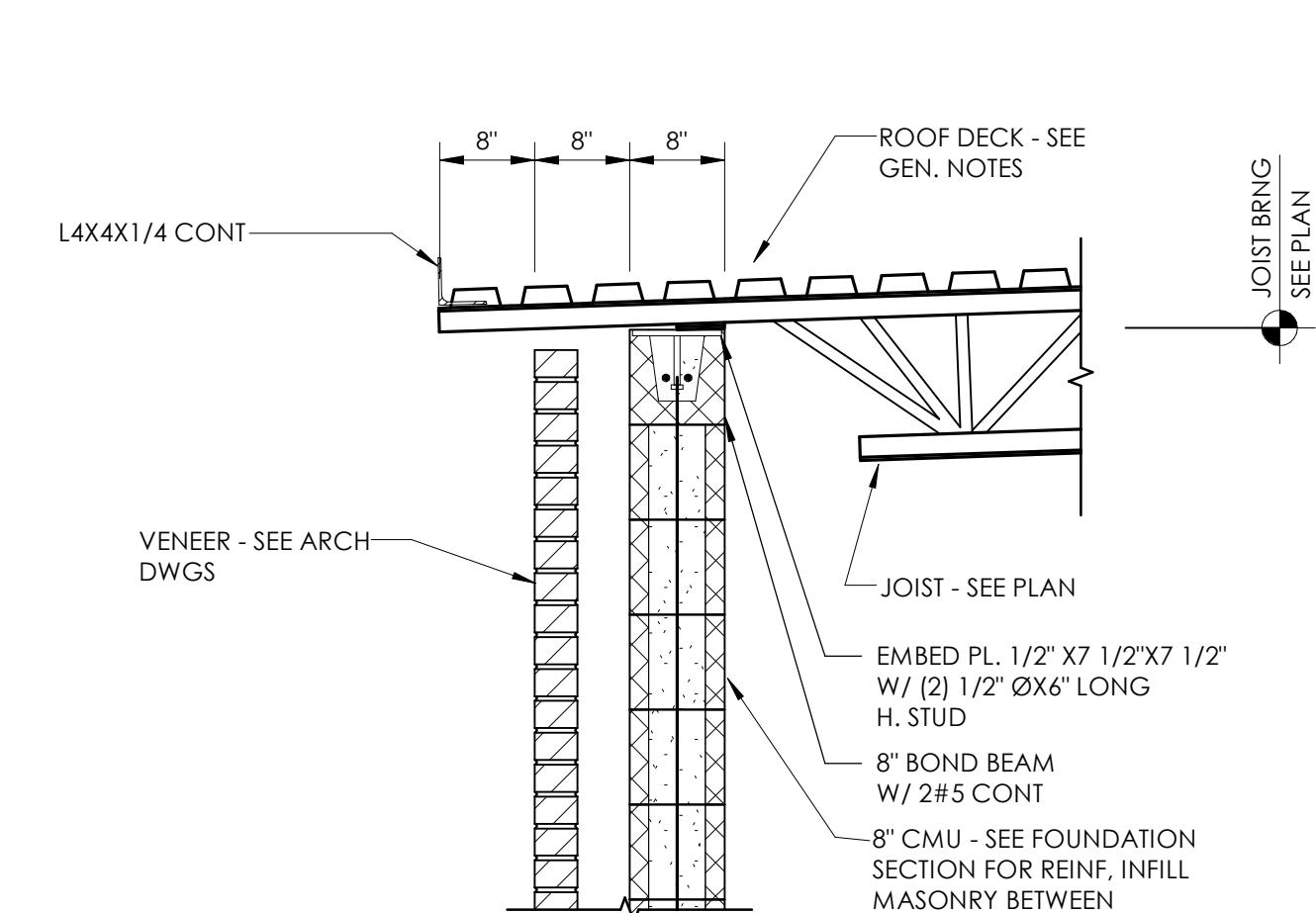
2 SECTION
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3 SECTION
 S2.04 3/4" = 1'-0"



4 SECTION
 S2.04 3/4" = 1'-0"



5 SECTION
 S2.04 3/4" = 1'-0"

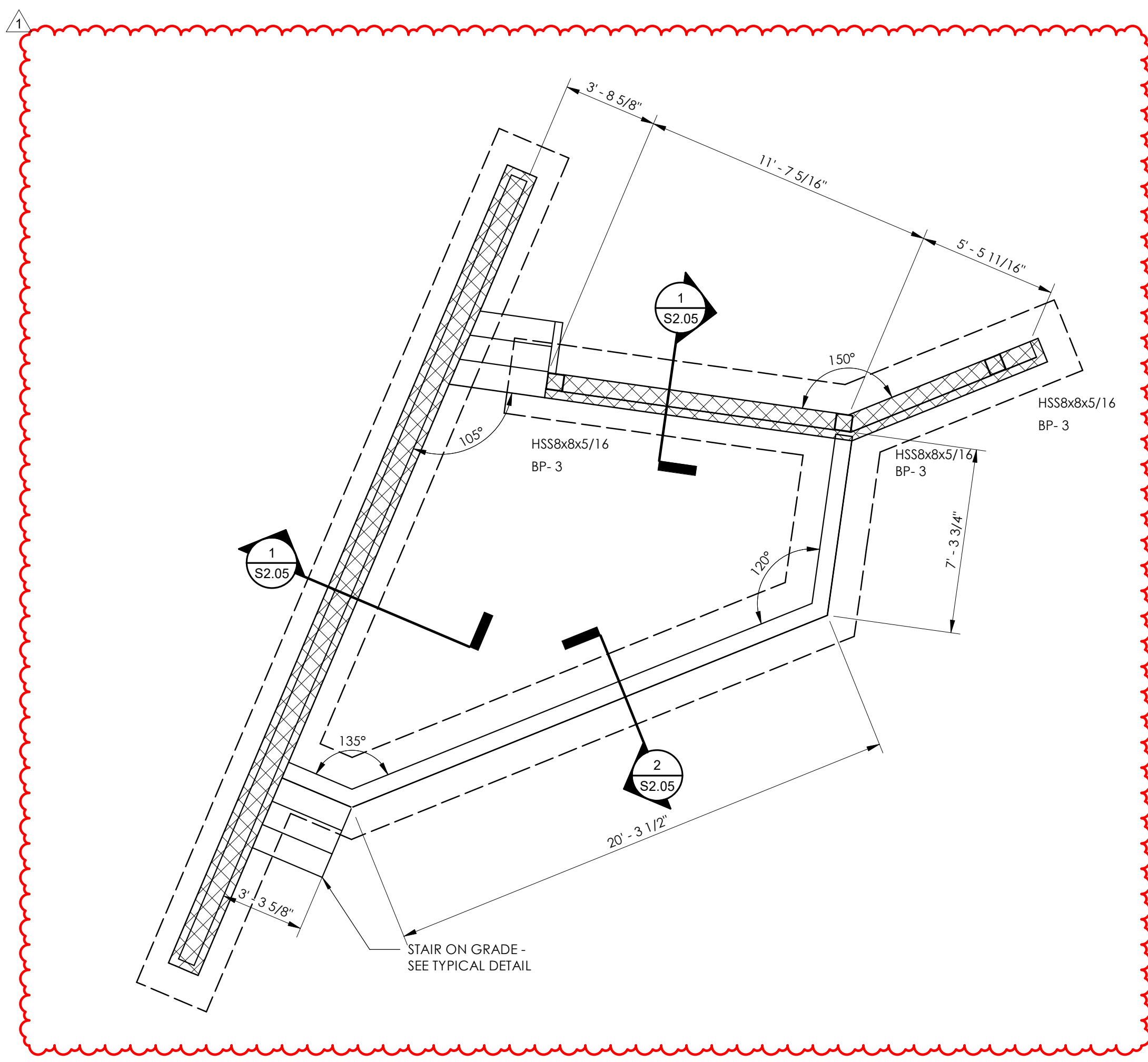
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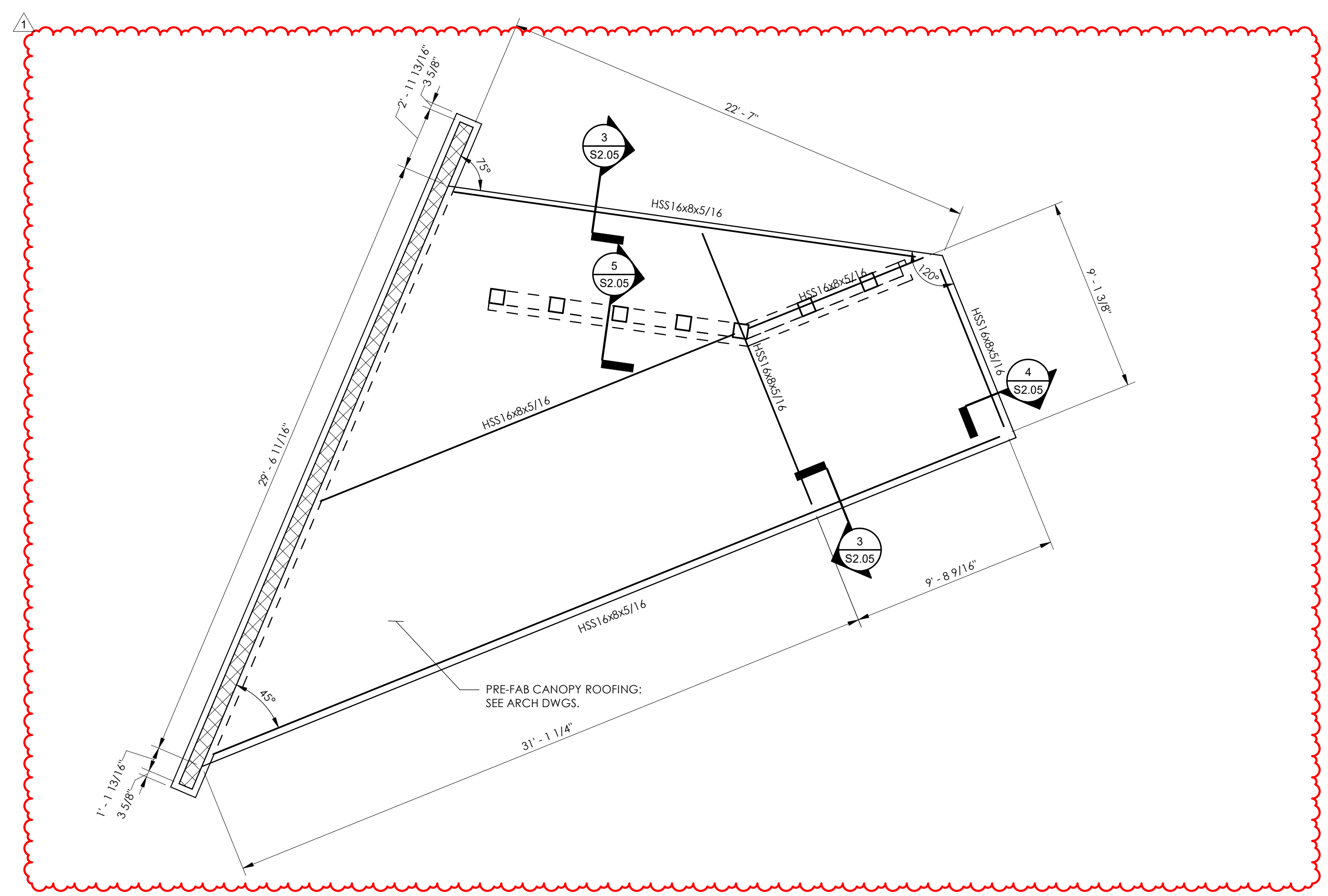
AMPHITHEATRE PLANS

S2.05



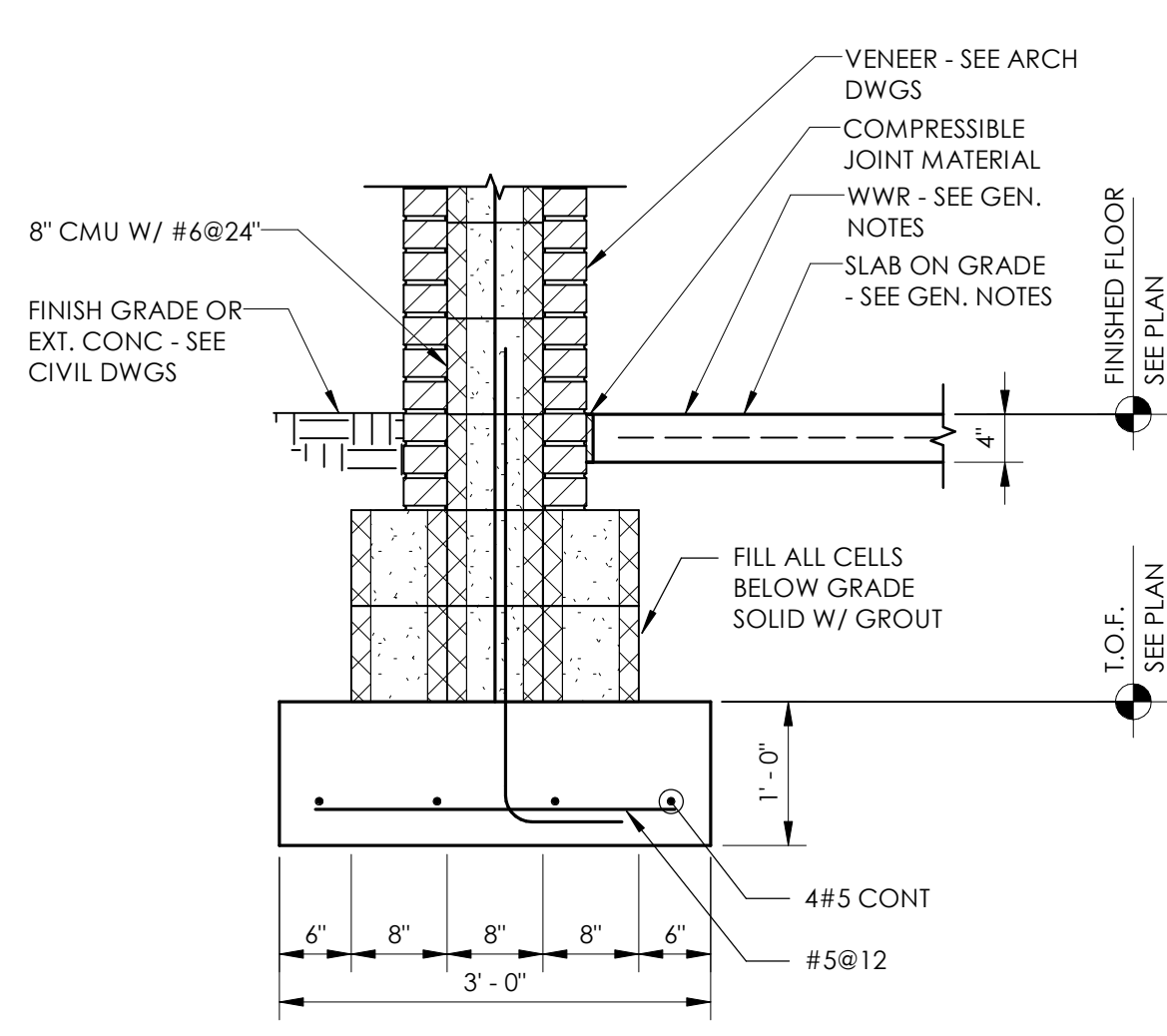
AMPHITHEATRE FOUNDATION PLAN
 Scale: 1/4" = 1'-0"

1. FINISH FLOOR (TOP OF SLAB) ELEVATION 0'-0", UNLESS NOTED.
2. TOP OF INTERIOR FOOTING ELEVATION -2'-0" BELOW FINISH FLOOR, UNLESS NOTED.
3. TOP OF EXTERIOR FOOTING ELEVATION -2'-0" BELOW FINISH FLOOR, UNLESS NOTED.
4. 4" SLAB ON GRADE, UNLESS NOTED, SEE GENERAL NOTES AND TYPICAL DETAILS.
5. GENERAL CONTRACTOR COORDINATE LOCATION OF ALL FOOTING STEPS WITH CIVIL, UTILITY AND PLUMBING DRAWINGS.
6. GENERAL CONTRACTOR COORDINATE FLOOR DEPRESSION DEPTH, SIZE AND LOCATION WITH ARCHITECTURAL DRAWINGS.
7. GENERAL CONTRACTOR COORDINATE LOCATION OF TILE JOINTS WITH CONTROL JOINTS.

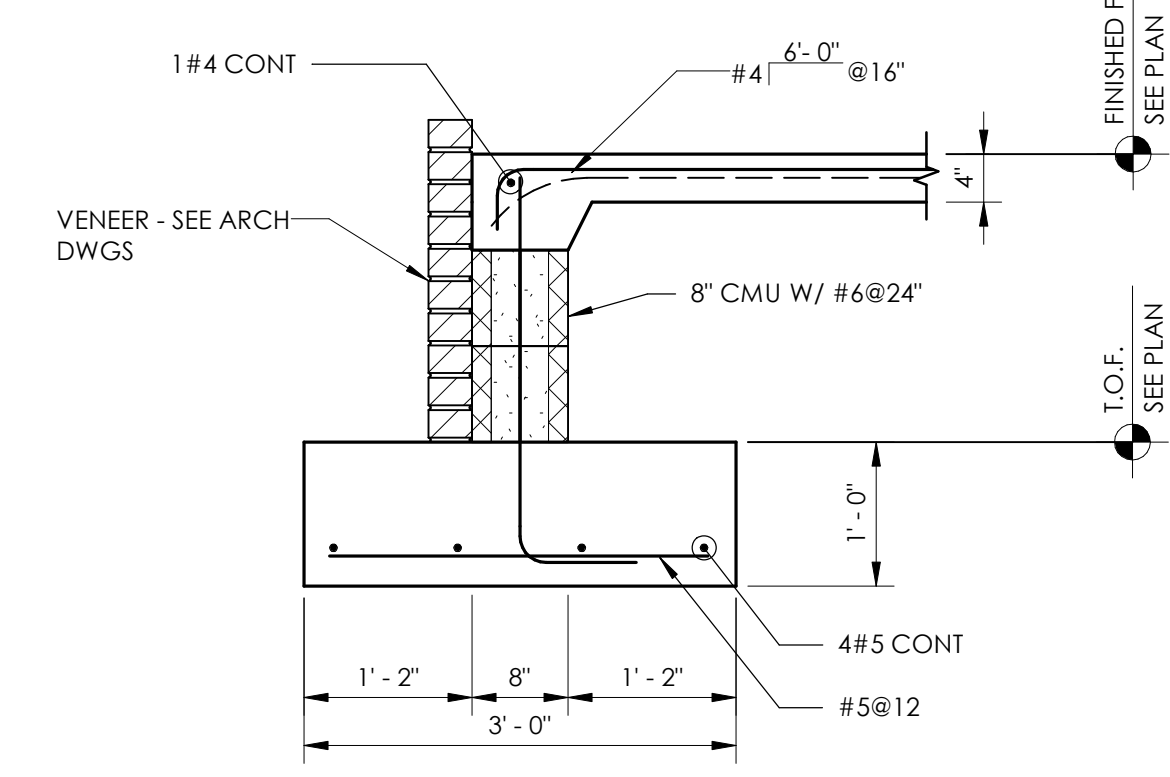


AMPHITHEATRE ROOF
 Scale: 1/4" = 1'-0"

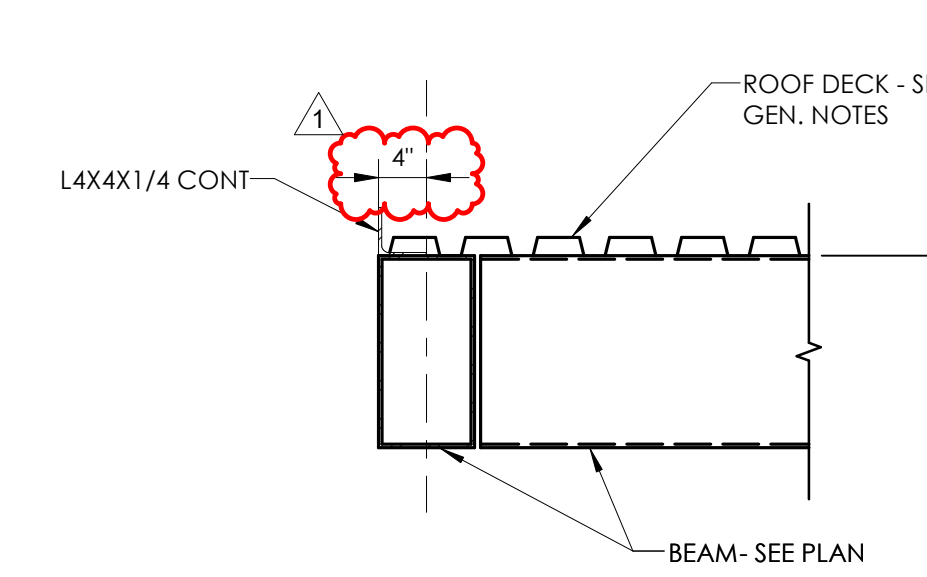
1. TOP OF STEEL ELEVATION: (11'-4")
2. ROOF SYSTEM AT BEAMS:
 1-1/2" STEEL ROOF DECK ON STEEL BEAMS, SEE GENERAL NOTES FOR ROOF DECK ATTACHMENT PATTERN.
3. BEAM REACTIONS ARE INDICATED AT ENDS OF BEAMS AS "X"; WHERE "X" IS THE MAGNITUDE OF THE WORKING LOAD SHEAR REACTION IN KIPS. UNLESS NOTED OTHERWISE ON PLAN DESIGN CONNECTIONS FOR SHEAR REACTION OF 10 KIPS.
4. ALL STRUCTURAL STEEL SHALL BE HOT DIPPED GALVANIZED.



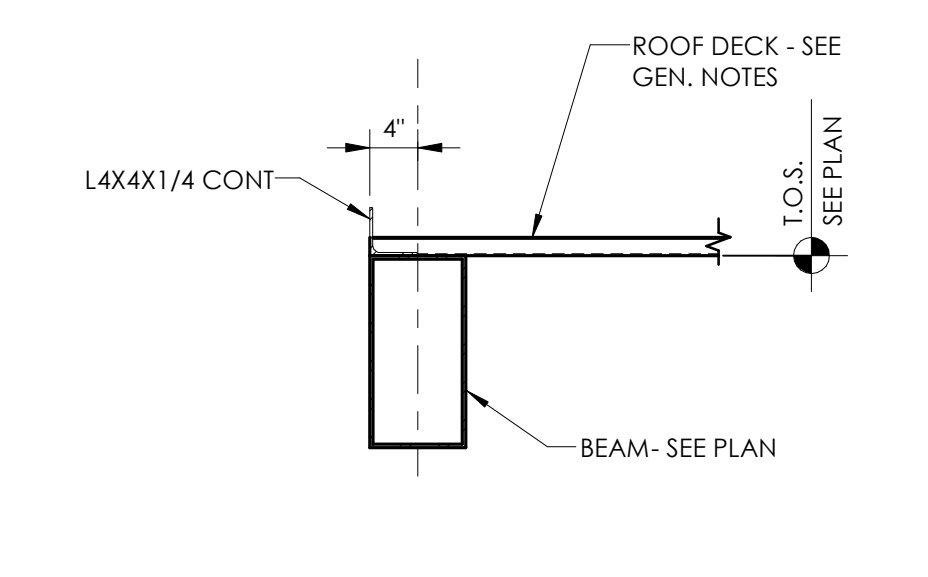
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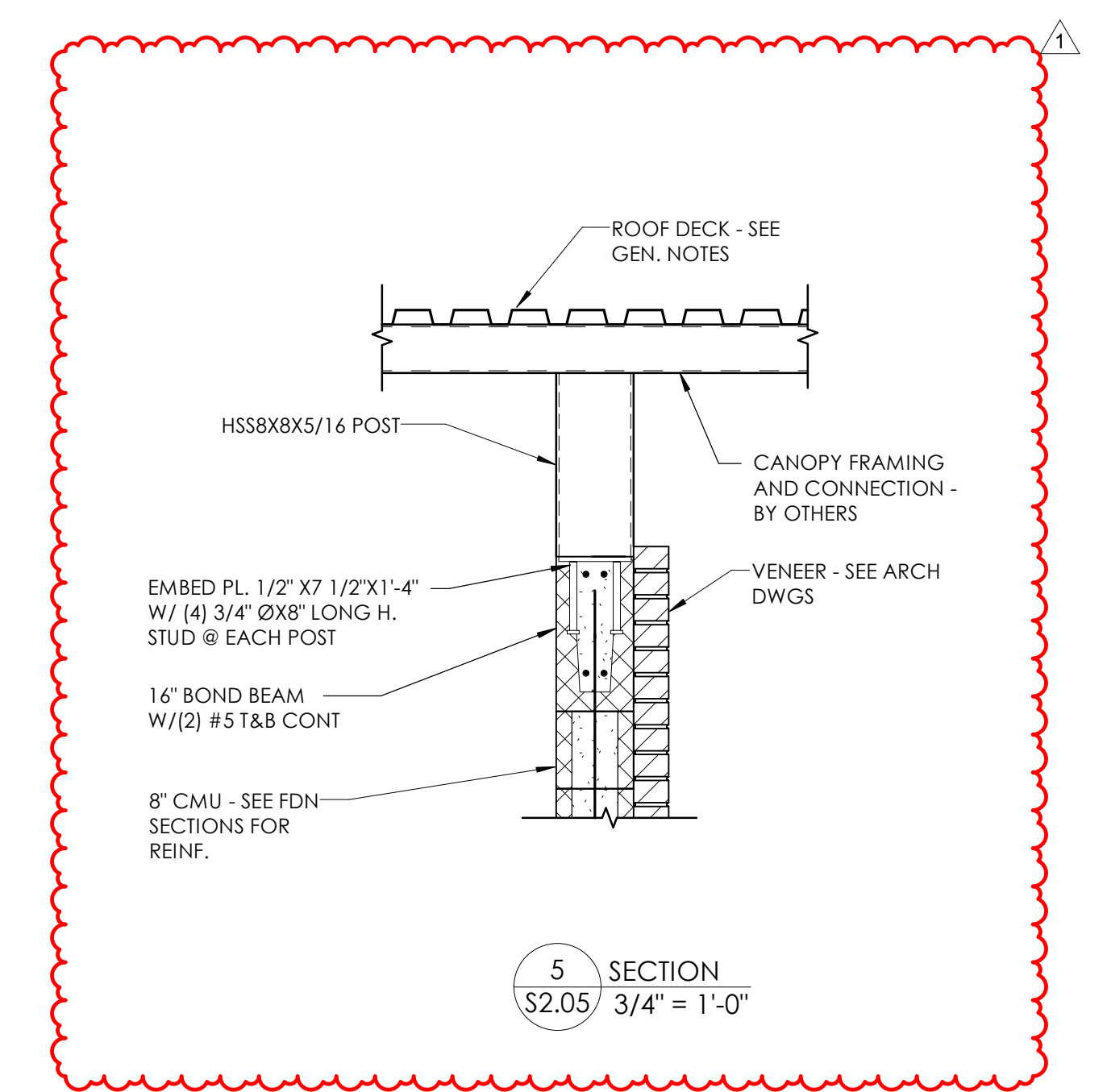
2 SECTION
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3 SECTION
 S2.05 3/4" = 1'-0"



4 SECTION
 S2.05 3/4" = 1'-0"



5 SECTION
 S2.05 3/4" = 1'-0"

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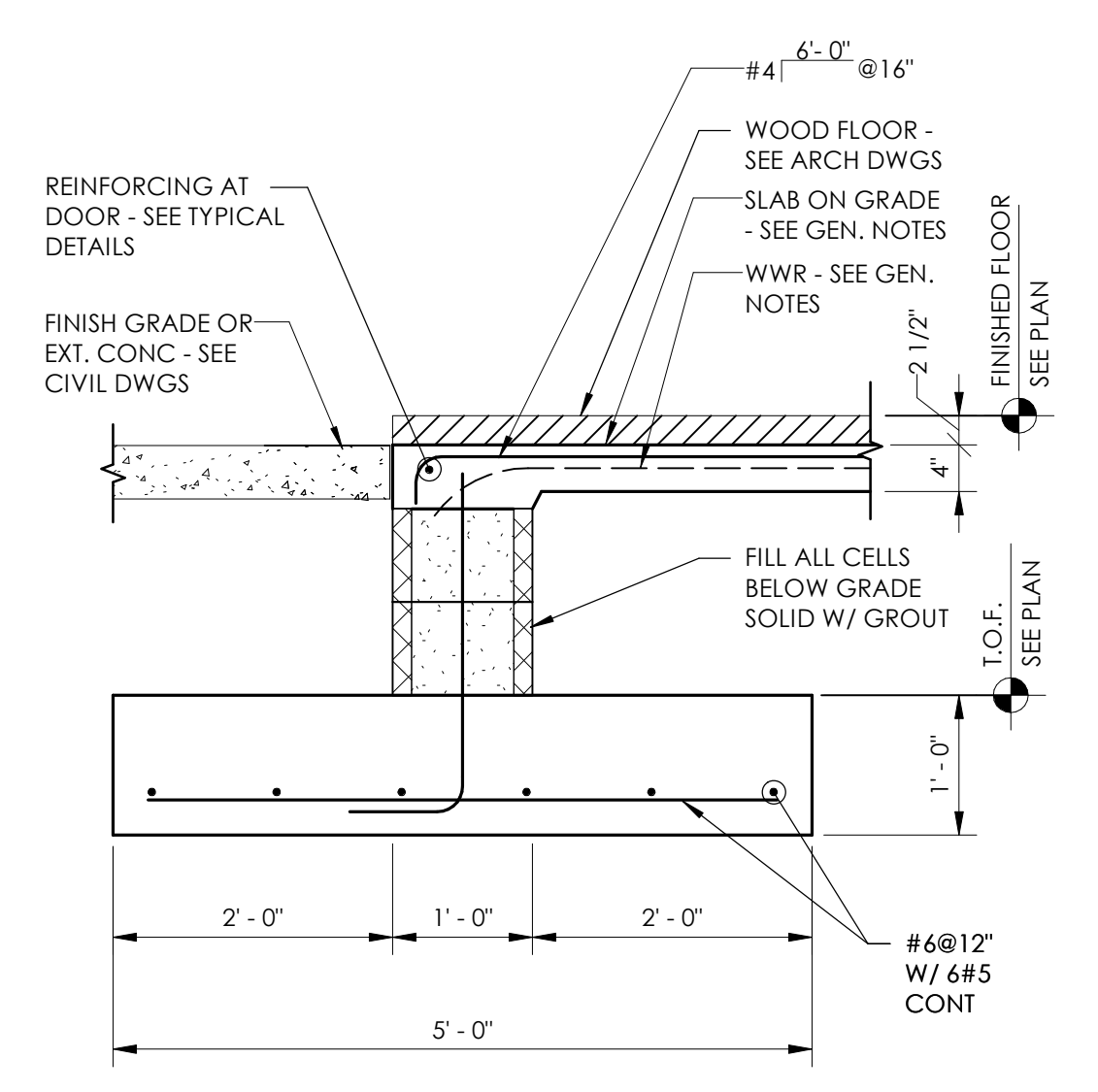
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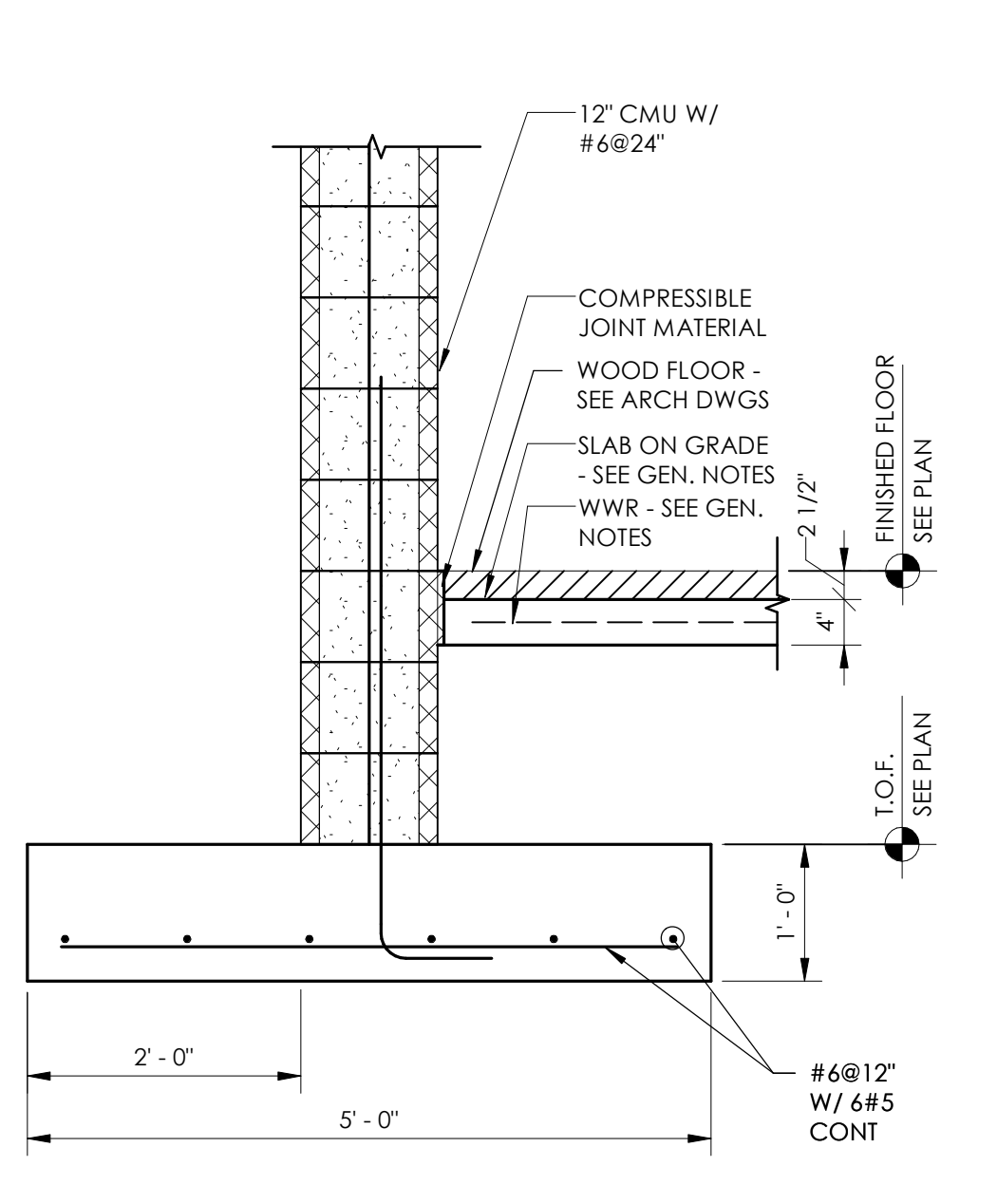


S3.01

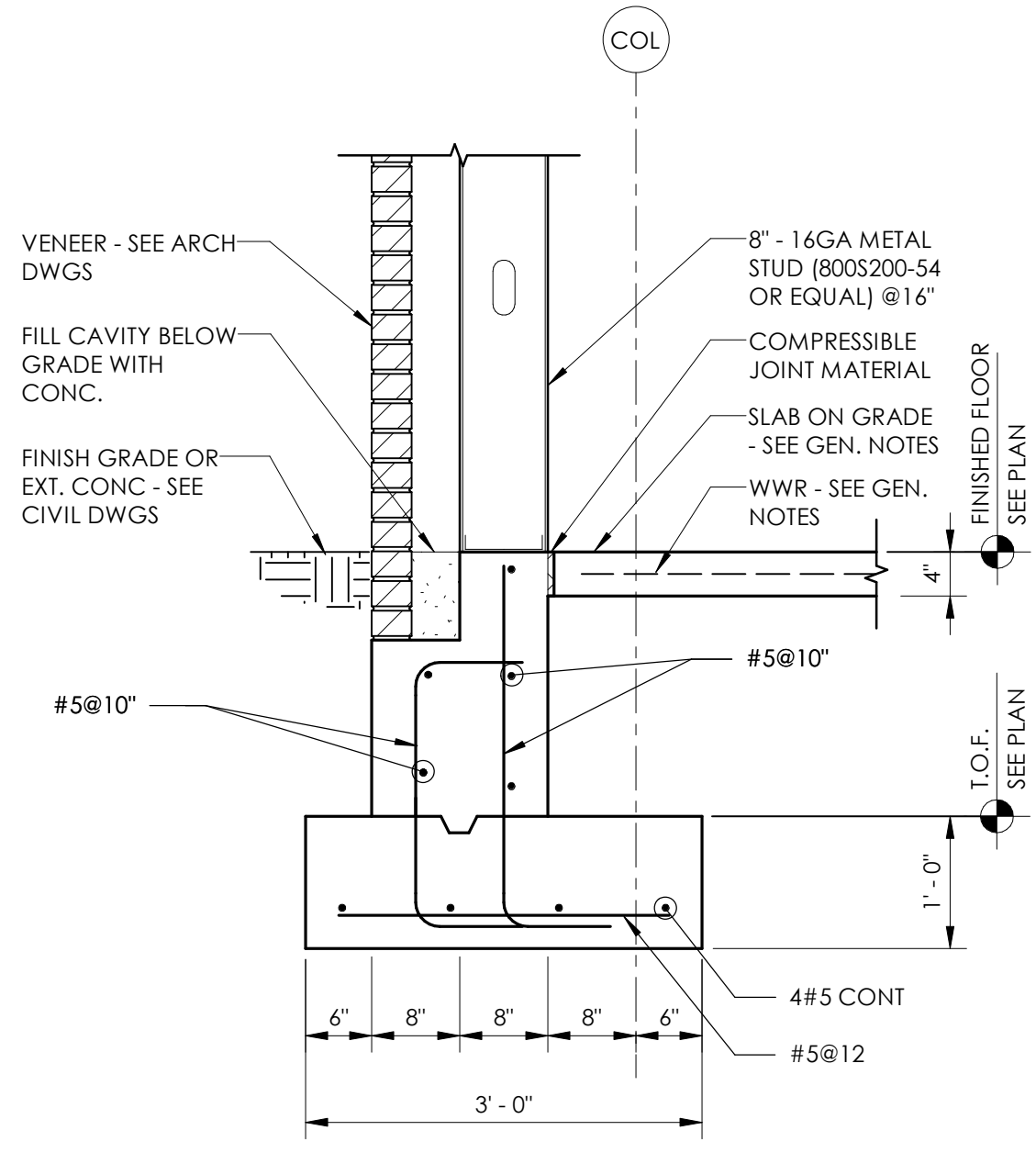
SECTIONS



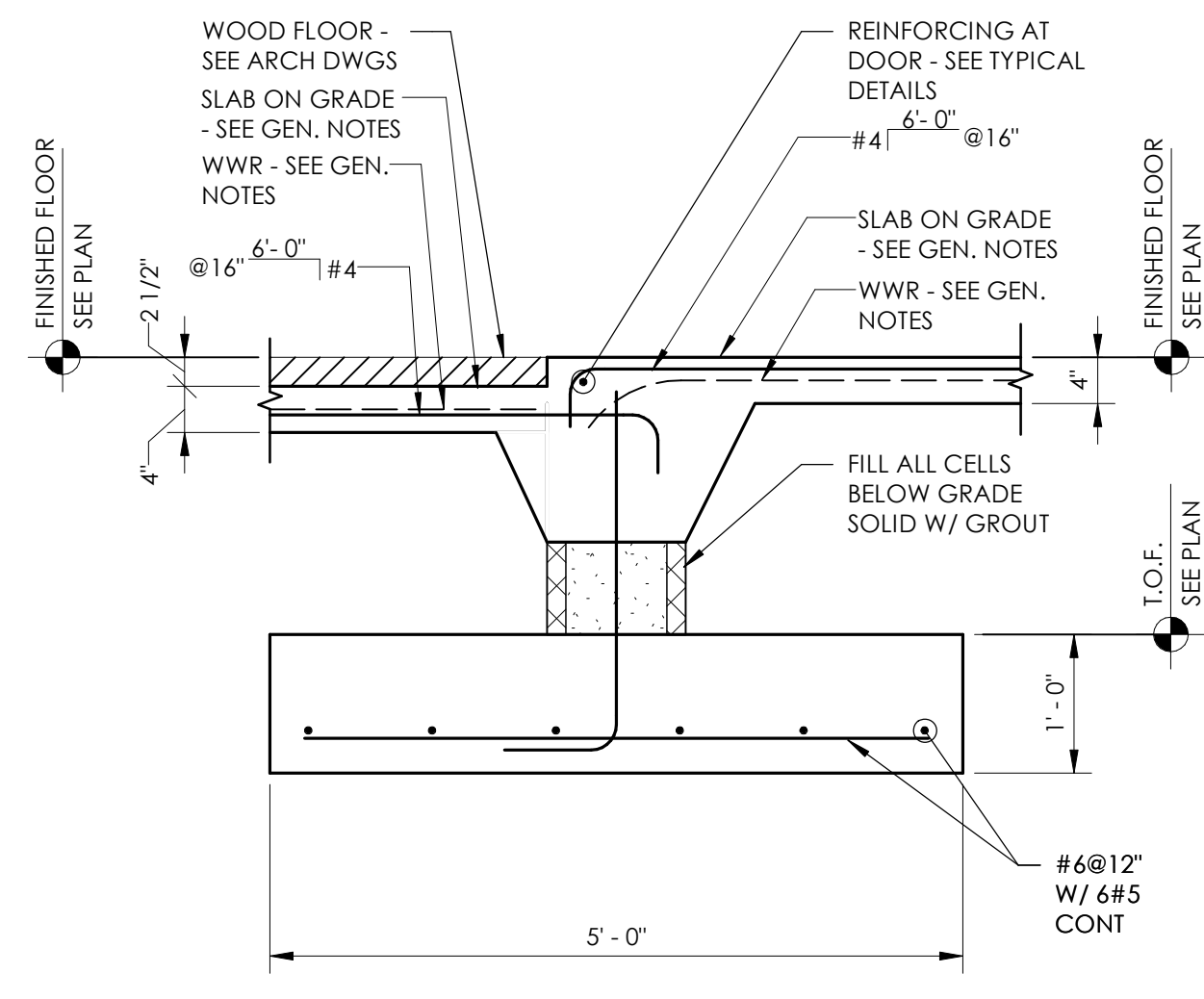
1 SECTION
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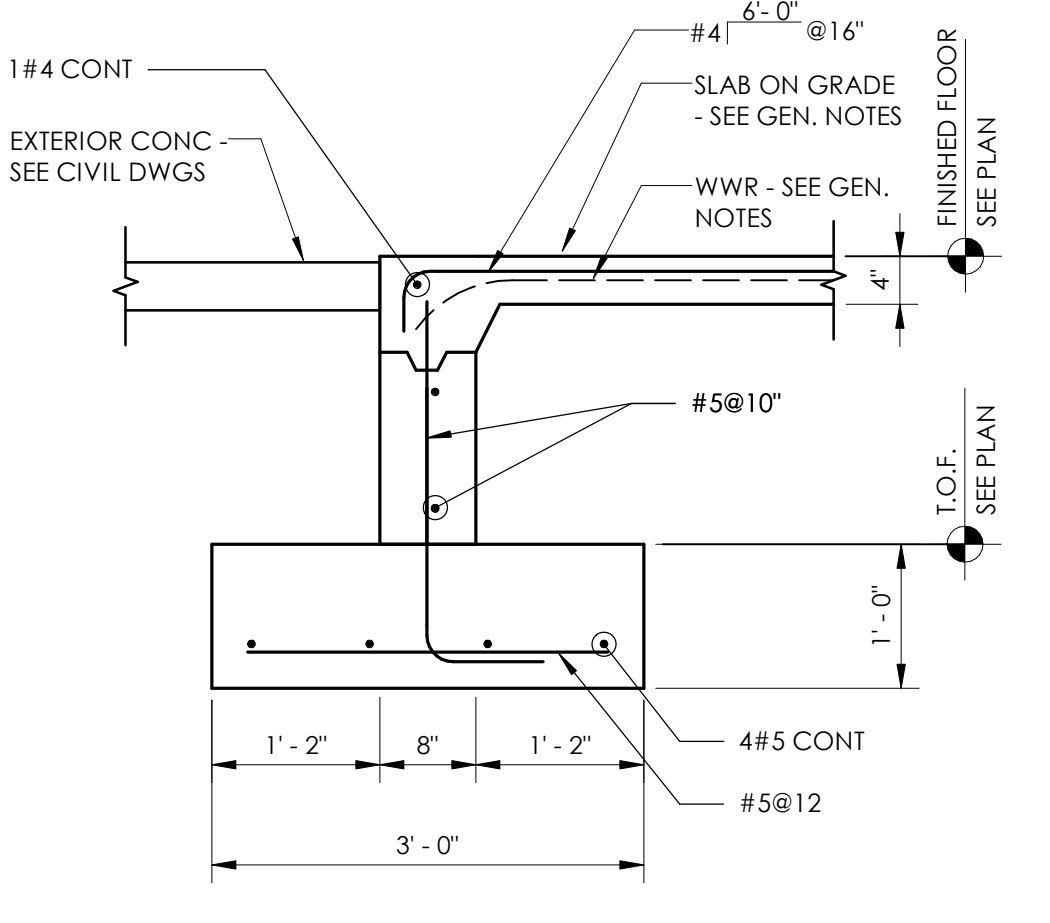
2 SECTION
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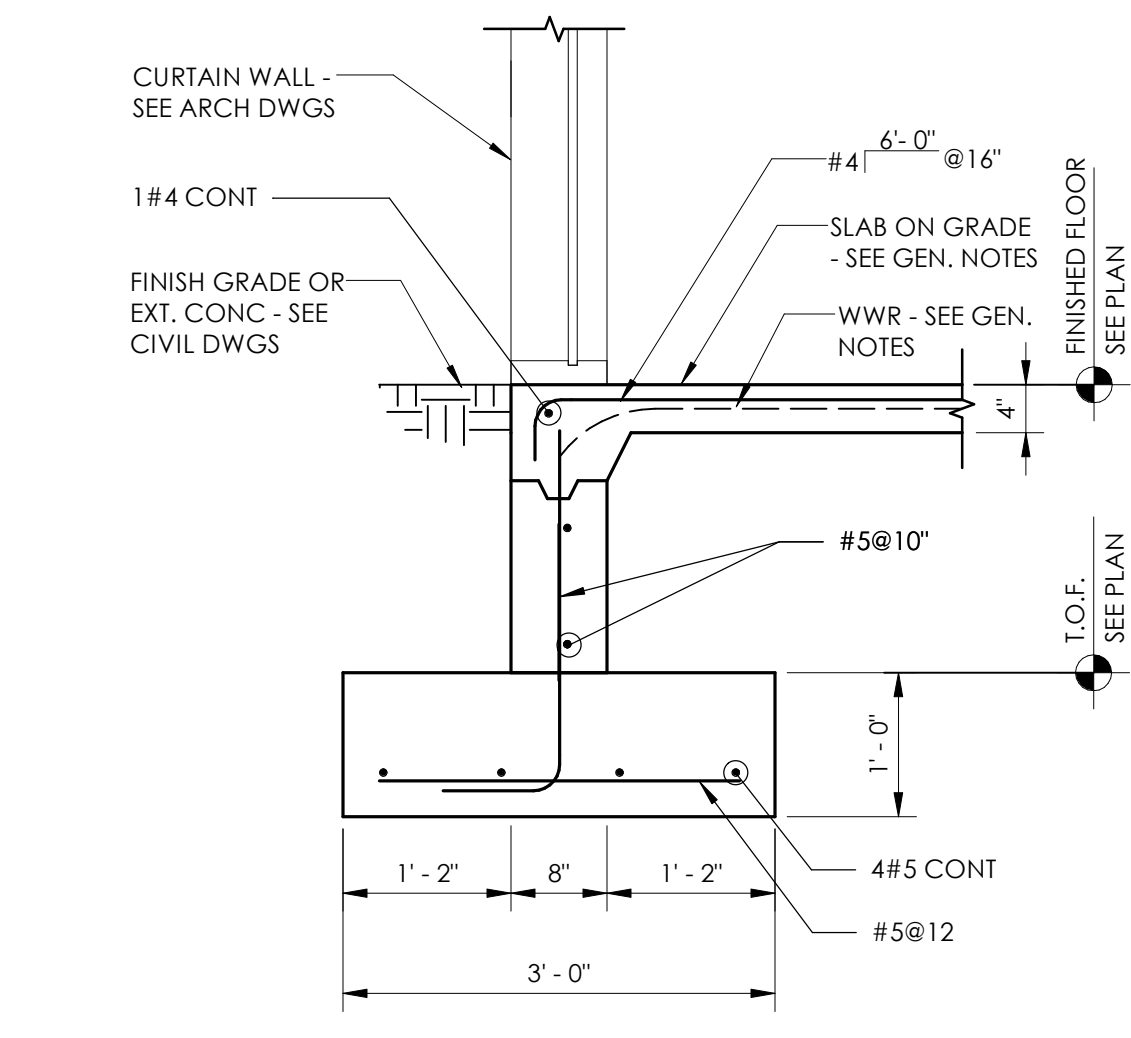
3 SECTION
 S3.01 / 3/4" = 1'-0"



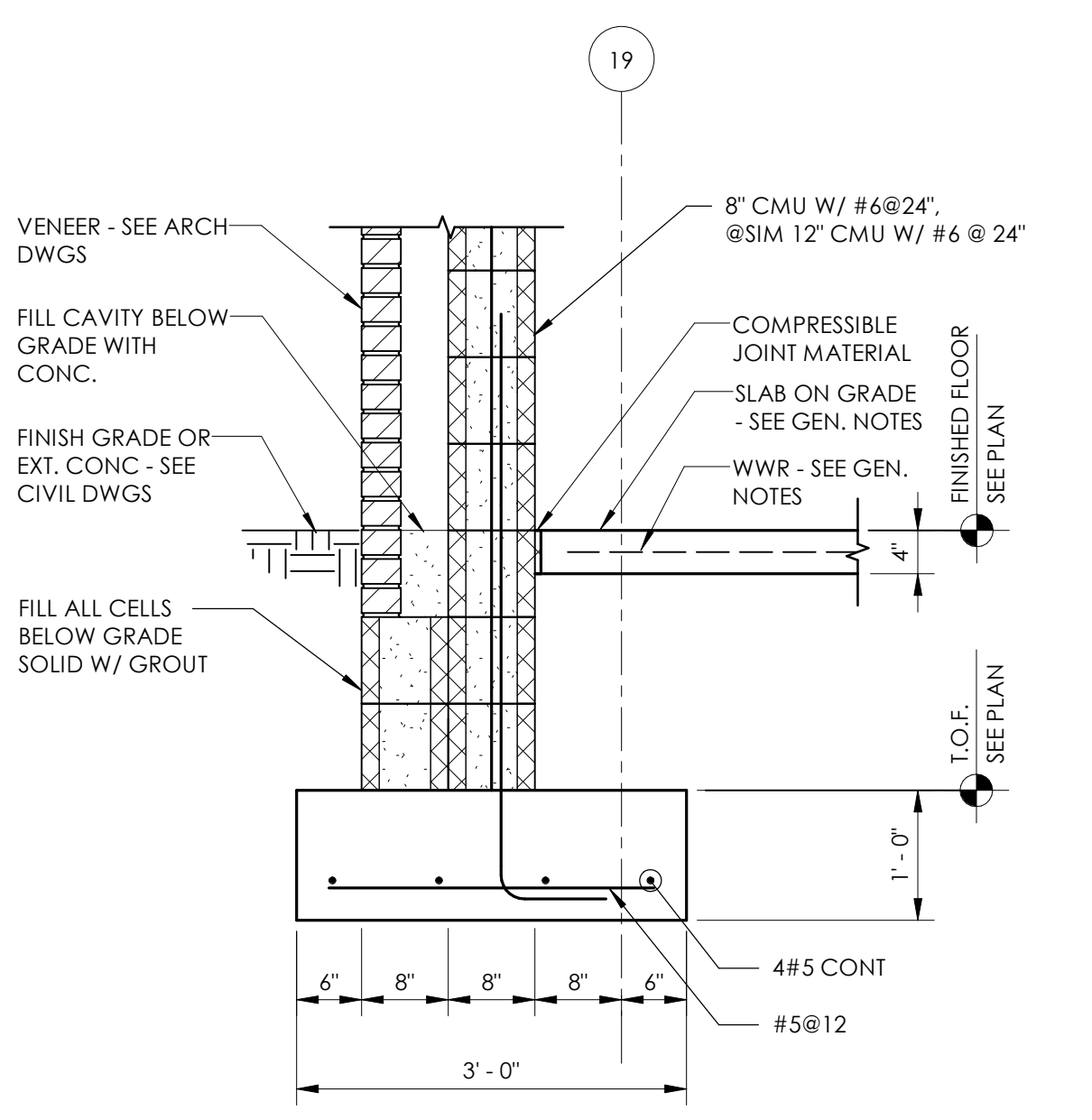
4 SECTION
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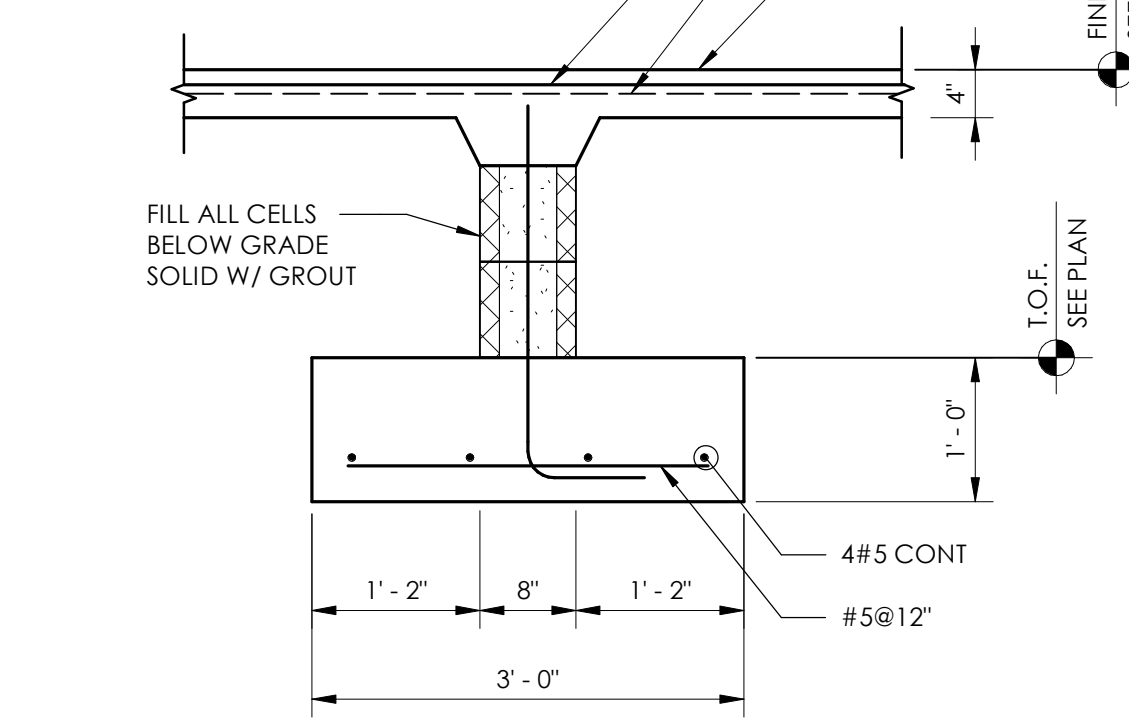
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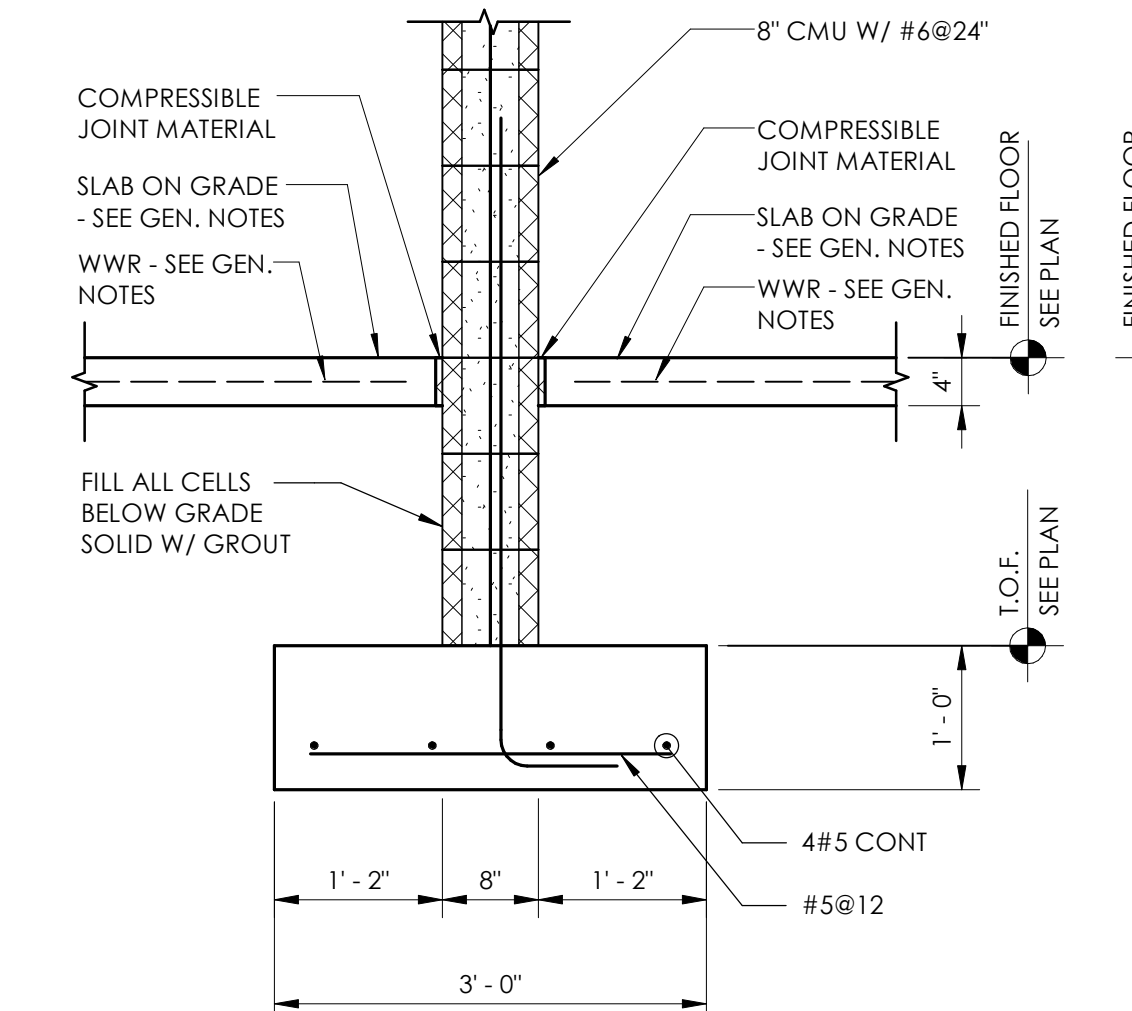
6 SECTION
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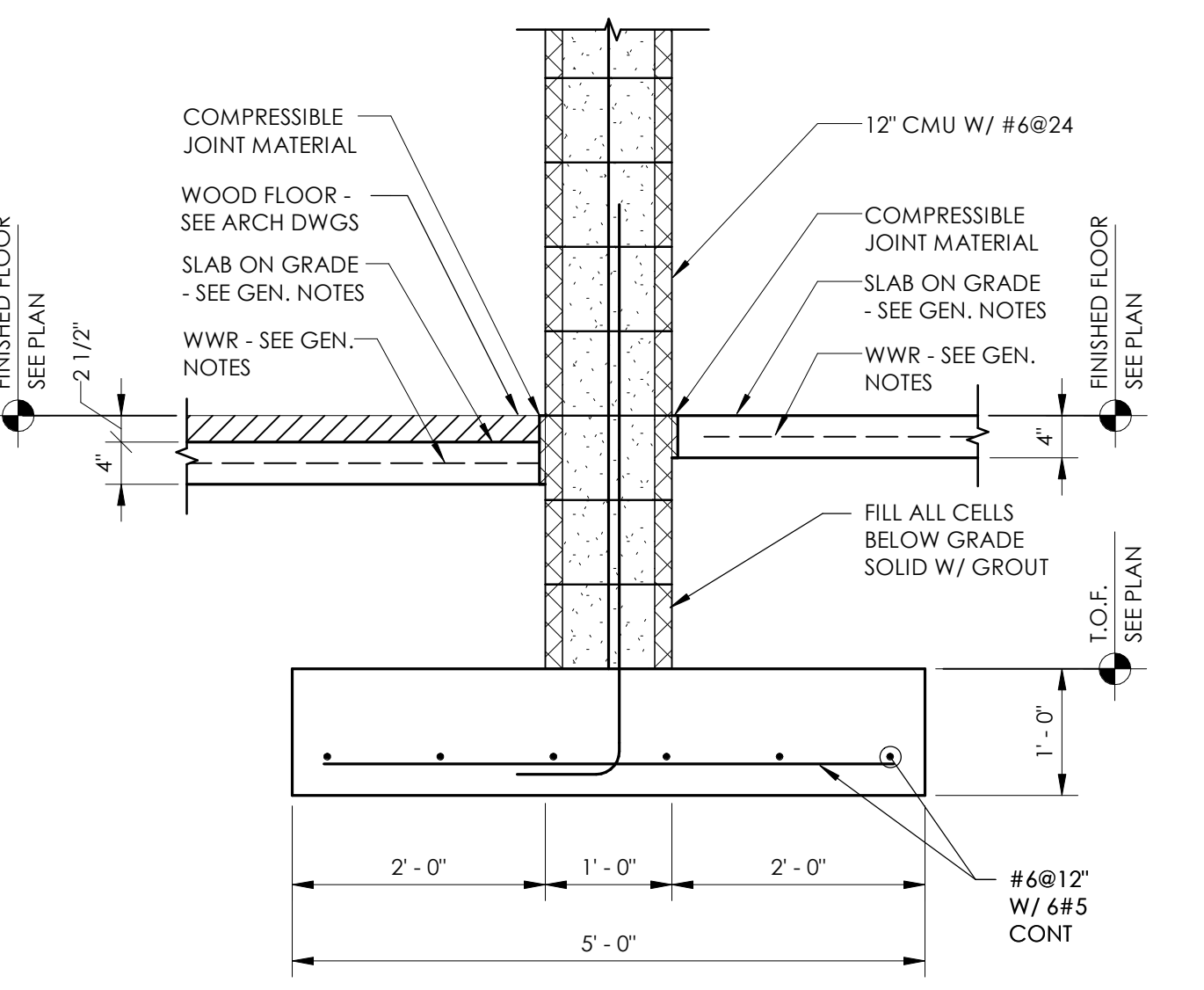
7 SECTION
 S3.01 / 3/4" = 1'-0"



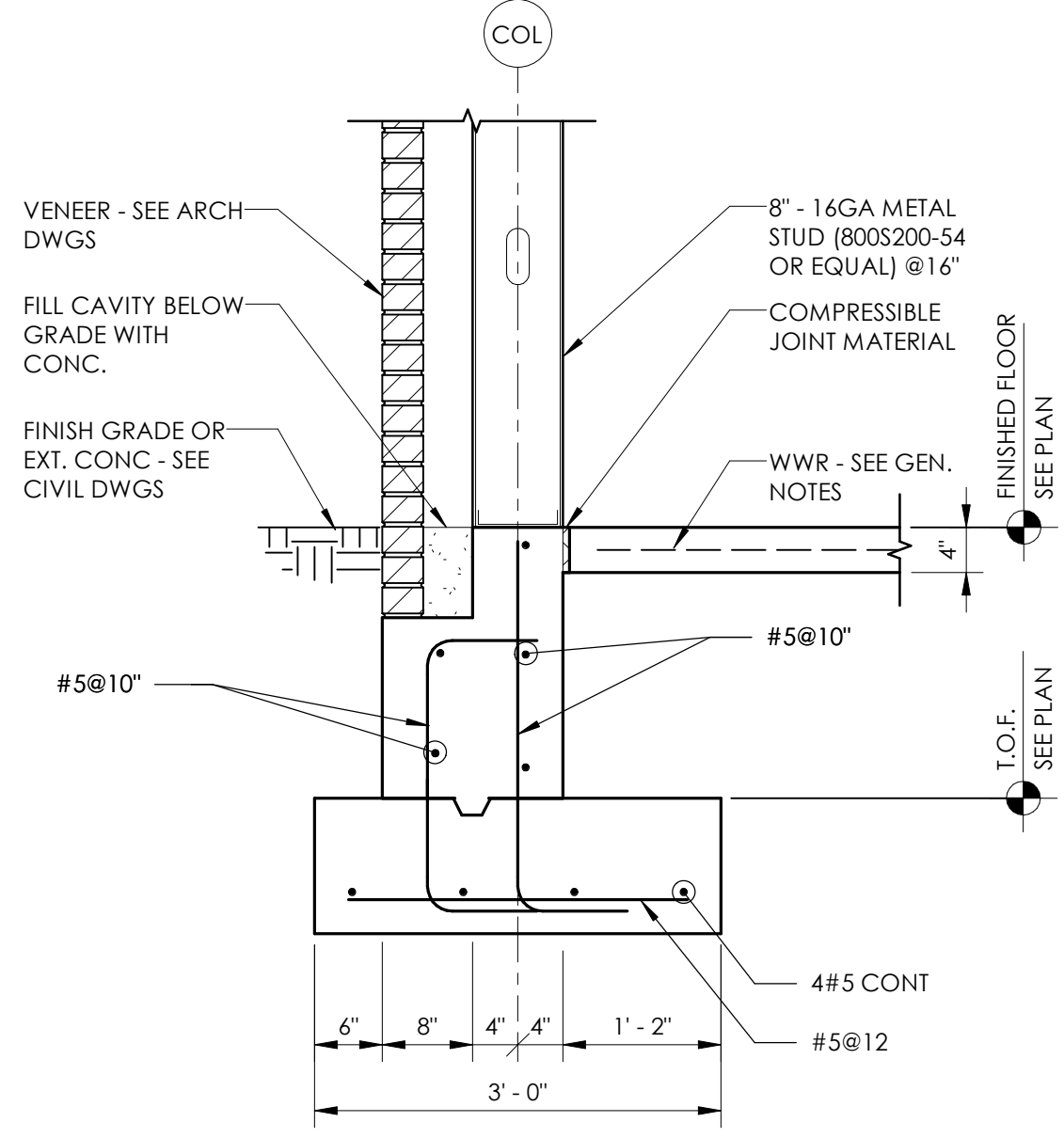
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 S3.01 / 3/4" = 1'-0"



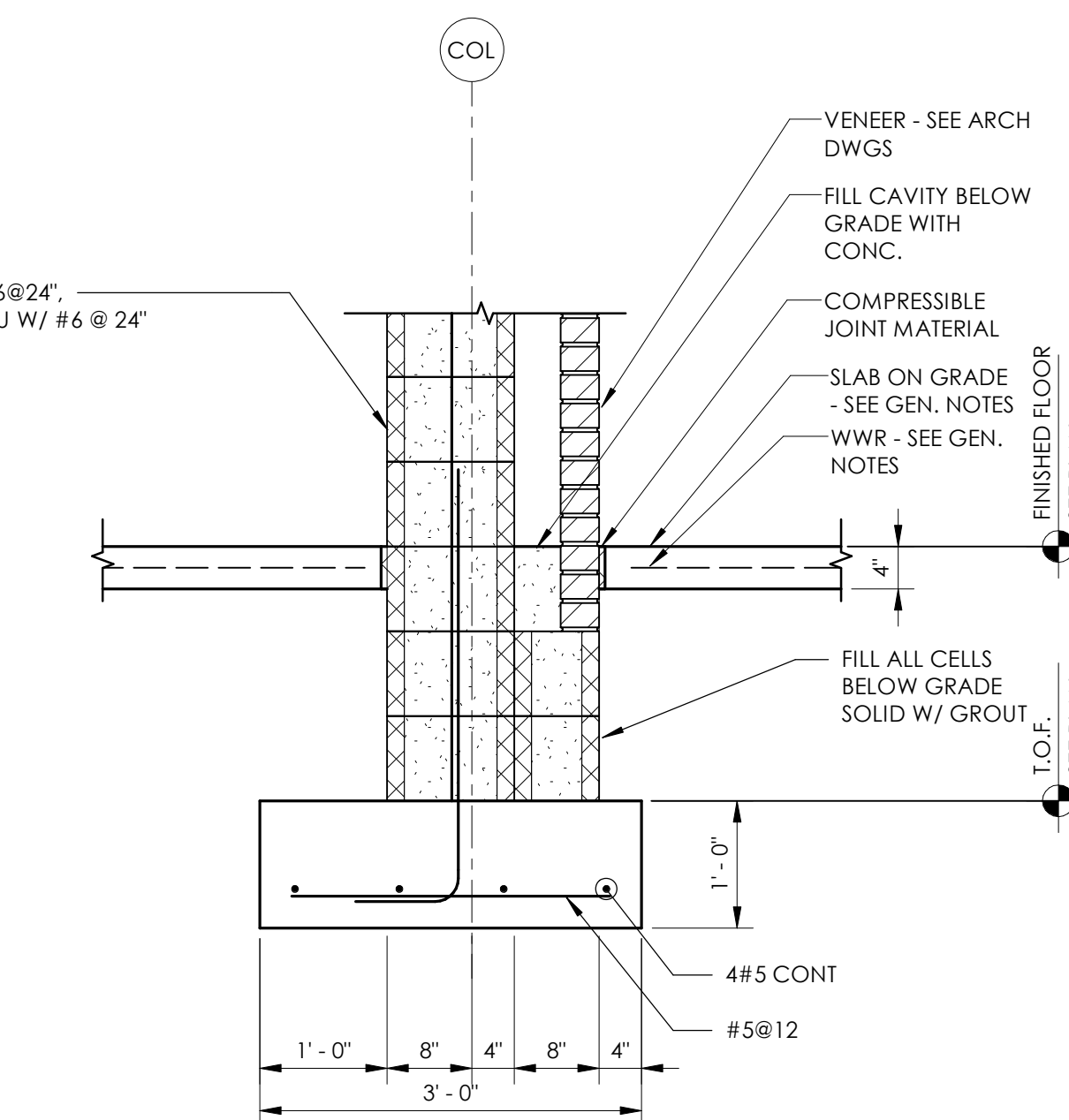
9 SECTION
 S3.01 / 3/4" = 1'-0"



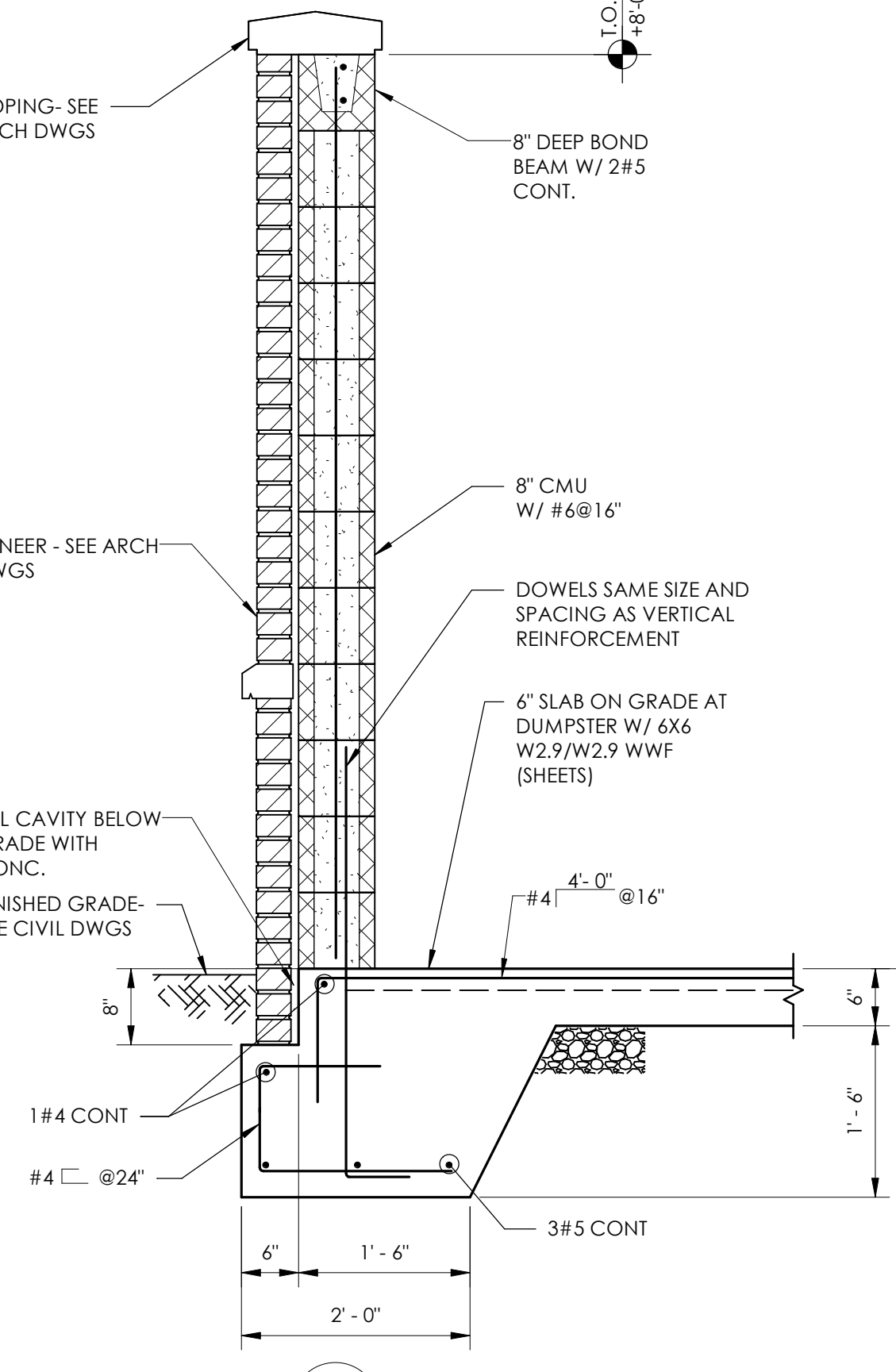
10 SECTION
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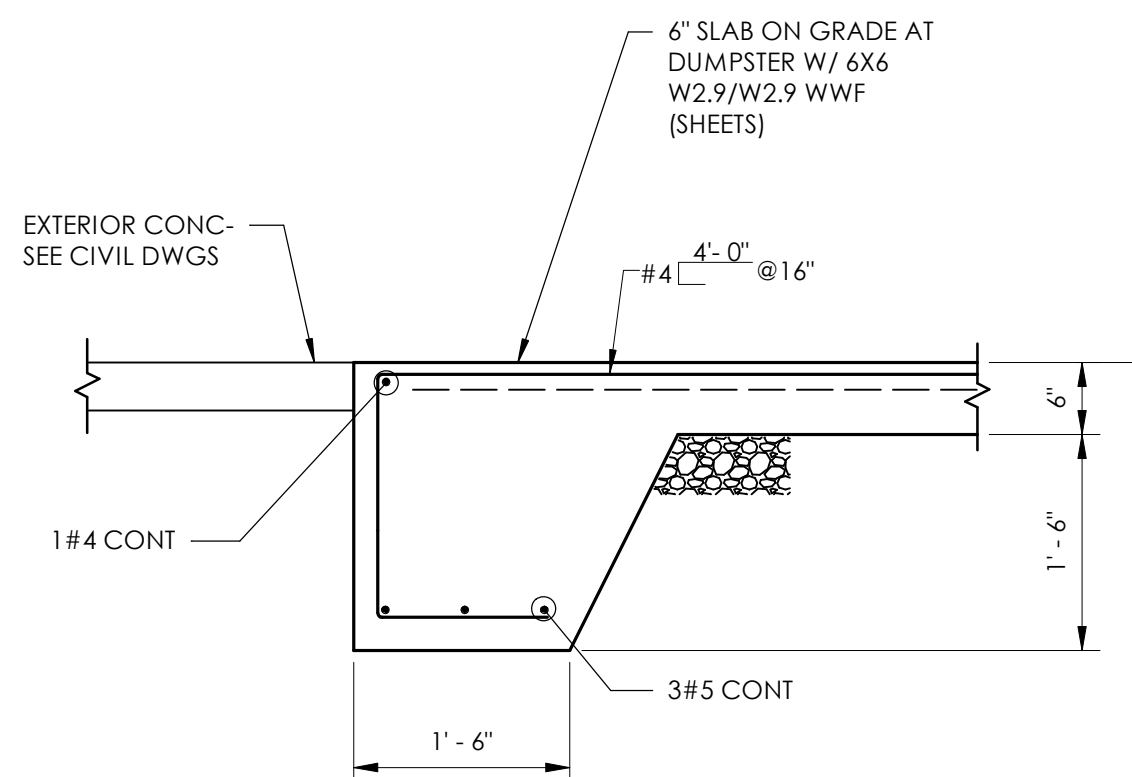
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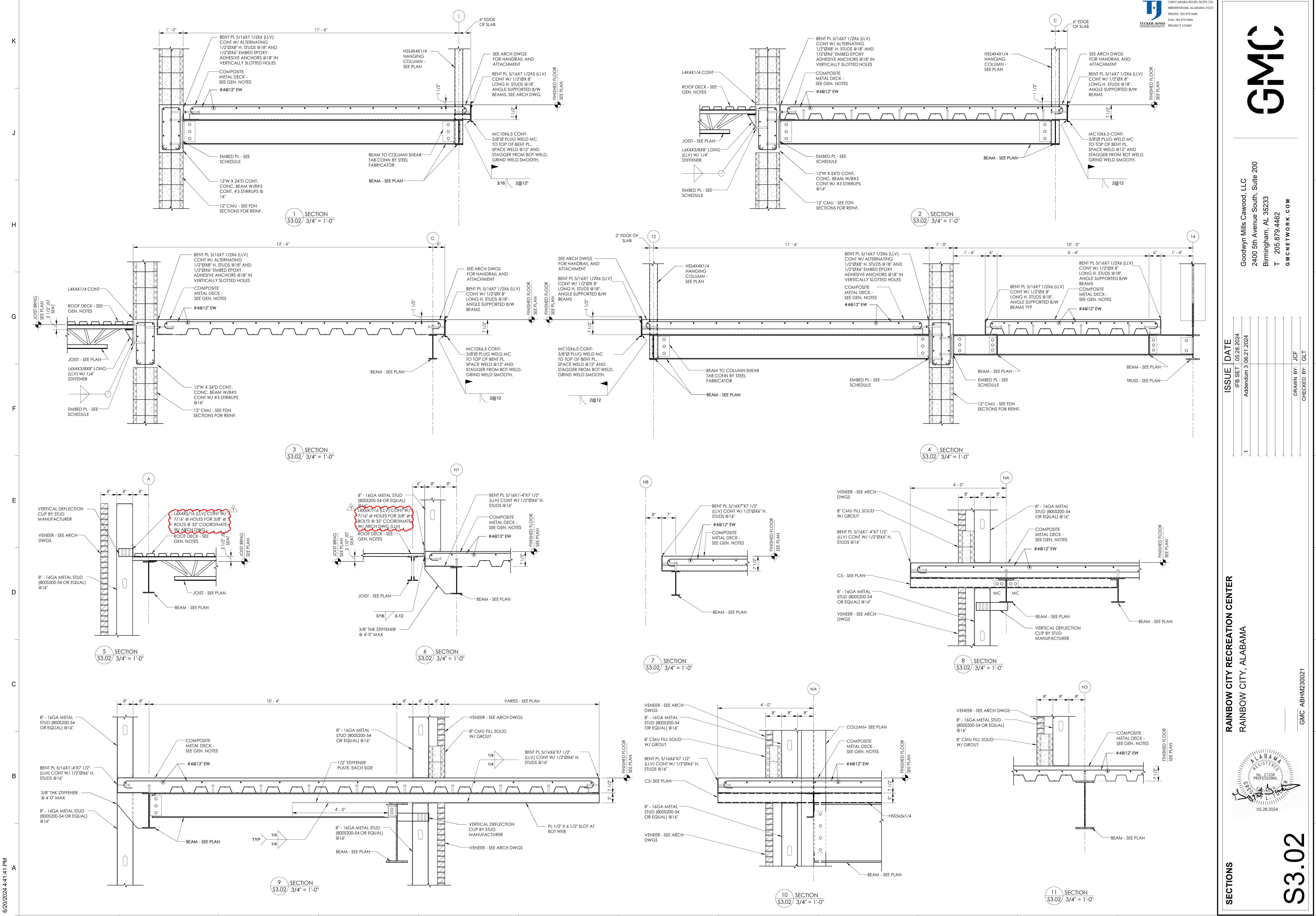
12 SECTION
 S3.01 / 3/4" = 1'-0"



13 SECTION
 S3.01 / 3/4" = 1'-0"



14 SECTION
 S3.01 / 3/4" = 1'-0"



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SECTION S3.02

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05.28.2024

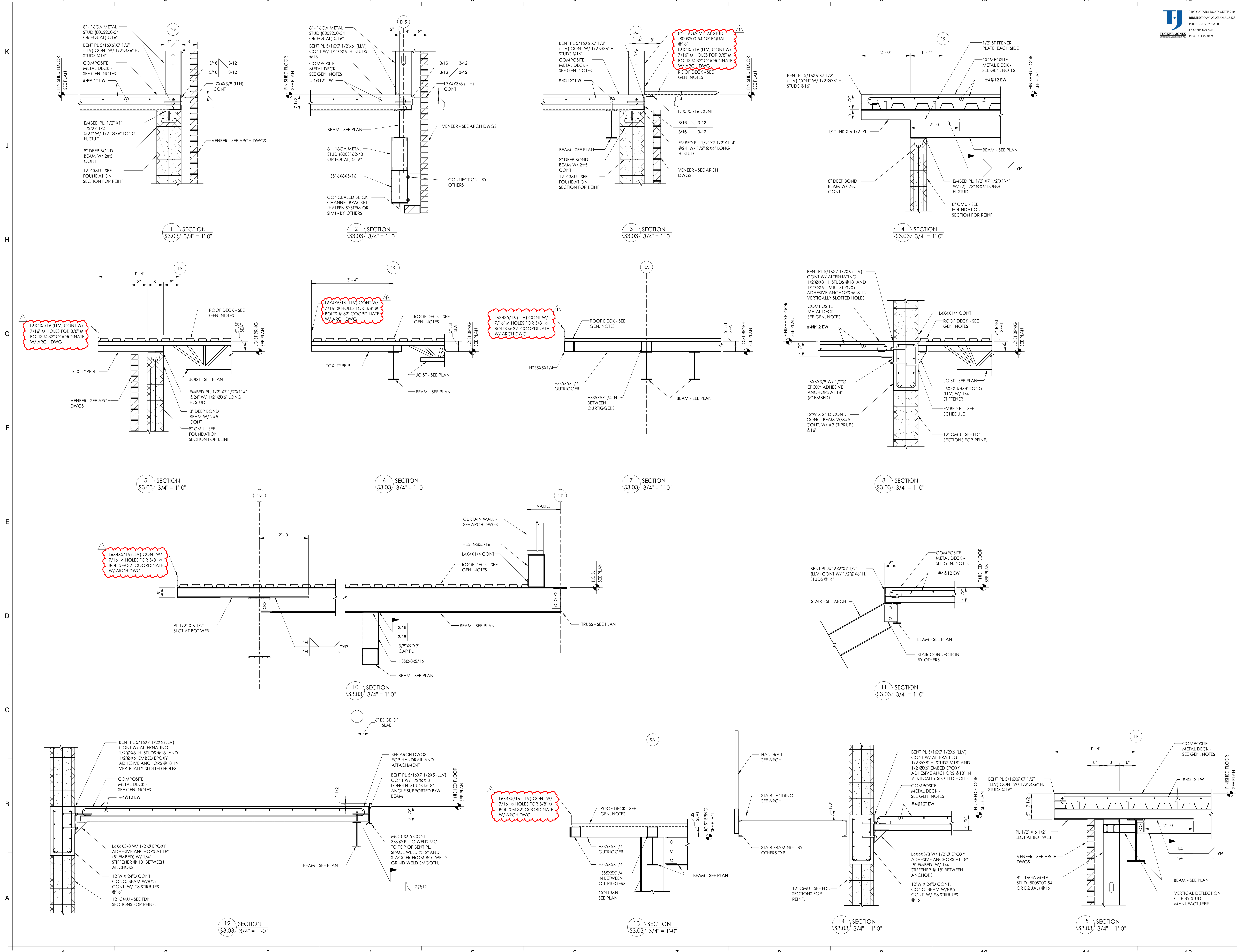
ALABAMA REGISTERED PROFESSIONAL ENGINEER
No. 21338
05.28.2024

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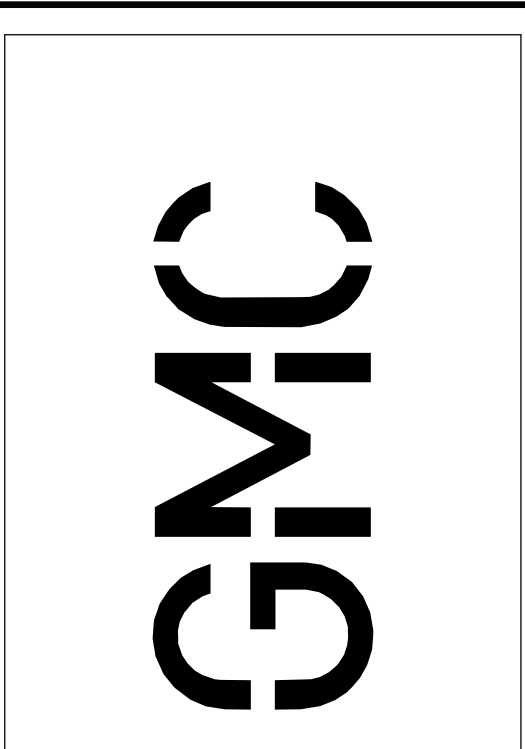
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3300 CALHOUN ROAD, SUITE 210
 BIRMINGHAM, ALABAMA 35223
 PHONE: 205.879.5668
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 PROJECT: 23089



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SECTIONS
 S3.03

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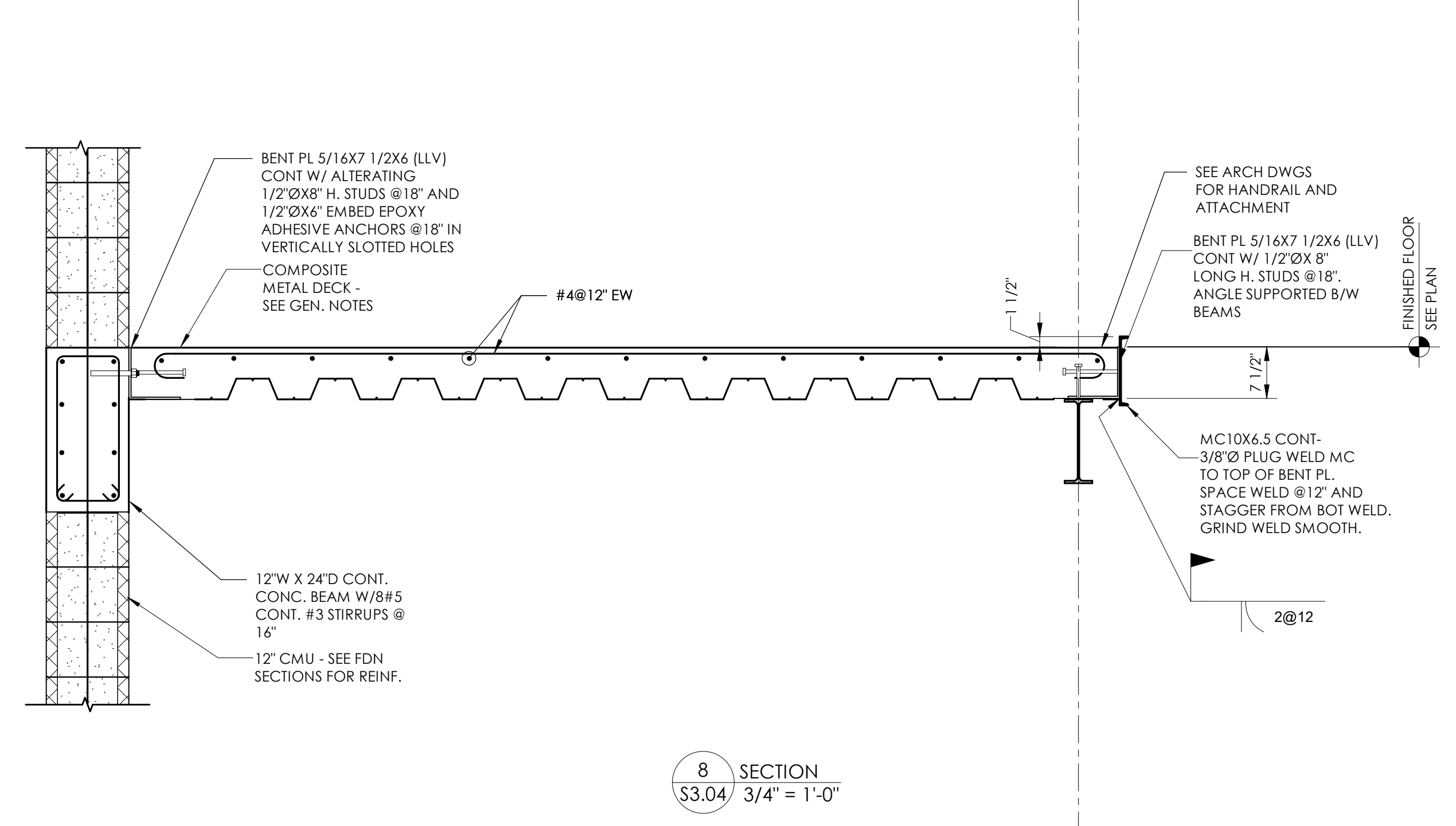
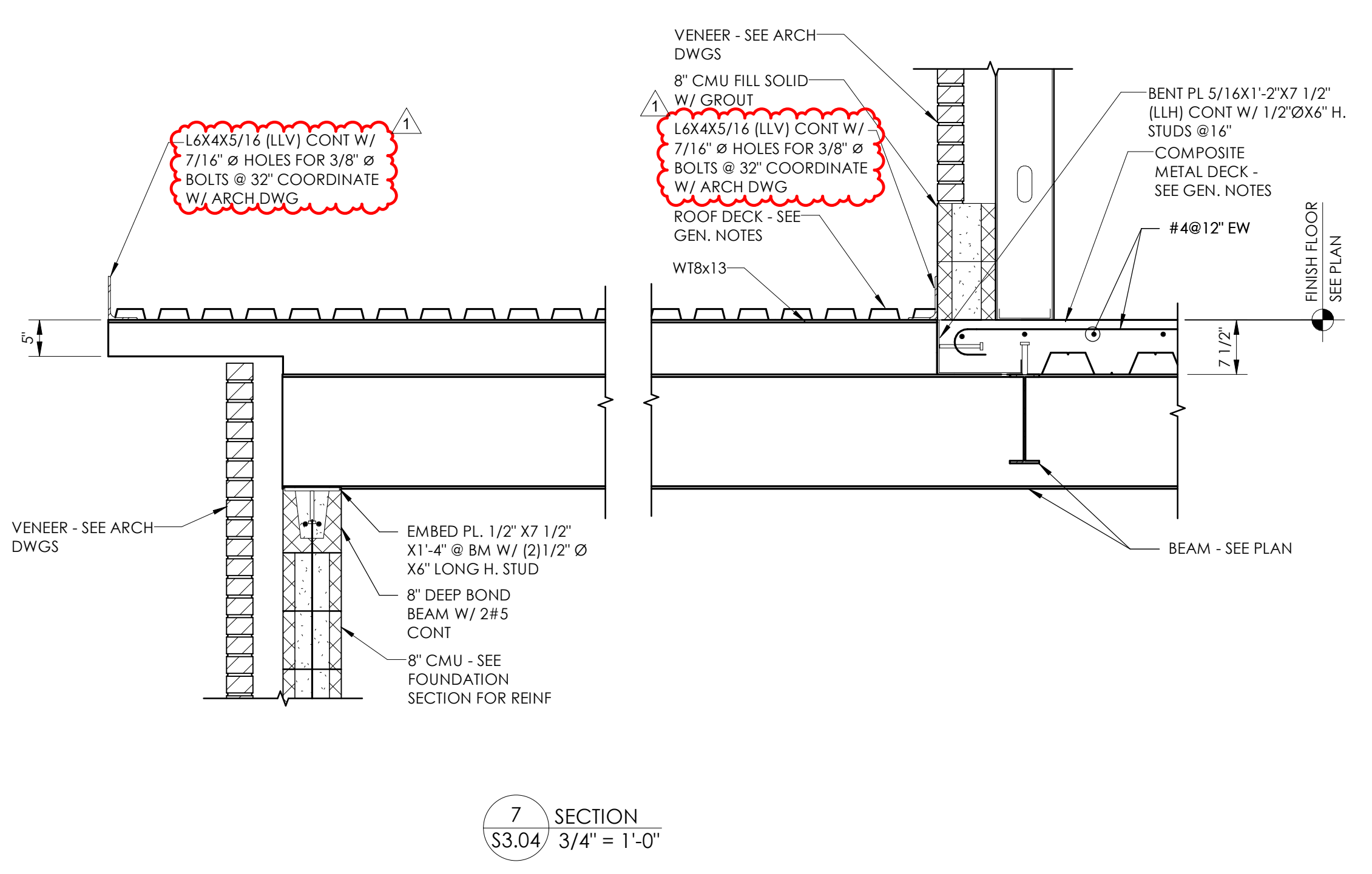
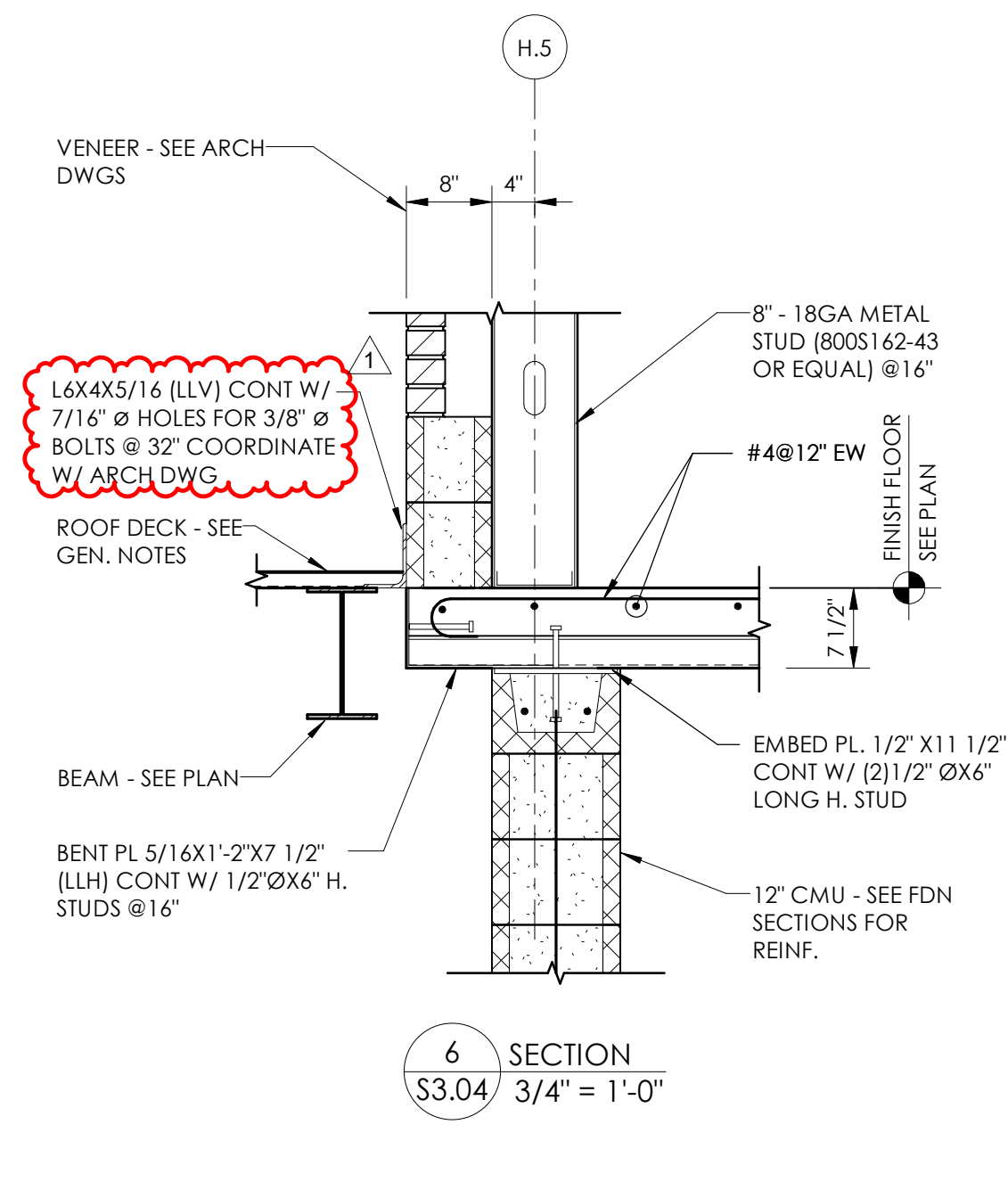
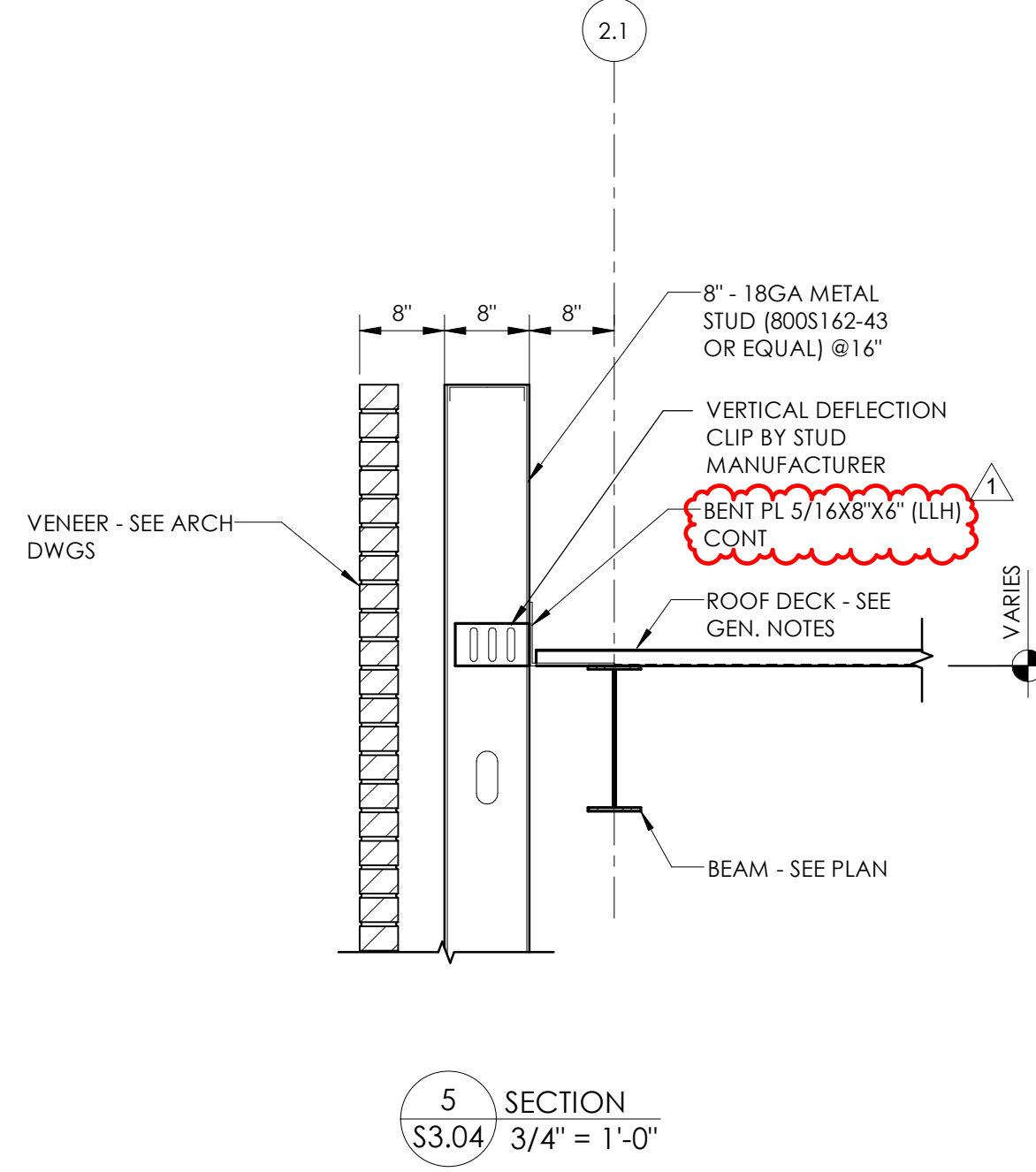
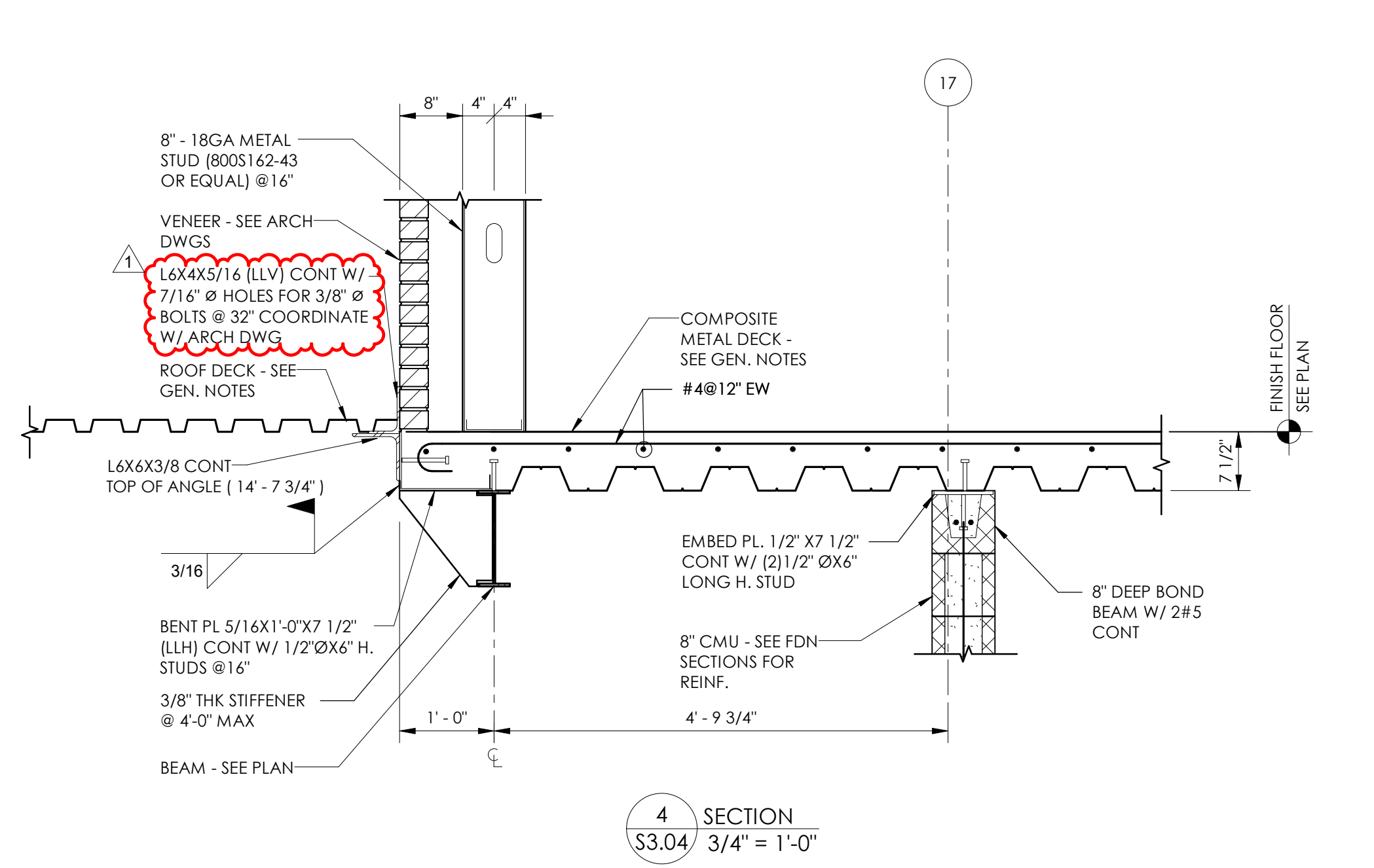
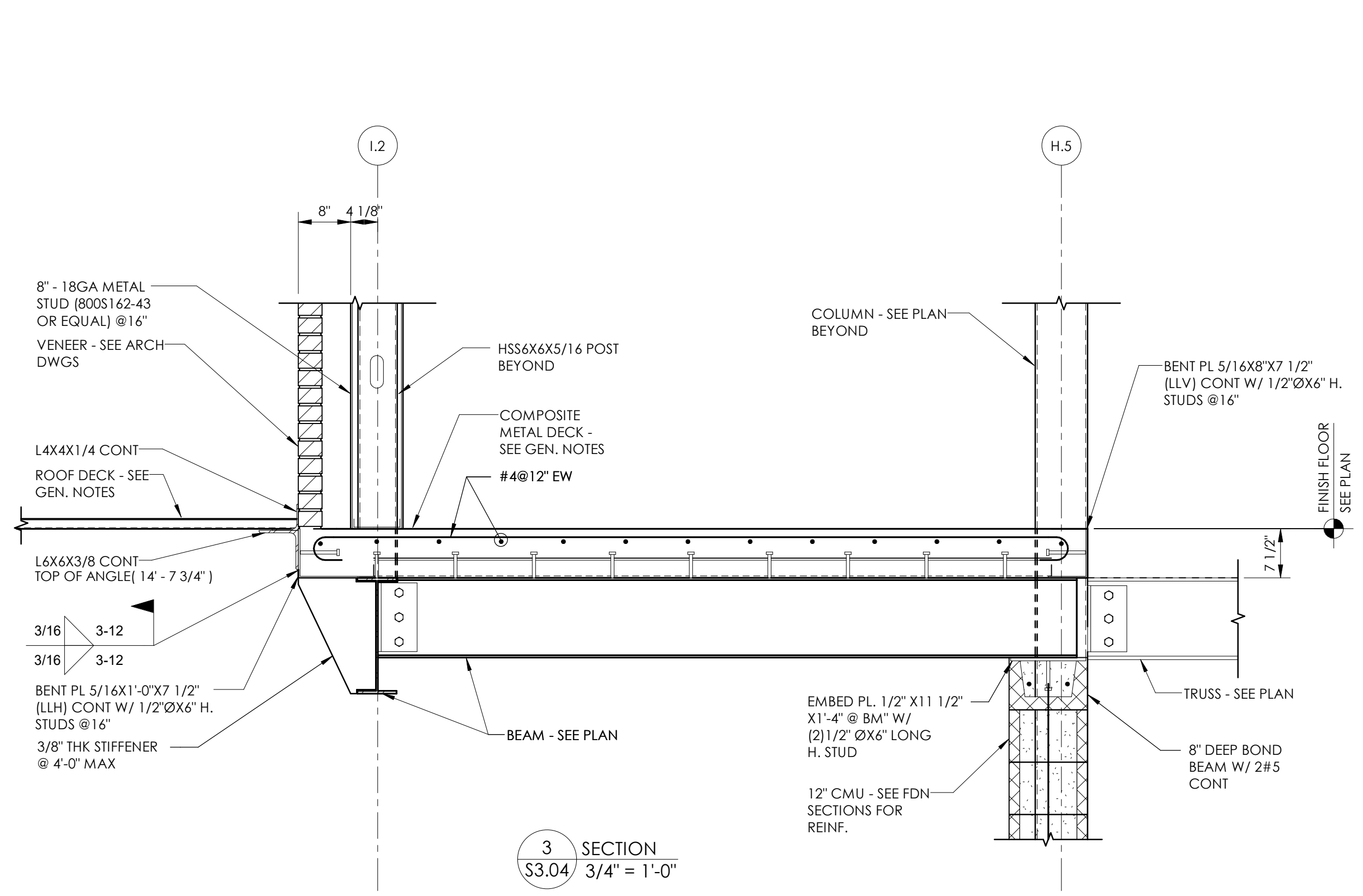
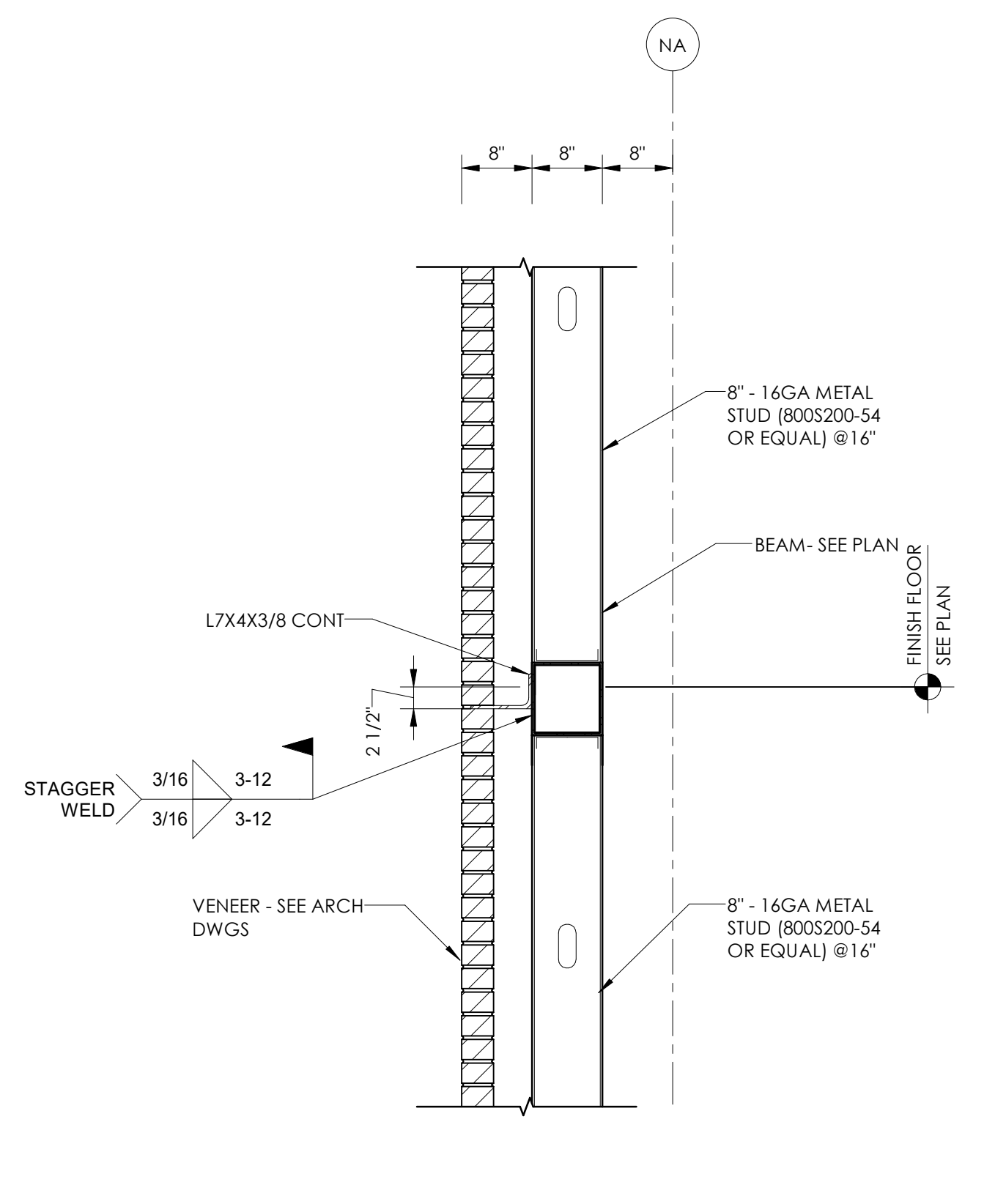
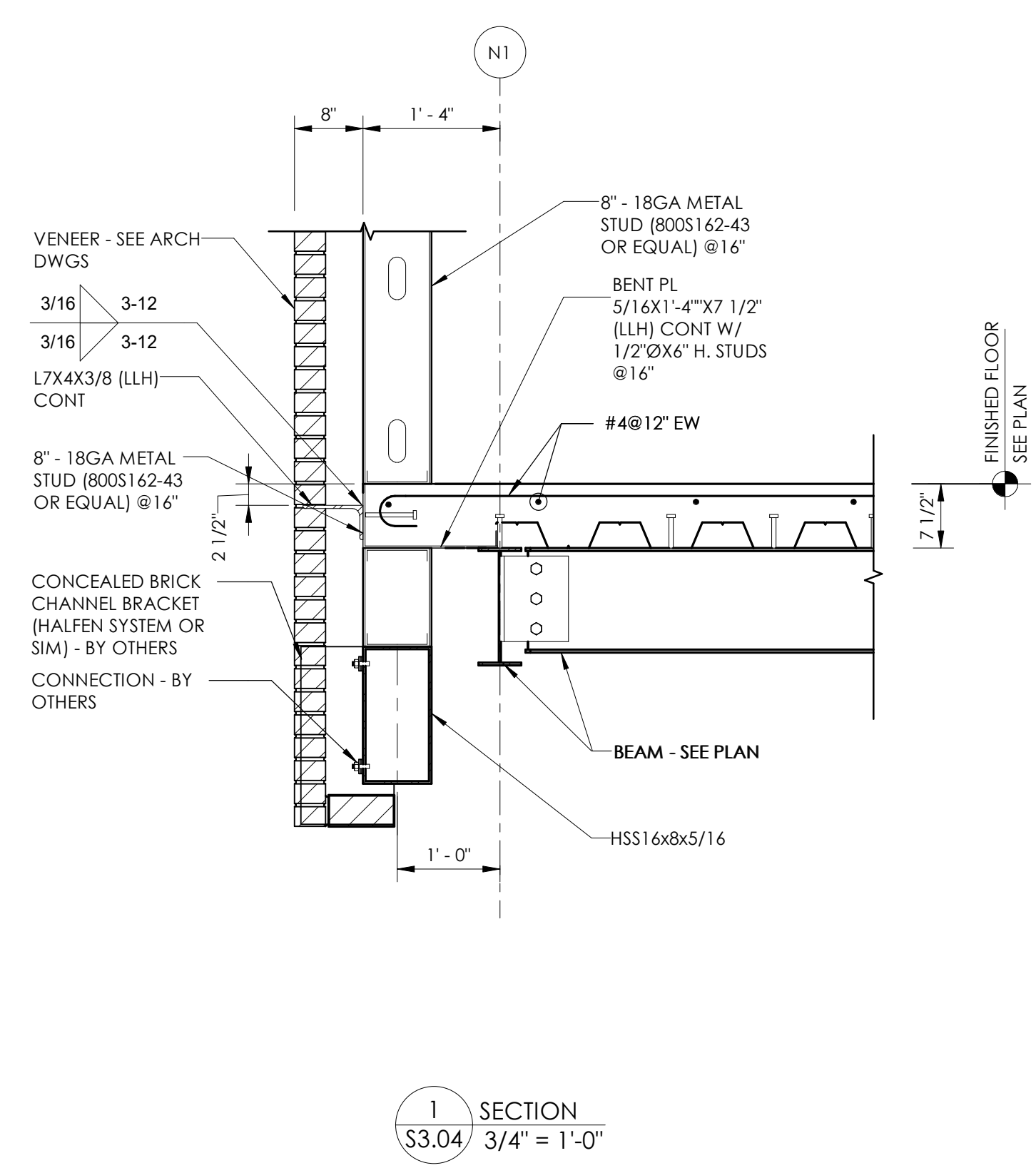
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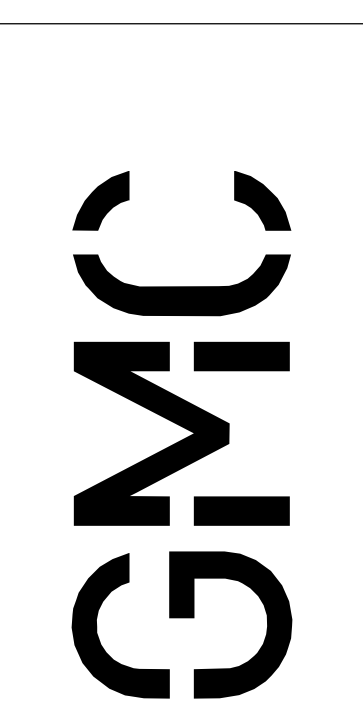
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SECTIONS
S3.04





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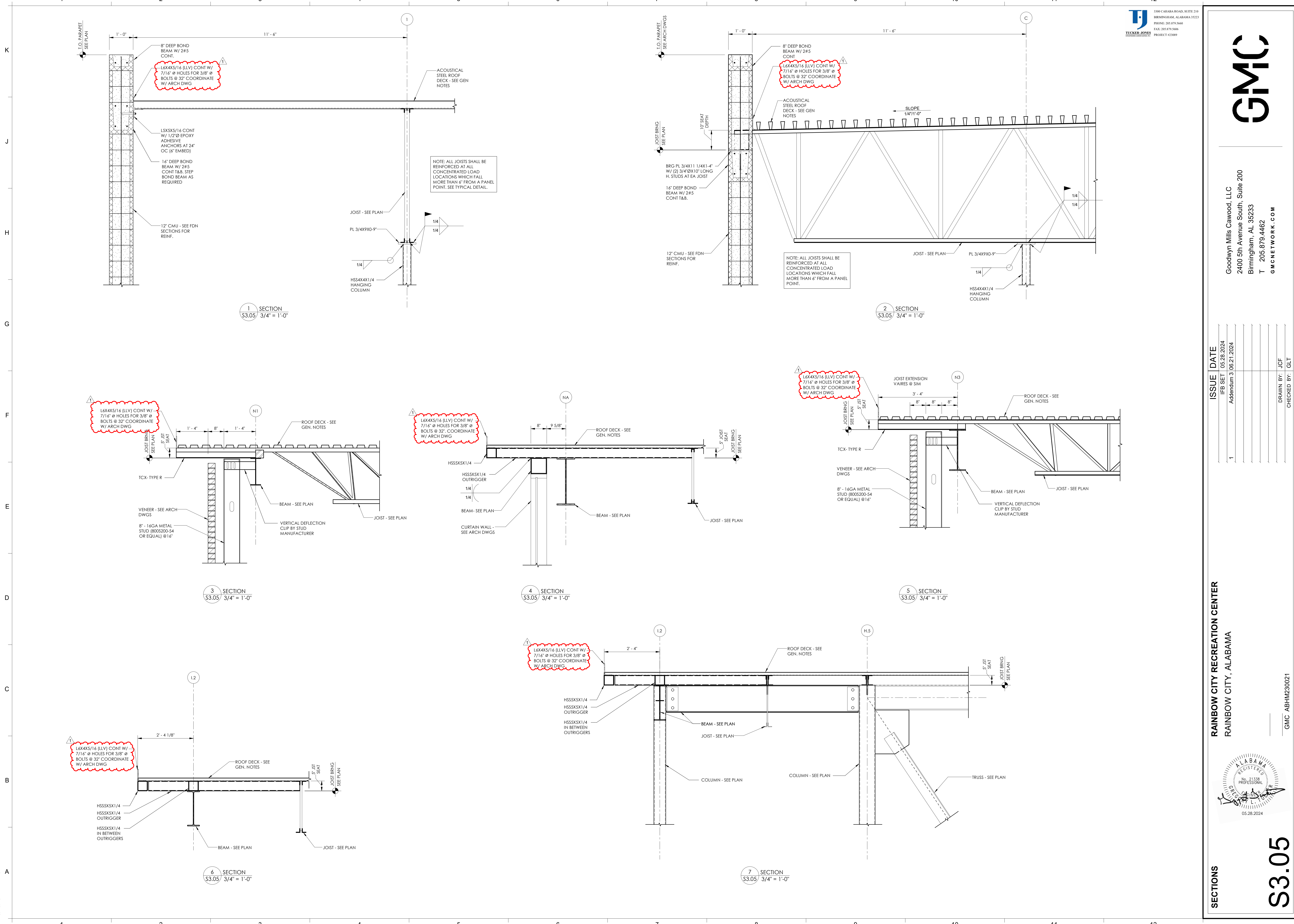


SECTIONS

S3.05

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ISSUE DATE	DATE
IFB SET	05.28.2024
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1	

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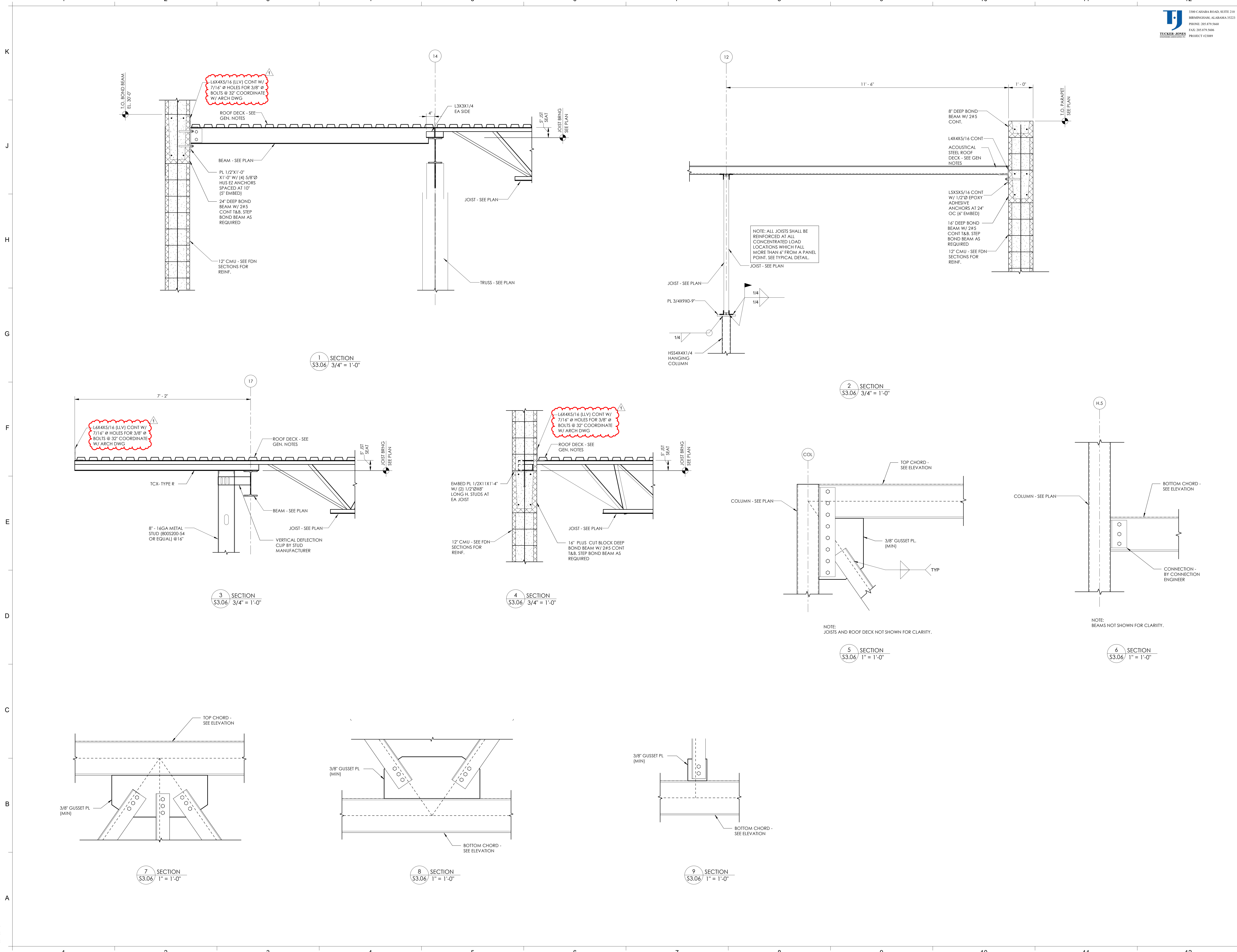
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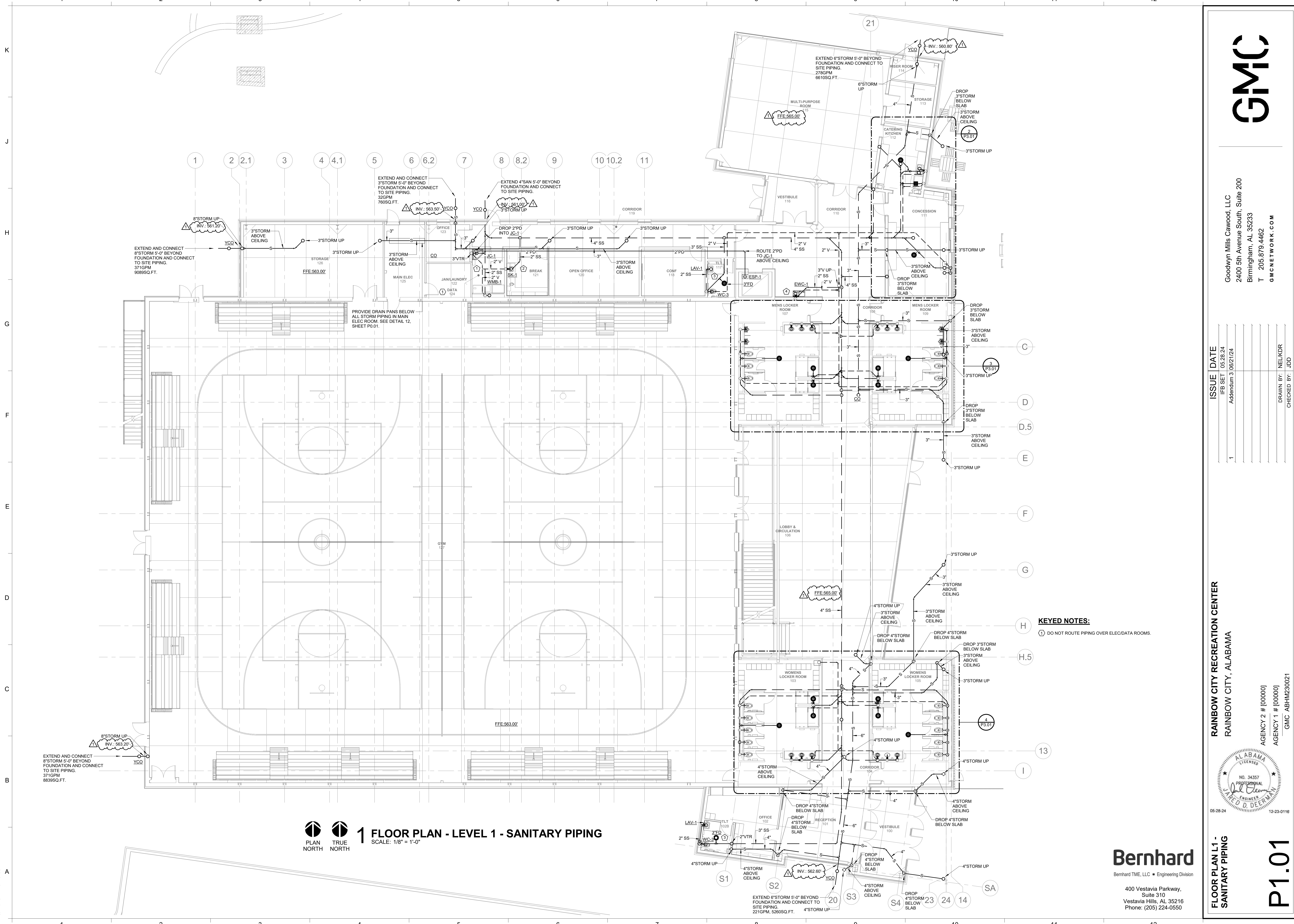
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S3.06

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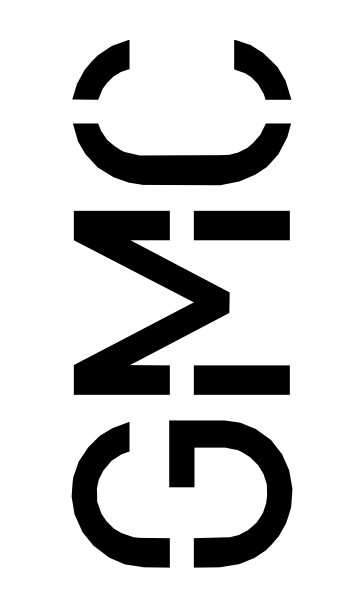


6/21/2024 10:40:39 AM TEMPLATE VERSION: 2022.1



1 FLOOR PLAN - LEVEL 1 - SANITARY PIPING
SCALE: 1/8" = 1'-0"
PLAN NORTH
TRUE NORTH

KEYED NOTES:
① DO NOT ROUTE PIPING OVER ELEC/DATA ROOMS.



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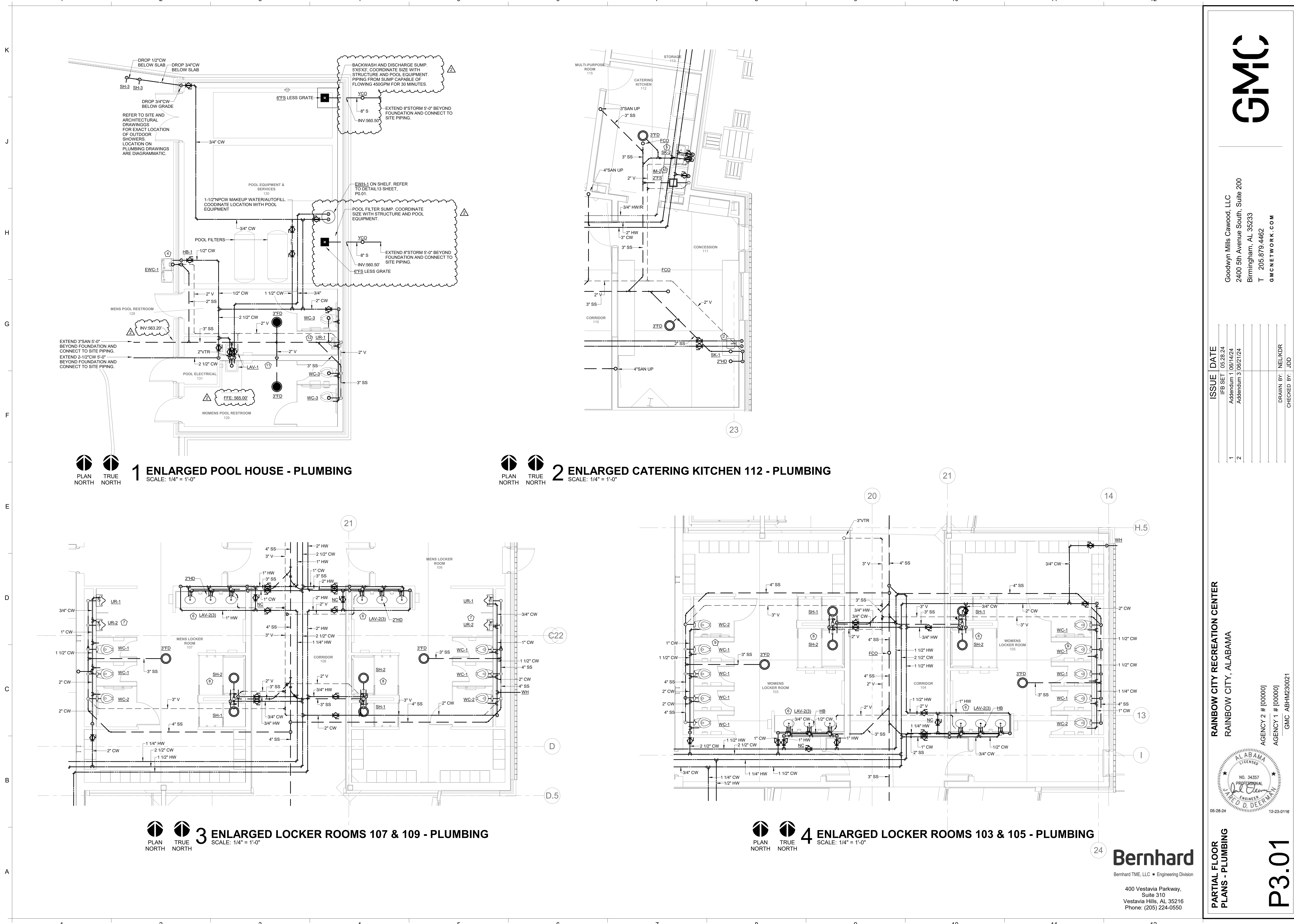


FLOOR PLAN L1 - SANITARY PIPING
P1.01

Bernhard
Bernhard TME, LLC - Engineering Division
400 Vestavia Parkway,
Suite 310
Vestavia Hills, AL 35216
Phone: (205) 224-0550

AGENCY 2 # [00000]
AGENCY 1 # [00000]
GMC ABHM230021

05-28-24 12-23-018

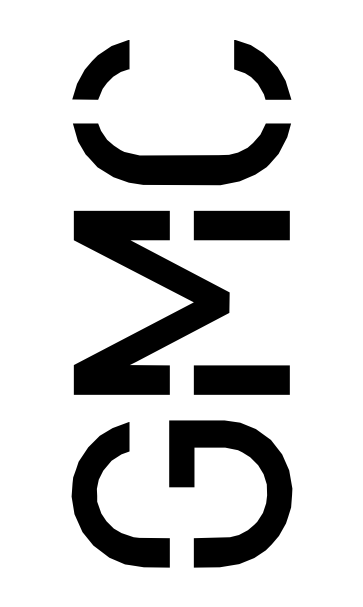


1 ENLARGED POOL HOUSE - PLUMBING
SCALE: 1/4" = 1'-0"

2 ENLARGED CATERING KITCHEN 112 - PLUMBING
SCALE: 1/4" = 1'-0"

3 ENLARGED LOCKER ROOMS 107 & 109 - PLUMBING
SCALE: 1/4" = 1'-0"

4 ENLARGED LOCKER ROOMS 103 & 105 - PLUMBING
SCALE: 1/4" = 1'-0"



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	Addendum 3 06/21/24

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CHECKED BY: JDD

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AGENCY 2 # [00000]
AGENCY 1 # [00000]
GMC ABHM230021

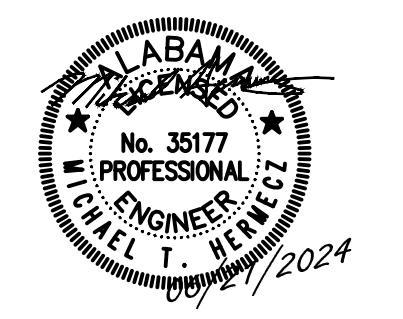


PARTIAL FLOOR PLANS - PLUMBING
P3.01

Bernhard
Bernhard TME, LLC • Engineering Division
400 Vestavia Parkway,
Suite 310
Vestavia Hills, AL 35216
Phone: (205) 224-0550

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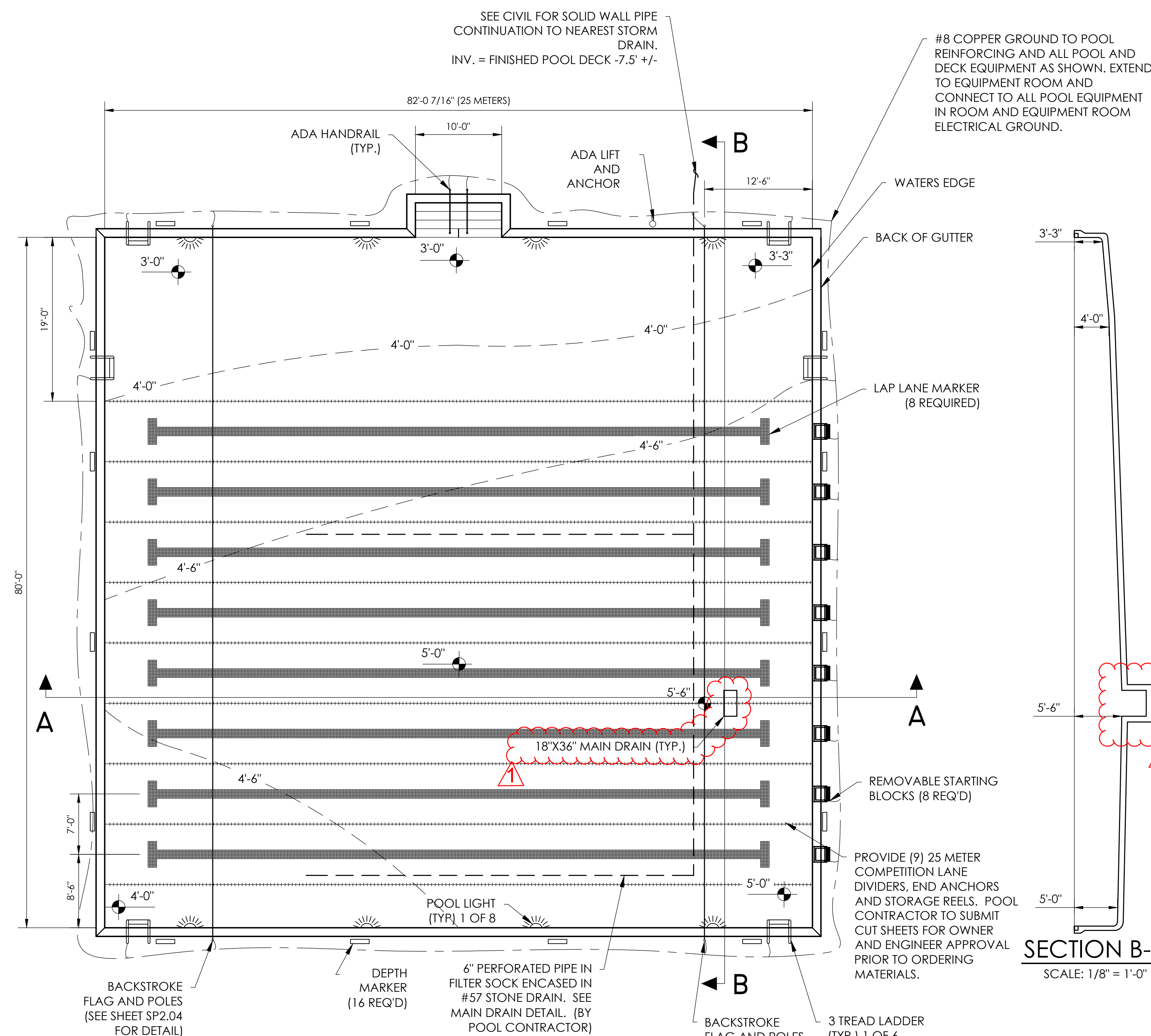


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GMC # ABHM230021

POOL LAYOUT

SP1.01

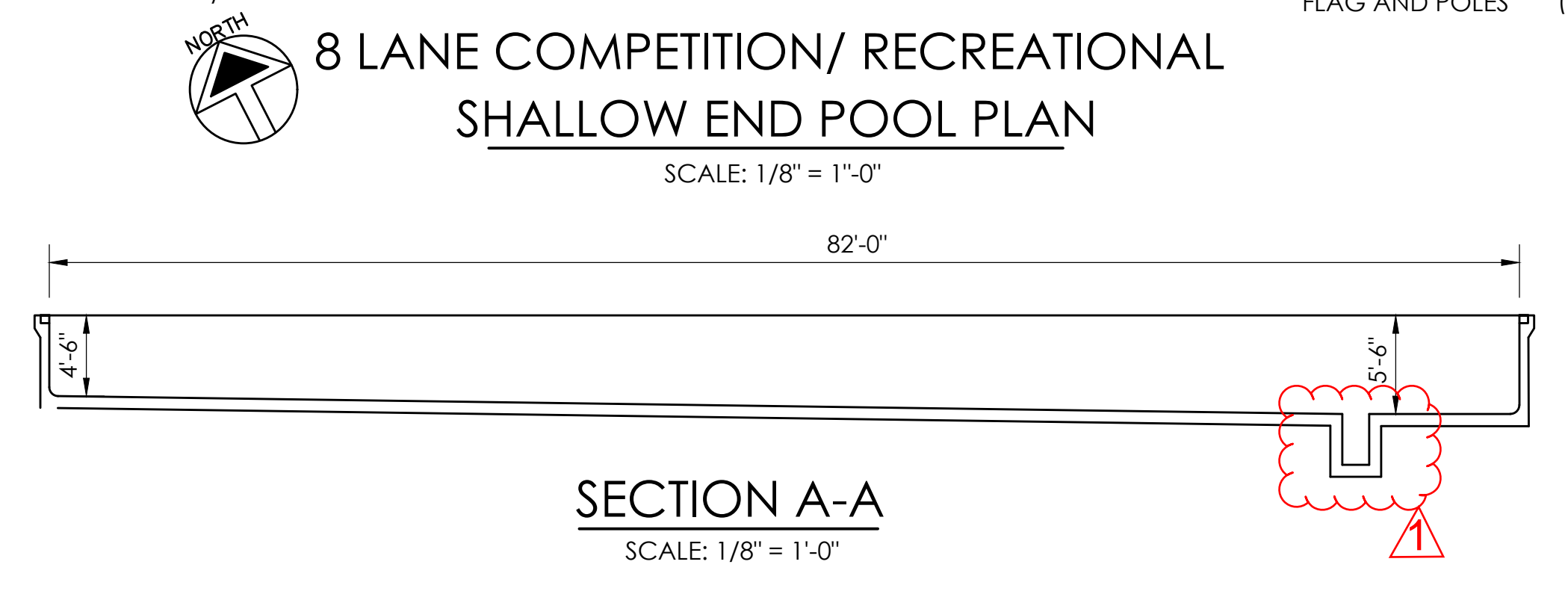
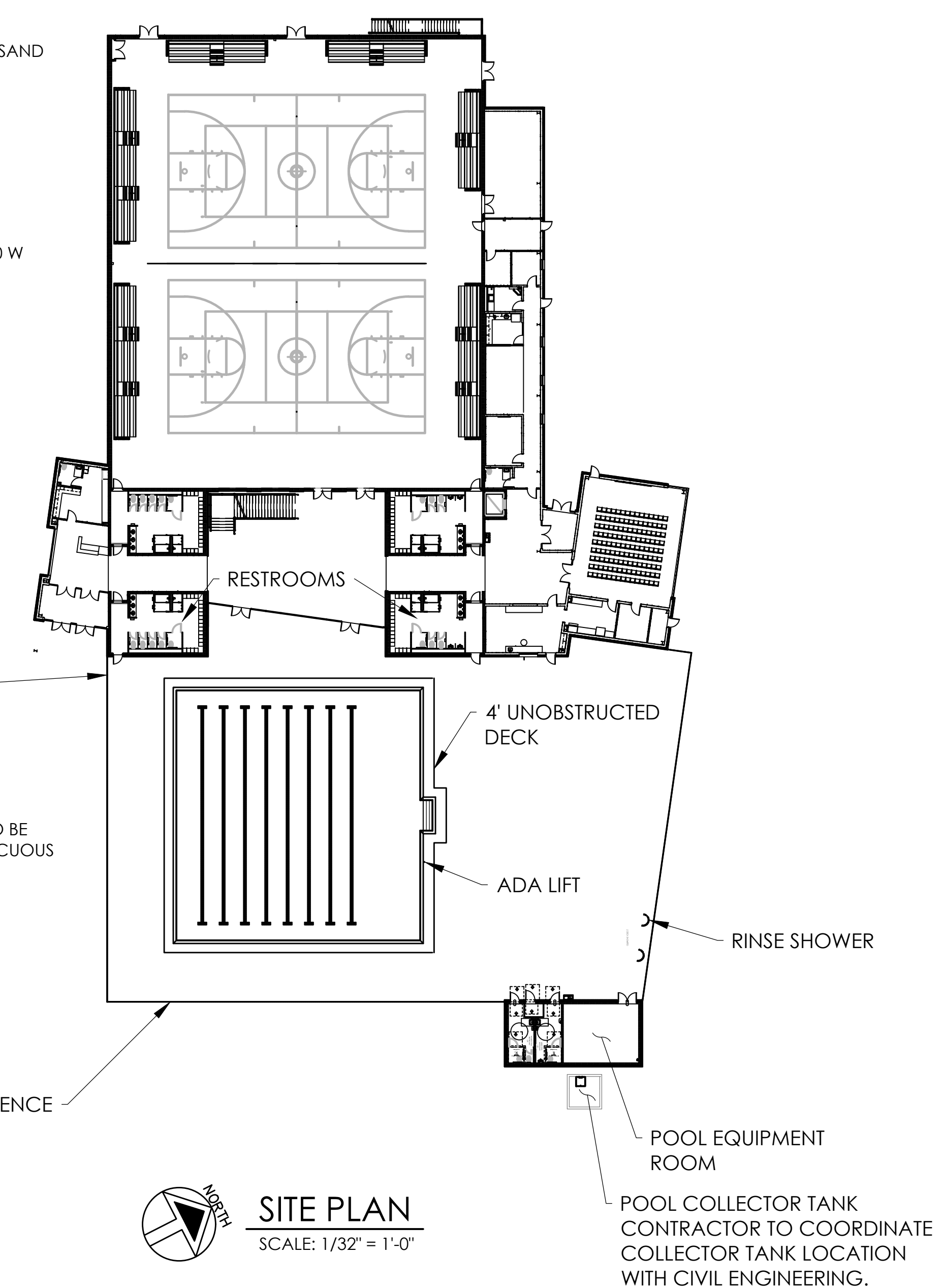


POOL DATA
 PERIMETER = 332'-0" (WATERLINE)
 AREA = 6,599 SQ. FT.
 VOLUME TOTAL = 221,332 GALLONS
 REQ'D TURN OVER RATE = 615 GPM
 POOL CLASSIFICATION: CLASS A
 DESIGN FLOW RATE = 820 GPM

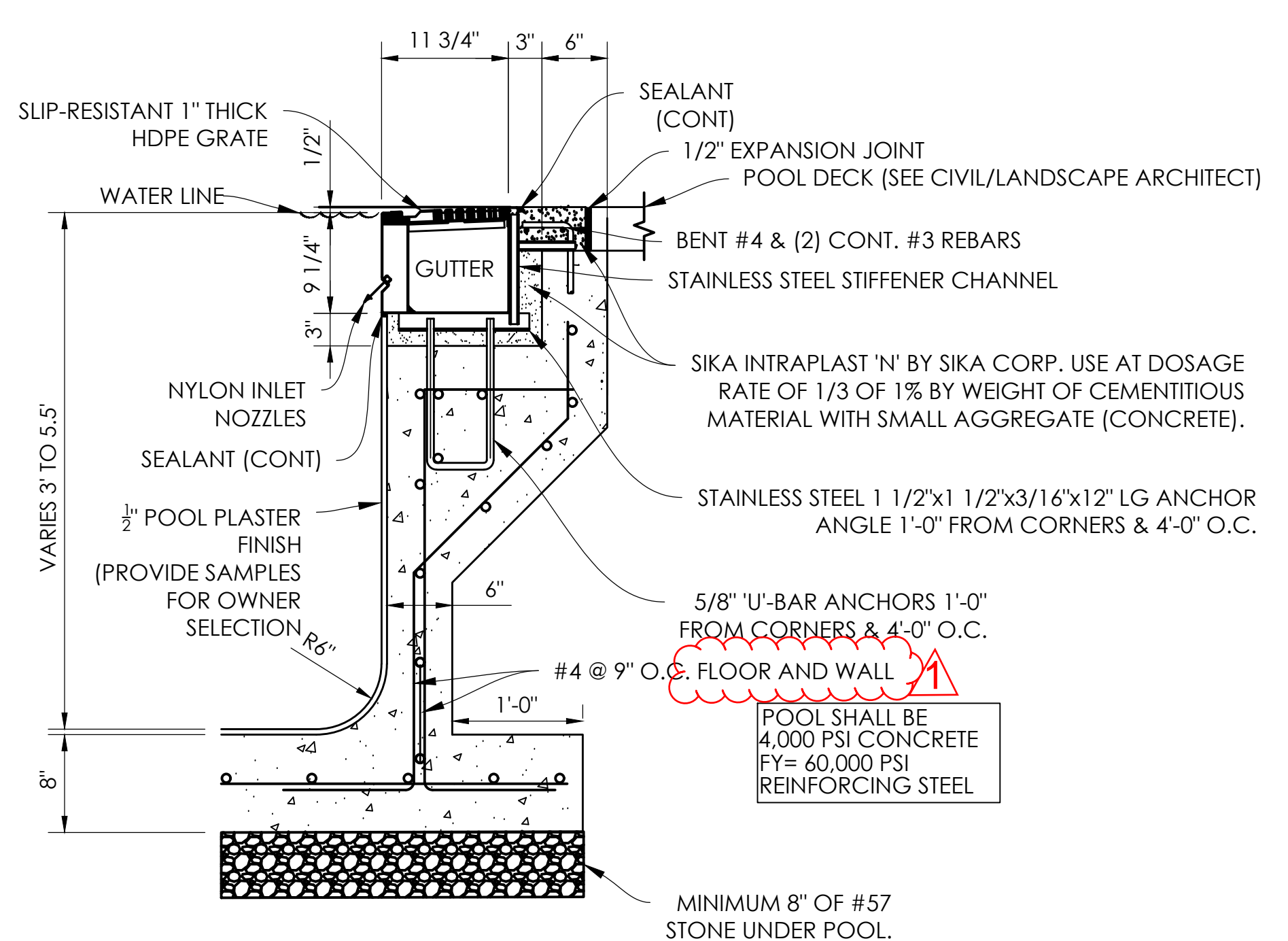
FILTER AREA = 60 SQ. FT.
 FILTER TYPE = FIBERGLASS HORIZONTAL PRESSURE SAND
 FILTER RATE = 13.67 GPM/SQ. FT.

MAXIMUM USER LOAD CALCULATION:
 DECK AREA AT LEAST EQUAL TO WATER
 BATHING LOAD CALC. = 15 SF/USER
 BATHING LOAD = 439 PERSONS

POOL LIGHTING CALCULATION:
 REQ'D LIGHTING = 6,599 SF X 0.5 WATTS/SF = 3,300 W
 PROVIDED LIGHTING = 8 X 500 W = 4,000 WATTS



ALL REINFORCING STEEL SHALL BE CENTERED IN FLOOR & WALLS GENERALLY, BUT OTHER MISC. BARS SHALL HAVE MIN 2" COVER ON POOL FINISH SIDE & 3" COVER ON EARTH SIDE.



STRUCTURAL POOL SHELL NOTES:

A GEOTECHNICAL REPORT HAS BEEN PREPARED BY GMC, REPORT # GBHM230043. TESTING WILL BE PROVIDED BY THE OWNER'S GEOTECHNICAL ENGINEER. ALL BEARING SURFACES SHALL BE TESTED TO MEET THE DESIGN PARAMETERS OUTLINED IN THE REPORT. COMPACTED FILL SHALL MEET THE REQUIREMENTS SET FORTH IN THE REPORT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REQUEST TESTING AND ENSURE CONCRETE IS NOT PLACED ON UNSATISFACTORY SUBSURFACE MATERIAL WITHOUT APPROVAL FROM THE GEOTECHNICAL ENGINEER.

BACKFILL FOR POOL WALLS SHALL BE A FREE DRAINING GRANULAR MATERIAL SUCH AS #57 STONE. BACKFILL SHALL BE COMPACTED SUFFICIENTLY TO PREVENT SUBSIDENCE OF SURFACE ADJACENT TO WALL. WALLS SHALL NOT BE BACKFILLED UNTIL CONCRETE HAS OBTAINED THE 28 DAY COMPRESSIVE STRENGTH. POOL BASE SLAB SHALL BE CAST IN PLACE CONCRETE.

POOL WALLS SHALL BE EITHER CAST IN PLACE CONCRETE OR SHOTCRETE (WET-MIX). 4000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS WITH 6% AIR ENTRAINMENT.

ALL REINFORCING SHALL BE GRADE 60, CONFORMING TO ASTM A615.

REINFORCING CLEARANCE SHALL BE 2" FOR WALLS. AND 3" FOR CAST SURFACES OR SHOT AGAINST EARTH.

ISSUE DATE

100% CDS	05/14/2024
IFB SET	05/28/2024
ADDENDUM 3 (REV 1)	06/21/2024

DRAWN BY: TCD
 CHECKED BY: MTH



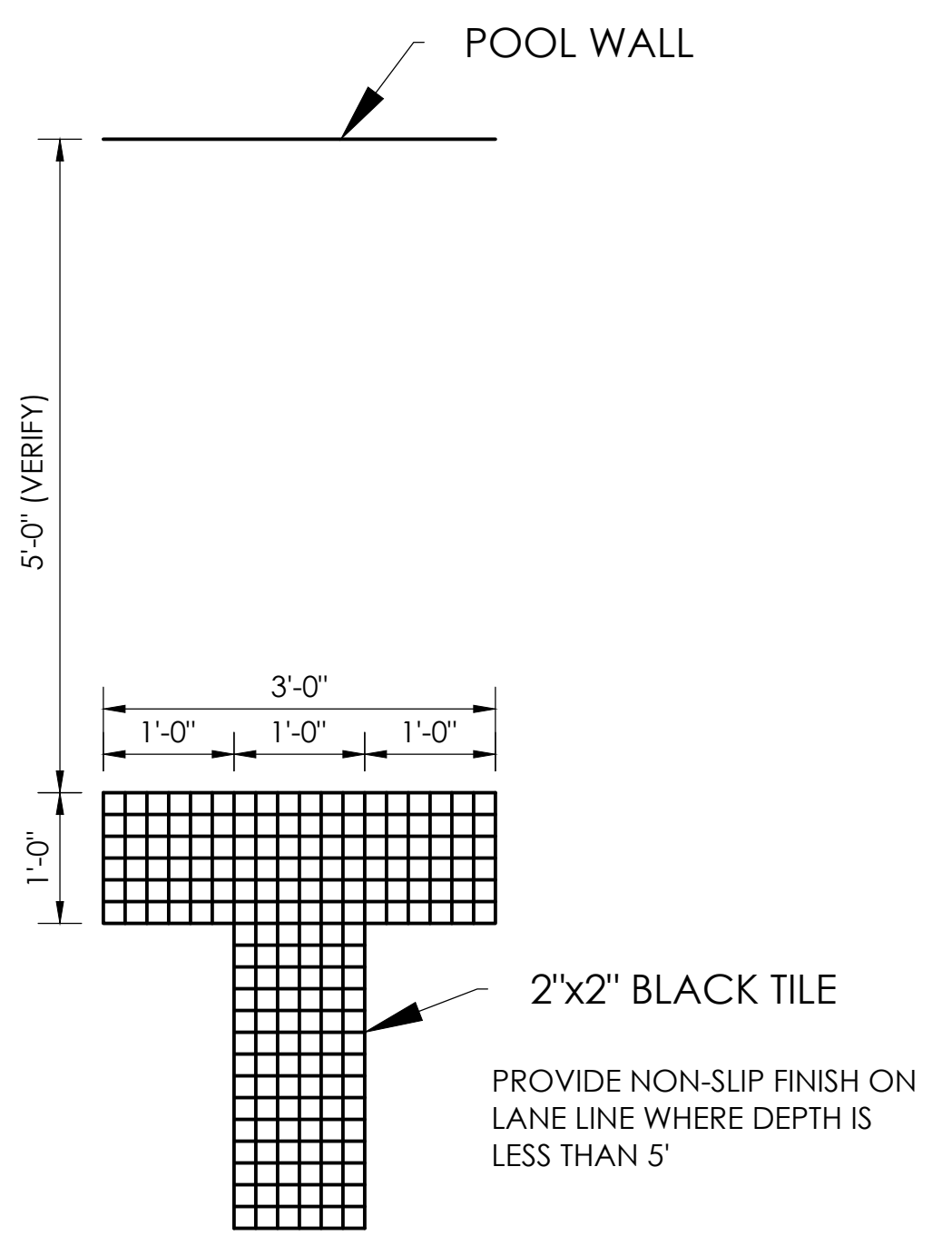
RAINBOW CITY RECREATION CENTER
 RAINBOW CITY, ALABAMA

POOL EQUIPMENT

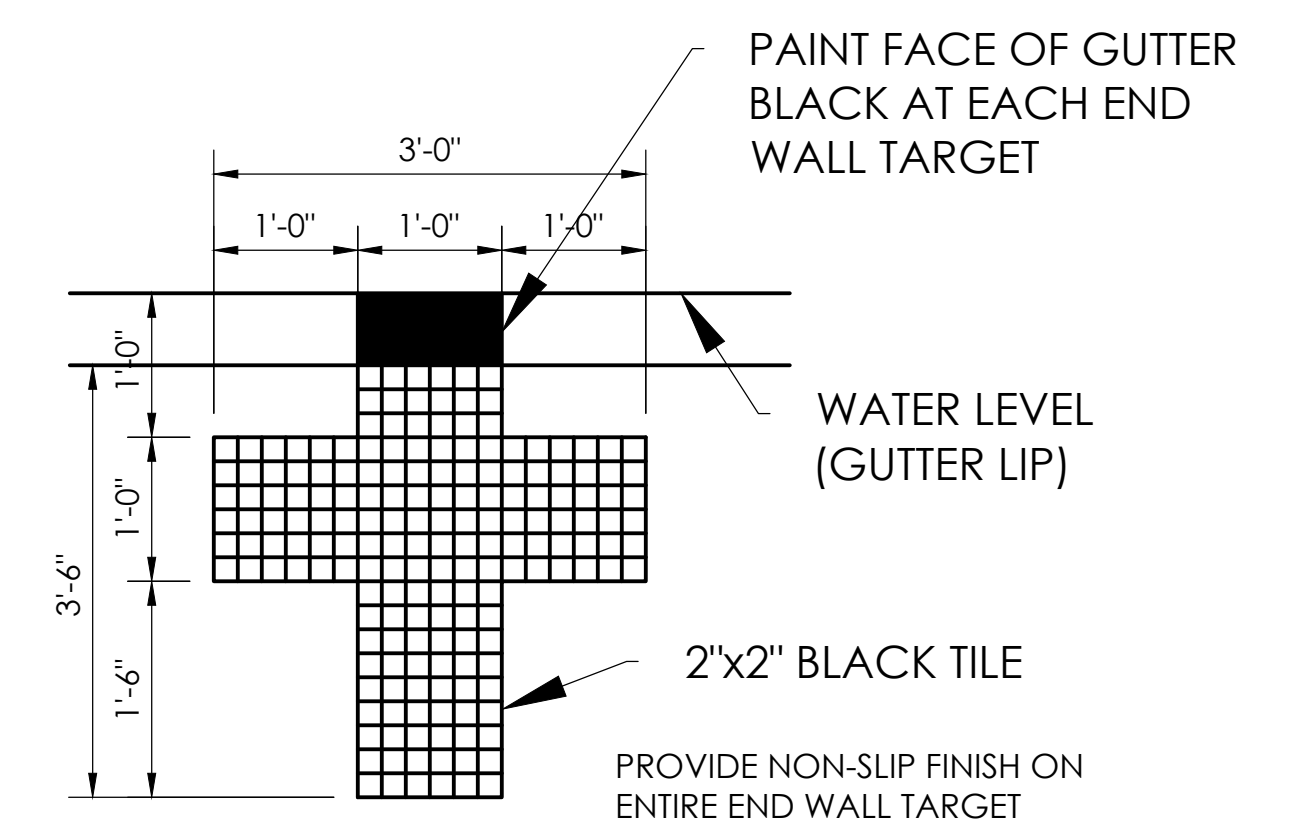
SP1.02

POOL EQUIPMENT LIST				
ITEM	QUANTITY	MANUFACTURER	DESCRIPTION	VOLTS-AMPS
MAIN DRAIN FRAME & GRATE & SUMP	1	DALDORADO	DGIMAX-SG-183634 18"X36"X34" SUMP AND GRATE PACKAGE	
FILTER	2	PADDOCK	HZF-48-30 48" FIBERGLASS HORIZONTAL PRESSURE SAND 60 SQ. FT. (30 SQ. FT. EA.) TOTAL AREA = 120 GPM/SQ. FT.	
FILTER PUMP	1	GRUNDFOS	LC 40957 (20 hp) W/ HAIR AND LINT STRAINER * AND SPARE BASKET. (820 GPM @ 60 FT. T.D.H.) WITH VFD	460 V 3 PHASE
VFD	1	SIEMENS	SEE SHEET SP2.03	
FLOW METER	1	BLUE WHITE	CF-30800P, 8" 300 TO 2200 GPM	
PRESSURE GAUGE	2	BLUE WHITE	2 1/2" FACE 0 TO 60" PSI	
VACUUM GAUGE	1	BLUE WHITE	2 1/2" FACE 0 TO 30" VACUUM	
CHLORINATOR	1	PROMINENT	SERIES CONCEPT PLUS, PN CN-PB-0215NP82ND010 LIQUID NAOCL SANITIZER * DIAPHRAGM PUMP, 0.95 GAL/24 HRS, W/ (2) DOUBLED WALL 50 GALLON CROCKS	120V 60Hz
PH FEEDER	1	PROMINENT	SERIES CONCEPT PLUS, PN CN-PB-0215NP82ND010 HCL PH CONTROL * DIAPHRAGM PUMP, 0.95 GAL/24 HRS, (2) DOUBLED WALL 50 GALLON CROCKS	120V 60Hz
SALT-CHLORINE GENERATOR	4	HAYWARD	HCS110 4" UNION 10 LBS/DAY *	120V 60Hz 1PH
CHEMICAL CONTROLLER	1	PROMINENT	MODEL DCM-513 SERIES PN 1093020 COMPLETE PACKAGE	5A/120V
AUTO-FILL	1	JANDY	JANDY LEVELOR K-1100	0.5A/120V
3 TREAD LADDER	6	PADDOCK	SEE SHEET SP2.04 316L S.S.	
HANDRAIL	2	S.R. SMITH	3HR-SADA 5'-0" 3 BEND-065 1.90x.065 316L SS (60")	
DEPTH MARKERS	16	PADDOCK	SEE SHEET SP2.04	
ESCUTCHEON AND WEDGE ANCHOR	16	PADDOCK	SEE SHEET SP2.04	
LIGHT W/ NICHE	8	HAYWARD	LPWU511XXX LED LIGHTS 72 WATTS (500 WATTS EQUIVALENT)	
TEST KIT	1	TAYLOR	2006 - SALT	
LIFE RING	2	CAL-JUNE	20" USCG LIFE RING-WHITE W/ 60' ROPE	120V
LIFE HOOK W/ POLE	2	AQUALITY	10138 RESCUE HOOK (RH1038)/4004 16' POLE	
STARTING BLOCK	8	PADDOCK	SEE SHEET SP2.04	
STARTING BLOCK ANCHOR	8	PADDOCK	SEE SHEET SP2.04	
LEAF SKIMMER	1	HAYWARD	PLASTIC - SP1700	
BRUSH	1	RAINBOW	18" CURVED BRUSH #902	
VACUUM CLEANER	1	WATERCO	PORTABLE WITH ON-BOARD CARTRIDGE FILTER	
VACUUM CLEANER HEAD	1	PENTAIR	R201269 29" VACUUM HEAD W/ 48" POLE AND 50' VACUUM HOSE	
PERIMETER GUTTER & GRATING	340'-0"	PADDOCK	SEE SHEET SP2.04 316L S.S. (MEASURED AT OUTSIDE OF GRATE)	
MOVEABLE LIFE GUARD CHAIR	1	PADDOCK	SEE SHEET SP2.04	
ADA LIFT AND ANCHOR	1	AQUA CREEK	F-MTY600 W/ F-8085A ANCHOR	

TOTAL OPEN AREA: 401.76 SQ. IN.
 VGB FLOOR FLOW RATE 2869 gpm
 (ANSI/ASPE-16 2017 COMPLIANT)



TYPICAL FLOOR MARKER DETAIL
 SCALE: 3/4" = 1'-0"



TYPICAL WALL TARGET DETAIL
 SCALE: 3/4" = 1'-0"

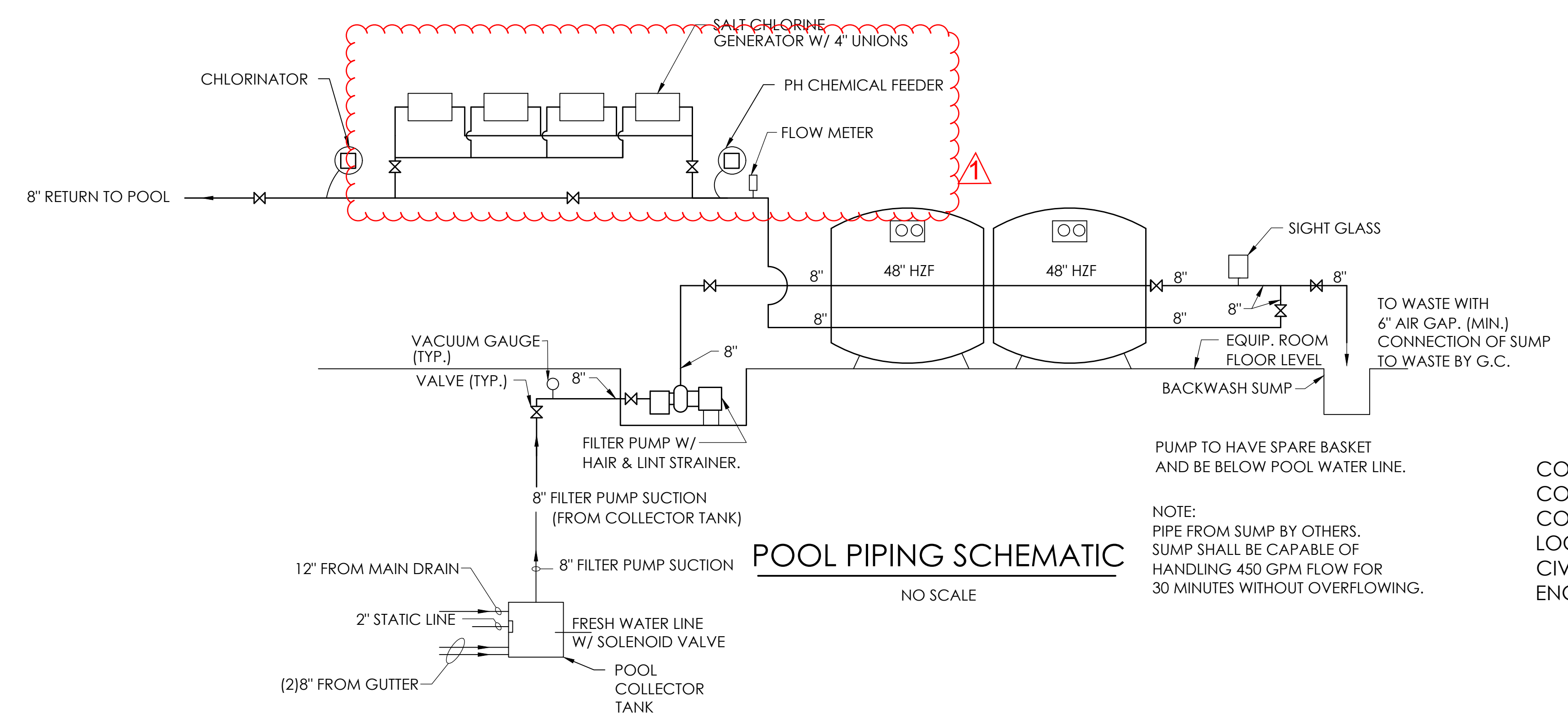
NOTE: PIPE ROUTING AS SHOWN AND DETAILED ON THE DRAWINGS IS DIAGRAMATIC ONLY AND IS NOT INTENDED TO SHOW MINOR DETAILS OR EXACT LOCATIONS OF PIPING SYSTEMS. INSTALLATION IS REQUIRED TO BE ADJUSTED TO ACCOMMODATE INTERFERENCE AND ADJUSTMENTS ANTICIPATED AND ENCOUNTERED. PIPE SIZES ON PLANS REFER TO NOMINAL INSIDE DIAMETER OF THE PIPE.

NOTE: ALTERNATE VENDORS FOR POOL EQUIPMENT SPECIFICATIONS MAY BE IMPLEMENTED GIVEN SUBMITTAL INFORMATION IS REVIEWED AND APPROVED BY POOL ENGINEER.

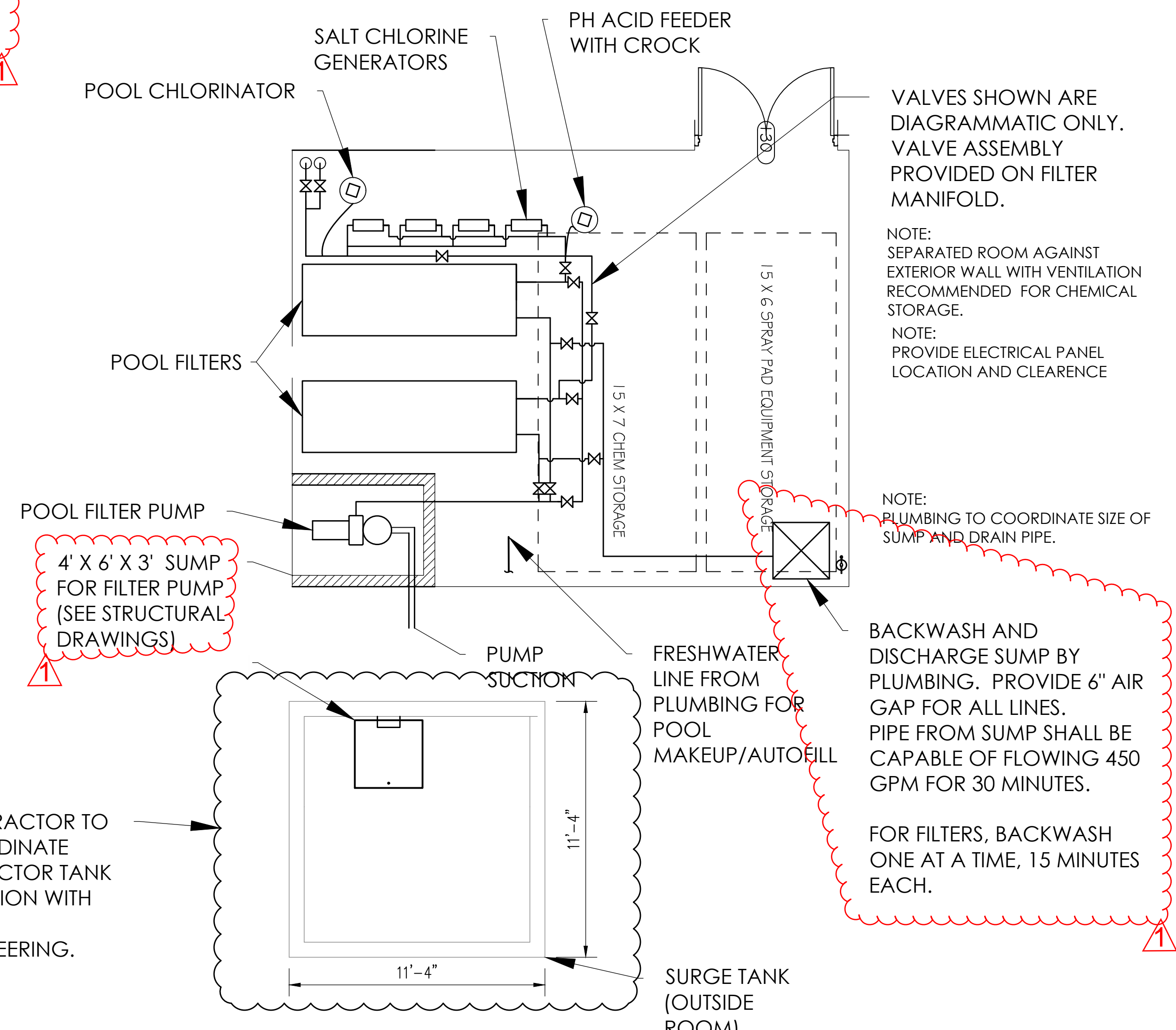
S.S. STEEL GUTTER TO HAVE MINIMUM 5 YEAR WARRANTY.

* NOTE: CHLORINATORS AND CHEMICAL FEEDERS TO BE ELECTRICALLY INTERLOCKED TO PREVENT OPERATION WHEN MAIN FILTER PUMP IS NOT WORKING AND SHALL HAVE MEANS TO PREVENT BACKFLOW. PROVIDE METHOD TO START/STOP CHEMICAL FEEDER WHEN PUMP IS RUNNING.

CHLORINATOR CALCULATION:
 (820 GPM x 60 MIN/HR x 24 HRS/DAY x 62.4 #/CF x 0.000006 PPM) / (7.48 GAL/CF) = 59.1 PPD



POOL PIPING SCHEMATIC
 NO SCALE



FILTER EQUIPMENT BUILDING PLAN
 SCALE: 1/4" = 1'-0"

VALVES SHOWN ARE DIAGRAMMATIC ONLY. VALVE ASSEMBLY PROVIDED ON FILTER MANIFOLD.

NOTE: SEPARATED ROOM AGAINST EXTERIOR WALL WITH VENTILATION RECOMMENDED FOR CHEMICAL STORAGE.

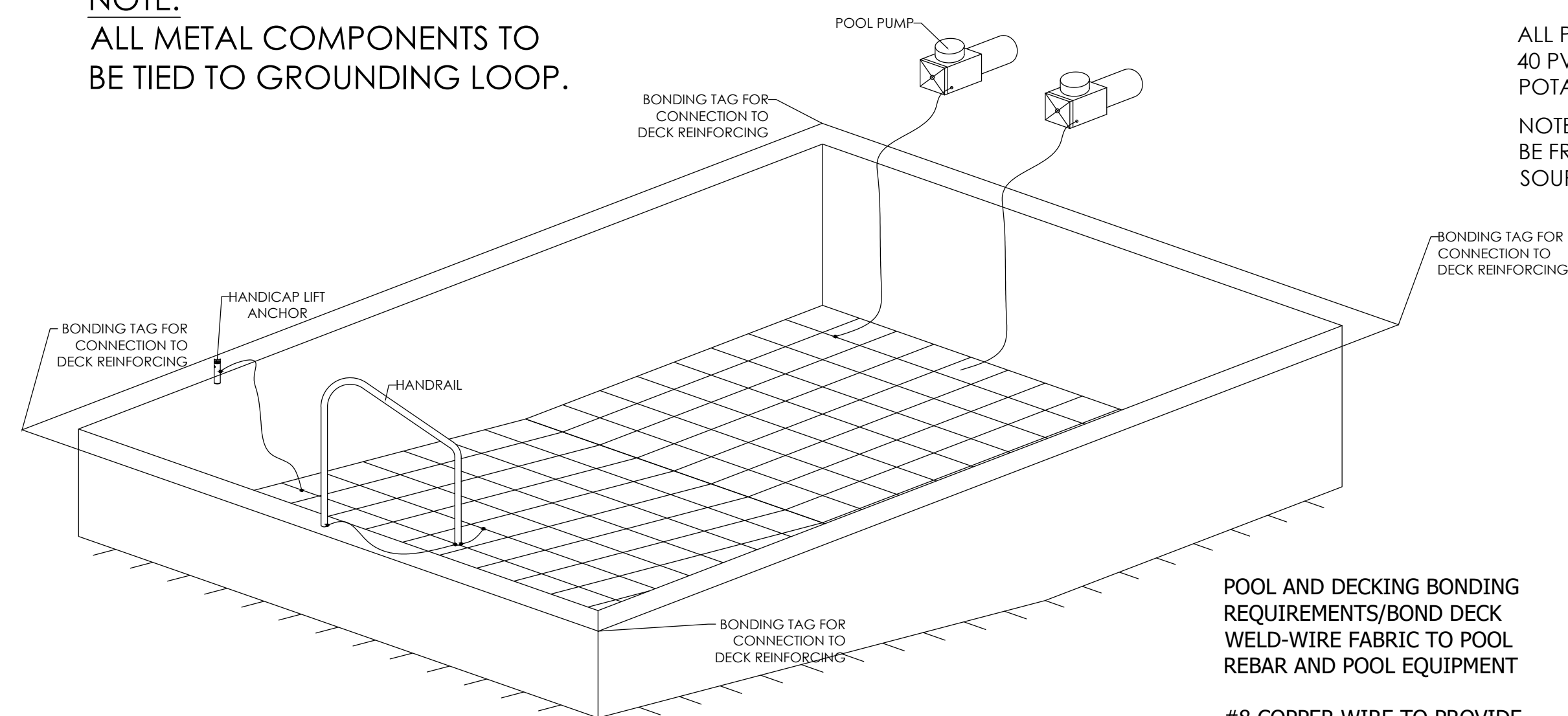
NOTE: PROVIDE ELECTRICAL PANEL LOCATION AND CLEARANCE

NOTE: PLUMBING TO COORDINATE SIZE OF SUMP AND DRAIN PIPE.

BACKWASH AND DISCHARGE SUMP BY PLUMBING. PROVIDE 6" AIR GAP FOR ALL LINES. PIPE FROM SUMP SHALL BE CAPABLE OF FLOWING 450 GPM FOR 30 MINUTES.

FOR FILTERS, BACKWASH ONE AT A TIME, 15 MINUTES EACH.

NOTE:
 ALL METAL COMPONENTS TO
 BE TIED TO GROUNDING LOOP.

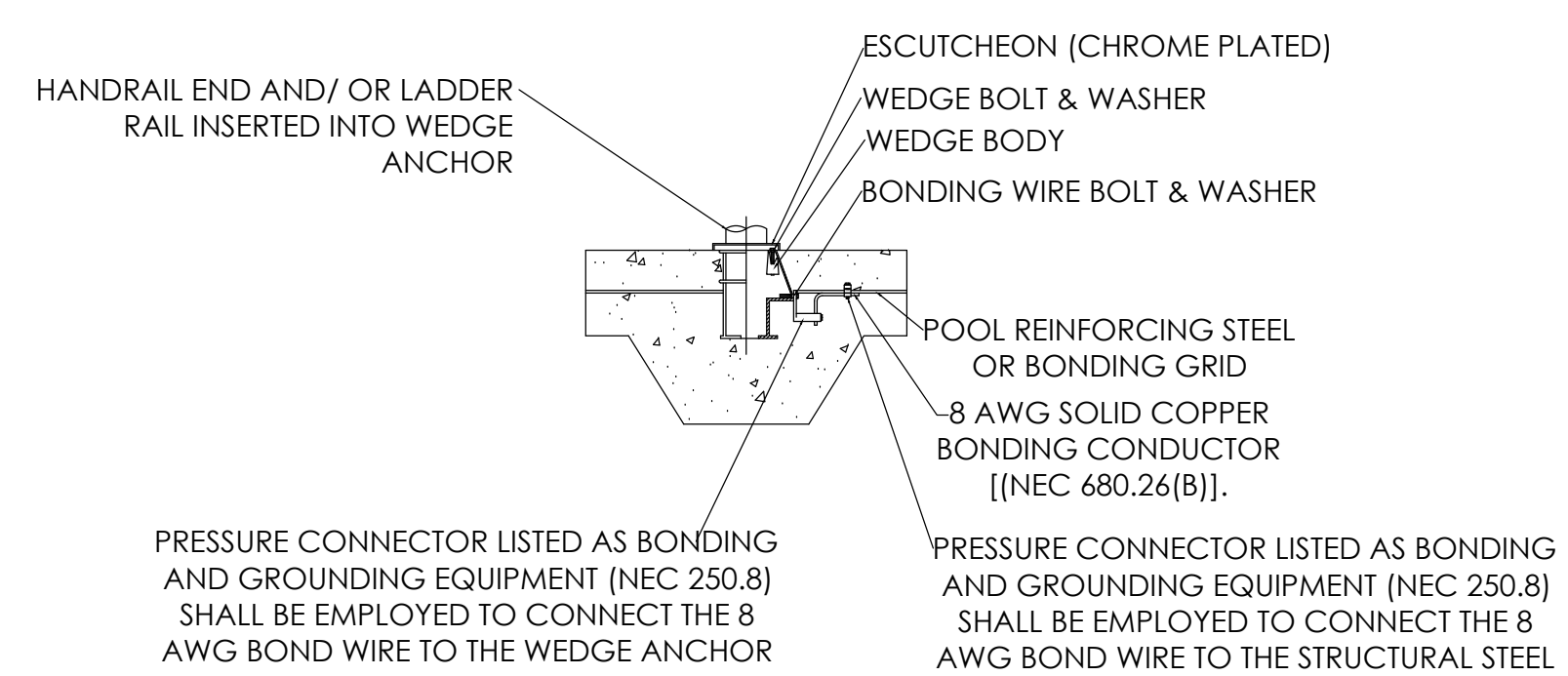


ALL PIPING SHALL BE SCHEDULE
 40 PVC - N.S.F. APPROVED FOR
 POTABLE WATER W/ LOGO ON PIPE.
 NOTE: POOL MAKEUP WATER SHOULD
 BE FROM AN APPROVED MUNICIPAL
 SOURCE.

POOL AND DECKING BONDING
 REQUIREMENTS/BOND DECK
 WELD-WIRE FABRIC TO POOL
 REBAR AND POOL EQUIPMENT

#8 COPPER WIRE TO PROVIDE
 CONTINUOUS LOOP AROUND
 POOL HITTING 4 CORNERS AND
 STINGERS FROM THE SHELL. (BY
 OTHERS)

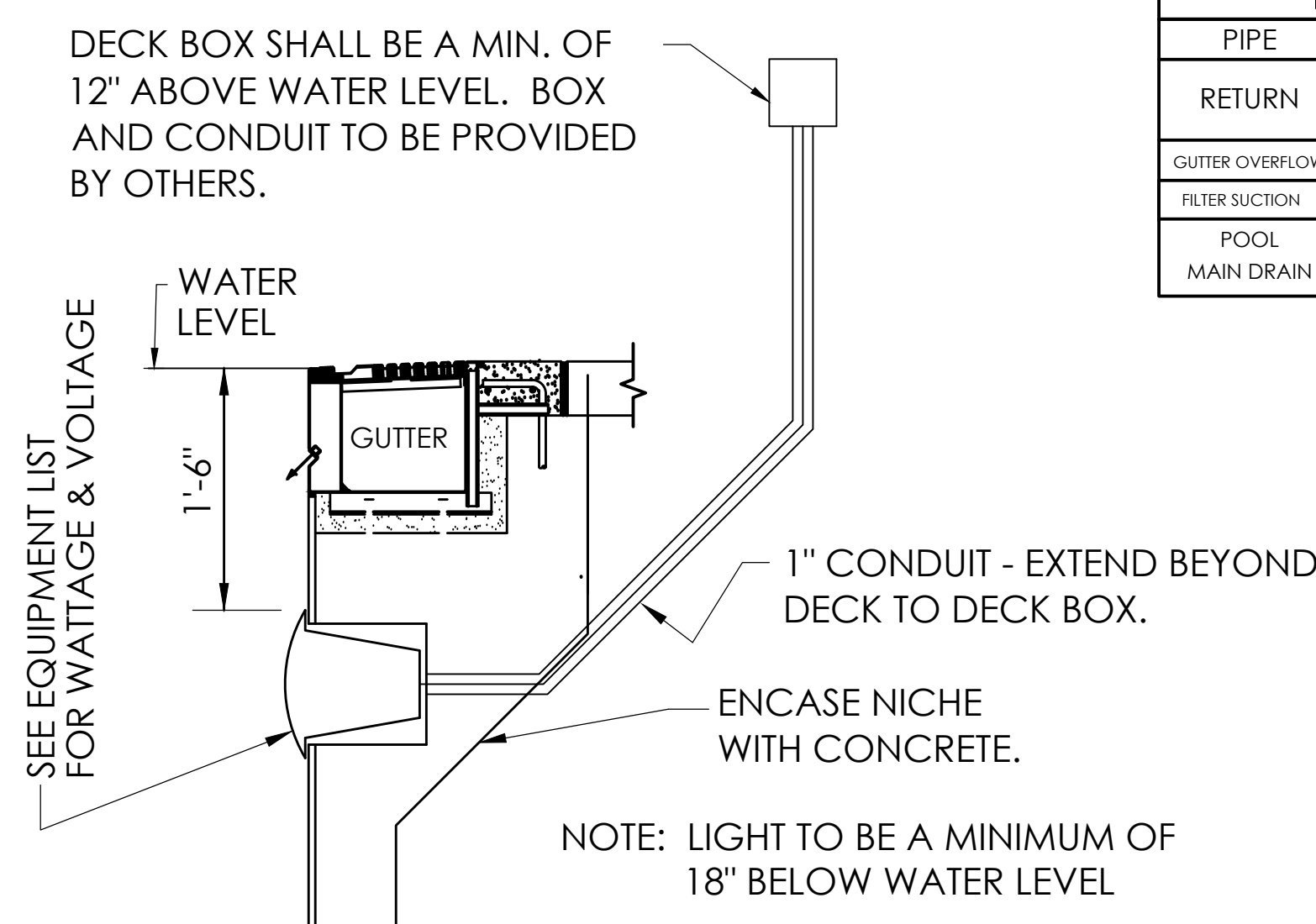
TYPICAL BONDING DETAIL
 N.T.S.



PRESSURE CONNECTOR LISTED AS BONDING
 AND GROUNDING EQUIPMENT (NEC 250.8)
 SHALL BE EMPLOYED TO CONNECT THE 8
 AWG BOND WIRE TO THE WEDGE ANCHOR

PRESSURE CONNECTOR LISTED AS BONDING
 AND GROUNDING EQUIPMENT (NEC 250.8)
 SHALL BE EMPLOYED TO CONNECT THE 8
 AWG BOND WIRE TO THE STRUCTURAL STEEL

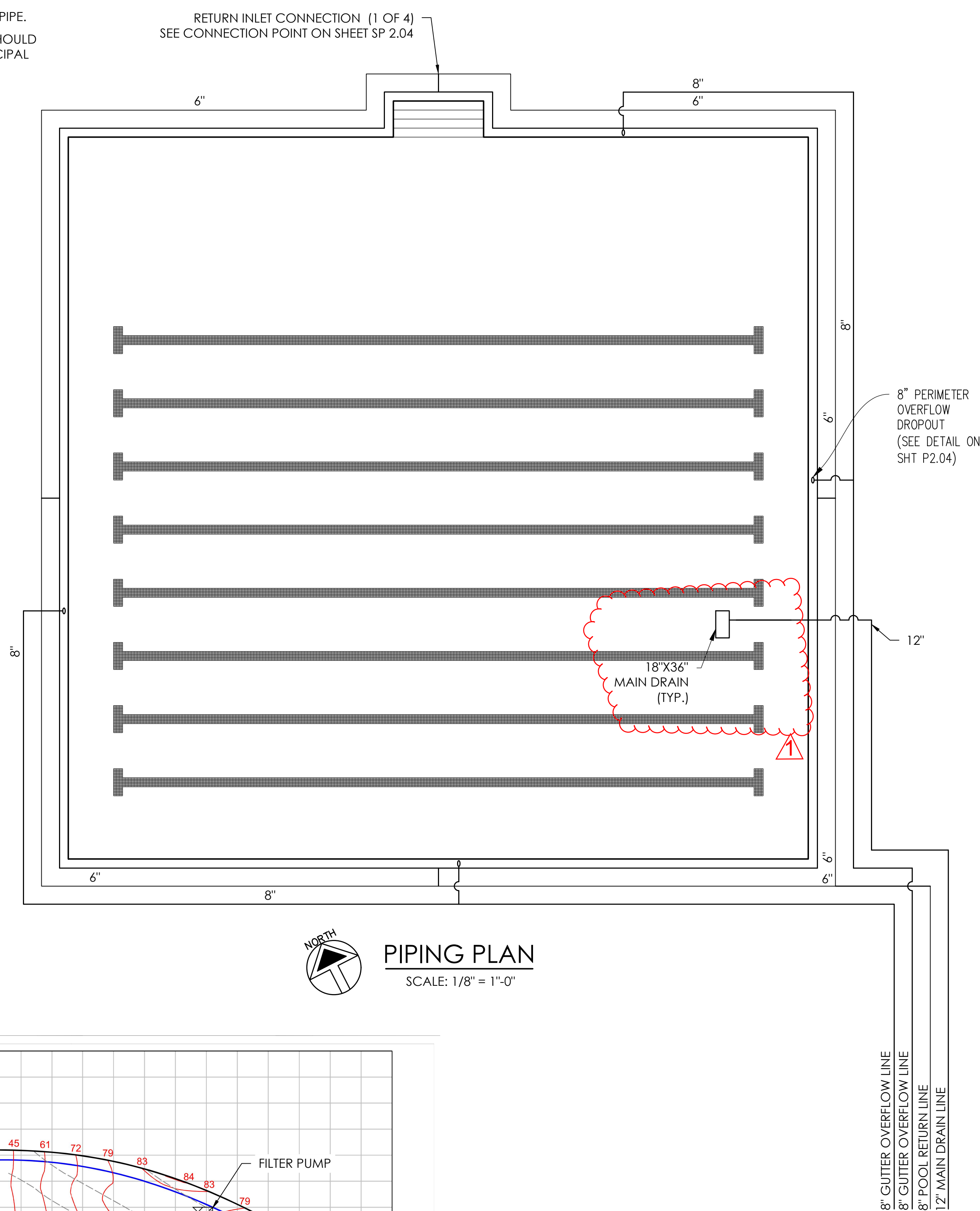
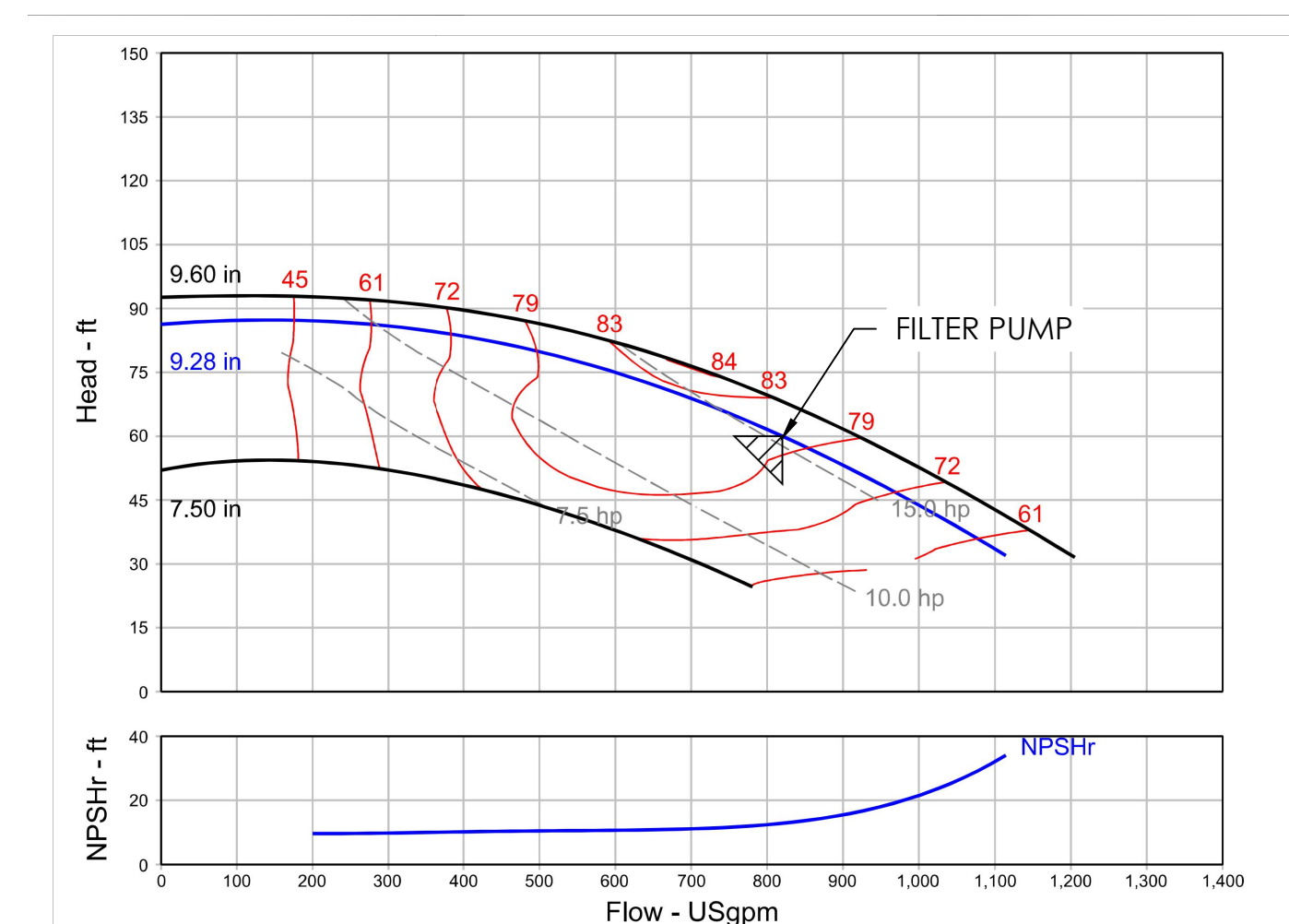
TYPICAL BONDING DETAIL FOR METALLIC PARTS
 NOT TO SCALE



NOTE: LIGHT TO BE A MINIMUM OF
 18" BELOW WATER LEVEL

TYPICAL LIGHT DETAIL
 N.T.S.

POOL FLOW SCHEDULE				
PIPE	SIZE	FLOW	VELOCITY	HEAD LOSS
RETURN	8"	820 gpm	5.25 fps	1.11'
	6"	410 gpm	4.55 fps	1.79'
GUTTER OVERFLOW	8"	410 gpm	2.62 fps	0.30'
FILTER SUCTION	8"	820 gpm	5.25 fps	1.11'
POOL MAIN DRAIN	12"	820 gpm	2.32 fps	0.15'
	18X36 401.76 sq ft	1200 gpm	0.96 fps	

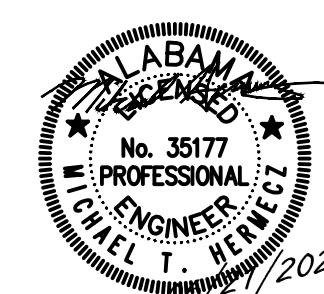


PIPING PLAN
 SCALE: 1/8" = 1'-0"

ISSUE DATE

100% CDS	05.14.2024
IFB SET	05.28.2024
ADDENDUM 3 (REV 1)	06.21.2024

DRAWN BY: TCD
 CHECKED BY: MTH



RAINBOW CITY RECREATION CENTER
 RAINBOW CITY, ALABAMA

POOL PIPING

SP2.02

GMC # ABHM230021

PADOCK FIBERGLASS HORIZONTAL FILTERS

ITEM DESCRIPTION
1. FIBERGLASS FILTER TANK WITH FLANGED CONNECTIONS & SABLES
2. TANK MANWAY ASS'Y
3. 1" AIR RELEASE
4. 2" PVC OVERSBRAN HEAVY W/ 1/2" PVC LATERALS
5. 3" PVC UNDERBRAN HEAVY W/ 1/2" HDPE THREADED LATERALS
6. SHAFT DRIVE
7. FILTER SAND CAR TO 2500 UNIFORMITY COEFFICIENT C_u 140
8. 1/4" DIA. 2" TO 2.5" SAND MEDIA
9. FIBERGLASS INFILTRATE PLATES

GENERAL NOTES:
FINISH - SOL. BL. PVC. MAX. VELOCITY LESS THAN 10 FPS. PUMP DEPOTED WITH SANDS ARE NOT DEPOTED IN PANOCK.
FILTRATION PRESSURE @ 60 PSI.

VALVE LEGEND
NO. VALVE DESCRIPTION FILTER BACKWASH
1. RETURN TO POOL O X
2. BACKWASH TO WASTE X O
3. FILTER INFLUENT O X
4. BACKWASH INFLUENT X O

GENERAL NOTES:
D=OPEN, X=CLOSED

NSF
INTERNATIONAL
FOOD SAFETY AND HYGIENE

PADOCK POOL EQUIPMENT COMPANY
555 Paddock Parkway, Rock Hill, SC 29730-1876
Phone: (803)949-2729 Fax: (803)324-1116
Info@paddockusa.com

PADOCK FIBERGLASS HORIZONTAL FILTERS

CATALOG NO.	3/4" DIA.	1" DIA.	1 1/2" DIA.	2" DIA.	3" DIA.	4" DIA.	6" DIA.	8" DIA.
HDF-24-16.5	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-21	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-26	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-30	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-34	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-38	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-42	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-46	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-50	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-54	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-58	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-62	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-66	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-70	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-74	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-78	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-82	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-86	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-90	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-94	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-98	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-102	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-106	30"	48"	66"	84"	102"	120"	138"	156"
HDF-24-110	30"	48"	66"	84"	102"	120"	138"	156"

FIBERGLASS HORIZONTAL FILTERS
REV. 02/11/2023
DATE 7/5/20

PROJECT NO. 24162.00

CERTIFIED MAXIMUM FLOW RATE:

FLOOR-2,869 GPM WALL-2,080 GPM

CERTIFIED MAXIMUM FLOW RATE:
FLOOR-2,869 GPM WALL-2,080 GPM

SUMP AND GRATE, UNLOCKABLE SOFA CERTIFIED TO ASP/ANSI/ICC-16 2017, NSF/ANSI/CAN 50-2020, AND USPC. RPD FIBERGLASS CERTIFICATION IS NOT REQUIRED. CORROSION RESISTANT, NON-CONDUCTIVE, NON-MAGNETIC, AND REQUIRES NO BONDING.

SUMP: FABRICATED WITH 8-OZ FIBERGLASS MAT AND WHITE MARINE GRADE GEL COAT (APPLIED INSIDE ONLY). A 1.5-IN FRP WATER STOP IS LOCATED 5-IN BELOW TOP OF SUMP AND A 1.5-IN FRP BRACE IS APPLIED, BOTH AROUND THE OUTSIDE PERIMETER. TWO (2) 2-IN SCH-40 FEMALE THREADED ADAPTERS ARE INSTALLED STANDARD ON THE BOTTOM OF THE SUMP FOR HYDROSTATIC VALVE CONNECTION. THE MAXIMUM SIDE PORT SIZE IS 1.6-IN, AND PORT SIZES > 1.6-IN ARE PERMITTED TO BE LOCATED ON THE BOTTOM. ANY CONFIGURATION OF MULTIPLE PORTS OF ANY SIZE IS PERMITTED PROVIDED ALL SIDE PORTS ARE <= 1.6-IN. THE CERTIFIED MAXIMUM FLOW RATE FOR THE SOFA MUST NOT BE EXCEEDED. "DALDORADO" IS STENCILED ON THE BODY, AND MARKING REQUIRED BY STANDARDS IS IMPRINTED ON THE LEGGE. OPTIONAL WATER STOPS ON PORTS, MOUNTING UNISTRUTS, AND PORT GUSSETS ARE AVAILABLE. PORTS MAY BE SCH-40 OR SCH-80, TYPE SLIP COUPLING, THREADED FEMALE ADAPTER, OR FLANGE COUPLING.

GRATE: TWO (2) FLAT 18-IN X 18-IN GRATES FORMED OF UV-STABILIZED MOLDED PVC, CERTIFIED TO ASP/ANSI/ICC-16 2017, NSF/ANSI/CAN 50-2020, AND USPC. THE TOP SURFACE OF THE GRATE HAS A RETURNED DESIGN FOR SLIP RESISTANCE. GRATE SECTIONS ARE 0.20-IN (5MM) WIDE AND 1-IN (25.4MM) AVG. DEPTH FOR LOAD STRENGTH REQUIREMENTS. SPACE BETWEEN GRATE BARS DOES NOT EXCEED 0.39-IN (10MM). GRATE PROVIDES A MINIMUM 62% OPEN AREA FOR UNRESTRICTED WATER FLOW. THE MANUFACTURE DATE AND MARKING REQUIRED BY STANDARDS IS MOLDED INTO EACH GRATE.

INSTALLATION: FOLLOW DALDORADO SUPPLIED INSTALLATION INSTRUCTIONS AND WARNINGS. GRATE MUST BE INSTALLED WITHIN SUMP USING ONLY THE #18 X 1/2" X 20" 25" MACHINE SCREENS (TESTED TO ASP/ANSI/ICC-16 2017) AS SUPPLIED BY DALDORADO. NO OTHERS ARE PERMITTED.

DALMAX-SG-183634 OPTIONS	
TOTAL GPM	2849 FLOOR, 2080 WALL
PORT CONFIGURATIONS	ANY PER NOTES ABOVE
PIPE SCHEDULE/PVC	40 80
MAX PORT SIZE, SIDE	1.6-IN
MAX PORT SIZE, BOTTOM	2.4-IN
COLOR	WHITE
ANY P.O. SUBMITTAL MUST BE ATTACHED TO ORDER FORM	

Product: 18x36x34 Sump & Grate Package
Product #: DalMAX-SG-183634
Material: FG/PVC
Color: WHITE
Rev Date: 07/20/2022
Rev By: Daldorado

3727 Arnold Ave, Naples, FL 34104
Phone: 888.509.8128
Website: www.daldorado.com

DALDORADO

SUMP LIFE: LIFE OF THE AQUATIC FACILITY
GRATES AND FASTENERS: 25 YEAR SERVICE LIFE/10 YEAR WARRANTY

All drawings are saved in a .dwg format and are provided as a service to our customers. Dimensions supplied by DalDorado are for reference only. DalDorado or any authorized distributor of our products will not be held responsible from files which have been converted and does not warrant the documents against deficiencies or topographical errors of any kind. All measurements of the actual product must be verified before any custom fabrication in the field occurs. COPYRIGHT: This document is the property of DalDorado, LLC and is provided on an "as-is" confidence basis. It may not be copied or reproduced without the permission of DalDorado or its authorized agent.

GRUNDFOS LC - End Suction Centrifugal Pump, Close Coupled

GRUNDFOS
SUBMITTED BY: SERVICE Filter Pump
DATE: APPROVED BY: DATE
CONTRACTOR: ORDER # DATE

LC 40957
1760 rpm
Part Number N/A

Conditions of Service		Pump Data		Motor Data	
Flow	620.0 USgpm	Impeller Diameter	9.28 in	Motor HP	20 HP
Head	60.00 ft	Max. Imp. Dia.	9.80 in	BHP	15.47
Fluid	Cold Water	Min. Imp. Dia.	7.50 in	Enclosure	ODP
Temperature	69.00 deg F	Efficiency	80.31 %	Voltage	230/460 V
NPSHr	12.86 ft	Suction	5.1 in	Phase	3 Phase
Viscosity	1.00 cP	Discharge	4 in	Cycle	60
Specific Gravity	1.00 SG	PE (CL)	0.96	Frame Size	250J
		ER (CL)	4		

Typical Applications
This specification covers a complete Variable Frequency Drive consisting of a pulse width modulated inverter and 1317 FVSI with the motor.
1. VFD shall have a Variable Frequency Drive (VFD) with the motor.
2. VFD shall have a Variable Frequency Drive (VFD) with the motor.
3. VFD shall have a Variable Frequency Drive (VFD) with the motor.

Features
• Motor Switch Ride Through – during maintenance the motor maintenance switch can be opened and closed without stopping or tripping the drive
• Thin Film Capacitors – eliminates the need to condition or reform the capacitors before applying power
• View/Monitor nine parameters at one time – User selectable, users determine the parameters for their applications
• Smallest Type 12 footprint on the market – lower shipping cost and easy installation
• Standard Integration Protocol (SCIP, ION, Modbus)

Technical Specifications
Input voltage and power range: 208V to 240V -10% to +10%, 120V to 125 HP 0.75 kW to 90 kW
3000 to 380V -10% to +10%, 1.5 HP to 100 HP (1.1 kW to 100 kW)
Input Frequency: 50 Hz to 60 Hz
Output Frequency: 0 Hz to 300 Hz
Frequency resolution: 0.01 Hz
Efficiency: >97.0%
Overload Capacity: 150% for 1 minute
1.5 x Nominal rated output current for 1 minute/10 minutes
Switching Frequency: 0.1 to 10K Hz Automatic switching frequency derating in cases of overloading
100,000 AIC
Short Circuit: Resolution 0.01 Hz Resolution Analog Input
Field weakening point: 8 to 320 Hz
Acceleration time: 0.1 to 3000 seconds
Deceleration time: 0.1 to 3000 seconds
+14.7°C with derating (40°C) without derating and 1317 FVSI with derating
+14.7°C with derating 40°F (40°C) to 158°F (70°C)
Storage Temperature: 0 to 80°C
Relative Humidity: 0 to 80% RH, non-condensing, non-corrosive
Air Quality: IEC 60060-2-40
IEC 60721-3-3, unit in operation, class 3C2
Chemical Vapors: IEC 60721-3-3, unit in operation, class 3C2
Mechanical Particles: IEC 60721-3-3, unit in operation, class 3C2

SIEMENS BT300 HVAC Drives

SIEMENS
Submitted Sheet
Document No: 154-120
March 11, 2013

BT300 HVAC Drives

Figure 1. BT300 HVAC drive unit and integral disconnect

Description
Siemens industry's BT300 is designed specifically for the demands of today's HVAC systems. Increased focus on energy efficiency of variable flow systems has increased the need for easy-to-use and highly reliable variable frequency drives that reduce the need for maintenance while maximizing energy savings.

Features
• Motor Switch Ride Through – during maintenance the motor maintenance switch can be opened and closed without stopping or tripping the drive
• Thin Film Capacitors – eliminates the need to condition or reform the capacitors before applying power
• View/Monitor nine parameters at one time – User selectable, users determine the parameters for their applications
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Technical Data
Input voltage and power range: 208V to 240V -10% to +10%, 120V to 125 HP 0.75 kW to 90 kW
3000 to 380V -10% to +10%, 1.5 HP to 100 HP (1.1 kW to 100 kW)
Input Frequency: 50 Hz to 60 Hz
Output Frequency: 0 Hz to 300 Hz
Frequency resolution: 0.01 Hz
Efficiency: >97.0%
Overload Capacity: 150% for 1 minute
1.5 x Nominal rated output current for 1 minute/10 minutes
Switching Frequency: 0.1 to 10K Hz Automatic switching frequency derating in cases of overloading
100,000 AIC
Short Circuit: Resolution 0.01 Hz Resolution Analog Input
Field weakening point: 8 to 320 Hz
Acceleration time: 0.1 to 3000 seconds
Deceleration time: 0.1 to 3000 seconds
+14.7°C with derating (40°C) without derating and 1317 FVSI with derating
+14.7°C with derating 40°F (40°C) to 158°F (70°C)
Storage Temperature: 0 to 80°C
Relative Humidity: 0 to 80% RH, non-condensing, non-corrosive
Air Quality: IEC 60060-2-40
IEC 60721-3-3, unit in operation, class 3C2
Chemical Vapors: IEC 60721-3-3, unit in operation, class 3C2
Mechanical Particles: IEC 60721-3-3, unit in operation, class 3C2

Standard Features
• Fabricated from Type 304 1/8" thick stainless steel
• Lids are machined to eliminate sharp edges and are sealed with a 1/4" diameter rubber O-ring gasket
• Locking assemblies permit easy access and closing without use of tools
• Stainless steel drain and vacuum couplings with threaded plugs are provided along with drilled and tapped gauge connections
• System is designed for 60 PSI working pressure
• Perforated basket is constructed of 18 gauge Type 304 stainless steel with a 2% open area and 1/8" perforated holes

Qty	Part Number	Material	Finish	Size	Weight	Notes
1	150020	304 ST	2.5	12	1.5	304 ST 12 GA
1	150021	304 ST	2.5	12	1.5	304 ST 12 GA
1	150022	304 ST	2.5	12	1.5	304 ST 12 GA
1	150023	304 ST	2.5	12	1.5	304 ST 12 GA
1	150024	304 ST	2.5	12	1.5	304 ST 12 GA
1	150025	304 ST	2.5	12	1.5	304 ST 12 GA
1	150026	304 ST	2.5	12	1.5	304 ST 12 GA
1	150027	304 ST	2.5	12	1.5	304 ST 12 GA
1	150028	304 ST	2.5	12	1.5	304 ST 12 GA
1	150029	304 ST	2.5	12	1.5	304 ST 12 GA
1	150030	304 ST	2.5	12	1.5	304 ST 12 GA
1	150031	304 ST	2.5	12	1.5	304 ST 12 GA
1	150032	304 ST	2.5	12	1.5	304 ST 12 GA
1	150033	304 ST	2.5	12	1.5	304 ST 12 GA
1	150034	304 ST	2.5	12	1.5	304 ST 12 GA
1	150035	304 ST	2.5	12	1.5	304 ST 12 GA
1	150036	304 ST	2.5	12	1.5	304 ST 12 GA
1	150037	304 ST	2.5	12	1.5	304 ST 12 GA
1	150038	304 ST	2.5	12	1.5	304 ST 12 GA
1	150039	304 ST	2.5	12	1.5	304 ST 12 GA
1	150040	304 ST	2.5	12	1.5	304 ST 12 GA
1	150041	304 ST	2.5	12	1.5	304 ST 12 GA
1	150042	304 ST	2.5	12	1.5	304 ST 12 GA
1	150043	304 ST	2.5	12	1.5	304 ST 12 GA
1	150044	304 ST	2.5	12	1.5	304 ST 12 GA
1	150045	304 ST	2.5	12	1.5	304 ST 12 GA
1	150046	304 ST	2.5	12	1.5	304 ST 12 GA
1	150047	304 ST	2.5	12	1.5	304 ST 12 GA
1	150048	304 ST	2.5	12	1.5	304 ST 12 GA
1	150049	304 ST	2.5	12	1.5	304 ST 12 GA
1	150050	304 ST	2.5	12	1.5	304 ST 12 GA
1	150051	304 ST	2.5	12	1.5	304 ST 12 GA
1	150052	304 ST	2.5	12	1.5	304 ST 12 GA
1	150053	304 ST	2.5	12	1.5	304 ST 12 GA
1	150054	304 ST	2.5	12	1.5	304 ST 12 GA
1	150055	304 ST	2.5	12	1.5	304 ST 12 GA
1	150056	304 ST	2.5	12	1.5	304 ST 12 GA
1	150057	304 ST	2.5	12	1.5	304 ST 12 GA
1	150058	304 ST	2.5	12	1.5	304 ST 12 GA
1	150059	304 ST	2.5	12	1.5	304 ST 12 GA
1	150060	304 ST	2.5	12	1.5	304 ST 12 GA
1	150061	304 ST	2.5	12	1.5	304 ST 12 GA
1	150062	304 ST	2.5	12	1.5	304 ST 12 GA
1	150063	304 ST	2.5	12	1.5	304 ST 12 GA
1	150064	304 ST	2.5	12	1.5	304 ST 12 GA
1	150065	304 ST	2.5	12	1.5	304 ST 12 GA
1	150066	304 ST	2.5	12	1.5	304 ST 12 GA
1	150067	304 ST	2.5	12	1.5	304 ST 12 GA
1	150068	304 ST	2.5	12	1.5	304 ST 12 GA
1	150069	304 ST	2.5	12	1.5	304 ST 12 GA
1	150070	304 ST	2.5	12	1.5	304 ST 12 GA
1	150071	304 ST	2.5	12	1.5	304 ST 12 GA
1	150072	304 ST	2.5	12	1.5	304 ST 12 GA
1	150073	304 ST	2.5	12	1.5	304 ST 12 GA
1	150074	304 ST	2.5	12	1.5	304 ST 12 GA
1	150075	304 ST	2.5	12	1.5	304 ST 12 GA
1	150076	304 ST	2.5	12	1.5	304 ST 12 GA
1	150077	304 ST	2.5	12	1.5	304 ST 12 GA
1	150078	304 ST	2.5	12	1.5	304 ST 12 GA
1	150079	304 ST	2.5	12	1.5	304 ST 12 GA
1	150080	304 ST	2.5	12	1.5	304 ST 12 GA
1	150081	304 ST	2.5	12	1.5	304 ST 12 GA
1	150082	304 ST	2.5	12	1.5	304 ST 12 GA
1	150083	304 ST	2.5	12	1.5	304 ST 12 GA
1	150084	304 ST	2.5	12	1.5	304 ST 12 GA
1	150085	304 ST	2.5	12	1.5	304 ST 12 GA
1	150086	304 ST	2.5	12	1.5	304 ST 12 GA
1	150087	304 ST	2.5	12	1.5	304 ST 12 GA
1	150088	304 ST	2.5	12	1.5	304 ST 12 GA
1	150089	304 ST	2.5	12	1.5	304 ST 12 GA
1	150090	304 ST	2.5	12	1.5	304 ST 12 GA
1	150091	304 ST	2.5	12	1.5	304 ST 12 GA
1	150092	304 ST	2.5	12	1.5	304 ST 12 GA
1	150093	304 ST	2.5	12	1.5	304 ST 12 GA
1	150094	304 ST	2.5	12	1.5	304 ST 12 GA
1	150095	304 ST	2.5	12	1.5	304 ST 12 GA
1	150096	304 ST	2.5	12	1.5	304 ST 12 GA
1	150097	304 ST	2.5	12	1.5	304 ST 12 GA
1	150098	304 ST	2.5	12	1.5	304 ST 12 GA
1	150099	304 ST	2.5	12	1.5	304 ST 12 GA
1	150100	304 ST	2.5	12	1.5	304 ST 12 GA

PADOCK POOL EQUIPMENT COMPANY

PADOCK HAIR AND LINT STRAINERS ARE FABRICATED FROM TYPE 304 1/8" THICK STAINLESS STEEL

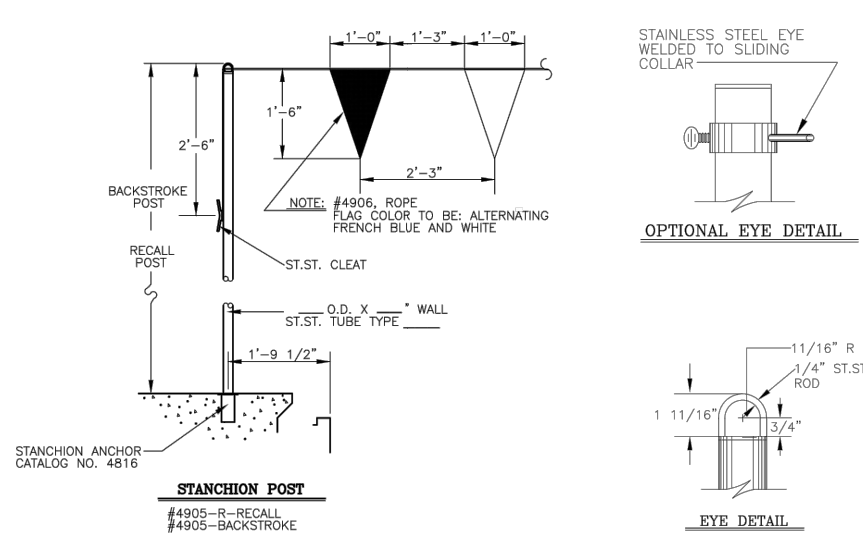
STRAINER
Paddock strainers are designed for superior flow and less pressure drop by offering the strainer basket (perforated in back). This feature allows large volumes of different sized debris to be pumped open under heavy loaded loading from below.

Standard Features
• Fabricated from Type 304 1/8" thick stainless steel
• Lids are machined to eliminate sharp edges and are sealed with a 1/4" diameter rubber O-ring gasket
• Locking assemblies permit easy access and closing without use of tools
• Stainless steel drain and vacuum couplings with threaded plugs are provided along with drilled and tapped gauge connections
• System is designed for 60 PSI working pressure
• Perforated basket is constructed of 18 gauge Type 304 stainless steel with a 2% open area and 1/8" perforated holes

QTY	STRAINER SIZE	INLET DIAMETER	FLANGE SIZE	OUTLET DIAMETER	FLANGE AREA	OPEN AREA	RATIO	WT (#)
4	4 X 4	4"	3"	4"	11.5 IN ²	20.6:1	191.7	
4	4 X 3	4"	3"	3"	7 1/2" IN ²	20.6:1	191.3	
6	6 X 6	6"	5"	6"	11" IN ²	26.07:1	194.2	
6	6 X 5	6"	5"	5"	10" IN ²	26.07:1	193.7	
6	6 X 4	6"	5"	4"	9" IN ²	26.07:1	193.0	
6								



Stanchion Post



Paddock's Backstroke Posts and Recall Posts are fabricated from Type 304 or 316L stainless steel tubing with outside diameter of 1.90" and standard wall thickness .083" (1.20" and 1.45" are also available)

Each post is provided with an eyebolt at the top and a cleat for securing rope.

Posts are held by anchor sockets located in pool bottom and pool deck so they can be removed if necessary.

Standard height of backstroke post is 7 feet. Also available in other heights.

Standard height of recall post is 5 feet. Also available in other heights.

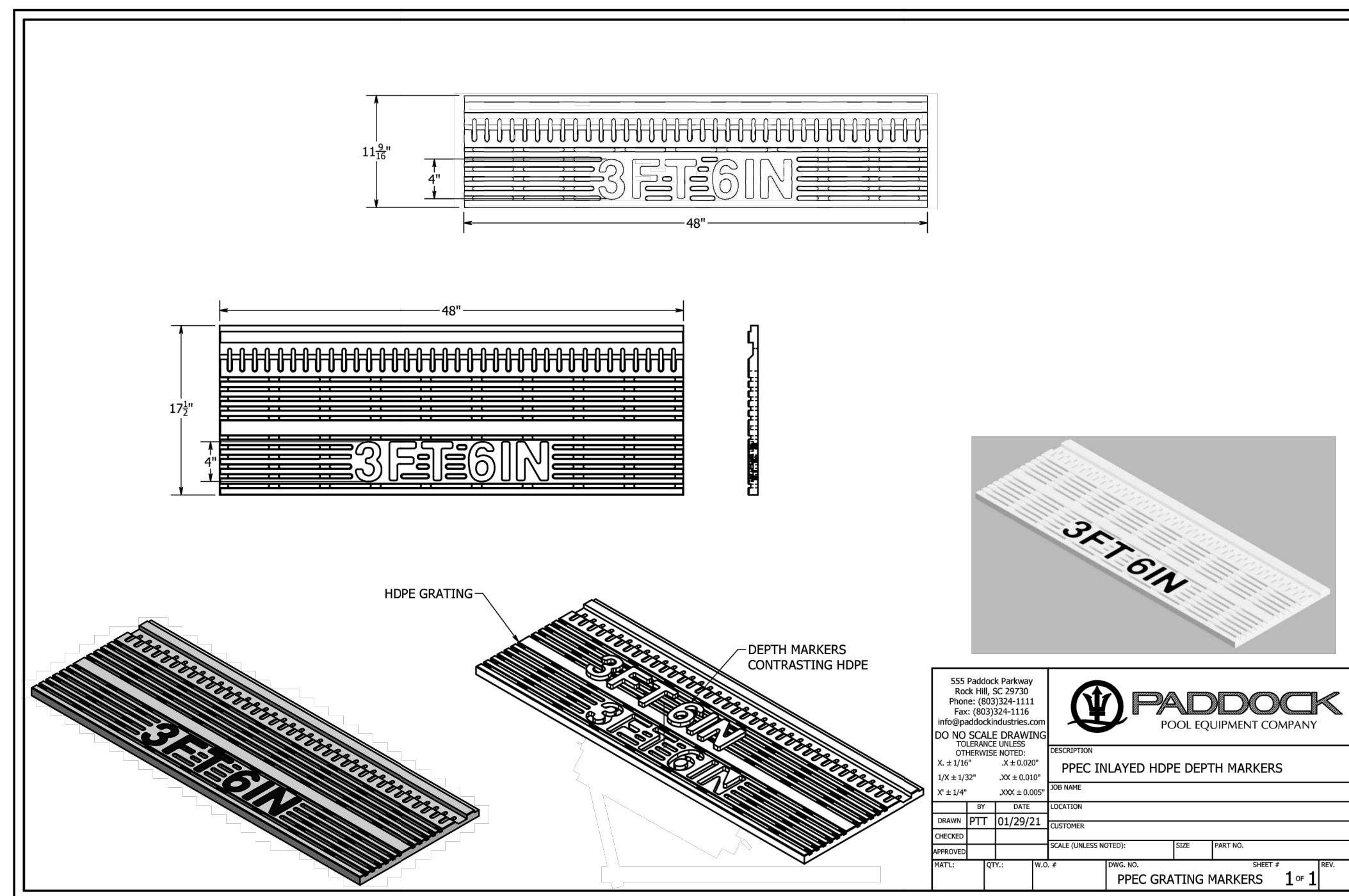
Sliding collar is optional.

P/N _____ Model 4905 _____ Backstroke Post Height Required _____ FT _____ " OD x _____ " Wall Type _____ City _____

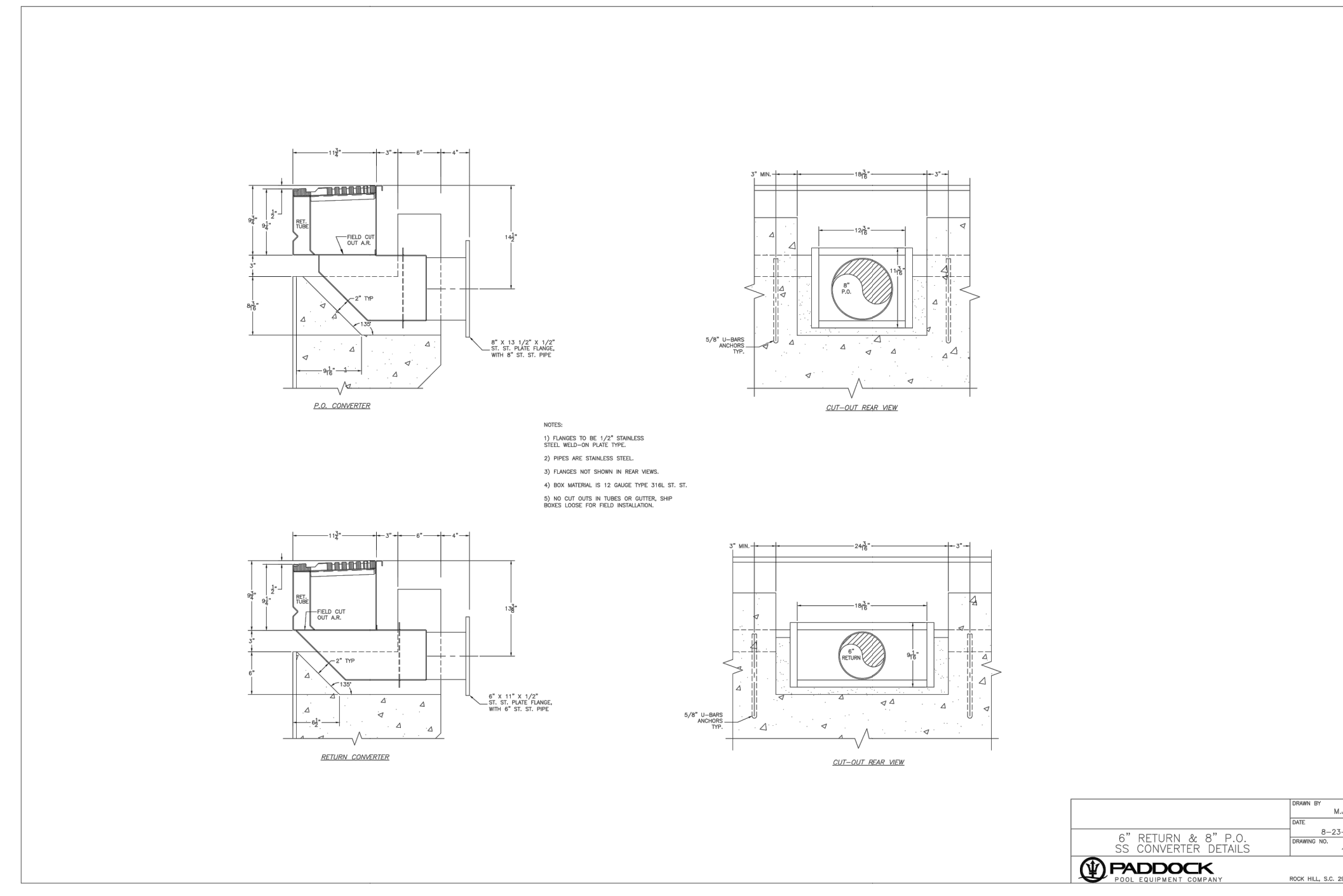
P/N _____ Model 4905R _____ Recall Post Height Required _____ FT _____ " OD x _____ " Wall Type _____ City _____

P/N 950043, Model 4905SC, Sliding Collar with Eyebolt City _____

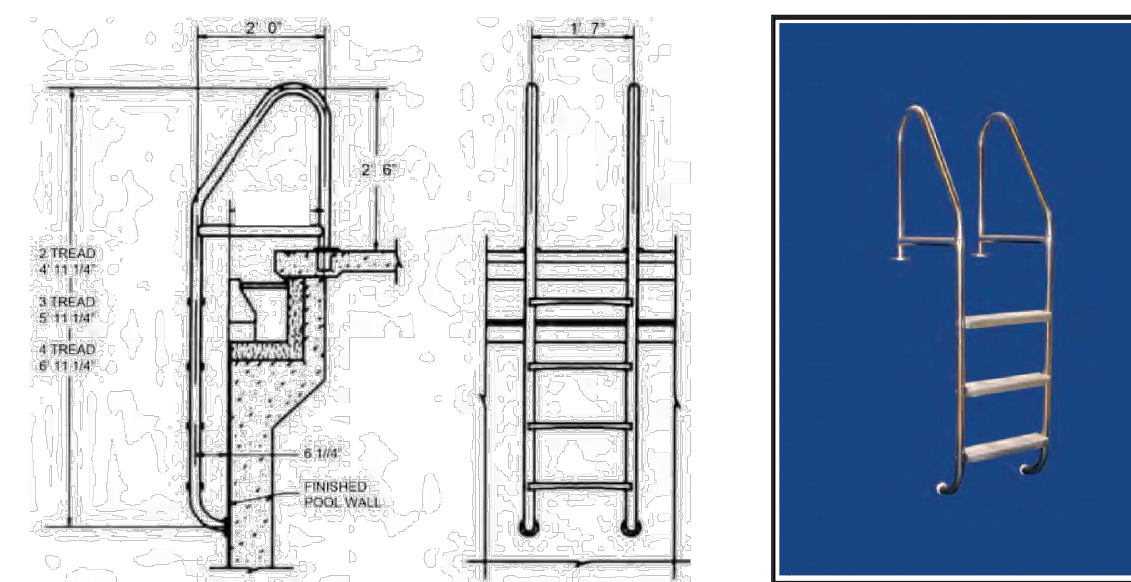
P/N _____ Model 4906, Backstroke Pennant Line, 48 Nylon Pennants per 100' Line City _____



Paddock Pool Equipment Company logo and contact information for PPE Inlayed HDPE Depth Markers.



Ladder



Paddock's Ladders are fabricated from Type 304 or 316L stainless steel tubing with an outside diameter of 1.90" and standard wall thickness of .083". (Outside diameter of 1.5" or wall thickness of 1.20" is also available.)

Ladder rails are spaced 19" apart with a cross brace for added stability and furnished with slip-resistant stainless steel treads.

Exposed surfaces shall be polished to a Paddock buff finish.

A rubber bumper on each rail protects the interior pool finish.

Paddock deck anchors with Paddock escutcheon plates are available.

P/N _____ Model 4539 _____ 2-Tread Ladder Type _____ " OD x _____ " Wall Less Anchors, Qty _____

P/N _____ Model 4540 _____ 3-Tread Ladder Type _____ " OD x _____ " Wall Less Anchors, Qty _____

P/N _____ Model 4541 _____ 4-Tread Ladder Type _____ " OD x _____ " Wall Less Anchors, Qty _____

P/N _____ Model 4542 _____ 5-Tread Ladder Type _____ " OD x _____ " Wall Less Anchors, Qty _____

555 Paddock Parkway, Rock Hill, SC 29730 T: 800-849-2729 F: 803-324-1116 www.paddockindustries.com

UltraVac Vacuum Cart

System Operation

The UltraVac can operate in two different modes:

1. Filtration Mode: By recirculating the water through the 100 sq. ft. cartridge you can remove debris being vacuumed out of the pool without losing water.

2. Waste Mode: For removal of large amounts of debris or to avoid clogging the cartridge you can rotate the valve handle to bypass the filter and discharge the water directly to waste and not return to the pool.

Cart Construction

The 100 Square Foot Element in the filter housing is made from high strength polyester backed up with a sturdy plastic core for years of use. A simple locking arrangement on the filter lid is used to make cleaning the element quick and easy.

Maintenance

Waterco warrants the UltraVac cart and all of its components for a period of 1 year under normal operating conditions.

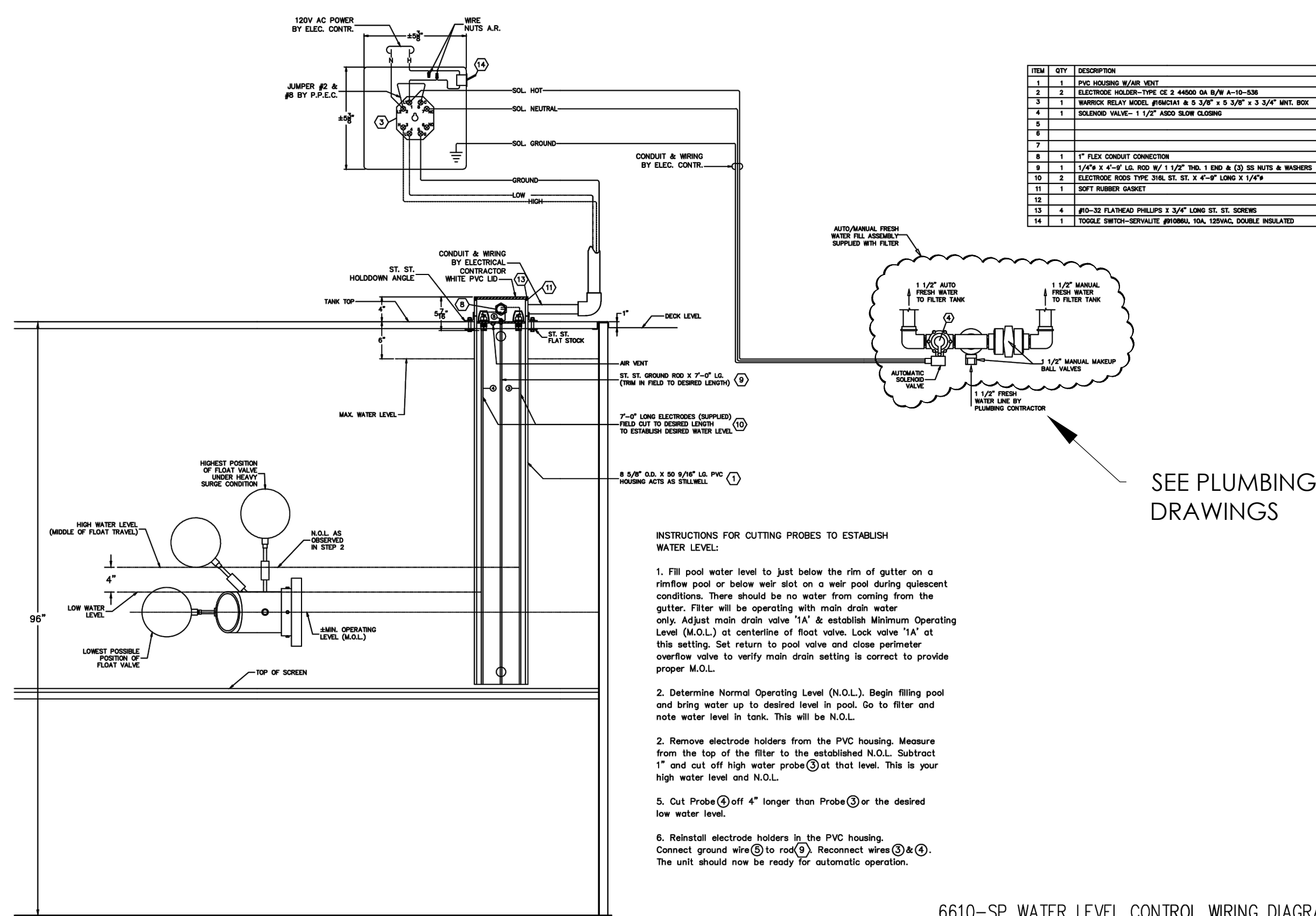
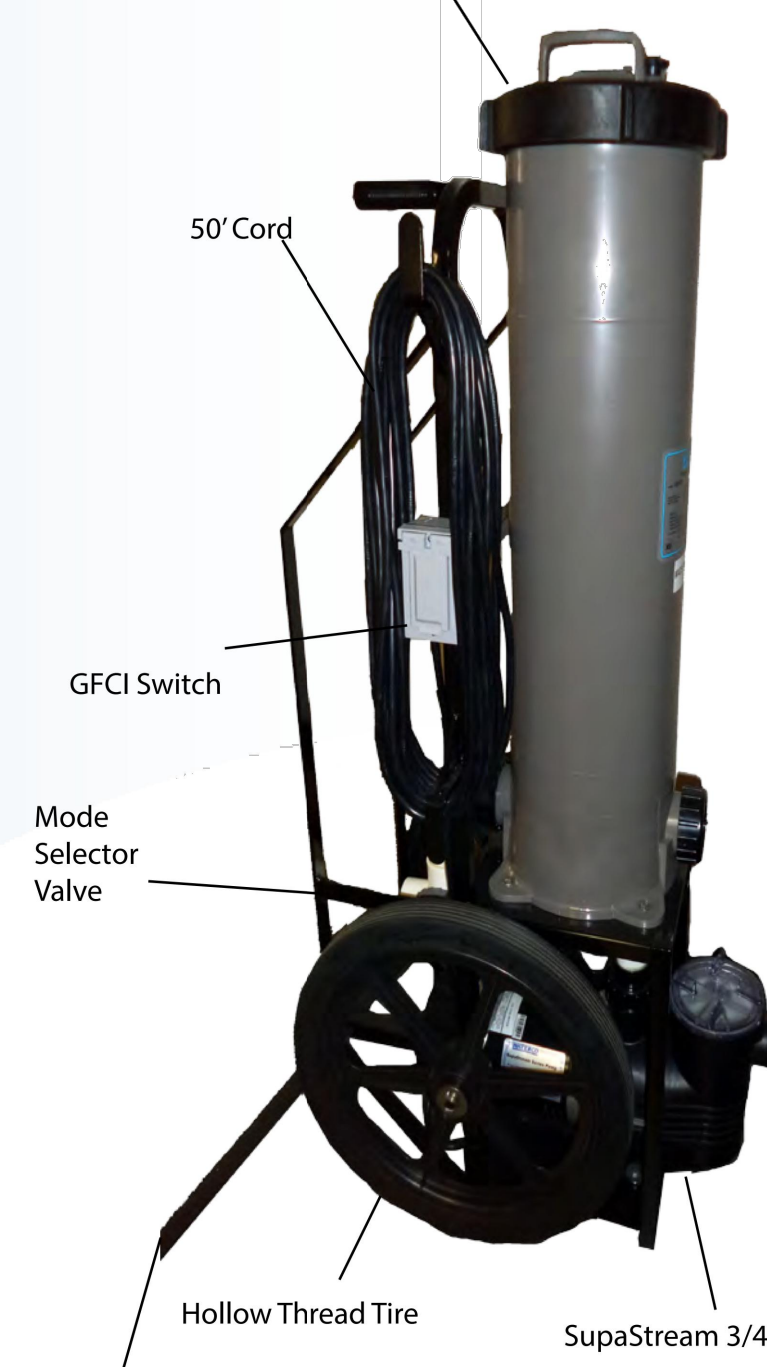
Warranty

Waterco warrants the UltraVac cart and all of its components for a period of 1 year under normal operating conditions.

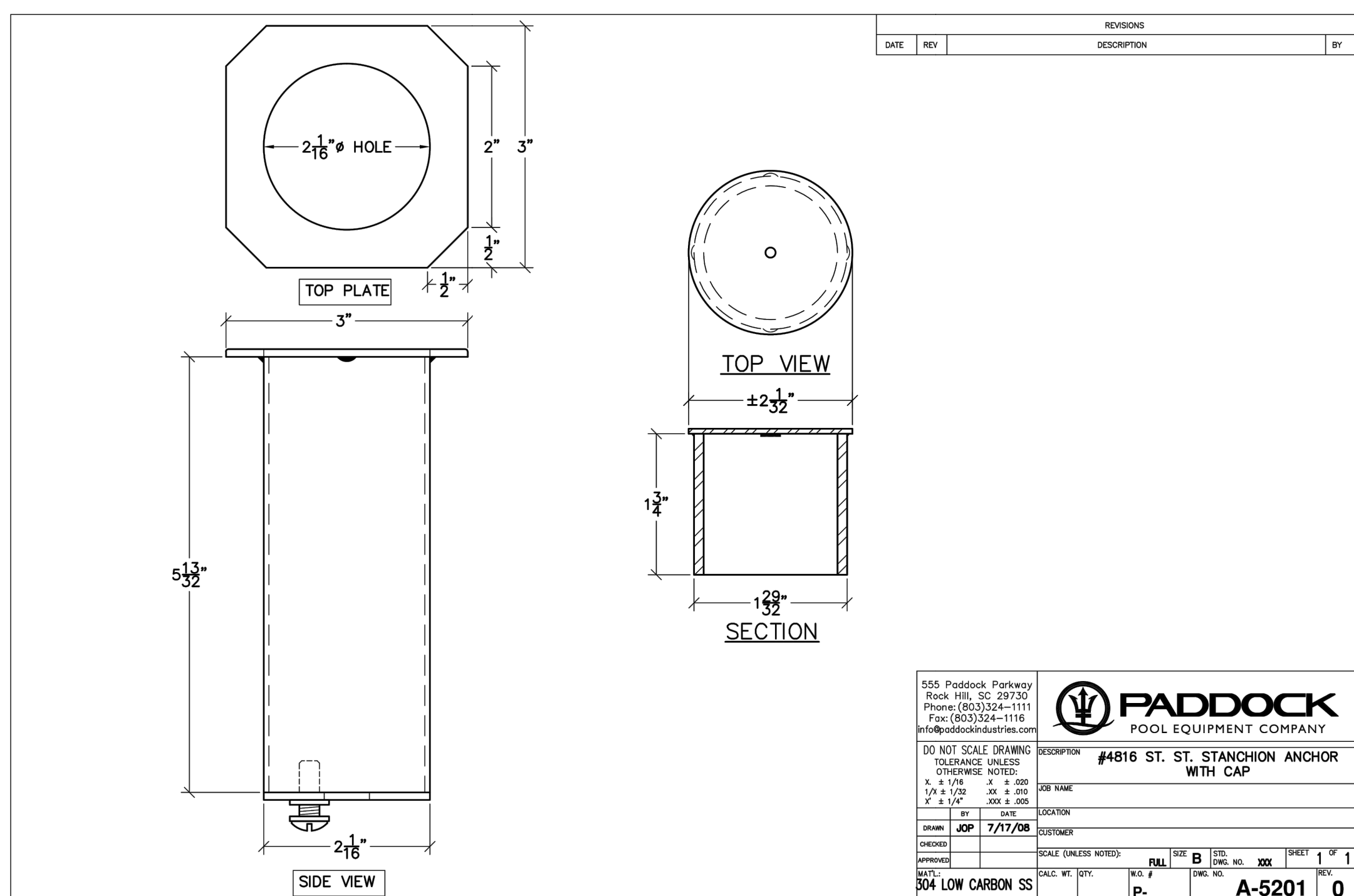
Information table with columns for Part Number, Filter Area (sq feet), Pump HP, and Pipe Size.

Waterco logo and distributor information for Alabama.

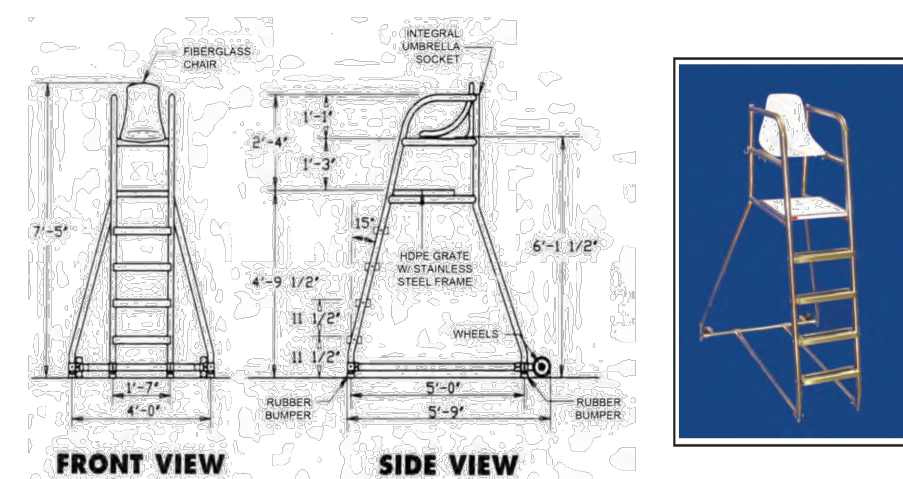
100 Sq. Ft. Element Filter



6610-SP WATER LEVEL CONTROL WIRING DIAGRAM & INSTRUCTIONS.



Movable Lifeguard Chair



Paddock's Movable Lifeguard Chair features a welded Type 304 or 316L stainless steel frame with a molded fiberglass seat six feet above the pool deck.

The rigid 19" wide slip-resistant high density polyethylene platform is reached via a 15 degree sloping ladder with 19" stainless steel treads.

Ladder treads shall be stainless steel 19" long x 4" wide with slip-resistant surface.

Rubber bumpers protect the deck when the chair is in place.

Wheels secured to the frame allow for easy positioning at various poolside locations.

An umbrella socket on one side behind the seat is an integral part of the chair frame.

There is a 7" hook on each rear upright for the Life Ring & Rope.

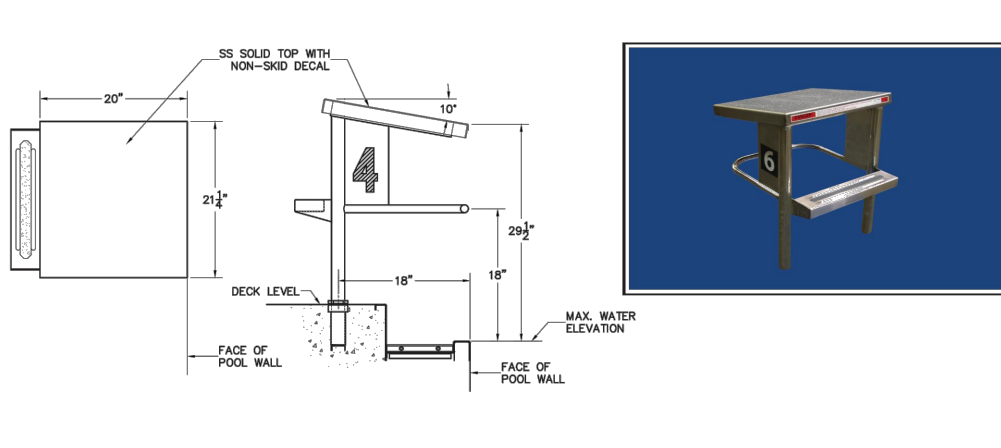
P/N 9400062, Model 4707-G, Type 304, Qty _____

P/N 9400063, Model 4707-G, Type 316L, Qty _____

555 Paddock Parkway, Rock Hill, SC 29730 T: 800-849-2729 F: 803-324-1116 www.paddockindustries.com



EZ Set II Starting Platform



Paddock's EZ Set II Starting Platform is quickly and easily removable.

Platform shall be rear mounted and have a 20" wide x 21 1/4" long top.

Flush with the front edge of the platform is a backstroke starting bar.

A mounting track shall be positioned off the rear legs. Tread shall have a deeply formed integral, slip resistant surface firmly attached to the legs by welded stainless steel gussets.

At each side of the platform, attached to the legs, shall be a stainless steel plate on which the lane number is displayed with a 4" standard numeral.

Top of starting platform shall be with a non-slip solid surface.

Colors, custom logos and vertical backstroke grips are available as options.

4909-A anchors with 19" spacing are sold separately.

4909-S EZ Set II Starting Platform St. St. Type _____ Qty _____

Also available in Long Reach with 24" Seaback St. St. Type _____ Qty _____

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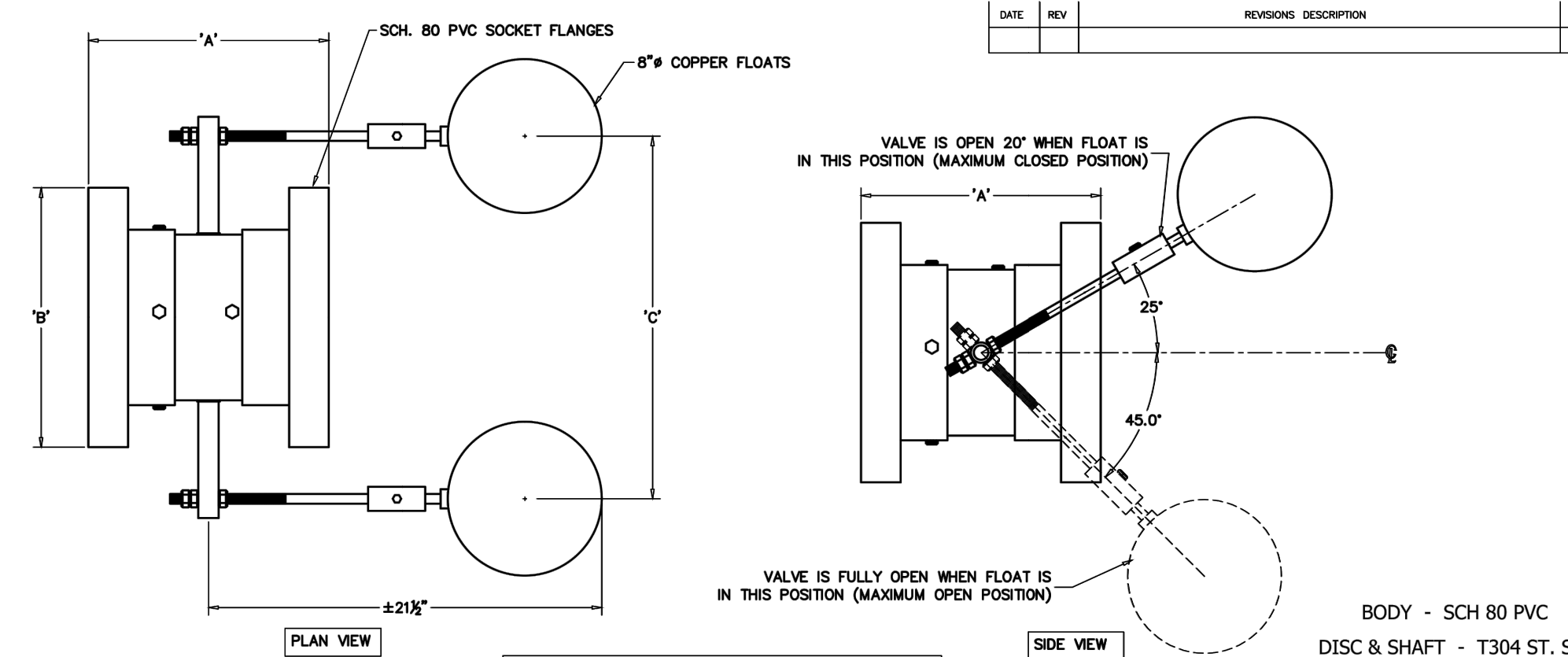


Table for Valve Size, Pipe, Flange, & Float Center Distance with columns for Size, A, B, C.

Table for Valve Size, Pipe, Flange, & Float Center Distance with columns for Qty., Size, A, B, C.

Paddock Pool Equipment Company logo and contact information for the valve assembly.

RAINBOW CITY RECREATION CENTER RAINBOW CITY, ALABAMA

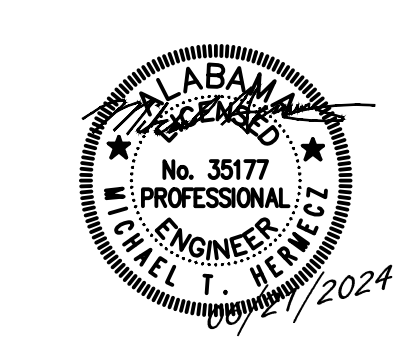
POOL DETAILS

SP2.04

GMC # ABHM230021

ISSUE DATE 100% CDs 05.14.2024 IFB SET 05.26.2024 ADDENDUM 3 (REV 1) 06.21.2024

DRAWN BY: TCD CHECKED BY: MTH



Goodwyn Mills Cowood, LLC 2400 5th Avenue South, Suite 800 Birmingham, AL 35233 T 205.879.4462 G M C N E T W O R K . C O M

Schoel logo and project number: PROJECT NO. 24162.00