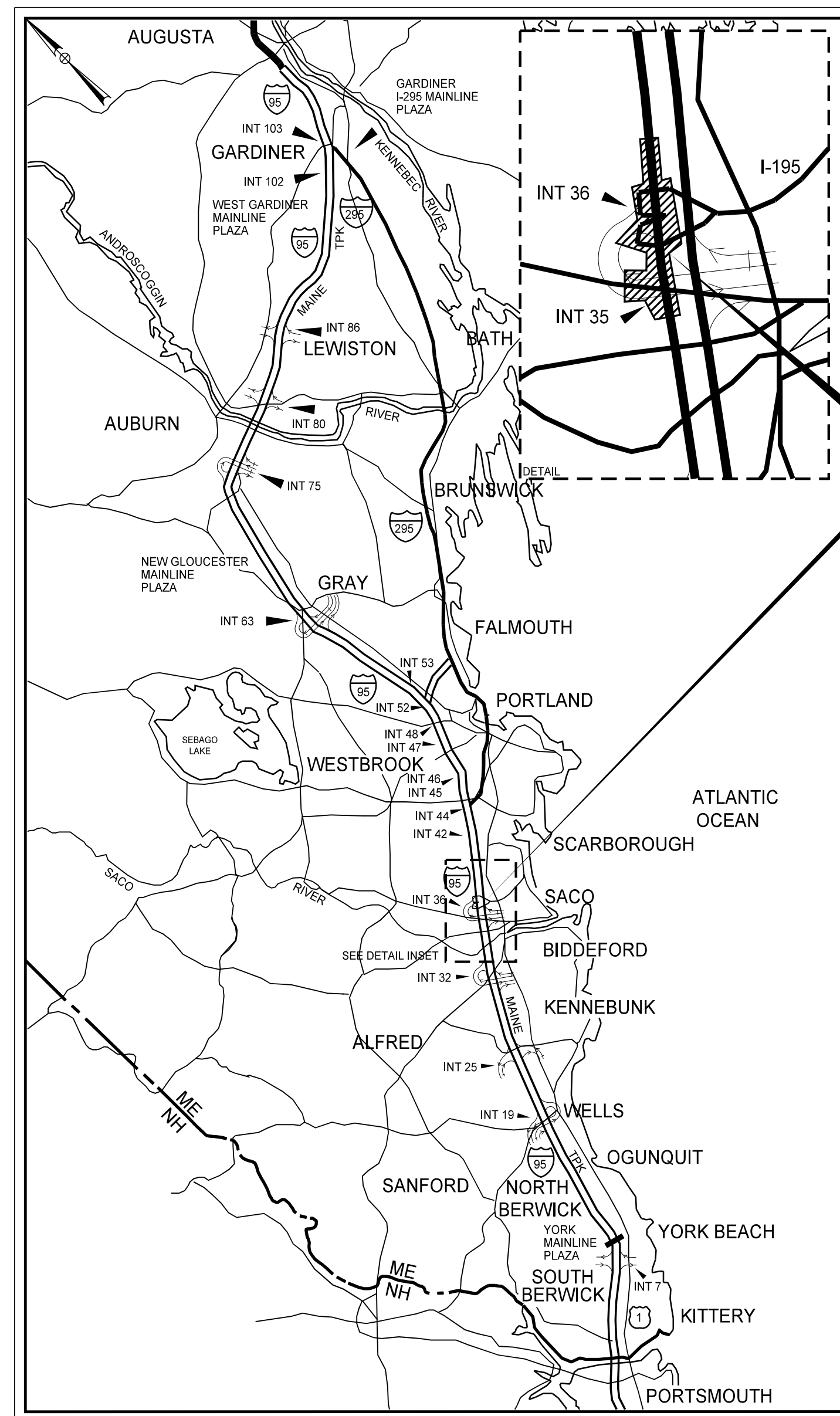
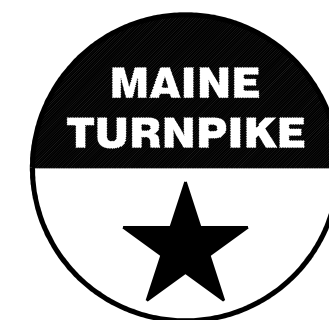


Date: 10/7/2022

Filename: ... \WSTA_ Title_ Volume3.dgn



LOCATION MAP



THE GOLD STAR MEMORIAL HIGHWAY

MAINE TURNPIKE AUTHORITY

DANIEL E. WATHEN, CHAIR
 ROBERT D. STONE, VICE CHAIR
 MICHAEL J. CIANCHETTE, MEMBER
 JANE L. LINCOLN, MEMBER
 ANDREW MCLEAN, MEMBER
 THOMAS J. ZUKE, MEMBER
 BRUCE A. VAN NOTE, MEMBER EX-OFFICIO

S. PETER MILLS, EXECUTIVE DIRECTOR

CONTRACT 2022.07

INTERCHANGE IMPROVEMENTS

SACO (EXITS 35 & 36)

MM 34.7 TO MM 36.6

VOLUME 3 OF 3

SHEET NO.	DESCRIPTION
<u>INDEX OF SHEETS</u>	
<u>VOLUME 1 - HIGHWAY</u>	
1	TITLE SHEET
2-11	ESTIMATE QUANTITIES & EARTHWORK SUMMARY
12-21	TYPICAL SECTIONS
22-98	MAINTENANCE OF TRAFFIC PLANS
99-108	DETAILS
109-133	GENERAL PLANS
134-156	PROFILES
157-180	GEOMETRIC PLANS
181-182	INTERSECTION GRADING PLANS
183-192	PAVEMENT PLANS
193-245	SIGNING & STRIPING PLANS
246-266	POWER AND COMMUNICATIONS PLANS
267-278	TRAFFIC SIGNAL & ITS PLANS
279-289	SITE & UTILITY PLANS
290	LANDSCAPING PLAN
291-293	PRELOAD PLANS
294-297	UNDERDRAINED SOIL FILTER PLANS
298-301	LIMIT OF DISTURBANCE PLANS
	APPENDIX A: MAINE WATER PLANS & DETAILS
<u>VOLUME 2 - HIGHWAY</u>	
302-586	CROSS SECTIONS
<u>VOLUME 3 - STRUCTURAL & BUILDING</u>	
<u>BRIDGE STRUCTURAL</u>	
587-596	ROUTE 112 BRIDGE PLANS
<u>WALL STRUCTURAL</u>	
597-599	SOIL NAIL WALL PLANS & DETAILS
600-608	GOOSEFARE BROOK WALL PLANS & DETAILS
<u>PLAZA</u>	
609-644	PLAZA STRUCTURAL
645-646	PLAZA MECHANICAL, ELECTRICAL & PLUMBING PLANS
647-663	TOLLING SYSTEM PLANS
<u>BUILDING</u>	
664-692	BUILDING ARCHITECTURAL PLANS
693-702	BUILDING STRUCTURAL PLANS
703-711	BUILDING MECHANICAL PLANS
712-719	BUILDING PLUMBING PLANS
720-732	BUILDING ELECTRICAL PLANS
733-735	UTILITY BUILDING PLANS

CONTRACT 2022.07



SPECIFICATIONS

DESIGN
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 9TH EDITION

CONSTRUCTION
AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, 3RD EDITION WITH 2016 INTERIMS

DESIGN LOAD

LIVE LOAD (FOR EXISTING COMPONENTS) HS 25-44

MATERIALS

CONCRETE:
END POSTS & SIDEWALK CLASS "AAA"
REPAIR AREAS CLASS "AAA MODIFIED"

REINFORCING STEEL:
STEEL BARS ASTM A615, GRADE 60 (EPOXY-COATED)

STRUCTURAL STEEL:
ALL MATERIALS (EXCEPT AS NOTED) ASTM A 709, GRADE 36

BASIC DESIGN STRESSES

CONCRETE:
CLASS "AAA" $f'c = 4,500 \text{ psi}$
CLASS "AAA MODIFIED" $f'c = 4,500 \text{ psi}$

REINFORCING:
REINFORCING STEEL $f_y = 60,000 \text{ psi}$

STRUCTURAL STEEL:
ASTM A 709, GRADE 36 $F_y = 36,000 \text{ psi}$

GENERAL NOTES:

1. COPIES OF THE AS-BUILT PLANS ARE ON FILE AT THE MAINE TURNPIKE AUTHORITY. THE ACCURACY OF THESE PLANS IS NOT GUARANTEED.
2. REINFORCING STEEL SHALL HAVE A CLEAR COVER OF 2", UNLESS OTHERWISE NOTED.
3. CHAMFER ALL EXPOSED CONCRETE EDGES $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.
4. CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES SHALL BE APPLIED TO THE FOLLOWING AREAS:
- CONCRETE PARAPETS
- TOP OF SIDEWALK
- END POSTS
- PROPOSED SLOPE PROTECTION
5. PIGMENTED PROTECTIVE COATING FOR CONCRETE SURFACES SHALL BE APPLIED TO THE FOLLOWING AREAS:
- EXPOSED PORTION OF THE ABUTMENT & WINGWALLS
6. THE END POSTS SHALL RECEIVE A RUBBED FINISH PRIOR TO THE APPLICATION OF THE CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES.
7. DIMENSIONS WITH RESPECT TO EXISTING STRUCTURES ARE APPROXIMATE AND ARE PROVIDED FOR REFERENCE. IF FIELD CONDITIONS VARY BY MORE THAN 1" FROM DIMENSIONS SHOWN ON THE PLANS, THE ENGINEER SHALL BE NOTIFIED.
8. WHERE DRILLING AND ANCHORING OF REINFORCING STEEL IS SPECIFIED THE CONTRACTOR SHALL USE A MATERIAL LISTED ON THE MAINE DOT PREQUALIFIED LIST OF CONCRETE ADHESIVE ANCHORING MATERIALS. THE DEPTH OF EMBEDMENT SHALL BE SUFFICIENT TO DEVELOP 125% OF THE YIELD STRENGTH OF THE BAR, BUT SHALL BE NO LESS THAN THE MINIMUM DEPTH OF EMBEDMENT WHEN SPECIFIED. THE CONTRACTOR SHALL ADJUST THE REQUIRED BAR LENGTH AS REQUIRED.
9. PAYMENT FOR DRILLING AND ANCHORING OF REINFORCING STEEL IS INCIDENTAL TO ITEM 503.15, EPOXY-COATED REINFORCING STEEL, PLACING.


INDEX OF NORTH STREET UNDERPASS DRAWINGS	SHEET NO.
GENERAL NOTES	BR-01
STAGED CONSTRUCTION	BR-02
DECK PLAN & TRANSVERSE SECTION	BR-03
EXPANSION JOINT & SUBSTRUCTURE DETAILS	BR-04
SUPERSTRUCTURE REPAIRS	BR-05
END POST DETAILS	BR-06 - BR-07
SLOPE PROTECTION DETAILS	BR-08 - BR-09
REINFORCING SCHEDULE	BR-10

Date: 10/17/2022

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No.	Revision	By	Date

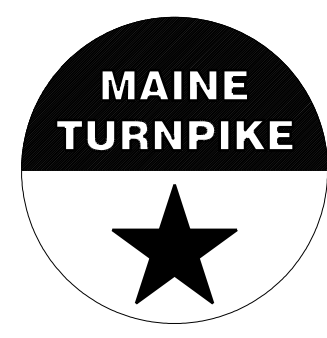
Designed by:



CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
Designed	KLW	10\22	Checked	SJW	10\22
Drawn	KLW	10\22	In Charge of	LEM	10\22

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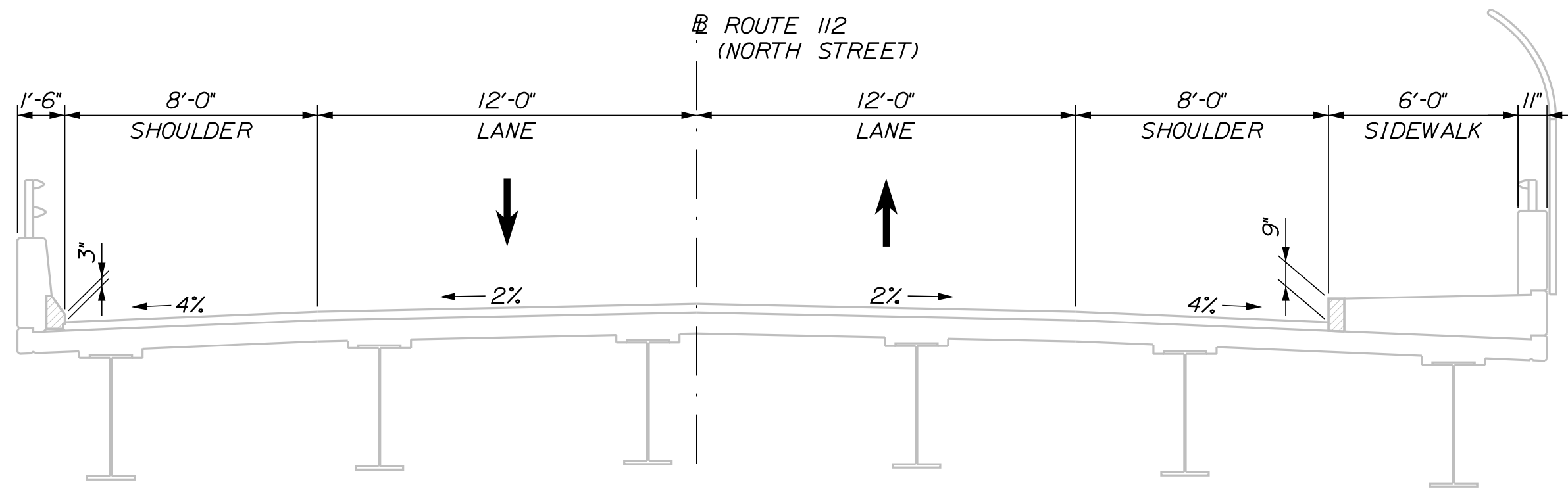
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

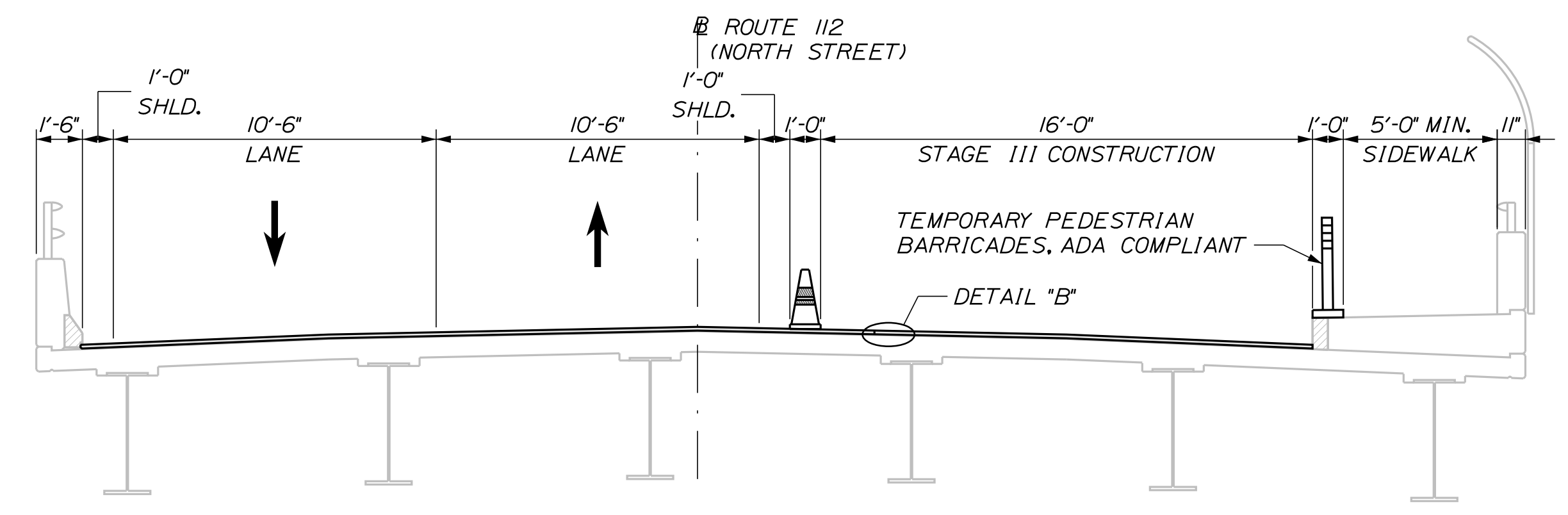
INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTH STREET UNDERPASS
GENERAL NOTES

SHEET NUMBER: BR-01
CONTRACT: 2022.07
587 OF 735

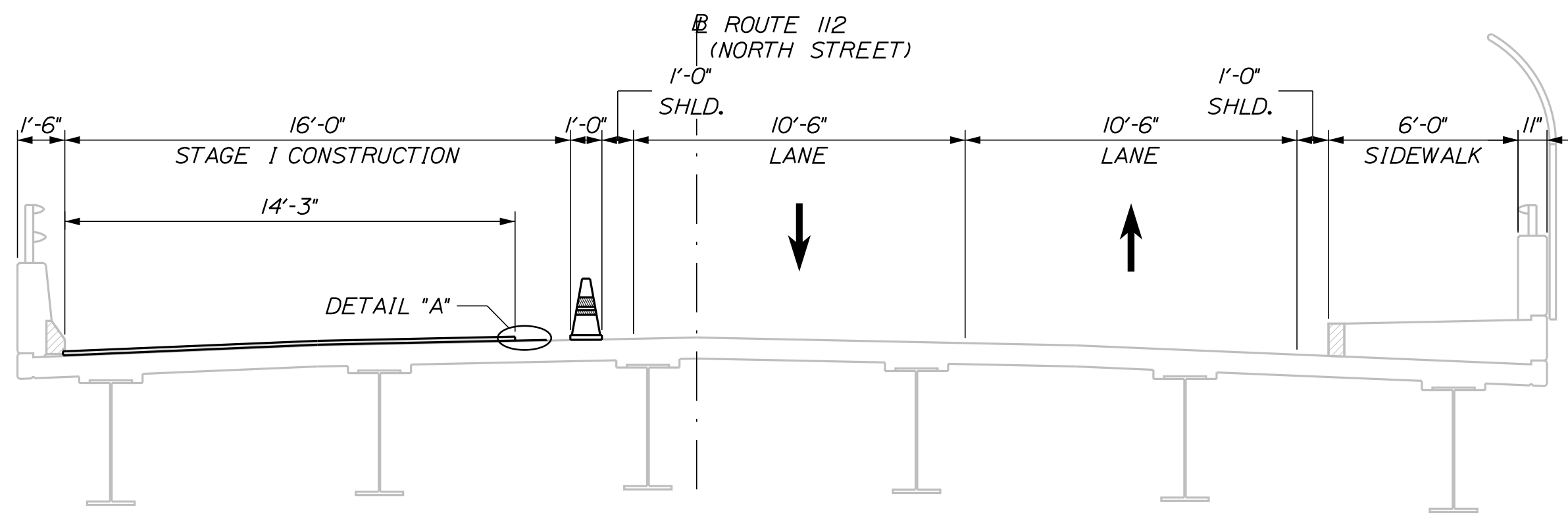
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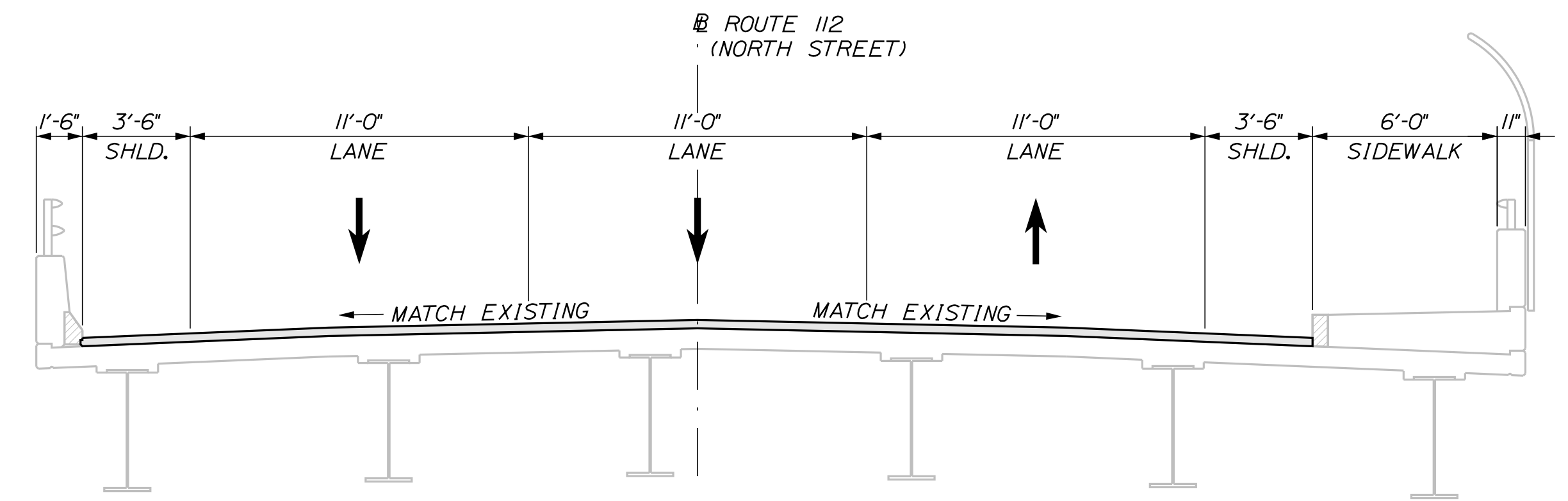
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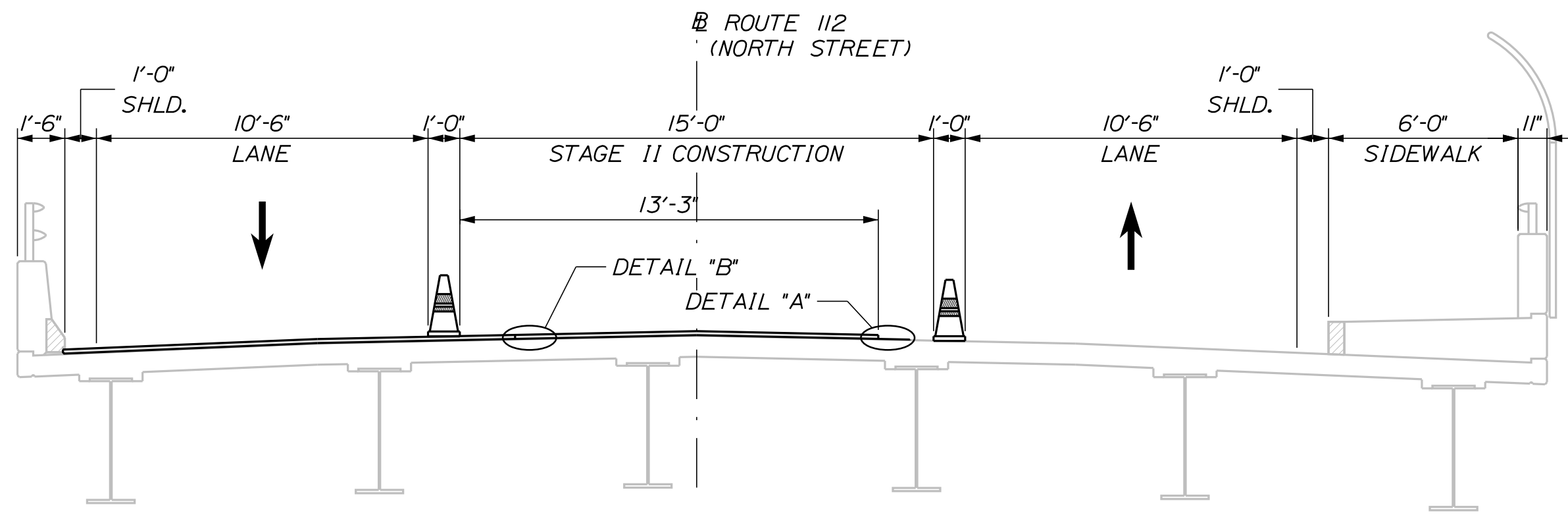
STAGE III
SCALE: 1/4" = 1'-0"



STAGE I
SCALE: 1/4" = 1'-0"



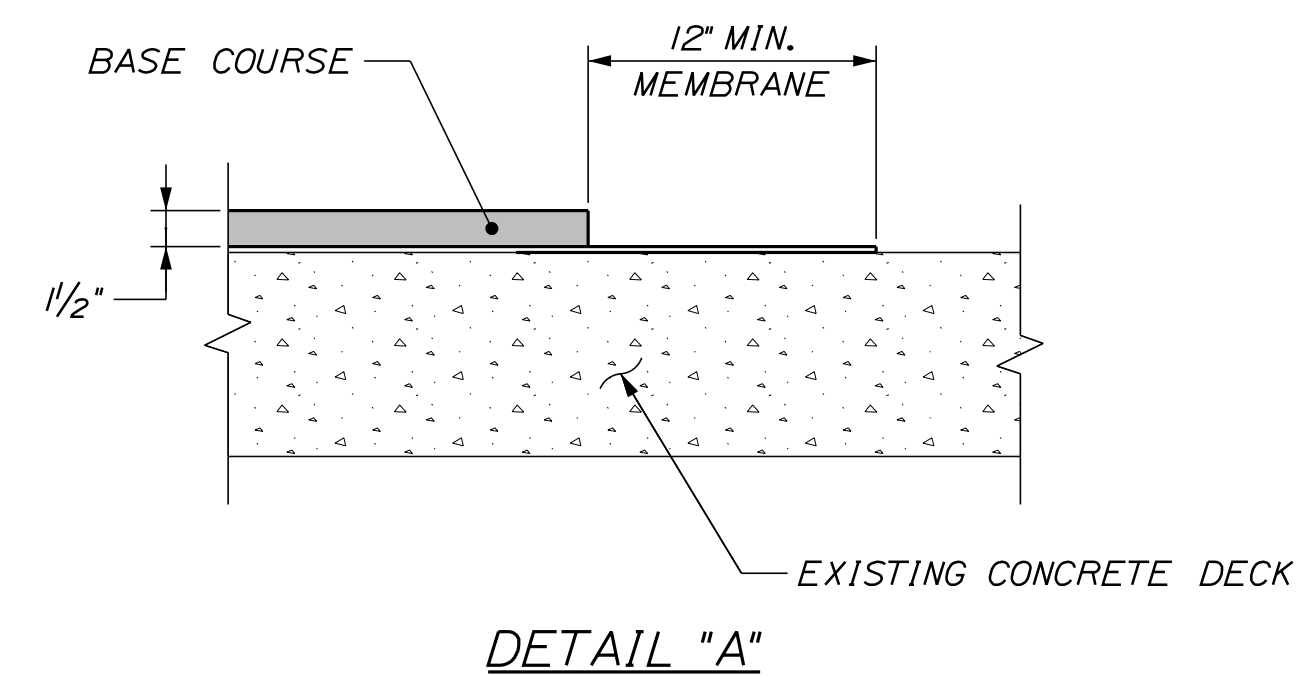
PROPOSED SECTION
SCALE: 1/4" = 1'-0"



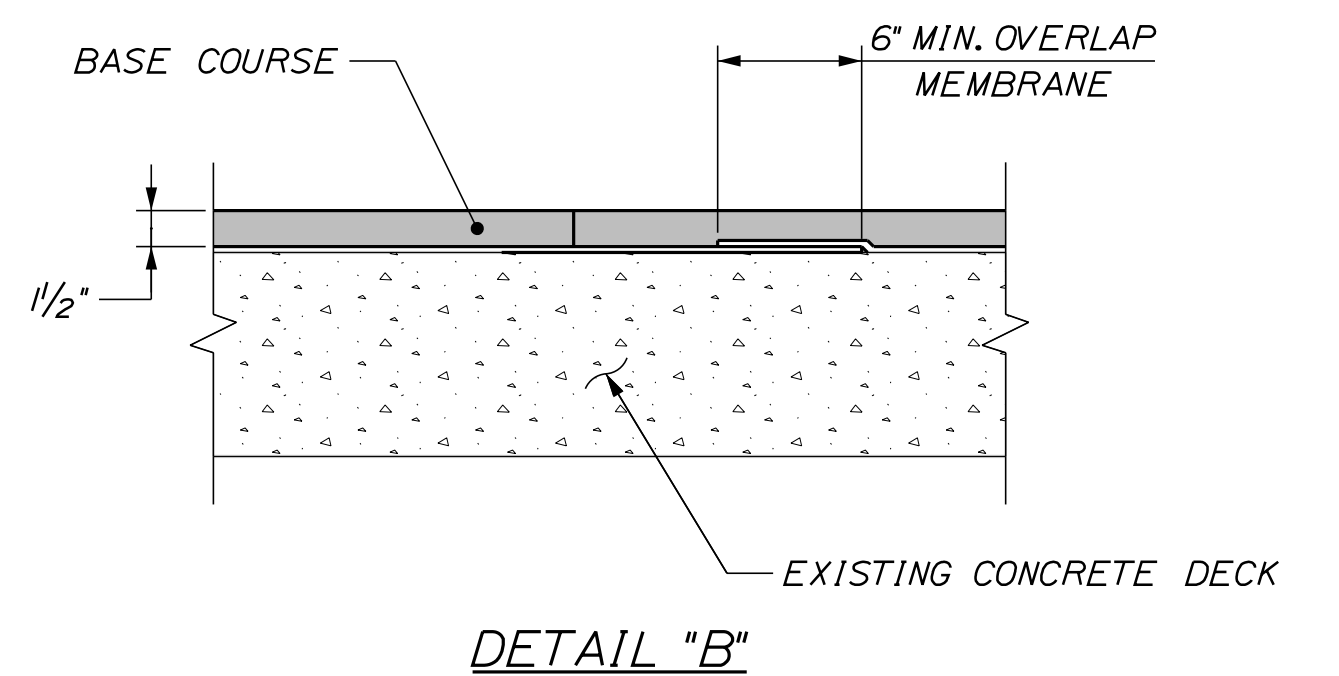
STAGE II
SCALE: 1/4" = 1'-0"

NOTES

1. THE EXISTING WEARING SURFACE AND MEMBRANE SHALL BE REMOVED BEFORE STAGED MAINTENANCE OF TRAFFIC WITH A SINGLE 11'-0" MINIMUM LANE OF ONE WAY ALTERNATING TRAFFIC WITH FLAGGERS.
2. THE WEARING COURSE SHALL BE PLACED OVER THE BASE COURSE AFTER STAGED MAINTENANCE OF TRAFFIC WITH A SINGLE 11'-0" MINIMUM LANE OF ONE WAY ALTERNATING TRAFFIC WITH FLAGGERS.
3. SEE SPECIAL PROVISION 107 FOR WIDE LOAD RESTRICTIONS AND MAINTENANCE OF TRAFFIC PLANS IN VOLUME 1 FOR SIGNED TRUCK DETOUR DURING STAGED BRIDGE CONSTRUCTION.



DETAIL "A"



DETAIL "B"

Filename: ...MSTA_MOT_Rte112_Bridge.dgn

Scale: AS NOTED			
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

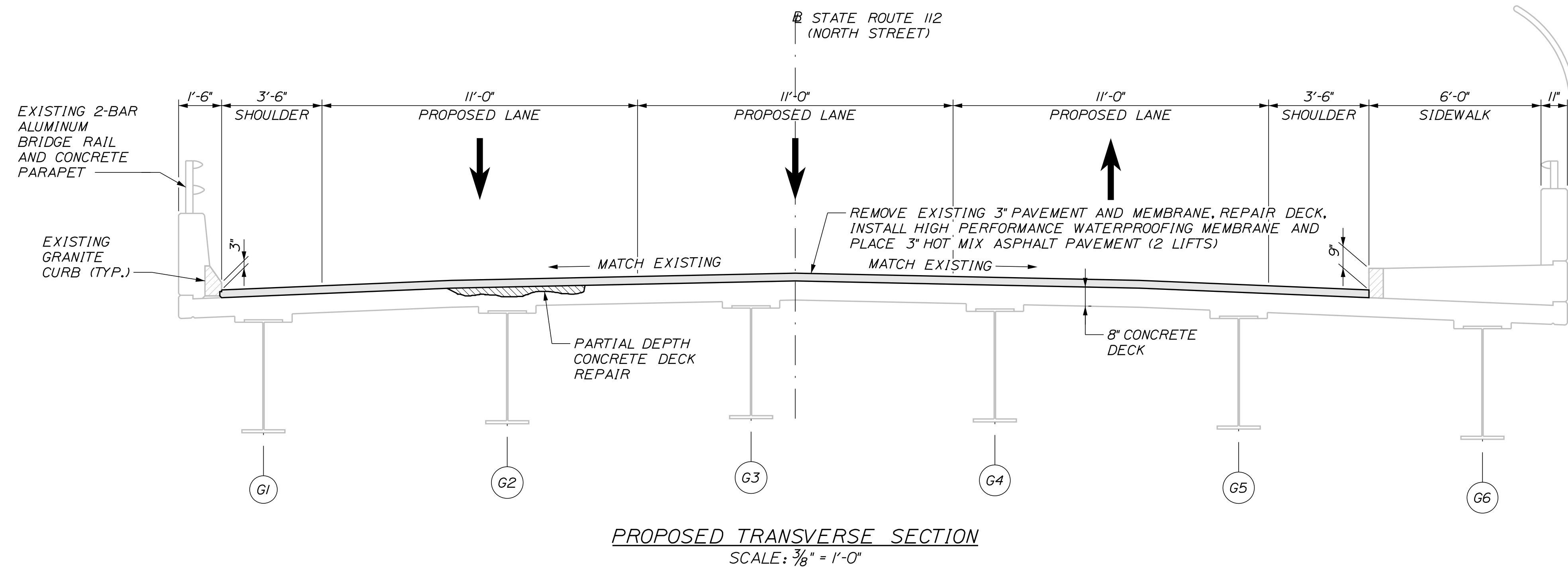
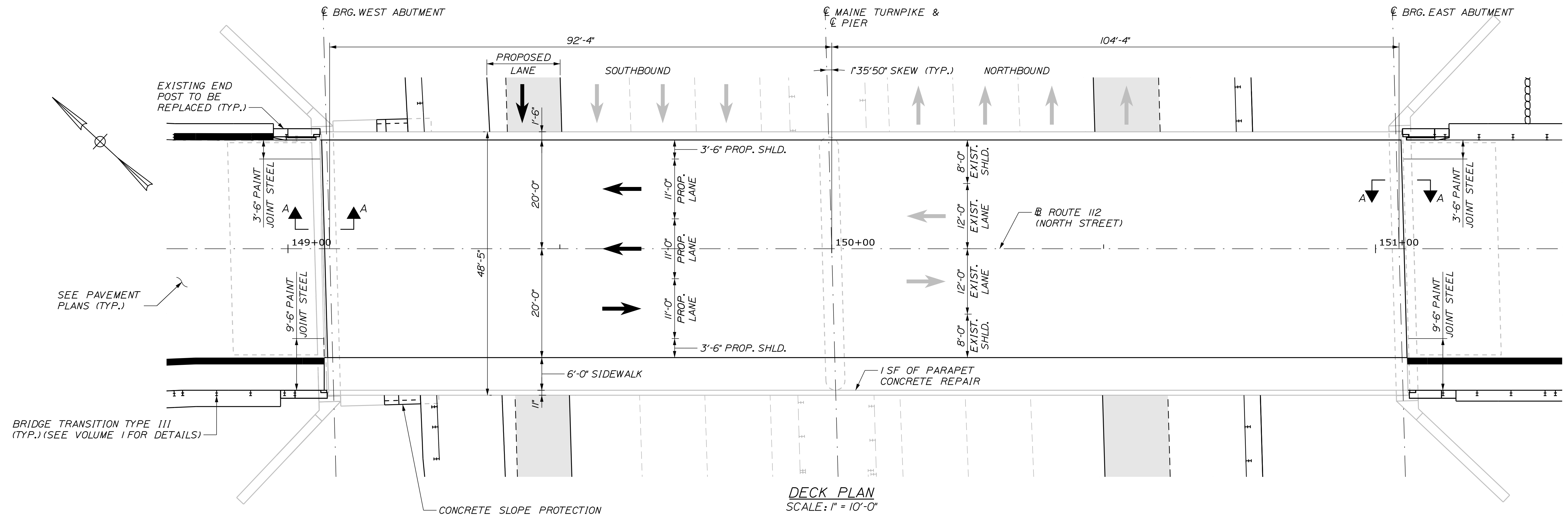
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTH STREET UNDERPASS
STAGED CONSTRUCTION

SHEET NUMBER: BR-02
CONTRACT: 2022.07
588 OF 735

Date: 10/17/2022

Filename: ...00\BRIDGE\MSTA\...GenPlan.dgn



EXISTING 1-BAR ALUMINUM BRIDGE RAIL, CHAIN LINK FENCE, AND CONCRETE PARAPET

NOTES

- CONTRACTOR SHALL REPAIR AREAS OF CONCRETE DECK DETERIORATION AS IDENTIFIED BY THE RESIDENT. RESIDENT SHALL IDENTIFY AND MARK AREAS FOR DECK REPAIR AFTER THE WEARING SURFACE AND MEMBRANE ARE REMOVED. CONTRACTOR SHALL ALSO REPAIR DETERIORATED AREAS OF PARAPET JOINTS. COORDINATE WORK WITH RESIDENT. PAYMENT FOR REPAIR WORK SHALL BE PAID FOR UNDER THE 518 PAY ITEMS.
- SEE SHEET BR-04 FOR SECTION A-A.

REPAIR QUANTITIES

EPOXY INJECTION CRACK REPAIR (PARAPET)	5 L.F.*
REPAIR OF UPWARD FACING SURFACES - TO REINFORCING STEEL < 8 INCHES (SIDEWALK)	5 S.F.*
REPAIR OF PARAPET VERTICAL SURFACES < 8 INCHES	5 S.F.*
PARTIAL DEPTH CONCRETE DECK REPAIRS	100 S.F.*

*INCLUDES ADDITIONAL REPAIR QUANTITY AS A CONTINGENCY

LEGEND

LIMITS OF PARTIAL DEPTH CONCRETE DECK REPAIRS (REPAIR AREAS TO BE FIELD DETERMINED)

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTH STREET UNDERPASS
DECK PLAN AND TRANSVERSE SECTION

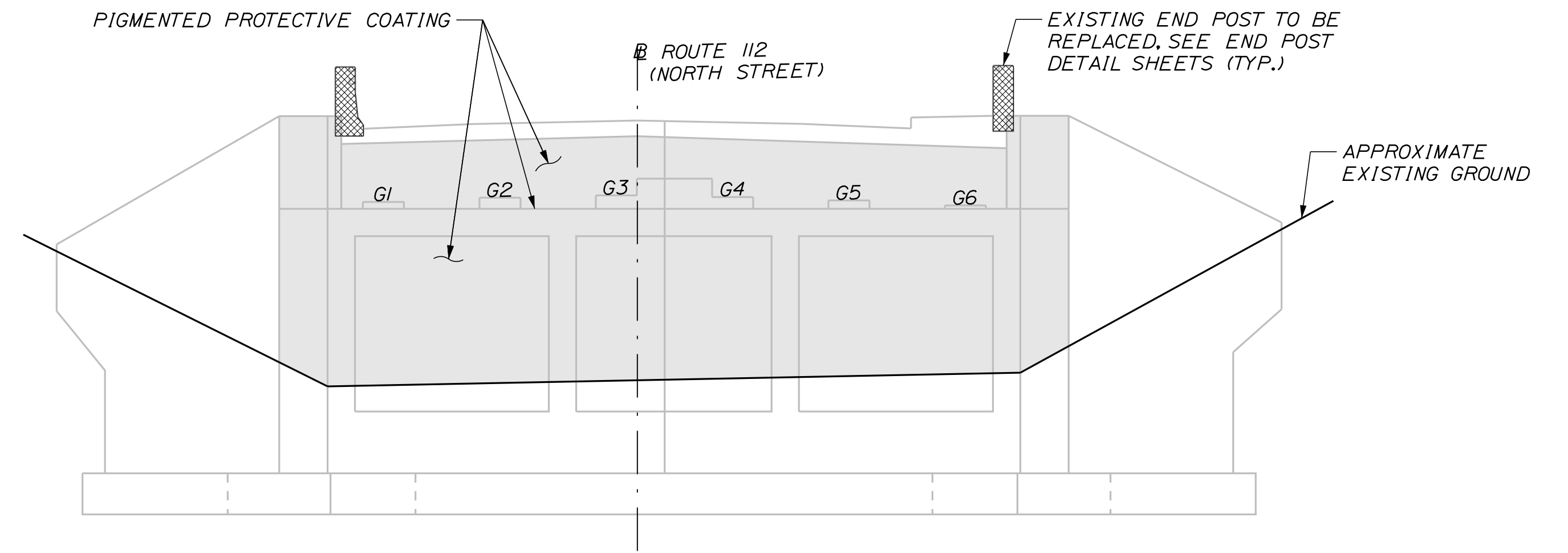
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CONTRACT: 2022.07
589 OF 735

Date:10/17/2022

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ABUTMENT NOTES

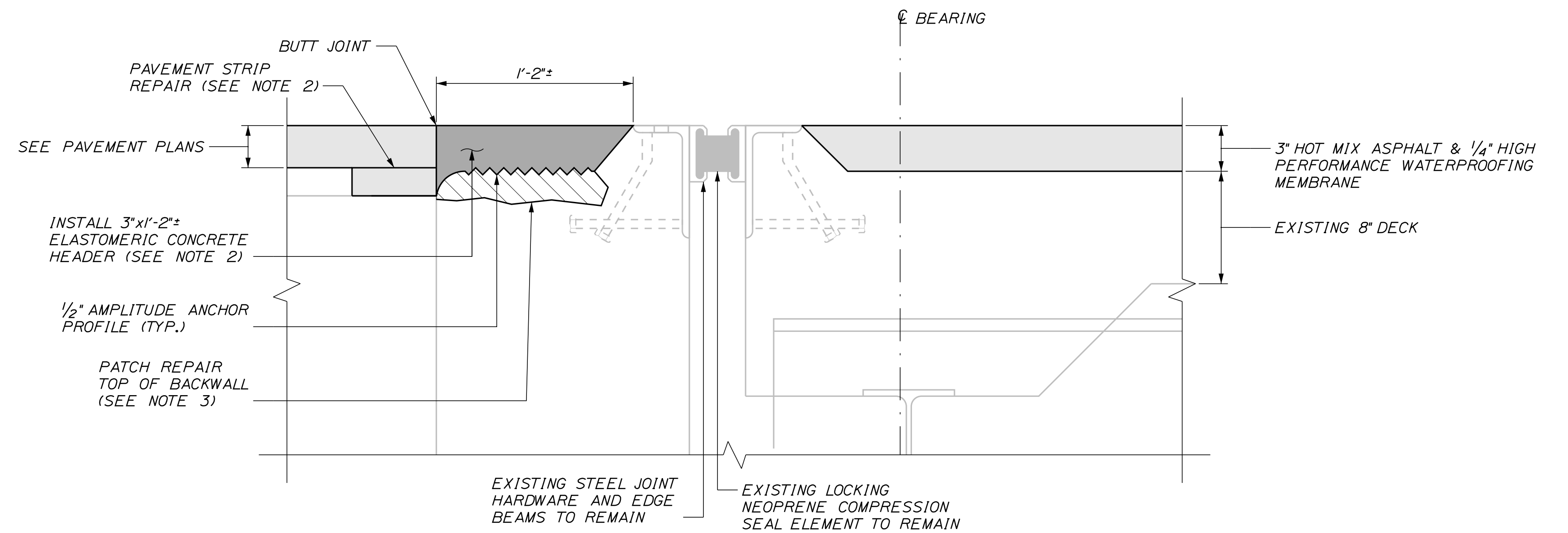
1. CONTRACTOR SHALL REMOVE PROTECTIVE COATING WHERE PRESENT PRIOR TO APPLYING PROTECTIVE CONCRETE COATING. THIS WORK SHALL BE INCIDENTAL TO ITEM 515.201, PIGMENTED PROTECTIVE COATING FOR CONCRETE SURFACES.
2. THE EXPOSED PORTIONS OF THE ABUTMENT AND WINGWALLS SHALL BE COATED WITH PIGMENTED PROTECTIVE COATING.



ELEVATION - EAST ABUTMENT
SCALE: 1/8" = 1'-0"
WEST ABUTMENT SIMILAR

EXPANSION JOINT NOTES

1. PROTECT THE TOP OF THE EXPANSION JOINT DURING THE PLACEMENT OF BITUMINOUS PAVEMENT.
2. ELASTOMERIC CONCRETE HEADER SHALL BE PAID FOR UNDER ITEM 518.864, ELASTOMERIC CONCRETE HEADER REPAIR. ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY FOR INSTALLING THE PAVEMENT STRIP REPAIR SHALL BE INCIDENTAL TO ITEM 518.864, ELASTOMERIC CONCRETE HEADER REPAIR.
3. PRIOR TO REPLACING THE ELASTOMERIC CONCRETE HEADER, THE CONTRACTOR SHALL REPAIR ANY AREAS OF DETERIORATED CONCRETE AT THE TOP OF THE BACKWALL, AS DIRECTED BY THE RESIDENT. REPAIRS TO THE TOP OF THE BACKWALL WILL BE PAID FOR UNDER ITEM 518.10, ABUTMENT REPAIRS.
4. THE EXISTING STEEL JOINT HARDWARE, INCLUDING SIDEWALK NON-SKID PLATES, CURB PLATES, AND THE HORIZONTAL LEG OF THE ROADWAY ANGLES, SHALL BE CLEANED AND PAINTED TO THE LIMITS SHOWN IN THE PLANS IN ACCORDANCE WITH SPECIAL PROVISION 506. THE FINISH COAT COLOR SHALL MATCH THE EXISTING PAINT SYSTEM.
5. PROTECT THE EXISTING LOCKING NEOPRENE COMPRESSION SEAL DURING SURFACE PREPARATION AND PAINTING.



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

Scale:				Designed by:			
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				Drawn	By	Date	In Charge of
					KLW	10\22	SJW
					KLW	10\22	LEM

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**THE GOLD STAR
MEMORIAL HIGHWAY**

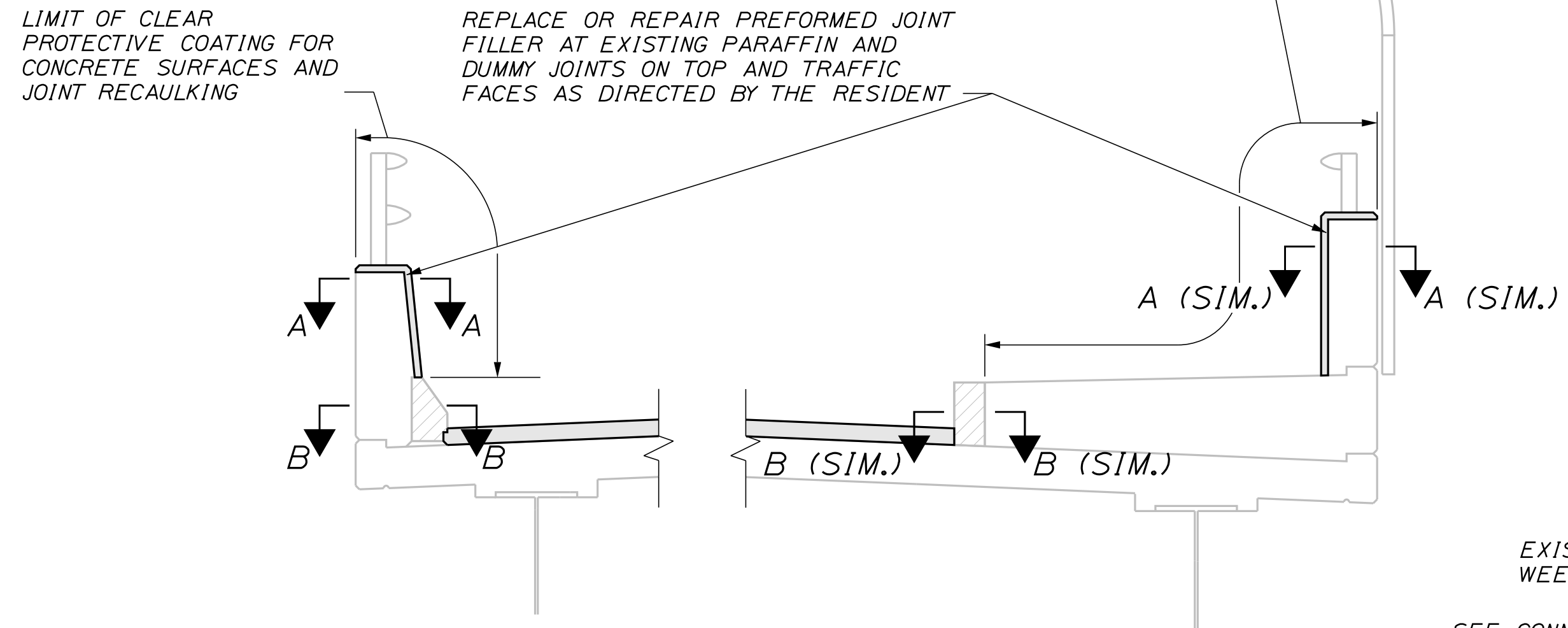
**THE GOLD STAR
MEMORIAL HIGHWAY**

**INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTH STREET UNDERPASS
EXPANSION JOINT & SUBSTRUCTURE DETAILS**

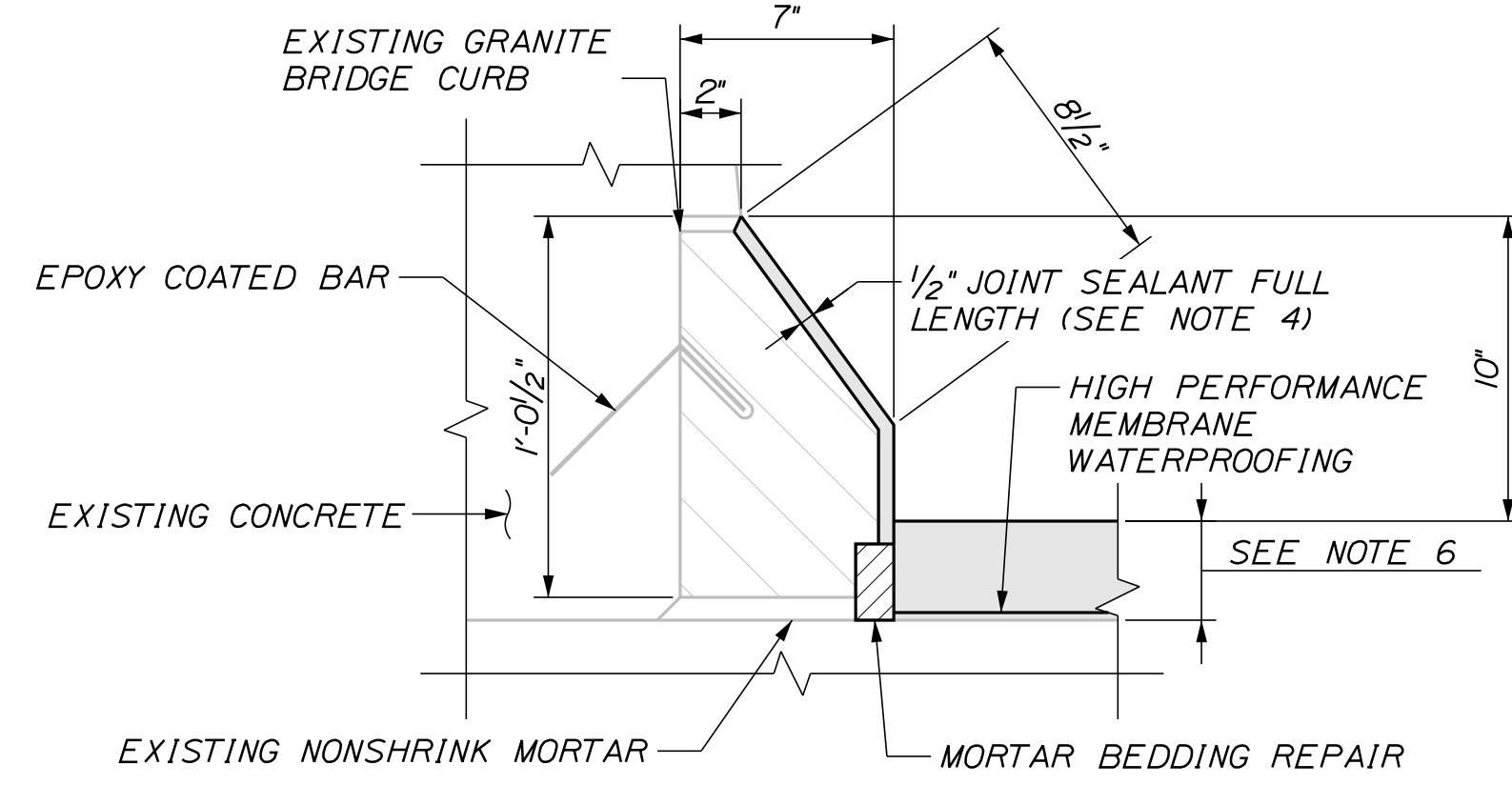
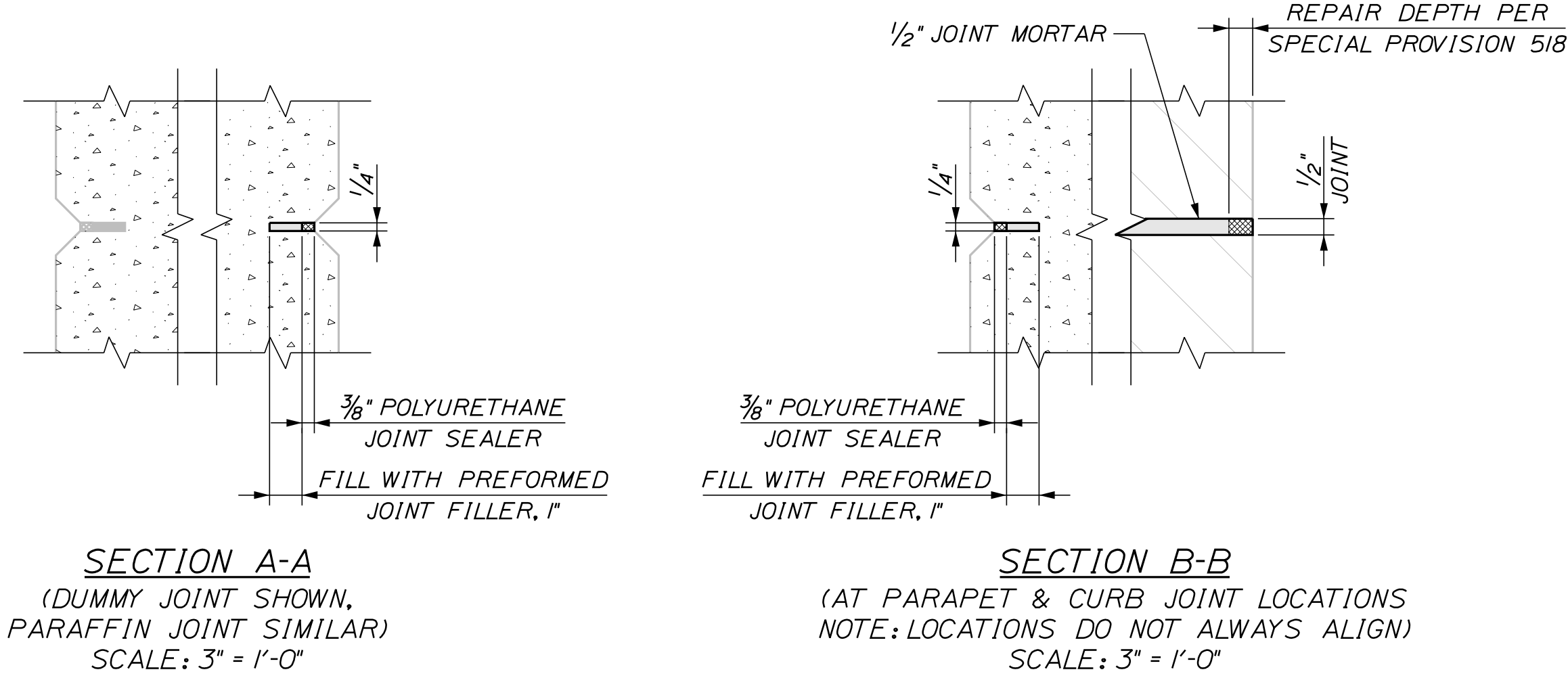
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CONTRACT:2022.07
590 OF 735

Date: 10/17/2022

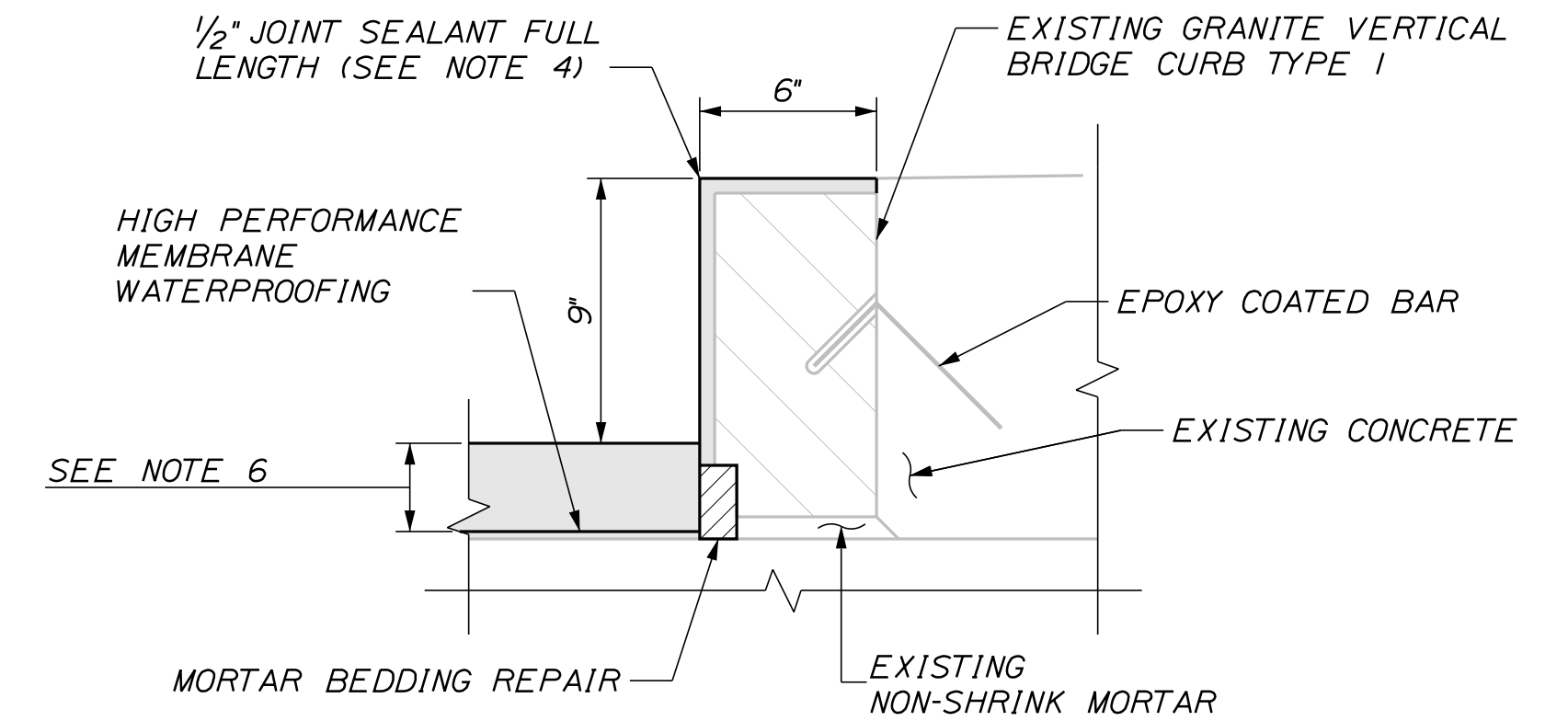
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PARAPET JOINT REPAIR AND PROTECTIVE COATING LIMITS
SCALE: 1/2" = 1'-0"

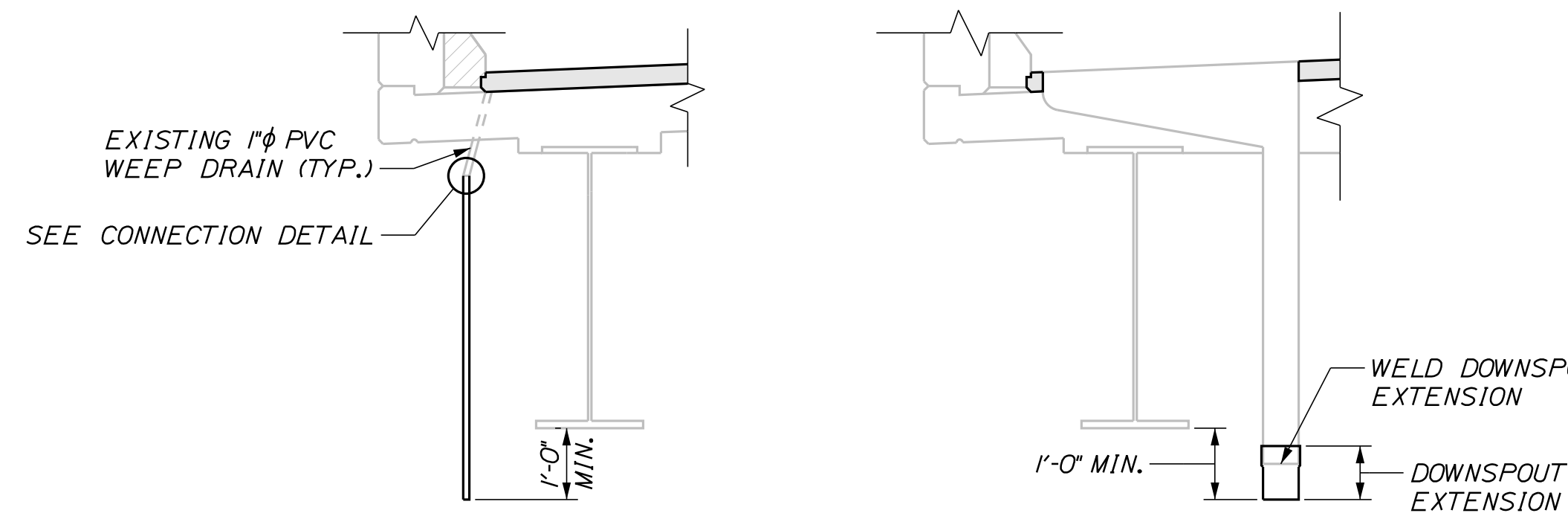


EXISTING GRANITE CURB DETAILS
SCALE: 2" = 1'-0"



GRANITE CURB REPAIR NOTES

1. THE CONTRACTOR SHALL REPAIR AREAS OF DETERIORATED GRANITE CURB BEDDING AND JOINT MORTAR ON THE DECK AS REQUIRED. THE LOCATIONS OF GRANITE CURB BEDDING AND JOINT MORTAR SHALL BE FIELD DETERMINED BY THE RESIDENT. PAYMENT FOR REPAIR WORK SHALL BE PAID FOR UNDER THE 518 PAY ITEMS.
2. REMOVAL OF EXISTING GRANITE CURB BEDDING AND JOINT MORTAR, AS SPECIFIED BY THE RESIDENT, SHALL BE INCIDENTAL TO ITEM 518.39 GRANITE CURB JOINT MORTAR AND BEDDING MORTAR REPAIR.
3. A BEAD OF HOT-APPLIED RUBBERIZED ASPHALT SEALER SHALL BE APPLIED ALONG CURB LINES AFTER INSTALLATION OF BASE COURSE. PAYMENT SHALL NOT BE MADE DIRECTLY, BUT SHALL BE CONSIDERED INCIDENTAL TO RELATED CONTRACT ITEMS.
4. JOINT SEALANT SHALL BE A MATERIAL FROM THE MAINEDOT QUALIFIED PRODUCTS LIST AS APPROVED BY THE RESIDENT. JOINT SEALANT SHALL BE INCIDENTAL TO ITEM 518.39, GRANITE CURB JOINT MORTAR AND BEDDING MORTAR REPAIR.
5. MORTAR FOR BEDDING AND FOR JOINTS IN THE GRANITE CURB ON THE BRIDGE WHERE REQUIRED SHALL BE AN APPROVED NON-SHRINK MORTAR IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 518.
6. THE CONTRACTOR SHALL TREAT CORNERS AND THE VERTICAL FACE OF CURBING IN ACCORDANCE WITH SPECIAL PROVISION 508.

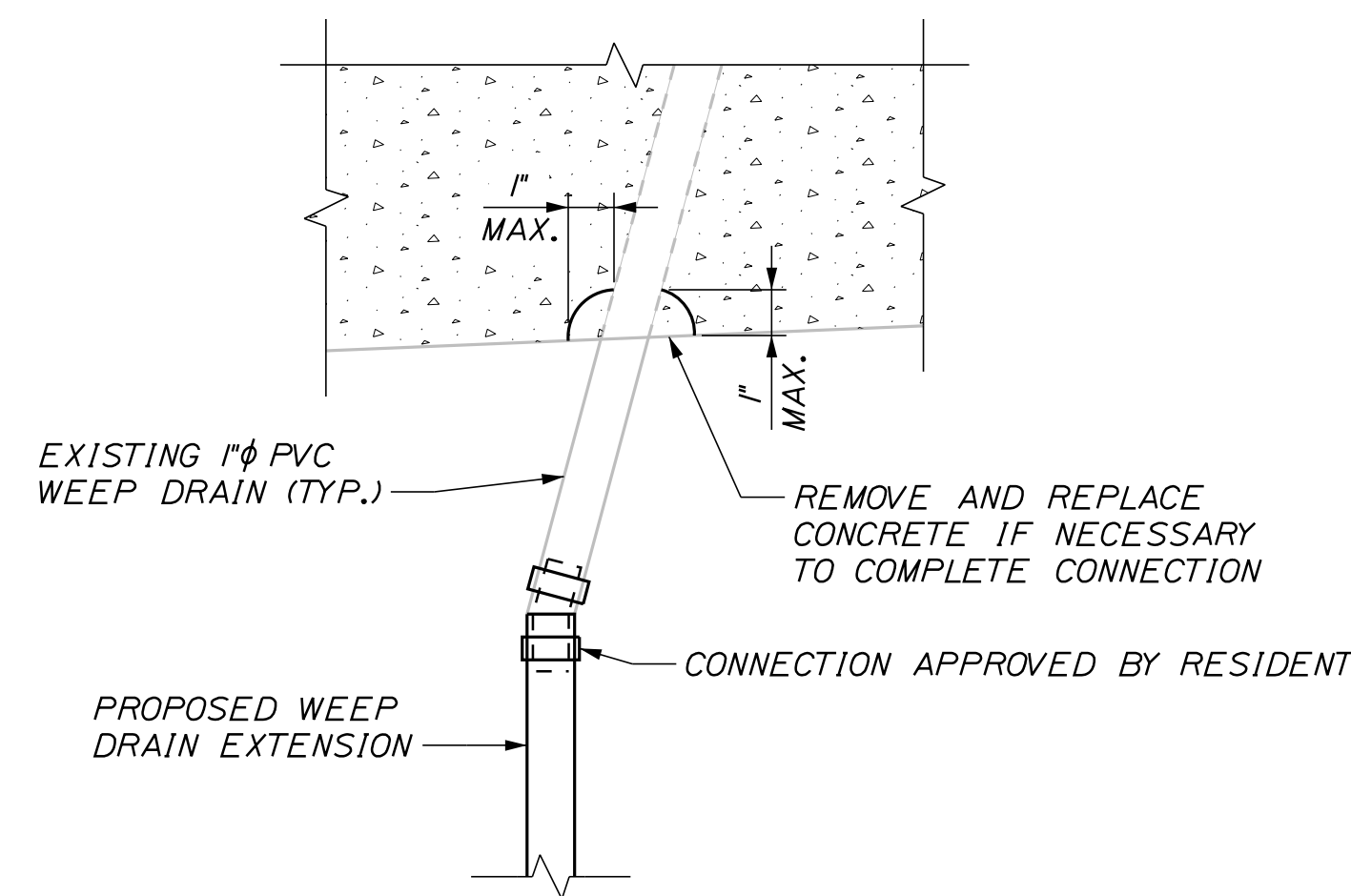


WEEP DRAIN EXTENSION
SCALE: 1/2" = 1'-0"

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

DOWNSPOUT EXTENSION NOTES

1. PRIOR TO STARTING THE WORK THE CONTRACTOR SHALL FIELD MEASURE EACH DRAIN. THIS INFORMATION SHALL BE USED FOR THE FABRICATION OF THE DOWNSPOUT EXTENSIONS.
2. DOWNSPOUT EXTENSIONS SHALL CONFORM TO ASTM A 36 AND SHALL BE HOT DIP GALVANIZED AFTER FABRICATION, IN ACCORDANCE WITH ASTM A 123.
3. PREPARE NEW AND EXISTING DOWNSPOUT FOR FIELD WELD. FIELD WELD THE EXTERIOR PERIMETER JOINTS BETWEEN NEW AND EXISTING DOWNSPOUTS. THE INTERIOR AND EXTERIOR OF THE NEW DOWNSPOUT WELDS SHALL BE COATED WITH AN APPROVED COLD GALVANIZING COMPOUND AFTER WELDING.
4. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS ASSOCIATED WITH THE BRIDGE DRAIN MODIFICATIONS WILL BE PAID FOR UNDER ITEM 502.701, BRIDGE DRAIN DOWNSPOUT EXTENSION.



WEEP DRAIN CONNECTION DETAIL
DECK REINFORCING NOT SHOWN FOR CLARITY
SCALE: 3" = 1'-0"

WEEP DRAIN EXTENSION NOTES

1. ALL PVC DECK WEEPS WHICH DRAIN ONTO PIERS, ABUTMENTS OR STRUCTURAL STEEL SHALL BE EXTENDED AND DIVERTED AWAY FROM BRIDGE COMPONENTS BELOW DECK, AND SHALL EXTEND 1 FT BELOW BOTTOM FLANGES, AS DIRECTED BY THE RESIDENT. PAYMENT SHALL BE MADE UNDER PAY ITEM 502.701, WEEP DRAIN EXTENSIONS.

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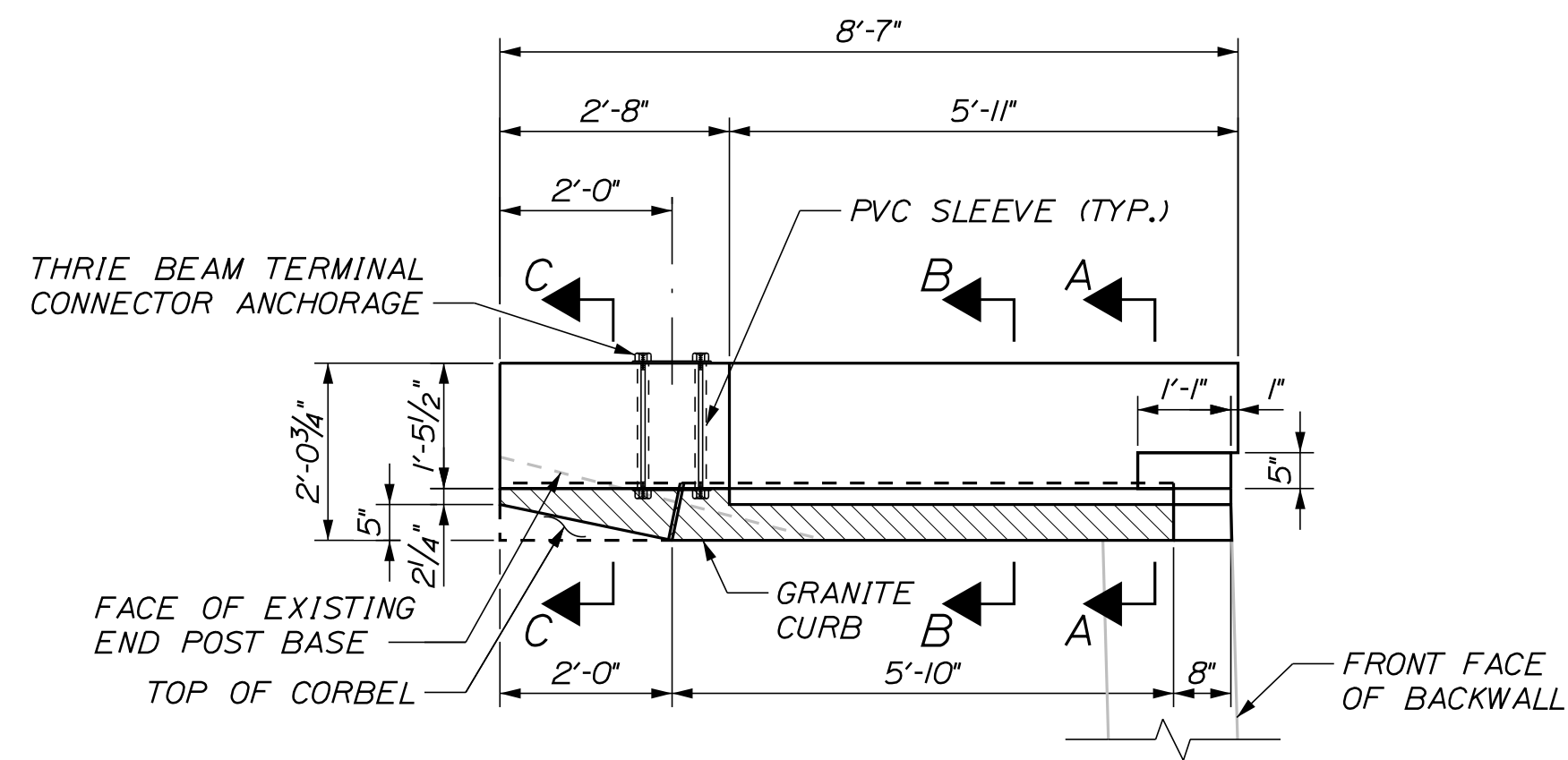
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTH STREET UNDERPASS
SUPERSTRUCTURE REPAIRS

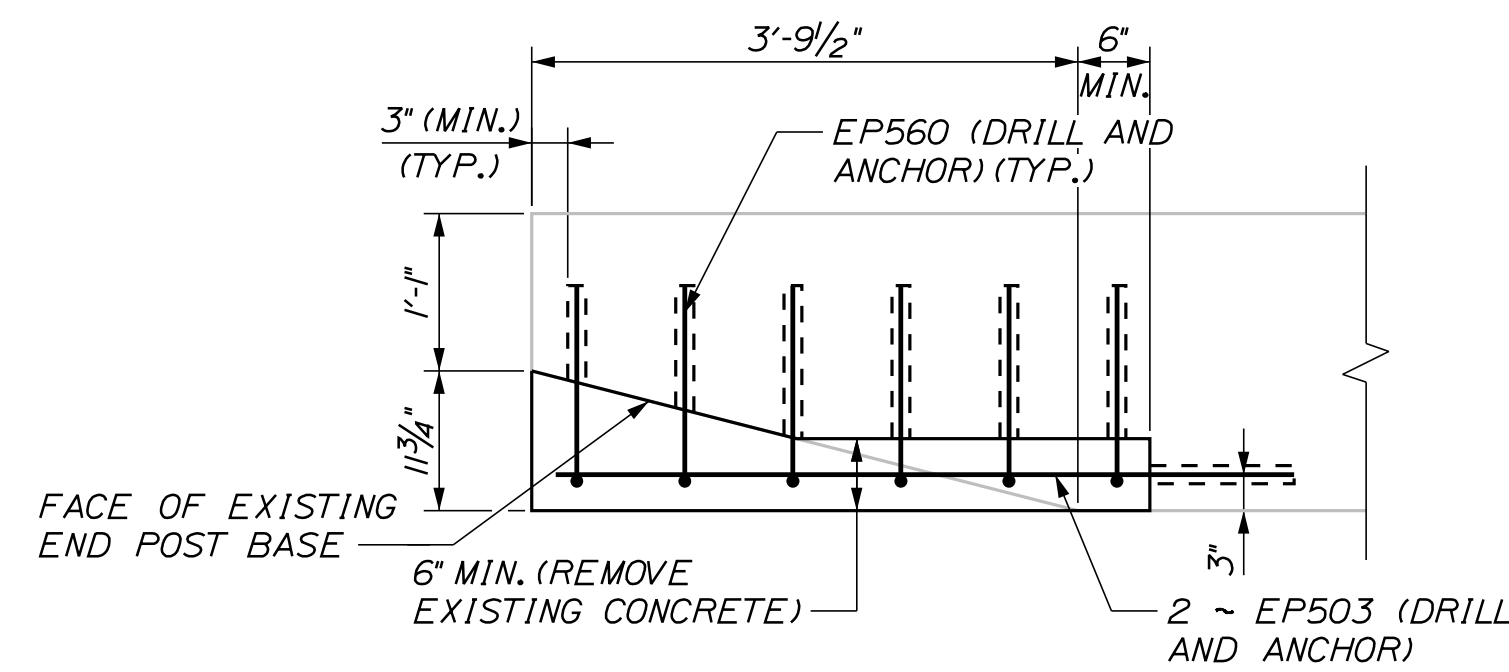
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CONTRACT: 2022.07
591 OF 735

Date:10/17/2022

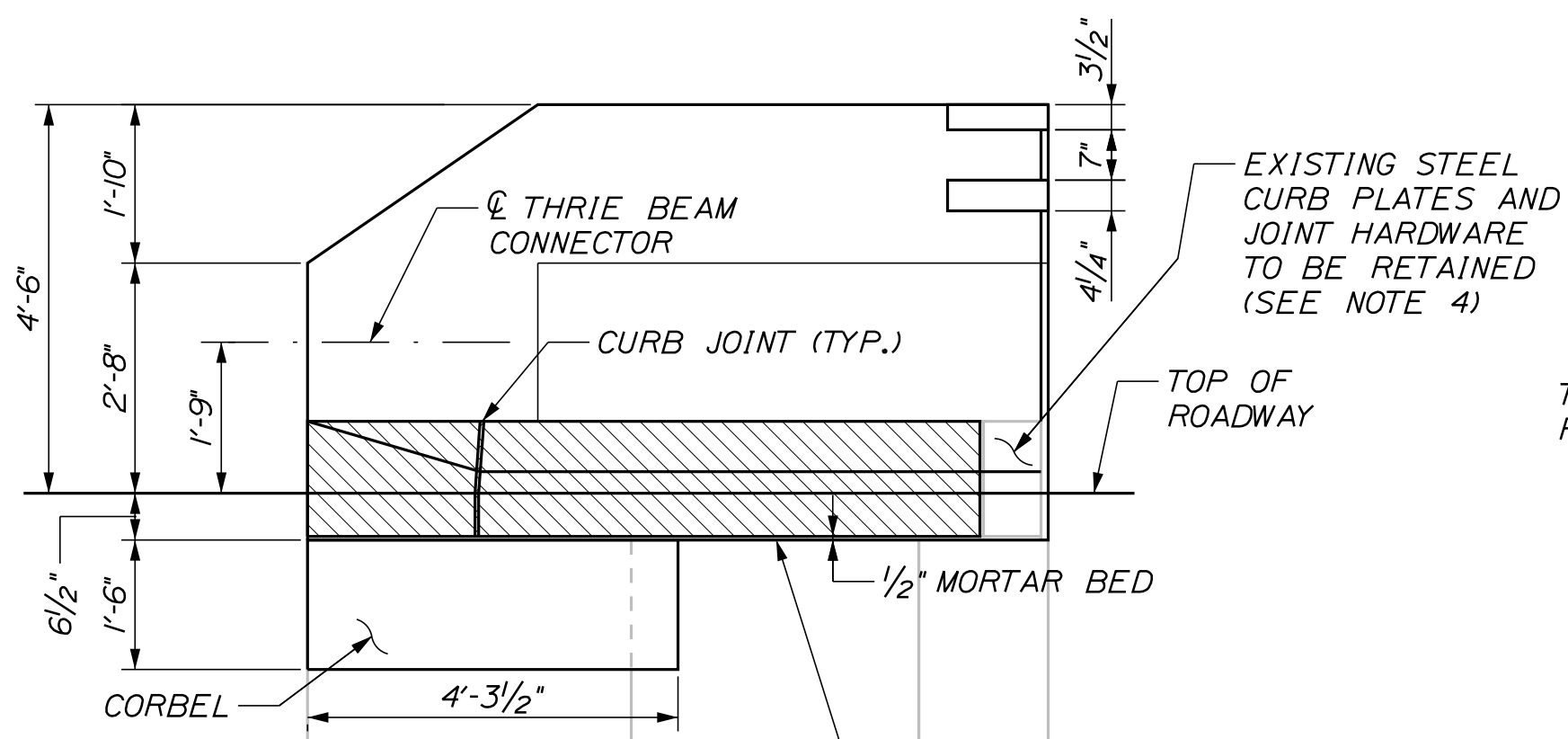
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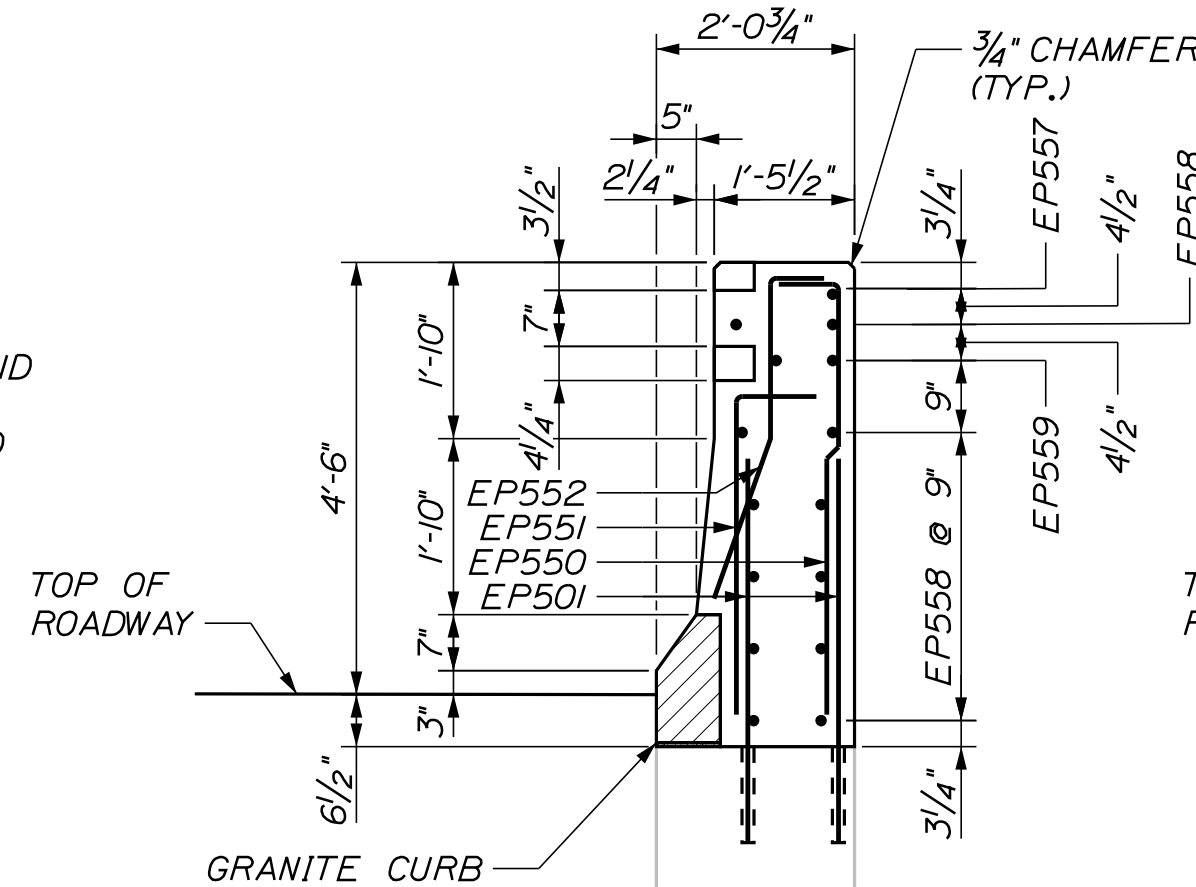
PLAN
(NW END POST SHOWN, NE END POST SIMILAR)
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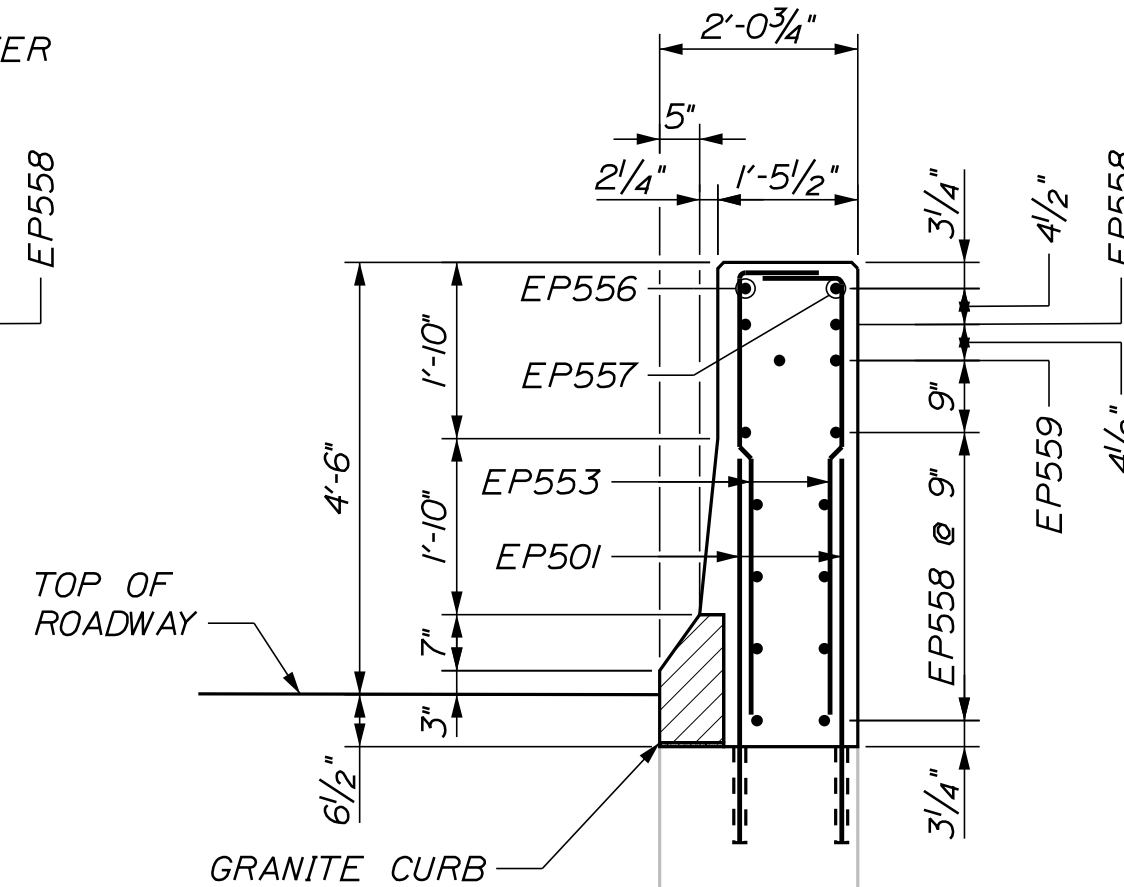
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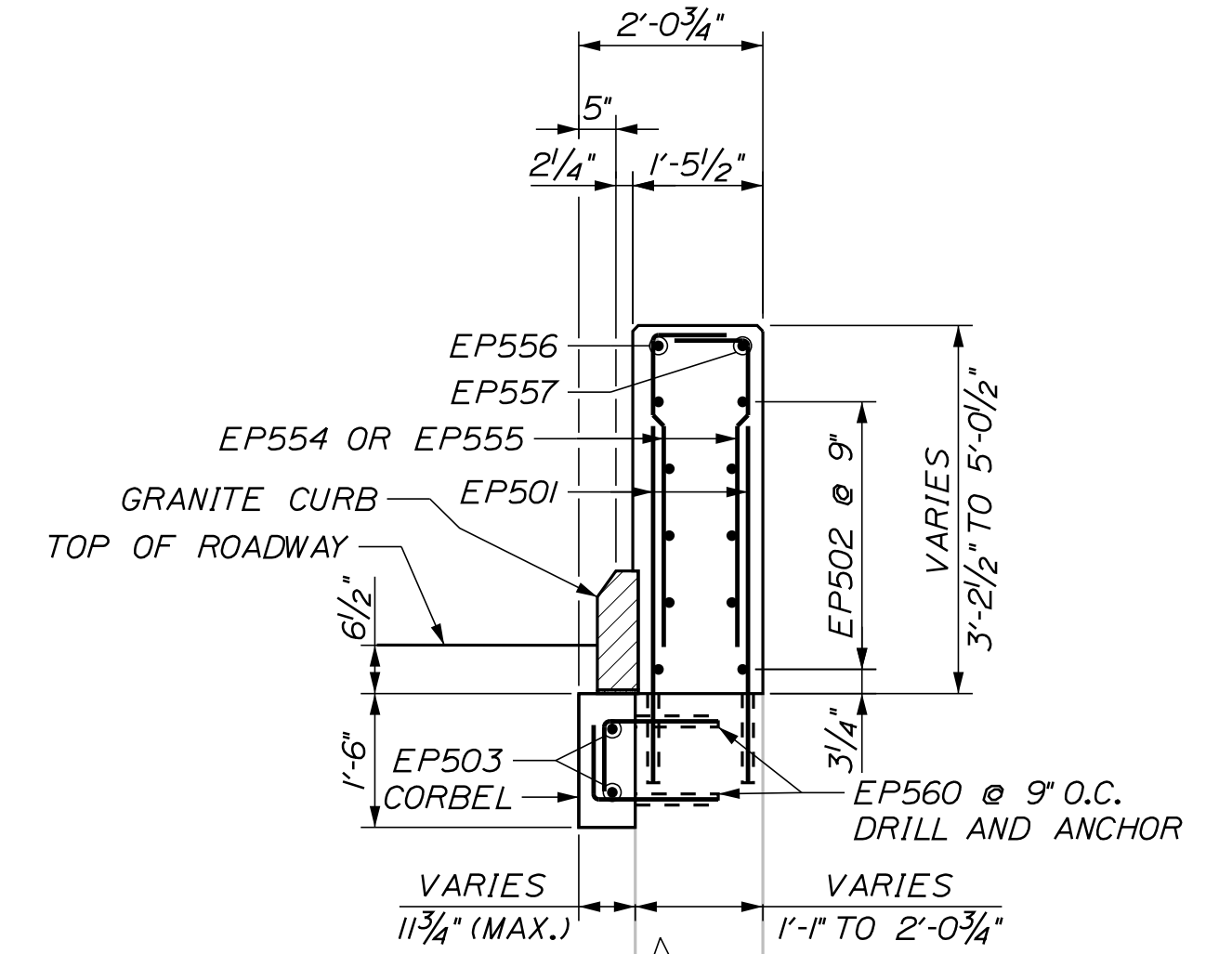
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(NW END POST SHOWN, NE END POST SIMILAR)
SCALE: 1/2" = 1'-0"



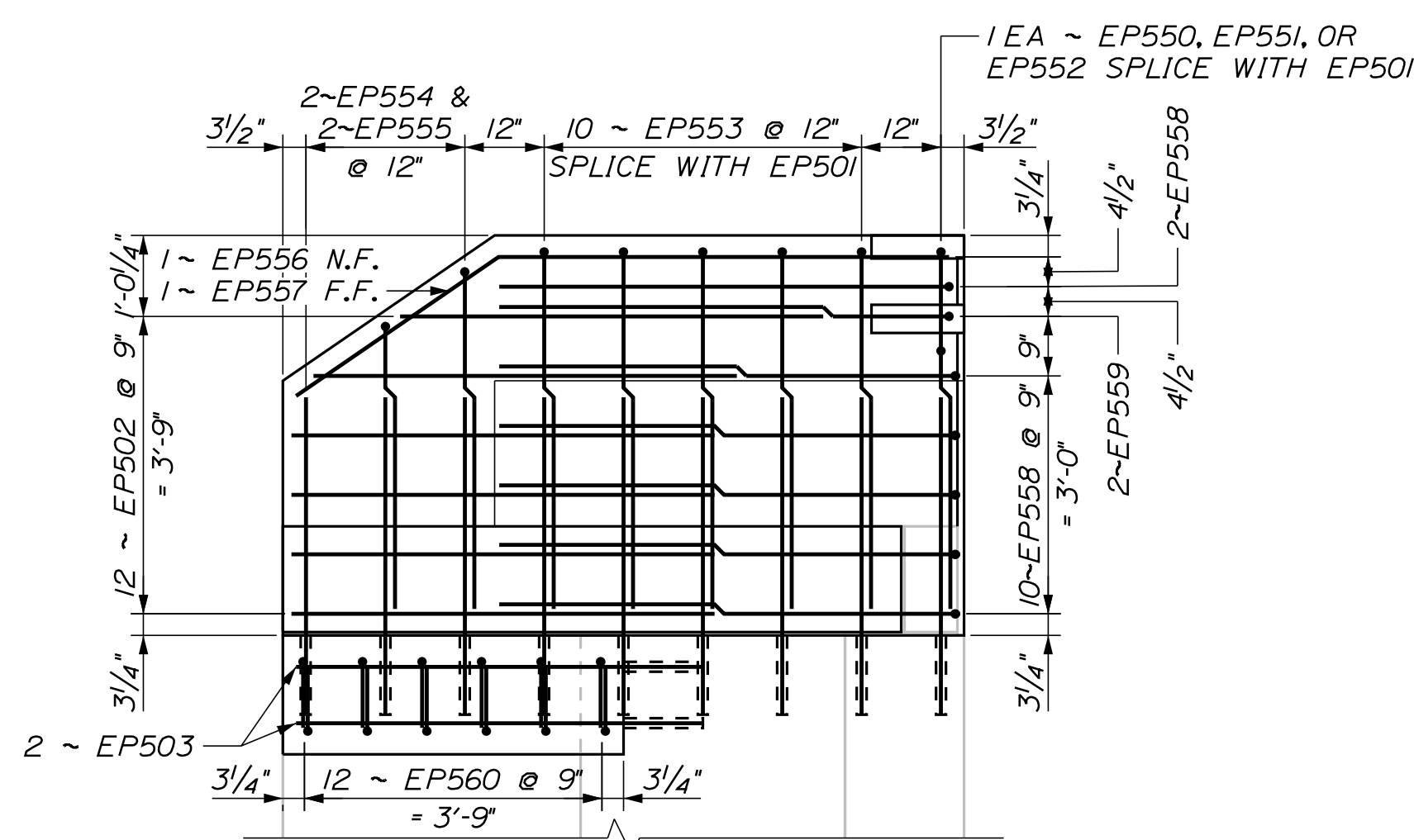
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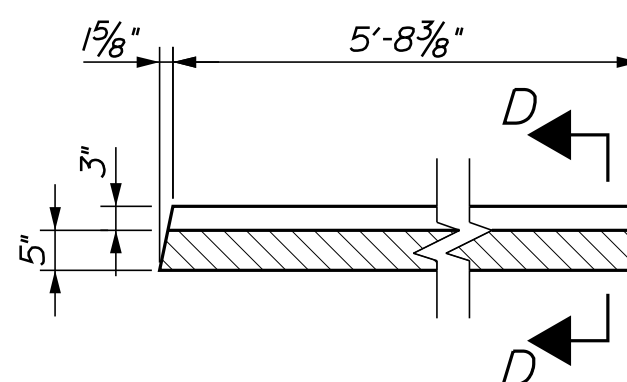
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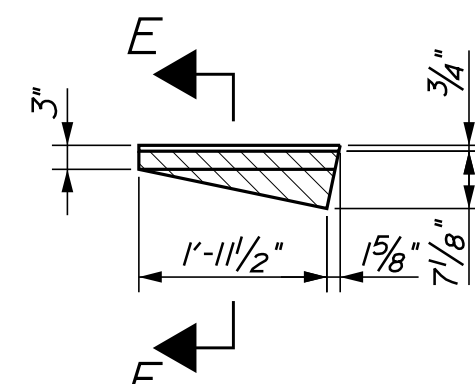
SECTION C-C
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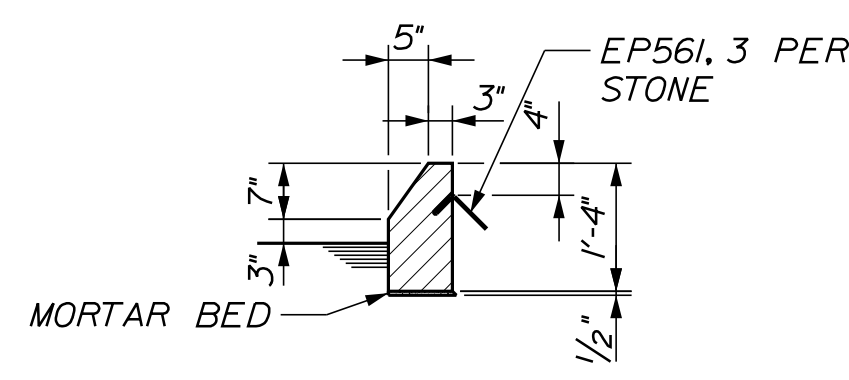
ELEVATION - REINFORCING
(NW END POST SHOWN, NE END POST SIMILAR)
SCALE: 1/2" = 1'-0"



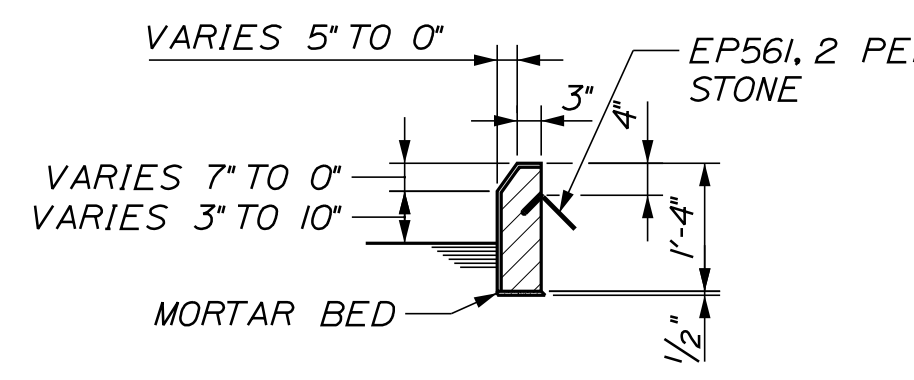
PLAN



PLAN AT END OF ENDPOST



SECTION D-D



SECTION E-E

ENDPOST GRANITE CURB DETAILS
SCALE: 1/2" = 1'-0"

NOTES

1. THE THRIE BEAM TERMINAL CONNECTOR AND RAIL TRANSITION SHALL BE PAID UNDER ITEM 606.1723 BRIDGE TRANSITION - TYPE III.
2. EXISTING CONCRETE END POST SHALL BE REMOVED TO THE EXISTING HORIZONTAL CONSTRUCTION JOINT. CONCRETE REMOVAL SHALL BE PAID UNDER ITEM 202.12 REMOVING EXISTING STRUCTURAL CONCRETE.
3. THE EXISTING VERTICAL REINFORCING BARS SHALL BE CUT FLUSH WITH THE EXISTING HORIZONTAL CONSTRUCTION JOINT. EPOXY-COAT THE CUT EDGE.
4. AT THE CONTRACTOR'S OPTION DURING CONSTRUCTION THE REMOVAL OF THE EXISTING CONCRETE END POST, THE EXISTING STUDS ATTACHED TO THE EMBEDDED FACE OF THE STEEL JOINT AND CURB PLATES MAY BE REMOVED AND SUBSEQUENTLY GROUND FLUSH. ALL REMOVED STUDS SHALL BE REPLACED IN KIND ON THE STEEL PLATES PRIOR TO CONSTRUCTION OF THE PROPOSED END POST CONCRETE. THIS WORK SHALL BE INCIDENTAL TO ITEM 502.21. STRUCTURAL CONCRETE ABUTMENTS AND RETAINING WALLS.
5. PROPOSED END POST CONCRETE INSTALLATION AND MATERIALS SHALL BE PAID UNDER ITEM 502.21 STRUCTURAL CONCRETE, ABUTMENTS, AND RETAINING WALLS.
6. GRANITE CURB INSTALLATION AND MATERIALS SHALL BE PAID UNDER ITEM 609.15 SLOPED CURB TYPE 1.

Scale: AS NOTED			
No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
Designed	KLW	10\22	Checked	SJW	10\22
Drawn	KLW	10\22	In Charge of	LEM	10\22

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

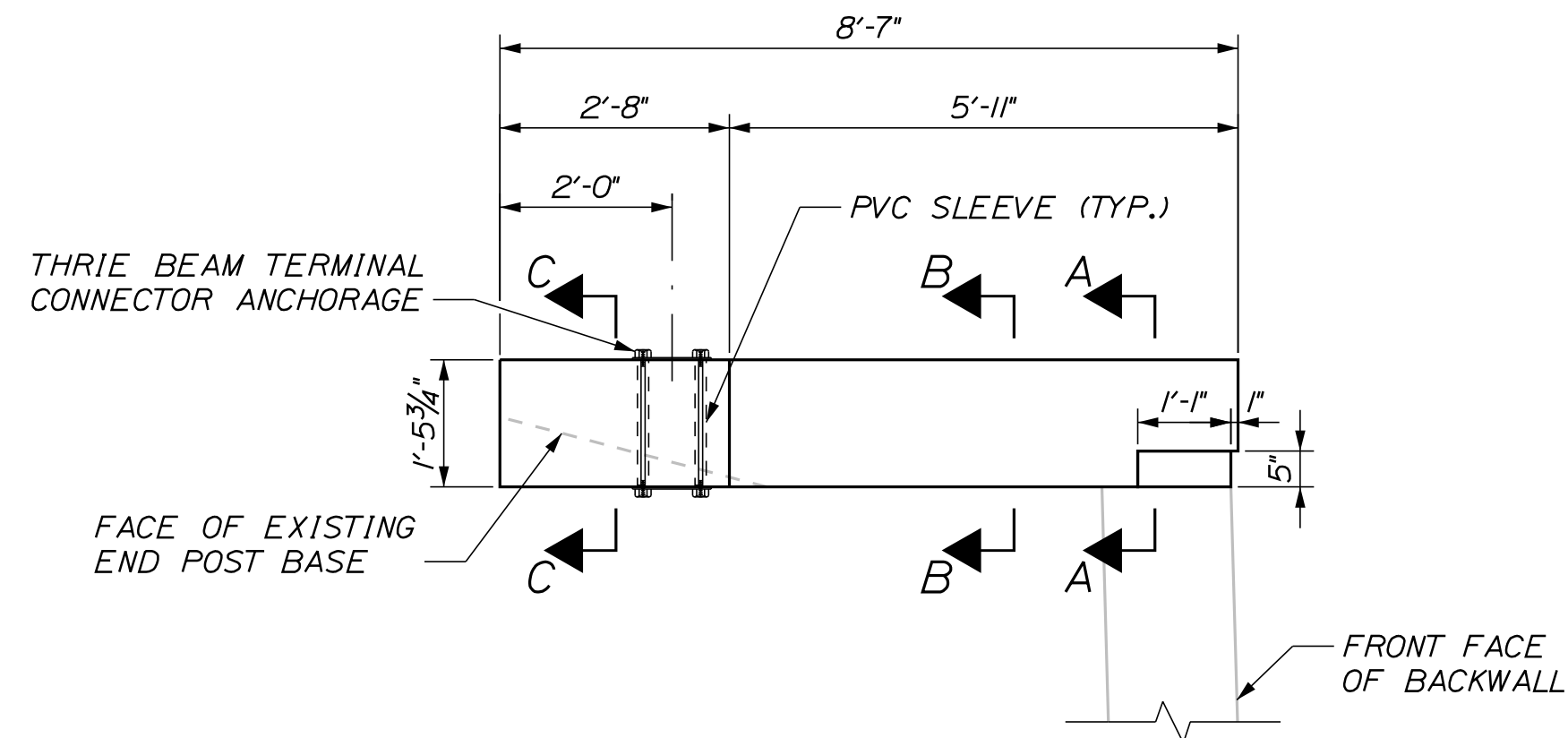
INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTH STREET UNDERPASS
END POST DETAILS 1

SHEET NUMBER: BR-06
CONTRACT:2022.07
592 OF 735

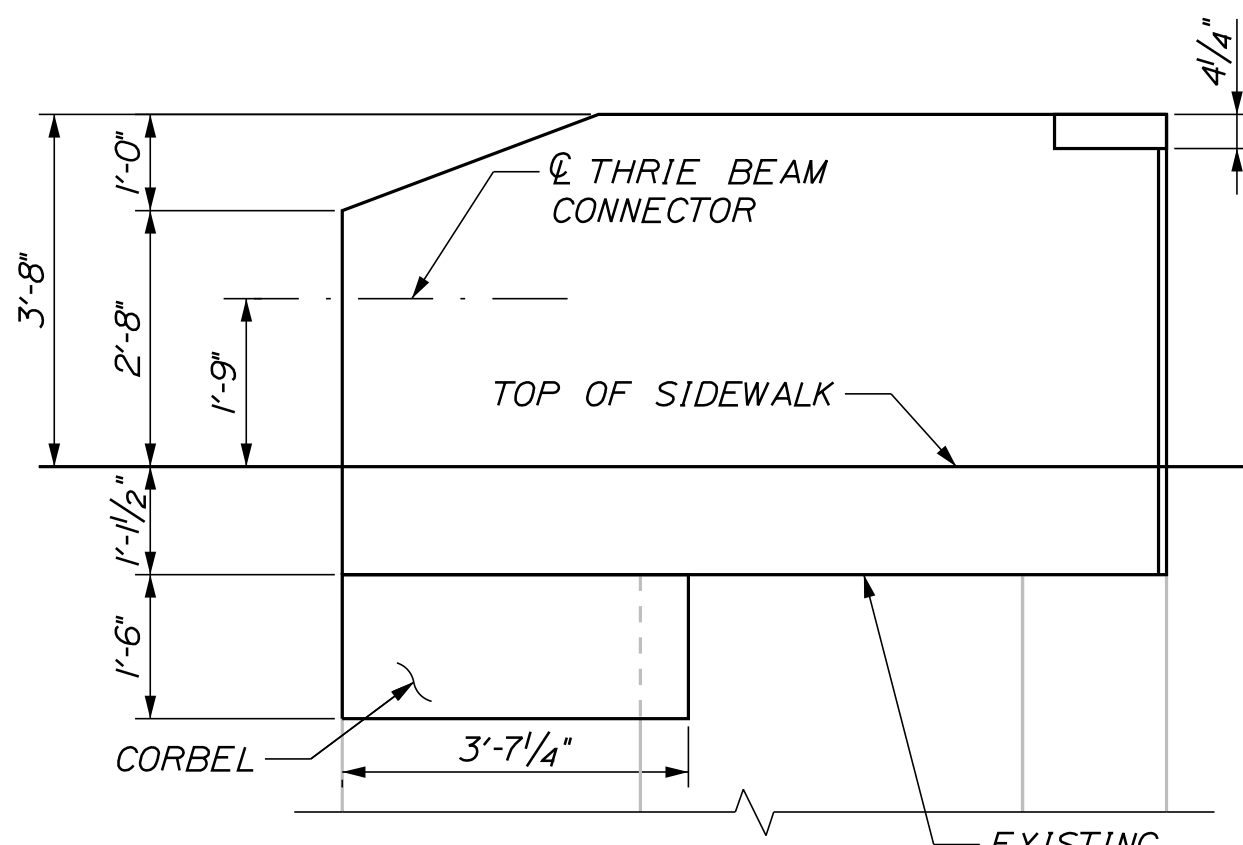
Date: 10/17/2022

Filename: ...00.BRIDGE.MSTA...EndPost1.dgn

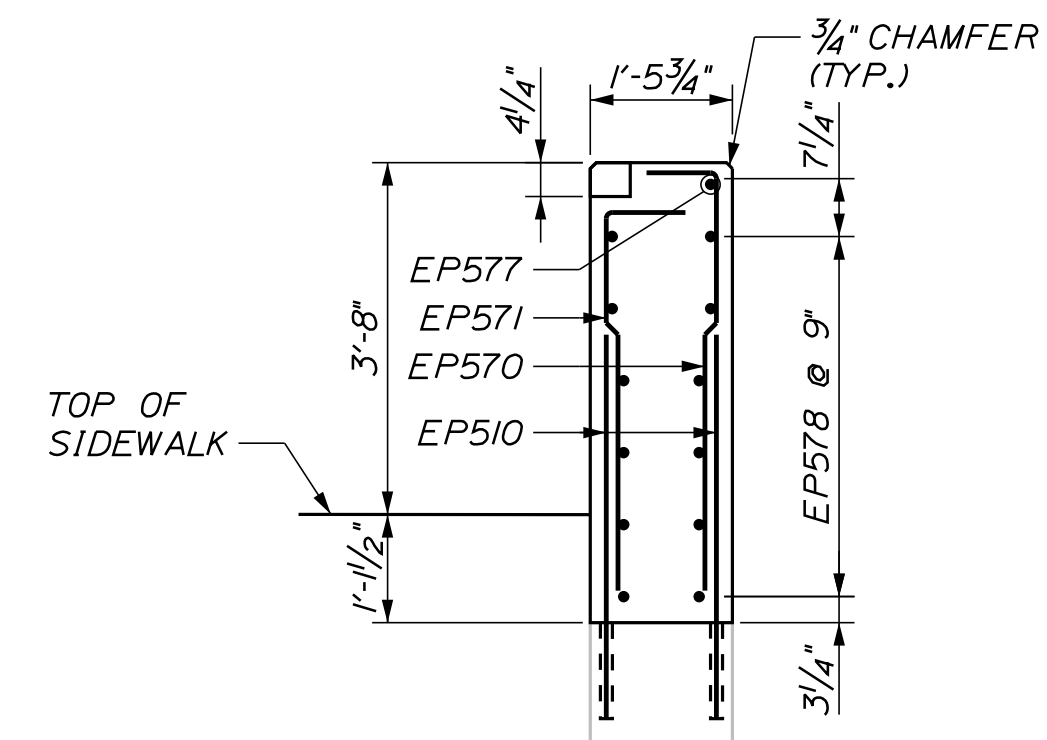
NOTE:
1. SEE SHEET BR-06 FOR NOTES.



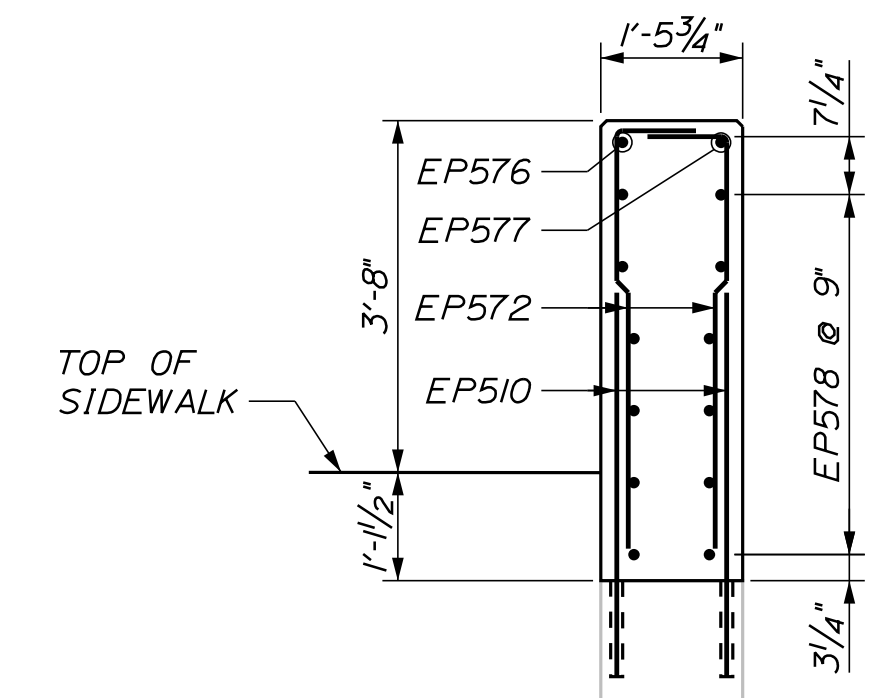
PLAN
(SE END POST SHOWN, SW END POST SIMILAR)
SCALE: 1/2" = 1'-0"



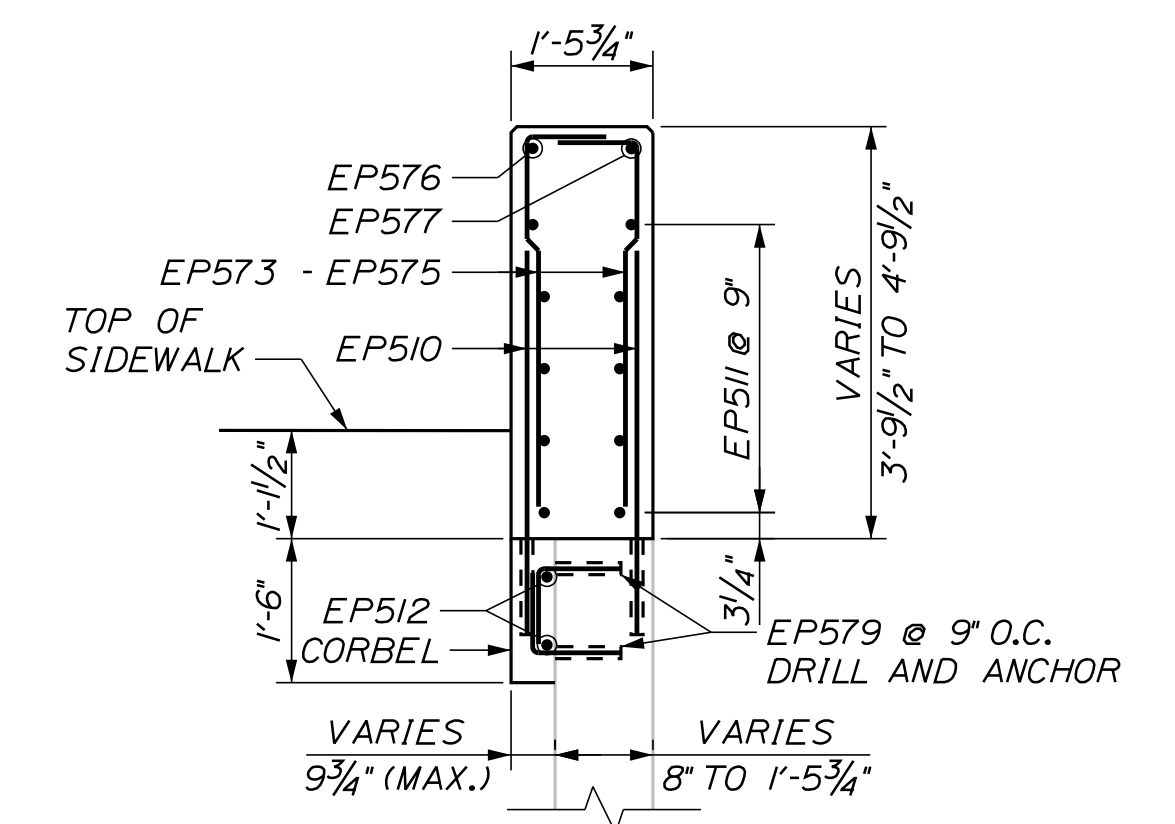
ELEVATION
(SE END POST SHOWN, SW END POST SIMILAR)
SCALE: 1/2" = 1'-0"



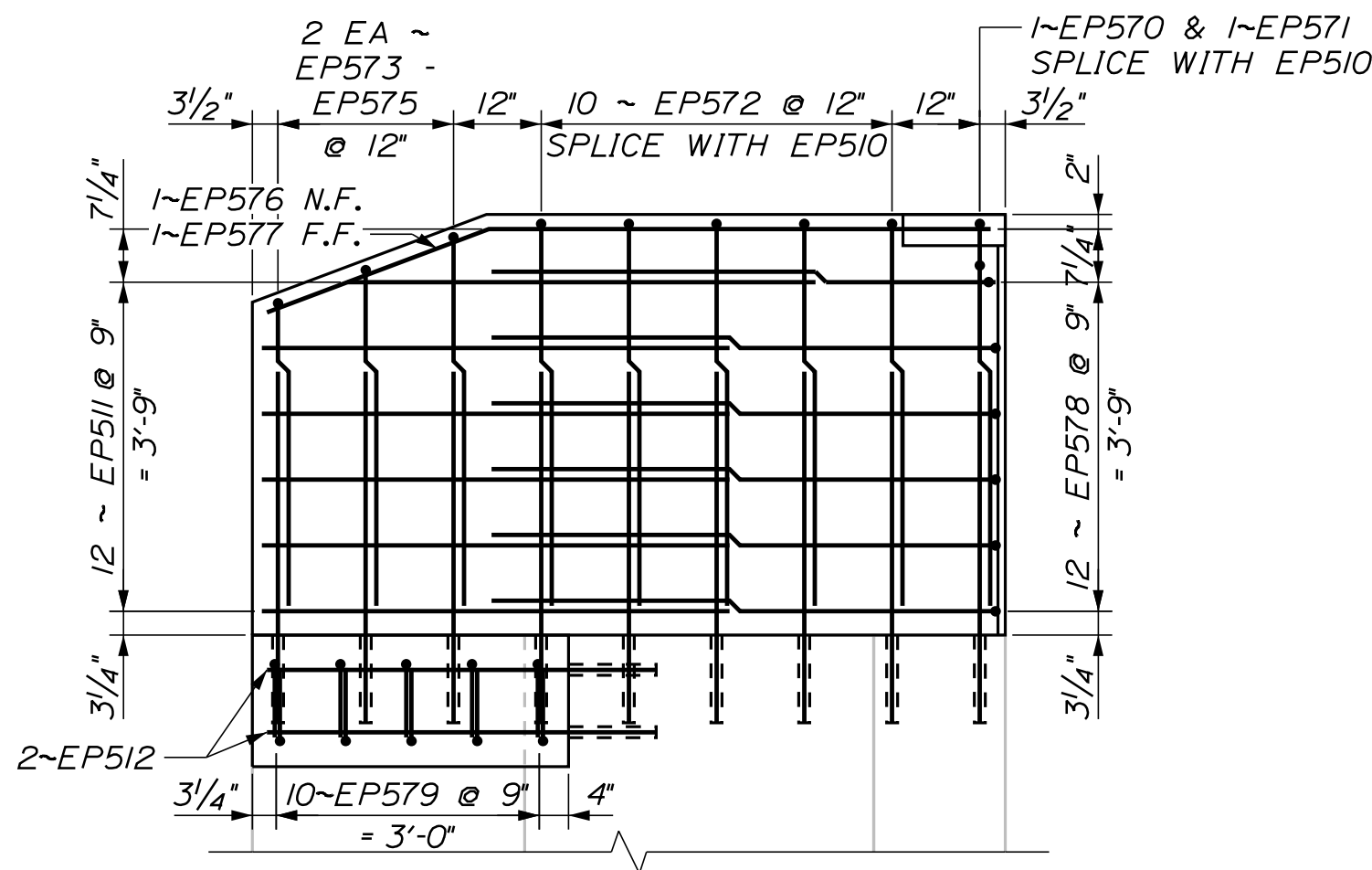
SECTION A-A
SCALE: 1/2" = 1'-0"



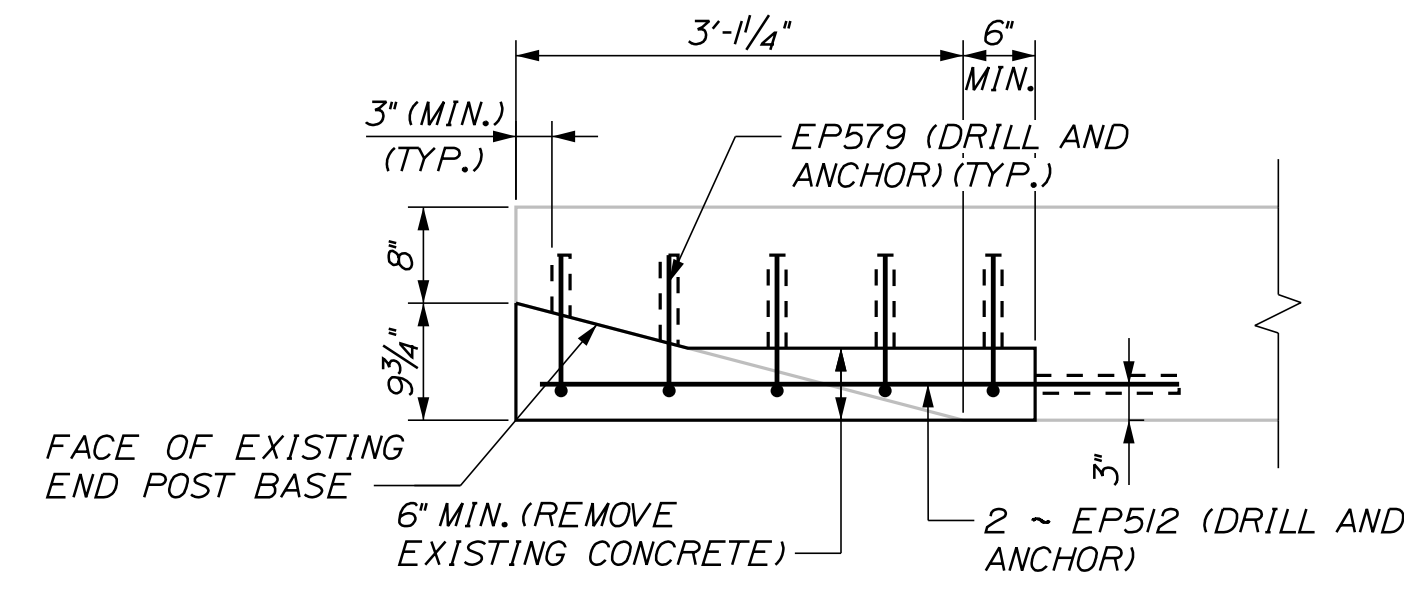
SECTION B-B
SCALE: 1/2" = 1'-0"



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



ELEVATION - REINFORCING
(SE END POST SHOWN, SW END POST SIMILAR)
SCALE: 1/2" = 1'-0"



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

Scale: AS NOTED

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
Designed	KLW	10\22	Checked	SJW	10\22
Drawn	KLW	10\22	In Charge of	LEM	10\22

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

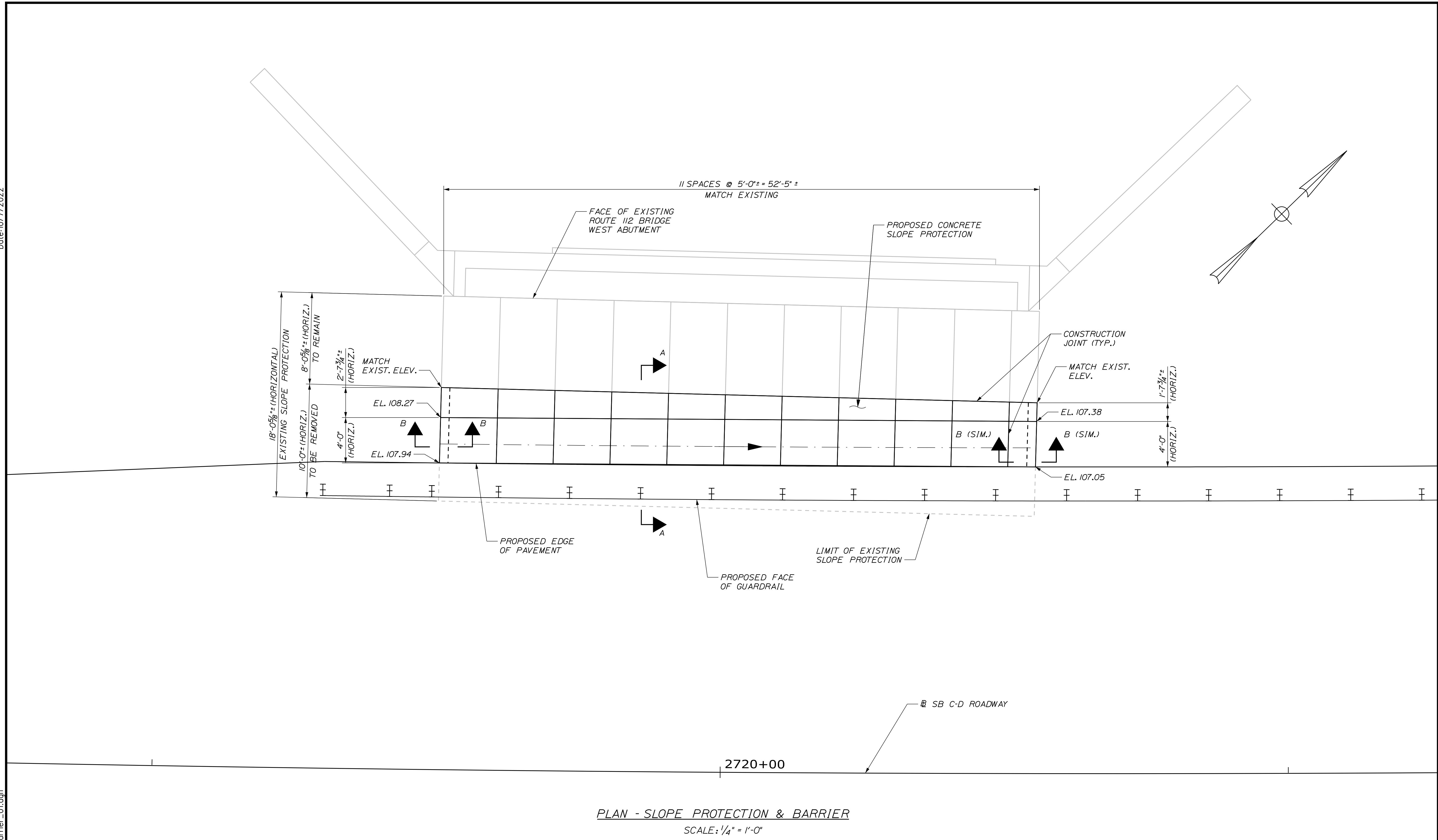
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTH STREET UNDERPASS
END POST DETAILS 2

SHEET NUMBER: BR-07
CONTRACT: 2022.07
593 OF 735

Date: 10/17/2022


Filename: ...MSTA_rte112_Barrier_01.dgn



PLAN - SLOPE PROTECTION & BARRIER
SCALE: 1/4" = 1'-0"

Scale: AS NOTED			
No.	Revision	By	Date

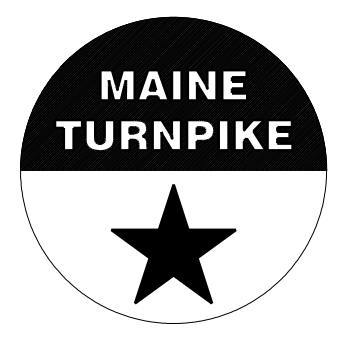
Designed by:

 **Stantec**

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
Designed	KLW	10\22	Checked	SJW	10\22
Drawn	KLW	10\22	In Charge of	LEM	10\22

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 **MAINE TURNPIKE**

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

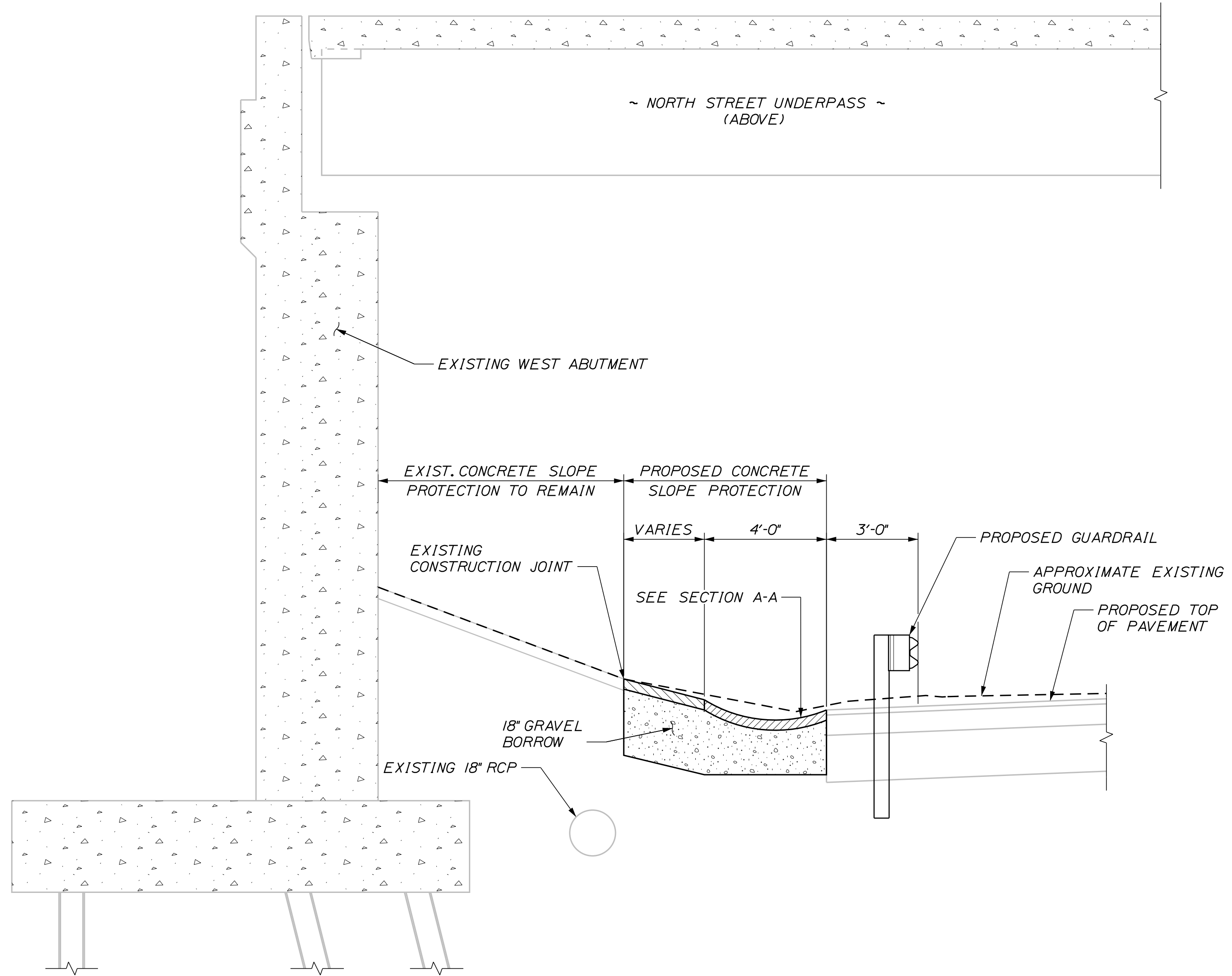
INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTH STREET UNDERPASS
SLOPE PROTECTION DETAILS 1

SHEET NUMBER: BR-08
CONTRACT: 2022.07
594 OF 735

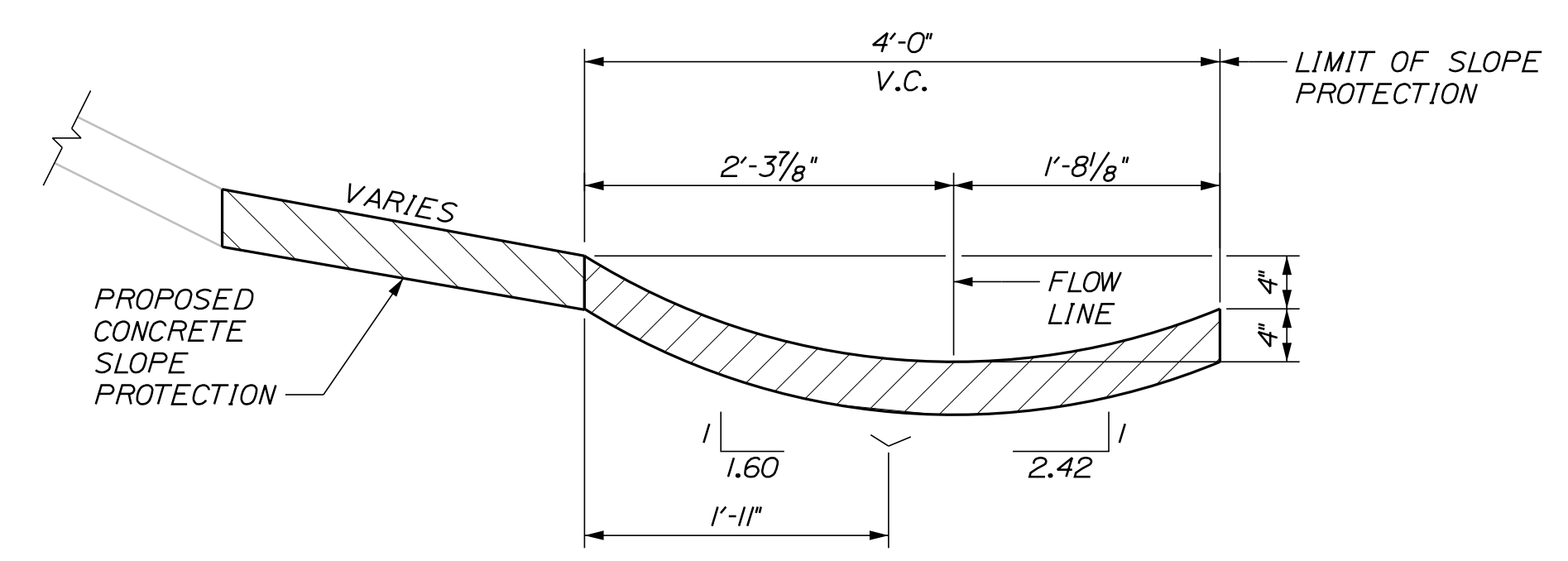
Date: 10/17/2022

CONCRETE SLOPE PROTECTION NOTES

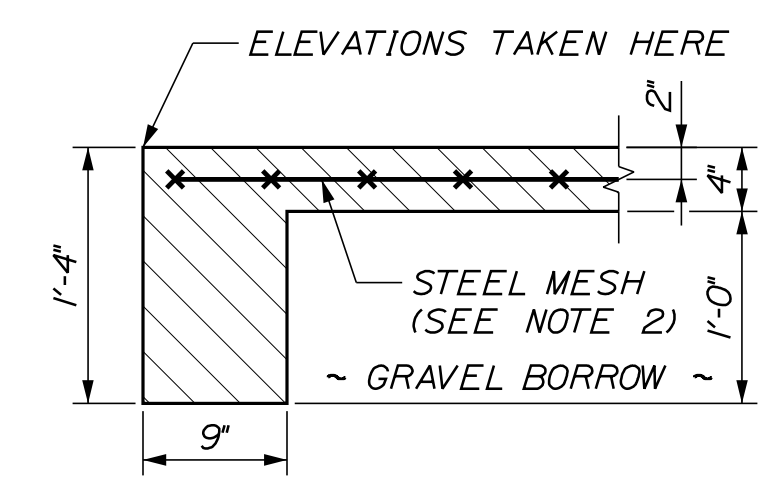
1. BREAK BOND AT CONSTRUCTION JOINTS WITH 2 LAYERS OF SMOOTH SURFACED ASPHALT ROLL ROOFING (701.08).
2. REINFORCE WITH 10 GAGE 6X6 STEEL MESH (OR EQUIVALENT), NOT TO PASS THROUGH CONSTRUCTION JOINTS.
3. REMOVAL OF EXISTING SLOPE PROTECTION SHALL BE INCIDENTAL TO ITEM 513.09 SLOPE PROTECTION - PORTLAND CEMENT CONCRETE.
4. EDGES OF CONSTRUCTION JOINTS SHALL BE FINISHED WITH A SIDEWALK EDGING TOOL TO A DEPTH OF 1/4-INCH.
5. CLEAR PROTECTIVE COATING SHALL BE APPLIED TO THE EXPOSED SURFACE AREA OF PROPOSED CONCRETE SLOPE PROTECTION.
6. DO NOT EXCAVATE FOR GRAVEL BORROW WHERE EXISTING MATERIAL IS SUITABLE AS DETERMINED BY THE RESIDENT.



TYPICAL SECTION BELOW NORTH STREET UNDERPASS
SCALE: 3/8" = 1'-0"



SECTION A-A
SCALE: 1" = 1'-0"




SECTION B-B
SCALE: 1" = 1'-0"

Filename: ...MSTA_rte112_Barrier_02.dgn

Scale:			
AS NOTED			
No.	Revision	By	Date

Designed by:					
CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
	By	Date		By	Date
Designed	KLW	10\22	Checked	SJW	10\22
Drawn	KLW	10\22	In Charge of	LEM	10\22

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**THE GOLD STAR
MEMORIAL HIGHWAY**

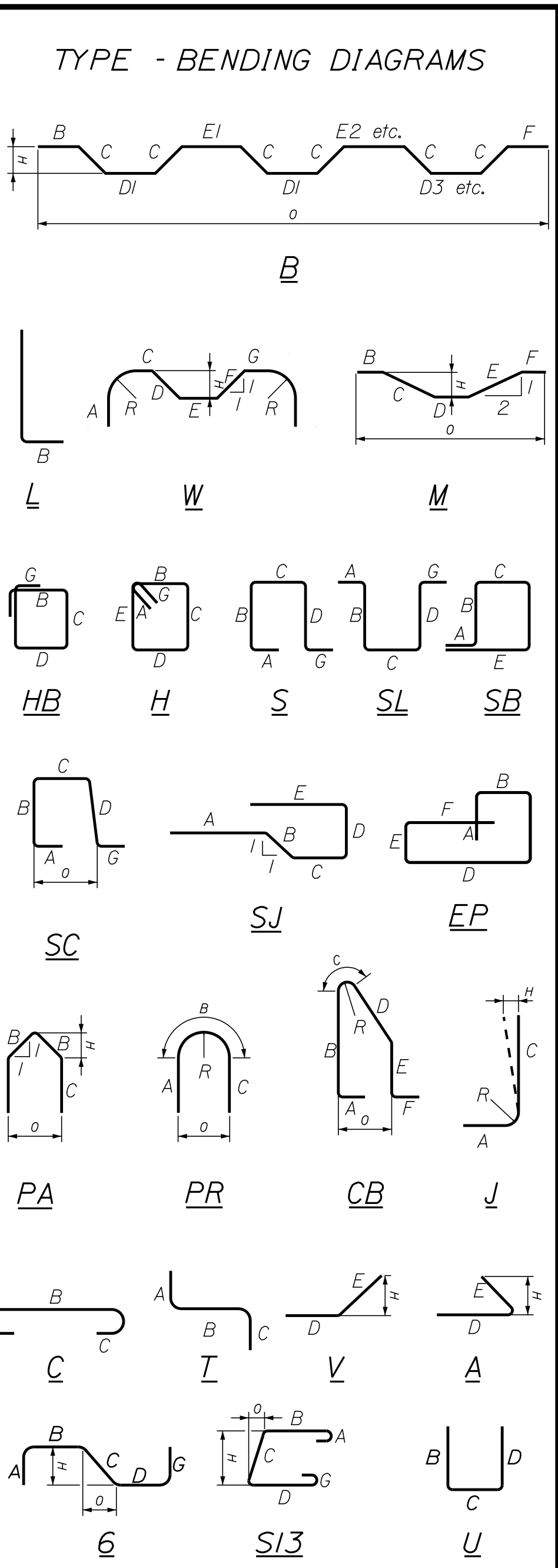
**INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTH STREET UNDERPASS
SLOPE PROTECTION DETAILS 2**

SHEET NUMBER: BR-09
CONTRACT: 2022.07
595 OF 735

Date: 10/7/2022

Filename: ...BRIDGE.MSTA_...Reinforcing.dgn

STRAIGHT BARS						BENT BARS																		
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION		
End Post - Shoulder						End Post - Sidewalk						End Post - Shoulder												
EP501	36	4'-0"	Drill & Grout	EP510	36	4'-0"	Drill & Grout	EP550	2	5'-3"	L	4'-6 1/2"	8 1/2"											
EP502	24	5'-4"	Horizontal	EP511	24	5'-4"	Horizontal	EP551	2	4'-1 3/4"	L	3'-3 3/4"	10"											
EP503	4	5'-1 1/2"	Horizontal Drill & Grout - Corbel	EP512	4	4'-5 1/4"	Horizontal Drill & Grout - Corbel	EP552	2	4'-1 1/2"	6	8 1/2"	1'-8"	1'-9"	0"			0"	7"	1'-8"				
								EP553	20	5'-4 1/2"	L	4'-6 1/2"	10"											
								EP554	4	5'-1"	L	4'-3"	10"											
								EP555	4	4'-4 3/4"	L	3'-6 3/4"	10"											
								EP556	2	8'-8 1/4"	V				4'-6 1/4"	3'-1"			1'-9"					
								EP557	2	7'-7 1/4"	V				5'-7 1/4"	3'-1"			1'-9"					
								EP558	24	6'-6"	L	5'-8"	10"											
								EP559	4	6'-4 1/2"	L	5'-8"	8 1/2"											
								EP560	24	2'-2 1/4"	L	1'-4 1/4"	10"											
								EP561	10	9"	L	6"	3"											
						End Post - Sidewalk																		
								EP570	2	5'-0"	L	4'-3 1/2"	8 1/2"											
								EP571	2	4'-9 1/4"	L	3'-11 1/4"	10"											
								EP572	20	5'-1 1/2"	L	4'-3 1/2"	10"											
								EP573	4	5'-0"	L	4'-2"	10"											
								EP574	4	4'-7 1/2"	L	3'-9 1/2"	10"											
								EP575	4	4'-3"	L	3'-5"	10"											
								EP576	2	7'-2 3/4"	V				4'-6 1/2"	2'-8 1/4"			11 1/4"					
								EP577	2	8'-4 3/4"	V				5'-8 1/2"	2'-8 1/4"			11 1/4"					
								EP578	24	6'-6 1/4"	L	5'-8 1/4"	10"											
								EP579	20	1'-9 1/4"	L	11 1/4"	10"											



All dimensions are out-to-out of bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.

Reinforcing Bar: ASTM A615/A615M, Grade 60 or ASTM A995/A995M, Grade 75.

GENERAL NOTES

- The first two digits following the letter(s) of the mark indicate the size of the bar:
 Mark "A502" = bar size #5
 Mark "P805" = bar size #8
 Mark "S650" = bar size #6
- All "s" bars shall be stainless steel. All "b" bars shall be Glass Fiber Reinforced Polymer (GFRP). All others shall be plain. All "EP" bars shall be epoxy coated.

MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	
Scale:																							
No.	Revision		By	Date																			

Designed by:

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

Designed	By	Date	Checked	By	Date
Drawn	KLW	10\22	In Charge of	LEM	10\22

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 NORTH STREET UNDERPASS
 REINFORCING SCHEDULE

SHEET NUMBER: BR-10
 CONTRACT: 2022.07
 596 OF 735

GENERAL NOTES:

1. THE CRITERIA ON THIS SHEET ARE MINIMUM CRITERIA. THE CONTRACTOR SHALL USE OTHER CRITERIA, AS NECESSARY, TO COMPLETE THE WORK IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS. THE PERMANENT SOIL NAIL RETAINING WALL SHALL BE DESIGNED BY THE CONTRACTOR FOR A DESIGN LIFE OF 75 YEARS.
2. THE LIMITS OF THE PERMANENT SOIL NAIL RETAINING WALL ARE SHOWN ON THE DRAWINGS.

ANALYSIS AND DESIGN:

1. DESIGN OF THE PERMANENT SOIL NAIL RETAINING WALL SHALL BE COMPLETED IN ACCORDANCE WITH SPECIAL PROVISION 636 DESIGN OF SOIL NAIL WALL AND WILL BE PAID FOR UNDER ITEM NO. 636.400.
2. THE PERMANENT SOIL NAIL RETAINING WALL SHALL BE DESIGNED IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION, THE PROCEDURES CONTAINED IN THE FEDERAL HIGHWAY ADMINISTRATION "GEOTECHNICAL ENGINEERING CIRCULAR NO. 7, SOIL NAIL WALLS - REFERENCE MANUAL," REPORT NO FHWA-NHI-14-007, AND THE RECOMMENDATIONS INCLUDED IN THE GEOTECHNICAL DESIGN REPORT PREPARED BY STANTEC ENTITLED "FINAL GEOTECHNICAL ENGINEERING REPORT, MAINE TURNPIKE EXIT 35 AND 36 INTERCHANGE IMPROVEMENTS, SACO, MAINE."
3. THE DESIGN OF THE PERMANENT SOIL NAIL RETAINING WALL SYSTEM SHALL SATISFY THE MOST CRITICAL CONDITIONS ANTICIPATED DURING BOTH THE TEMPORARY CONSTRUCTION SEQUENCE AND PERMANENT OPERATION OF THE SYSTEM.
4. THE CONTRACTOR SHALL SUBMIT THE FOLLOWING INFORMATION, STAMPED AND SIGNED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MAINE: WRITTEN DESCRIPTION OF THE INTENDED SEQUENCE OF CONSTRUCTION, PLAN LIMITS OF THE SYSTEM, CROSS SECTIONS OF EACH DESIGN SECTION, DETAILS OF SOIL NAILS AND ANCHOR HEADS, AND DESIGN CALCULATIONS FOR THE COMPLETE SYSTEM.
5. VARIOUS DESIGN CASES SHALL BE DETERMINED BY COMBINING TOGETHER THE LOADING CONDITIONS FOR SOIL, SURCHARGES, AND SEISMIC LOADINGS.
6. THE FOLLOWING ENGINEERING PROPERTIES SHALL BE ASSUMED FOR SOILS PRESENT AT THE SITE (SEE ALSO GEOTECHNICAL ENGINEERING REPORT)

SOIL UNIT	TOTAL UNIT WEIGHT (PCF)	INTERNAL ANGLE OF FRICTION (DEGREES)	COHESION (PSF)
EXISTING EMBANKMENT FILL:	125	34	0
UPPER SAND DEPOSIT:	120	32	0
MARINE CLAY (SOFT):	115	0	600
7. THE PERMANENT SOIL NAIL RETAINING WALL SHALL BE ANALYZED/DESIGNED FOR MINIMUM LATERAL PRESSURE DUE TO TRAFFIC AND CONSTRUCTION EQUIPMENT BASED ON AN ASSUMED SURFACE SURCHARGE EQUAL TO 250 POUNDS PER SQUARE FOR (PSF) ACTING OVER A 20-FT WIDE INFLUENCE AREA. THE CONTRACTOR SHALL DETERMINE IF THE 250 PSF VERTICAL SURCHARGE LOAD IS SUFFICIENT. THE CONTRACTOR SHALL ALSO ACCOUNT FOR CRITICAL SURCHARGE LOADING CONDITIONS NOT DESCRIBED HEREIN, WHICH MAY INCLUDE POINT LOADS OR UNIFORM LINE OR STRIP LOADS RESULTING FROM CRANES OR OTHER MATERIAL STOCKPILES. IF ADDITIONAL CONSTRUCTION SURCHARGE LOADS ARE ANTICIPATED EITHER ON TOP OF THE SOIL NAIL RETAINING WALL AND/OR ON TOP OF THE I-95 EMBANKMENT, THESE SURCHARGE LOADS SHALL ALSO BE INCLUDED IN THE ANALYSIS/DESIGN.
8. THE DESIGN OF THE SOIL NAIL RETAINING WALL SYSTEM SHALL INCLUDE ACCOMMODATIONS FOR THE DESIGN PHREATIC SURFACE.
9. THE DESIGN OF ALL STRUCTURAL COMPONENTS OF THE PERMANENT SOIL NAIL RETAINING WALL SYSTEM SHALL INCLUDE THE SEISMIC LOADING CONDITION.

SOIL NAILS:


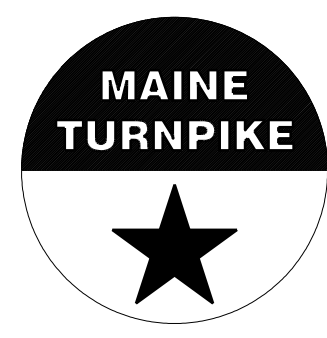
1. NAIL BARS SHALL BE EPOXY COATED AND ENCAPSULATED.
2. THE FOLLOWING TOLERANCES SHALL BE STRICTLY ADHERED TO:

ELEVATIONS:	±0.1FT
WALL HEIGHT:	±0.1FT

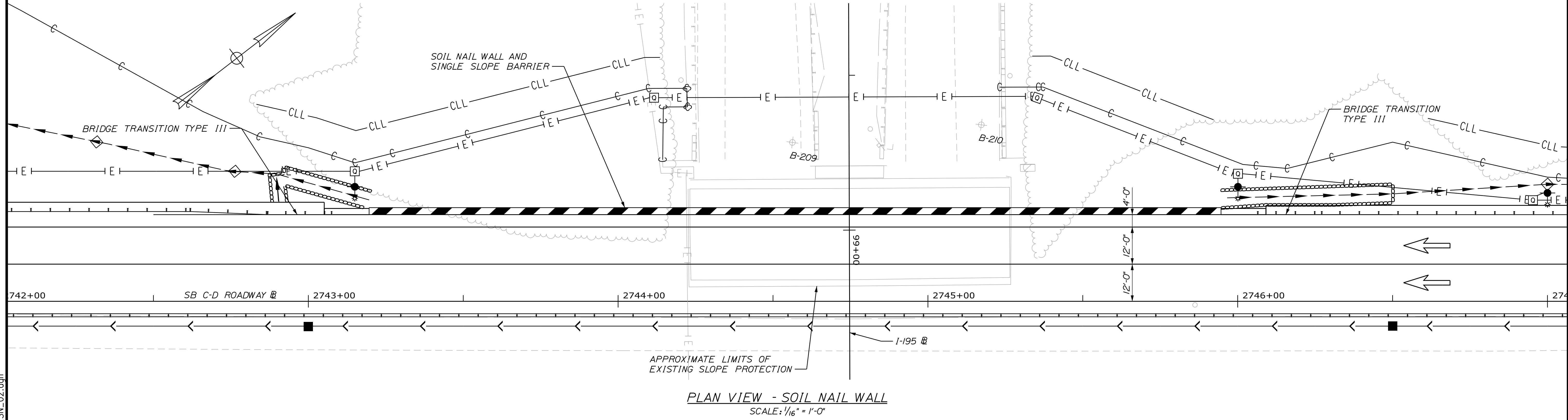
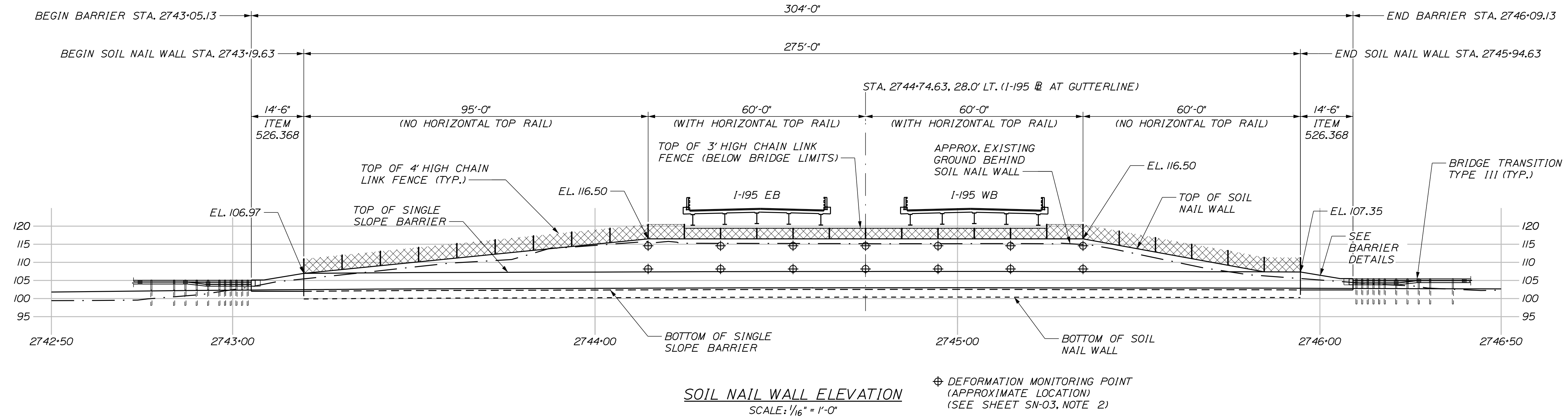
SHOTCRETE FACING:	
HORIZONTAL LOCATION OF WELDED WIRE MESH, REINFORCING BARS AND HEADED STUDS:	3/8 IN.
LOCATION OF HEADED STUDS ON BEARING PLATE:	1/4 IN.
SPACING BETWEEN REINFORCING BARS:	1 IN.
REINFORCING LAP:	1 IN.
THICKNESS OF SHOTCRETE, IF TROWELED OR SCREEDDED:	9/16 IN.
THICKNESS OF SHOTCRETE, IF LEFT AS SHOT:	1/8 IN.
PLANENESS OF FINISH FACE SURFACE, GAP UNDER 10-FT STRAIGHTEDGE, IF TROWELED OR SCREEDDED:	9/16 IN.
PLANENESS OF FINISH FACE SURFACE, GAP UNDER 10-FT STRAIGHTEDGE, IF LEFT AS SHOT:	9/16 IN.
NAIL HEAD BEARING PLATE DEVIATION FROM PARALLEL TO WALL FACE:	1/8 IN.
	10 DEGREES
3. EXCAVATION TO THE FINAL WALL EXCAVATION FACE SHALL BE PERFORMED USING PROCEDURES THAT:
 - (1) PREVENT GROUND LOSS, SWELLING, AIR SLAKING, OR LOOSENING;
 - (2) MINIMIZE DEGRADATION OF SOIL BEARING SUPPORT BELOW THE OVERLYING PORTIONS OF THE SOIL NAIL WALL AND BELOW THE SOIL NAILS CURRENTLY BEING INSTALLED;
 - (3) PREVENT PREMATURE LOSS OF SOIL MOISTURE AT THE FACE;
 - (4) PREVENT GROUND FREEZING;
 - (5) PREVENT POTENTIAL FOR SHOTCRETE OVERAGES;
 - (6) MINIMIZE GROUNDWATER SEEPAGE FROM THE EXCAVATED FACE; AND
 - (7) MAINTAIN SATISFACTION MOISTURE CONTROL OF EXCAVATED FACE TO ALLOW PROPER PLACEMENT OF SHOTCRETE.
4. LOSS OF GROUND AS A RESULT OF SLOUGHING OR RAVELING OF THE EXCAVATED FACE SHALL NOT BE PERMITTED.
5. PROVIDE CONTRACTION AND EXPANSION JOINTS IN ACCORDANCE WITH ACI 506.2-13 (SPECIFICATION OF SHOTCRETE) SECTION 3.2 AND ACI 506R (GUIDE TO SHOTCRETE) SECTION 5.7.
6. PRIOR TO SHOTCRETING THE SOIL SURFACE, CLEAN ALL SURFACES OF LOOSE MATERIAL.
7. PROVIDE 3 IN. (MINIMUM) CLEAR COVER AROUND ALL REBAR.
8. SOIL NAILS SHALL BE INSTALLED USING ROTARY/ROTARY PERCUSSIVE DRILLING. AIR OR WATER SHALL BE USED TO FLUSH CUTTINGS FROM DRILL HOLES AS THE HOLE IS ADVANCED. CASING SHALL BE EMPLOYED FOR FULL SOIL NAIL LENGTH. THE DRILLHOLE DIAMETER SHALL BE SELECTED TO PROVIDE A MINIMUM OF 1 INCH OF GROUT COVER OVER THE ENCAPSULATED EPOXY-COATED SOIL NAIL BAR; AND TO DEVELOP THE REQUIRED SOIL-GROUT BOND STRENGTH. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE FINAL DRILLHOLE DIAMETER REQUIRED TO PROVIDE THE PULLOUT RESISTANCE REQUIRED BY THE SOIL NAIL WALL DESIGN. THE DRILLHOLE SHALL BE DRILLED TO THE DEPTHS INDICATED ON THE CONTRACTOR'S PLANS TO ACCOMMODATE THE REQUIRED LENGTH OF SOIL NAIL. UPON REACHING THE DESIGN DEPTH, INSERT THE NAIL BAR AND TREMIE GROUT THE DRILLHOLE FROM THE BOTTOM. A FULL HEAD OF GROUT SHALL BE MAINTAINED DURING WITHDRAWAL OF CASING TO ENSURE COMPLETE FILLING OF THE DRILLHOLE. ALL HOLES DRILLED EACH DAY SHALL BE GROUTED THE SAME DAY.
9. THE EARTH FACE SHALL BE TRIMMED TO THE TOLERANCES SPECIFIED AND ROLLS OF GEOCOMPOSITE DRAIN STRIPS SUFFICIENT IN LENGTH TO BE CONTINUOUS FOR THE WALL HEIGHT AT EACH LOCATION SHALL BE INSTALLED. THE ROLL SHALL BE UNROLLED AND APPLIED TO THE SOIL FACE, AS NEEDED FOR EACH LIFT. THE REMAINDER OF THE ROLL SHALL BE COLLECTED NEATLY AT THE BASE OF THE WALL. A COVER SHALL BE PLACED OVER THE REMAINING ROLL TO PREVENT REBOUND FROM BONDING TO THE MEDIA DURING SHOTCRETE APPLICATION. "U"-SHAPED BENT PINS SHALL BE USED TO AFFIX THE BOARD TO THE SOIL SURFACE. THEY SHALL WRAP ALL EDGES AND RETURN 6 INCHES ON THE BACK OF THE STRIP OF DRAINAGE MEDIA.
10. SHOTCRETING SHALL BE PERFORMED THE SAME DAY AS THE EXCAVATION OF THE LIFT OR TEMPORARY BERM (IF USED). SHOTCRETING SHALL START FROM THE BASE OF THE EXCAVATION LIFT WORKING UPWARDS. WHENEVER POSSIBLE, THE FULL SECTION SHOULD BE GUNNED TO FULL DESIGN THICKNESS IN ONE LAYER. THE SHOTCRETE THICKNESS DURING GUNNING SHALL BE MONITORED AND APPLIED SUCH THAT SAGS AND SLOUGHS DO NOT FORM.
11. ALL EXTERIOR CORNERS AND EDGES SHALL HAVE A 3/4-IN. CHAMFER AND ALL INTERIOR CORNERS SHALL HAVE A 3/4-IN. FILLET.
12. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING STABLE SLOPES ABOVE AND BELOW THE SOIL NAIL RETAINING WALL AT ALL TIMES.
13. NO OPEN CUTS STEEPER THAN 1H:1V SHALL BE MADE WITHIN 20 FEET IN FRONT OF THE SOIL NAIL RETAINING WALL WITHOUT APPROVAL OF THE GEOTECHNICAL ENGINEER.
14. THE FINAL CAST-IN-PLACE FACING SHALL HAVE CONTRACTION JOINTS AT MAXIMUM 30-FT SPACING.
15. AT A MINIMUM, THE FINAL CAST-IN-PLACE FACING SHALL CONTAIN TEMPERATURE REINFORCEMENT CONSISTING OF #5 EPOXY COATED REBAR IN A GRID PATTERN WITH AN 18-IN. SPACING.

Date: 10/7/2022

Filename: ...:\00\HIGHWAY\MSTA\..._SN_01.dgn

Scale: AS NOTED		Designed by:  STANTEC CONSULTING SERVICES INC. 2211 CONGRESS STREET SUITE 380 PORTLAND, ME 04102 TEL (207) 887-3448 FAX (207) 883-3376		 THE GOLD STAR MEMORIAL HIGHWAY		INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) I-195 UNDERPASS SOIL NAIL WALL GENERAL NOTES																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>No.</th> <th>Revision</th> <th>By</th> <th>Date</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		No.	Revision	By	Date													CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.		MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC		CONTRACT: 2022.07			
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
I-195 UNDERPASS
SOIL NAIL WALL PLAN AND ELEVATION

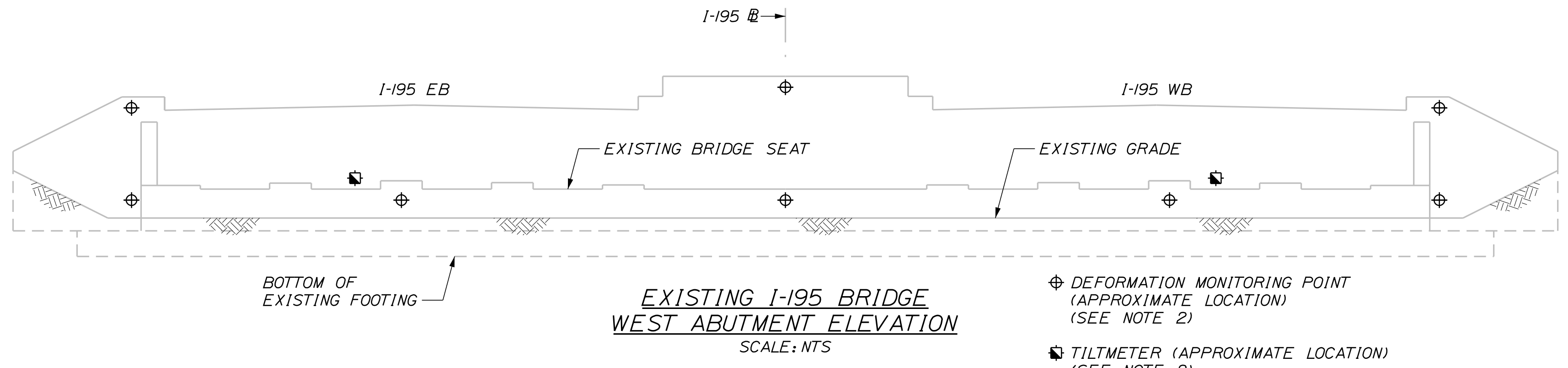
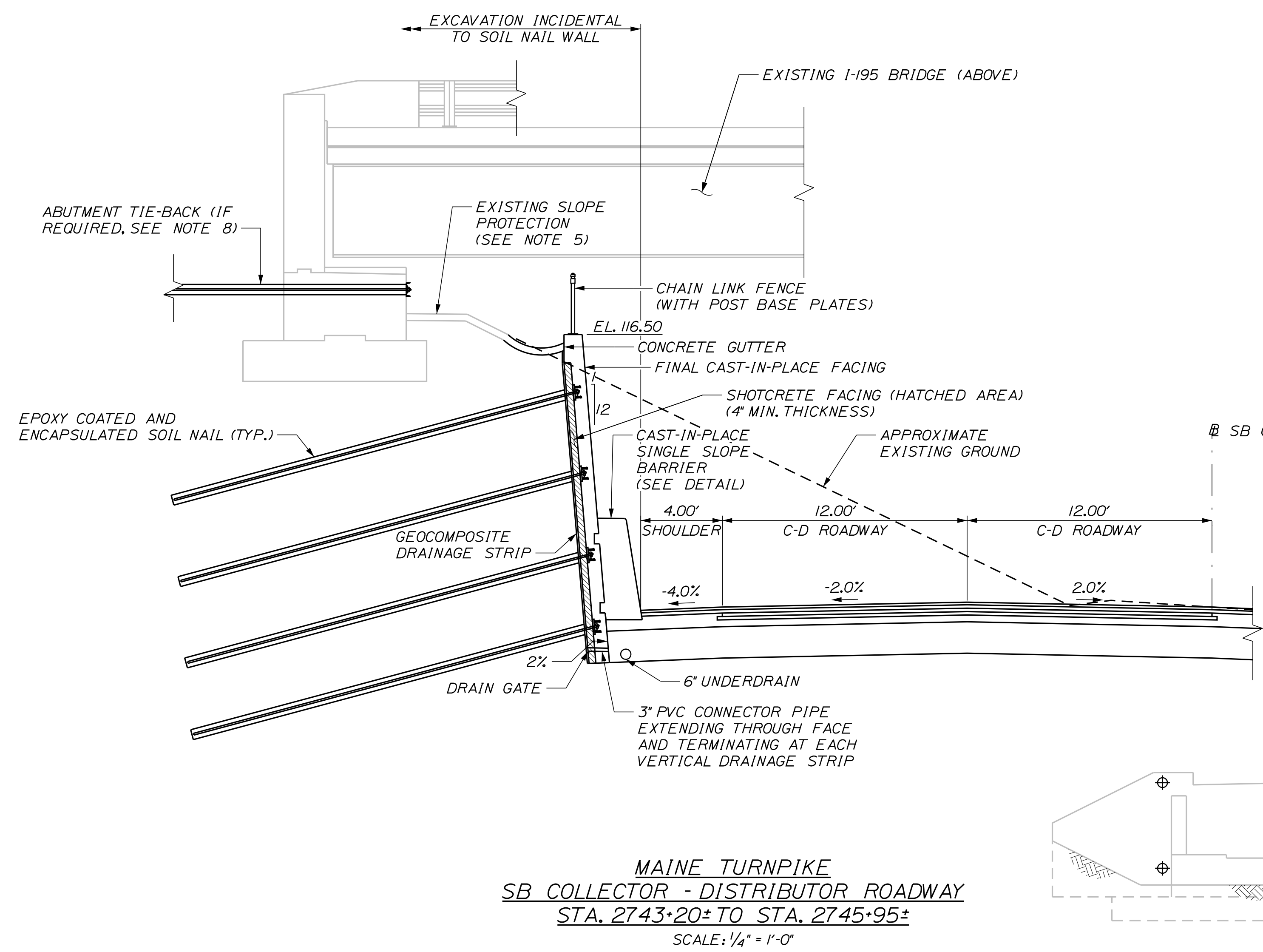
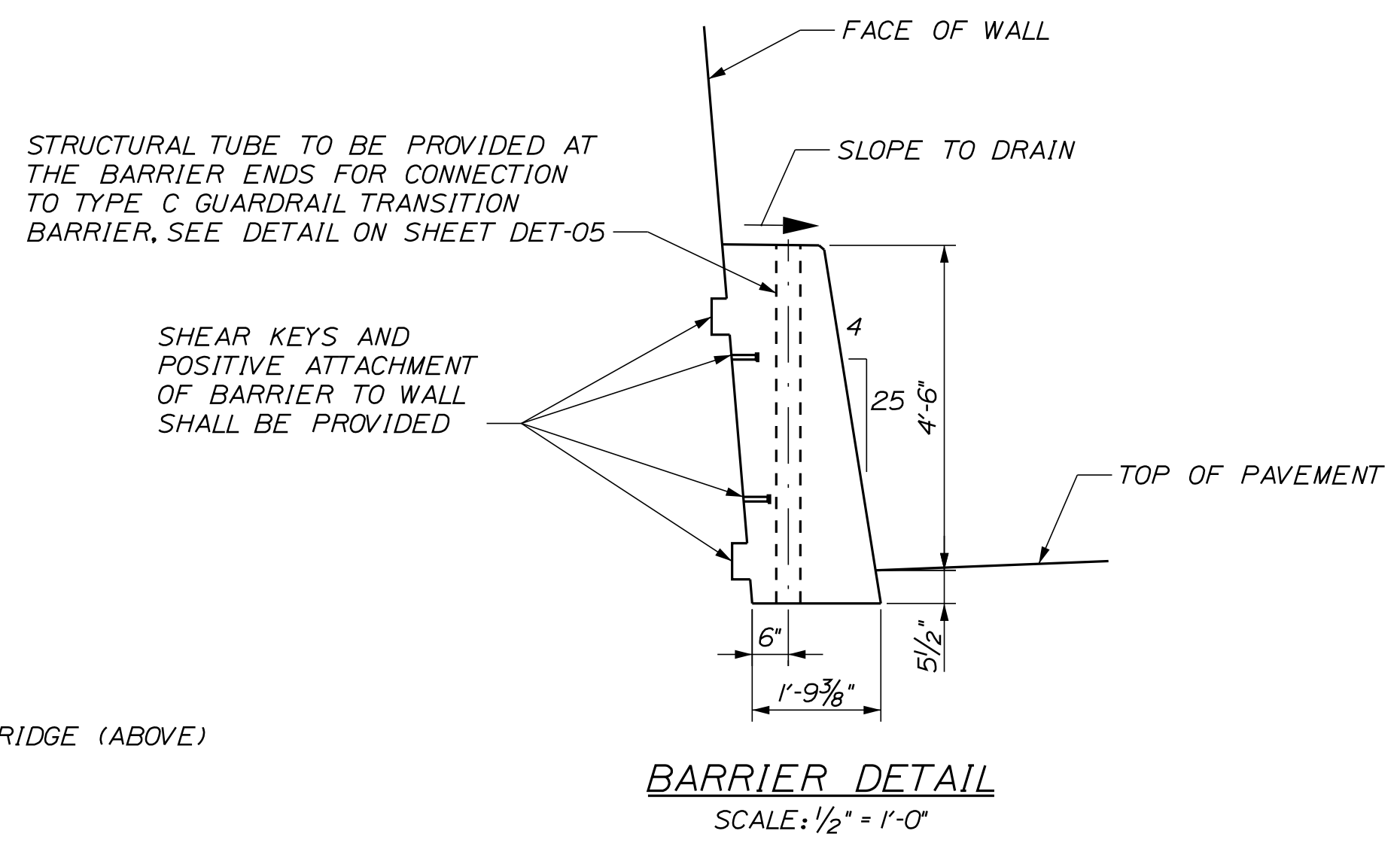
SHEET NUMBER: SN-02
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SOIL NAIL RETAINING WALL NOTES

- DESIGN OF THE SOIL NAIL RETAINING WALL SHALL BE COMPLETED IN ACCORDANCE WITH SPECIAL PROVISION 636 - DESIGN OF SOIL NAIL WALL AND THE RECOMMENDATIONS OF THE GEOTECHNICAL DESIGN REPORT PREPARED BY STANTEC, ENTITLED "FINAL GEOTECHNICAL ENGINEERING REPORT, MAINE TURNPIKE EXIT 35 AND 36 INTERCHANGE IMPROVEMENTS, SACO, MAINE." DESIGN OF THE SOIL NAIL RETAINING WALL SHALL BE PAID FOR UNDER ITEM 636.400.
- PRECONSTRUCTION SURVEY, INSTRUMENTATION AND MONITORING OF TILTMETERS AND DEFORMATION MONITORING POINTS (DMPs) ON THE SOIL NAIL WALL AND THE EXISTING I-195 WEST BRIDGE ABUTMENT SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION 636 - SOIL NAIL CONSTRUCTION MONITORING - EXISTING BRIDGE AND SHALL BE PAID FOR UNDER ITEM 636.401.
- CONSTRUCTION OF THE SOIL NAIL RETAINING WALL SHALL BE COMPLETED IN ACCORDANCE WITH SPECIAL PROVISION 636 - SOIL NAIL WALL AND SHALL BE PAID UNDER ITEM 636.411. ANY WALL PROJECTIONS BEYOND THE LIMITS SHOWN, TO ACCOMMODATE SPACING OF WALL FACING WILL BE CONSIDERED INCIDENTAL TO THIS ITEM.
- DESIGN AND DETAILING OF THE SINGLE-SLOPE BARRIER, INCLUDING REINFORCEMENT, JOINT DETAILS AND ATTACHMENT DETAILS TO THE SOIL NAIL WALL SHALL BE INCIDENTAL TO ITEM 636.400. BARRIER REINFORCEMENT SIMILAR TO THAT SHOWN IN SECTION A-A ON SHEET DET-06 SHALL BE PROVIDED AS A MINIMUM.
- THE CONTRACTOR SHALL DETERMINE THE REQUIRED REMOVAL LIMITS OF THE EXISTING CONCRETE SLOPE PROTECTION NECESSARY FOR CONSTRUCTION OF THE SOIL NAIL WALL. DESIGN AND DETAILING OF THE PROPOSED CONCRETE GUTTER AND NEW PORTIONS OF CONCRETE SLOPE PROTECTION TO MATCH EXISTING SHALL BE INCIDENTAL TO ITEM 636.400.
- REMOVAL OF PORTIONS OF THE EXISTING CONCRETE SLOPE PROTECTION AND CONSTRUCTION OF THE SINGLE-SLOPE BARRIER, CHAIN LINK FENCE, DRAINAGE STRIPS, CONCRETE GUTTER, AND NEW CONCRETE SLOPE PROTECTION SHALL BE INCIDENTAL TO ITEM 636.411.
- THE CONTRACTOR SHALL TAKE ALL MEASUREMENTS NECESSARY TO PROTECT THE EXISTING I-195 BRIDGE AND ANY EXISTING UTILITIES FROM DAMAGE THROUGH THE ENTIRE CONSTRUCTION OPERATION. ANY AND ALL DAMAGE TO THE EXISTING I-195 BRIDGE STRUCTURES OR EXISTING UTILITIES CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THEIR OWN EXPENSE, AT NO ADDITIONAL COST TO THE AUTHORITY.
- THE CONTRACTOR SHALL TAKE NOTE THAT THE EXISTING I-195 WEST BRIDGE ABUTMENT IS FOUNDED ON A SPREAD FOOTING AND MAY REQUIRE SUPPLEMENTAL TIE-BACK ANCHORAGES TO MEET THE ABUTMENT HORIZONTAL AND VERTICAL MOVEMENT CRITERIA CONTAINED IN THE SPECIAL PROVISIONS. THE DESIGN OF THE SOIL NAIL WALL SYSTEM SHALL ACCOUNT FOR THE STRESSES APPLIED BY THE EXISTING BRIDGE FOOTING. THE DESIGN AND CONSTRUCTION OF ANY REQUIRED ABUTMENT TIE-BACK ANCHORAGE SYSTEMS SHALL BE INCIDENTAL TO ITEMS 636.400 AND 636.411, RESPECTIVELY.
- FOR PLAN LOCATION AND DETAILS OF THE EXISTING I-195 WEST BRIDGE ABUTMENT, SEE BRIDGE PLAN, SHEET NO. 7 OF 16 ENTITLED "STATE OF MAINE DEPARTMENT OF TRANSPORTATION, ROUTE 195 OVER MAINE TURNPIKE, ABUTMENTS."



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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
I-195 UNDERPASS
SOIL NAIL WALL DETAILS

SHEET NUMBER: SN-03
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SPECIFICATIONS

DESIGN
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 9TH EDITION

CONSTRUCTION
AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, 3RD EDITION WITH 2016 INTERIMS

MATERIALS

CONCRETE:
 PREFABRICATED CONCRETE MODULAR GRAVITY (PCMG) WALL CLASS "P"
 CIP HEAD WALL CLASS "AAA"
 COLLAR CLASS "AAA"

REINFORCING STEEL:
 STEEL BARS ASTM A615, GRADE 60 (EPOXY-COATED)

BASIC DESIGN STRESSES

CONCRETE:
 CLASS "P" $f'c = 4,500 \text{ psi}$
 CLASS "AAA" $f'c = 4,500 \text{ psi}$

REINFORCING:
 REINFORCING STEEL $f_y = 60,000 \text{ psi}$

GENERAL NOTES:

1. REINFORCING STEEL SHALL HAVE A CLEAR COVER OF 2", UNLESS OTHERWISE NOTED.
2. CHAMFER ALL EXPOSED CONCRETE EDGES $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.
3. CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES SHALL BE APPLIED TO THE FOLLOWING AREAS:
 - EXPOSED SURFACES OF CULVERT HEADWALLS AND RETAINING WALLS AND EXTEND 1 FOOT BELOW FINISHED GRADE
4. DIMENSIONS WITH RESPECT TO EXISTING STRUCTURES ARE APPROXIMATE AND ARE PROVIDED FOR REFERENCE. IF FIELD CONDITIONS VARY BY MORE THAN 1" FROM DIMENSIONS SHOWN ON THE PLANS, THE ENGINEER SHALL BE NOTIFIED.


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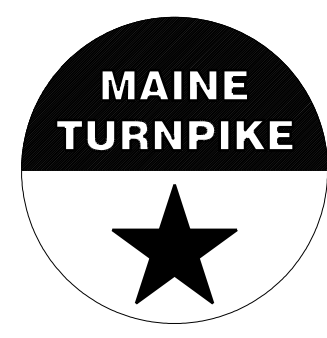
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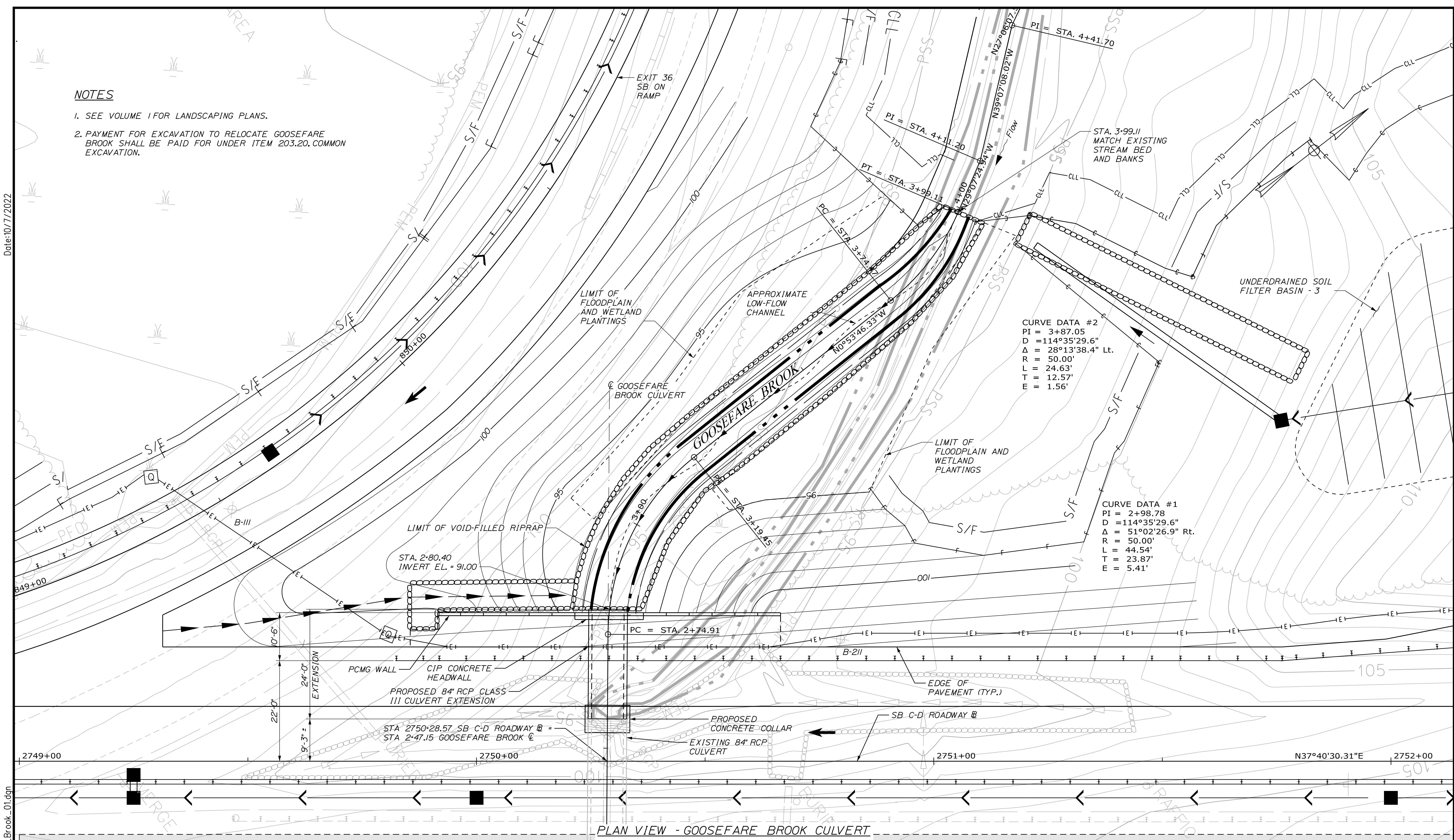
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 SACO (EXITS 35 & 36)
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NOTES

- SEE VOLUME I FOR LANDSCAPING PLANS.
- PAYMENT FOR EXCAVATION TO RELOCATE GOOSEFARE BROOK SHALL BE PAID FOR UNDER ITEM 203.20, COMMON EXCAVATION.

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PLAN VIEW - GOOSEFARE BROOK CULVERT
SCALE: 1" = 10'-0"

Scale: AS NOTED

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INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
GOOSEFARE BROOK CULVERT EXTENSION
GENERAL PLAN

SHEET NUMBER: GB-02
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NOTES

1. PRIOR TO INSTALLING THE SPECIAL FILL - STREAMBED MATERIAL, THE VOID-FILLED RIPRAP TYPE "A" SHALL BE FLOODED AND OBSERVED TO ENSURE THAT THE TOP LAYER OF THE VOID-FILLED RIPRAP TYPE "A" WILL POND WATER ON THE SURFACE. ADDITIONAL MATERIAL WITH SIGNIFICANT PROPORTION OF FINES SHALL BE WASHED-IN TO FILL AND SEAL ANY REMAINING VOIDS UNTIL WATER PONDS ON THE SURFACE.
2. LOW-FLOW CHANNEL VARIES HORIZONTALLY FROM 0' TO 1' TO EITHER SIDE OF CHANNEL CENTERLINE. SEE PLAN FOR APPROXIMATE ALIGNMENT OF THE LOW-FLOW CHANNEL.
3. THE LOCATIONS OF PROPOSED STREAM BUFFER PLANTINGS ARE NOT SHOWN ON THE PLANS. APPROXIMATE PLANTING AREAS ARE PROVIDED. THE PLANTING CONTRACTOR SHALL COORDINATE THE PLANTING WORK WITH THE RESIDENT ENGINEER AND MAINE TURNPIKE AUTHORITY WETLAND SCIENTIST OR DESIGNEE.
4. PLANTS SHALL BE NATIVE TO THIS REGION AND SHALL BE DERIVED FROM PLANT STOCK NATIVE TO NEW ENGLAND AND THE NORTHEAST, AND SHALL BE THE SPECIES AND SIZES SPECIFIED. THE INDICATED SPECIES, SIZES, PLANT NUMBERS FOR PLANTING IN THE STREAM BUFFER ARE LISTED IN SPECIAL PROVISION 62I AND THESE PLANS. PLANT SPECIES HAVE BEEN SPECIFICALLY CHOSEN FOR THEIR SALT-TOLERANCE. SUBSTITUTIONS MAY BE MADE ONLY WITH PRIOR REQUEST AND WRITTEN APPROVAL FROM THE MAINE TURNPIKE AUTHORITY WETLAND SCIENTIST OR DESIGNEE.

5. THE CONTRACTOR SHALL FOLLOW THE MAINE DEPARTMENT OF TRANSPORTATION (MAINEDOT) 2014 STANDARD SPECIFICATIONS FOR LANDSCAPE MATERIALS AND INSTALLATION PROCEDURES (SECTION 62I) EXCEPT AS PROVIDED IN SPECIAL PROVISION 62I AND THESE PLANS.
6. INSTALLATION OF THE SPECIFIED PLANTS SHALL BE PERFORMED ONLY DURING PERIODS WHEN BENEFICIAL RESULTS CAN BE OBTAINED, BASED ON SEASONAL AND CLIMACTIC FACTORS AND LOCAL WEATHER CONDITIONS. FOR THE SPECIFIED PLANTINGS, PLANTING SHALL OCCUR IN SPRING TO ALLOW TIME FOR THE PLANTS' ROOT SYSTEM TO BECOME WELL ESTABLISHED PRIOR TO WINTER. THIS SPECIFICATION IS INTENDED TO HELP PLANTS WITHSTAND THE EXPECTED STRESS AND DAMAGE ASSOCIATED WITH WINTER ROAD SALT APPLICATIONS IN THIS LOCATION.
7. PLANTINGS SHALL BE INSTALLED ON SLOPES, SHALLOW BERMS, OR MOUNDS TO SHED RUNOFF AND HELP MINIMIZE THE ACCUMULATION OF SALT AT THE BASE OF THE PLANTS. PLANTS SHALL NOT BE INSTALLED IN DEPRESSIONS AND SHALL BE WELL MULCHED TO PROTECT THE BASE OF THE PLANT AND PREVENT WATER LOSS. PLANTS SHALL BE INSTALLED A MINIMUM OF 35 FEET FROM ROADWAY EDGE.
8. SEE THE LANDSCAPING PLANS FOR PLANTING LOCATIONS.

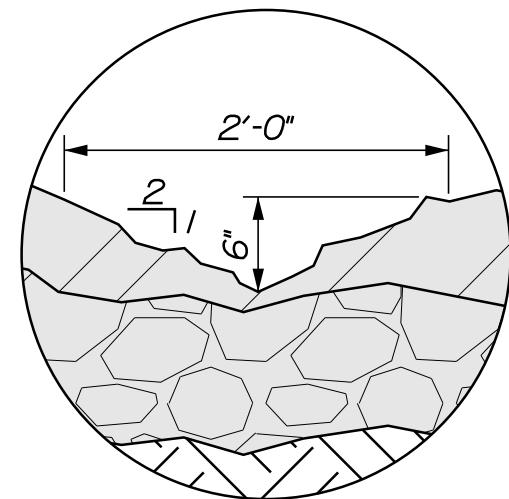
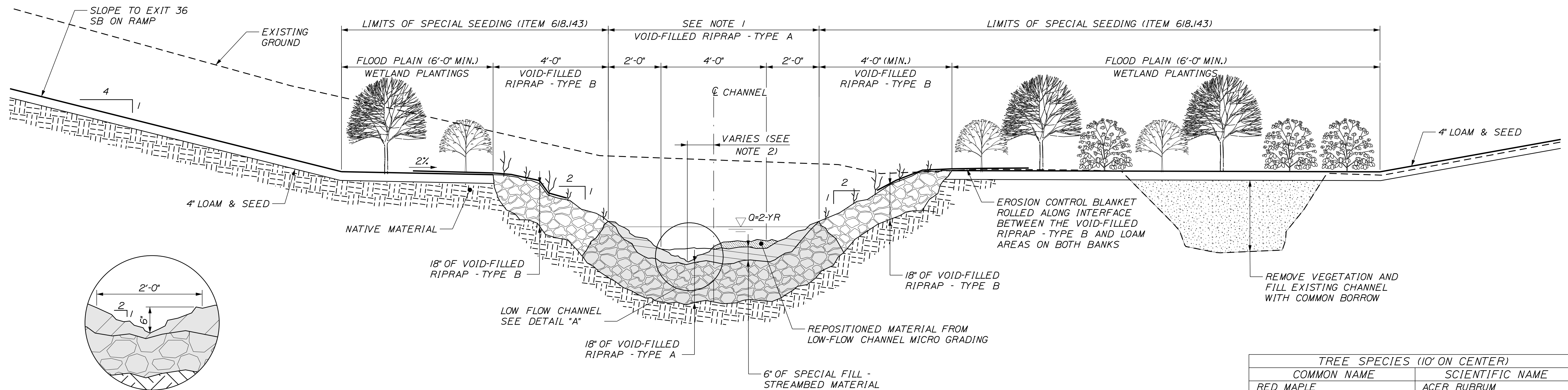
SEEDING NOTES:

TEMPORARY SEEDING AND MULCHING

1. PAYMENT FOR TEMPORARY SEEDING SHALL BE PAID FOR UNDER ITEM 618.15 AND TEMPORARY MULCH SHALL BE PAID FOR UNDER ITEM 619.1202.
2. ANY EXPOSED AREAS WHERE ACTIVITY IS NOT ANTICIPATED FOR MORE THAN 7 DAYS SHALL BE TEMPORARILY SEEDED AND/OR MULCHED OR OTHERWISE STABILIZED. AREAS WITHIN 75 FT OF A WETLAND OR WATERBODY SHALL BE STABILIZED WITHIN 48 HOURS OF THE INITIAL DISTURBANCE OF THE SOIL OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.
3. EXPOSED OR BARE SOIL SHALL BE MULCHED AT THE COMPLETION OF WORK, EACH DAY, IF SIGNIFICANT RAINFALL IS PREDICTED OR IMMINENT.
4. TEMPORARY MULCH APPLIED DURING THE WINTER MONTHS OF NOVEMBER 1 THROUGH APRIL 15 SHALL BE APPLIED AT TWICE THE STANDARD TEMPORARY STABILIZATION RATE OR 150 LBS. PER 1,000 SQUARE FEET.
5. ANY TEMPORARY SEEDING SHALL CONSIST ANNUAL RYE GRASS (SEEDING DATES APRIL 1 TO JULY 1) AT 3.0 LBS PER 1,000 SQUARE FEET OR WINTER RYE GRASS (SEEDING DATES AUGUST 15 TO OCTOBER 1) AT 3.0 LBS PER 1,000 SQUARE FEET.

PERMANENT SEEDING

1. DURING PERIODS FROM APRIL 15 TO SEPTEMBER 15, PERMANENT SEEDING SHALL BE COMPLETED IMMEDIATELY (WITHIN 7 DAYS) FOLLOWING FINAL GRADING. AREAS SHALL BE MULCHED IMMEDIATELY AFTER SEEDING AT A RATE OF 75 LBS. PER 1,000 SQUARE FEET. PERMANENT SEED MIX SHALL BE APPLIED PER THE SUPPLIER'S SPECIFICATIONS.



DETAIL "A" - LOW FLOW CHANNEL
SCALE: 1" = 1'-0"

TYPICAL SECTION GOOSEFARE BROOK CHANNEL
(LOOKING UPSTREAM)
SCALE: 1/2" = 1'-0"

TREE SPECIES (10' ON CENTER)	
COMMON NAME	SCIENTIFIC NAME
RED MAPLE	ACER RUBRUM
BALSAM FIR	ABIES BALSAMEA
GRAY BIRCH	BETULA POPULIFOLIA
BLACK WILLOW	SALIX NIGRA
SHRUB SPECIES (5' ON CENTER)	
NANNYBERRY	VIBURNUM LENTAGO
WINTERBERRY	ILEX VERTICILLATA
SERVICEBERRY	AMELANCHIER CANADENSIS
SEED MIX	
SPECIAL SEEDING (WETLAND SEED MIX) OR EQUIV.	

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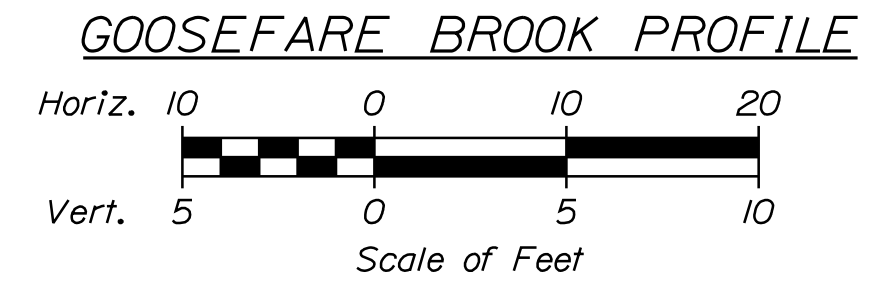
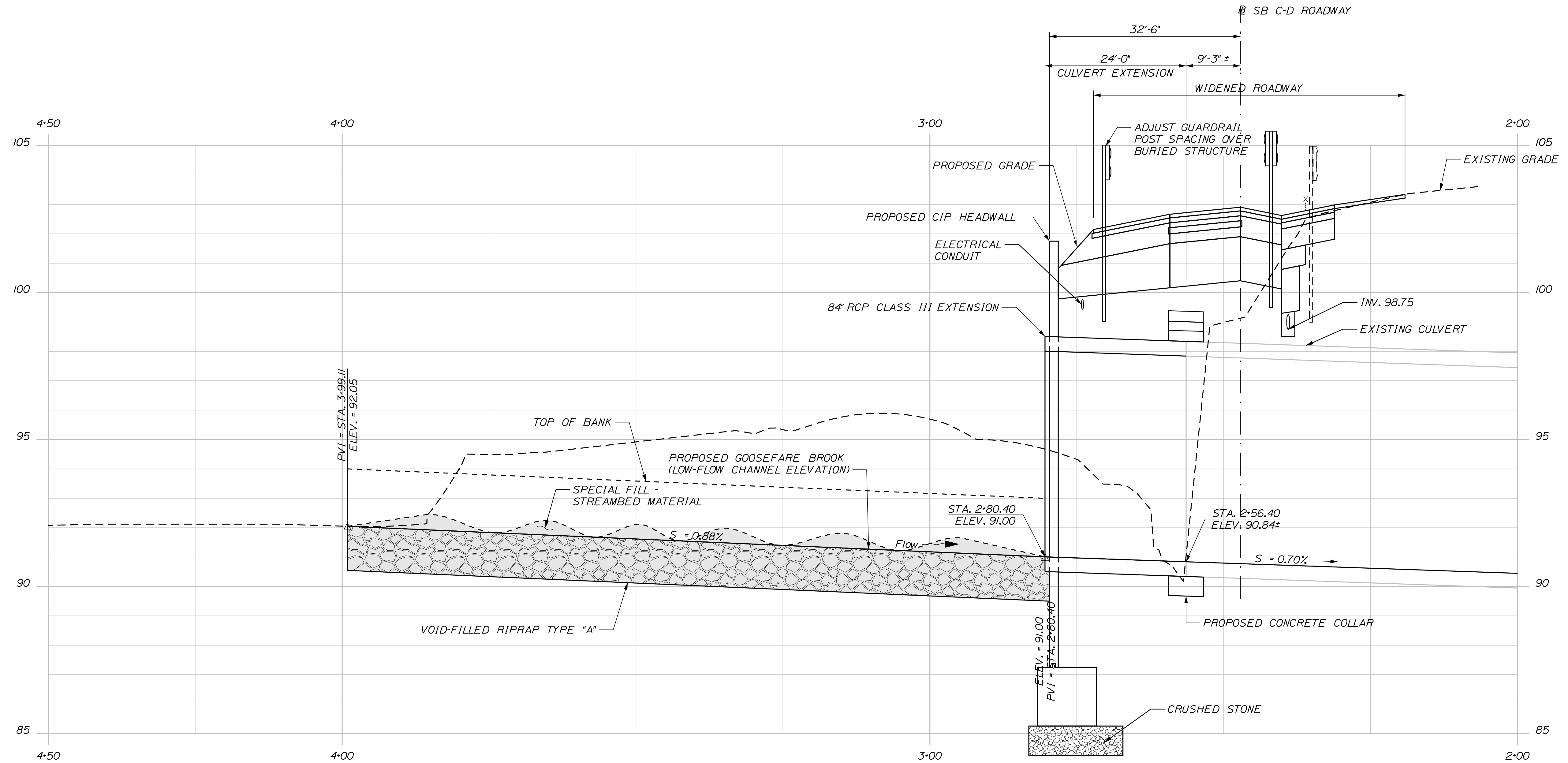
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SACO (EXITS 35 & 36)
GOOSEFARE BROOK CULVERT EXTENSION
DETAILS**

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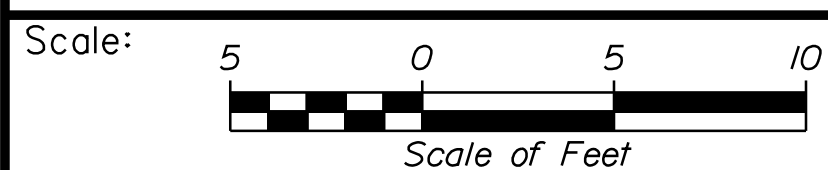
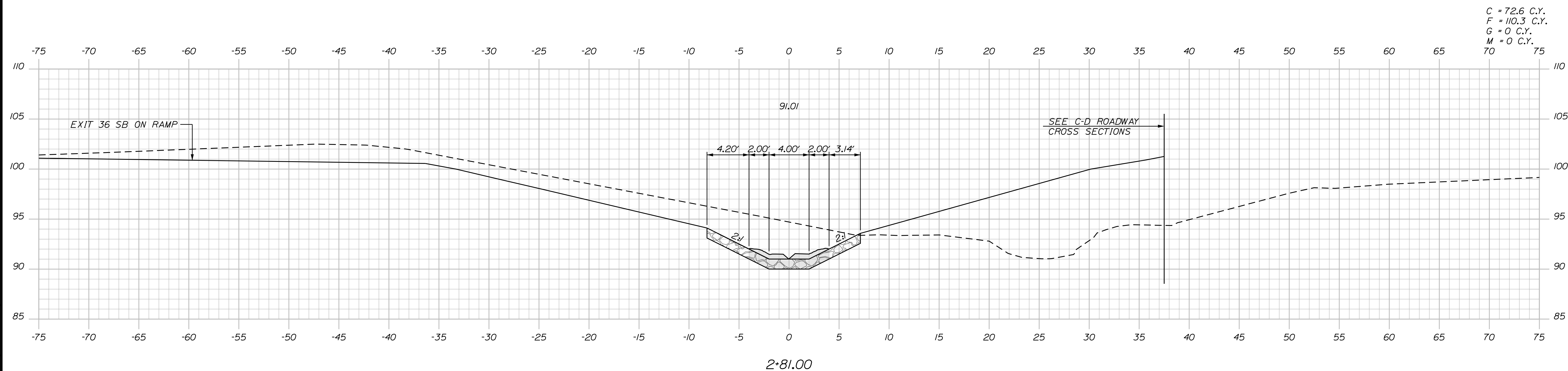
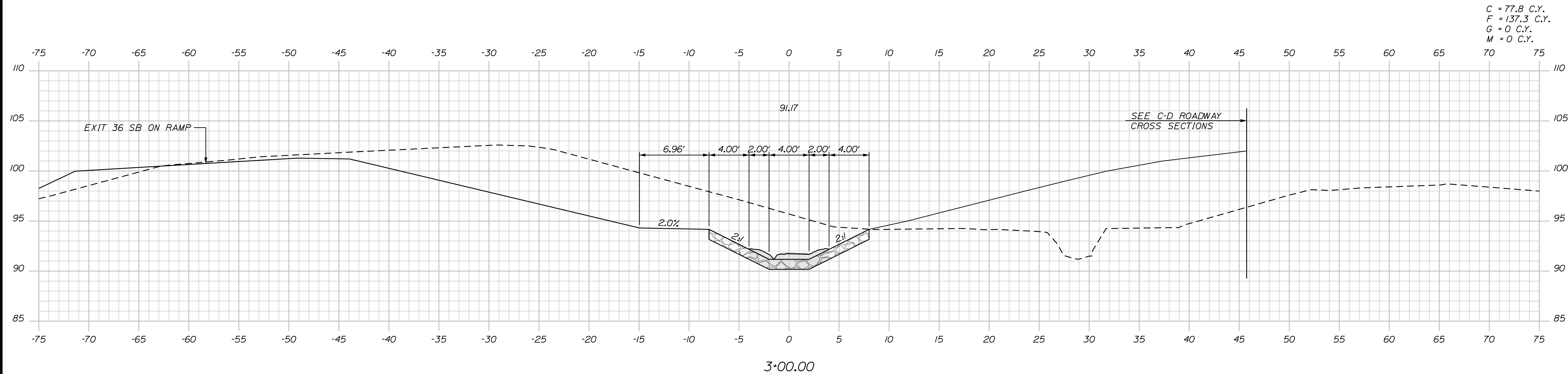
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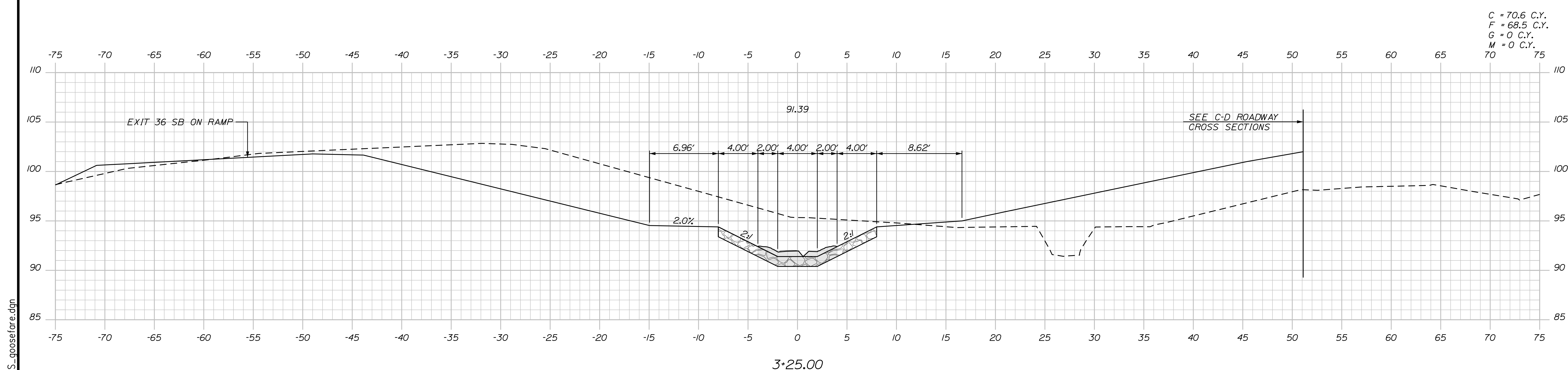
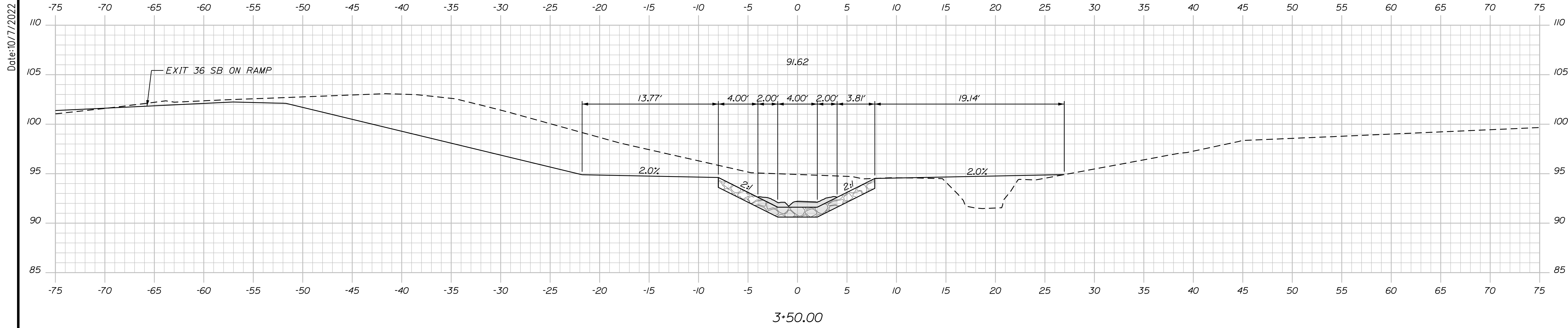
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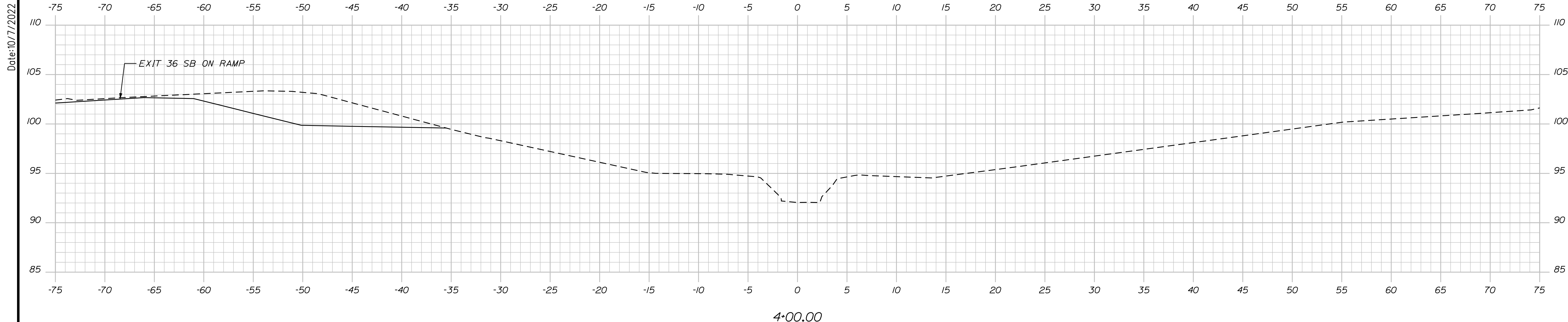
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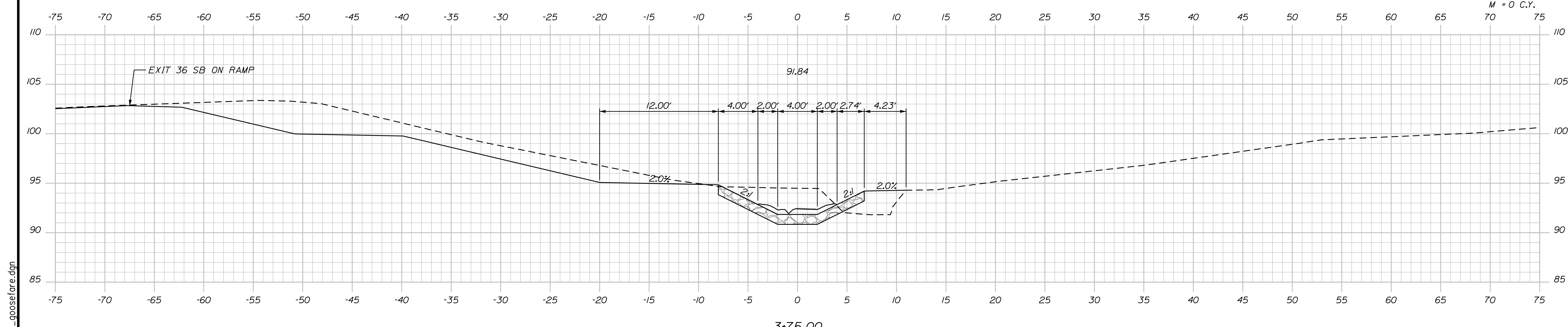
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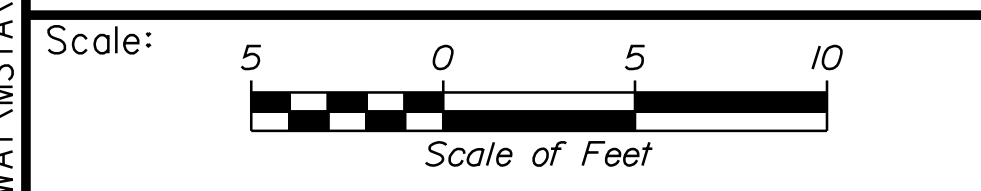
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C = 13.5 C.Y.
 F = 4.5 C.Y.
 G = 0 C.Y.
 M = 0 C.Y.



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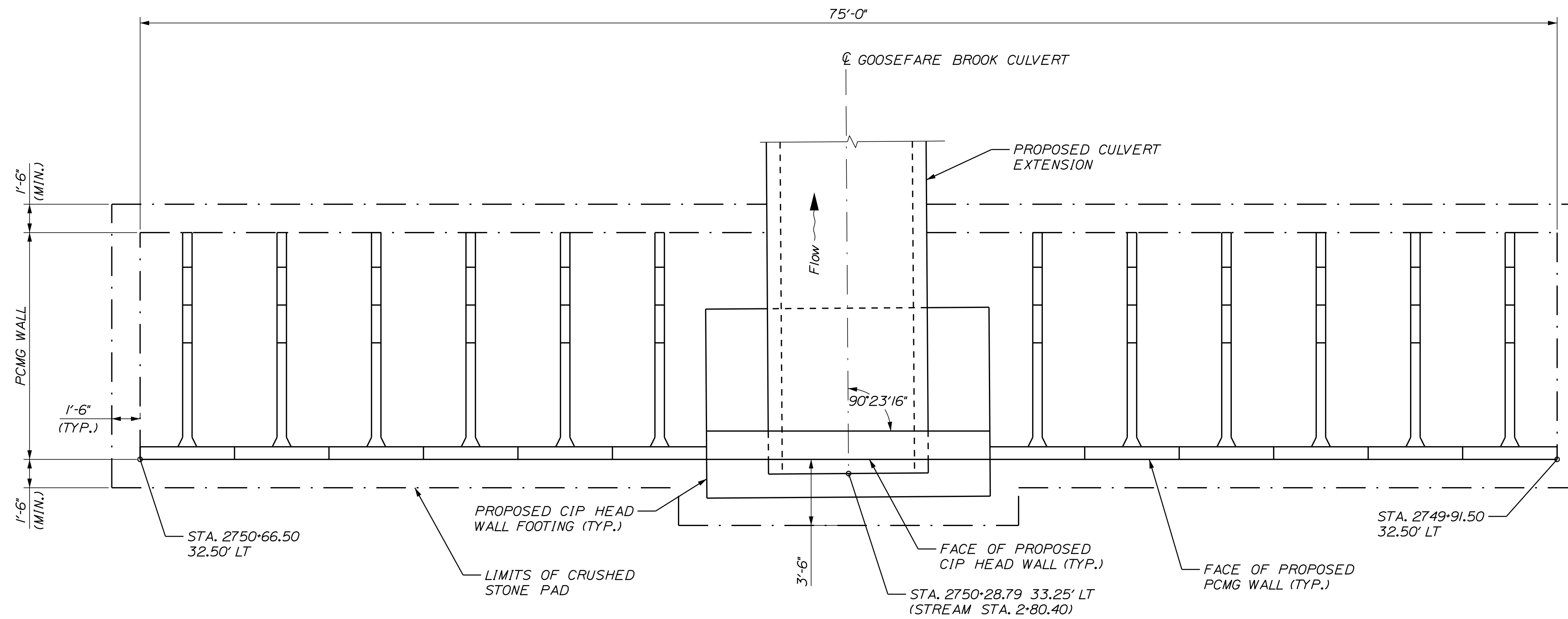
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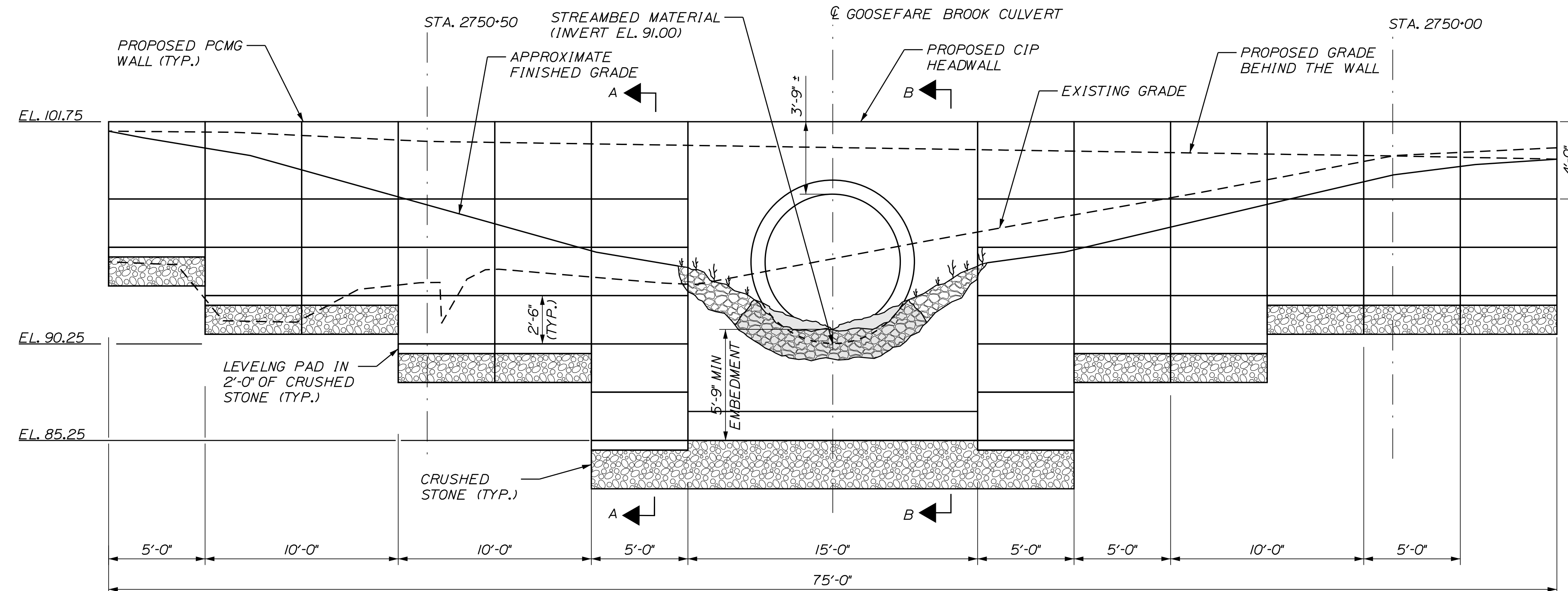
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SHEET NUMBER: GB-07
 CONTRACT: 2022.07
 606 OF 735

Date: 10/17/2022



HEADWALL AND RETAINING WALL PLAN
SCALE: 1/4" = 1'-0"



ELEVATION VIEW - GOOSEFARE BROOK HEADWALL AND RETAINING WALL
SCALE: 1/4" = 1'-0"

NOTES:

1. THE CONTRACTOR SHALL PROVIDE A PREFABRICATED CONCRETE MODULAR GRAVITY (PCMG) WALL IN ACCORDANCE WITH STANDARD SPECIFICATIONS 674. THE PCMG WALL SHALL BE DESIGNED AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER AND THE DESIGN SHALL BE SUBMITTED TO THE RESIDENT FOR REVIEW. PLAN DETAILS ARE SHOWN FOR ESTIMATING PURPOSES ONLY.
2. SELECT PRECAST UNITS FROM THE MAINEDOT PREQUALIFIED PRODUCTS LIST AND SUBMIT TO THE RESIDENT FOR APPROVAL.
3. THE FACTORED BEARING PRESSURE FOR THE PCMG WALL SHALL NOT EXCEED THE FACTORED BEARING RESISTANCE SHOWN ON THESE PLANS.
4. THE PCMG WALL SHALL CONSIST OF CLASS P CONCRETE AND EPOXY COATED REINFORCING STEEL.
5. CLEAR PROTECTIVE COATING SHALL BE APPLIED TO THE CIP HEADWALL AND PCMG WALL AND SHALL BE PAID FOR UNDER ITEM 515,202 CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES.
6. CRUSHED STONE FOR RETAINING WALL BACKFILL SHALL BE A 3/4" GRADATION IN CONFORMANCE WITH STANDARD SPECIFICATION 703.02 COARSE AGGREGATE FOR CONCRETE.
7. A GEOTEXTILE SEPARATION FABRIC SHALL BE PLACED OVER THE PREPARED SUBGRADE AND CRUSHED STONE PLACED TO THE BOTTOM OF THE RETAINING WALL ELEVATION, WRAP FABRIC AROUND SIDES AND OVER THE TOP OF THE STONE PRIOR TO PLACING THE HEADWALL. WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 674.10.
8. COFFERDAMS SHALL BE USED TO MAINTAIN GOOSEFARE BROOK FLOW AT ALL TIMES DURING CONSTRUCTION. COFFERDAMS SHALL BE INSTALLED AND OPERATED IN ACCORDANCE WITH MAINE DEP AND ARMY CORPS ENVIRONMENTAL PERMIT CONDITIONS. ALL SEDIMENTATION CONTROL PRACTICES, TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROLS, AND STREAM FLOW MAINTENANCE SHALL FOLLOW MAINE EROSION AND SEDIMENT CONTROL PRACTICES AND SHALL BE INCIDENTAL TO 511 COFFERDAM ITEMS.
9. EXCAVATION SHALL BE PERFORMED USING CARE SO AS NOT TO DISTURB THE SOFT CLAYS AND SILT WHERE PRESENT.
10. THE CAST-IN-PLACE HEADWALL SHALL BE CAST AROUND THE CULVERT EXTENSION.

DESIGN BEARING PRESSURES:

STRENGTH LIMIT STATE

FACTORED BEARING RESISTANCE = 7.3 KSF
NOMINAL BEARING RESISTANCE = 13.3 KSF

SERVICE LIMIT STATE

FACTORED BEARING RESISTANCE = 2.0 KSF
NOMINAL BEARING RESISTANCE = 2.0 KSF

Filename: ...MSTA_Goosefare_Brook_04.dgn

Scale:			
AS NOTED			
No.	Revision	By	Date

Designed by:			
CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.			
	By	Date	
Designed	SJW	10\22	Checked TWM 10\22
Drawn	SJW	10\22	In Charge of LEM 10\22

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THE GOLD STAR MEMORIAL HIGHWAY

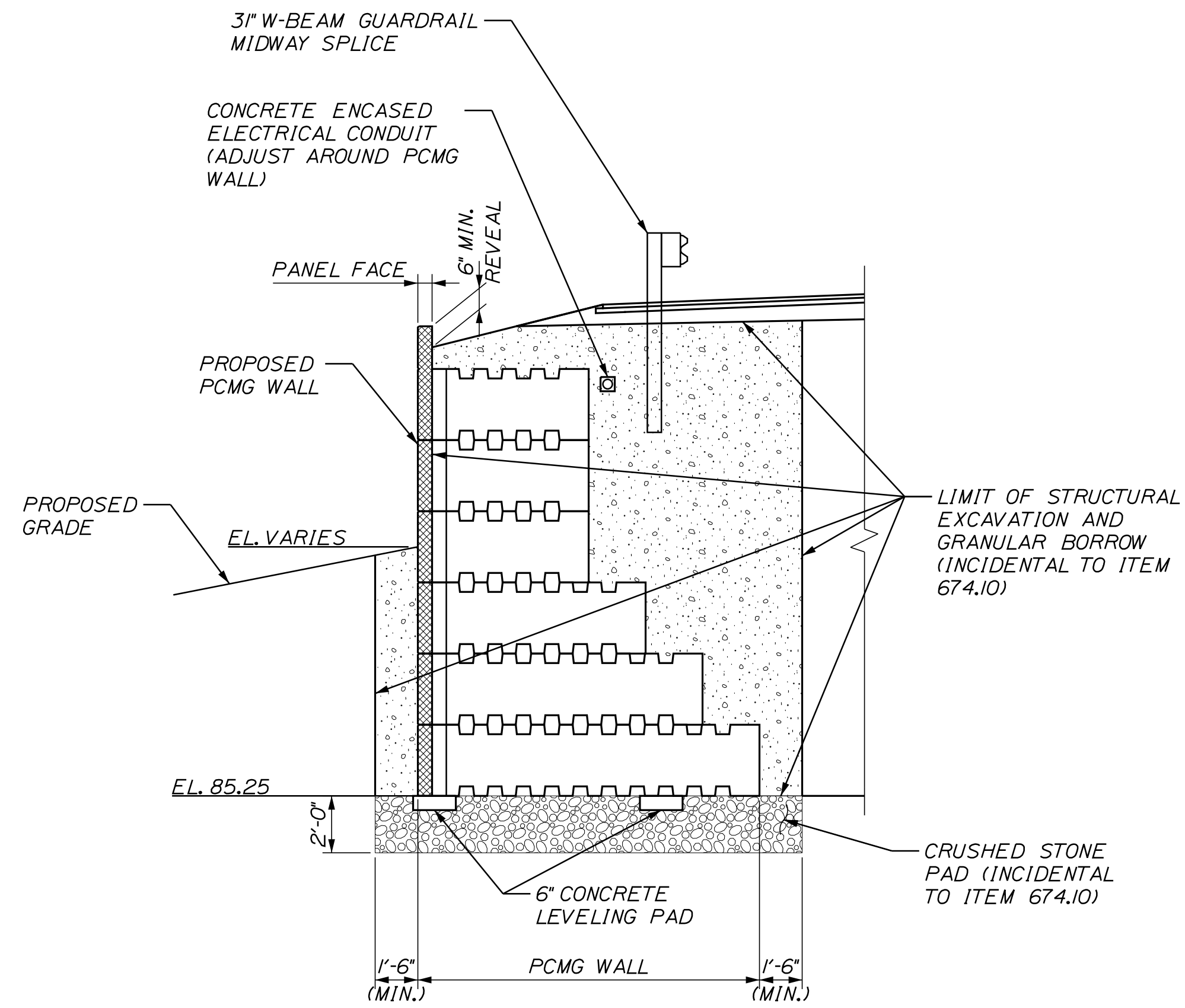
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
GOOSEFARE BROOK CULVERT EXTENSION
DETAILS

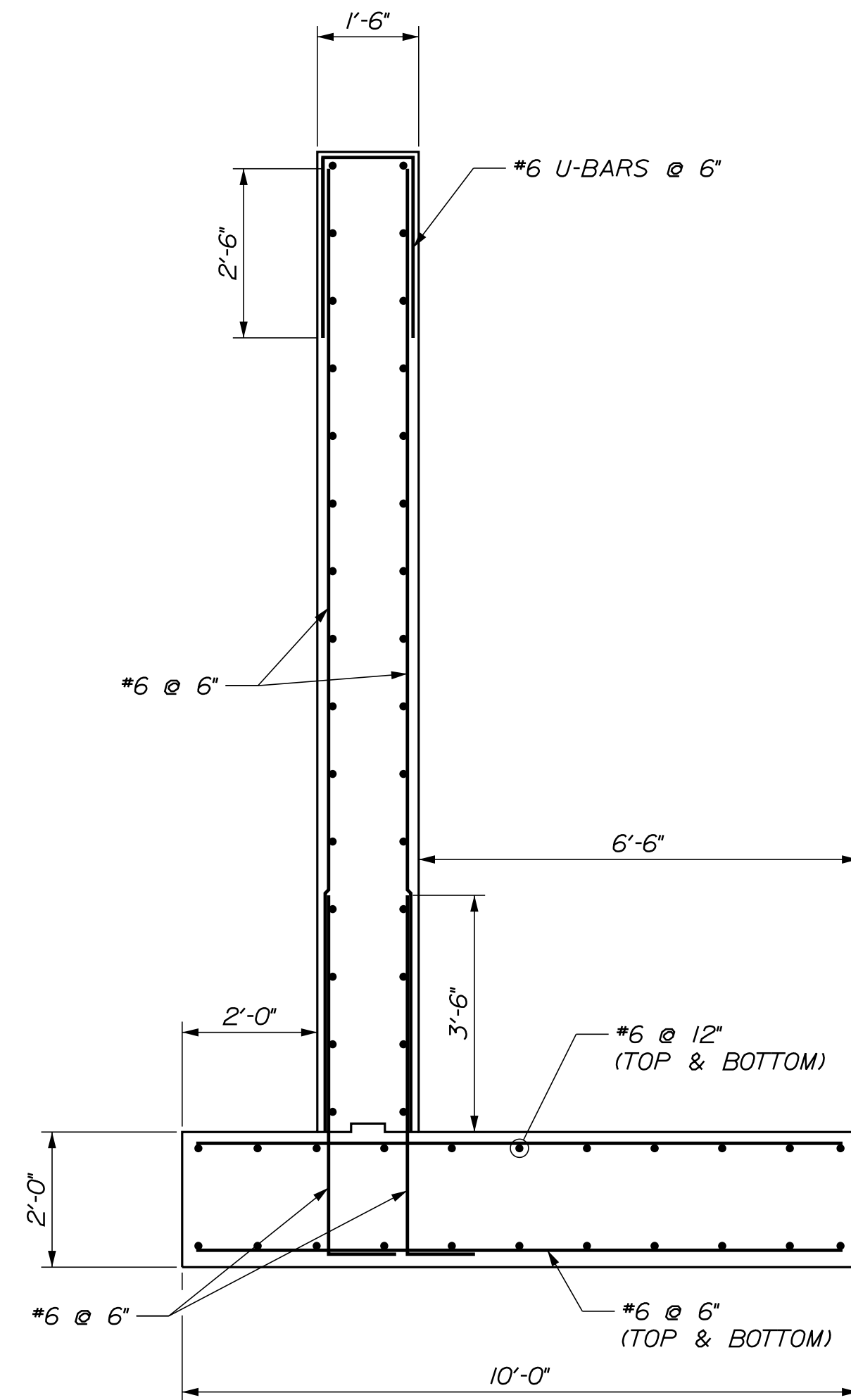
SHEET NUMBER: GB-08
CONTRACT: 2022.07
607 OF 735

Date: 10/17/2022

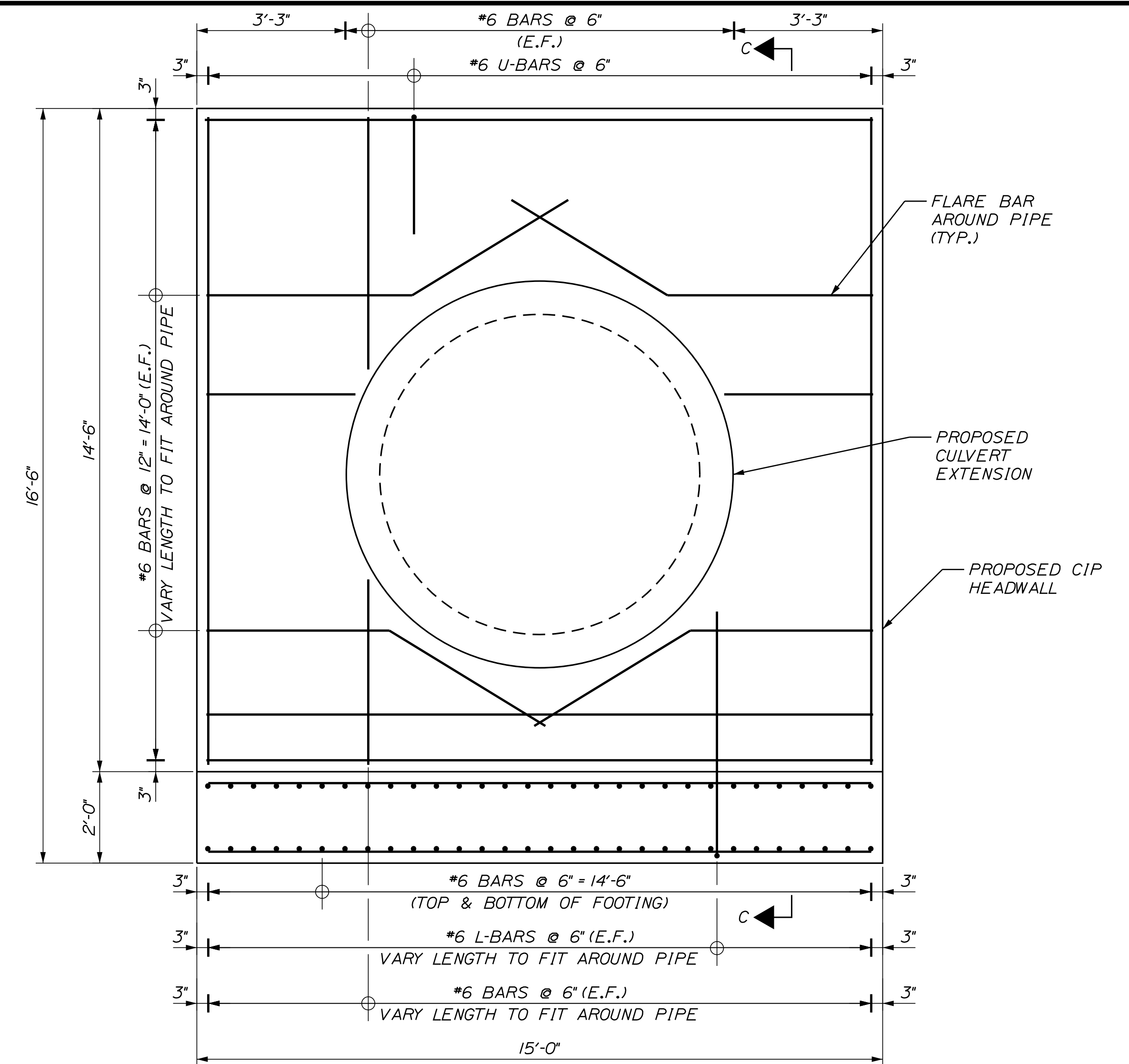
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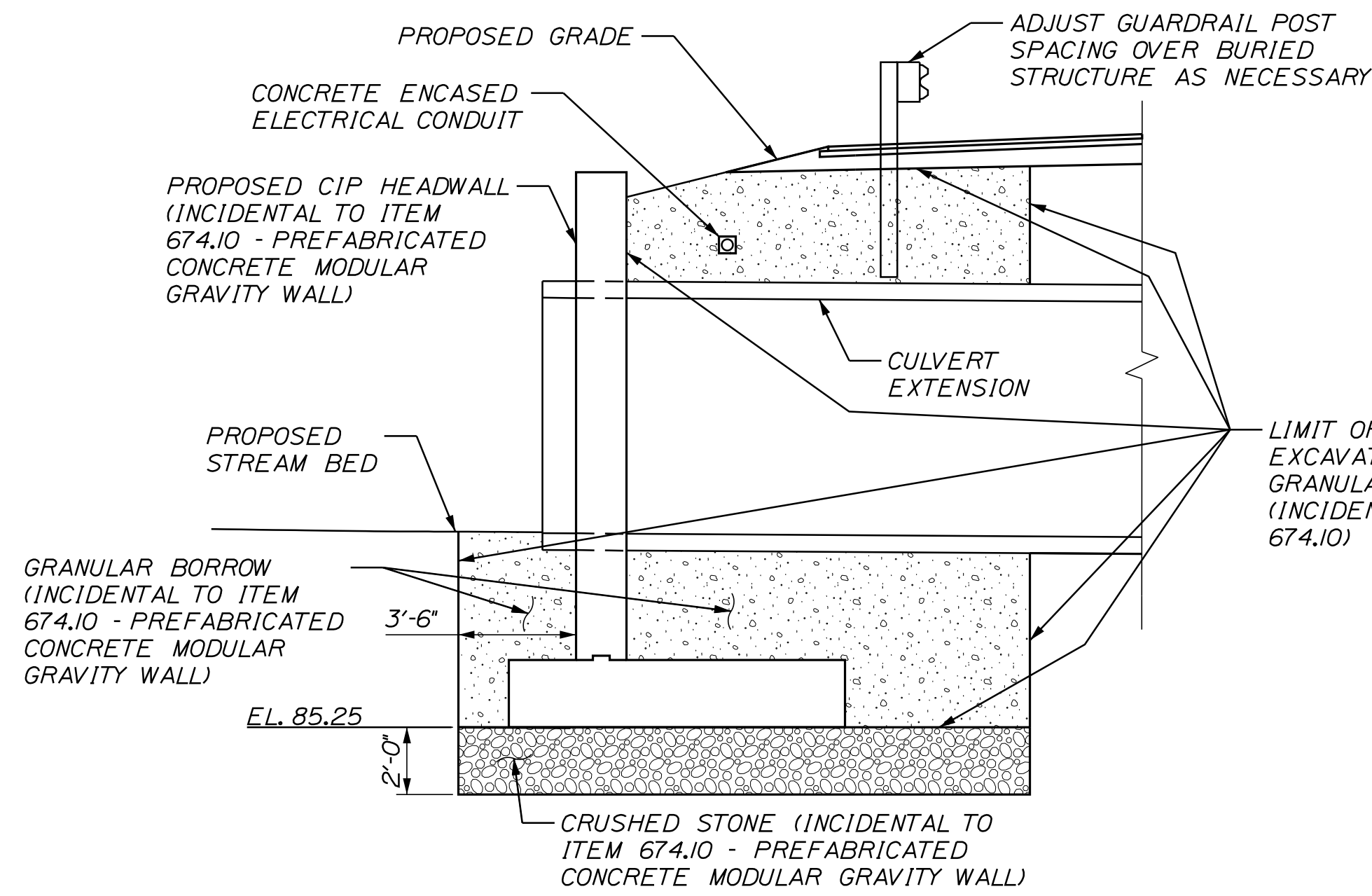
SECTION A-A
SCALE: 1/4" = 1'-0"



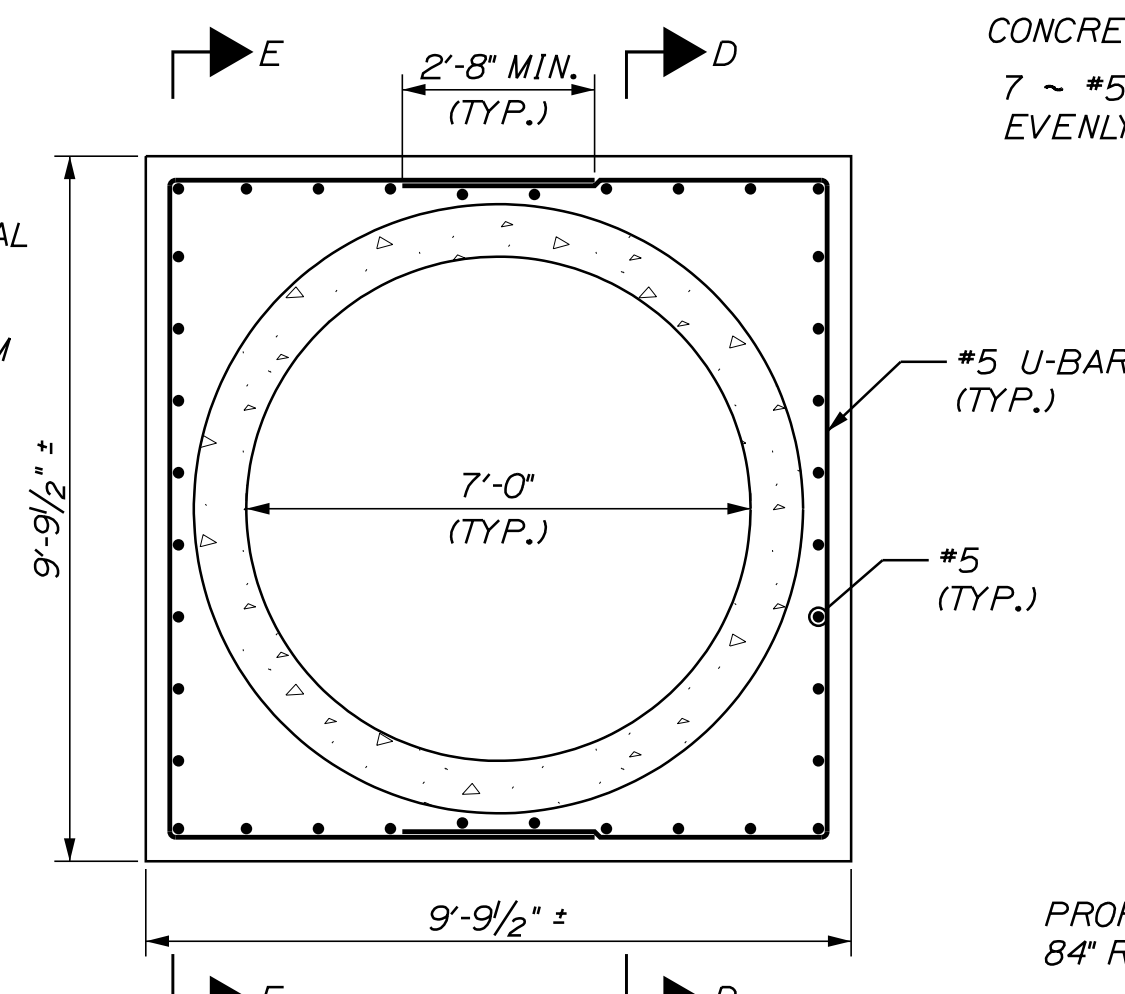
SECTION C-C
SCALE: 1/2" = 1'-0"



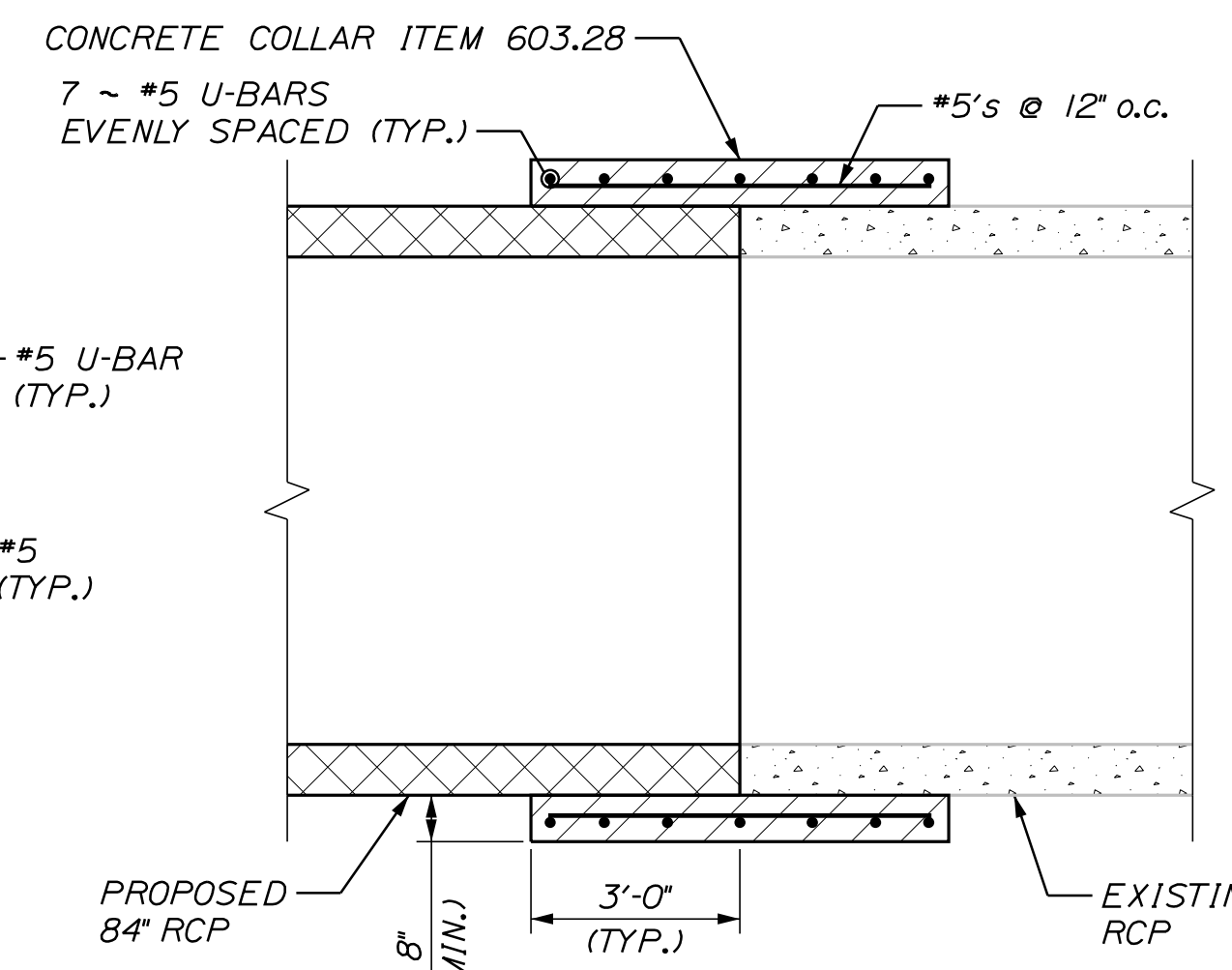
CIP HEADWALL DETAIL
SCALE: 1/2" = 1'-0"



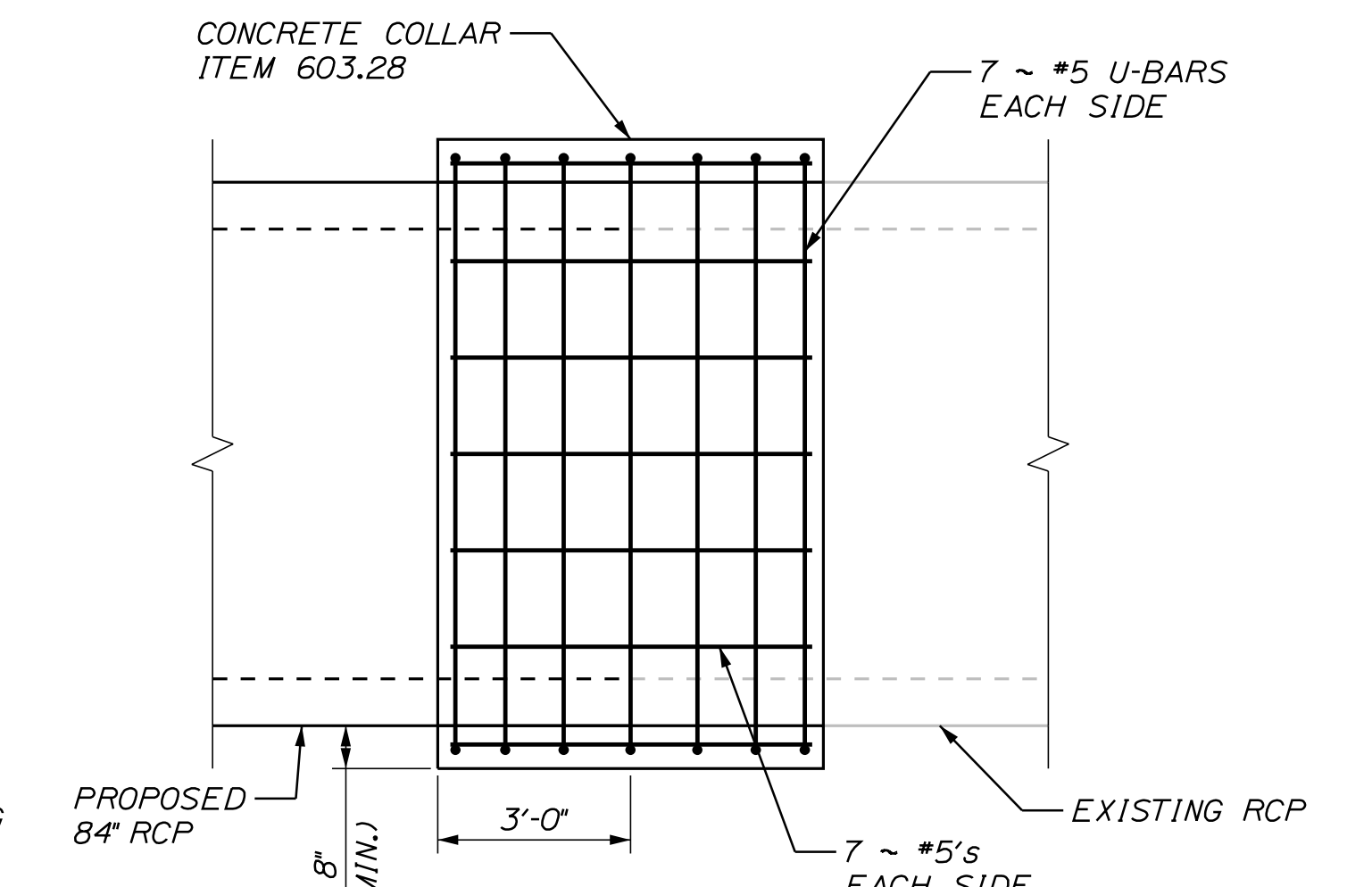
SECTION B-B
SCALE: 1/4" = 1'-0"



CONCRETE COLLAR ELEVATION
SCALE: 3/8" = 1'-0"




SECTION D-D
SCALE: 3/8" = 1'-0"



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

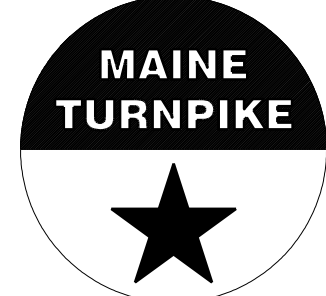
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No.	Revision	By	Date

Designed by: 

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

Designed	SJW	10\22	Checked	TWM	10\22
Drawn	SJW	10\22	In Charge of	LEM	10\22

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
GOOSEFARE BROOK CULVERT EXTENSION
DETAILS

SHEET NUMBER: GB-09
CONTRACT: 2022.07
608 OF 735

Date:10/7/2022

SPECIFICATIONS

- STRUCTURAL SLABS:**
 - AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION.
 - AASHTO BRIDGE DESIGN GUIDE SPECIFICATIONS FOR GFRP-REINFORCED CONCRETE, 2ND EDITION, 2018.
- GANTRIES AND MAST ARMS:**
 - AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 1ST EDITION, 2015 WITH 2020 INTERIMS.
- TOLL CANOPIES:**
 - AISC MANUAL OF STEEL CONSTRUCTION, LRFD METHOD, 15TH EDITION.
 - ASCE 7-16, MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES.
- CONSTRUCTION:**
 - STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, NOVEMBER 2014 EDITION.
 - STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD DETAILS, LATEST REVISION.
 - MAINE TURNPIKE AUTHORITY, SUPPLEMENTAL SPECIFICATIONS, 2016 EDITION.

DESIGN LOADING

STRUCTURAL SLAB AND FOUNDATION VEHICLE LIVE LOAD.....	HL-93 MODIFIED
TOLL CANOPY ROOF LIVE LOAD.....	20 PSF
WIND LOAD BASIC WIND SPEED (V)(RISK CATEGORY II).....	110 MPH
SNOW LOAD GROUND SNOW LOAD (Pg).....	70 PSF

MATERIALS

- CONCRETE:**
 ENTRY TOLL PLAZA SLABS, EXIT TOLL POINT SLABS, AND APPROACH SLABS.....CLASS AAA - DECK
 ALL OTHER.....CLASS AAA
- REINFORCING:**
 STEEL BARS.....ASTM A615, GRADE 60 (EPOXY-COATED)
 WELDED WIRE FABRIC.....ASTM A884, CLASS A (EPOXY-COATED)
 GFRP.....ASTM D7957, SEE NOTE 4
- STRUCTURAL STEEL:**
 STEEL SHAPES AND PLATES (EXCEPT AS NOTED).....ASTM A709, GRADE 50
 HSS SECTIONS.....ASTM A500, GRADE C
 H-PILES.....ASTM A572, GRADE 50
 PLATES (OVER 4" AND UP TO 8" THICK).....ASTM A36
 HIGH STRENGTH BOLTS.....ASTM F3125, GRADE A325, TYPE 1 (HDG)
 ANCHOR RODS.....ASTM F1554, GRADE 55

BASIC DESIGN STRESSES

- CONCRETE:**
 CLASS AAA - DECK..... $f'c = 4,500$ PSI
 CLASS AAA..... $f'c = 4,500$ PSI
- REINFORCING:**
 REINFORCING STEEL..... $Fy = 60,000$ PSI
 GFRP (MIN. TENSILE FORCE).....SEE NOTE 4
- STRUCTURAL STEEL:**
 ASTM A709, GRADE 50..... $Fy = 50,000$ PSI
 ASTM A36..... $Fy = 36,000$ PSI
 ASTM A500, GRADE C (SQUARE HSS)..... $Fy = 50,000$ PSI
 ASTM A500, GRADE C (ROUND HSS)..... $Fy = 46,000$ PSI
 ASTM A572, GRADE 50..... $Fy = 50,000$ PSI
 ASTM F3125, GRADE A325..... $Fu = 120,000$ PSI
 ASTM F1554, GRADE 55..... $Fy = 55,000$ PSI

CONSTRUCTION NOTES

- FOR ADDITIONAL DETAILS REFERENCED OR NOT SHOWN IN THESE DRAWINGS, SEE THE STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD DETAILS, MARCH 2020 EDITION.
- REINFORCING SHALL HAVE CLEAR COVER AS FOLLOWS:
 - 3" FOR CONCRETE PLACED ON GRADE
 - 3" COVER TO THE TOP OF APPROACH SLABS
 - 5" COVER TO THE TOP OF ALL ENTRY AND EXIT SLAB PRIMARY REINFORCING, EXCEPT 3" COVER TO THE TOP OF THE STEEL-REINFORCED PORTION OF THE NB PLAZA ENTRY SLAB (SEE NOTE 26)
 - 2" COVER TO THE TOP OF ALL ENTRY AND EXIT SLAB SACRIFICIAL REINFORCING (SEE NOTE 26)
 - 2" ELSEWHERE UNLESS OTHERWISE NOTED
- ALL STEEL REINFORCING SHALL BE EPOXY COATED.
- ALL GFRP REINFORCING SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION, SECTION 503, REINFORCING STEEL, GFRP REINFORCING. MINIMUM TENSILE STRENGTH FOR GFRP BARS (ASTM D7957 TABLE 3) SHALL BE AS FOLLOWS:

BAR SIZE DESIGNATION	MINIMUM GUARANTEED ULTIMATE TENSILE FORCE (KIP)
4	21.6
5	29.1
6	40.9
7	54.1
8	66.8
9	82.0
10	98.2
- CHAMFER ALL EXPOSED EDGES OF CONCRETE 3/4" UNLESS NOTED OTHERWISE.
- ALL CONCRETE BARRIERS, BOOTH ENCLOSURES, PEDESTALS, BUMPERS AND ISLANDS SHALL HAVE A RUBBED FINISH PRIOR TO THE APPLICATION OF THE PROTECTIVE COATING FOR CONCRETE SURFACES.
- CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES OF THE FOLLOWING CONCRETE COMPONENTS: BARRIERS, BOOTH ENCLOSURES, PEDESTALS, BUMPERS, AND ISLANDS. PAYMENT SHALL BE MADE UNDER ITEM 515.202, CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES. BROADCAST SEALANT SHALL BE APPLIED TO ENTRY TOLL PLAZA SLABS AND EXIT TOLL POINT SLABS AFTER 60 CALENDAR DAYS OF CONCRETE CURING. PAYMENT SHALL BE MADE UNDER PAY ITEM 515.203, BROADCAST SEALANT FOR CONCRETE SURFACES.
- ALL STRUCTURAL CONCRETE FOR ENTRY TOLL PLAZA SLABS, EXIT TOLL POINT SLABS, AND APPROACH SLABS SHALL CONTAIN 3 LBS PER CUBIC YARD OF SYNTHETIC FIBER REINFORCEMENT IN ACCORDANCE WITH SPECIAL PROVISION 503, REINFORCING STEEL, SYNTHETIC FIBER REINFORCEMENT. PAYMENT SHALL BE MADE UNDER PAY ITEM 503.90.
- AFTER THE CONCRETE SLAB AND ISLANDS HAVE BEEN PLACED AND ALLOWED TO REACH INITIAL SET, THE CONTRACTOR SHALL SAWCUT THE CONCRETE AT THE SPECIFIED LOCATIONS, AND IN ACCORDANCE WITH THE DETAILS PROVIDED, THIS WORK SHALL BE COMPLETED AS SOON AS THE CONCRETE CAN SUPPORT THE WEIGHT OF A WORKER WITHOUT DAMAGE. ALL WORK FOR SAWCUTTING AND FILLING JOINTS SHALL BE INCIDENTAL TO THE RELATED CONTRACT ITEMS.
- ALL TRANSVERSE SLAB JOINTS SHALL BE CONSTRUCTED OR SAWN PERPENDICULAR TO THE ROADWAY CENTERLINE.
- ALL HORIZONTAL CONSTRUCTION JOINTS LOCATED BETWEEN THE ENTERING SLAB AND ISLANDS, ISLAND AND BUMPERS, AND ISLANDS AND BOOTH ENCLOSURES, SHALL RECEIVE A RAKED FINISH WITH MINIMUM SURFACE PROFILE OF 1/4". ALL OTHER CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MAINE DOT STANDARD DETAIL 502(01). WATERSTOPS SHALL ONLY BE REQUIRED WHERE SHOWN ON THE PLANS.
- WHERE NON-SHRINK GROUT IS SPECIFIED FOR GRANITE CURB BEDDING AND POINTING, OR AT STEEL BASE PLATE LOCATIONS, THE CONTRACTOR SHALL SELECT A PRODUCT FROM MAINE DOT'S QUALIFIED PRODUCTS LIST OF GROUT MATERIALS. THE SELECTED MATERIAL SHALL BE NON-SHRINK WITH A MINIMUM COMPRESSIVE STRENGTH OF 6,000 PSI. PAYMENT SHALL BE INCIDENTAL TO THE RELATED CONTRACT ITEMS. SEE SHEET TP-19 FOR DETAIL.
- WHERE NON-SHRINK GROUT IS SPECIFIED AT THE FRONT FACE OF ISLAND GRANITE CURB LOCATIONS THE AREA SHALL BE GROUTED USING SIKAGROUT 212, MANUFACTURED BY SIKA CORPORATION. THE GROUT SHALL BE PROPORTIONED AND MIXED TO PROVIDE A PLASTIC CONSISTENCY FOR PLACEMENT, AND SHALL BE PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. PAYMENT SHALL BE INCIDENTAL TO THE RELATED CONTRACT ITEMS. SEE SHEET TP-19 FOR DETAIL.

- WHERE SELF-LEVELING OR NON-SAG ELASTOMERIC SEALANT IS SPECIFIED THE CONTRACTOR SHALL SELECT SILICONE JOINT SEALANTS SUCH AS SIKASIL 728 RCS OR AS APPROVED BY THE RESIDENT. ALL MATERIALS AND LABOR RELATED TO ELASTOMERIC SEALANT SHALL BE INCIDENTAL TO RELATED CONTRACT ITEMS.
- PREMOLDED JOINT FILLER SHALL CONFORM TO ASTM DESIGNATION D1752, TYPE 1 OR ASTM D5249, TYPE 2. PREMOLDED JOINT FILLER SHALL BE A NON-STAINING, NON-BLEEDING TYPE. PRODUCTS SUCH AS 'CERAMAR' MANUFACTURED BY W.R. MEADOWS, OR AN APPROVED EQUAL WILL BE ACCEPTABLE. CORK IS NOT AN ACCEPTABLE JOINT FILLER MATERIAL. PREMOLDED JOINT FILLER SHALL BE INCIDENTAL TO THE RELATED CONCRETE ITEMS.
- PAYMENT FOR GRANITE CURB AT TOLL ISLANDS SHALL BE MADE UNDER PAY ITEMS 609.13, VERTICAL BRIDGE CURB, TYPE 1 AND 609.14, VERTICAL BRIDGE CURB, TYPE 1-CIRCULAR.
- ALL STRUCTURAL STEEL SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION UNLESS OTHERWISE NOTED. TOLL PLAZA CANOPY SUPPORT STEEL SHALL BE COATED WITH A 3-COAT SYSTEM IN ACCORDANCE WITH SPECIAL PROVISION 506. COATING SHALL BE INCIDENTAL TO RELATED 504 ITEM. TOLL PLAZA CANOPY SUPPORT STEEL DOES NOT REQUIRE HOT DIP GALVANIZING.
- ALL ANCHOR RODS SHALL BE SWEDGED OR THREADED ON THE EMBEDDED PORTION OF THE ROD.
- EXCAVATION FROM TOP OF EXISTING GRADE TO THE BOTTOM OF PROPOSED AGGREGATE BASE COURSE - TYPE A BENEATH SLABS (ENTRY TOLL PLAZA SLAB, EXIT TOLL POINT SLAB OR APPROACH SLAB) SHALL BE MEASURED FOR PAYMENT UNDER PAY ITEM 203.20, COMMON EXCAVATION. EXCAVATION BELOW THIS LAYER REQUIRED FOR PILE CAP, UTILITY VAULT, AND GANTRY SUPPORT OR MAST ARM FOUNDATION CONSTRUCTION SHALL BE MEASURED FOR PAYMENT UNDER ITEM 206.082, STRUCTURAL EXCAVATION MAJOR STRUCTURES. PLAN QUANTITY. PAY LIMITS SHALL BE AS SHOWN ON THE PLANS. ANY TEMPORARY EARTH SUPPORT SYSTEMS OR DEWATERING THAT MAY BE NECESSARY FOR THE EXCAVATIONS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO ITEM 206.082.
- AREAS OF STRUCTURAL EXCAVATION SHALL BE BACKFILLED WITH GRANULAR BORROW UNLESS OTHERWISE NOTED. MEASUREMENT SHALL BE MADE BASED ON THE STRUCTURAL EXCAVATION NEAT LINES. PAYMENT SHALL BE MADE UNDER PAY ITEM 203.25, GRANULAR BORROW.
- ALL STRUCTURAL CONCRETE FOR ENTRY TOLL PLAZA SLABS, EXIT TOLL POINT SLABS, AND APPROACH SLABS SHALL BE MEASURED FOR PAYMENT UNDER PAY ITEM 502.262, STRUCTURAL CONCRETE, PAVEMENT SLABS.
- ALL STRUCTURAL CONCRETE FOR TOLL ISLANDS, BUMPERS, BOOTH ENCLOSURES AND CAST-IN-PLACE BARRIER SHALL BE MEASURED FOR PAYMENT UNDER PAY ITEM 502.263, STRUCTURAL CONCRETE PLAZA ISLANDS, BUMPERS AND CURTAIN WALLS.
- ALL STRUCTURAL CONCRETE FOR PILE CAPS SHALL BE MEASURED FOR PAYMENT UNDER PAY ITEM 502.264, STRUCTURAL CONCRETE, PILE CAPS.
- ALL UTILITY PIT BOTTOM SLABS, LONGITUDINAL SIDEWALLS, AND TRANSVERSE SIDEWALLS BENEATH THE LIMITS OF THE PILE CAPS SHALL BE MEASURED FOR PAYMENT UNDER PAY ITEM 502.265, STRUCTURAL CONCRETE, UTILITY PITS.
- ALL STRUCTURAL CONCRETE FOR GANTRY AND MAST ARM PEDESTALS AND FOUNDATIONS SHALL BE MEASURED FOR PAYMENT UNDER PAY ITEM 502.266, STRUCTURAL CONCRETE, PEDESTALS AND FOOTINGS.
- FOR SLAB MAINTENANCE PURPOSES AT THE EMBEDDED TOLLING LOOPS, THE TOP MAT OF THE ENTRY AND EXIT SLAB PRIMARY GFRP REINFORCEMENT HAS BEEN DETAILED WITH INCREASED COVER TO AVOID POSSIBLE DAMAGE DURING FUTURE MAINTENANCE ACTIVITIES. A SACRIFICIAL MAT OF GFRP REINFORCING WITH SHALLOW COVER HAS BEEN DETAILED ABOVE THE PRIMARY GFRP REINFORCEMENT WITHIN THE ROADWAY LANES FOR CRACK CONTROL PURPOSES. THIS SACRIFICIAL TOP MAT MAY BE REMOVED AND REPLACED IN KIND DURING FUTURE SLAB MAINTENANCE WORK.

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Scale: AS NOTED			
No.	Revision	By	Date

Designed by:					
CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
	By	Date		By	Date
Designed	PAG	10\22	Checked	EPL	10\22
Drawn	JTB	10\22	In Charge of	LEM	10\22

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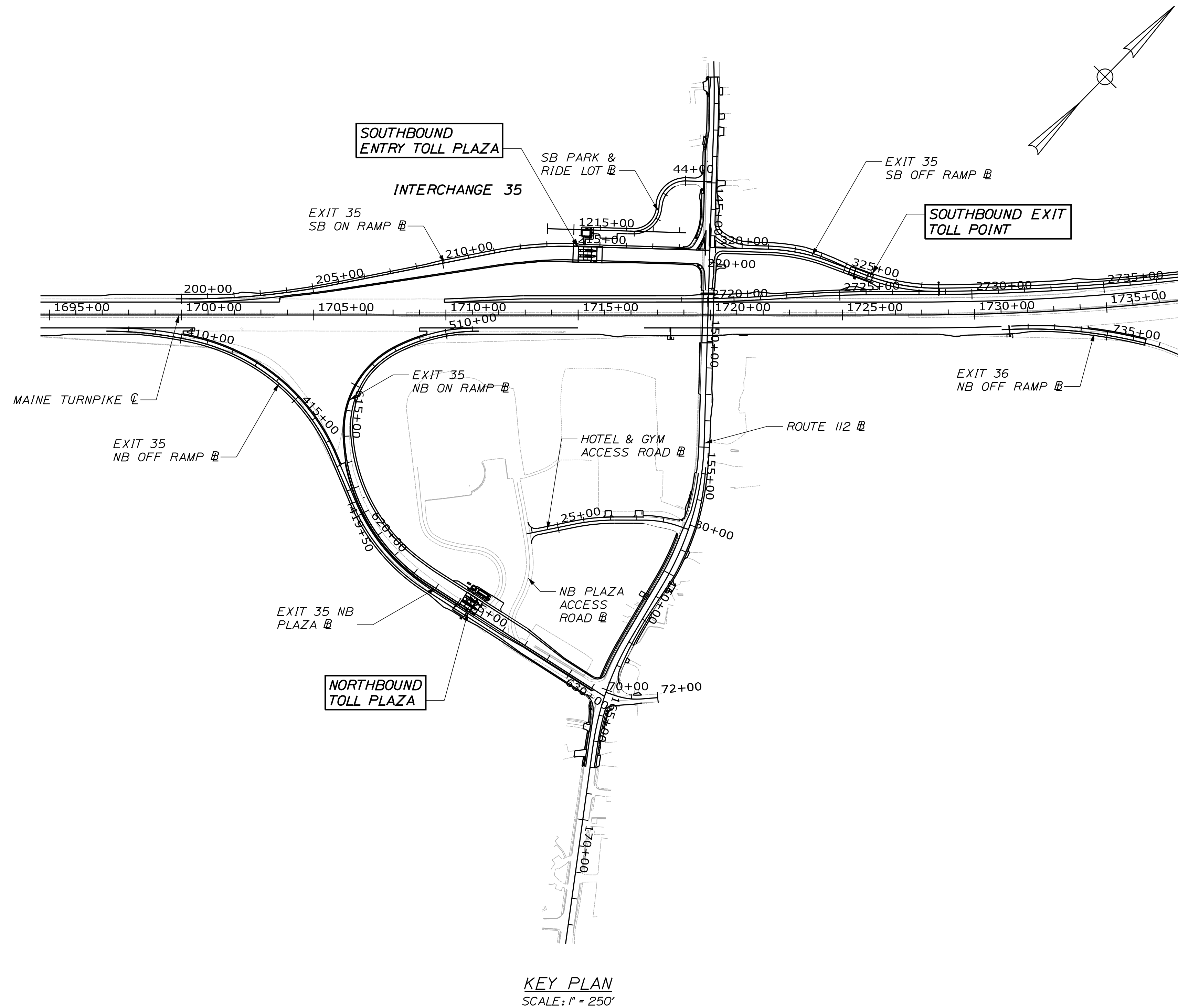
**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 TOLL PLAZA
 STRUCTURAL GENERAL NOTES

SHEET NUMBER: TP-01
 CONTRACT:2022.07
 609 OF 735

Date: 10/7/2022



KEY PLAN
SCALE: 1" = 250'

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KEY PLAN AND INDEX OF TOLL PLAZA STRUCTURAL DRAWINGS	TP-02
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NORTHBOUND TOLL PLAZA ENTRY SLAB REINFORCEMENT PLAN	TP-04
NORTHBOUND TOLL PLAZA FOUNDATION AND SLAB SECTIONS	TP-05
NORTHBOUND TOLL PLAZA SLAB SECTIONS	TP-06
SOUTHBOUND ENTRY TOLL PLAZA FOUNDATION LAYOUT PLAN	TP-07
SOUTHBOUND ENTRY TOLL PLAZA FOUNDATION REINFORCEMENT PLAN	TP-08
SOUTHBOUND ENTRY TOLL PLAZA SLAB LAYOUT PLAN	TP-09
SOUTHBOUND ENTRY TOLL PLAZA SLAB REINFORCEMENT PLAN	TP-10
SOUTHBOUND ENTRY TOLL PLAZA FOUNDATION AND SLAB SECTIONS I	TP-11
SOUTHBOUND ENTRY TOLL PLAZA FOUNDATION AND SLAB SECTIONS II	TP-12
SOUTHBOUND ENTRY TOLL PLAZA SLAB SECTIONS	TP-13
SOUTHBOUND EXIT TOLL POINT FOUNDATION LAYOUT PLAN	TP-14
SOUTHBOUND EXIT TOLL POINT FOUNDATION REINFORCEMENT PLAN	TP-15
SOUTHBOUND EXIT TOLL POINT SLAB LAYOUT PLAN	TP-16
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NORTHBOUND AND SOUTHBOUND ISLAND TYPE A PLAN AND SECTION	TP-21
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TOLL PLAZA ELECTRICAL & MECHANICAL BOOTH DETAILS	TP-37
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Filename: ...00\PLAZA\MSTA\TP-02.dgn

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CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
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**THE GOLD STAR
MEMORIAL HIGHWAY**

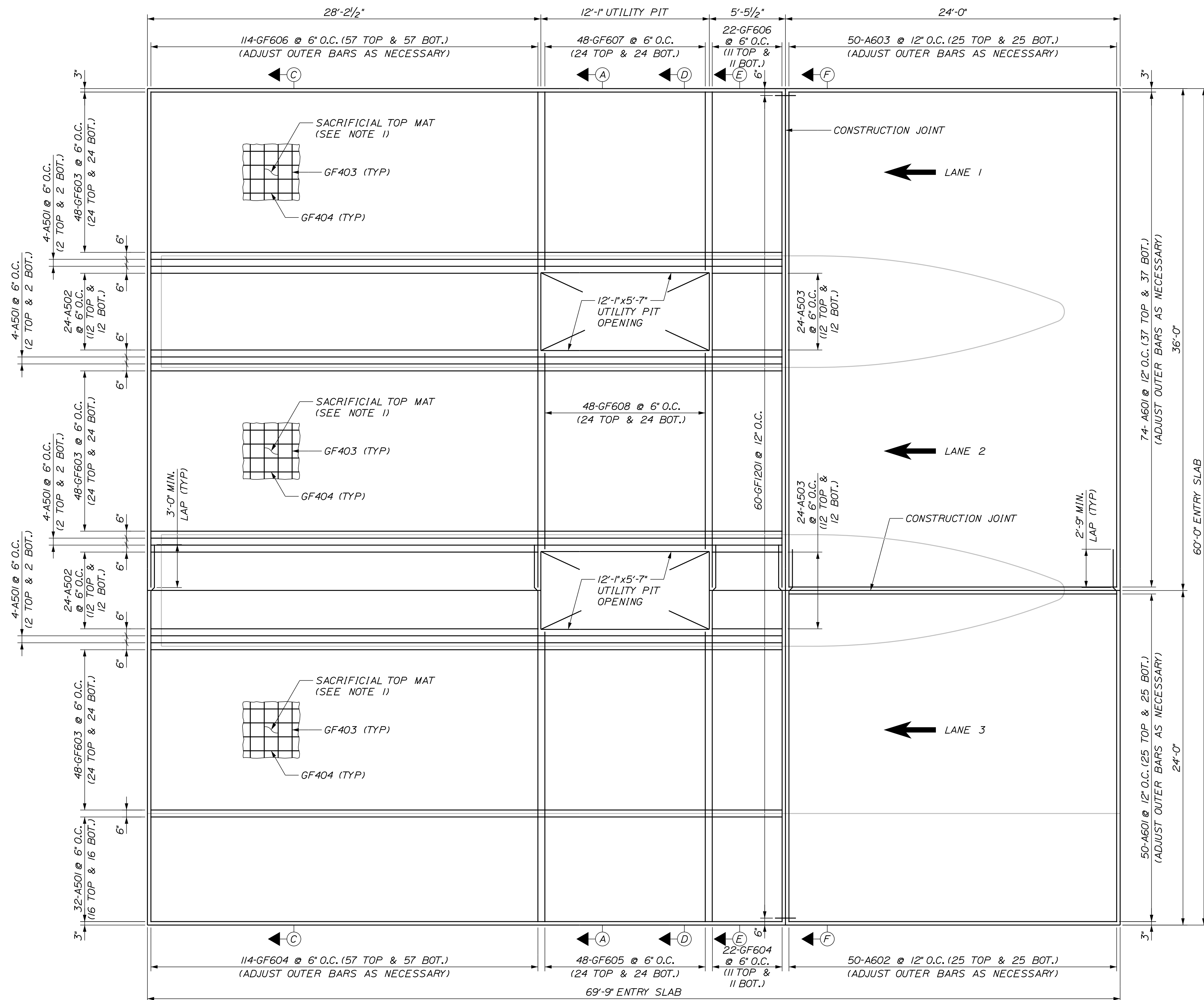
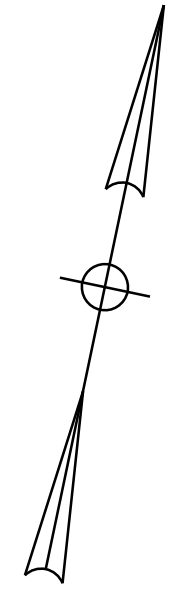
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
KEY PLAN AND INDEX OF TOLL PLAZA
STRUCTURAL DRAWINGS

SHEET NUMBER: TP-02
CONTRACT: 2022.07
610 OF 735

Date: 10/7/2022

Filename: ...00\PLAZA\MSTA\TP-04.dgn



- NOTES**
- SACRIFICIAL TOP MAT IN EACH LANE CONSISTS OF 46-GF403 @ 12" O.C. AND 12-GF404 @ 12" O.C. WITHIN THE GFRP-REINFORCED PORTION OF THE SLAB. SEE NOTE 26 ON SHEET TP-01 FOR ADDITIONAL INFORMATION.
 - FOR SECTION A-A SEE SHEET TP-05.
 - FOR SECTIONS C-C, D-D, E-E AND F-F SEE SHEET TP-06.

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

Scale: AS NOTED

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
Designed	PAG	10\22	Checked	EPL	10\22
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

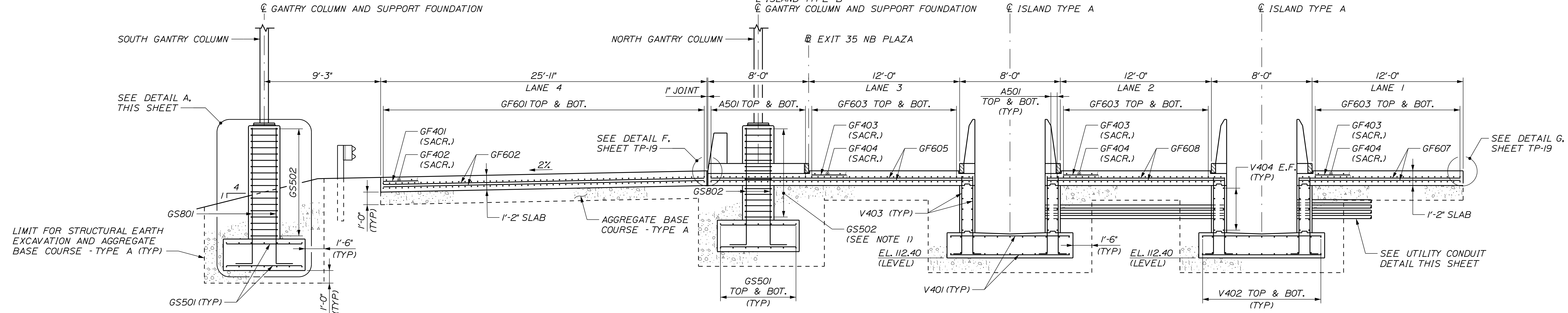
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND TOLL PLAZA
ENTRY SLAB REINFORCEMENT PLAN

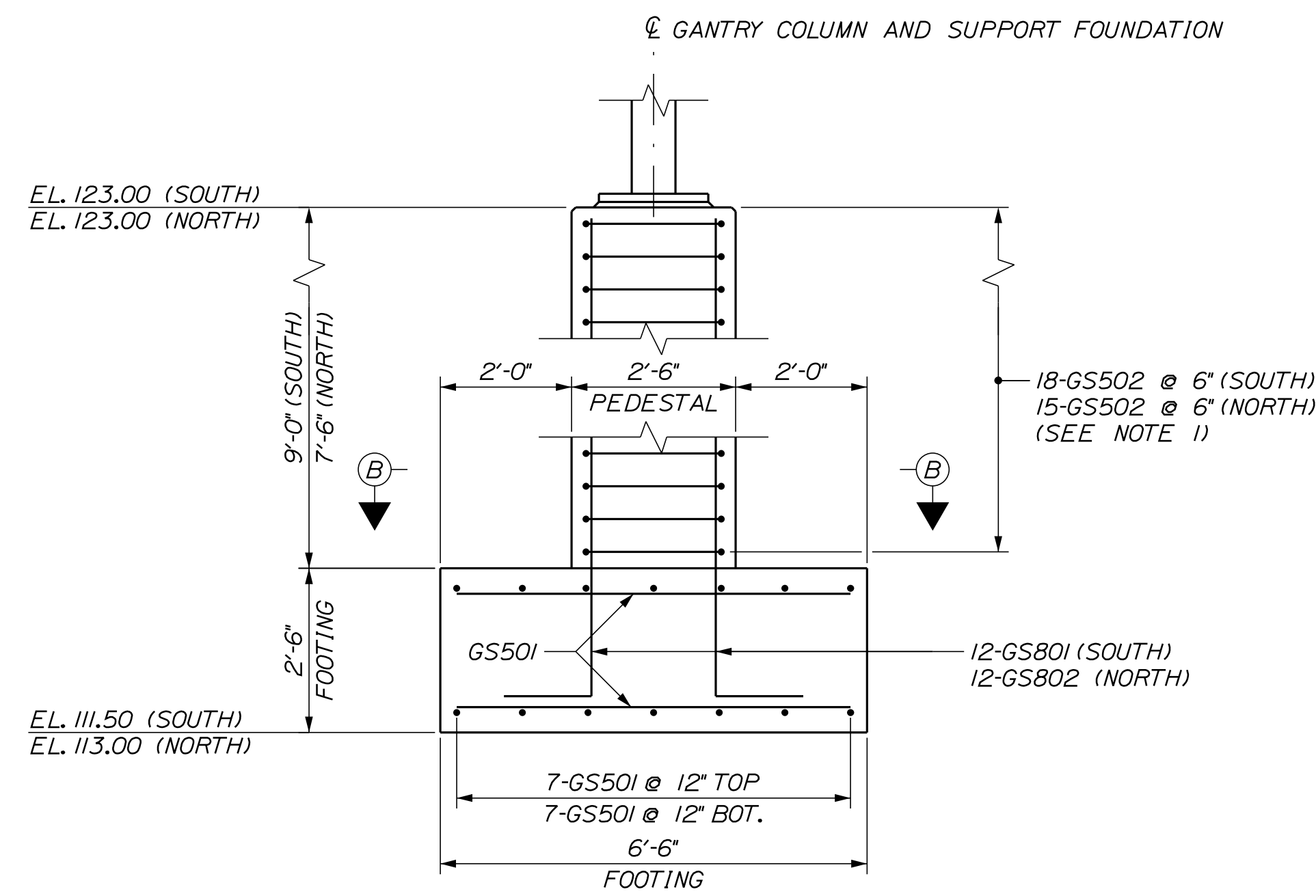
SHEET NUMBER: TP-04
CONTRACT: 2022.07
612 OF 735

Date: 10/17/2022

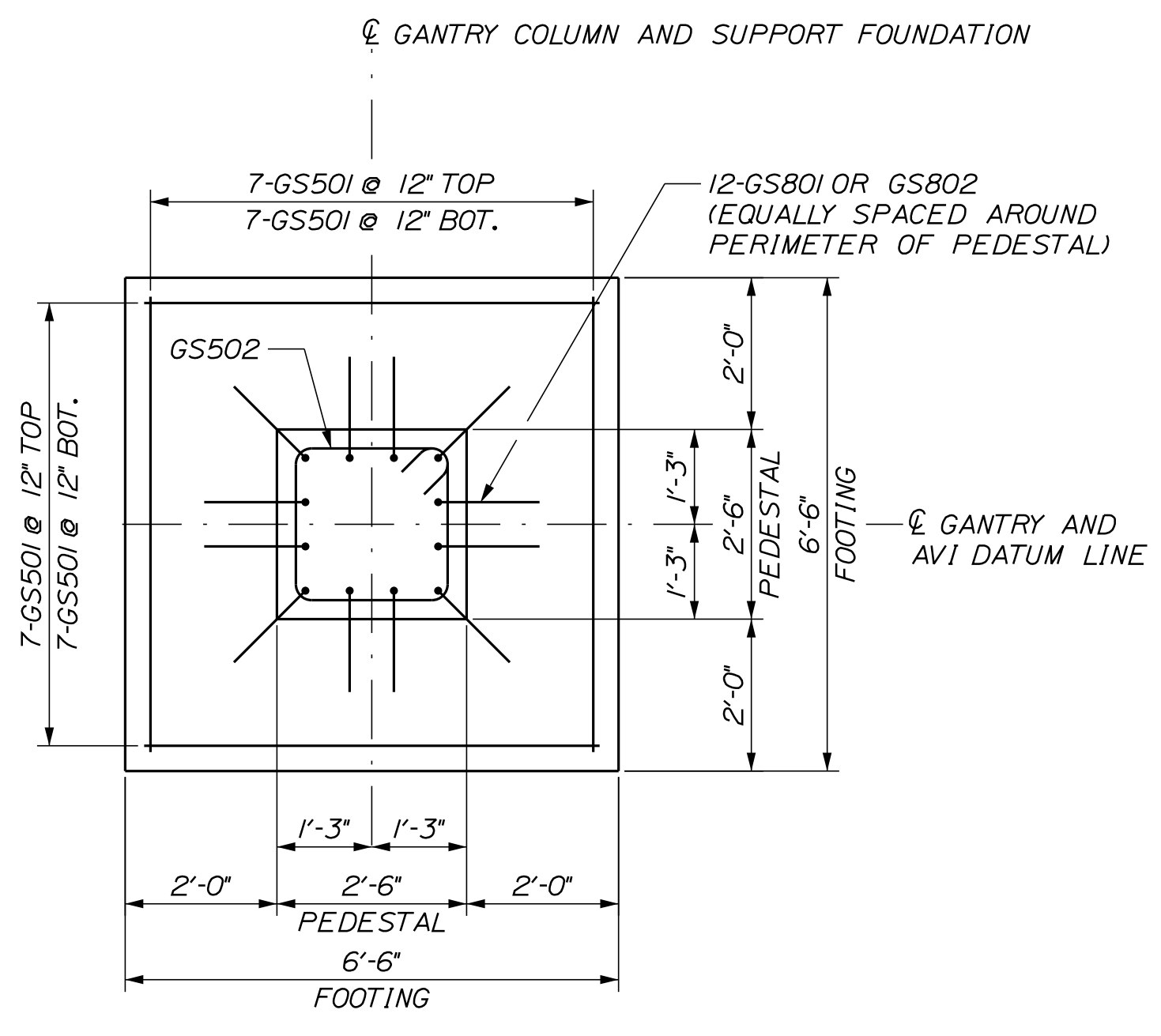
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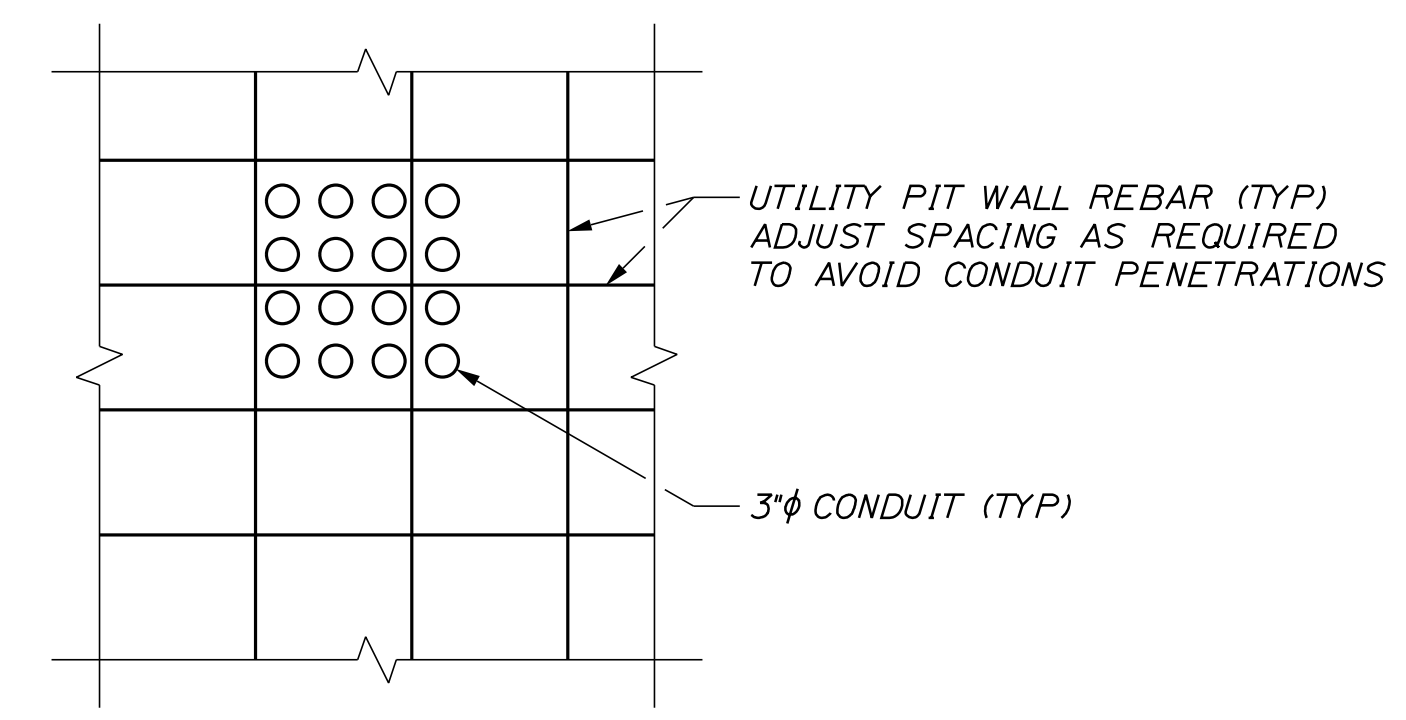
SECTION A-A
SCALE: 1/4" = 1'-0"



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



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



UTILITY CONDUIT DETAIL
NOT TO SCALE

NOTES

1. ADJUST SPACING OF GS502 TIES AS NECESSARY TO AVOID SLAB REINFORCING.
2. SACRIFICIAL TOP MAT OF SLAB REINFORCEMENT PARTIALLY SHOWN FOR CLARITY.
3. SEE SHEET TP-23 FOR ADDITIONAL UTILITY PIT REINFORCING DETAILS.

Scale:			
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CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
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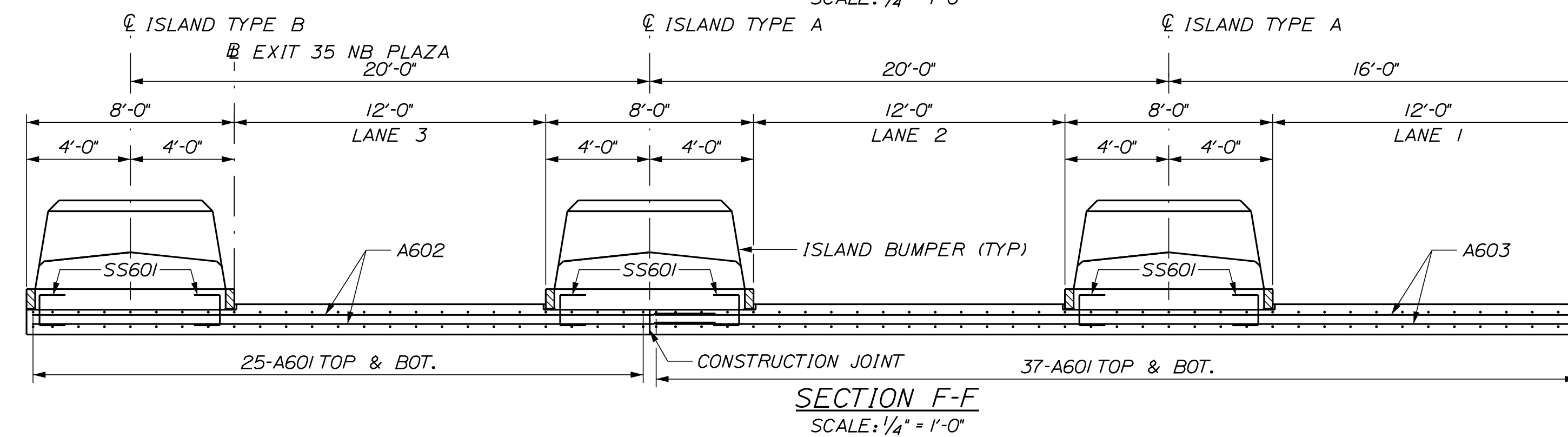
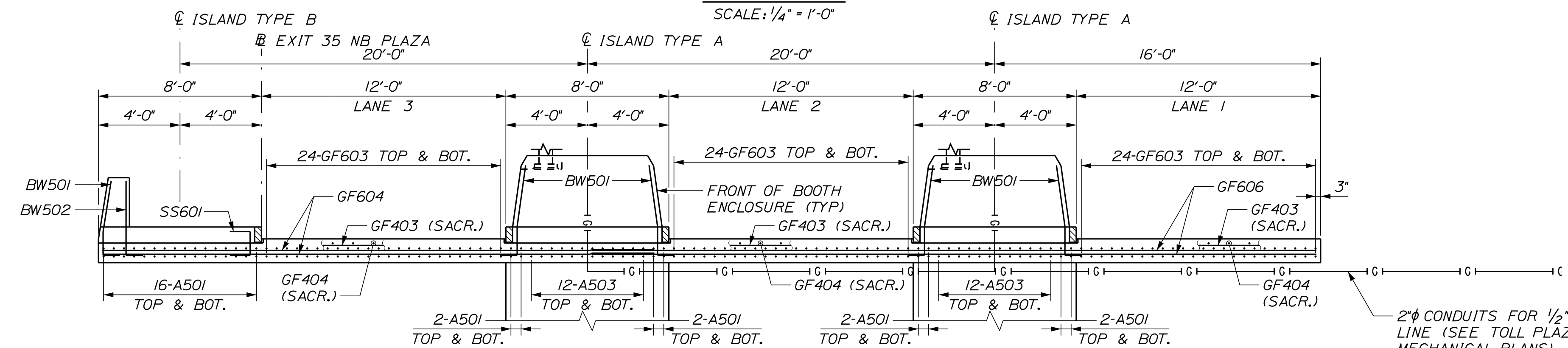
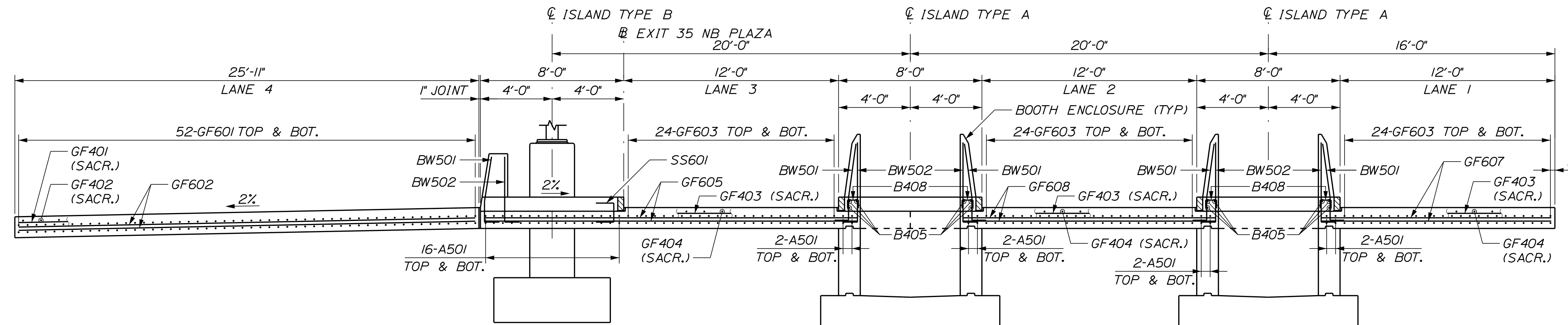
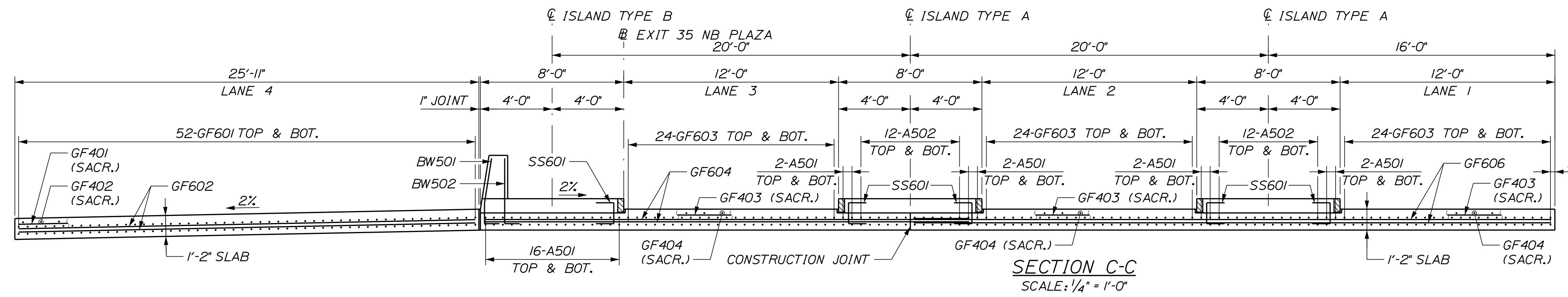
**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND TOLL PLAZA
FOUNDATION AND SLAB SECTIONS

SHEET NUMBER: TP-05
CONTRACT: 2022.07
613 OF 735

Date: 10/17/2022



- NOTES**
- SACRIFICIAL TOP MAT OF SLAB REINFORCEMENT PARTIALLY SHOWN FOR CLARITY.
 - FOR SLAB AND CURB DETAILS AT ISLANDS SEE SHEET TP-19.

Filename: ...00\PLAZA\MSTA\TP-06.dgn

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

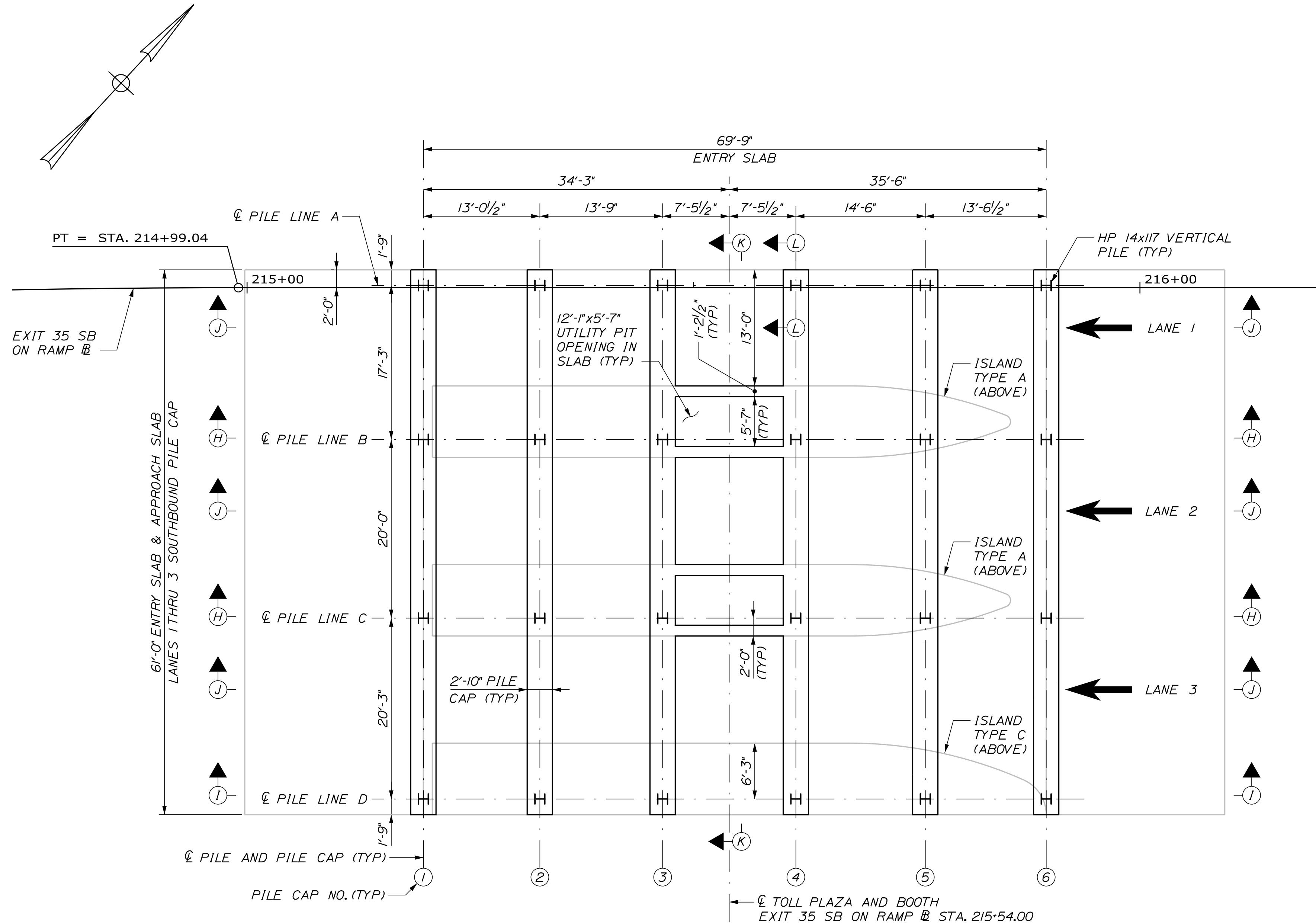
INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 NORTHBOUND TOLL PLAZA
 SLAB SECTIONS

SHEET NUMBER: TP-06
 614 OF 735

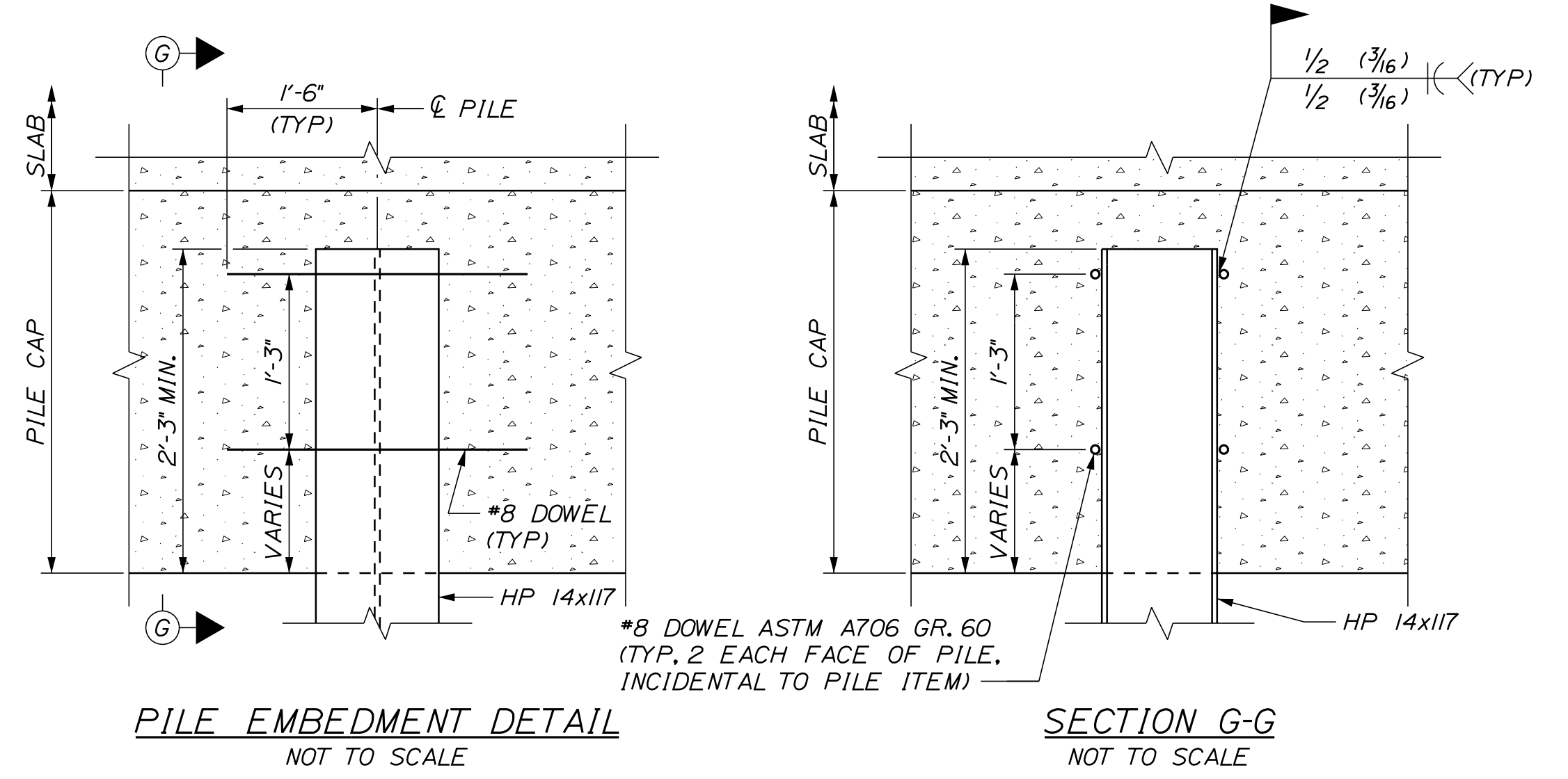
CONTRACT: 2022.07

Date: 10/17/2022

Filename: ...00\PLAZA\MSTA\TP-07.dgn



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



PILE NOTES

- PILES SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 501, FOUNDATION PILES.
- THE MAXIMUM CALCULATED FACTORED AXIAL PILE LOADS ARE:
 SB ENTRY PLAZA SLABS: 510 KIPS (INCLUDING 98 KIPS ALLOWED FOR DOWNDRAW)
 SB EXIT SLABS: 393 KIPS (INCLUDING 54 KIPS ALLOWED FOR DOWNDRAW)
 SB EXIT MAST ARM: 88 KIPS (INCLUDING 54 KIPS ALLOWED FOR DOWNDRAW)
- PILES SHALL BE DRIVEN TO THE FOLLOWING NOMINAL DRIVING RESISTANCES:
 SB ENTRY PLAZA SLABS: 785 KIPS
 SB EXIT SLABS AND MAST ARM: 605 KIPS
- ESTIMATE OF PILES REQUIRED:
 SB ENTRY PLAZA SLABS: 24 ~ HP 14x117 @ 60 FEET (MIN. TIP EL. 61 FT)
 SB EXIT SLABS: 8 ~ HP 14x117 @ 45 FEET (MIN. TIP EL. 54 FT)
 SB EXIT MAST ARM: 4 ~ HP 14x117 @ 45 FEET (MIN. TIP EL. 54 FT)
- ALL PILES SHALL BE EQUIPPED WITH A PILE TIP IN ACCORDANCE WITH STANDARD SPECIFICATIONS SUBSECTION 501.048, PREFABRICATED PILE TIPS.
- THE CONTRACTOR SHALL PERFORM AND SUBMIT A WAVE EQUATION ANALYSIS FOR REVIEW AND ACCEPTANCE BY THE RESIDENT. THE MAXIMUM ALLOWABLE DRIVING STRESS IS 0.90 TIMES F_y. THE SUBMITTAL ANALYSES SHALL INCLUDE THE PROPOSED STOPPING CRITERIA BASED ON THE WAVE EQUATION ANALYSIS AND THE PROPOSED DRIVING SYSTEM. THE STOPPING CRITERIA SHALL INCLUDE THE BLOWS PER INCH AND THE NUMBER OF 1-IN INTERVALS AT WHICH PILE INSTALLATION MAY BE TERMINATED. THE COST OF PERFORMING THE WAVE EQUATION ANALYSIS SHALL BE CONSIDERED INCIDENTAL TO ITEM 501.92, PILE DRIVING EQUIPMENT MOBILIZATION.
- THE CONTRACTOR SHALL PERFORM 3 DYNAMIC LOAD TESTS, ONE AT THE SB ENTRY TOLL PLAZA, ONE AT THE SB EXIT TOLL POINT SLAB, AND ONE AT THE SB EXIT MAST ARM FOUNDATION TO CONFIRM THE NOMINAL DRIVING RESISTANCES INDICATED IN NOTE 3 HAVE BEEN MET. THE DYNAMIC LOAD TESTS SHALL BE PERFORMED ON THE FIRST PRODUCTION PILE DRIVEN AT EACH FOUNDATION. MINIMUM 72 HOUR RESTRIKES SHALL BE CONDUCTED ON ALL TEST PILES IN ORDER TO ENSURE THE REQUIRED NOMINAL RESISTANCE HAS BEEN ACHIEVED AND VERIFY PILE RELAXATION HAS NOT OCCURRED. THE CONTRACTOR MAY DRIVE OTHER PRODUCTION PILES TO THE PRELIMINARY DRIVING CRITERIA, HOWEVER PILE CUT-OFF WILL NOT BE PERMITTED UNTIL COMPLETION OF RESTRIKE TESTING AND ESTABLISHMENT OF FINAL DRIVING CRITERIA.
- SPLICING OF PILES SHALL NOT BE PERMITTED WITHIN 30 FEET OF DESIGN PILE CUT-OFF (TOP OF PILE ELEVATION) WITHOUT THE APPROVAL OF THE ENGINEER. WELDING OF PILE SPLICES AND ASSOCIATED NON-DESTRUCTIVE TESTING SHALL BE PERFORMED BY PREQUALIFIED WELDERS IN ACCORDANCE WITH THE REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 504, STRUCTURAL STEEL, AND AMERICAN WELDING SOCIETY (AWS) D1.5 CODE.
- PILES SHALL BE DRIVEN TO AT LEAST THE MINIMUM PILE TIP ELEVATION SPECIFIED IN NOTE 4. CEASE PILE INSTALLATION AND NOTIFY THE RESIDENT IF MINIMUM PILE TIP ELEVATION CANNOT BE REACHED.

GENERAL NOTES

- FOR SECTIONS H-H, I-I AND J-J SEE SHEET TP-II.
- FOR SECTIONS K-K AND L-L SEE SHEET TP-12.

Scale:			
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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

**INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND ENTRY TOLL PLAZA
FOUNDATION LAYOUT PLAN**

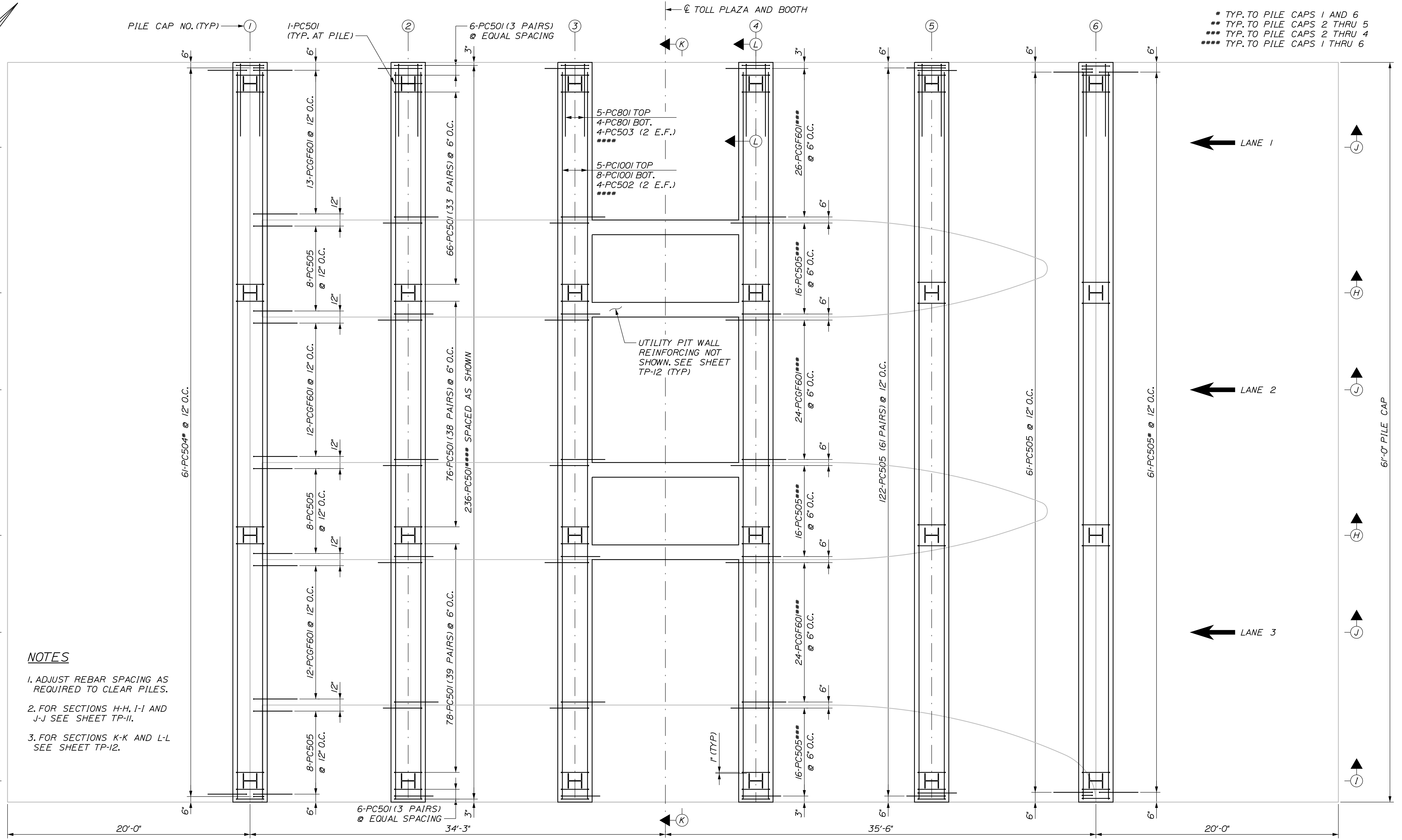
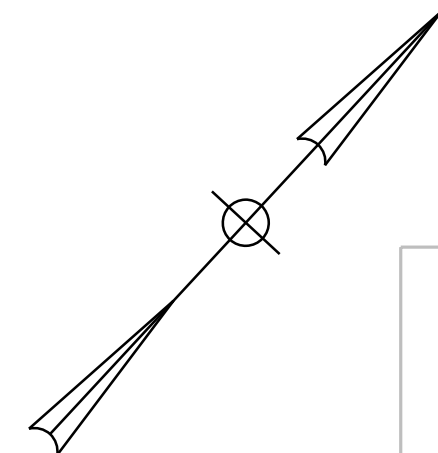
SHEET NUMBER: TP-07

CONTRACT: 2022.07

615 OF 735

Date: 10/17/2022

Filename: ...00\PLAZA\MSTA\TP-08.dgn



- NOTES**
- ADJUST REBAR SPACING AS REQUIRED TO CLEAR PILES.
 - FOR SECTIONS H-H, I-I AND J-J SEE SHEET TP-11.
 - FOR SECTIONS K-K AND L-L SEE SHEET TP-12.


- * TYP. TO PILE CAPS 1 AND 6
- ** TYP. TO PILE CAPS 2 THRU 5
- *** TYP. TO PILE CAPS 2 THRU 4
- **** TYP. TO PILE CAPS 1 THRU 6

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

Scale: AS NOTED

No.	Revision	By	Date

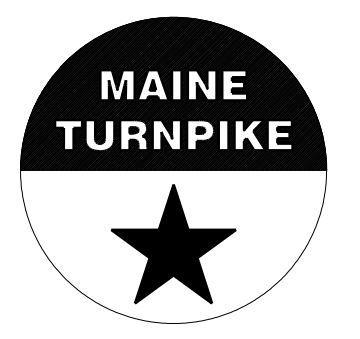
Designed by:



CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

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**THE GOLD STAR
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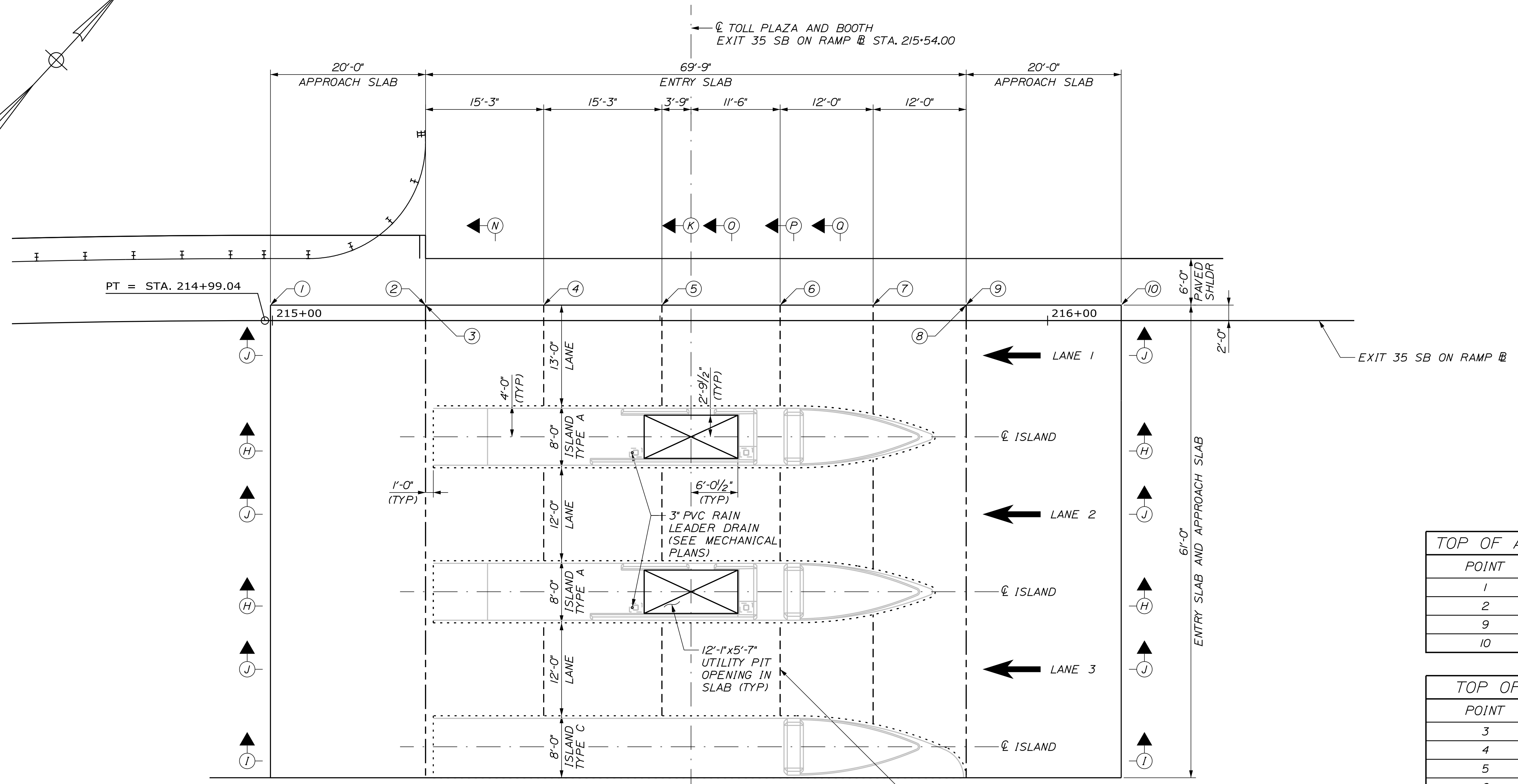
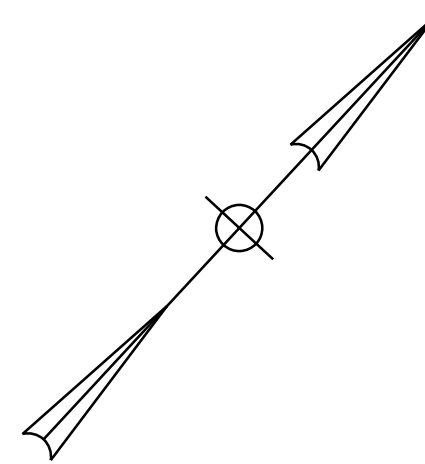
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND ENTRY TOLL PLAZA
FOUNDATION REINFORCEMENT PLAN

SHEET NUMBER: TP-08
CONTRACT: 2022.07
616 OF 735

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Filename: ...00\PLAZA\MSTA\TP-09.dgn



JOINT TYPE LEGEND

- - - - SOFT CUT JOINT (SEE SECTION V-V)
- CONSTRUCTION JOINT AT ISLAND (SEE SECTION W-W)
- - - - EDGE OF SLAB/CONTRACTION JOINT (SEE SECTION Z-Z)

TOP OF APPROACH SLAB ELEVATIONS

POINT	STATION	ELEVATION
1	214+99.75	118.25
2	215+19.75	118.45
9	215+89.50	118.50
10	216+09.50	118.40

TOP OF ENTRY SLAB ELEVATIONS

POINT	STATION	ELEVATION
3	215+19.75	118.76
4	215+35.00	118.85
5	215+50.25	118.89
6	215+65.50	118.90
7	215+77.50	118.87
8	215+89.50	118.81

- NOTES**
- FOR SECTIONS H-H, I-I, AND J-J SEE SHEET TP-11.
 - FOR SECTION K-K SEE SHEET TP-12.
 - FOR SECTIONS N-N, O-O, P-P, AND Q-Q SEE SHEET TP-13.
 - FOR SECTIONS V-V, W-W, AND Z-Z SEE SHEET TP-19.
 - FOR SLAB REINFORCEMENT PLAN SEE SHEET TP-10.
 - FOR REINFORCEMENT SCHEDULE FOR SLABS SEE SHEET TP-20.

Scale: AS NOTED

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THE GOLD STAR MEMORIAL HIGHWAY

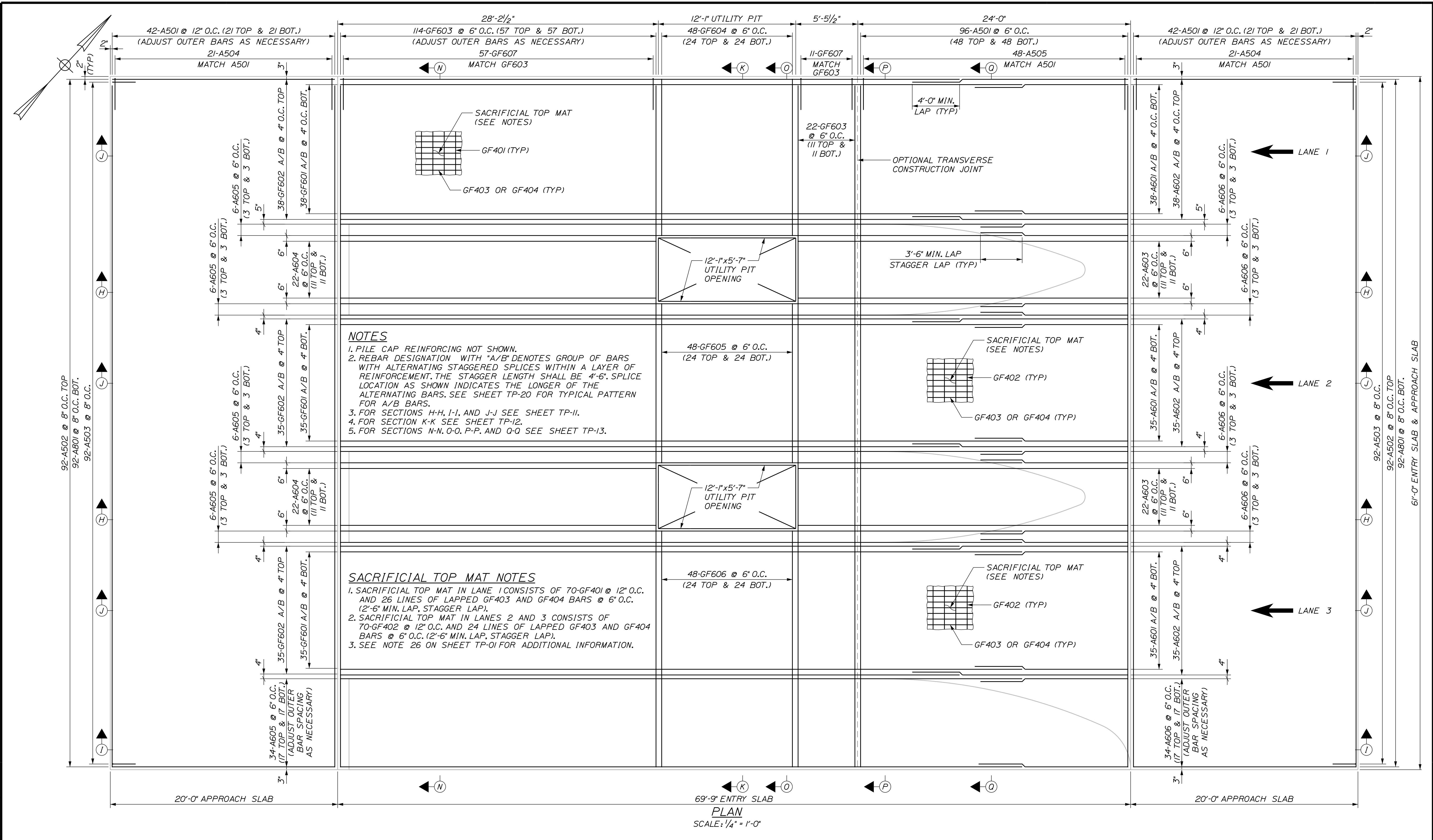
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND ENTRY TOLL PLAZA
SLAB LAYOUT PLAN

SHEET NUMBER: TP-09
CONTRACT: 2022.07
617 OF 735

Date: 10/17/2022

Filename: ...00\PLAZA\MSTA\TP-10.dgn



NOTES

1. PILE CAP REINFORCING NOT SHOWN.
2. REBAR DESIGNATION WITH "A/B" DENOTES GROUP OF BARS WITH ALTERNATING STAGGERED SPLICES WITHIN A LAYER OF REINFORCEMENT. THE STAGGER LENGTH SHALL BE 4'-6". SPLICE LOCATION AS SHOWN INDICATES THE LONGER OF THE ALTERNATING BARS. SEE SHEET TP-20 FOR TYPICAL PATTERN FOR A/B BARS.
3. FOR SECTIONS H-H, I-I, AND J-J SEE SHEET TP-II.
4. FOR SECTION K-K SEE SHEET TP-I2.
5. FOR SECTIONS N-N, O-O, P-P, AND Q-Q SEE SHEET TP-I3.

SACRIFICIAL TOP MAT NOTES

1. SACRIFICIAL TOP MAT IN LANE 1 CONSISTS OF 70-GF401 @ 12" O.C. AND 26 LINES OF LAPPED GF403 AND GF404 BARS @ 6" O.C. (2'-6" MIN. LAP, STAGGER LAP).
2. SACRIFICIAL TOP MAT IN LANES 2 AND 3 CONSISTS OF 70-GF402 @ 12" O.C. AND 24 LINES OF LAPPED GF403 AND GF404 BARS @ 6" O.C. (2'-6" MIN. LAP, STAGGER LAP).
3. SEE NOTE 26 ON SHEET TP-01 FOR ADDITIONAL INFORMATION.

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

Scale: AS NOTED

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THE GOLD STAR MEMORIAL HIGHWAY

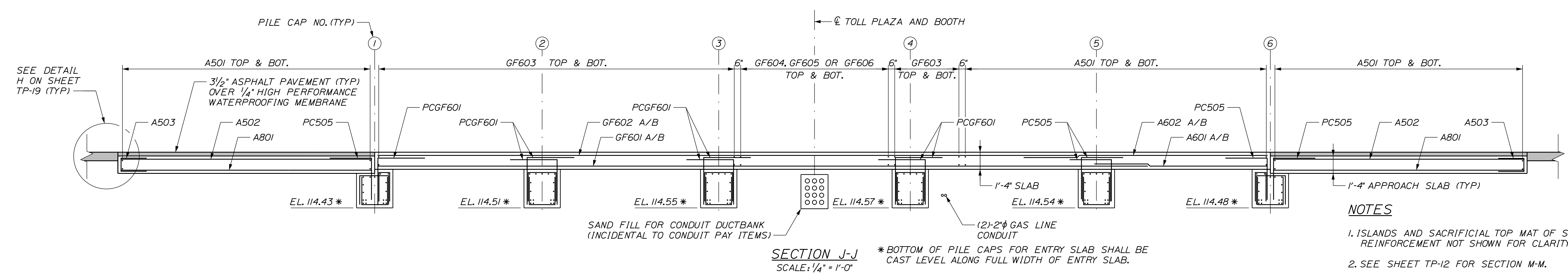
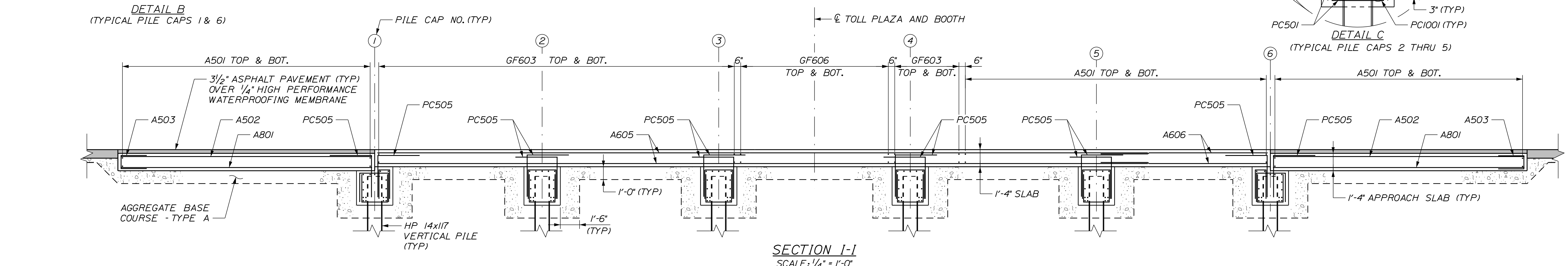
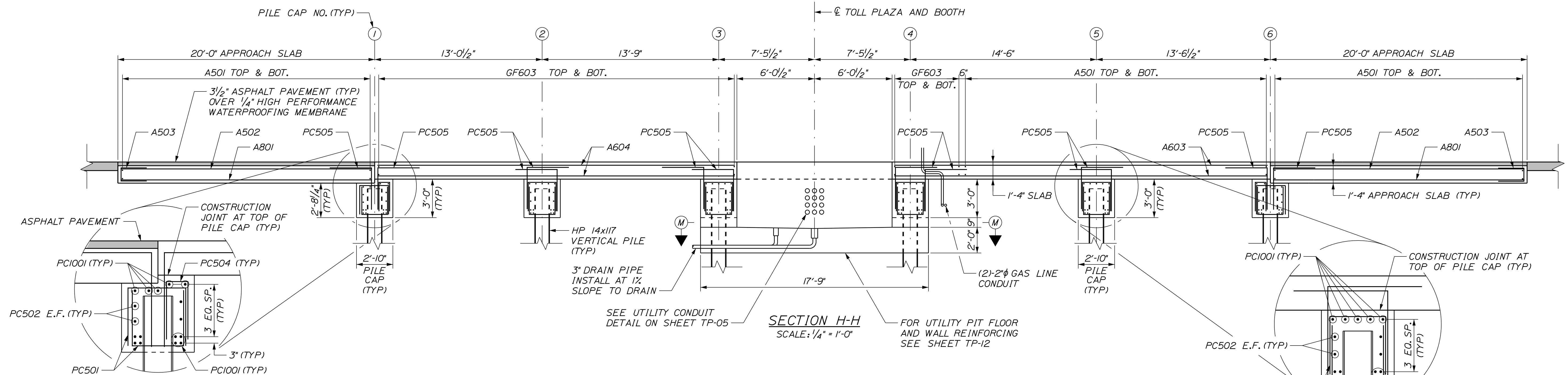
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND ENTRY TOLL PLAZA
SLAB REINFORCEMENT PLAN

SHEET NUMBER: TP-10
CONTRACT: 2022.07
618 OF 735

Date: 10/17/2022

Filename: ...00\PLAZA\MSTA\TP-11.dgn



- NOTES**
- ISLANDS AND SACRIFICIAL TOP MAT OF SLAB REINFORCEMENT NOT SHOWN FOR CLARITY.
 - SEE SHEET TP-12 FOR SECTION M-M.

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THE GOLD STAR MEMORIAL HIGHWAY

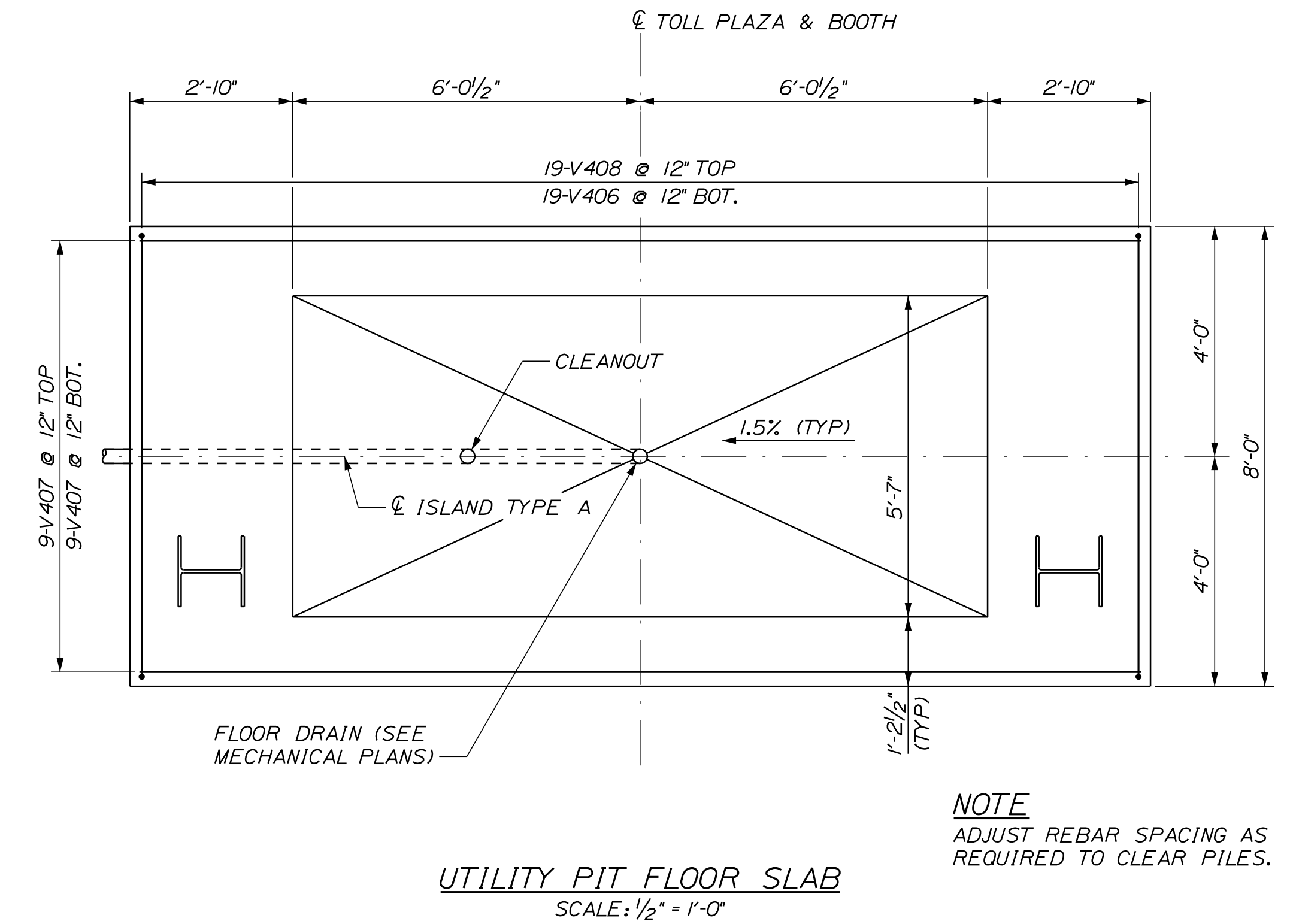
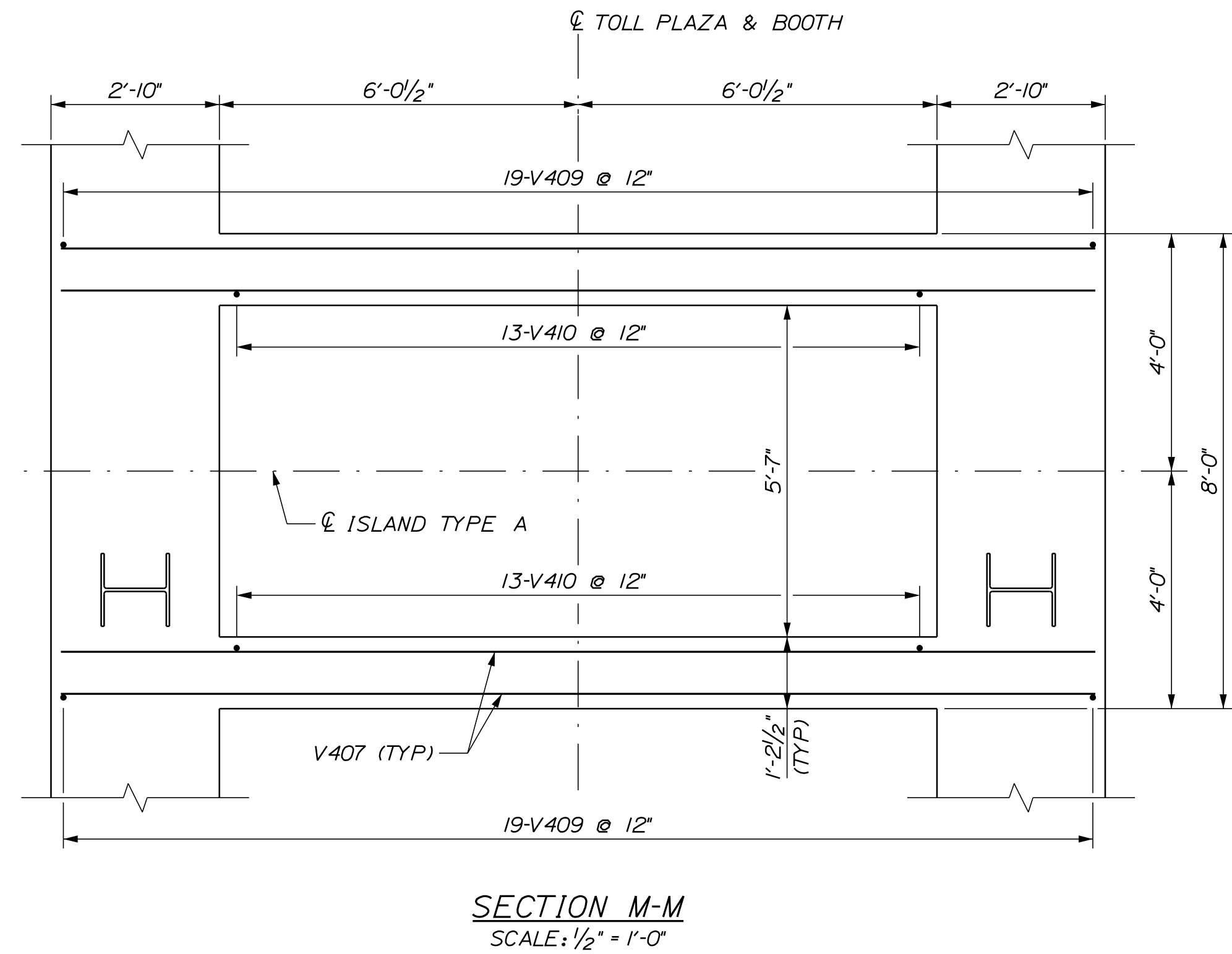
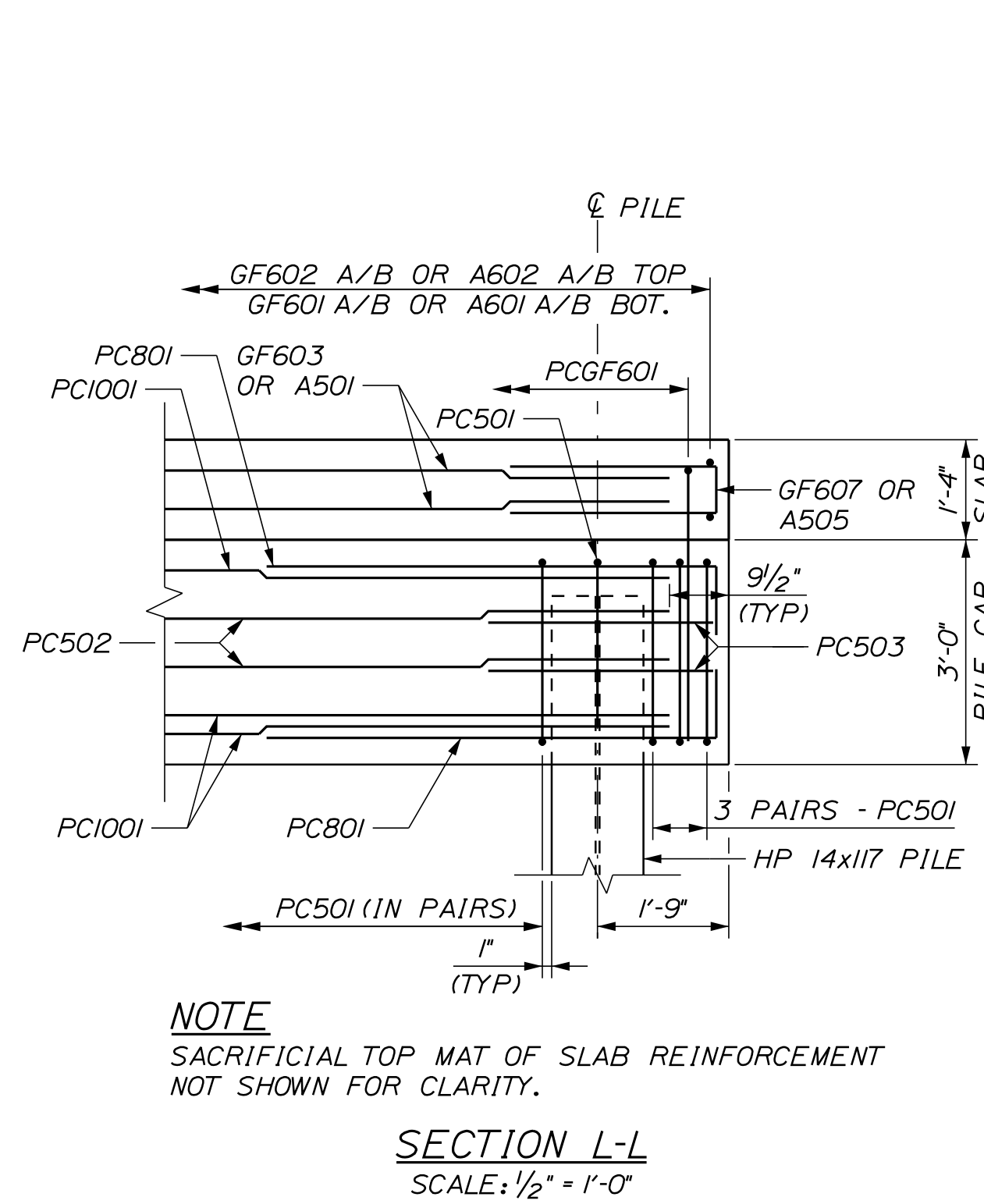
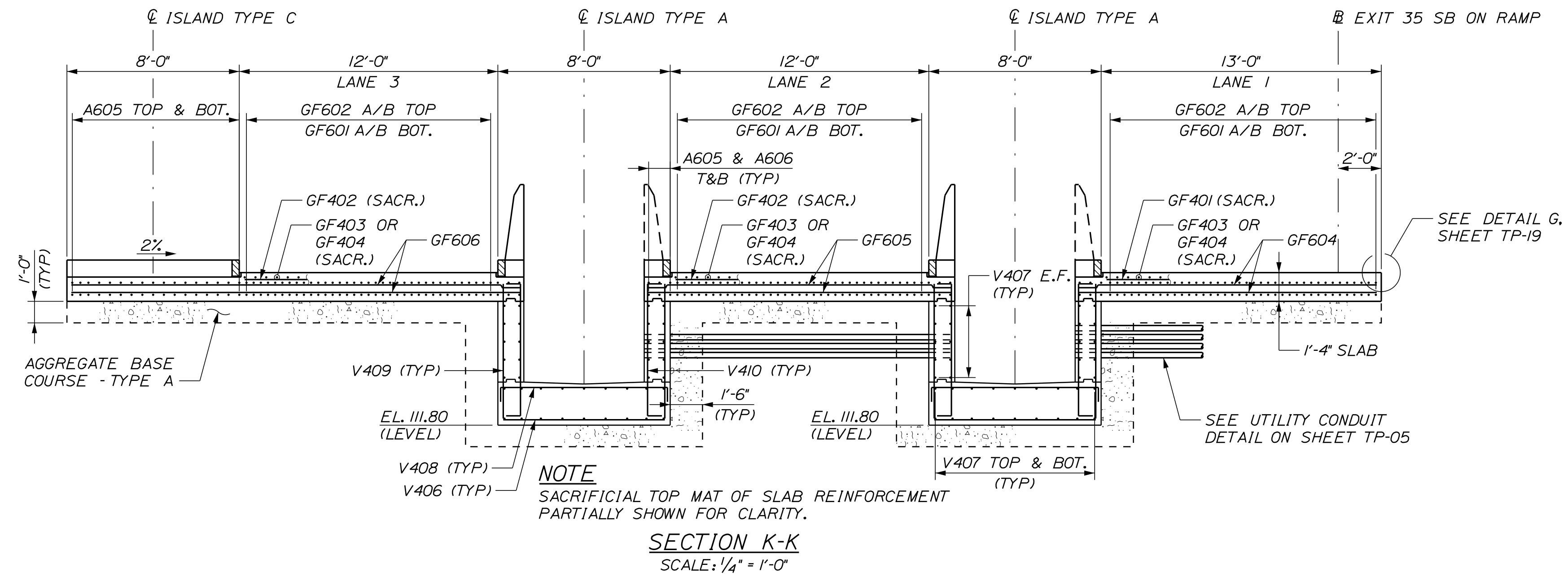
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND ENTRY TOLL PLAZA
FOUNDATION AND SLAB SECTIONS I

SHEET NUMBER: TP-11
619 OF 735

CONTRACT: 2022.07

Date: 10/17/2022



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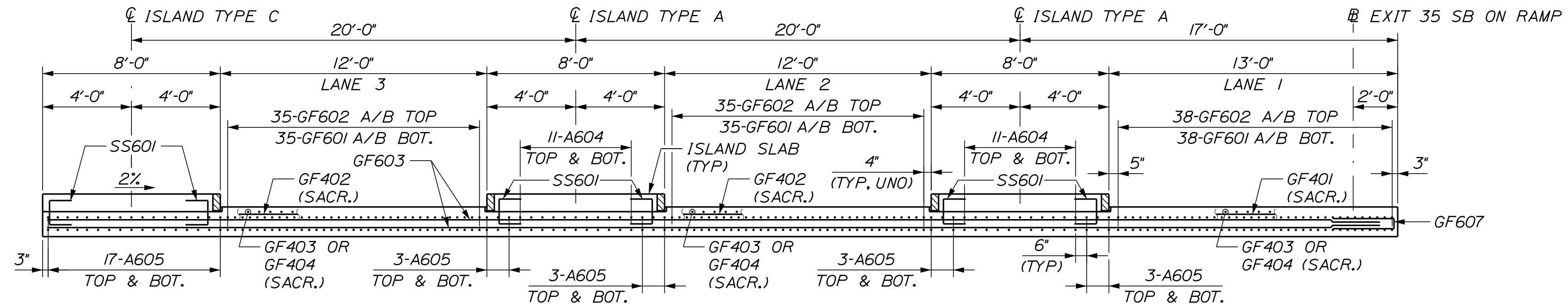
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND ENTRY TOLL PLAZA
FOUNDATION AND SLAB SECTIONS II

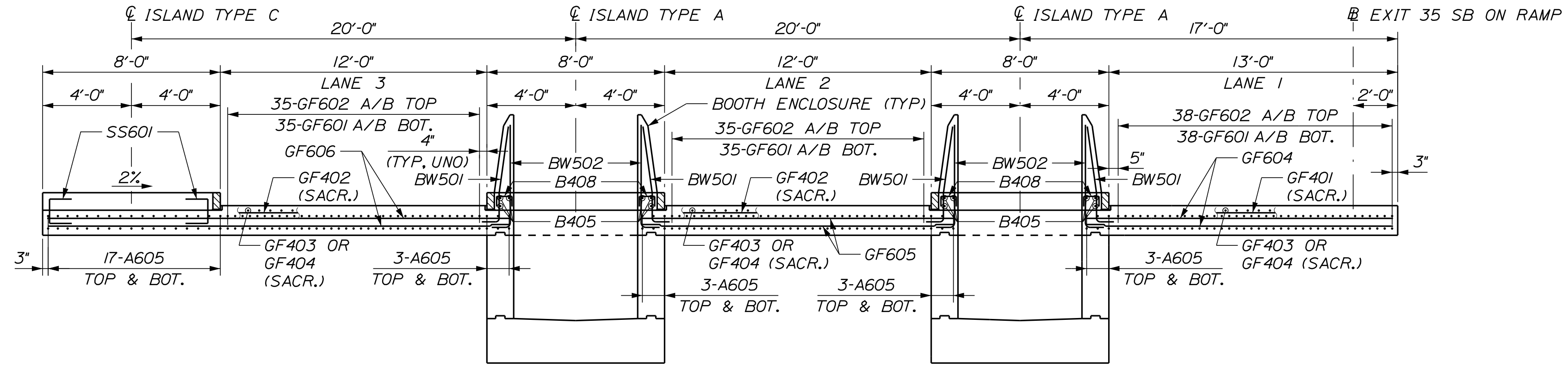
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CONTRACT: 2022.07
620 OF 735

Date: 10/17/2022

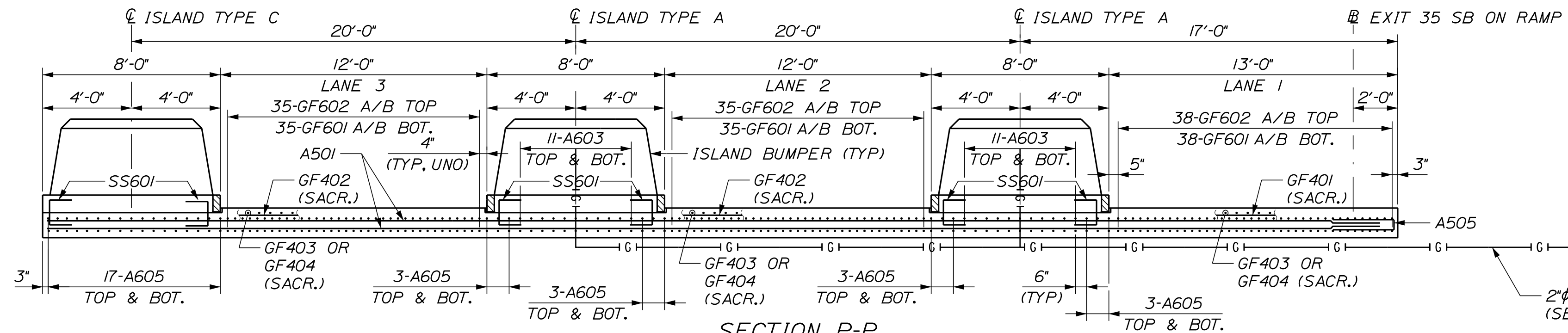
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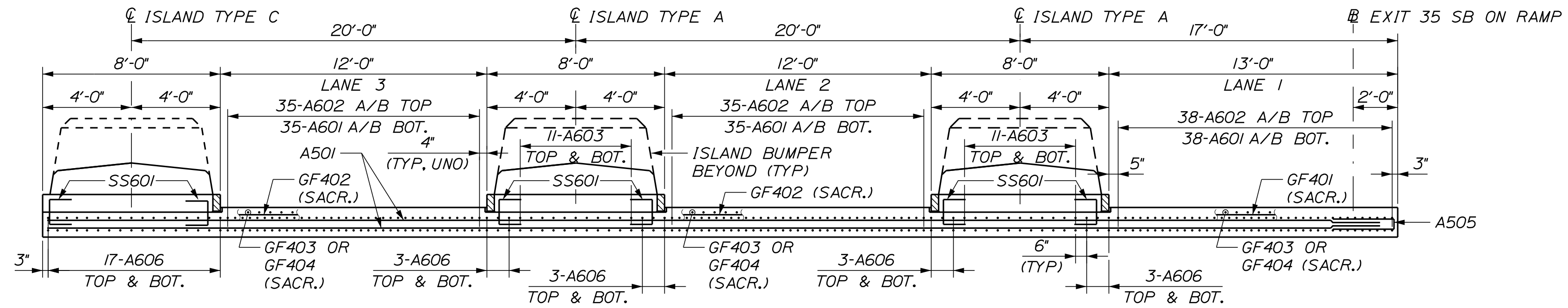
SECTION N-N
SCALE: 1/4" = 1'-0"



SECTION O-O
SCALE: 1/4" = 1'-0"



SECTION P-P
SCALE: 1/4" = 1'-0"



SECTION Q-Q
SCALE: 1/4" = 1'-0"

2"Ø CONDUITS FOR 1/2"Ø GAS LINE
(SEE TOLL PLAZA MECHANICAL PLANS)

- NOTES**
- SACRIFICIAL TOP MAT OF SLAB REINFORCEMENT PARTIALLY SHOWN FOR CLARITY.
 - FOR SLAB AND CURB DETAILS AT ISLANDS SEE SHEET TP-19.

Scale: AS NOTED			
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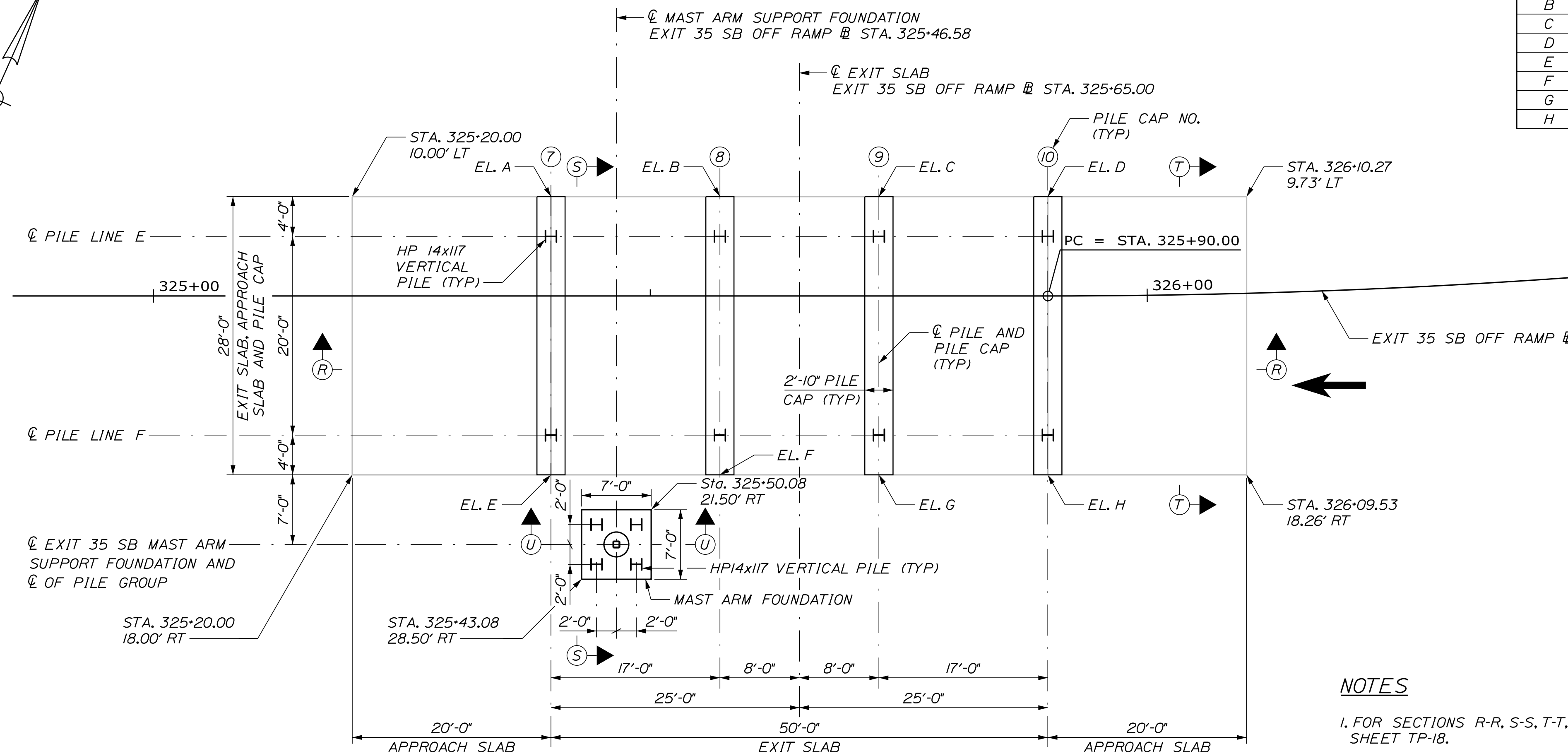
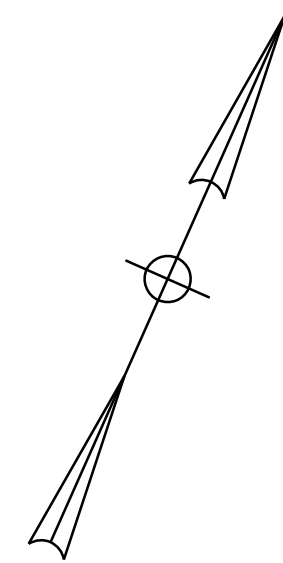
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND ENTRY TOLL PLAZA
SLAB SECTIONS

SHEET NUMBER: TP-13
CONTRACT: 2022.07
6210F 735

Date: 10/17/2022

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BOTTOM OF PILE CAP ELEVATIONS	
A	96.16
B	95.60
C	95.13
D	94.70
E	96.72
F	96.16
G	95.69
H	95.26

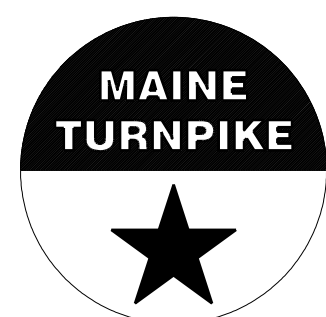
PLAN
SCALE: 1/8" = 1'-0"

- NOTES**
- FOR SECTIONS R-R, S-S, T-T, AND U-U SEE SHEET TP-18.
 - SEE SHEET TP-07 FOR PILE EMBEDMENT DETAIL AND NOTES ON H-PILE INSTALLATION, LOADING, TESTING, AND MATERIALS.

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CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
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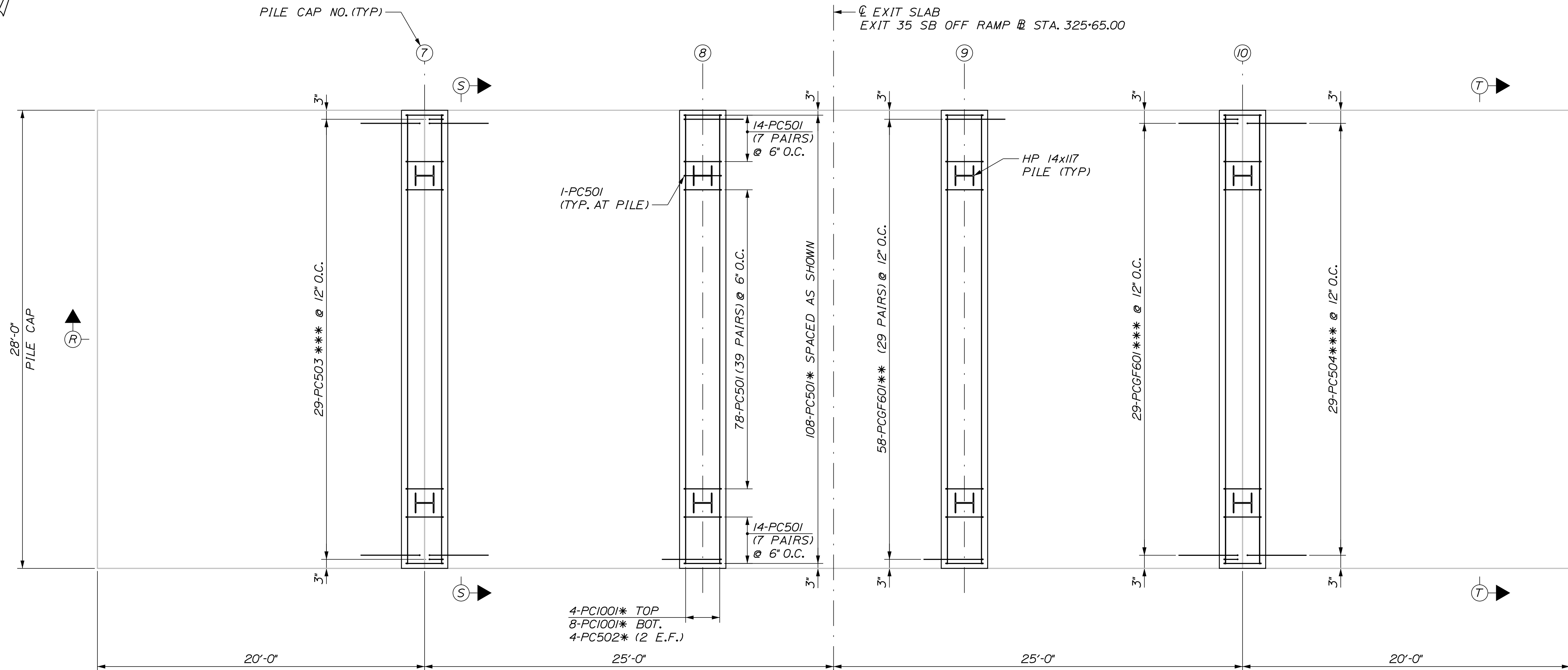
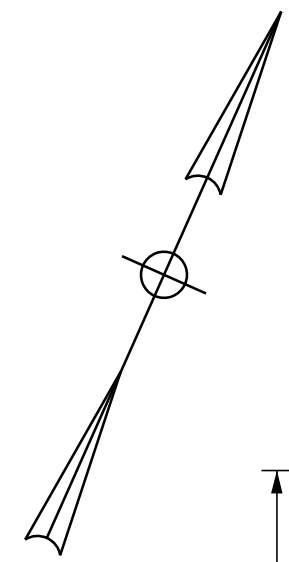
**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND EXIT TOLL POINT
FOUNDATION LAYOUT PLAN

SHEET NUMBER: TP-14
CONTRACT: 2022.07
622 OF 735

Date: 10/17/2022



* TYP. PILE CAPS 7 THRU 10
 ** TYP. TO PILE CAPS 8 AND 9
 *** TYP. TO PILE CAPS 7 AND 10

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

NOTES

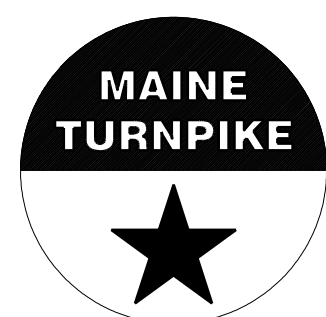
1. ADJUST REBAR SPACING AS REQUIRED TO CLEAR PILES.
2. FOR SECTIONS R-R, S-S, AND T-T SEE SHEET TP-18.

Filename: ...00\PLAZA\MSTA\TP-15.dgn

Scale:			
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No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
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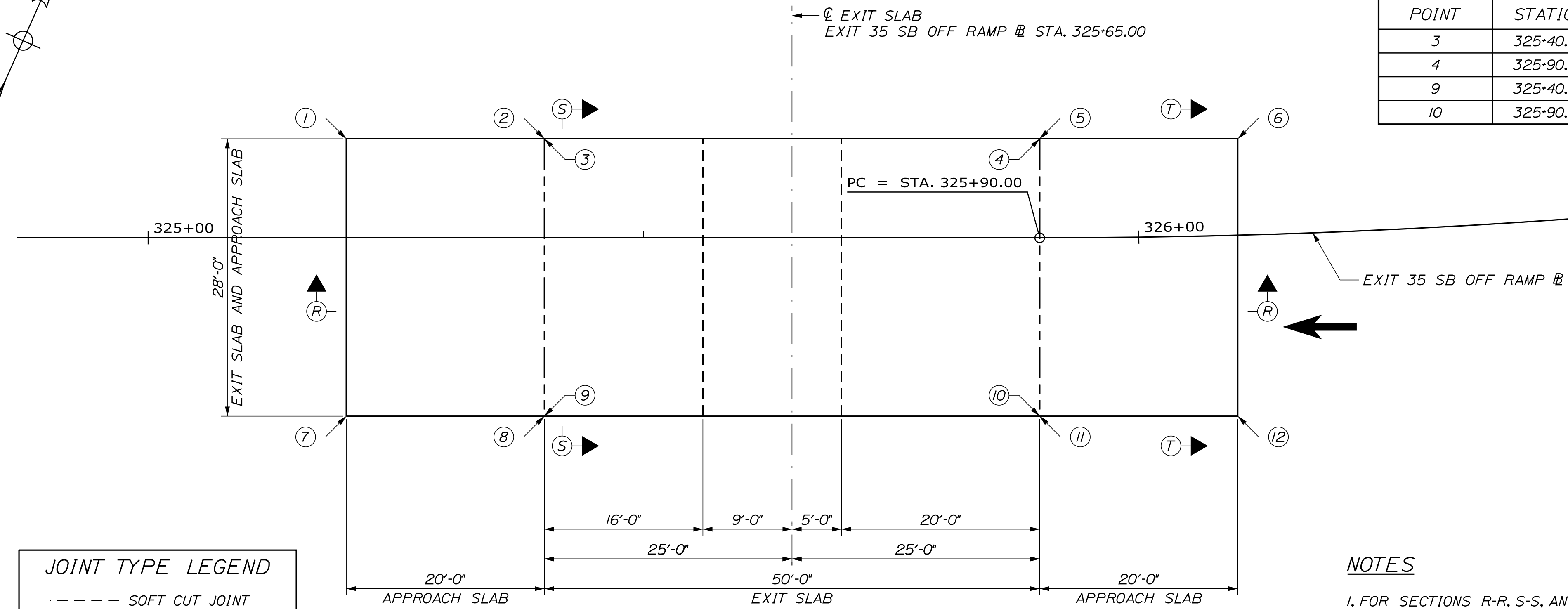
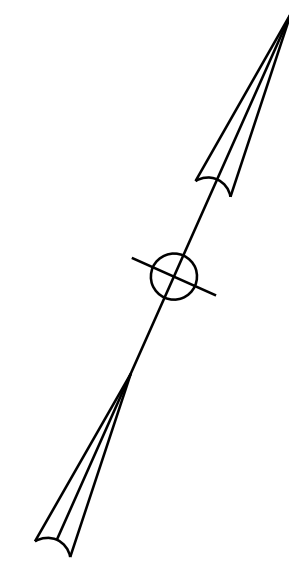
**THE GOLD STAR
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 SOUTHBOUND EXIT TOLL POINT
 FOUNDATION REINFORCEMENT PLAN

SHEET NUMBER: TP-15
 CONTRACT: 2022.07
 623 OF 735

Date: 10/17/2022



JOINT TYPE LEGEND

- - - - SOFT CUT JOINT (SEE SECTION V-V)
- - - - EDGE OF SLAB/CONTRACTION JOINT (SEE SECTION Z-Z)

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

TOP OF APPROACH SLAB ELEVATIONS

POINT	STATION	OFFSET	ELEVATION
1	325+20.00	10.00' LT	100.91
2	325+40.00	10.00' LT	100.18
5	325+90.00	10.00' LT	98.72
6	326+10.27	9.73' LT	98.28
7	325+20.00	18.00' RT	101.47
8	325+40.00	18.00' RT	100.74
11	325+90.00	18.00' RT	99.28
12	326+09.53	18.26' RT	98.86

TOP OF EXIT SLAB ELEVATIONS

POINT	STATION	OFFSET	ELEVATION
3	325+40.00	10.00' LT	100.49
4	325+90.00	10.00' LT	99.03
9	325+40.00	18.00' RT	101.05
10	325+90.00	18.00' RT	99.59

- NOTES**
1. FOR SECTIONS R-R, S-S, AND T-T SEE SHEET TP-18.
 2. FOR SECTIONS V-V AND Z-Z SEE SHEET TP-19.
 3. FOR SLAB REINFORCEMENT PLAN SEE SHEET TP-17.
 4. FOR REINFORCEMENT SCHEDULE FOR SLABS SEE SHEET TP-20.
 5. ELEVATIONS PROVIDED ARE TOP OF SLAB.

Filename: ...00\PLAZA\MSTA\TP-16.dgn

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MAINE TURNPIKE

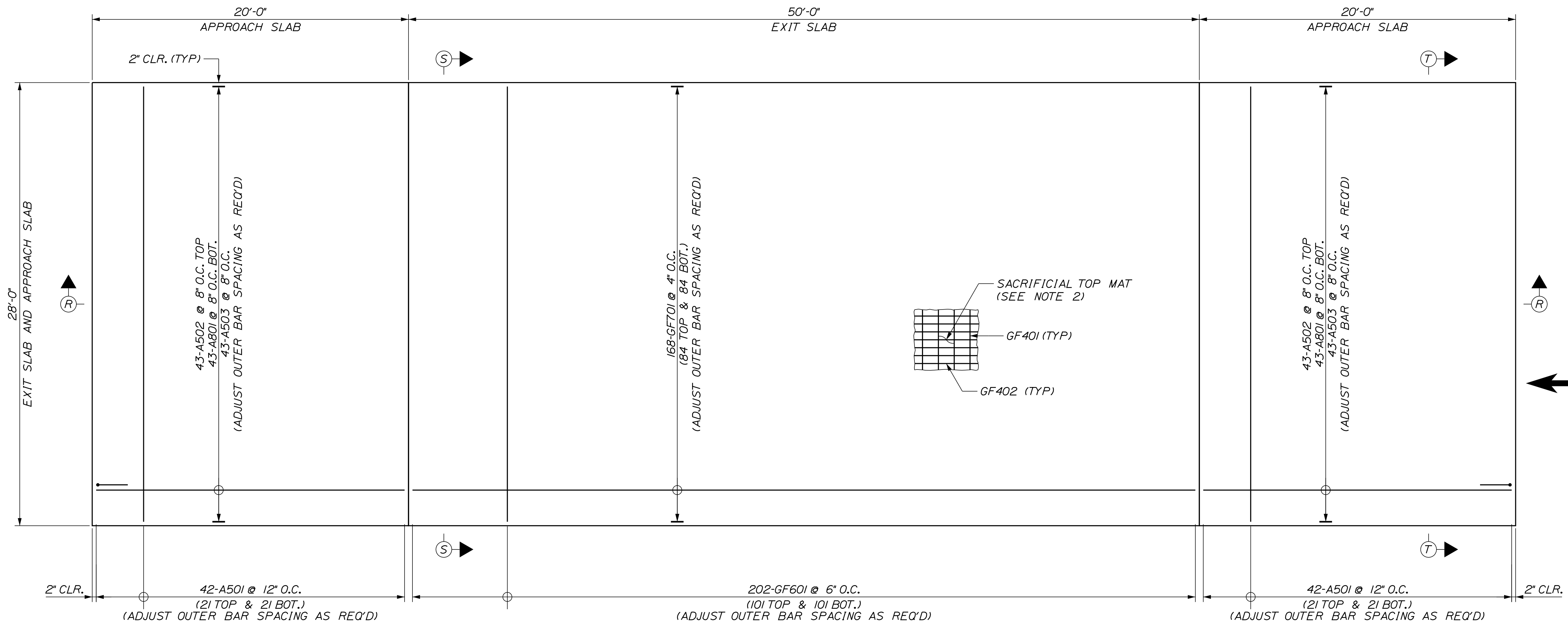
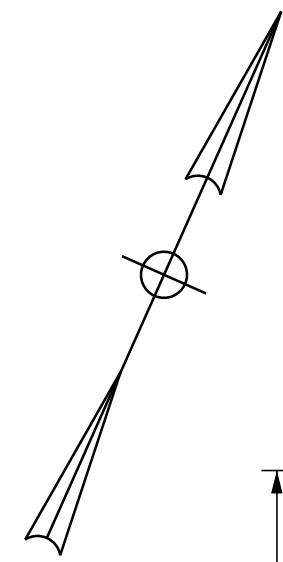
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND EXIT TOLL POINT
SLAB LAYOUT PLAN

SHEET NUMBER: TP-16
CONTRACT: 2022.07
624 OF 735

Date: 10/17/2022



NOTES

1. PILE CAP REINFORCEMENT NOT SHOWN.
2. SACRIFICIAL TOP MAT CONSISTS OF 50-GF401 @ 12" O.C. AND 56-GF402 @ 6" O.C. SEE NOTE 26 ON SHEET TP-01 FOR ADDITIONAL INFORMATION.
3. FOR SECTIONS R-R, S-S, AND T-T SEE SHEET TP-18.

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

Filename: ...00\PLAZA\MSTA\TP-17.dgn

Scale:			
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**THE GOLD STAR
MEMORIAL HIGHWAY**

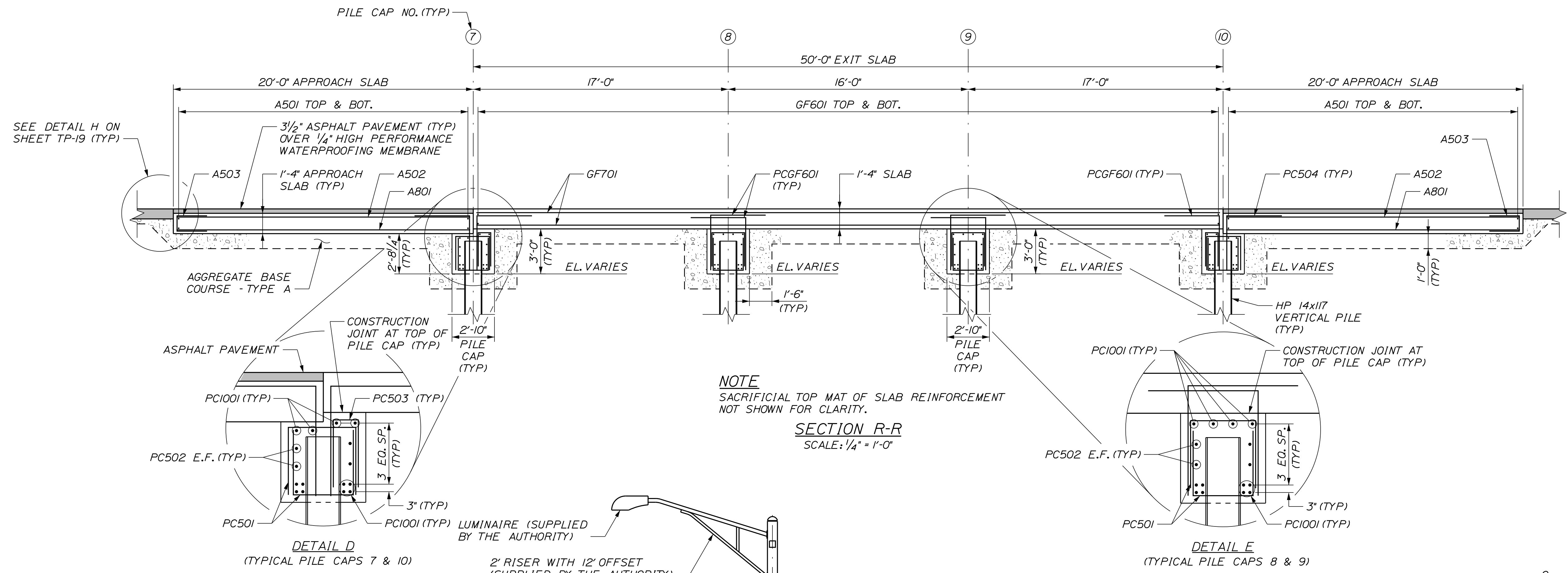
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND EXIT TOLL POINT
SLAB REINFORCEMENT PLAN

SHEET NUMBER: TP-17
CONTRACT: 2022.07
625 OF 735

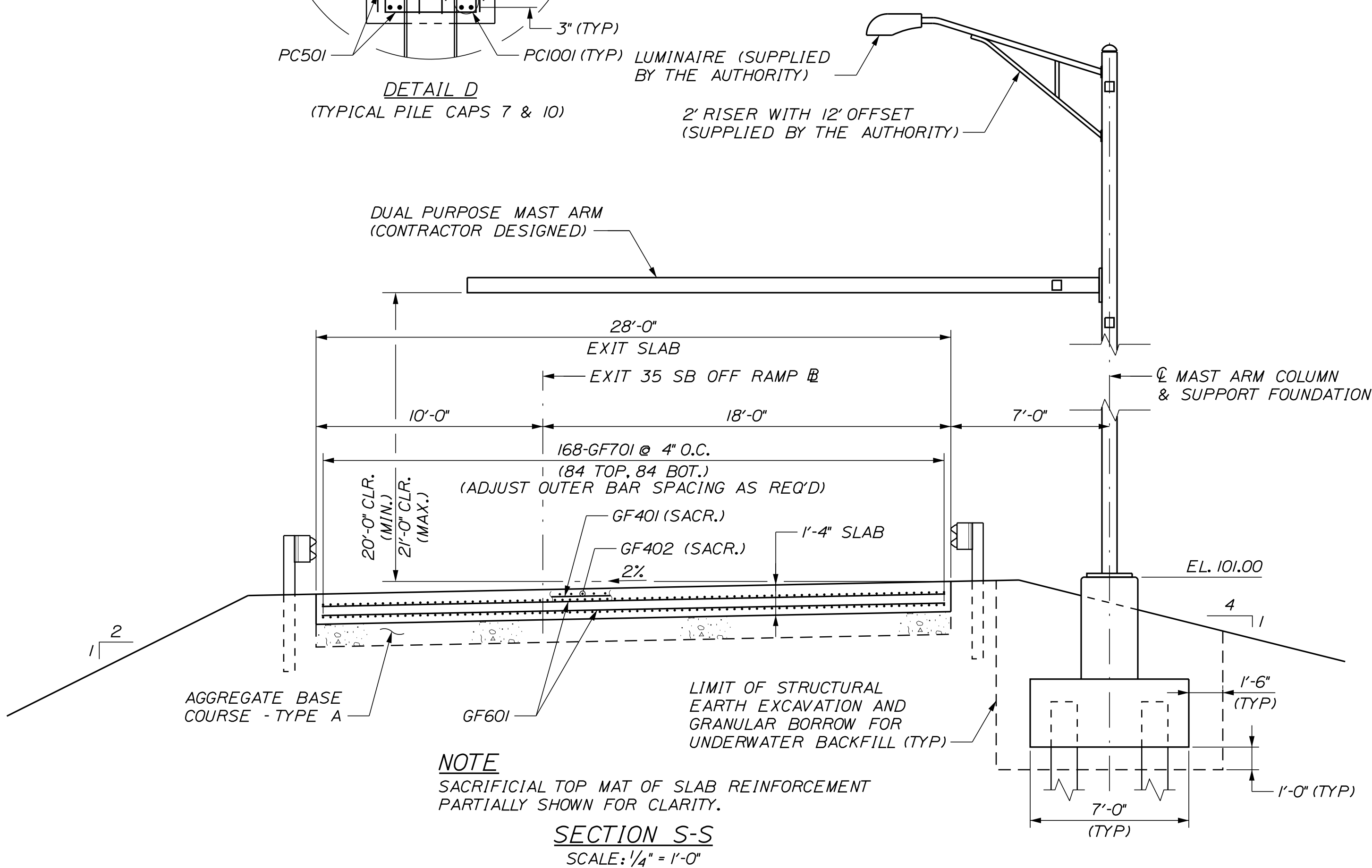
Date: 10/17/2022

Filename: ...00\PLAZA\MSTA_TP-18.dgn



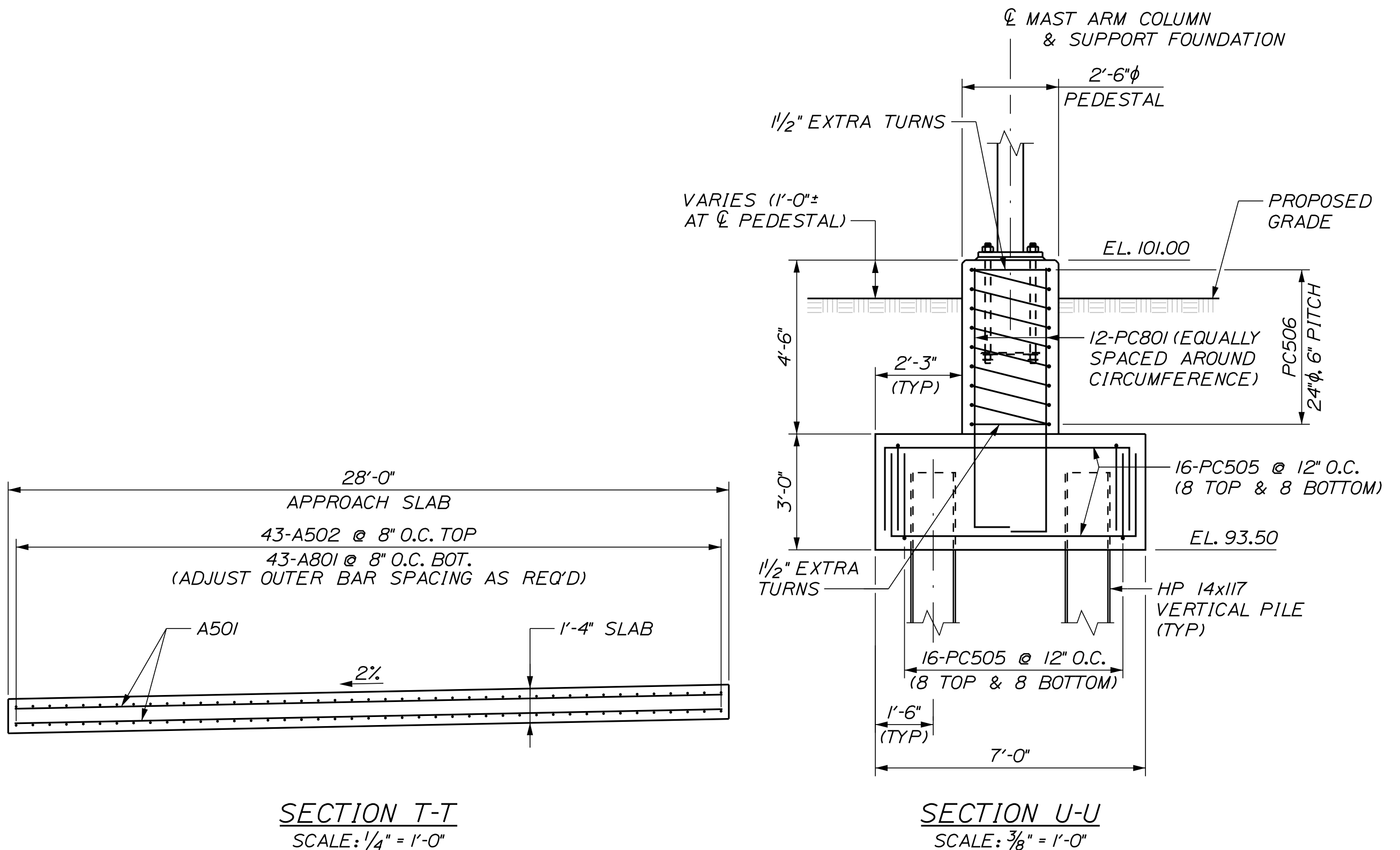
NOTE
SACRIFICIAL TOP MAT OF SLAB REINFORCEMENT NOT SHOWN FOR CLARITY.

SECTION R-R
SCALE: 1/4" = 1'-0"



NOTE
SACRIFICIAL TOP MAT OF SLAB REINFORCEMENT PARTIALLY SHOWN FOR CLARITY.

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



SECTION T-T
SCALE: 1/4" = 1'-0"

SECTION U-U
SCALE: 3/8" = 1'-0"

Scale: AS NOTED

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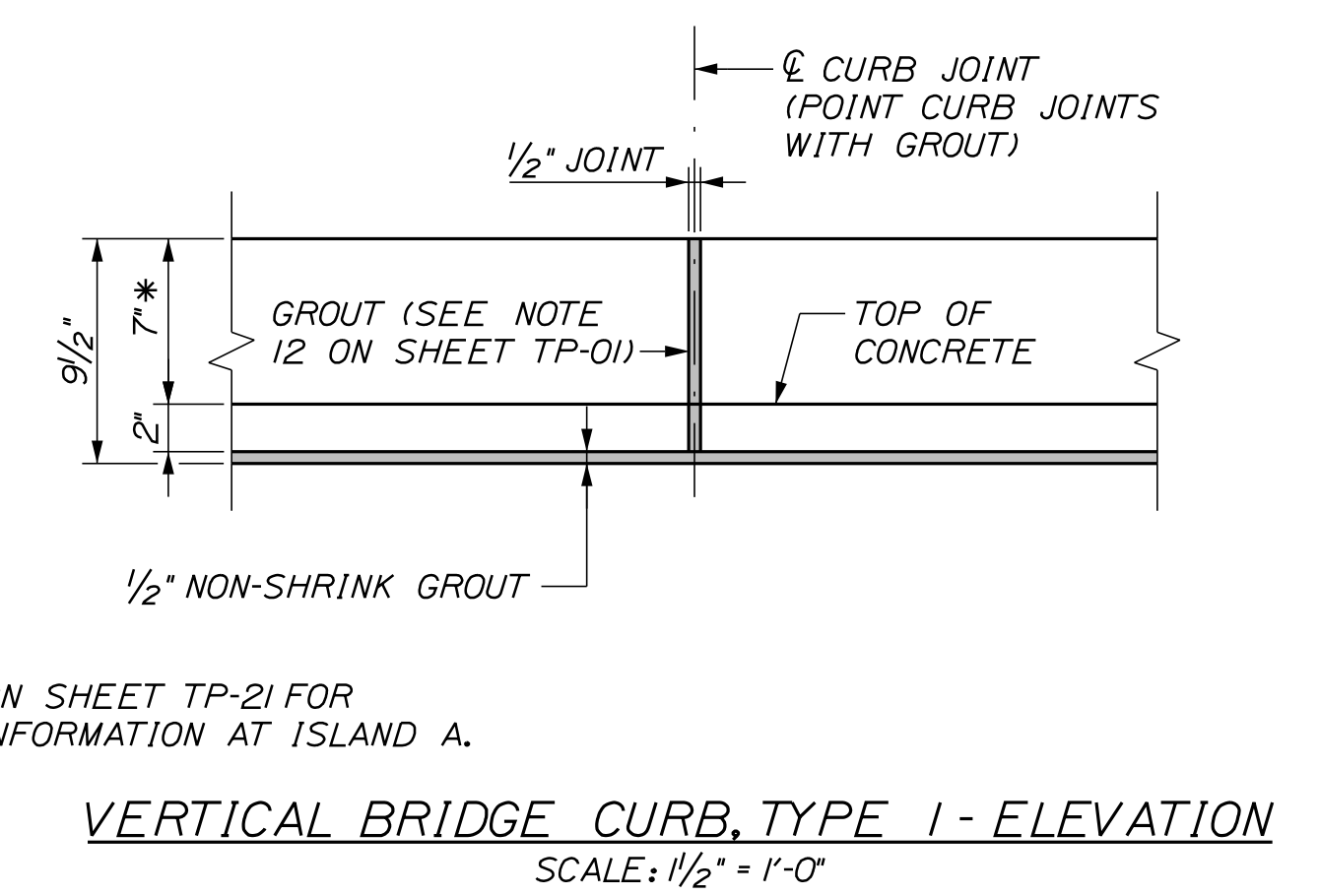
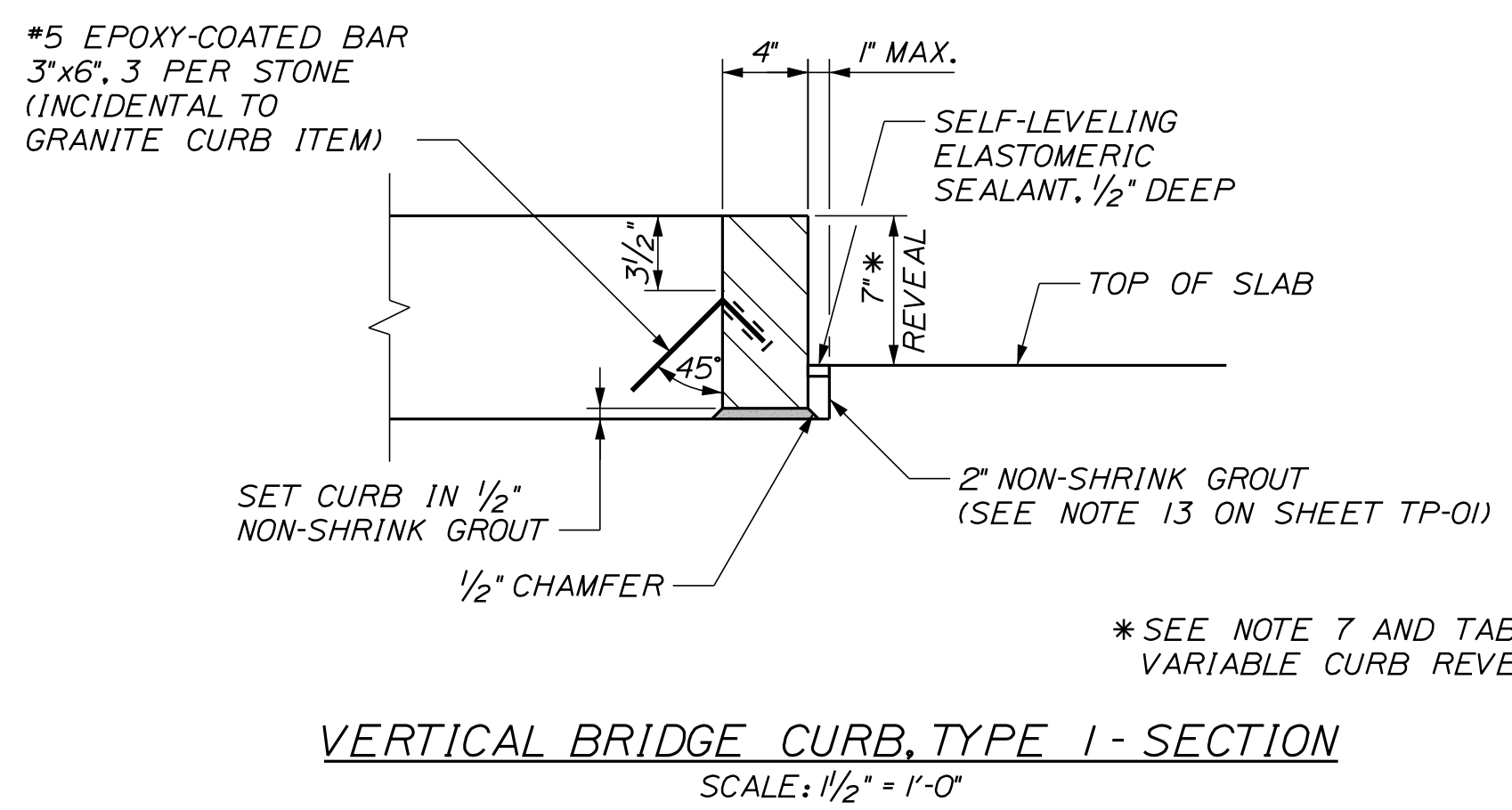
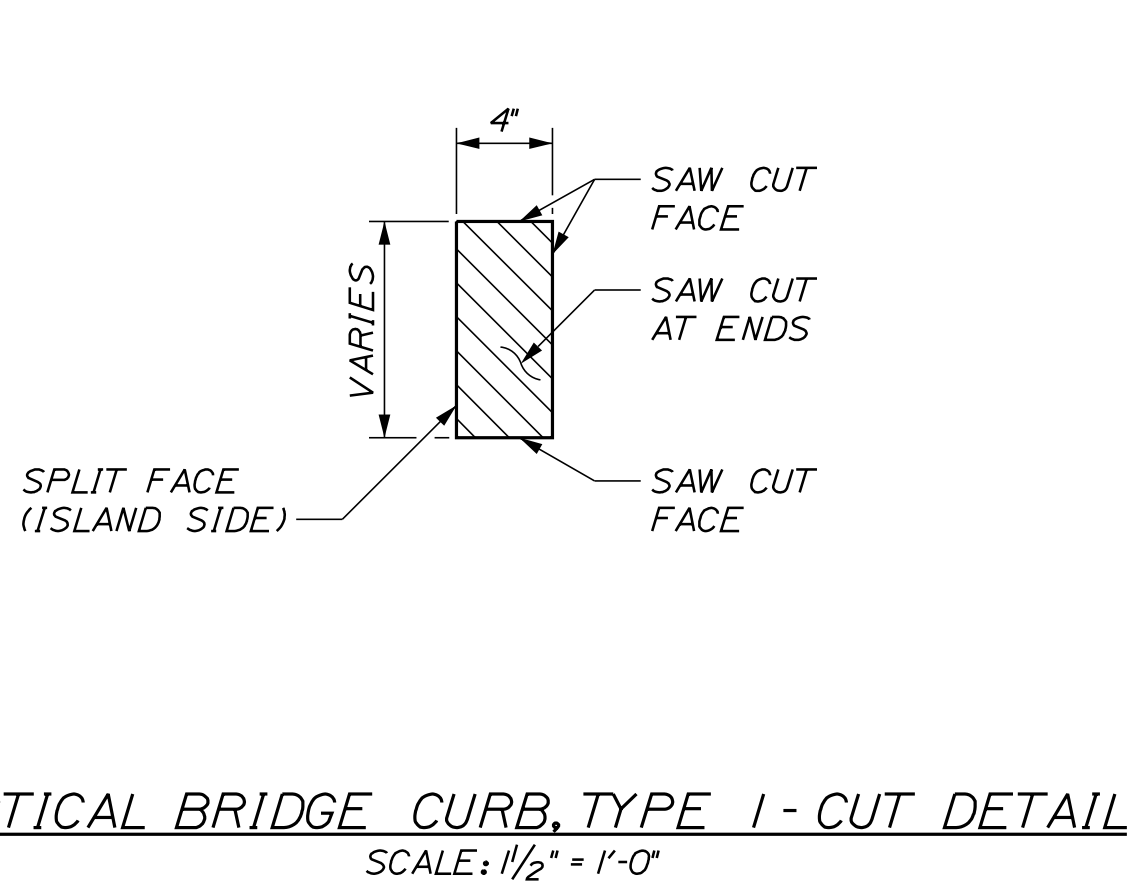
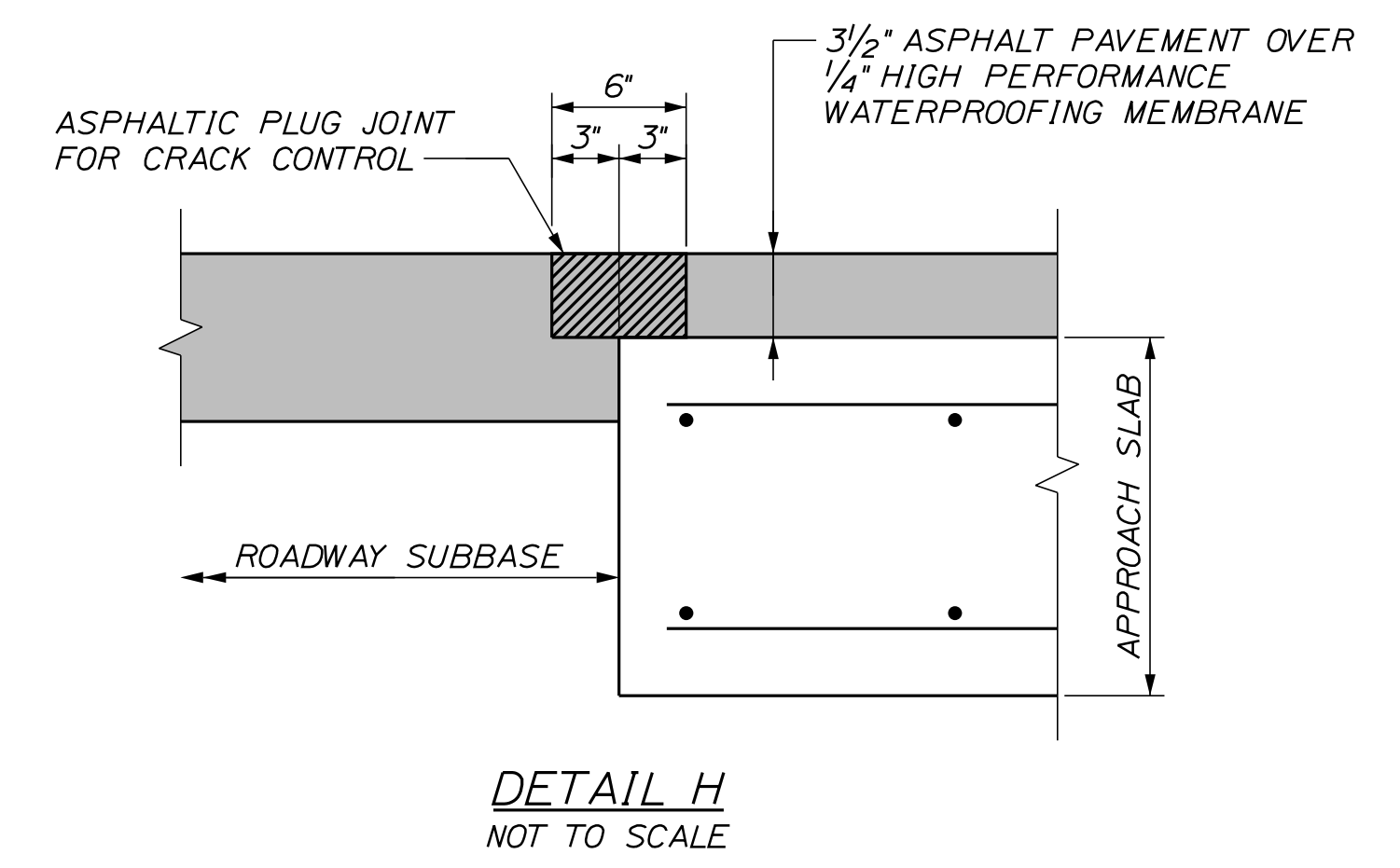
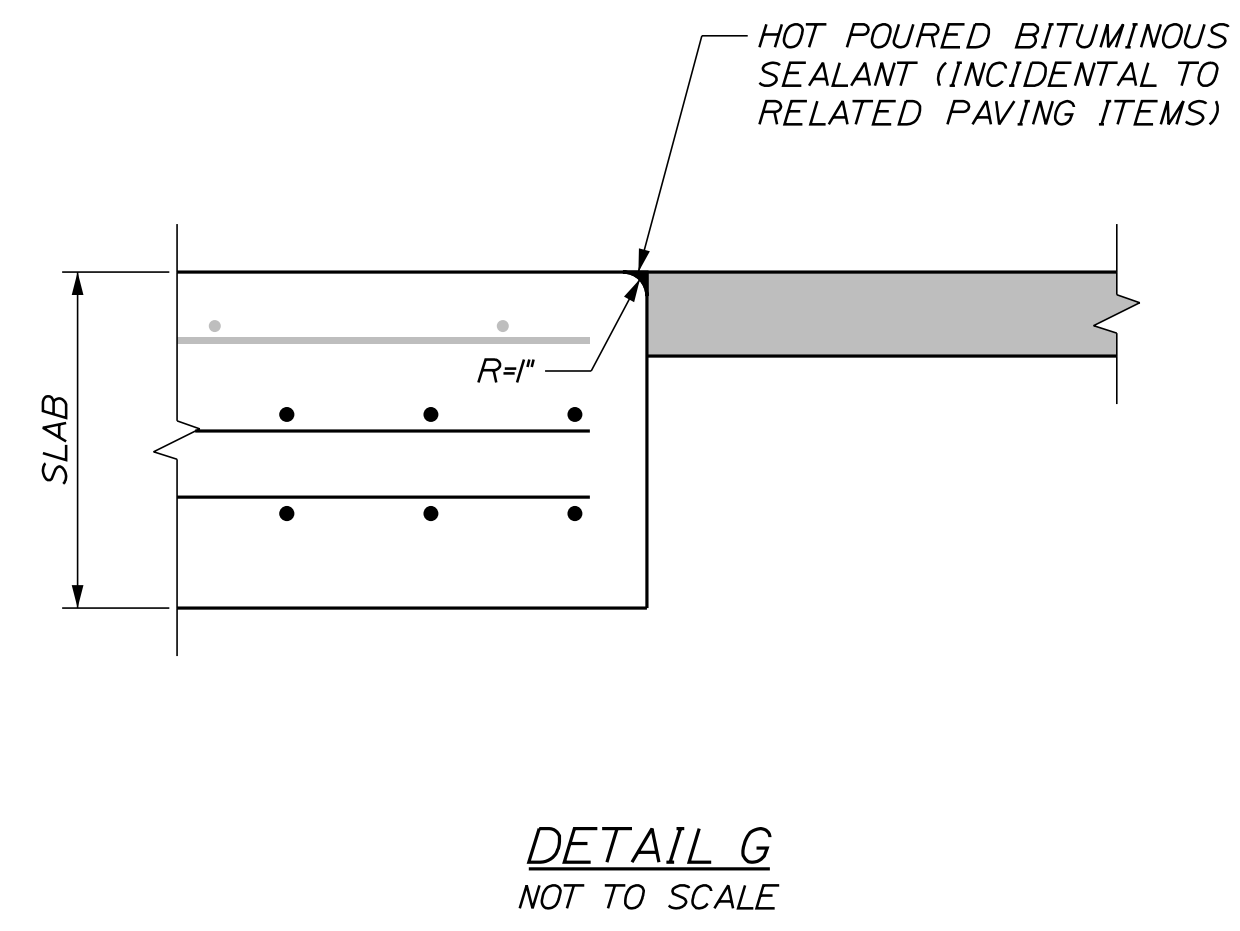
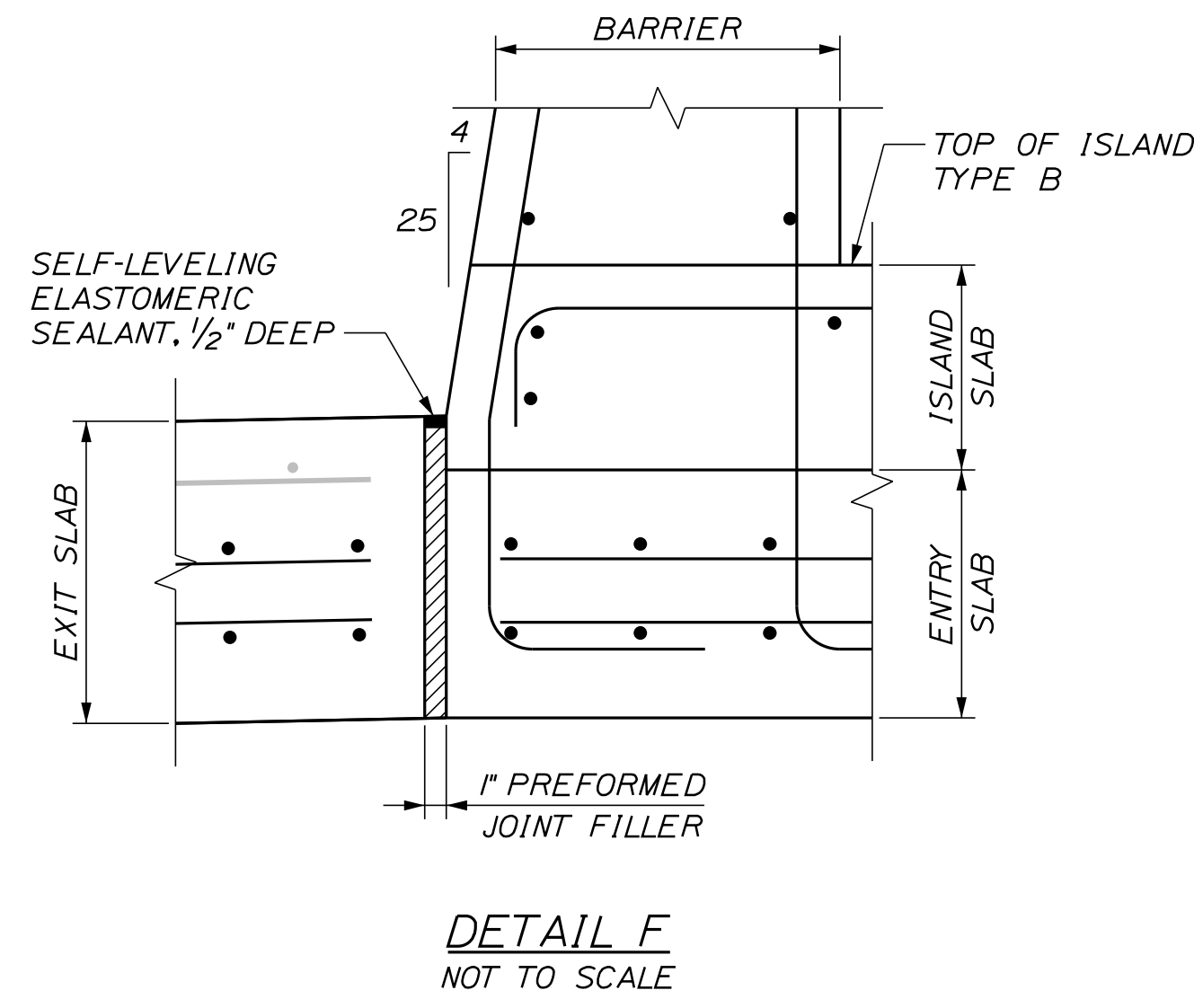
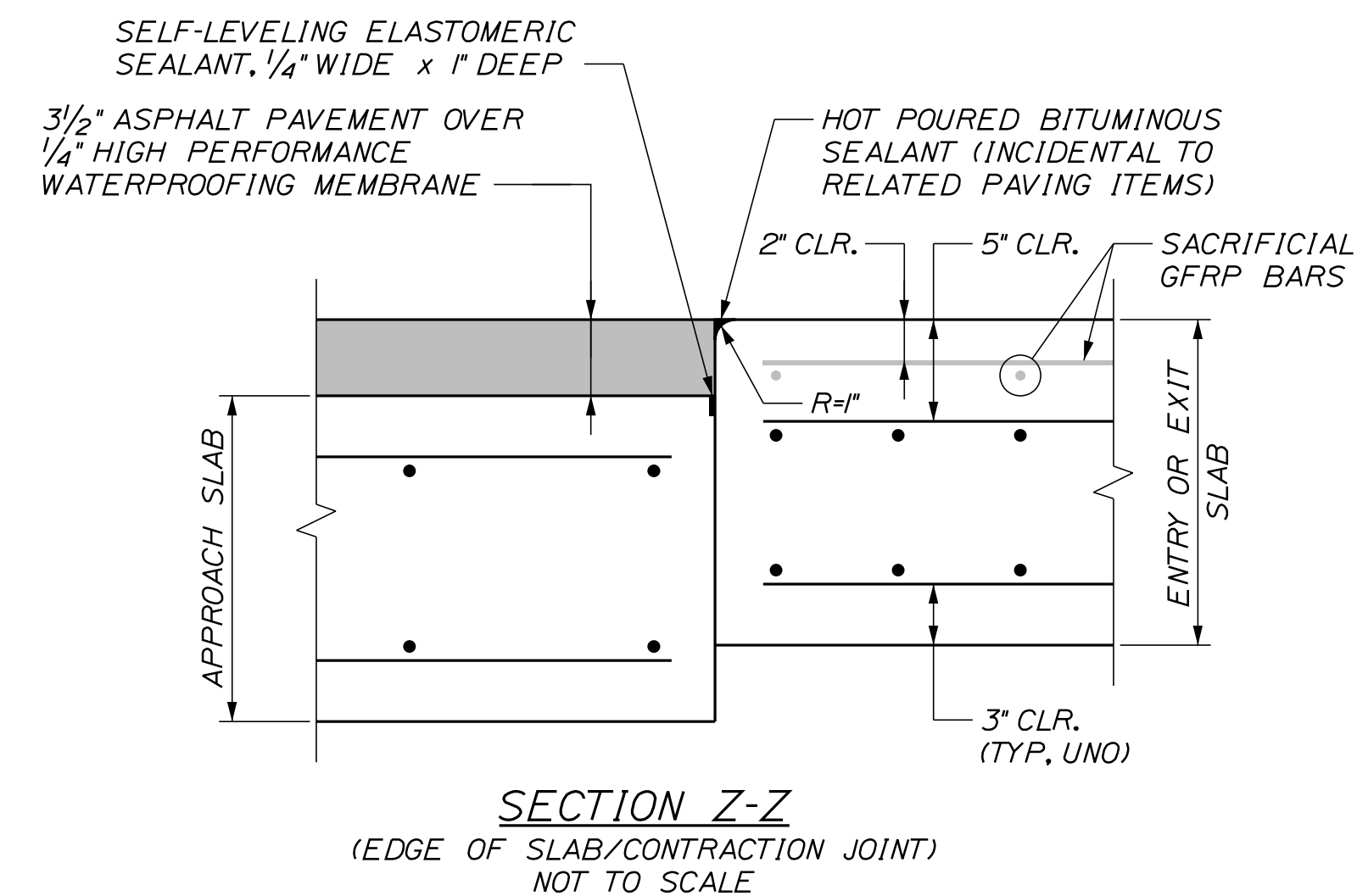
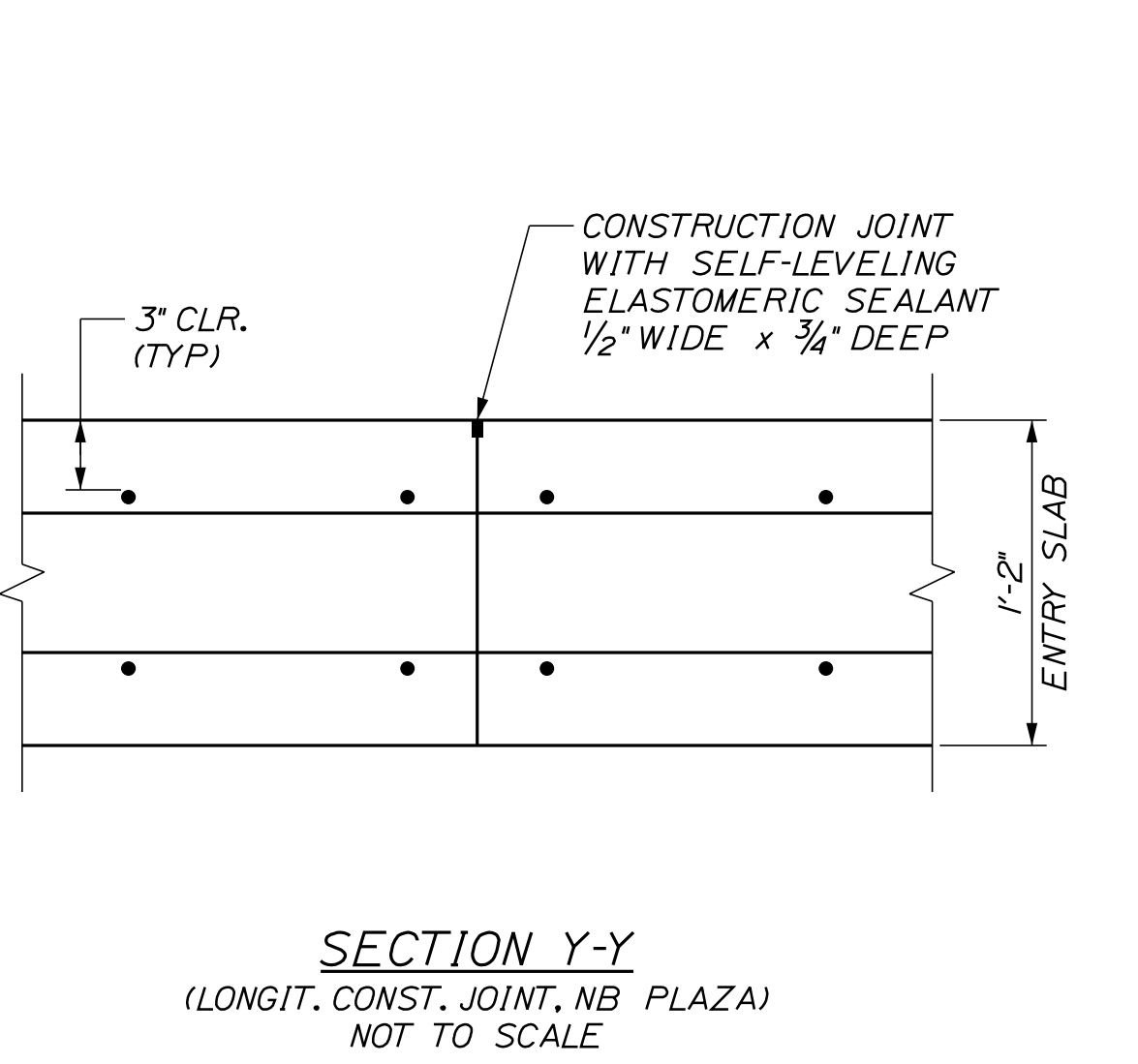
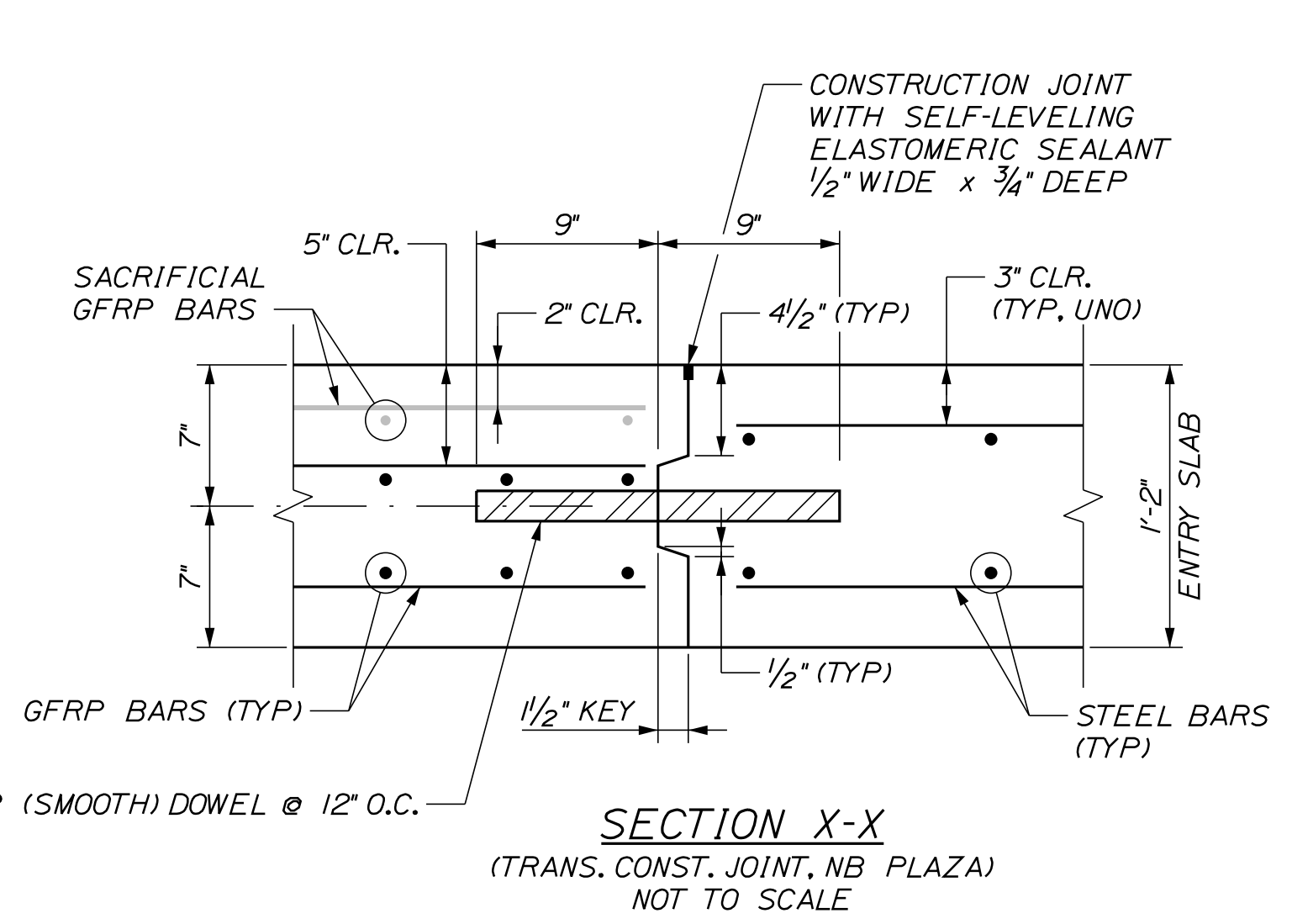
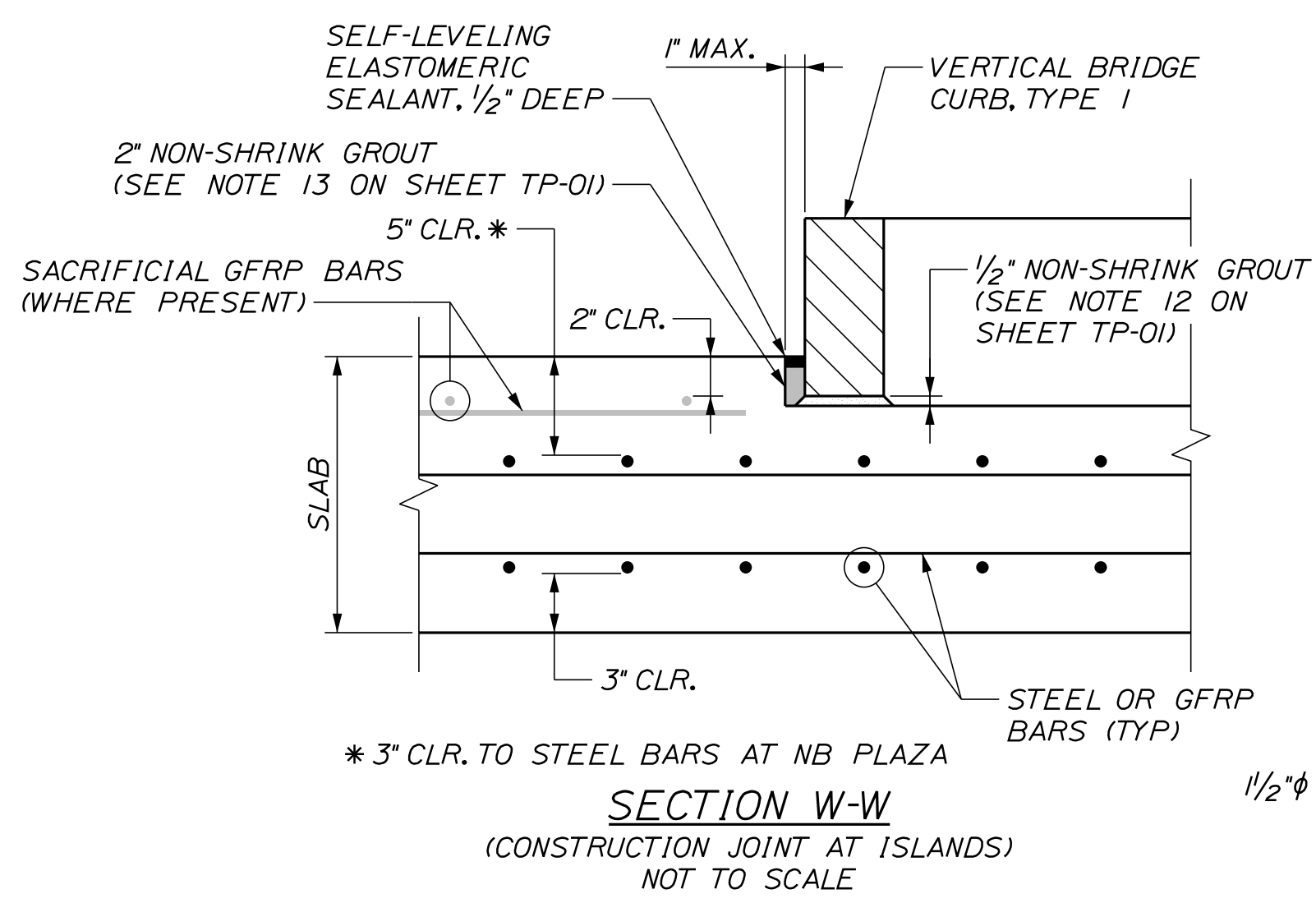
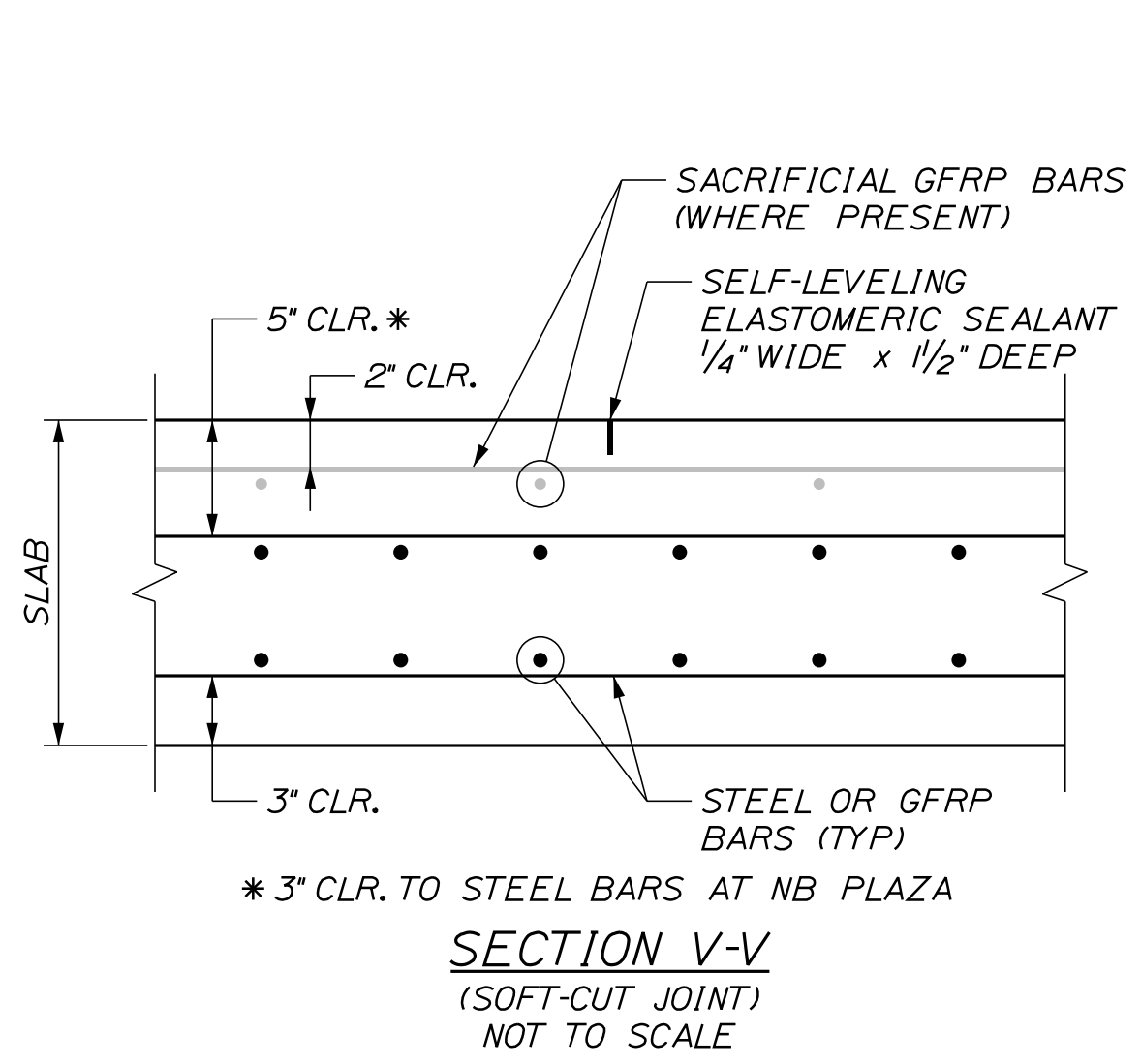
THE GOLD STAR MEMORIAL HIGHWAY

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND EXIT TOLL POINT
FOUNDATION AND SLAB SECTIONS

SHEET NUMBER: TP-18
CONTRACT: 2022.07
626 OF 735

Date: 10/17/2022

Filename: ...00\PLAZA\MSTA\TP-19.dgn



* SEE NOTE 7 AND TABLE ON SHEET TP-21 FOR VARIABLE CURB REVEAL INFORMATION AT ISLAND A.

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THE GOLD STAR MEMORIAL HIGHWAY

 MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 NORTHBOUND AND SOUTHBOUND
 SLAB DETAILS

SHEET NUMBER: TP-19
 CONTRACT: 2022.07
 627 OF 735

Date: 10/7/2022

EXIT 35 NB TOLL PLAZA - FOUNDATION AND STRUCTURAL SLAB REINFORCING STEEL SCHEDULE

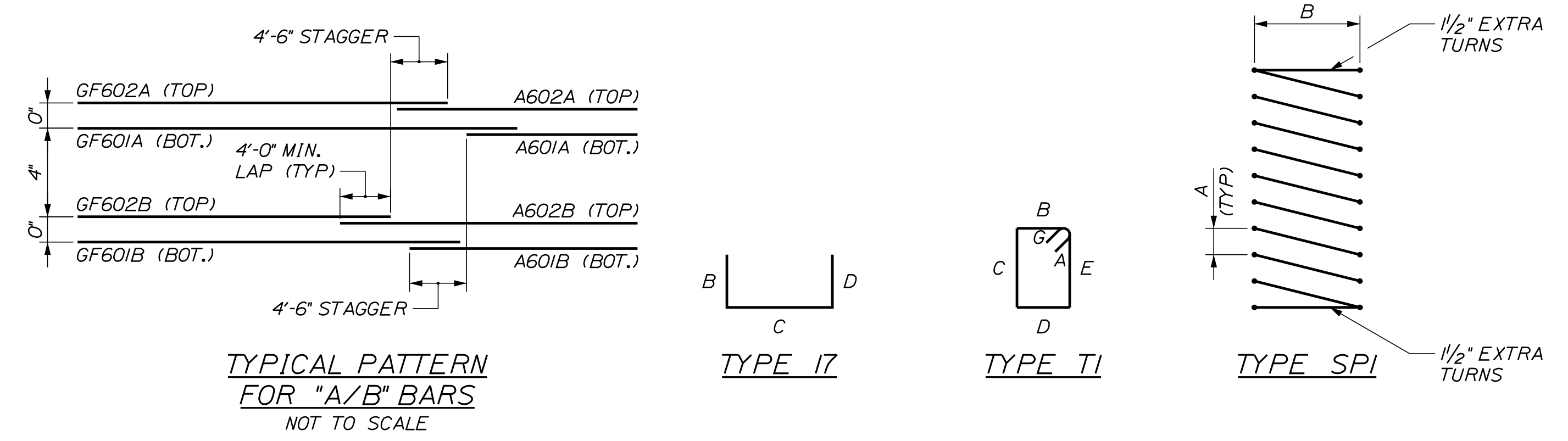
Table with columns: MARK, SIZE, NO., LENGTH, TYPE, A, B, C, D, E, F, G, INCR., REMARKS. Includes sections for GANTRY SUPPORT FOUNDATIONS, STRUCTURAL SLABS, and SS601/SS602.

EXIT 35 SB EXIT TOLL POINT - FOUNDATION AND STRUCTURAL SLAB REINFORCING STEEL SCHEDULE

Table with columns: MARK, SIZE, NO., LENGTH, TYPE, A, B, C, D, E, F, G, INCR., REMARKS. Includes sections for MAST ARM SUPPORT FOUNDATIONS AND PILE CAPS FOR STRUCTURAL SLABS, and STRUCTURAL SLABS.

EXIT 35 SB ENTRY TOLL PLAZA - FOUNDATION AND STRUCTURAL SLAB REINFORCING STEEL SCHEDULE

Table with columns: MARK, SIZE, NO., LENGTH, TYPE, A, B, C, D, E, F, G, INCR., REMARKS. Includes sections for PILE CAPS FOR STRUCTURAL SLABS, STRUCTURAL SLABS, and SS601/SS602.



Filename: ...00\PLAZA\MSTA_TP-20.dgn

Scale: AS NOTED. Table with columns: No., Revision, By, Date.

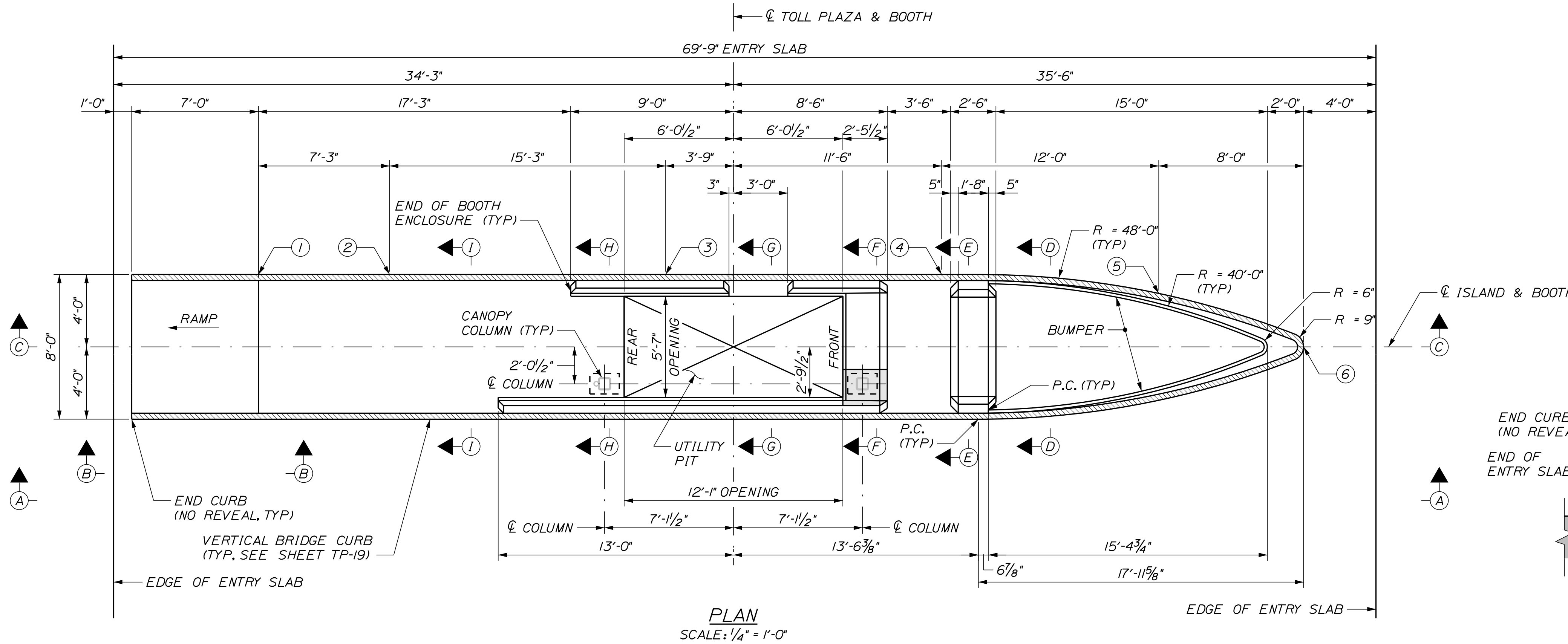
Designed by: Stantec. CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E. Table with columns: By, Date, Checked, In Charge of.

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MAINE TURNPIKE THE GOLD STAR MEMORIAL HIGHWAY MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

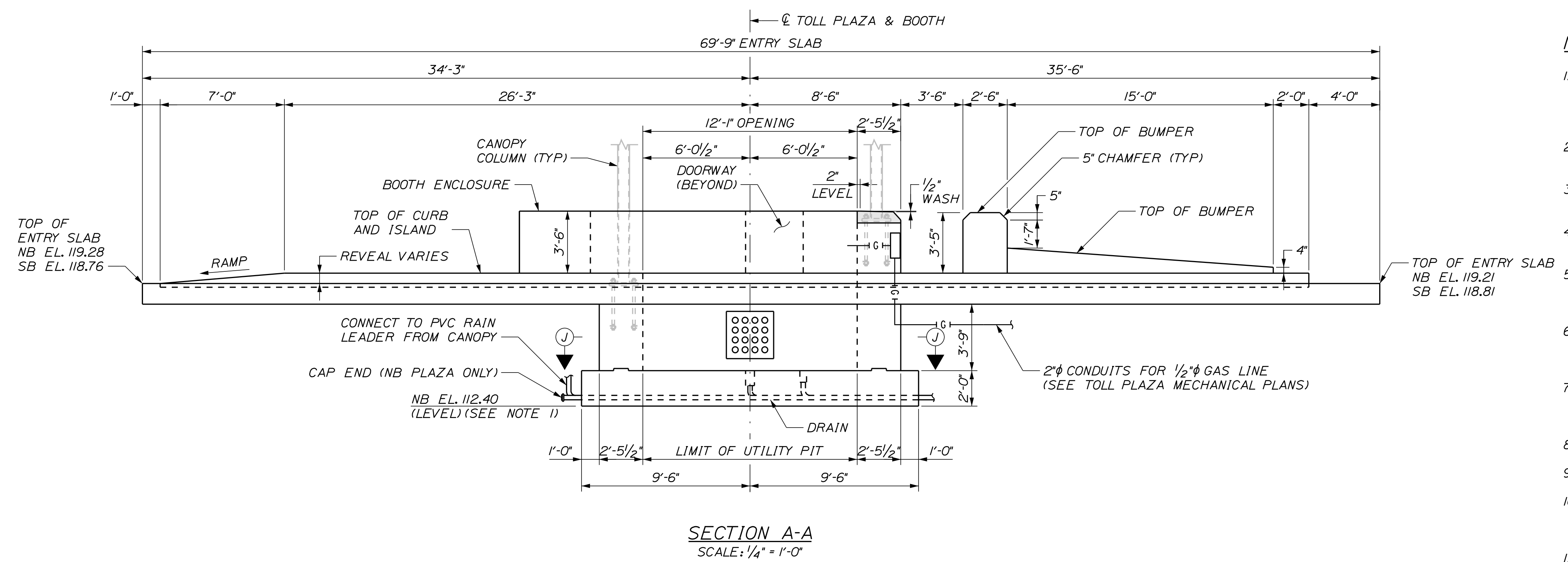
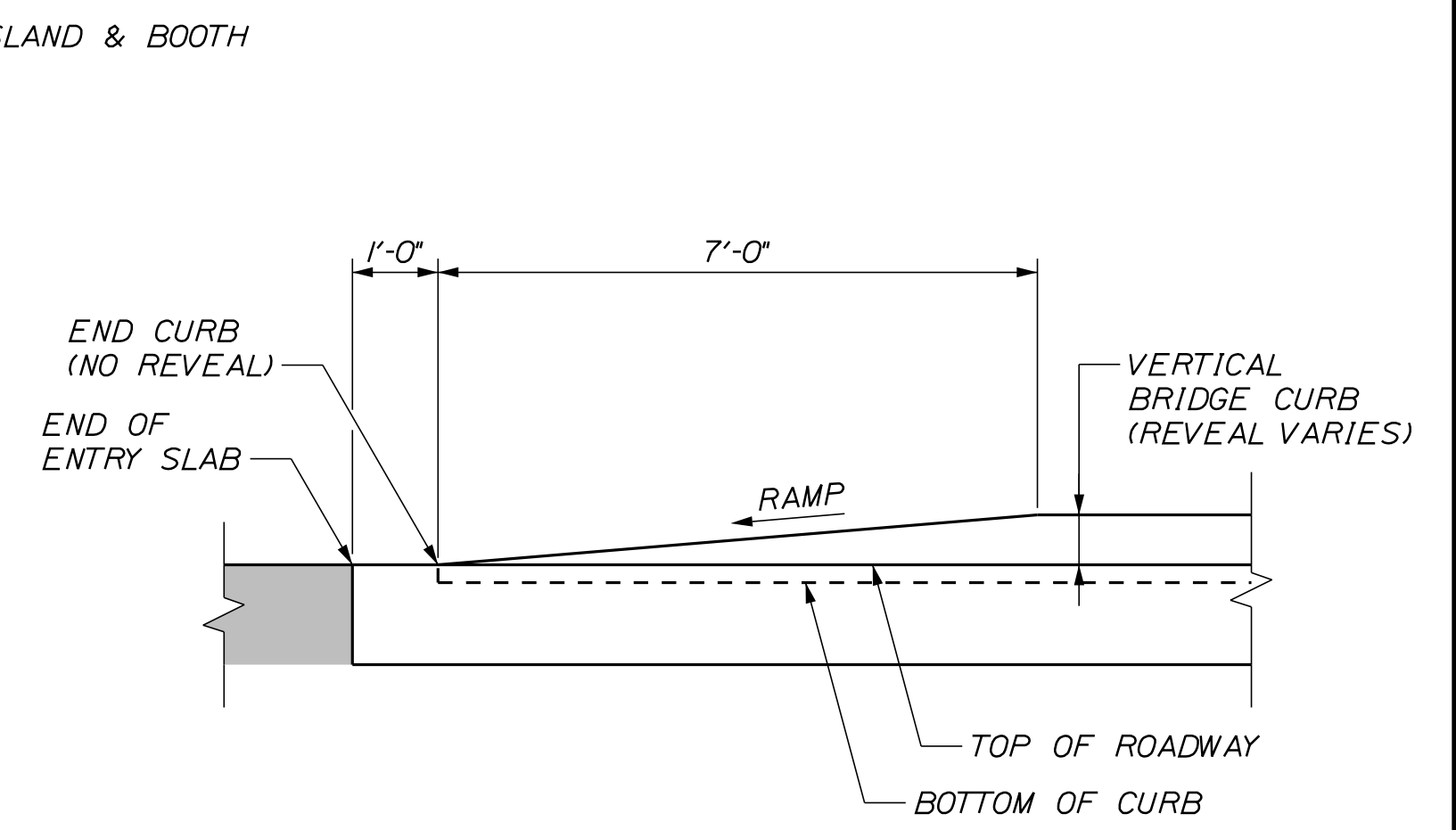
INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) NORTHBOUND AND SOUTHBOUND FOUNDATION AND SLAB REINF. SCHEDULE SHEET NUMBER: TP-20 CONTRACT:2022.07 628 OF 735

Date: 10/17/2022



CURB ELEVATIONS AND REVEAL						
POINT	NORTHBOUND			SOUTHBOUND		
	T.O.C.	*B.O.C.	REVEAL	T.O.C.	*B.O.C.	REVEAL
1	119.85	119.31	6 1/2"	119.40	118.81	7"
2	119.88	119.32	6 3/4"	119.43	118.85	7"
3	119.96	119.33	7 1/2"	119.51	118.89	7 3/8"
4	119.96	119.31	7 7/8"	119.51	118.90	7 3/8"
5	119.87	119.27	7 1/4"	119.45	118.87	7"
6	119.82	119.23	7"	119.41	118.83	7"

T.O.C. = TOP OF CURB AND ISLAND SLAB
 *B.O.C. = BOTTOM OF CURB AND ISLAND SLAB (SEE NOTE 7)



- NOTES**
- SECTIONS AT EXIT 35 NORTHBOUND ENTRY PLAZA SHOWN, SECTIONS AT EXIT 35 SOUTHBOUND ENTRY PLAZA SIMILAR. SEE SHEETS TP-07 THRU TP-13 FOR ENTRY SLAB, PILE CAP, AND UTILITY PIT DETAILS AT SOUTHBOUND ENTRY PLAZA NOT SHOWN HERE.
 - FOR REINFORCING DETAILS OF ISLANDS TYPE A, SEE SHEETS TP-22 THROUGH TP-24.
 - FOR LOCATION OF ELECTRONIC TOLL COLLECTION EQUIPMENT, SEE ELECTRICAL PLANS.
 - FOR CONDUITS WITHIN ISLAND AND STRUCTURAL SLABS, SEE ELECTRICAL PLANS.
 - BARRIER WALL AND ISLAND SLABS TO HAVE ADDITIONAL CONSTRUCTION JOINTS OR SOFT CUT JOINTS SPACED EVERY 10 FEET OR AS DIRECTED BY THE RESIDENT.
 - GRANITE CURBING ON ISLAND TO BE PAID FOR UNDER ITEM 609.13 VERTICAL BRIDGE CURB, TYPE 1 AND 609.14 VERTICAL BRIDGE CURB, TYPE 1-CIRCULAR.
 - CUT OR SHIM VERTICAL CURB AND VARY SLAB THICKNESS TO MEET TABULATED CURB ELEVATIONS BETWEEN REFERENCE POINTS 1 AND 6.
 - FOR SECTIONS D-D, E-E, F-F, G-G, H-H, I-I AND J-J SEE SHEET TP-23.
 - FOR SECTION C-C SEE SHEET TP-22.
 - FOR CONDUITS/PIPES WITHIN THE UTILITY PIT, SEE MECHANICAL AND ELECTRICAL PLANS. SEE SHEET TP-05 FOR DETAIL OF CONDUIT PASS-THROUGH AT UTILITY VAULT WALL.
 - SEE TOLL PLAZA ELECTRICAL PLANS AND LIGHTNING SUPPRESSION PLANS FOR JUNCTION BOX AND CONDUIT LOCATIONS.

Filename: ...00\PLAZA\MSTA\TP-21.dgn

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THE GOLD STAR MEMORIAL HIGHWAY

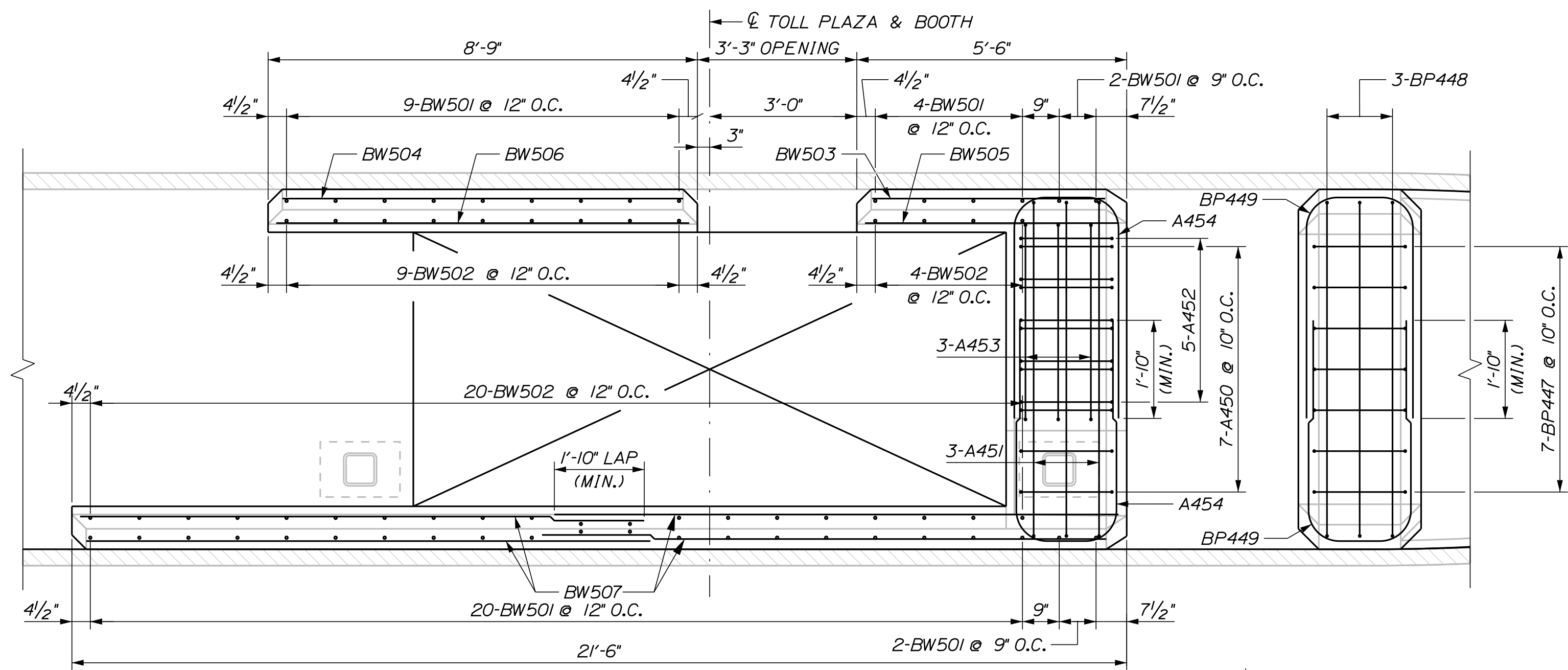
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 NORTHBOUND AND SOUTHBOUND
 ISLAND TYPE A PLAN AND SECTION

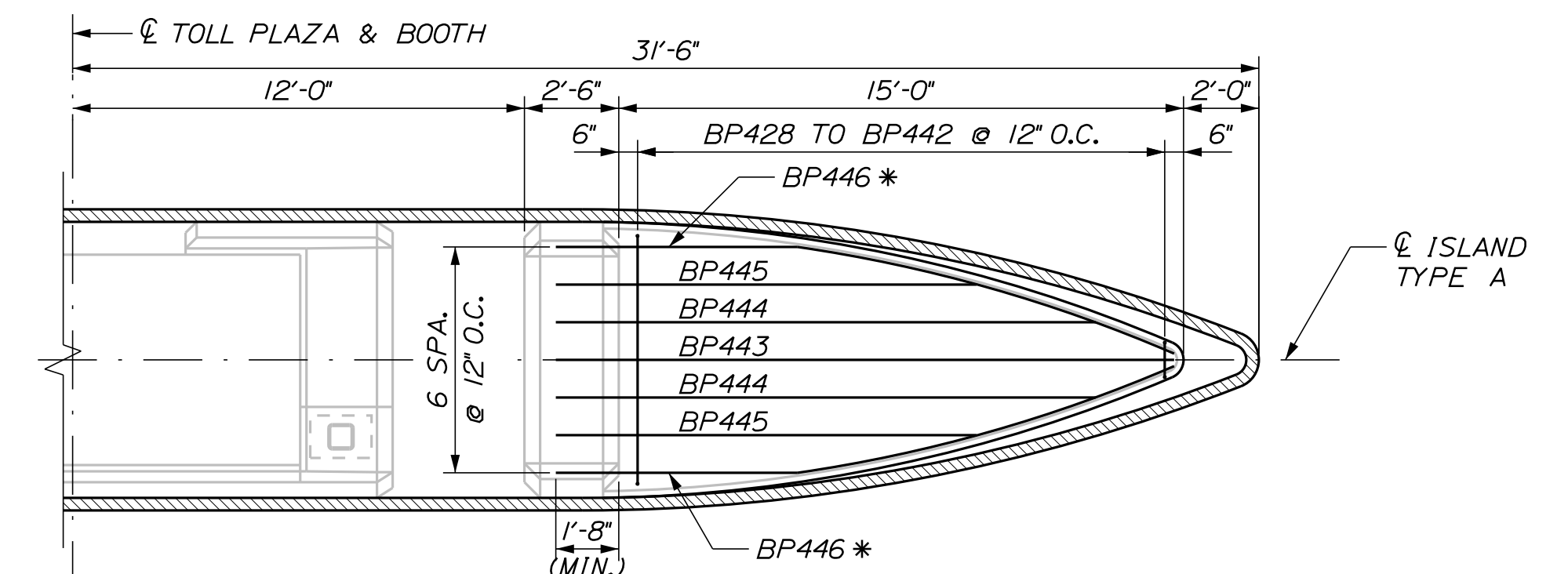
SHEET NUMBER: TP-21
 CONTRACT: 2022.07
 629 OF 735

Date: 10/17/2022

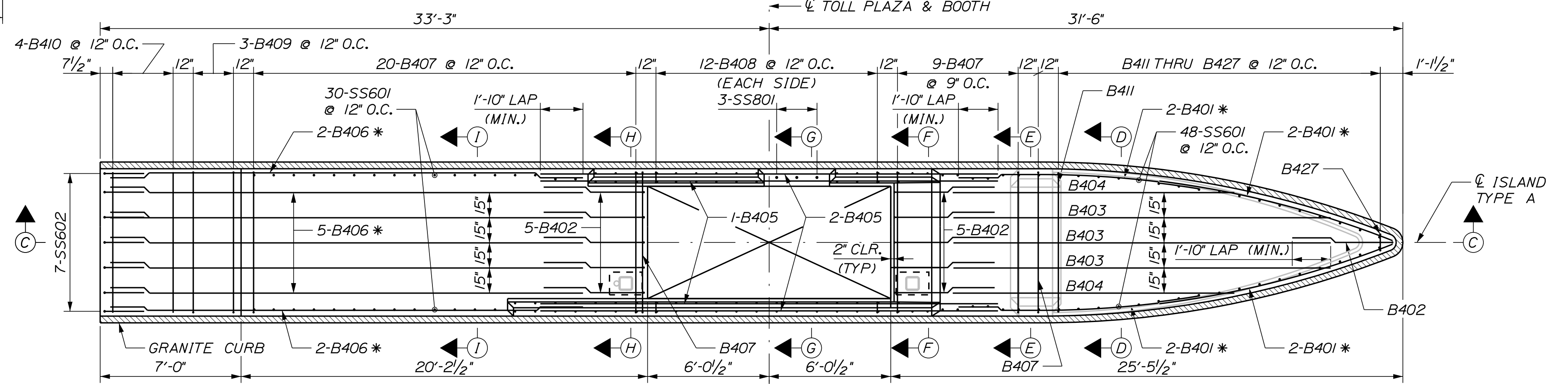
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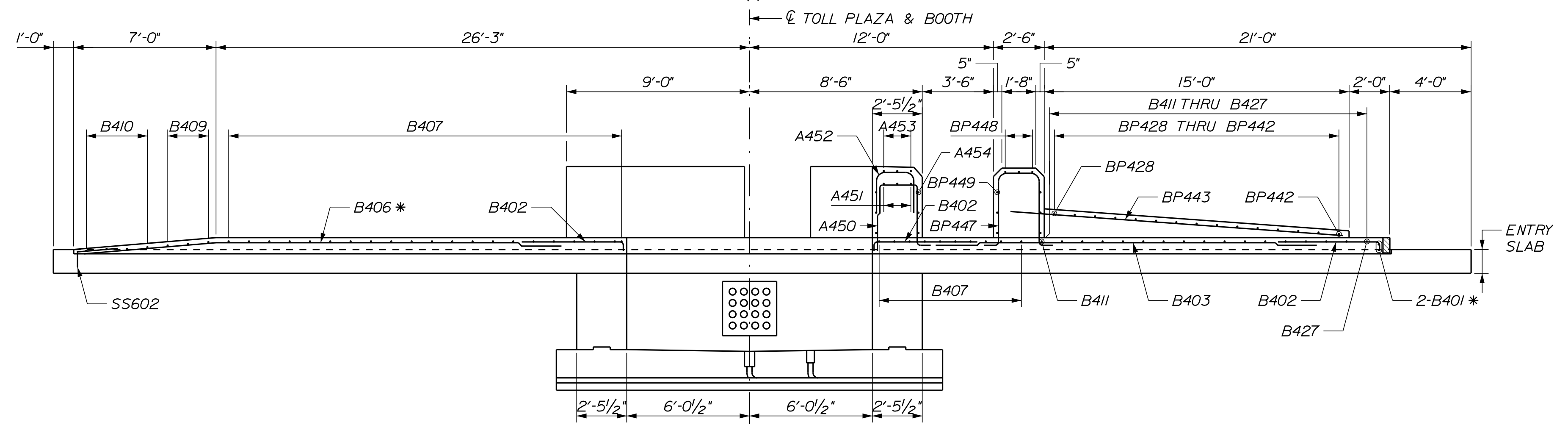
REINFORCEMENT LAYOUT AT BOOTH ENCLOSURE
SCALE: 1/2" = 1'-0"



BUMPER LOWER REINFORCEMENT PLAN
SCALE: 1/4" = 1'-0"



ISLAND TYPE A REINFORCEMENT PLAN
SCALE: 1/4" = 1'-0"



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

NOTES:

1. SECTIONS AT EXIT 35 NORTHBOUND ENTRY PLAZA SHOWN, SECTIONS AT EXIT 35 SOUTHBOUND ENTRY PLAZA SIMILAR. SEE SHEETS TP-07 THRU TP-13 FOR ENTRY SLAB, PILE CAP, AND UTILITY PIT DETAILS AT SOUTHBOUND ENTRY PLAZA NOT SHOWN HERE.
2. FOR SECTIONS D-D, E-E, F-F, G-G, H-H, AND I-I SEE SHEET TP-23.
3. ENTRY SLAB REINFORCING NOT SHOWN FOR CLARITY.

Scale:			
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CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.			
	By	Date	
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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

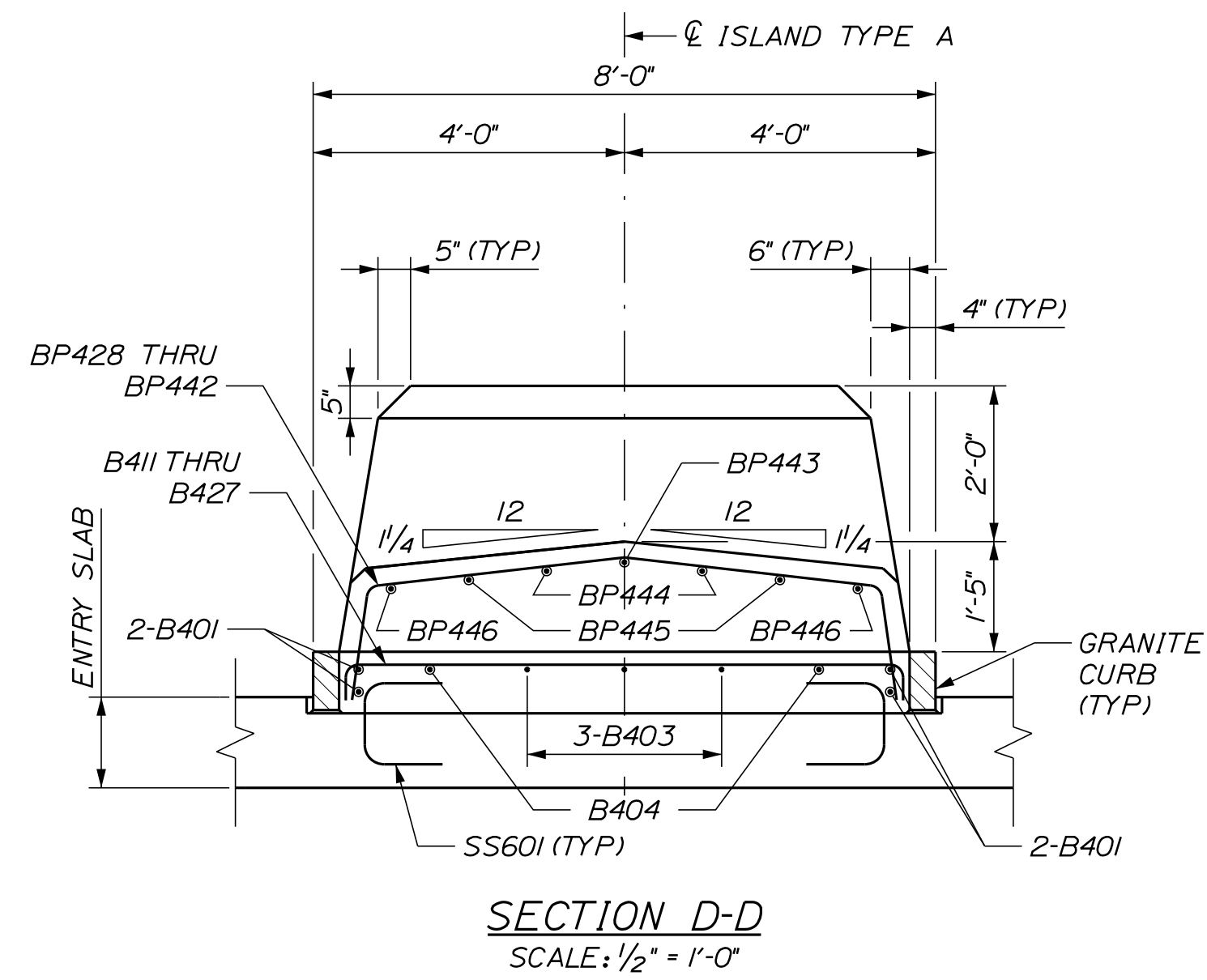
INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND AND SOUTHBOUND
ISLAND TYPE A REINFORCEMENT

SHEET NUMBER: TP-22
630 OF 735

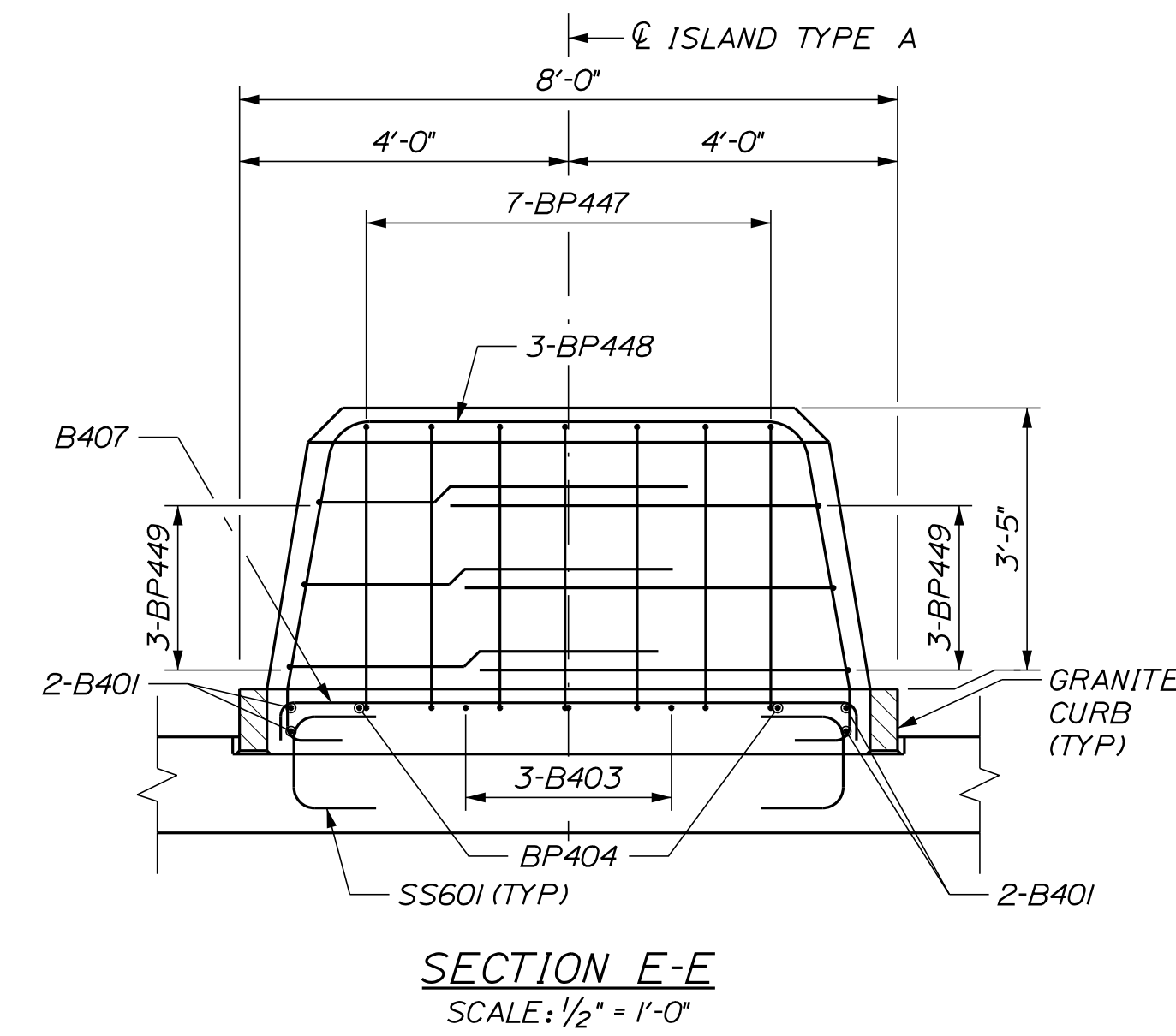
CONTRACT: 2022.07

Date: 10/17/2022

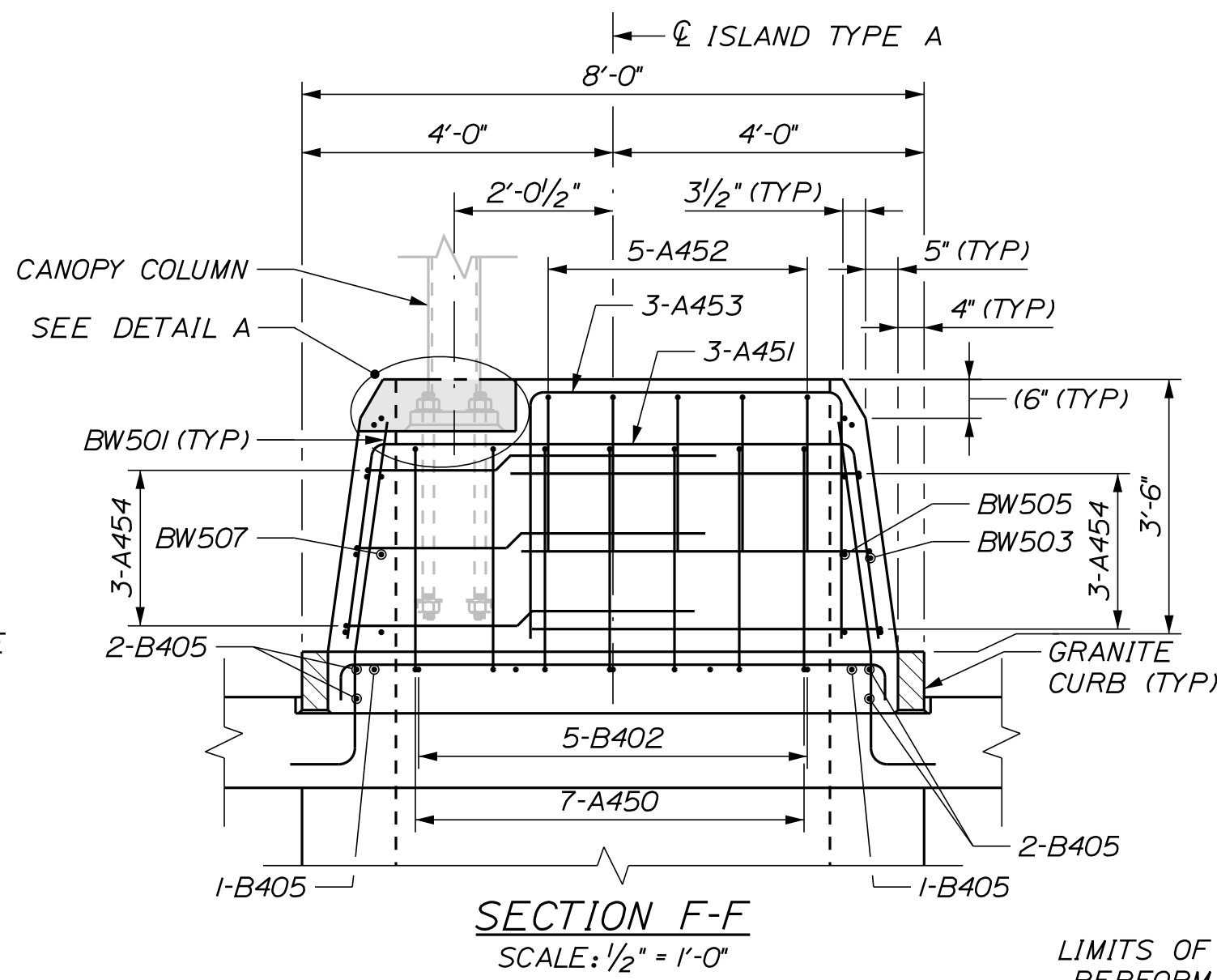
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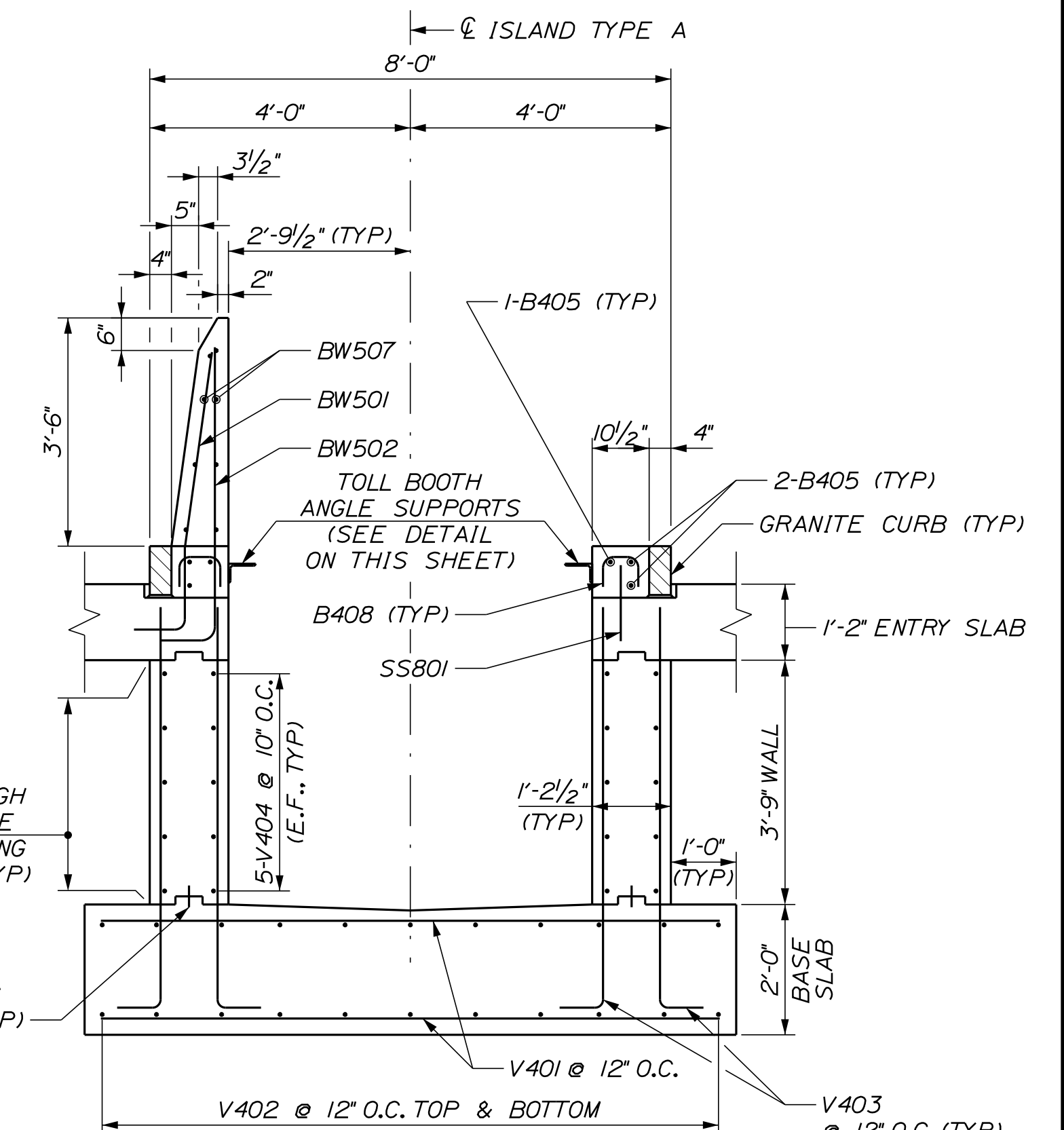
SECTION D-D
SCALE: 1/2" = 1'-0"



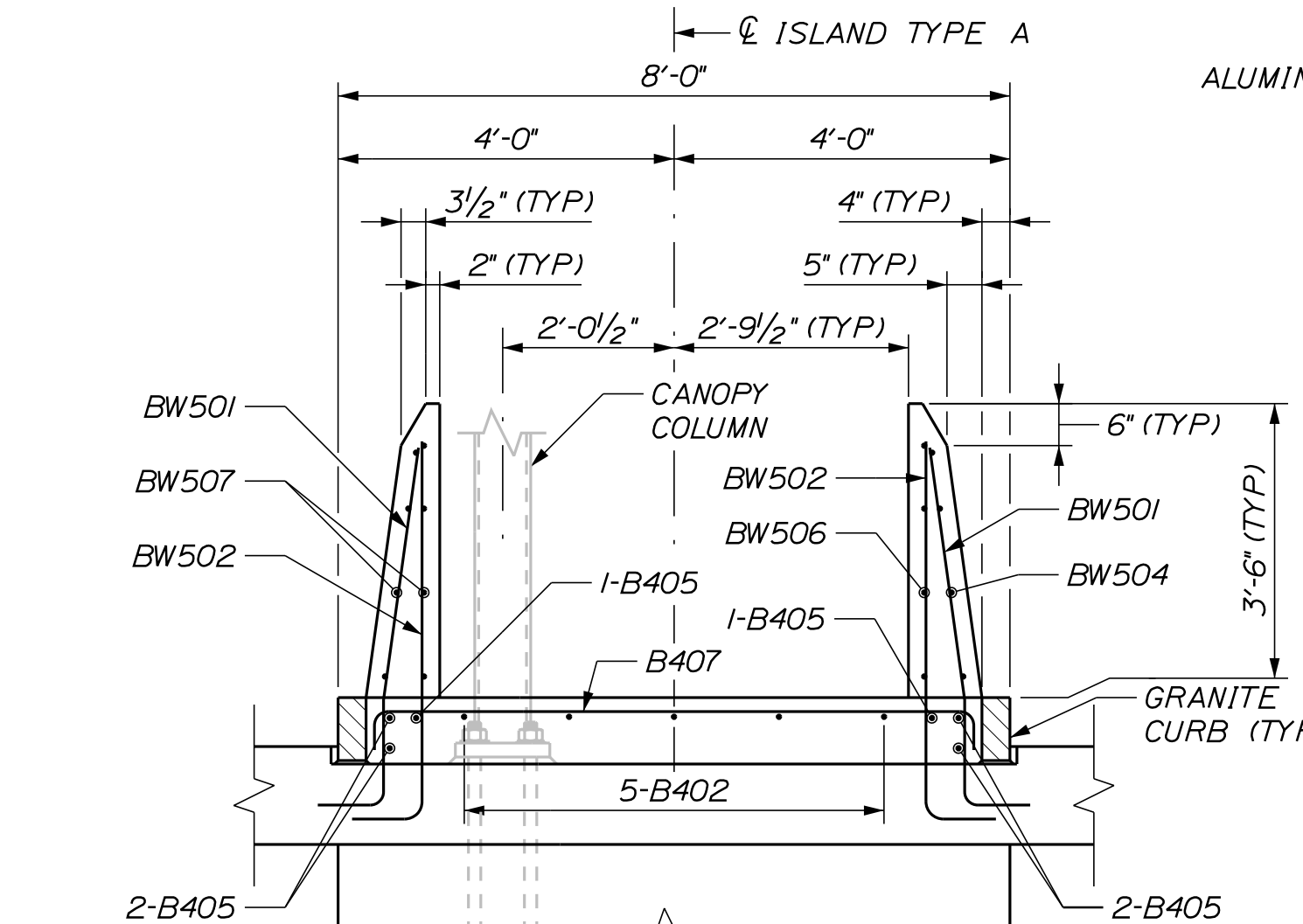
SECTION E-E
SCALE: 1/2" = 1'-0"



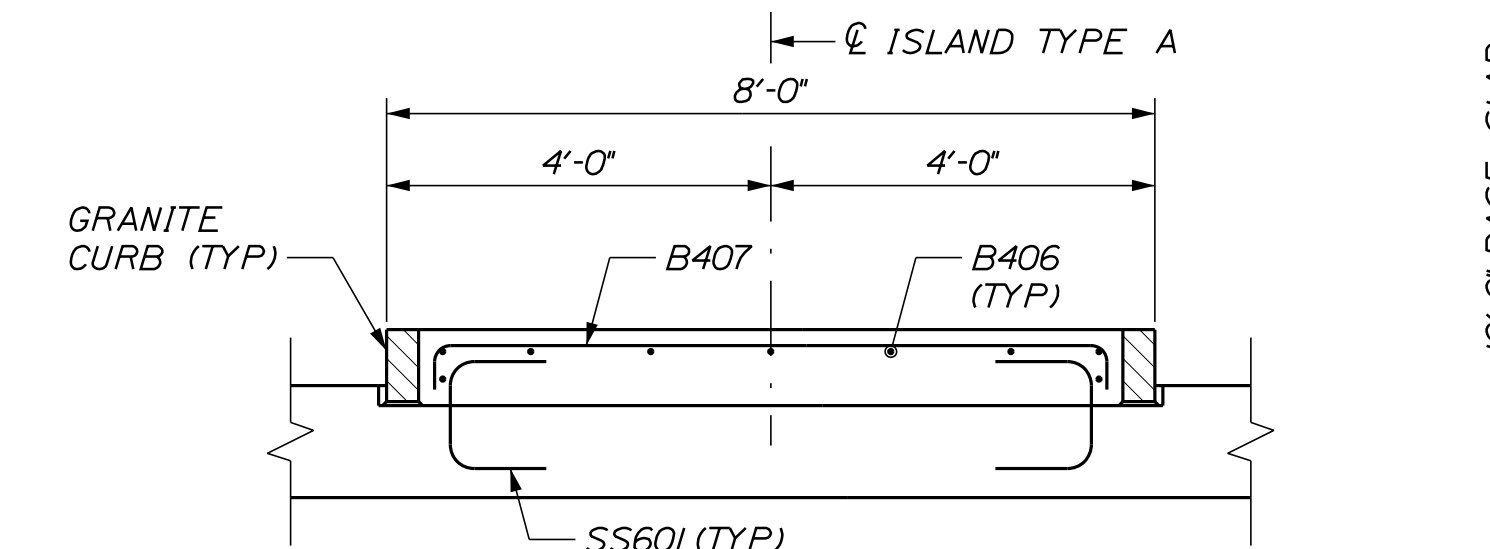
SECTION F-F
SCALE: 1/2" = 1'-0"



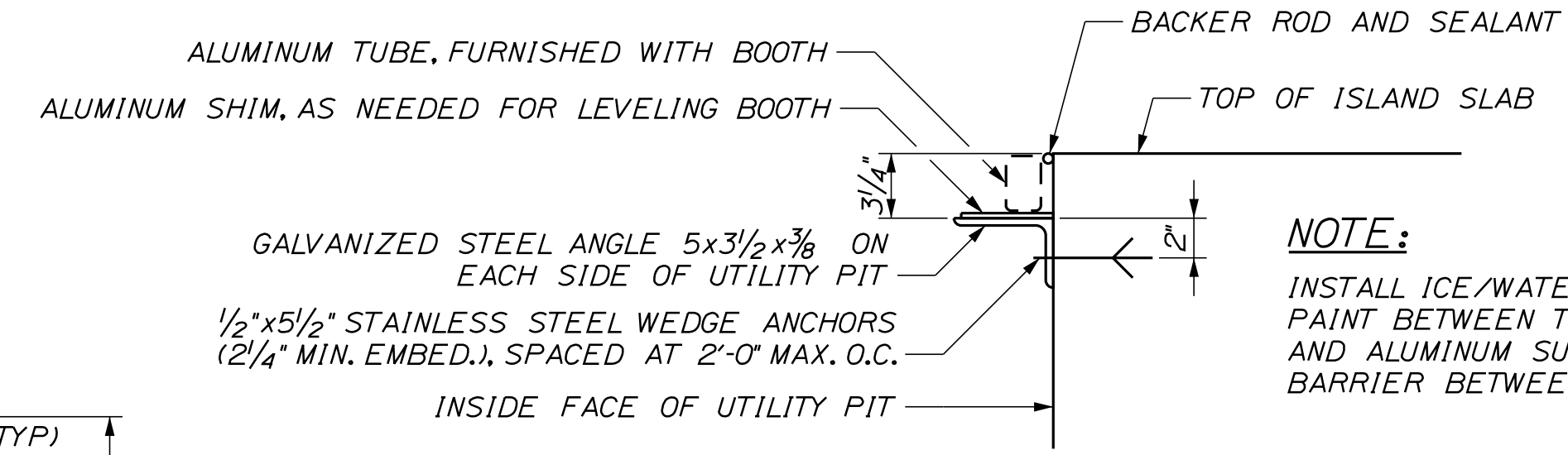
SECTION G-G
SCALE: 1/2" = 1'-0"



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

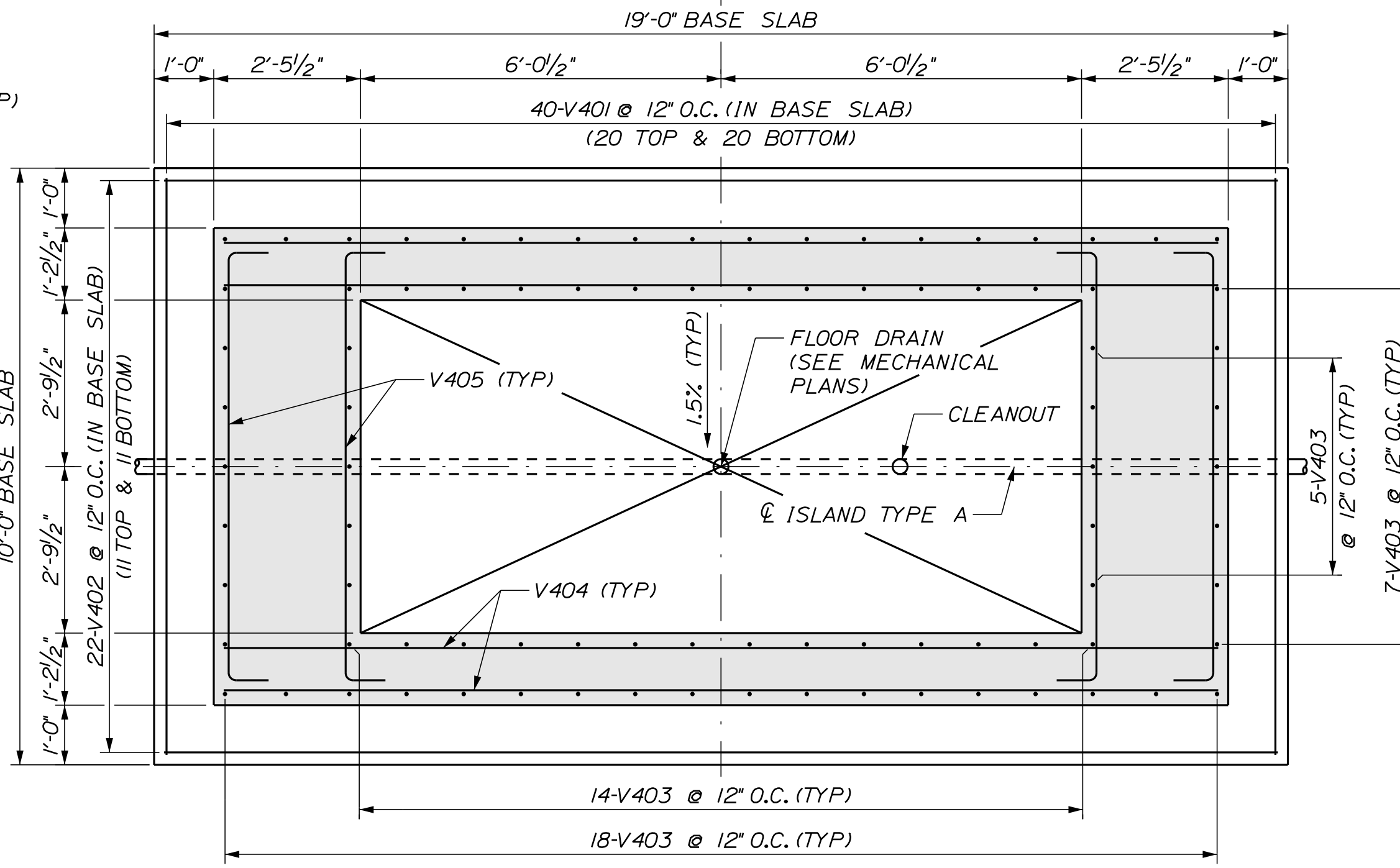


SECTION I-I
SCALE: 1/2" = 1'-0"

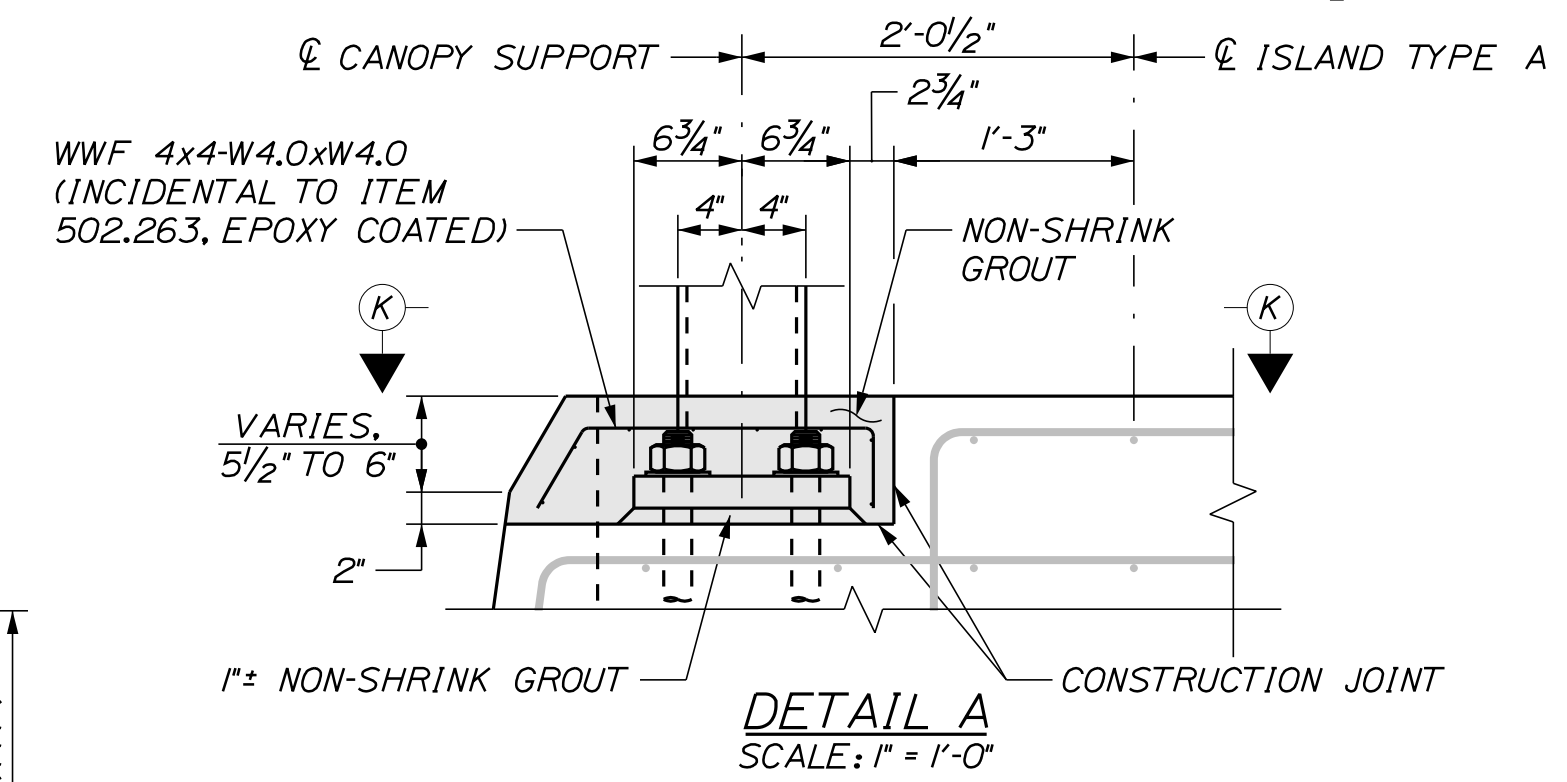


TYPICAL TOLL BOOTH ANGLE SUPPORT DETAIL
SCALE: 1/2" = 1'-0"

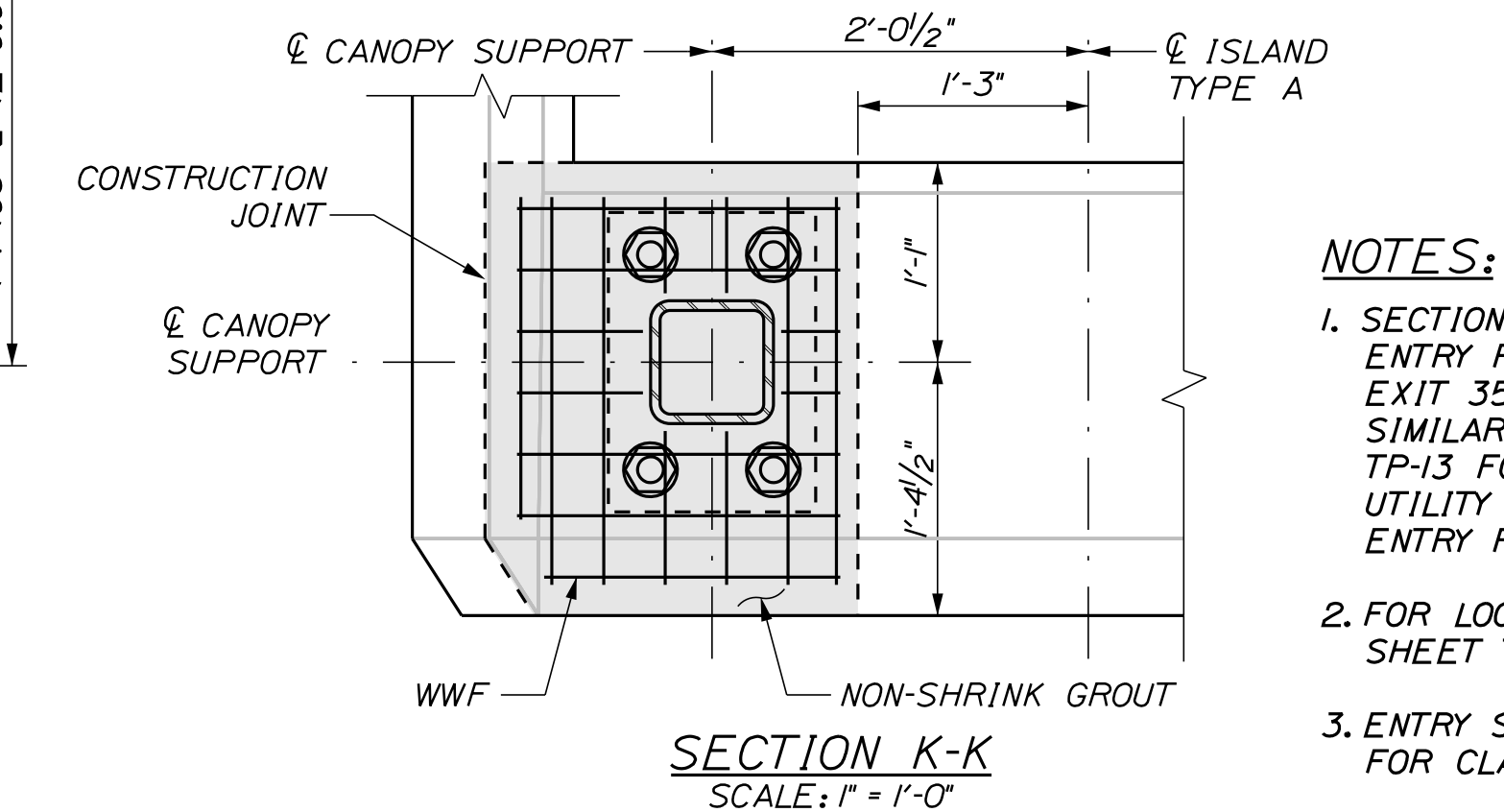
NOTE:
INSTALL ICE/WATER SHIELD OR ASPHALTIC PAINT BETWEEN TOP OF STEEL ANGLES AND ALUMINUM SURFACES TO CREATE A BARRIER BETWEEN DISSIMILAR METALS.



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



DETAIL A
SCALE: 1" = 1'-0"



SECTION K-K
SCALE: 1" = 1'-0"

- NOTES:
1. SECTIONS AT EXIT 35 NORTHBOUND ENTRY PLAZA SHOWN, SECTIONS AT EXIT 35 SOUTHBOUND ENTRY PLAZA SIMILAR. SEE SHEETS TP-07 THRU TP-13 FOR ENTRY SLAB, PILE CAP, AND UTILITY PIT DETAILS AT SOUTHBOUND ENTRY PLAZA NOT SHOWN HERE.
 2. FOR LOCATION OF SECTIONS SEE SHEET TP-21.
 3. ENTRY SLAB REINFORCING NOT SHOWN FOR CLARITY.

Scale: AS NOTED			
No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

Designed	PAG	10\22	Checked	EPL	10\22
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THE GOLD STAR MEMORIAL HIGHWAY

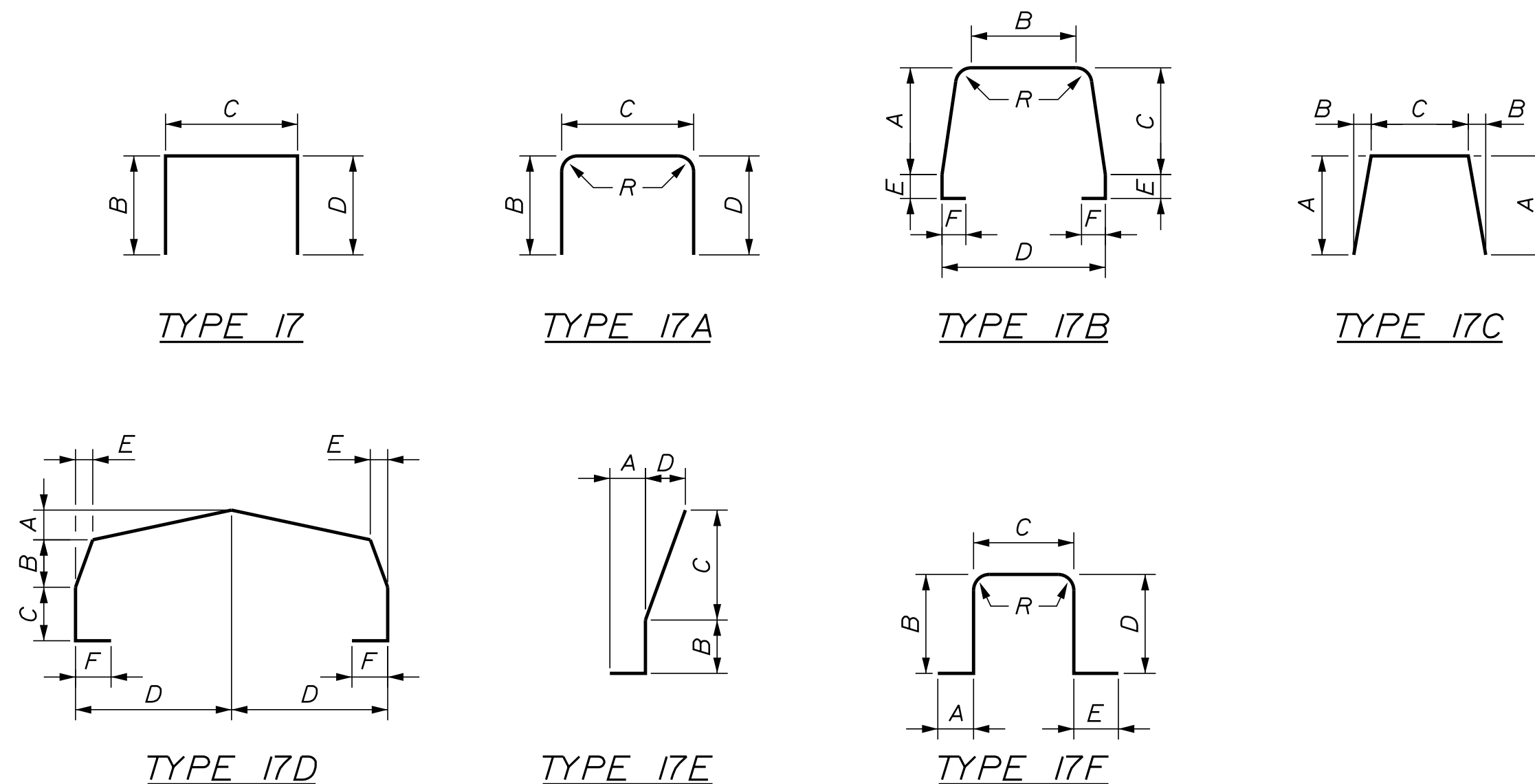
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND AND SOUTHBOUND
ISLAND TYPE A SECTIONS

SHEET NUMBER: TP-23
CONTRACT: 2022.07
6310F 735

TOLL ISLAND TYPE A REINFORCING STEEL SCHEDULE

MARK	SIZE	NB NO.	SB NO.	LENGTH	TYPE	A	B	C	D	E	F	G	INCR.	REMARKS
ISLAND - SLAB (TOTAL FOR 2 ISLAND SLABS)														
B401	4	16	16	12'-0"	STR									* FIELD BEND AS REQUIRED
B402	4	22	22	5'-5 1/2"	17		5 1/2"	5'-0"	--					
B403	4	6	6	18'-9"	STR									
B404	4	4	4	14'-0"	STR									
B405	4	12	12	22'-9"	STR									
B406	4	18	18	23'-6"	STR									* FIELD BEND AS REQUIRED
B407	4	62	62	7'-11"	17		5 1/2"	7'-0"	5 1/2"					
B408	4	48	48	1'-5 1/2"	17		5 1/2"	6 1/2"	5 1/2"					
B409	4	6	6	7'-6"	17		3"	7'-0"	3"					
B410	4	8	8	7'-0"	STR									
B411	4	2	2	7'-10"	17		5 1/2"	6'-11"	5 1/2"					
B412	4	2	2	7'-9"	17		5 1/2"	6'-10"	5 1/2"					
B413	4	2	2	7'-8"	17		5 1/2"	6'-9"	5 1/2"					
B414	4	2	2	7'-7"	17		5 1/2"	6'-8"	5 1/2"					
B415	4	2	2	7'-5"	17		5 1/2"	6'-6"	5 1/2"					
B416	4	2	2	7'-2"	17		5 1/2"	6'-3"	5 1/2"					
B417	4	2	2	6'-11"	17		5 1/2"	6'-0"	5 1/2"					
B418	4	2	2	6'-7"	17		5 1/2"	5'-8"	5 1/2"					
B419	4	2	2	6'-3"	17		5 1/2"	5'-4"	5 1/2"					
B420	4	2	2	5'-10"	17		5 1/2"	4'-11"	5 1/2"					
B421	4	2	2	5'-4"	17		5 1/2"	4'-5"	5 1/2"					
B422	4	2	2	4'-11"	17		5 1/2"	4'-0"	5 1/2"					
B423	4	2	2	4'-4"	17		5 1/2"	3'-5"	5 1/2"					
B424	4	2	2	3'-9"	17		5 1/2"	2'-10"	5 1/2"					
B425	4	2	2	3'-2"	17		5 1/2"	2'-3"	5 1/2"					
B426	4	2	2	2'-5"	17		5 1/2"	1'-6"	5 1/2"					
B427	4	2	2	1'-9"	17		5 1/2"	10"	5 1/2"					
ISLAND - FRONT BUMPER BLOCK (TOTAL FOR 2 BLOCKS)														
BP428	4	2	2	9'-5"	17D	4 1/2"	1'-5 1/2"	--	3'-6"	2 1/2"	--			
BP429	4	2	2	9'-3 1/2"	17D	4 1/2"	1'-4 1/2"	--	3'-6"	2 1/2"	--			
BP430	4	2	2	9'-0"	17D	4"	1'-4"	--	3'-5"	2 1/2"	--			
BP431	4	2	2	8'-8 1/2"	17D	4"	1'-3"	--	3'-4"	2 1/2"	--			
BP432	4	2	2	8'-4 1/2"	17D	4"	1'-2 1/2"	--	3'-2 1/2"	2 1/2"	--			
BP433	4	2	2	7'-11 1/2"	17D	4"	1'-1 1/2"	--	3'-1"	2 1/2"	--			
BP434	4	2	2	7'-6"	17D	3 1/2"	1'-1"	--	2'-10 1/2"	2"	--			
BP435	4	2	2	7'-0"	17D	3 1/2"	1'-0 1/2"	--	2'-8"	2"	--			
BP436	4	2	2	6'-6"	17D	3"	1'-0"	--	2'-5 1/2"	2"	--			
BP437	4	2	2	5'-10"	17D	3"	11"	--	2'-2 1/2"	2"	--			
BP438	4	2	2	5'-2"	17D	2 1/2"	10 1/2"	--	1'-10 1/2"	1 1/2"	--			
BP439	4	2	2	4'-7"	17D	2"	10 1/2"	--	1'-7"	1 1/2"	--			
BP440	4	2	2	3'-9"	17D	1 1/2"	10"	--	1'-3"	2"	--			
BP441	4	2	2	2'-11 1/2"	17D	1"	9 1/2"	--	10 1/2"	1 1/2"	--			
BP442	4	2	2	2'-1 1/2"	17D	--	9 1/2"	--	5 1/2"	1 1/2"	--			
BP443	4	2	2	16'-5"	STR									
BP444	4	4	4	14'-4"	STR									
BP445	4	4	4	11'-2"	STR									
BP446	4	4	4	16'-8"	STR									
BP447	4	14	14	9'-8 1/2"	17F	8"	3'-5 1/2"	2'-1"	3'-5 1/2"	8"				* FIELD BEND AS REQUIRED
BP448	4	6	6	14'-3 1/2"	17B	3'-3"	4'-10"	3'-3"	6'-10"	7 1/2"	8"			R = 5 1/2" (INSIDE RADIUS)
BP449	4	12	12	10'-7"	17A		4'-6"	2'-2"	4'-6"					R = 7" (INSIDE RADIUS)
ISLAND - BOOTH ENCLOSURE AND BARRIER WALL (TOTAL FOR 2 BOOTH ENCLOSURES)														
A450	4	14	14	8'-10"	17F	--	3'-3"	2'-0 1/2"	2'-10 1/2"	8"				
A451	4	6	6	11'-2"	17C	2'-6"	4"	6'-2"						
A452	4	10	10	5'-6 1/2"	17A		2'-0"	2'-0 1/2"	2'-0"					R = 5 1/2" (INSIDE RADIUS)
A453	4	6	6	10'-4"	17		3'-2"	4'-0"	3'-2"					
A454	4	12	12	10'-6"	17A		4'-6"	2'-1 1/2"	4'-6"					R = 7" (INSIDE RADIUS)
BW501	5	74	74	5'-3"	17E	10"	1'-5"	3'-0"	5"					
BW502	5	66	66	5'-4"	17		10"	4'-6"	--					
BW503	5	8	8	4'-9"	STR									
BW504	5	8	8	8'-2"	STR									
BW505	5	8	8	5'-2"	STR									
BW506	5	8	8	8'-5"	STR									
BW507	5	16	16	11'-6"	STR									
ISLAND - UTILITY VAULT (TOTAL FOR 2 VAULTS)														
V401	4	80		9'-8"	STR									
V402	4	44		18'-8"	STR									
V403	4	176		6'-11"	17		8"	6'-3"	--					
V404	4	40		16'-8"	STR									
V405	4	40		8'-11"	17		8"	7'-7"	8"					
V406	4		38	7'-8"	STR									
V407	4		76	17'-5"	STR									
V408	4		38	9'-0"	17		8"	7'-8"	8"					
V409	4		76	6'-5"	STR									
V410	4		52	7'-9"	17		8"	6'-5"	8"					



Date:10/17/2022

Filename: ...\00\PLAZA\MSTA\TP-24.dgn

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CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

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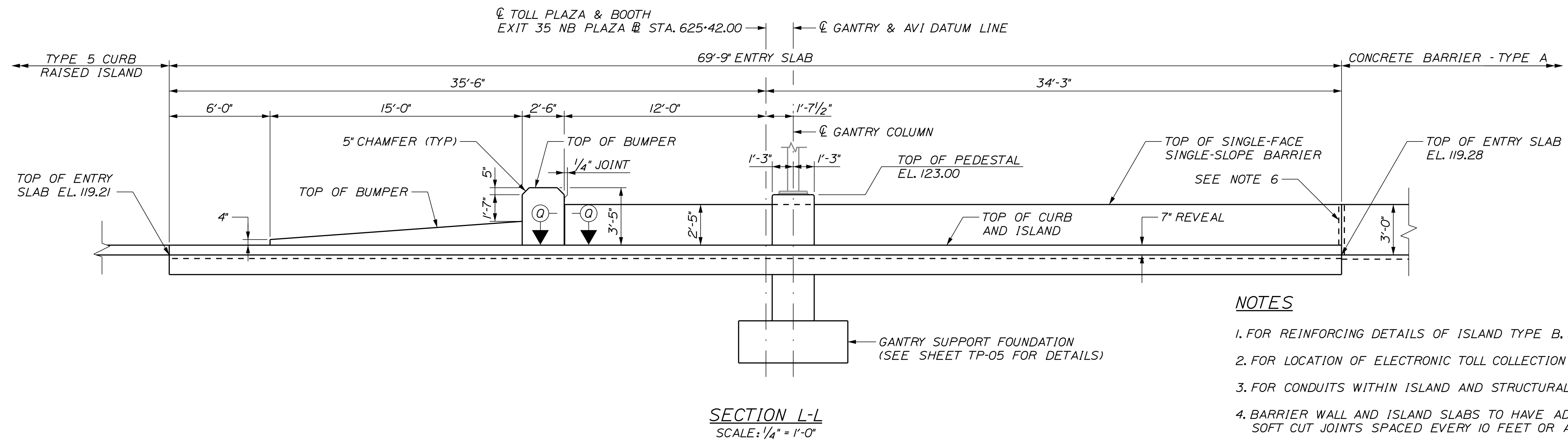
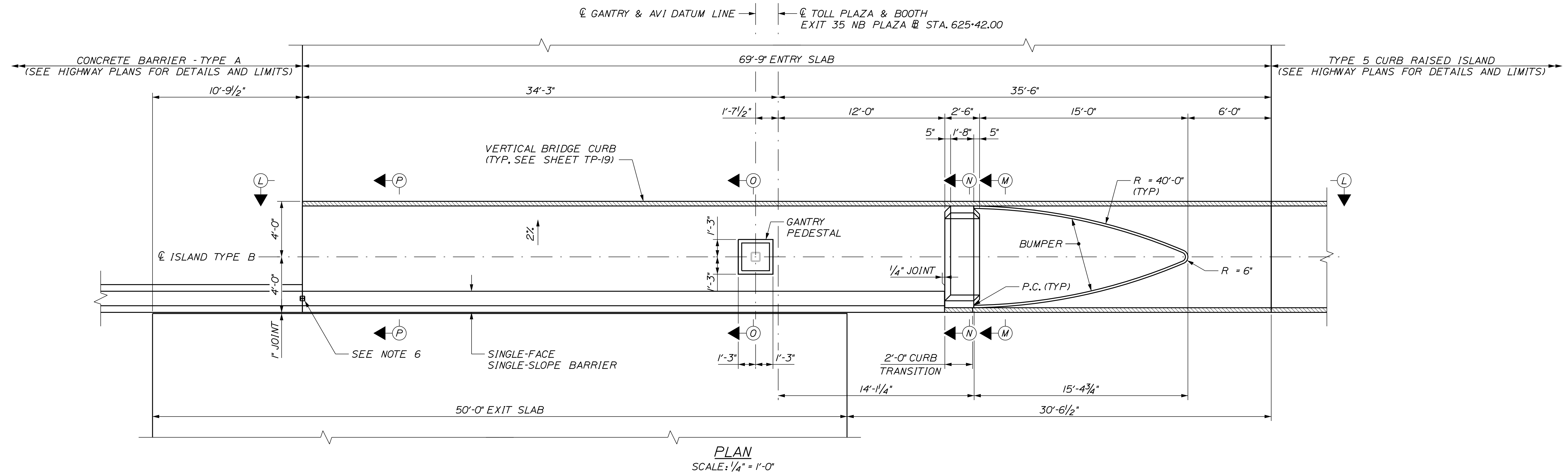
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) NORTHBOUND AND SOUTHBOUND ISLAND TYPE A REINFORCING SCHEDULE

SHEET NUMBER: TP-24
CONTRACT:2022.07
632 OF 735

Date: 10/17/2022



NOTES

1. FOR REINFORCING DETAILS OF ISLAND TYPE B, SEE SHEETS TP-26 THROUGH TP-28.
2. FOR LOCATION OF ELECTRONIC TOLL COLLECTION EQUIPMENT, SEE ELECTRICAL PLANS.
3. FOR CONDUITS WITHIN ISLAND AND STRUCTURAL SLAB, SEE ELECTRICAL PLANS.
4. BARRIER WALL AND ISLAND SLABS TO HAVE ADDITIONAL CONSTRUCTION JOINTS OR SOFT CUT JOINTS SPACED EVERY 10 FEET OR AS DIRECTED BY THE RESIDENT.
5. GRANITE CURBING ON ISLAND INCLUDING CURB TRANSITION TO BE PAID FOR UNDER ITEM 609.13 VERTICAL BRIDGE CURB, TYPE 1.
6. STRUCTURAL TUBE TO BE PROVIDED AT BARRIER END FOR CONNECTION TO CONCRETE BARRIER - TYPE A, SEE DETAIL ON SHEET DET-05.
7. FOR SECTIONS M-M, N-N, O-O, P-P AND Q-Q SEE SHEET TP-27.

Filename: ...00\PLAZA\MSTA\TP-25.dgn

Scale:			
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No.	Revision	By	Date

Designed by:					
CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
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Drawn	JTB	10\22	In Charge of	LEM	10\22

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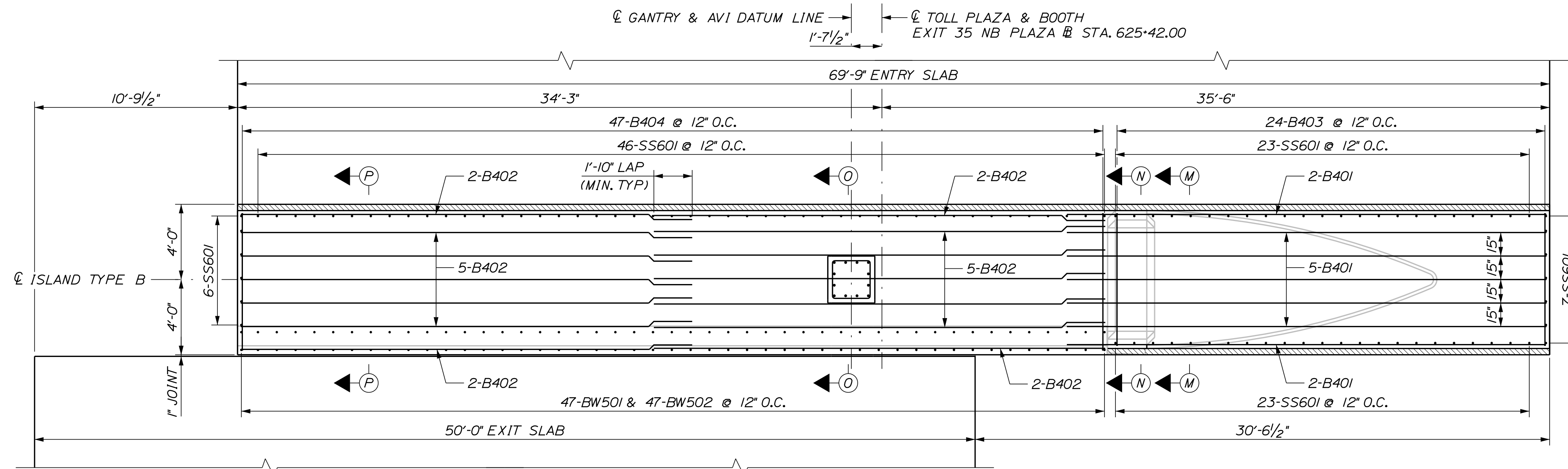
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MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

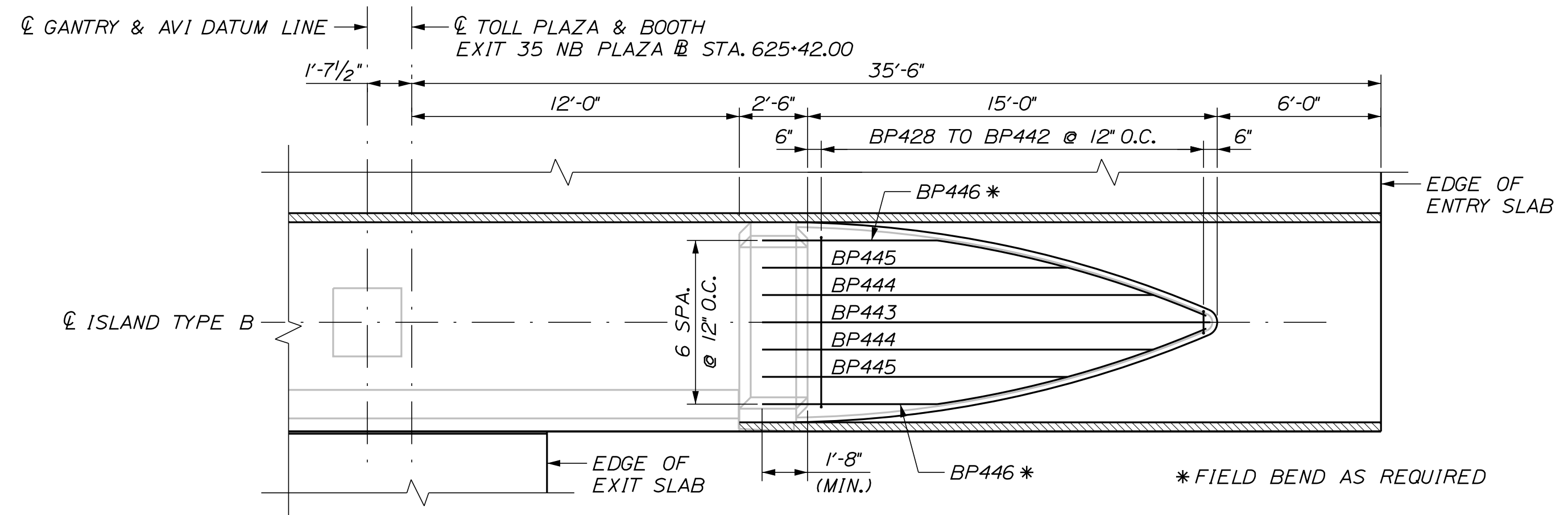
**INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 NORTHBOUND ENTRY PLAZA
 ISLAND TYPE B PLAN AND SECTION**

SHEET NUMBER: TP-25
 CONTRACT: 2022.07
 633 OF 735

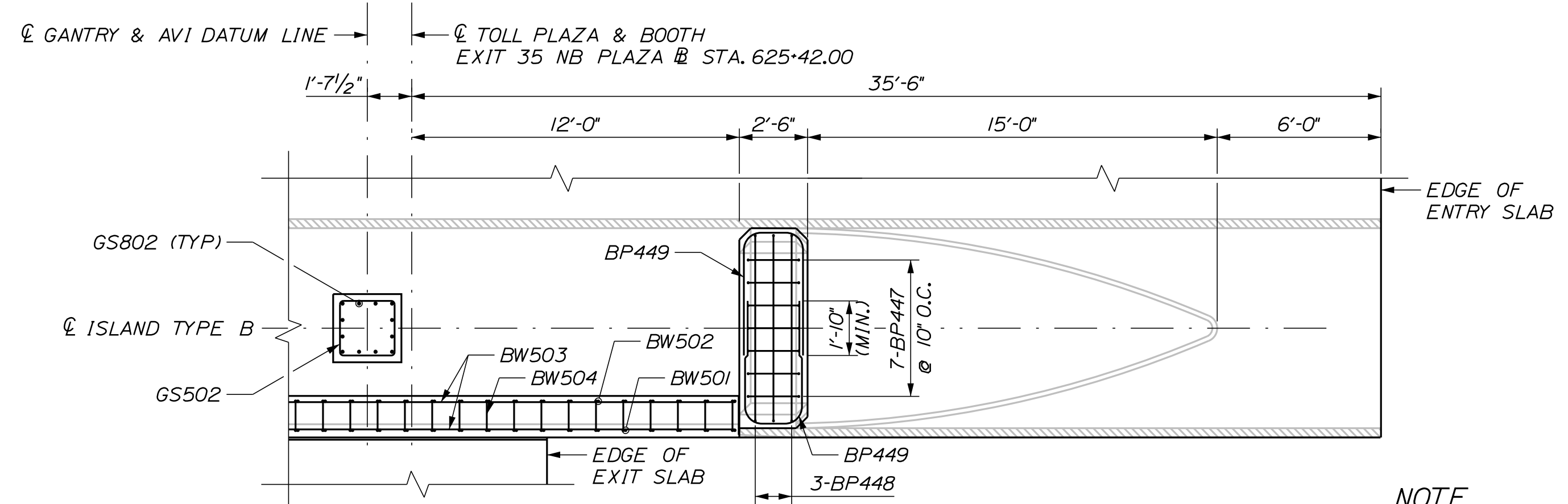
Date: 10/17/2022



ISLAND TYPE B REINFORCEMENT PLAN
SCALE: 1/4" = 1'-0"



BUMPER LOWER REINFORCEMENT PLAN
SCALE: 1/4" = 1'-0"




BARRIER, GANTRY PEDESTAL AND BUMPER UPPER REINFORCEMENT LAYOUT
SCALE: 1/4" = 1'-0"

NOTE
FOR SECTIONS M-M, N-N, O-O, AND P-P SEE SHEET TP-27.

Filename: ...00\PLAZA\MSTA\TP-26.dgn

Scale: AS NOTED			
No.	Revision	By	Date

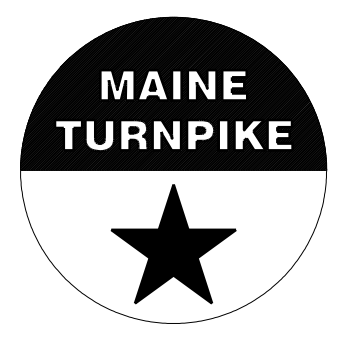
Designed by:



CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

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Designed	PAG	10\22	Checked	EPL	10\22
Drawn	JTB	10\22	In Charge of	LEM	10\22

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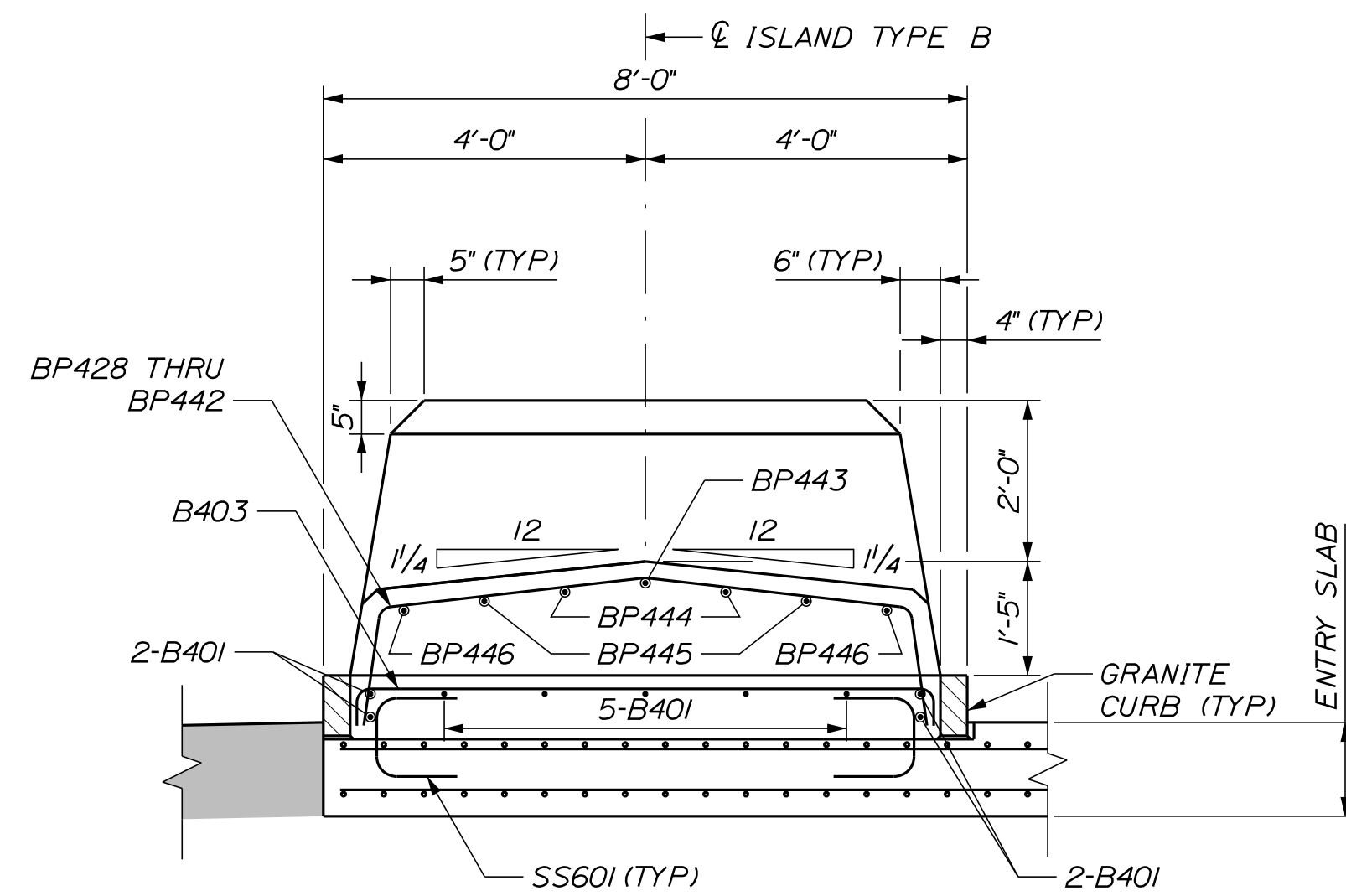
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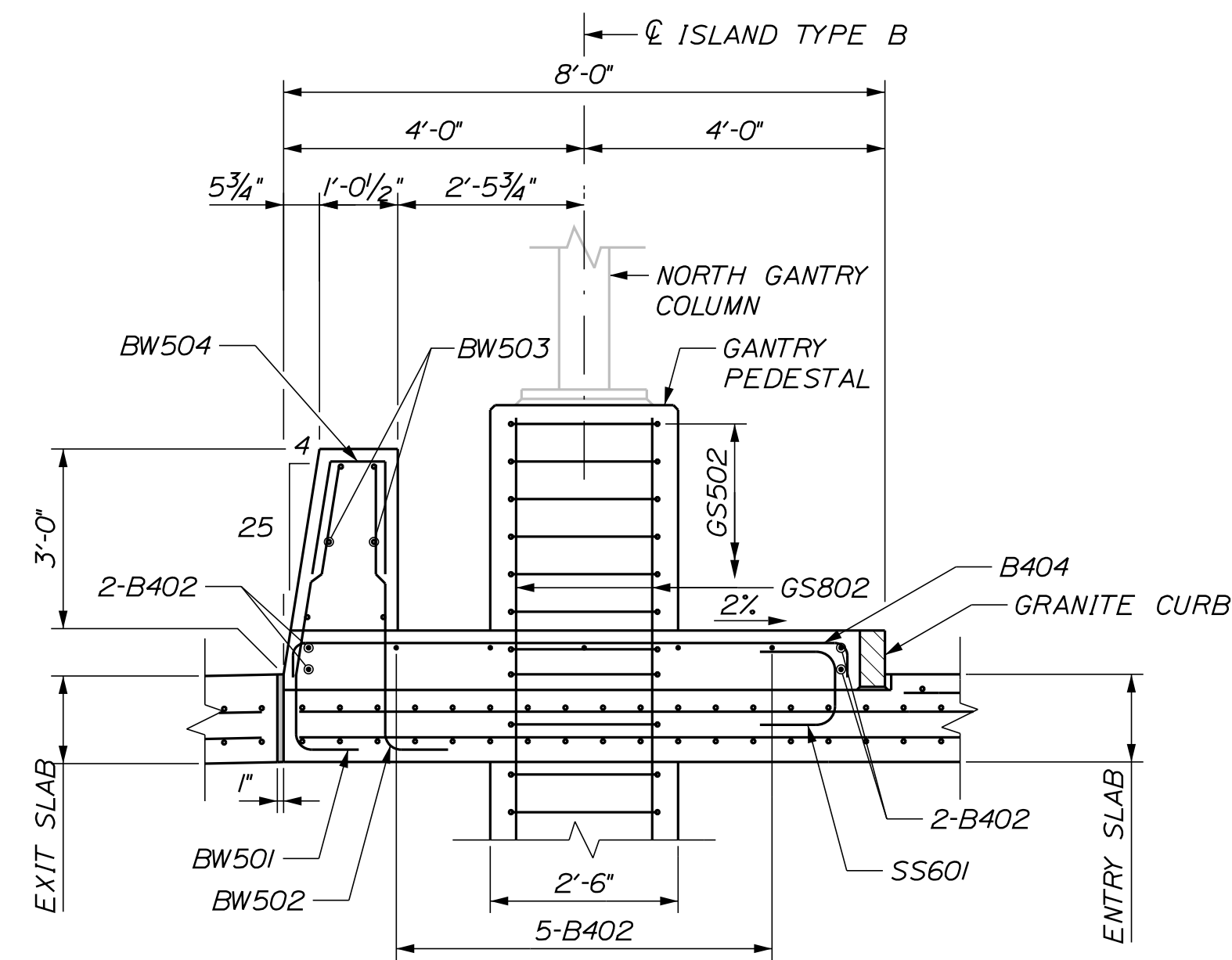
INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND ENTRY PLAZA
ISLAND TYPE B REINFORCEMENT

SHEET NUMBER: TP-26
CONTRACT: 2022.07
634 OF 735

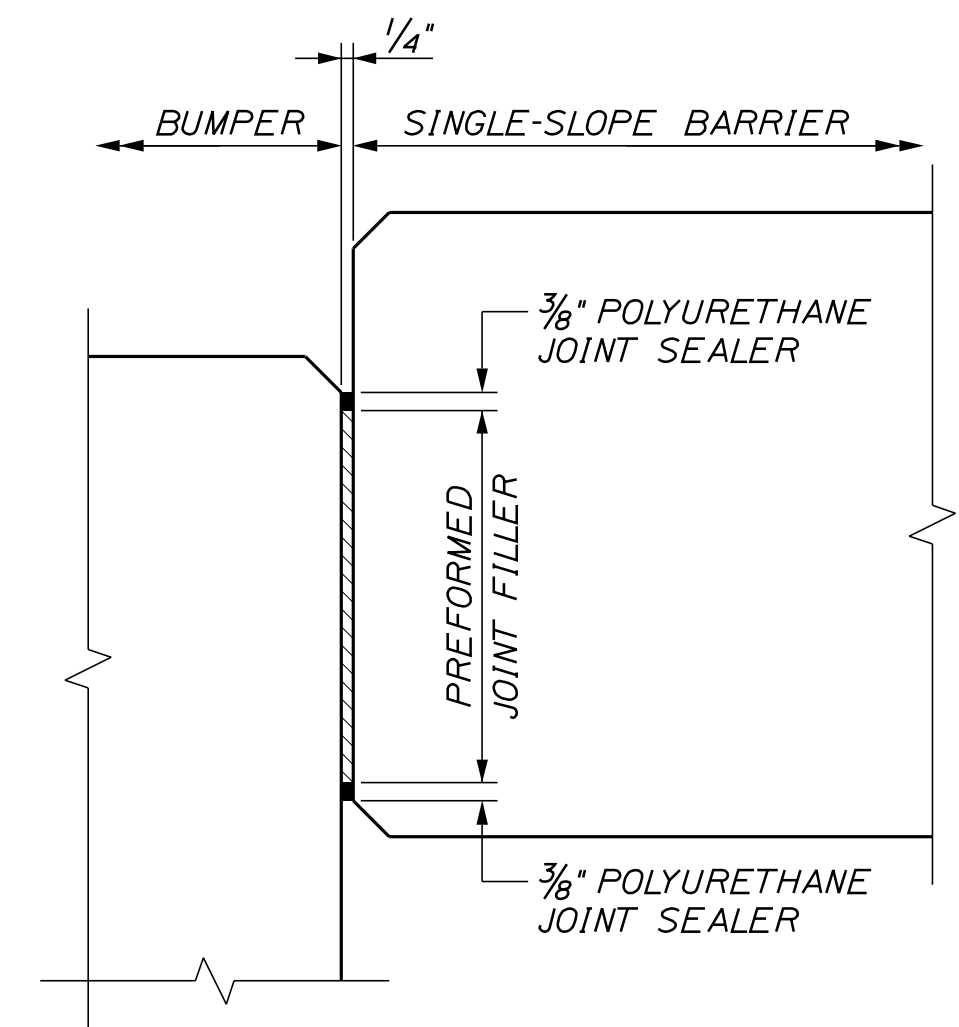
Date: 10/17/2022



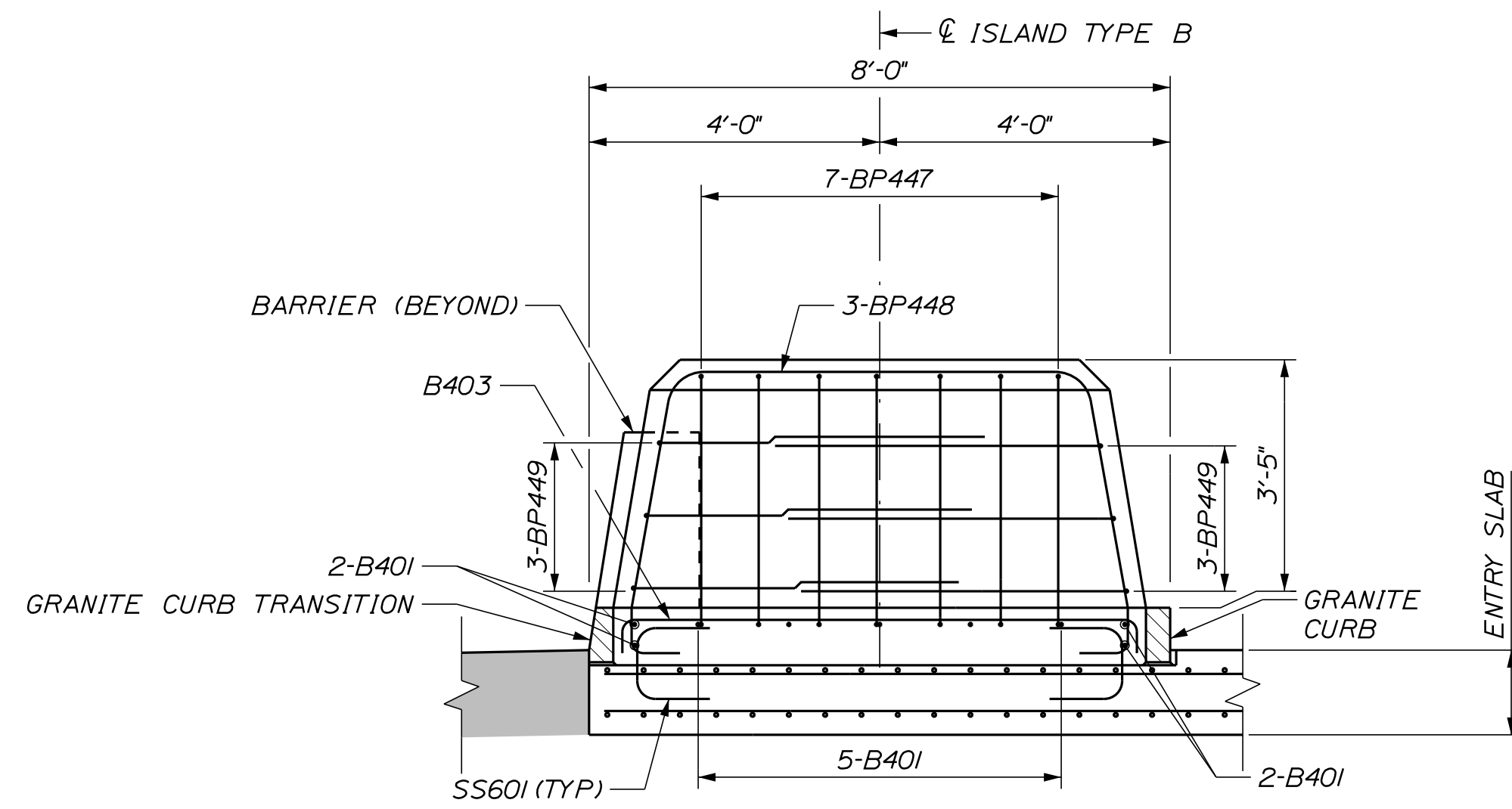
SECTION M-M
SCALE: 1/2" = 1'-0"



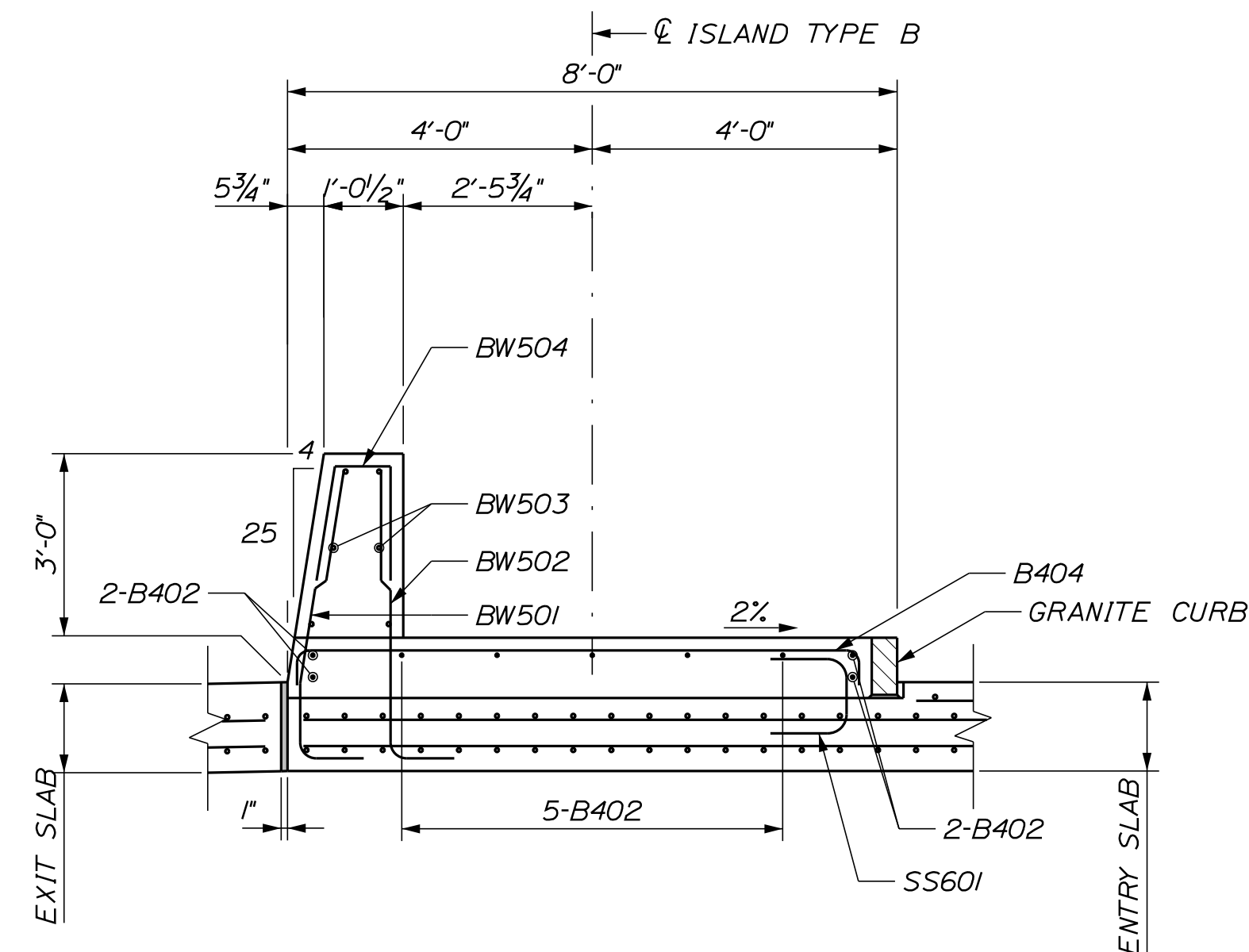
SECTION O-O
SCALE: 1/2" = 1'-0"



SECTION Q-Q
SCALE: 3" = 1'-0"



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



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

Filename: ...00\PLAZA\MSTA\TP-27.dgn

Scale:			
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CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
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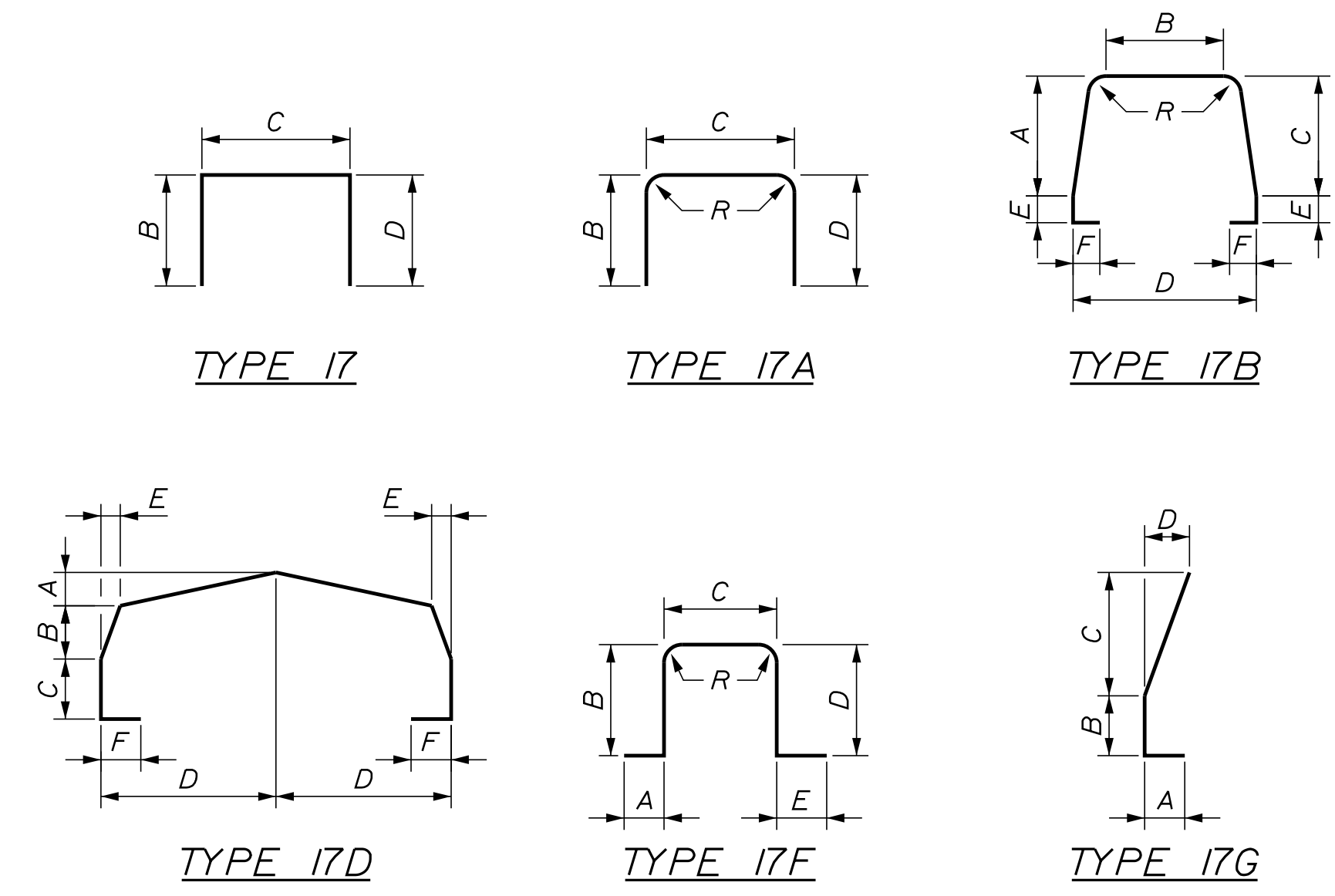
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND ENTRY PLAZA
ISLAND TYPE B SECTIONS

SHEET NUMBER: TP-27
CONTRACT: 2022.07
635 OF 735

TOLL ISLAND TYPE B REINFORCING STEEL SCHEDULE

MARK	SIZE	NB NO.	SB NO.	LENGTH	TYPE	A	B	C	D	E	F	G	INCR.	REMARKS
ISLAND - SLAB														
B401	4	9	--	25'-6"	STR									
B402	4	18	--	24'-0"	STR									
B403	4	24	--	7'-11"	17		5 1/2"	7'-0"	5 1/2"					
B404	4	47	--	8'-2"	17		5 1/2"	7'-3"	5 1/2"					
ISLAND - FRONT BUMPER BLOCK														
BP428	4	1	--	9'-5"	17D	4 1/2"	1'-5 1/2"	--	3'-6"	2 1/2"	--			
BP429	4	1	--	9'-3 1/2"	17D	4 1/2"	1'-4 1/2"	--	3'-6"	2 1/2"	--			
BP430	4	1	--	9'-0"	17D	4"	1'-4"	--	3'-5"	2 1/2"	--			
BP431	4	1	--	8'-8 1/2"	17D	4"	1'-3"	--	3'-4"	2 1/2"	--			
BP432	4	1	--	8'-4 1/2"	17D	4"	1'-2 1/2"	--	3'-2 1/2"	2 1/2"	--			
BP433	4	1	--	7'-11 1/2"	17D	4"	1'-1 1/2"	--	3'-1"	2 1/2"	--			
BP434	4	1	--	7'-6"	17D	3 1/2"	1'-1"	--	2'-10 1/2"	2"	--			
BP435	4	1	--	7'-0"	17D	3 1/2"	1'-0 1/2"	--	2'-8"	2"	--			
BP436	4	1	--	6'-6"	17D	3"	1'-0"	--	2'-5 1/2"	2"	--			
BP437	4	1	--	5'-10"	17D	3"	11"	--	2'-2 1/2"	2"	--			
BP438	4	1	--	5'-2"	17D	2 1/2"	10 1/2"	--	1'-10 1/2"	1 1/2"	--			
BP439	4	1	--	4'-7"	17D	2"	10 1/2"	--	1'-7"	1 1/2"	--			
BP440	4	1	--	3'-9"	17D	1 1/2"	10"	--	1'-3"	2"	--			
BP441	4	1	--	2'-11 1/2"	17D	1"	9 1/2"	--	10 1/2"	1 1/2"	--			
BP442	4	1	--	2'-1 1/2"	17D	--	9 1/2"	--	5 1/2"	1 1/2"	--			
BP443	4	1	--	16'-5"	STR									
BP444	4	2	--	14'-4"	STR									
BP445	4	2	--	11'-2"	STR									
BP446	4	2	--	16'-8"	STR									
BP447	4	7	--	9'-8 1/2"	17F		3'-5 1/2"	2'-1"	3'-5 1/2"	8"				* FIELD BEND AS REQUIRED R = 5 1/2" (INSIDE RADIUS)
BP448	4	3	--	14'-3 1/2"	17B	3'-3"	4'-10"	3'-3"	6'-10"	7 1/2"	8"			R = 5 1/2" (INSIDE RADIUS)
BP449	4	6	--	10'-7"	17A		4'-6"	2'-2"	4'-6"					R = 7" (INSIDE RADIUS)
ISLAND - BARRIER WALL														
BW501	5	47	--	4'-6"	17G	10"	11"	2'-9"	5 1/2"					
BW502	5	47	--	4'-6"	17		10"	3'-8"	--					
BW503	5	12	--	24'-6"	STR									
BW504	5	47	--	3'-8 1/2"	17G	1'-6"	8 1/2"	3"	1'-6"					3'-0" MIN. LAP



Date:10/17/2022

Filename: ...00\PLAZA\MSTA\TP-28.dgn

Scale:			
AS NOTED			
No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
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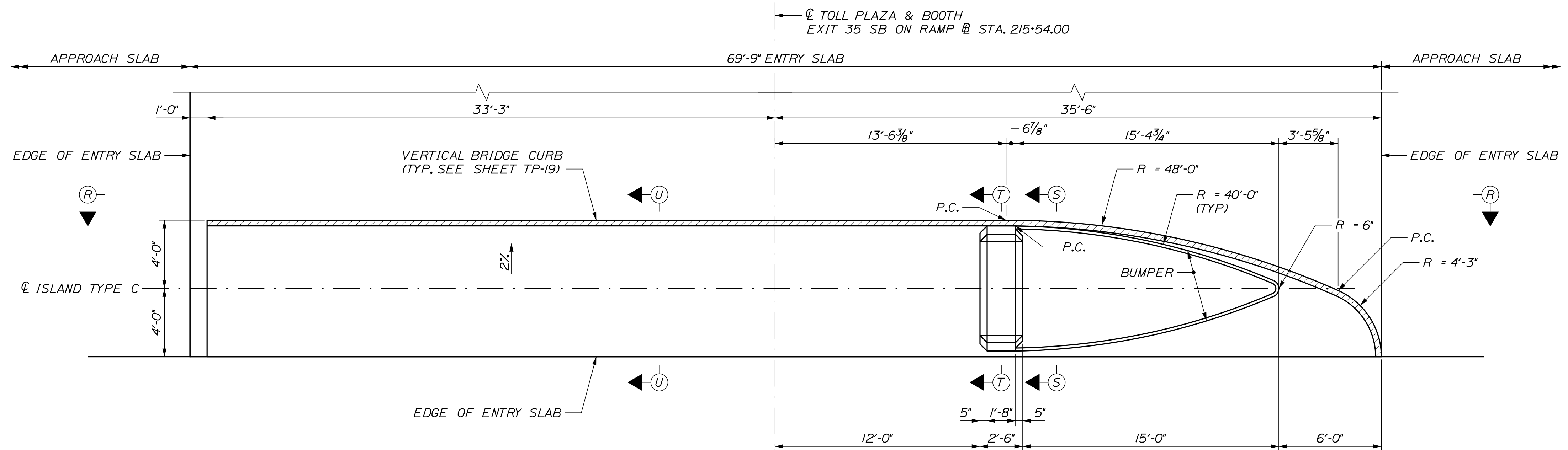
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

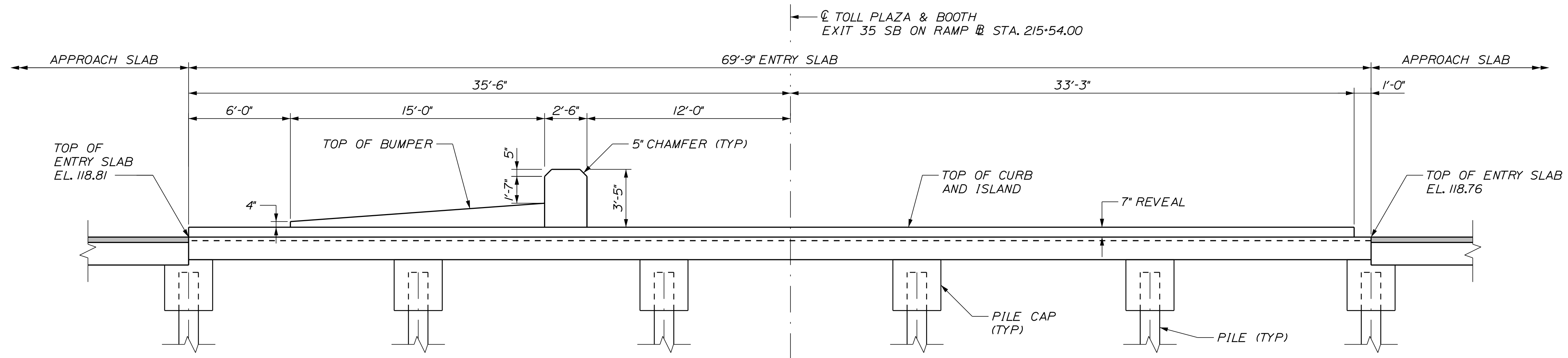
INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND ENTRY PLAZA
ISLAND TYPE B REINFORCING SCHEDULE

SHEET NUMBER: TP-28
CONTRACT:2022.07
636 OF 735

Date: 10/17/2022



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



SECTION R-R
SCALE: 1/4" = 1'-0"

NOTES

1. FOR REINFORCING DETAILS OF ISLAND TYPE C, SEE SHEETS TP-30 THROUGH TP-32.
2. FOR LOCATION OF ELECTRONIC TOLL COLLECTION EQUIPMENT, SEE ELECTRICAL PLANS.
3. FOR CONDUITS WITHIN ISLAND AND STRUCTURAL SLAB, SEE ELECTRICAL PLANS.
4. ISLAND SLABS TO HAVE ADDITIONAL CONSTRUCTION JOINTS OR SOFT CUT JOINTS SPACED EVERY 10 FEET OR AS DIRECTED BY THE RESIDENT.
5. GRANITE CURBING ON ISLAND TO BE PAID FOR UNDER ITEM 609.13 VERTICAL BRIDGE CURB, TYPE 1 AND 609.14 VERTICAL BRIDGE CURB, TYPE 1-CIRCULAR.
6. FOR SECTIONS S-S, T-T, AND U-U SEE SHEET TP-31.

Filename: ...00\PLAZA\MSTA\TP-29.dgn

Scale:			
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No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
Designed	PAG	10\22	Checked	EPL	10\22
Drawn	JTB	10\22	In Charge of	LEM	10\22

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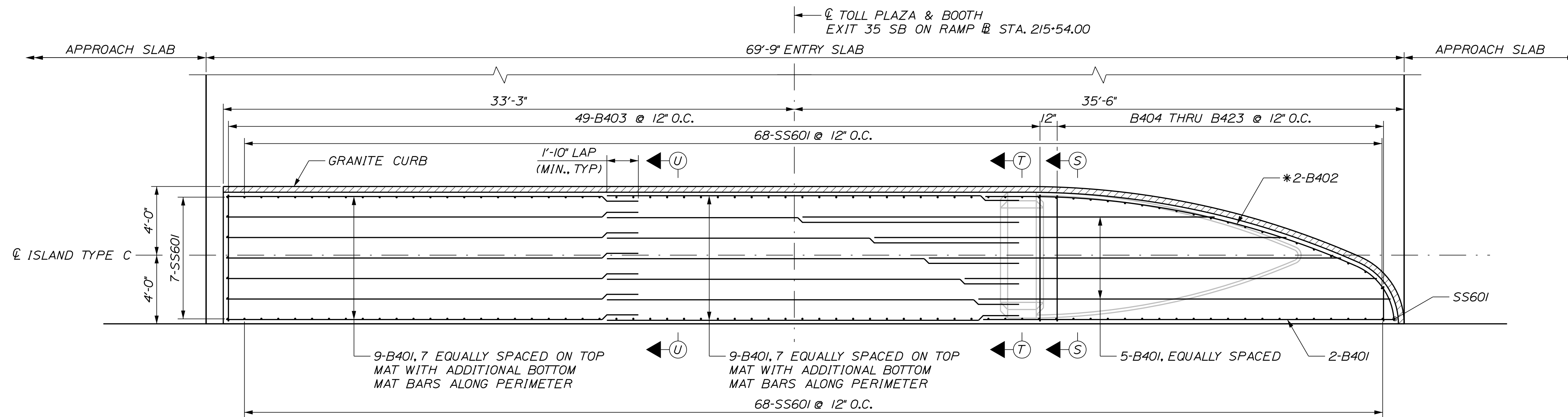
**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

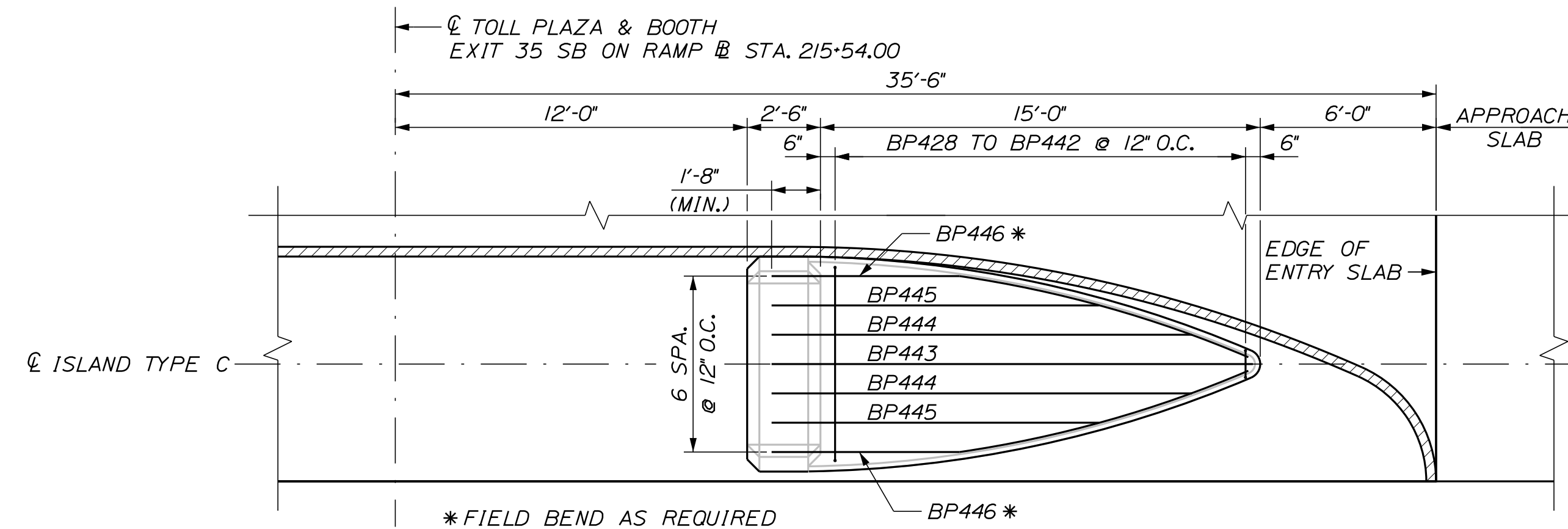
INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND ENTRY PLAZA
ISLAND TYPE C PLAN AND SECTION

SHEET NUMBER: TP-29
CONTRACT: 2022.07
637 OF 735

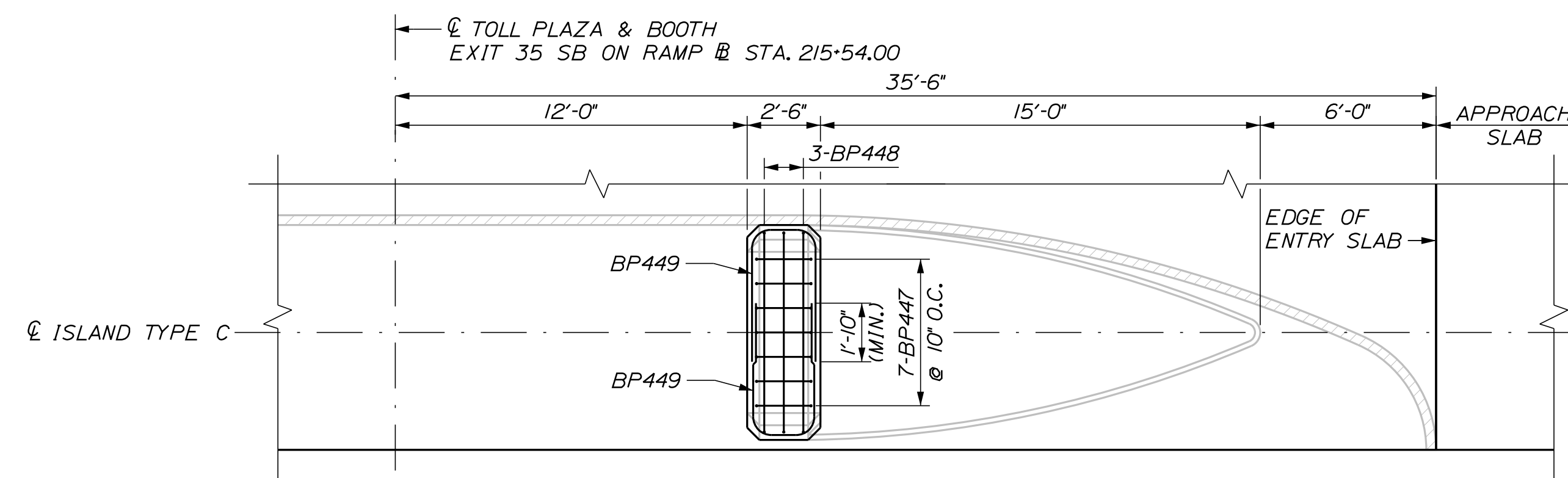
Date: 10/17/2022



ISLAND TYPE C REINFORCEMENT PLAN
SCALE: 1/4" = 1'-0"



BUMPER LOWER REINFORCEMENT PLAN
SCALE: 1/4" = 1'-0"



BUMPER UPPER REINFORCEMENT LAYOUT
SCALE: 1/4" = 1'-0"

NOTE
FOR SECTIONS S-S, T-T, AND SEE SHEET TP-31.

Filename: ...00\PLAZA\MSTA\TP-30.dgn

Scale:			
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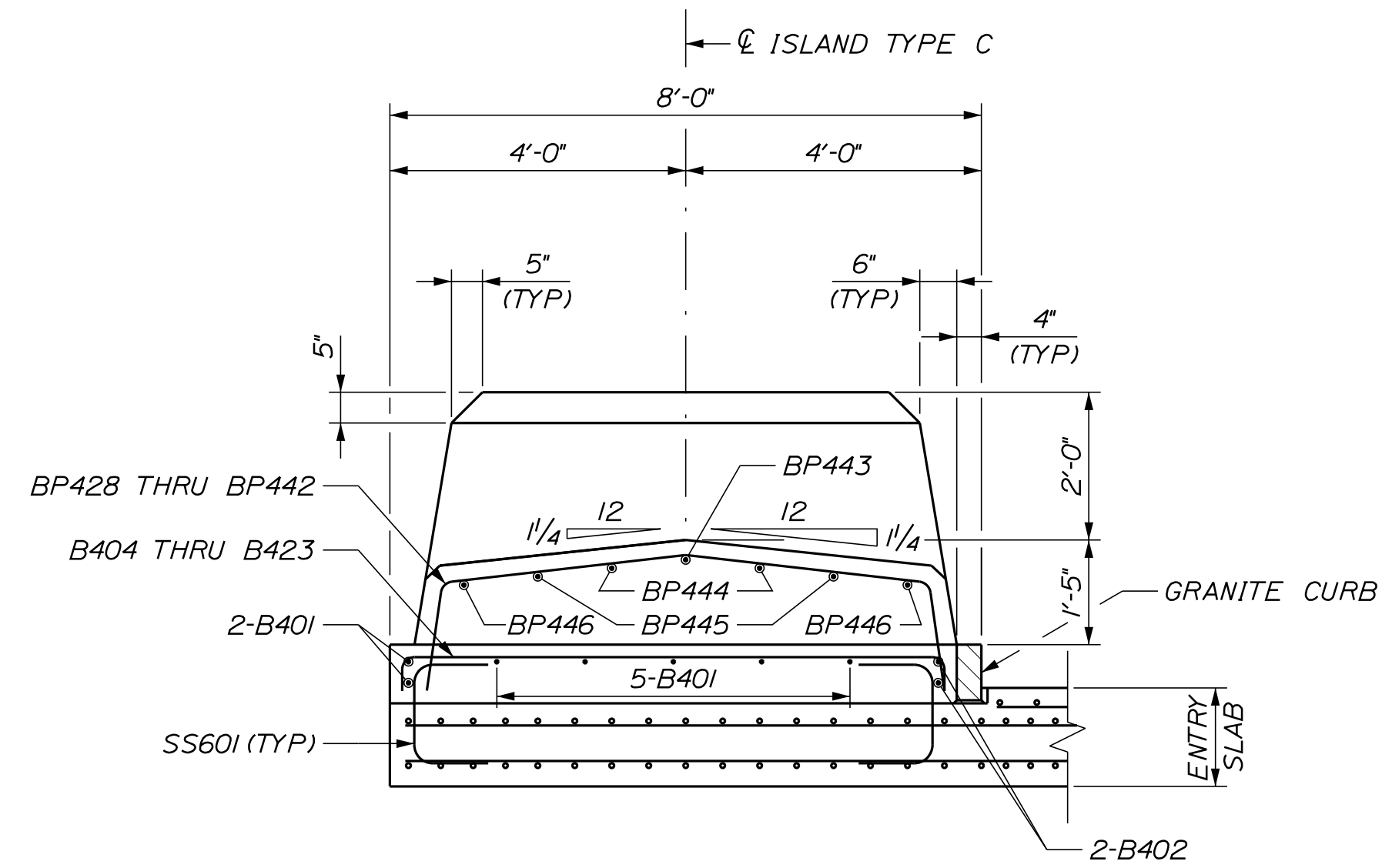
**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

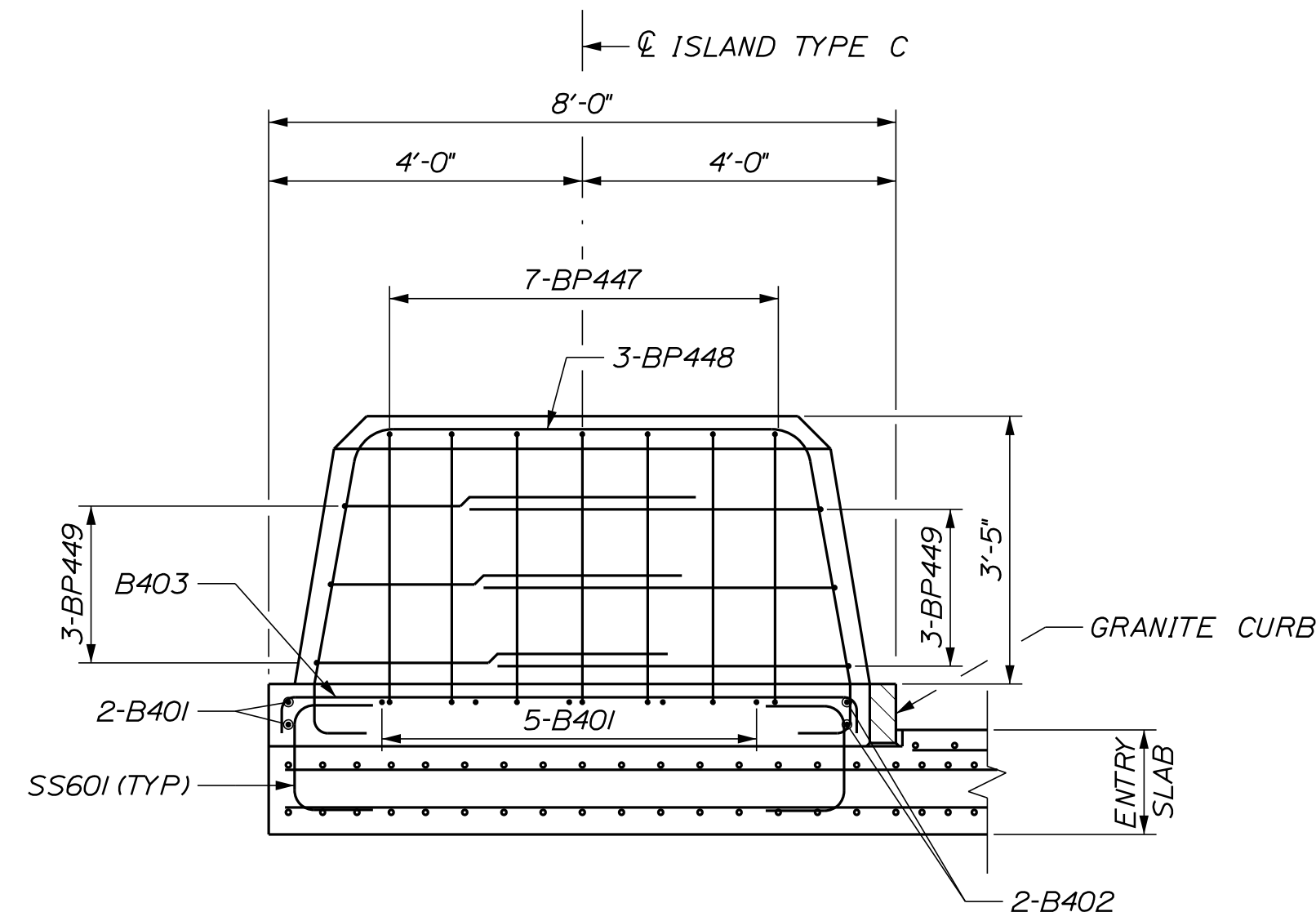
INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND ENTRY PLAZA
ISLAND TYPE C REINFORCEMENT

SHEET NUMBER: TP-30
CONTRACT: 2022.07
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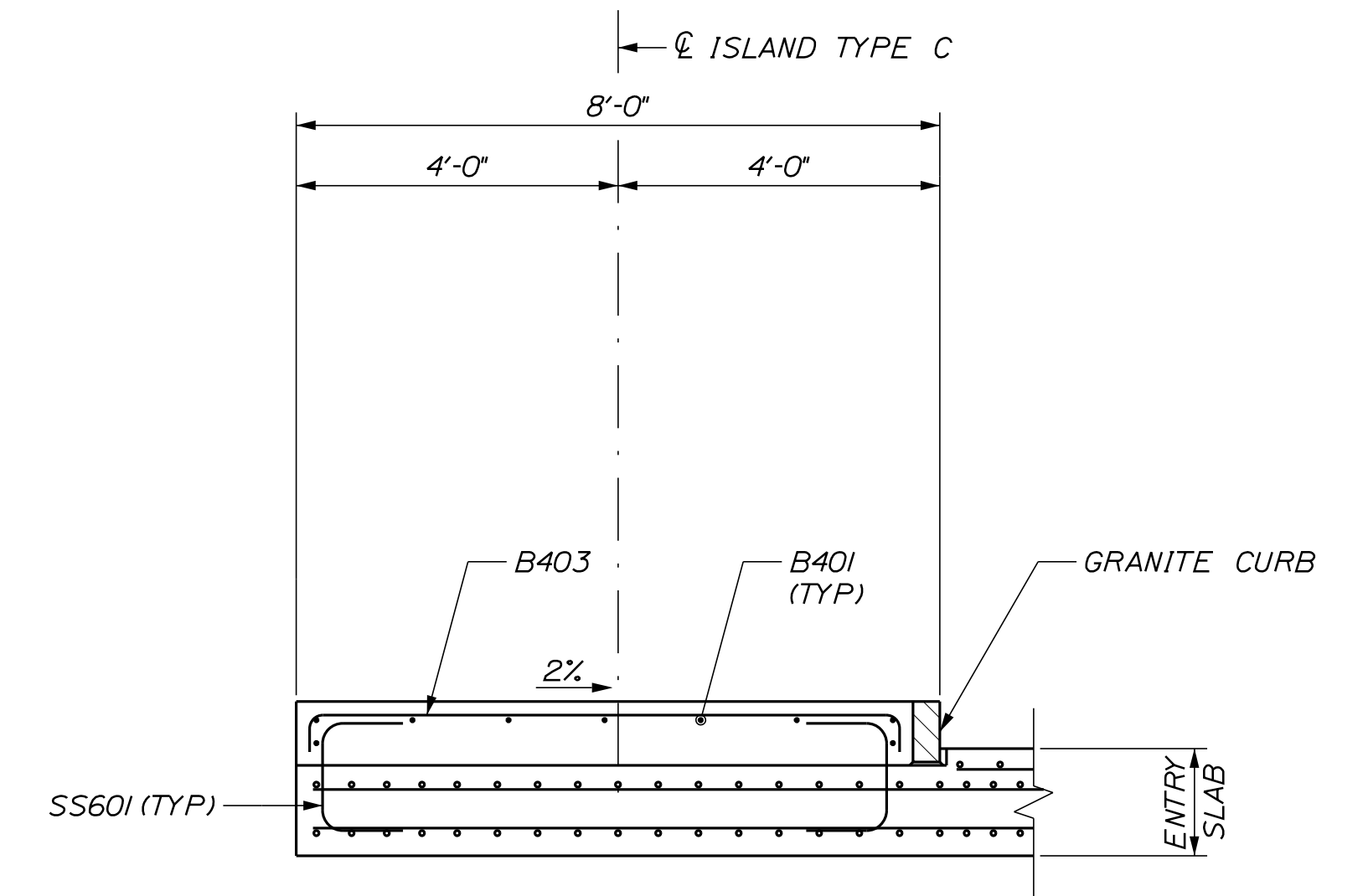
Date: 10/17/2022



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



SECTION T-T
SCALE: 1/2" = 1'-0"




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

Filename: ...00\PLAZA\MSTA\TP-31.dgn

Scale:			
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THE GOLD STAR MEMORIAL HIGHWAY

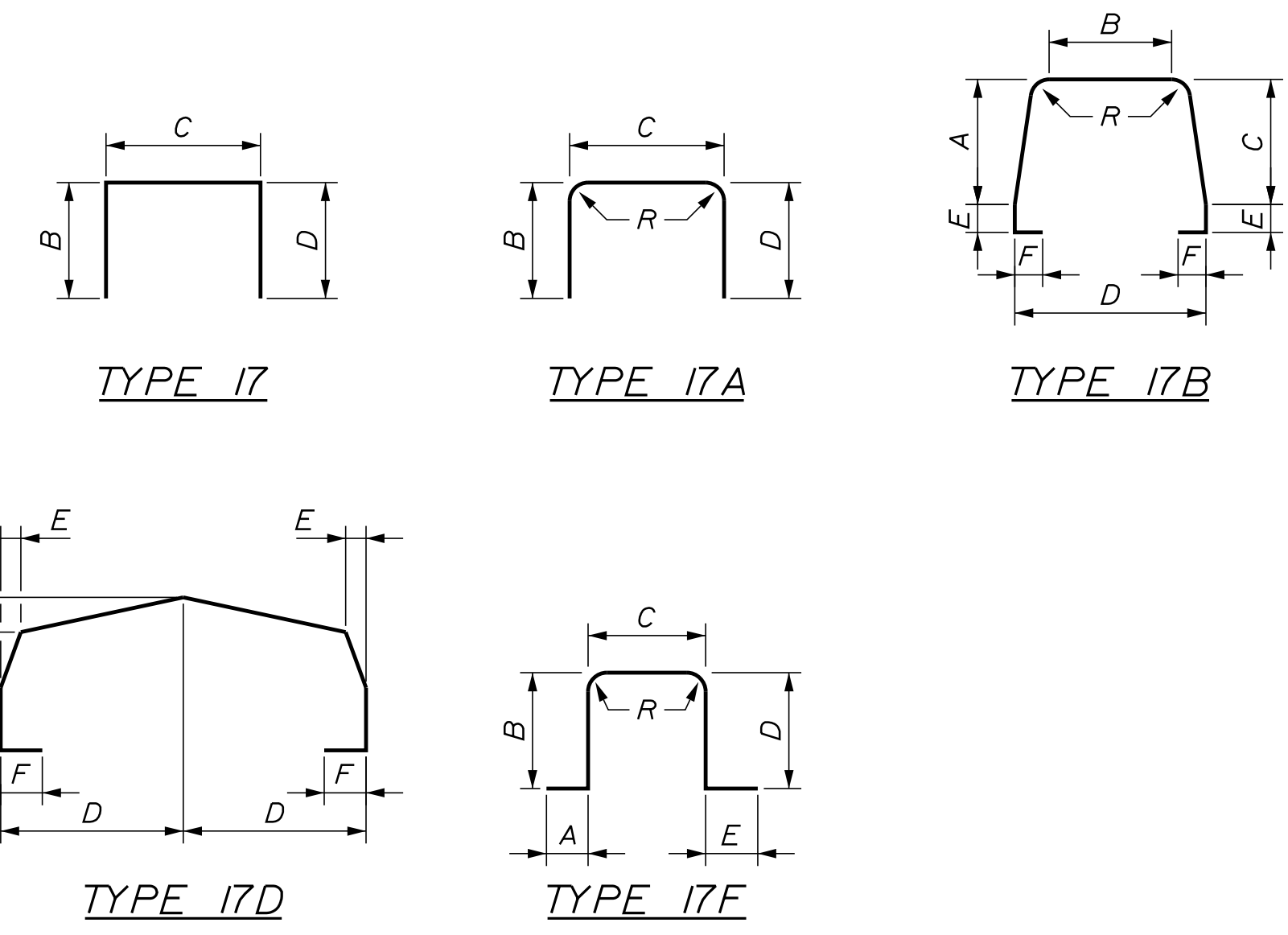
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND ENTRY PLAZA
ISLAND TYPE C SECTIONS

SHEET NUMBER: TP-31
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TOLL ISLAND TYPE C REINFORCING STEEL SCHEDULE

MARK	SIZE	NB NO.	SB NO.	LENGTH	TYPE	A	B	C	D	E	F	G	INCR.	REMARKS
ISLAND - SLAB														
B401	4	--	25	24'-0"	STR									
B402	4	--	2	26'-3"	STR									* FIELD BEND AS REQUIRED
B403	4	--	49	8'-3"	17		5 1/2"	7'-4"	5 1/2"					
B404	4	--	1	8'-2 1/2"	17		5 1/2"	7'-3 1/2"	5 1/2"					
B405	4	--	1	8'-2"	17		5 1/2"	7'-3"	5 1/2"					
B406	4	--	1	8'-1"	17		5 1/2"	7'-2"	5 1/2"					
B407	4	--	1	8'-0"	17		5 1/2"	7'-1"	5 1/2"					
B408	4	--	1	7'-10 1/2"	17		5 1/2"	6'-11 1/2"	5 1/2"					
B409	4	--	1	7'-9"	17		5 1/2"	6'-10"	5 1/2"					
B410	4	--	1	7'-7"	17		5 1/2"	6'-8"	5 1/2"					
B411	4	--	1	7'-5"	17		5 1/2"	6'-6"	5 1/2"					
B412	4	--	1	7'-2 1/2"	17		5 1/2"	6'-3 1/2"	5 1/2"					
B413	4	--	1	7'-0"	17		5 1/2"	6'-1"	5 1/2"					
B414	4	--	1	6'-9"	17		5 1/2"	5'-10"	5 1/2"					
B415	4	--	1	6'-6"	17		5 1/2"	5'-7"	5 1/2"					
B416	4	--	1	6'-2 1/2"	17		5 1/2"	5'-3 1/2"	5 1/2"					
B417	4	--	1	5'-10 1/2"	17		5 1/2"	4'-11 1/2"	5 1/2"					
B418	4	--	1	5'-6 1/2"	17		5 1/2"	4'-7 1/2"	5 1/2"					
B419	4	--	1	5'-2"	17		5 1/2"	4'-3"	5 1/2"					
B420	4	--	1	4'-9 1/2"	17		5 1/2"	3'-10 1/2"	5 1/2"					
B421	4	--	1	4'-4 1/2"	17		5 1/2"	3'-5 1/2"	5 1/2"					
B422	4	--	1	3'-10 1/2"	17		5 1/2"	2'-11 1/2"	5 1/2"					
B423	4	--	1	2'-11"	17		5 1/2"	2'-0"	5 1/2"					
ISLAND - FRONT BUMPER BLOCK														
BP428	4	--	1	9'-5"	17D	4 1/2"	1'-5 1/2"	--	3'-6"	2 1/2"	--			
BP429	4	--	1	9'-3 1/2"	17D	4 1/2"	1'-4 1/2"	--	3'-6"	2 1/2"	--			
BP430	4	--	1	9'-0"	17D	4"	1'-4"	--	3'-5"	2 1/2"	--			
BP431	4	--	1	8'-8 1/2"	17D	4"	1'-3"	--	3'-4"	2 1/2"	--			
BP432	4	--	1	8'-4 1/2"	17D	4"	1'-2 1/2"	--	3'-2 1/2"	2 1/2"	--			
BP433	4	--	1	7'-11 1/2"	17D	4"	1'-1 1/2"	--	3'-1"	2 1/2"	--			
BP434	4	--	1	7'-6"	17D	3 1/2"	1'-1"	--	2'-10 1/2"	2"	--			
BP435	4	--	1	7'-0"	17D	3 1/2"	1'-0 1/2"	--	2'-8"	2"	--			
BP436	4	--	1	6'-6"	17D	3"	1'-0"	--	2'-5 1/2"	2"	--			
BP437	4	--	1	5'-10"	17D	3"	11"	--	2'-2 1/2"	2"	--			
BP438	4	--	1	5'-2"	17D	2 1/2"	10 1/2"	--	1'-10 1/2"	1 1/2"	--			
BP439	4	--	1	4'-7"	17D	2"	10 1/2"	--	1'-7"	1 1/2"	--			
BP440	4	--	1	3'-9"	17D	1 1/2"	10"	--	1'-3"	2"	--			
BP441	4	--	1	2'-11 1/2"	17D	1"	9 1/2"	--	10 1/2"	1 1/2"	--			
BP442	4	--	1	2'-1 1/2"	17D	--	9 1/2"	--	5 1/2"	1 1/2"	--			
BP443	4	--	1	16'-5"	STR									
BP444	4	--	2	14'-4"	STR									
BP445	4	--	2	11'-2"	STR									
BP446	4	--	2	16'-8"	STR									
BP447	4	--	7	9'-8 1/2"	17F	8"	3'-5 1/2"	2'-1"	3'-5 1/2"	8"				* FIELD BEND AS REQUIRED
BP448	4	--	3	14'-3 1/2"	17B	3'-3"	4'-10"	3'-3"	6'-10"	7 1/2"	8"			R = 5 1/2" (INSIDE RADIUS)
BP449	4	--	6	10'-7"	17A		4'-6"	2'-2"	4'-6"					R = 7" (INSIDE RADIUS)



Date: 10/17/2022

Filename: ...00\PLAZA\MSTA\TP-32.dgn

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THE GOLD STAR MEMORIAL HIGHWAY

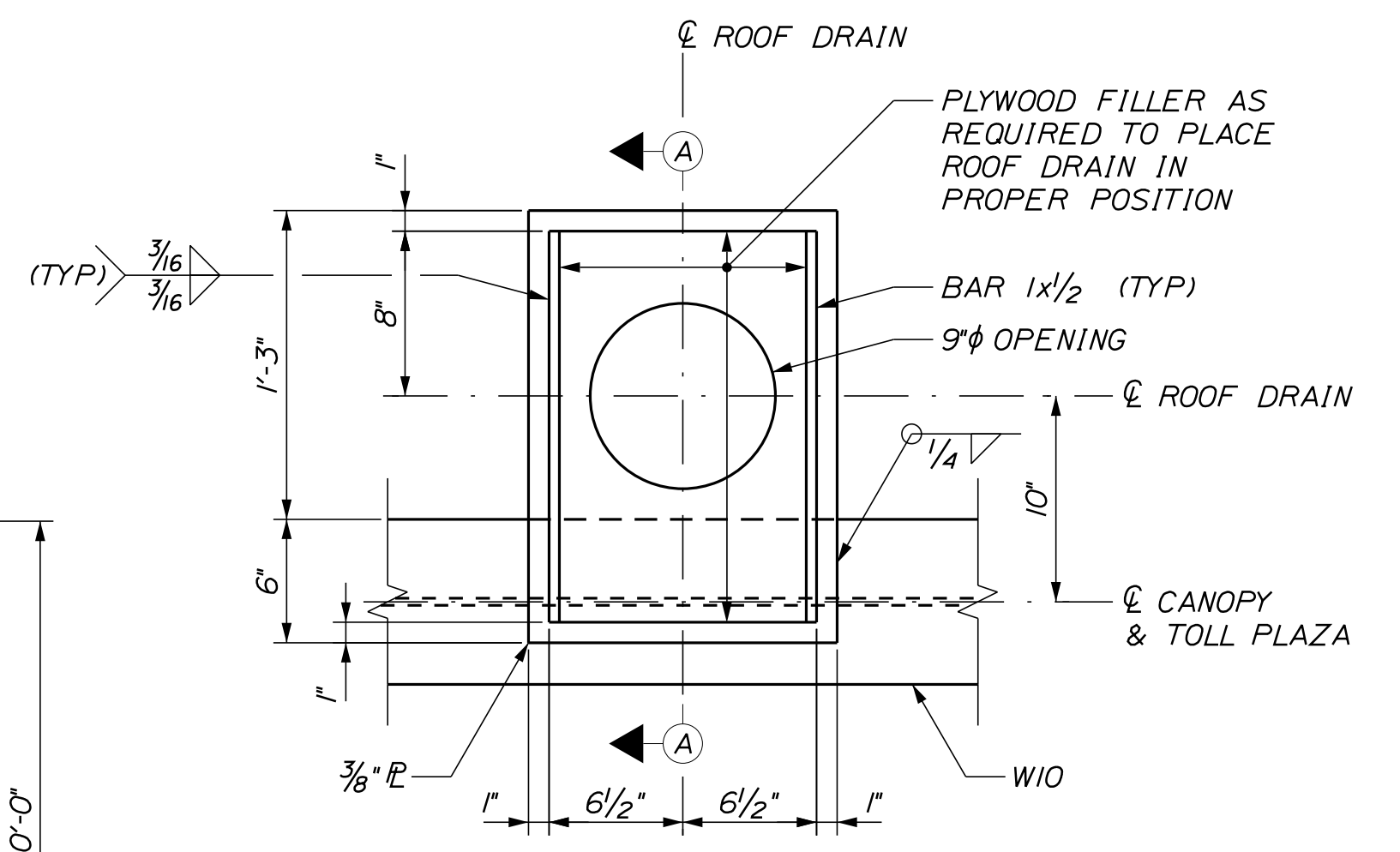
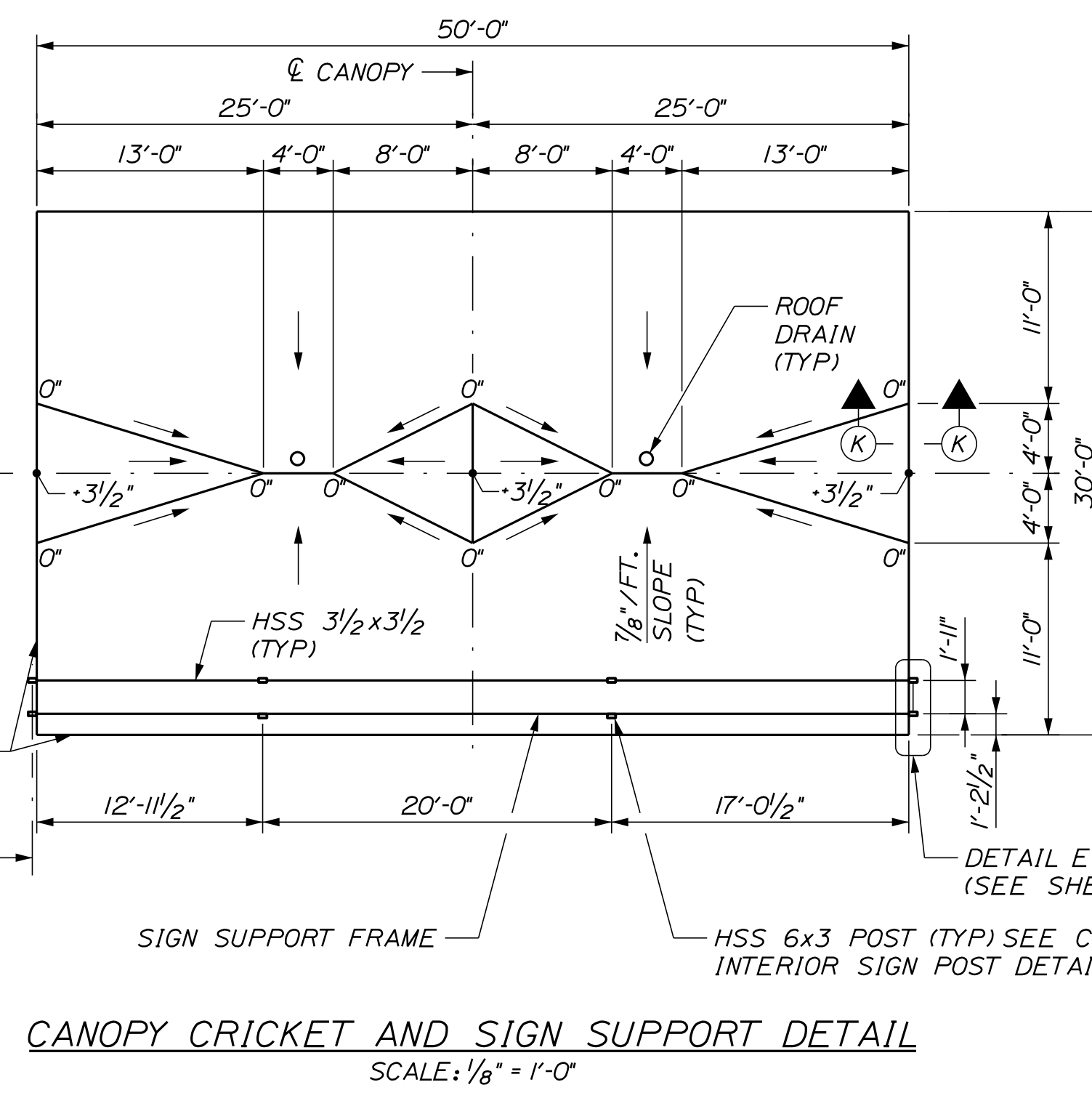
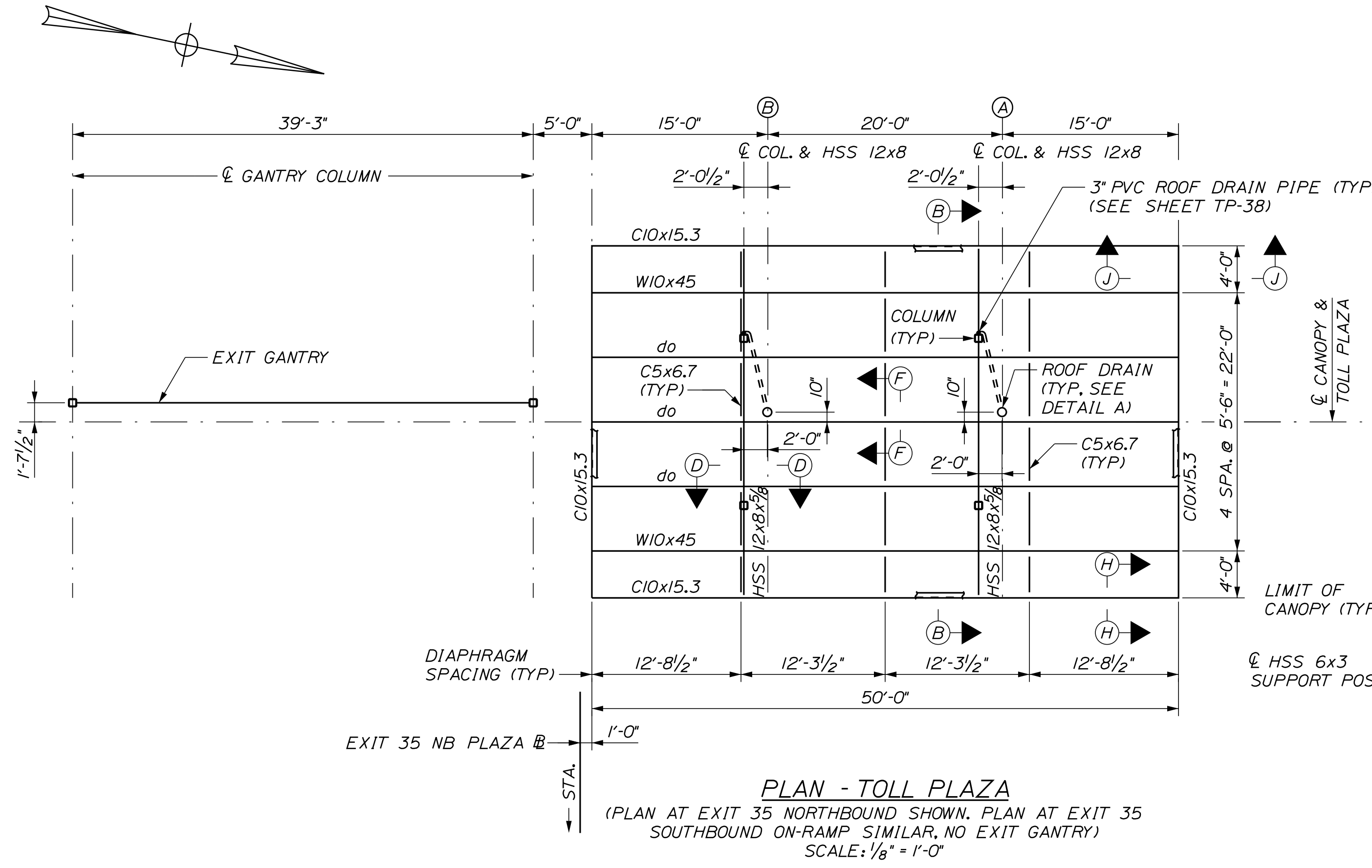
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 SOUTHBOUND ENTRY PLAZA
 ISLAND TYPE C REINFORCING SCHEDULE

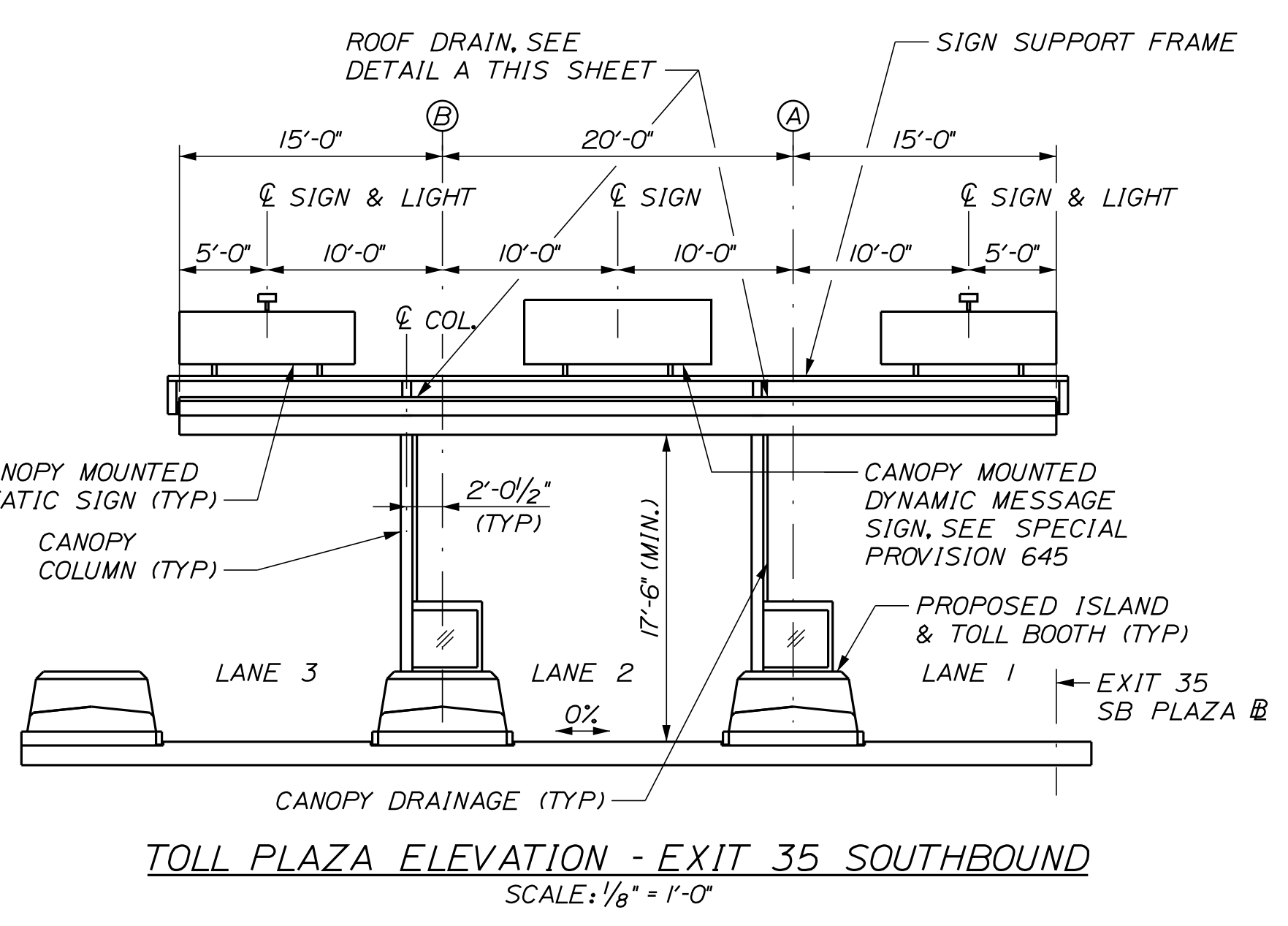
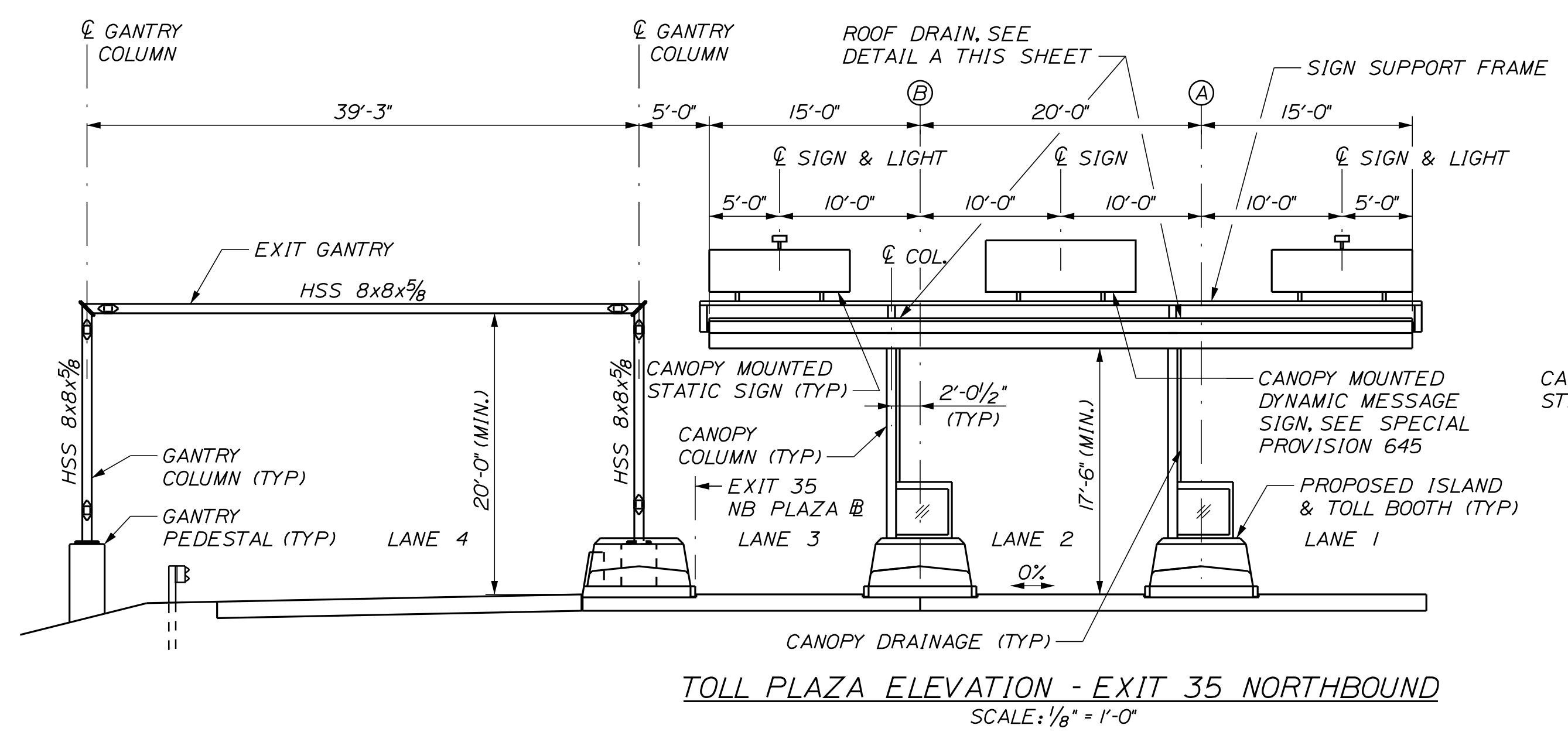
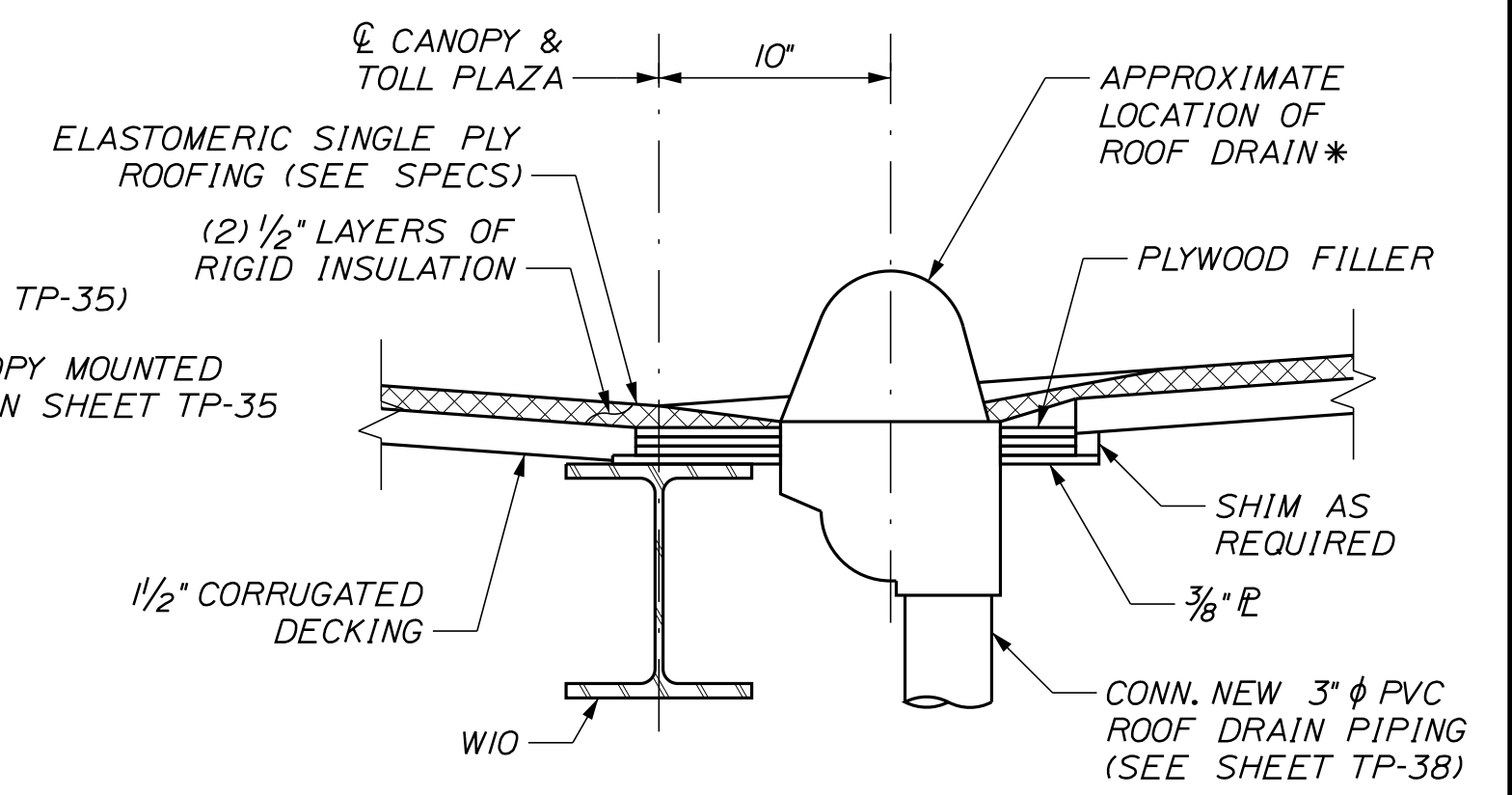
SHEET NUMBER: TP-32
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* NOTE: FOR ADDITIONAL DETAILS FOR THE INSTALLATION OF ROOF DRAIN, SEE MECHANICAL DRAWINGS.



NOTES

- FOR SECTIONS B-B, D-D, F-F, H-H, J-J, AND K-K, SEE SHEET TP-34.
- FOR CANOPY SIGN SUPPORT DETAILS SEE SHEET TP-35.
- BOLTED CONNECTIONS BETWEEN STEEL ELEMENTS SHALL BE MADE WITH ASTM A325 HIGH STRENGTH BOLTS. MINIMUM BOLT SIZE SHALL BE 3/4" UNLESS NOTED OTHERWISE.
- WELDED CONNECTIONS BETWEEN STEEL ELEMENTS SHALL BE MADE WITH WELD MATERIAL CONFORMING TO E70XX. MINIMUM WELD SIZE SHALL BE 1/4" UNLESS NOTED OTHERWISE.
- METAL ROOF DECK SHALL CONFORM TO ASTM A653, STRUCTURAL GRADE 33, AND SHALL HAVE ZINC COATED FINISH OF G-90 OR BETTER. ROOF DECKING SHALL BE ATTACHED TO CANOPY USING MECHANICAL FASTENERS. ROOF DECKING SHALL HAVE A MINIMUM GAGE OF 18 WITH THE FOLLOWING MINIMUM CROSS SECTIONAL PROPERTIES:
 $I_p = 0.289 \text{ in}^4/\text{ft}$ $S_p = 0.318 \text{ in}^3/\text{ft}$
 $I_n = 0.295 \text{ in}^4/\text{ft}$ $S_n = 0.327 \text{ in}^3/\text{ft}$
- PROPOSED CANOPY DRAINAGE PIPES AND CONNECTIONS WILL BE INCIDENTAL TO RELATED 504 TOLL PLAZA CANOPY ITEMS.
- THE CONTRACTOR SHALL FIT ALL ENDS OF CANOPY SIGN SUPPORTS OPEN TO THE WEATHER WITH AN APPROPRIATE CAST ALUMINUM OR GALVANIZED CAST IRON CAP SECURED IN PLACE WITH STAINLESS SET SCREWS.
- SEE NOTE 17 ON SHEET TP-01 AND SPECIAL PROVISION 506 FOR PAINTING REQUIREMENTS.

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THE GOLD STAR MEMORIAL HIGHWAY

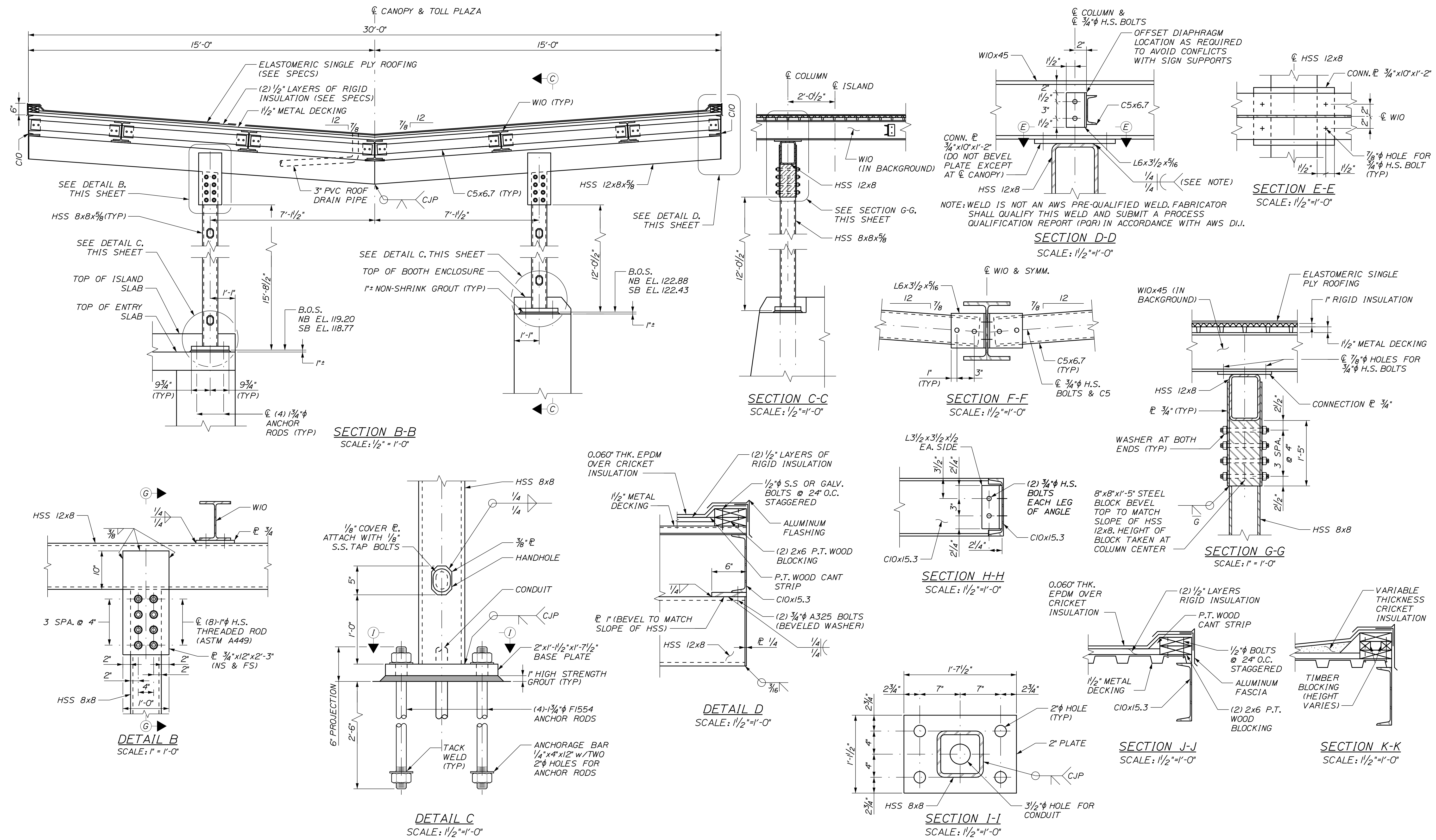
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND AND SOUTHBOUND
CANOPY PLAN AND ELEVATION

SHEET NUMBER: TP-33
CONTRACT: 2022.07
6410F 735

Date: 10/17/2022

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MAINE TURNPIKE

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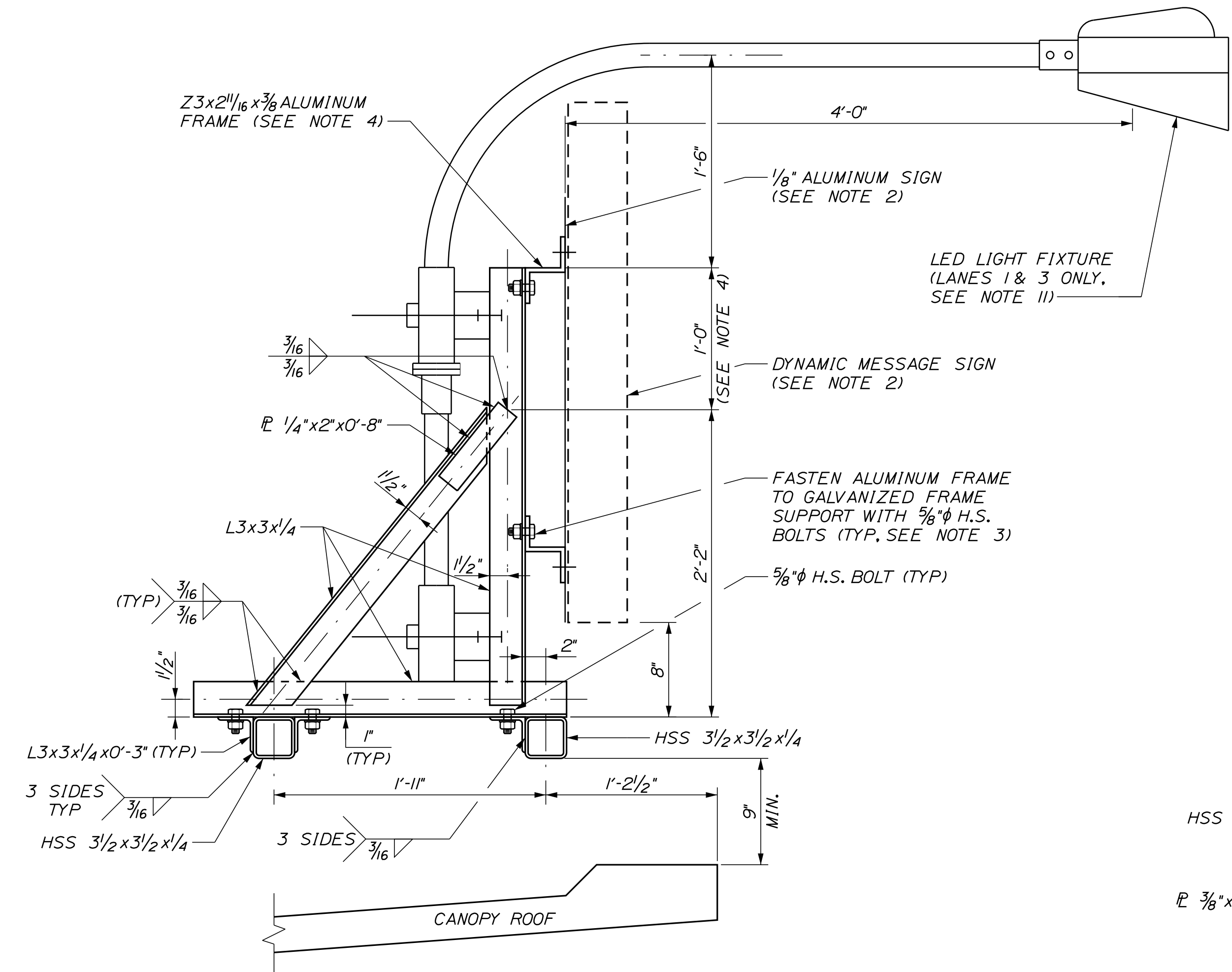
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND AND SOUTHBOUND
CANOPY SECTION AND DETAILS

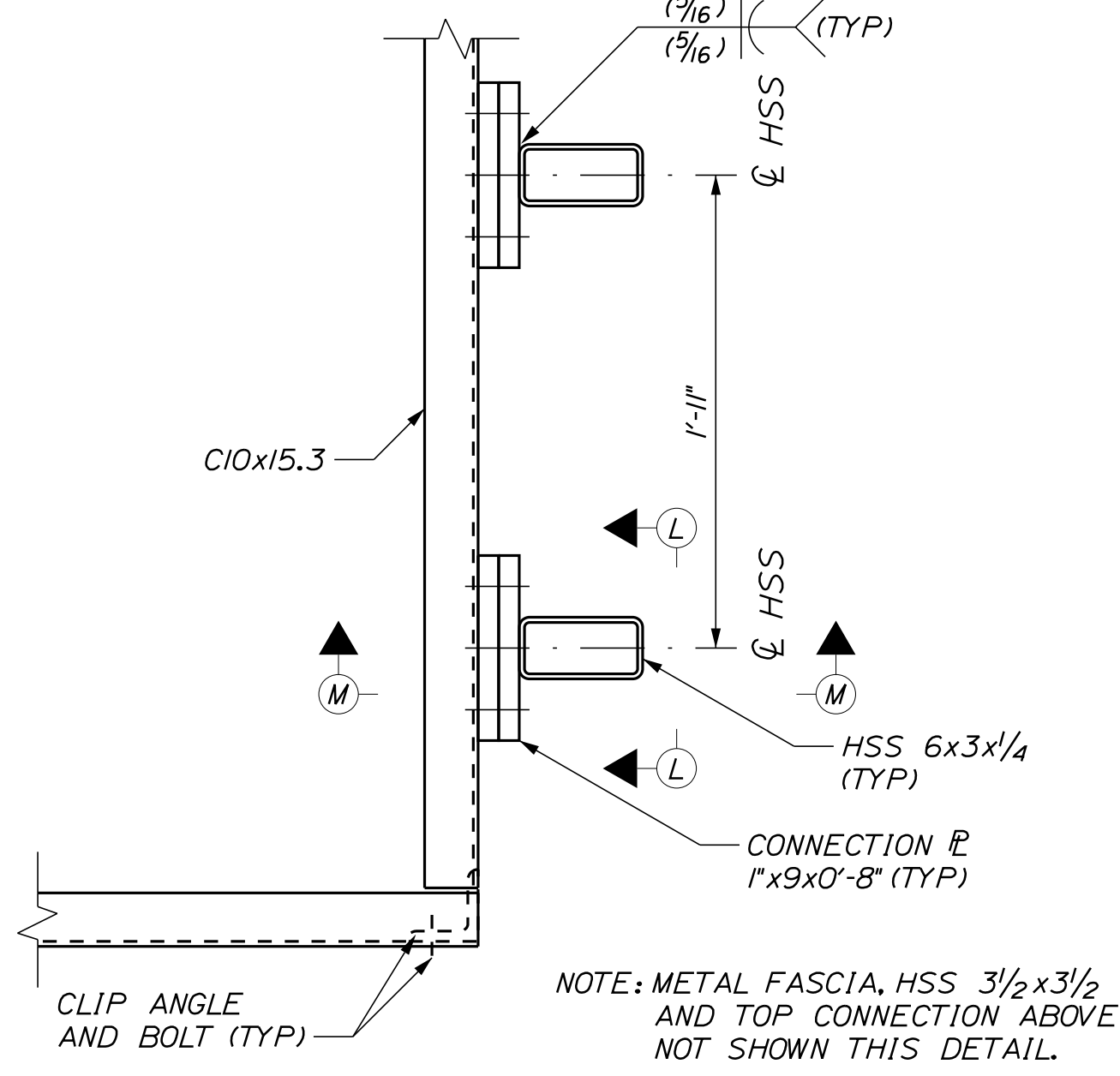
SHEET NUMBER: TP-34
CONTRACT: 2022.07
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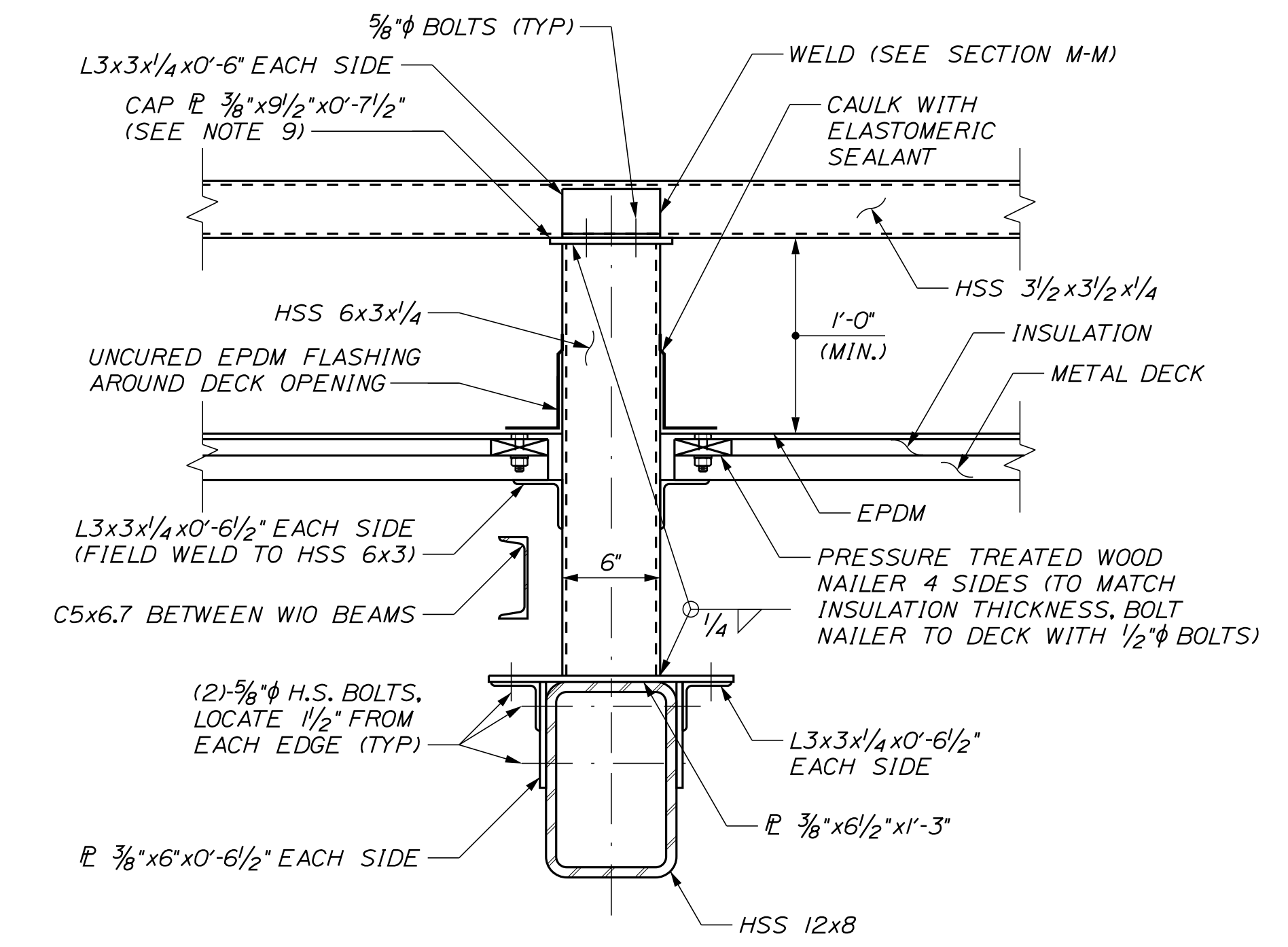
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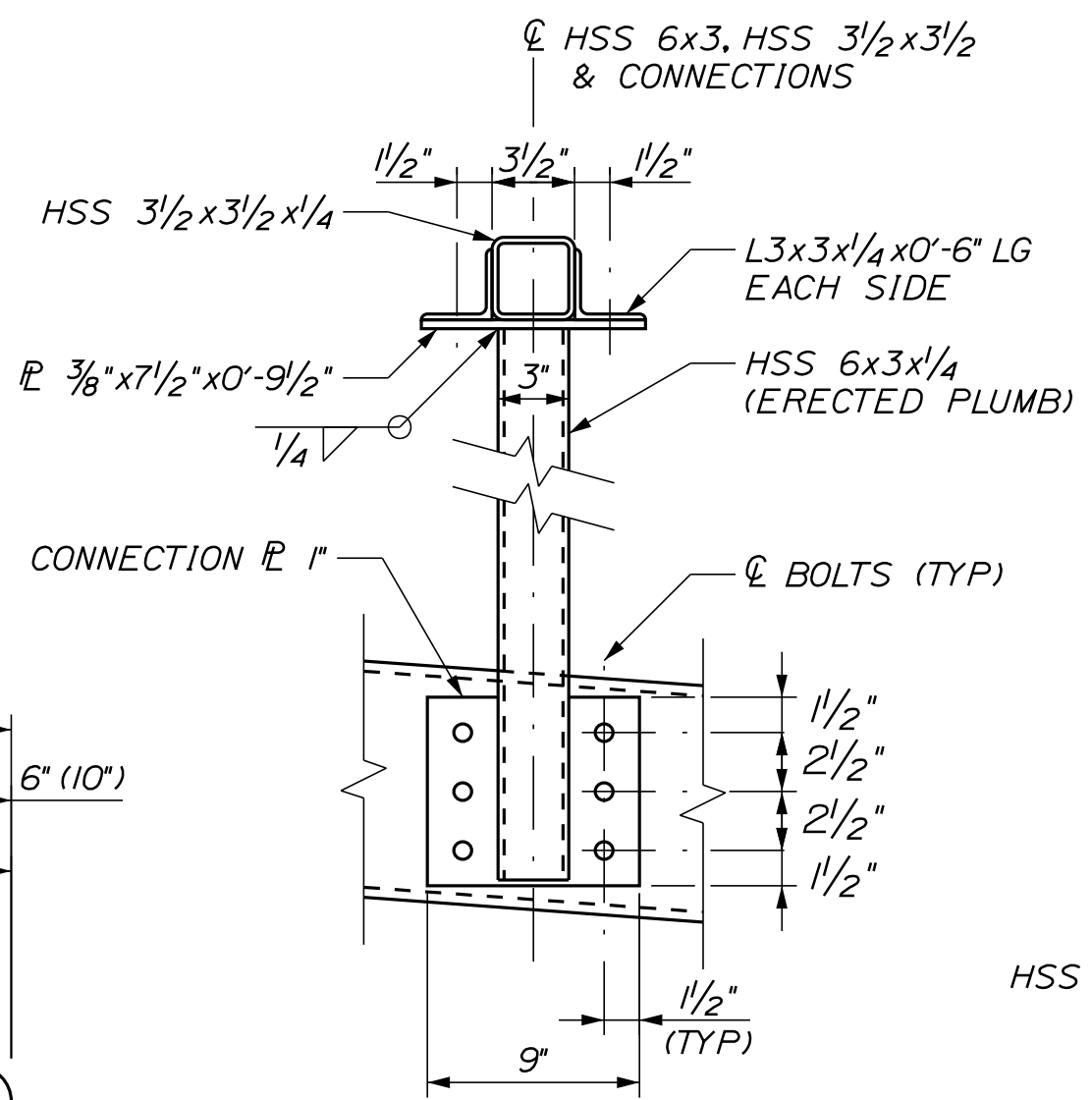
CANOPY MOUNTED SIGN SUPPORT
SCALE: 1/2" = 1'-0"



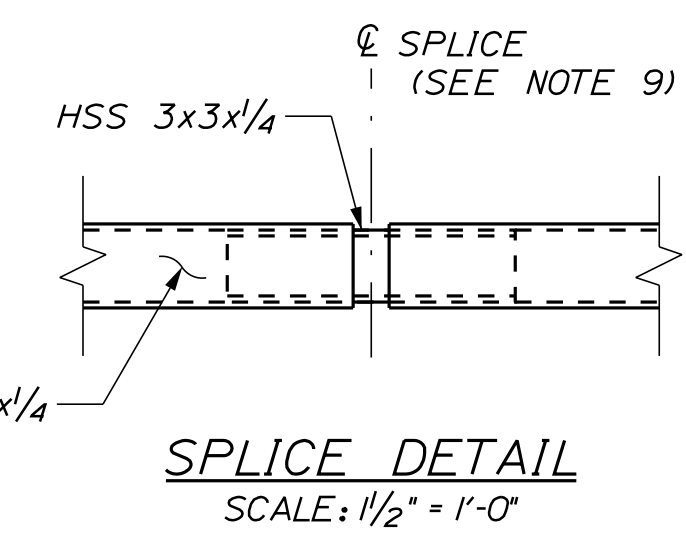
DETAIL E
SCALE: 1/2" = 1'-0"



CANOPY MOUNTED INTERIOR SIGN POST
SCALE: 1/2" = 1'-0"

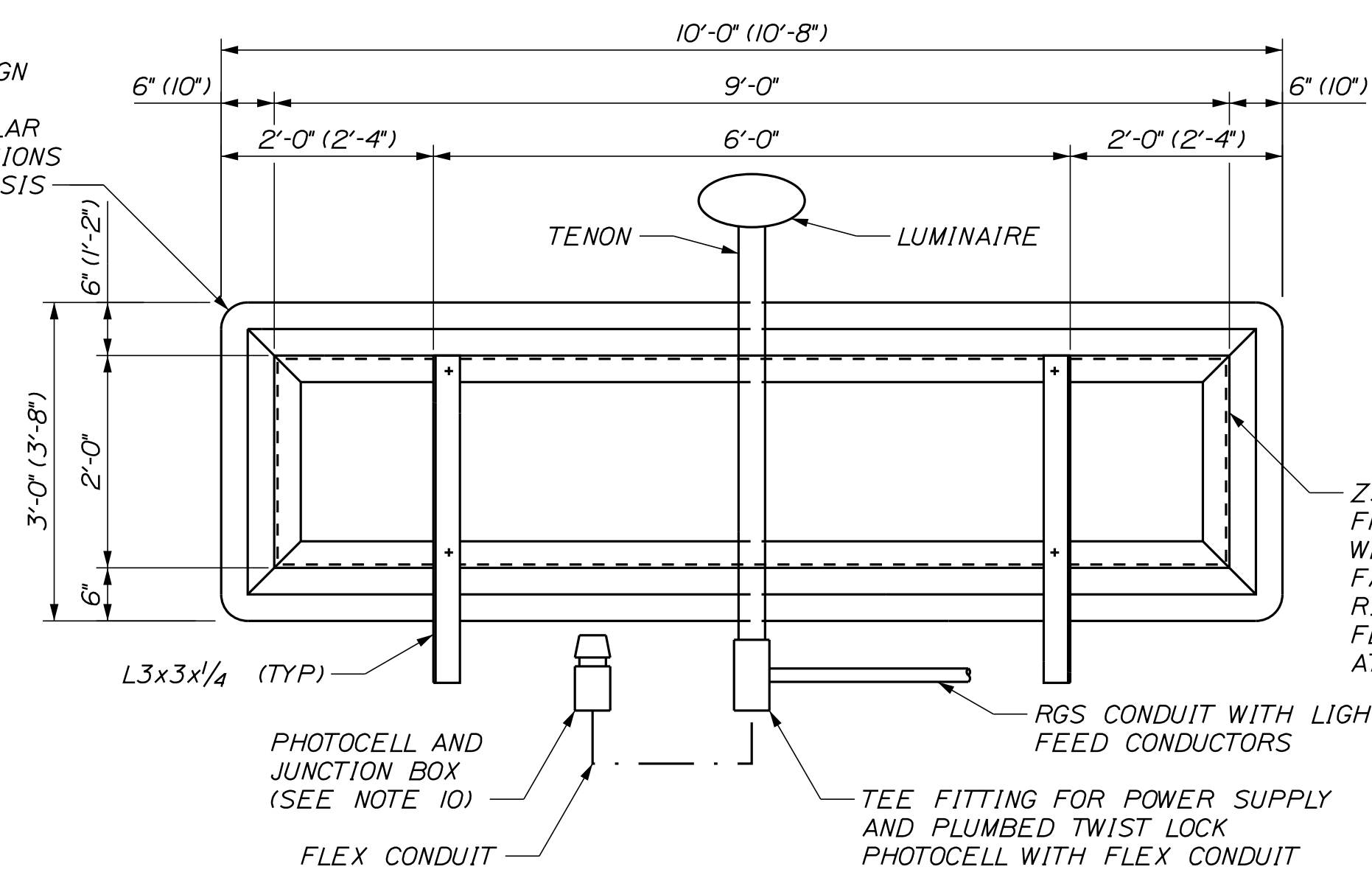


SECTION L-L
SCALE: 1/2" = 1'-0"

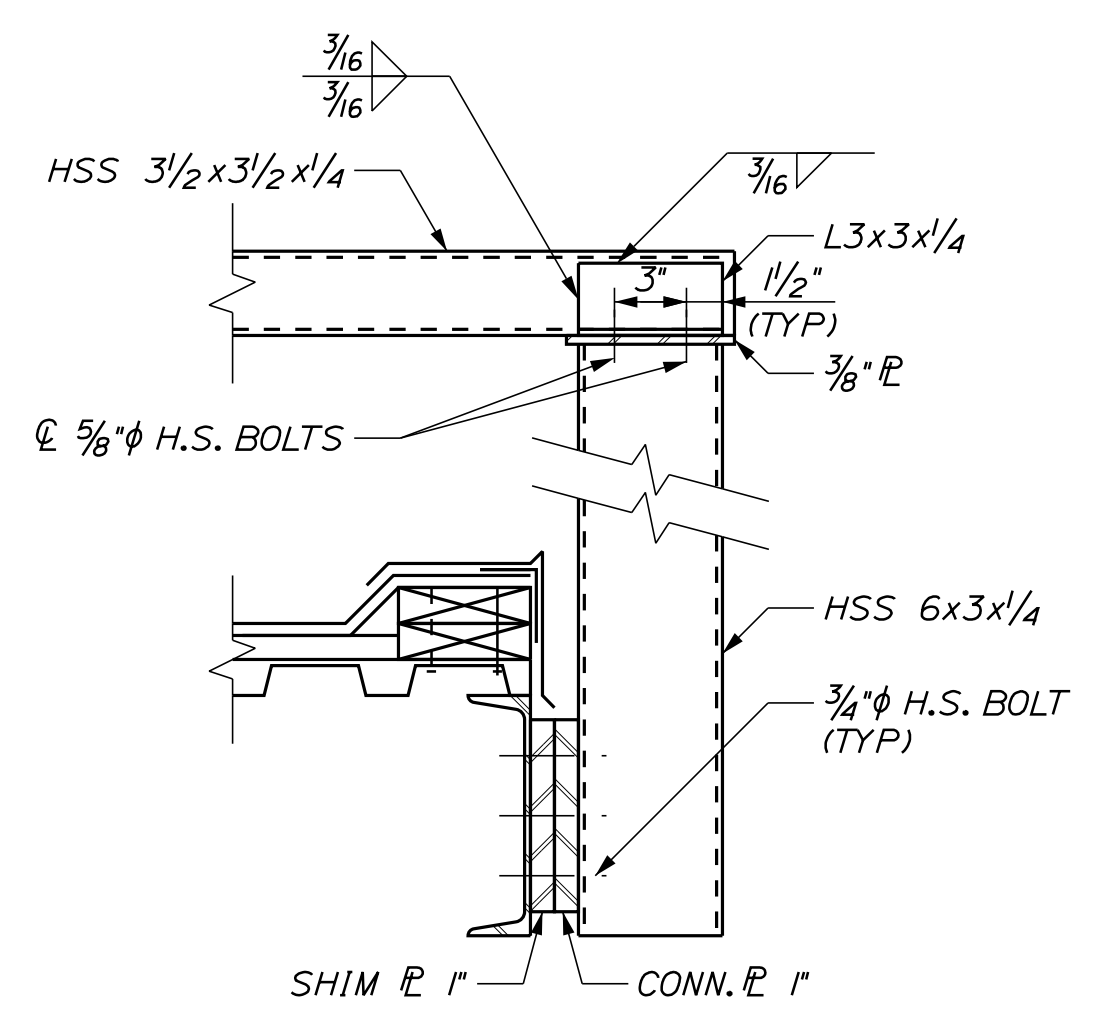


SPlice DETAIL
SCALE: 1/2" = 1'-0"

STATIC ALUMINUM SIGN SHOWN, DYNAMIC MESSAGE SIGN SIMILAR EXCEPT FOR DIMENSIONS SHOWN IN PARENTHESIS



SIGN ELEVATION (REAR VIEW)
SCALE: 3/4" = 1'-0"



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

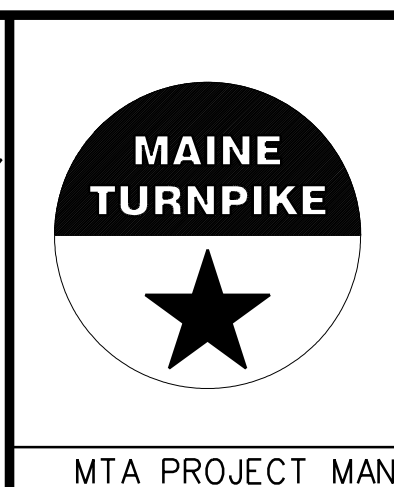
NOTES

1. ALL SIGN SUPPORT FRAME STRUCTURAL STEEL MEMBERS (FRAMING ANGLES, HSS BEAMS AND POSTS) AND CONNECTIONS SHALL BE HOT-DIPPED GALVANIZED.
2. SIGNS FOR LANES 1 AND 3 SHALL BE EXTRUDED ALUMINUM. THE SIGN FOR LANE 2 SHALL BE A DYNAMIC MESSAGE SIGN. ALL SIGNS SHALL BE PROVIDED BY THE CONTRACTOR.
3. NEOPRENE ISOLATION WASHERS SHALL BE INSTALLED BETWEEN THE ALUMINUM SIGN FRAME AND THE GALVANIZED FRAME SUPPORT, AND ALSO BETWEEN THE BOLT HEAD AND ALUMINUM SIGN FRAME.
4. ADJUST HEIGHT OF THE L3x3x1/4 ANGLES AND CHANGE Z3x2 1/16 x 3/8 TO SUITABLE STRUCTURAL SHAPE AS REQUIRED TO ACCOMMODATE MOUNTING DETAIL SUPPLIED WITH DYNAMIC MESSAGE SIGN. SUBJECT TO THE APPROVAL OF THE AUTHORITY.
5. SIGN WEIGHT NOT TO EXCEED 500 LBS MAXIMUM.
6. CONTRACTOR TO SUBMIT FLASHING DETAILS FOR REVIEW PRIOR TO CONSTRUCTION.
7. PENETRATIONS FOR INTERIOR SIGN POSTS SHALL BE FIELD CUT PRIOR TO ROOF MEMBRANE INSTALLATION AND SHALL BE SEALED WITH APPROVED PRODUCTS.
8. LENGTH OF PROPOSED CANOPY MOUNTED SIGN SUPPORT POSTS SHALL BE SUCH THAT FRONT AND REAR SIGN SUPPORT POSTS ARE AT THE SAME ELEVATION.
9. WHERE HSS 3 1/2 x 3 1/2 BEAMS REQUIRE SPlicing ALL SPlices SHALL BE CENTERED OVER INTERIOR POST LOCATIONS. CAP PLATES SHALL BE INCREASED TO 3/8\"/>
- 10. NEMA LOCKING TYPE RECEPTACLE (3 PIN) WITH 3-PIN LOCKING TYPE ELECTRONIC PHOTOCONTROL 120-277V SHALL BE PLUMBED TO EXTERIOR WATERPROOF 4 BODY JUNCTION BOX.
- 11. LED LIGHT FIXTURE SHALL BE INCIDENTAL TO PAY ITEM 645.14. SEE SP 645 CANOPY MOUNTED SIGN FOR MORE INFORMATION.

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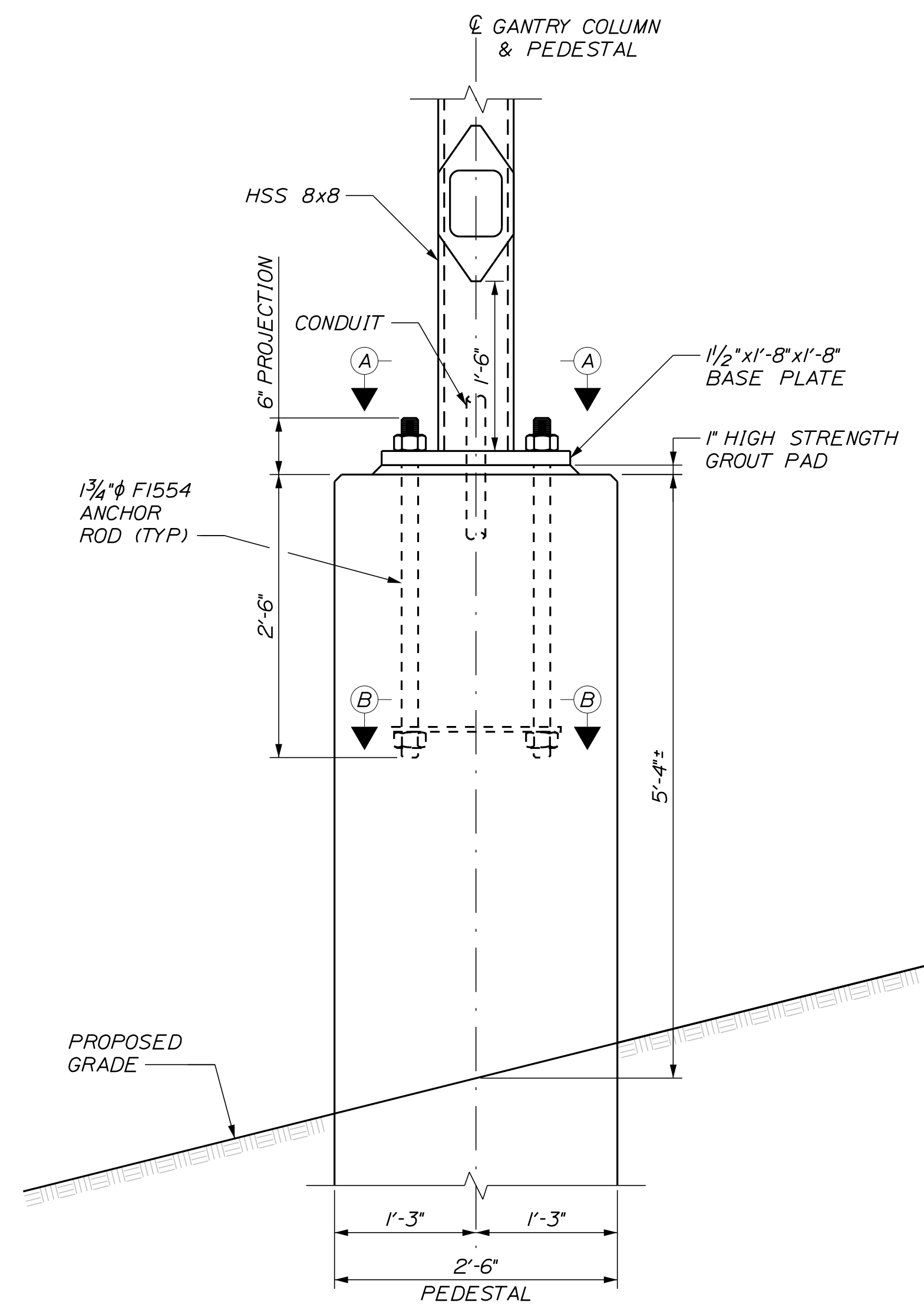
THE GOLD STAR MEMORIAL HIGHWAY

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND AND SOUTHBOUND
SIGN SUPPORT DETAILS

SHEET NUMBER: TP-35
CONTRACT: 2022.07
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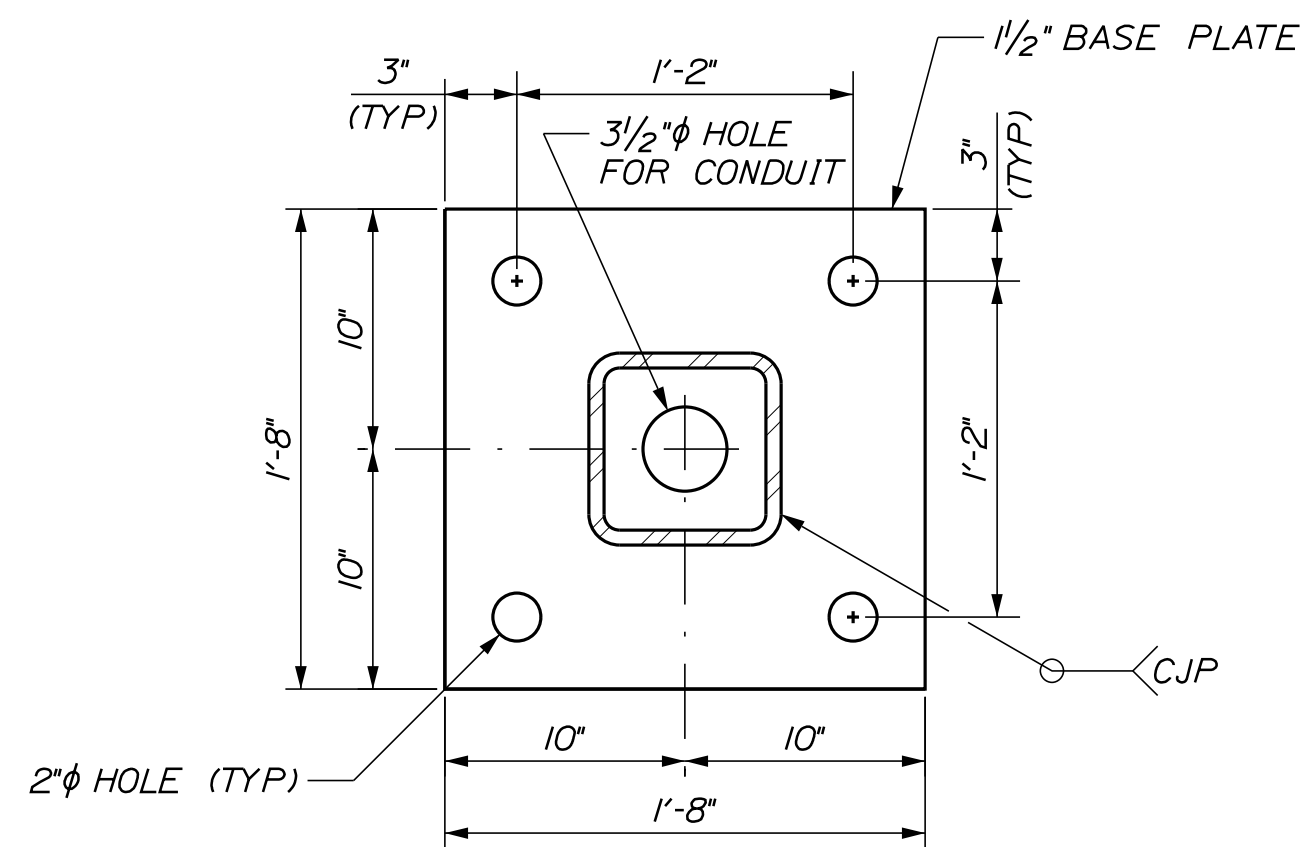
Date: 10/17/2022

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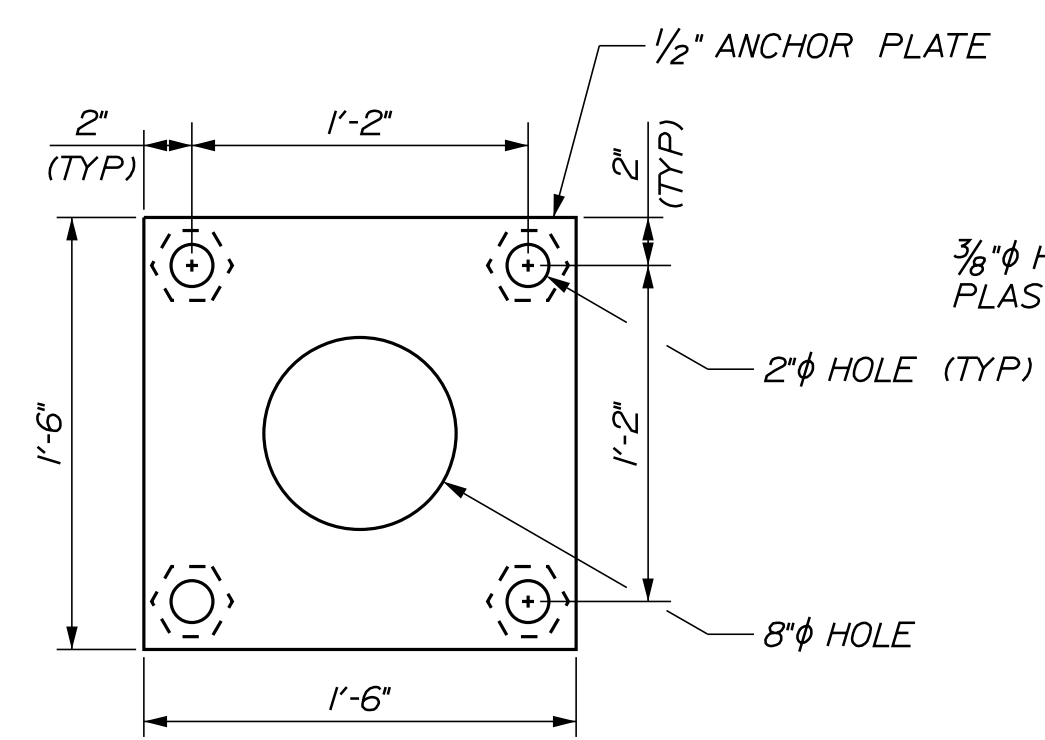


NOTE: SOUTH GANTRY COLUMN SHOWN, NORTH GANTRY COLUMN SIMILAR.

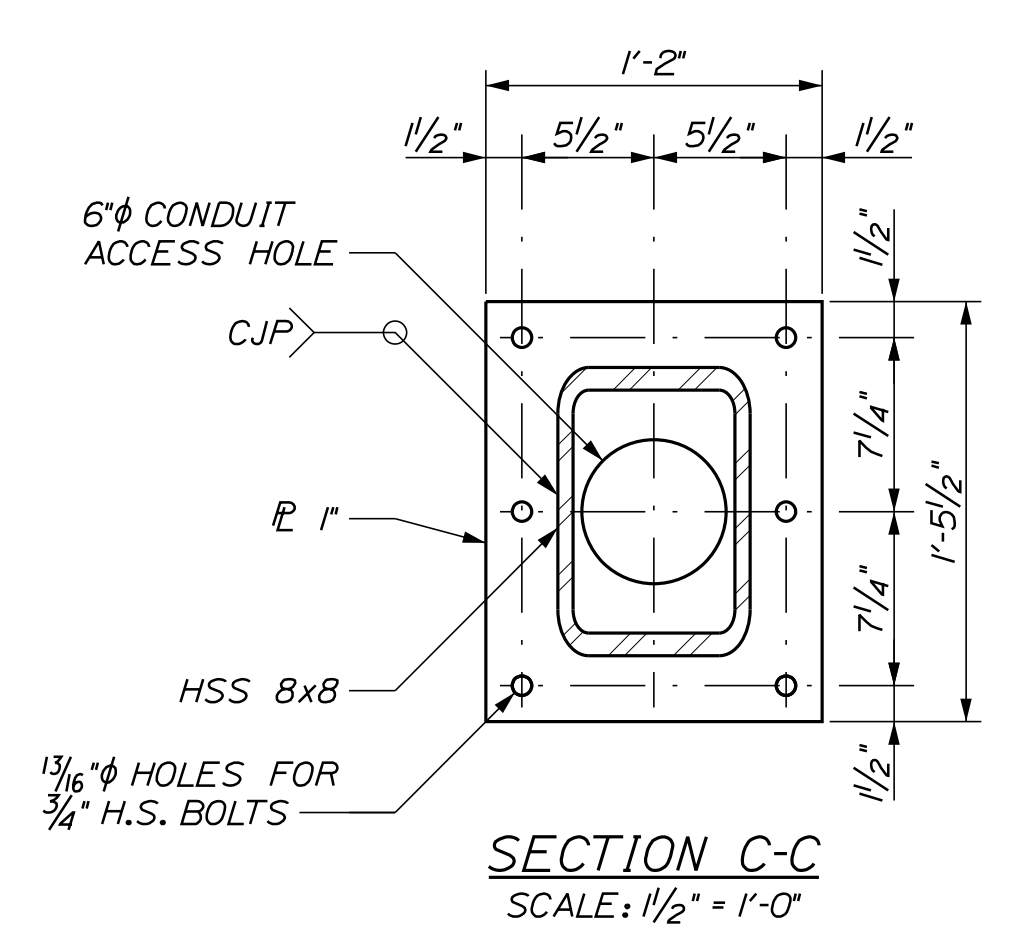
GANTRY ANCHORAGE DETAIL
SCALE: 1" = 1'-0"



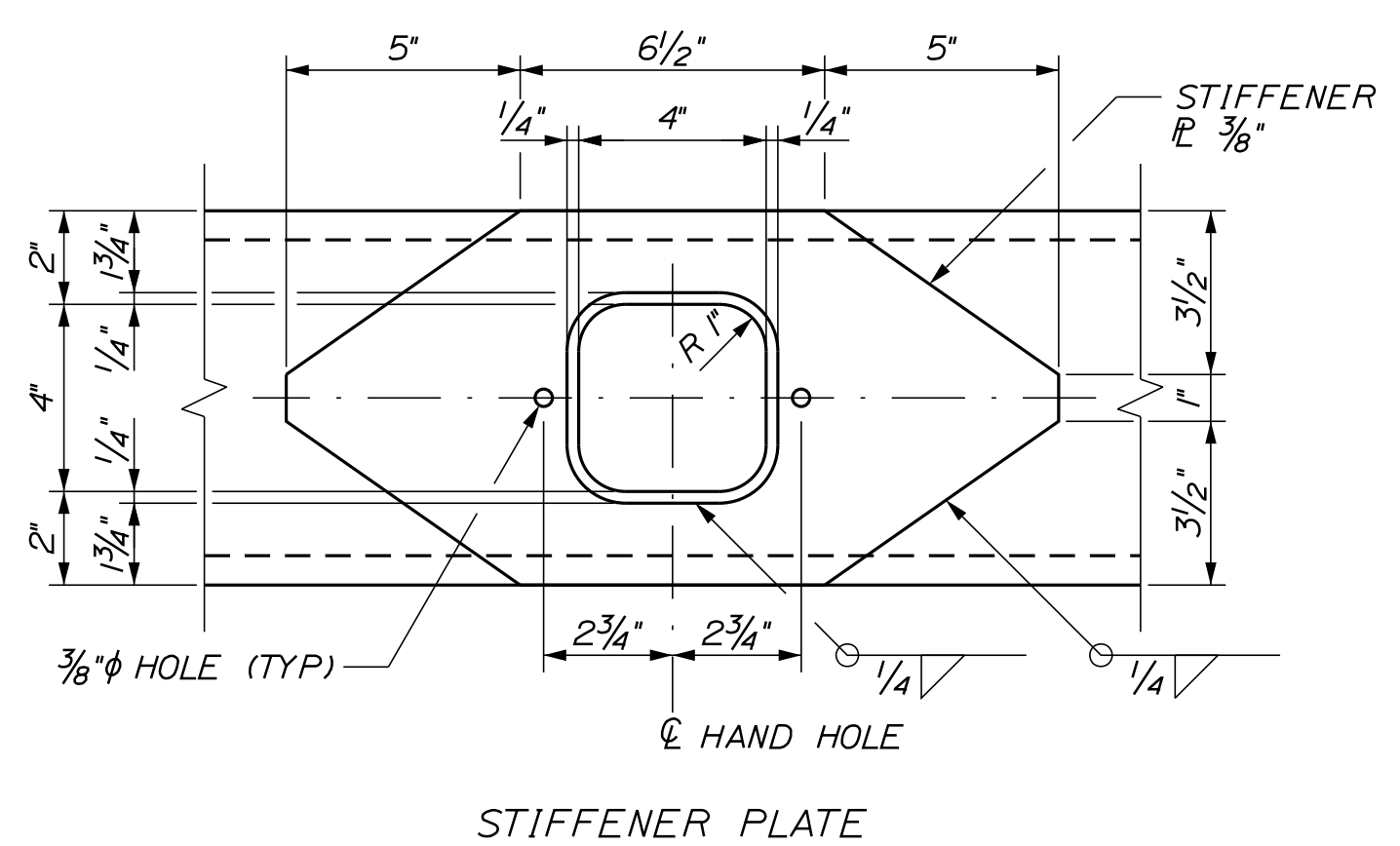
SECTION A-A
SCALE: 1/2" = 1'-0"



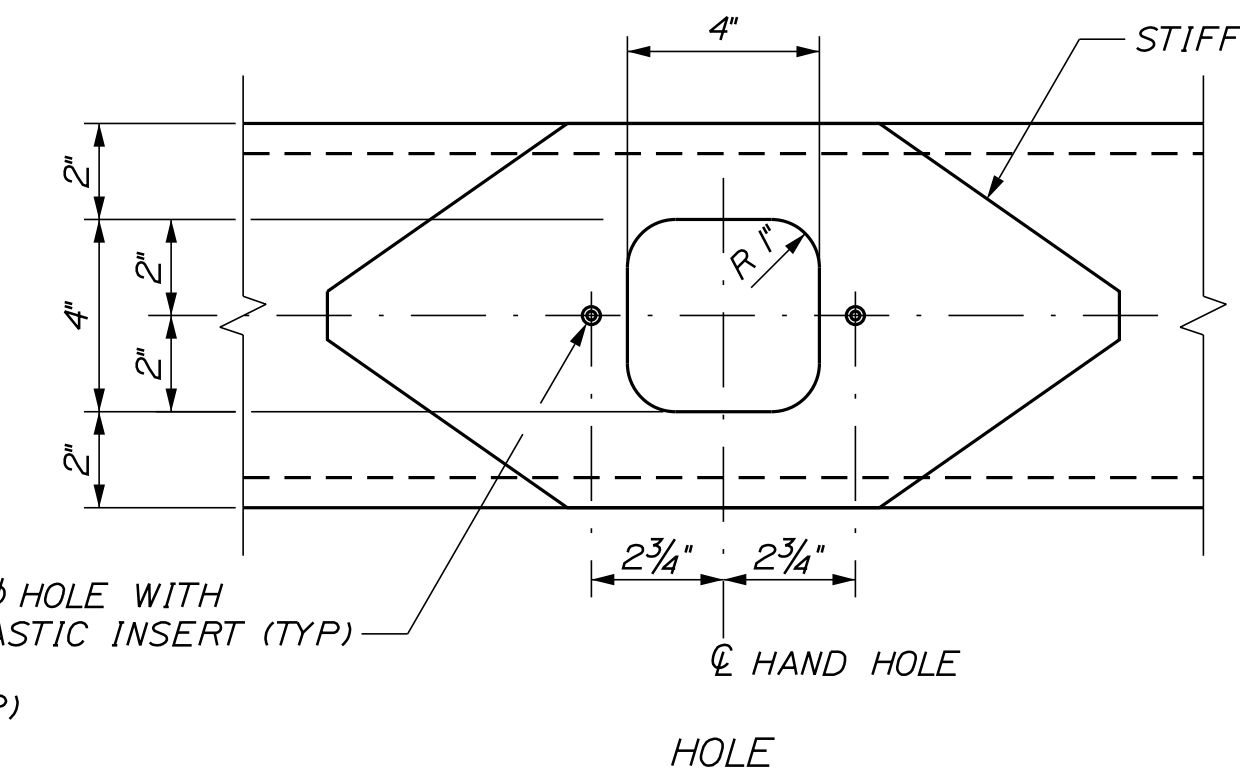
SECTION B-B
SCALE: 1/2" = 1'-0"



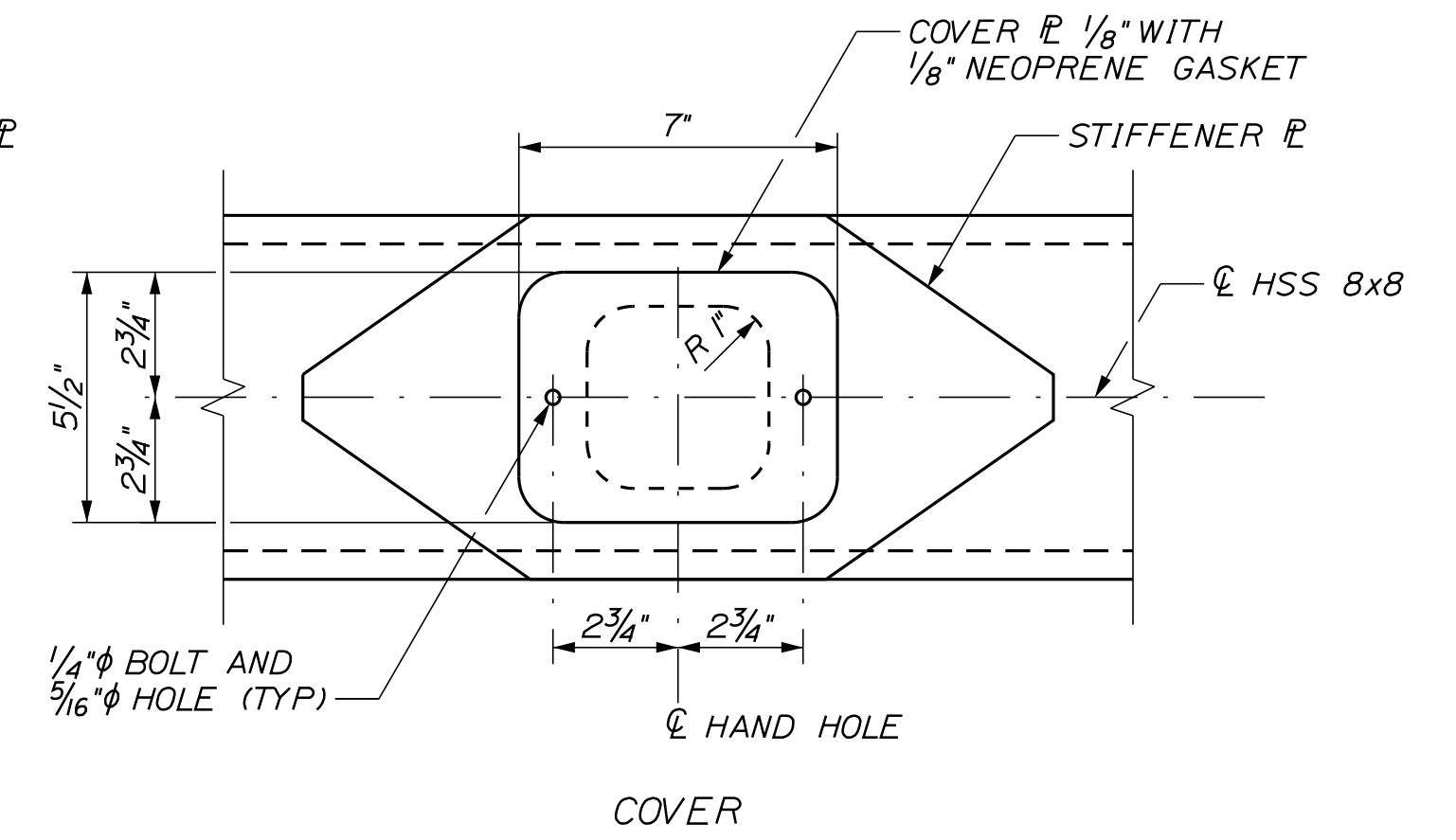
SECTION C-C
SCALE: 1/2" = 1'-0"



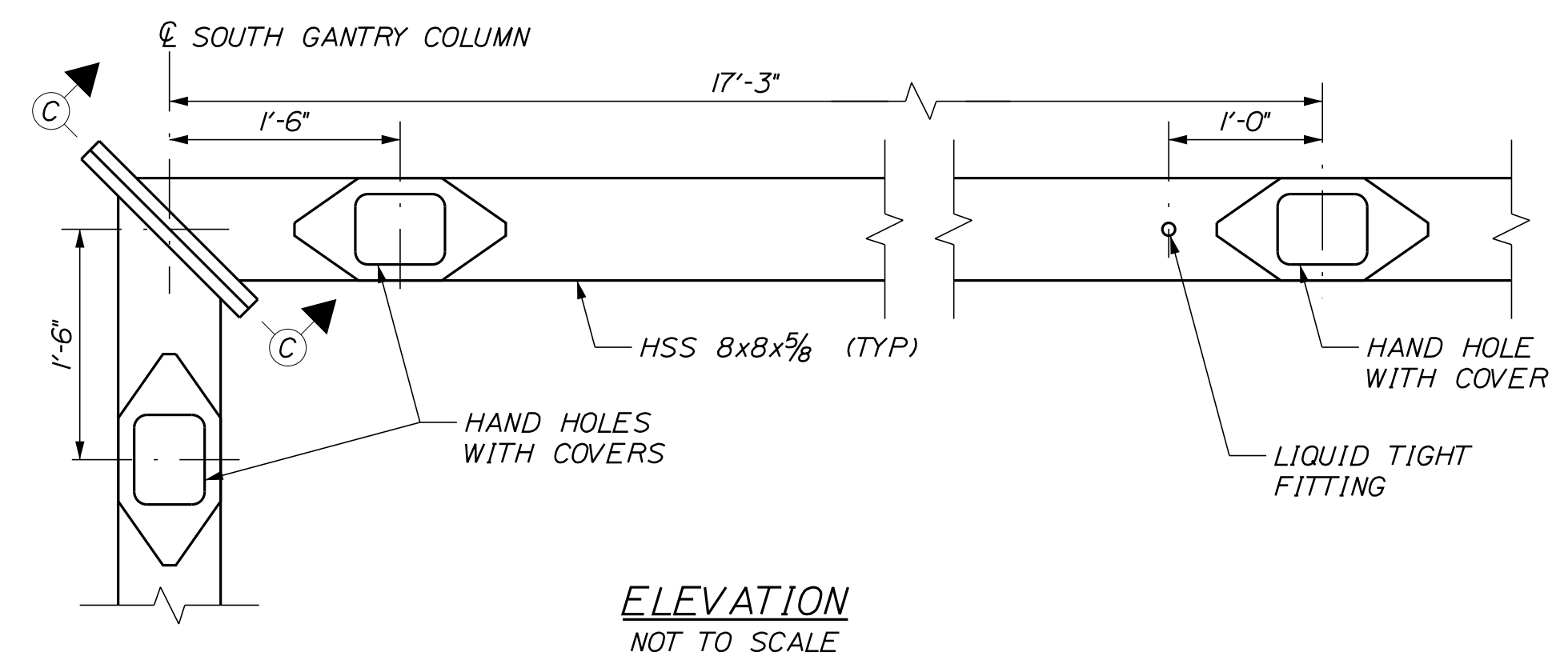
STIFFENER PLATE



HAND HOLE DETAILS
SCALE: 3" = 1'-0"



COVER



ELEVATION
NOT TO SCALE

Scale: AS NOTED			
No.	Revision	By	Date

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THE GOLD STAR MEMORIAL HIGHWAY

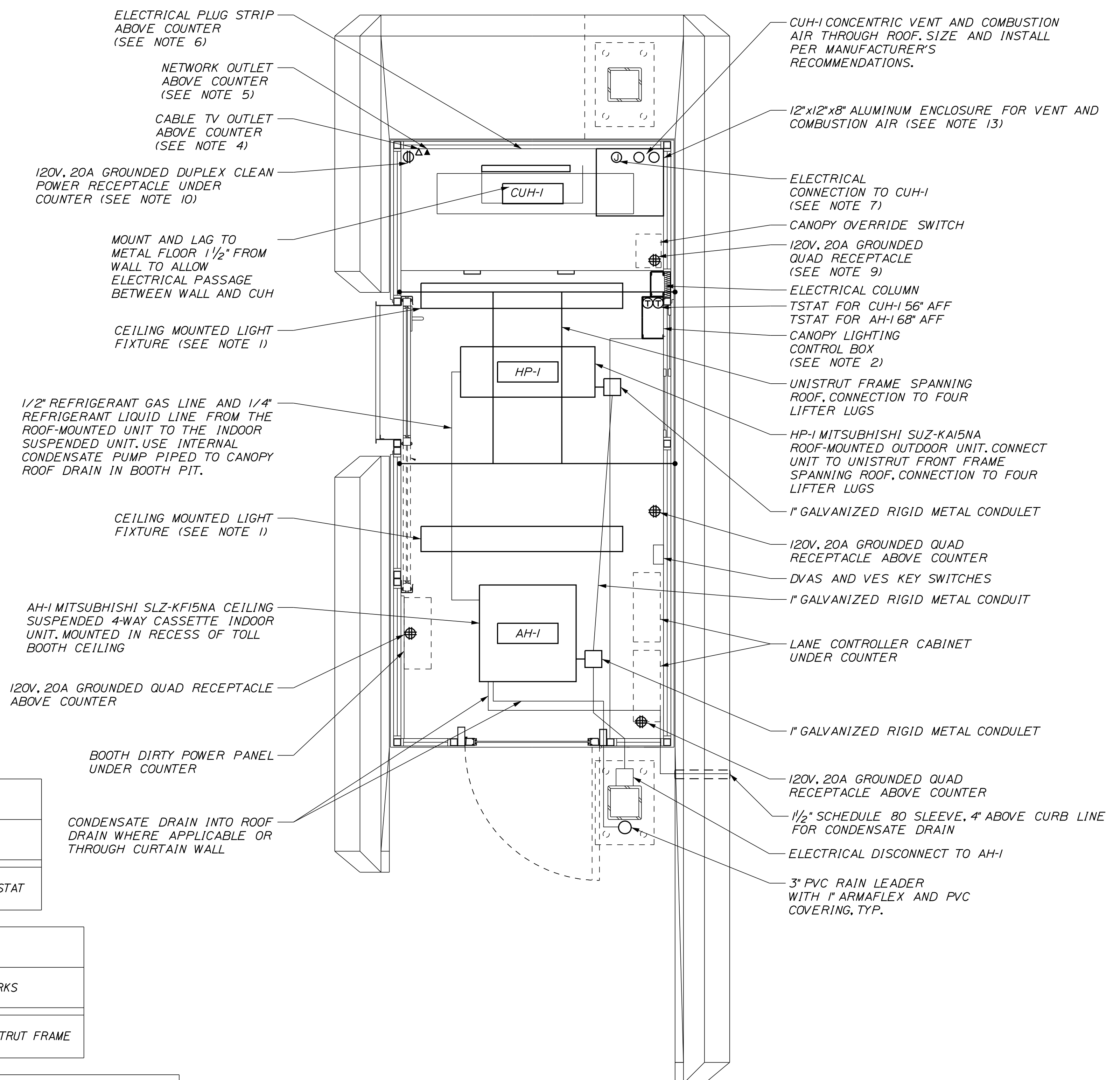
INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND EXIT GANTRY
SECTIONS AND DETAILS

SHEET NUMBER: TP-36
CONTRACT: 2022.07
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MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

NOTES:

- PROVIDE NEW CEILING MOUNTED LIGHT FIXTURES IN PROPOSED BOOTHS. LIGHTS SHALL BE CREE CR-LE-32L-35K-10V/SMK-LE-S/SMK-LE-EC, OR APPROVED EQUAL.
- AT THE PROPOSED BOOTHS, CANOPY LIGHTING CONTROL SWITCHES TO BE INSTALLED ADJACENT TO THE ELECTRICAL COLUMN.
- IN THE PROPOSED BOOTHS, PROVIDE A 0-10 VOLT DIMMER WIRED TO THE CEILING LIGHTS. WIRE THE BOOTH LIGHTS TO A 20A/1P BREAKER IN THE RESPECTIVE DIRTY POWER PANEL.
- PROVIDE A COAX OUTLET WITH RG6 CABLE FROM THE BOOTH THROUGH THE DUCT BANK TO THE TELEPHONE BOARD IN THE PLAZA BUILDING.
- PROVIDE 3 CAT6 NETWORK JACKS WITH CAT6 CABLE EXTENDED THROUGH THE UTILITY CHASE TO THE TELEPHONE BOARD IN THE PLAZA BUILDING.
- PROVIDE PLUG-STRIP ABOVE THE BOOTH COUNTER. PLUG STRIP SHALL BE LEGRAND *2000 USB SERIES. PLUG STRIP SHALL HAVE A DUPLEX USB JACK AT ONE END AND FOUR 15A, GROUNDED ELECTRICAL OUTLETS SPACED ALONG THE REMAINING LENGTH. WIRE THE PLUG STRIP TO A 20A/1P BREAKER IN THE RESPECTIVE DIRTY POWER PANEL.
- VERIFY EXACT LOCATION OF ELECTRICAL CONNECTION POINT FOR CUH-1. WIRE CUH-1 TO A 15A/1P BREAKER IN THE RESPECTIVE DIRTY POWER PANEL.
- PROVIDE 240V-20A/2P WEATHERPROOF DISCONNECT SWITCH AT THE ROOF-TOP HP-1. WIRE HP-1 TO A 20A/2P BREAKER IN THE RESPECTIVE DIRTY POWER PANEL.
- PROVIDE A 120V, 20A QUAD RECEPTACLE TO BE INSTALLED IN THE ELECTRICAL COLUMN 30" ABOVE THE FLOOR. CONNECT THE RECEPTACLE TO A 20A/1P BREAKER IN THE RESPECTIVE DIRTY POWER PANEL.
- PROVIDE A 120V, 20A DUPLEX CLEAN POWER RECEPTACLE TO BE INSTALLED BELOW THE COUNTER. THE RECEPTACLES SHALL BE FOR RECEIPT PRINTER AND MLT ONLY.
- INSTALL 1/2" (SIZE 18 EHD) CORRUGATED STAINLESS STEEL TUBING TO EACH CABINET UNIT HEATER (CUH-1) LOCATED IN THE TOLL BOOTHS FROM THE 16"X16"X8" JUNCTION BOX IN THE CONCRETE BOOTH BUMPER BLOCK. A SECONDARY REGULATOR SHALL BE INSTALLED IN THE CONCRETE BOOTH BUMPER BLOCK JUNCTION BOX. INSTALLATION OF THE 1/2" CORRUGATED STAINLESS STEEL TUBING FROM THE SECONDARY REGULATOR TO CUH-1 AND THE SECONDARY REGULATOR SHALL BE INCIDENTAL.
- AT THE CABINET UNIT HEATERS, PROVIDE A UL LISTED GAS COCK SHUT OFF VALVE AND A DRIP LEG. PAYMENT WILL BE INCIDENTAL TO THE BOOTH INSTALLATION ITEM 800.40.
- CONTRACTOR SHALL PROVIDE AN ALUMINUM ENCLOSURE FOR VENT AND COMBUSTION AIR FOR CUH-1.
- CAULKING AND ETERNABOND EPDM TAPE SHALL BE INSTALLED ALONG THE ROOF MOUNTED ALUMINUM BOXED (VENT AND AH-1).
- THE ROOF IS NOT DESIGNED FOR POINT LOADS. THE CONTRACTOR SHALL NOT PLACE EQUIPMENT OR WORKERS ON THE ROOF. ACCESS SHALL BE PLANNED ACCORDINGLY.
- HEAT PUMP OUTDOOR UNIT SHALL HAVE A SALT RESISTANT COATING.
- PROVIDE A 3 PHASE 100 AMP BOOTH SUB-PANEL FED FROM BUILDING DP-1. BOOTH PANEL SCHEDULES ARE LOCATED IN THE SPECIAL PROVISION APPENDICES.



PROPOSED TOLL BOOTH
SCALE: 3/4"=1'-0"

HEAT PUMP INDOOR UNIT SCHEDULE

TAG	DESIGN MANUFACTURER AND MODEL	CFM	ELECTRIC		REFRIGERANT	WEIGHT (LBS)	REMARKS
			POWER	AMPS			
AH-1	MITSUBISHI SLZ-KF15NA	221 - 365	208/60/1	0.40	410A	37 LBS	4-WAY CEILING CASSETTE WITH WIRED THERMOSTAT

HEAT PUMP OUTDOOR UNIT SCHEDULE

TAG	DESIGN MANUFACTURER AND MODEL	NOMINAL TONS	COOLING BTUH	HEATING BTUH **	ELECTRIC			REFRIGERANT	WEIGHT (LBS)	REMARKS
					POWER	MCA	MOP			
HP-1	MITSUBISHI SUZ-KAI5NA2	1.25	14,100	18,000	208/60/1	10	15	410A	88 LBS	MOUNT ON UNISTRUT FRAME

CABINET UNIT HEATER SCHEDULE

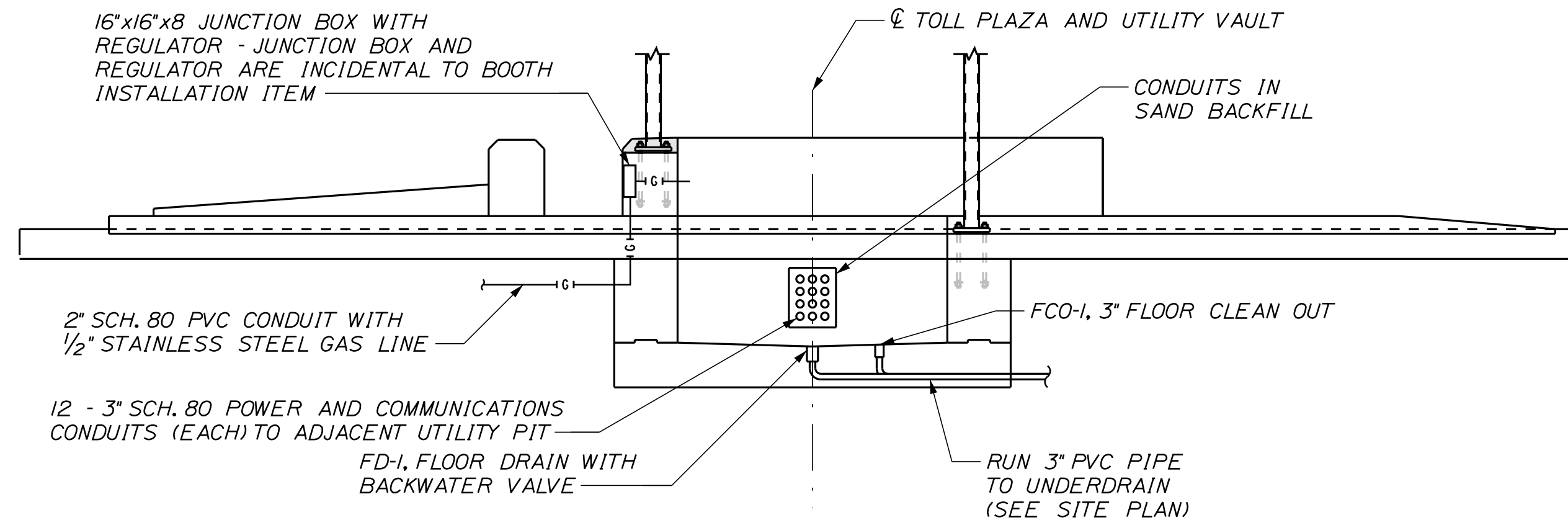
TAG	DESIGN MANUFACTURER AND MODEL	BTUH INPUT	BTUH OUTPUT	AFUE	FUEL	WATTS	POWER	REMARKS
CUH-1	RINNAI EX22CT	8,200 - 20,700	6,560 - 16,560	81%	LP GAS. (NB) PROPANE (SB)	56	120/60/1	DIRECT VENT WALL FURNACE WITH WIRED THERMOSTAT

Date: 10/17/2022

Filename: ...00\PLAZA\MSTA\TP-37.dgn

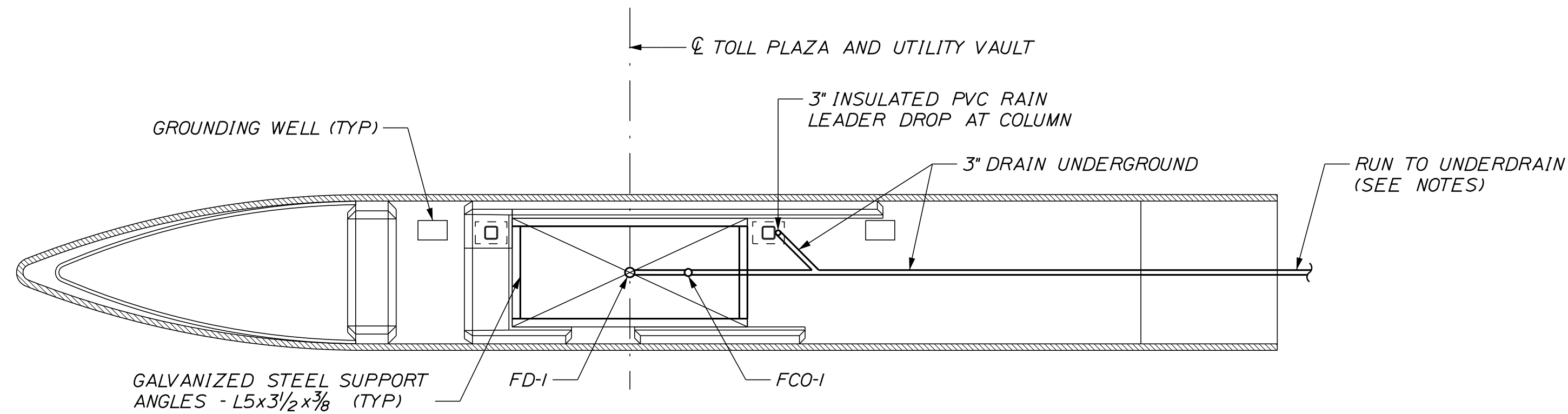
Scale: AS NOTED	Designed by: Stantec	STANTEC CONSULTING SERVICES INC. 2211 CONGRESS STREET SUITE 380 PORTLAND, ME 04102 TEL (207) 887-3448 FAX (207) 883-3376		THE GOLD STAR MEMORIAL HIGHWAY	INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) TOLL PLAZA ELECTRICAL & MECHANICAL BOOTH DETAILS																								
<table border="1" style="width: 100%;"> <thead> <tr> <th>No.</th> <th>Revision</th> <th>By</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		No.	Revision	By	Date					<table border="1" style="width: 100%;"> <thead> <tr> <th colspan="4">CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.</th> </tr> <tr> <th> </th> <th>By</th> <th>Date</th> <th> </th> </tr> </thead> <tbody> <tr> <td>Designed</td> <td>PAG</td> <td>10\22</td> <td>Checked EPL 10\22</td> </tr> <tr> <td>Drawn</td> <td>JTB</td> <td>10\22</td> <td>In Charge of LEM 10\22</td> </tr> </tbody> </table>		CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					By	Date		Designed	PAG	10\22	Checked EPL 10\22	Drawn	JTB	10\22	In Charge of LEM 10\22	MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC	SHEET NUMBER: TP-37 CONTRACT: 2022.07 645 OF 735
No.	Revision	By	Date																										
CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.																													
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Date: 10/17/2022



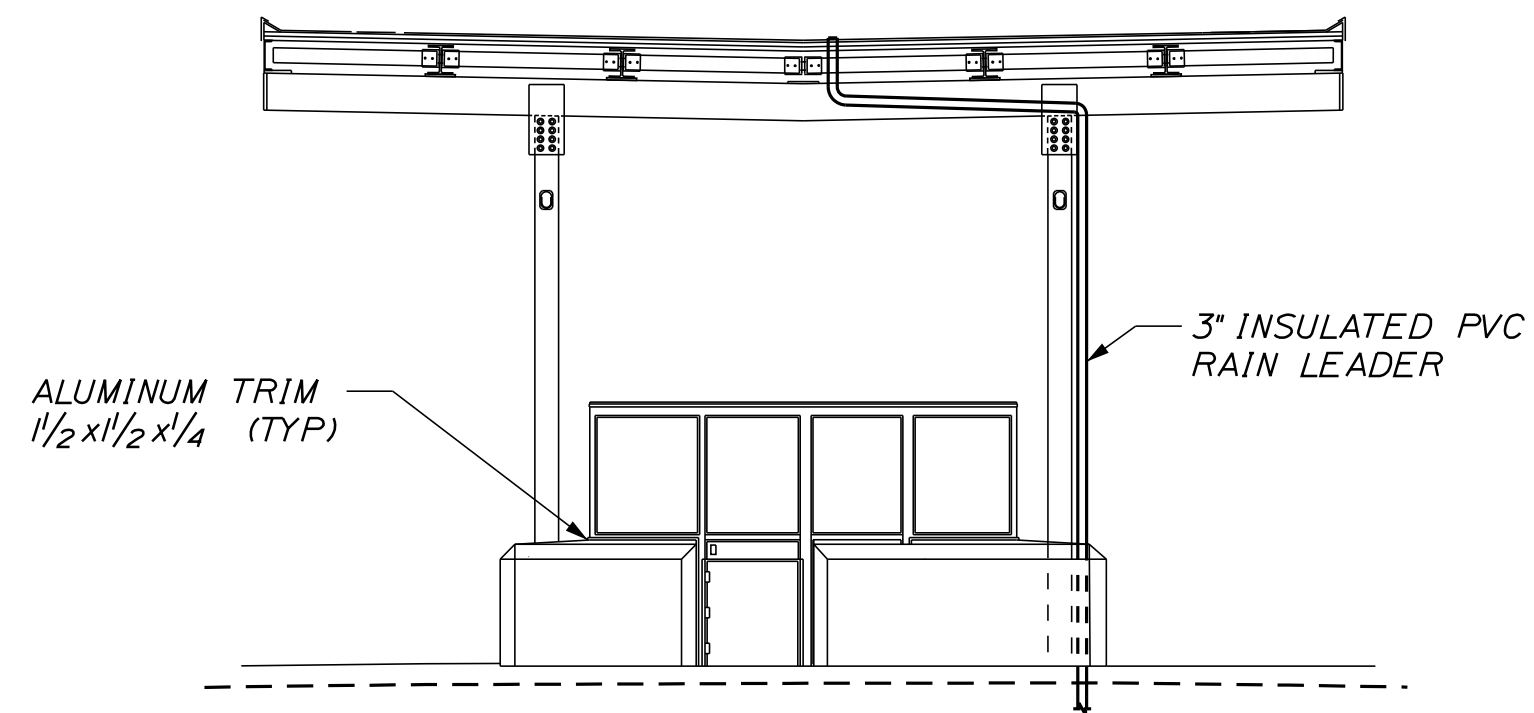
NOTE:
SB CANOPY DRAIN SHOWN, NB WILL BE PIPED TO THE FRONT OF THE PLAZA. SEE SHEET TP-21 FOR ADDITIONAL INFORMATION.

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

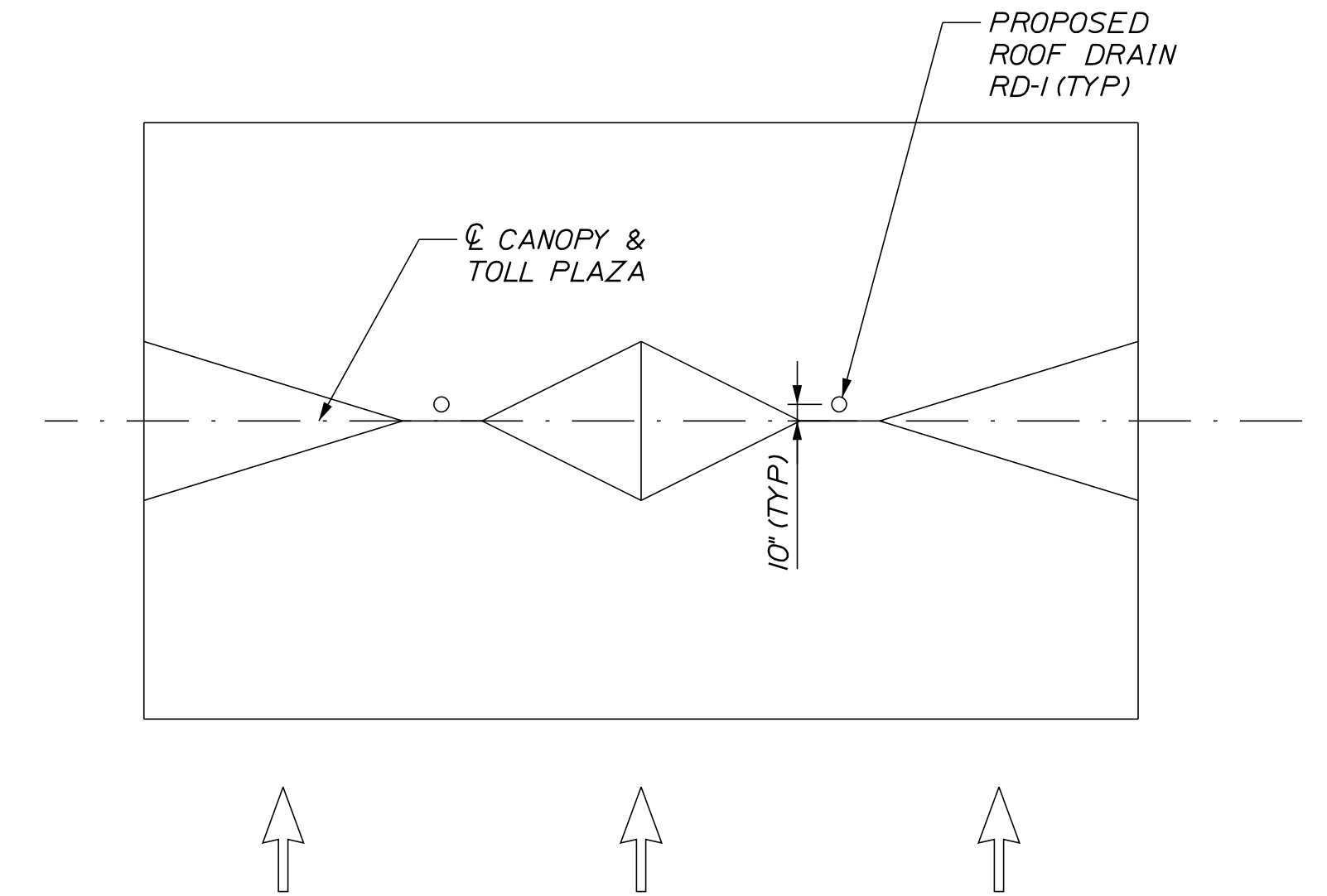


NOTES:
1. CONNECT 3" PVC PIT DRAIN TO UNDERDRAIN WITH HDPE WYE FITTINGS (SOIL TIGHT).
2. SB CANOPY DRAIN SHOWN, NB WILL BE PIPED TO THE FRONT OF THE PLAZA.

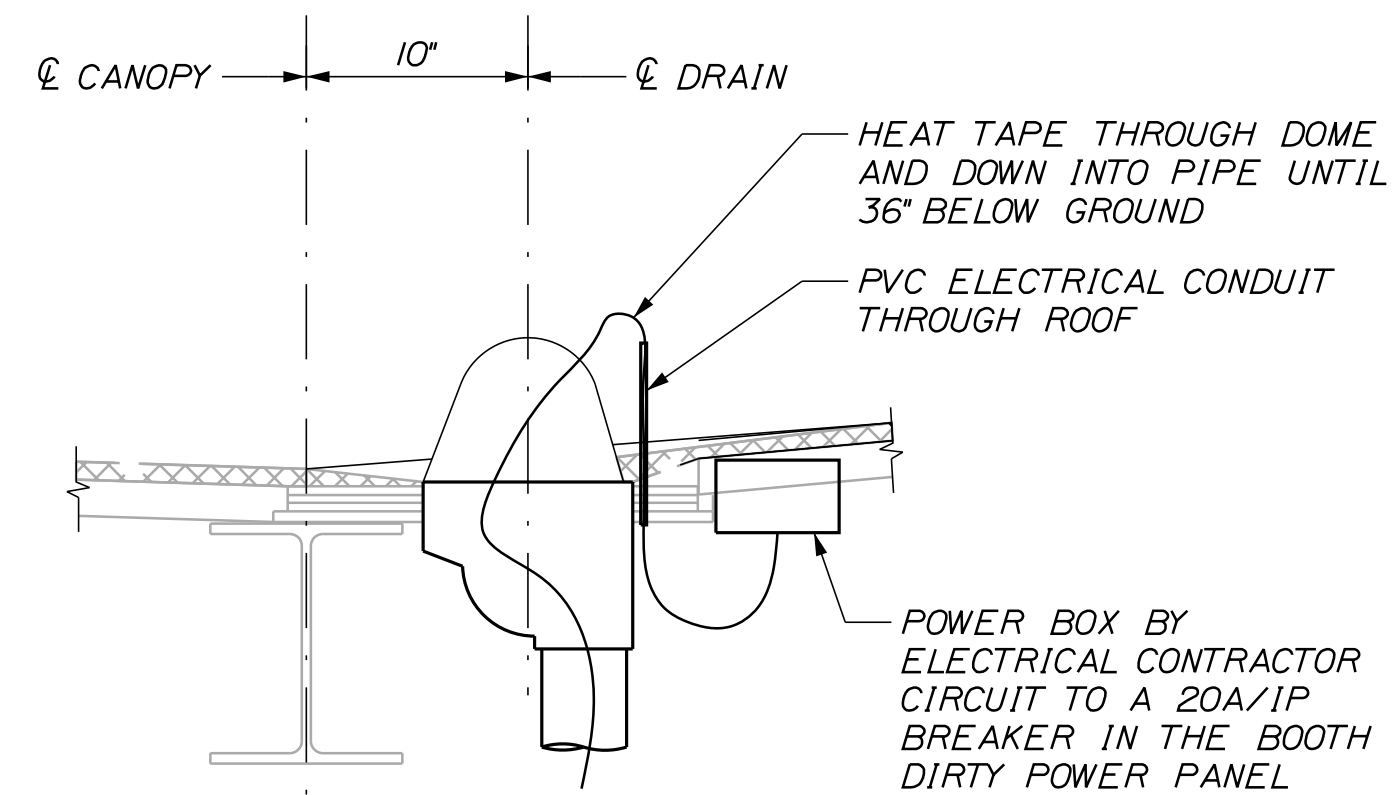
ISLAND PLAN
SCALE: 3/16" = 1'-0"



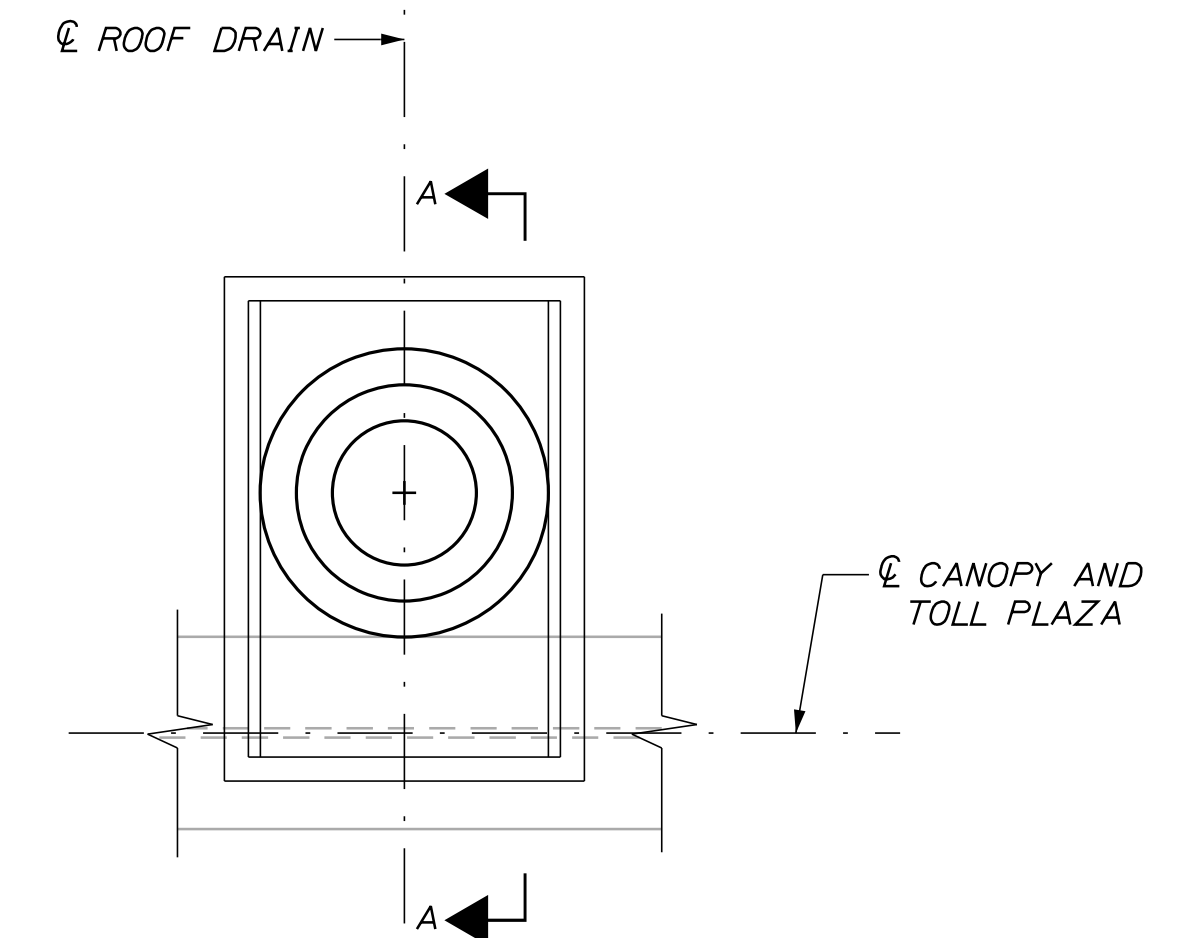
BOOTH AND CANOPY ELEVATION
SCALE: 3/16" = 1'-0"



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



SECTION A - A
NOT TO SCALE



ROOF DRAIN PLAN
NOT TO SCALE

Filename: ...00\PLAZA\MSTA\TP-38.dgn

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
ENTRY TOLL PLAZA
ELEC. & MECH. BOOTH & CANOPY DETAIL

SHEET NUMBER: TP-38
CONTRACT: 2022.07
646 OF 735

Date:10/13/2022

TOLLING - GENERAL

1. COORDINATE LOOP LOCATIONS WITH SYSTEM INTEGRATOR (SI) FOR SOFT CUT JOINTS TO PREVENT SOFT CUTS THROUGH LOOPS.

2. CONTRACTOR TO SAW CUT FOR IVIS LOOPS. ALL IVIS SENSOR LOOPS SHALL HAVE AN EPOXY OVERLAY PER SECTION 515 OF SPECIAL PROVISIONS. THE CASH LANE IVIS LOOPS WILL HAVE A 1/4" DEEP EPOXY OVERLAY, 8" WIDE MINIMUM, AS DETAILED ON PLAN SHEETS. SEE ITEM 515.23.

TOLLING - CASH LANE

1. SYSTEM INTEGRATOR SHALL PROVIDE THE FOLLOWING ITEMS TO BE INSTALLED BY THE CONTRACTOR:

- A. PELCO MOUNTING HOOK FOR THE DVAS CAMERA. PELCO MOUNT HOOKS FOR EACH ENTRY LANE SHALL BE INSTALLED ON GALVANIZED ANGLE STUBS ATTACHED TO CANOPY STRUCTURAL STEEL. THE MOUNTING HOOKS SHALL BE SECURE TO A 3" GALVANIZED RIGID PIPE, SECURED TO THE ANGLE STUBS VIA GALVANIZED "U" BOLTS. THE FINAL LOCATION OF THE MOUNTING HOOKS SHALL BE REVIEWED AND APPROVED BY THE SYSTEM INTEGRATOR AND THE MAINE TURNPIKE AUTHORITY PRIOR TO INSTALLATION.
- B. LANE CONTROLLER CABINET
- C. MANUAL LANE TERMINAL (MLT) VGA AND AUDIO CABLES
- D. AVI ANTENNA (INSTALL AND TERMINATE)
- E. CANOPY OVERRIDE SWITCH
- F. TRAFFIC CONTROL PEDESTAL (INSTALL ONLY)

2. THE CONTRACTOR SHALL PROVIDE AND INSTALL THE FOLLOWING ITEMS:

- A. ALL REQUIRED JUNCTION BOXES, CONDUIT AND ASSOCIATED COMMUNICATION AND ELECTRICAL WIRING
- B. RED *X*/GREEN *ARROW* CANOPY LANE USE SIGNAL ON FRONT OF CANOPY
- C. KEY SWITCHES
- D. 36"X30"X20" NEMA 4X CABINET FOR AVI READERS
- E. DYNAMIC MESSAGE SIGN WITH DM 100 HAND CONTROLLER

3. THE SYSTEM INTEGRATOR SHALL PROVIDE, INSTALL, AND TERMINATE THE FOLLOWING ITEMS:

- A. DVAS CAMERA
- B. LANE CONTROLLERS
- C. MANUAL LANE TERMINAL (MLT)
- D. AVI MULTIPROTOCOL READERS
- E. IVIS LOOP SENSORS

TOLL SYSTEM INTEGRATOR

1. THE CONTRACTOR'S SCHEDULE OF WORK SHALL ACCOUNT FOR THE INSTALLATION OF THE TOLLING EQUIPMENT IN EACH CASH LANE (14 CALENDAR DAYS PER LANE). ALL CIVIL WORK IN A CASH LANE SHALL BE COMPLETED BY THE CONTRACTOR PRIOR TO THE INSTALLATION OF THE TOLLING EQUIPMENT IN THE RESPECTIVE LANE. TOLLING EQUIPMENT IS TO BE INSTALLED, TERMINATED, AND TESTED BY THE TOLL SYSTEM INTEGRATOR.

2. A CASH LANE SHALL NOT BE OPENED TO TRAFFIC UNTIL ALL TOLLING EQUIPMENT HAS BEEN INSTALLED IN THE RESPECTIVE LANE, HAS BEEN TESTED, AND COMMISSIONING HAS BEEN ACCEPTED BY THE MTA.

3. THE TOLL SYSTEM INTEGRATOR WILL HAVE 14 CALENDAR DAYS PER CASH LANE TO COMPLETE COMMISSIONING. THE CONTRACTOR WILL NEED TO ACCOUNT FOR THE TOLL SYSTEM INTEGRATOR WITHIN THEIR SCHEDULE OF WORK.

TOLLING - ELECTRICAL

1. LOOP GRADIENT SENSOR CONDUIT STUB-UPS WILL BE CONNECTED TO A HOME RUN CONDUIT VIA A 3" SANITARY TEE OR 90 PVC DWV.

2. ALL CONDUIT LOCATED IN THE TOLL LANES SHALL BE INSTALLED IN THE ROADWAY SUBBASE, BELOW THE CONCRETE SLAB. THE ONLY CONDUIT LOCATED WITHIN THE CONCRETE SLAB IS FOR STUB-UPS.

3. *KEY SWITCHES* WILL BE INSTALLED IN EACH CASH LANE BOOTH ADJACENT TO THE LANE CONTROLLER FOR THE INLINE CLEAN POWER OF EACH DVAS AND VES. POWER AND DATA CABLES FROM THE CASH LANE CONTROLLERS TO THE DVAS SHALL BE ROUTED UP THROUGH CANOPY SUPPORT COLUMNS. ANY CABLES AND/OR WIRES RUN TO DEVICES ON CANOPIES AND MAST ARMS SHALL BE RUN IN CONDUIT.

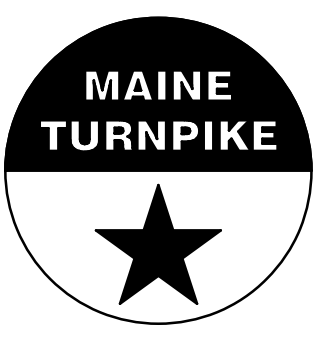
MAINTENANCE OF TRAFFIC

1. CANOPY LANE USE SIGNAL ABOVE CLOSED LANES SHALL BE RED.

2. CANOPY SIGNAGE ABOVE CLOSED LANES SHALL BE COVERED.

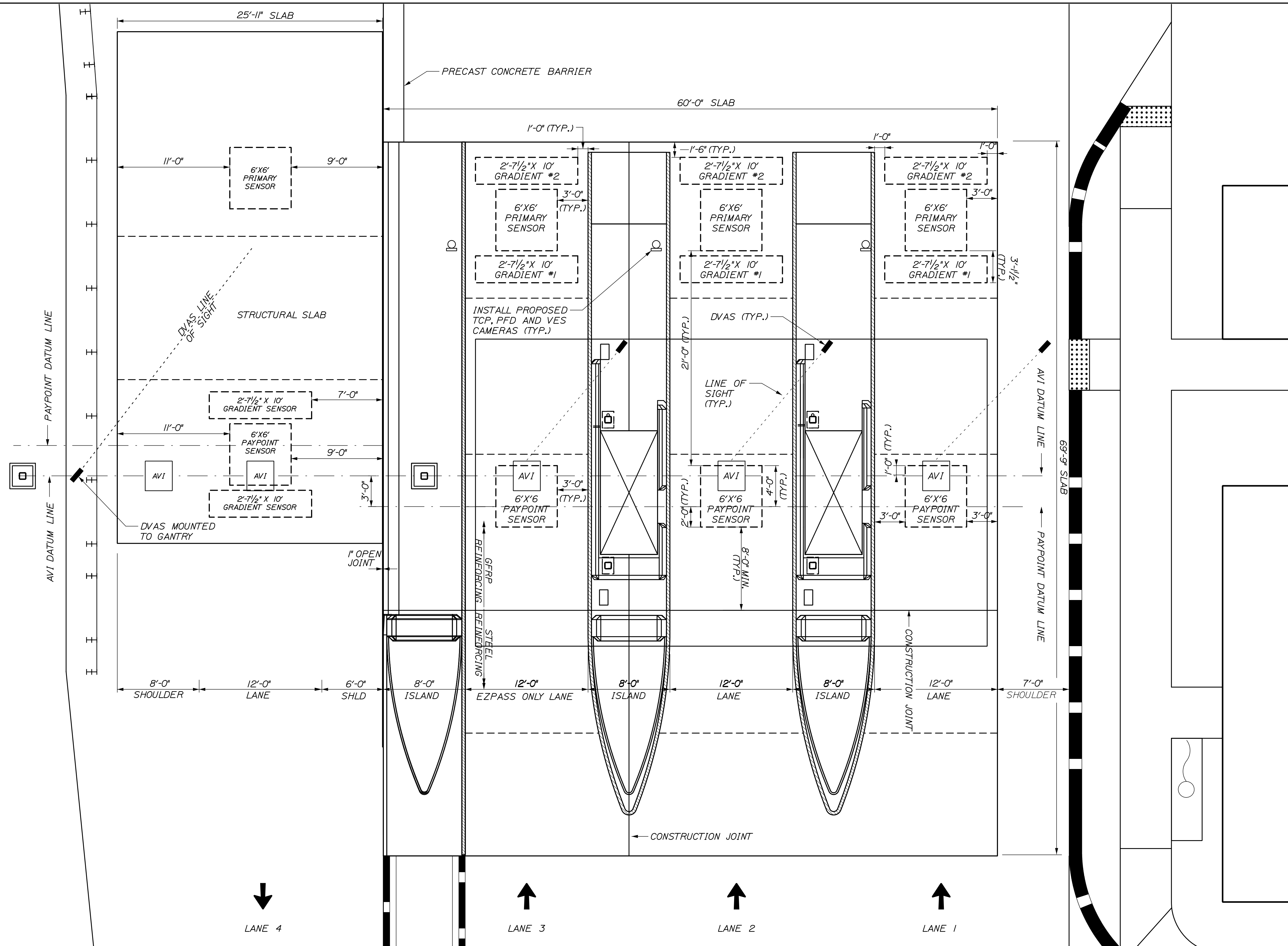
3. REFER TO APPENDIX J OF SPECIFICATIONS FOR PLAZA SAFETY REQUIREMENTS.

Filename: 647_GeneralNotes.dgn

Scale: <i>NOT TO SCALE</i>		Designed by: HNTB		HNTB CORPORATION 82 Running Hill Road, Suite 201 Portland, ME 04106 TEL (207) 774-5155 FAX (207) 228-0909		 THE GOLD STAR MEMORIAL HIGHWAY		INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) TOLL PLAZA GENERAL NOTES																																			
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Date: 10/13/2022

Filename: 648_NB_TollPlan_Rev2.dgn



- NOTES:
1. ALL LAYOUT FOR PAYPOINT, PRIMARY AND GRADIENT SENSORS SHALL BE VERIFIED BY SYSTEM INTEGRATOR PRIOR TO CUTTING CONCRETE. SYSTEM INTEGRATOR SHALL PROVIDE AND INSTALL LANE SENSOR LOOPS.
 2. FOR THE EPOXY OVERLAY, 1/4" DEPRESSION SHALL BE COMPLETED AFTER SAW CUTS FOR LOOPS.
 3. MEASUREMENT FOR ITEM 515.23 EPOXY OVERLAY SHALL BE BY SQUARE YARD.
 4. LOOP LAYOUT IS TYPICAL FOR ALL ENTRY LANES.
 5. EXIT LOOPS ARE SHOWN FOR STUB UP LAYOUT ONLY. LOOPS WILL NOT BE INSTALLED AT THIS TIME.
 6. SEE SHEET TSP-05 FOR EQUIPMENT LAYOUT DETAILS.

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	By	Date		By	Date
Designed	RBM	10/22	Checked	RBM	10/22
Drawn	WWL	10/22	In Charge of	RAL	10/22

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THE GOLD STAR MEMORIAL HIGHWAY

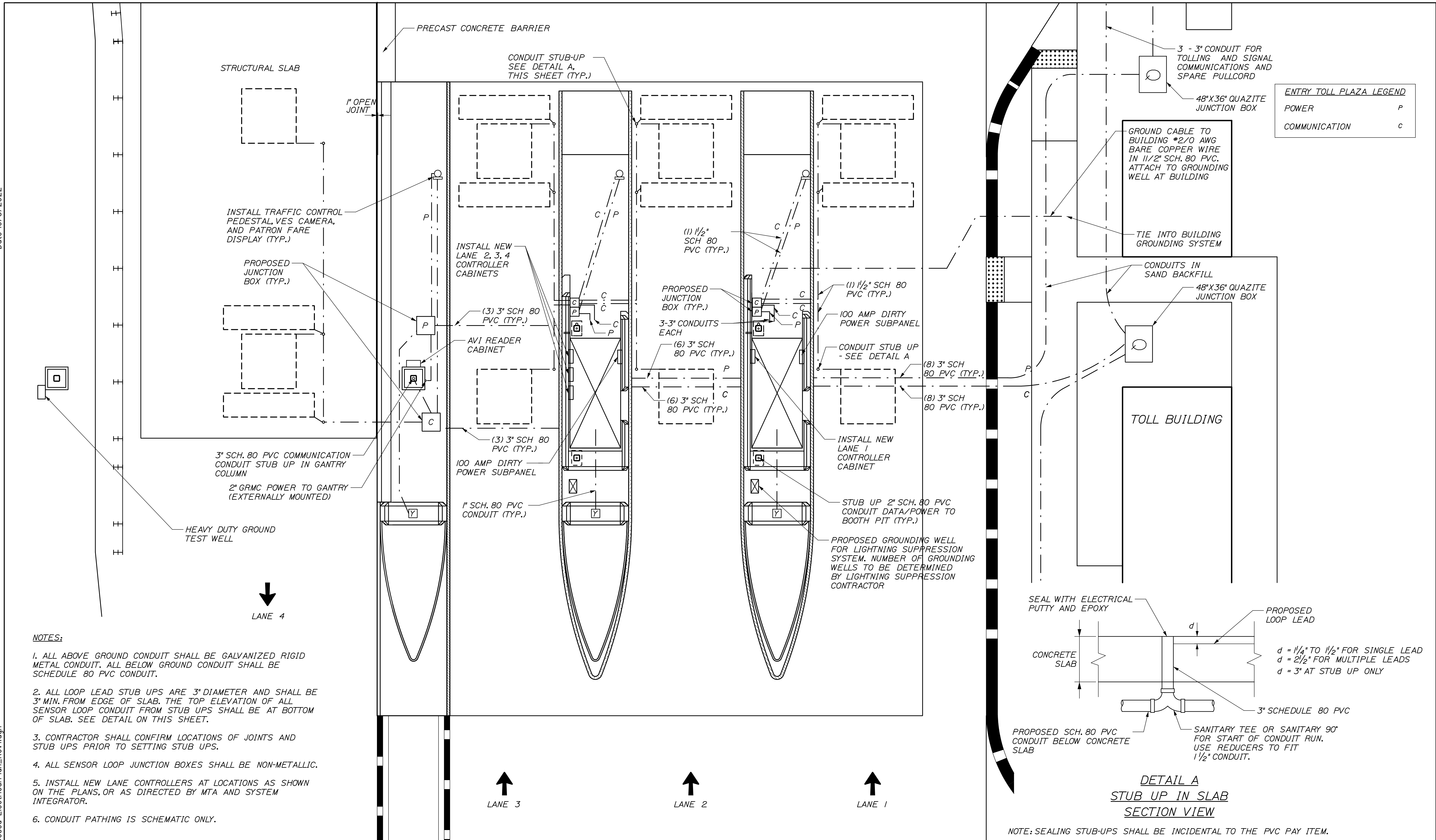
MTA PROJECT MANAGER: RYAN BARNES, P.E., C.P.E.S.C.

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 NORTHBOUND TOLL PLAZA
 EQUIPMENT LAYOUT

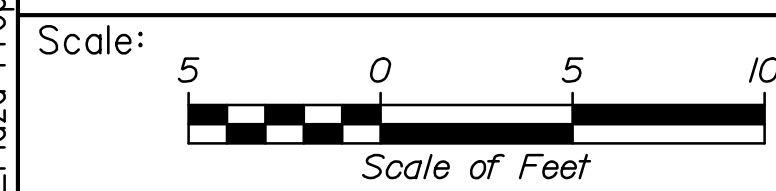
SHEET NUMBER: TSP-01
 CONTRACT: 2022.07
 648 OF 735

Date: 10/13/2022

Filename: 649_NB_Plaza Proposed Electrical Plan_Rev1.dgn



- NOTES:**
1. ALL ABOVE GROUND CONDUIT SHALL BE GALVANIZED RIGID METAL CONDUIT. ALL BELOW GROUND CONDUIT SHALL BE SCHEDULE 80 PVC CONDUIT.
 2. ALL LOOP LEAD STUB UPS ARE 3" DIAMETER AND SHALL BE 3" MIN. FROM EDGE OF SLAB. THE TOP ELEVATION OF ALL SENSOR LOOP CONDUIT FROM STUB UPS SHALL BE AT BOTTOM OF SLAB. SEE DETAIL ON THIS SHEET.
 3. CONTRACTOR SHALL CONFIRM LOCATIONS OF JOINTS AND STUB UPS PRIOR TO SETTING STUB UPS.
 4. ALL SENSOR LOOP JUNCTION BOXES SHALL BE NON-METALLIC.
 5. INSTALL NEW LANE CONTROLLERS AT LOCATIONS AS SHOWN ON THE PLANS, OR AS DIRECTED BY MTA AND SYSTEM INTEGRATOR.
 6. CONDUIT PATHING IS SCHEMATIC ONLY.



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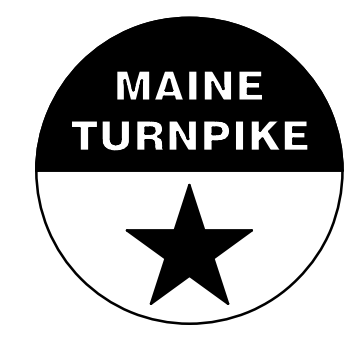
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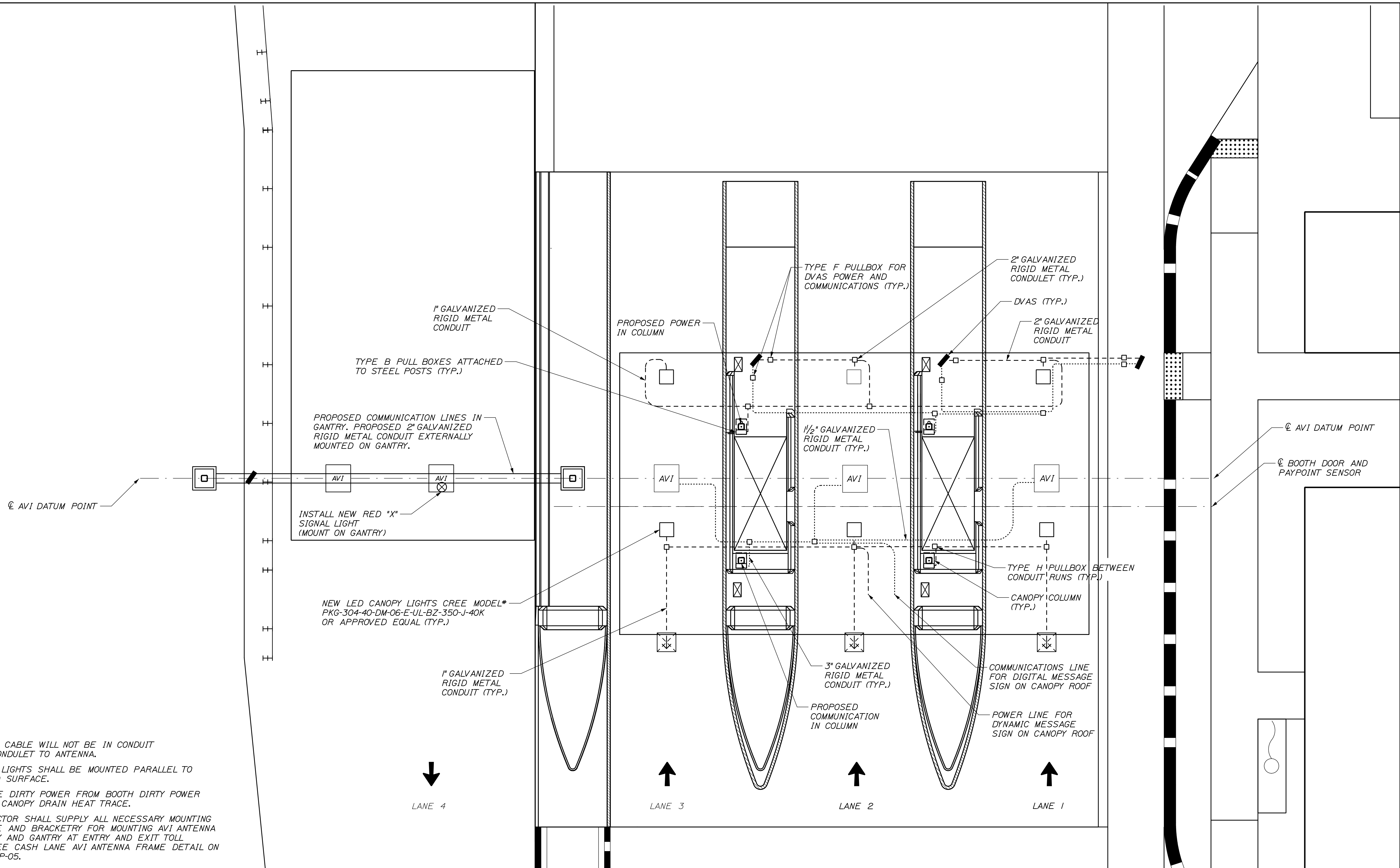
**THE GOLD STAR
 MEMORIAL HIGHWAY**

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INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 NORTHBOUND TOLL PLAZA
 UNDERGROUND ELECTRICAL PLAN

SHEET NUMBER: TSP-02
 CONTRACT: 2022.07
 649 OF 735

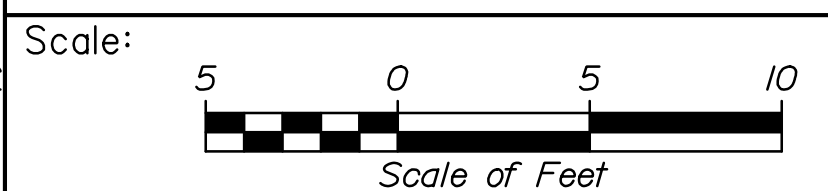
Date: 10/13/2022



NOTES:

1. LMR 600 CABLE WILL NOT BE IN CONDUIT FROM T-CONDULET TO ANTENNA.
2. CANOPY LIGHTS SHALL BE MOUNTED PARALLEL TO THE ROAD SURFACE.
3. PROVIDE DIRTY POWER FROM BOOTH DIRTY POWER PANEL TO CANOPY DRAIN HEAT TRACE.
4. CONTRACTOR SHALL SUPPLY ALL NECESSARY MOUNTING HARDWARE AND BRACKETRY FOR MOUNTING AVI ANTENNA TO CANOPY AND GANTRY AT ENTRY AND EXIT TOLL POINTS. SEE CASH LANE AVI ANTENNA FRAME DETAIL ON SHEET TSP-05.

Filename: 650_NB_Canopy_Electrical.dgn



No.	Revision	By	Date

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MAINE TURNPIKE

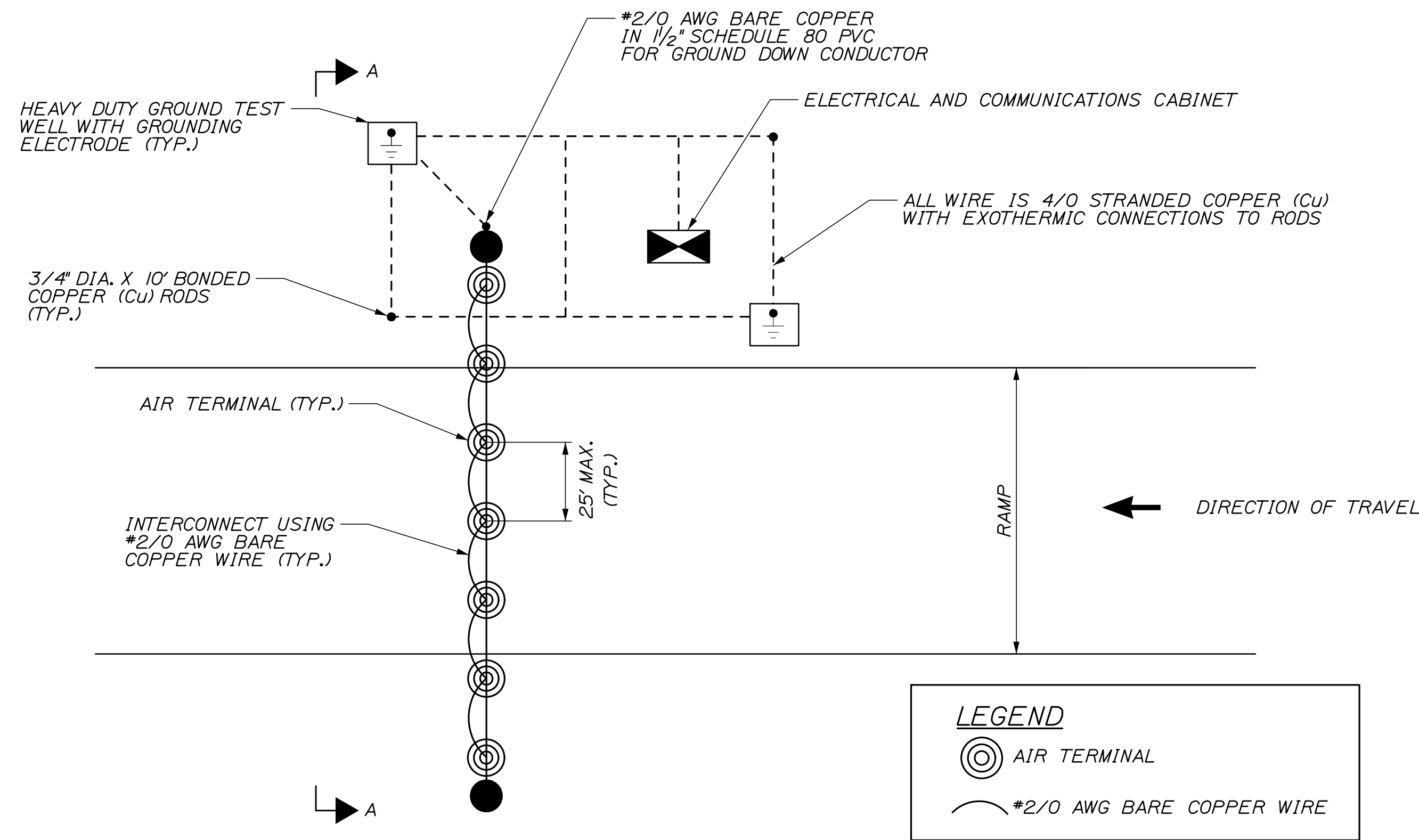
THE GOLD STAR MEMORIAL HIGHWAY

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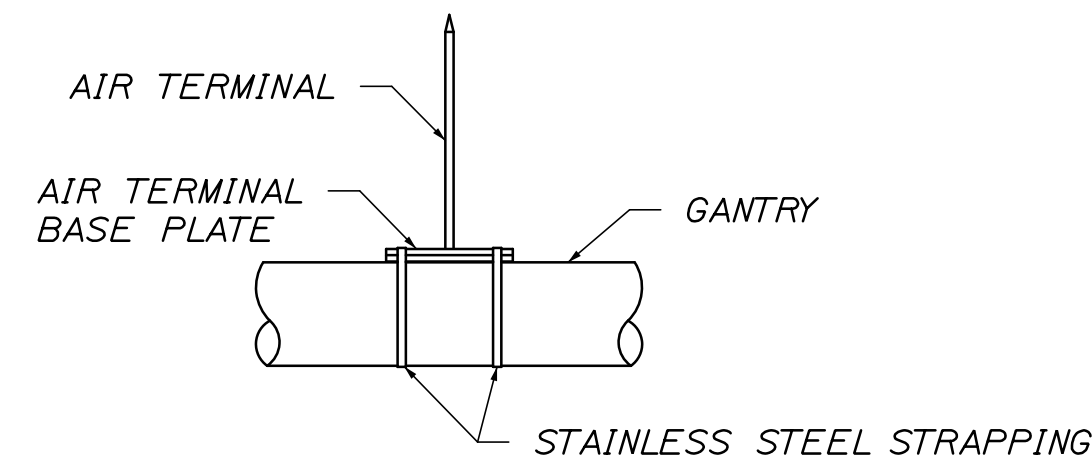
INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 NORTHBOUND TOLL PLAZA
 CANOPY ELECTRICAL

SHEET NUMBER: TSP-03
 CONTRACT: 2022.07
 650 OF 735

Date: 10/13/2022



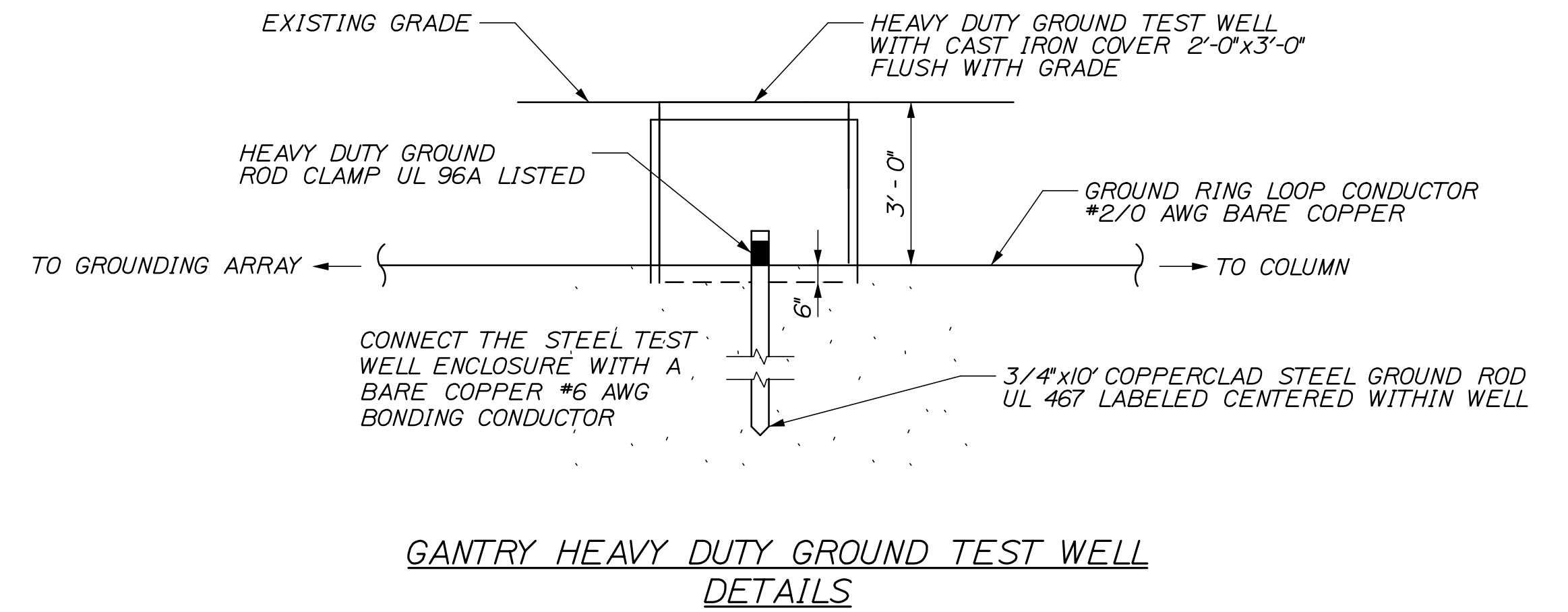
NB EXIT LANE LIGHTNING SUPPRESSION



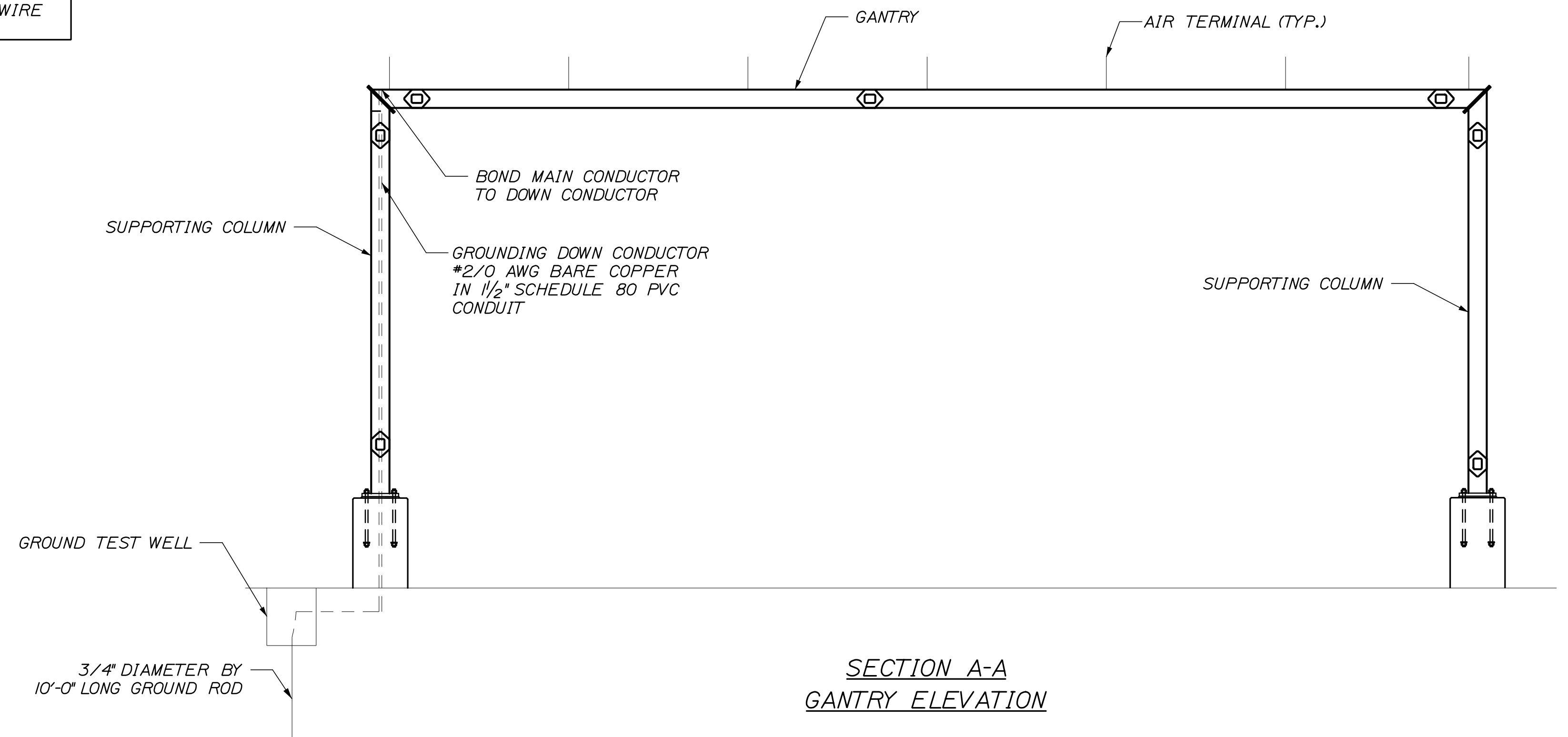
AIR TERMINAL MOUNTING DETAIL

NOTES:

1. LIGHTNING SUPPRESSION PLANS ARE SCHEMATIC ONLY. ALL WORK SHALL BE PROVIDED IN FULL CONFORMANCE WITH UL 96A AND WITH NFPA 780.
2. SPACING OF AIR TERMINALS SHALL NOT EXCEED 25 FEET ON CENTERS.
3. CONDUCTOR BENDS SHALL NOT FORM AN INCLUDED ANGLE LESS THAN 90 DEGREES OR HAVE A RADIUS OF BEND LESS THAN 8 INCHES.
4. LIGHTNING PROTECTION AIR TERMINALS TO BE INSTALLED ON THE GANTRY SHALL BE 24\"/>



GANTRY HEAVY DUTY GROUND TEST WELL DETAILS



SECTION A-A
GANTRY ELEVATION

Filename: 651_NB_Exit_Lighting_Suppression_Rev1.dgn

Scale:			
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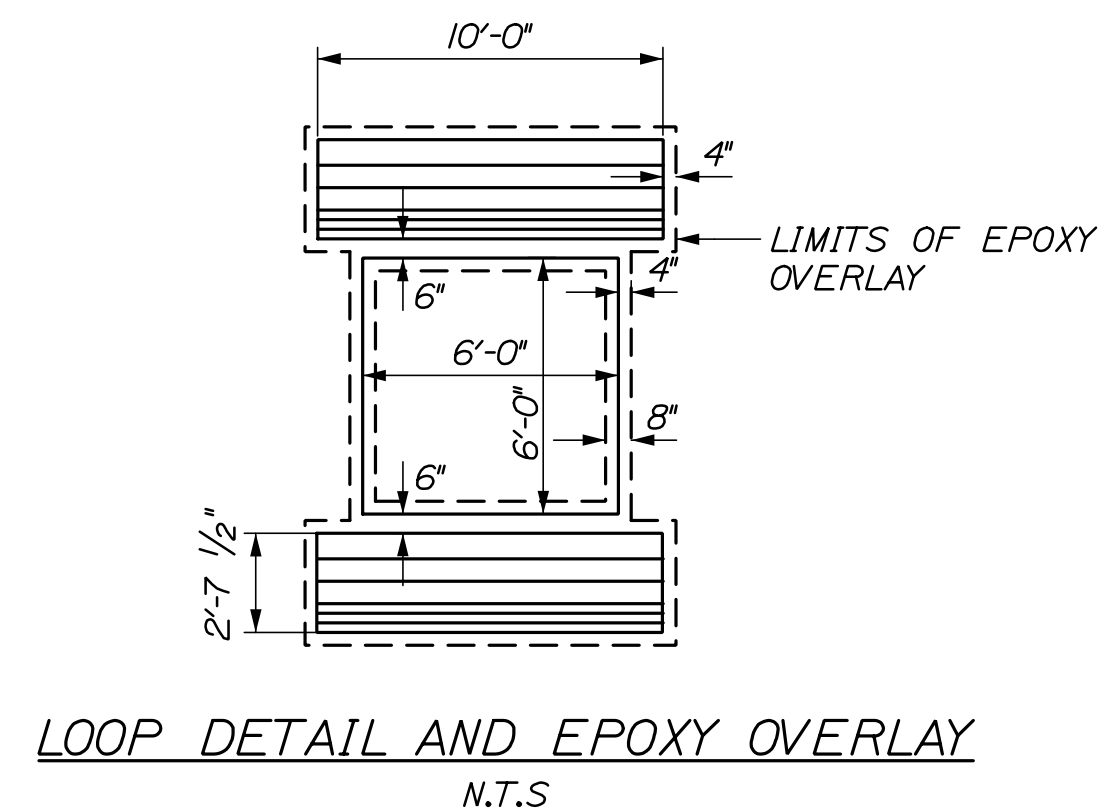
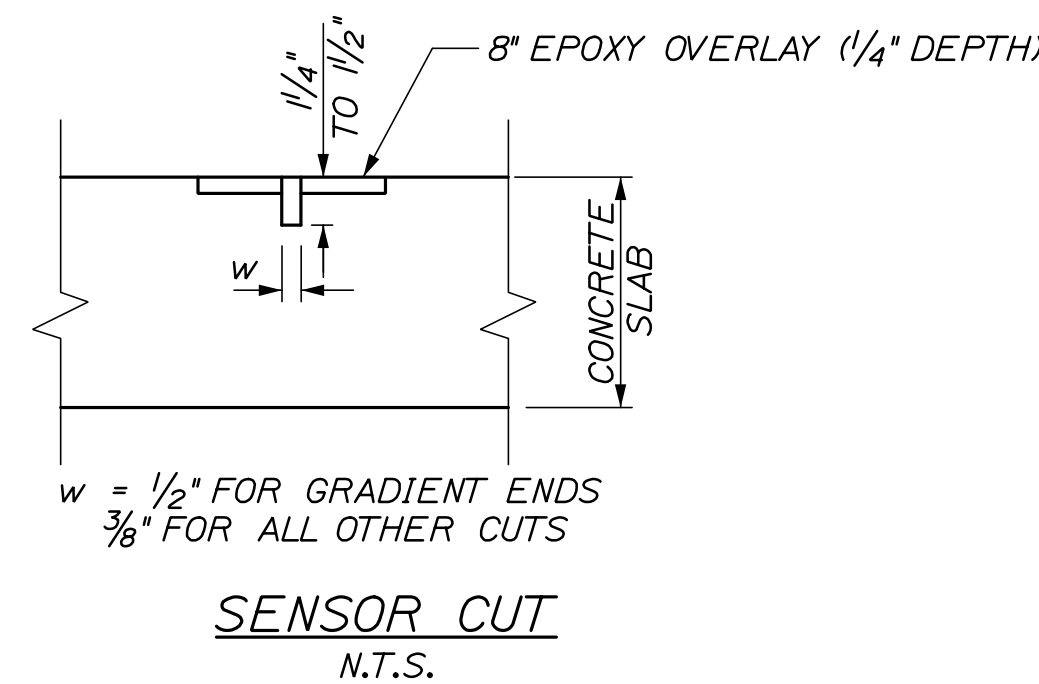
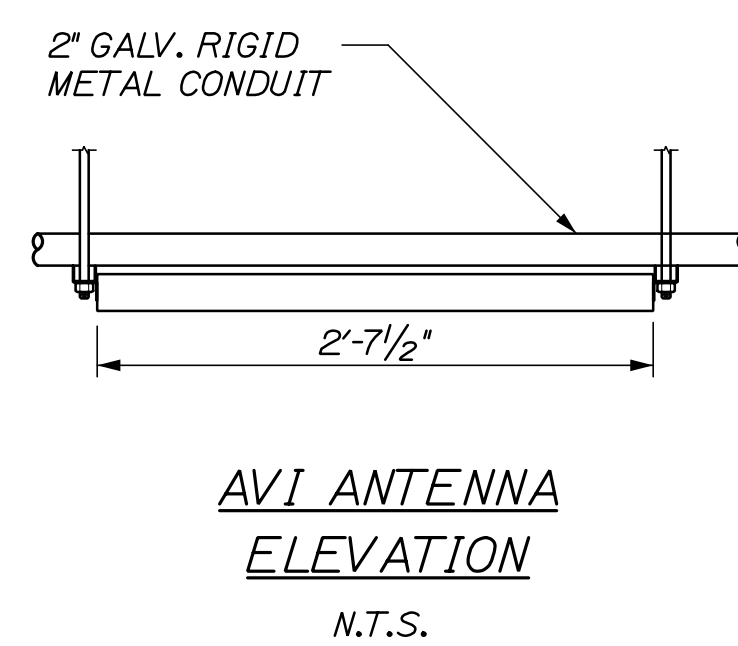
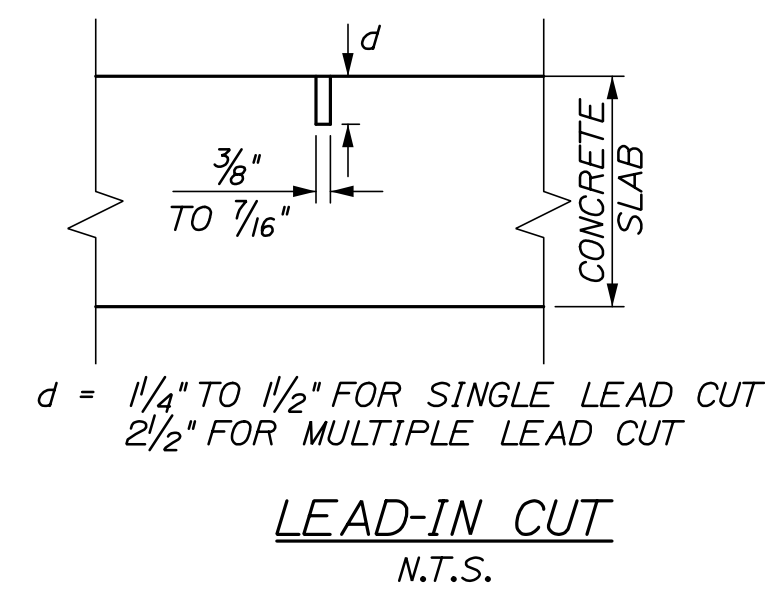
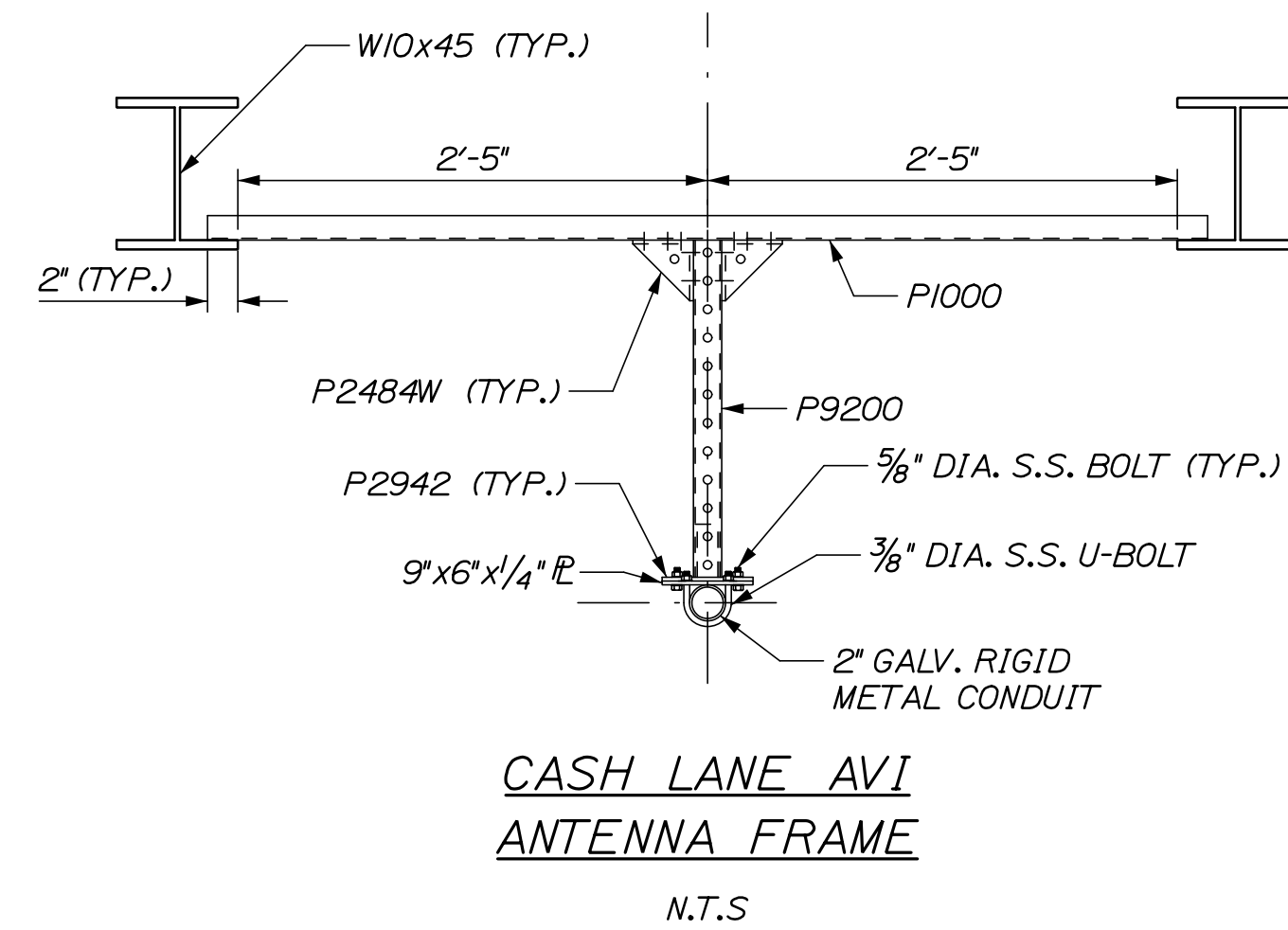
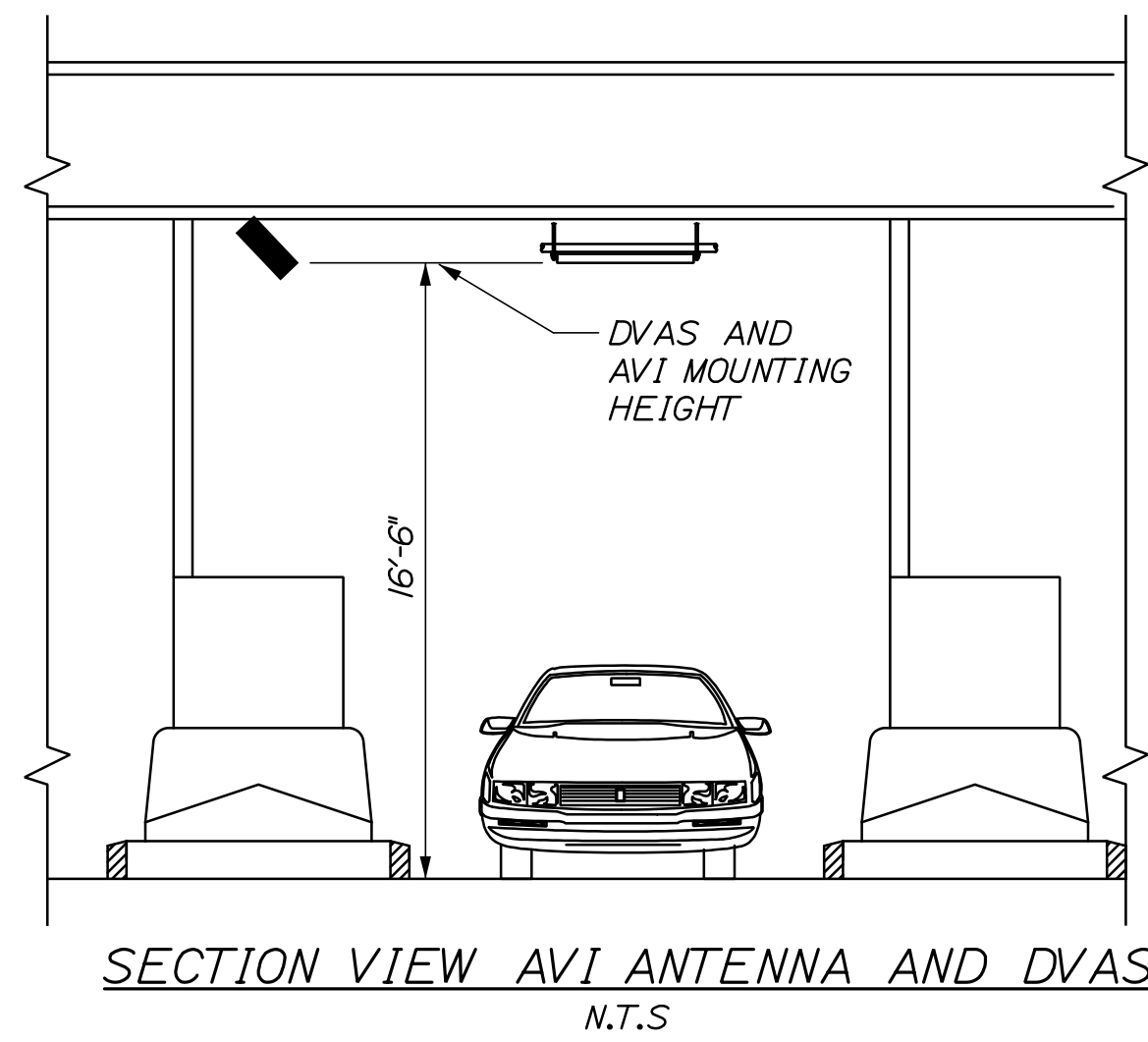
THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, P.E., C.P.E.S.C.

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NB EXIT TOLL POINT
LIGHTNING SUPPRESSION

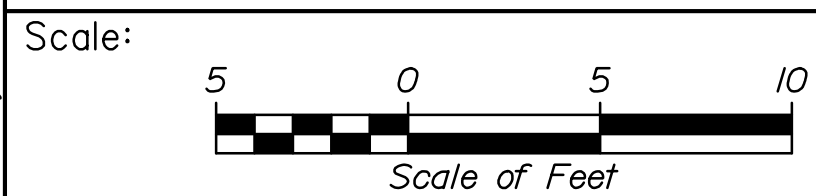
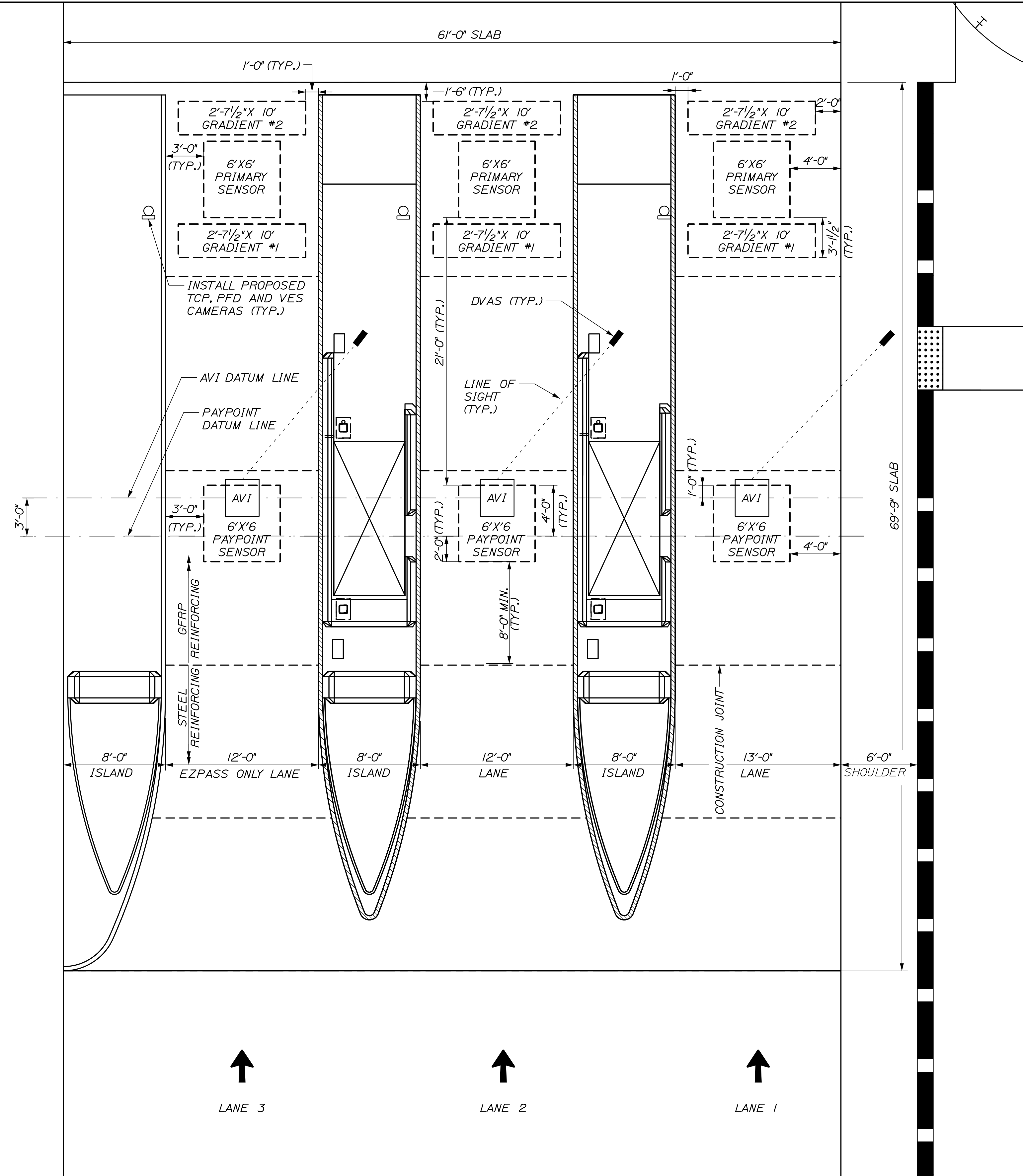
SHEET NUMBER: TSP-04
CONTRACT: 2022.07
651 OF 735

Date:10/13/2022



NOTES:

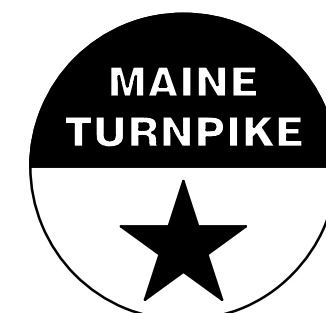
1. ALL LAYOUT FOR PAYPOINT, PRIMARY AND GRADIENT SENSORS SHALL BE VERIFIED BY SYSTEM INTEGRATOR PRIOR TO CUTTING CONCRETE. SYSTEM INTEGRATOR SHALL PROVIDE AND INSTALL LANE SENSOR LOOPS.
2. FOR THE EPOXY OVERLAY, 1/4\"/>



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INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND ENTRY TOLL PLAZA
EQUIPMENT LAYOUT

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: R. BRUCE MUNGER, P.E.

	By	Date		By	Date
Designed	RBM	10/22	Checked	RBM	10/22
Drawn	WWL	10/22	In Charge of	RAL	10/22

MTA PROJECT MANAGER: RYAN BARNES, P.E., C.P.E.S.C.

CONTRACT:2022.07

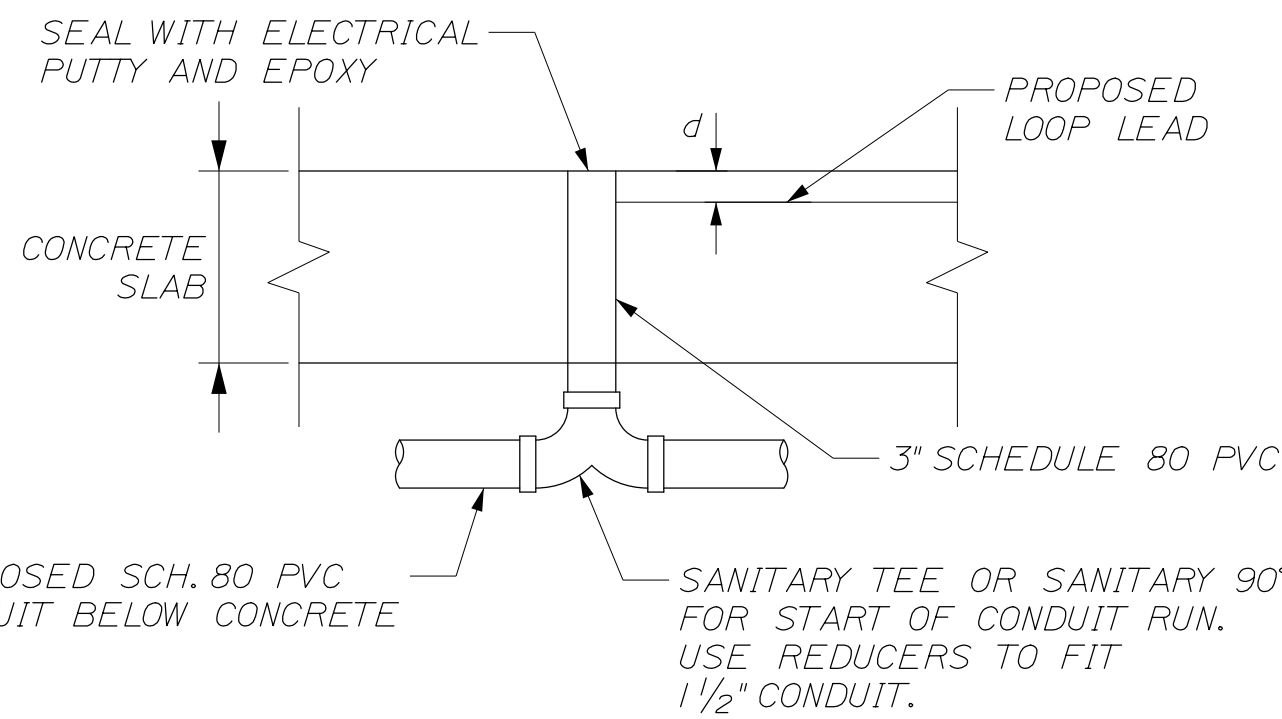
SHEET NUMBER: TSP-05

652 OF 735

Filename: 652_SB_Entry_TollPlan_Rev1.dgn

Date: 10/16/2022

Filename: 653_SB_Plaza Proposed Electrical Plan_Rev1.dgn



DETAIL A
STUB UP IN CASH LANE SLAB
SECTION VIEW

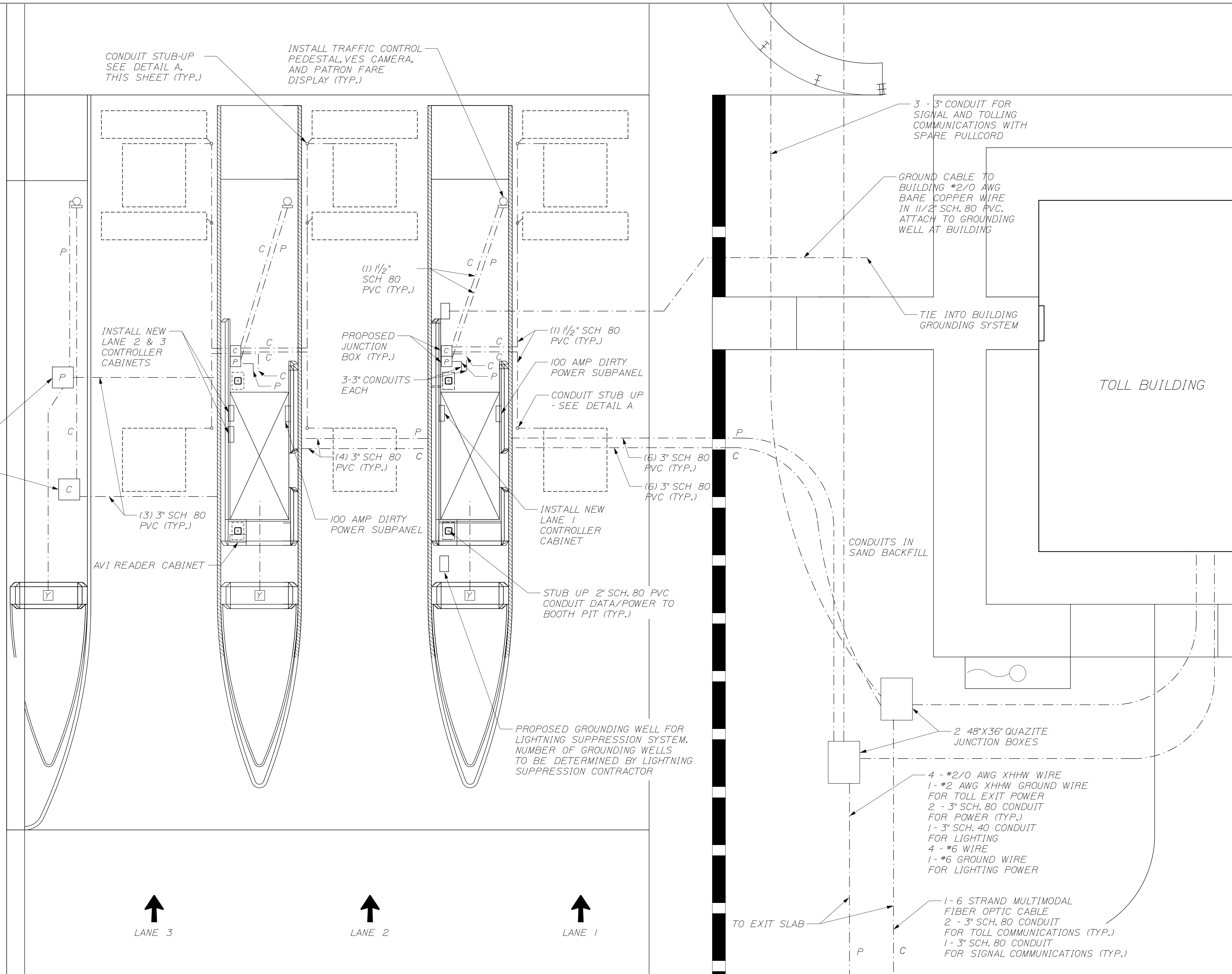
NOTE: SEALING STUB-UPS SHALL BE INCIDENTAL TO THE PVC PAY ITEM.

ENTRY TOLL PLAZA LEGEND

POWER	P
COMMUNICATION	C

NOTES:

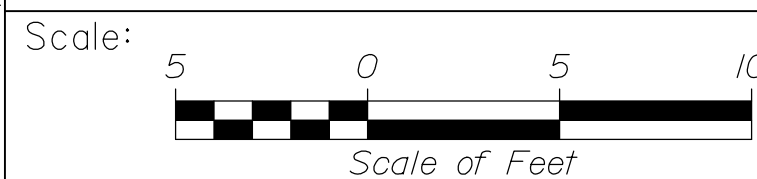
1. ALL ABOVE GROUND CONDUIT SHALL BE GALVANIZED RIGID METAL CONDUIT. ALL BELOW GROUND CONDUIT SHALL BE SCHEDULE 80 PVC CONDUIT.
2. ALL LOOP LEAD STUB UPS ARE 3" DIAMETER AND SHALL BE 3" MIN. FROM EDGE OF SLAB. THE TOP ELEVATION OF ALL SENSOR LOOP CONDUIT FROM STUB UPS SHALL BE AT BOTTOM OF SLAB. SEE DETAIL ON THIS SHEET.
3. CONTRACTOR SHALL CONFIRM LOCATIONS OF JOINTS AND STUB UPS PRIOR TO SETTING STUB UPS.
4. ALL SENSOR LOOP JUNCTION BOXES SHALL BE NON-METALLIC.
5. INSTALL NEW LANE CONTROLLERS AT LOCATIONS AS SHOWN ON THE PLANS, OR AS DIRECTED BY MTA AND SYSTEM INTEGRATOR.
6. CONDUIT PATHING IS SCHEMATIC ONLY.



↑
LANE 3

↑
LANE 2

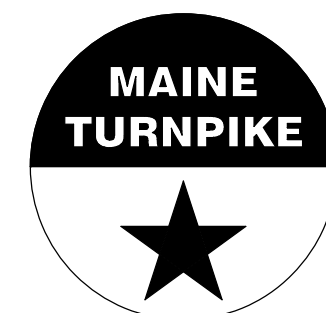
↑
LANE 1



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THE GOLD STAR
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INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND ENTRY TOLL PLAZA
UNDERGROUND ELECTRICAL PLAN

CONSULTANT PROJECT MANAGER: R. BRUCE MUNGER, P.E.

No.	Revision	By	Date

	By	Date		By	Date
Designed	RBM	10/22	Checked	RBM	10/22
Drawn	WWL	10/22	In Charge of	RAL	10/22

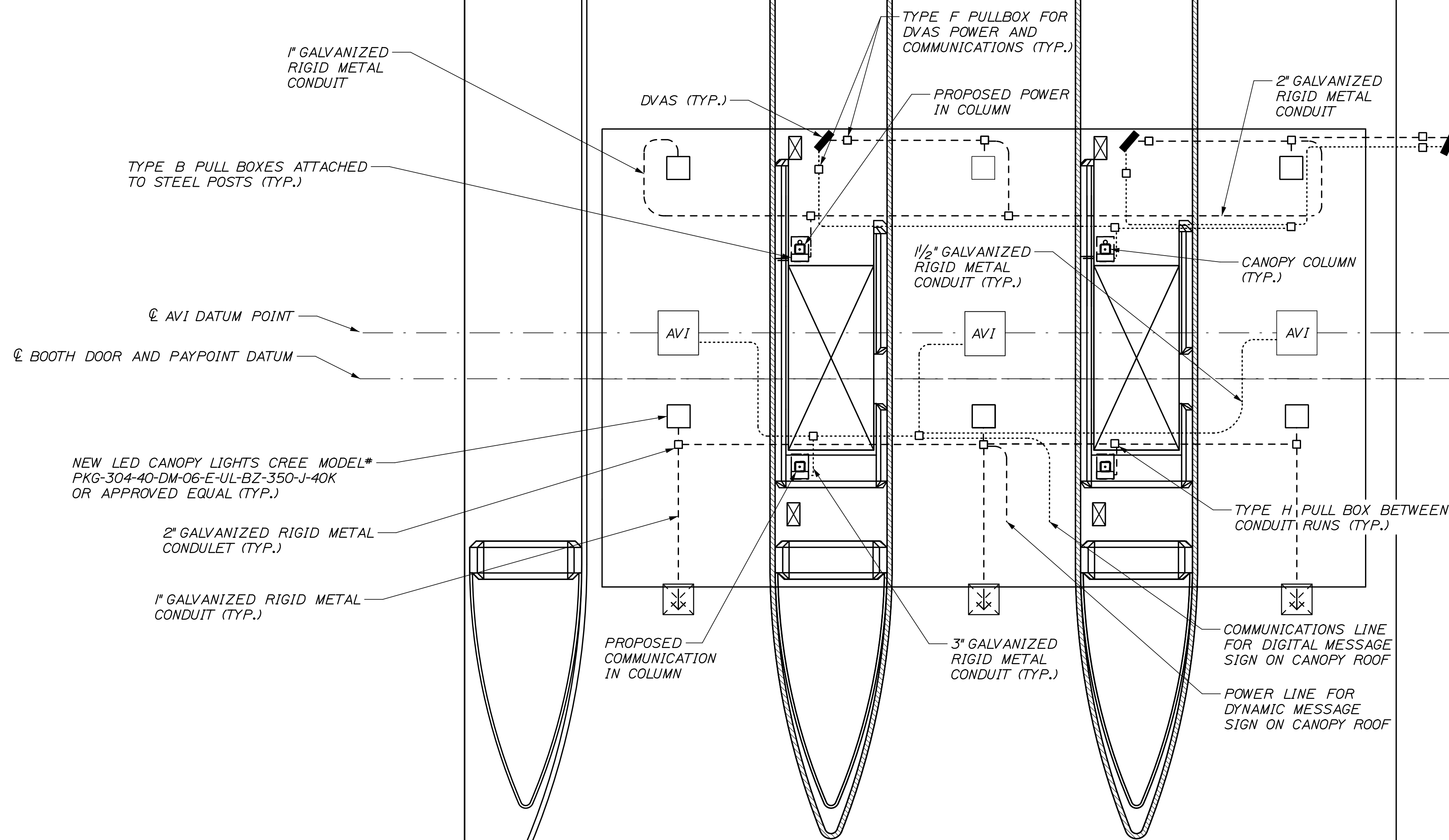
MTA PROJECT MANAGER: RYAN BARNES, P.E., C.P.E.S.C.

CONTRACT: 2022.07

SHEET NUMBER: TSP-06

653 OF 735

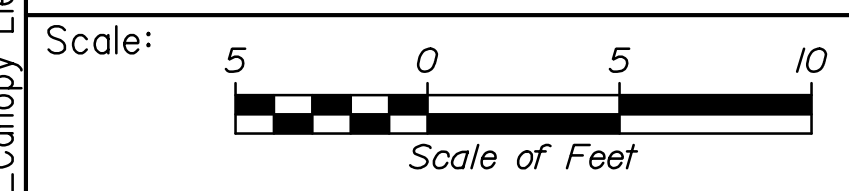
Date: 10/13/2022



NOTES:

1. LMR 600 CABLE WILL NOT BE IN CONDUIT FROM T-CONDULET TO ANTENNA.
2. CANOPY LIGHTS SHALL BE MOUNTED PARALLEL TO THE ROAD SURFACE.
3. PROVIDE DIRTY POWER FROM BOOTH DIRTY POWER PANEL TO CANOPY DRAIN HEAT TRACE.

Filename: 654_SB_Canopy_Electrical.dgn



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CONSULTANT PROJECT MANAGER: R. BRUCE MUNGER, P.E.

No.	Revision	By	Date

	By	Date		By	Date
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Drawn	WWL	10/22	In Charge of	RAL	10/22

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RYAN BARNES, P.E., C.P.E.S.C.

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 SOUTHBOUND ENTRY TOLL PLAZA
 CANOPY ELECTRICAL

SHEET NUMBER: TSP-07
 CONTRACT: 2022.07
 654 OF 735

Date: 10/13/2022

Filename: 655_SB_Lightning Suppression_Rev1.dgn

LIGHTNING SUPPRESSION NOTES:

1. A NEW GROUNDING WELL SHALL BE INSTALLED IN THE AREA TO BE EXCAVATED FOR THE INSTALLATION OF THE CONDUIT THROUGH THE ISLANDS.
2. GROUNDING WELLS SHALL BE INSTALLED IN THE APPROACH SIDE WALKWAY PORTION OF THE ISLANDS. THE PATH OF THE NEW GROUND DOWN CONNECTORS SHALL BE AS SHOWN AND SHALL BE ATTACHED TO THE PROPOSED SUPPORT COLUMNS.
3. THE GROUNDING WELLS AT THE TOLL ISLANDS SHALL CONSIST OF A 18"x11" QUARTZITE JUNCTION BOX WITH A SINGLE 3/4"x10' COPPER CLAD STEEL GROUNDING ROD UL 467 COMPLIANT CENTERED WITHIN THE WELL. THE GROUNDING WELLS AT THE GANTRY AND MAST ARM SHALL BE A HEAVY DUTY TEST WELL WITH CAST IRON COVER. SEE DETAIL ON SHEET TSP-04.
4. BOND EACH SIGN MOUNTING FRAME MEMBER WITH #2/0 AWG BARE COPPER WIRE (TYP.).
5. ALL LIGHTNING PROTECTION WORK SHALL BE PROVIDED IN FULL CONFORMANCE WITH UL 96A AND WITH NFPA 780.
6. LIGHTNING PROTECTION CONDUCTOR BENDS SHALL NOT FORM AN INCLUDED ANGLE LESS THAN 90 DEGREES OR HAVE A RADIUS BEND LESS THAN 8".
7. LIGHTNING PROTECTION AIR TERMINALS TO BE INSTALLED ON THE CANOPY SIGN LIGHTING FIXTURES SHALL BE 10" TALL. LIGHTNING PROTECTION AIR TERMINALS TO BE INSTALLED ON THE CANOPY ROOF SHALL BE 24" TALL.
8. A CANOPY ROOF PENETRATION IS REQUIRED TO ACCOMMODATE A 1" CONDUIT FOR GROUNDING CONDUCTOR AND A 1" CONDUIT FOR CANOPY DMS AND TOLL SYSTEM GPS FOR THE PROPOSED CASH LANES. THE MODIFICATIONS TO THE ROOF TO ACCOMMODATE THE CONDUITS SHALL BE INCIDENTAL TO THE LIGHTNING SUPPRESSION SYSTEM. THE ROOF MODIFICATION SHALL BE PERFORMED BY THE ROOFING SUBCONTRACTOR AS DIRECTED BY THE RESIDENT.
9. ALL MATERIALS SHALL BE UNDERWRITERS LABORATORY APPROVED. THE COMPLETE SYSTEM WILL BEAR THE UL MASTER LABEL.
10. SOUTHBOUND ENTRY LIGHTNING SUPPRESSION SYSTEM SHOWN. NORTHBOUND ENTRY LIGHTNING SUPPRESSION SYSTEM SIMILAR.
11. ADDITIONAL GROUNDING WELLS ARE SHOWN AS PROPOSED LOCATIONS, 4 WELLS MAY NOT BE NEEDED DEPENDING ON LIGHTNING SUPPRESSION DESIGN.

GROUND DOWN CONDUCTOR #2/0 AWG BARE COPPER WIRE IN 1/2" SCH. 80 PVC (TYP.)

AIR TERMINAL (TYP.)

CANOPY COLUMN (TYP.)

PROPOSED GROUNDING WELL (SEE NOTE 3)

PROPOSED CANOPY

1'-0" (TYP.)

SEE NOTE 4 (TYP.)

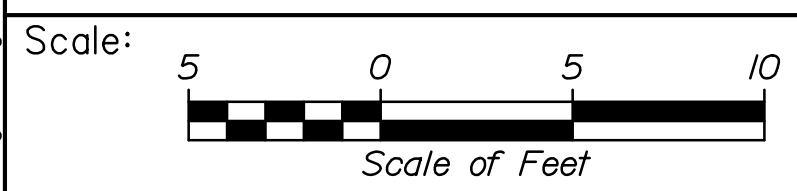
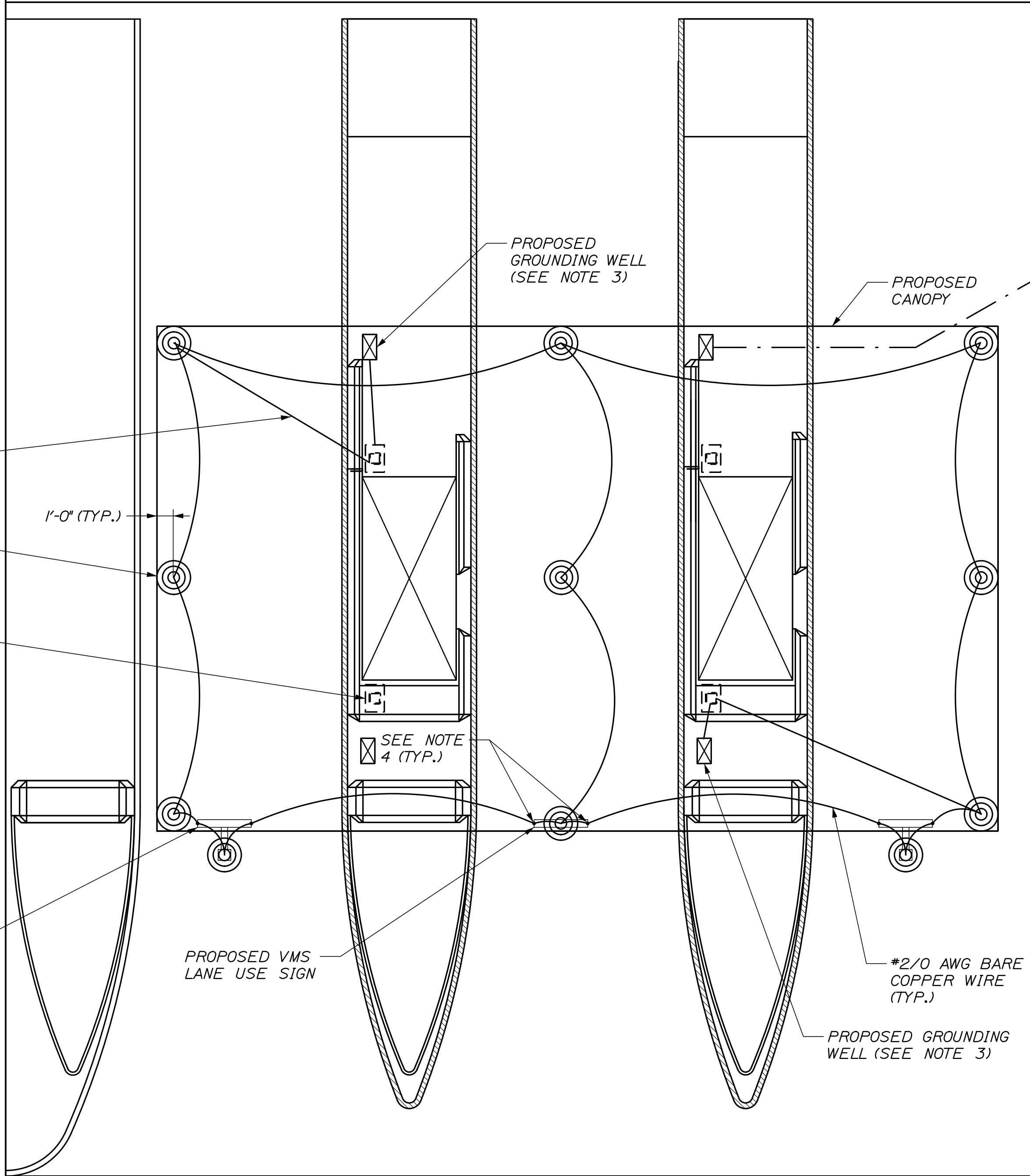
PROPOSED STATIC SIGN AND LIGHT (TYP.)

PROPOSED VMS LANE USE SIGN

#2/0 AWG BARE COPPER WIRE (TYP.)

PROPOSED GROUNDING WELL (SEE NOTE 3)

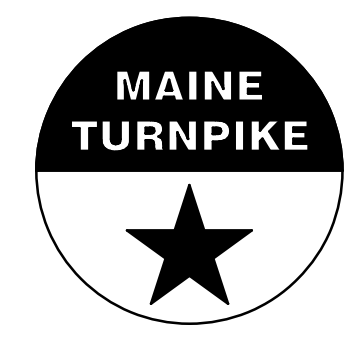
GROUND CABLE TO BUILDING #2/0 AWG BARE COPPER WIRE IN 1/2" SCH. 80 PVC. ATTACH TO GROUNDING WELL AT BUILDING.



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THE GOLD STAR
MEMORIAL HIGHWAY

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
ENTRY TOLL PLAZA
LIGHTNING SUPPRESSION

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: R. BRUCE MUNGER, P.E.					
	By	Date		By	Date
Designed	RBM	10/22	Checked	RBM	10/22
Drawn	WWL	10/22	In Charge of	RAL	10/22

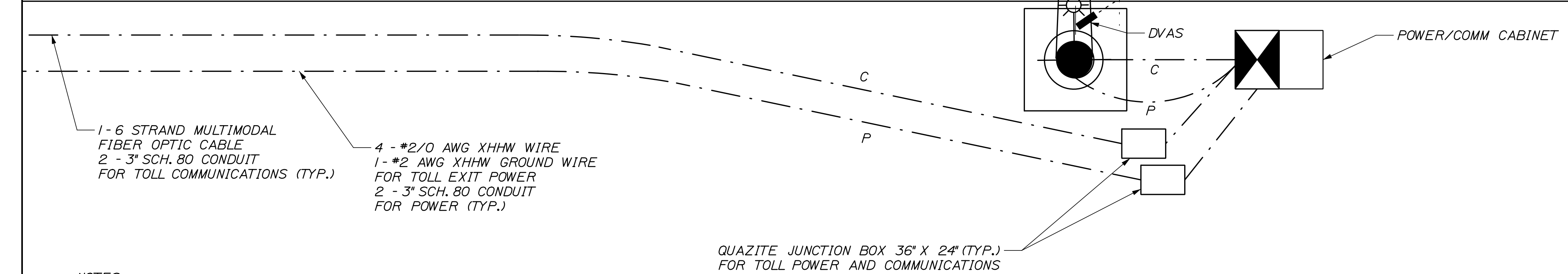
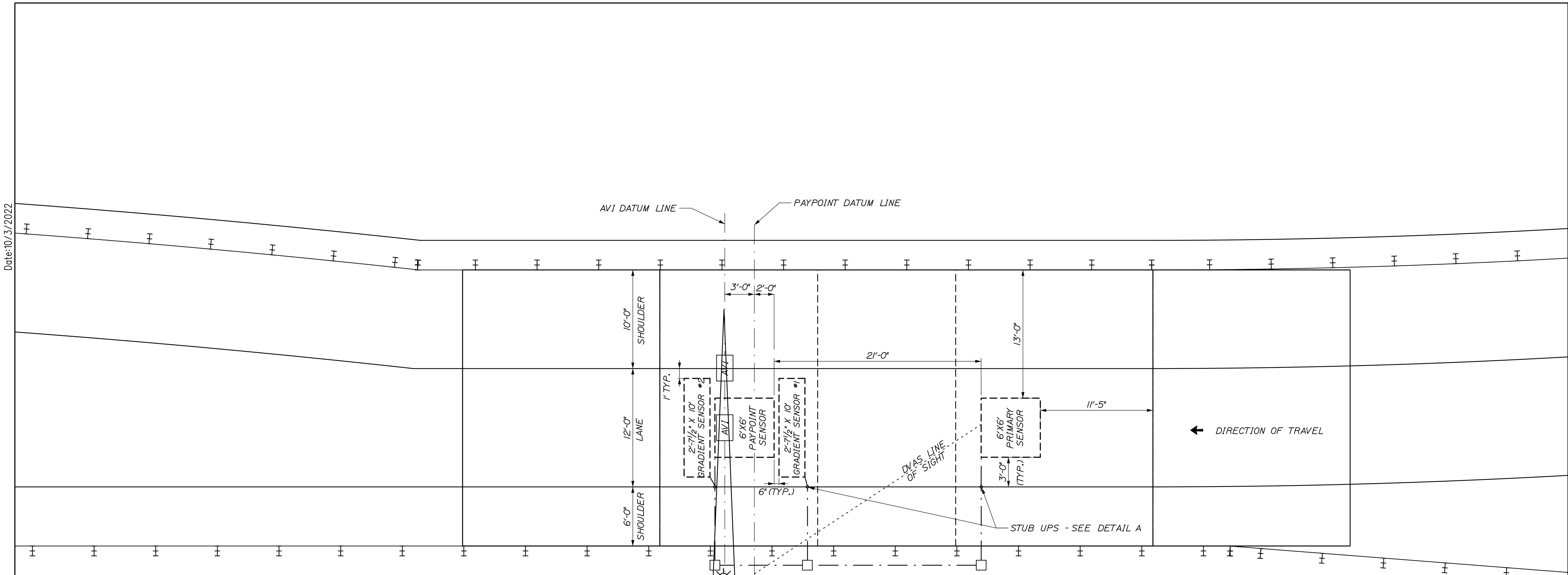
MTA PROJECT MANAGER: RYAN BARNES, P.E., C.P.E.S.C.

CONTRACT: 2022.07

SHEET NUMBER: TSP-08

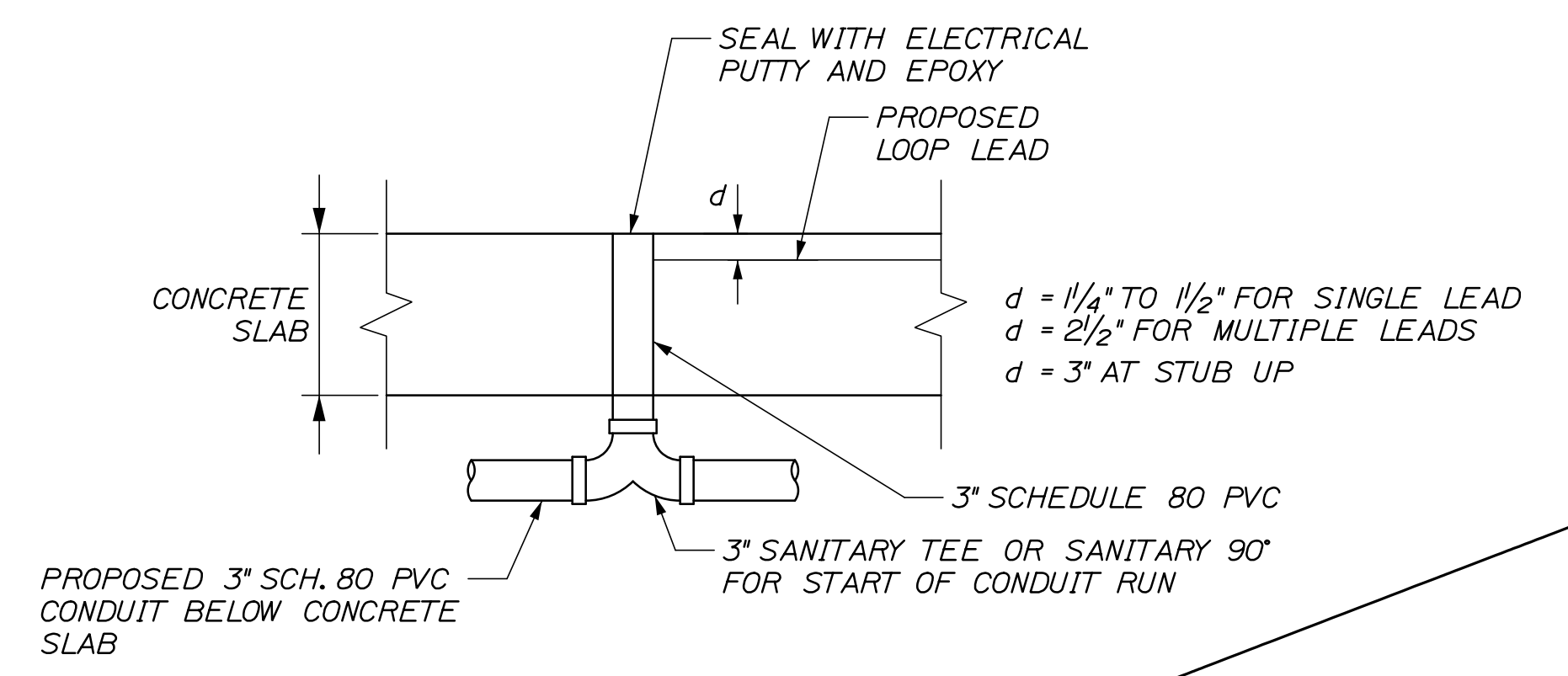
655 OF 735

Date: 10/13/2022



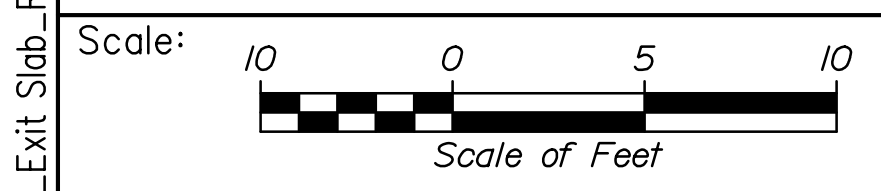
- 1- 6 STRAND MULTIMODAL FIBER OPTIC CABLE
- 2 - 3" SCH. 80 CONDUIT FOR TOLL COMMUNICATIONS (TYP.)
- 4 - *2/0 AWG XHHW WIRE FOR TOLL EXIT POWER
- 1 - *2 AWG XHHW GROUND WIRE FOR TOLL EXIT POWER
- 2 - 3" SCH. 80 CONDUIT FOR POWER (TYP.)

- NOTES:**
1. LOOPS SHOWN FOR STUB-UP LAYOUT PURPOSES ONLY. LOOPS WILL NOT BE INSTALLED IN EXIT LANES.
 2. SEE SHEET TSP-05 FOR ANTENNA AND DVAS MOUNTING HEIGHT DETAILS.
 3. SEE POWER AND COMMUNICATION PLANS FOR CONDUIT AND WIRE PATH DETAILS.
 4. CONTRACTOR SHALL SUPPLY ALL NECESSARY MOUNTING HARDWARE AND BRACKETRY, TO INCLUDE ASTRO-BRACS, FOR MOUNTING AVI ANTENNA TO MAST ARMS AT EXIT TOLL POINT.



DETAIL A
STUB UP SLAB
SECTION VIEW

NOTE: SEALING STUB-UPS SHALL BE INCIDENTAL TO THE PVC PAY ITEM.



No.	Revision	By	Date

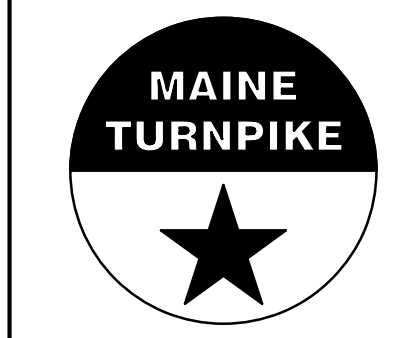
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CONSULTANT PROJECT MANAGER: R. BRUCE MUNGER, P.E.

	By	Date		By	Date
Designed	RBM	10/22	Checked	RBM	10/22
Drawn	WWL	10/22	In Charge of	RAL	10/22



**THE GOLD STAR
MEMORIAL HIGHWAY**

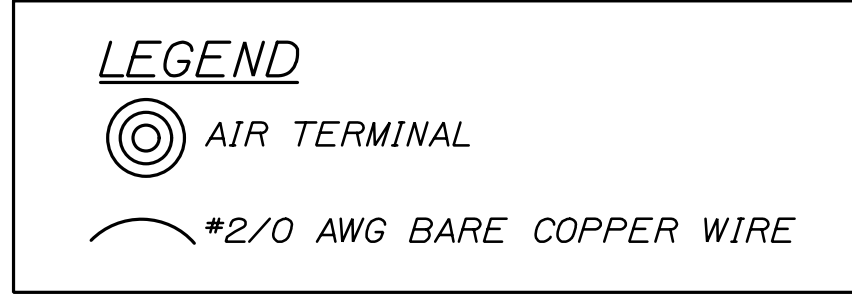
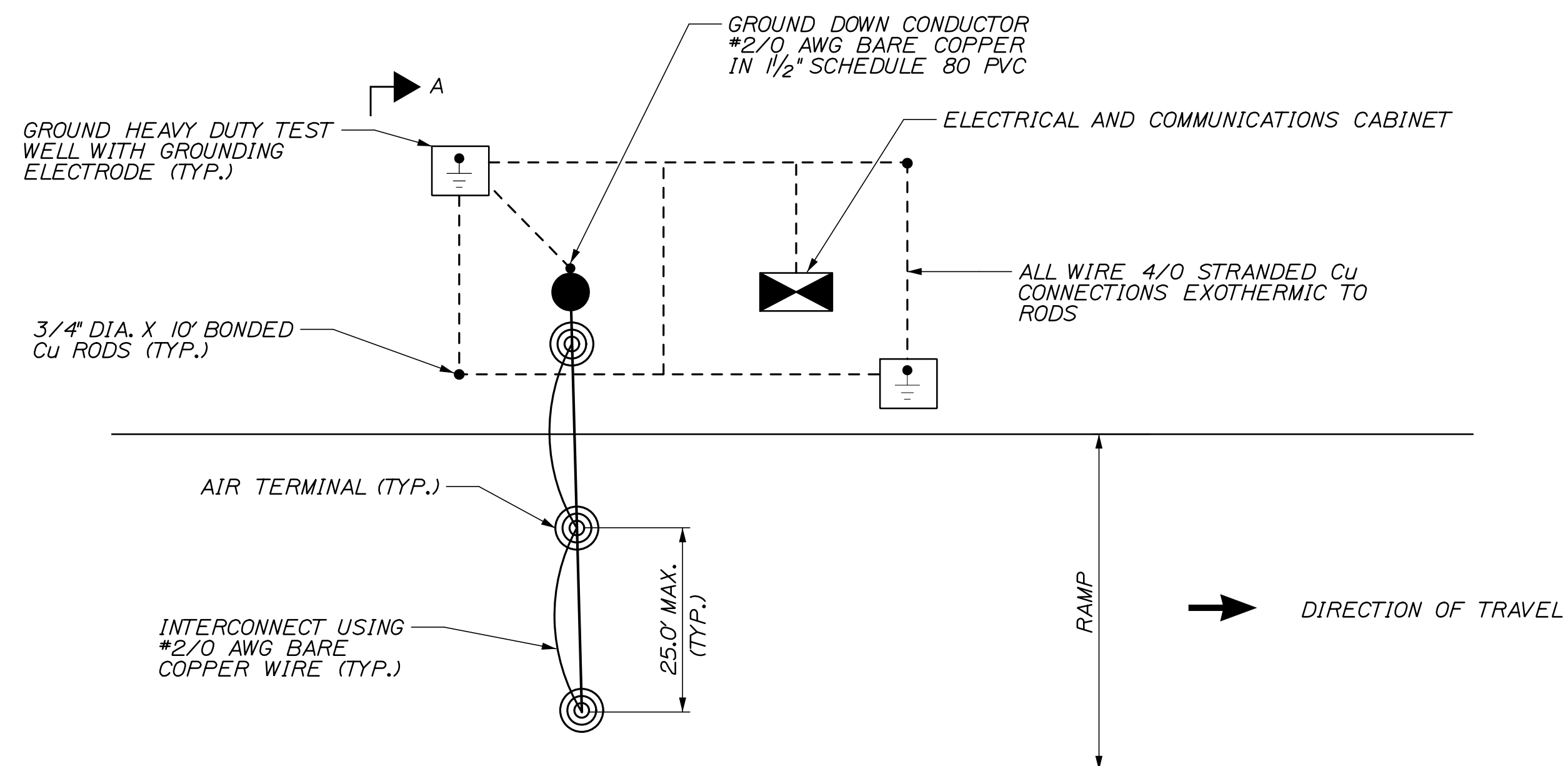
MTA PROJECT MANAGER: RYAN BARNES, P.E., C.P.E.S.C.

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND EXIT TOLL POINT
EQUIPMENT LAYOUT

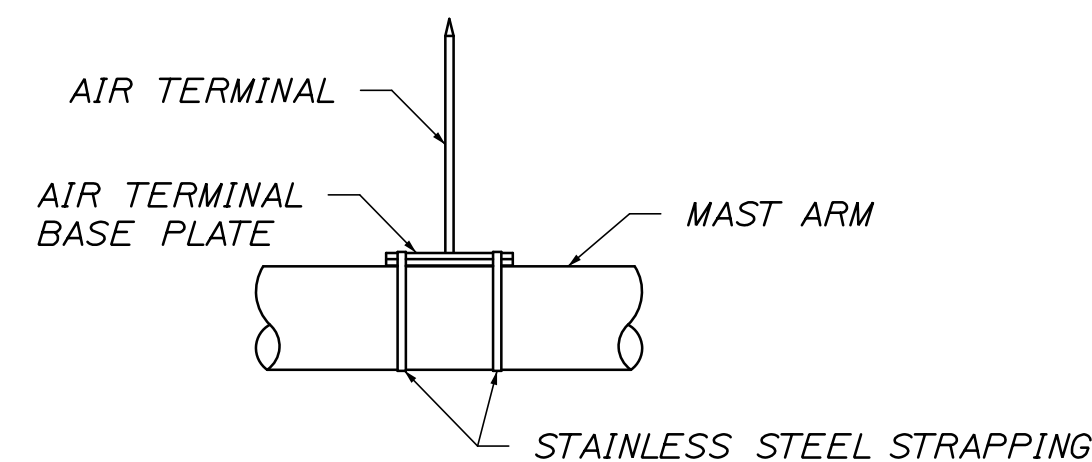
SHEET NUMBER: TSP-09
CONTRACT: 2022.07
656 OF 735

Filename: 656_SB_Exit_Slab_Rev1.dgn

Date: 10/13/2022



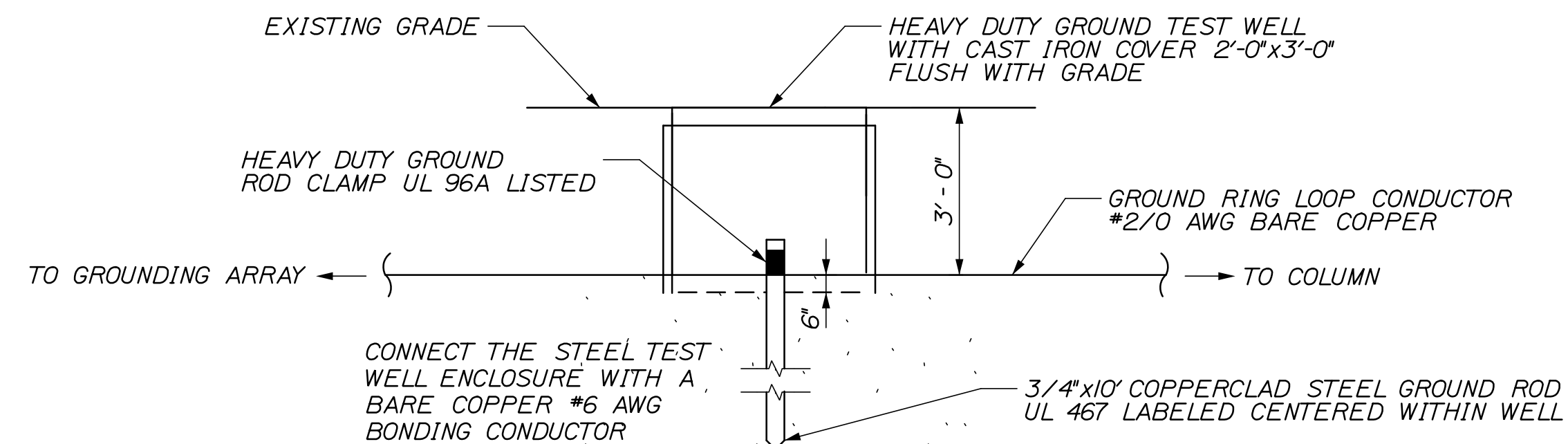
SB EXIT LANE LIGHTNING SUPPRESSION



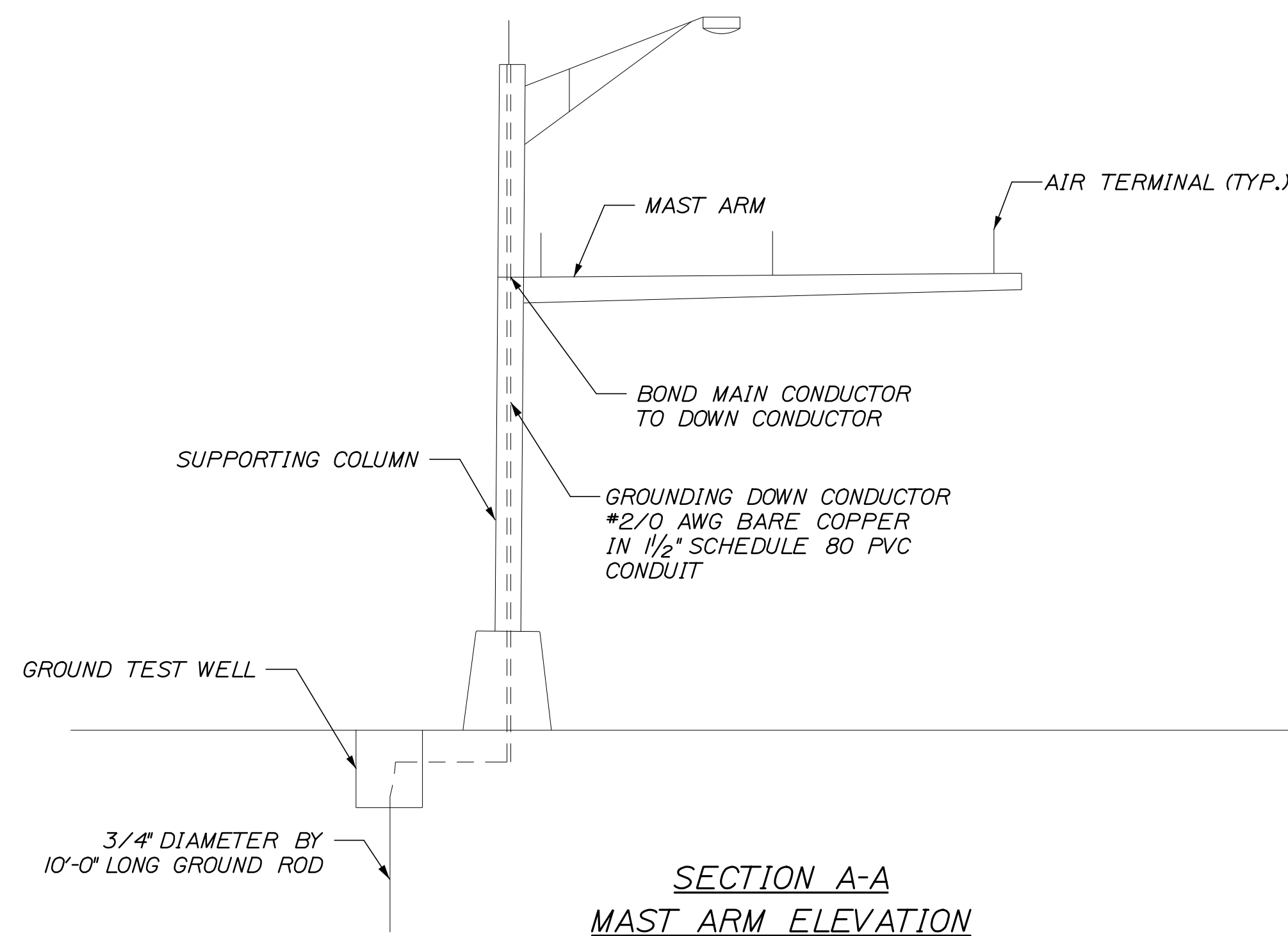
AIR TERMINAL MOUNTING DETAIL

NOTES:

- LIGHTNING SUPPRESSION PLANS ARE SCHEMATIC ONLY. ALL WORK SHALL BE PROVIDED IN FULL CONFORMANCE WITH UL96A AND WITH NFPA 780.
- SPACING OF AIR TERMINALS SHALL NOT EXCEED 25 FEET ON CENTERS.
- CONDUCTOR BENDS SHALL NOT FORM AN INCLUDED ANGLE LESS THAN 90 DEGREES OR HAVE A RADIUS OF BEND LESS THAN 8 INCHES.
- LIGHTNING PROTECTION AIR TERMINALS TO BE INSTALLED ON THE MAST ARM SHALL BE 24" TALL.



MAST ARM HEAVY DUTY GROUND TEST WELL DETAILS



SECTION A-A
MAST ARM ELEVATION

Filename: 657_SB_Exit_Lightning Suppression_Rev1.dgn

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

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CONSULTANT PROJECT MANAGER: R. BRUCE MUNGER, P.E.

	By	Date		By	Date
Designed	RBM	10/22	Checked	RBM	10/22
Drawn	WWL	10/22	In Charge of	RAL	10/22

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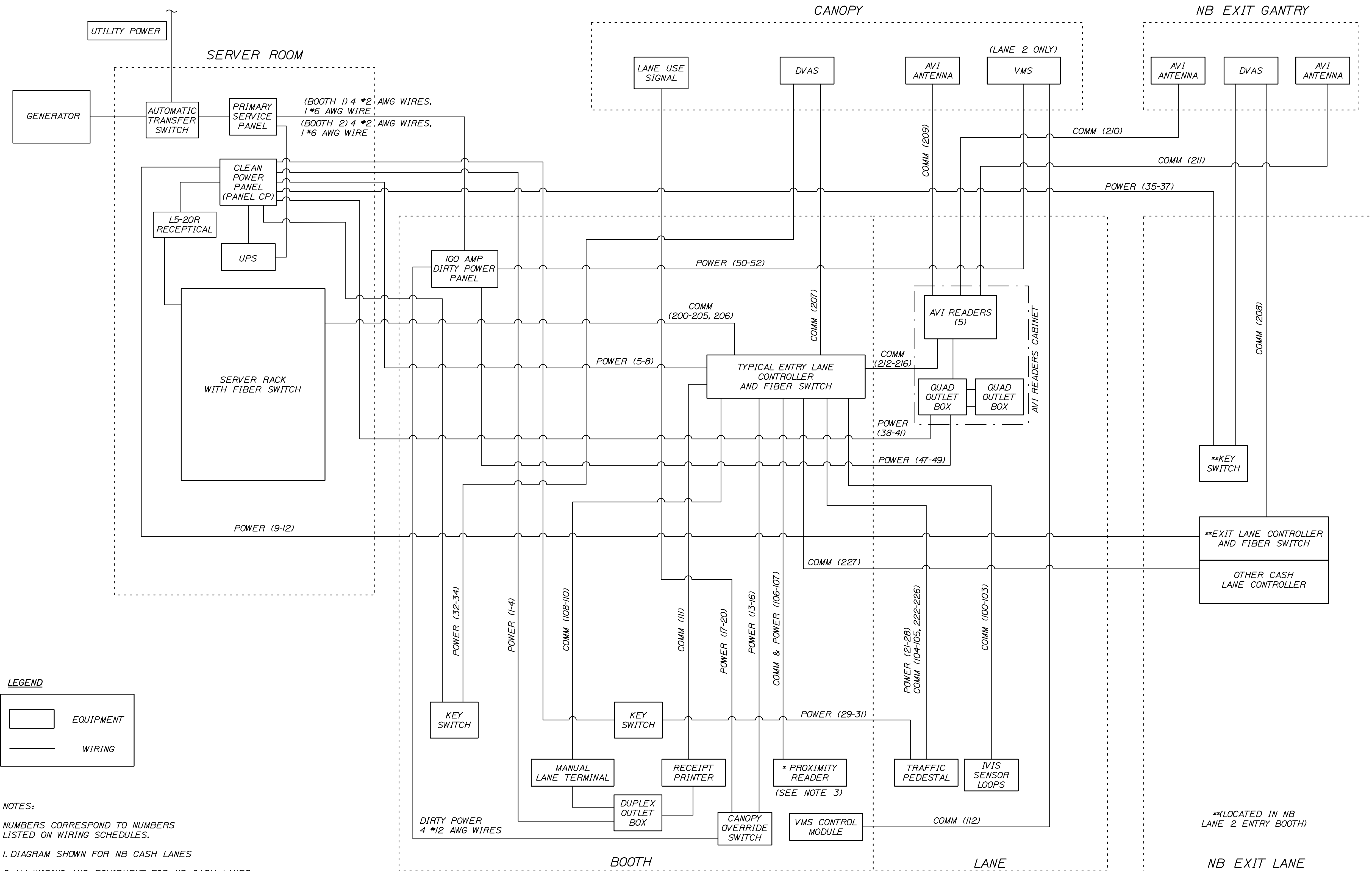
MTA PROJECT MANAGER: RYAN BARNES, P.E., C.P.E.S.C.

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND EXIT TOLL POINT
LIGHTNING SUPPRESSION

SHEET NUMBER: TSP-10
CONTRACT: 2022.07
657 OF 735

Date:10/13/2022

Filename: 658_LaneWiringDiagram_NB_Rev2.dgn



LEGEND

EQUIPMENT
 WIRING

NOTES:

NUMBERS CORRESPOND TO NUMBERS LISTED ON WIRING SCHEDULES.

1. DIAGRAM SHOWN FOR NB CASH LANES

2. ALL WIRING AND EQUIPMENT FOR NB CASH LANES AND EXIT LANE

3. ONLY WIRING FOR PROXIMITY READER TO BE INSTALLED. PROXIMITY READER WILL BE INSTALLED BY THE MTA AT A LATER DATE.

**ENTRY CASH LANES
TOLLING EQUIPMENT SYSTEMS DIAGRAM**
SCALE: N.T.S.

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:			
HNTB			
CONSULTANT PROJECT MANAGER: R. BRUCE MUNGER, P.E.			
	By	Date	
	RBM	10/22	
	By	Date	
	RBM	10/22	
	By	Date	
	WWL	10/22	
	In Charge of		
	RAL	10/22	

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**THE GOLD STAR
MEMORIAL HIGHWAY**

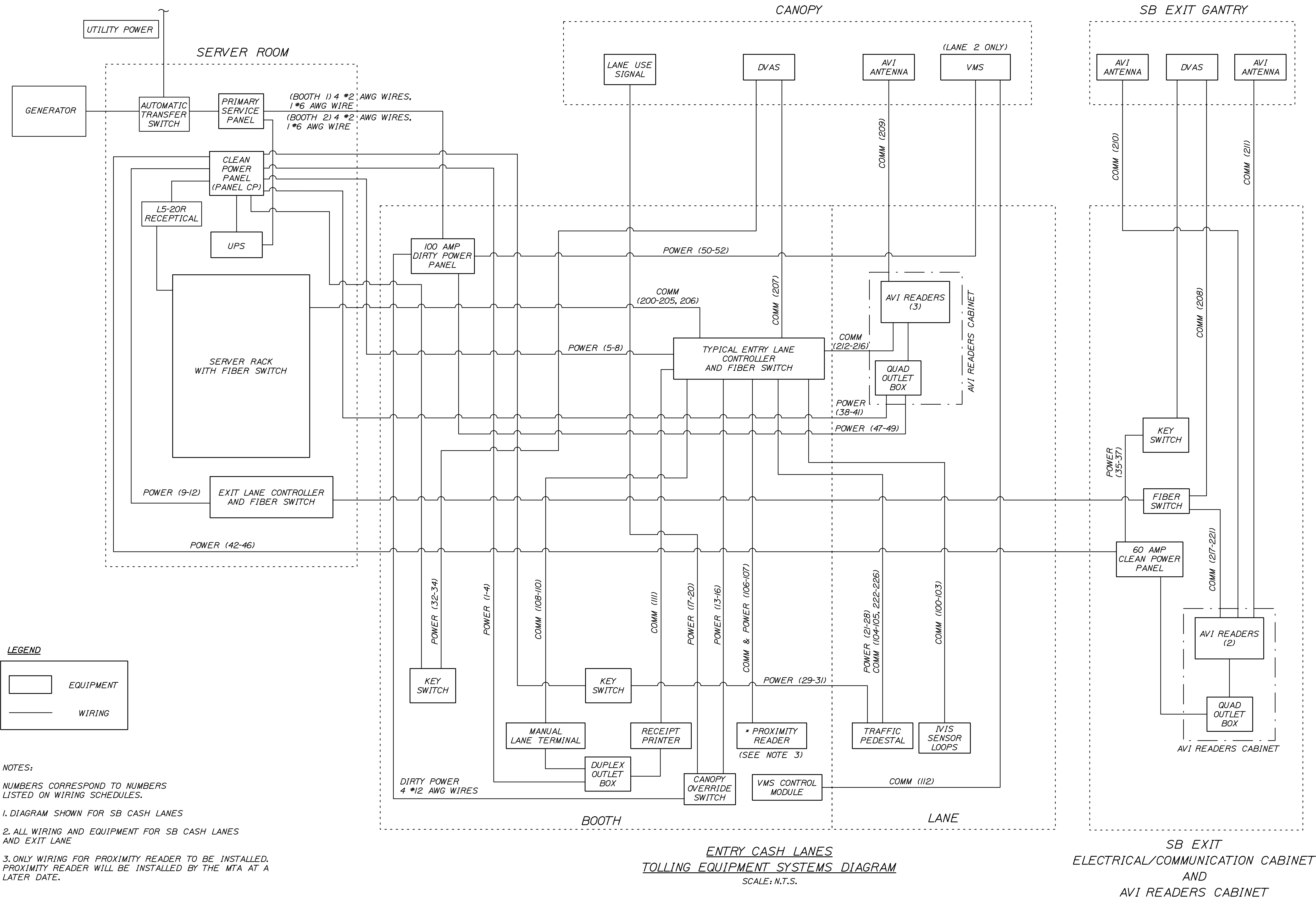
MTA PROJECT MANAGER: RYAN BARNES, P.E., C.P.E.S.C.

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 NB ENTRY/EXIT TOLL PLAZA POWER &
 COMMUNICATIONS LINE DIAGRAM

SHEET NUMBER: TSP-11
 CONTRACT:2022.07
 658 OF 735

Date: 10/13/2022

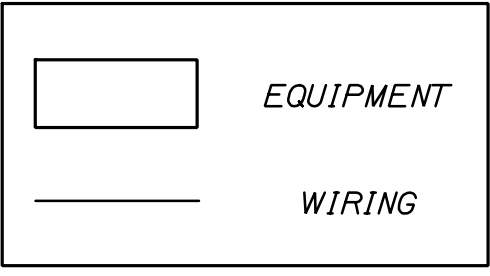
Filename: 659_LaneWiringDiagram_SB_Rev3.dgn



ENTRY CASH LANES
TOLLING EQUIPMENT SYSTEMS DIAGRAM
SCALE: N.T.S.

SB EXIT
ELECTRICAL/COMMUNICATION CABINET
AND
AVI READERS CABINET

LEGEND



NOTES:

- NUMBERS CORRESPOND TO NUMBERS LISTED ON WIRING SCHEDULES.
- 1. DIAGRAM SHOWN FOR SB CASH LANES
- 2. ALL WIRING AND EQUIPMENT FOR SB CASH LANES AND EXIT LANE
- 3. ONLY WIRING FOR PROXIMITY READER TO BE INSTALLED. PROXIMITY READER WILL BE INSTALLED BY THE MTA AT A LATER DATE.

Scale:				Designed by:					
NOT TO SCALE									
No.	Revision	By	Date						
				CONSULTANT PROJECT MANAGER: R. BRUCE MUNGER, P.E.					
				By	Date	By	Date		
				Designed	RBM	10/22	Checked	RBM	10/22
				Drawn	WWL	10/22	In Charge of	RAL	10/22

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MTA PROJECT MANAGER: RYAN BARNES, P.E., C.P.E.S.C.


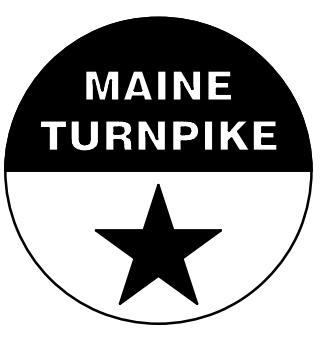
THE GOLD STAR MEMORIAL HIGHWAY

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SB ENTRY/EXIT TOLL PLAZA POWER & COMMUNICATIONS LINE DIAGRAM
SHEET NUMBER: TSP-12
CONTRACT: 2022.07
659 OF 735

Date: 10/13/2022

WIRING SHOWN IS FOR TYPICAL CASH LANE. REPLICATE FOR SIMILAR LANES. ATT/ETC LANE TYPE POWER WIRING SCHEDULE													
WIRE NUMBERING	WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)	DESCRIPTION	AWG	COLOR	CORE	JACKET	VOLTAGE	CIRCUIT BREAKER	FROM	TO	LANE SERVER TERMINAL #	TERMINATION REQUIREMENTS	TERMINATIONS
BOOTH DUPLEX/QUAD OUTLET													
1	(LANE CONTROLLER).L.BQUAD	PERIPHERAL POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	XHHW	120 VAC	20	CLEAN POWER PANEL	BOOTH DUPLEX OUTLET LOCATE WITHIN 3 FT OF ATTENDANT WORK AREA	N/A	DUPLEX OUTLET	POWER PANEL/DUPLEX OUTLET
2	(LANE CONTROLLER).N.BQUAD	PERIPHERAL POWER (NEUTRAL)		WHITE									POWER PANEL/DUPLEX OUTLET
3	(LANE CONTROLLER).G.BQUAD	PERIPHERAL POWER (GROUND)		GREEN									POWER PANEL/DUPLEX OUTLET
4	(LANE CONTROLLER).JG.BQUAD	PERIPHERAL POWER (ISOLATED GROUND)		GREEN W/ WHITE STRIPE									POWER PANEL/DUPLEX OUTLET
LANE SERVER													
5	(LANE CONTROLLER).R.LS.TI-1	LANE SERVER POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	XHHW	120 VAC	20	CLEAN POWER PANEL AND ISOLATED GROUND BAR	LANE CONTROLLER FIELD WIRING (TI) TERMINAL BLOCK. LOCATE UNDER WORK COUNTER UPPER LEFT CORNER.	TI-1	BARE WIRE (CAPPED AND TAPED FOR TERMINATION BY UTS)	POWER PANEL/LANE CONTROLLER
6	(LANE CONTROLLER).N.LS.TI-2	LANE SERVER POWER (NEUTRAL)		WHITE									POWER PANEL/LANE CONTROLLER
7	(LANE CONTROLLER).G.LS.TI-3	LANE SERVER POWER (GROUND)		GREEN									POWER PANEL/LANE CONTROLLER
8	(LANE CONTROLLER).JG.LS.TI-4	LANE SERVER POWER (ISOLATED GROUND)		GREEN W/ WHITE STRIPE									POWER PANEL/LANE CONTROLLER
9	(EX. LANE CONTROLLER).R.LS.TI-1	EX. LANE SERVER POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	XHHW	120 VAC	20	CLEAN POWER PANEL AND ISOLATED GROUND BAR	LANE CONTROLLER FIELD WIRING (TI) TERMINAL BLOCK.	TI-1	BARE WIRE (CAPPED AND TAPED FOR TERMINATION BY UTS)	POWER PANEL/LANE CONTROLLER
10	(EX. LANE CONTROLLER).N.LS.TI-2	EX. LANE SERVER POWER (NEUTRAL)		WHITE									POWER PANEL/LANE CONTROLLER
11	(EX. LANE CONTROLLER).G.LS.TI-3	EX. LANE SERVER POWER (GROUND)		GREEN									POWER PANEL/LANE CONTROLLER
12	(EX. LANE CONTROLLER).JG.LS.TI-4	EX. LANE SERVER POWER (ISOLATED GROUND)		GREEN W/ WHITE STRIPE									POWER PANEL/LANE CONTROLLER
CANOPY LANE USE SIGNAL													
13	COS.CTS-R.SIG	RED CANOPY TRAFFIC SIGNAL POWER (HOT, SWITCHED)	12	RED	STRANDED	XHHW	120 VAC	N/A	LANE CONTROLLER (TI) TERMINAL BLOCK	CANOPY OVERRIDE SWITCH	TI-9	BARE WIRE	LANE CONTROLLER/CANOPY OVERRIDE SWITCH
14	COS.CTS-G.SIG	GREEN CANOPY TRAFFIC SIGNAL POWER (HOT, SWITCHED)		BLUE									LANE CONTROLLER/CANOPY OVERRIDE SWITCH
15	COS.CTS-N.SIG	CANOPY TRAFFIC SIGNAL POWER (NEUTRAL)		WHITE									LANE CONTROLLER/CANOPY OVERRIDE SWITCH
16	COS.CTS-CG.SIG	CANOPY TRAFFIC SIGNAL POWER (COMMON GROUND)		GREEN									LANE CONTROLLER/CANOPY OVERRIDE SWITCH
17	COS.CTS-R.SIG	RED CANOPY TRAFFIC SIGNAL POWER (HOT, SWITCHED)	12	RED	STRANDED	XHHW	120 VAC	N/A	CANOPY OVERRIDE SWITCH	CANOPY LANE USE SIGNAL	TI-8	BARE WIRE	CANOPY OVERRIDE SWITCH/LANE USE SIGNAL
18	COS.CTS-G.SIG	GREEN CANOPY TRAFFIC SIGNAL POWER (HOT, SWITCHED)		BLUE									CANOPY OVERRIDE SWITCH/LANE USE SIGNAL
19	COS.CTS-N.SIG	CANOPY TRAFFIC SIGNAL POWER (NEUTRAL)		WHITE									CANOPY OVERRIDE SWITCH/LANE USE SIGNAL
20	COS.CTS-CG.SIG	CANOPY TRAFFIC SIGNAL POWER (COMMON GROUND)		GREEN									CANOPY OVERRIDE SWITCH/LANE USE SIGNAL
TRAFFIC CONTROL PEDESTAL (TCP)													
21	ITS.LS.TI-12	VIOLATION BEACON (HOT)	12	BLACK	STRANDED	XHHW	120 VAC	-	LANE CONTROLLER (TI) TERMINAL BLOCK	TRAFFIC CONTROL PEDESTAL FIELD WIRING TERMINAL BLOCK 'TA'	TI-12	TA - TH BLACK	LANE CONTROLLER/TRAFFIC CONTROL PEDESTAL
22	ITS.LS.TI-13	LANE 1 ISLAND TRAFFIC SIGNAL RED LIGHT POWER (HOT, SWITCHED)		RED									LANE CONTROLLER/TRAFFIC CONTROL PEDESTAL
23	ITS.LS.TI-14	LANE 1 ISLAND TRAFFIC SIGNAL AMBER LIGHT POWER (HOT, SWITCHED)		YELLOW									LANE CONTROLLER/TRAFFIC CONTROL PEDESTAL
24	ITS.LS.TI-15	LANE 1 ISLAND TRAFFIC SIGNAL GREEN LIGHT POWER (HOT, SWITCHED)		BLUE									LANE CONTROLLER/TRAFFIC CONTROL PEDESTAL
25	ITS.LS.TI-16	LANE 1 ISLAND TRAFFIC SIGNAL POWER (NEUTRAL)		WHITE									LANE CONTROLLER/TRAFFIC CONTROL PEDESTAL
26	PTD.LS.TI-6	LANE 1 PATRON TOLL DISPLAY POWER (HOT, NON-SWITCHED)		BLACK									LANE CONTROLLER/TRAFFIC CONTROL PEDESTAL
27	PTD.LS.TI-7	LANE 1 PATRON TOLL DISPLAY POWER (NEUTRAL)	WHITE	LANE CONTROLLER/TRAFFIC CONTROL PEDESTAL									
28	PTD.LS.TI-8	LANE 1 PATRON TOLL DISPLAY POWER (GROUND)	GREEN	LANE CONTROLLER/TRAFFIC CONTROL PEDESTAL									
29	(Primary Power Panel).TCP	VES/TCP POWER (HOT, KEY SWITCHED)	12	BLACK	STRANDED	XHHW	120 VAC	-	CLEAN POWER PANEL	(KEY SWITCH TO) TRAFFIC CONTROL PEDESTAL FIELD WIRING TERMINAL BLOCK 'TB'	N/A	TB - 120V (H)	POWER PANEL/TRAFFIC PEDESTAL
30	(Primary Power Panel).N.TCP	VES/TCP POWER (NEUTRAL)		WHITE									POWER PANEL/TRAFFIC PEDESTAL
31	(Primary Power Panel).G.TCP	VES/TCP POWER (GROUND)		GREEN									POWER PANEL/TRAFFIC PEDESTAL
LANE DIGITAL VIDEO AND AUDIT CAMERA (DVAS)													
32	(Primary Power Panel).PP	LANE DVAS PAYPOINT CAMERA ENCLOSURE POWER (HOT - KEY SWITCHED)	12	BLACK	STRANDED	XHHW	120 VAC	N/A	CLEAN POWER PANEL (TO KEY SWITCH)	(KEY SWITCH TO) DVAS CAMERA ENCLOSURE	N/A	BARE WIRE (Capped and Taped for termination by UTS)	CLEAN POWER/DVAS
33	(Primary Power Panel).N.PP	LANE DVAS PAYPOINT CAMERA ENCLOSURE (NEUTRAL)		WHITE									CLEAN POWER/DVAS
34	(Primary Power Panel).G.PP	LANE DVAS PAYPOINT CAMERA ENCLOSURE (GROUND)		GREEN									CLEAN POWER/DVAS
35	(Primary Power Panel).PP	LANE DVAS PAYPOINT CAMERA ENCLOSURE POWER (HOT - KEY SWITCHED)		BLACK									CLEAN POWER/DVAS
36	(Primary Power Panel).N.PP	LANE DVAS PAYPOINT CAMERA ENCLOSURE (NEUTRAL)	12	WHITE	STRANDED	XHHW	120 VAC	N/A	CLEAN POWER PANEL (TO KEY SWITCH)	(KEY SWITCH TO) DVAS CAMERA ENCLOSURE	N/A	BARE WIRE (Capped and Taped for termination by UTS)	CLEAN POWER/DVAS
37	(Primary Power Panel).G.PP	LANE DVAS PAYPOINT CAMERA ENCLOSURE (GROUND)		GREEN									CLEAN POWER/DVAS
AUTOMATIC VEHICLE IDENTIFICATION (AVI)													
38	(Primary Clean Power Panel).L.AVI	LANE AVI READER QUAD POWER (AC HOT-CLEAN)	12	BLACK	STRANDED	XHHW	120 VAC	20	CLEAN POWER PANEL AND ISOLATED GROUND (TO 1/2 QUAD OUTLET INSIDE AVI READER CABINET)	(1/2 QUAD OUTLET TO AVI READERS-CLEAN)	N/A	1/2 OF QUAD OUTLET INSIDE AVI READER CABINET-CLEAN	POWER PANEL/AVI READERS
39	(Primary Clean Power Panel).N.AVI	LANE AVI READER QUAD POWER (AC NEUTRAL-CLEAN)		WHITE									POWER PANEL/AVI READERS
40	(Primary Clean Power Panel).G.AVI	LANE AVI QUAD READER (GROUND-CLEAN)		GREEN									POWER PANEL/AVI READERS
41	(Primary Clean Power Panel).JG.AVI	LANE AVI QUAD READER (ISOLATED GROUND-CLEAN)		GREEN W/WHITE STRIPE									POWER PANEL/AVI READERS
42	(Primary Clean Power Panel).L.AVI	SB EX. PANEL/AVI READER QUAD POWER (AC HOT-CLEAN)	2/0	RED	STRANDED	XHHW	208 VAC	60	CLEAN POWER PANEL (TO 60 AMP SUB PANEL INSIDE POWER/COMM CABINET)	60 AMP SUB PANEL TO (1/2 QUAD OUTLET TO AVI READERS-CLEAN)	N/A	1/2 OF QUAD OUTLET INSIDE AVI READER CABINET-CLEAN	POWER PANEL/AVI READERS
43	(Primary Clean Power Panel).L.AVI	SB EX. PANEL/AVI READER QUAD POWER (AC HOT-CLEAN)		BLACK									POWER PANEL/AVI READERS
44	(Primary Clean Power Panel).L.AVI	SB EX. PANEL/AVI READER QUAD POWER (AC HOT-CLEAN)		BLUE									POWER PANEL/AVI READERS
45	(Primary Clean Power Panel).N.AVI	SB EX. PANEL/AVI QUAD READER (NEUTRAL-CLEAN)		WHITE									POWER PANEL/AVI READERS
46	(Primary Clean Power Panel).G.AVI	SB EX. PANEL/AVI QUAD READER (GROUND-CLEAN)	10	GREEN									
47	(Dirty Power Panel).L.AVI	LANE AVI READER QUAD POWER (AC HOT-DIRTY)	12	BLACK	STRANDED	XHHW	120 VAC	20	DIRTY POWER PANEL (TO 1/2 QUAD OUTLET INSIDE AVI READER CABINET)	(1/2 QUAD OUTLET TO AVI READERS-DIRTY)	N/A	1/2 OF QUAD OUTLET INSIDE AVI READER CABINET-DIRTY	POWER PANEL/AVI READERS
48	(Dirty Power Panel).N.AVI	LANE AVI READER QUAD POWER (AC NEUTRAL-DIRTY)		WHITE									POWER PANEL/AVI READERS
49	(Dirty Power Panel).G.AVI	LANE AVI QUAD READER (GROUND-DIRTY)		GREEN									POWER PANEL/AVI READERS
VARIABLE MESSAGE SIGN (VMS)													
50	(Dirty Power Panel).L.VMS	LANE VMS (AC HOT)	12	BLACK	STRANDED	XHHW	120 VAC	20	DIRTY POWER PANEL	VARIABLE MESSAGE SIGN	N/A	LANE 2 (NB), LANE 2 (SB) CANOPY SIGN	DIRTY POWER/VMS
51	(Dirty Power Panel).N.VMS	LANE VMS (AC NEUTRAL)		WHITE									DIRTY POWER/VMS
52	(Dirty Power Panel).G.VMS	LANE VMS (AC GROUND)		GREEN									DIRTY POWER/VMS
Note: 1.) Wires #42-46 for SB Exit Clean Power Panel and AVI quad reader only.													

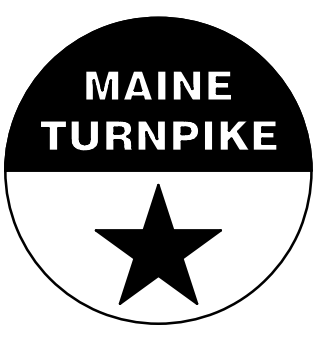
Filename: 660_Cash_Lane_Power_Schedule_Rev2.dgn

Scale: NOT TO SCALE		Designed by:				HNTB CORPORATION 82 Running Hill Road, Suite 201 Portland, ME 04106 TEL (207) 774-5155 FAX (207) 228-0909				THE GOLD STAR MEMORIAL HIGHWAY		INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) TOLL PLAZA CASH LANE POWER SCHEDULE		SHEET NUMBER: TSP-13 CONTRACT: 2022.07 660 OF 735													
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Date:10/13/2022

WIRING SHOWN IS FOR CASH LANE. REPLICATE FOR SIMILAR LANES. ATT/ETC DISCRETE WIRING SCHEDULE - DATA: DOOR WIRING LOGIC, SERIAL, VIDEO, AUDIO (Primary Server) Intelligent Vehicle Identification System (IVIS) (For Wiring Only. Home Run Lead supplied as part of Sensor)										
WIRE NUMBERING	WIRE LABEL	DESCRIPTION	AWG	COLOR	CORE	STANDARD	FROM	TO	LANE SERVER TERMINAL *	
100	T4-57.PP	PAYPOINT PRIMARY SENSOR	14	BLACK	STRANDED	IMSA50-2	PAYPOINT PRIMARY SENSOR	SENSORS COME WITH 80' PIGTAIL. IF ADDITIONAL WIRE NEEDED SPLICE TO IMSA-50-2 TYPE CABLE. INSTALL THE HOME RUN CABLE FROM THE LANE GROUND BOX TO THE LANE SERVER CONNECTION SPECIFIED IN THE ADJ COLUMN. ALL SPLICES MUST BE SOLDERED, TIGHTLY TWISTED, AND INSULATED TO BE WATER RESISTANT. FOR LANES NOT HAVING PRE-CLASSIFICATION, DELETE REQUIREMENTS FOR PRE_CLASSIFICATION SENSORS AND INTELLIGENT QUEUING SENSOR	T4-57	
101	T4-58.G3	POST CLASSIFICATION GRADIENT SENSOR #1	14	BLACK	STRANDED	IMSA50-2	POST-CLASSIFICATION GRADIENT SENSOR #1		T4-59	
102	T4-59.P4	POST CLASSIFICATION PRIMARY SENSOR	14	BLACK	STRANDED	IMSA50-2	POST-CLASSIFICATION PRIMARY SENSOR		T4-61	
103	T4-60.G4	POST CLASSIFICATION GRADIENT SENSOR #2	14	BLACK	STRANDED	IMSA50-2	POST-CLASSIFICATION GRADIENT SENSOR #2		T4-63	
Toll Booth Peripheral Cables (MLT, Printer, PC Prox, PTD Display)										
104	S3.I.PTD	PATRON FARE DISPLAY	Cat5e		BARE WIRE AT PEDESTAL		FIELD WIRED - ONLY FOUR PINS USED: PIN 3 - DEVICE RECEIVE, PIN 5 - GROUND, PINS 7 AND 8 JUMPERED	RS232	PEDESTAL WIRE CENTER TA - PTD DATA	TBD
105	Lane(*JTR	LANE TRIGGER	Cat5e		BARE WIRE		Pin to Pin	TTL(optically Isolated)	(See Note 1 below) Wire to Designated Trigger Terminals for Front and Rear Trigger (*/-) in Pedestal Wire Center	TBD
106	S8.PROX	MANUAL LANE TERMINAL PCPROX CARD READER	Cat5e		DB9 (MALE)		SERIAL	RS232	(See Note 1 below)	S-8
107	PROXPWR	MANUAL LANE TERMINAL PCPROX CARD READER POWER	Cat5e		PS2 (FEMALE)		SERIAL	RS232	(See Note 1 below)	PS/2
108	S9.MLT	TOLL BOOTH MANUAL LANE TERMINAL (MLT) COMMUNICATIONS	Cat5e		RJ-45		SERIAL	RS232	(See Note 1 below)	TBD
109	MLTVGA	TOLL BOOTH MANUAL LANE TERMINAL VIDEO			VGA		RJ-45	RS232	(See Note 1 below)	MONITOR
110	MLTAUDIO	TOLL BOOTH MANUAL LANE TERMINAL SPEAKER	3.5mm Plug (MALE)		3.5mm Plug (MALE)		AUDIO	AUDIO	PREFAB AUDIO CABLE	AUDIO
111	S10.RP	TOLL BOOTH RECEIPT PRINTER COMMUNICATIONS	RJ-45		DB25 (MALE)		NULL MODEM	RS232	PREFAB NULL MODEM CABLE - NOT TO EXCEED 100 FT	TBD
VARIABLE MESSAGE SIGN (VMS)										
112	VMS	VMS CONTROL	Cat5e		RJ45		VMS CONTROL MODULE	RJ45	See Note 3	N/A
AVI SYSTEM SYNCHRONIZATION CABLE										
113	Cash(NB) AVI	AVI SYNC CABLE	IMSA-50*18 BLACK		STRANDED/LOW DENSITY POLYETHYLENE		NB AVI READER CABINET (LEAVE 10' SLACK LOOP)	-	NB LANE CONTROLLERS	-
Notes:										
1.) Lane Server to peripheral cable pin connections - refer to peripheral Installation Guide. RJ-45 at Lane Server: 1=C/S, 2=CD, 3=RxD, 4=Gnd, 5=Gnd, 6=TxD, 7=DTR, 8=RTS. (No handshaking is used)										
2.) Schedule does not include booth access control requirements, booth DVAS or wiring.										
3.) Wiring is to be installed per the VMS manufacturer.										
4.) AVI synchronization cable will be provided and terminated by the system integrator.										

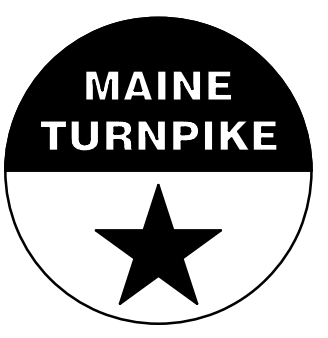
Filename: 661_Cash_Lane_Data_Schedule_Rev2.dgn

Scale: NOT TO SCALE		Designed by: HNTB		HNTB CORPORATION 82 Running Hill Road, Suite 201 Portland, ME 04106 TEL (207) 774-5155 FAX (207) 228-0909		 THE GOLD STAR MEMORIAL HIGHWAY		INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) TOLL PLAZA CASH LANE DATA SCHEDULE																																	
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Drawn	WWL	10/22	In Charge of	RAL	10/22																																				

Date: 10/13/2022

WIRING SHOWN IS FOR CASH LANE. REPLICATE FOR SIMILAR LANES. ATT-ETC LANE NETWORK WIRING SCHEDULE LANE SERVER MULTIMODE FIBER (FOR REMOTE SWITCH ACCESS)								
WIRE NUMBERING	WIRE LABEL	DESCRIPTION	COLOR	CONNECTOR AT FX PATCH PANEL (COMPUTER ROOM)	COMMUNICATIONS SWITCH IN THE LANE SERVER	WIRING CONVENTION	PROTOCOL	FIELD WIRING INSTRUCTIONS
200	(Ln*)LS	LANE SERVER NETWORK CONNECTION - SEND	BLUE	ST (MALE)	ST (MALE)	6-FIBER (TYP) (4 Min Fiber) MULTI-MODE 100mbs	62.5/125 MICRONS INDOOR/OUTDOOR RISER RATED	FROM PLAZA COMMUNICATIONS RACK FIBER (FX) PATCH PANEL TO THE BOOTH LANE SERVER FIBER LINE INTERFACE UNIT (LIU) IN THE CABINET OR GUTTER. PROVIDE 1EA 3M DUPLEX FX PATCH CABLE (STM to STM) FROM THE LIU TO THE LANE 1 LANE SERVER NETWORK SWITCH.
201		LANE SERVER NETWORK CONNECTION - RECEIVE	ORANGE					
202		LANE SERVER NETWORK CONNECTION - SPARE SEND	GREEN					
203		LANE SERVER NETWORK CONNECTION - SPARE RECEIVE	BROWN					
204		LANE SERVER NETWORK CONNECTION - SPARE SEND (optional)	SLATE					
205	LANE SERVER NETWORK CONNECTION - SPARE RECEIVE (optional)	WHITE						
LANE SERVER ETHERNET CONNECTION (FOR LOCAL SWITCH -SAME ROOM- ACCESS)								
206	(Ln*)LS	LANE SERVER NETWORK CONNECTION (CAT5E/6 CABLE ALTERNATIVE TO FIBER ABOVE IF LOCAL SWITCH PROVIDED AND CONNECTION IS LESS THAN 300 FEET)	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	UTP	CAT5E BULK CABLE FROM THE SERVER ROOM TO THE LANE CABINET FIBER SWITCH LANE SERVER SWITCH. TERMINATE AND TEST CABLE RUN.
DIGITAL VIDEO AUDIT SYSTEM (DVAS)								
207	DVAS.(Ln*).PP	LANE DVAS PAYPOINT CAMERA NETWORK CONNECTIONS	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER AND FIBER SWITCH TO THE LANE DVAS PAYPOINT CAMERA. TERMINATE AND TEST CABLE RUN. ALLOW 10' OF CABLE TO REACH FROM THE DVAS DATA JUNCTION BOX TO THE LANE 1 CAMERA ENCLOSURE.
208	DVAS.(Ln*).PP	LANE DVAS PAYPOINT CAMERA NETWORK CONNECTIONS	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER AND FIBER SWITCH TO THE LANE DVAS PAYPOINT CAMERA. TERMINATE AND TEST CABLE RUN. ALLOW 10' OF CABLE TO REACH FROM THE DVAS DATA JUNCTION BOX TO THE LANE 1 CAMERA ENCLOSURE.
AUTOMATIC VEHICLE IDENTIFICATION (AVI)								
209	AVI.LN(*)	TRAVEL LANE AVI ANTENNA RF CABLE	BLACK	LANE ANTENNA IN THE GANTRY	"N" CONNECTOR (MALE)	LMR 600	PVC	LMR 600 CABLE FROM TRAVEL LANE ANTENNA TO E-6 READER. SEE SPECIFICATIONS FOR REQUIRED TERMINATIONS.
210	AVI.LN(*)	TRAVEL LANE AVI ANTENNA RF CABLE	BLACK	LANE ANTENNA IN THE GANTRY	"N" CONNECTOR (MALE)	LMR 600	PVC	LMR 600 CABLE FROM TRAVEL LANE ANTENNA TO E-6 READER. SEE SPECIFICATIONS FOR REQUIRED TERMINATIONS.
211	AVI.LN(*)	TRAVEL LANE AVI ANTENNA RF CABLE	BLACK	LANE ANTENNA IN THE GANTRY	"N" CONNECTOR (MALE)	LMR 600	PVC	LMR 600 CABLE FROM TRAVEL LANE ANTENNA TO E-6 READER. SEE SPECIFICATIONS FOR REQUIRED TERMINATIONS.
212	(Ln*).AVIE	LANE AVI READER ETHERNET DATA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	10/100 UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL AVI IIO JACK TO THE LANE AVI READER SERIAL TO ETHERNET CONVERTER.
213	(Ln*).AVIS	LANE AVI READER DATA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	10/100 UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL AVI IIO JACK TO THE LANE AVI READER SERIAL TO ETHERNET CONVERTER.
214	(Ln*).AVIS	LANE AVI READER DATA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	10/100 UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL AVI IIO JACK TO THE LANE AVI READER SERIAL TO ETHERNET CONVERTER.
215	(Ln*).AVIS	LANE AVI READER DATA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	10/100 UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL AVI IIO JACK TO THE LANE AVI READER SERIAL TO ETHERNET CONVERTER.
216	(Ln*).AVIS	LANE AVI READER DATA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	10/100 UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL AVI IIO JACK TO THE LANE AVI READER SERIAL TO ETHERNET CONVERTER.
217	(Ln*).AVIE	LANE AVI READER ETHERNET DATA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	10/100 UTP	CAT5E BULK CABLE FROM THE LANE AVI READER SERIAL TO ETHERNET CONVERTER TO THE EXIT LANE FIBER SWITCH.
218	(Ln*).AVIS	LANE AVI READER DATA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	10/100 UTP	CAT5E BULK CABLE FROM THE LANE AVI READER SERIAL TO ETHERNET CONVERTER TO THE EXIT LANE FIBER SWITCH.
219	(Ln*).AVIS	LANE AVI READER DATA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	10/100 UTP	CAT5E BULK CABLE FROM THE LANE AVI READER SERIAL TO ETHERNET CONVERTER TO THE EXIT LANE FIBER SWITCH.
220	(Ln*).AVIS	LANE AVI READER DATA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	10/100 UTP	CAT5E BULK CABLE FROM THE LANE AVI READER SERIAL TO ETHERNET CONVERTER TO THE EXIT LANE FIBER SWITCH.
221	(Ln*).AVIS	LANE AVI READER DATA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	10/100 UTP	CAT5E BULK CABLE FROM THE LANE AVI READER SERIAL TO ETHERNET CONVERTER TO THE EXIT LANE FIBER SWITCH.
NOTES: 1). ALL NETWORK CABLES ARE GIGABIT COMPLIANT, SUITABLE FOR OUTDOOR/WET ENVIRONMENT, OSP GRADE FOR DIRECT BURIAL 2). STRADDLE ANTENNAS/READERS ARE LOCATED BETWEEN LANES ABOVE THE STRIPE. IF STRADDLE ANTENNAS/READERS ARE OMITTED BY PLANS, WIRING MAY BE OMITTED								

Filename: 662_Cash Lane Network Wiring Schedule_1_Rev3.dgn

Scale: NOT TO SCALE		Designed by: HNTB		HNTB CORPORATION 82 Running Hill Road, Suite 201 Portland, ME 04106 TEL (207) 774-5155 FAX (207) 228-0909		 THE GOLD STAR MEMORIAL HIGHWAY		INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) TOLL PLAZA CASH LANE NETWORK WIRING SCHEDULE 1 SHEET NUMBER: TSP-15	
No.	Revision	By	Date	CONSULTANT PROJECT MANAGER: R. BRUCE MUNGER, P.E.		MTA PROJECT MANAGER: RYAN BARNES, P.E., C.P.E.S.C.		CONTRACT: 2022.07 662 OF 735	
				Designed	RBM	10/22	Checked	RBM	10/22
				Drawn	WWL	10/22	In Charge of	RAL	10/22

Date:10/13/2022

Filename: 663_Cash Lane Network Wiring Schedule_2_Rev2.dgn

WIRING SHOWN IS FOR CASH LANE. REPLICATE FOR SIMILAR LANES. ATT-ETC LANE NETWORK WIRING SCHEDULE LANE SERVER MULTIMODE FIBER (FOR REMOTE SWITCH ACCESS)								
WIRE NUMBERING	WIRE LABEL	DESCRIPTION	COLOR	CONNECTOR AT FX PATCH PANEL (COMPUTER ROOM)	COMMUNICATIONS SWITCH IN THE LANE SERVER	WIRING CONVENTION	PROTOCOL	FIELD WIRING INSTRUCTIONS
TRAFFIC CONTROL PEDESTAL (TCP) MAINTENANCE PORT								
222	(Ln*).TCPFVES	LANE TRAFFIC CONTROL PEDESTAL VES CAMERA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	GIGABIT UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL VES IIO JACK TO THE LANE ISLAND TRAFFIC CONTROL PEDESTAL FRONT CAMERA PORT.
223	(Ln*).TCPRVES	LANE TRAFFIC CONTROL PEDESTAL VES CAMERA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	GIGABIT UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL VES IIO JACK TO THE LANE ISLAND TRAFFIC CONTROL PEDESTAL REAR CAMERA PORT.
224	(Ln*).TCPPM	LANE TRAFFIC CONTROL PEDESTAL MAINTENANCE NETWORK CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	GIGABIT UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER AND FIBER SWITCH TO THE LANE ISLAND TRAFFIC CONTROL PEDESTAL MAINTENANCE PORT.
225	(Ln*).TCPT	LANE TRAFFIC CONTROL PEDESTAL TRIGGER CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	GIGABIT UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER AND FIBER SWITCH TO THE LANE ISLAND TRAFFIC CONTROL PEDESTAL MAINTENANCE PORT.
226	(Ln*).TCPP	LANE TRAFFIC CONTROL PEDESTAL PFD CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	GIGABIT UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL PFD IIO JACK TO THE LANE ISLAND TRAFFIC CONTROL PEDESTAL PFD PORT.
227	(Ln*).SYNC	IVIS SYNC CABLE	CAT5E COLOR STANDARD	RJ-45 (MALE) (LANE CONTROLLER)	RJ-45 (MALE)	4pr/24AWG CAT-5e DIRECT BURIAL GRADE (NO GEL)	GIGABIT UTP	CAT5E FROM IVIS SYNC PORT FROM LANE CONTROLLER TO LANE CONTROLLER
NOTES: 1). ALL NETWORK CABLES ARE GIGABIT COMPLIANT, SUITABLE FOR OUTDOOR/WET ENVIRONMENT, OSP GRADE FOR DIRECT BURIAL 2). STRADDLE ANTENNAS/READERS ARE LOCATED BETWEEN LANES ABOVE THE STRIPE. IF STRADDLE ANTENNAS/READERS ARE OMITTED BY PLANS, WIRING MAY BE OMITTED								

Scale: **NOT TO SCALE**

No.	Revision	By	Date

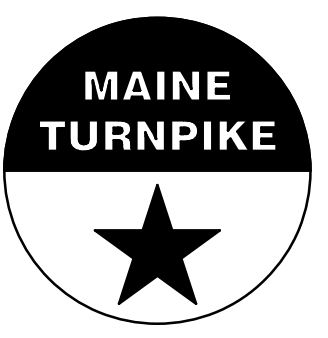
Designed by:

HNTB

CONSULTANT PROJECT MANAGER: R. BRUCE MUNGER, P.E.

	By	Date		By	Date
Designed	RBM	10/22	Checked	RBM	10/22
Drawn	WWL	10/22	In Charge of	RAL	10/22

HNTB CORPORATION
 82 Running Hill Road, Suite 201
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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, P.E., C.P.E.S.C.

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 TOLL PLAZA
 CASH LANE NETWORK WIRING SCHEDULE 2
 SHEET NUMBER: TSP-16
 CONTRACT:2022.07
 663 OF 735

ABBREVIATIONS

#	AND	JT	JOINT
Z	ANGLE		
@	AT		
<	CENTER LINE		
~	DIAMETER OR ROUND	LAM	LAMINATE(D)
#	FOUND OR NUMBER	LAV	LAVATORY
ACOUS	ACOUSTICAL	MAX	MAXIMUM
A.C.T.	ACOUSTICAL CEILING TILE	MECH	MECHANICAL
A.F.F.	ABOVE FINISHED FLOOR	MEMB	MEMBER
ALUM	ALUMINUM	MTL	METAL
APPROX	APPROXIMATE	MFR	MANUFACTURER
ARCH	ARCHITECTURAL	MIN.	MINIMUM
		MISC.	MISCELLANEOUS
		MO	MASONRY OPENING
BD	BOARD	NIC	NOT IN CONTRACT
BFDF	BOTTLE FILL / DRINKING FOUNTAIN	NTS	NOT TO SCALE
BLDG	BUILDING		
BLKG	BLOCKING		
C.J.	CONTROL JOINT	O.C.	ON CENTER
CLG	CEILING	OD	OUTSIDE DIAMETER
CLO	CLOSET	OPG	OPENING
CLR	CLEAR	OPP	OPPOSITE
CMU	CONCRETE MASONRY UNIT	OVHD	OVERHEAD
CO	CASED OPENING		
CONC	CONCRETE	P.LAM	PLASTIC LAMINATE
CONSTR	CONSTRUCTION	PL	PLATE
CONT.	CONTINUOUS	PLYWD	PLYWOOD
CONTR	CONTRACTOR	PTD	PAINTED
CT	CERAMIC TILE		
CU. FT.	CUBIC FEET		
		R	RISER
DET	DETAIL	RAD	RADIUS
D.F.	DRINKING FOUNTAIN	REINF	REINFORCED
DIA	DIAMETER	REQ'D	REQUIRED
DIM	DIMENSION		
DISP	DISPENSER	SAT	SUSPENDED ACOUSTICAL
DN	DOWN		CEILING
DS	DOWNSPOUT	SAF.	SAFETY
DWG	DRAWING	SH	SHELF
		SHT(S)	SHEET (SHEETS)
EA	EACH	SIM	SIMILAR
EXP. JT.	EXPANSION JOINT	SPEC	SPECIFICATION
ELEC	ELECTRICAL	SS	STAINLESS STEEL
ELEV	ELEVATION	STOR	STORAGE
EP	ELECTRICAL PANEL	STD	STANDARD
EQ	EQUAL	STL	STEEL
EQPT	EQUIPMENT	STRUCT.	STRUCTURAL
EXIST.	EXISTING	SUSP	SUSPENDED
EXP.	EXPANSION		
EXT	EXTERIOR	TH	THICK
		TOC	TOP OF CURB
FD	FLOOR DRAIN	TOS	TOP OF SLAB
FE	FIRE EXTINGUISHER	TR	TREAD
FIN. FL.	FINISH FLOOR	TS	TUBE SHAPE
		TYP	TYPICAL
GA	GAUGE	UNO	UNLESS NOTED OTHERWISE
GALV	GALVANIZED		
GWB	GYPSPUM WALL BOARD	VCT	VINYL COMPOSITION TILE
HGT	HEIGHT		
HM	HOLLOW METAL	W/	WITH
HP	HANDICAPPED	WC	WATER CLOSET
		WD	WOOD
ID	INSIDE DIMENSION		
INSUL	INSULATION, INSULATED		
INT	INTERIOR		

NFPA 101 LIFE SAFETY CODE - 2021 Edition

Building Classification: Business - (833 sf)
 Construction Type: V/000
 Hazard Classification: Ordinary Hazard
 Occupant Loads: 616 sf Office @ 150 sf/occ = 5 Occupants
 217 sf Storage @ 500 sf/occ = 1 Occupant
 Total Occupant Load = 6 Occupants
 1 hour if over 100 sf
 7'-6" at occupied areas

Janitor, Mech, Storage Rating:
 Minimum Headroom:

Building Uses Business

Max. Allowable Travel Distance: 200'
 Max. Allowable Common Path: 100' (under 30 occupants)
 Max. Dead End Corridor Length: 20'
 Minimum Egress Corridor Width: 36" (under 50 occupants)
 Minimum Number of Required Exits: 2
 Minimum Exit Access Corridor rating: 1 hr
 Separation of exits: 0.5 diagonal distance (19'-6" min)
 Minimum Egress Door Width: 36"
 Exit Lighting: Required
 Emergency Lighting: Not Required
 Fire Alarm System: Not Required
 Fire Sprinkler System: Not Required
 Portable Fire Extinguishers: Required

Interior Finishes - Walls & Ceilings: Egress Corridors: Class A or B
 Other Areas: Class A, B, or C
 Class I or II

Interior Finishes - Floors: Class I or II

2018 INTERNATIONAL BUILDING CODE

Use Group Classification: Business (B) - 833 sf
 Hazard Classification: Ordinary Hazard
 Occupant Loads: 616 sf Office @ 150 sf/occ = 5 Occupants
 217 sf Storage @ 300 sf/occ = 1 Occupant
 Total Occupant Load = 6 Occupants

Building Limitations

Construction Type: 5B
 Maximum Height: 2 Story / 40'
 Maximum Area / Floor: 9,000 sf

Fire Resistance Ratings

Structural Frame: None
 Load Bearing Exterior Walls: None
 Load Bearing Interior Walls: None
 Mechanical Rooms: 1 hour
 Exit Corridors: 1 hour
 Roof/Floor Structure: None

Minimum Number of Exits: 2
 Maximum Exit Travel Distance: 200'
 Maximum Dead End Corridor Length: 20'
 Maximum Common Travel Path: 75'
 Minimum Corridor Width: 36" (under 50 occupants)

Fire Alarm/Detection System: Not Required
 Fire Sprinkler System: Not Required
 Portable Fire Extinguishers: Required
 Exit Lights: Required
 Emergency Lighting: Required

Building Live Loads
 Offices: 100 psf
 Corridors: 80 psf

Interior Finishes at Walls & Ceilings: Exit Passageways - Class A
 Corridors - Class B
 Rooms & other enclosed spaces - Class C

MATERIALS

	CONCRETE
	CONCRETE MASONRY UNIT
	BATT INSULATION
	PRECAST STONE
	BRICK
	EARTH
	GRAVEL
	PLYWOOD
	RIGID INSULATION
	METAL
	ROUGH WOOD
	FINISHED WOOD

MAINE STATE PLUMBING CODE/UPC

Occupancy Classification: Business Office
 Occupancy Area: 833 sf
 Occupancy Load: 6

Office: 6 Occupants (3 Male/3 Female)

FIXTURES	TOILETS	URINALS	LAVS
Unisex Toilet Room (Less than 10 Occupants)	1	0	1

Drinking Fountain: 1 required per 150 occupants
 Service Sink: 1 required

2021 INTERNATIONAL ENERGY EFFICIENCY CODE (IECC)

MUBEC (Maine Uniform Building & Energy Code)

MINIMUM INSULATION VALUES

Per 2021 IECC; Table C402.1.3, C402.1.4 and C402.4

ZONE G	R-VALUE	U-FACTOR	SHGC
Attic Roof	49	0.021	NA
Mass Wall (above grade)	13.3 ci	0.080	NA
Mass Wall (below grade)	7.5 ci	0.119 ci	NA
Unheated Slab (for 24" below)	10	F-0.54	NA
Doors - Swinging	NA	0.37	NA
Windows - Fixed	NA	0.36	0.40 SEW/0.53 N
Entrance Doors	NA	0.77	0.40 SEW/0.53 N

c.i. - Continuous Insulation

SYMBOLS

	ROOM NUMBER
	DOOR NUMBER
	REVISION NUMBER
	WINDOW TYPE
	PARTITION TYPE
	ELEVATION NUMBER
	INTERIOR ELEVATIONS
	SECTION NUMBER
	BUILDING SECTION
	SHEET NUMBER
	WALL SECTION
	SECTION NUMBER
	SHEET NUMBER
	DETAIL REFERENCE
	DETAIL NUMBER
	DETAIL REFERENCE
	SHEET NUMBER
	FIN. FL. ELEV. XXX.X
	FIN. FL. ELEV. XXX.X

GENERAL NOTES:

- THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING THE WORK AND REPORT ANY DISCREPANCIES TO THE ARCHITECT. CONTRACTOR SHALL PROCEED WITH THE WORK ONLY AFTER SUCH DISCREPANCIES HAVE BEEN RESOLVED BY THE ARCHITECT. CONTRACTOR SHALL ALLOW A 48 HOUR TIME FRAME FOR RESOLVING DISCREPANCIES ONCE THE ARCHITECT HAS ACKNOWLEDGED THE CONDITION.
- CONTRACTOR SHALL REVIEW AND VERIFY ALL EXISTING CONDITIONS PRIOR TO STARTING THE WORK IN ANY GIVEN AREA.
- WORK WITH GIVEN DIMENSIONS AND LARGE SCALE DETAILS. DO NOT SCALE THE DRAWINGS AS THE REPRODUCTIVE PROCESS TENDS TO DISTORT THE ACCURACY OF THE GRAPHIC SCALE INDICATED.
- ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE PRESERVATIVE TREATED.
- INSTALL SOLID BLOCKING AT WALL FRAMING BEHIND ALL SURFACE MOUNTED FIXTURES, TRIM AND HANDRAILS.
- ALL GRAB BARS SHALL BE ABLE TO SUPPORT A DEAD WEIGHT OF 250 LBS AT ANY POINT.
- THE LOCATION OF ANY DOOR JAMBS NOT DIMENSIONED SHALL BE 6" FROM ADJACENT PERPENDICULAR WALL.
- ALL WALL PARTITIONS SHALL EXTEND FLOOR TO STRUCTURE ABOVE, UNLESS OTHERWISE NOTED.
- ALL NEW SHEETROCK IN WET AREAS (PLUMBING FIXTURES) SHALL BE MOISTURE RESISTANT TYPE, UNLESS OTHERWISE NOTED.
- REFER TO ACCESSIBILITY DETAIL SHEET FOR AMERICANS WITH DISABILITIES ACT (ADA) CONSTRUCTION CRITERIA.
- MAINE TURNPIKE AUTHORITY UTILITY & EQUIPMENT ROOM SHALL BE TWO HOUR (2 HR) FIRE RATED.

Scale:

No.	Revision	By	Date

Designed by: Michael F. Hays, RA

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MKG	10/05/22	In Charge of		

GRANT HAYS ASSOCIATES

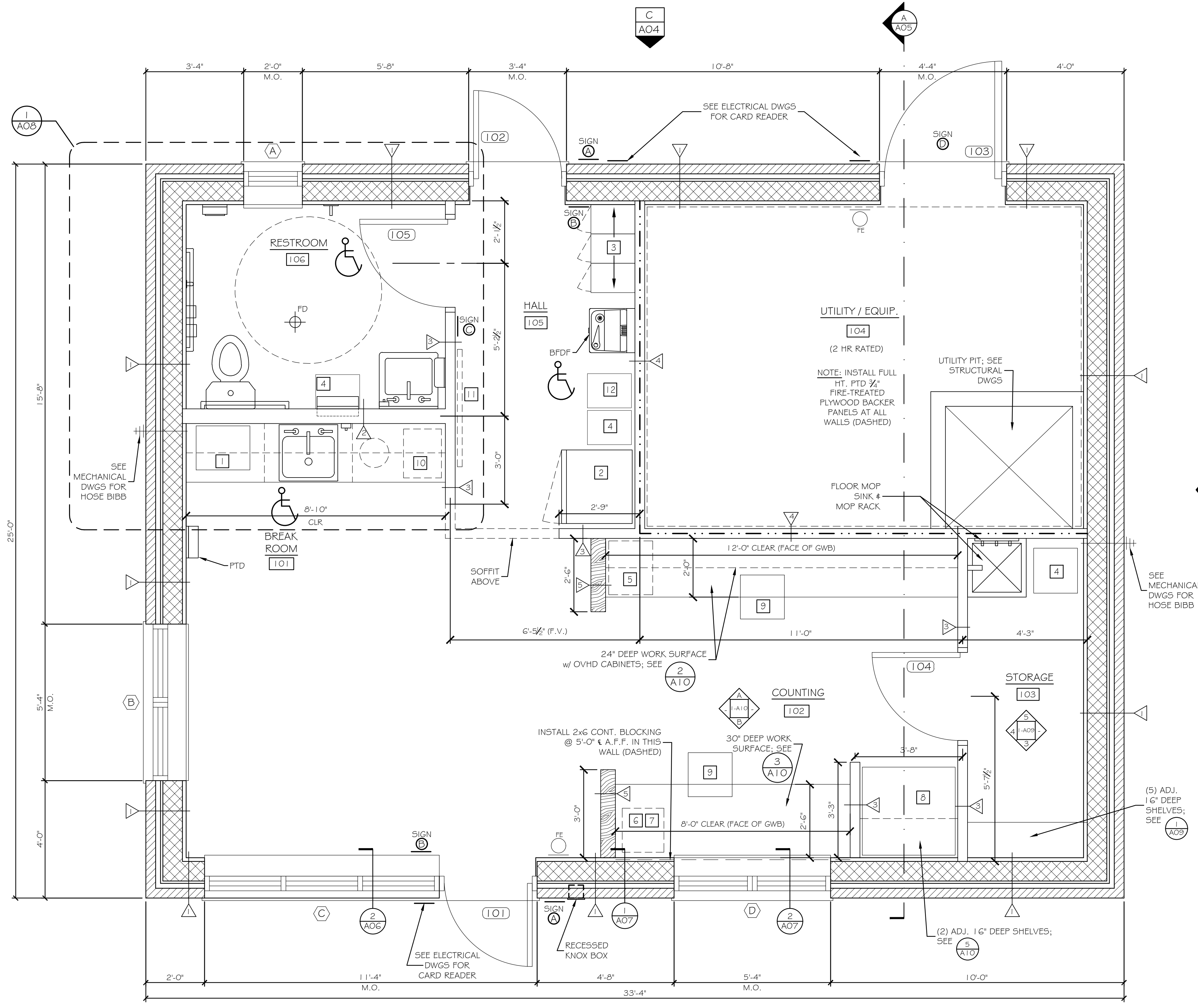
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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 SOUTHBOUND TOLL ADMINISTRATION BUILDING
 ABBREVIATIONS, LEGENDS & SYMBOLS

SHEET NUMBER: A00
 CONTRACT: 2022.07
 664 OF 735



EQUIPMENT TYPES:

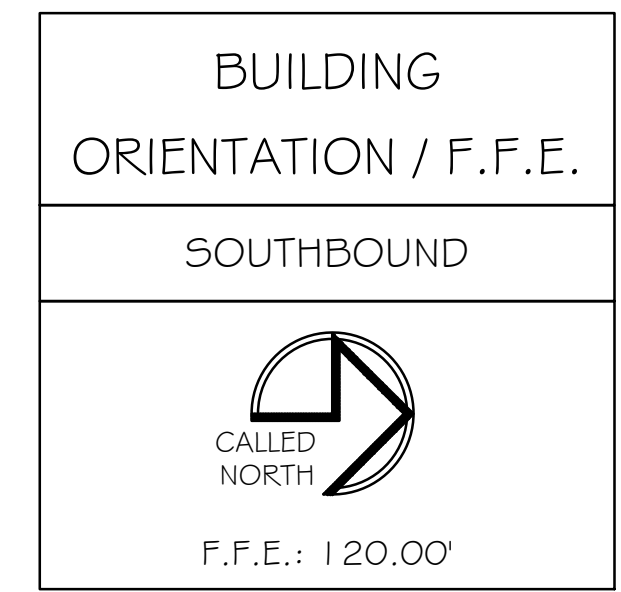
- 1 MICROWAVE OVEN
- 2 REFRIGERATOR
- 3 LOCKERS - 2 TIER (12" W x 18" D)
- 4 TRASH BIN - N.I.C.
- 5 FILE CABINET - 2 DRAWER - N.I.C.
- 6 COIN SORTER - N.I.C.
- 7 CURRENCY SCANNER - N.I.C.
- 8 SAFE - N.I.C.
- 9 ROLLING CHAIR - N.I.C.
- 10 COFFEE MAKER - N.I.C.
- 11 BULLETIN BOARD - N.I.C. (INSTALL BLOCKING AT FRAMING)
- 12 RECYCLE BIN - N.I.C.

PARTITION TYPES

TAG	DETAIL
1	(1) A11
2	(2) A11
3	(3) A11
4	(4) A11
5	(5) A11

NOTES:

1. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS & SIZES OF ALL DIFFUSERS, GRILLES, & EQUIPMENT.
2. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS & SIZES OF ALL LIGHT FIXTURES & DEVICES.
3. REFER TO ELECTRICAL DRAWINGS FOR HEAT TAPE AT GUTTERS.
4. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF FIRE ALARM DEVICES.
5. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF CARD READER DEVICES (PROVIDED BY MTA).



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

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

No.	Revision	By	Date

Designed by:
Michael F. Hays, RA

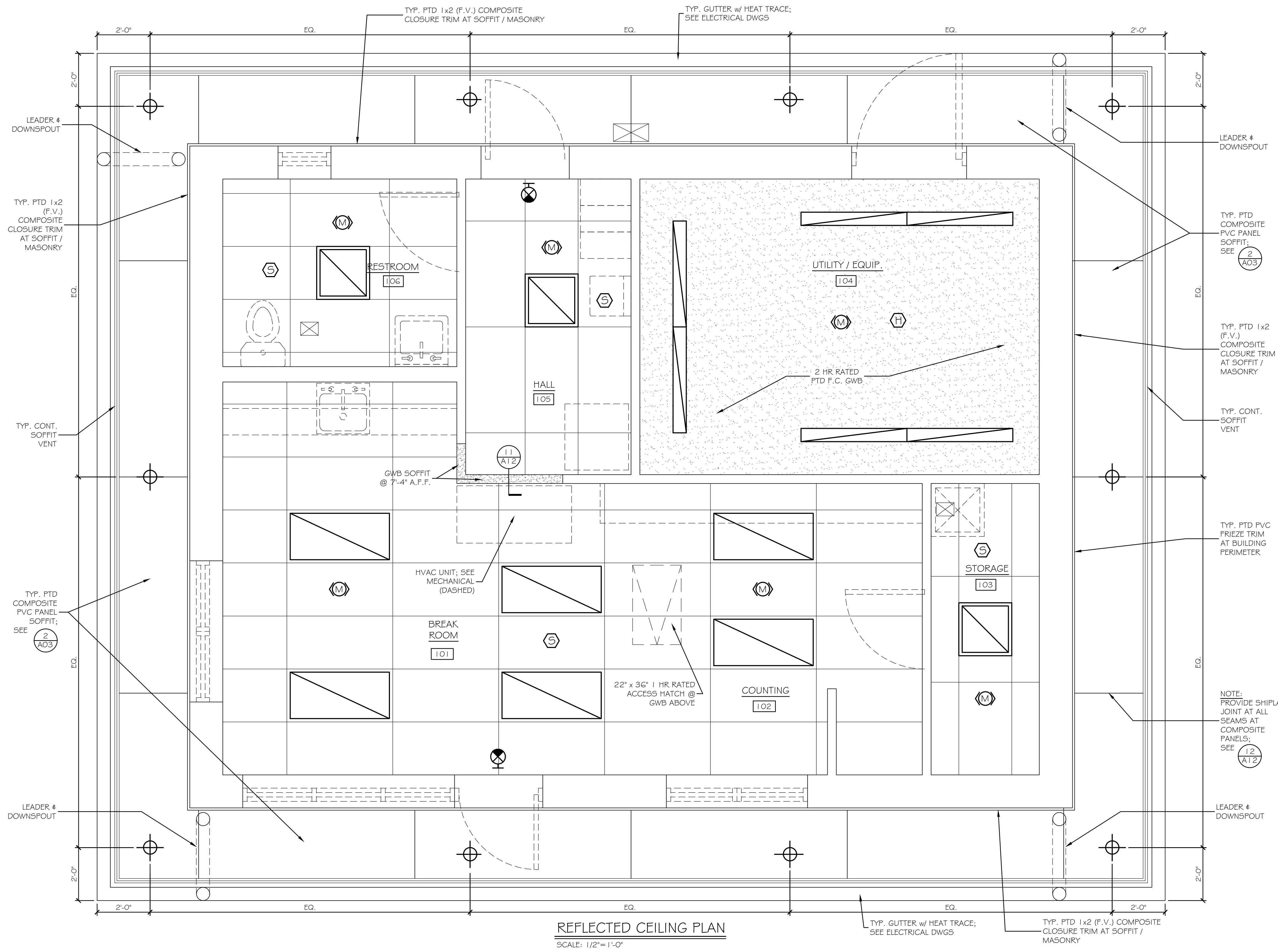
CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MGK	10/05/22	In Charge of		

**INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND TOLL ADMINISTRATION BUILDING
FLOOR PLAN**

SHEET NUMBER: A01
665 OF 735

CONTRACT: 2022.07



- NOTES:**
- SEE (9/A12) FOR F.C. GWB / 1 HR RATED ASSEMBLY AT ROOF TRUSSES - ENTIRE BUILDING.
 - SEE (10/A12) FOR F.C. GWB / 2 HR RATED ASSEMBLY AT ROOF TRUSSES - UTILITY / EQUIPMENT (104)
 - REFER TO MECHANICAL DRAWINGS FOR LOCATIONS & SIZES OF ALL DIFFUSERS, GRILLES, & EQUIPMENT.
 - REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS & SIZES OF ALL LIGHT FIXTURES & DEVICES.
 - REFER TO ELECTRICAL DRAWINGS FOR HEAT TAPE AT GUTTERS.
 - REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF FIRE ALARM DEVICES.
 - PROVIDE EXPANSION TRIM ACCESSORIES & ANCHORS PER SOFFIT PANEL MANUFACTURER INSTRUCTIONS AT ALL EXTERIOR COMPOSITE PVC SOFFIT PANEL LOCATIONS.

- LEGEND:**
- PAINTED SHEETROCK CEILING (RATED)
 - SUSPENDED ACOUSTICAL CEILING
 - PAINTED SHEETROCK SOFFIT @ 7'-4" A.F.F. (MIN) SEE (11/A12)
 - SOFFIT LIGHT FIXTURE
 - EXIT LIGHT FIXTURE
 - SURFACE LIGHT FIXTURE (EMERGENCY POWERED)
 - LAY-IN LIGHT FIXTURE (EMERGENCY POWERED)
 - CABINET UNIT HEATER
 - DUAL SUPPLY / RETURN
 - HVAC SUPPLY
 - HVAC RETURN
 - EXHAUST FAN
 - SENSORS; SEE ELECTRICAL DRAWINGS
 - SMOKE / HEAT DETECTORS; SEE ELECTRICAL DRAWINGS

REFLECTED CEILING PLAN
SCALE: 1/2" = 1'-0"

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

No.	Revision	By	Date

Designed by:
Michael F. Hays, RA

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

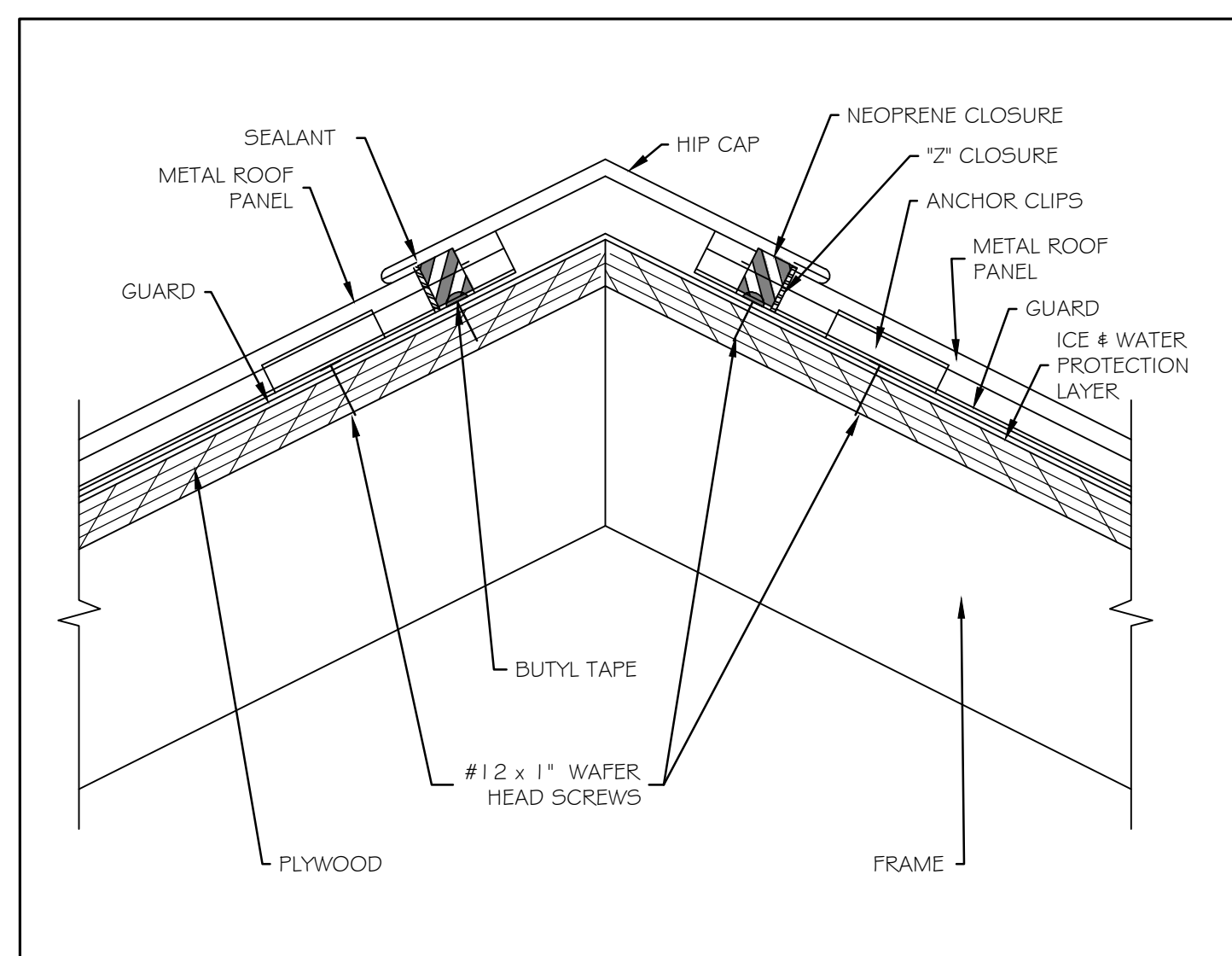
	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MGK	10/05/22	In Charge of		

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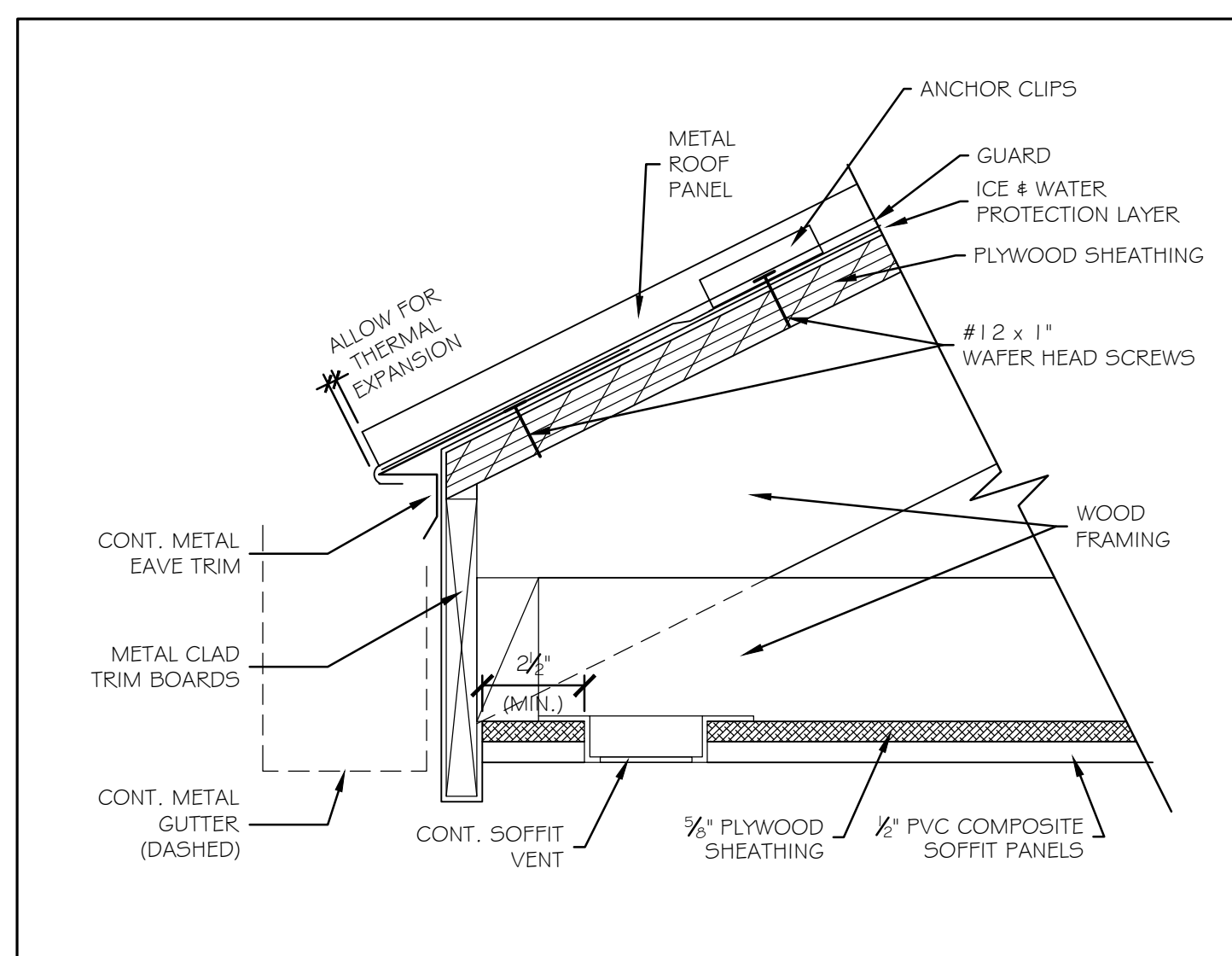
THE GOLD STAR MEMORIAL HIGHWAY
MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36)
SOUTHBOUND TOLL ADMINISTRATION BUILDING REFLECTED CEILING PLAN

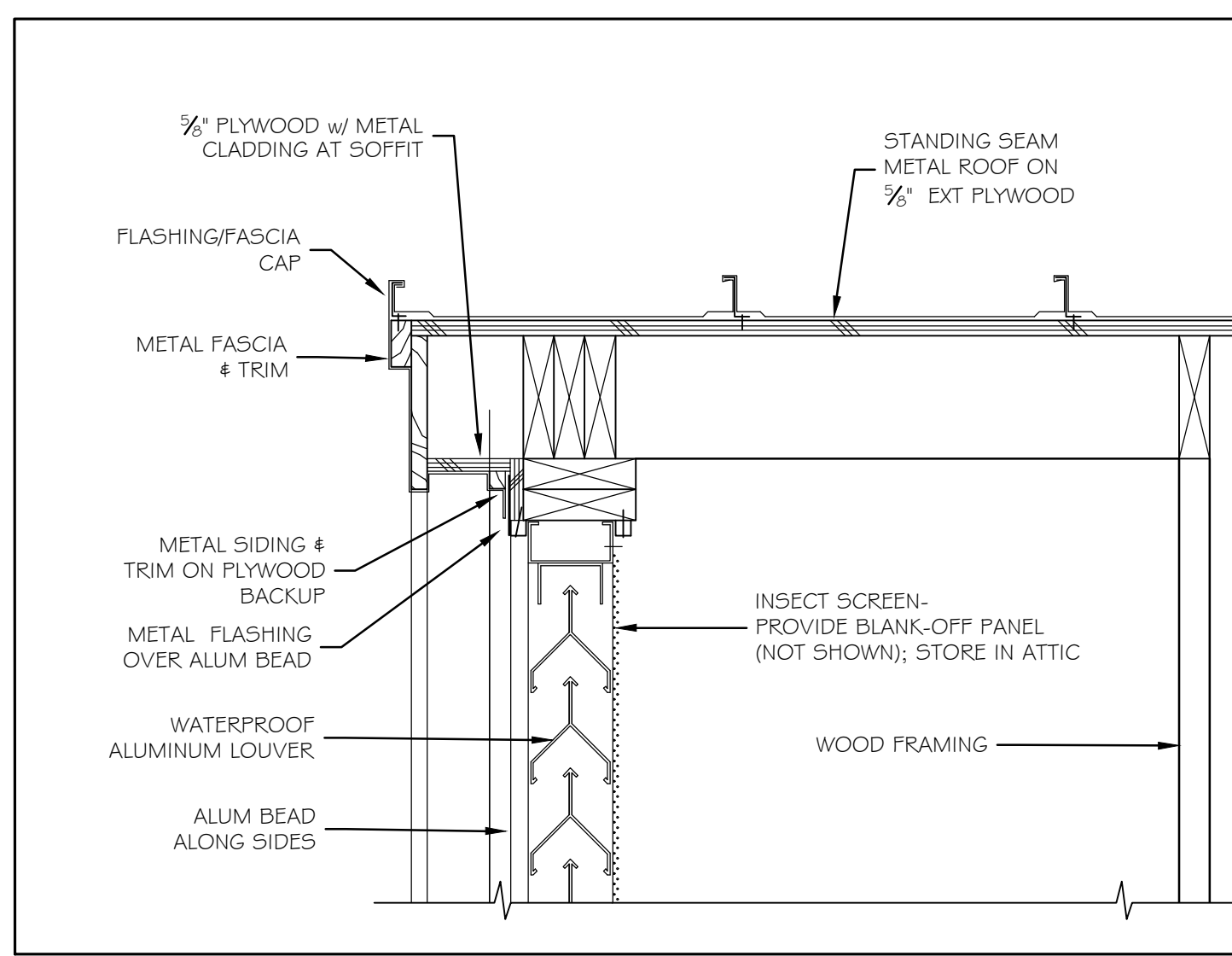
SHEET NUMBER: A02
CONTRACT: 2022.07
666 OF 735



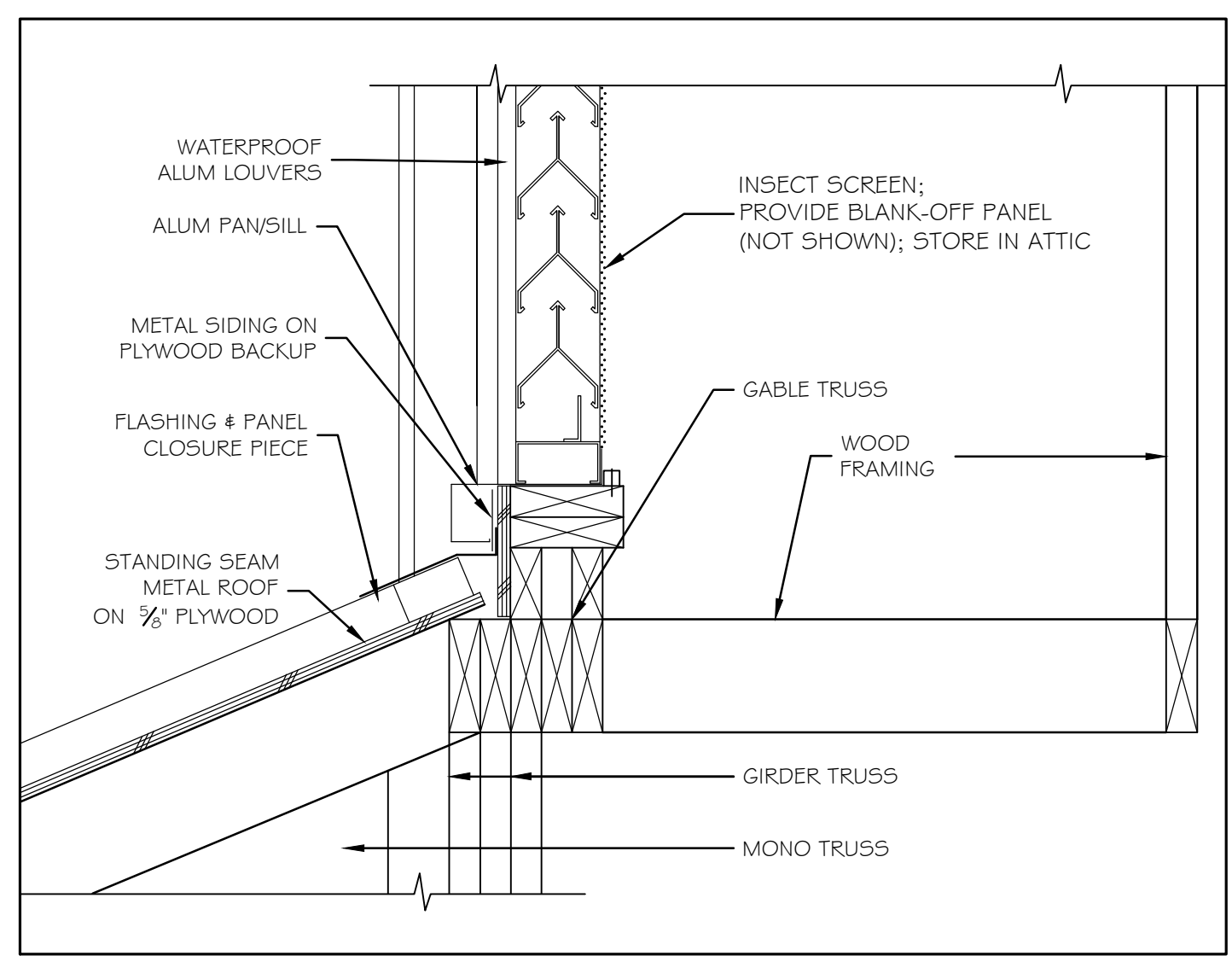
① ROOF HIP / RIDGE DETAIL 1/2" = 1'-0"



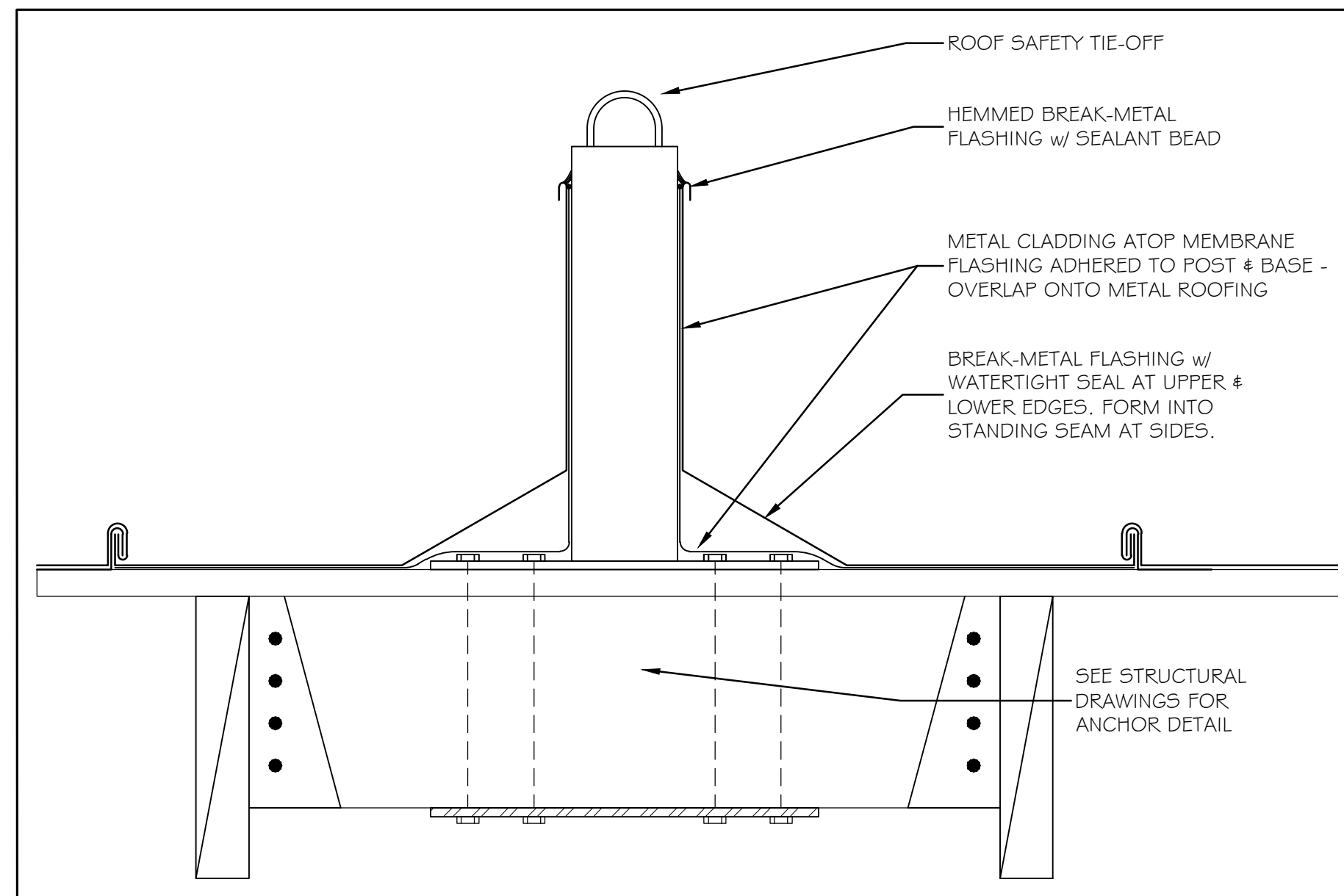
② ROOF EAVE DETAIL 3" = 1'-0"



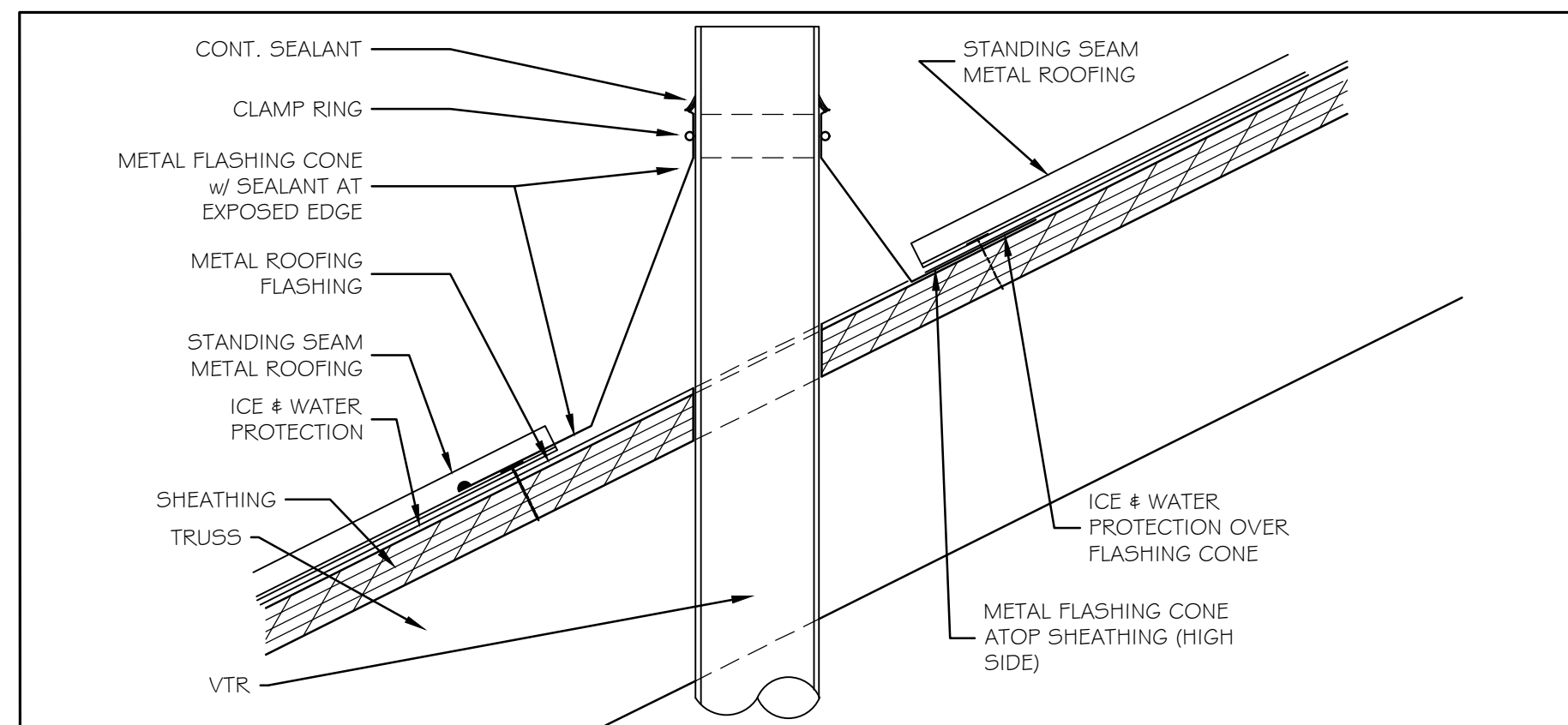
③ GABLE LOUVER RAKE DETAIL 1/2" = 1'-0"



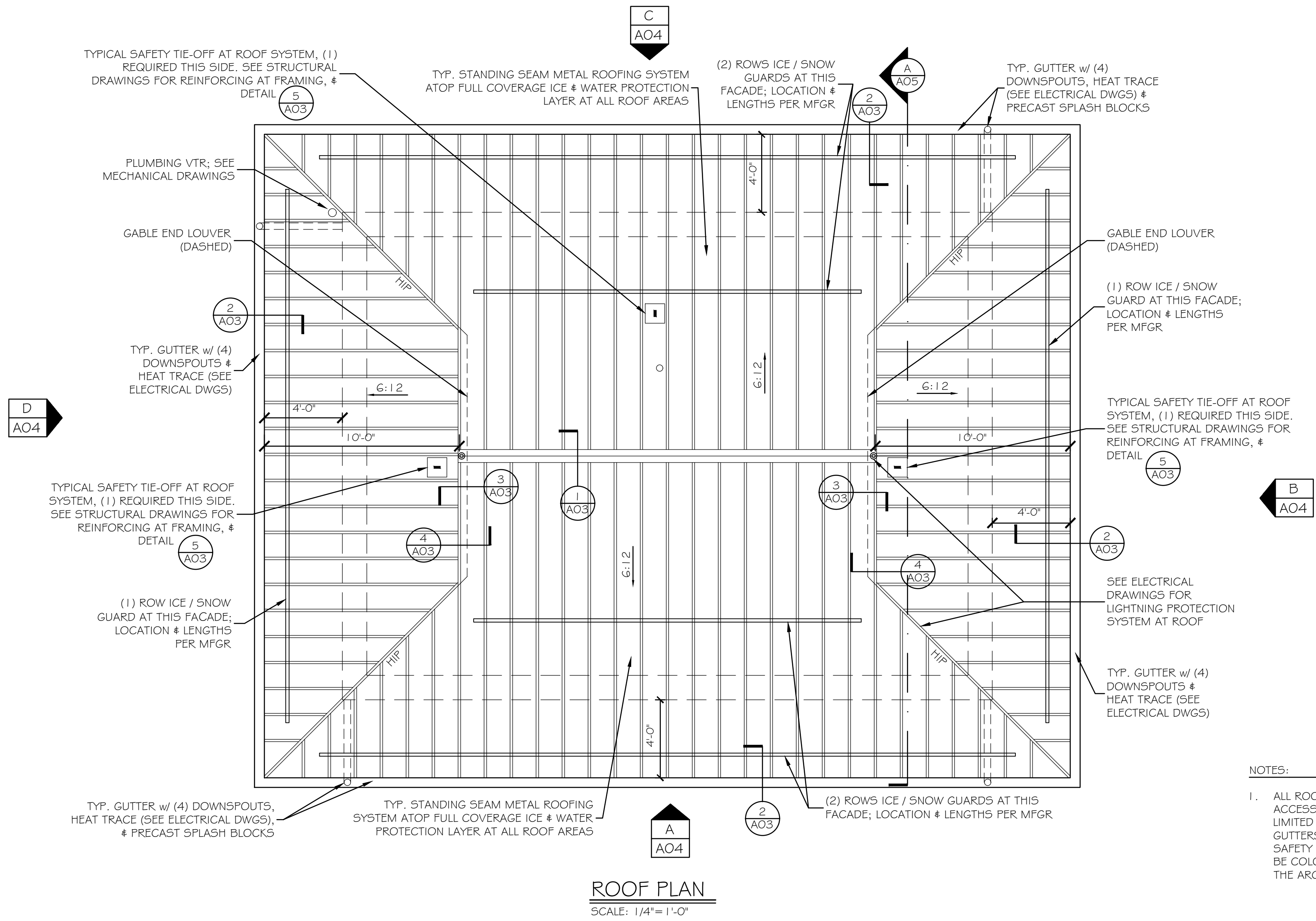
④ GABLE LOUVER SILL DETAIL 1/2" = 1'-0"



⑤ FLASHING AT ROOF SAFETY TIE-OFF 3" = 1'-0"



⑥ VTR AT METAL ROOFING 3" = 1'-0"



NOTES:
1. ALL ROOFING MATERIALS AND ACCESSORIES, INCLUDING, BUT NOT LIMITED TO, ICE / SNOW GUARDS, GUTTERS, DOWNSPOUTS, LOUVERS, SAFETY TIE-OFFS, FLASHINGS, ETC. SHALL BE COLOR MATCHED AS DETERMINED BY THE ARCHITECT.

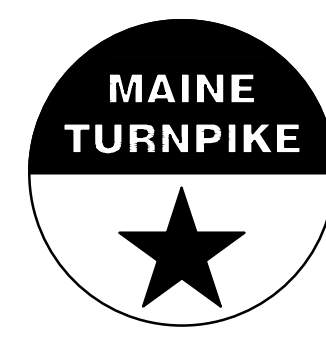
Scale: AS NOTED

Designed by:

Michael F. Hays, RA



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THE GOLD STAR MEMORIAL HIGHWAY

**INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36)
SOUTHBOUND TOLL ADMINISTRATION BUILDING
ROOF PLAN AND DETAILS**

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE			
By	Date	By	Date
Designed	MFH 10/05/22	Checked	MFH 10/05/22
Drawn	MKG 10/05/22	In Charge of	

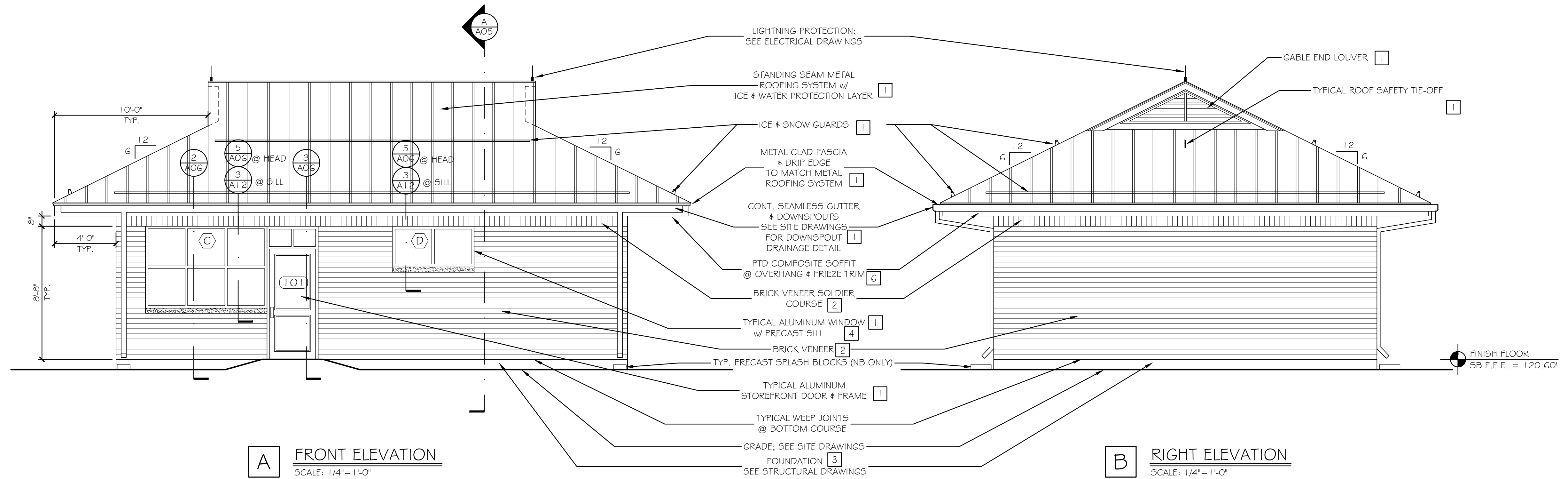
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MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

CONTRACT: 2022.07

SHEET NUMBER: A03

667 OF 735

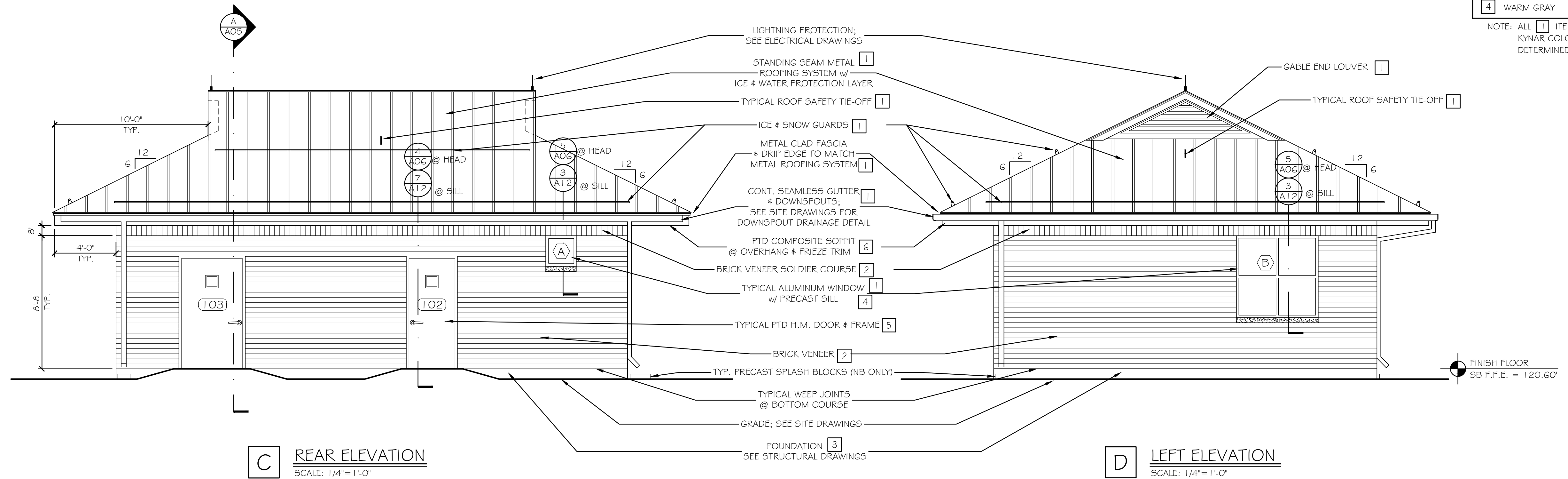


A FRONT ELEVATION
SCALE: 1/4"=1'-0"

B RIGHT ELEVATION
SCALE: 1/4"=1'-0"

EXTERIOR MATERIALS COLOR LEGEND			
1	GREEN KYNAR	5	GREEN PAINT
2	BRICK RED - NATURAL	6	WHITE PAINT
3	CONCRETE - NATURAL		
4	WARM GRAY		

NOTE: ALL 1 ITEMS SHALL BE THE SAME KYNAR COLOR (EXACT MATCH) AS DETERMINED BY THE ARCHITECT



C REAR ELEVATION
SCALE: 1/4"=1'-0"

D LEFT ELEVATION
SCALE: 1/4"=1'-0"

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

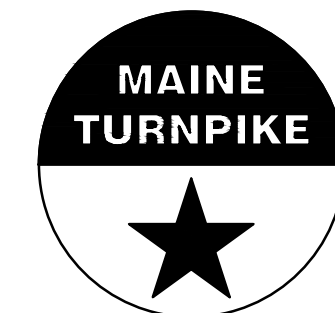
Designed by:

Michael F. Hays, RA



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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

**INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND TOLL ADMINISTRATION BUILDING
BUILDING ELEVATIONS**

SHEET NUMBER: A04

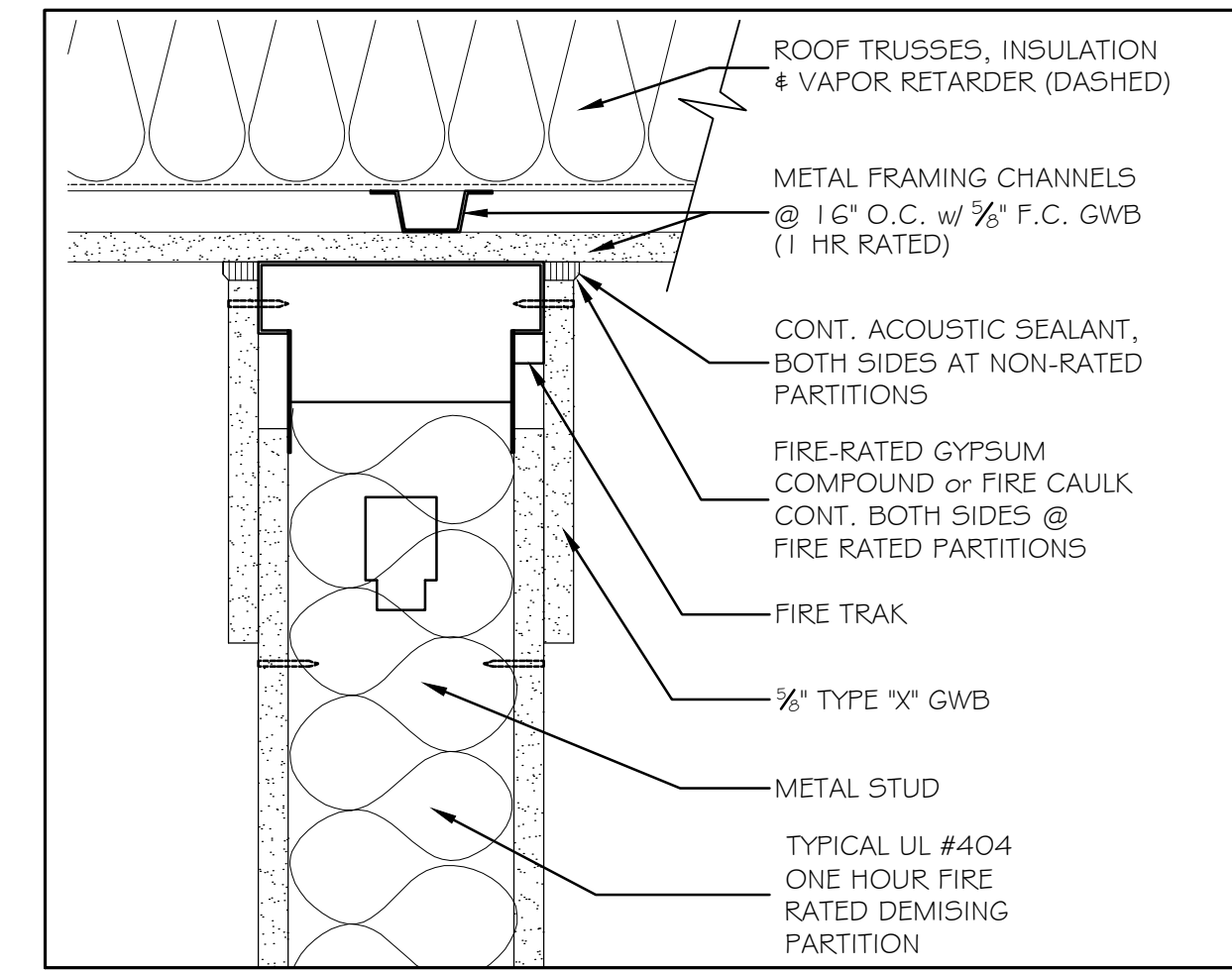
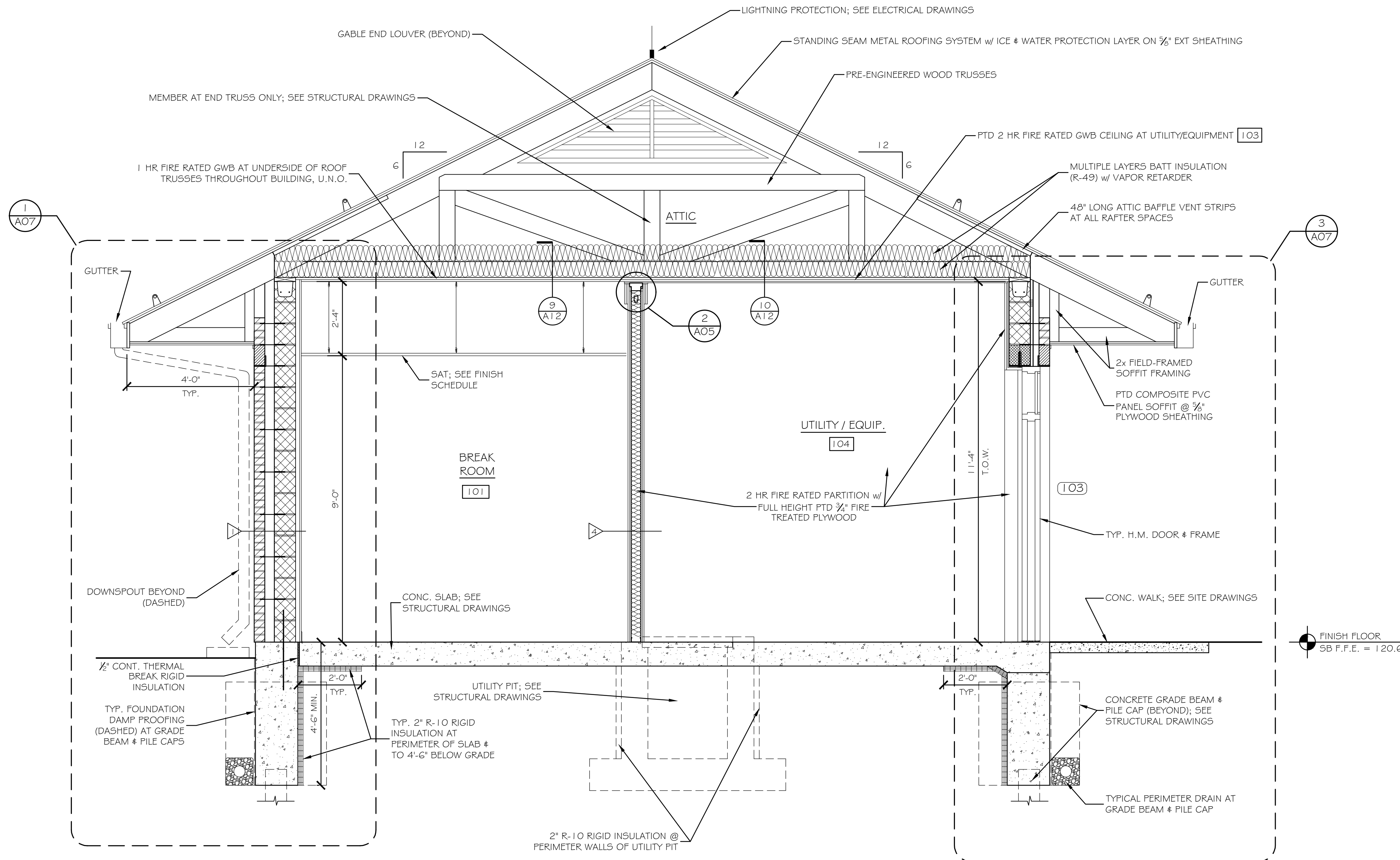
668 OF 735

No.	Revision	By	Date

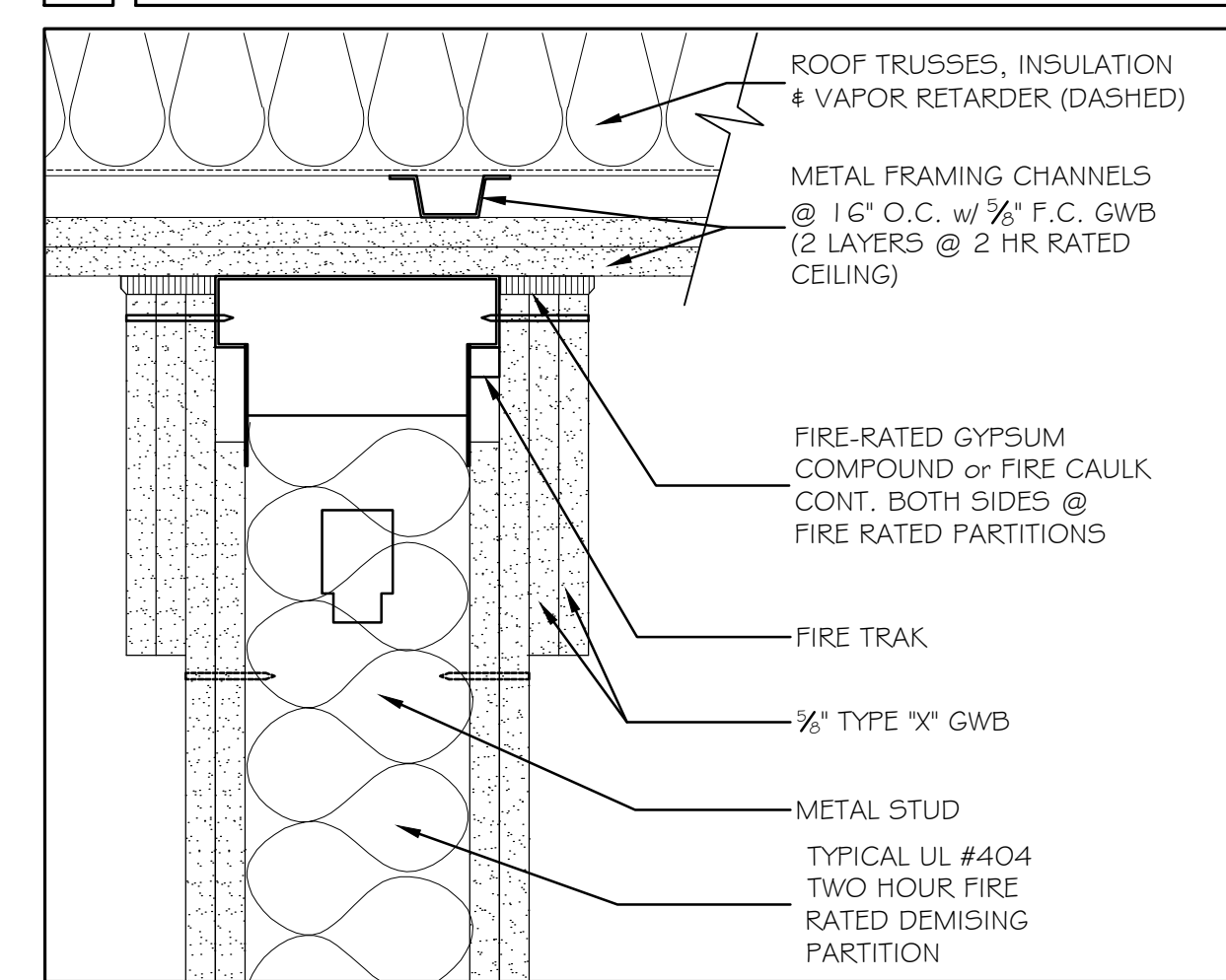
CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

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Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MGK	10/05/22	In Charge of		

CONTRACT: 2022.07



① 1 HR FIRE RATED HEAD CONDITION AT ROOF TRUSSES 3"=1'-0"



② 2 HR FIRE RATED HEAD CONDITION AT ROOF TRUSSES 3"=1'-0"

A TYPICAL BUILDING SECTION - SOUTHBOUND
SCALE: 1/2"=1'-0"

Scale: AS NOTED

No.	Revision	By	Date

Designed by:
Michael F. Hays, RA

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

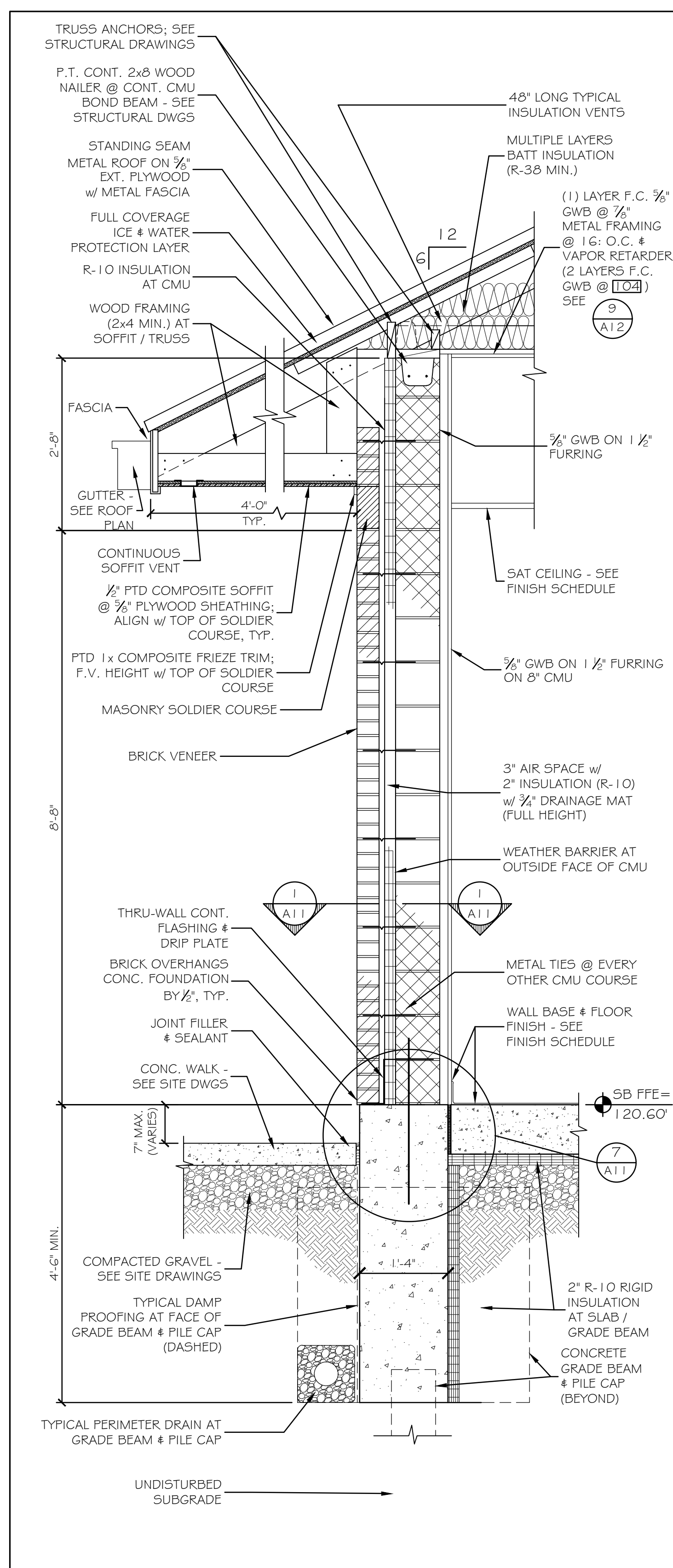
	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
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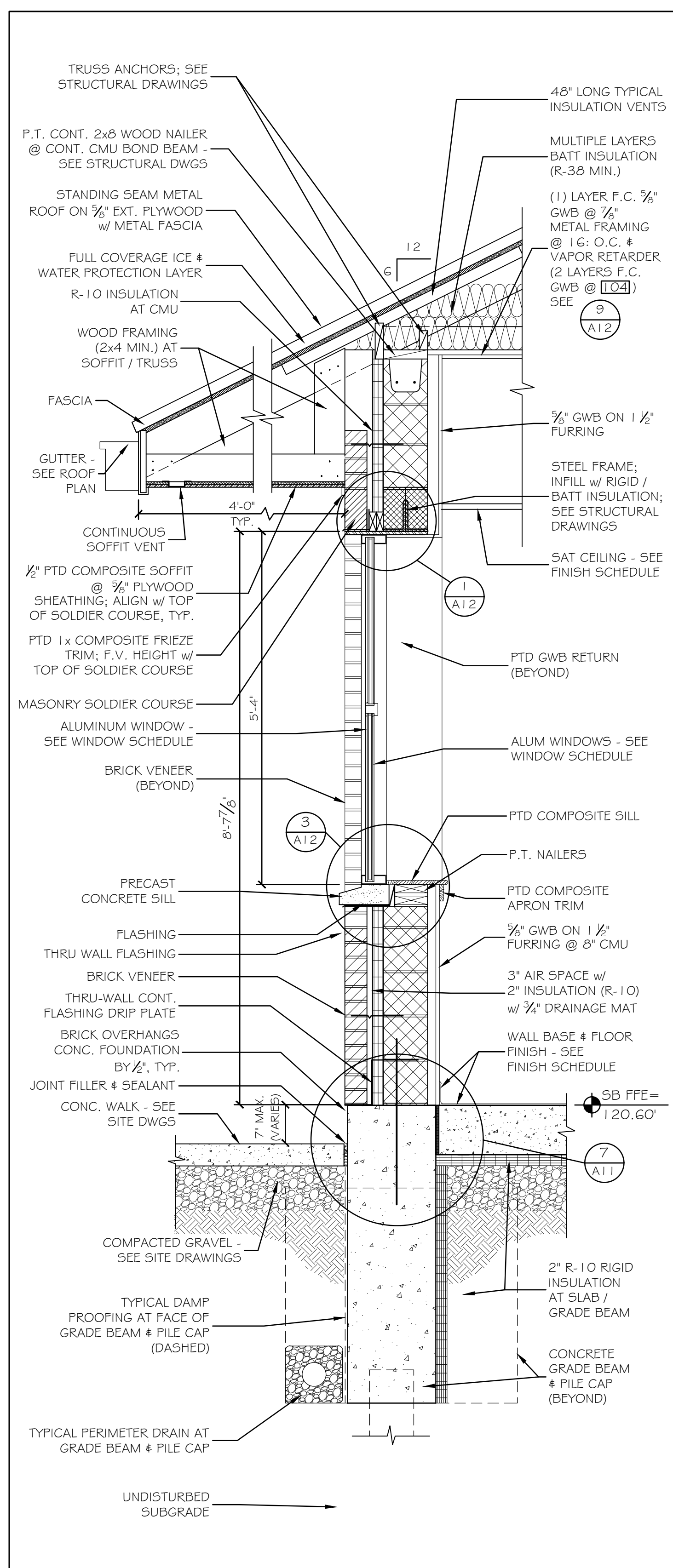
THE GOLD STAR MEMORIAL HIGHWAY
MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36)
SOUTHBOUND TOLL ADMINISTRATION BUILDING BUILDING SECTION - SOUTHBOUND

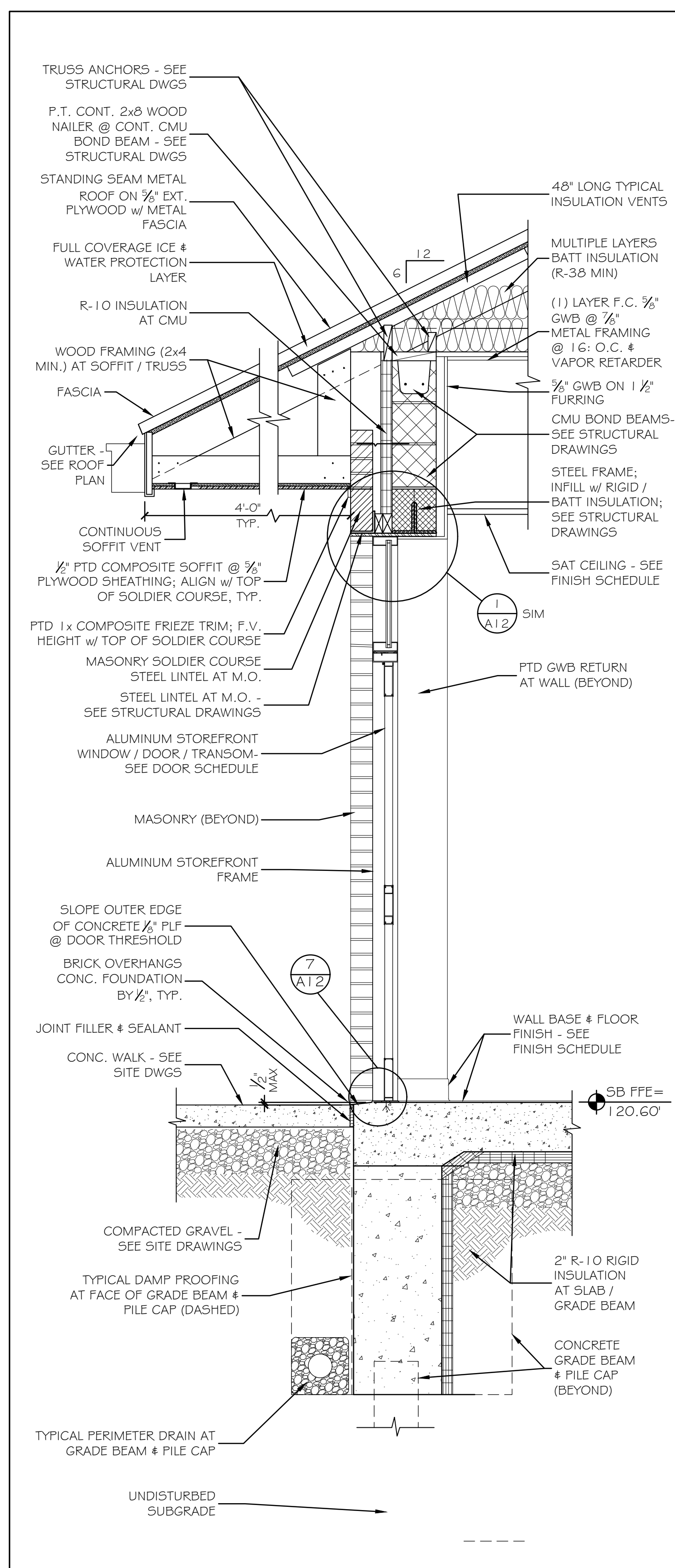
SHEET NUMBER: A05
CONTRACT: 2022.07
699 OF 735



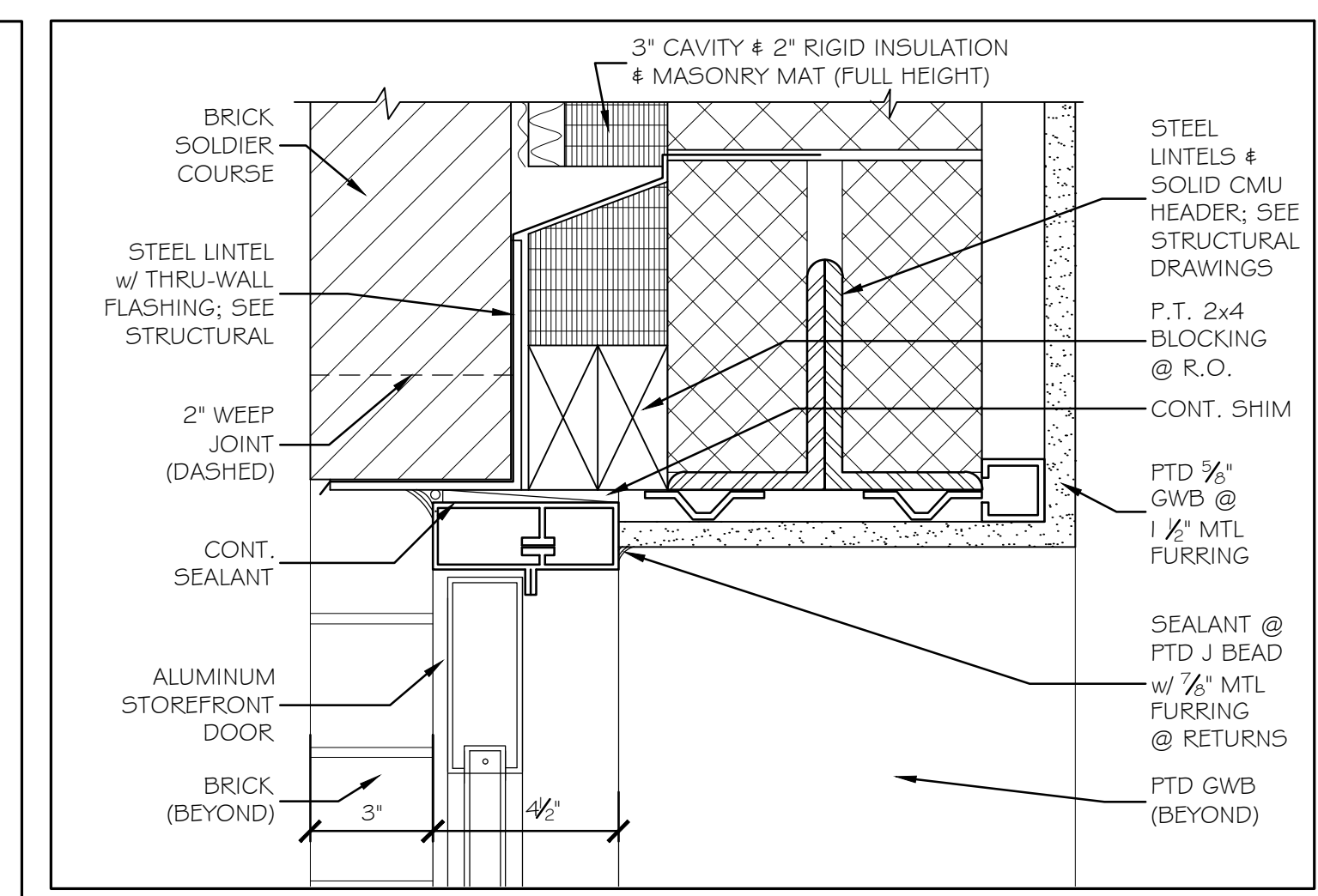
① TYPICAL EXTERIOR WALL SECTION - SOUTHBOUND 3/4" = 1'-0"



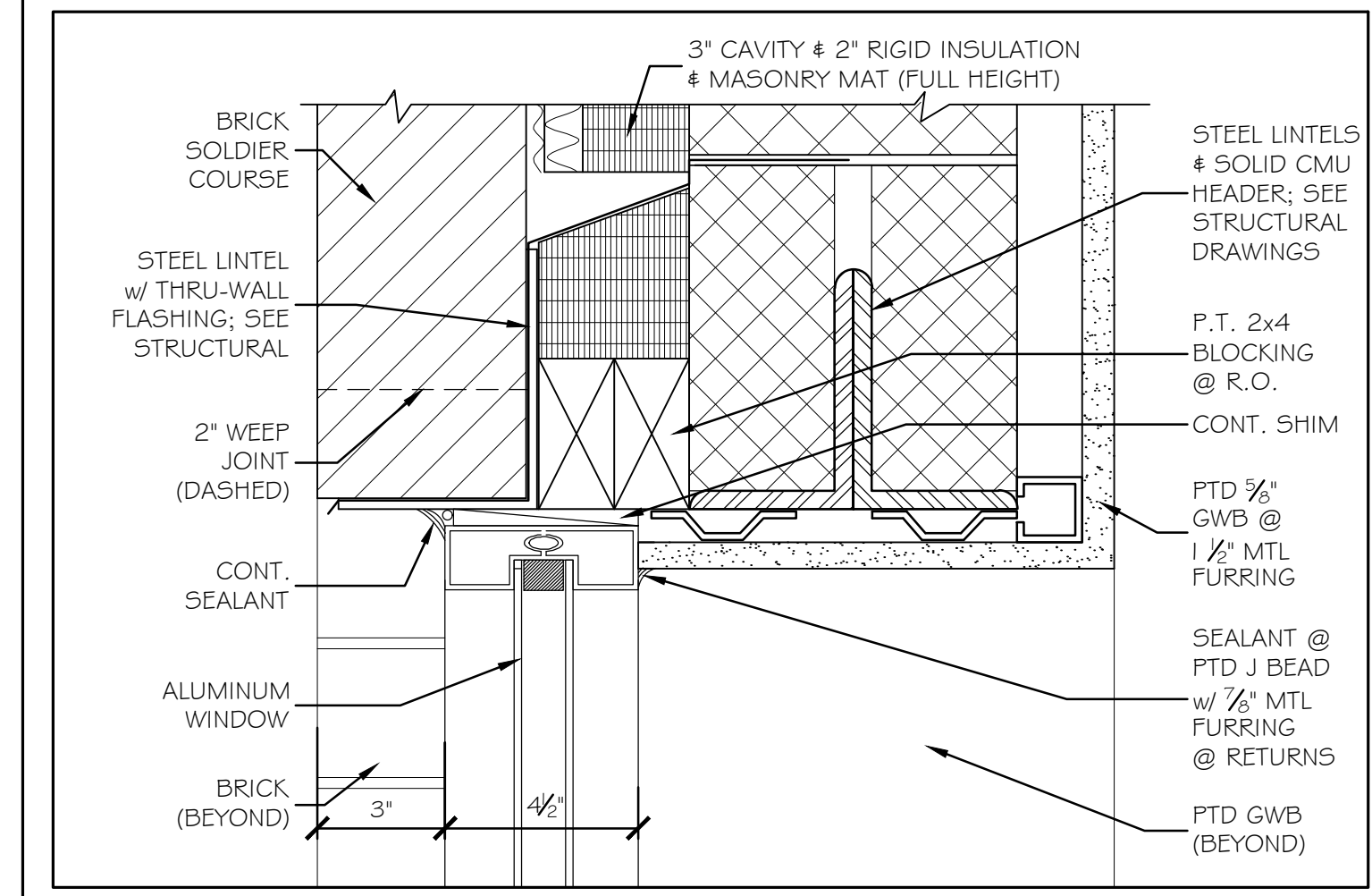
② EXTERIOR WINDOW WALL SECTION - SOUTHBOUND 3/4" = 1'-0"



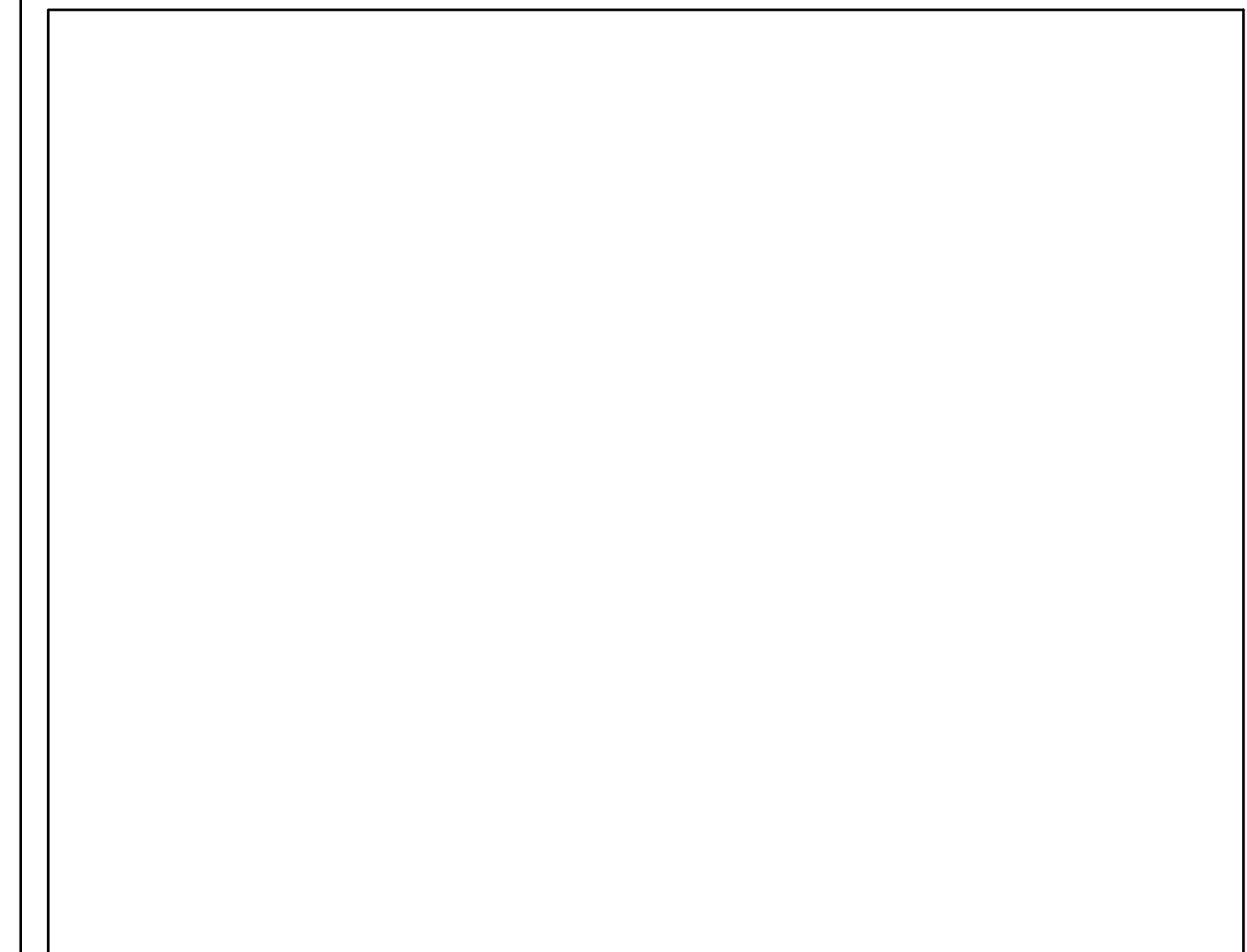
③ EXTERIOR DOOR WALL SECTION - SOUTHBOUND 3/4" = 1'-0"



④ EXTERIOR DOOR HEAD @ MASONRY 3\"/>



⑤ EXTERIOR WINDOW HEAD @ MASONRY 3\"/>



⑥ NOT USED

Scale: AS NOTED

No.	Revision	By	Date

Designed by:
Michael F. Hays, RA

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

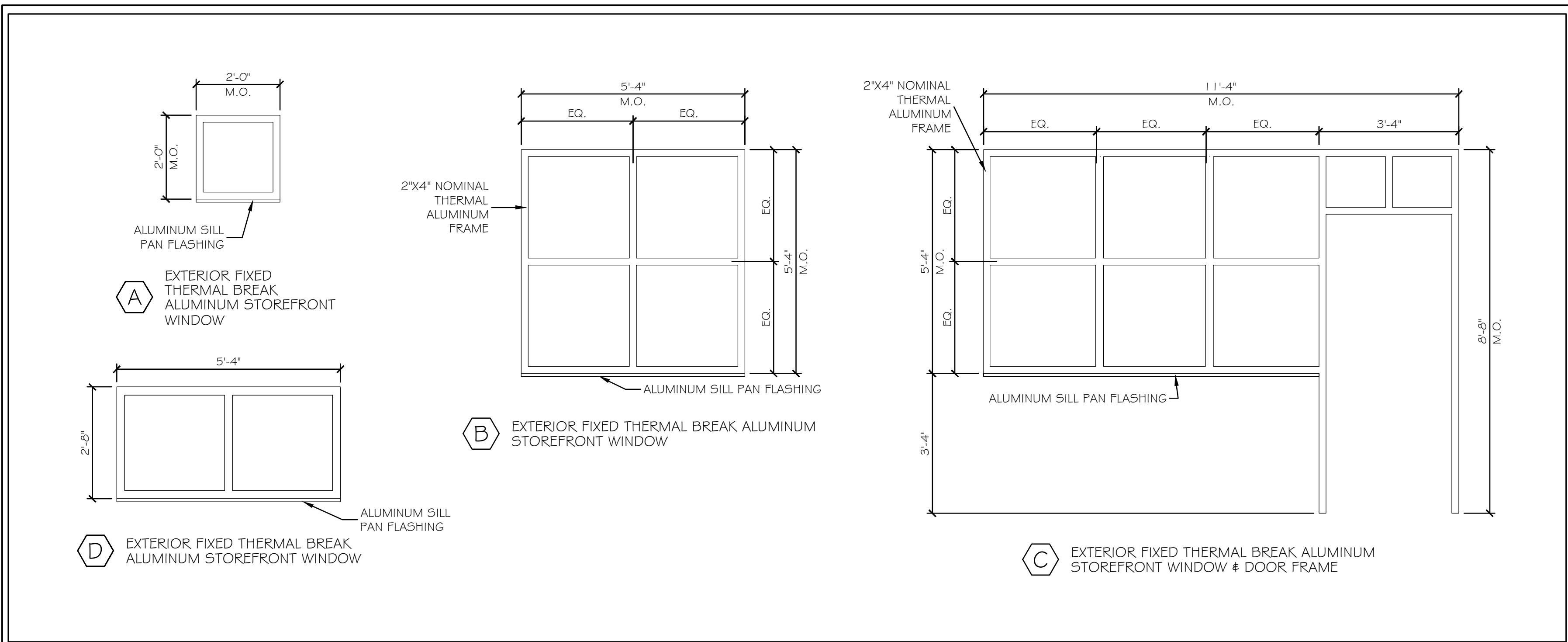
	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
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MAINE TURNPIKE
THE GOLD STAR MEMORIAL HIGHWAY
MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36)
SOUTHBOUND TOLL ADMINISTRATION BUILDING WALL SECTIONS & PARTITION TYPES - SOUTHBOUND

SHEET NUMBER: A06
CONTRACT: 2022.07
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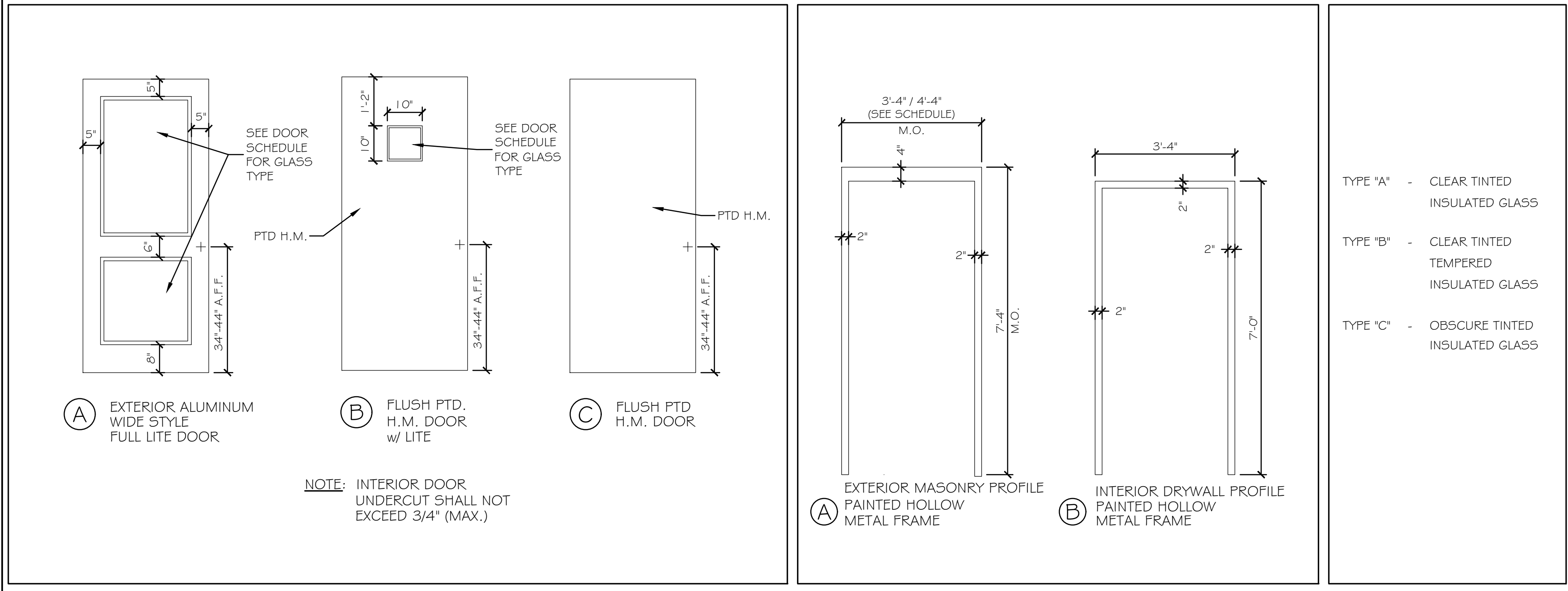


DOOR SCHEDULE

ABBREVIATIONS																	
AL	ALUMINUM	T	TEMPERED														
E	EXISTING	TH	THERMAL INSULATED														
EMHO	ELECTRO MAGNETIC HOLD OPENER	V	VINYL														
GL	GLASS	W	WIRE														
HM	HOLLOW METAL	WD	WOOD														
INSUL	INSULATED	W /	WITH														
SS	STAINLESS STEEL																
DOORS										FRAMES			THRESHOLDS				
NO.	TYPE	SIZE (w x h)	THK	INSUL	HDWE	FR	GLASS		REMARKS	TYPE	FR	PROFILE	DETAILS		MATERIAL	DETAILS	
							TYPE	SIZE					HEAD	JAMB		SILL	FIN
101	A	3070	1 3/4"	NO	HW-1	-	T/TH	FULL	GLASS "B"	C*	-	ALUM	5-A12	6-A12	ALUM	7-A12	-
102	C	3070	1 3/4"	YES	HW-2	-	T/TH	10x10	GLASS "B"	A	-	MAS	4-A07	6-A12	ALUM	7-A12	-
103	C	4070	1 3/4"	YES	HW-3	-	T/TH	10x10	GLASS "B"	A	-	MAS	4-A07	6-A12	ALUM	7-A12	-
104	C	3070	1 3/4"	NO	HW-4	-	-	-	-	B	-	DW	8-A12	8-A12	NONE	-	TILE
105	C	3070	1 3/4"	NO	HW-5	-	-	-	-	B	-	DW	8-A12	8-A12	NONE	-	-

*SEE WINDOW TYPES FOR FRAME TYPE 'C' AT DOOR 101.

WINDOW TYPES NO SCALE



DOOR TYPES NO SCALE DOOR FRAME TYPES NO SCALE GLASS TYPES NO SCALE

WINDOW SCHEDULE

ABBREVIATIONS														
AL	ALUMINUM	T	TEMPERED											
E	EXISTING	TH	THERMAL INSULATED											
EMHO	ELECTRO MAGNETIC HOLD OPENER	V	VINYL											
GL	GLASS	W	WIRE											
HM	HOLLOW METAL	WD	WOOD											
SS	STAINLESS STEEL	W /	WITH											
NO.	TYPE	MANUFACTURER		NOMINAL SIZE		DETAILS				REMARKS				
		MATERIAL	MODEL	WIDTH	HEIGHT	HEAD	JAMB	SILL	MUNT		MULL			
A	FIXED	ALUMINUM	T-BREAK	2'-0"	2'-0"	1-A12	2-A12	3-A12	-	-	TYPE "C" GLASS			
B	FIXED	ALUMINUM	T-BREAK	5'-4"	5'-4"	1-A12	2-A12	3-A12	-	-	TYPE "A" GLASS			
C	FIXED	ALUMINUM	T-BREAK	8'-0"	5'-4"	1-A12	2-A12	3-A12	-	-	TYPE "B" GLASS			
D	FIXED	ALUMINUM	T-BREAK	5'-4"	2'-8"	1-A12	2-A12	3-A12	-	-	TYPE "A" GLASS			

FINISH SCHEDULE

ABBREVIATIONS														
C	CARPET	FRP	FIBERGLASS REINFORCED PANELS	QT	QUARRY TILE									
CH	CONCRETE W/ HARDENER	FV	FIELD VERIFY	SS	STAINLESS STEEL									
CMU	CONCRETE MASONRY UNIT	GL	GLASS	VCB	VINYL COVE BASE									
CT	CERAMIC TILE	GW	GYPSPUM WALL BOARD	VCT	VINYL COMPOSITION TILE									
E	EXISTING	P	PAINT	VWC	VINYL WALL COVERING									
EP	EPOXY PAINT	PCS	PAINT COAT SYSTEM	WC(1)	WALL COVERING (TYPE)									
FCS	FLOOR COATINGS SYSTEM	RCB	RUBBER COVE BASE	WD	WOOD									
NO.	NAME	WALLS				FLOOR				CLG A		CLG B		REMARKS
		N	E	S	W	MATL	BASE	MATL	BASE	TYPE	HT	TYPE	HT	
101	BREAK ROOM	P	P	P	P	CT	VCB	-	-	SAT	9'-0"	-	-	
102	COUNTING	P	P	P	P	CT	VCB	-	-	SAT	9'-0"	-	-	
103	CUSTODIAL	P	P	P/FRP	P/FRP	CT	VCB	-	-	SAT	9'-0"	-	-	FRP TO 48" A.F.F.
104	UTILITY / EQUIP.	P	P	P	P	EPOXY	VCB	-	-	P/GWB	11'-4"	-	-	2 HR RATED (AT STRUCTURE)
105	HALL	P	P	P	P	CT	VCB	-	-	SAT	7'-11"	-	-	
106	RESTROOM	P/CT*	P/CT*	P/CT*	P/CT*	CT	CT	-	-	SAT	9'-0"	-	-	*SEE 2-A06 FOR CT, HT.

Scale: AS NOTED

No.	Revision	By	Date

Designed by:
Michael F. Hays, RA

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MGK	10/05/22	In Charge of		

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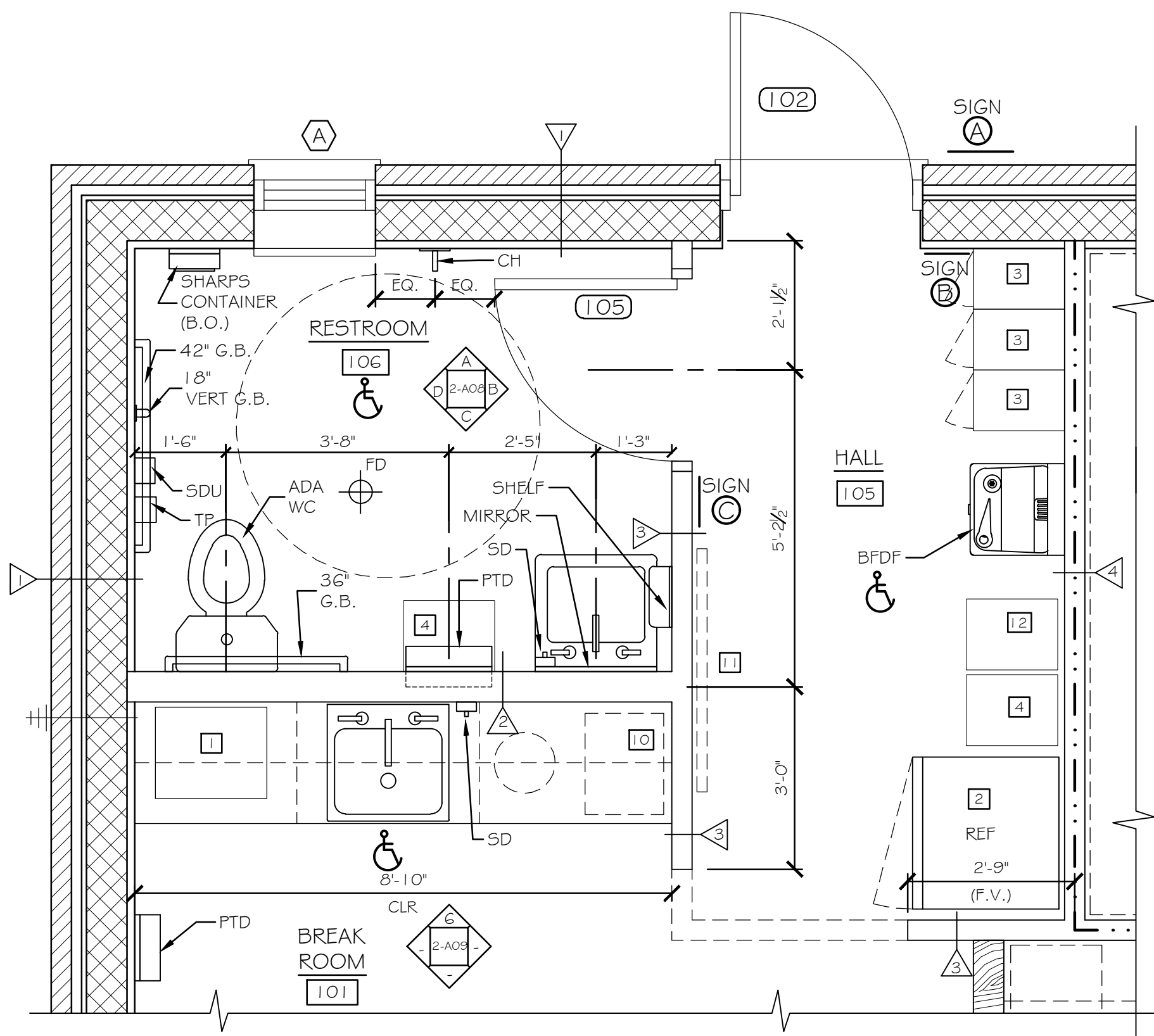
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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

**INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND TOLL ADMINISTRATION BUILDING
DOORS, WINDOWS & DETAILS**

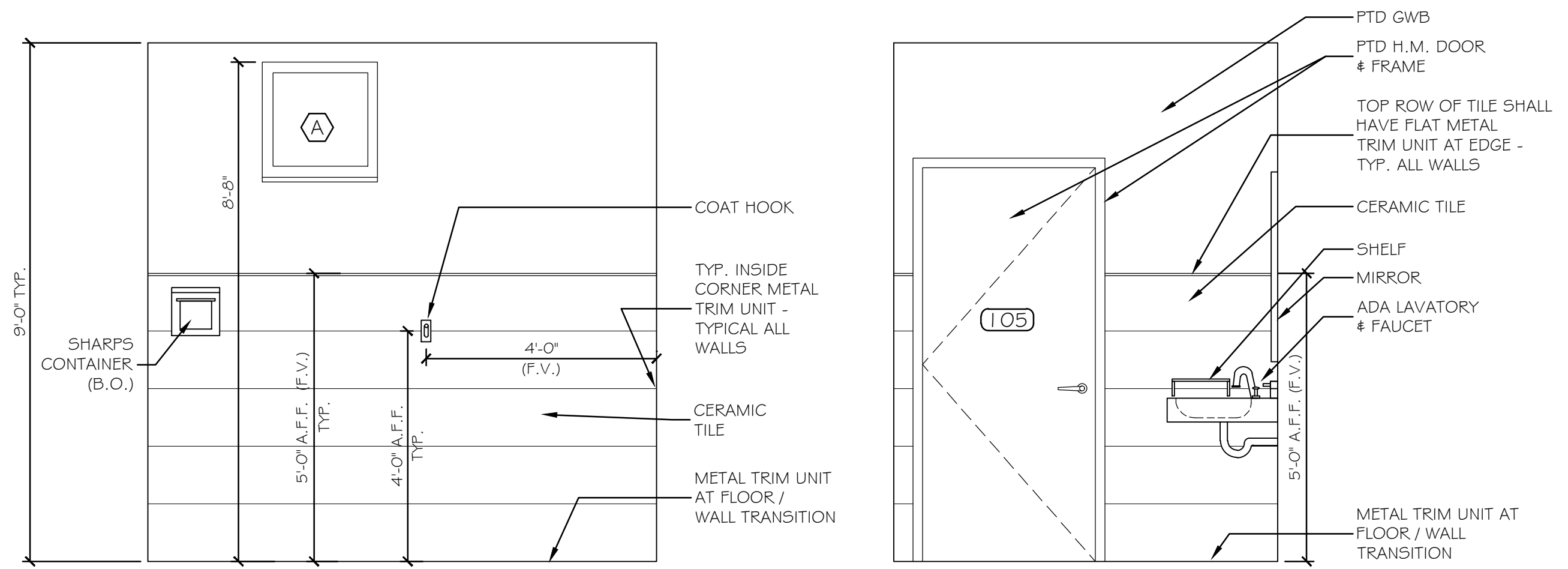
SHEET NUMBER: A07
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TOILET ACCESSORY ABBREVIATIONS	
TPD	TOILET PAPER DISPENSER
SDU	SANITARY DISPOSAL UNIT
GB	GRAB BAR
SD	SOAP DISPENSER
PTD	PAPER TOWEL DISPENSER
CH	COAT HOOK
BDFD	BOTTLE FILL / DRINKING FOUNTAIN

EQUIPMENT TYPES:

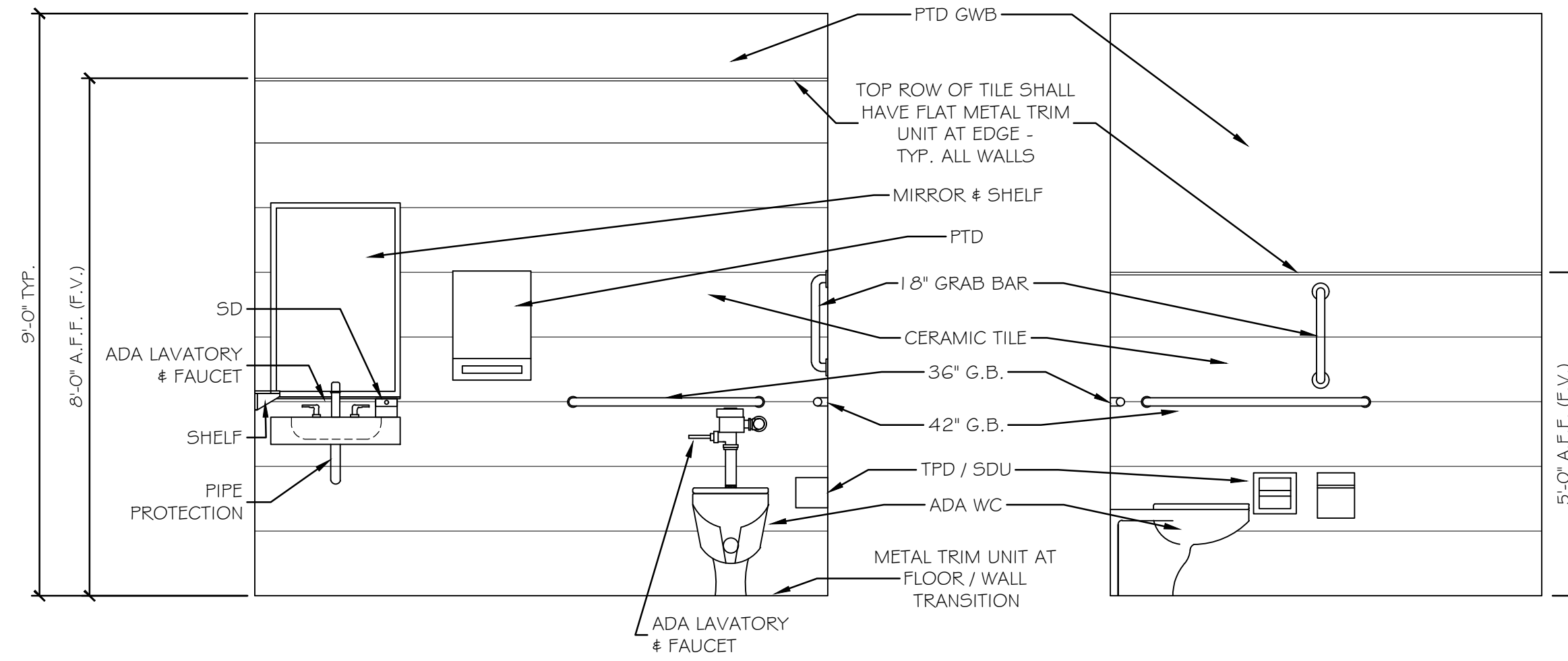
- 1 MICROWAVE OVEN
- 2 REFRIGERATOR
- 3 LOCKERS - 2 TIER - 12" W x 18" D
- 4 TRASH BIN - N.I.C.
- 10 COFFEE MAKER - N.I.C.
- 11 BULLETIN BOARD - N.I.C. (INSTALL BLOCKING AT FRAMING)
- 12 RECYCLE BIN - N.I.C.



A RESTROOM 106

B RESTROOM 106

- NOTES:**
- SEE SHEET A13 FOR TOILET ACCESSORIES ADA MOUNTING HEIGHTS.
 - INSTALL METAL TRIM UNITS AT ALL INTERIOR TILE CORNERS AT WALLS / FLOOR. INSTALL METAL TRIM CAP AT TOP OF WALL TILE.
 - WALL TILE PATTERN SHALL BE 1/2" OFFSET U.N.O.



C RESTROOM 106

D RESTROOM 106

1 BREAK ROOM 101 AND RESTROOM 106 PLANS

1/2" = 1'-0"

2 RESTROOM 106 INTERIOR ELEVATIONS

1/2" = 1'-0"

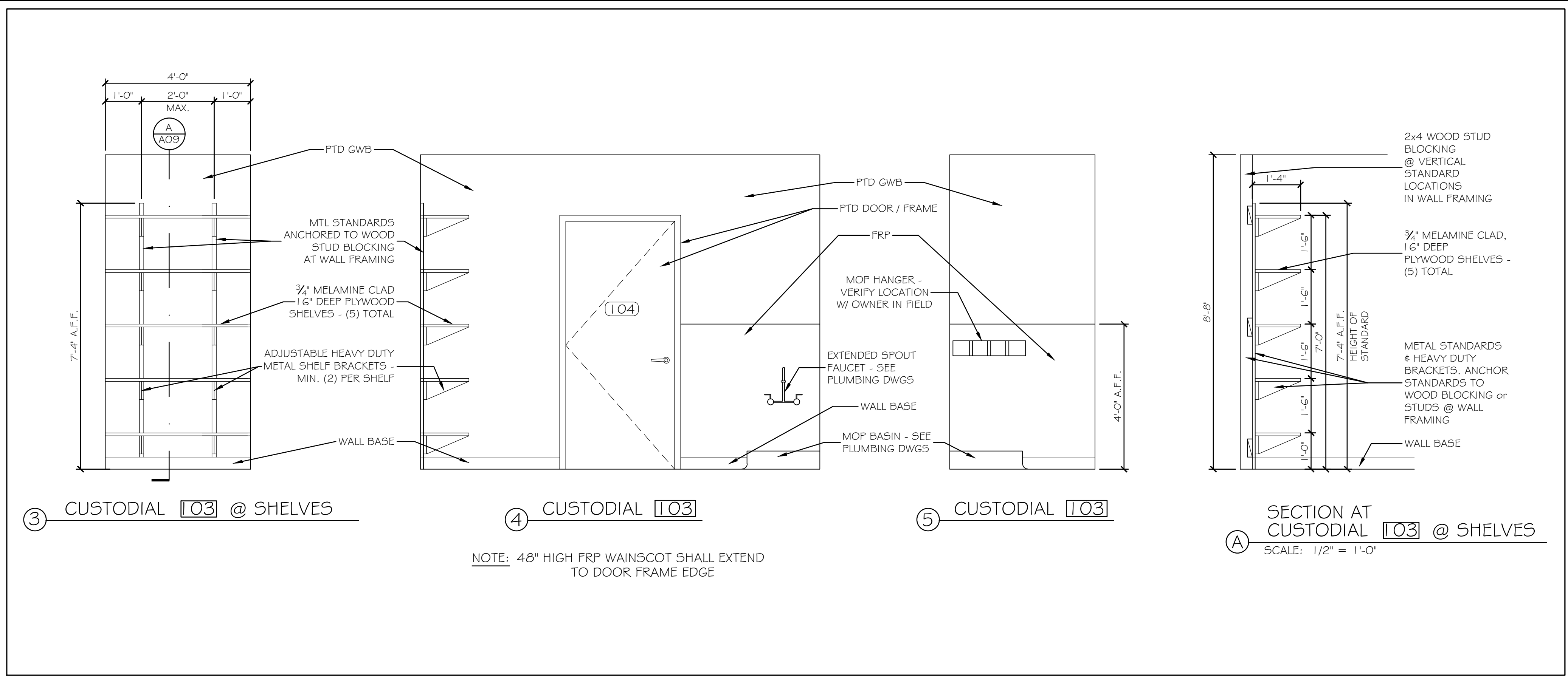
No.	Revision	By	Date

Designed by:					
Michael F. Hays, RA					
CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE					
	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MGK	10/05/22	In Charge of		

**INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND TOLL ADMINISTRATION BUILDING
TOILET ROOMS & DETAILS**

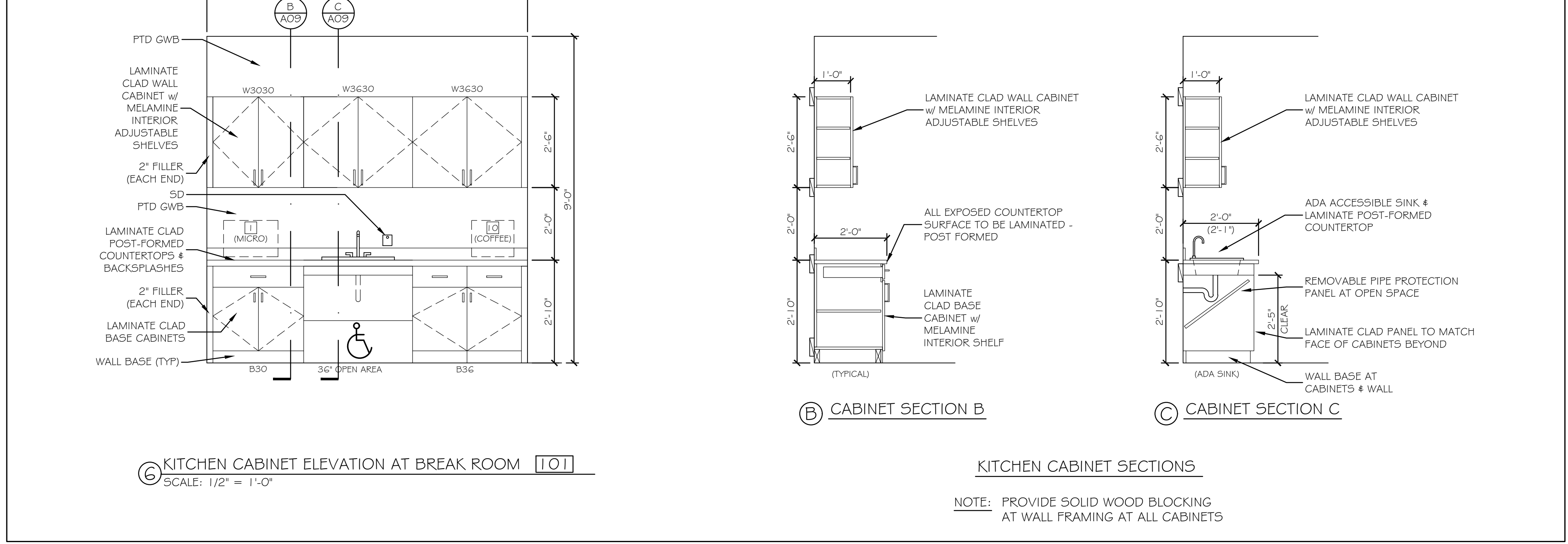
SHEET NUMBER: A08
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CONTRACT: 2022.07



③ CUSTODIAL 103 @ SHELVES ④ CUSTODIAL 103 ⑤ CUSTODIAL 103 SECTION AT CUSTODIAL 103 @ SHELVES
 NOTE: 48" HIGH FRP WAINSCOT SHALL EXTEND TO DOOR FRAME EDGE
 SCALE: 1/2" = 1'-0"

① CUSTODIAL 103 INTERIOR ELEVATIONS 1/2" = 1'-0"



⑥ KITCHEN CABINET ELEVATION AT BREAK ROOM 101 ⑦ KITCHEN CABINET SECTIONS
 SCALE: 1/2" = 1'-0"
 NOTE: PROVIDE SOLID WOOD BLOCKING AT WALL FRAMING AT ALL CABINETS

② BREAK ROOM 101 INTERIOR ELEVATION & SECTIONS 1/2" = 1'-0"

Scale: AS NOTED

No.	Revision	By	Date

Designed by:
Michael F. Hays, RA

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

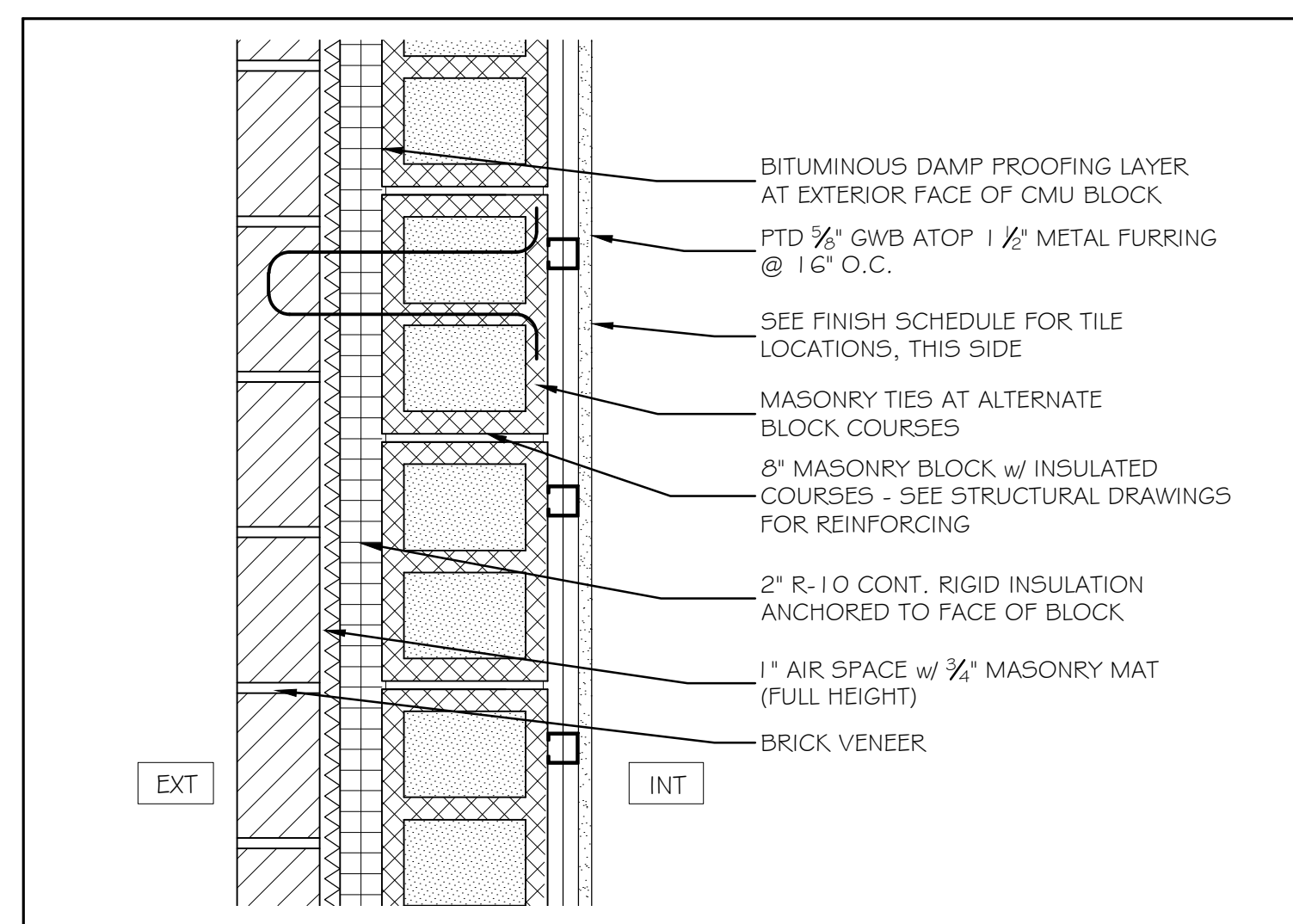
	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MKG	10/05/22	In Charge of		

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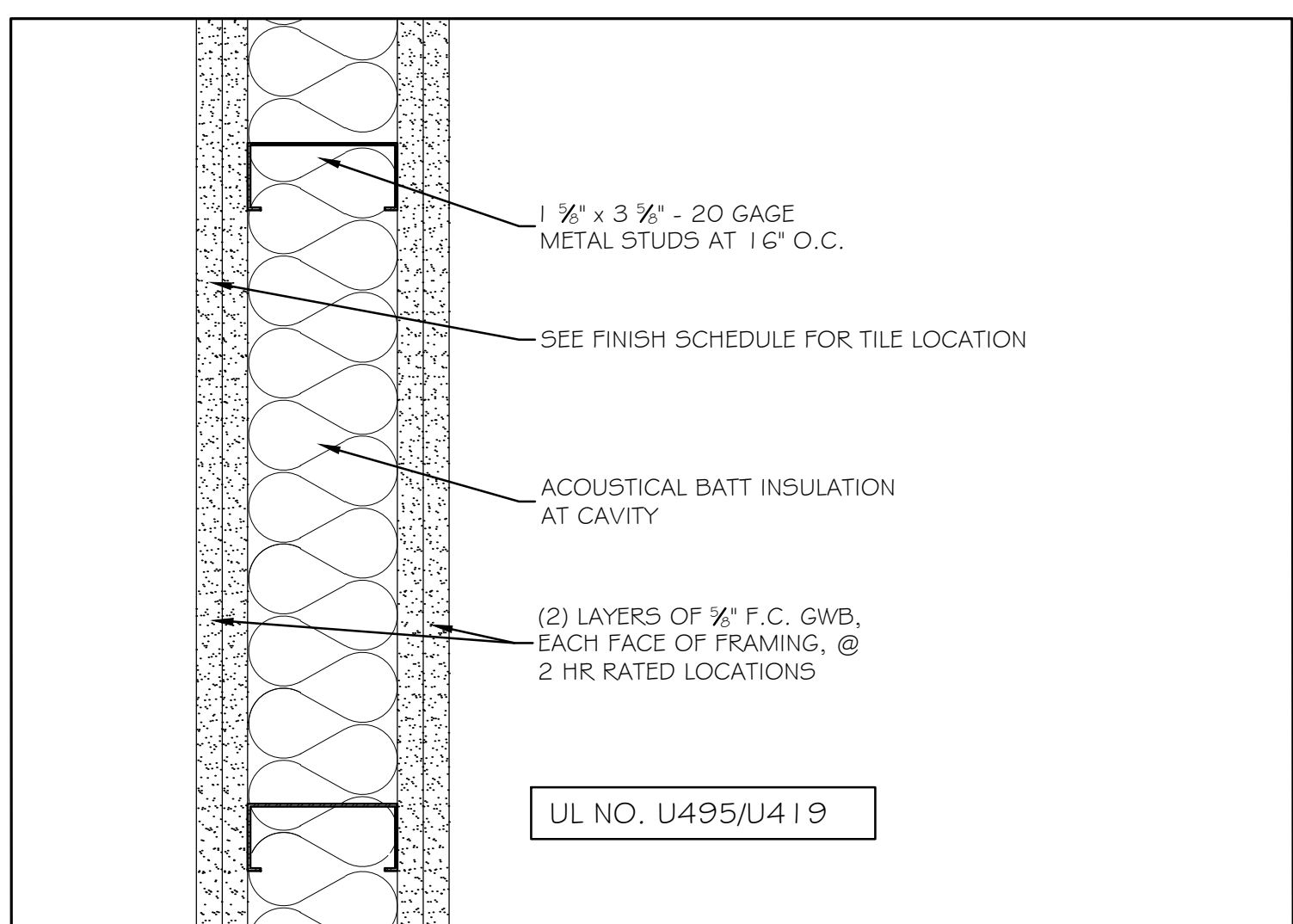
THE GOLD STAR MEMORIAL HIGHWAY
 MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36)
SOUTHBOUND TOLL ADMINISTRATION BUILDING
INTERIOR ELEVATIONS & SECTIONS

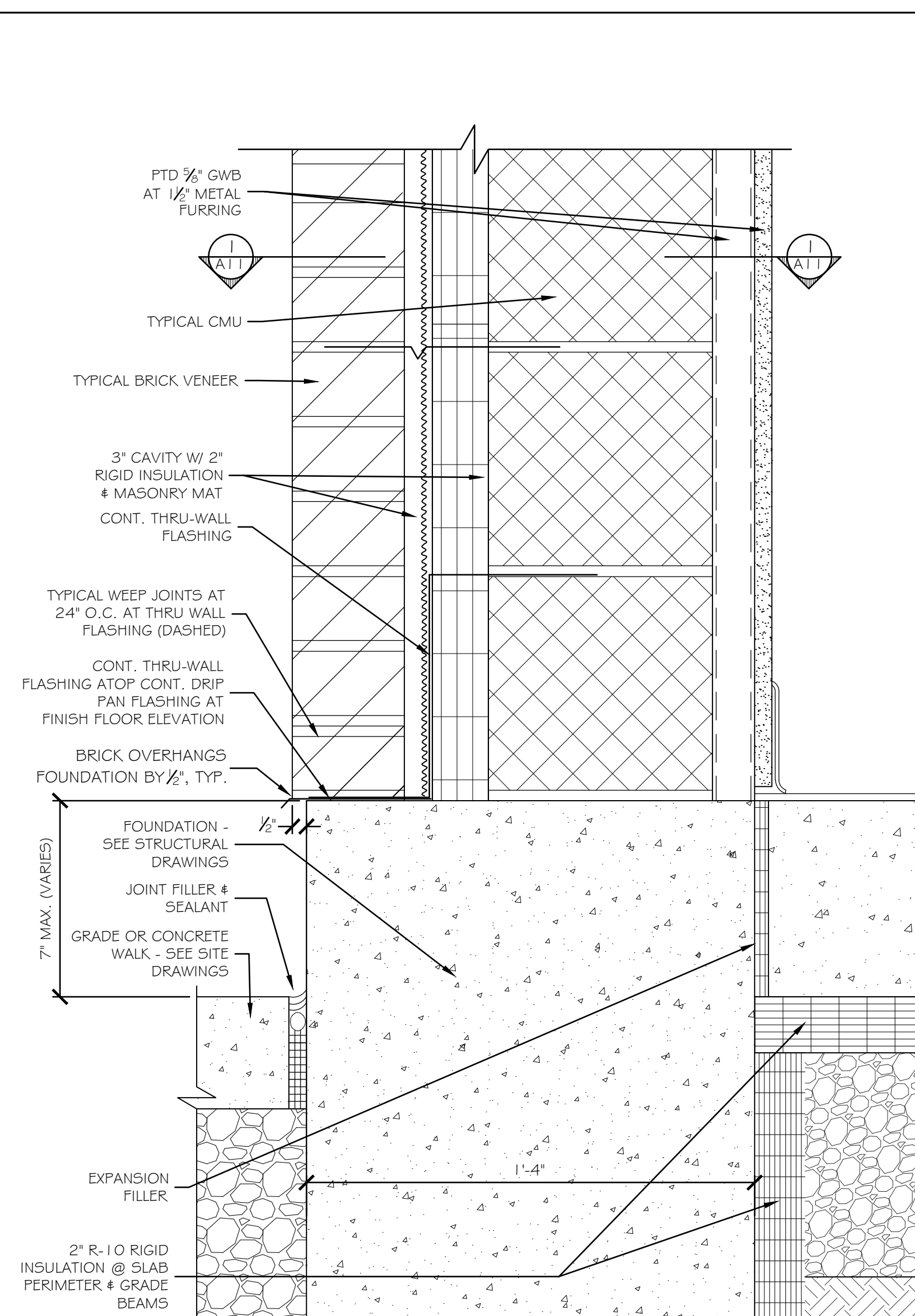
SHEET NUMBER: A09
 CONTRACT: 2022.07
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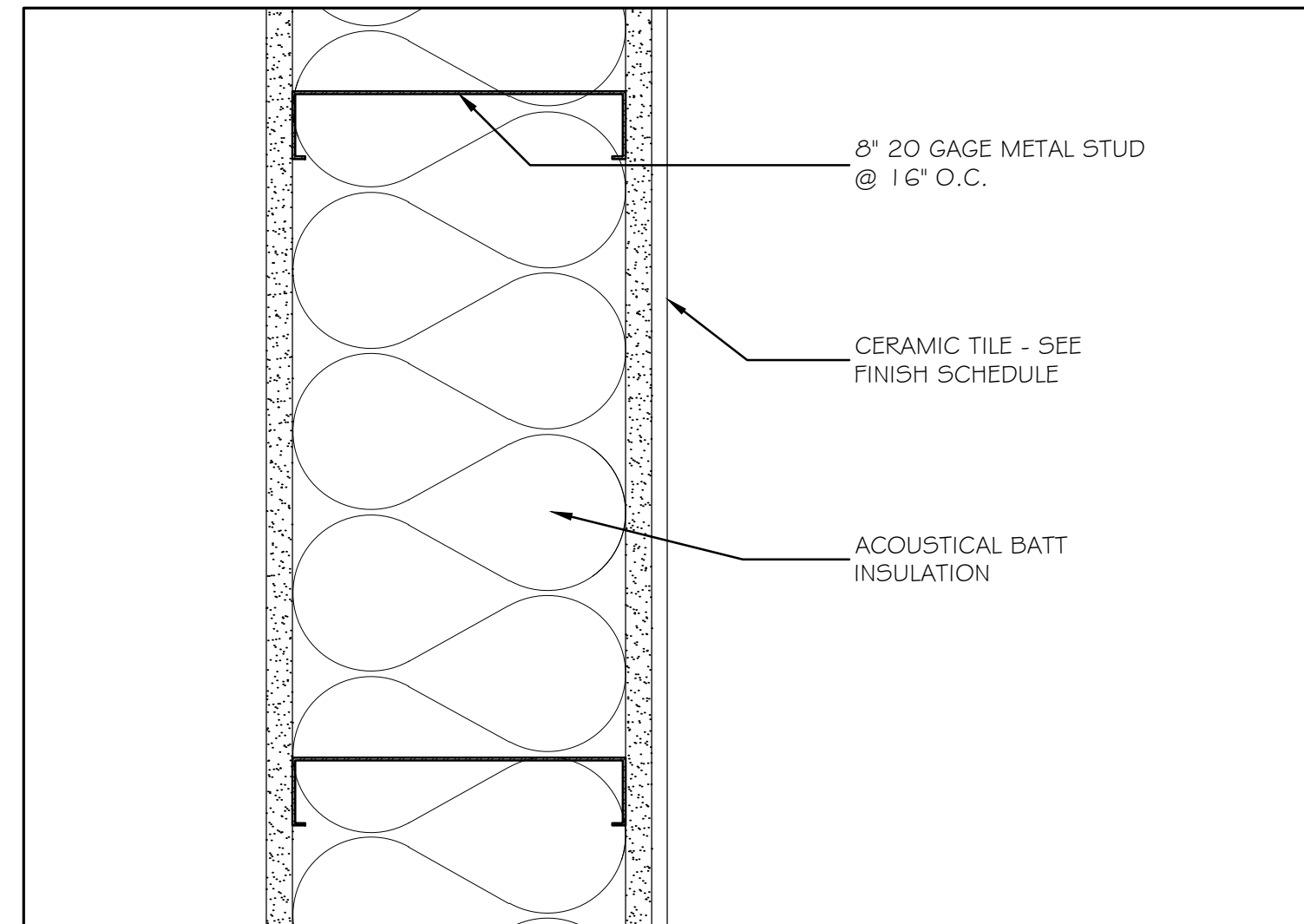
① EXTERIOR PARTITION 1 1/2" = 1'-0"



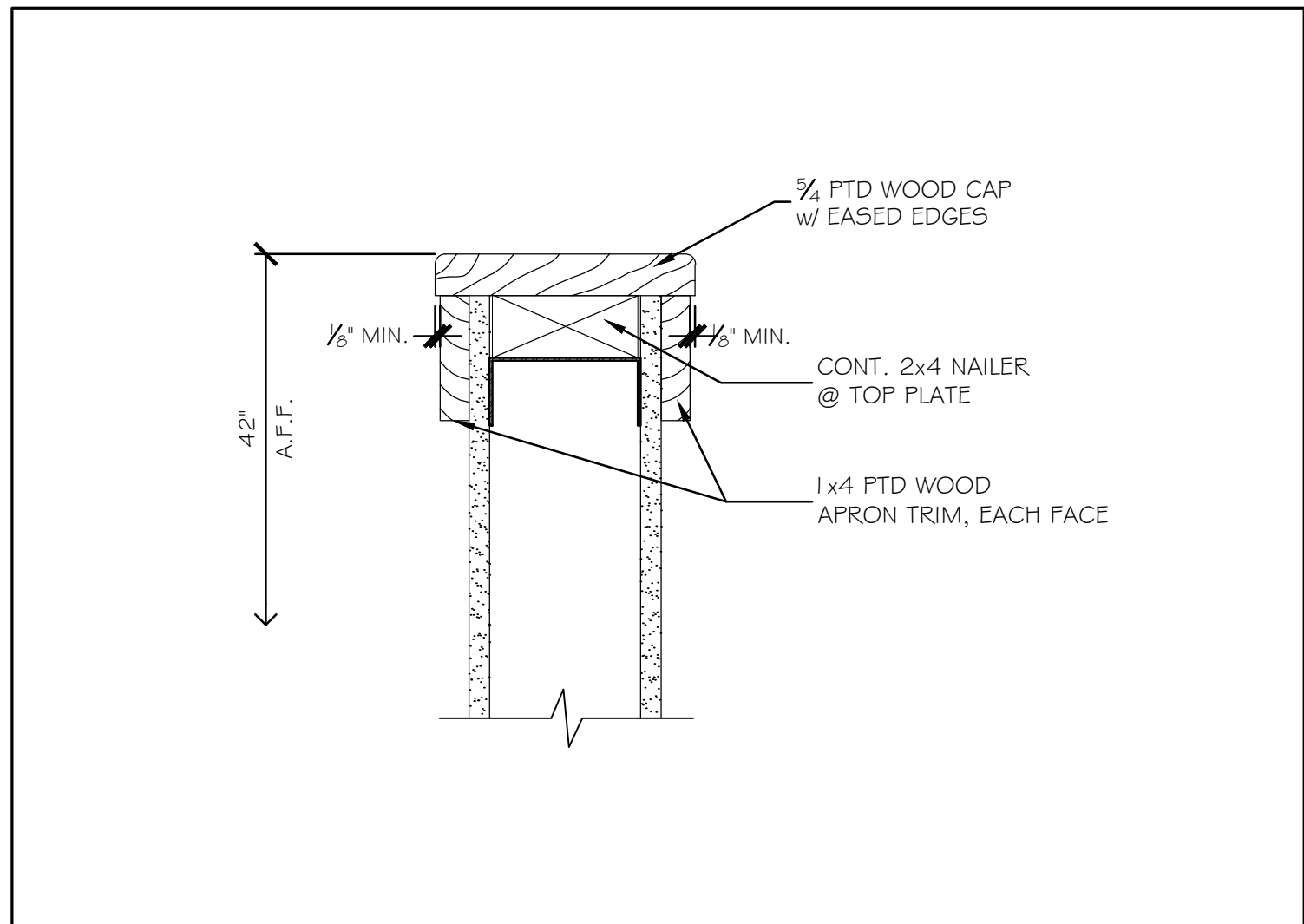
④ 2 HR FIRE RATED PARTITION TYPE 3" = 1'-0"



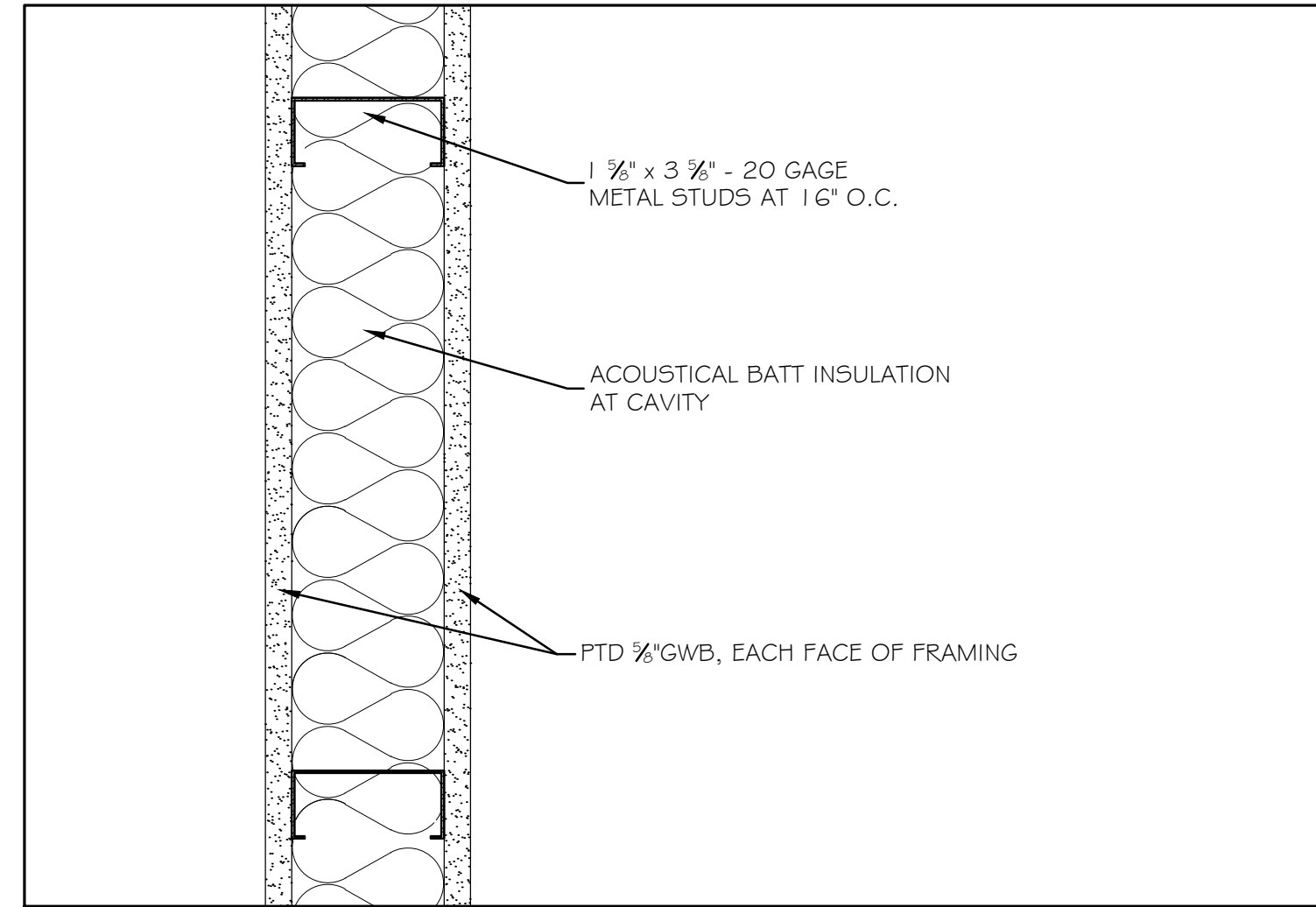
⑦ CAVITY WALL SECTION DETAIL 3" = 1'-0"



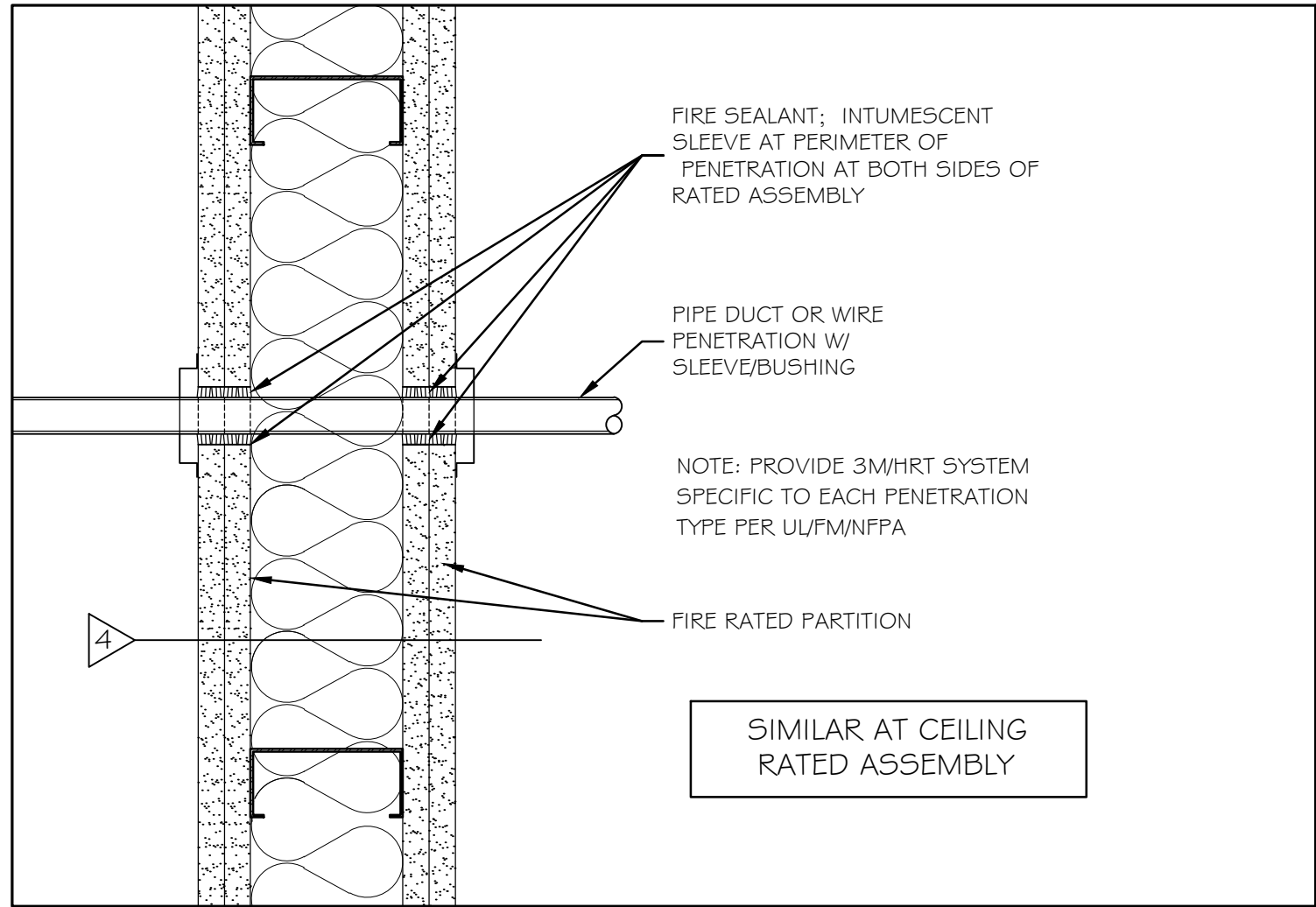
② PLUMBING PARTITION 3" = 1'-0"



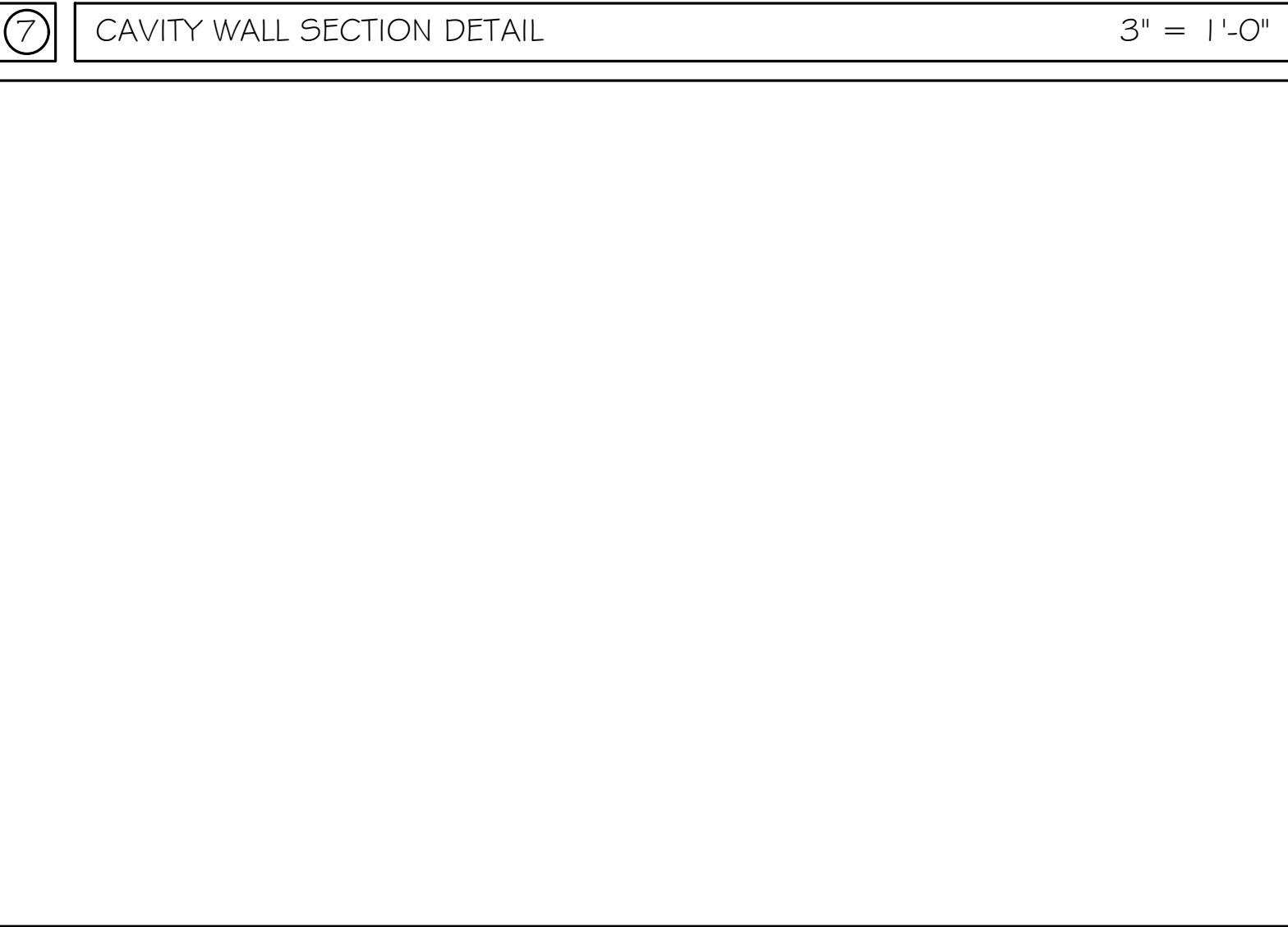
⑤ HALF WALL 3" = 1'-0"



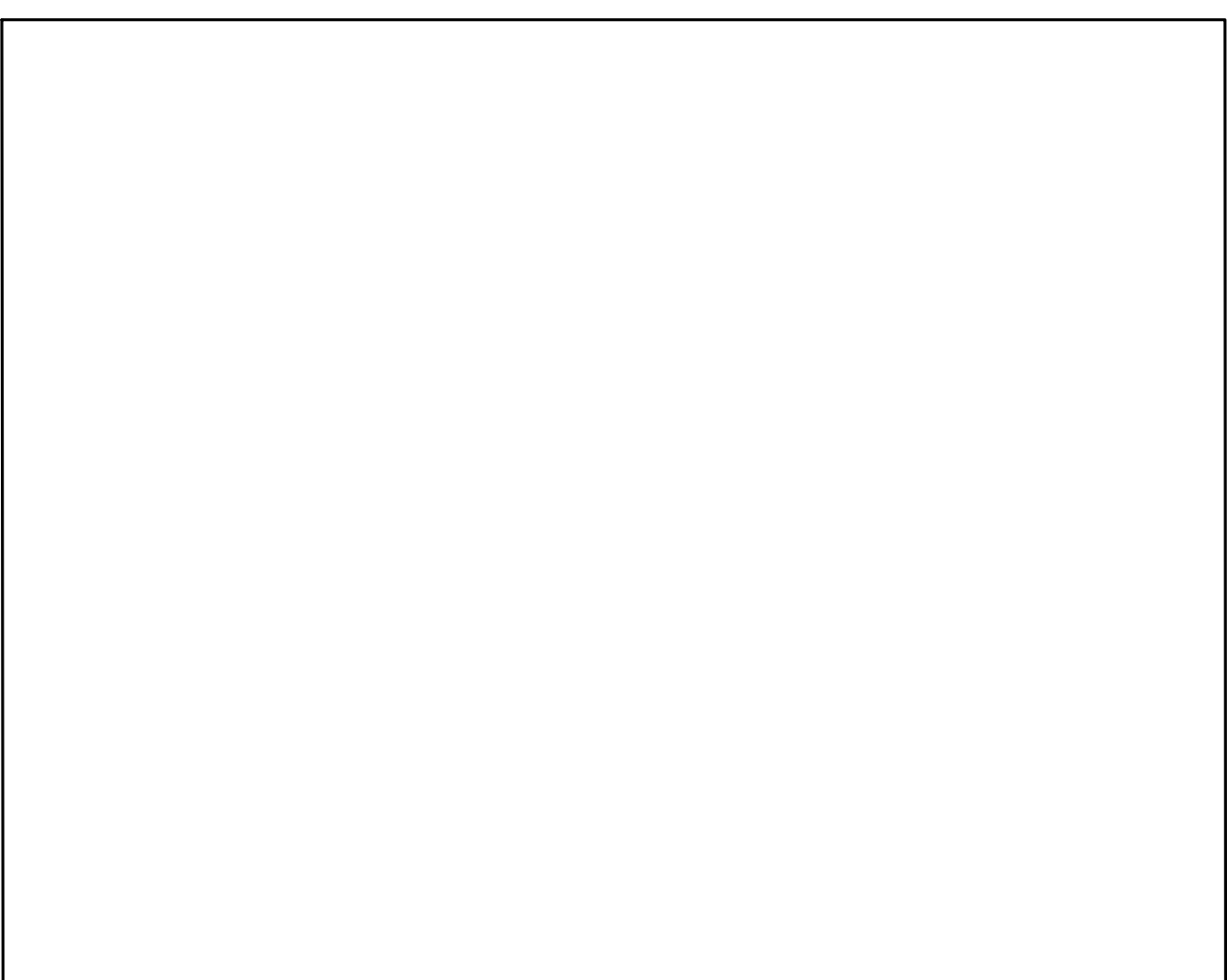
③ INTERIOR PARTITION 3" = 1'-0"



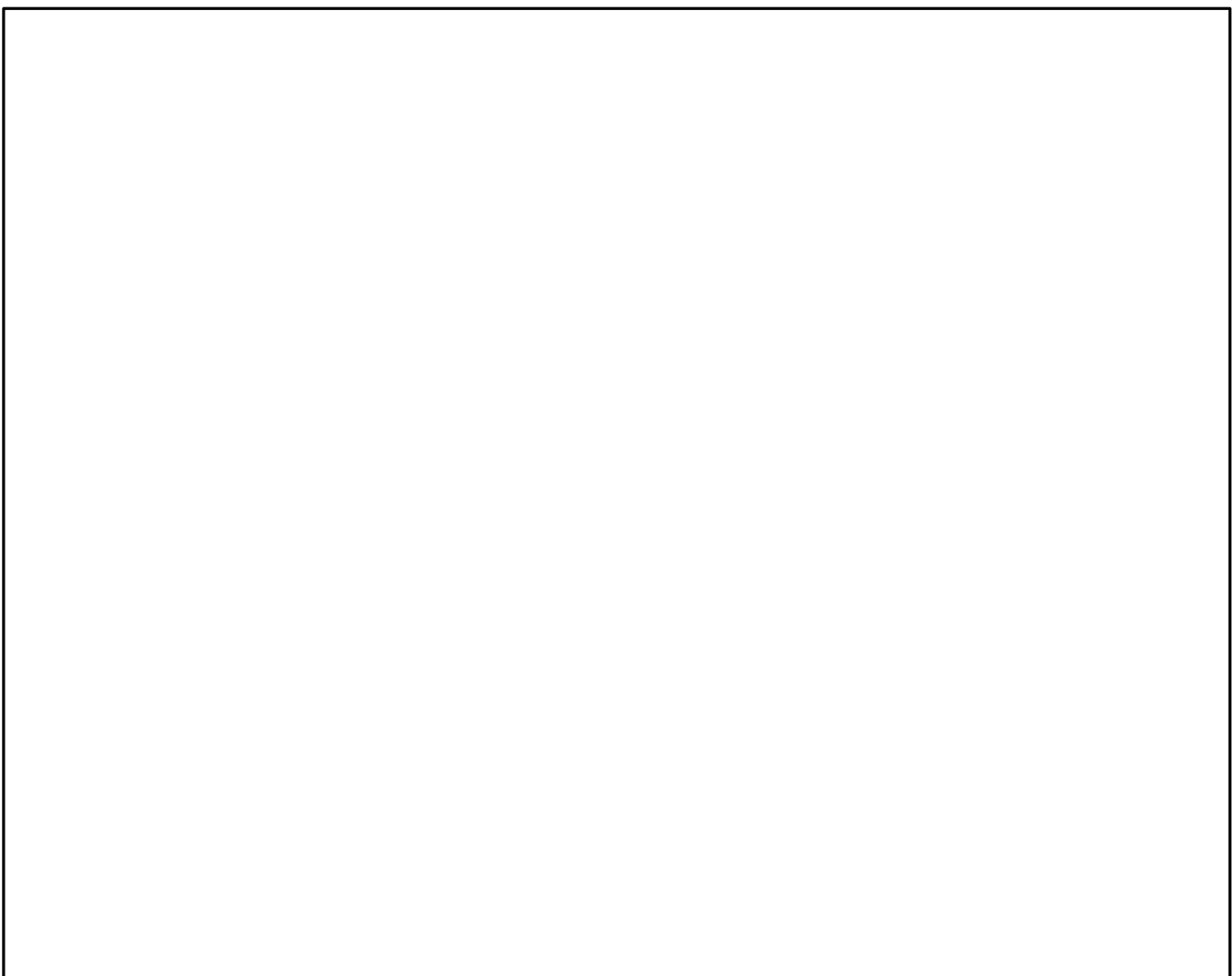
⑥ FIRE SEALANT AT PENETRATIONS 3" = 1'-0"



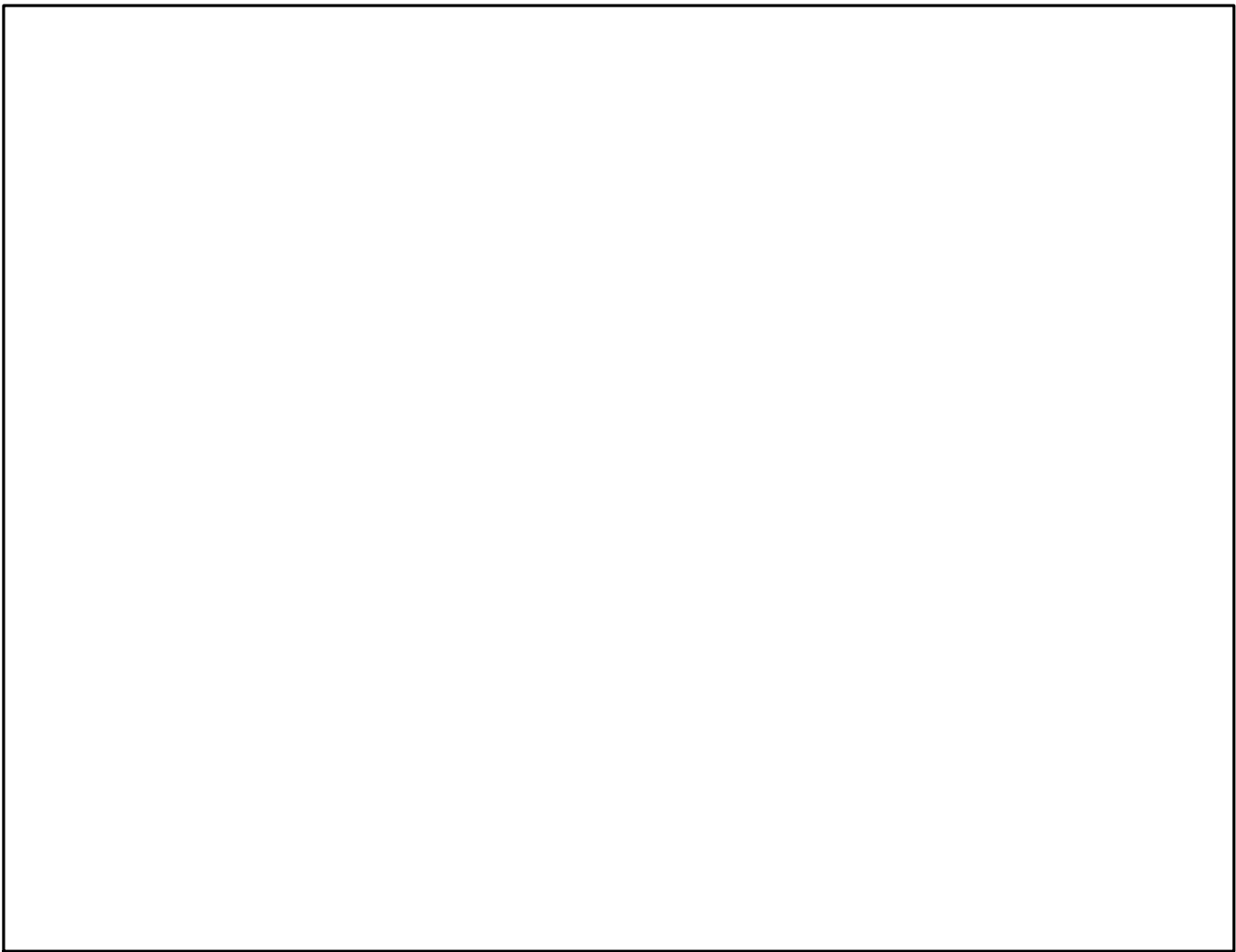
⑧ NOT USED



⑨ NOT USED



⑩ NOT USED



⑪ NOT USED

Scale: AS NOTED

No.	Revision	By	Date

Designed by:
Michael F. Hays, RA

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

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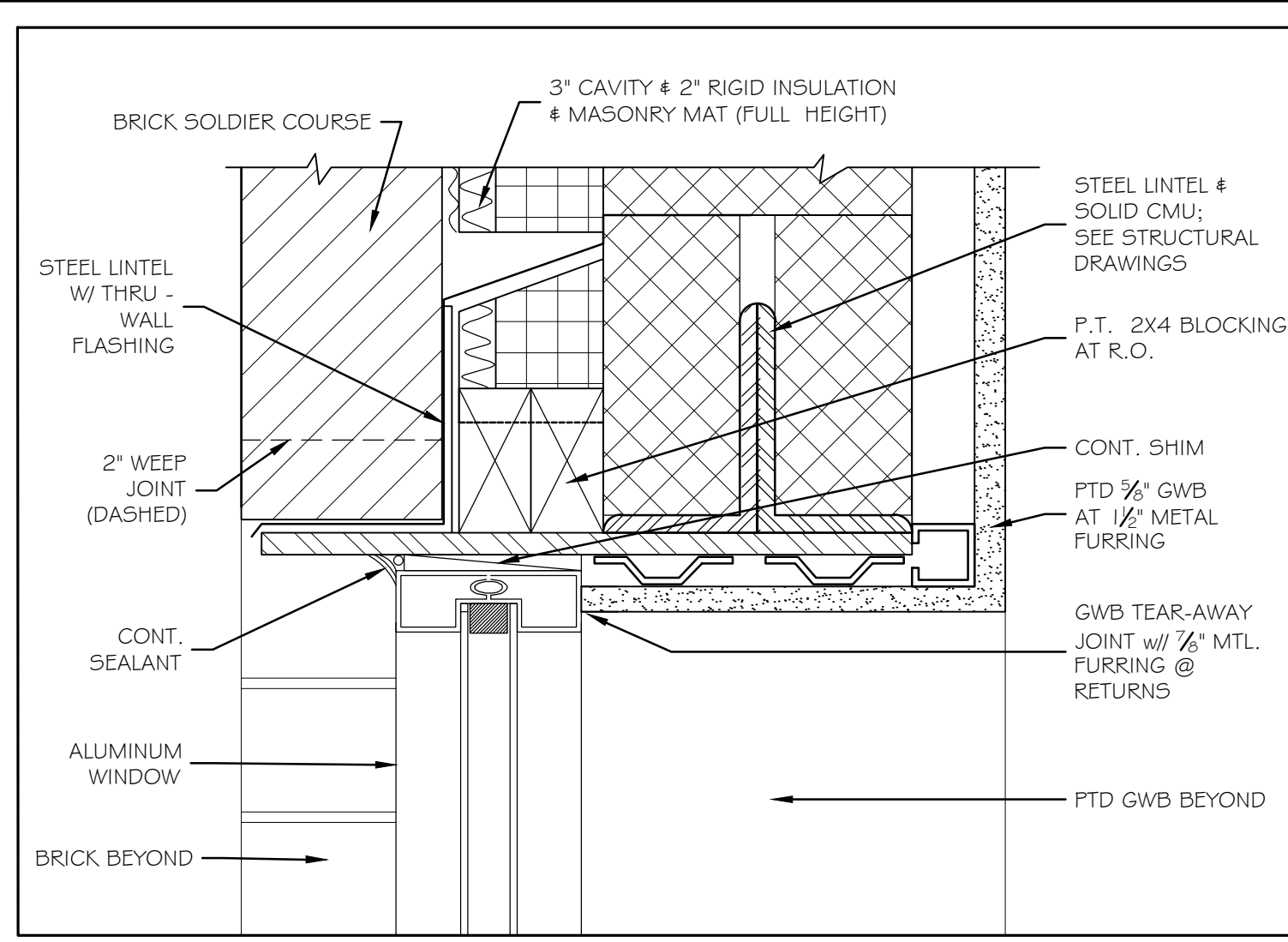
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

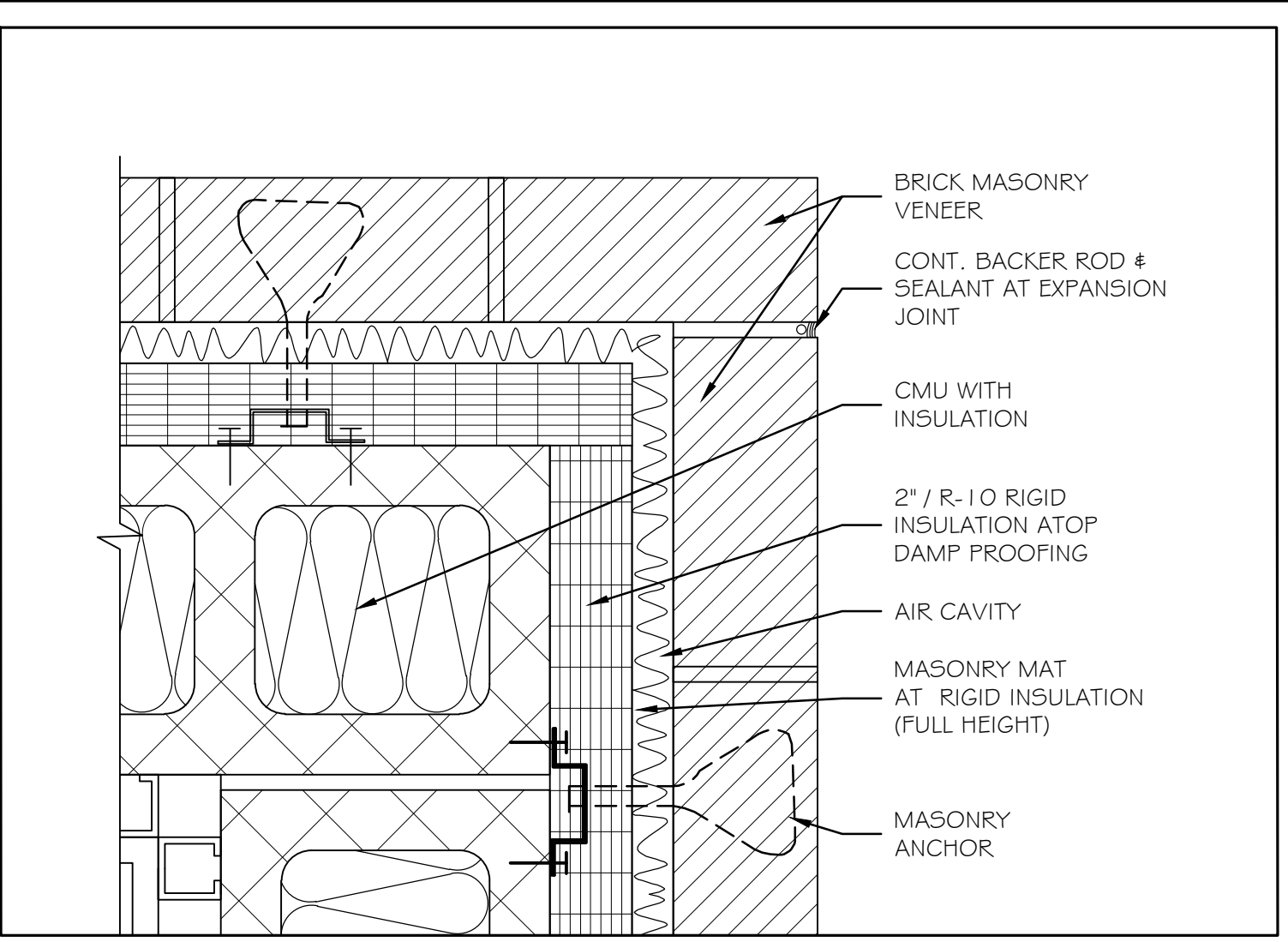
INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36)
SOUTHBOUND TOLL ADMINISTRATION BUILDING
PARTITION TYPES

CONTRACT: 2022.07

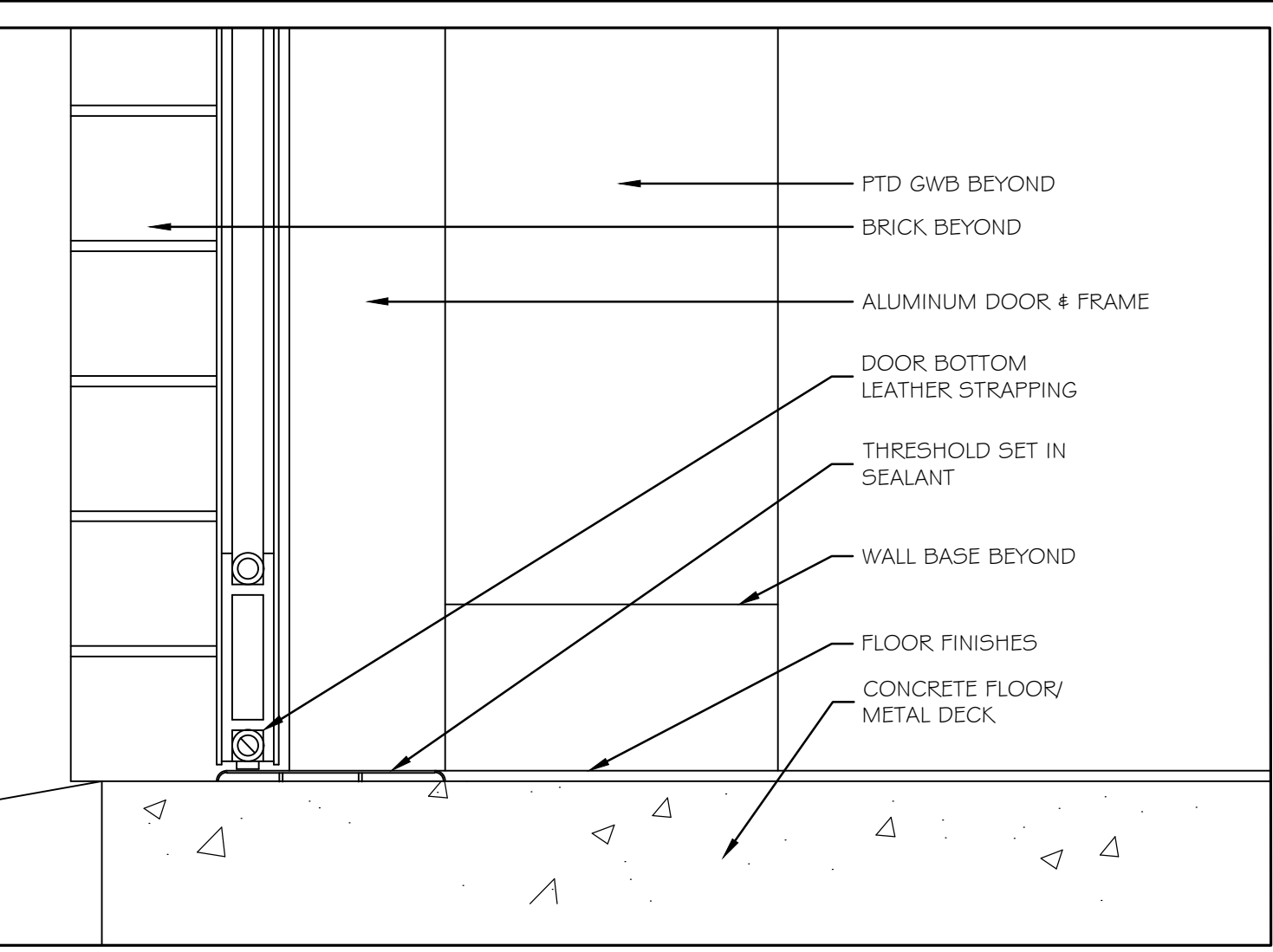
SHEET NUMBER: A11
675 OF 735



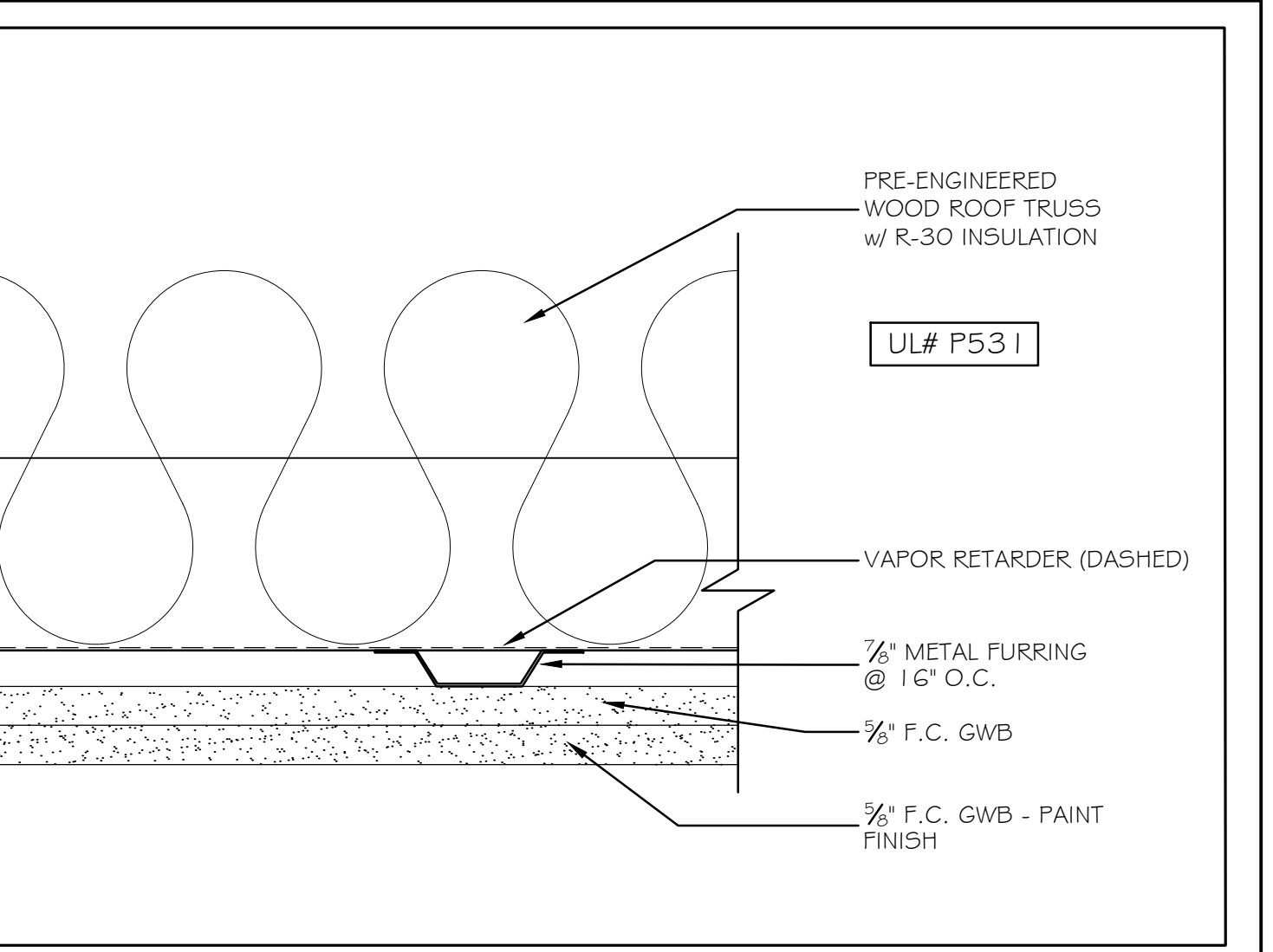
① EXTERIOR WINDOW HEAD @ STEEL FRAME 3" = 1'-0"



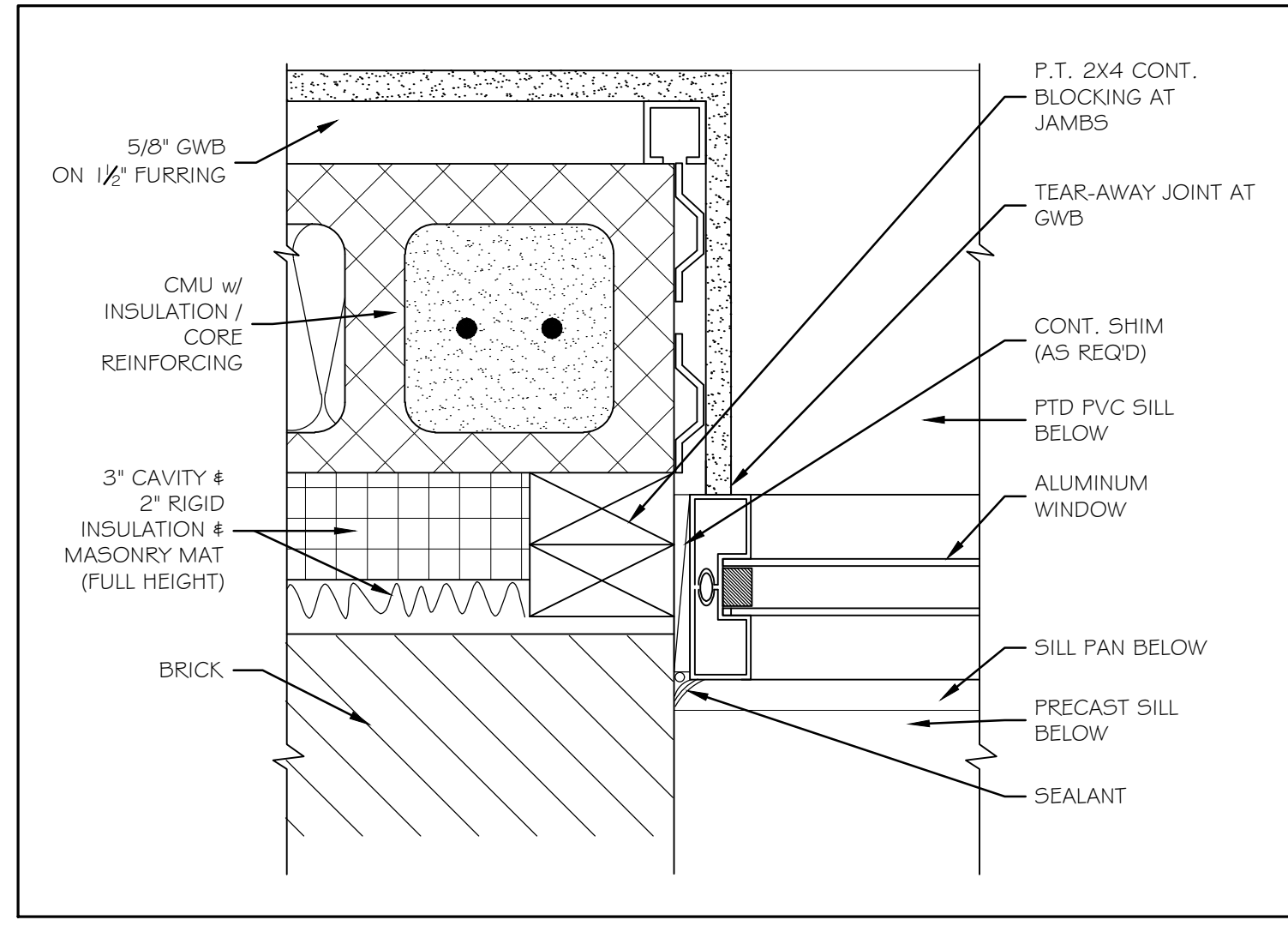
④ MASONRY EXPANSION JOINT DETAIL 3" = 1'-0"



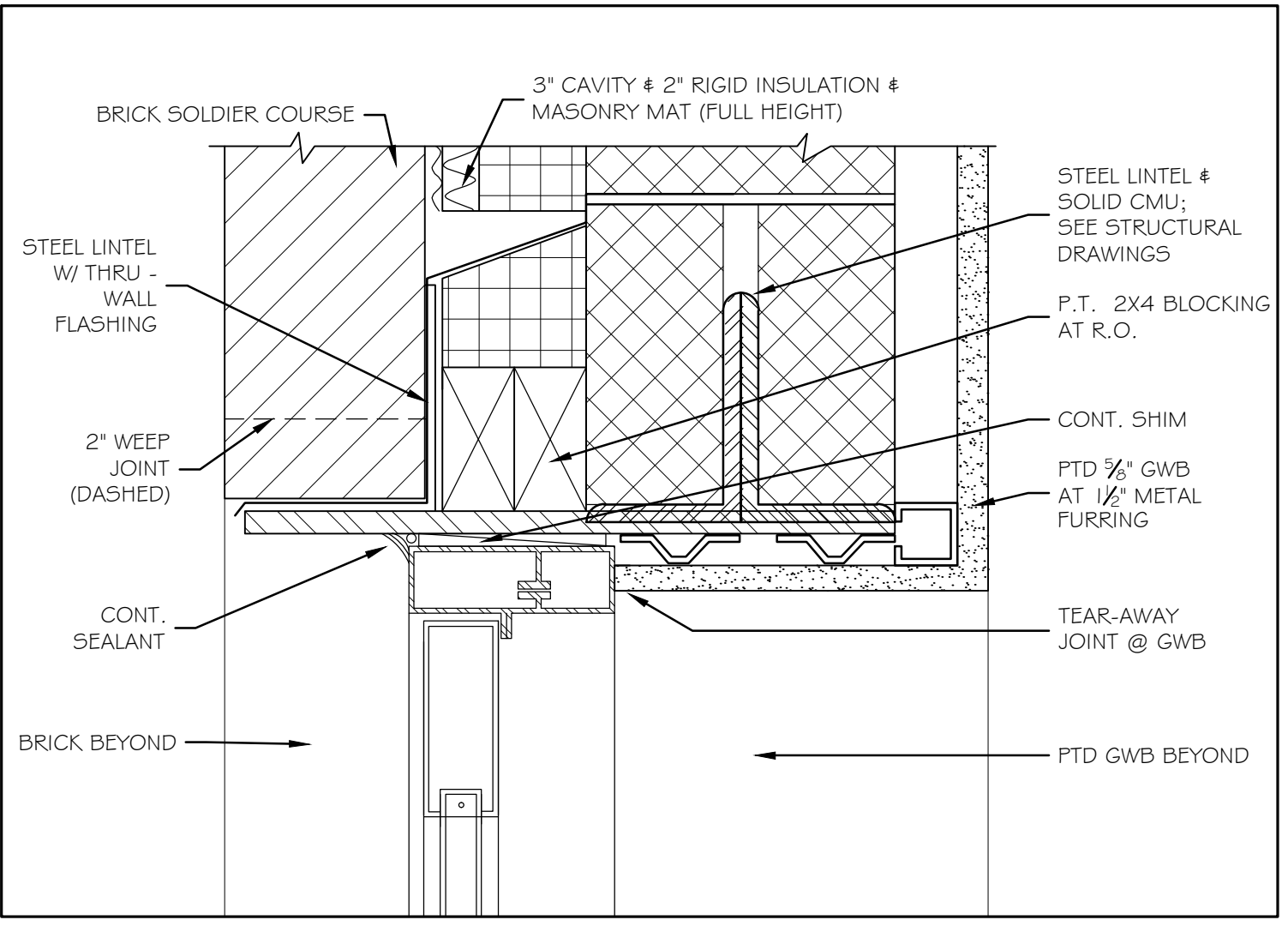
⑦ THRESHOLD DETAIL 3" = 1'-0"



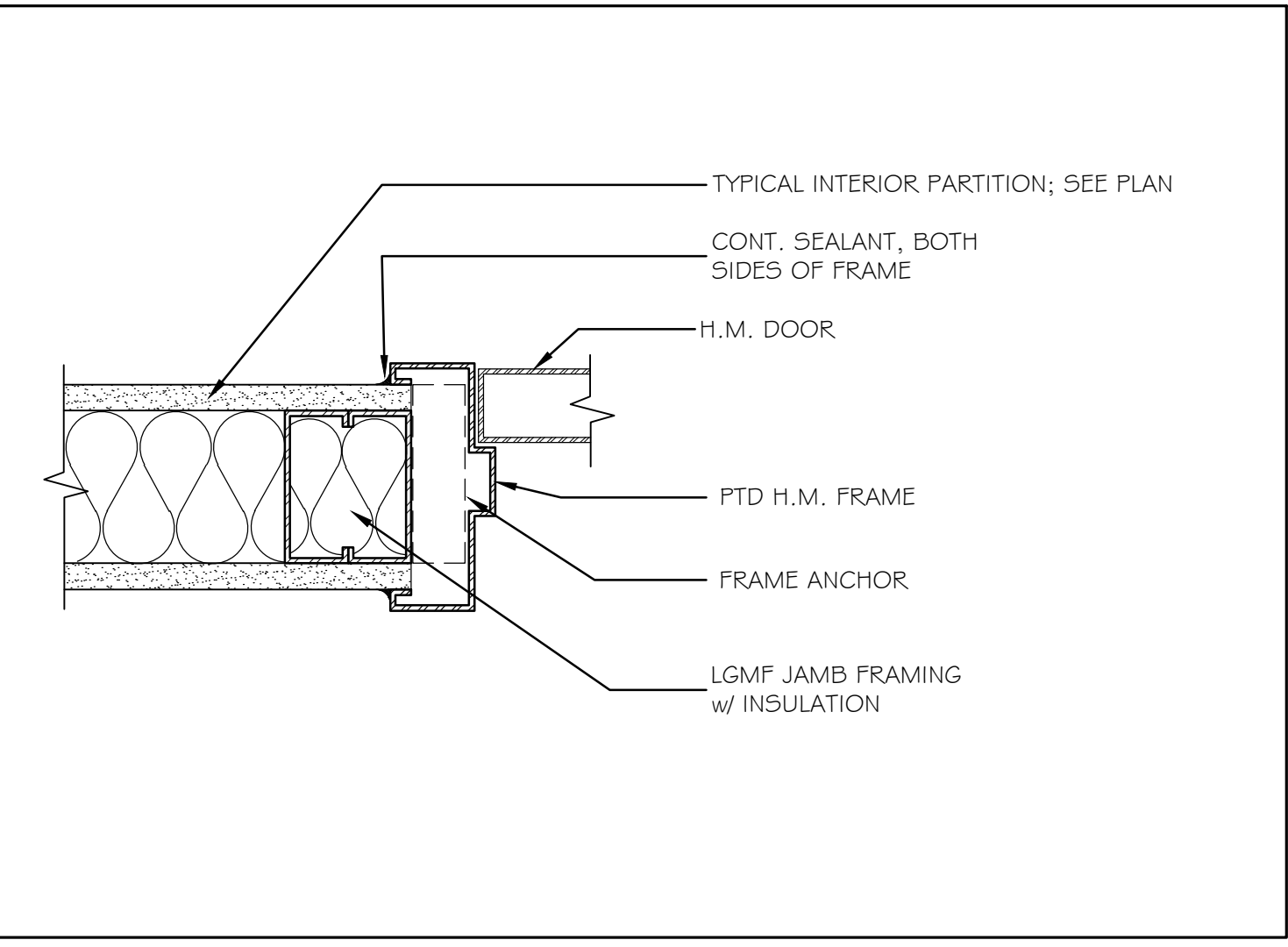
⑩ 2 HR RATED CEILING DETAIL AT WOOD TRUSS 3" = 1'-0"



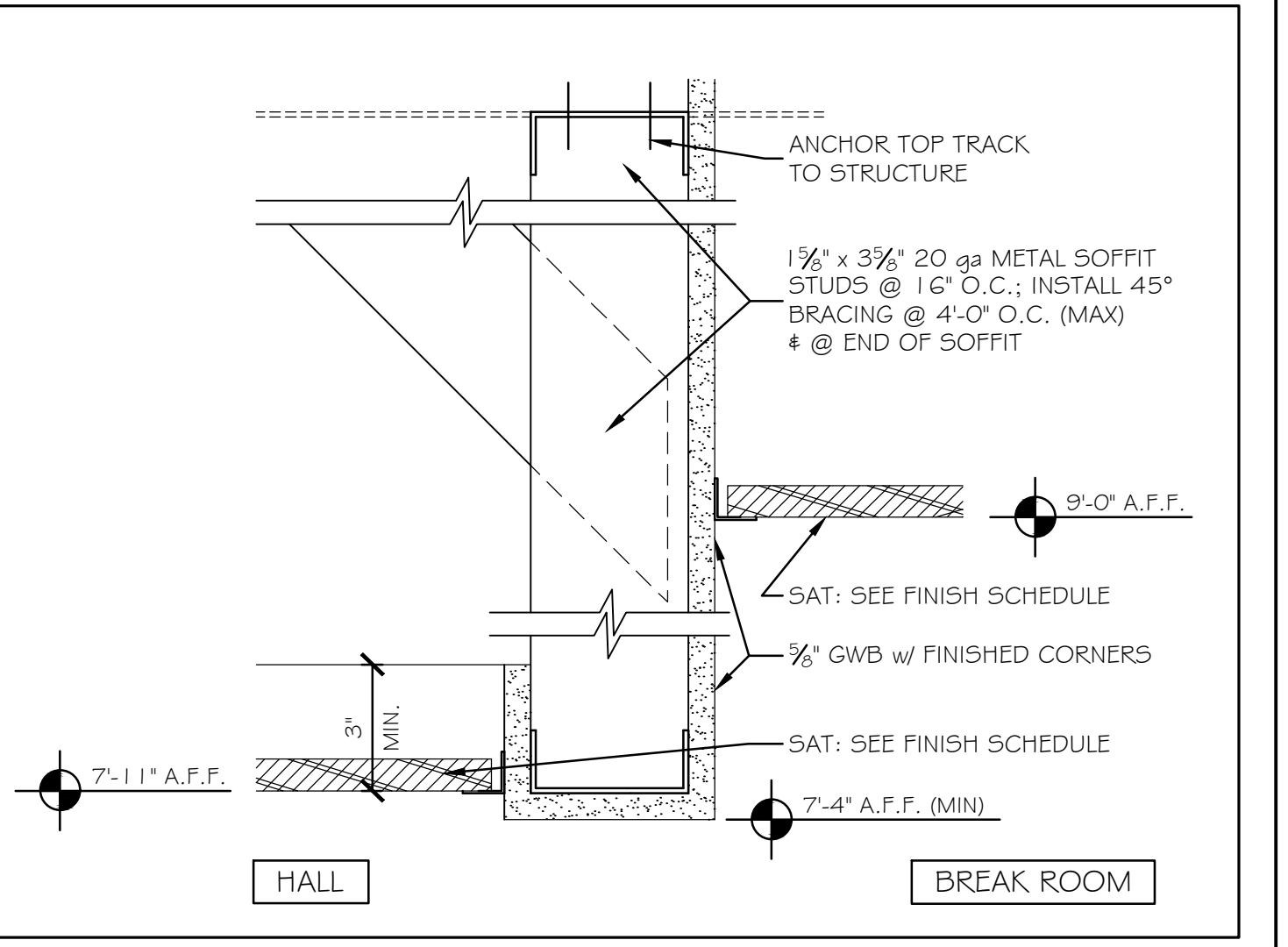
② EXTERIOR WINDOW JAMB 3" = 1'-0"



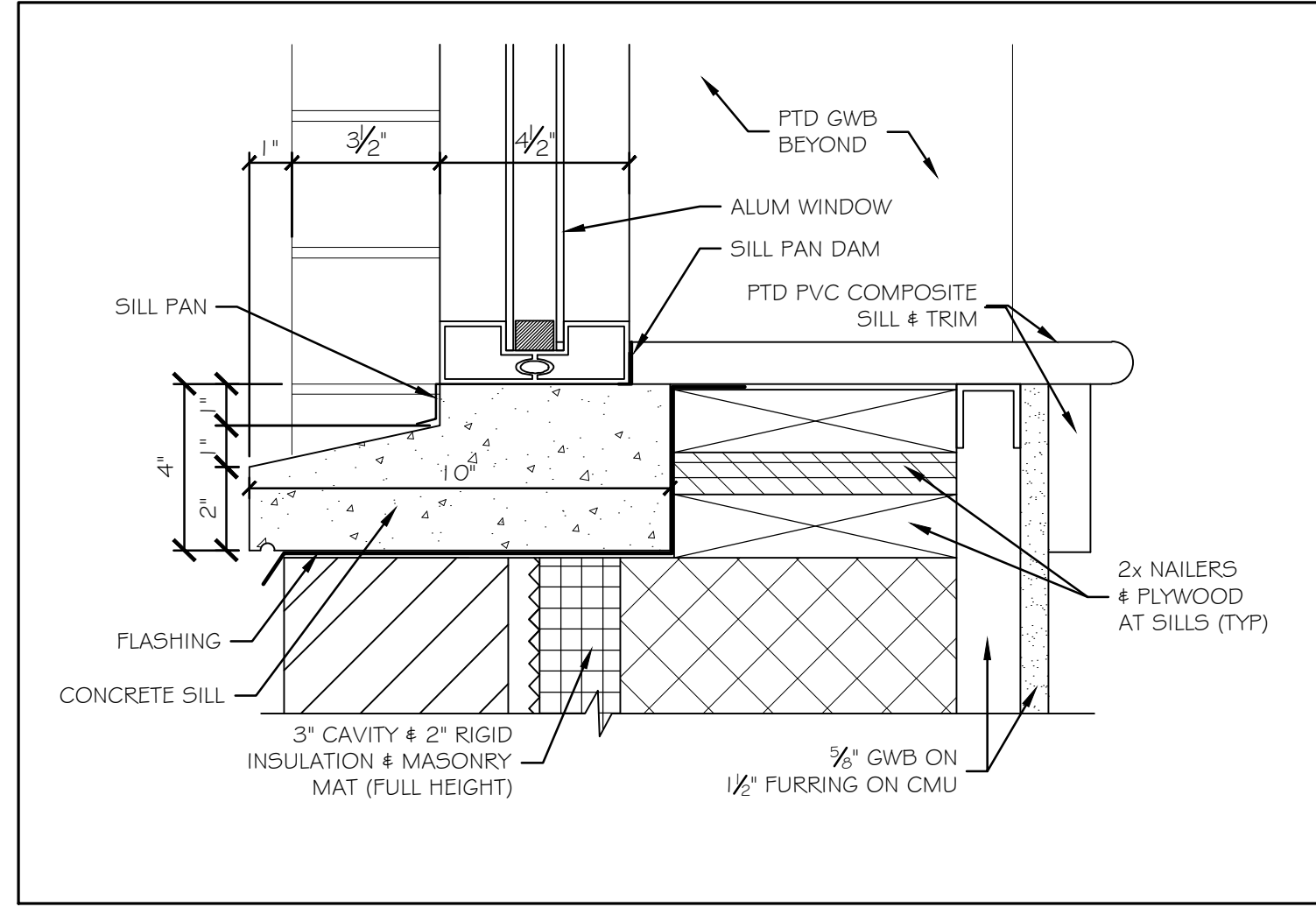
⑤ EXTERIOR DOOR HEAD @ STEEL FRAME 3" = 1'-0"



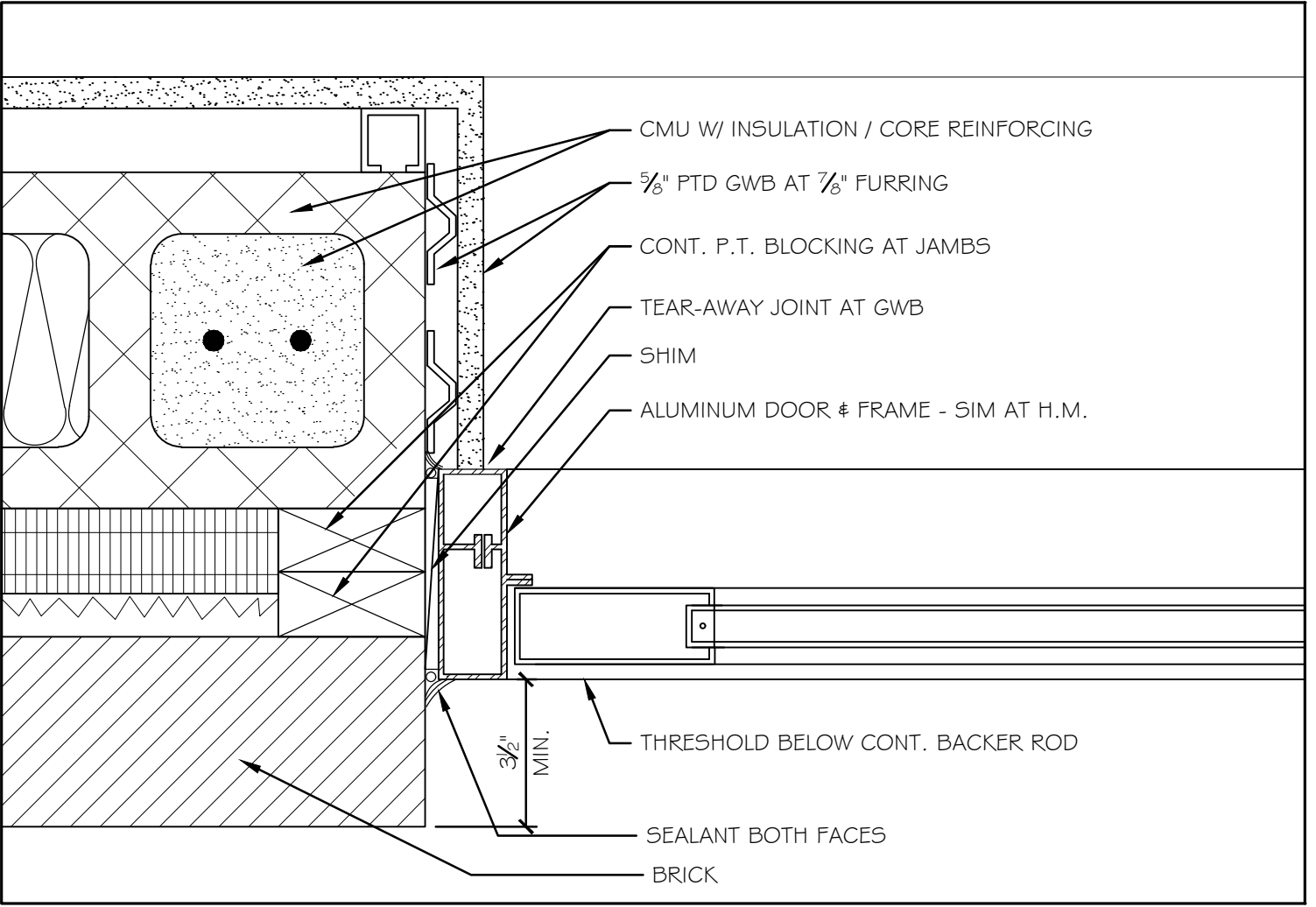
⑧ TYP. INTERIOR H.M. JAMB (HEAD SIM) 3" = 1'-0"



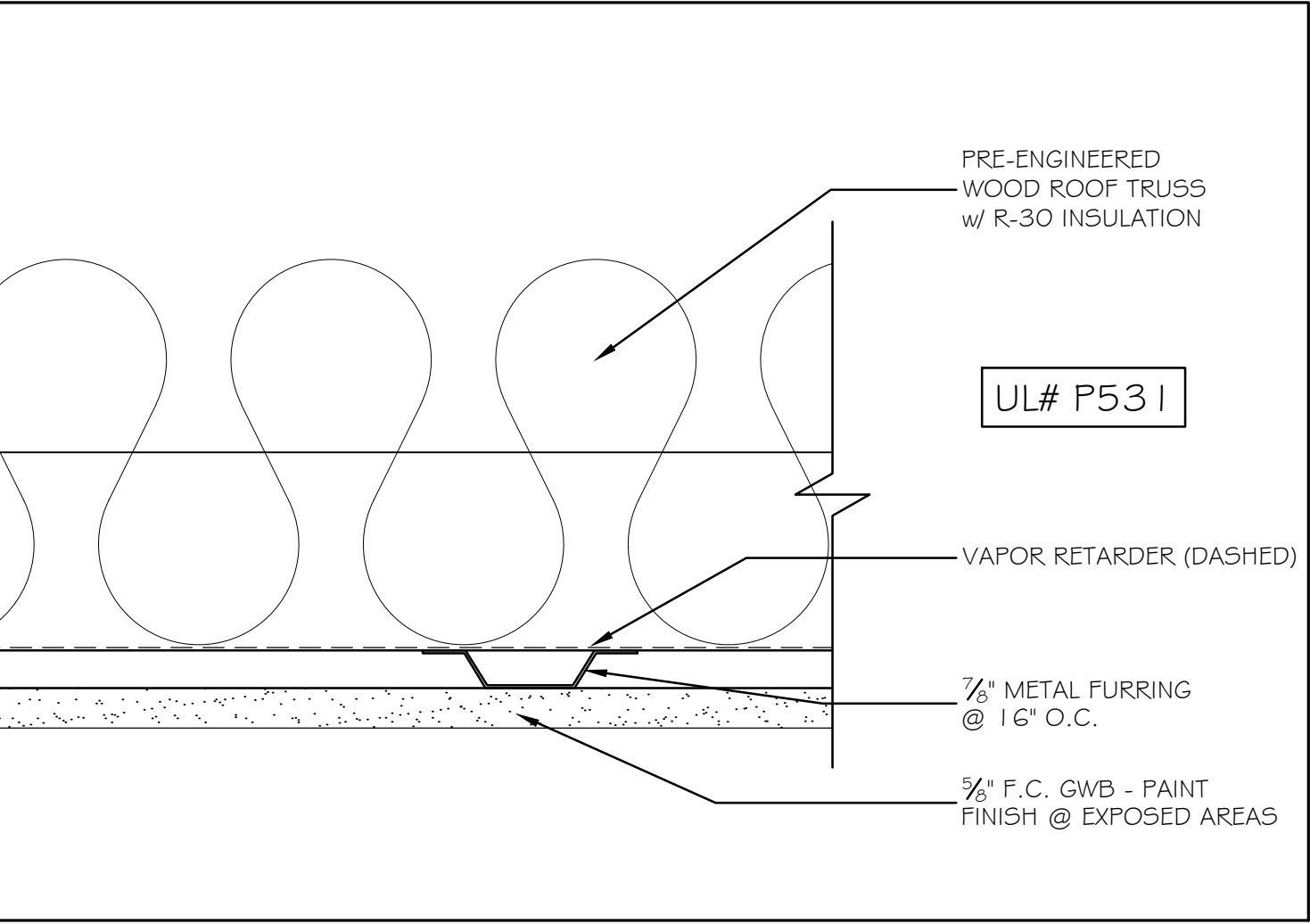
⑪ SOFFIT DETAIL AT BREAK ROOM 3" = 1'-0"



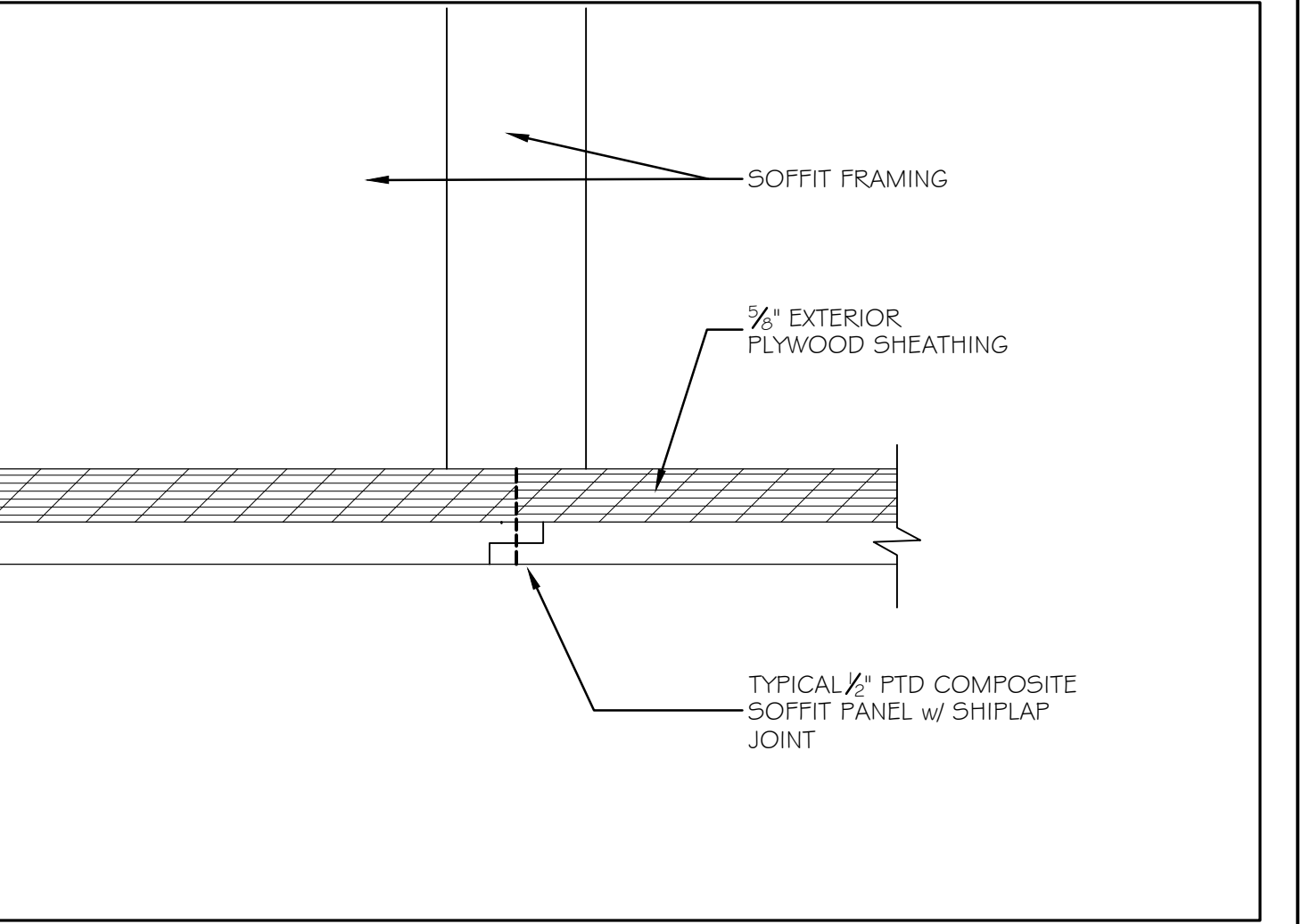
③ EXTERIOR WINDOW SILL 3" = 1'-0"



⑥ EXTERIOR DOOR JAMB DETAIL 3" = 1'-0"



⑨ HR RATED ROOF TRUSS DETAIL 3" = 1'-0"



⑫ SOFFIT JOINT DETAIL 6" = 1'-0"

Scale: AS NOTED

No.	Revision	By	Date

Designed by:
Michael F. Hays, RA

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
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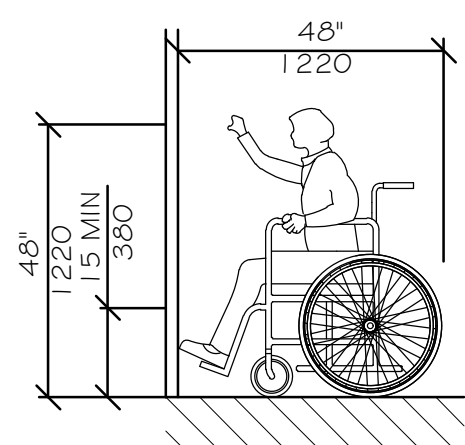
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THE GOLD STAR MEMORIAL HIGHWAY
MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

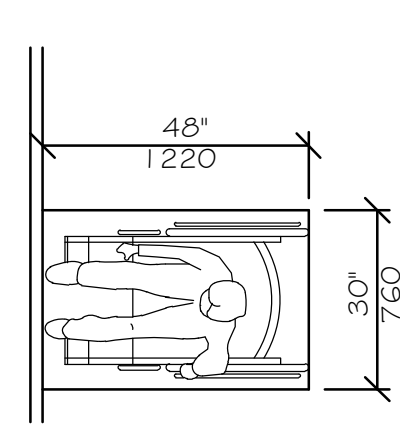
INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND TOLL ADMINISTRATION BUILDING
DETAILS

SHEET NUMBER: A12
676 OF 735

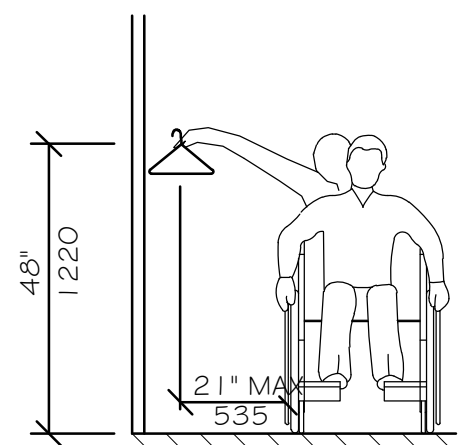
CONTRACT: 2022.07



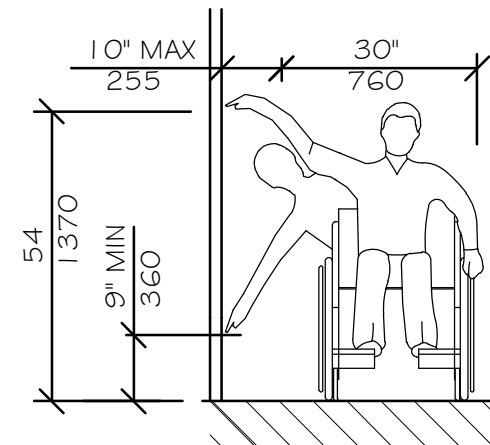
HIGH FORWARD REACH LIMIT
NTS



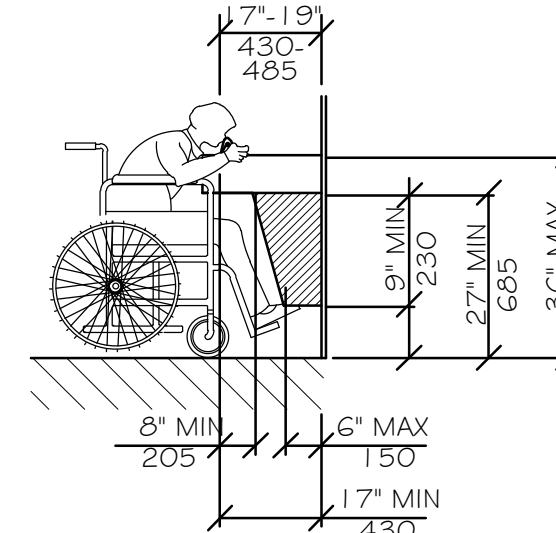
SHELVES
STORAGE SHELVES AND CLOSETS
NTS



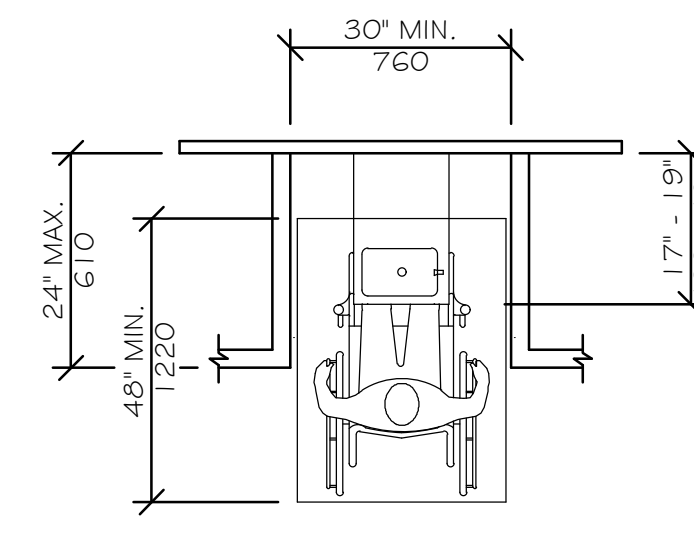
CLEAR FLOOR SPACE
PARALLEL APPROACH
NTS



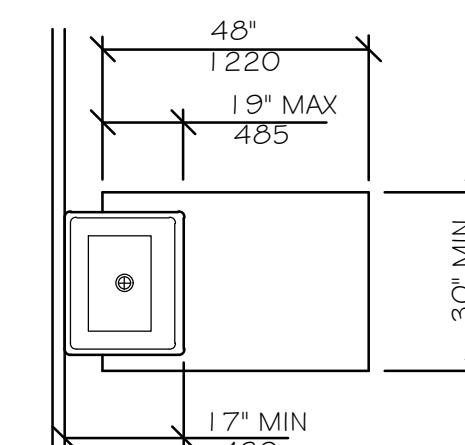
HIGH AND LOW
SIDE REACH LIMITS
NTS



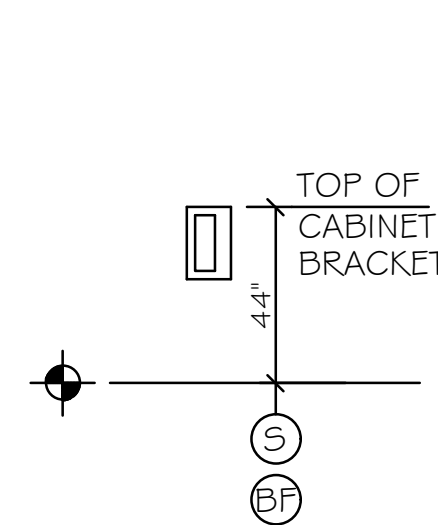
EQUIPMENT PERMITTED IN SHADED AREA
DRINKING FOUNTAIN SPOUT HEIGHT
AND KNEE CLEARANCE
NTS



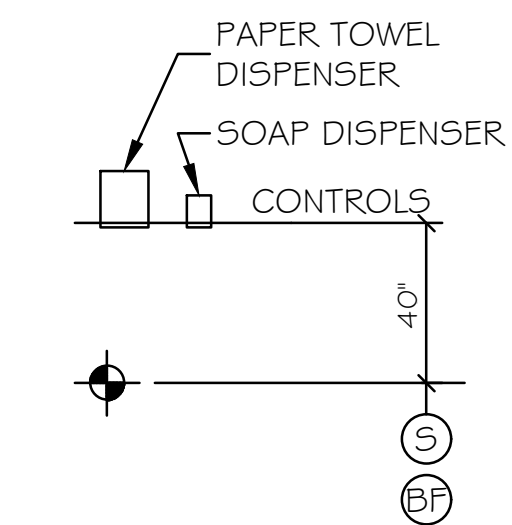
BOTTLE FILL /
DRINKING FOUNTAIN
NTS



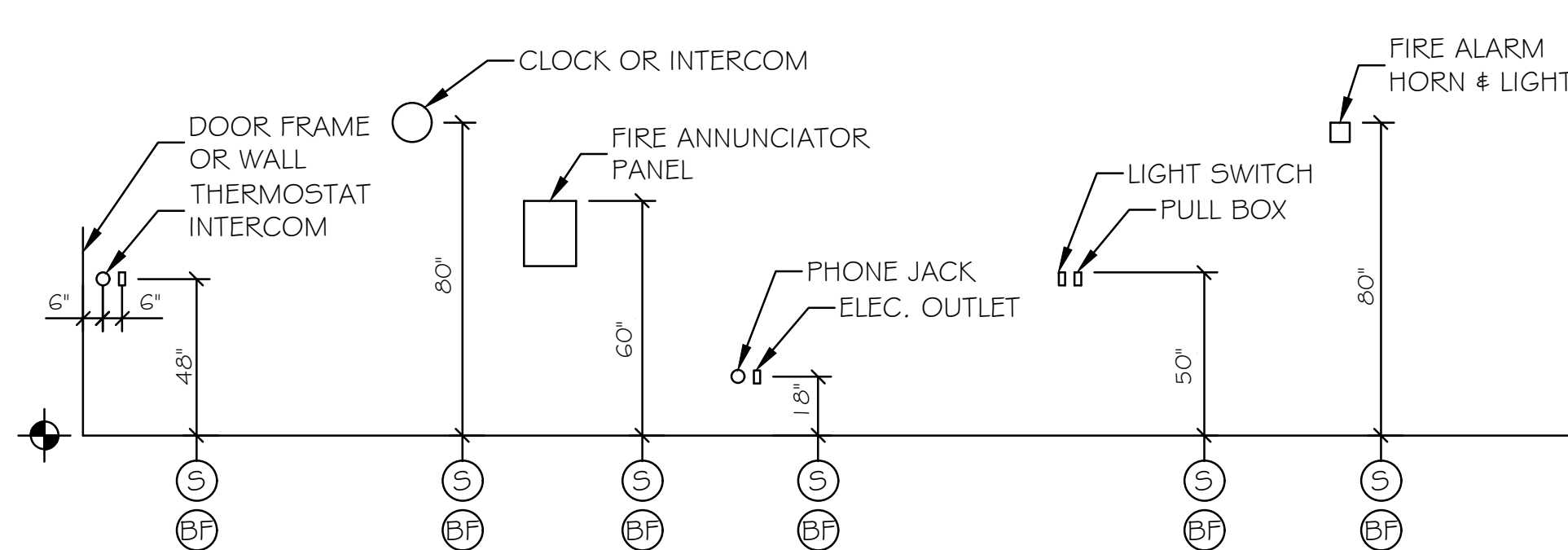
CLEAR FLOOR SPACE
AT LAVATORIES
NTS



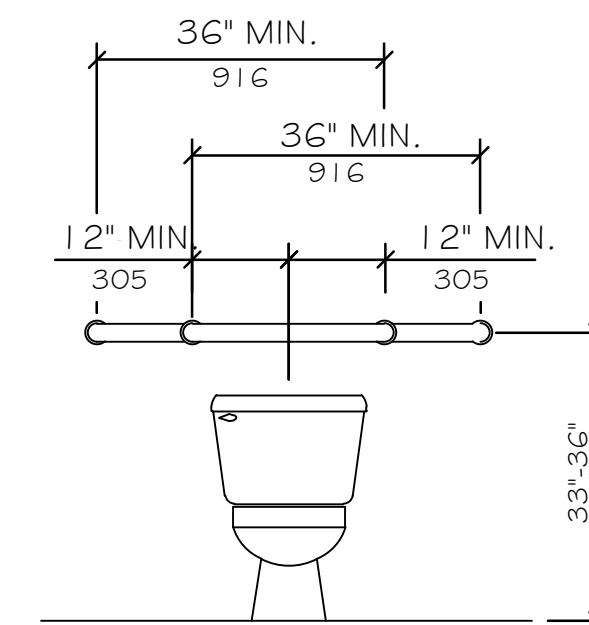
FIRE EXTINGUISHER
NTS



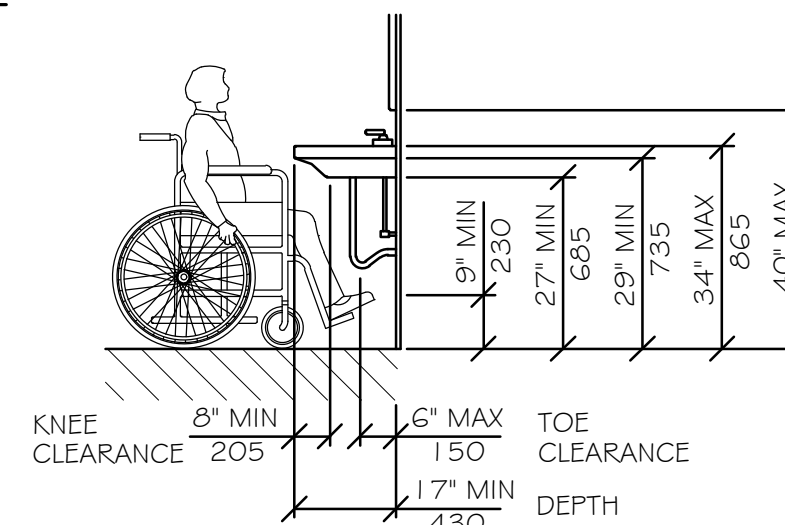
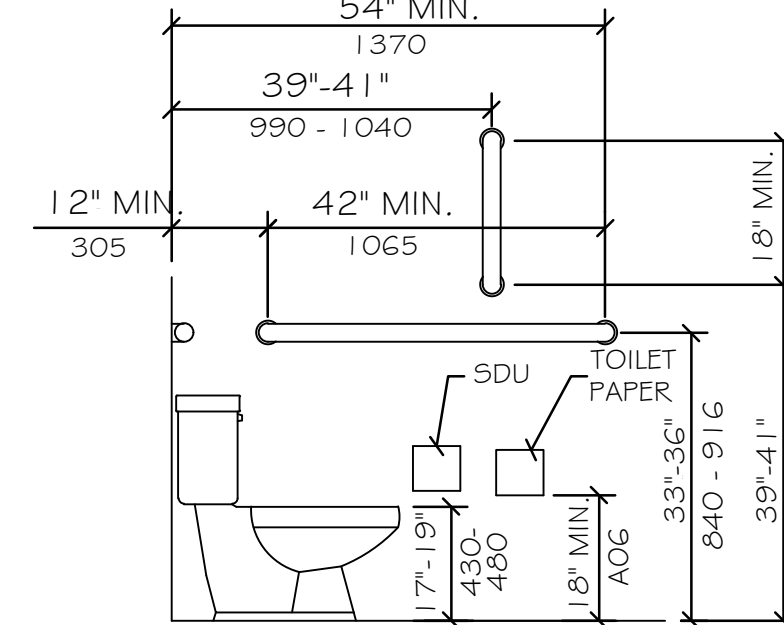
TOWEL & SOAP DISPENSERS
NTS



ELECTRICAL & FIRE PROTECTION DEVICES
(TYPICAL UNLESS OTHERWISE NOTED)
NTS



GRAB BARS AT WATER CLOSETS
NTS



LAVATORY CLEARANCES
NTS

LEGEND

- ⊙ STANDARD MOUNTING HEIGHT
- ⊙ BF BARRIER FREE ADULT MOUNTING HEIGHT
- ⊕ FINISH FLOOR LINE

NOTE

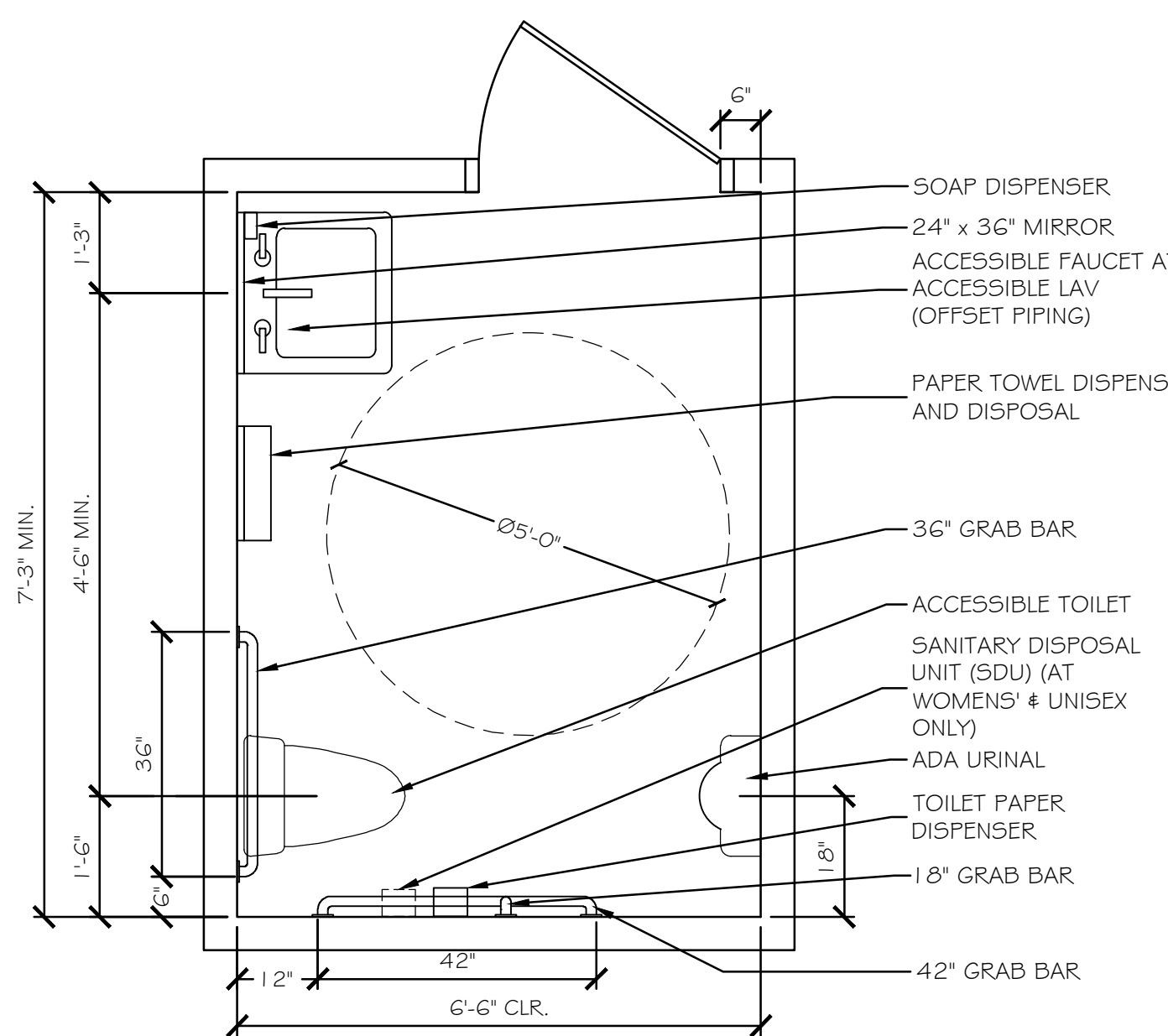
MOUNT ALL FIXTURES AT STANDARD MOUNTING HEIGHT UNLESS INDICATED ON PLAN BY A ⊙ SYMBOL. A ⊙ BF SYMBOL AT ANY ROOM SHALL INCLUDE ONE OF ANY FIXTURE AND ACCESSORY WITHIN THE ROOM.

ACCESSIBILITY ACCESSORY
MOUNTING HEIGHTS

GRAB BARS	33"-36"
TOILET PAPER HOLDER	19" MIN
TOWEL BAR/PAPER TOWEL DISPENSER	48" MAX
BUILT IN PAPER TOWEL DISPENSER	48" MAX
SOAP DISH/DISPENSER AT WALL	48" MAX
SANITARY DISPOSAL UNIT	19" MAX
MIRROR (BOTTOM)	40" MAX
SHELVES/STORAGE	48" MAX
ELECTRICAL SWITCHES/OUTLETS	48" MAX
COAT HOOKS/RODS	48" MAX
SIGNAGE (TO BRAILLE COMPONENT)	60" MAX

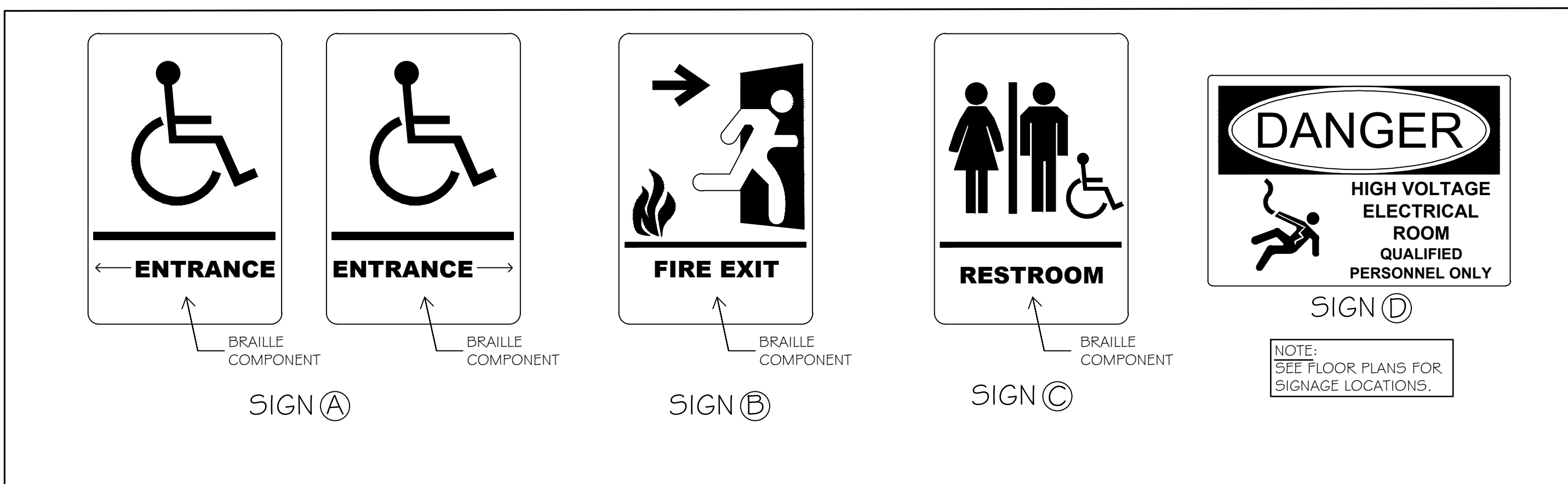
ACCESSIBILITY GENERAL NOTES

- DOORWAYS SHALL HAVE A MINIMUM CLEAR WIDTH OF 32" WITH THE DOOR OPEN 90 DEGREES. MEASURED BETWEEN THE FACE OF THE DOOR AND THE OPPOSITE STOP.
- ALL DOORS SHALL HAVE LEVER HANDLE HARDWARE, EXCEPT AT SECURED STORAGE ROOMS, MECHANICAL ROOMS, AND ELEVATOR MACHINE ROOMS.
- ALL CLOSERS SHALL BE 5LB PULL MAXIMUM AT DOORS EQUIPPED WITH LEVER HANDLE HARDWARE.
- ALL DOORS WITH CLOSERS SHALL HAVE 18" CLEAR DISTANCE FROM THE LATCHSIDE OF THE OPENING TO ANY ADJACENT WALL OR OBSTRUCTION ON THE PULL SIDE OF THE OPENING.
- ALL DOORS WITH CLOSERS SHALL HAVE 12" CLEAR DISTANCE FROM THE LATCHSIDE OF THE OPENING TO ANY ADJACENT WALL OR OBSTRUCTION ON THE PUSH SIDE OF THE OPENING.
- ALL SIGNAGE SHALL BE MOUNTED 60" AFF TO BRAILLE COMPONENT AT LATCH-SIDE WALL OF DOORS AND OPENINGS.
- COMPLY WITH 2010 EDITION OF THE AMERICANS WITH DISABILITIES ACT.



TYPICAL ACCESSORIES DIAGRAM
NTS

NOTE: SEE FLOOR PLAN FOR ACTUAL ROOM LAYOUT.



ACCESSIBILITY SIGNAGE DETAILS

NO SCALE

Scale: NO SCALE

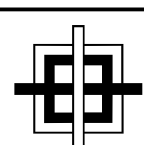
Designed by:

Michael F. Hays, RA



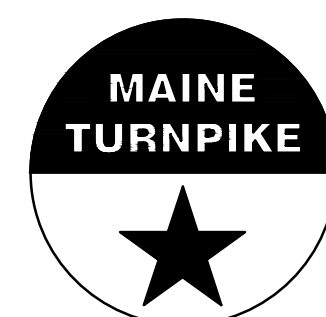
CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

	By	Date	By	Date	
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MKG	10/05/22	In Charge of		



GRANT HAYS
ASSOCIATES

ARCHITECTURE & INTERIOR DESIGN
P.O. BOX 6179 FALMOUTH MAINE 04105
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THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
SOUTHBOUND TOLL ADMINISTRATION BUILDING
ACCESSIBILITY DETAILS & NOTES

SHEET NUMBER: A13

CONTRACT: 2022.07

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ABBREVIATIONS

#	AND	JT	JOINT
Z	ANGLE		
@	AT		
<	CENTER LINE		
~	DIAMETER OR ROUND	LAM	LAMINATE(D)
#	FOUND OR NUMBER	LAV	LAVATORY
ACOUS	ACOUSTICAL	MAX	MAXIMUM
A.C.T.	ACOUSTICAL CEILING TILE	MECH	MECHANICAL
A.F.F.	ABOVE FINISHED FLOOR	MEMB	MEMBER
ALUM	ALUMINUM	MTL	METAL
APPROX	APPROXIMATE	MFR	MANUFACTURER
ARCH	ARCHITECTURAL	MIN.	MINIMUM
		MISC.	MISCELLANEOUS
		MO	MASONRY OPENING
BD	BOARD	NIC	NOT IN CONTRACT
BFDF	BOTTLE FILL / DRINKING FOUNTAIN	NTS	NOT TO SCALE
BLDG	BUILDING		
BLKG	BLOCKING		
C.J.	CONTROL JOINT	O.C.	ON CENTER
CLG	CEILING	OD	OUTSIDE DIAMETER
CLO	CLOSET	OPG	OPENING
CLR	CLEAR	OPP	OPPOSITE
CMU	CONCRETE MASONRY UNIT	OVHD	OVERHEAD
CO	CASED OPENING		
CONC	CONCRETE	P.LAM	PLASTIC LAMINATE
CONSTR	CONSTRUCTION	PL	PLATE
CONT.	CONTINUOUS	PLYWD	PLYWOOD
CONTR	CONTRACTOR	PTD	PAINTED
CT	CERAMIC TILE		
CU. FT.	CUBIC FEET		
		R	RISER
		RAD	RADIUS
		REINF	REINFORCED
		REQ'D	REQUIRED
DET	DETAIL	SAT	SUSPENDED ACOUSTICAL
D.F.	DRINKING FOUNTAIN		CEILING
DIA	DIAMETER	SAF.	SAFETY
DIM	DIMENSION	SH	SHELF
DISP	DISPENSER	SHT(S)	SHEET (SHEETS)
DN	DOWN	SIM	SIMILAR
DS	DOWNSPOUT	SPEC	SPECIFICATION
DWG	DRAWING	SS	STAINLESS STEEL
		STOR	STORAGE
		STD	STANDARD
		STL	STEEL
		STRUCT.	STRUCTURAL
		SUSP	SUSPENDED
		TH	THICK
		TOC	TOP OF CURB
		TOS	TOP OF SLAB
		TR	TREAD
		TS	TUBE SHAPE
		TYP	TYPICAL
FD	FLOOR DRAIN		
FE	FIRE EXTINGUISHER		
FIN. FL.	FINISH FLOOR		
GA	GAUGE	UNO	UNLESS NOTED OTHERWISE
GALV	GALVANIZED		
GWB	GYPSPUM WALL BOARD	VCT	VINYL COMPOSITION TILE
HGT	HEIGHT		
HM	HOLLOW METAL	W/	WITH
HP	HANDICAPPED	WC	WATER CLOSET
		WD	WOOD
ID	INSIDE DIMENSION		
INSUL	INSULATION, INSULATED		
INT	INTERIOR		

NFPA 101 LIFE SAFETY CODE - 2021 Edition

Building Classification: Business - (833 sf)
 Construction Type: V/000
 Hazard Classification: Ordinary Hazard
 Occupant Loads: 616 sf Office @ 150 sf/occ = 5 Occupants
 217 sf Storage @ 500 sf/occ = 1 Occupant
 Total Occupant Load = 6 Occupants
 1 hour if over 100 sf
 7'-6" at occupied areas

Janitor, Mech, Storage Rating:
 Minimum Headroom:

Building Uses Business

Max. Allowable Travel Distance: 200'
 Max. Allowable Common Path: 100' (under 30 occupants)
 Max. Dead End Corridor Length: 20'
 Minimum Egress Corridor Width: 36" (under 50 occupants)
 Minimum Number of Required Exits: 2
 Minimum Exit Access Corridor rating: 1 hr
 Separation of exits: 0.5 diagonal distance (19'-6" min)
 Minimum Egress Door Width: 36"
 Exit Lighting: Required
 Emergency Lighting: Not Required
 Fire Alarm System: Not Required
 Fire Sprinkler System: Not Required
 Portable Fire Extinguishers: Required

Interior Finishes - Walls & Ceilings: Egress Corridors: Class A or B
 Other Areas: Class A, B, or C
 Class I or II

Interior Finishes - Floors: Class I or II

2018 INTERNATIONAL BUILDING CODE

Use Group Classification: Business (B) - 833 sf
 Hazard Classification: Ordinary Hazard
 Occupant Loads: 616 sf Office @ 150 sf/occ = 5 Occupants
 217 sf Storage @ 300 sf/occ = 1 Occupant
 Total Occupant Load = 6 Occupants

Building Limitations

Construction Type: 5B
 Maximum Height: 2 Story / 40'
 Maximum Area / Floor: 9,000 sf

Fire Resistance Ratings

Structural Frame: None
 Load Bearing Exterior Walls: None
 Load Bearing Interior Walls: None
 Mechanical Rooms: 1 hour
 Exit Corridors: 1 hour
 Roof/Floor Structure: None

Minimum Number of Exits: 2
 Maximum Exit Travel Distance: 200'
 Maximum Dead End Corridor Length: 20'
 Maximum Common Travel Path: 75'
 Minimum Corridor Width: 36" (under 50 occupants)

Fire Alarm/Detection System: Not Required
 Fire Sprinkler System: Not Required
 Portable Fire Extinguishers: Required
 Exit Lights: Required
 Emergency Lighting: Required

Building Live Loads
 Offices: 100 psf
 Corridors: 80 psf

Interior Finishes at Walls & Ceilings: Exit Passageways - Class A
 Corridors - Class B
 Rooms & other enclosed spaces - Class C

MATERIALS

	CONCRETE
	CONCRETE MASONRY UNIT
	BATT INSULATION
	PRECAST STONE
	BRICK
	EARTH
	GRAVEL
	PLYWOOD
	RIGID INSULATION
	METAL
	ROUGH WOOD
	FINISHED WOOD

MAINE STATE PLUMBING CODE/UPC

Occupancy Classification: Business Office
 Occupancy Area: 833 sf
 Occupancy Load: 6

Office: 6 Occupants (3 Male/3 Female)

FIXTURES	TOILETS	URINALS	LAVS
Unisex Toilet Room (Less than 10 Occupants)	1	0	1

Drinking Fountain: 1 required per 150 occupants
 Service Sink: 1 required

2021 INTERNATIONAL ENERGY EFFICIENCY CODE (IECC)

MUBEC (Maine Uniform Building & Energy Code)

MINIMUM INSULATION VALUES

Per 2021 IECC; Table C402.1.3, C402.1.4 and C402.4

ZONE G	R-VALUE	U-FACTOR	SHGC
Attic Roof	49	0.021	NA
Mass Wall (above grade)	13.3 ci	0.080	NA
Mass Wall (below grade)	7.5 ci	0.119 ci	NA
Unheated Slab (for 24" below)	10	F-0.54	NA
Doors - Swinging	NA	0.37	NA
Windows - Fixed	NA	0.36	0.40 SEW/0.53 N
Entrance Doors	NA	0.77	0.40 SEW/0.53 N

c.i. - Continuous Insulation

SYMBOLS

	ROOM NUMBER
	DOOR NUMBER
	REVISION NUMBER
	WINDOW TYPE
	PARTITION TYPE
	ELEVATION NUMBER
	INTERIOR ELEVATIONS
	BUILDING SECTION
	WALL SECTION
	DETAIL REFERENCE
	DETAIL REFERENCE
	FIN. FL. ELEV. XXX.X
	FIN. FL. ELEV. XXX.X

GENERAL NOTES:

- THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING THE WORK AND REPORT ANY DISCREPANCIES TO THE ARCHITECT. CONTRACTOR SHALL PROCEED WITH THE WORK ONLY AFTER SUCH DISCREPANCIES HAVE BEEN RESOLVED BY THE ARCHITECT. CONTRACTOR SHALL ALLOW A 48 HOUR TIME FRAME FOR RESOLVING DISCREPANCIES ONCE THE ARCHITECT HAS ACKNOWLEDGED THE CONDITION.
- CONTRACTOR SHALL REVIEW AND VERIFY ALL EXISTING CONDITIONS PRIOR TO STARTING THE WORK IN ANY GIVEN AREA.
- WORK WITH GIVEN DIMENSIONS AND LARGE SCALE DETAILS. DO NOT SCALE THE DRAWINGS AS THE REPRODUCTIVE PROCESS TENDS TO DISTORT THE ACCURACY OF THE GRAPHIC SCALE INDICATED.
- ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE PRESERVATIVE TREATED.
- INSTALL SOLID BLOCKING AT WALL FRAMING BEHIND ALL SURFACE MOUNTED FIXTURES, TRIM AND HANDRAILS.
- ALL GRAB BARS SHALL BE ABLE TO SUPPORT A DEAD WEIGHT OF 250 LBS AT ANY POINT.
- THE LOCATION OF ANY DOOR JAMBS NOT DIMENSIONED SHALL BE 6" FROM ADJACENT PERPENDICULAR WALL.
- ALL WALL PARTITIONS SHALL EXTEND FLOOR TO STRUCTURE ABOVE, UNLESS OTHERWISE NOTED.
- ALL NEW SHEETROCK IN WET AREAS (PLUMBING FIXTURES) SHALL BE MOISTURE RESISTANT TYPE, UNLESS OTHERWISE NOTED.
- REFER TO ACCESSIBILITY DETAIL SHEET FOR AMERICANS WITH DISABILITIES ACT (ADA) CONSTRUCTION CRITERIA.
- MAINE TURNPIKE AUTHORITY UTILITY & EQUIPMENT ROOM SHALL BE TWO HOUR (2 HR) FIRE RATED.

Scale:

No.	Revision	By	Date

Designed by:

Michael F. Hays, RA

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

By	Date	By	Date
Designed	MFH 10/05/22	Checked	MFH 10/05/22
Drawn	MKG 10/05/22	In Charge of	

GRANT HAYS ASSOCIATES

ARCHITECTURE & INTERIOR DE/IGN
 P.O. BOX 6179 FALMOUTH MAINE 04105
 207.871.5900 www.granthays.com

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36)

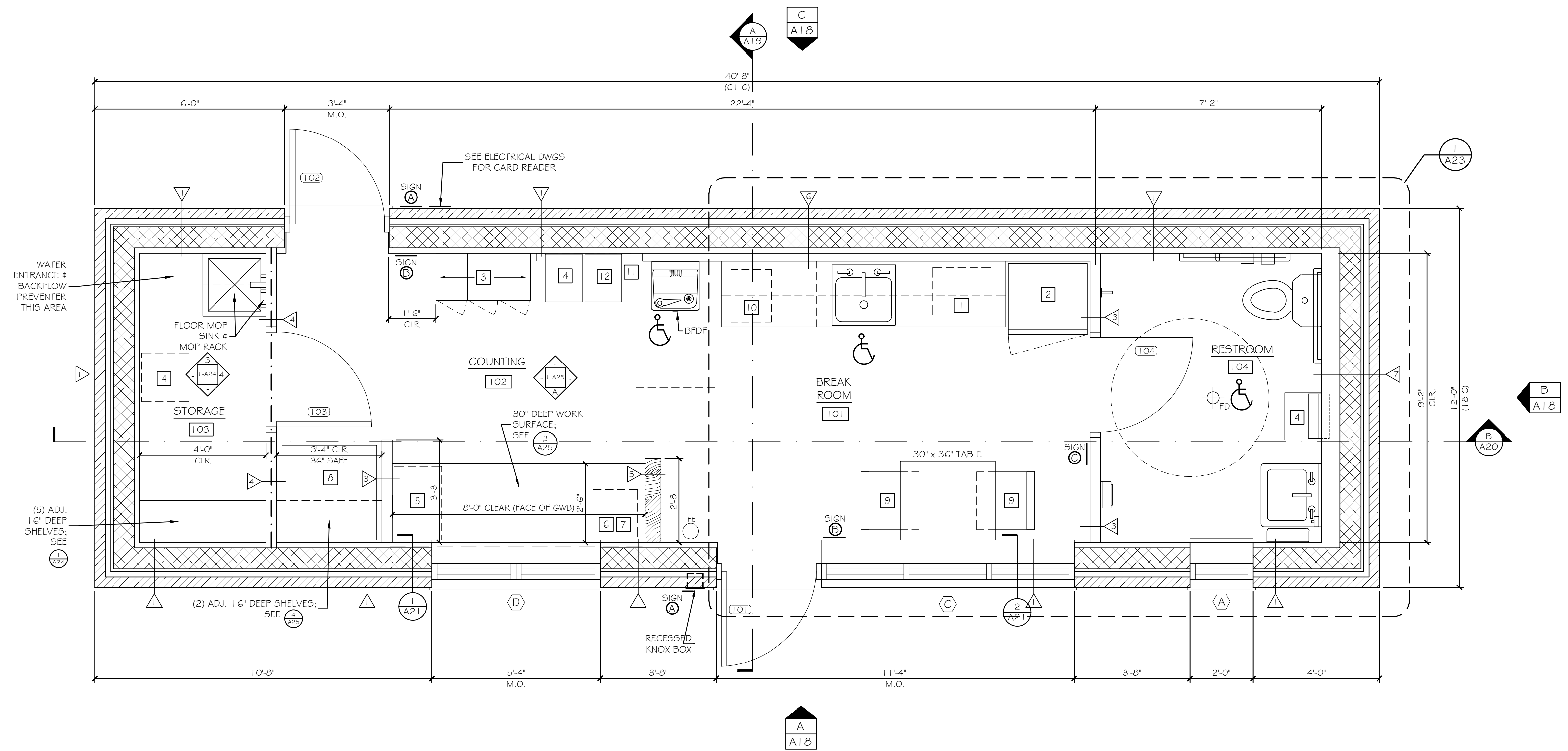
NORTHBOUND TOLL ADMINISTRATION BUILDING

ABBREVIATIONS, LEGENDS & SYMBOLS

SHEET NUMBER: A14

CONTRACT: 2022.07

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

EQUIPMENT TYPES:

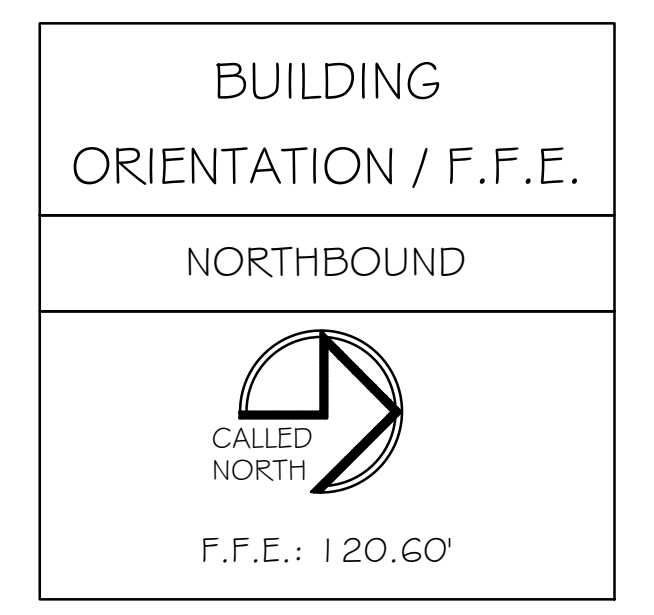
- 1 MICROWAVE OVEN
- 2 REFRIGERATOR
- 3 LOCKERS - 2 TIER (12" W x 18" D)
- 4 TRASH BIN - N.I.C.
- 5 FILE CABINET - 2 DRAWER - N.I.C.
- 6 COIN SORTER - N.I.C.
- 7 CURRENCY SCANNER - N.I.C.
- 8 SAFE - N.I.C.
- 9 ROLLING CHAIR - N.I.C.
- 10 COFFEE MAKER - N.I.C.
- 11 BULLETIN BOARD - N.I.C. (INSTALL BLOCKING AT FRAMING)
- 12 RECYCLE BIN - N.I.C.

PARTITION TYPES

TAG	DETAIL
1	A2G
2	A2G
3	A2G
4	A2G
5	A2G
8	A2G
9	A2G

NOTES:

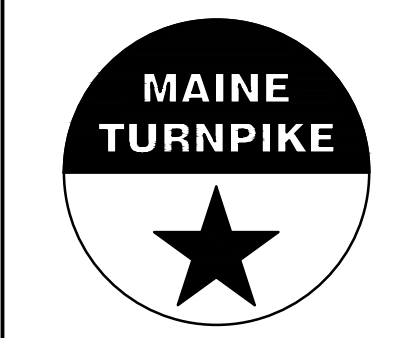
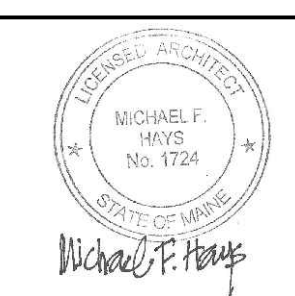
1. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS & SIZES OF ALL DIFFUSERS, GRILLES, & EQUIPMENT.
2. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS & SIZES OF ALL LIGHT FIXTURES & DEVICES.
3. REFER TO ELECTRICAL DRAWINGS FOR HEAT TAPE AT GUTTERS.
4. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF FIRE ALARM DEVICES.
5. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF CARD READER DEVICES (PROVIDED BY MTA).



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

Designed by:

Michael F. Hays, RA



THE GOLD STAR MEMORIAL HIGHWAY

**INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND TOLL ADMINISTRATION BUILDING
FLOOR PLAN**

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE					
	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MGK	10/05/22	In Charge of		

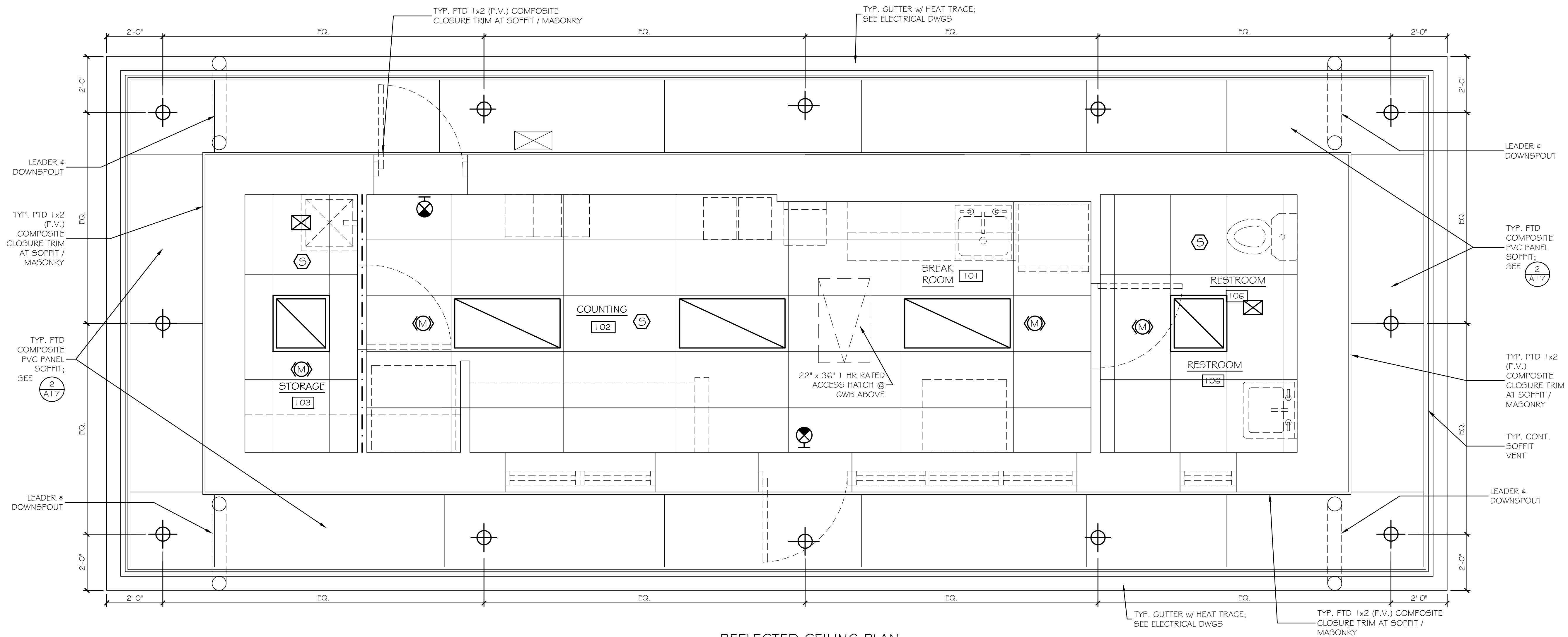
ARCHITECTURE & INTERIOR DESIGN
P.O. BOX 6179 FALMOUTH MAINE 04105
207.871.5900 www.granthays.com

MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

CONTRACT: 2022.07

SHEET NUMBER: A15

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REFLECTED CEILING PLAN

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

NOTES:

1. SEE (9/A27) FOR F.C. GWB / 1 HR RATED ASSEMBLY AT ROOF TRUSSES - ENTIRE BUILDING.
2. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS & SIZES OF ALL DIFFUSERS, GRILLES, & EQUIPMENT.
3. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS & SIZES OF ALL LIGHT FIXTURES & DEVICES.
4. REFER TO ELECTRICAL DRAWINGS FOR HEAT TAPE AT GUTTERS.
5. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF FIRE ALARM DEVICES.
6. PROVIDE EXPANSION TRIM ACCESSORIES & ANCHORS PER SOFFIT PANEL MANUFACTURER INSTRUCTIONS AT ALL EXTERIOR COMPOSITE PVC SOFFIT PANEL LOCATIONS.

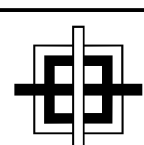
LEGEND:

- | | | | |
|--|------------------------------------------------------------|--|-------------------------------------------------|
| | PAINTED SHEETROCK CEILING (RATED) | | CABINET UNIT HEATER |
| | SUSPENDED ACOUSTICAL CEILING | | DUAL SUPPLY / RETURN |
| | PAINTED SHEETROCK SOFFIT @ 7'-4" A.F.F. (MIN) SEE (11/A27) | | HVAC SUPPLY |
| | SOFFIT LIGHT FIXTURE | | HVAC RETURN |
| | EXIT LIGHT FIXTURE | | EXHAUST FAN |
| | SURFACE LIGHT FIXTURE (EMERGENCY POWERED) | | SENSORS; SEE ELECTRICAL DRAWINGS |
| | LAY-IN LIGHT FIXTURE (EMERGENCY POWERED) | | SMOKE / HEAT DETECTORS; SEE ELECTRICAL DRAWINGS |

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

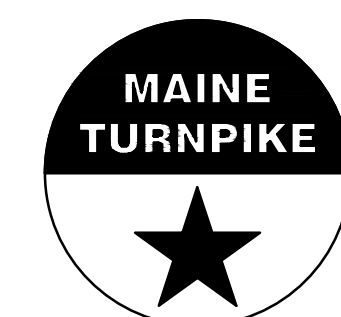
Designed by:

Michael F. Hays, RA



GRANT HAYS ASSOCIATES

ARCHITECTURE & INTERIOR DESIGN
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207.871.5900 www.granthays.com



THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

**INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND TOLL ADMINISTRATION BUILDING
REFLECTED CEILING PLAN**

SHEET NUMBER: A16

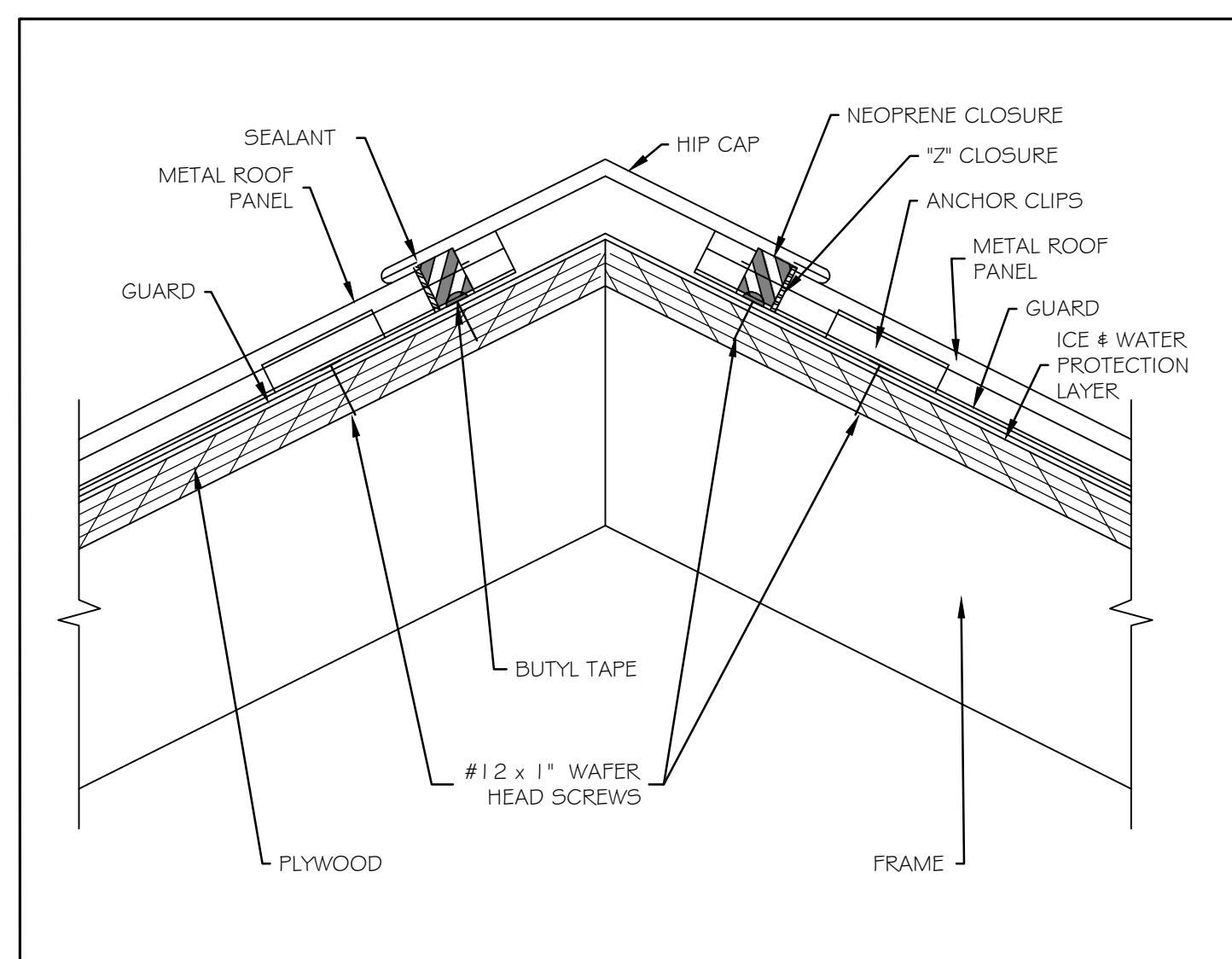
CONTRACT: 2022.07

680 OF 735

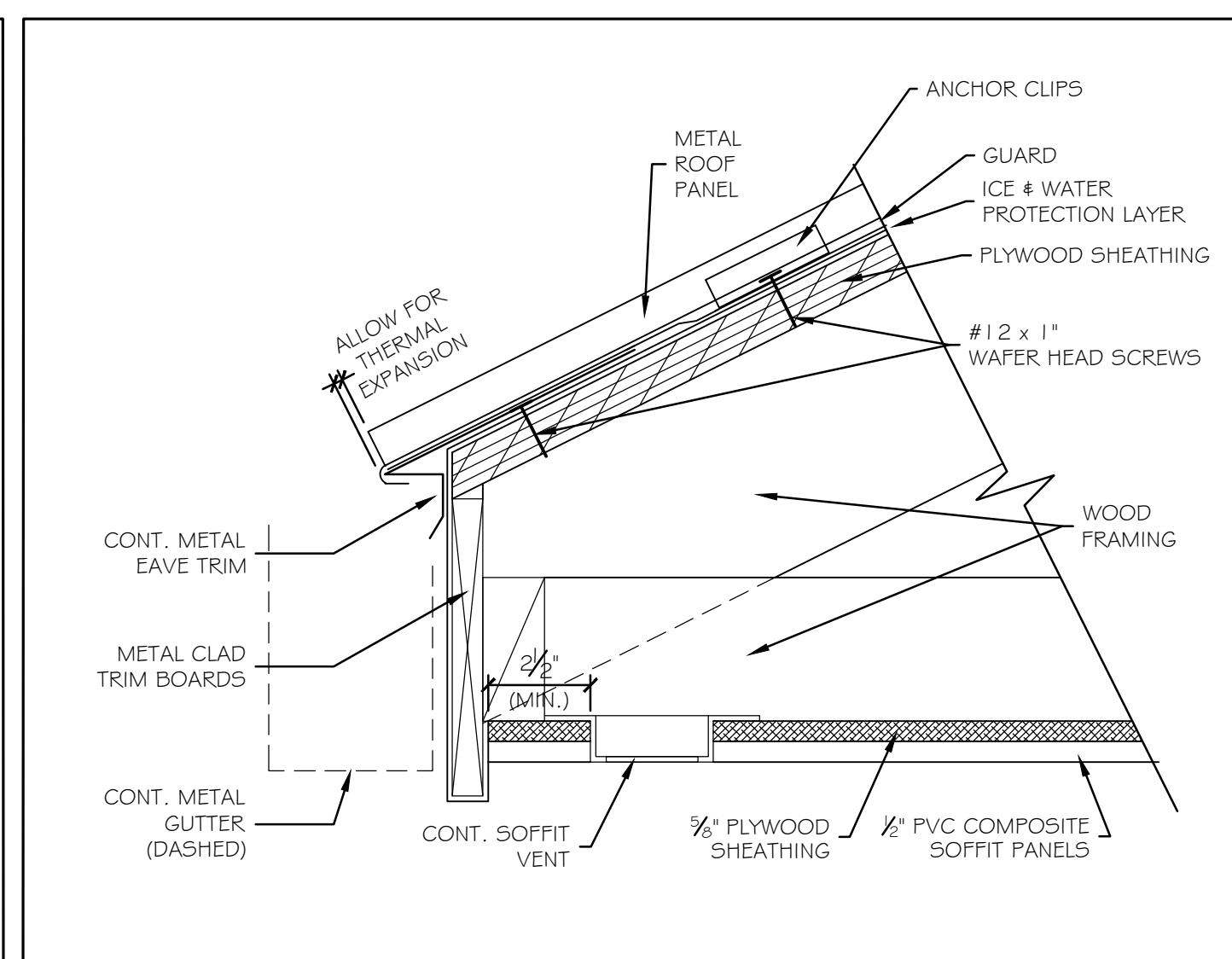
No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

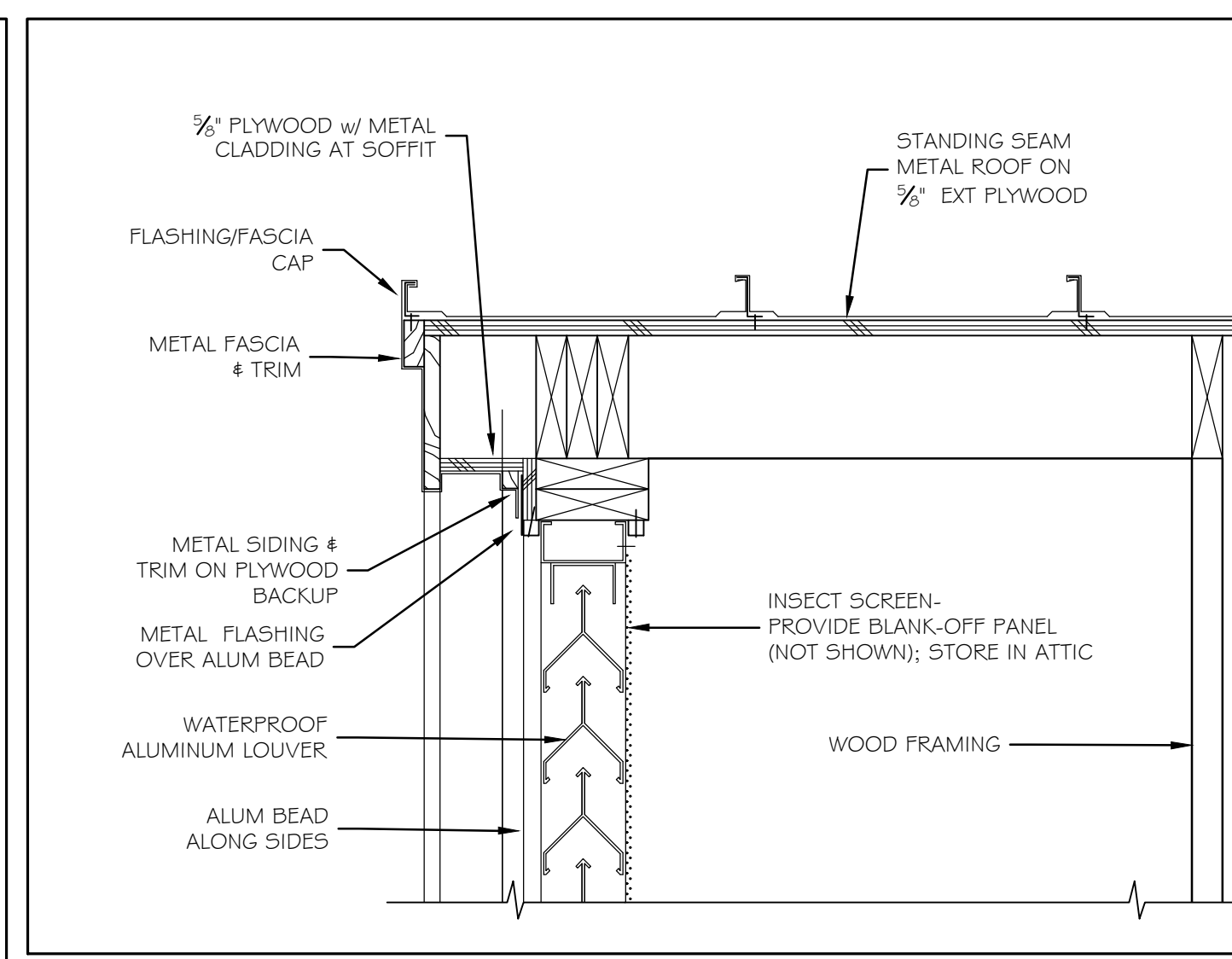
	By	Date	By	Date	
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MGK	10/05/22	In Charge of		



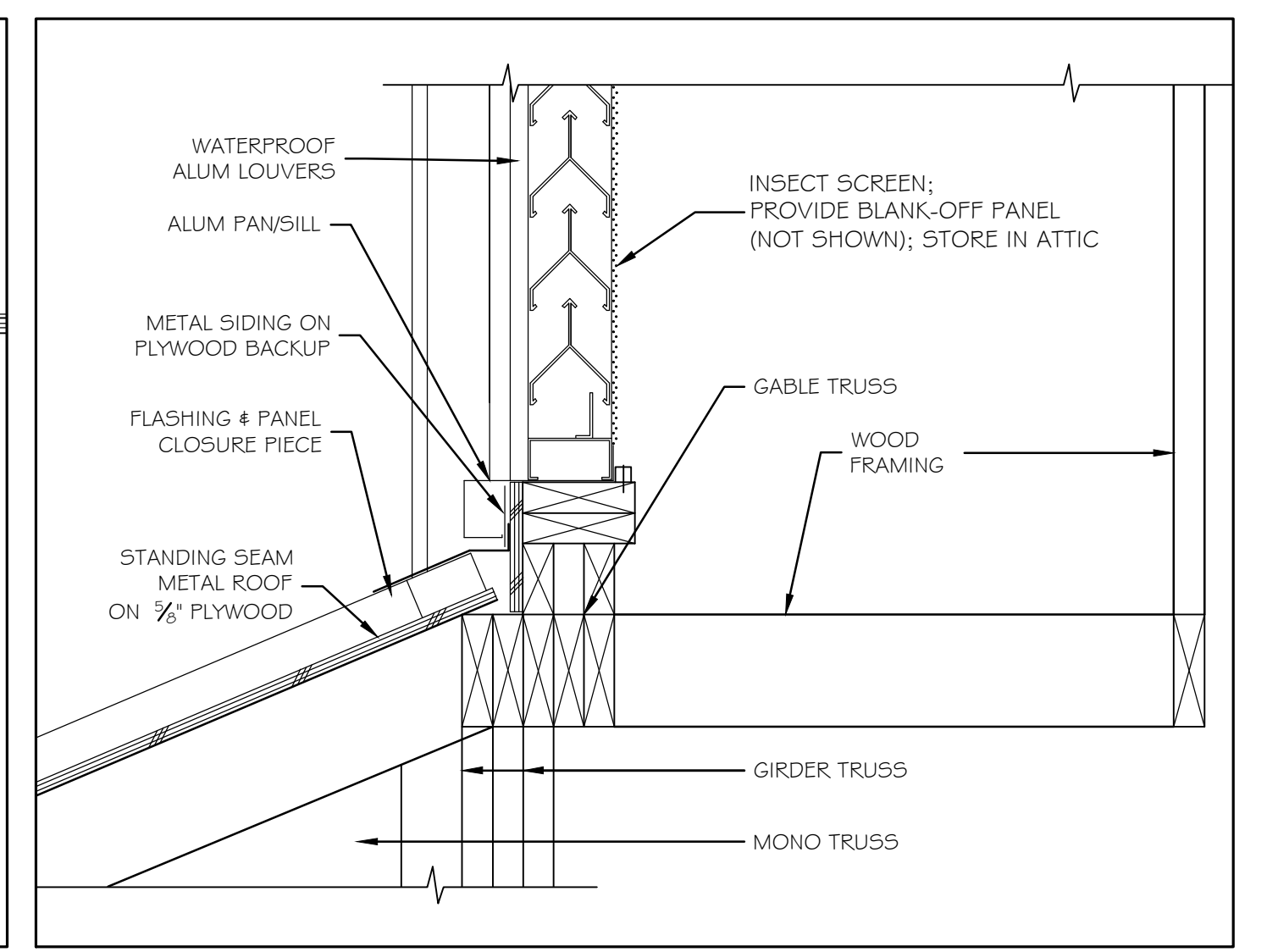
① ROOF HIP / RIDGE DETAIL 1/2" = 1'-0"



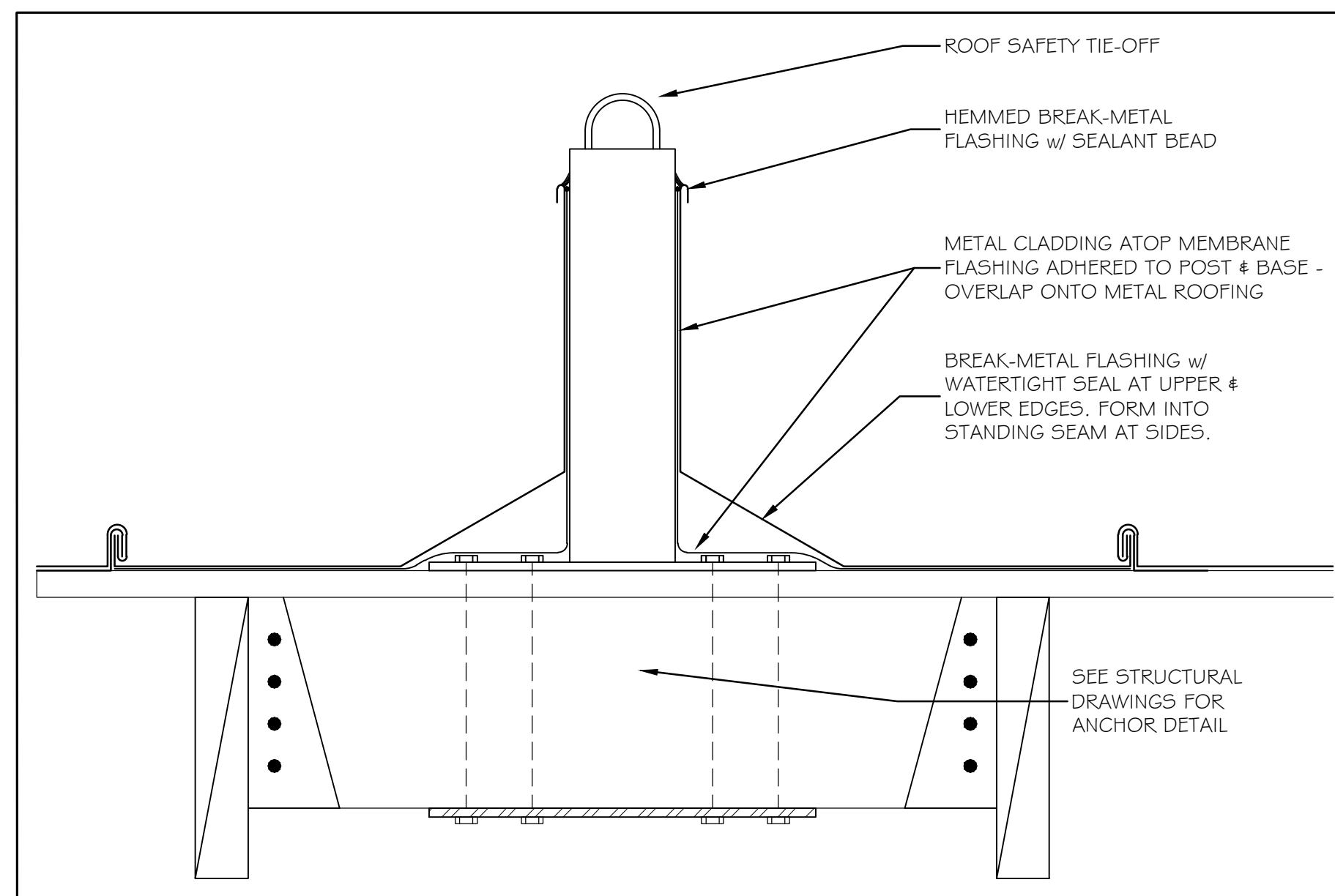
② ROOF EAVE DETAIL 3" = 1'-0"



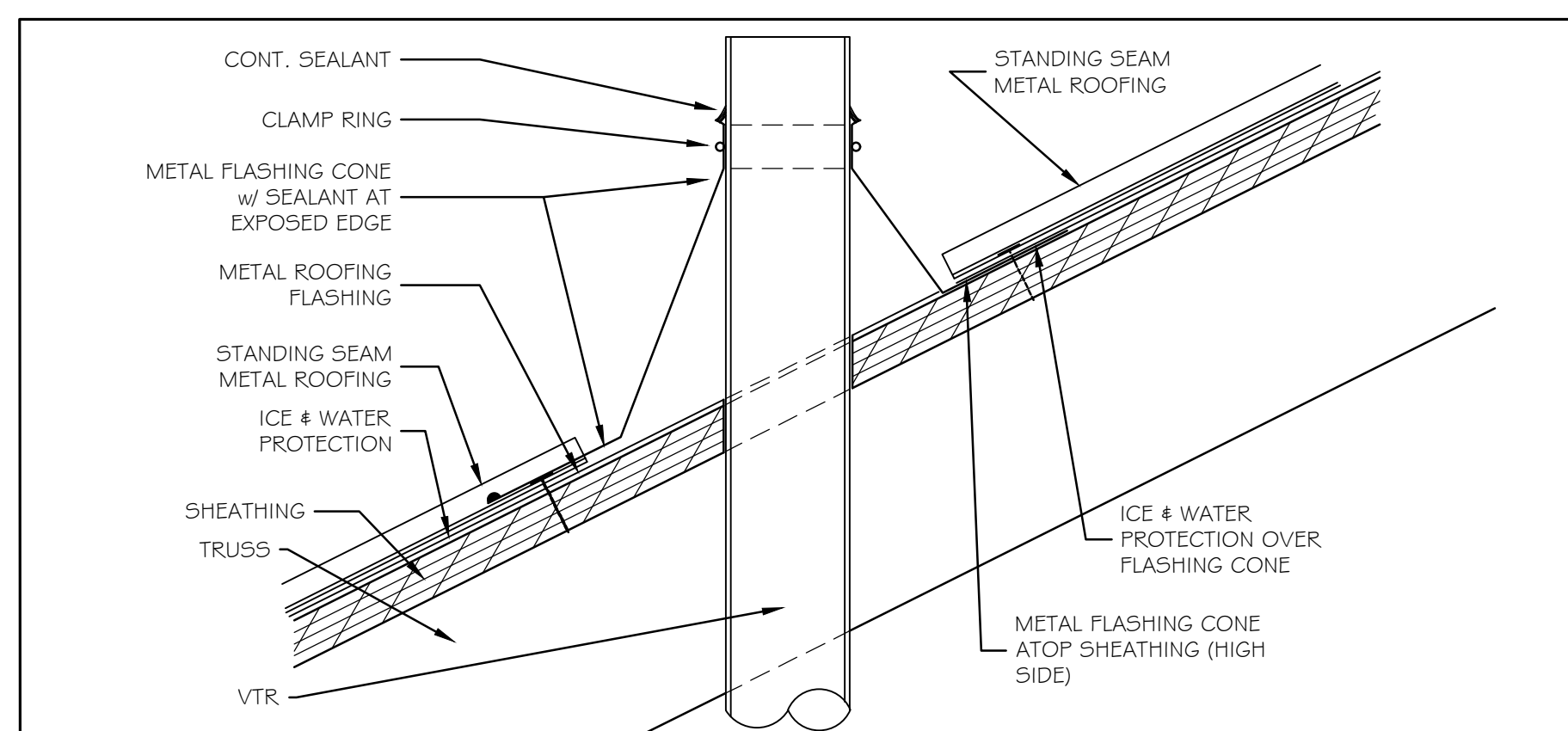
③ GABLE LOUVER RAKE DETAIL 1/2" = 1'-0"



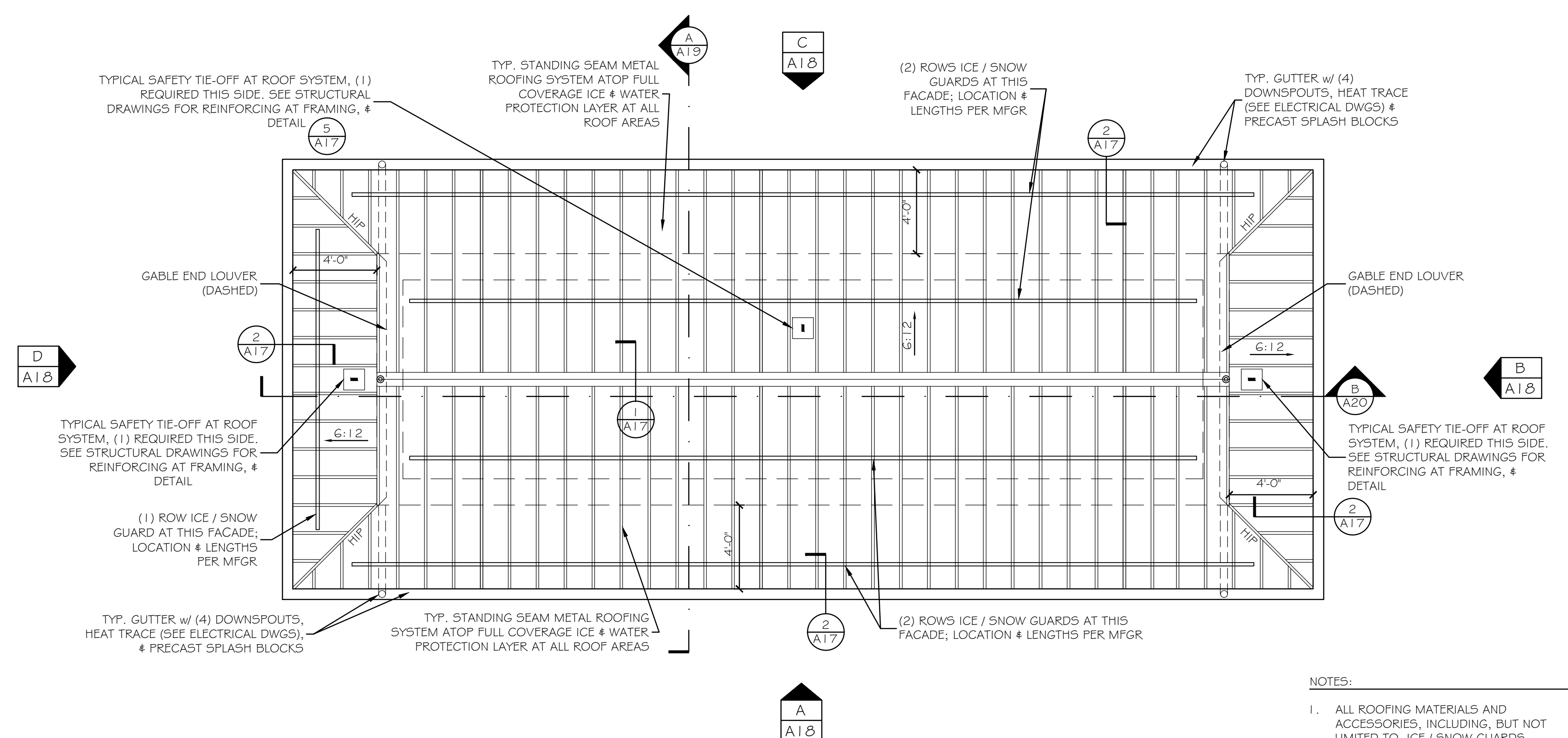
④ GABLE LOUVER SILL DETAIL 1/2" = 1'-0"



⑤ FLASHING AT ROOF SAFETY TIE-OFF 3" = 1'-0"



⑥ VTR AT METAL ROOFING 3" = 1'-0"



ROOF PLAN
SCALE: 1/4" = 1'-0"

NOTES:
1. ALL ROOFING MATERIALS AND ACCESSORIES, INCLUDING, BUT NOT LIMITED TO, ICE / SNOW GUARDS, GUTTERS, DOWNSPOUTS, LOUVERS, SAFETY TIE-OFFS, FLASHINGS, ETC. SHALL BE COLOR MATCHED AS DETERMINED BY THE ARCHITECT.

Scale: AS NOTED

No.	Revision	By	Date

Designed by:
Michael F. Hays, RA

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

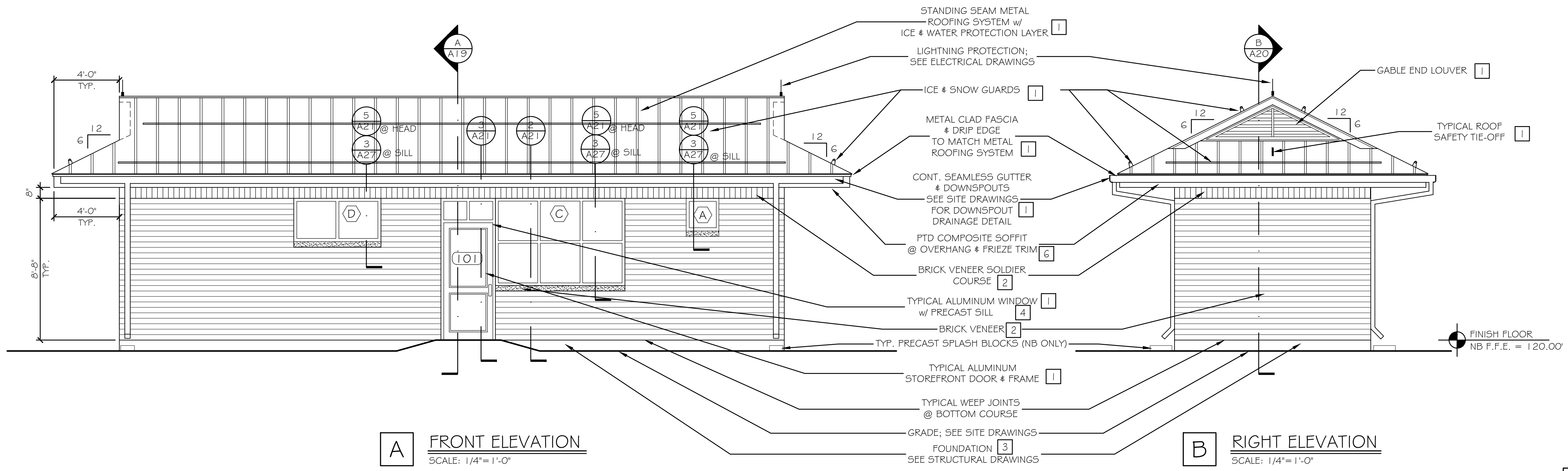
	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MGK	10/05/22	In Charge of		

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MAINE TURNPIKE
THE GOLD STAR MEMORIAL HIGHWAY
MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND TOLL ADMINISTRATION BUILDING
ROOF PLAN AND DETAILS

SHEET NUMBER: A17
CONTRACT: 2022.07
681 OF 735

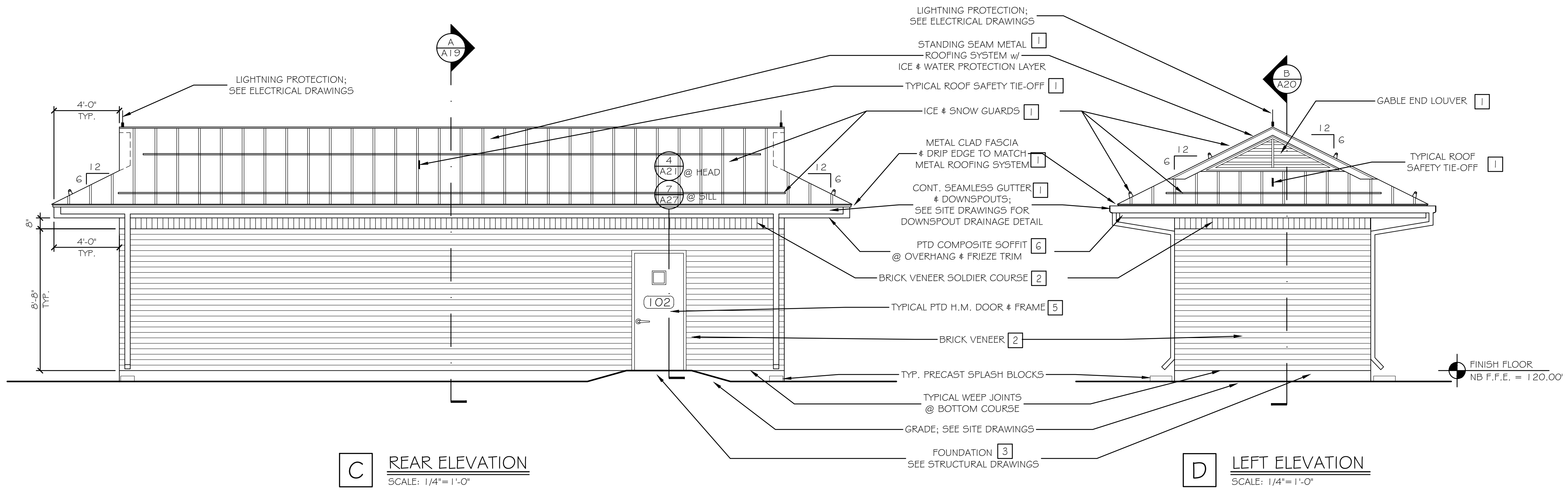


A FRONT ELEVATION
SCALE: 1/4"=1'-0"

B RIGHT ELEVATION
SCALE: 1/4"=1'-0"

EXTERIOR MATERIALS COLOR LEGEND	
1	GREEN KYNAR
2	BRICK RED - NATURAL
3	CONCRETE - NATURAL
4	WARM GRAY
5	GREEN PAINT
6	WHITE PAINT

NOTE: ALL 1 ITEMS SHALL BE THE SAME KYNAR COLOR (EXACT MATCH) AS DETERMINED BY THE ARCHITECT



C REAR ELEVATION
SCALE: 1/4"=1'-0"

D LEFT ELEVATION
SCALE: 1/4"=1'-0"

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

No.	Revision	By	Date

Designed by:
Michael F. Hays, RA

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

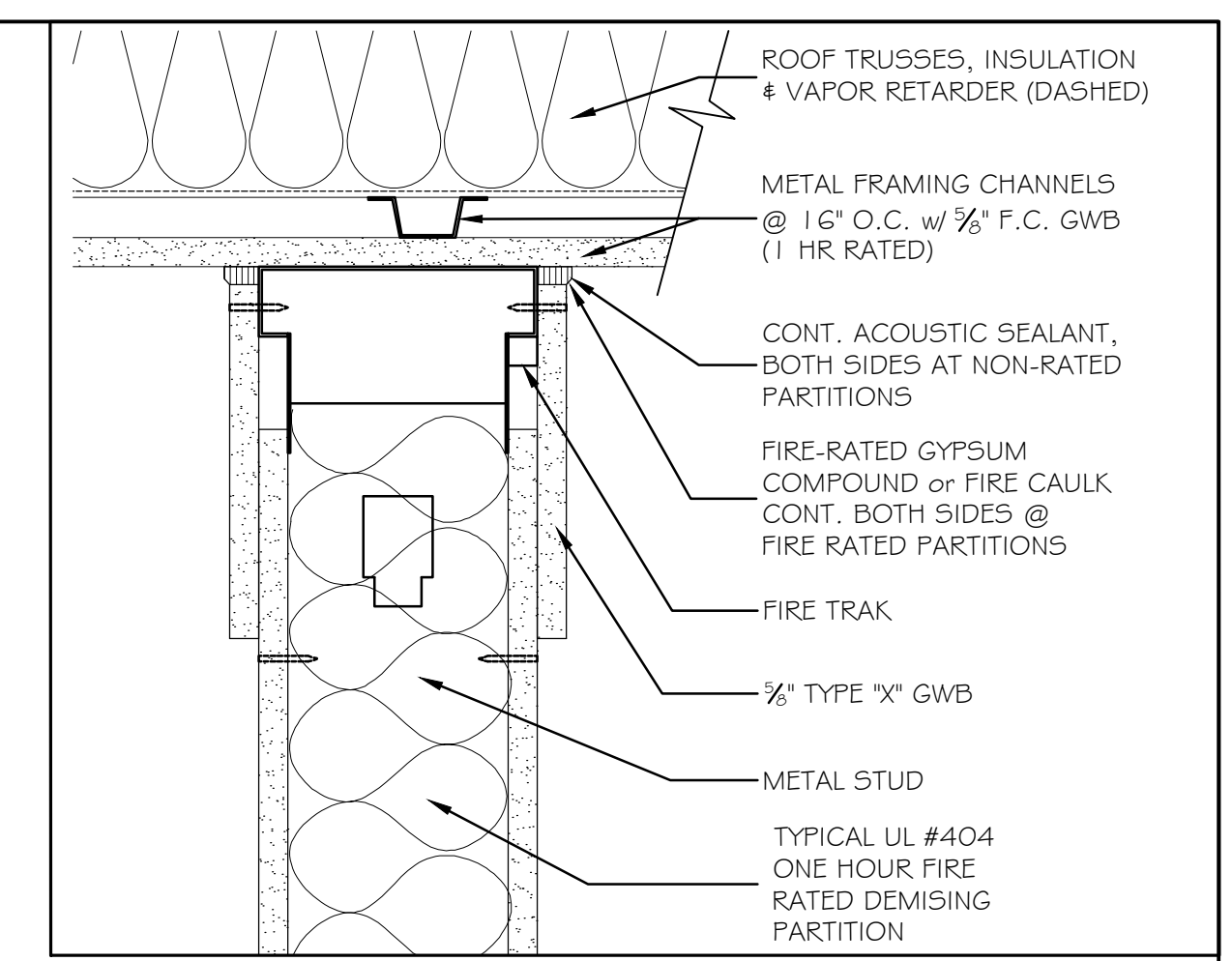
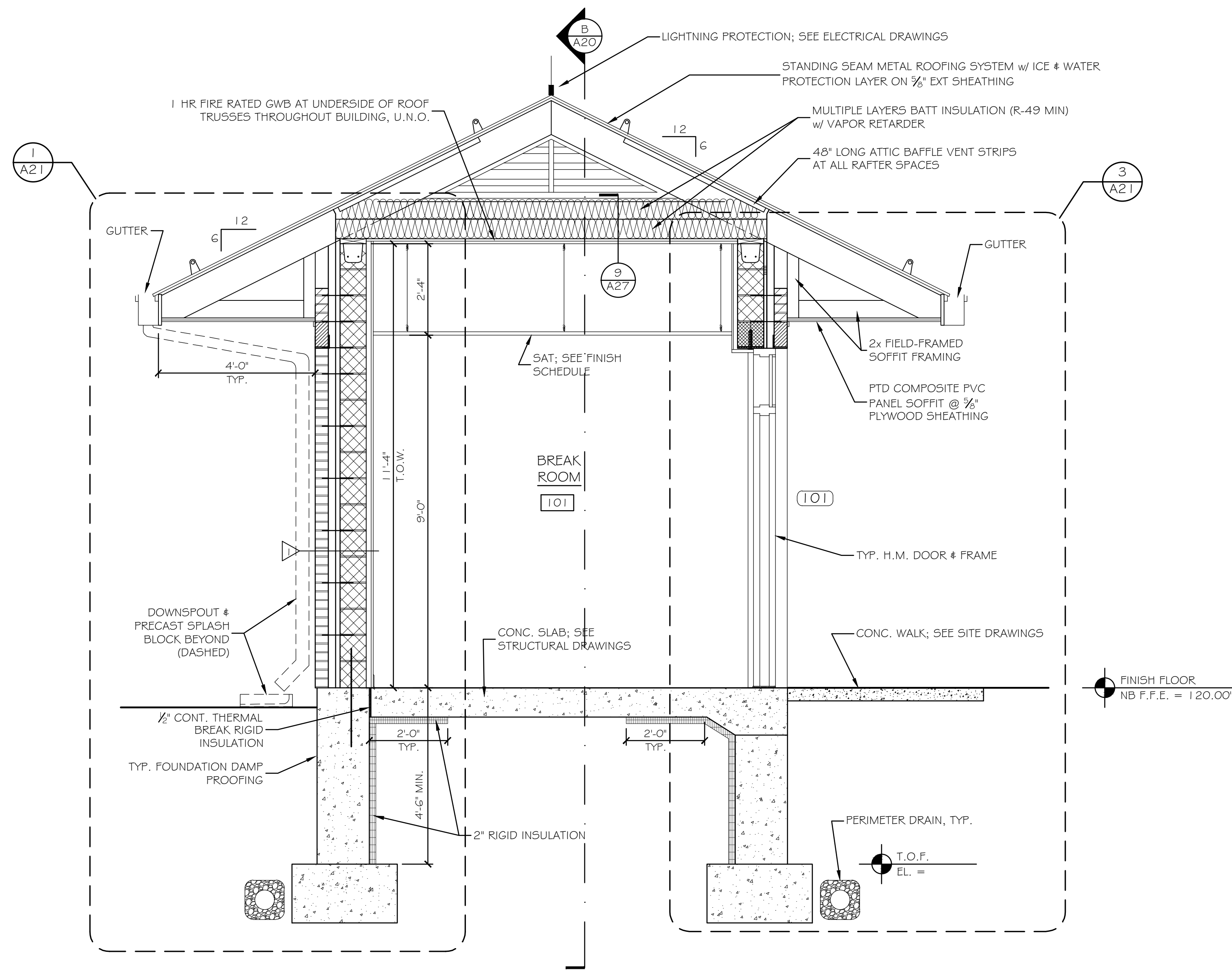
	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MGK	10/05/22	In Charge of		

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THE GOLD STAR MEMORIAL HIGHWAY
MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36)
NORTHBOUND TOLL ADMINISTRATION BUILDING BUILDING ELEVATIONS

SHEET NUMBER: A18
CONTRACT: 2022.07
682 OF 735



① 1 HR FIRE RATED HEAD CONDITION AT ROOF TRUSSES 3" = 1'-0"

A TYPICAL BUILDING SECTION - NORTHBOUND
SCALE: 1/2" = 1'-0"

Scale: AS NOTED

No.	Revision	By	Date

Designed by:
Michael F. Hays, RA

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MGK	10/05/22	In Charge of		

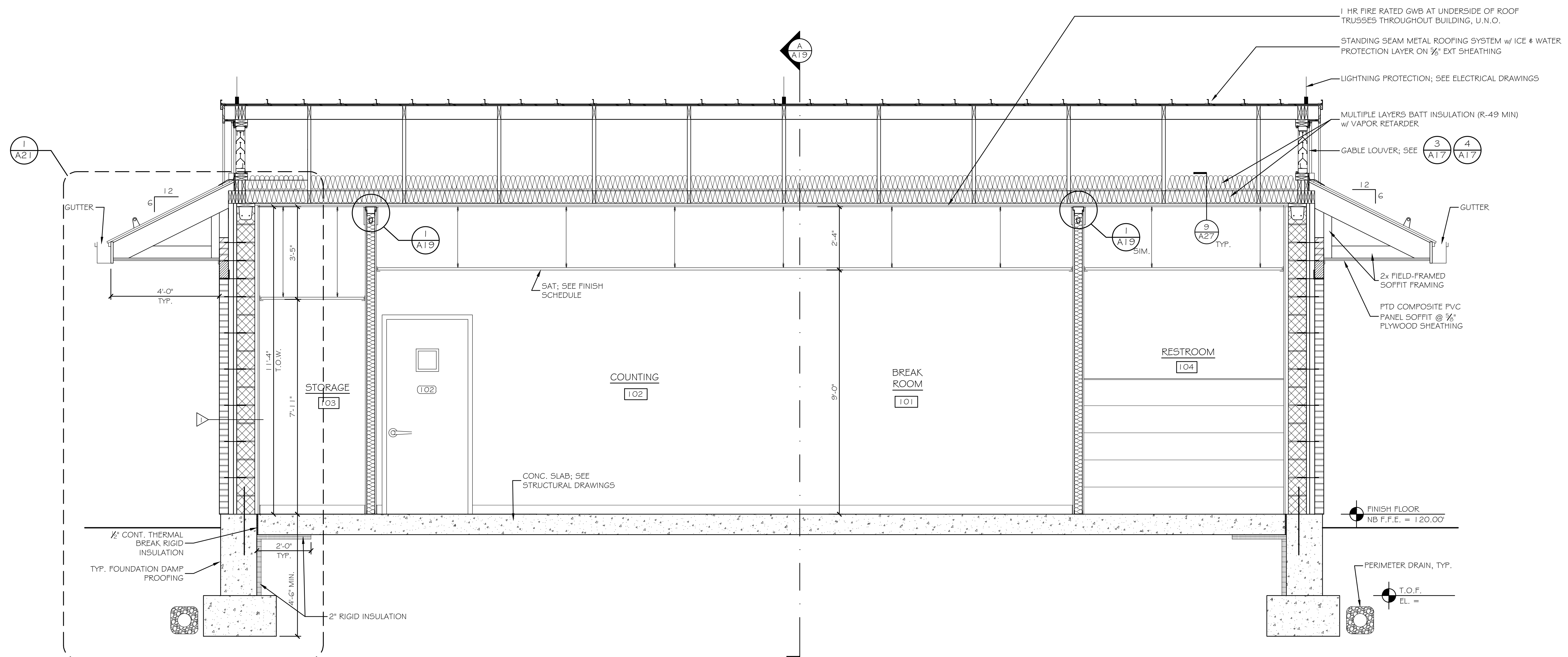
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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

**INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND TOLL ADMINISTRATION BUILDING
BUILDING SECTION A**

SHEET NUMBER: A19
CONTRACT: 2022.07
683 OF 735

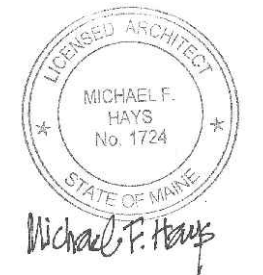


B TYPICAL BUILDING SECTION - NORTHBOUND
SCALE: 1/2" = 1'-0"

Scale: AS NOTED

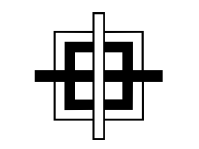
Designed by:

Michael F. Hays, RA



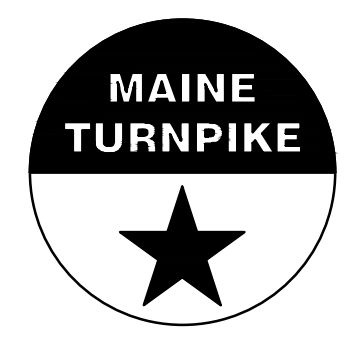
CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

	By	Date	Checked	By	Date
Designed	MFH	10/05/22		MFH	10/05/22
Drawn	MKG	10/05/22	In Charge of		



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THE GOLD STAR MEMORIAL HIGHWAY

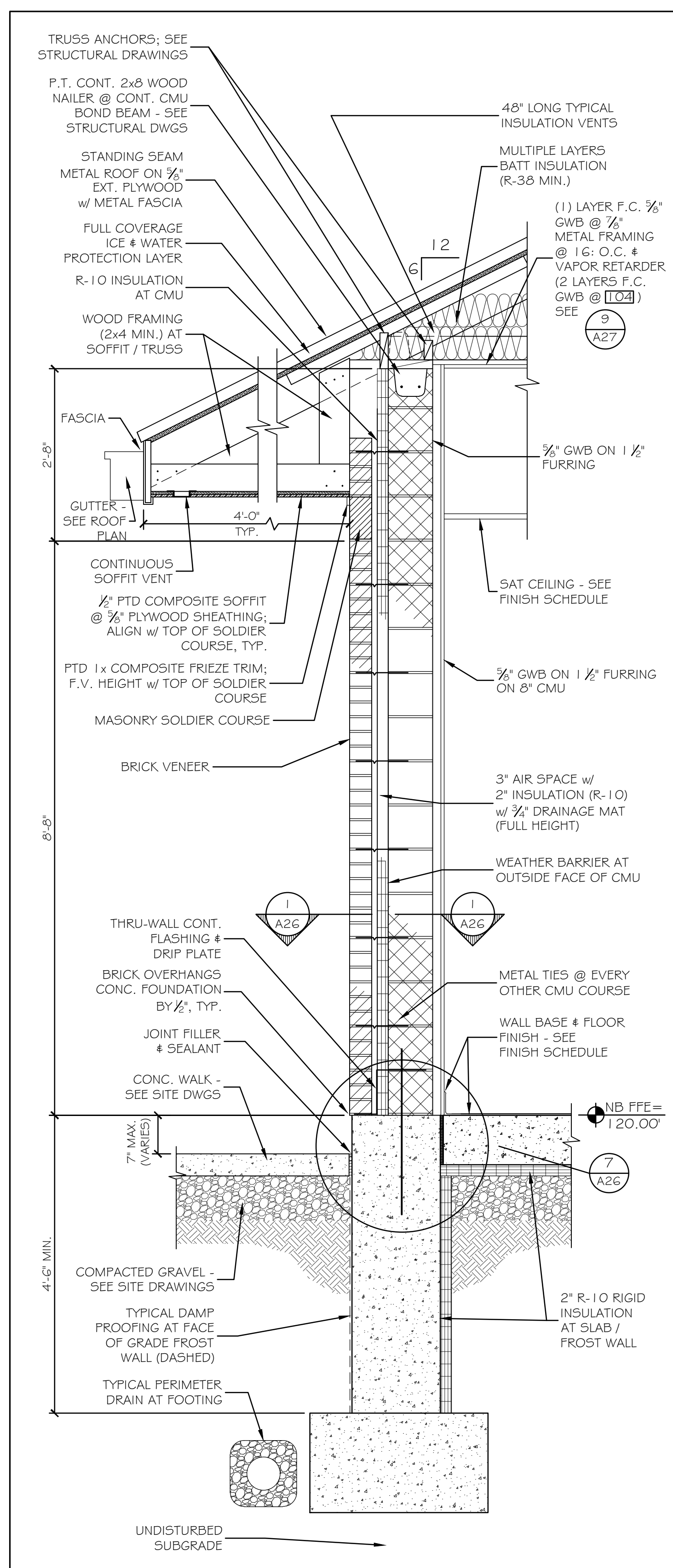
MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND TOLL ADMINISTRATION BUILDING
BUILDING SECTION

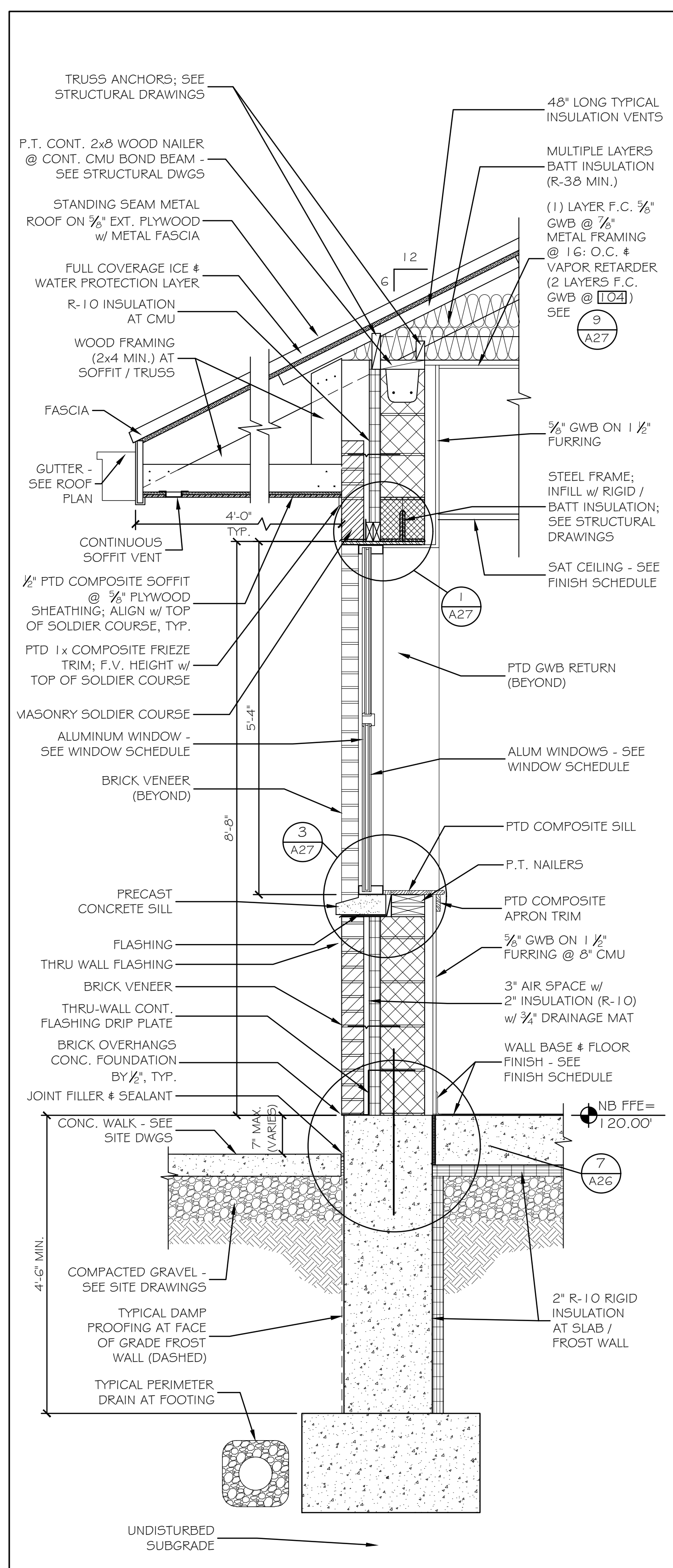
CONTRACT: 2022.07

SHEET NUMBER: A20

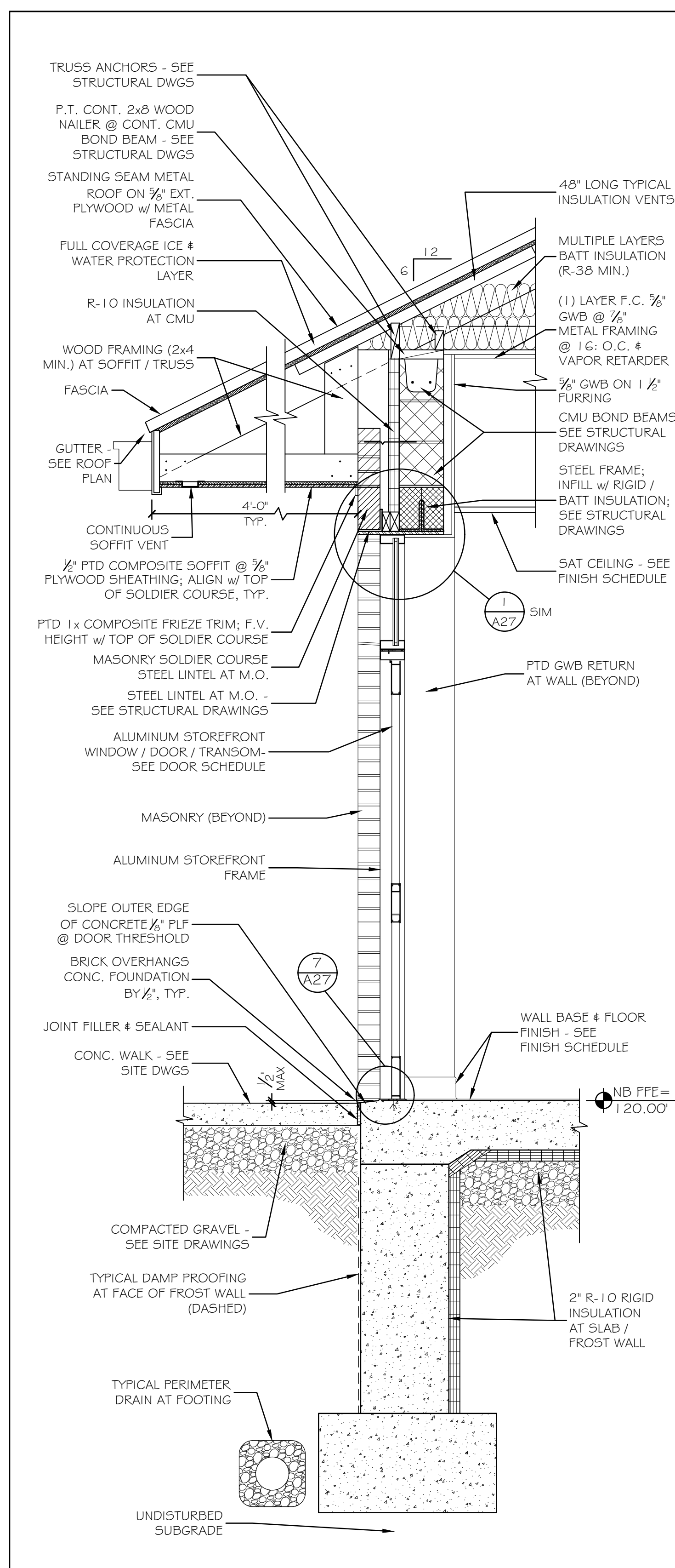
684 OF 735



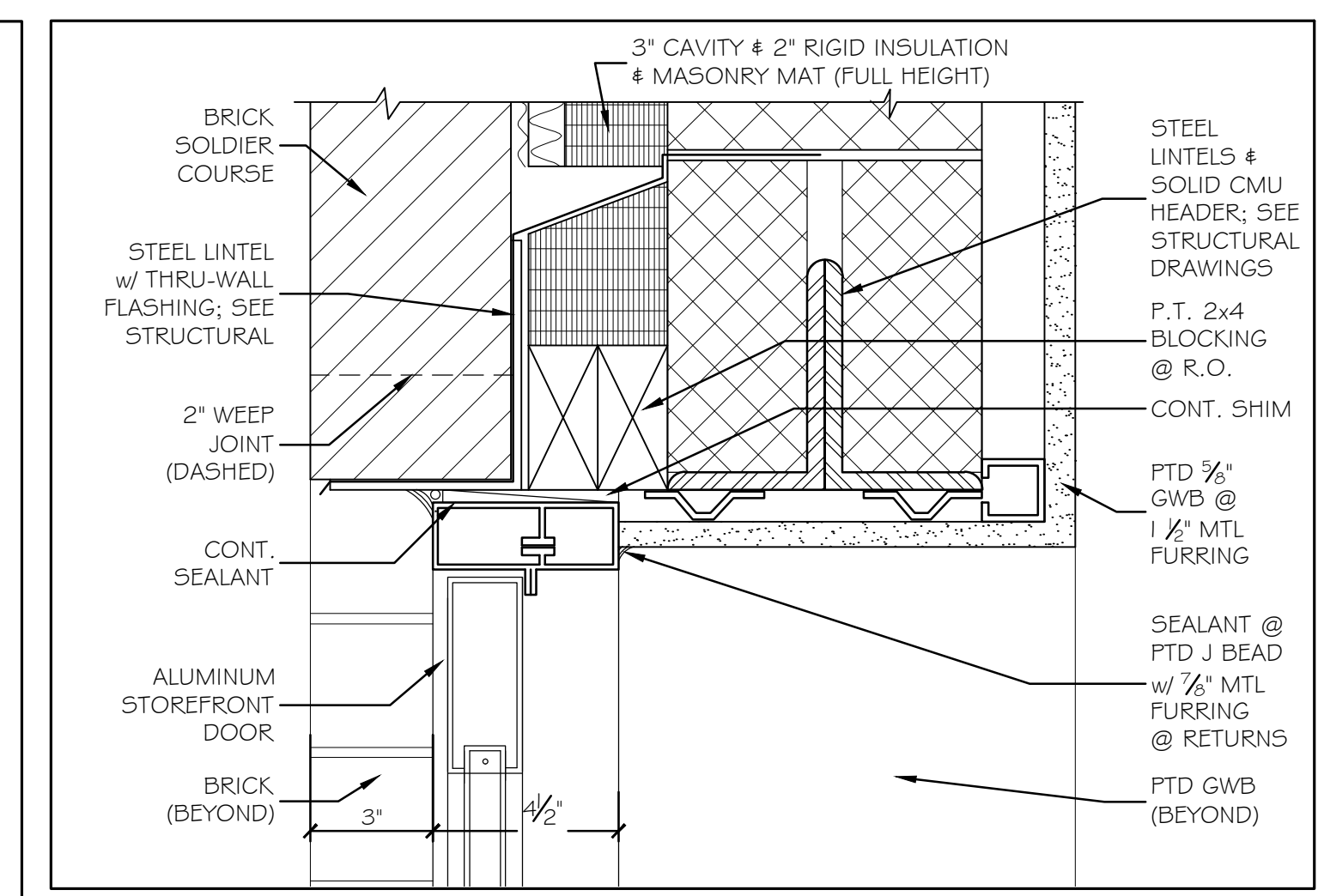
① TYPICAL EXTERIOR WALL SECTION - NORTHBOUND 3/4" = 1'-0"



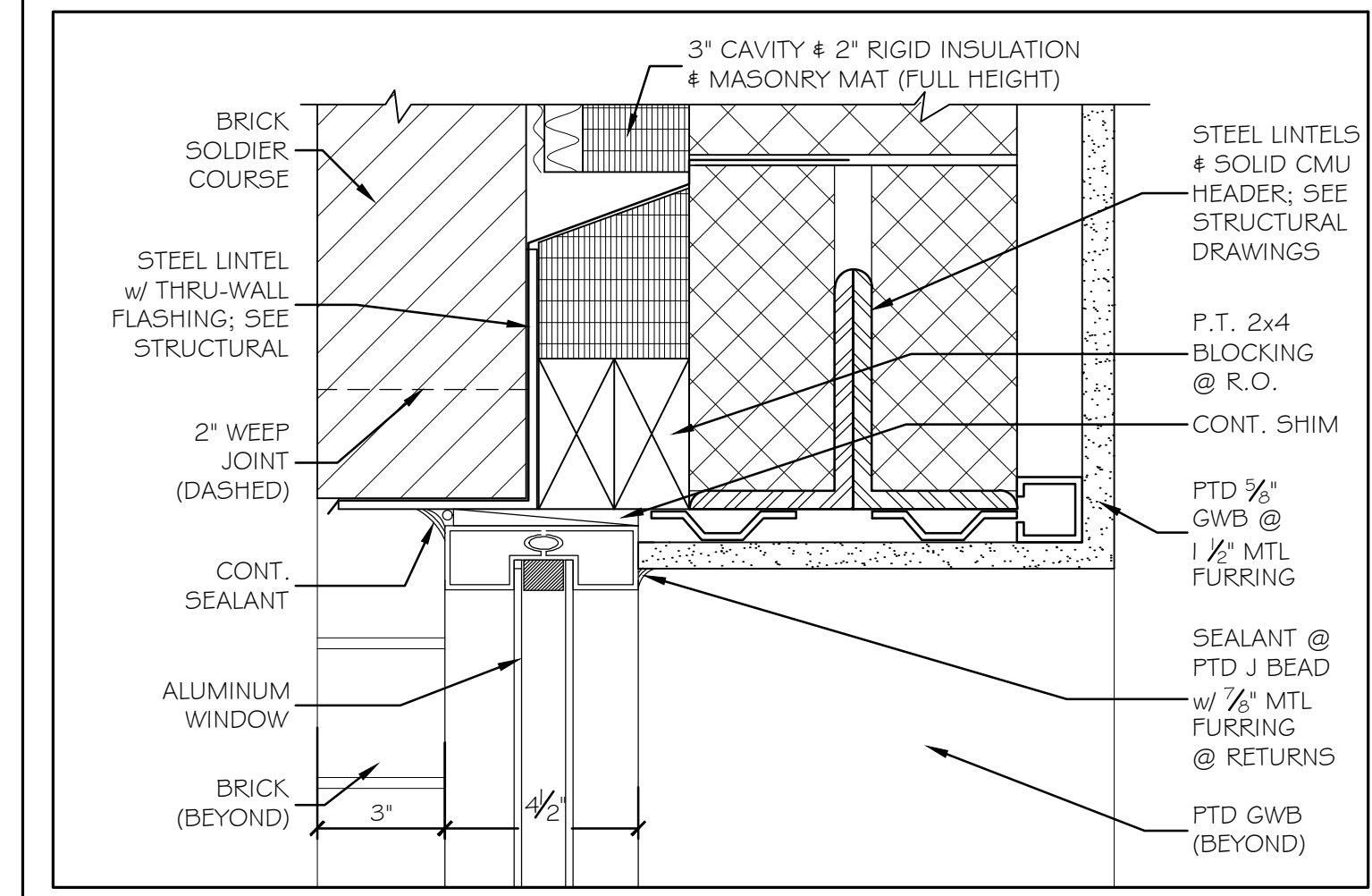
② EXTERIOR WINDOW WALL SECTION - NORTHBOUND 3/4" = 1'-0"



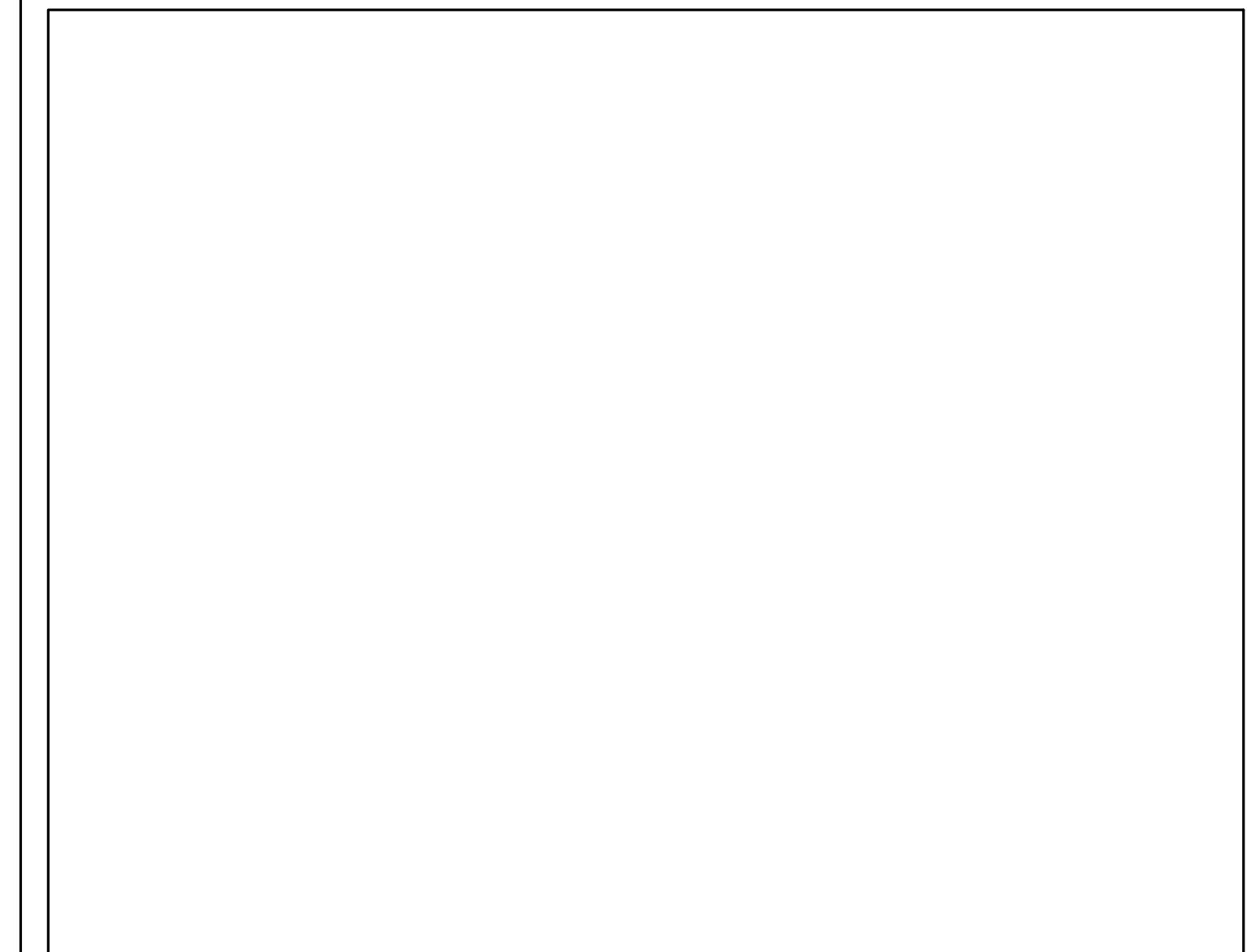
③ EXTERIOR DOOR WALL SECTION - NORTHBOUND 3/4" = 1'-0"



④ EXTERIOR DOOR HEAD @ MASONRY 3" = 1'-0"



⑤ EXTERIOR WINDOW HEAD @ MASONRY 3" = 1'-0"



⑥ NOT USED 3" = 1'-0"

Scale: AS NOTED

No.	Revision	By	Date

Designed by:
Michael F. Hays, RA

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MKG	10/05/22	In Charge of		

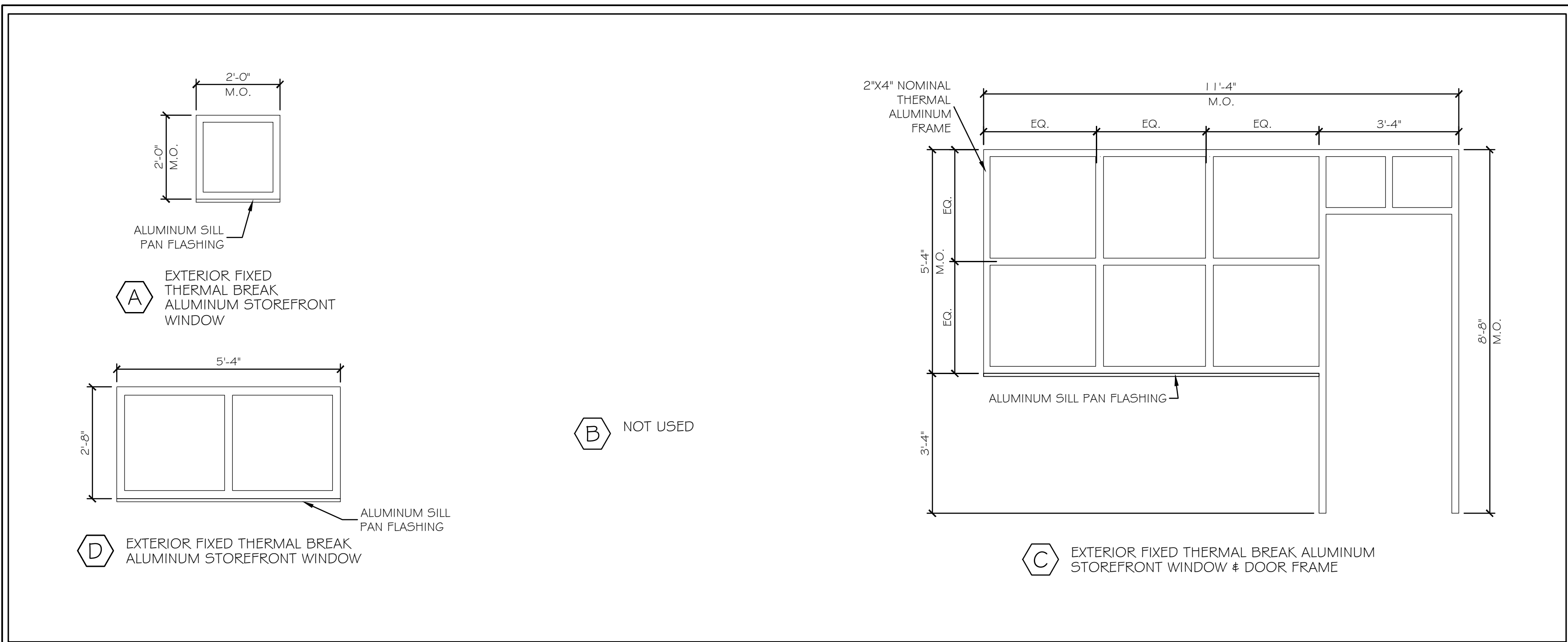
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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36)
NORTHBOUND TOLL ADMINISTRATION BUILDING WALL SECTIONS & PARTITION TYPES

SHEET NUMBER: A21
CONTRACT: 2022.07
685 OF 735

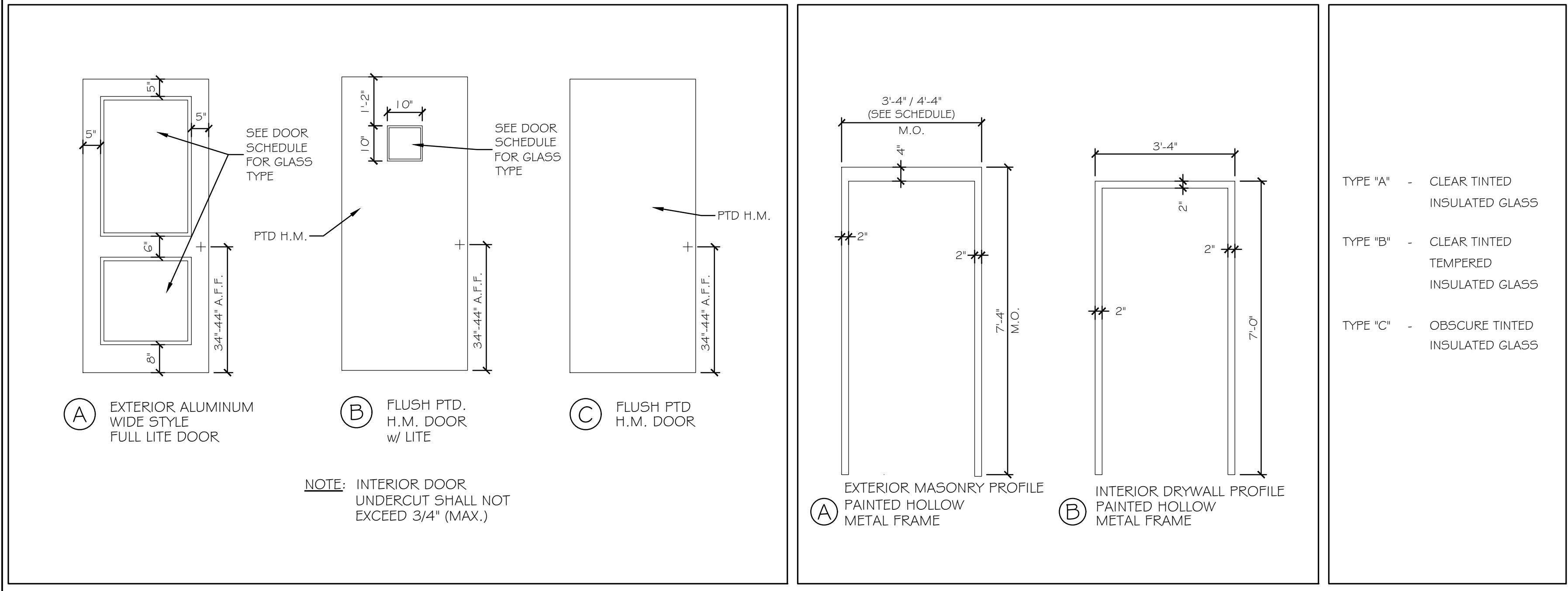


DOOR SCHEDULE

ABBREVIATIONS																	
										AL	ALUMINUM	T	TEMPERED				
										E	EXISTING	TH	THERMAL INSULATED				
										EMHO	ELECTRO MAGNETIC HOLD OPENER	V	VINYL				
										GL	GLASS	W	WIRE				
										HM	HOLLOW METAL	WD	WOOD				
										INSUL	INSULATED	W /	WITH				
										SS	STAINLESS STEEL	W /	WITH				
DOORS										FRAMES				THRESHOLDS			
NO.	TYPE	SIZE (w x h)	THK	INSUL	HDWE	FR	GLASS		REMARKS	TYPE	FR	PROFILE	DETAILS		MATERIAL	DETAILS	
							TYPE	SIZE					HEAD	JAMB		SILL	FIN
101	A	3070	1 3/4"	NO	HW-1	-	T/TH	FULL	GLASS "B"	C*	-	ALUM	5-A27	6-A27	ALUM	7-A27	-
102	B	3070	1 3/4"	YES	HW-2	-	T/TH	10x10	GLASS "B"	A	-	MAS		6-A27	ALUM	7-A27	-
103	C	3070	1 3/4"	YES	HW-4	-	-	-	-	B	-	DW	8-A27	8-A27	NONE	-	TILE
104	C	3070	1 3/4"	NO	HW-5	-	-	-	-	B	-	DW	8-A27	8-A27	NONE	-	-

*SEE WINDOW TYPES FOR FRAME TYPE 'C' AT DOOR 101.

WINDOW TYPES NO SCALE



DOOR TYPES NO SCALE DOOR FRAME TYPES NO SCALE GLASS TYPES NO SCALE

WINDOW SCHEDULE

ABBREVIATIONS														
										AL	ALUMINUM	T	TEMPERED	
										E	EXISTING	TH	THERMAL INSULATED	
										EMHO	ELECTRO MAGNETIC HOLD OPENER	V	VINYL	
										GL	GLASS	W	WIRE	
										HM	HOLLOW METAL	WD	WOOD	
										INSUL	INSULATED	W /	WITH	
										SS	STAINLESS STEEL	W /	WITH	
NO.	TYPE	MANUFACTURER		NOMINAL SIZE		DETAILS				REMARKS				
		MATERIAL	MODEL	WIDTH	HEIGHT	HEAD	JAMB	SILL	MUNT		MULL			
A	FIXED	ALUMINUM	T-BREAK	2'-0"	2'-0"	1-A27	2-A27	3-A27	-	-	TYPE "C" GLASS			
B	-	-	-	-	-	-	-	-	-	-	NOT USED			
C	FIXED	ALUMINUM	T-BREAK	8'-0"	5'-4"	1-A27	2-A27	3-A27	-	-	TYPE "B" GLASS			
D	FIXED	ALUMINUM	T-BREAK	5'-4"	2'-8"	1-A27	2-A27	3-A27	-	-	TYPE "A" GLASS			


FINISH SCHEDULE

ABBREVIATIONS															
										C	CARPET	FRP	FIBERGLASS REINFORCED PANELS	QT	QUARRY TILE
										CH	CONCRETE W/ HARDENER	FV	FIELD VERIFY	SS	STAINLESS STEEL
										CMU	CONCRETE MASONRY UNIT	GL	GLASS	VCB	VINYL COVE BASE
										CT	CERAMIC TILE	GW	GYPSSUM WALL BOARD	VCT	VINYL COMPOSITION TILE
										E	EXISTING	P	PAINT	VWC	VINYL WALL COVERING
										EP	EPOXY PAINT	PCS	PAINT COAT SYSTEM	WC(1)	WALL COVERING (TYPE)
										FCS	FLOOR COATINGS SYSTEM	RCB	RUBBER COVE BASE	WD	WOOD
NO.	NAME	WALLS				FLOOR				CLG A		CLG B		REMARKS	
		N	E	S	W	MATL	BASE	MATL	BASE	TYPE	HT	TYPE	HT		
101	BREAK ROOM	P	P	P	P	CT	VCB	-	-	SAT	9'-0"	-	-		
102	COUNTING	P	P	P	P	CT	VCB	-	-	SAT	9'-0"	-	-		
103	STORAGE	P	P	P/FRP	P/FRP	CT	VCB	-	-	SAT	7'-11"	-	-	FRP TO 48" A.F.F.	
104	RESTROOM	P/CT*	P/CT*	P/CT*	P/CT*	CT	CT	-	-	SAT	9'-0"	-	-	*SEE 2-A21 FOR CT, HT.	

Scale: AS NOTED

No.	Revision	By	Date


Designed by:
Michael F. Hays, RA


 Michael F. Hays

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

By	Date	By	Date
Designed	MFH 10/05/22	Checked	MFH 10/05/22
Drawn	MGK 10/05/22	In Charge of	

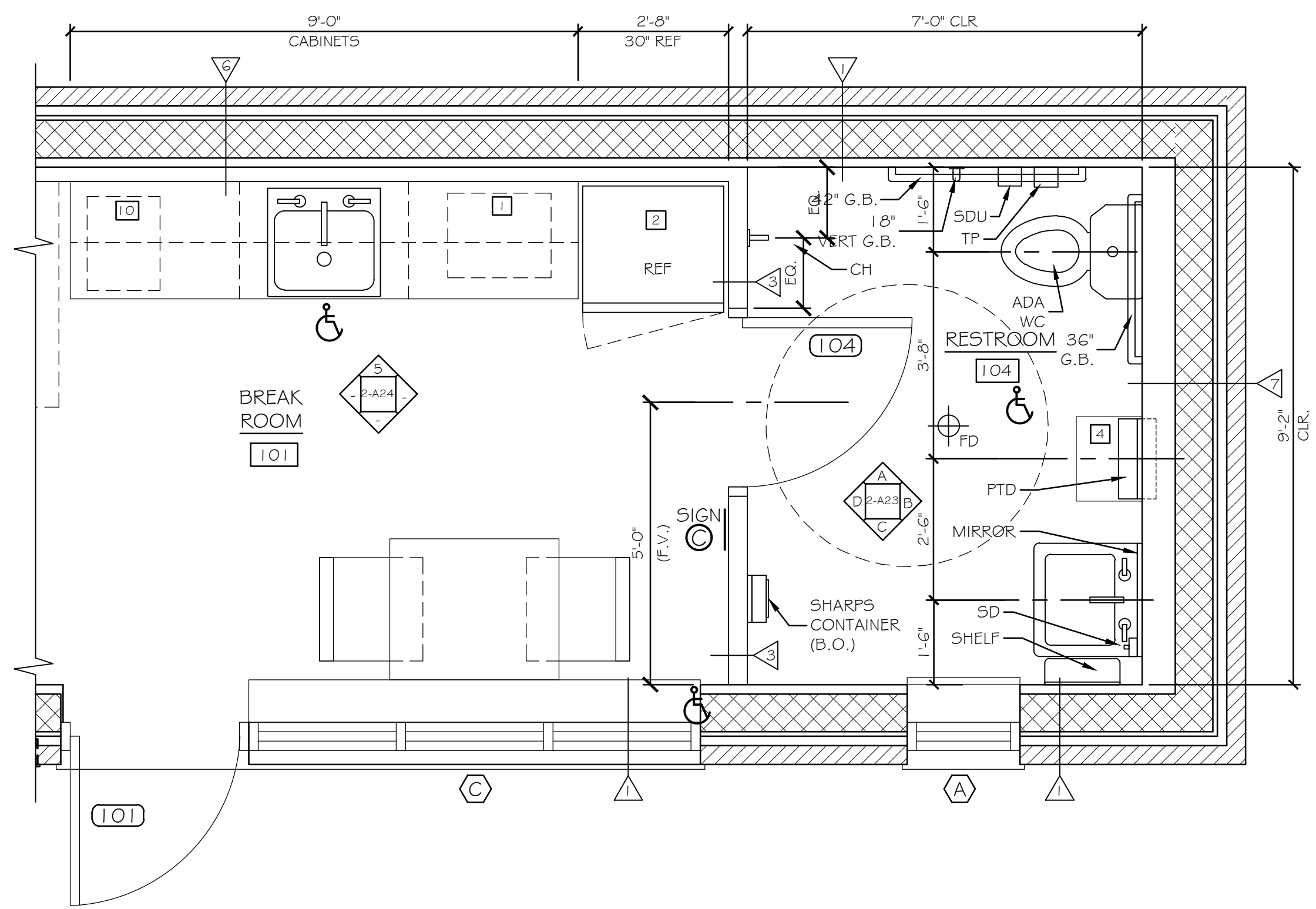

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THE GOLD STAR MEMORIAL HIGHWAY
 MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

**INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 NORTHBOUND TOLL ADMINISTRATION BUILDING
 DOORS, WINDOWS & DETAILS**

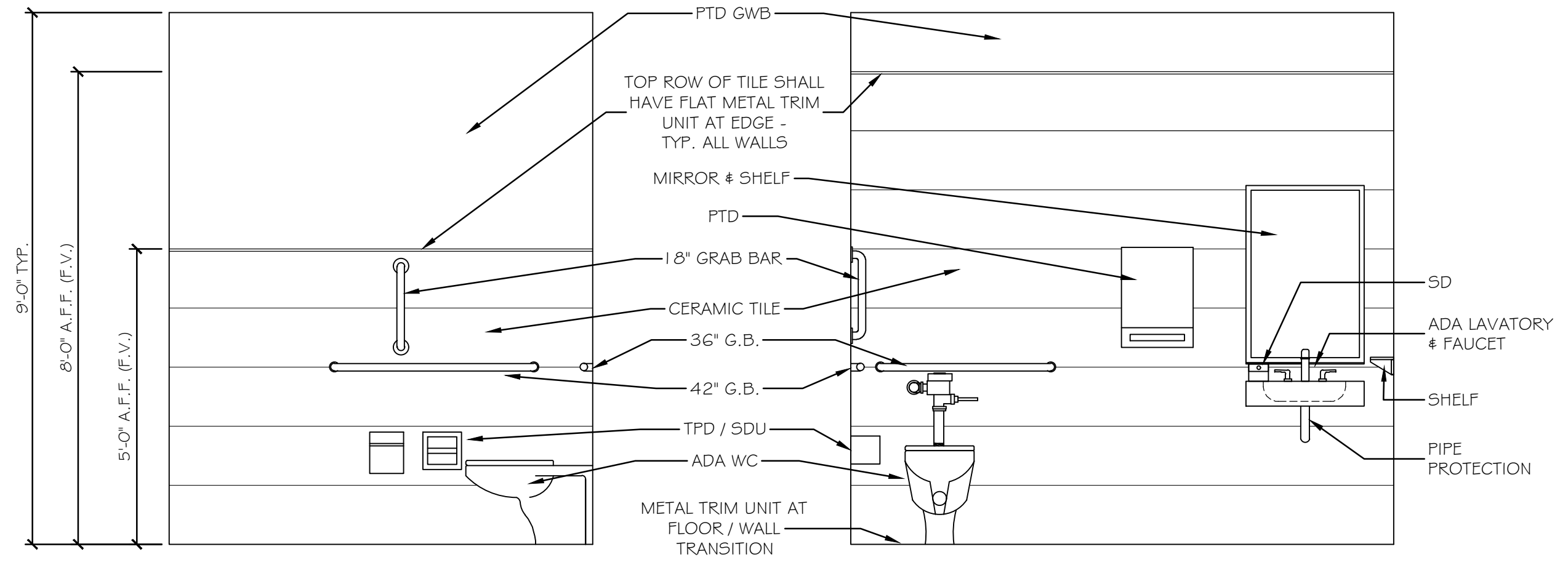
SHEET NUMBER: A22
686 OF 735

CONTRACT: 2022.07



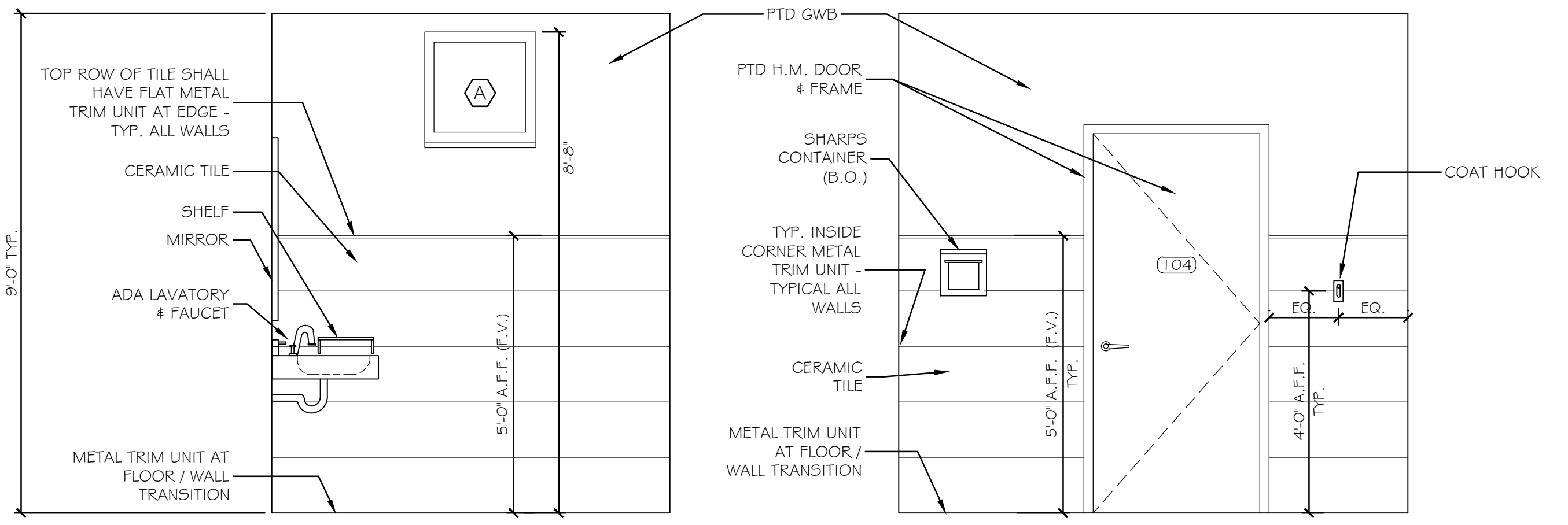
TOILET ACCESSORY ABBREVIATIONS	
TPD	TOILET PAPER DISPENSER
SDU	SANITARY DISPOSAL UNIT
GB	GRAB BAR
SD	SOAP DISPENSER
PTD	PAPER TOWEL DISPENSER
CH	COAT HOOK
BDFD	BOTTLE FILL / DRINKING FOUNTAIN

EQUIPMENT TYPES:	
1	MICROWAVE OVEN
2	REFRIGERATOR
3	LOCKERS - 2 TIER - 12" W x 18" D
4	TRASH BIN - N.I.C.
10	COFFEE MAKER - N.I.C.
11	BULLETIN BOARD - N.I.C. (INSTALL BLOCKING AT FRAMING)
12	RECYCLE BIN - N.I.C.



A RESTROOM 104 B RESTROOM 104

NOTES:
 1. SEE SHEET A28 FOR TOILET ACCESSORIES ADA MOUNTING HEIGHTS.
 2. INSTALL METAL TRIM UNITS AT ALL INTERIOR TILE CORNERS AT WALLS / FLOOR. INSTALL METAL TRIM CAP AT TOP OF WALL TILE.
 3. WALL TILE PATTERN SHALL BE 1/2" OFFSET U.N.O.



C RESTROOM 104 D RESTROOM 104

1 BREAK ROOM 101 AND RESTROOM 104

2 RESTROOM 104 ELEVATIONS

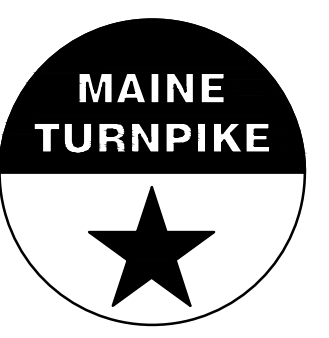
1/2" = 1'-0"

1/2" = 1'-0"

No.	Revision	By	Date

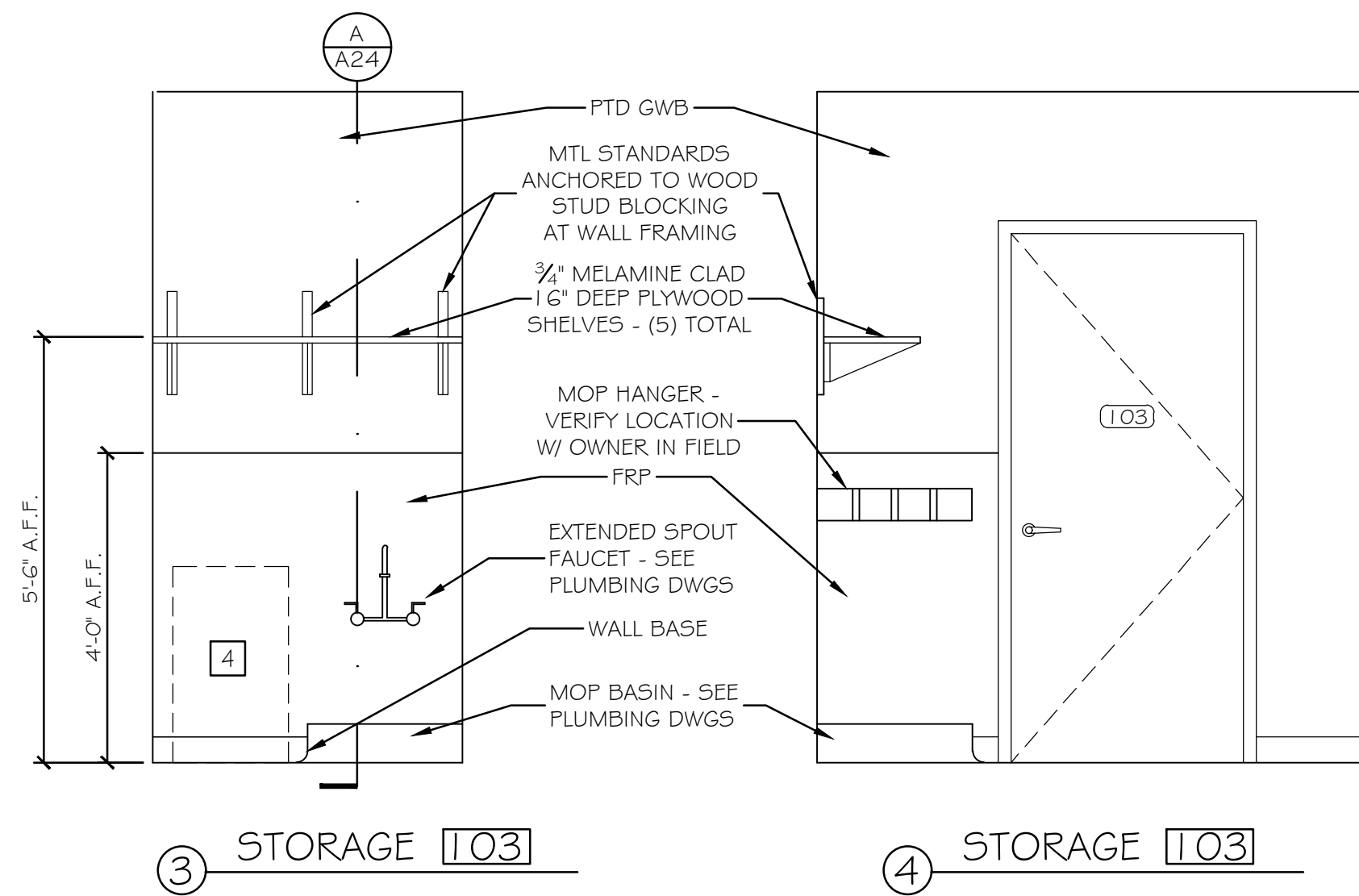
Designed by: Michael F. Hays, RA			
CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE			
Designed	By MFH	Date 10/05/22	Checked By MFH Date 10/05/22
Drawn	By MGK	Date 10/05/22	In Charge of


GRANT HAYS ASSOCIATES
 ARCHITECTURE & INTERIOR DESIGN
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THE GOLD STAR MEMORIAL HIGHWAY
 MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

**INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 NORTHBOUND TOLL ADMINISTRATION BUILDING
 TOILET ROOMS & DETAILS**

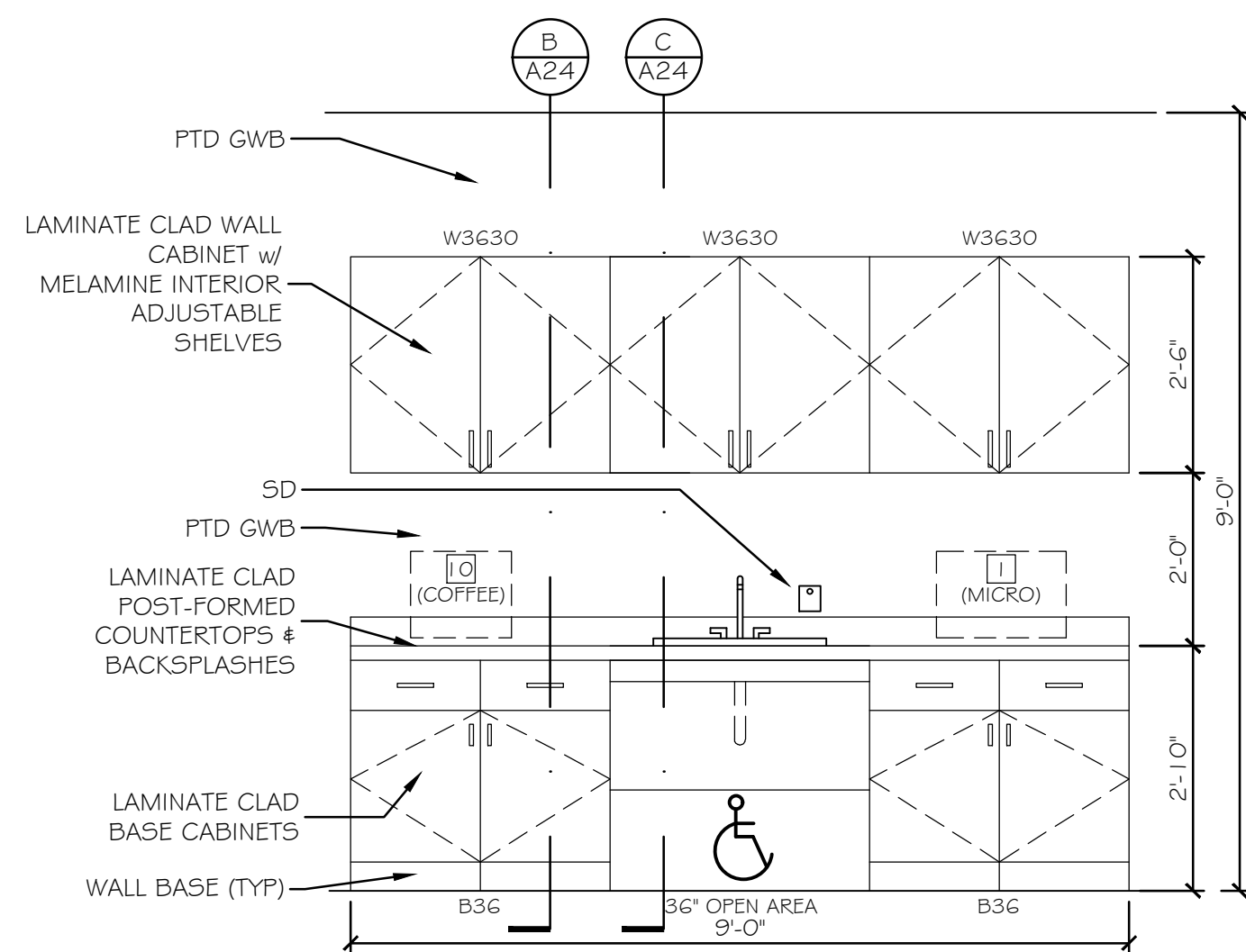
SHEET NUMBER: A23
 CONTRACT: 2022.07
 687 OF 735



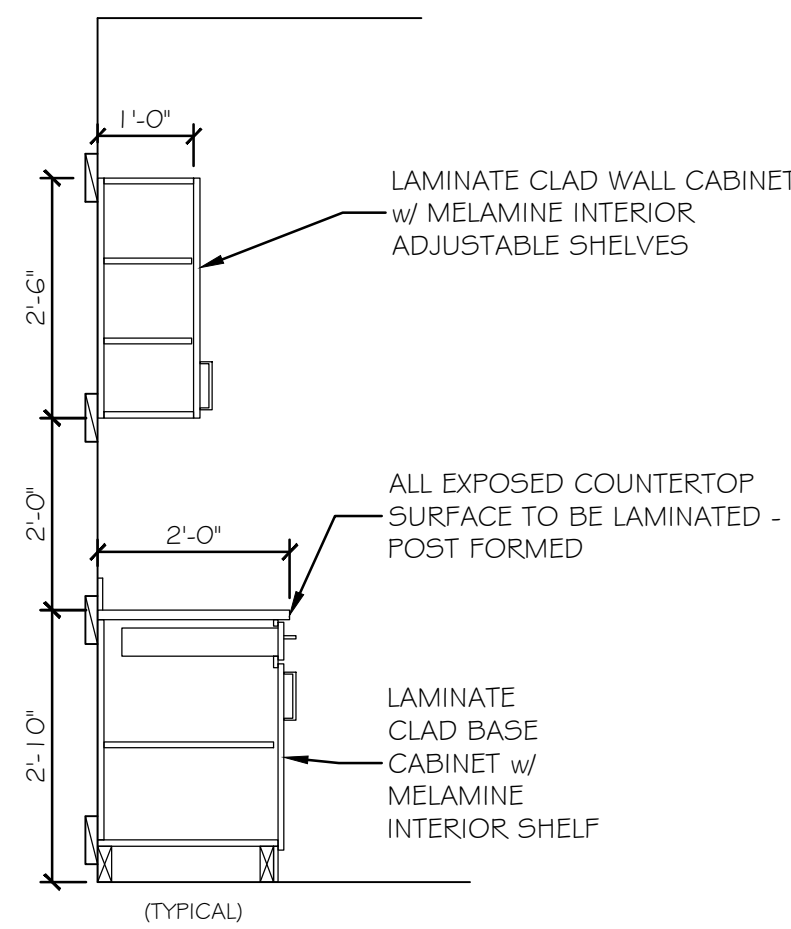
NOTE: 48" HIGH FRP WAINSCOT SHALL EXTEND TO DOOR FRAME EDGE

1 CUSTODIAL 103 INTERIOR ELEVATIONS

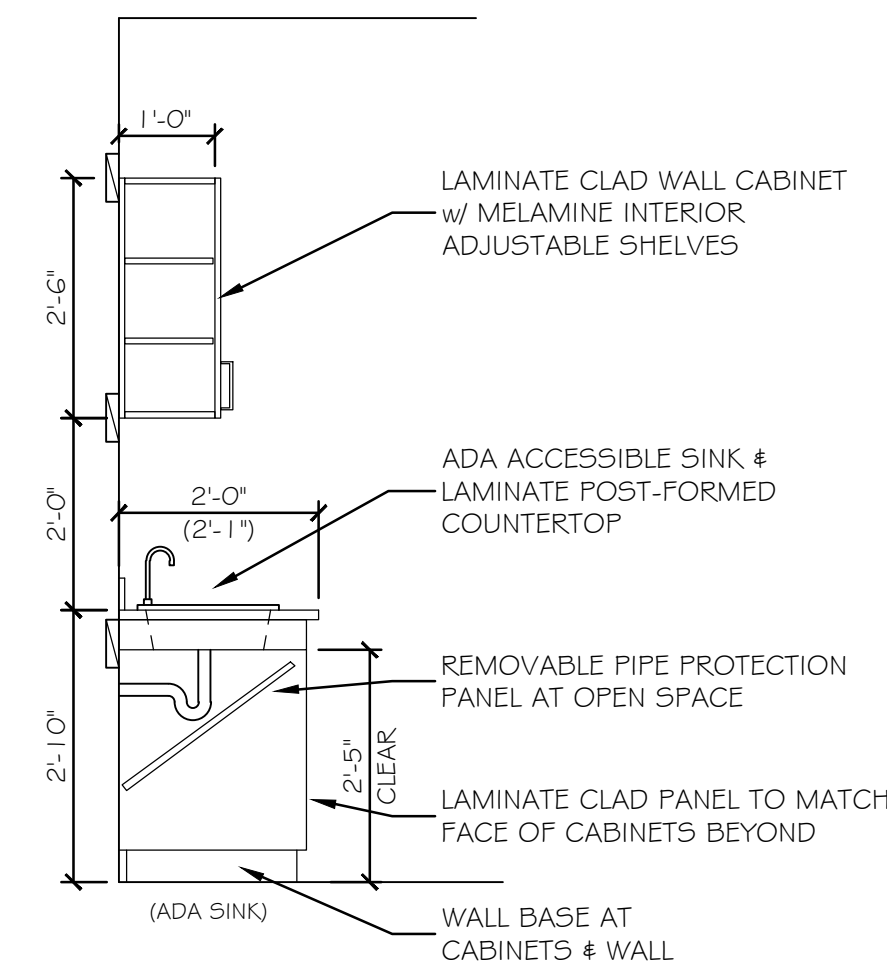
1/2" = 1'-0"



5 KITCHEN CABINET ELEVATION AT BREAK ROOM 101
SCALE: 1/2" = 1'-0"



B CABINET SECTION B



C CABINET SECTION C

KITCHEN CABINET SECTIONS

NOTE: PROVIDE SOLID WOOD BLOCKING AT WALL FRAMING AT ALL CABINETS

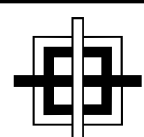
2 BREAK ROOM 101 INTERIOR ELEVATION & SECTIONS

1/2" = 1'-0"

Scale: AS NOTED

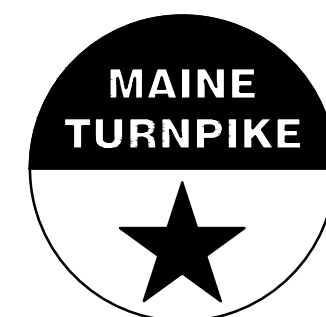
Designed by:

Michael F. Hays, RA



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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND TOLL ADMINISTRATION BUILDING
INTERIOR ELEVATIONS & SECTIONS

SHEET NUMBER: A24

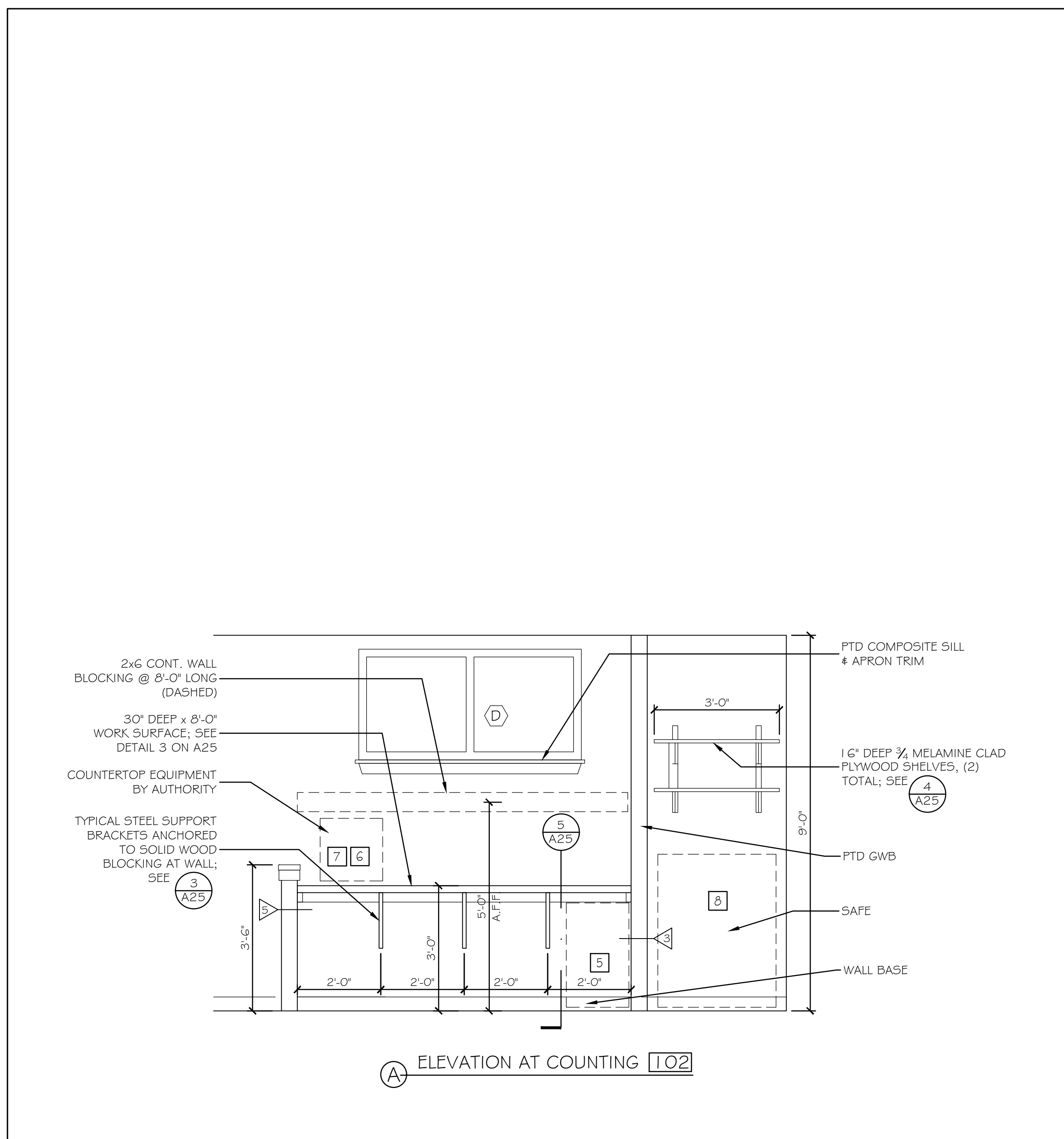
CONTRACT: 2022.07

688 OF 735

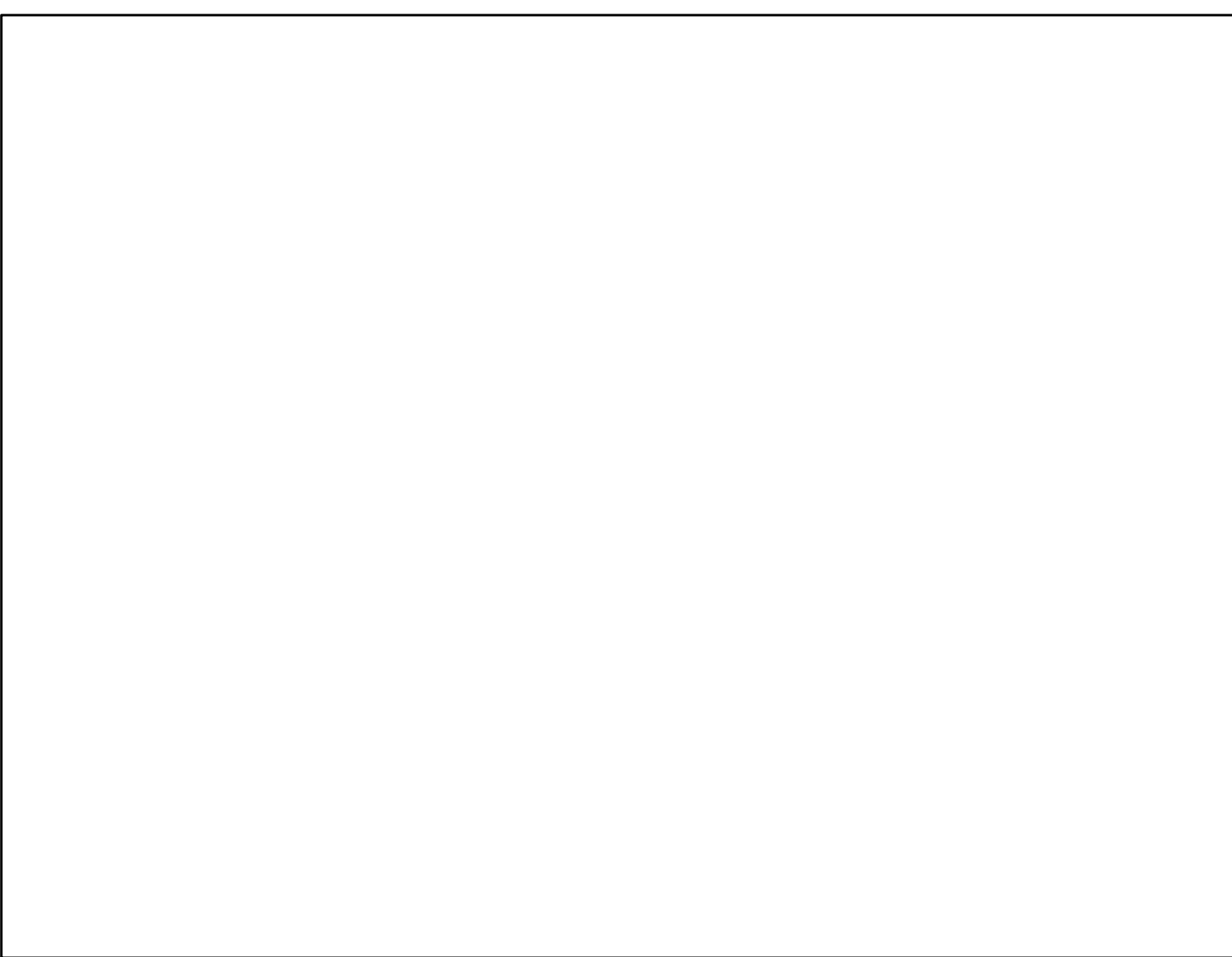
No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

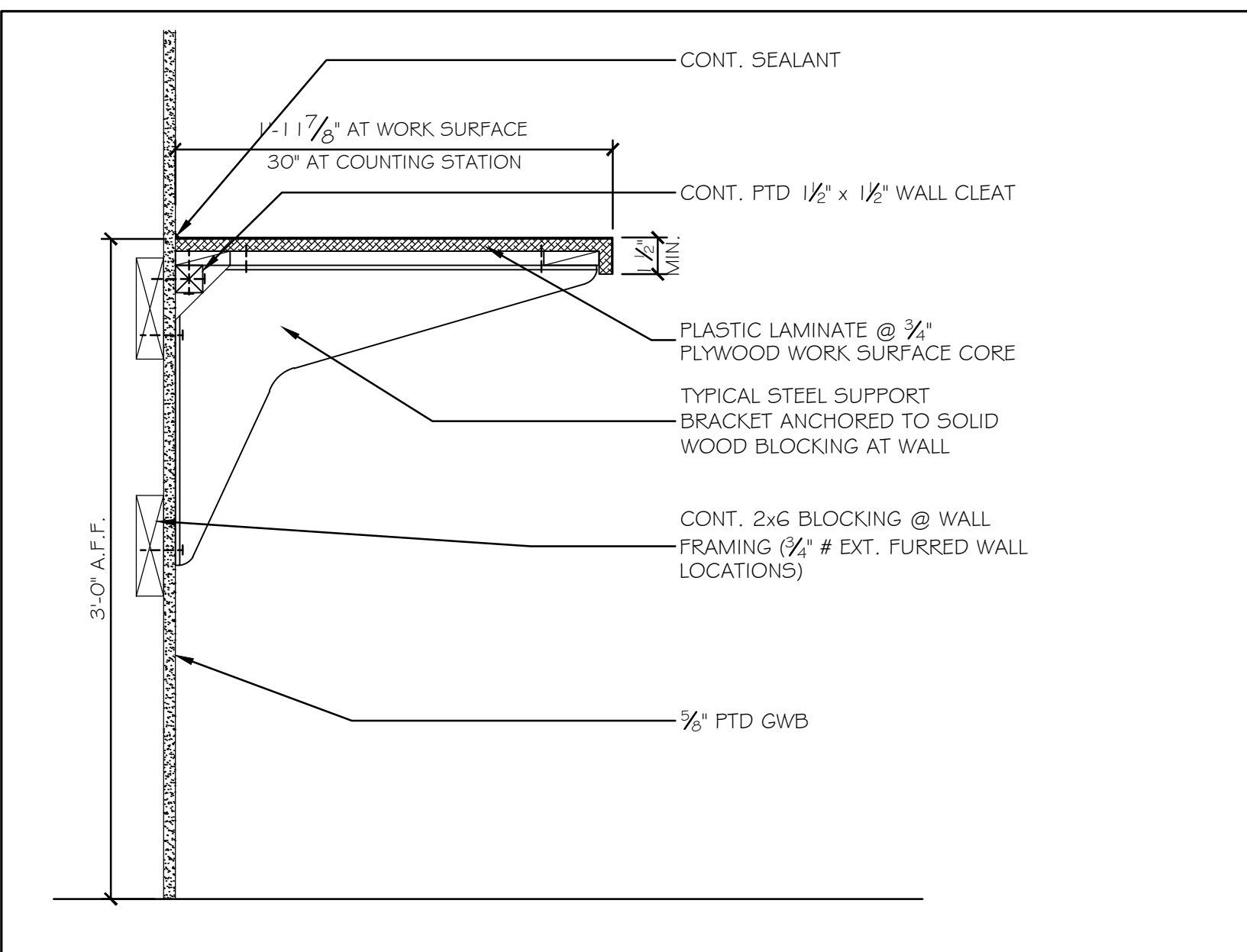
	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MGK	10/05/22	In Charge of		



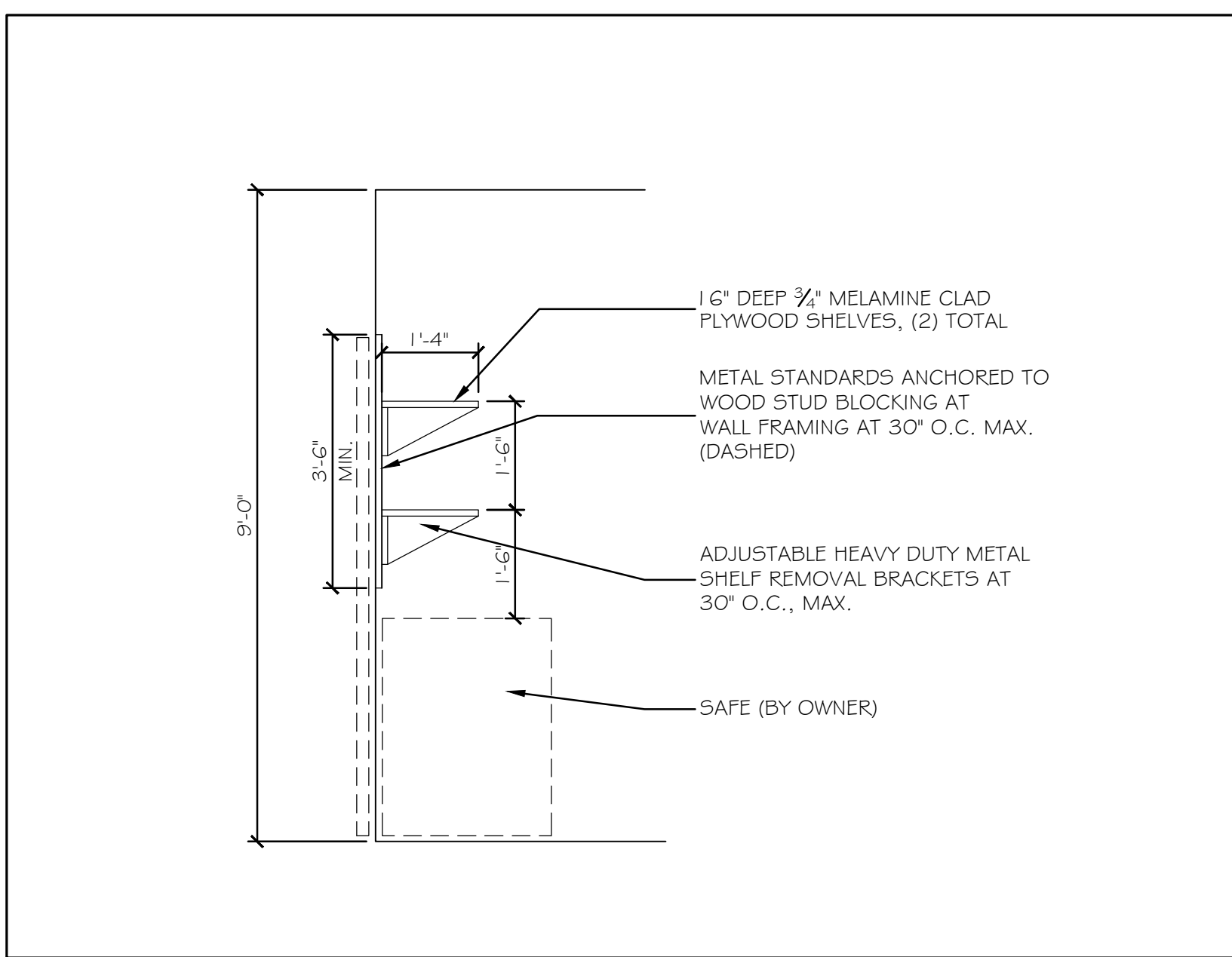
① COUNTING 102 INTERIOR ELEVATION 1/2" = 1'-0"



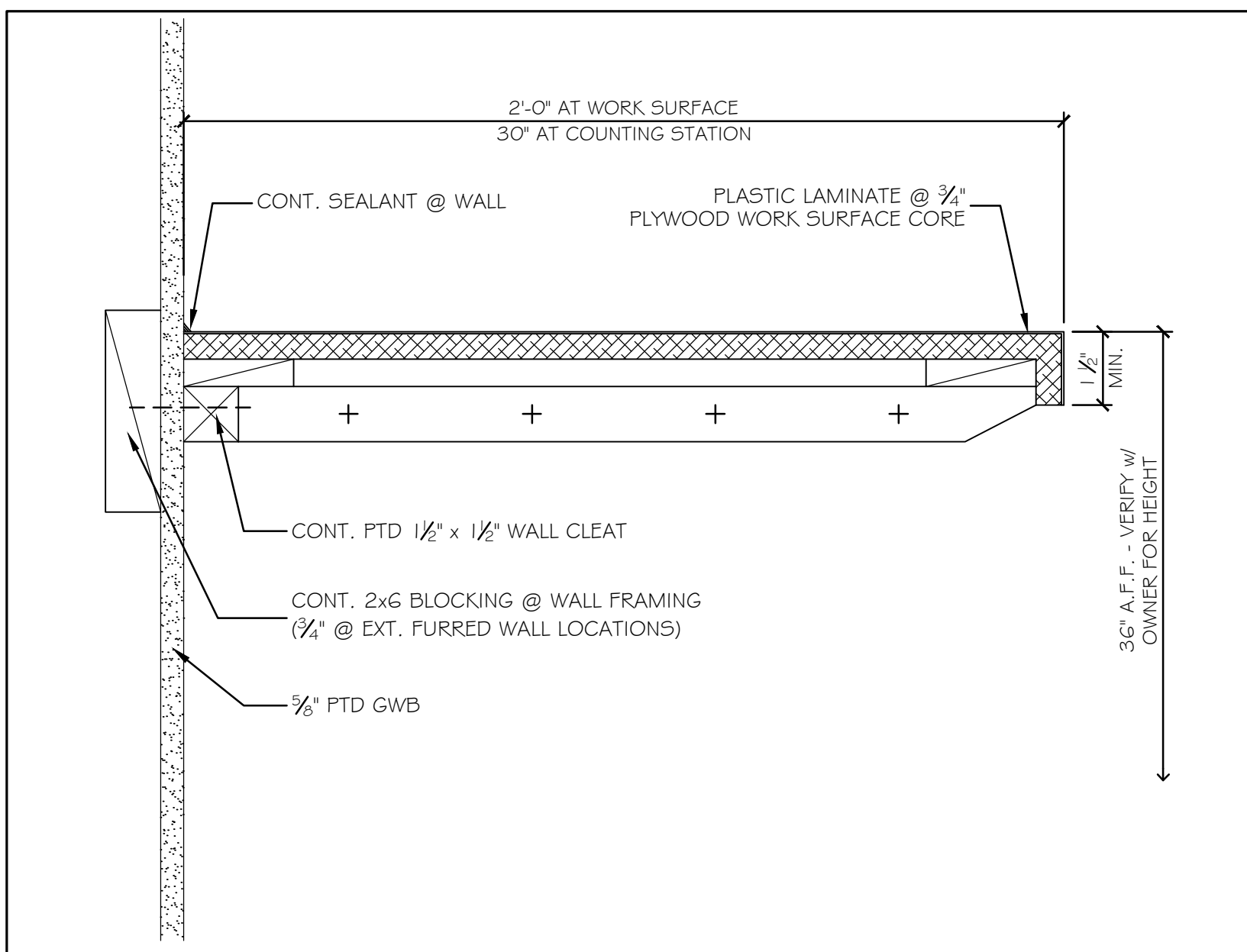
② NOT USED



③ WORK SURFACE SECTION DETAIL @ SUPPORT BRACKETS 1 1/2" = 1'-0"



④ SECTION AT SAFE SHELVING 1/2" = 1'-0"



⑤ WORK SURFACE SECTION DETAIL @ WALL CLEAT 3" = 1'-0"

Scale: AS NOTED

No.	Revision	By	Date

Designed by:

Michael F. Hays, RA

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MGK	10/05/22	In Charge of		

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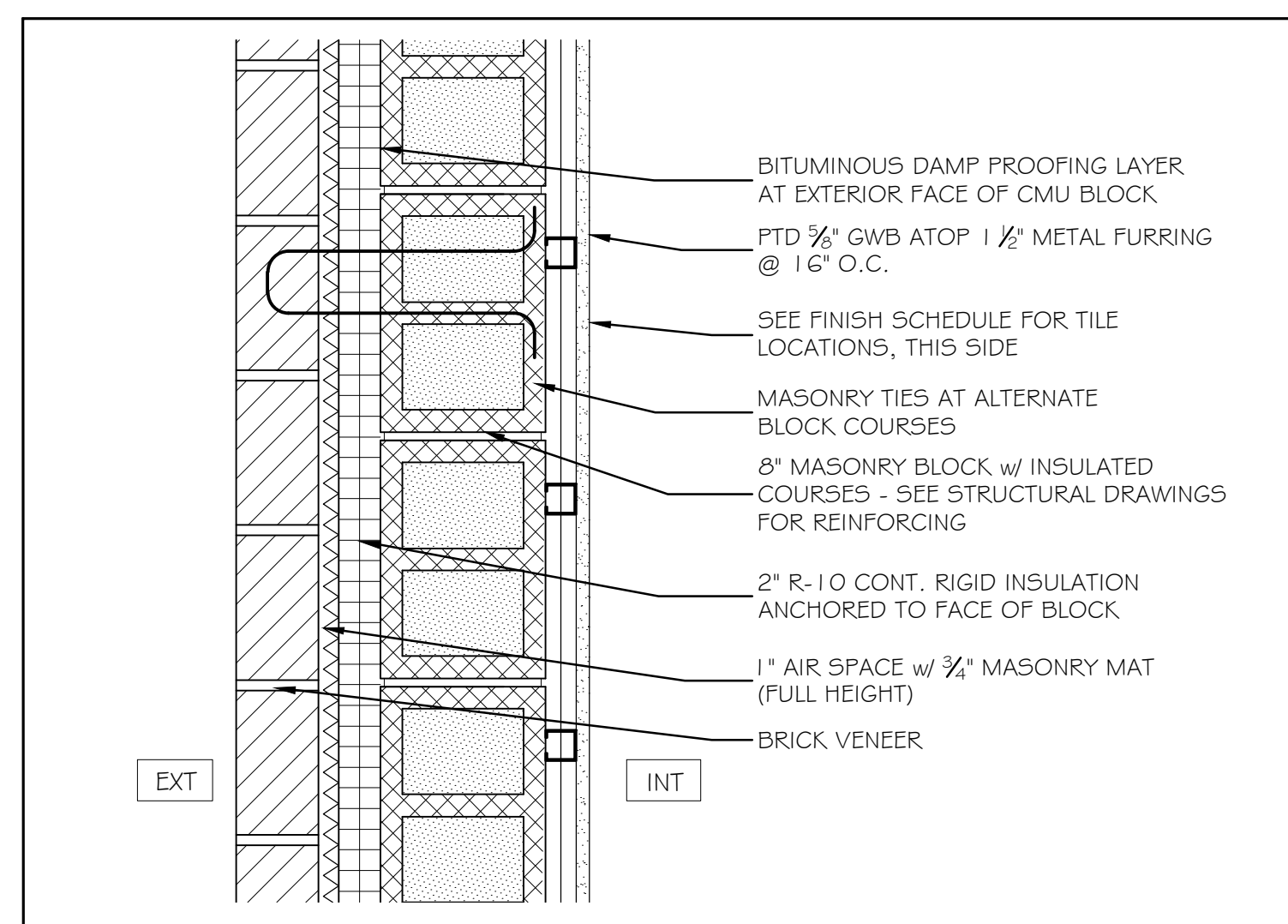
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

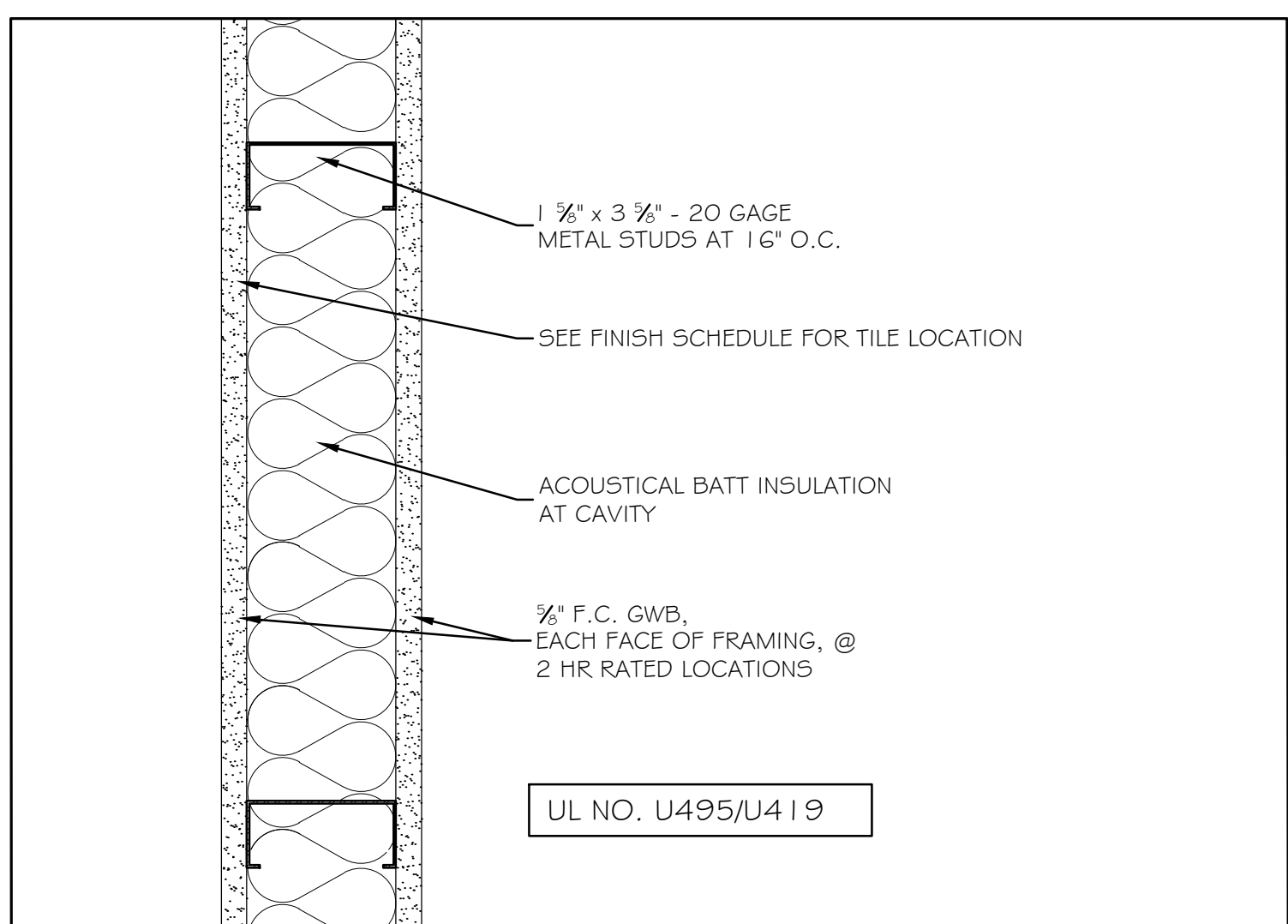
INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND TOLL ADMINISTRATION BUILDING
INTERIOR ELEVATIONS & SECTIONS AT COUNTING 102

SHEET NUMBER: A25

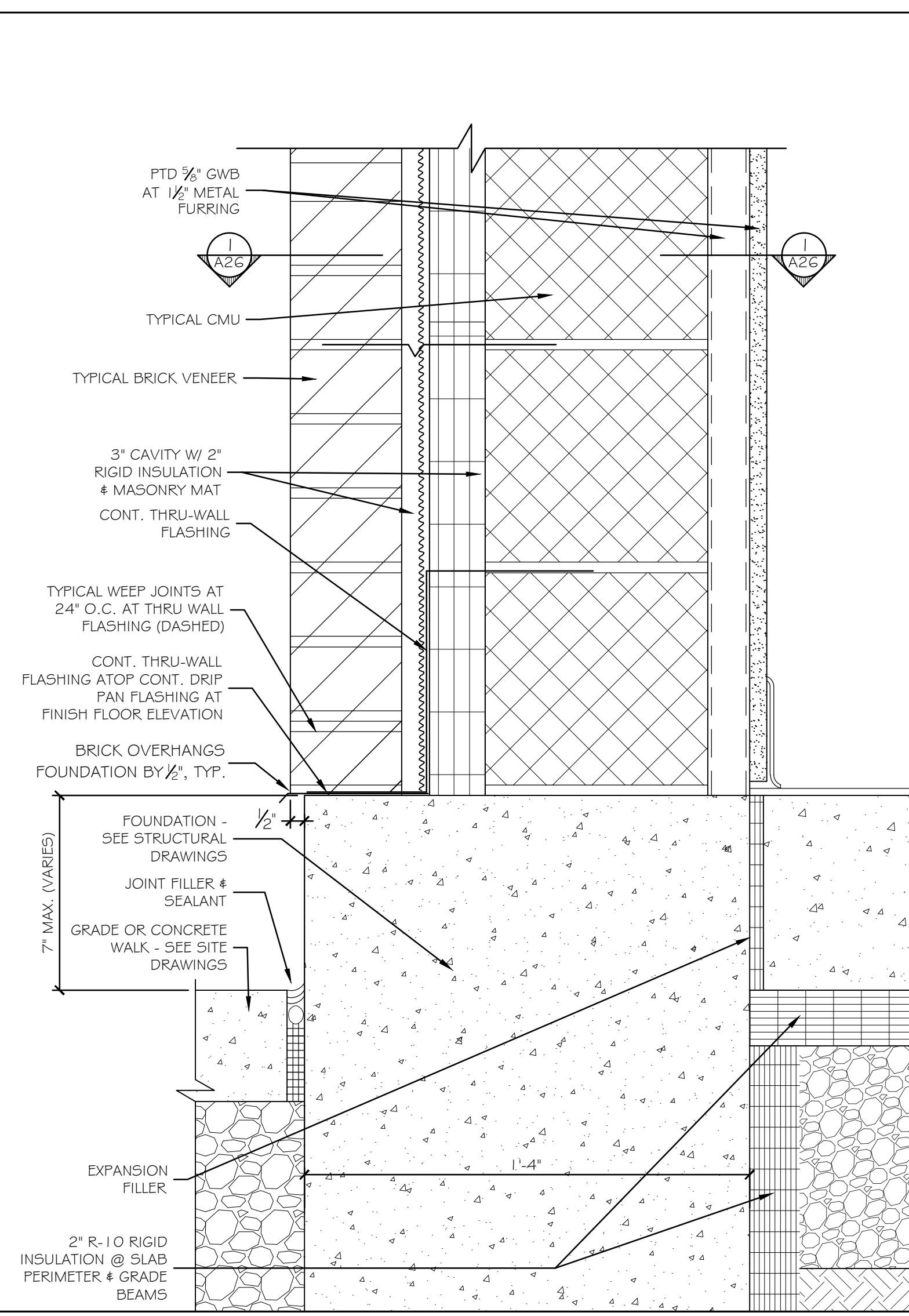
CONTRACT: 2022.07 689 OF 735



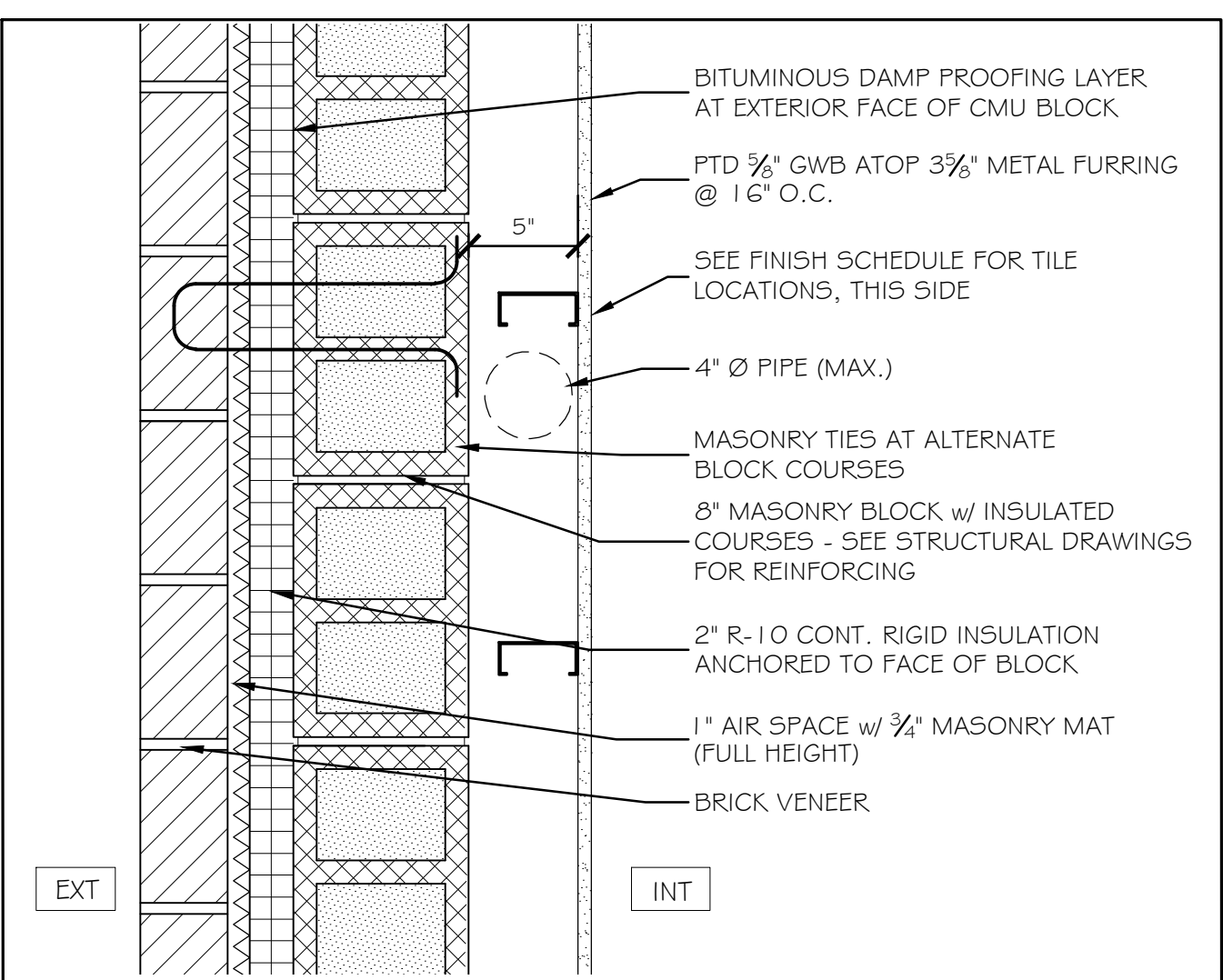
1 EXTERIOR PARTITION 1 1/2" = 1'-0"



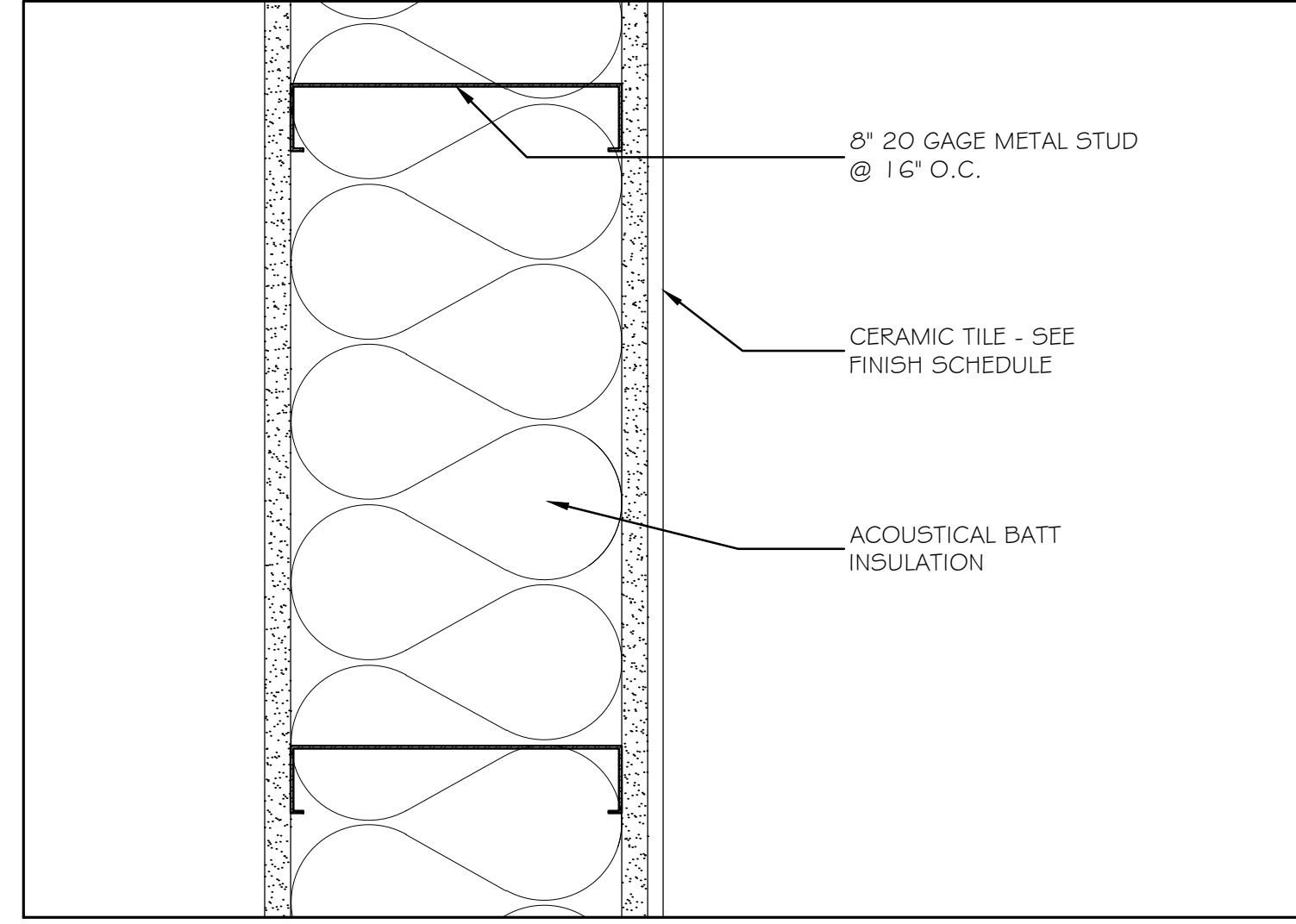
4 1 HR FIRE RATED PARTITION TYPE 3" = 1'-0"



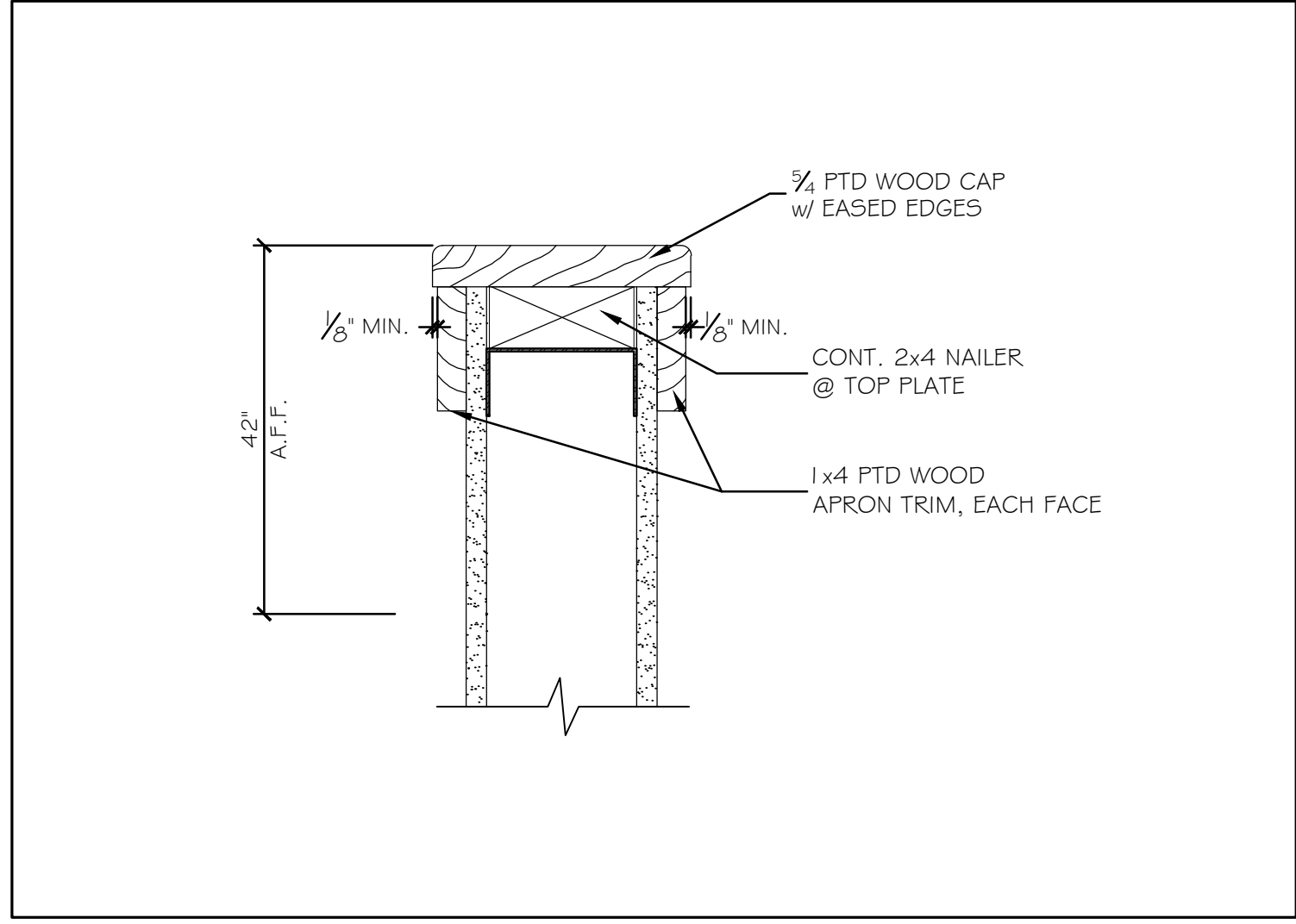
7 CAVITY WALL SECTION DETAIL 3" = 1'-0"



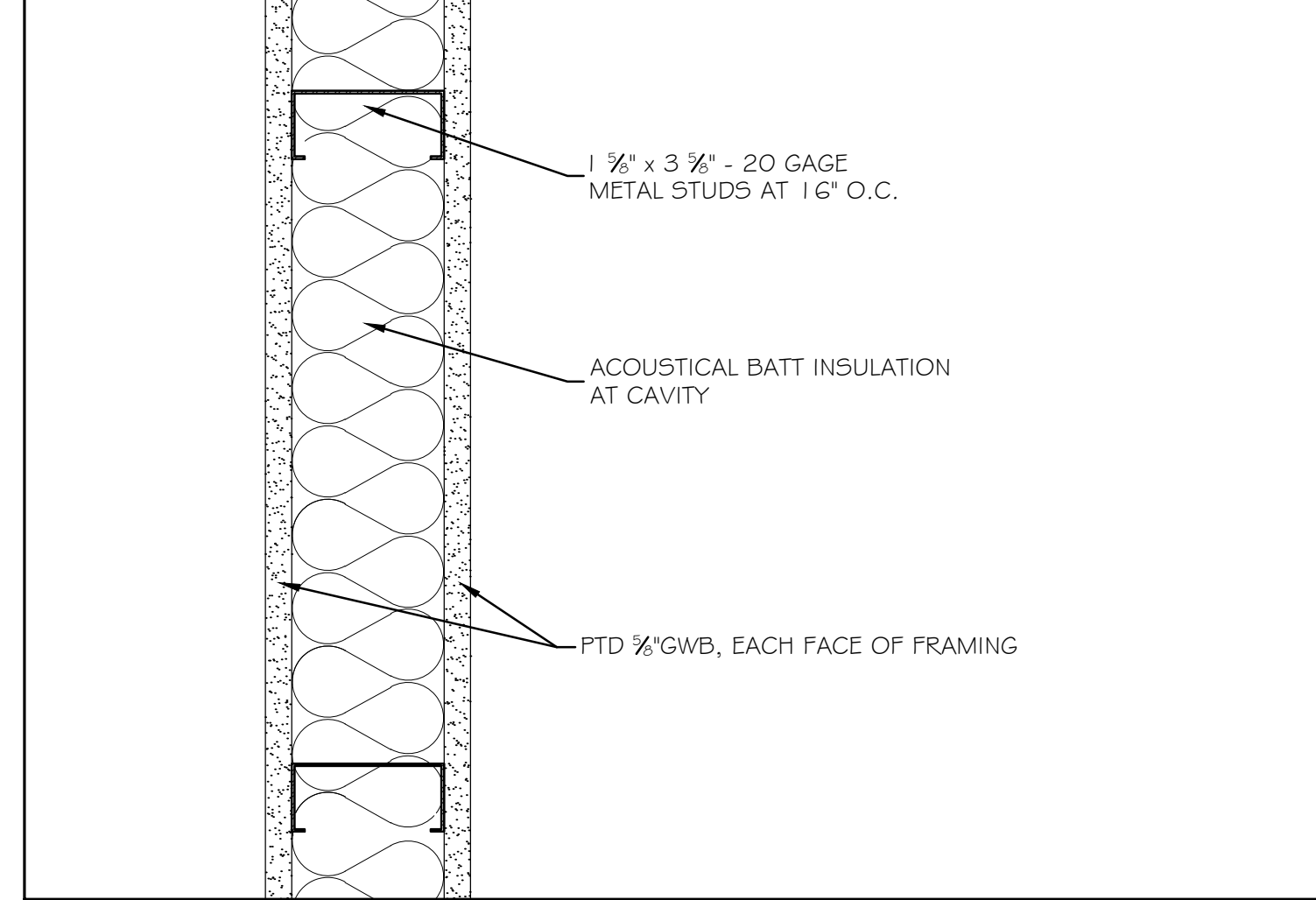
9 EXTERIOR PARTITION 3" = 1'-0"



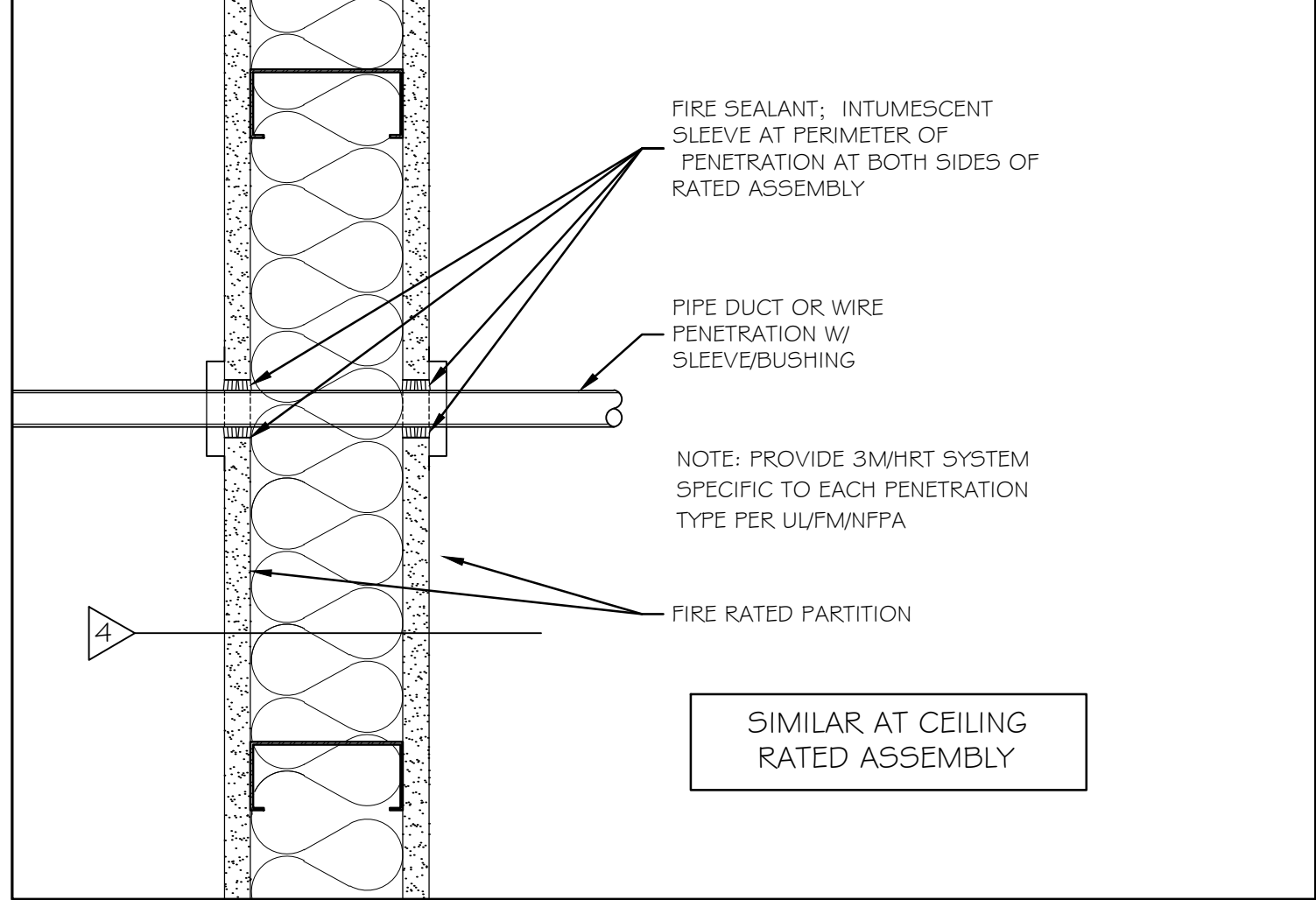
2 PLUMBING PARTITION 3" = 1'-0"



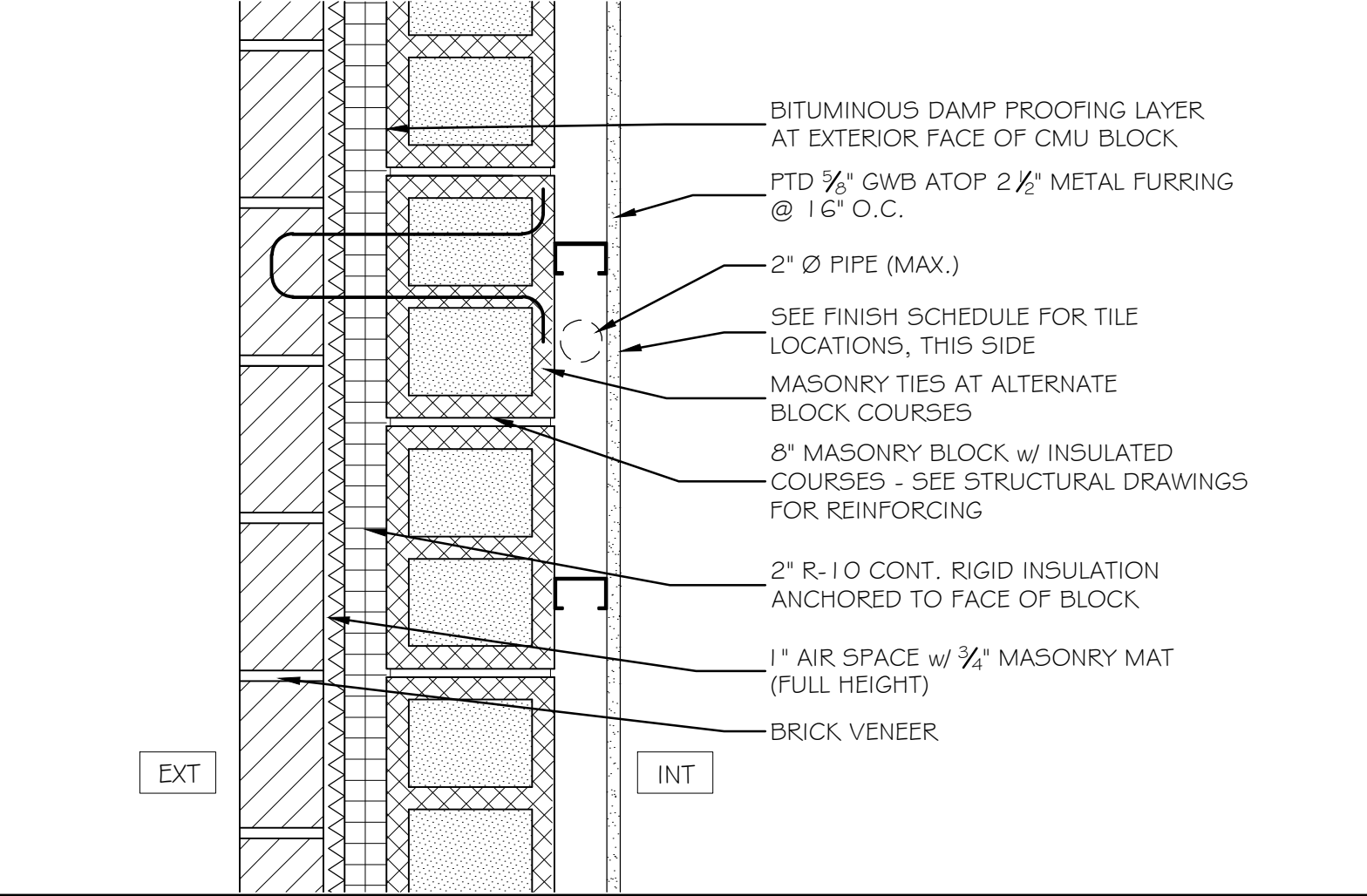
5 HALF WALL 3" = 1'-0"



3 INTERIOR PARTITION 3" = 1'-0"



6 FIRE SEALANT AT PENETRATIONS 3" = 1'-0"



8 EXTERIOR PARTITION TYPE 3" = 1'-0"



10 NOT USED

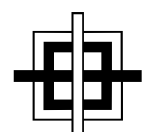
Scale: AS NOTED

Designed by:

Michael F. Hays, RA

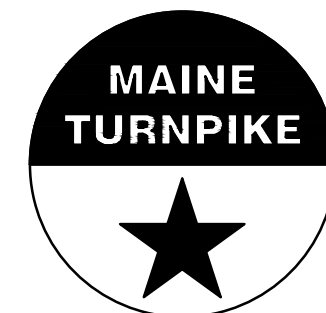
CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

	By	Date	By	Date	
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MKG	10/05/22	In Charge of		



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THE GOLD STAR MEMORIAL HIGHWAY

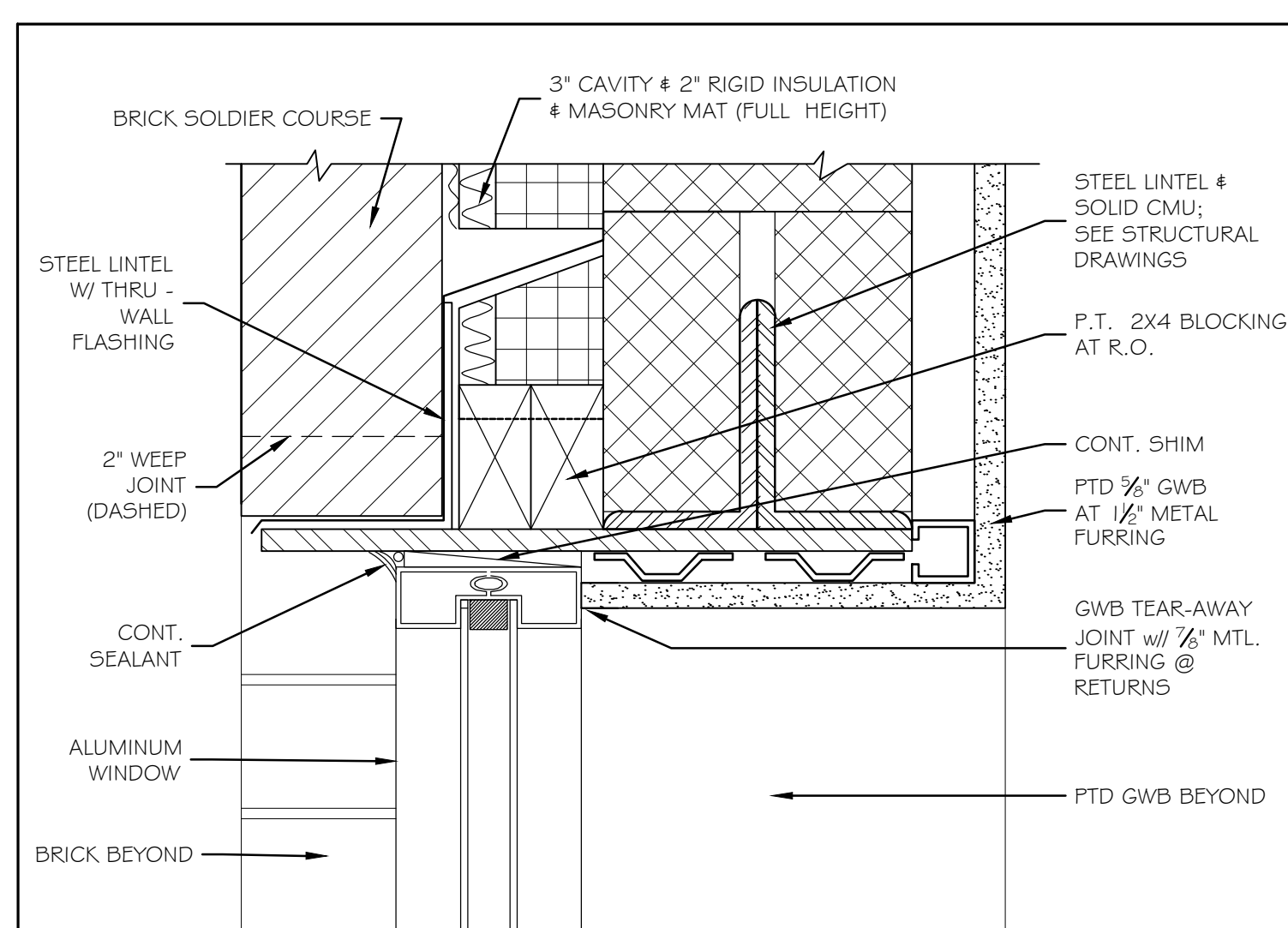
MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 NORTHBOUND TOLL ADMINISTRATION BUILDING
 PARTITION TYPES

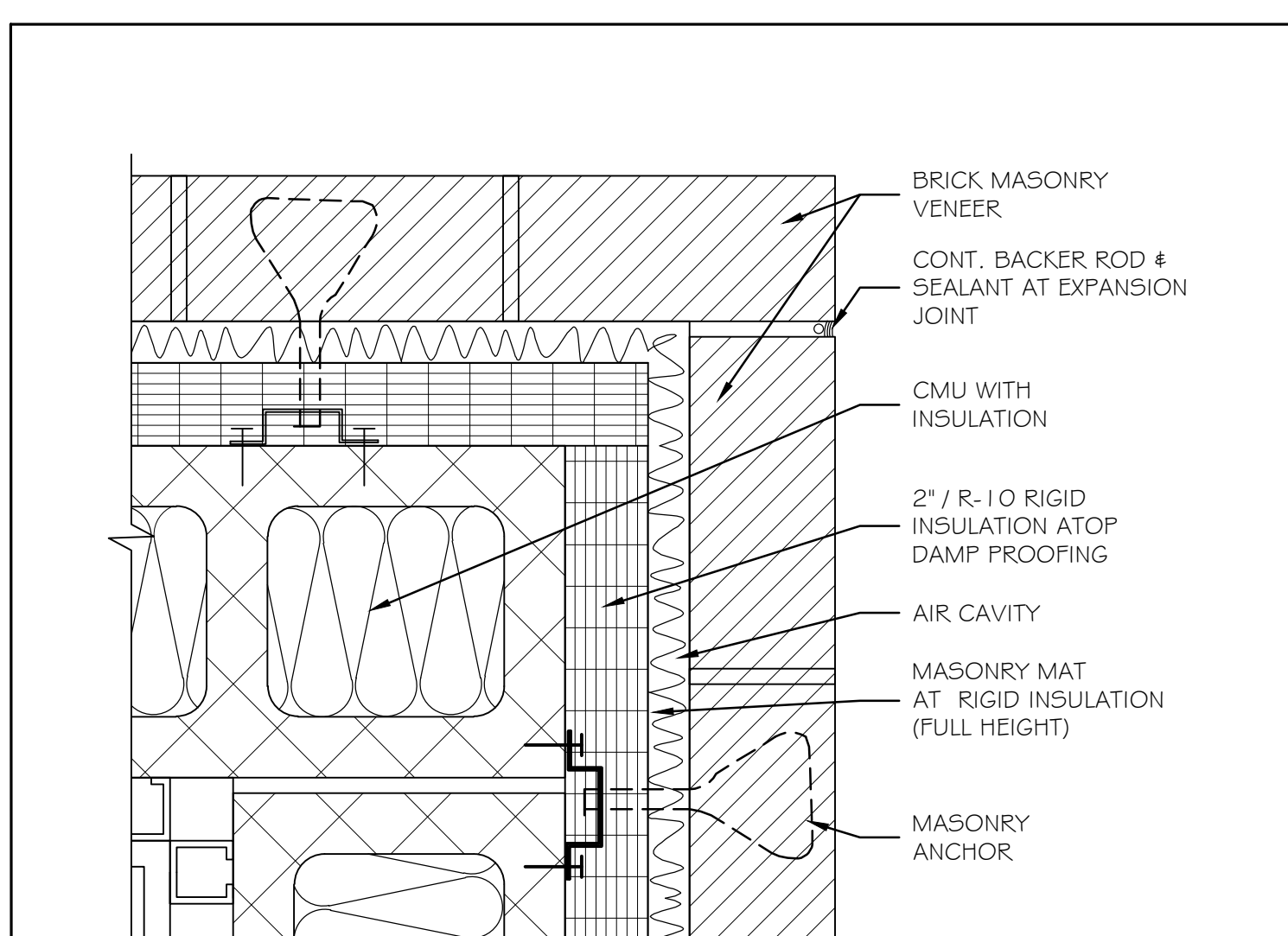
SHEET NUMBER: A26

CONTRACT: 2022.07

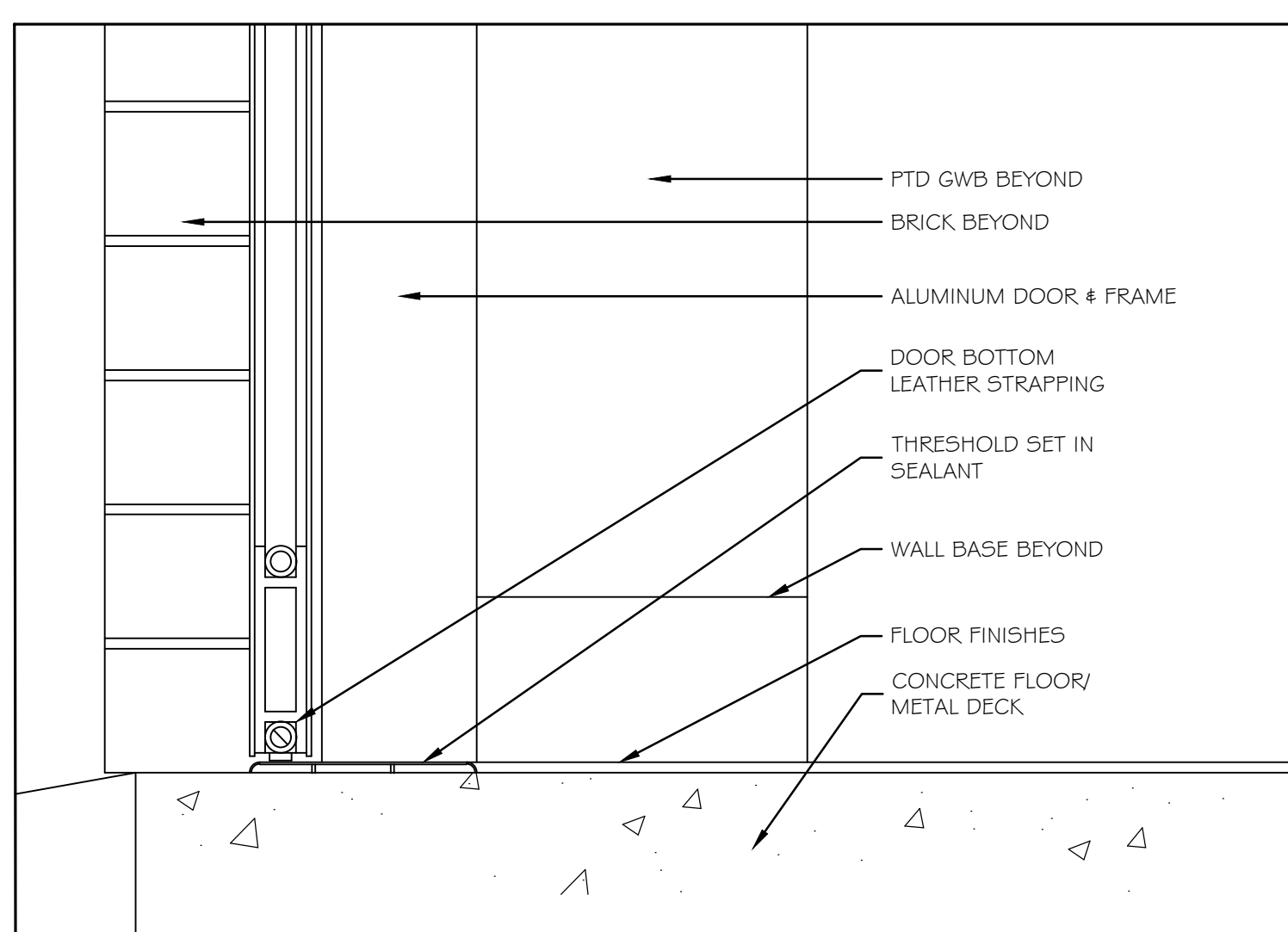
690 OF 735



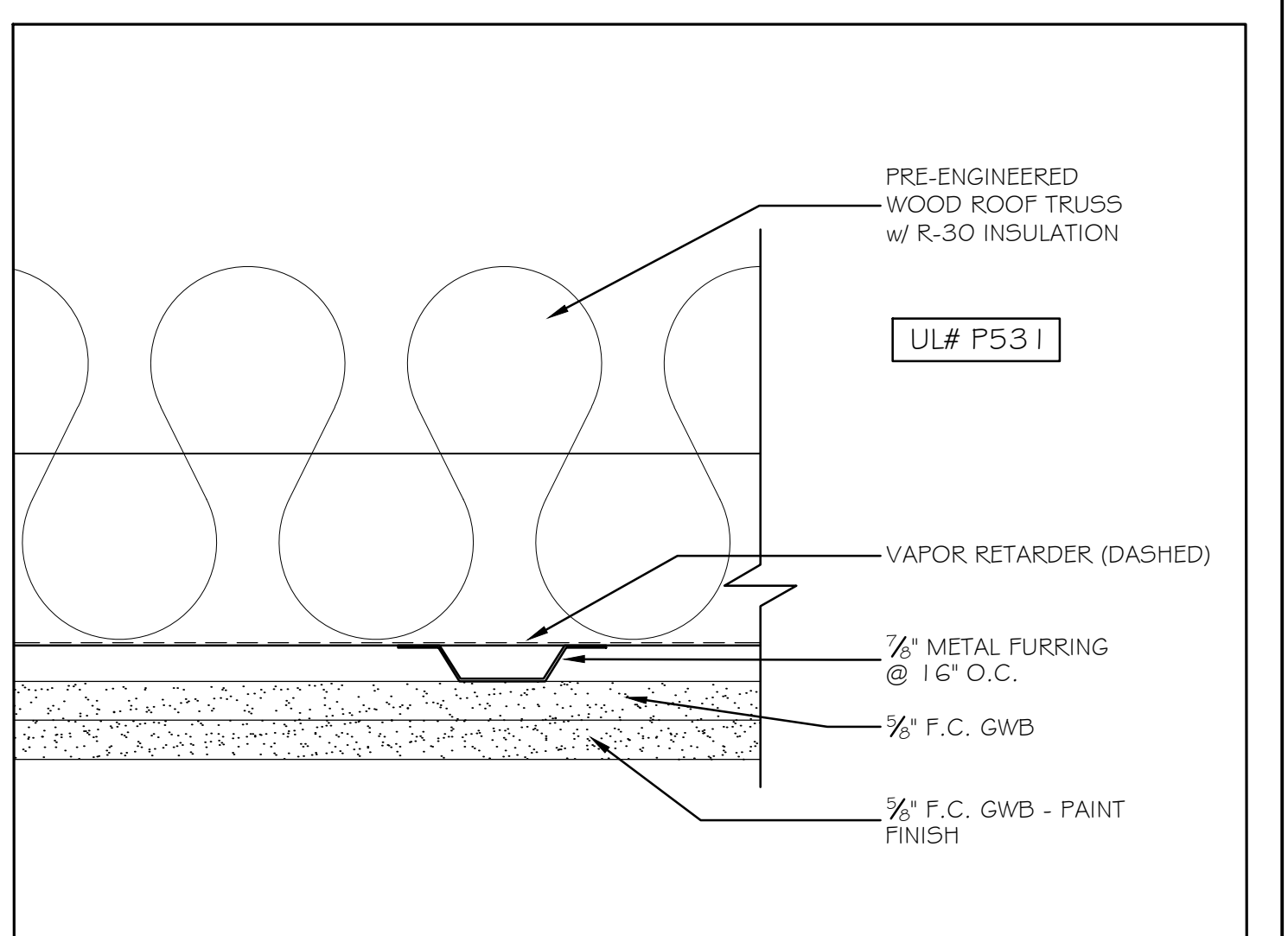
① EXTERIOR WINDOW HEAD @ STEEL FRAME 3" = 1'-0"



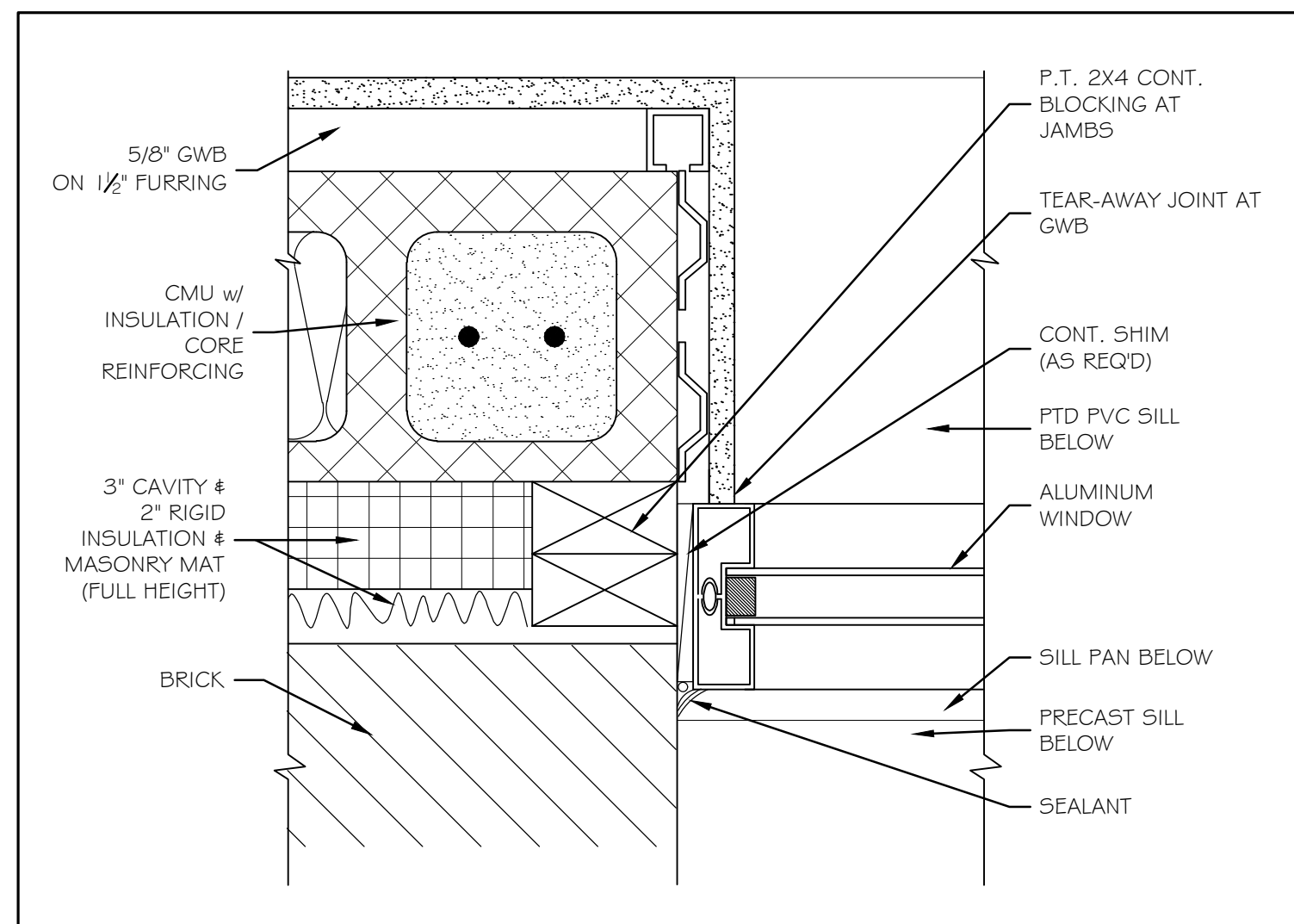
④ MASONRY EXPANSION JOINT DETAIL 3" = 1'-0"



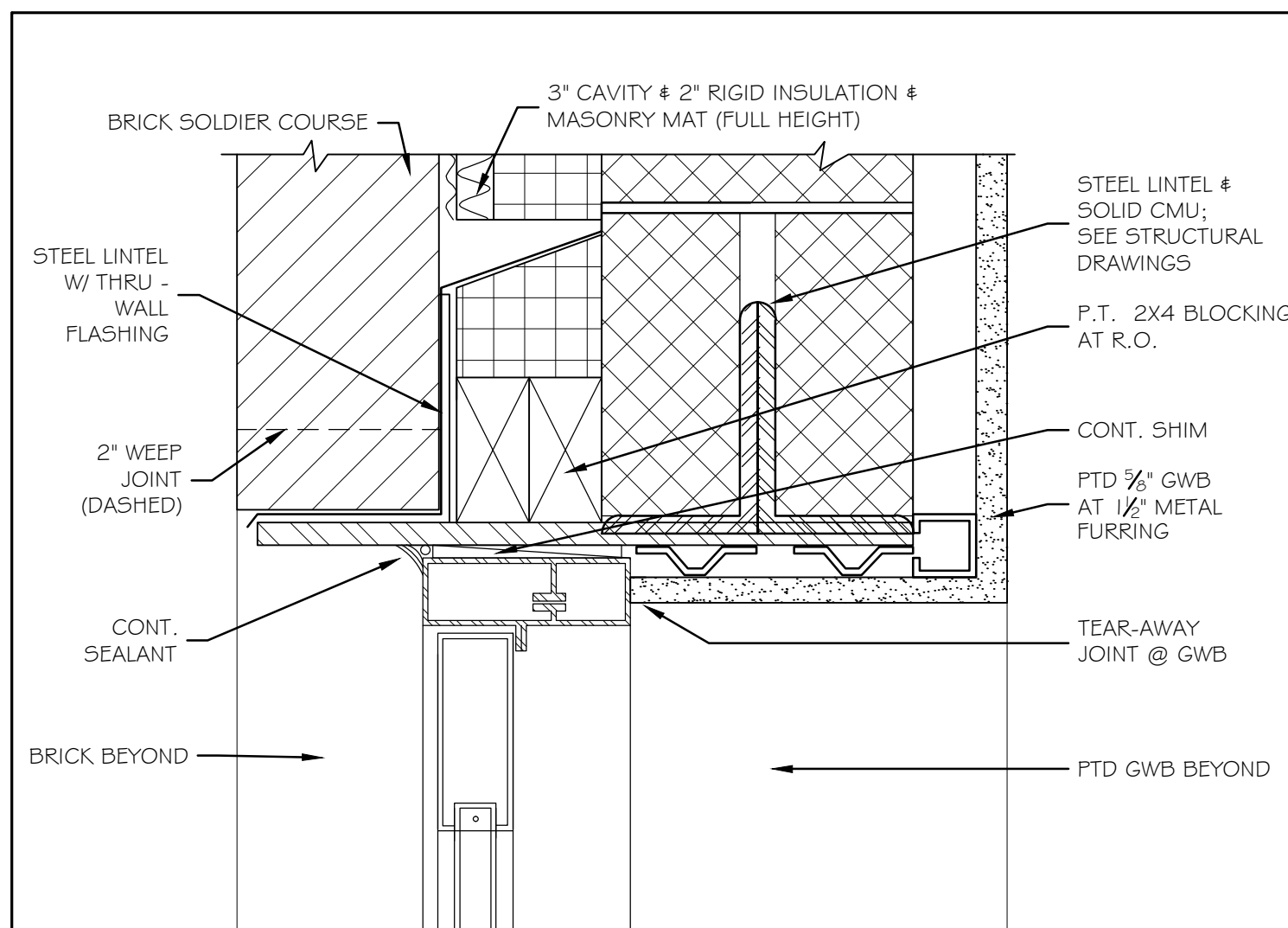
⑦ THRESHOLD DETAIL 3" = 1'-0"



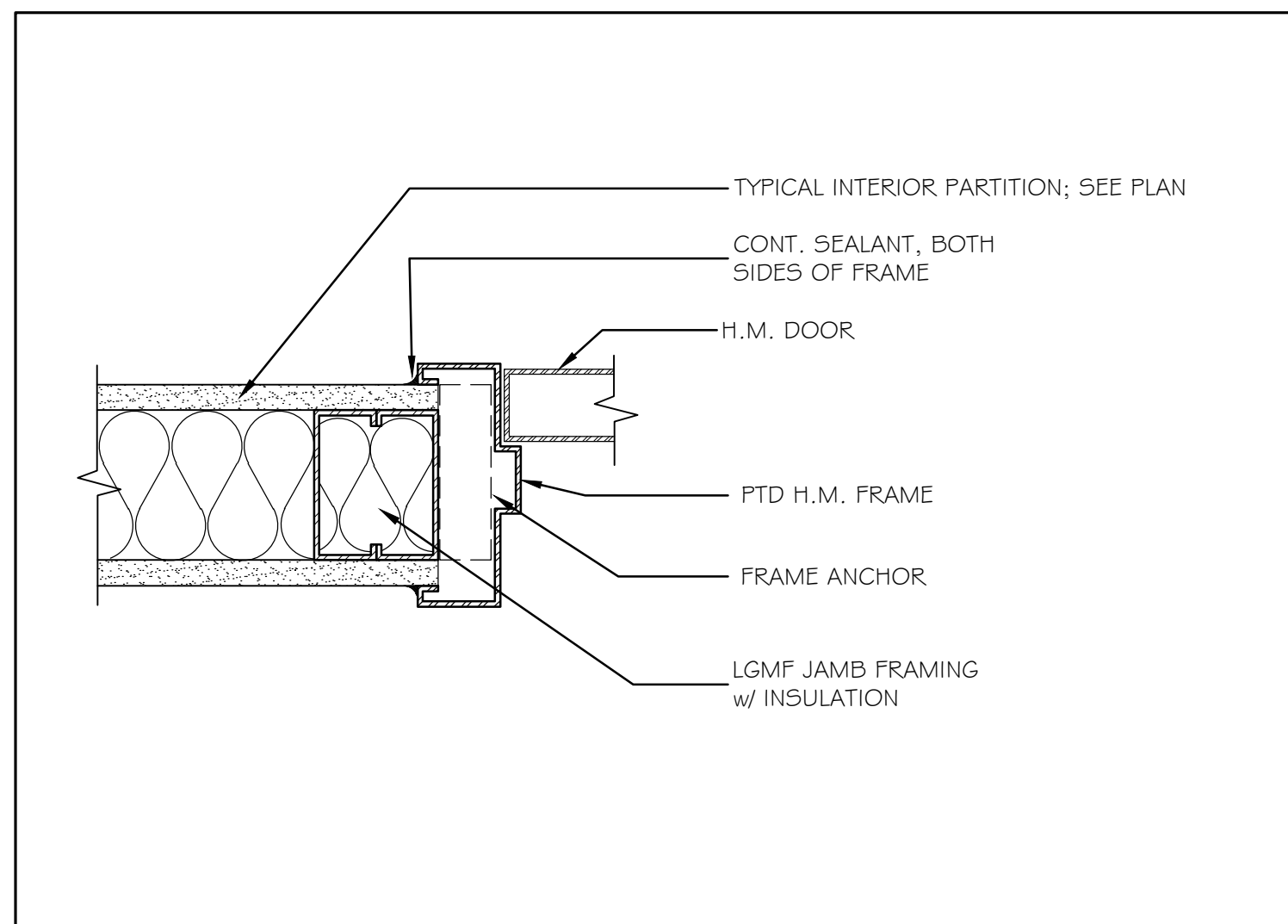
⑩ 2 HR RATED CEILING DETAIL AT WOOD TRUSS 3" = 1'-0"



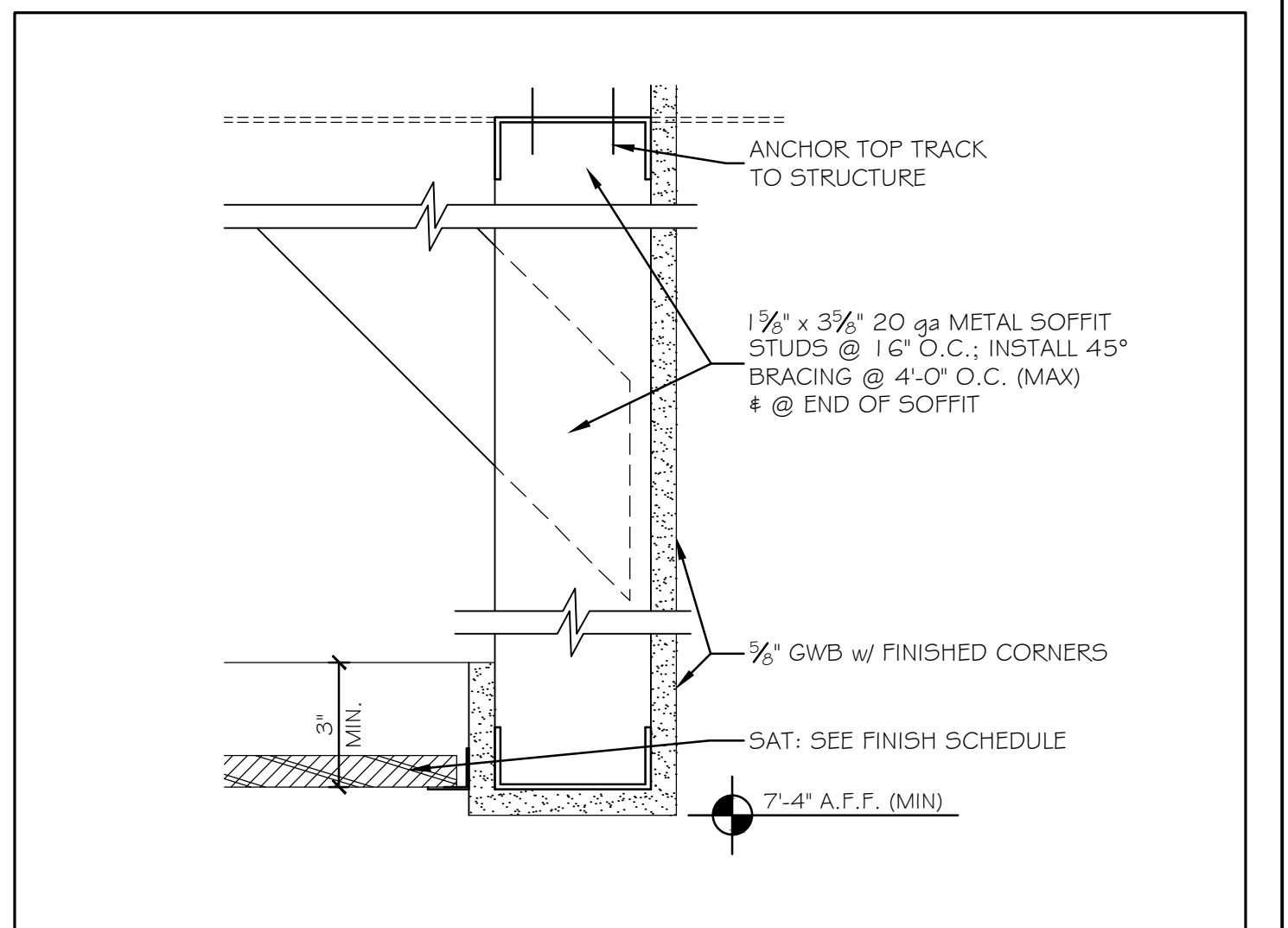
② EXTERIOR WINDOW JAMB 3" = 1'-0"



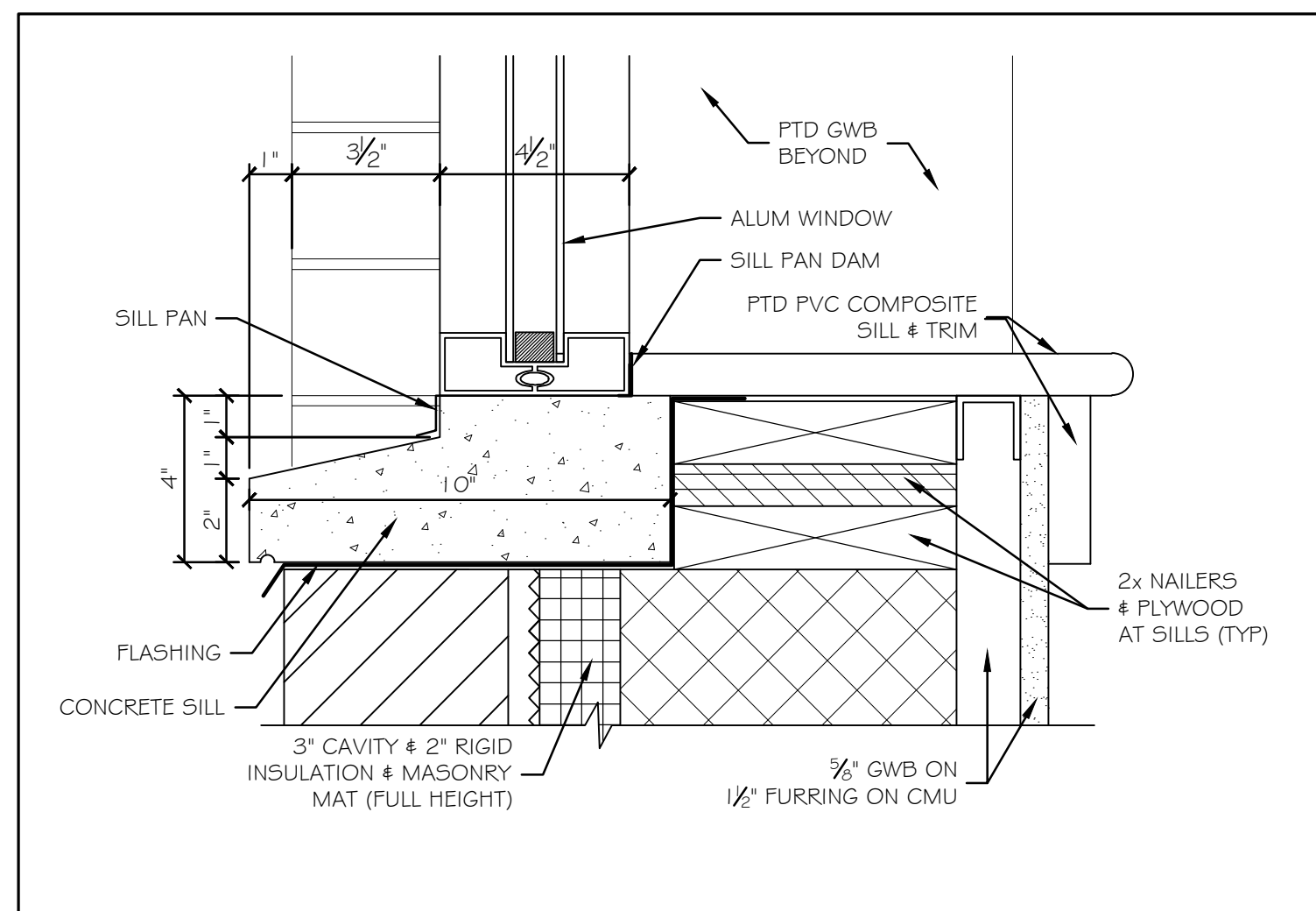
⑤ EXTERIOR DOOR HEAD @ STEEL FRAME 3" = 1'-0"



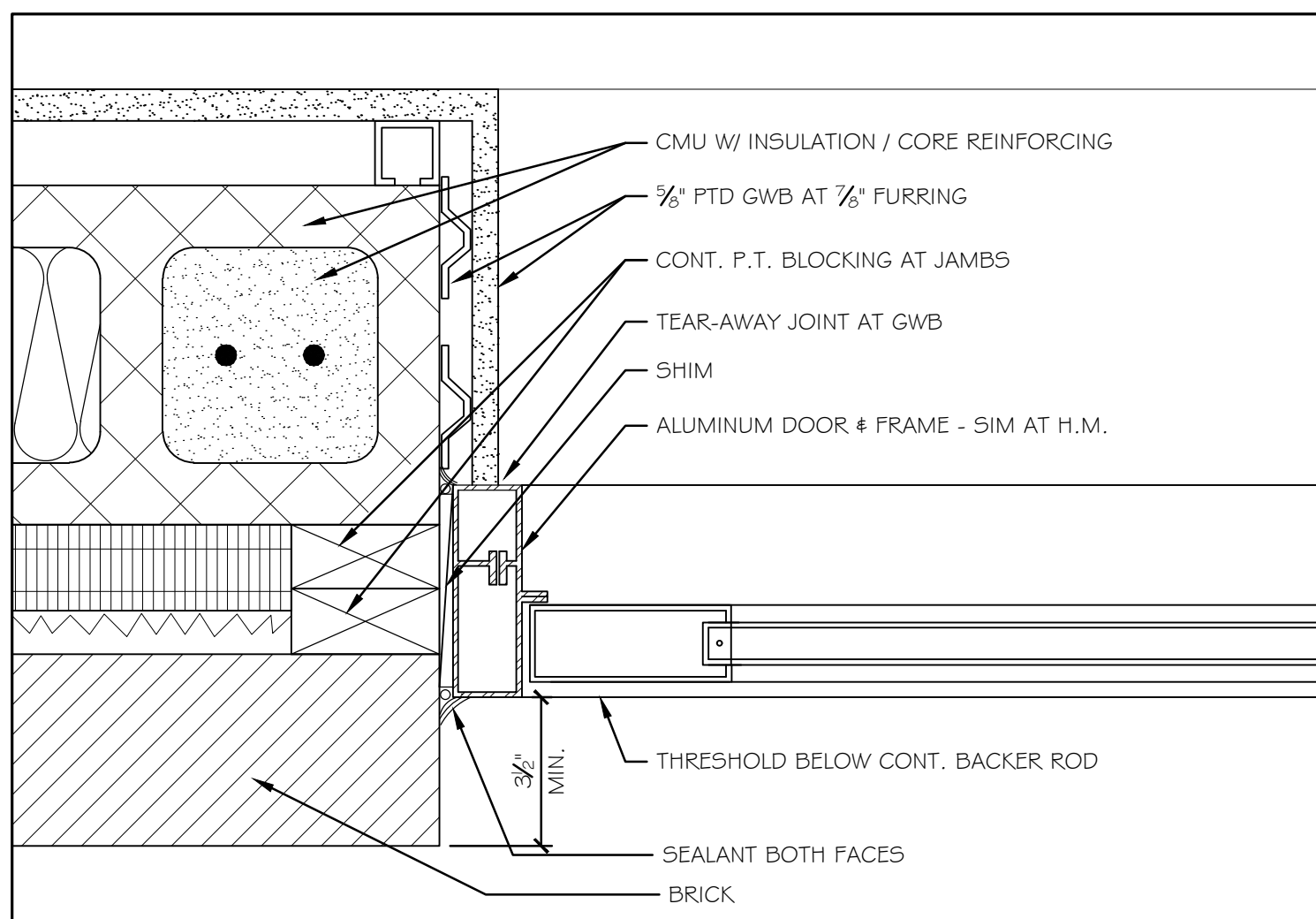
⑧ TYP. INTERIOR H.M. JAMB (HEAD SIM) 3" = 1'-0"



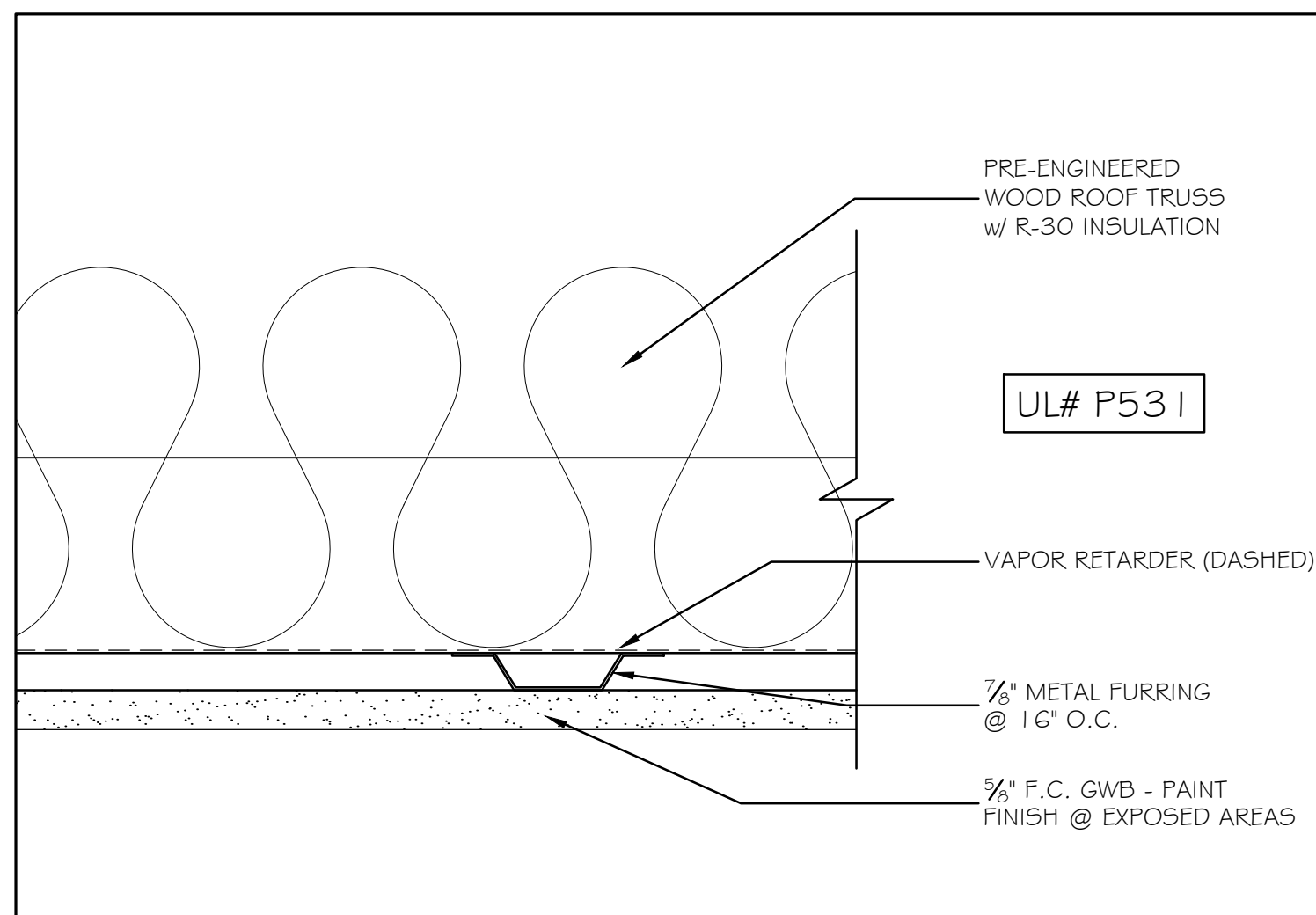
⑪ SOFFIT DETAIL AT BREAK ROOM 3" = 1'-0"



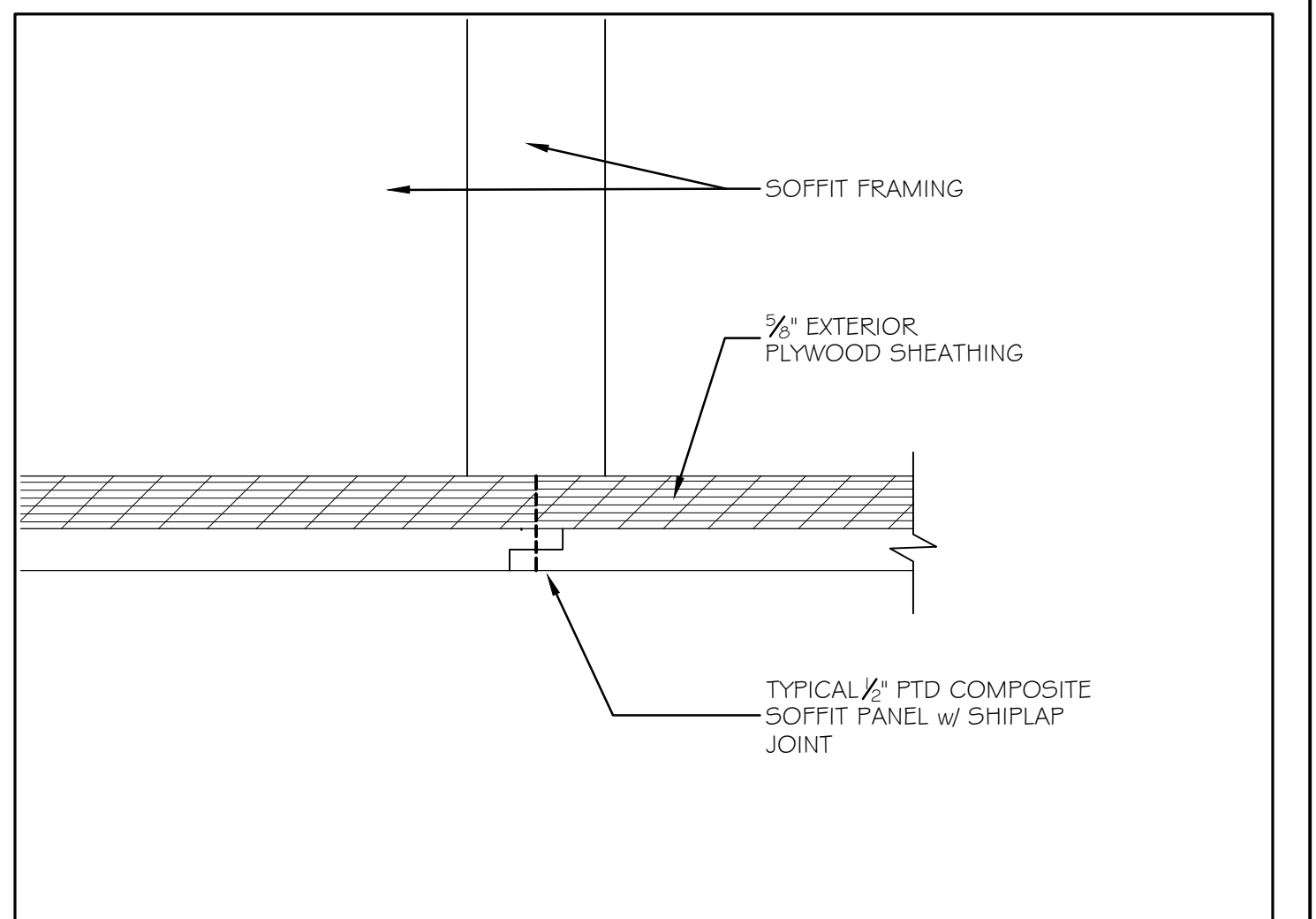
③ EXTERIOR WINDOW SILL 3" = 1'-0"



⑥ EXTERIOR DOOR JAMB DETAIL 3" = 1'-0"



⑨ 1 HR RATED ROOF TRUSS DETAIL 3" = 1'-0"



⑫ SOFFIT JOINT DETAIL 6" = 1'-0"

Scale: AS NOTED

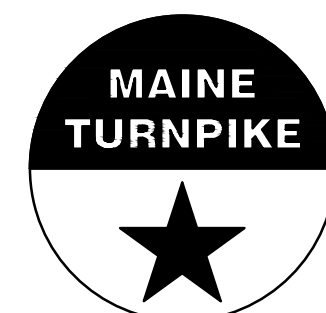
Designed by:

Michael F. Hays, RA



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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

**INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
NORTHBOUND TOLL ADMINISTRATION BUILDING
DETAILS**

SHEET NUMBER: A27

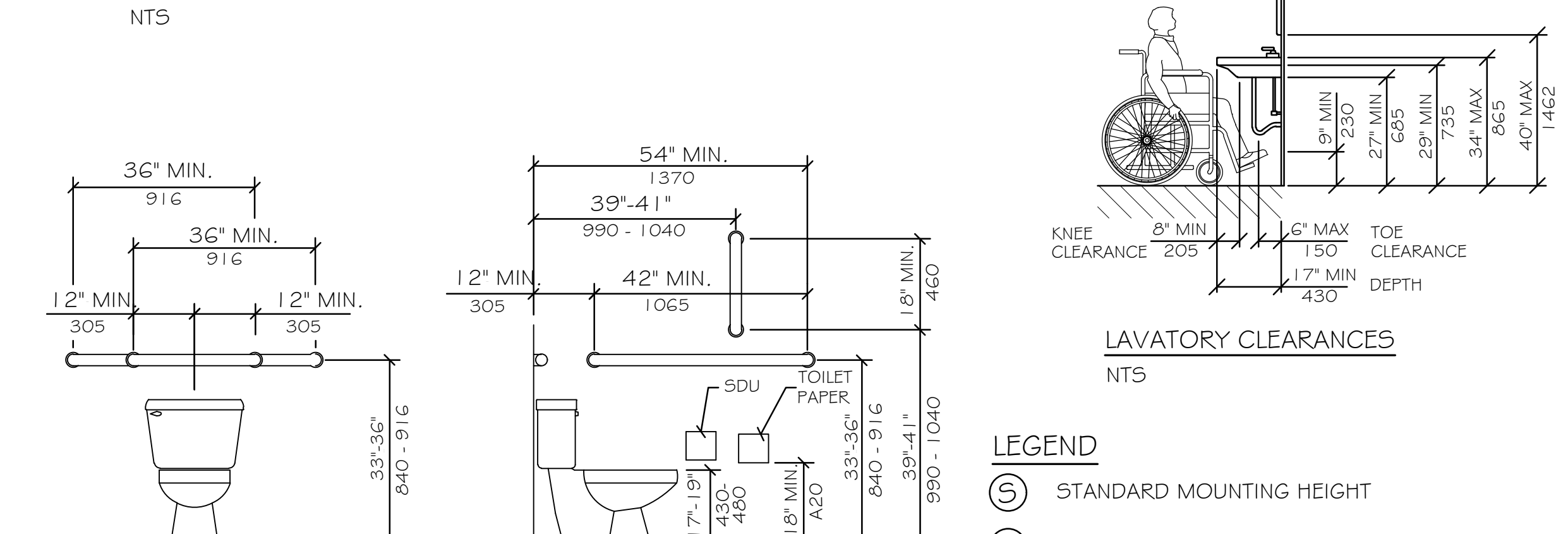
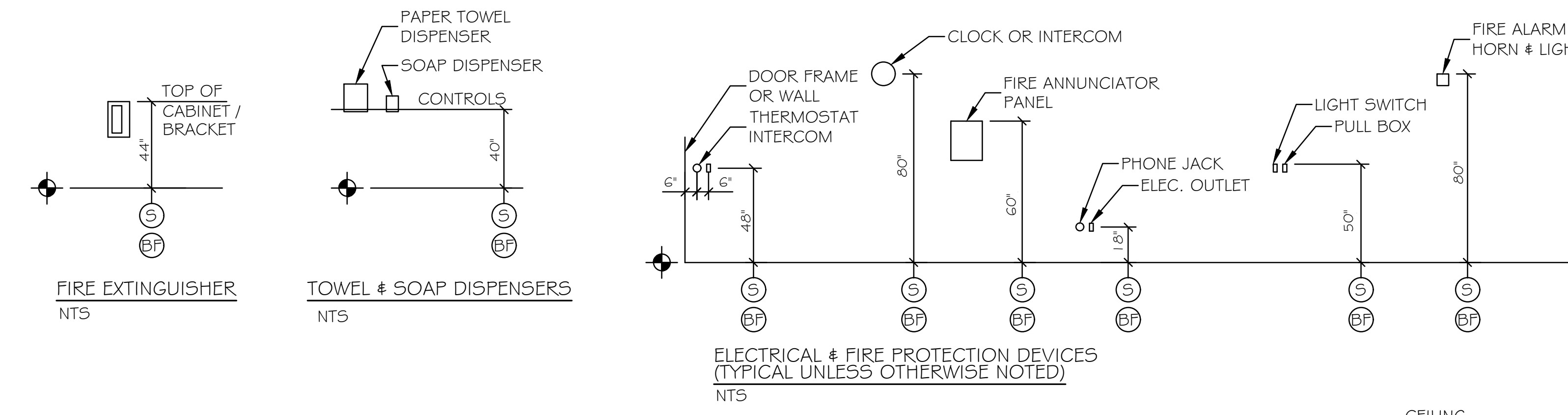
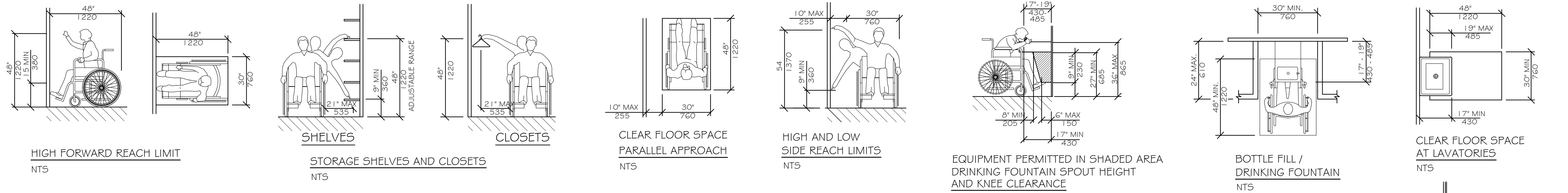
CONTRACT: 2022.07

691 OF 735

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

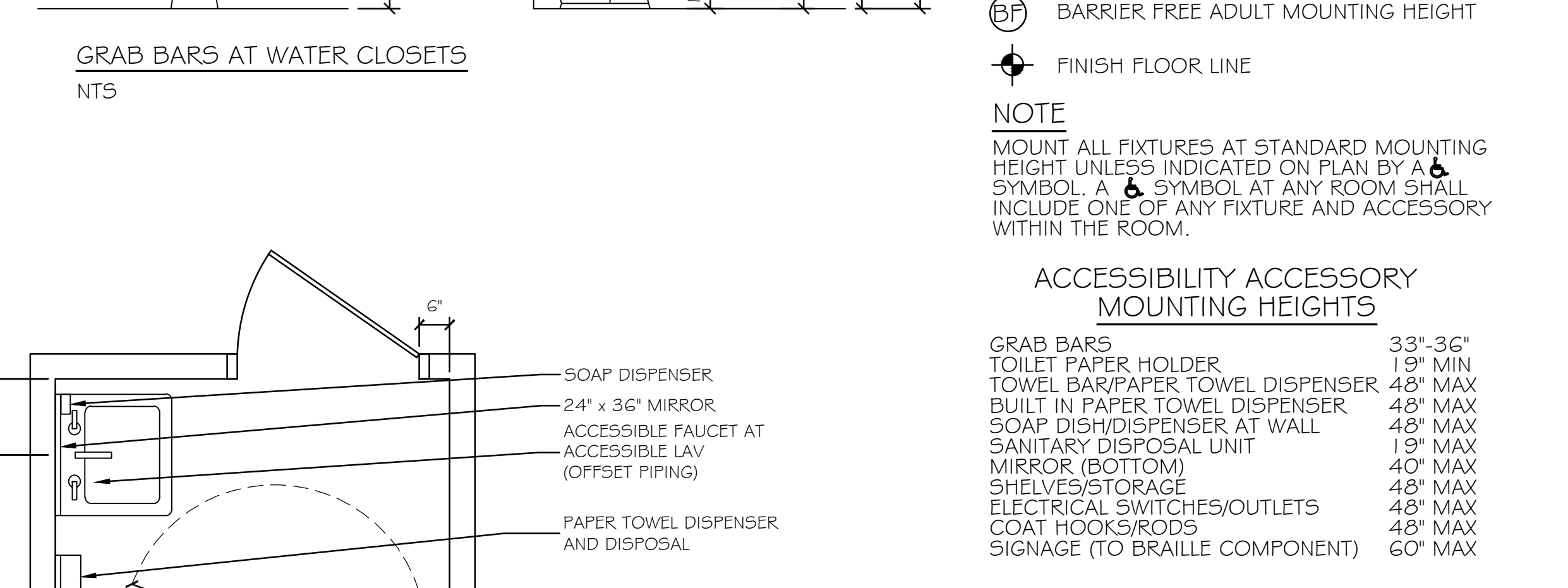
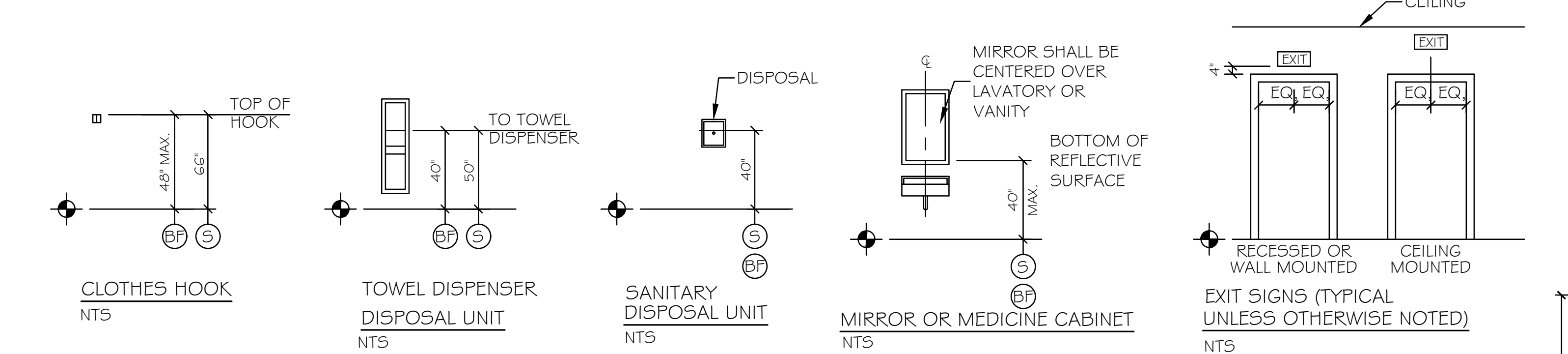
	By	Date	By	Date	
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MKG	10/05/22	In Charge of		



LEGEND

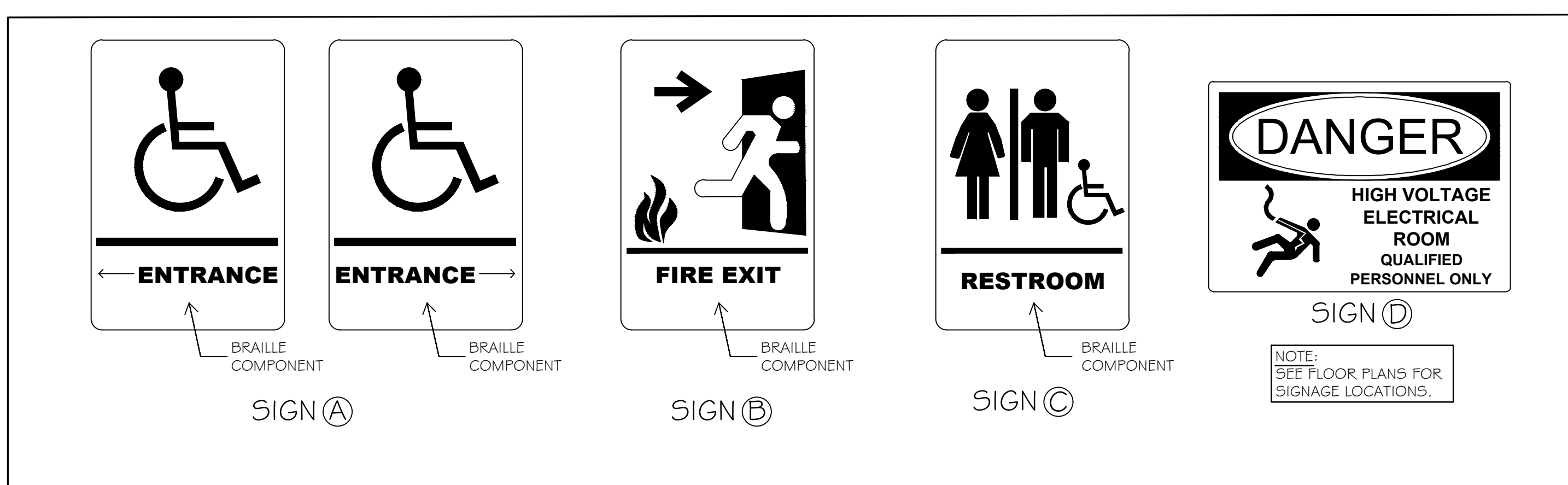
- (S) STANDARD MOUNTING HEIGHT
- (BF) BARRIER FREE ADULT MOUNTING HEIGHT
- ⊕ FINISH FLOOR LINE

NOTE
MOUNT ALL FIXTURES AT STANDARD MOUNTING HEIGHT UNLESS INDICATED ON PLAN BY A (S) SYMBOL. A (BF) SYMBOL AT ANY ROOM SHALL INCLUDE ONE OF ANY FIXTURE AND ACCESSORY WITHIN THE ROOM.



ACCESSIBILITY ACCESSORY MOUNTING HEIGHTS

GRAB BARS	33"-36"
TOILET PAPER HOLDER	19" MIN
TOWEL BAR/PAPER TOWEL DISPENSER	48" MAX
BUILT IN PAPER TOWEL DISPENSER	48" MAX
SOAP DISH/DISPENSER AT WALL	48" MAX
SANITARY DISPOSAL UNIT	19" MAX
MIRROR (BOTTOM)	40" MAX
SHELVES/STORAGE	48" MAX
ELECTRICAL SWITCHES/OUTLETS	48" MAX
COAT HOOKS/RODS	48" MAX
SIGNAGE (TO BRAILLE COMPONENT)	60" MAX



ACCESSIBILITY SIGNAGE DETAILS
NO SCALE

- ACCESSIBILITY GENERAL NOTES**
1. DOORWAYS SHALL HAVE A MINIMUM CLEAR WIDTH OF 32" WITH THE DOOR OPEN 90 DEGREES. MEASURED BETWEEN THE FACE OF THE DOOR AND THE OPPOSITE STOP.
 2. ALL DOORS SHALL HAVE LEVER HANDLE HARDWARE, EXCEPT AT SECURED STORAGE ROOMS, MECHANICAL ROOMS, AND ELEVATOR MACHINE ROOMS.
 3. ALL CLOSERS SHALL BE 5LB PULL MAXIMUM AT DOORS EQUIPPED WITH LEVER HANDLE HARDWARE.
 4. ALL DOORS WITH CLOSERS SHALL HAVE 18" CLEAR DISTANCE FROM THE LATCHSIDE OF THE OPENING TO ANY ADJACENT WALL OR OBSTRUCTION ON THE PULL SIDE OF THE OPENING.
 5. ALL DOORS WITH CLOSERS SHALL HAVE 12" CLEAR DISTANCE FROM THE LATCHSIDE OF THE OPENING TO ANY ADJACENT WALL OR OBSTRUCTION ON THE PUSH SIDE OF THE OPENING.
 6. ALL SIGNAGE SHALL BE MOUNTED 60" AFF TO BRAILLE COMPONENT AT LATCH-SIDE WALL OF DOORS AND OPENINGS.
 7. COMPLY WITH 2010 EDITION OF THE AMERICANS WITH DISABILITIES ACT.

Scale: NO SCALE

No.	Revision	By	Date

Designed by:
Michael F. Hays, RA

CONSULTANT PROJECT MANAGER: LAUREN E. MEEK, PE

	By	Date		By	Date
Designed	MFH	10/05/22	Checked	MFH	10/05/22
Drawn	MKG	10/05/22	In Charge of		

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, P.E., CPESC

INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36)

NORTHBOUND TOLL ADMINISTRATION BUILDING ACCESSIBILITY DETAILS & NOTES

SHEET NUMBER: A28
CONTRACT: 2022.07
692 OF 735

ADMINISTRATION BUILDING GENERAL STRUCTURAL NOTES:

- WORK SHALL BE DONE IN COMPLIANCE WITH THE LATEST EDITION OF IBC-2015.
- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND CIVIL DRAWINGS. ANY INCONSISTENCIES WITH THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED PORTIONS OF THE WORK.
- THE CONTRACTOR SHALL VISIT THE SITE AT THE DESIGNATED TIME APPROVED BY THE OWNER TO VERIFY EXISTING CONDITIONS, DIMENSIONS, LOCATIONS OF EXISTING UTILITIES, ETC. THE CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES WITHOUT EXCEPTION.
- THE STRUCTURE HAS BEEN DESIGNED AS A SELF-SUPPORTING SYSTEM ONCE ALL WORK CONTAINED ON THESE DRAWINGS HAS BEEN COMPLETED. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ERECTION PROCEDURES AND SEQUENCE OF INSTALLATION TO ENSURE SAFETY OF THE BUILDING AND ITS OCCUPANTS DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS AND METHODS AND TEMPORARY SHORING, PRECAUTIONS DURING BUILDING OPERATIONS, PROTECTION OF PUBLIC AND WORKERS, REMOVAL OF WASTE MATERIAL, PROTECTION OF ADJACENT PROPERTY, PROTECTION OF HAZARDOUS OPENINGS, SAFETY PRECAUTIONS AND SANITARY PROVISIONS OF EMPLOYEES AND SUBCONTRACTORS AS REQUIRED FOR THE DURATION OF THE CONTRACT.
- WORK SHALL BE DONE IN AN ORDERLY AND PROFESSIONAL MANNER. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL WORK TO BE DONE BY SUBCONTRACTORS, LOCAL AUTHORITIES, STATE AGENCIES AND/OR UTILITY COMPANIES WHICH MAY HAVE JURISDICTION OVER THIS PROJECT.
- UTILITY EXTENSIONS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH STATE AND LOCAL CODES OR AS INDICATED ON THE DRAWINGS.
- CONTRACTOR SHALL REVIEW AND SUBMIT COMPLETE SHOP DRAWINGS FOR ALL SPECIFIED PARTS OF THE WORK, INCLUDING SHORING AND CONSTRUCTION METHODS/SEQUENCING WHERE APPLICABLE. NO PORTION OF THE WORK COVERED BY THESE SHOP DRAWINGS SHALL COMMENCE UNTIL RETURNED APPROVED SHOPS ARE RECEIVED BY THE CONTRACTOR. SEE STRUCTURAL NOTES FOR SPECIFIC SHOP SUBMITTAL REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY EXISTING ITEMS DAMAGED BY NEW CONSTRUCTION AND FOR ANY INCIDENTAL REPAIRS OF EXISTING FINISHED SURFACES DISTURBED BY NEW CONSTRUCTION. SUCH REPAIRS SHALL MATCH EXISTING TO THE OWNERS SATISFACTION.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING, HANDLING AND STORAGE OF ITEMS/MATERIALS TO REMAIN THE PROPERTY OF THE OWNER WITH THE OWNERS REPRESENTATIVE.
- BUILDING CODE:**
 - MAINE UNIFORM BUILDING CODE.
 - INTERNATIONAL BUILDING CODE - 2015 EDITION.
 - ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
- MINIMUM LOADING REQUIREMENTS:**
 - ROOF SNOW LOADS:** (EXCEPT AT DRIFTING SNOW LOCATIONS AND THOSE LISTED BELOW)

a. GROUND SNOW LOAD:	P _g = 50.0 PSF
i. SNOW LOAD IMPORTANCE FACTOR:	I = 1.0
ii. WARM ROOF SLOPE FACTOR:	C _s = 0.7
iii. THERMAL FACTOR:	C _t = 1.1
iv. EXPOSURE FACTOR:	C _e = 1.0
 - ROOF DEAD LOAD:**

BOTTOM CHORD	15.0 PSF
	10.0 PSF
 - ROOF LIVE LOAD:**

i. STANDARD ROOF LIVE LOAD:	20.0 PSF
-----------------------------	----------
 - FLOOR LIVE LOADS:**

	<u>UNIFORM</u>	<u>CONCENTRATED</u>	<u>PARTITION</u>
a. OFFICE BUILDINGS			
i. COMPUTER ROOM & FIRST FLOOR CORRIDORS	100 PSF	2,000#	
ii. OFFICES	50 PSF	2,000#	15 PSF
 - WIND DESIGN DATA:**
 - ULTIMATE DESIGN WIND SPEED (V-ULT): 118 MPH
 - ULTIMATE DESIGN WIND SPEED (V-ASD): 91 MPH
 - RISK CATEGORY: II
 - WIND EXPOSURE: C
 - SEISMIC:** a. COEFFICIENTS & FACTORS

	NB ADMIN	SB ADMIN
SEISMIC IMPORTANCE FACTOR, I _e	1.0	1.0
SITE CLASS	C	E
SPECTRAL RESPONSE ACC. (0.2 sec), S _s	0.250g	0.250g
SPECTRAL RESPONSE ACC. (1.0 sec), S ₁	0.079g	0.079g
SEISMIC DESIGN VALUE (0.2 sec), S _{ps}	0.200g	0.417g
SEISMIC DESIGN VALUE (1.0 sec), S _{p1}	0.185g	0.090g
SEISMIC DESIGN CATEGORY	B	C

NB ADMIN:
RESPONSE MODIFICATION FACTOR, R = 2.0
SYSTEM OVER STRENGTH FACTOR, Ω = 2½
LATERAL SUPPORT SYSTEM = ORDINARY REINFORCED MASONRY SHEAR WALLS

SB ADMIN:
RESPONSE MODIFICATION FACTOR, R = 3½
SYSTEM OVER STRENGTH FACTOR, Ω = 2½
LATERAL SUPPORT SYSTEM = INTERMEDIATE REINFORCED MASONRY SHEAR WALLS
- STRUCTURAL STEEL SHALL BE DESIGNED USING THE 13TH EDITION OF THE AISC STEEL CONSTRUCTION MANUAL.
- SEE ARCHITECTURAL WALL SECTIONS AND DETAILS FOR MISCELLANEOUS STEEL.
- STRUCTURAL WOOD TO CONFORM TO THE LATEST NDS STANDARDS.
- PLYWOOD TO CONFORM TO THE LATEST APA STANDARDS.

ADMINISTRATION BUILDING GENERAL STRUCTURAL NOTES (CONT.):

- A QUALIFIED PERSON APPROVE BY THE BUILDING OFFICIALS SHALL MAKE SPECIAL INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF THE IBC 2015 AND AS DEFINED. SPECIAL INSPECTOR SHALL OBSERVE WORK FOR CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS.
 - INSPECTION REPORTS SHALL BE FURNISHED TO THE OWNER, BUILDING OFFICIAL, ARCHITECT AND SER. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR AND IF NOT CORRECTED, SHALL BE REPORTED TO THE OWNER, BUILDING OFFICIAL, ARCHITECT AND SER.
 - THE FOLLOWING TYPES OF WORK SHALL RECEIVE SPECIAL INSPECTION OVERSIGHT: INSTALLATION OF MASONRY, INSTALLATION OF REINFORCING STEEL FOR CONCRETE AND MASONRY, ALL CONCRETE PLACEMENT AND STRUCTURAL FILL PLACEMENT.
- STRUCTURAL STEEL NOTES:**
- STEEL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH "SPECIFICATION FOR STRUCTURAL STEEL BUILDING," AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) - LATEST EDITION.
 - STRUCTURAL STEEL W-SHAPES SHALL CONFORM TO ASTM A992, MINIMUM YIELD STRENGTH f_y=50 KSI.
 - HOLLOW STRUCTURAL SECTIONS SHALL CONFORM TO ASTM A500, GRADE B, MINIMUM YIELD STRENGTH f_y=46 KSI.
 - STRUCTURAL STEEL MISCELLANEOUS SECTIONS, INCLUDING BUT NOT LIMITED TO CHANNELS, ANGLES AND PLATES SHALL CONFORM TO ASTM A36, MINIMUM YIELD STRENGTH f_y=36 KSI.
 - WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY (AWS) STRUCTURAL WELDING CODE, D1.1, LATEST EDITION. ELECTRODE: E70.
 - ALL CONNECTION BOLTS SHALL BE A MINIMUM OF 3/4" DIAMETER ASTM A325 HIGH STRENGTH BOLTS.
 - DESIGN OF ALL CONNECTIONS SHALL BE THE RESPONSIBILITY OF THE STEEL FABRICATOR. COMPLETE CALCULATIONS SHALL BE PREPARED BY A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE STATE MAINE AND SHALL BE SUBMITTED TO THE ENGINEER-OF-RECORD FOR REVIEW PRIOR TO ANY FABRICATION.
 - BEAM FRAMING CONNECTIONS SHALL SUPPORT A MINIMUM OF HALF THE ALLOWABLE UNIFORM LOAD CAPACITY OF THE BEAM AS PER AISC 14TH EDITION, PART 2 TABLE OF ALLOWABLE UNIFORM LOADS FOR BEAMS LATERALLY SUPPORTED.
 - NO FIELD CUTTING, BURNING, OR OTHER ALTERATION OF NEW STRUCTURAL STEEL SHALL BE DONE WITHOUT WRITTEN APPROVAL OF THE ENGINEER.
 - SHOP PRIME STRUCTURAL STEEL MEMBERS USING TMEC PRIMERS SERIES VERSION 10. SEE SECTION 051200-STRUCTURAL STEEL FRAMING AND SECTION 099123 PAINTING FOR SURFACE PREPARATION, PRIME AND FINISH COAT DETAILS.

CONCRETE NOTES:

- CONCRETE SHALL COMPLY WITH MAINE DOT CLASS AA, f'c = 4,000 PSI.
- CONTRACTOR SHALL PROVIDE TIES AND BRACING WHERE NECESSARY DURING CONSTRUCTION TO REMAIN IN PLACE UNTIL THE STRUCTURES ARE COMPLETE.
- VAPOR BARRIER/RETARDER: STEGO WRAP BY STEGO INDUSTRIES, LLC. 6 MIL. THICK VAPOR RETARDER OR EQUAL.
- PROVIDE PVC SLEEVES WHERE PIPES PASS THROUGH CONCRETE WALLS OR SLABS.
- REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS AND SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH ACI 315-LATEST EDITION.
- COMPLETE SHOP DRAWINGS AND SCHEDULES OF ALL REINFORCING STEEL SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCEMENT OF THAT PORTION OF THE WORK. ALL ACCESSORIES MUST BE SHOWN ON THE SHOP DRAWINGS.
- FLOOR SLAB CONTROL JOINTS SHALL BE PLACED AS SHOWN ON THE FOUNDATION PLAN (SLAB ON GRADE) OR AS DIRECTED BY THE ENGINEER. UNLESS OTHERWISE NOTED, CONTROL JOINTS WILL BE SPACED NOT TO EXCEED 15'-0" ON-CENTER IN BOTH DIRECTIONS AND SHALL BE FILLED WITH SEALANT AT THE COMPLETION OF THE PROJECT.
- CONTRACTOR WILL CHECK WITH EACH TRADE TO ASSURE CORRECT LOCATION, SIZE, LINE AND ELEVATION OF SLEEVES, BOND-OUTS, ETC.. REQUIRED IN CONCRETE FLOORS AND WALLS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FLOOR DRAIN SETTING AND EXTENTS OF AREA SLOPE TO DRAIN DEVELOPMENT. SEE ARCHITECTURAL AND PLUMBING PLANS TO ENSURE COMPLETE AREA DRAINAGE.
- WELDING OF REINFORCEMENT IS NOT PERMITTED.
- EXPOSED CONCRETE SHALL BE NEATLY FINISHED-RUBBED.
- ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED. CONCRETE SHALL NOT BE IN DIRECT CONTACT WITH ALUMINUM.
- PROVIDE IN SLABS ON GRADE (2) #4 BARS 4'-0" LONG AT EACH REENTRANT CORNER AND BOTH SIDES OF DOOR OPENING.
- REFER TO ACI 318 (LATEST EDITION) FOR MINIMUM CONCRETE COVER FOR REINFORCING STEEL.
- UNLESS OTHERWISE NOTED, REINFORCING LAP SPLICES SHALL BE ACI CLASS B SPLICES USING THE FOLLOWING LAP LENGTHS:

BAR SIZE	3	4	5	6	7	8	9	10	11
LAP IN.	22	29	36	43	63	72	80	89	98

- COORDINATE SLAB DEPRESSIONS AND ALL INTERIOR FLOOR SLOPES TO DRAIN LOCATIONS WITH ARCHITECTURAL DRAWINGS.
- SLAB THICKNESS (ELEVATED OR ON-GRADE) INDICATED ON THE DRAWINGS ARE MINIMUMS. PROVIDE SUFFICIENT CONCRETE TO ACCOUNT FOR STRUCTURE DEFLECTION AND/OR SUBGRADE FLUCTUATIONS IN ORDER TO OBTAIN SPECIFIED SLAB ELEVATIONS AT THE FLATNESS AND LEVELNESS INDICATED IN THE SPECIFICATION.
- ANCHOR BOLTS SHALL CONFORM TO ASTM F1554, GR. 36 HOT DIPPED GALVANIZED UNLESS NOTED OTHERWISE ON PLAN.
- DRILLED-IN ANCHOR BOLTS OR REBAR DOWELS SHALL BE INSTALLED AS FOLLOWS:
 - LOCATE ANCHOR BOLTS OR REBAR DOWELS TO AVOID CUTTING EXISTING REBAR.
 - DEPTH IS BASED ON A CLEAN HOLE WITH ROUGH SIDES. ROTARY PERCUSSION EQUIPMENT AND COURSE ROCK CUTTING CHISELS ARE RECOMMENDED. DIAMOND CORE BITS SHOULD BE AVOIDED AS EMBEDMENT LENGTHS MAY NEED TO BE INCREASED. HOLE SIZE TO BE PER MANUFACTURERS RECOMMENDATIONS.
 - CLEAN HOLES WITH COMPRESSED AIR OR VACUUM. REMOVE ANY FREE-STANDING WATER AND ALLOW HOLE TO DRY.
 - GROUT ANCHOR BOLTS OR DOWELS WITH HILTI HIT HY-200 ADHESIVE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS (HILTI HVA ADHESIVE CAPSULE MAY BE SUBSTITUTED FOR THE HILTI HIT HY-200 ADHESIVE).

ABBREVIATIONS:

⊙	AT	HORIZ.	HORIZONTAL
A.B.	ANCHOR BOLT	HSS	HOLLOW STRUCTURAL SECTION
ADD'L	ADDITIONAL	INSUL.	INSULATION
AHU	AIR HANDLING UNIT	INT.	INTERIOR
ARCH.	ARCHITECTURAL	JT.	JOINT
BFE	BOTTOM OF FOOTING ELEVATION	L.C.	LOCATION
BLDG.	BUILDING	LWC	LIGHTWEIGHT CONCRETE
BM	BEAM	MANUF.	MANUFACTURER
BOT.	BOTTOM	MAX.	MAXIMUM
CJ	CONSTRUCTION JOINT	MIN.	MINIMUM
CMU	CONCRETE MASONRY UNIT	N/A	NOT APPLICABLE
COL.	COLUMN	NO. #	NUMBER
COMPR.	COMPRESSIBLE	O.C.	ON CENTER
CONC.	CONCRETE	OPNG.	OPENING
CONT.	CONTINUOUS	PL.	PLATE
COORD.	COORDINATE	POLY.	POLYETHYLENE
C	CENTER LINE	PREFAB.	PREFABRICATED
DIA.	DIAMETER	REINF.	REINFORCEMENT
DIAG.	DIAGONAL	REQ'D.	REQUIRED
DIMS.	DIMENSIONS	SCHED.	SCHEDULE
DWG.	DRAWING	SECT.	SECTION
DWGS.	DRAWINGS	SHT.	SHEET
EA.	EACH	SL.	SLOPE
E.F.	EACH FACE	S.O.G	SLAB ON GRADE
E.J.	EXPANSION JOINT	SQ.	SQUARE
EL.	ELEVATION	SST	STAINLESS STEEL
EMBED.	EMBEDMENT	STIFF.	STIFFENER
EQ.	EQUAL	T&B	TOP AND BOTTOM
E.W.	EACH WAY	THK.	THICK
EXT.	EXTERIOR	T.O.	TOP OF
FFE	FINISHED FLOOR ELEVATION	T.O.S.	TOP OF STEEL
FIN.	FINISHED	T.O.W.	TOP OF WALL
FTG.	FOOTING	TYP.	TYPICAL
GALV.	GALVANIZED	U.N.O.	UNLESS NOTED OTHERWISE
HOR.	HORIZONTAL	VERT.	VERTICAL
		W/	WITH
		WWF	WELDED WIRE FABRIC

Date: Friday, October 07, 2022

Filename: S-001-02.dwg

Scale: NOT TO SCALE		Designed by: 		STANTEC CONSULTING SERVICES INC. 2211 CONGRESS STREET PORTLAND, ME 04102 TEL (207) 887-3448 FAX (207) 883-3376				THE GOLD STAR MEMORIAL HIGHWAY		INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) TOLL ADMINISTRATION BUILDING STRUCTURAL NOTES - 1	
CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.		MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC		CONTRACT: 2022.07		SHEET NUMBER: S-001		693 OF 735			
No.	Revision	By	Date	By	Date	By	Date	By	Date	By	Date
				SJW	10/22	GGB	10/22				
				SJW	10/22	LEM	10/22				

Date: Friday, October 07, 2022

FOUNDATION NOTES:

- ALL NORTHBOUND ADMIN FOUNDATIONS SHALL BE SUPPORTED BY SPREAD FOOTINGS OR STRIP FOUNDATIONS. ALL SOUTHBOUND ADMIN BUILDING FOUNDATIONS SHALL BE SUPPORTED ON STEEL PILES PER PROJECT GEOTECHNICAL REPORT.
- SLABS ON GRADE SHALL BEAR ON A MINIMUM OF 12" OF COMPACTED STRUCTURAL FILL OR COMPACTED 3/8" CRUSHED STONE. IF LOOSE OR UNDESIRABLE FILLS ARE ENCOUNTERED AT THE SLAB SUBGRADE LEVEL, THEY SHALL BE OVER EXCAVATED TO THE SURFACE OF THE NATURAL SOIL AND REPLACED WITH STRUCTURAL FILL. REFER TO DRAWINGS FOR VAPOR BARRIER REQUIREMENTS. MOIST CURE SLABS IN ACCORDANCE WITH ACI.
- STRUCTURAL FILL SHALL BE USED AT ALL LOCATIONS BELOW FOOTINGS AND SLABS AND ADJACENT TO THE FOUNDATION WALLS. PRIOR TO PLACEMENT OF STRUCTURAL FILL, REMOVE ALL TOPSOIL AND OTHER UNSUITABLE MATERIAL. COMPACTED STRUCTURAL FILL SHALL CONSIST OF CLEAN GRANULAR MATERIAL FREE OF ORGANICS, LOAM, TRASH, SNOW, ICE, FROZEN SOIL OR ANY OTHER QUESTIONABLE MATERIAL. IT SHALL BE WELL GRADED WITHIN THE FOLLOWING LIMITS.

SCREEN OR SEIVE SIZE	PERCENT FINER BY WEIGHT
6 INCH	100
3 INCH	70 - 100
NO. 4	35 - 70
NO. 40	5 - 35
NO. 200	0 - 5
- STRUCTURAL FILL (OR 3/8" CRUSHED STONE) BENEATH SLABS SHALL BE PLACED IN LAYERS NOT EXCEEDING 6 INCHES IN LOOSE MEASURE AND COMPACTED BY SELF-PROPELLED COMPACTION EQUIPMENT AT APPROXIMATE OPTIMUM MOISTURE CONTENT TO A DRY DENSITY OF AT LEAST 95% OF THE MAXIMUM IN PLACE DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D-1557) FOR STRUCTURAL FILL OR 100% OF THE RODDED UNIT WEIGHT AS DETERMINED BY ASTM C-29 FOR 3/8" CRUSHED STONE.
- UNDERDRAINS SHALL BE PLACED AS SHOWN ON THE SITE DRAWINGS. UNDERDRAINS SHALL BE INSTALLED TO POSITIVELY DRAIN TO A SUITABLE DISCHARGE POINT AWAY FROM THE STRUCTURE. REFER TO SITE DRAWINGS FOR ADDITIONAL INFORMATION.
- EXTERIOR CONCRETE SLABS ON GRADE, SHALL BE UNDERLAIN BY AT LEAST ONE FOOT OF STRUCTURAL FILL MEETING GRADATION AND COMPACTION REQUIREMENTS NOTED ABOVE. REINFORCE SLABS WITH #4 @ 12" EACH WAY AT CENTER OF SLAB.
- FOUNDATION WALL REINFORCING WILL BE ADJUSTED AS REQUIRED NOT TO INTERFERE WITH BASE PLATE ANCHOR BOLTS.
- EXCAVATIONS FOR BUILDING FOUNDATIONS AND STRUCTURES SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS. BRACED EXCAVATIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT STATE. DO NOT UNDERMINE EXISTING ADJACENT FOUNDATIONS.
- INTERSECTING CONCRETE WALLS SHALL BE TIED WITH #4 L-BARS 3'-0" LONG (BENT 18 INCHES - 18 INCHES). SPACED AT 12 INCHES ON-CENTER OUTSIDE FACE ONLY.
- IN NO CASE SHALL HEAVY EQUIPMENT BE PERMITTED CLOSER THAN 8'-0" FROM ANY FOUNDATION/BASEMENT WALL. IF THE CONTRACTOR DEEMS IT NECESSARY TO OPERATE SUCH EQUIPMENT CLOSER THAN 8'-0", THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND AT HIS OWN EXPENSE, PROVIDE ADEQUATE SUPPORTS OR WALL BRACES TO WITHSTAND THE ADDITIONAL LOADS SUPERIMPOSED FROM SUCH HEAVY EQUIPMENT.
- CONCRETE SHALL NOT BE PLACED ON FROZEN GROUND OR IN WATER.

PILE NOTES (SOUTHBOUND):

- PILES SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 501, FOUNDATION PILES.
- THE ALLOWABLE CAPACITY IN AXIAL COMPRESSION OF THE PILES AT THE SOUTHBOUND ADMIN TOLL BUILDING: 214 KIPS (INCLUDING 100 KIPS OF DOWNDRAW).
- PILES SHALL BE DRIVEN TO THE FOLLOWING ULTIMATE CAPACITY:
 - SB ADMIN TOLL BUILDING: 785 KIPS
- ESTIMATE OF PILES REQUIRED:
 - SB ADMIN TOLL BUILDING: 8-HP 14x117@ 60 FEET (MIN. TIP EL. 61 FT)
- H-PILE MATERIAL SHALL BE ASTM GRADE A572, GRADE 50.
- ALL PILES SHALL BE EQUIPPED WITH A PILE TIP IN ACCORDANCE WITH STANDARD SPECIFICATIONS SUBSECTION 501.048 PREFABRICATED PILE TIPS.
- THE ORDER LENGTHS OF THE PILES SHALL INCLUDE AN ADDITIONAL 5 FEET OF LENGTH FOR EACH TEST PILE TO ACCOMMODATE DYNAMIC PILE TESTING EQUIPMENT.
- THE CONTRACTOR SHALL PERFORM AND SUBMIT A WAVE EQUATION ANALYSIS FOR REVIEW AND ACCEPTANCE BY THE RESIDENT. THE MAXIMUM ALLOWABLE DRIVING STRESS IS 0.90 TIMES F_y. THE SUBMITTAL ANALYSES SHALL INCLUDE THE PROPOSED STOPPING CRITERIA BASED ON THE WAVE EQUATION ANALYSIS AND THE PROPOSED DRIVING SYSTEM. THE STOPPING CRITERIA SHALL INCLUDE THE BLOWS PER INCH AND THE NUMBER OF 1-IN INTERVALS AT WHICH PILE INSTALLATION MAY BE TERMINATED. THE COST OF PERFORMING THE WAVE EQUATION ANALYSIS SHALL BE CONSIDERED INCIDENTAL TO ITEM 501.92, PILE DRIVING EQUIPMENT MOBILIZATION.
- THE CONTRACTOR SHALL PERFORM 2 DYNAMIC LOAD TESTS AT THE SB ADMIN BUILDING (ONE OF THE TESTS MAY BE PERFORMED AT THE ADJACENT TOLL PLAZA TO MEET MINIMUM REQUIRED TESTS). SEE TOLL PLAZA SHEET TP-07 NOTE 7.
- SPLICING OF PILES SHALL NOT BE PERMITTED WITHIN 30 FEET OF THE DESIGN CUT-OFF (TOP OF PILE ELEVATION) WITHOUT THE APPROVAL OF THE ENGINEER. WELDING OF PILE SPLICES AND ASSOCIATED NON-DESTRUCTIVE TESTING SHALL BE PERFORMED BY PREQUALIFIED WELDERS IN ACCORDANCE WITH THE REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 504, STRUCTURAL STEEL AND AMERICAN WELDING SOCIETY (AWS) D1.5 CODE.
- PILES SHALL BE DRIVEN TO AT LEAST THE MINIMUM PILE TIP ELEVATION SPECIFIED IN NOTE 4. CEASE PILE INSTALLATION AND NOTIFY THE RESIDENT IF MINIMUM PILE TIP ELEVATION CANNOT BE REACHED.

TRUSS NOTES:

- ALL WOOD TRUSSES SHALL COMPLY WITH THE FOLLOWING CODES AND REGULATIONS:
 - "TIMBER CONSTRUCTION MANUAL" BY THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION.
 - "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.
 - "DESIGN SPECIFICATIONS FOR METAL PLATE CONNECTED WOOD TRUSSES" BY THE TRUSS PLATE INSTITUTE.
- CHORD MEMBERS SHALL COMPLY WITH ONE OF THE FOLLOWING:

2x6 MINIMUM SIZE:

 - SELECT STRUCTURAL SOUTHERN PINE (E=1,800,000 PSI; F_b=2550 PSI SINGLE MEMBER USE).
 - MACHINE STRESS RATED (MSR) 2100f-1.8E (E=1,800,000 PSI; F_b=2100 PSI SINGLE MEMBER USE).
 - MACHINE EVALUATED LUMBER (MEL) M-19 (E=1,600,000 PSI; F_b=2000 PSI SINGLE MEMBER USE).
 - APPROVED EQUAL OR BETTER THAN ABOVE.
- WEB MEMBERS SHALL COMPLY WITH ONE OF THE FOLLOWING:

2x4 MINIMUM SIZE:

 - NO. 2 SOUTHERN PINE (E=1,600,000 PSI; F_b=1500 PSI FOR SINGLE MEMBER USE). MACHINE STRESS RATED (MSR) 1650f-1.5E (E=1,500,000 PSI; F_b=1650 PSI SINGLE MEMBER USE).
 - MACHINE EVALUATED LUMBER (MEL) M-13 (E=1,400,000 PSI; F_b=1600 PSI SINGLE MEMBER USE).
- PREFABRICATED WOOD TRUSSES SHALL BE FABRICATED IN AN ENCLOSED STRUCTURE UNDER CONTROLLED CONDITIONS BY AN EXPERIENCED FABRICATOR. THE TRUSS FABRICATOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO COMMENCING FABRICATION. TRUSSES SHALL NOT BE FABRICATED UNTIL ALL SHOP DRAWINGS HAVE BEEN APPROVED. ALL SHOP DRAWINGS MUST BEAR THE STAMP OF A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE STATE OF MAINE.
- THE TRUSS FABRICATOR SHALL DESIGN THE TRUSSES BASED ON THE DESIGN LOADS AND THE CONFIGURATION GIVEN ON PLANS. CONTRACTOR AND FABRICATOR TO COORDINATE ALL SHIPPING OPTIONS, ACCESS TO SITE, AND ERECTION PROCEDURES.
- THE TRUSS FABRICATOR SHALL SELECT THE GUSSET PLATE TO BE USED AT EACH JOINT AS WELL AS PLATES REQUIRED TO FIELD-SPLICE TRUSS. ALL PLATES MUST HAVE A WORKING CAPACITY OF AT LEAST 125% OF THE DESIGN LOADS.
- THE TRUSS FABRICATOR SHALL ACCOUNT FOR THE COMBINED EFFECTS OF BENDING AND AXIAL STRESSES IN CHORD MEMBERS DUE TO UNIFORMLY APPLIED LOADS.
- WOOD TRUSSES SHALL BE HANDLED, INSTALLED AND BRACED IN ACCORDANCE WITH "HANDLING, INSTALLING AND BRACING METAL PLATE CONNECTED WOOD TRUSSES BCSI 1-03" OF THE TRUSS PLATE INSTITUTE. THE TRUSS FABRICATOR SHALL FURNISH A COPY OF THIS MANUAL AND SHALL SHIP IT IN A WATERTIGHT CONTAINER WITH THE TRUSSES.
- SHOP DRAWINGS SHALL SHOW TRUSS CONFIGURATION, MEMBER SIZES, MEMBER FORCES AND SPECIES, GRADE AND STRESSES OF LUMBER. A DIMENSIONED PLACEMENT PLAN SHALL BE SUBMITTED WITH THE TRUSS SHOP DRAWINGS SHOWING TRUSSES AND TRUSS BRACING.
- THE CONTRACTOR SHALL INSTALL ALL TEMPORARY BRACING AS RECOMMENDED BY BCSI 1-03. THIS TEMPORARY BRACING SHALL BECOME PERMANENT BRACING WHEREVER POSSIBLE. PERMANENT BRACING SHALL MEET ALL REQUIREMENTS OF H1B-91 AND THE WORKING DRAWINGS AND SPECIFICATIONS, WHICHEVER ARE THE MORE STRINGENT.
- ROOF DIAPHRAGM:

ALL ROOF SHEATHING SHALL BE 5/8" THICK APA-RATED, EXTERIOR GRADE PLYWOOD. SHEATHING SHALL BE ORIENTED WITH LONG SPAN OF SHEET PERPENDICULAR TO SUPPORTING MEMBERS AND VERTICAL SEAMS, STAGGERED AT 48" ON CENTER. BLOCKING SHALL BE USED TO SUPPORT ALL DIRECT EDGES OF THE PANEL. ROOF SHEATHING SHALL BE FASTENED WITH 10d COMMON NAILS AT 4" ON CENTER MAXIMUM AROUND ALL DIRECT EDGES AND 6" ON CENTER MAXIMUM AT ALL INTERMEDIATE SUPPORTS.
- FASTENING PER IBC 2015, CHAPTER 23, UNLESS OTHERWISE NOTED.
- TRUSS CONFIGURATIONS SHOWN ARE DIAGRAMMATIC. FINAL CONFIGURATION SHALL BE BY TRUSS MANUFACTURER. WHERE REQUIRED, TRUSSES SHALL BE FABRICATED IN MULTIPLE PIECES TO FACILITATE TRANSPORTATION TO THE SITE, AND SHALL BE FIELD-SPLICED AT THE SITE, IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.

MASONRY NOTES:

- PROVIDE AND INSTALL MASONRY LINTELS FOR MASONRY WALL OPENINGS FOR PROVIDED MASONRY LINTEL SCHEDULE NOTED ON DRAWING UNLESS INDICATED OTHERWISE ON DRAWINGS. PROVIDE MASONRY LINTELS OF SIZE AND REINFORCEMENT AS FOLLOWS.
- INSTALL FOR OPENINGS AND PENETRATIONS IN BRICK WALLS UP TO 3'-11" WIDE (UNLESS OTHERWISE NOTED) 4"x3-1/2"x5/16" LLV STEEL ANGLE LINTEL FOR OPENINGS AND PENETRATIONS BETWEEN 4'-0" AND 8'-0" WIDE (UNLESS OTHERWISE NOTED) (1) 6"x3-1/2"x5/16" LLV STEEL ANGLE LINTEL.
- CONCRETE MASONRY BLOCK WALLS WITH REINFORCING AND ALL BLOCKS BELOW GRADE, SHALL HAVE CORES FILLED WITH 3000 PSI CONCRETE. INSTALLATION OF REINFORCEMENT SHALL BE CONTINUOUS AND RUN UNOBSTRUCTED BY BAR JOIST SEAT/BEARING PLATE ARRANGEMENTS. HORIZONTAL REINFORCEMENT SHALL BE PROVIDED @ 16-INCHES ON-CENTER VERTICALLY.
- OMIT REBAR/GROUTING IN MASONRY CELLS WHICH SHALL RECEIVE ROOF DRAIN LEADERS, CONDUITS, ETC. REQUIRED REINFORCEMENT SHALL BE INSTALLED IN THE ADJACENT CELL AND SHALL BE GROUTED SOLID.
- ALL HOLLOW LOAD BEARING CONCRETE MASONRY UNITS SHALL BE ASTM C90 GRADE N, TYPE I STANDARD WEIGHT STANDARD BLOCKS INCLUDING STRETCHERS & CORNER BLOCKS UNLESS NOTED OTHERWISE.
- HOLLOW CONCRETE BLOCK UNITS: GRADE N, 2000 PSI, MINIMUM COMPRESSIVE STRENGTH, WALL DESIGN STRENGTH, F_m = 1500 PSI.
- LAY UNITS IN RUNNING BOND - CORNERS SHALL HAVE A STANDARD BOND BY OVERLAPPING UNITS.
- MORTAR: TYPE S (ASTM C270).
- REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS AND SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI 315-LATEST EDITION.
- GROUT: (3000) PSI MINIMUM 28 DAY COMPRESSIVE STRENGTH. ROD GROUT IMMEDIATELY AFTER POURING AND AGAIN APPROXIMATELY 5 MINUTES LATER.
- MAXIMUM GROUT LIFT WITHOUT CLEANOUTS SHALL NOT EXCEED 4'-0" IN BLOCK WALLS.
- TIE VERTICAL REINFORCING AT EACH END AND AT 8'-0" MAXIMUM VERTICAL SPACING USING SINGLE WIRE AND LOOP TYPE TIES AS MANUFACTURED BY A.A. WIRE PRODUCTS COMPANY OR APPROVED EQUAL.
- IN 8-INCH WALLS PROVIDE VERTICAL REINFORCING IN CENTER OF GROUT, AT CENTER OF WALL, CONTINUOUS FULL HEIGHT OF WALL AS FOLLOWS:
 - (1) #5 VERTICAL AT CORNERS, INTERSECTIONS, WALL ENDS, JAMBS AND EACH SIDE OF EXPANSION OR CONTROL JOINTS.
 - (1) #5 VERTICAL AT 32-INCHES ON-CENTER TYPICAL (UNLESS NOTED ON PLAN).
 - (1) #5 VERTICAL IN EACH CORE WITHIN 12-INCHES OF WALL CORNERS.
 - FOOTING DOWELS TO MATCH VERTICAL REINFORCEMENTS.
- ALL MASONRY REINFORCEMENT SHALL BE SPLICED 48 BAR DIAMETERS.
- PLACE BOND BEAM REINFORCING CONTINUOUS THROUGH EXPANSION AND CONTROL JOINTS, WRAPPING BARS WITH 1/8-INCH THICK BOND BREAKING TAPE 24-INCHES BOTH SIDES OF JOINT. DO NOT SPLICE BOND BEAM REINFORCING WITHIN 6'-0" OF AN EXPANSION OR CONTROL JOINT.
- PROVIDE CONTINUOUS WIRE LATH GROUT BARRIERS AS REQUIRED UNDER FIRST COURSE OF GROUTED (3000 PSI) CONC.) CELLS.
- PROVIDE LADDER TYPE #9 JOINT REINFORCING AT 16-INCHES VERTICAL SPACING AT EXTERIOR WALLS.
- PROVIDE HORIZONTAL KNOCK-OUT BOND BEAMS WITH 2-#5 HORIZONTAL BARS AT TOP, BOTTOM AND MIDDLE OF WALL AT 48" MAXIMUM SPACING.

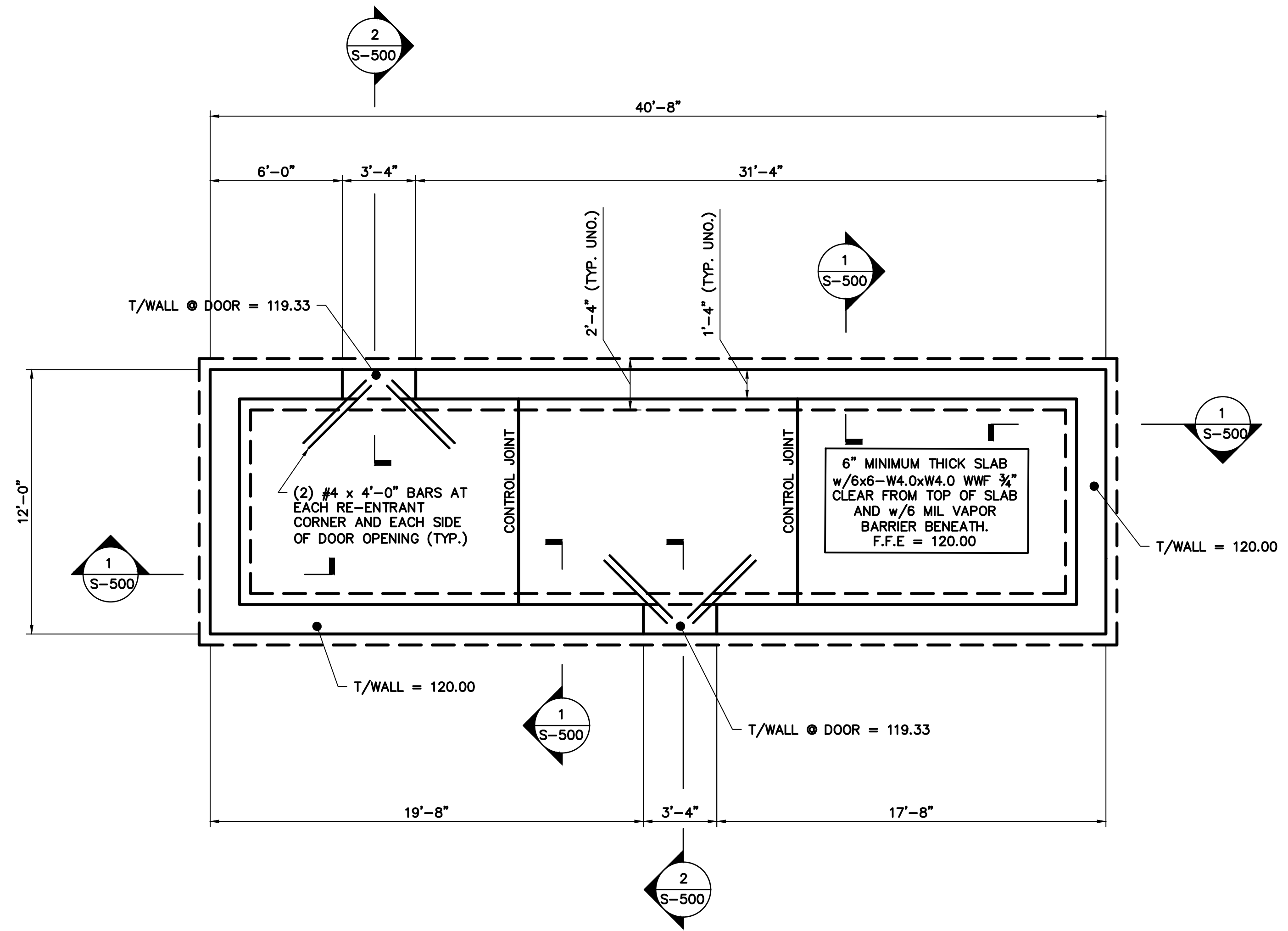
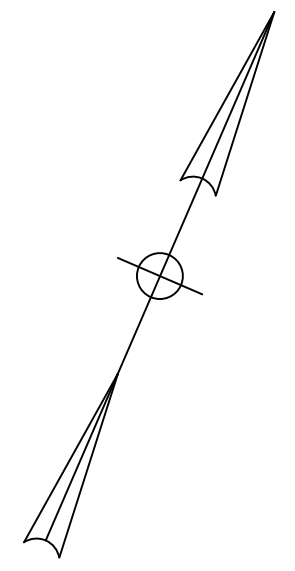
WELDING NOTES:

- ALL WELDING SHALL BE DONE USING E70 SERIES LOW HYDROGEN RODS AND BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN WELDING SOCIETY STANDARDS.
- ALL WELDING SHALL BE PERFORMED BY WELDERS HOLDING CURRENT CERTIFICATES ACCEPTABLE TO THE ENGINEER AND TO THE REGULATING BUILDING DEPARTMENT. ALL WELDS SHALL BE CLEANED OF SLAG TO PERMIT VISUAL INSPECTION. SEE SPECIFICATIONS FOR INSPECTION REQUIREMENTS.

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Scale: NOT TO SCALE		Designed by: Stantec		STANTEC CONSULTING SERVICES INC. 2211 CONGRESS STREET PORTLAND, ME 04102 TEL (207) 887-3448 FAX (207) 883-3376		 THE GOLD STAR MEMORIAL HIGHWAY		INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) TOLL ADMINISTRATION BUILDING STRUCTURAL NOTES - 2																	
No.	Revision	By	Date	CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">By</td> <td style="width: 25%;">Date</td> <td style="width: 25%;">By</td> <td style="width: 25%;">Date</td> </tr> <tr> <td>Designed</td> <td>SJW 10/22</td> <td>Checked</td> <td>GGB 10/22</td> </tr> <tr> <td>Drawn</td> <td>SJW 10/22</td> <td>In Charge of</td> <td>LEM 10/22</td> </tr> </table>		By	Date	By	Date	Designed	SJW 10/22	Checked	GGB 10/22	Drawn	SJW 10/22	In Charge of	LEM 10/22	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">SHEET NUMBER: S-002</td> <td style="width: 50%;">CONTRACT: 2022.07</td> </tr> <tr> <td colspan="2" style="text-align: right;">694 OF 735</td> </tr> </table>		SHEET NUMBER: S-002	CONTRACT: 2022.07	694 OF 735	
By	Date	By	Date																						
Designed	SJW 10/22	Checked	GGB 10/22																						
Drawn	SJW 10/22	In Charge of	LEM 10/22																						
SHEET NUMBER: S-002	CONTRACT: 2022.07																								
694 OF 735																									
						MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC																			


File: S-100.dwg
Date: Friday, October 07, 2022



FOUNDATION PLAN
1/4" = 1'-0"

Scale:
1/4" = 1'-0"
0 4' 8'

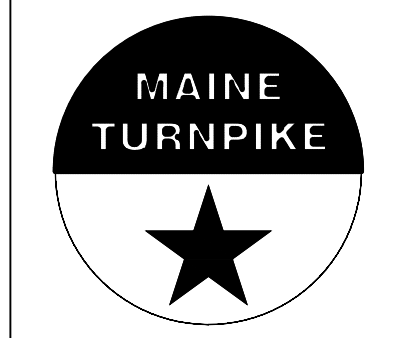
Designed by:



CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date	By	Date
Designed	SJW	10/22	Checked	GGB 10/22
Drawn	SJW	10/22	In Charge of	LEM 10/22

STANTEC CONSULTING SERVICES INC.
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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
NB FOUNDATION PLAN

SHEET NUMBER: S-100

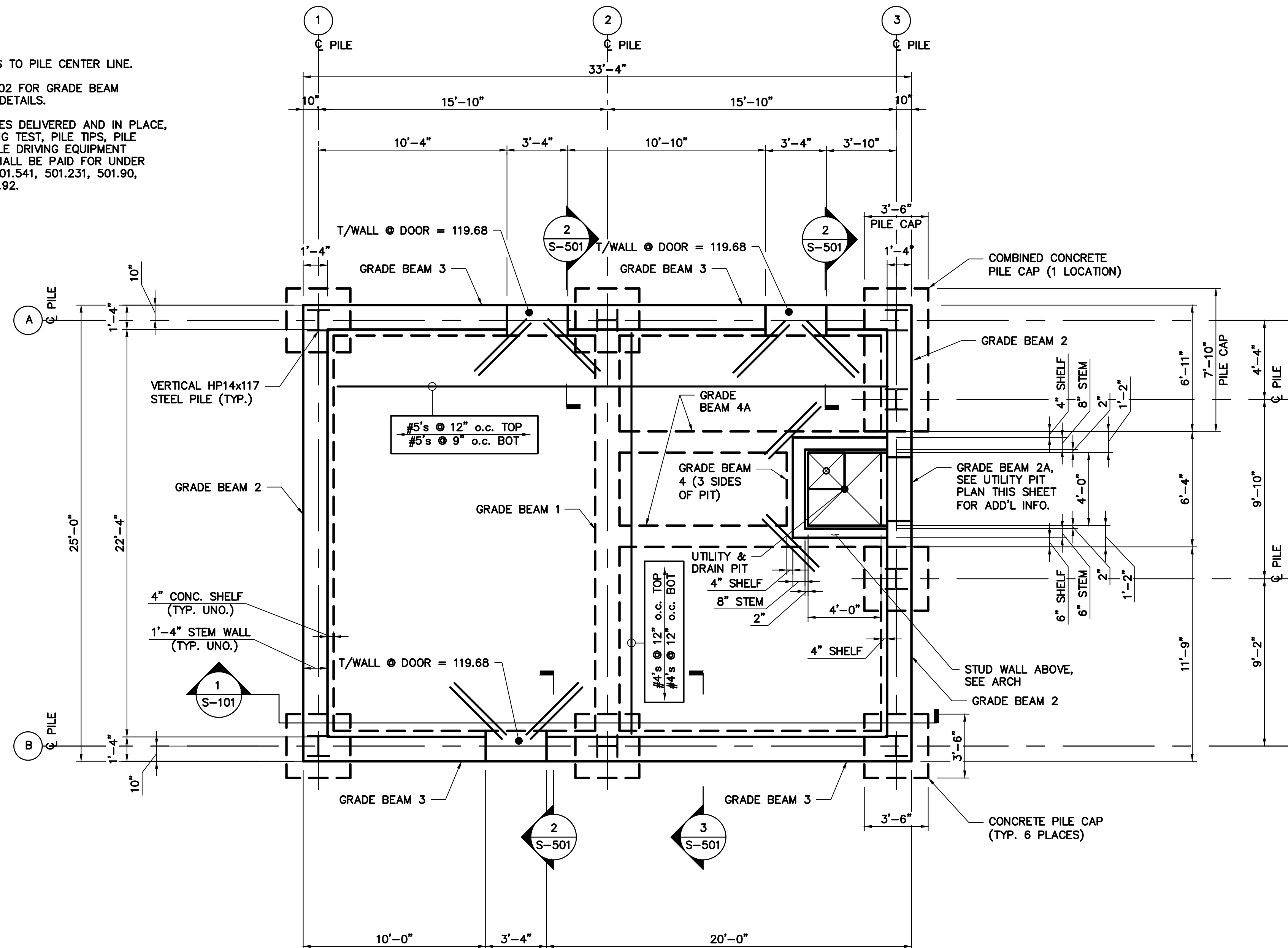
CONTRACT: 2022.07

695 OF 735

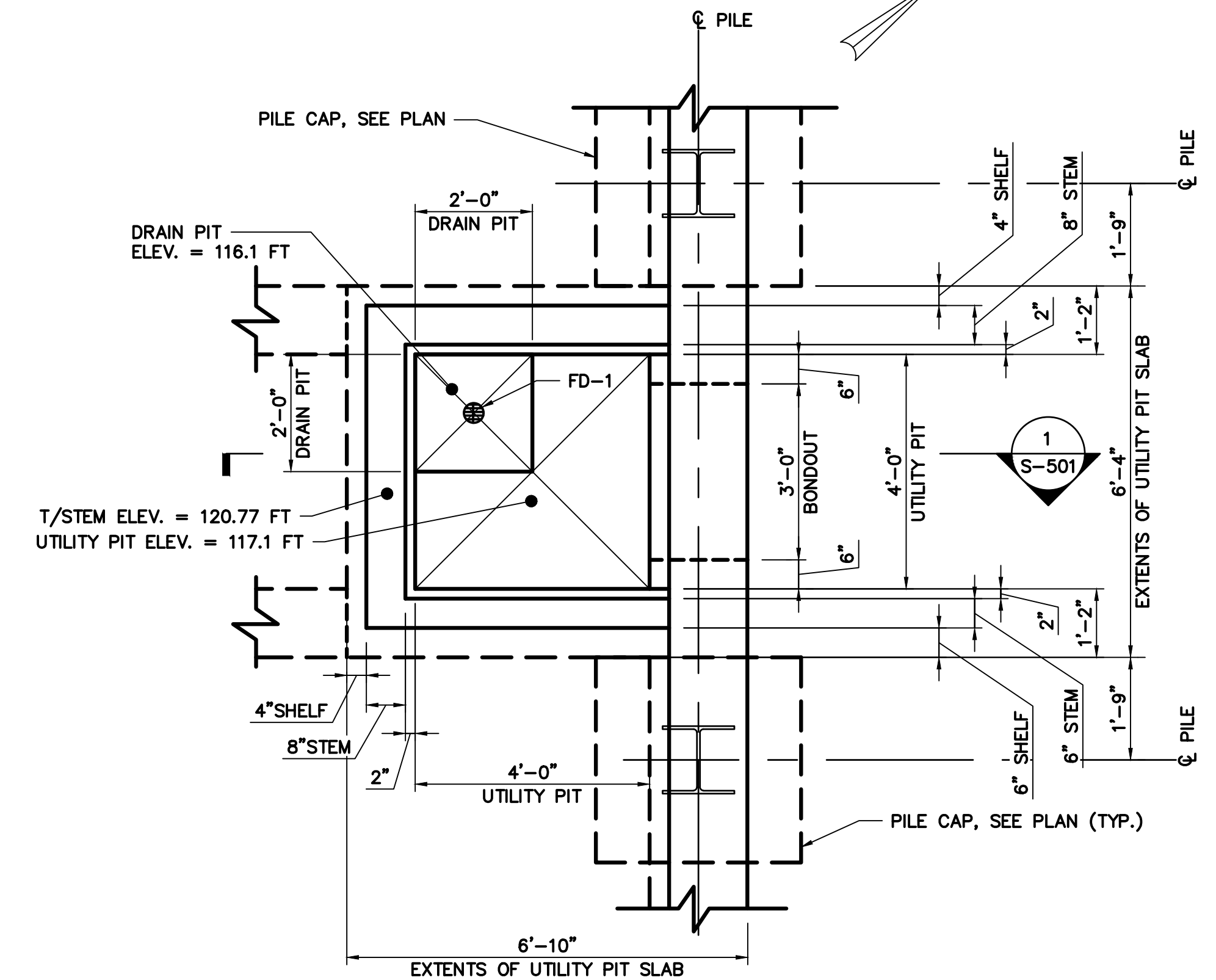
Date: Friday, October 07, 2022

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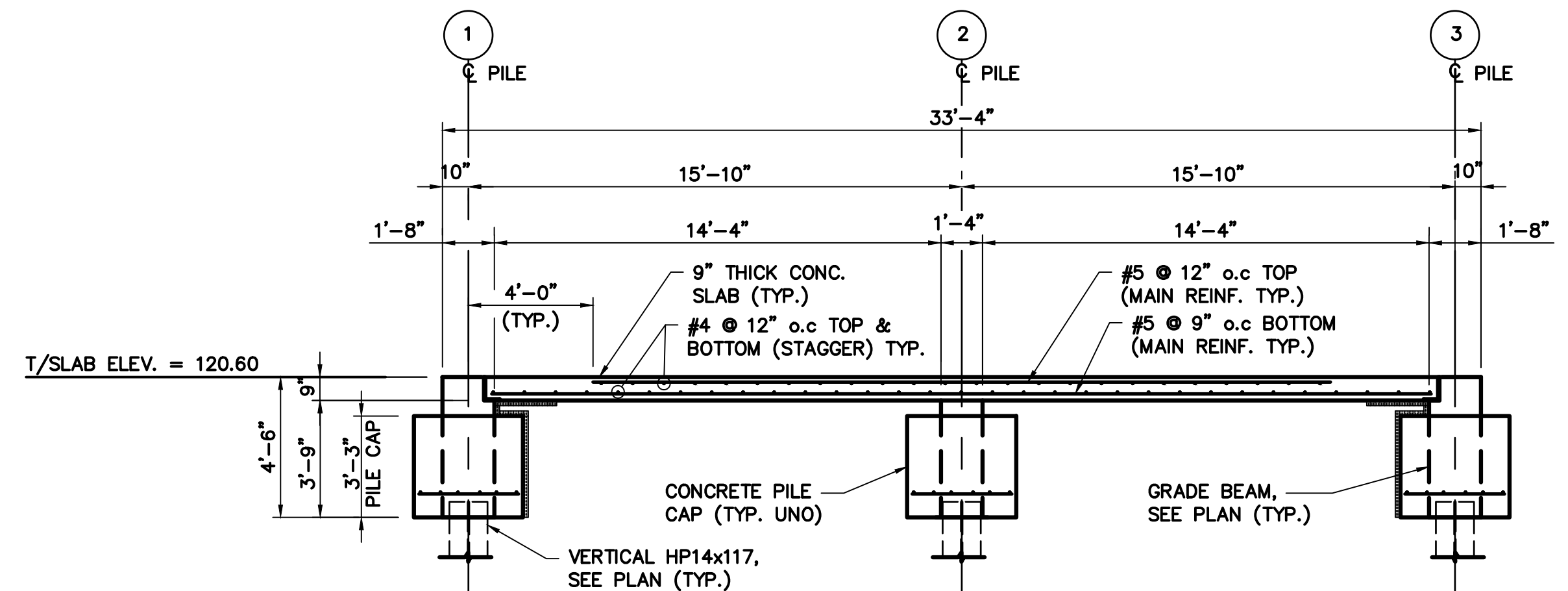
1. GRID SPACING IS TO PILE CENTER LINE.
2. SEE SHEET S-502 FOR GRADE BEAM SCHEDULE AND DETAILS.
3. FOUNDATION PILES DELIVERED AND IN PLACE, DYNAMIC LOADING TEST, PILE TIPS, PILE SPLICES AND PILE DRIVING EQUIPMENT MOBILIZATION SHALL BE PAID FOR UNDER ITEMS 501.54, 501.541, 501.231, 501.90, 501.91 AND 501.92.



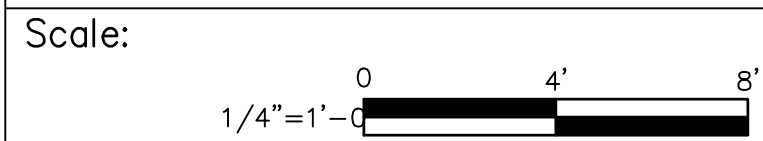
FOUNDATION PLAN
1/4" = 1'-0"



UTILITY PIT PLAN
1/2" = 1'-0"



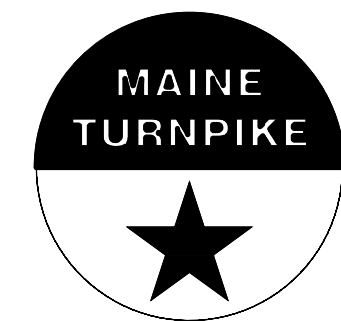
SECTION
SCALE: 1/4" = 1'-0" S-101 1



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**THE GOLD STAR
MEMORIAL HIGHWAY**

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
SB FOUNDATION PLAN

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.			
	By	Date	
Designed	SJW	10/22	Checked GGB 10/22
Drawn	SJW	10/22	In Charge of LEM 10/22

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

CONTRACT: 2022.07

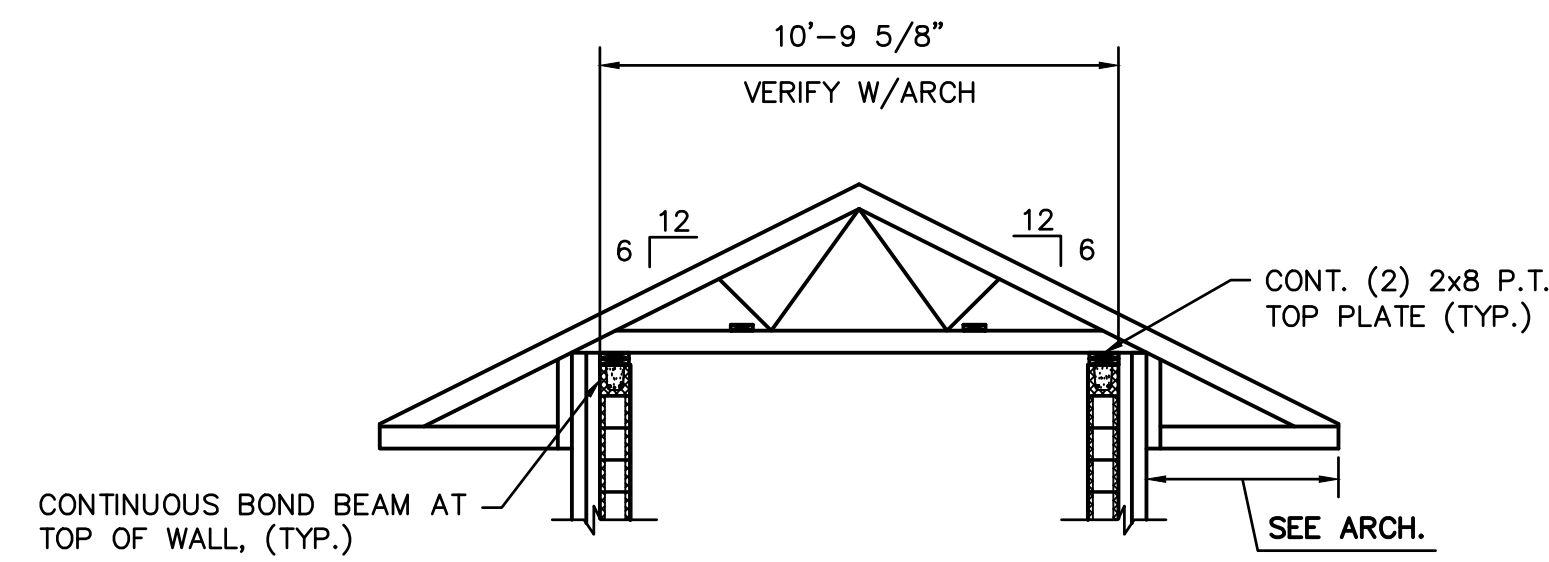
SHEET NUMBER: S-101

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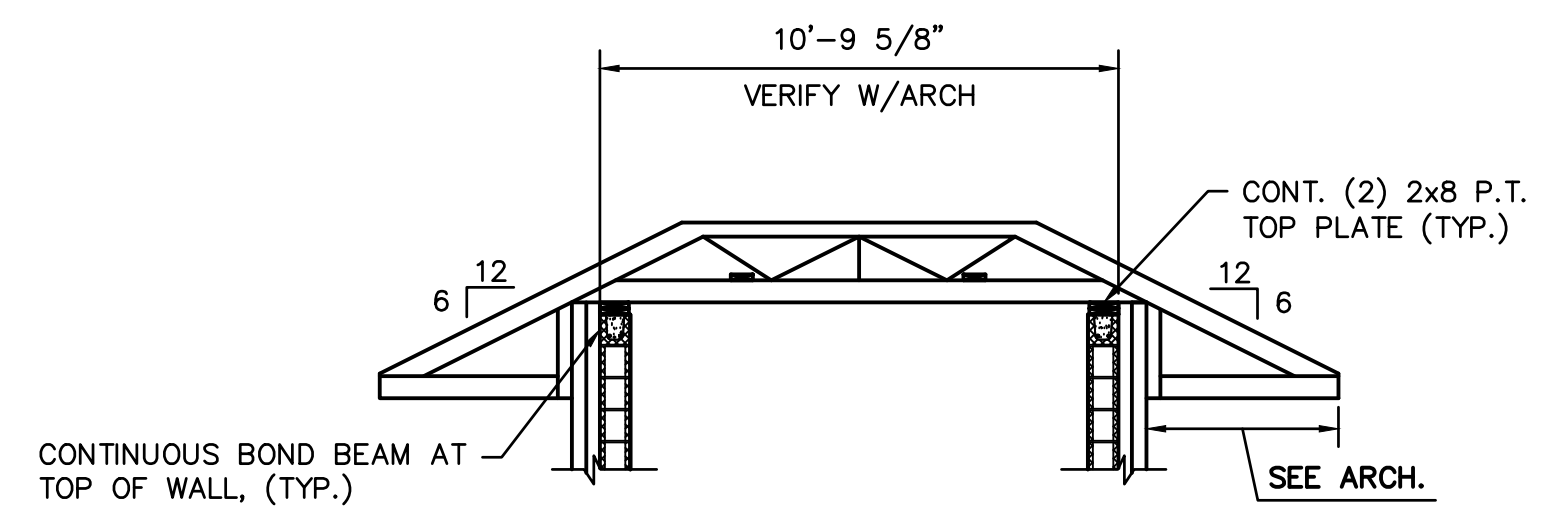
Filename: S-101.dwg

Date: Friday, October 07, 2022

BRICK VENEER LINTEL SCHEDULE		
OPENING	ANGLE SIZE (GALVANIZED)	BEARING (EACH END)
0'-0" TO 3'-11"	L4x3½x¾ (LLV)	8" MIN.
4'-0" TO 7'-11"	L6x3½x¾ (LLV)	8" MIN.
8'-0" TO 11'-11"	L6x4x¾ (LLV)	8" MIN.



TRUSS T-1

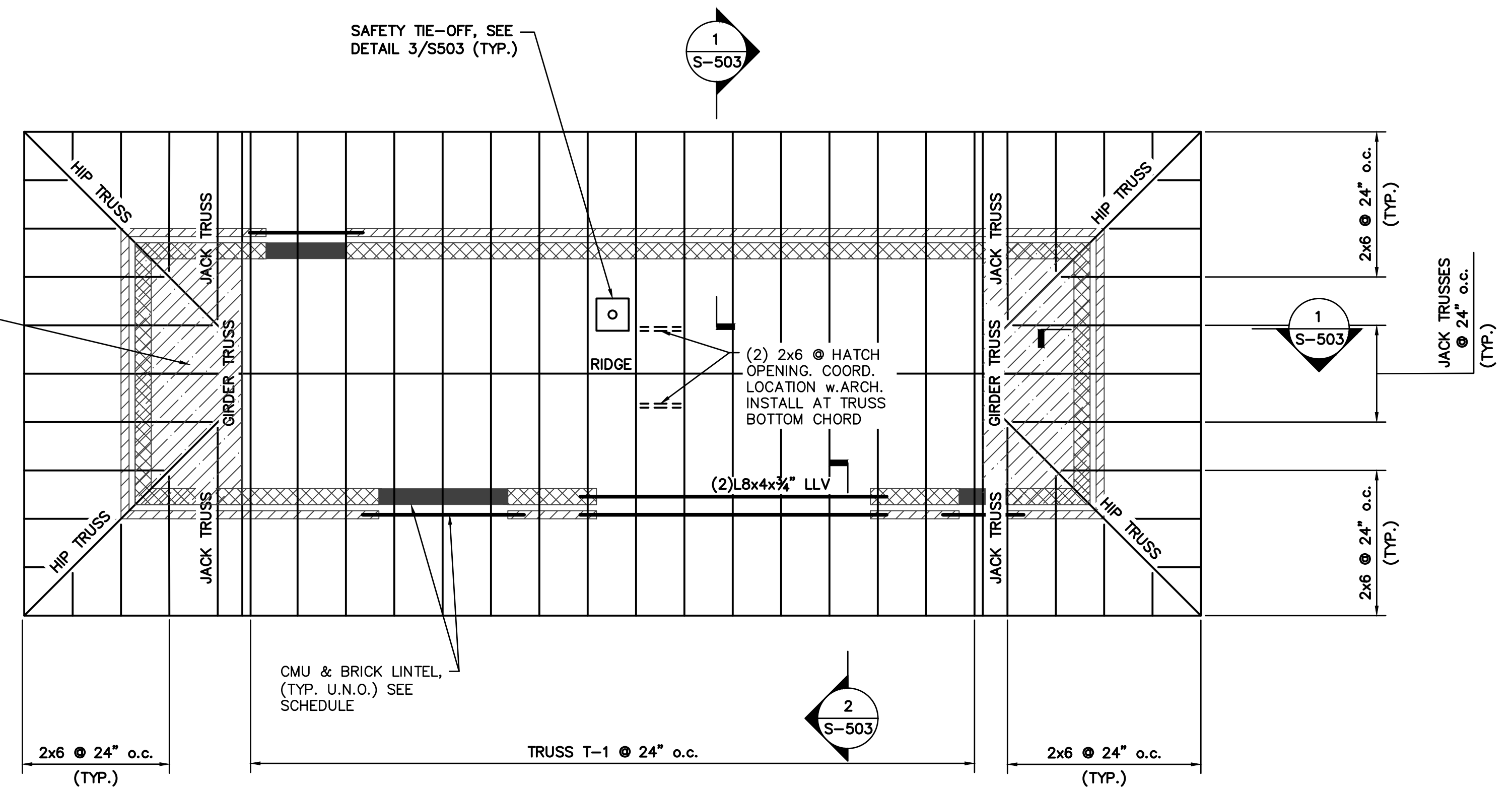


GIRDER TRUSS

TRUSS PROFILE SCHEMATICS

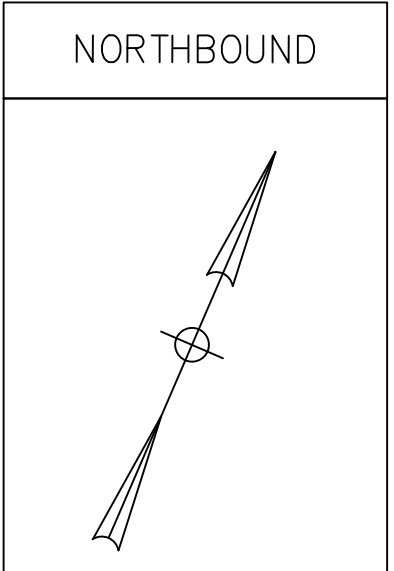
1/4" = 1'-0"

HATCHED AREA INDICATES TRUSS OVERBUILD, TRUSS DESIGNER SHALL INCLUDE ADD'L 10 PSF DEAD LOAD (TYP.)



ROOF PLAN

1/4" = 1'-0"



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

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.			
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

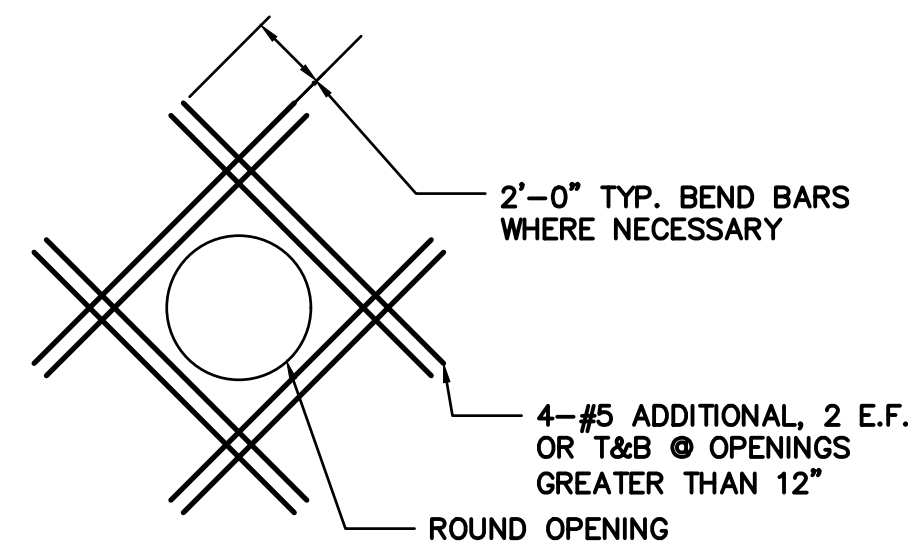
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 TOLL ADMINISTRATION BUILDING
 NB – ROOF FRAMING PLAN

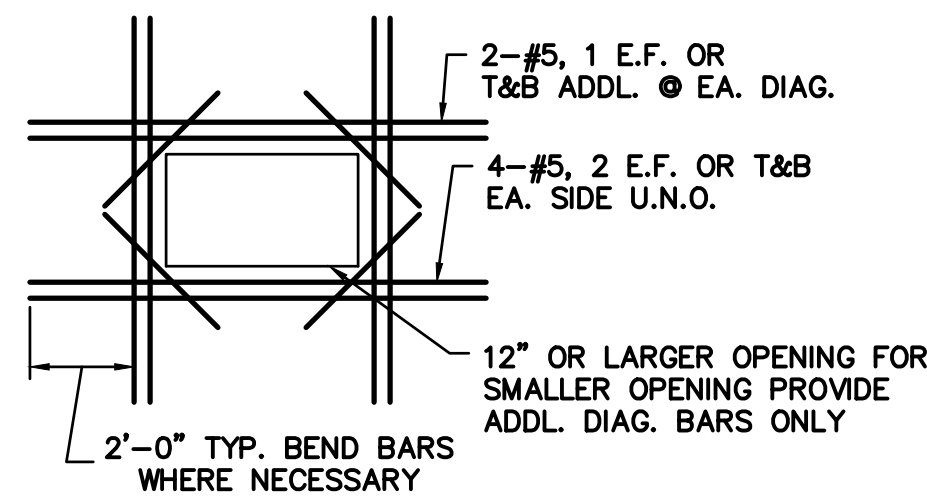
SHEET NUMBER: S-103
 CONTRACT: 2022.07
 698 OF 735

Filename: S-103.dwg

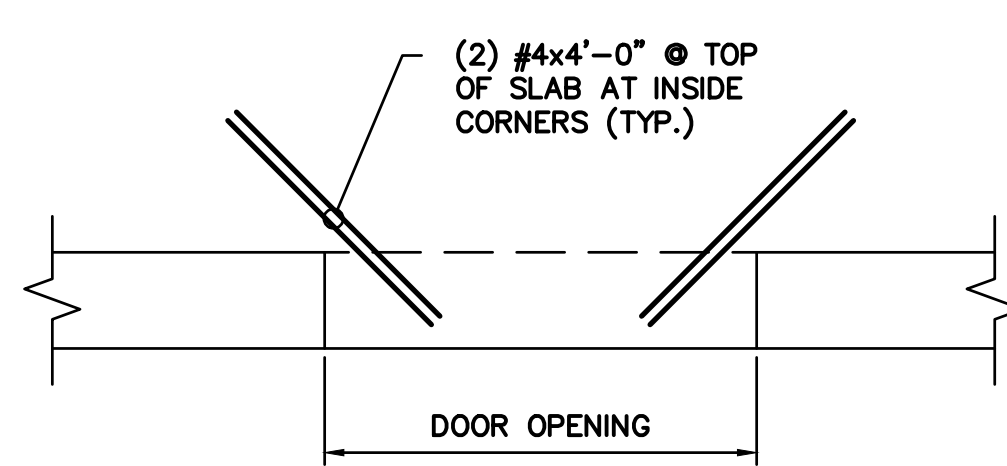
Date: Friday, October 07, 2022



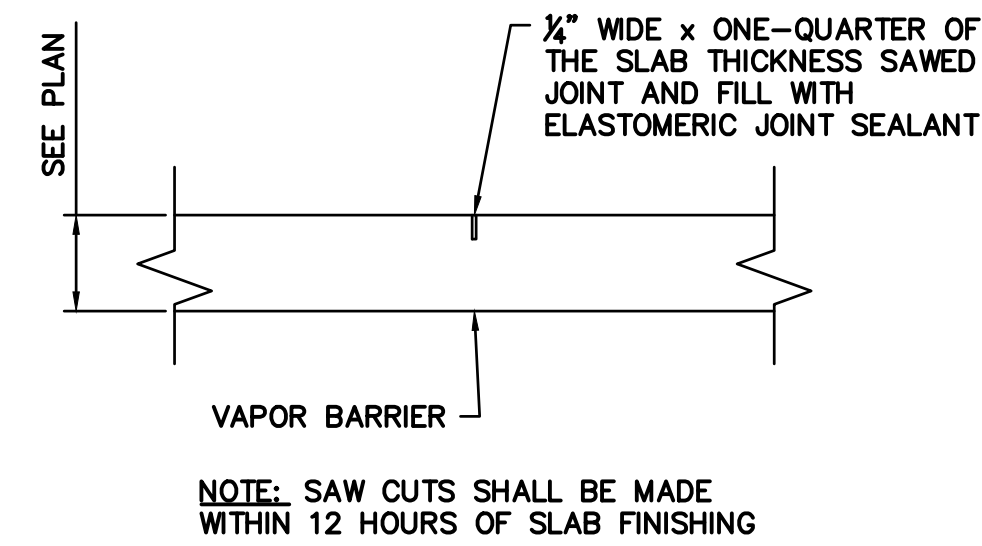
REINFORCING AT ROUND OPENINGS
NOT TO SCALE



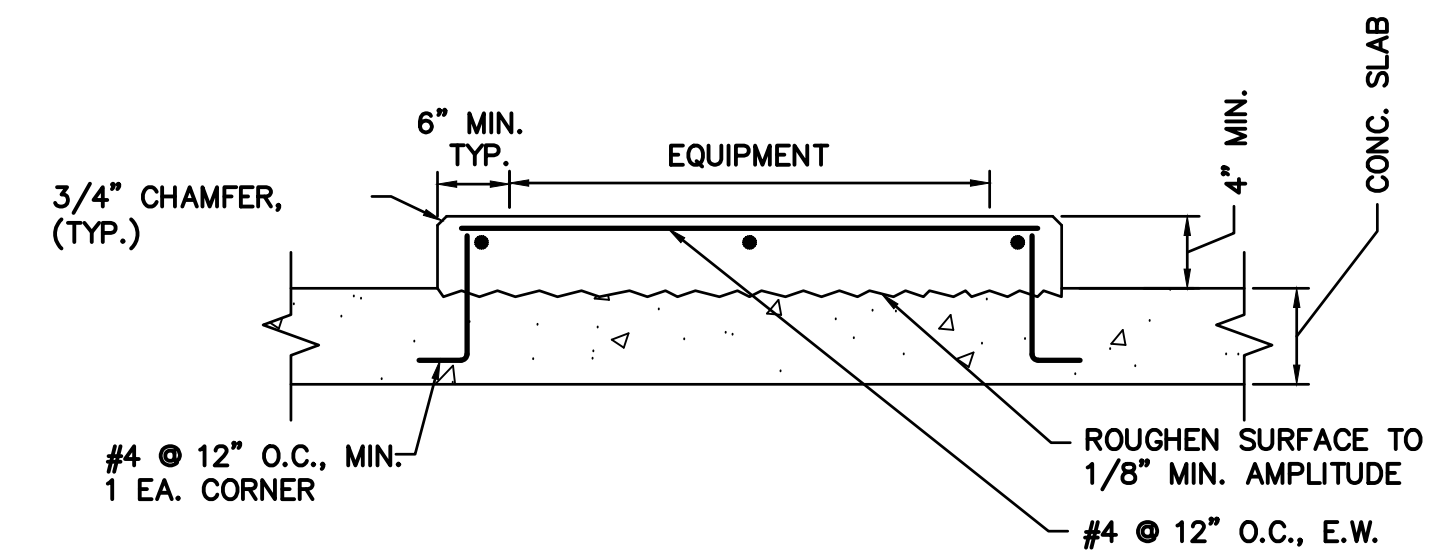
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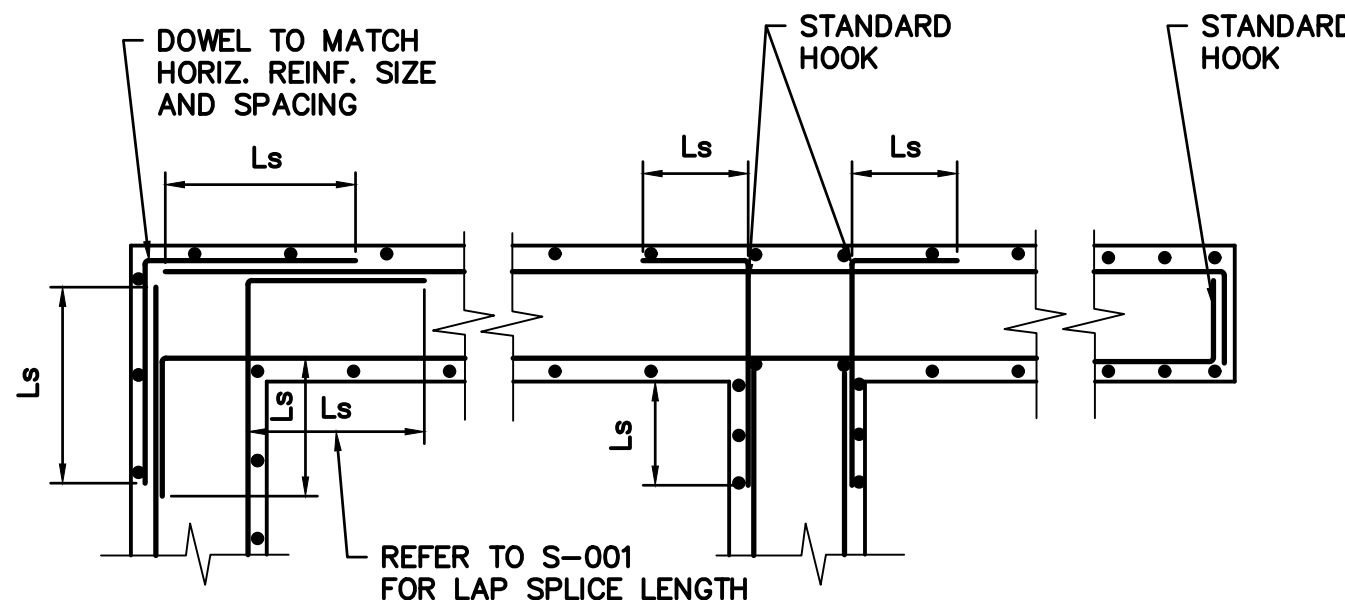
TYPICAL SLAB DETAIL AT DOOR
NOT TO SCALE



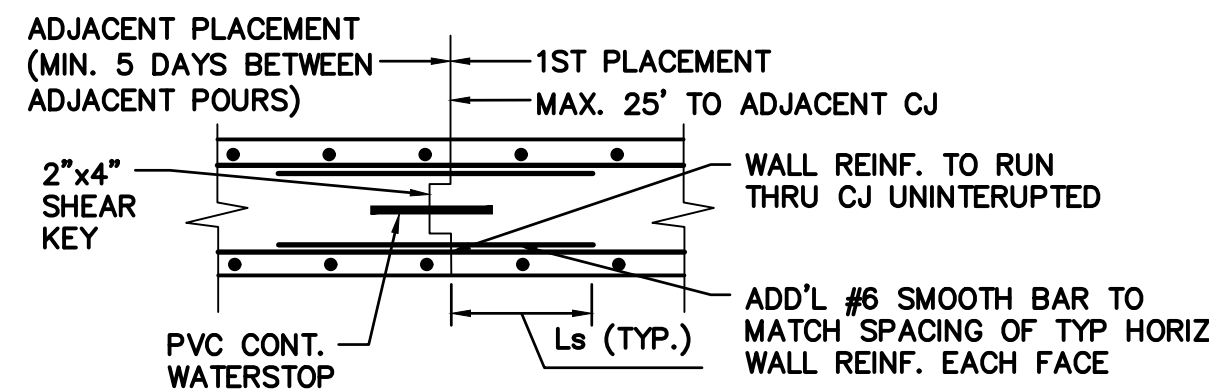
TYPICAL CONTROL JOINT DETAIL
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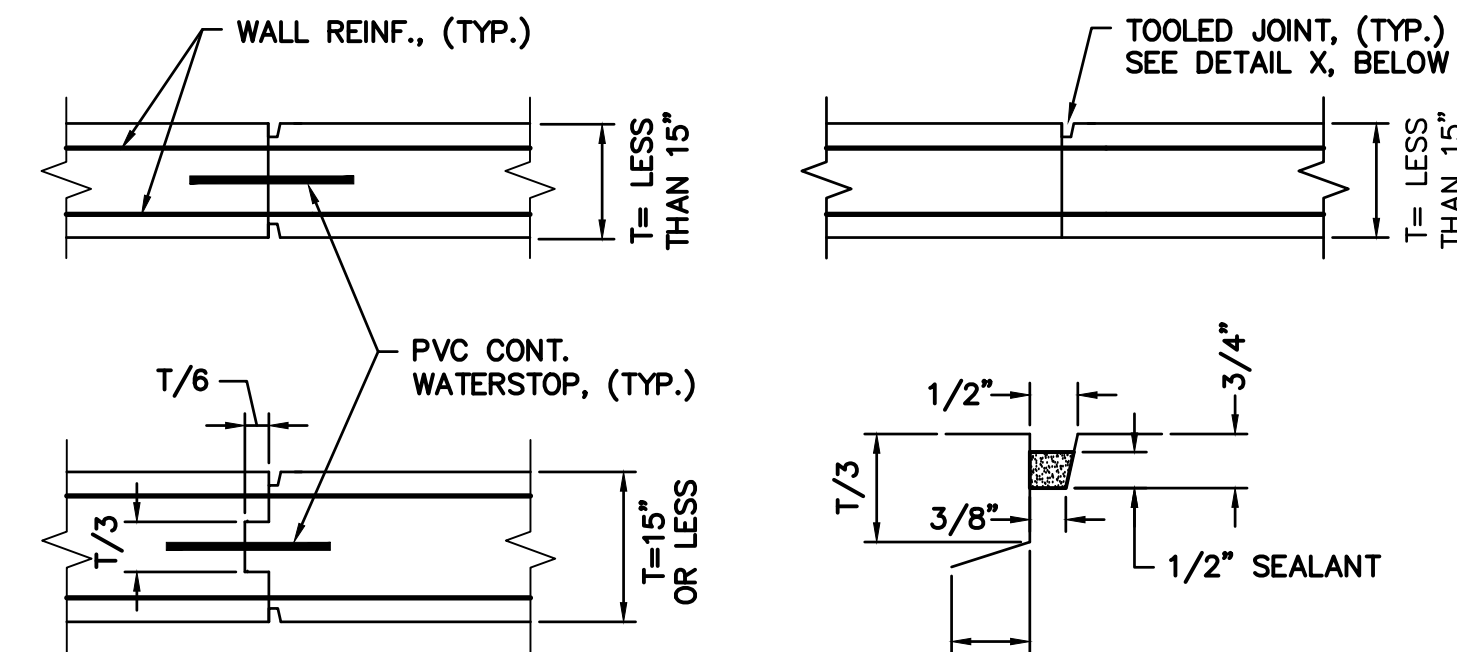
TYPICAL INTERIOR EQUIPMENT PAD DETAIL
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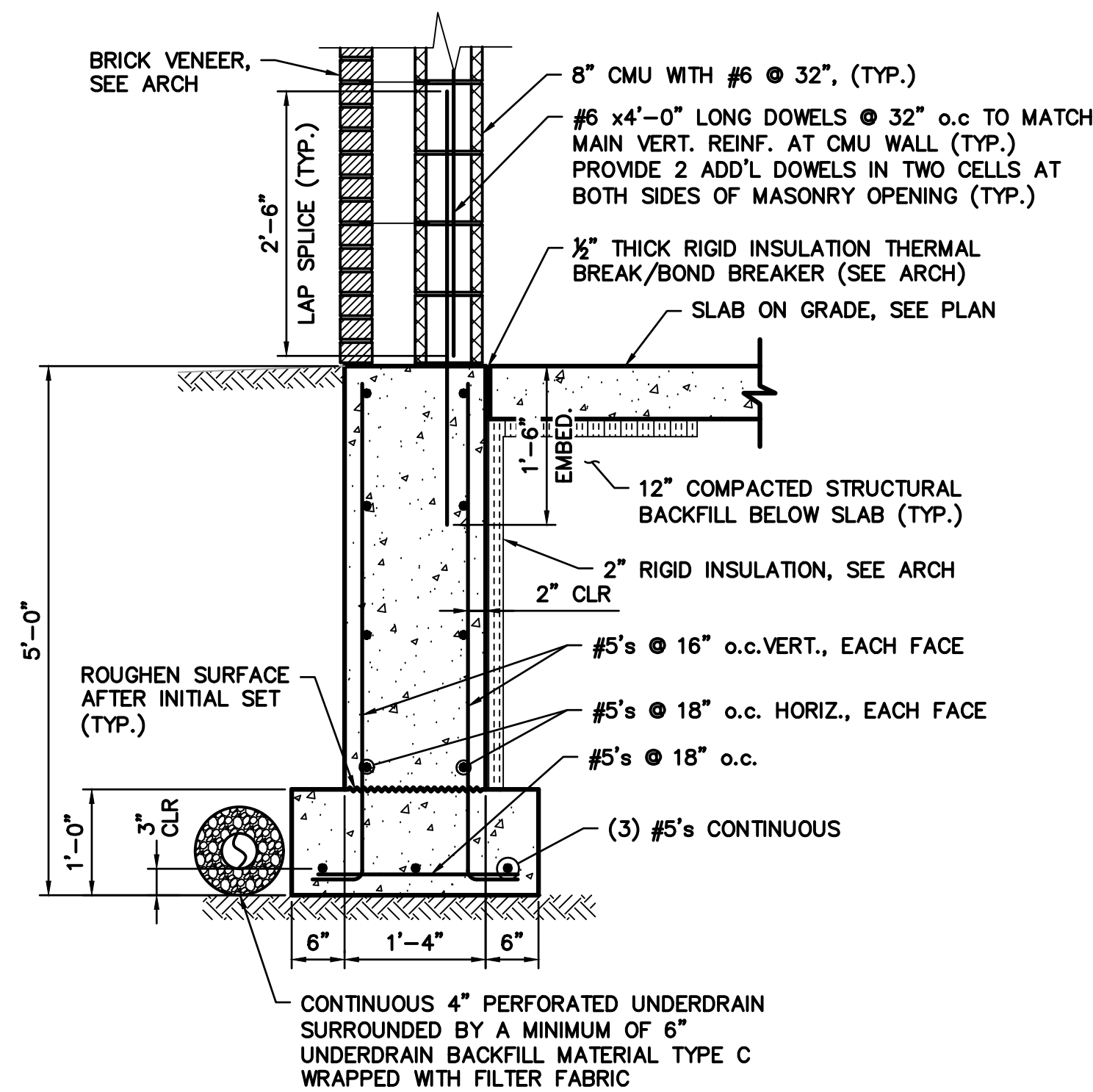
TYPICAL DOUBLE LAYER REINFORCEMENT DETAIL
NOT TO SCALE



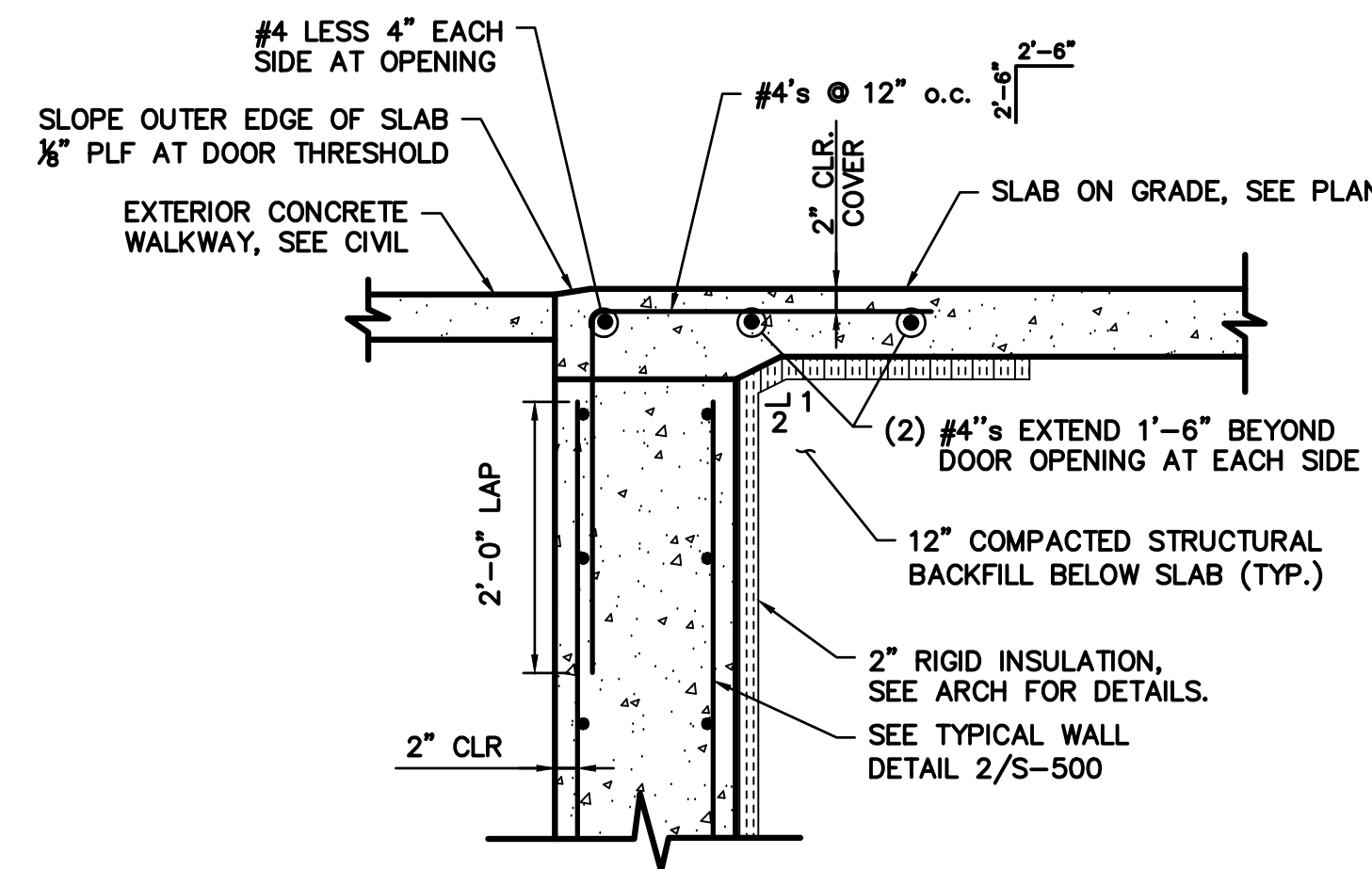
TYPICAL WALL JOINT REINFORCEMENT DETAIL
NOT TO SCALE



TYPICAL WALL CONSTRUCTION JOINT DETAIL
NOT TO SCALE



SECTION 1
SCALE: 3/4" = 1'-0"
S-100

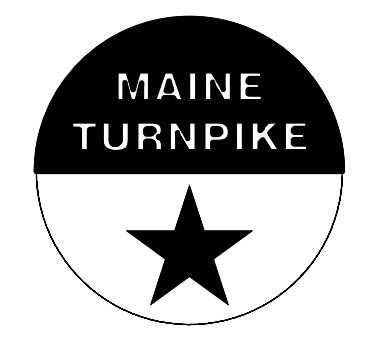


SECTION 2
SCALE: 3/4" = 1'-0"
S-100

Scale: SCALE AS NOTED			
No.	Revision	By	Date

Designed by:					
CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
	By	Date		By	Date
Designed	SJW	10/22	Checked	GGB	10/22
Drawn	SJW	10/22	In Charge of	LEM	10/22

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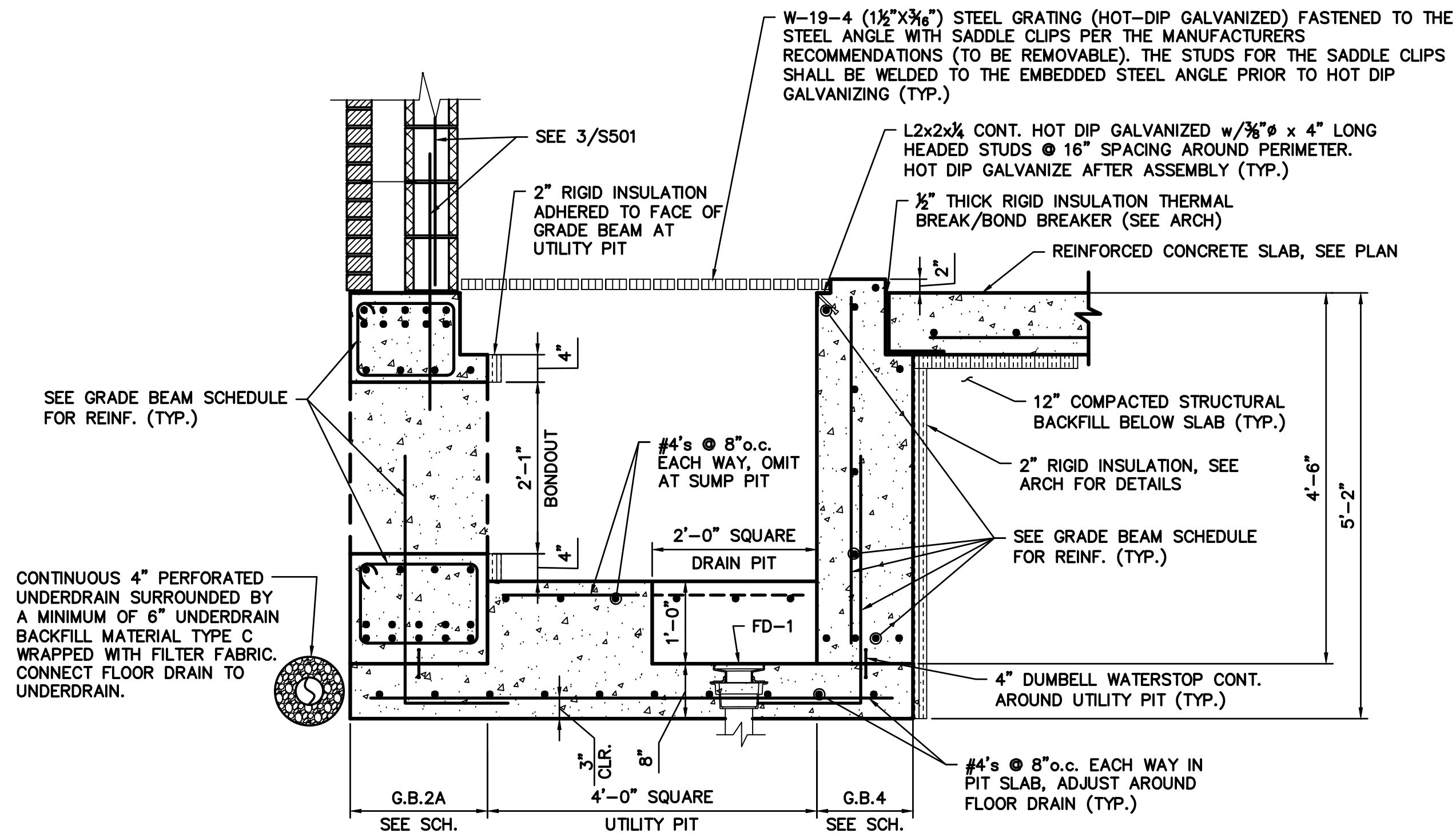
THE GOLD STAR MEMORIAL HIGHWAY

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
STRUCTURAL DETAILS - 1

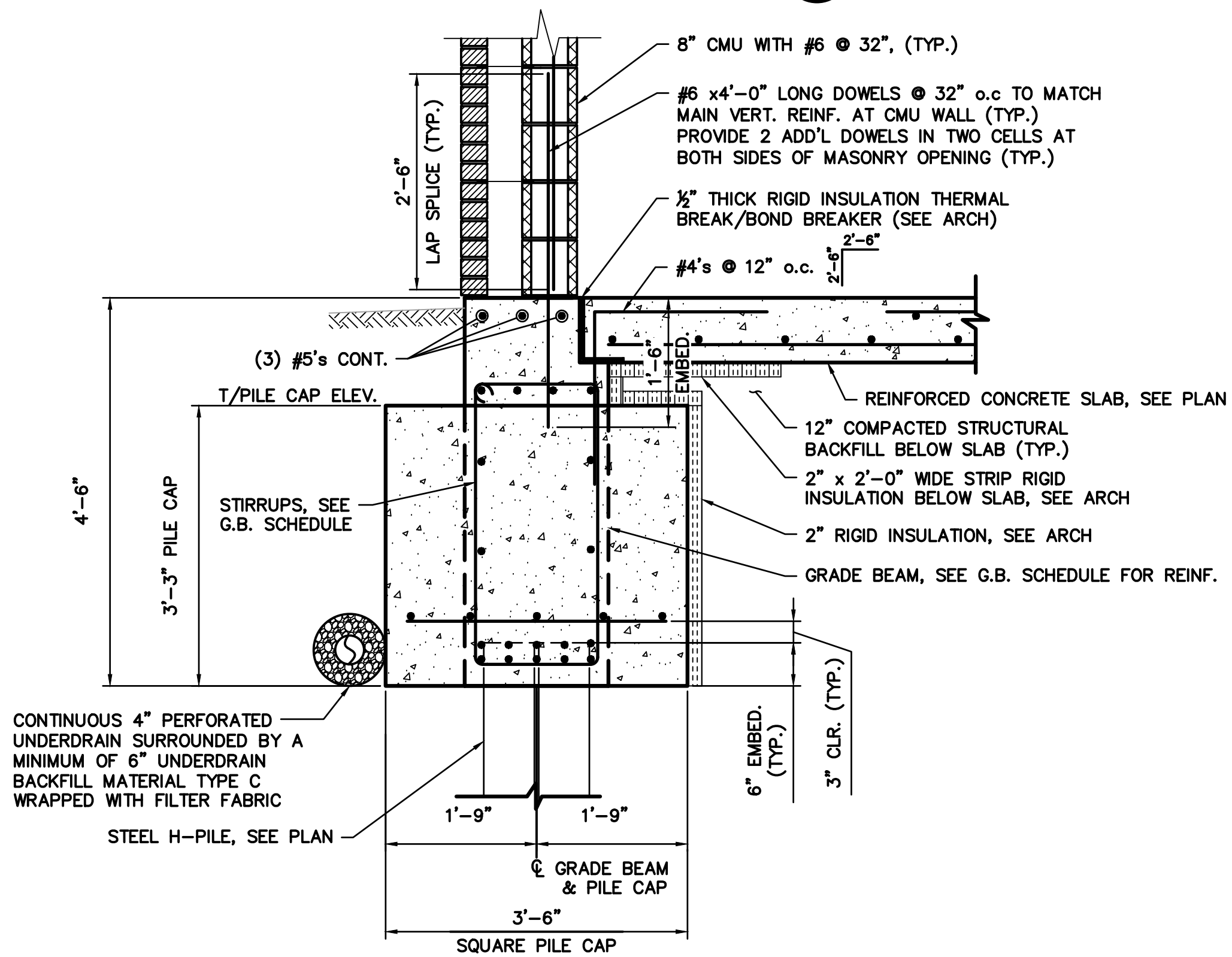
SHEET NUMBER: S-500
CONTRACT: 2022.07
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Filename: S-500.dwg

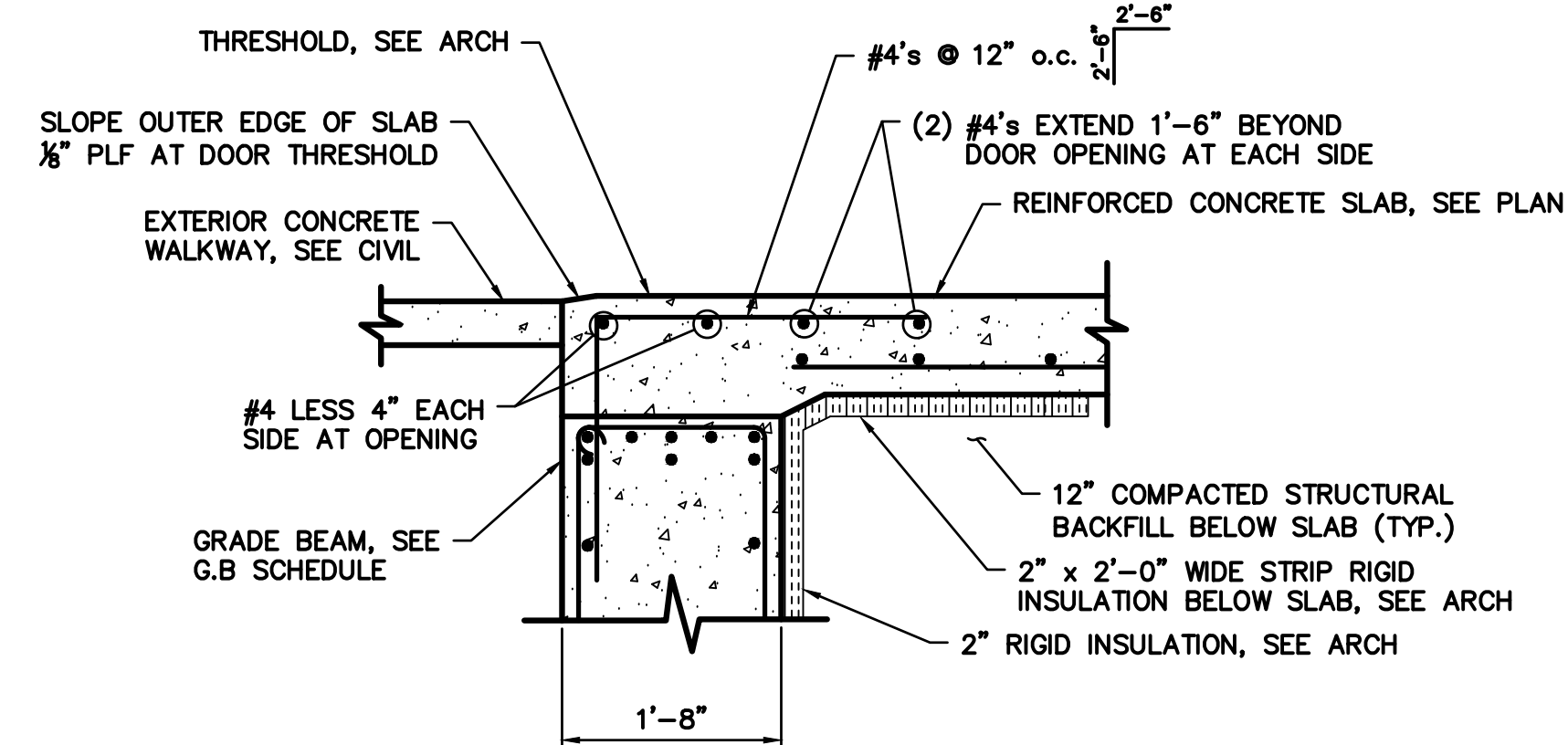
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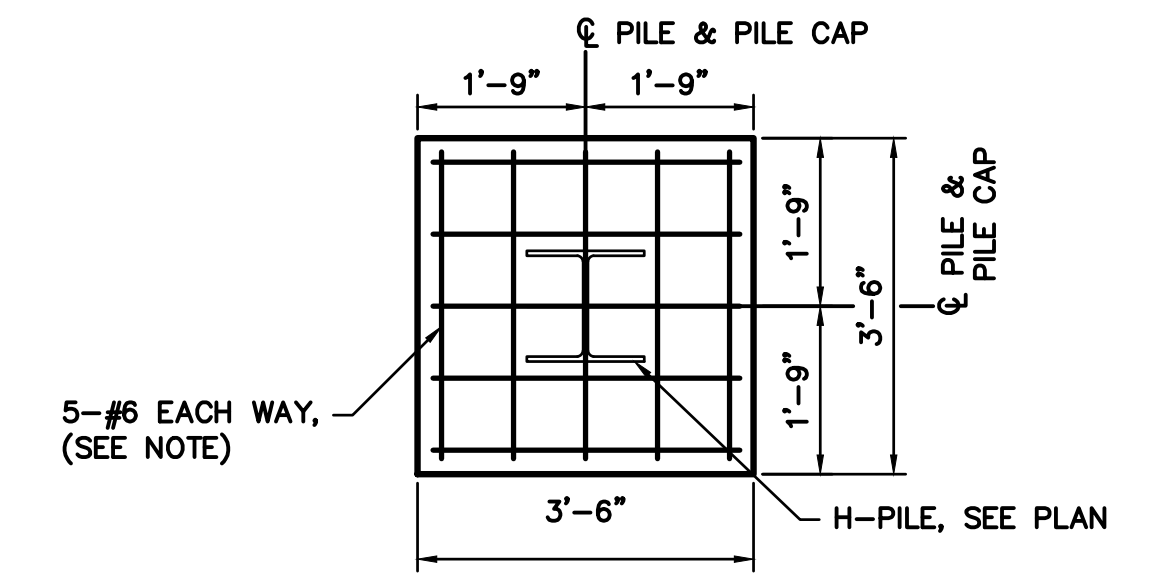
SECTION 1
SCALE: 3/4" = 1'-0"
S-100



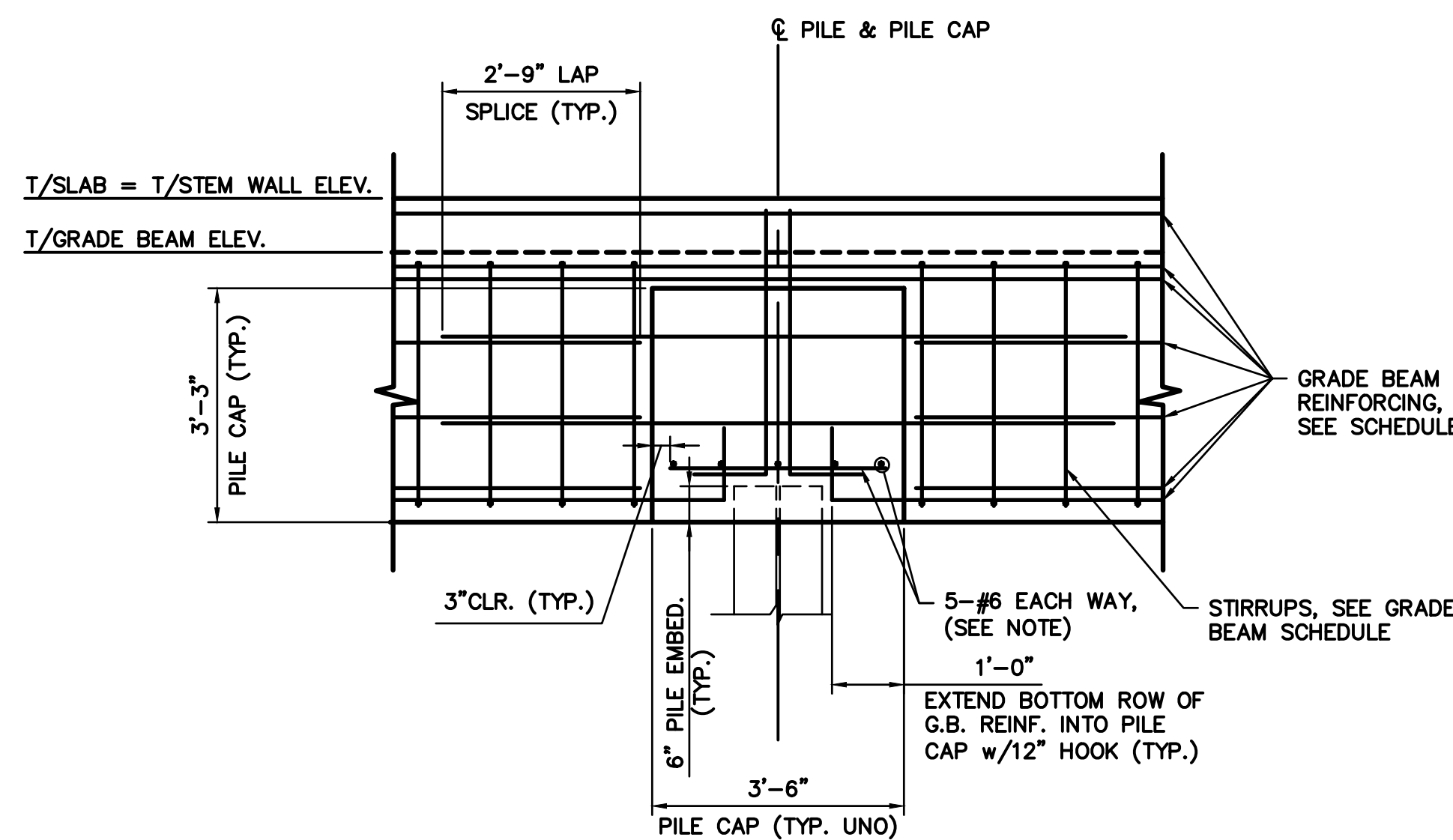
SECTION 2
SCALE: 3/4" = 1'-0"
S-100



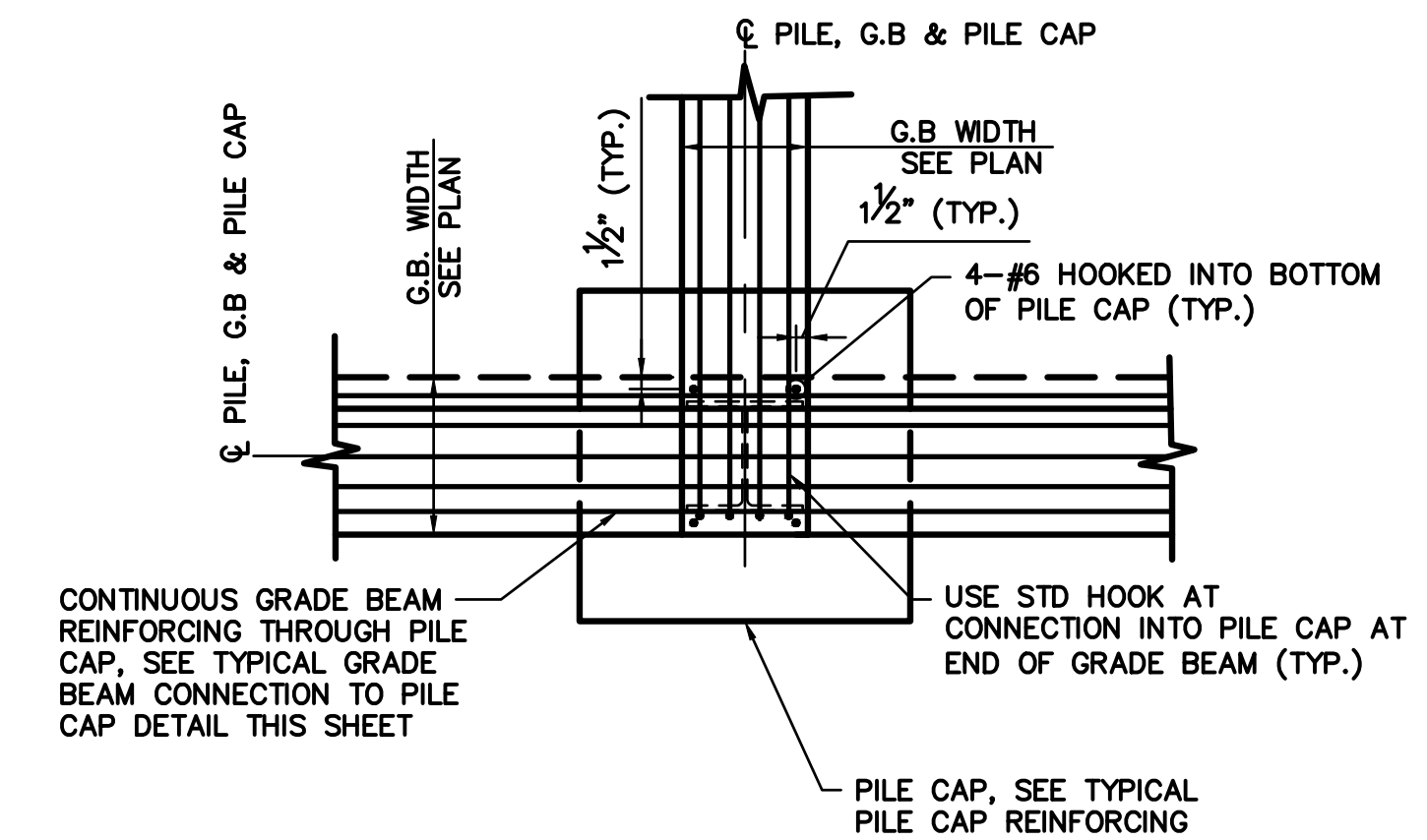
SECTION 3
SCALE: 3/4" = 1'-0"
S-100



NOTE: #6's @ 9" o.c., EACH WAY AT COMBINED PILE CAP
SCALE: 1/2" = 1'-0"



TYPICAL GRADE BEAM CONNECTION TO PILE CAP DETAILS
SCALE: 1/2" = 1'-0"



Scale: SCALE AS NOTED			
No.	Revision	By	Date

Designed by: Stantec			
CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.			
By	Date	By	Date
Designed	SJW 10/22	Checked	GGB 10/22
Drawn	SJW 10/22	In Charge of	LEM 10/22

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

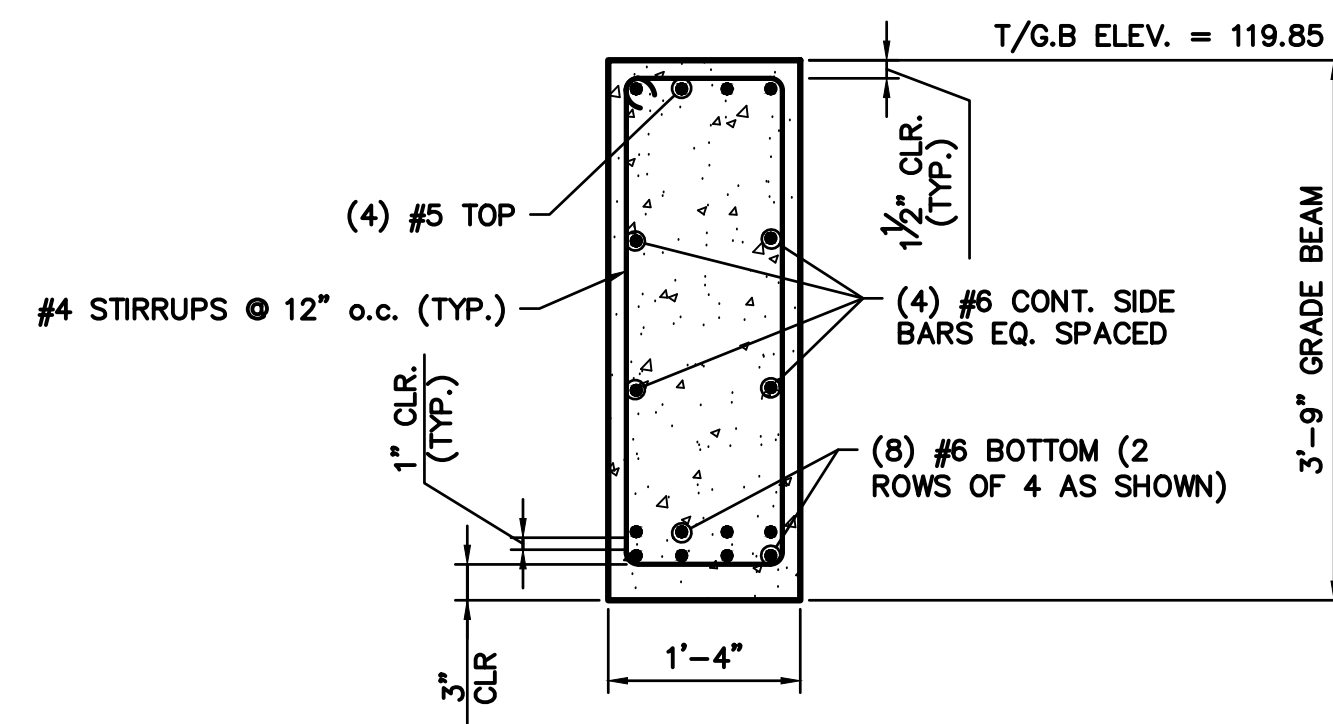
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
STRUCTURAL DETAILS - 2

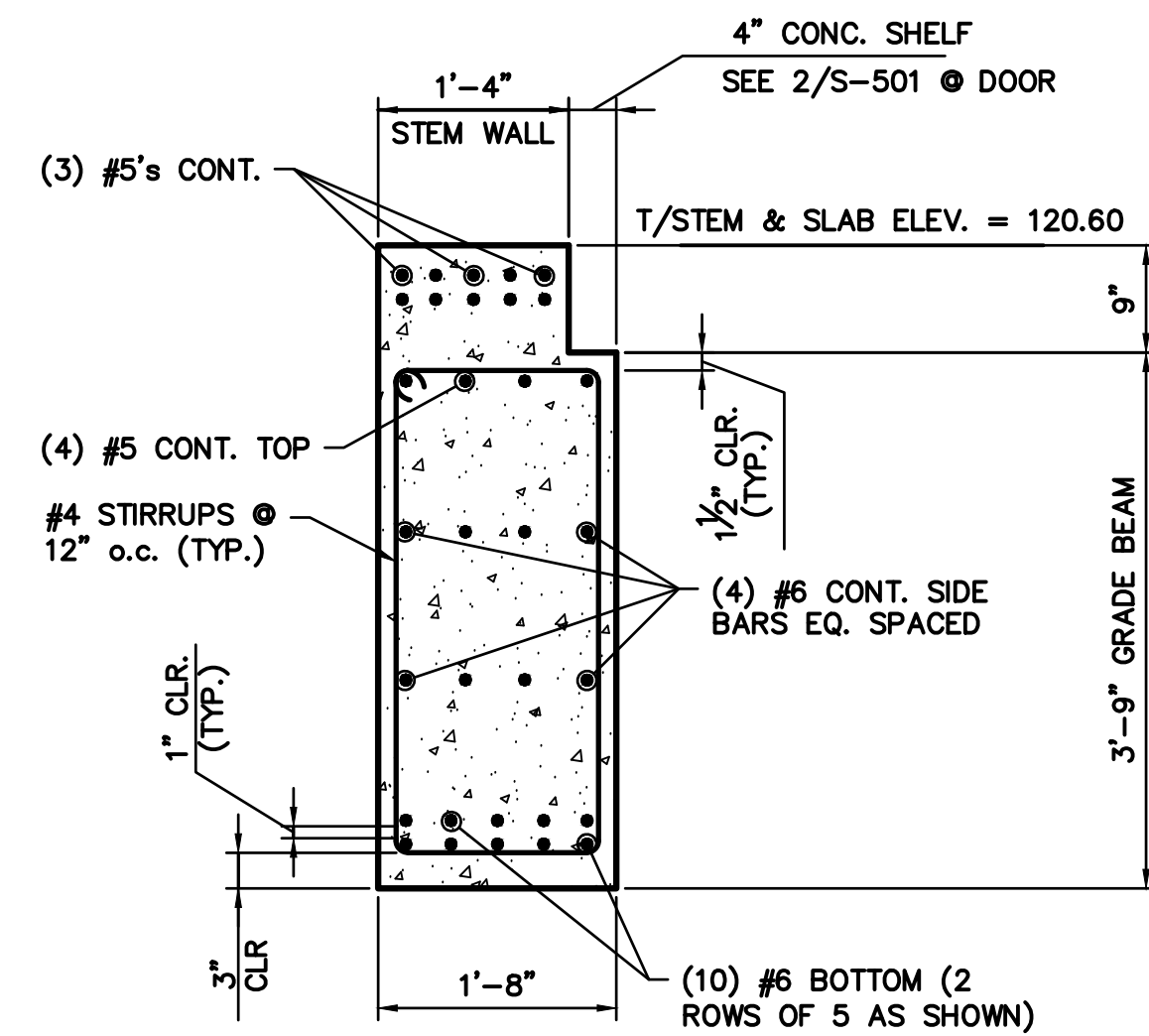
SHEET NUMBER: S-501
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CONTRACT: 2022.07

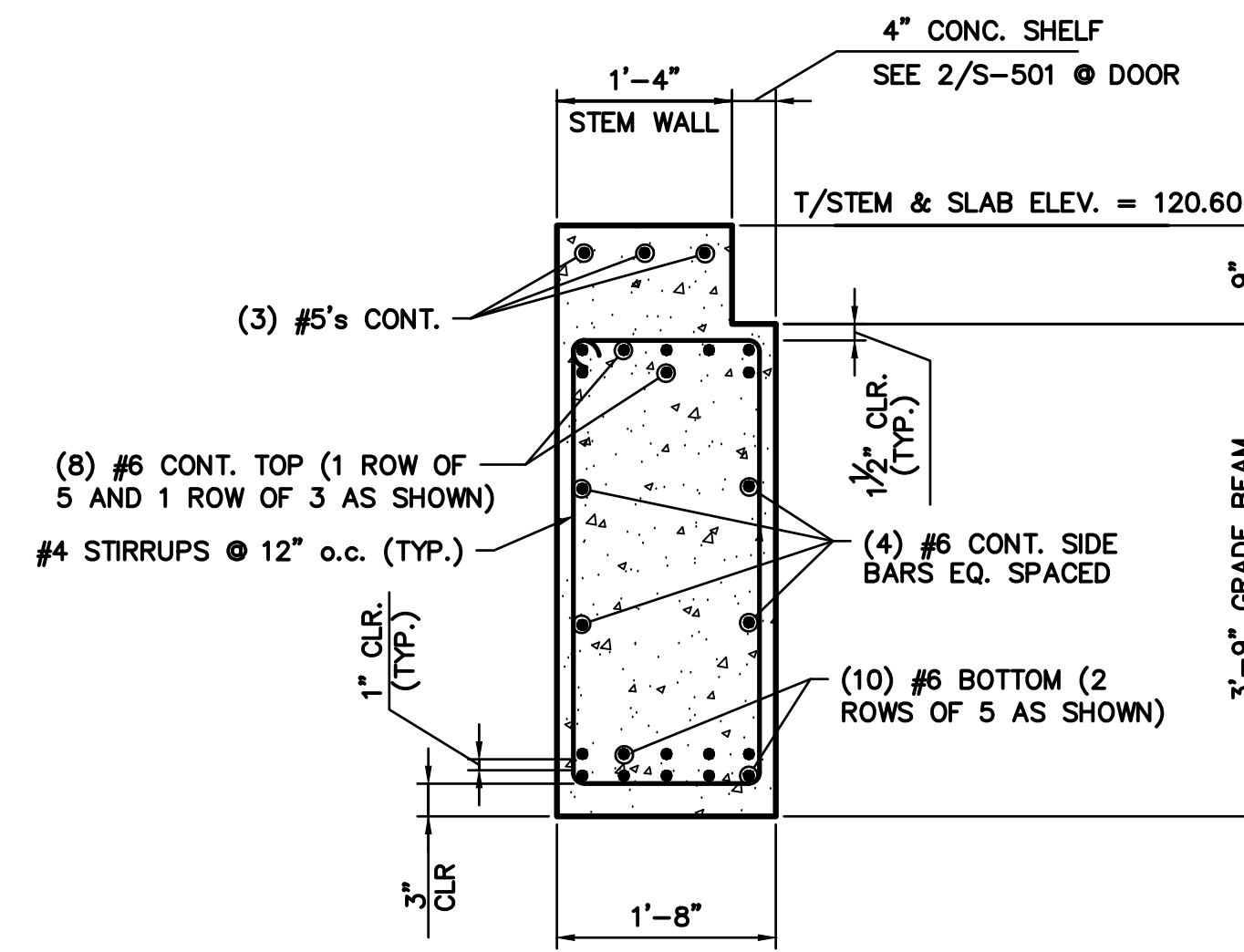
Date: Friday, October 07, 2022



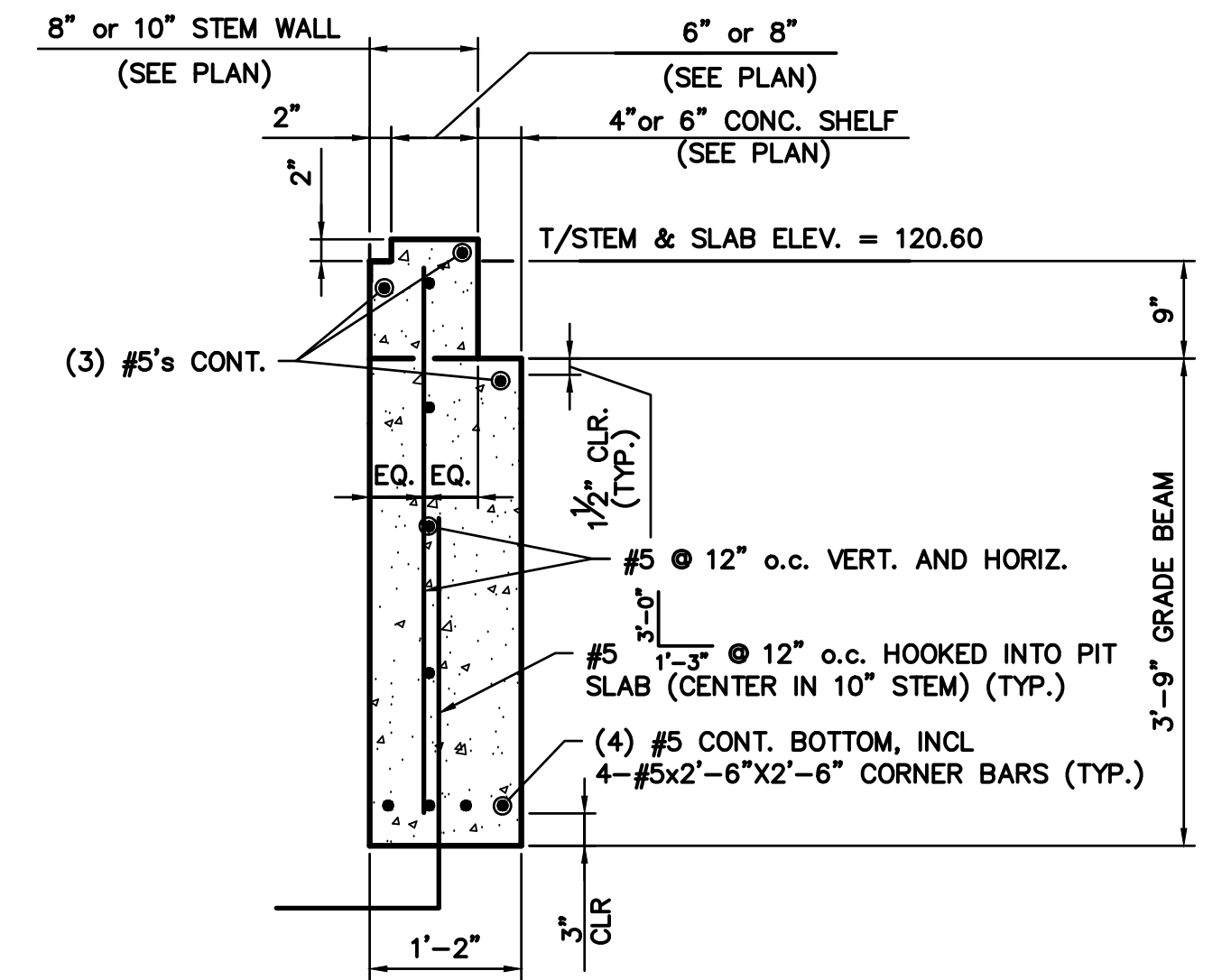
GRADE BEAM 1



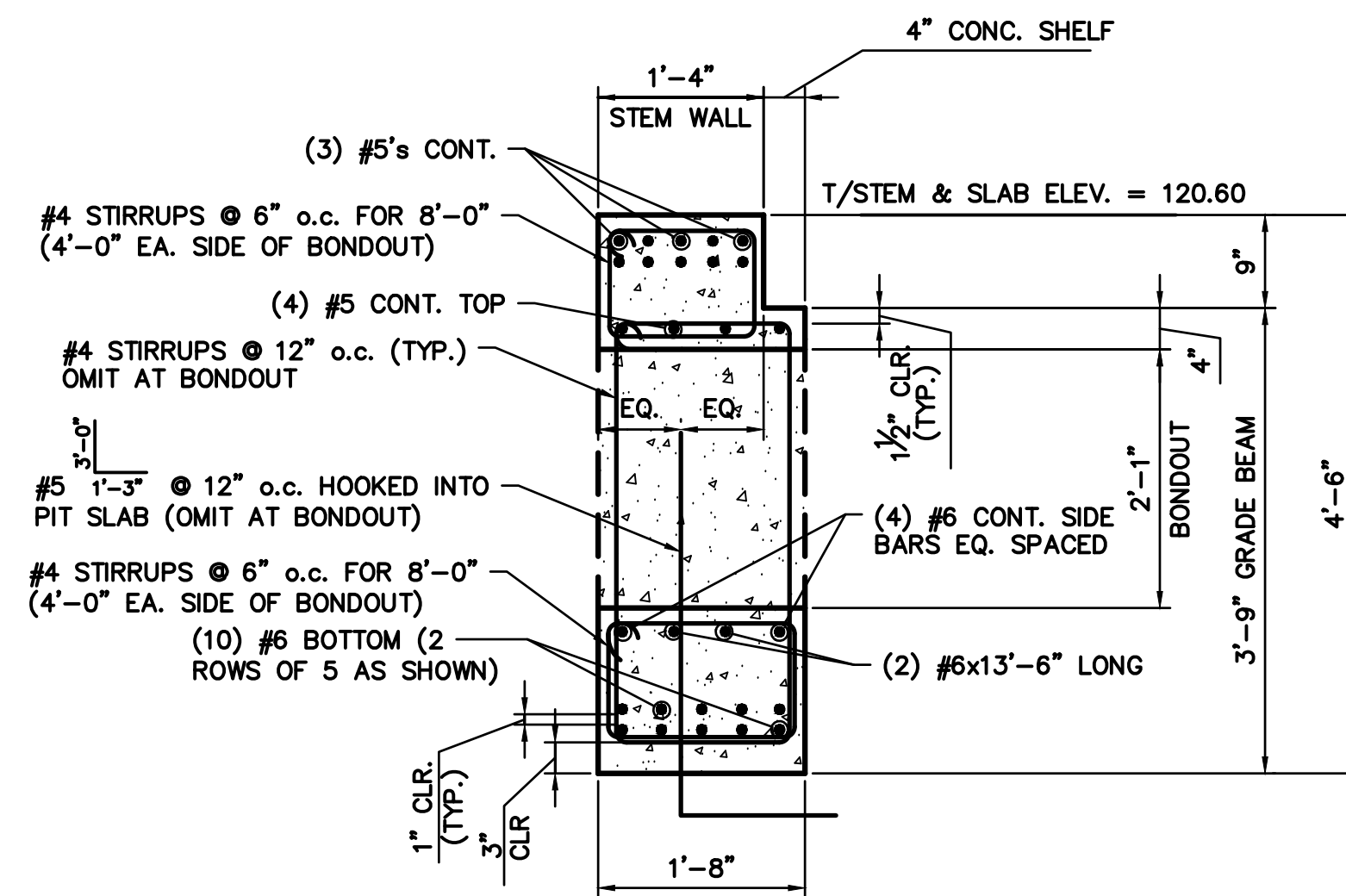
GRADE BEAM 2



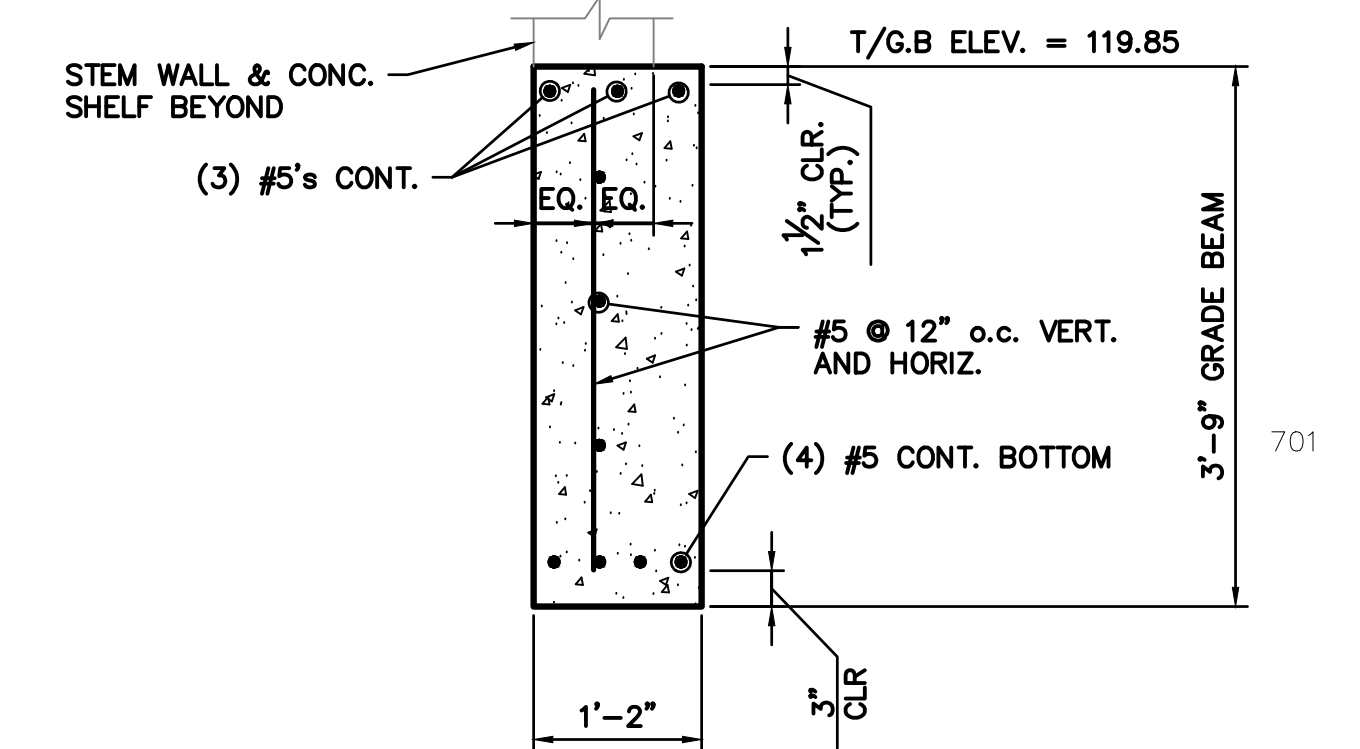
GRADE BEAM 3



GRADE BEAM 4



GRADE BEAM 2A



GRADE BEAM 4A

NOTE: ALL HORIZONTAL BARS SHALL HAVE CORNER BARS AT CORNERS AND INTERSECTIONS:
 #4 x 2'-0" x 2'-0"
 #5 x 2'-6" x 2'-6"
 #6 x 2'-9" x 2'-9"

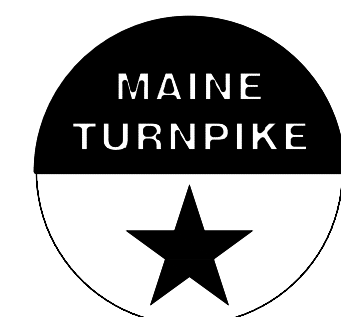
NOTE: SPLICES IN HORIZONTAL BARS SHALL BE AS FOLLOWS:
 #4 - 20" SPLICE
 #5 - 26" SPLICE
 #6 - 33" SPLICE

GRADE BEAM (G.B.) SCHEDULE
 SCALE: 3/4" = 1'-0"

Scale:				Designed by:					
SCALE AS NOTED									
No.	Revision	By	Date						
				CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
				By	Date	By	Date		
				Designed	SJW	10/22	Checked	GGB	10/22
				Drawn	SJW	10/22	In Charge of	LEM	10/22

				STANTEC CONSULTING SERVICES INC. 2211 CONGRESS STREET PORTLAND, ME 04102 TEL (207) 887-3448 FAX (207) 883-3376			
CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.				MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC			
By	Date	By	Date	INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) TOLL ADMINISTRATION BUILDING STRUCTURAL DETAILS - 3			
Designed	SJW	10/22	Checked	GGB	10/22	SHEET NUMBER: S-502	
Drawn	SJW	10/22	In Charge of	LEM	10/22	CONTRACT: 2022.07	

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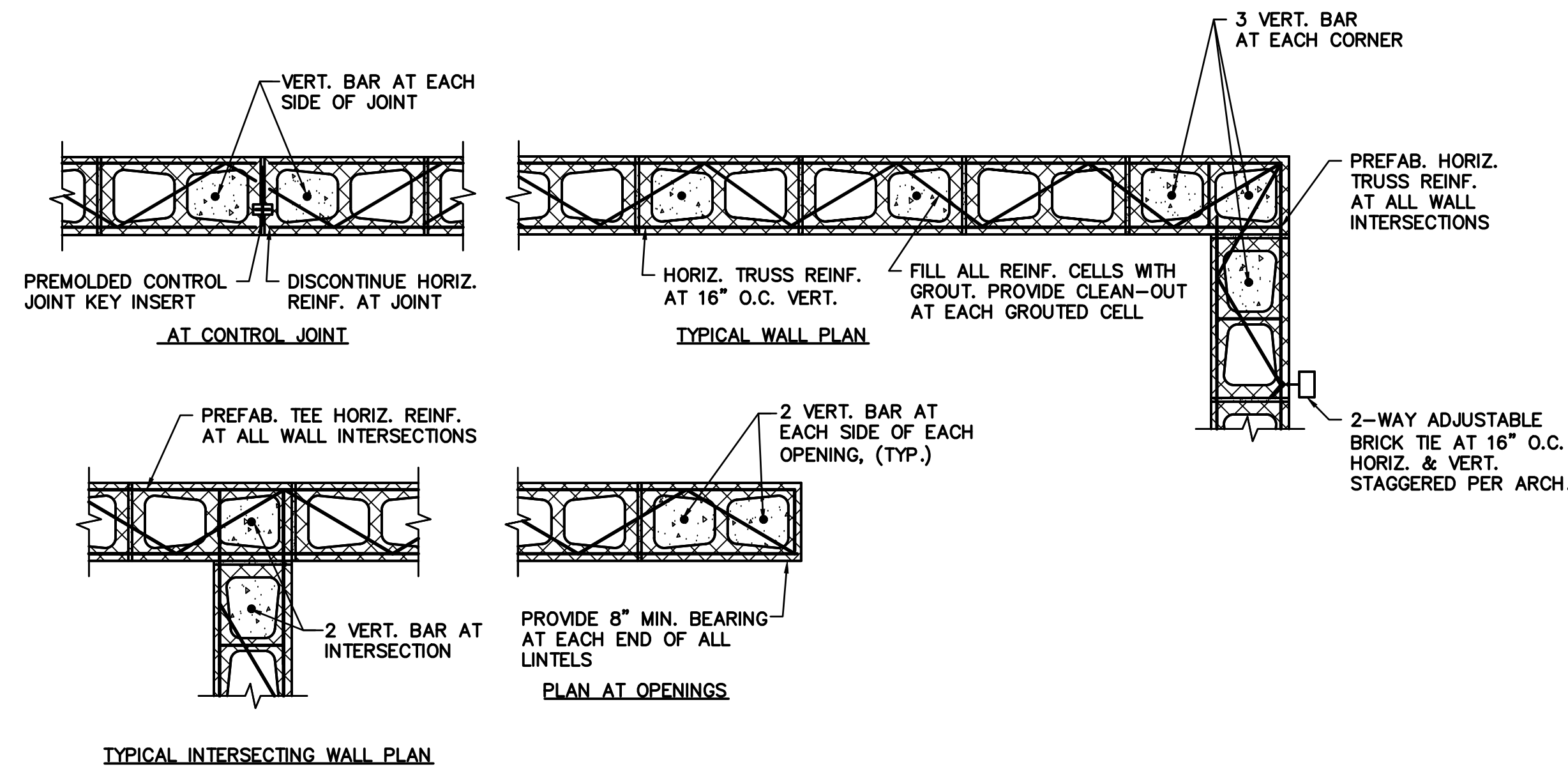


**THE GOLD STAR
 MEMORIAL HIGHWAY**

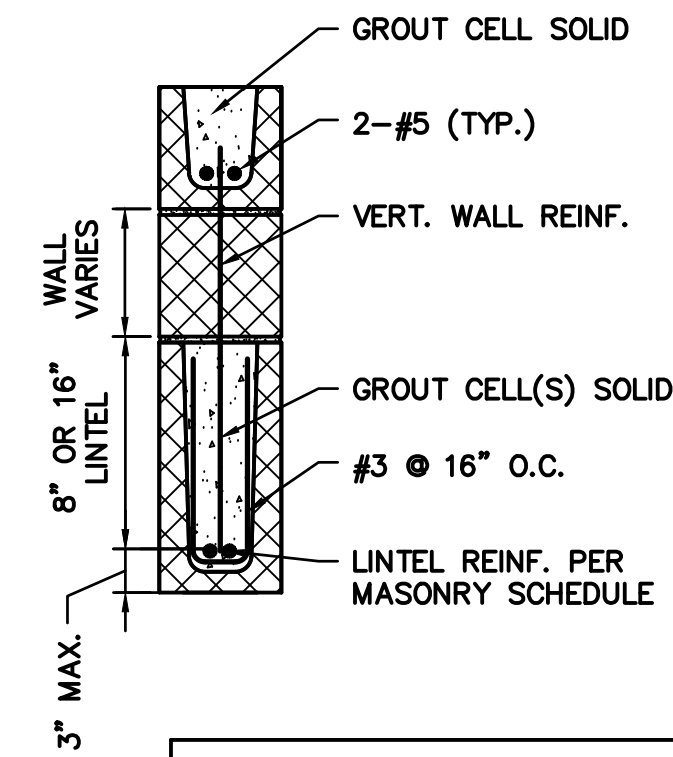
INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 TOLL ADMINISTRATION BUILDING
 STRUCTURAL DETAILS - 3

SHEET NUMBER: S-502
 CONTRACT: 2022.07
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Date: Friday, October 07, 2022



TYPICAL CMU WALL DETAILS
 NOT TO SCALE

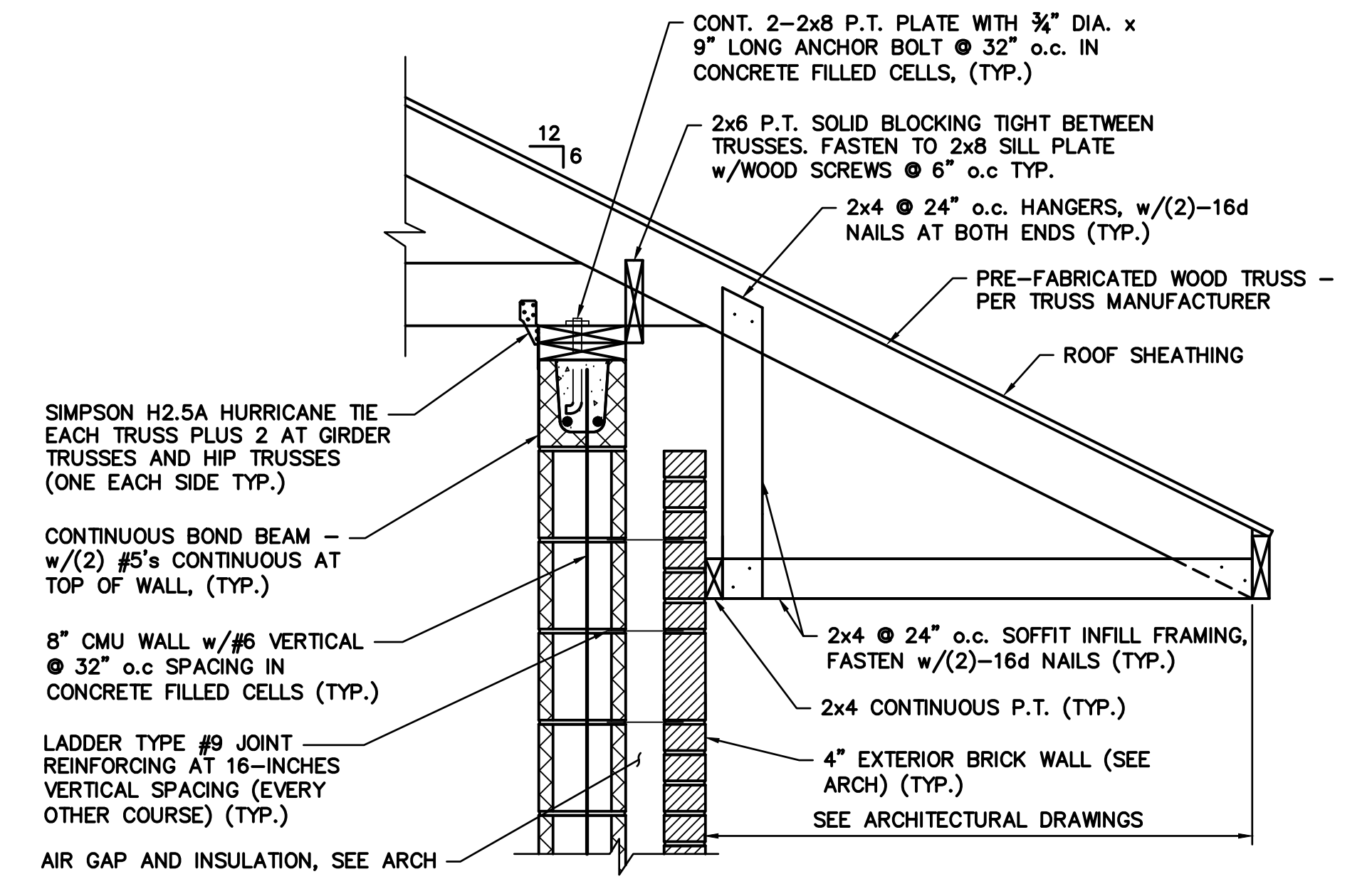


MASONRY LINTEL SCHEDULE

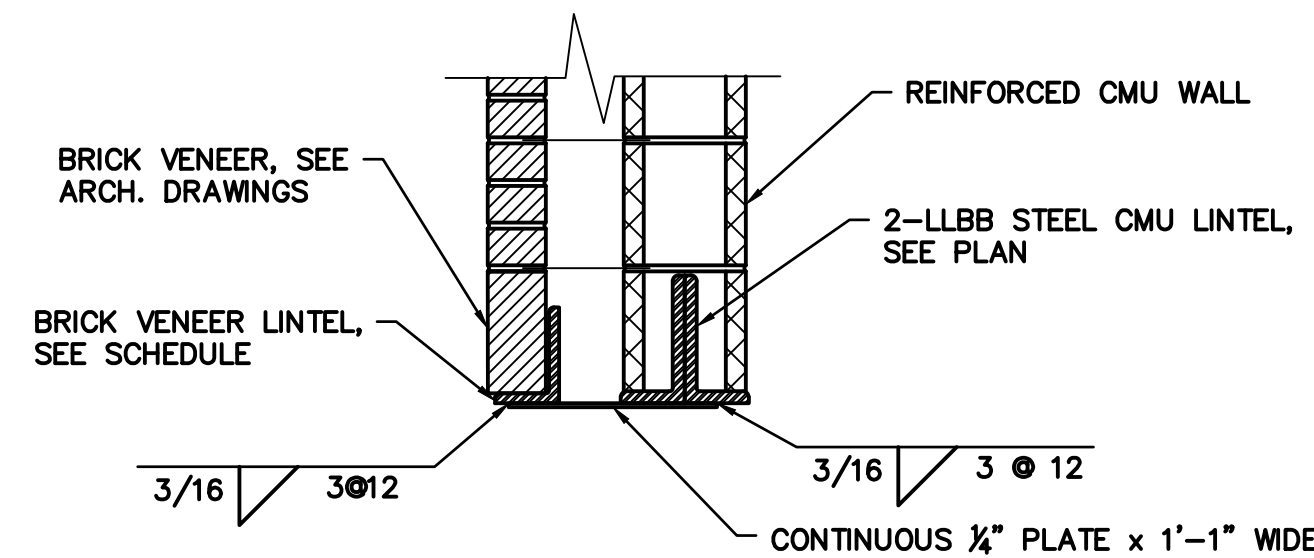
OPENING	REINFORCING	NOM. BLOCK HEIGHT
0'-0" TO 3'-11"	(2) #5	8"
4'-0" TO 8'-0"	(2) #5	16"

MASONRY LINTEL DETAIL AND SCHEDULE
 NOT TO SCALE

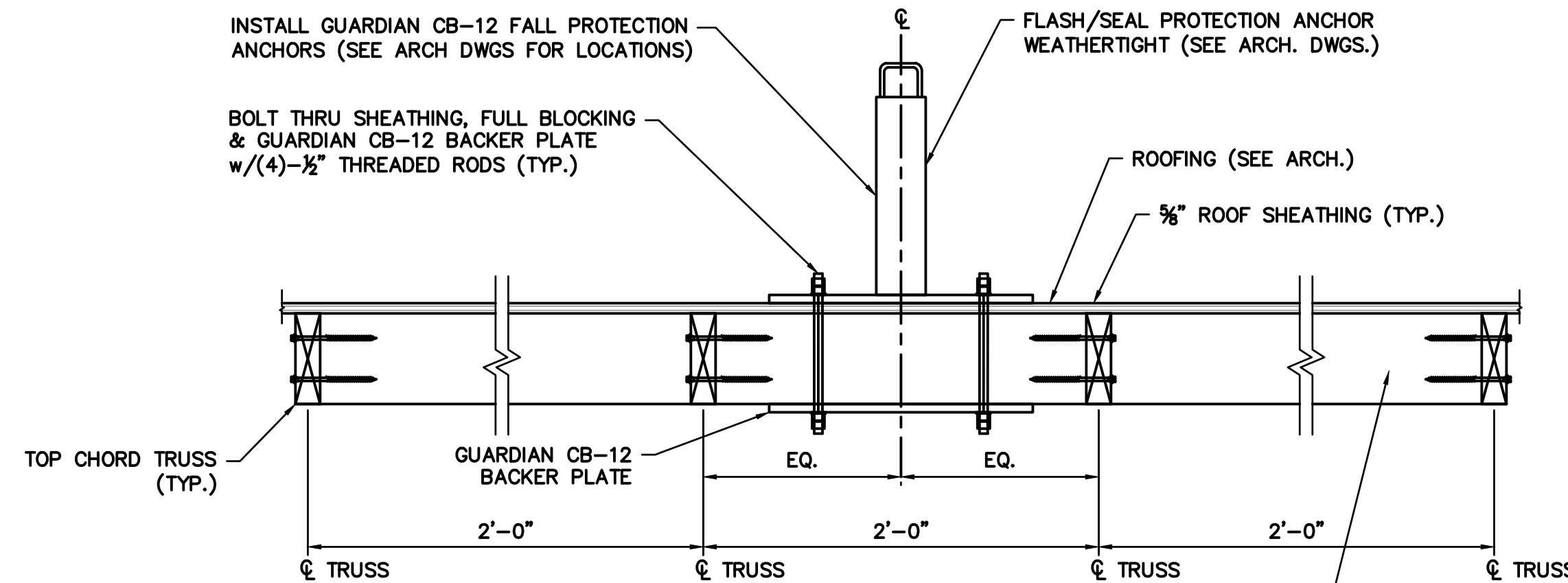
- NOTES:**
1. PROVIDE 8" MIN. BEARING AT EACH END OF ALL LINTELS.
 2. SEE ARCHITECTURAL DRAWINGS FOR ALL WALL OPENINGS.



SECTION 1
 SCALE: 1" = 1'-0"



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



INSTALL (2)-6x12 TIMBER BLOCKING BETWEEN TOP CHORDS OF ROOF TRUSSES & FASTEN TO UNDERSIDE OF THE ROOF SHEATHING w/CONTINUOUS CONSTRUCTION ADHESIVE COMPLETELY ACROSS THE ENTIRE SURFACE OF THE 6x12. FASTEN FULL BLOCKING TO 2x6 TOP CHORD OF ROOF TRUSSES w/12-12GAx5" LONG WOOD SCREWS AT BOTH ENDS (TYP.)

SECTION 3
 SCALE: 1 1/2" = 1'-0"

Scale: SCALE AS NOTED

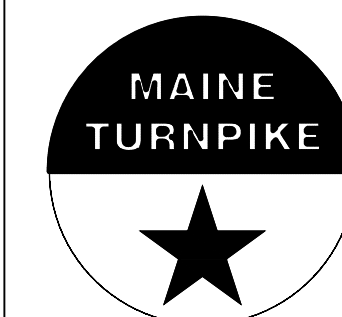
No.	Revision	By	Date

Designed by: **Stantec**

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
Designed	SJW	10/22	Checked	GGB	10/22
Drawn	SJW	10/22	In Charge of	LEM	10/22

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 TOLL ADMINISTRATION BUILDING
 STRUCTURAL DETAILS - 4

Filename: S-503.dwg

Date: Friday, October 07, 2022

Filename: M001.dwg

HVAC GENERAL NOTES

- DESCRIPTIONS**
- ALL HVAC GENERAL NOTES, SYMBOLS LISTS & DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL HVAC DRAWINGS FOR THIS PROJECT.
 - THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND EXACT LOCATIONS AND ARRANGEMENTS OF NEW EQUIPMENT, DUCTWORK, PIPING AND OTHER COMPONENTS SHALL BE DETERMINED IN THE FIELD WITH DUE CONSIDERATION OF STRUCTURAL, ELECTRICAL AND ARCHITECTURAL SYSTEMS. STRUCTURAL SYSTEMS SHALL NOT BE MODIFIED WITHOUT THE EXPRESSED PERMISSION OF THE ENGINEER.
 - THE PROJECT SHALL BE PHASED IN ACCORDANCE WITH THE CONTRACTOR'S APPROVED PHASING PLAN. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE OWNER FOR THE SEQUENCING AND TIMING OF OPERATIONS PRIOR TO COMMENCING WORK. SEE SPECIFICATIONS.
 - CONTRACTOR IS TO MAINTAIN SERVICE TO ROOMS OUTSIDE THE PROJECT SCOPE OF WORK AND PHASING SCHEDULE. IF INTERRUPTION OF SERVICE IS REQUIRED COORDINATE SHUTDOWN WITH OWNER. NOTIFY THE OWNER A MINIMUM OF 96 HOURS PRIOR TO SHUT-DOWN.
 - CARE SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SYSTEMS AND SURFACES TO REMAIN. RESTORE DAMAGED AREAS THAT ARE BEYOND THE SCOPE OF THIS CONTRACT TO THEIR ORIGINAL CONDITION.
 - MOST PARTITIONS ARE FULL HEIGHT AND REQUIRE UTILITIES PENETRATIONS TO BE SEALED, SEE ARCHITECTURAL DWGS FOR PARTITION HEIGHTS. UTILITIES SHOWN FOR CLARITY THAT MAY RUN PARALLEL TO WALL PARTITIONS WILL REQUIRE LOCATING IN THE FIELD TO MINIMIZE CONFLICT WITH PARTITIONS.
 - COORDINATE THE LOCATIONS OF ALL WALL MOUNTED TEMPERATURE SENSORS WITH OWNER'S FINAL EQUIPMENT/FURNITURE LAYOUT.
 - PROVIDE SEISMIC RESTRAINTS PER SPECIFICATION 130541.
 - MANUFACTURERS NAME & MODEL NUMBER ARE USED FOR DESCRIPTIVE PURPOSES ONLY & ARE INTENDED TO INDICATE THE STANDARD OF MATERIAL OR ARTICLES REQUIRED.
 - INSTALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND GOOD PRACTICE NORMAL TO THE TRADE. INSTALLATION SHALL INCLUDE PROVISIONS FOR ACCESS TO NORMAL MAINTENANCE ITEMS SUCH AS BELTS, BEARINGS, FILTERS AND MOTORS. PROVIDE ADEQUATE STRUCTURAL SUPPORTS AND SECURE MOUNTING METHODS WITH PROVISIONS FOR VIBRATION ISOLATION AND EXPANSION WHERE REQUIRED.
 - PROVIDE VOLUME DAMPERS AT EACH BRANCH TO AN INDIVIDUAL REGISTER OR DIFFUSER IN SUPPLY, RETURN AND EXHAUST DUCTS IRRESPECTIVE OF WHETHER OR NOT A DAMPER IS INDICATED ON THE PLANS.
 - DIFFUSER SIZES INDICATED ARE NECK SIZES. REGISTERS & GRILLES ARE INDICATED AS NOMINAL SIZES.
 - PERFORM ALL TESTS BEFORE INSULATING.
 - PIPING AND DUCTWORK SHALL BE CONCEALED UNLESS OTHERWISE NOTED.
 - INSTALLATION SHALL PERMIT ACCESSIBILITY FOR SERVICE AND/OR REPLACEMENT OF EQUIPMENT PROVIDED. PROVIDE ACCESS PANELS TO GAIN ACCESS TO SYSTEMS COMPONENTS THAT REQUIRE MAINTENANCE ACCORDING TO MANUFACTURER'S LITERATURE.
 - PROVIDE DUCTWORK WITH OFFSETS AND TRANSITIONS AS REQUIRED TO FIT UNDER STRUCTURAL STEEL OR OTHER OBSTRUCTIONS. FLAT OVAL OR ROUND SIZES MAY BE USED INTERCHANGEABLY BY THE CONTRACTOR. MAINTAIN DUCT CROSS SECTIONAL AREA. CHANGES SHALL BE ONLY IN ACCORDANCE WITH APPROVED SHOP DRAWINGS OR WRITTEN PERMISSION OF THE OWNER'S PROJECT SECTION.
 - PROVIDE CLAMPS, OFFSETS, EXPANSION JOINTS, ANCHORS & GUIDES AS NECESSARY TO PREVENT UNDUÉ STRAIN ON PIPING.
 - SEE DETAILS & PIPING DIAGRAMS FOR ADDITIONAL VALVES & FITTINGS NECESSARY FOR COMPLETE PIPING SYSTEM.
 - MECHANICAL CONTRACTOR TO COORDINATE ALL WORK WITH OTHER BUILDING TRADES.
 - PROVIDE FIRE OR FIRE/SMOKE DAMPERS WHERE INDICATED ON PLANS & WHERE REQUIRED BY APPLICABLE CODES FOR DUCTS & OPENINGS THROUGH FLOORS, FIRE WALLS & FIRE PARTITIONS. DAMPERS SHALL BE ENCLOSED IN #14 GAUGE STEEL SLEEVE. PROVIDE ACCESS DOORS LOCATED SO THAT FUSIBLE LINK & OTHER DAMPER COMPONENTS MAY BE INSPECTED REPLACED AND/OR SERVICED.
 - SEE SPECIFICATIONS FOR OTHER REQUIREMENTS.
 - AT THE END OF EACH WORKING DAY, THE CONSTRUCTION SITE SHALL BE LEFT IN A CLEAN AND NEAT CONDITION.
 - FILL AND PATCH ALL OPENINGS IN WALLS WHERE CONDUITS, PIPES, DUCTS ETC. ARE OR HAVE BEEN REMOVED WITH UL LISTED FIRE ASSEMBLY APPROVED BY THE ARCHITECT. MAINTAIN 2 HR FIRE RATING WHERE APPLICABLE.
 - TIE-IN POINT LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL DETERMINE EXACT LOCATIONS IN THE FIELD BASED ON EXISTING CONDITIONS.
 - WARRANTIES SHALL START UPON PROJECT FINAL COMPLETION.

GENERAL ABBREVIATIONS

ABBREVIATIONS	DESCRIPTIONS
A	AIR
AD	DUCT ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISH GRADE
AP	ACCESS PANEL
AS	AIR SEPARATOR
ATC	AUTOMATIC TEMPERATURE CONTROL
BEL	BELOW
BFP	BACK FLOW PREVENTER
BOD	BOTTOM OF DUCT
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
C	CLOSED
C&HW	COLD & HOT WATER
CA	COMBUSTION AIR
CAP	CAPACITY
CAR	COMBUSTION AIR RELIEF
CAS	COMBUSTION AIR SUPPLY
CC	COOLING COIL
CD	CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
COL	COLUMN
CONN	CONNECT
CP	CONTROL PANEL
CT	CURRENT TRANSFORMER
CV	CONTROL VALVE
DB	DRY BULB TEMPERATURE
DDC	DIRECT DIGITAL CONTROL
DIA	DIAMETER
DN	DOWN
DO	DIGITAL OUTPUT
DWG OR DWGS	DRAWINGS
E, EX OR (E)	EXISTING
EA	ENTERING AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
EAU	EXHAUST AIR UNIT
EF	EXHAUST FAN
EG	EXHAUST AIR GRILLE
EL	EXPANSION LOOP
EMS	ENERGY MANAGEMENT SYSTEM
ER	EXHAUST AIR REGISTER
ERV	EXHAUST ON ROOF
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
ETO	EXISTING TO BE REMOVED
ETR	ETHYLENE OXIDE
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
FA	FREE AREA
FAI	FRESH AIR INTAKE
FC	FLEXIBLE CONNECTION
FD	FIRE DAMPER
FLA	FULL LOAD AMPS
FPI	FLOORS
FPM	FEET PER MINUTE
FSD	COMBINATION FIRE AND SMOKE DAMPER
FT	FEET
FTR	FIN TUBE RADIATION
GAL	GALLONS
GC	GENERAL CONTRACTOR
GE	GENERAL EXHAUST
GPM	GALLONS PER MINUTE
GV	GATE VALVE
HC	HEATING COIL
HE	HOOD EXHAUST
HPAC	HORSE POWER
HVAC	HEATING, VENTILATION AND AIR COND.
HW	HOT WATER
ID	INSIDE DIAMETER
IH	INTAKE HOOD
IN	INCHES
KE	KITCHEN EXHAUST
KW	KILOWATTS
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
M&H	THOUSANDS OF B.T.U.'S PER HOUR
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MTD	MOUNTED
N.C. OR NC	NORMALLY CLOSED
N.O. OR NO	NORMALLY OPEN
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
O.A. OR OA	OUTSIDE AIR
OAT	OUTSIDE AIR TEMPERATURE
OBD	OPPOSED BLADE DAMPER
OD	OUTSIDE DIAMETER
OED	OPEN ENDED DUCT
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PSI	POUNDS PER SQUARE INCH
PRV	PRESSURE REDUCING VALVE
RA	RETURN AIR

GENERAL ABBREVIATIONS

ABBREVIATIONS	DESCRIPTIONS
REF	RETURN EXHAUST FAN
RF	RETURN FAN
RG	RETURN AIR GRILLE
RHRW	REHEAT WATER RETURN
RHWS	REHEAT WATER SUPPLY
RM	ROOM
RR	RETURN AIR REGISTER
RV	RELIEF VALVE
SA	SUPPLY AIR
SAT	SUPPLY AIR TEMPERATURE
SF	SQUARE FEET
SP	STATIC PRESSURE
SPD	SPEED
SPEC	SPECIFICATION
SR	SUPPLY AIR REGISTER
SS	STAINLESS STEEL
TG	TRANSFER AIR GRILLE
TD	TOP OF DUCT
TOD	THERMOSTAT
TSTAT	TYPICAL
U.G.	UNDER GRADE
U.S.	UNDER SLAB
UC	UNDERCUT DOOR
V	VENT
VAV	VARIABLE AIR VOLUME
VB	VACUUM BREAKER
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT THROUGH ROOF
W	WASTE
W/D	WITH
WB	WET BULB TEMPERATURE (°F)
WH	WALL HEATER
WMS	WIRE MESH SCREEN

DUCTWORK SYMBOLS

SYMBOLS	DESCRIPTIONS
	NEW RECTANGULAR DUCT RUN W/ SIZE DESIGNATION
	NEW CIRCULAR DUCT RUN W/ SIZE DESIGNATION
	SHADED DUCTWORK SHALL BE 16 GAUGE SHEETMETAL
	NEW FLEX DUCT RUN W/ SIZE DESIGNATION
	NEW RECTANGULAR DUCT - UP
	NEW CIRCULAR DUCT RUN - UP
	NEW RECTANGULAR DUCT - DOWN
	NEW CIRCULAR DUCT RUN - DOWN
	ACOUSTICALLY LINED DUCT RUN
	RECTANGULAR TO RECT. DUCTWORK TRANSITION
	RECTANGULAR TO CIRCULAR DUCTWORK TRANSITION
	ELEVATION CHANGE IN DUCTWORK - UP
	ELEVATION CHANGE IN DUCTWORK - DOWN
	DUCTWORK BREAK - TO CONTINUE

DIFFUSER SYMBOLS

SYMBOLS	ABBREVIATIONS	DESCRIPTIONS
	RG, RR	RETURN AIR GRILLE, REGISTER
	EG, ER	EXHAUST AIR GRILLE, REGISTER
	SD, SR, SG	SUPPLY AIR 4 WAY DIFFUSER, REGISTER, GRILLE
	SD, SR, SG	SUPPLY AIR 3 WAY DIFFUSER, REGISTER, GRILLE
	SD, SR, SG	SUPPLY AIR 2 WAY DIFFUSER, REGISTER, GRILLE
	SD, SR, SG	SUPPLY AIR 2 WAY DIFFUSER, REGISTER, GRILLE
	SD, SR, SG	SUPPLY AIR 1 WAY DIFFUSER, REGISTER, GRILLE

GENERAL SYMBOLS

SYMBOLS	DESCRIPTIONS
	POINT OF CONNECTION TO EXISTING
	EQUIPMENT TAG
	DIFFUSER, REGISTER OR GRILLE TAG, WITH CFM AIRFLOW
	REVISION TAG
	REVISION CLOUD
	EQUIPMENT DESIGNATION
	NOTE CALL OUT
	PRESSURE GAUGE W/PETCOCK
	DUCT STATIC PRESSURE SENSOR
	ISOLATION ROOM PRESSURIZATION CONTROLLER
	DUCT MOUNTED SMOKE DETECTOR, MTD BY HVAC CONTR. SUPPLIED AND WIRED BY ELECTRICAL CONTR.
	FLOW SWITCH
	PRESSURE SWITCH
	THERMOMETER W/IMMERSION WELL
	PNEUMATIC TEMPERATURE SENSOR/CONTROLLER
	ELECTRONIC TEMPERATURE SENSOR
	ELECTRONIC TEMPERATURE SENSOR W/TAMPERPROOF GUARD
	AUTOMATIC AIR VENT
	MANUAL AIR VENT
	PRESSURE PORT ("PETE'S PLUG")
	FLOAT & THERMOSTATIC TRAP
	HUMIDIFIER
	VARIABLE AIR VOLUME BOX WITH SOUND ATTENUATOR AND REHEAT COIL
12ø, 12x12	DUCT SIZE
	PIPE SIZE
	PIPE SIZE, GANG
LEVEL - DISCIPLINE - WORK	
SCALE: 1/8" = 1'-0" TITLE FORMAT - SYMBOL NOT TO SCALE	
	ROOF EXHAUST - EXISTING
	ROOF EXHAUST - REMOVED
	ROOF EXHAUST - NEW
	MANUAL VOLUME DAMPER
	FIRE DAMPER
	COMBINATION FIRE SMOKE DAMPER
	SMOKE DAMPER
	MOTOR-OPERATED DAMPER

MECHANICAL DRAWING LIST

NUMBER	TITLE
M001	MECHANICAL GENERAL NOTES AND LEGEND
M100	MECHANICAL PLAN - NB
M101	MECHANICAL PLAN - SB
M300	MECHANICAL SECTION - NB
M301	MECHANICAL SECTION - SB
M500	MECHANICAL DETAILS - 1
M501	MECHANICAL DETAILS - 2
M502	MECHANICAL DETAILS - 3
M600	MECHANICAL SCHEDULES

PIPING SYMBOLS

SYMBOLS	ABBREV.	DESCRIPTIONS
	G	GAS PIPING
	GRS	GLYCOL RUN-AROUND LOOP SUPPLY
	GRR	GLYCOL RUN-AROUND LOOP RETURN
	RS	REFRIGERANT SUCTION
	RL	REFRIGERANT LIQUID
	RHG	REFRIGERANT HOT GAS
	D	A.C. CONDENSATE DRAIN
	MUW	MAKE UP WATER
	PC	PUMPED CONDENSATE
	BBD	BOILER BLOWDOWN
	MTWS	MEDIUM-TEMPERATURE HOT WATER SUPPLY
	HTWS	HIGH-TEMPERATURE HOT WATER SUPPLY
	MTWR	MEDIUM-TEMPERATURE HOT WATER RETURN
	HTWR	HIGH-TEMPERATURE HOT WATER RETURN
	SAN	SANITARY DRAIN ABOVE FLOOR OR GRADE
	CHEM	CHEMICAL SUPPLY PIPES
	HWS	HOT WATER SUPPLY PIPING
	HWR	HOT WATER RETURN PIPING
	RHWS	REHEAT HOT WATER SUPPLY PIPING
	RHWR	REHEAT HOT WATER RETURN PIPING
	CW	COLD WATER PIPING
	HW	HOT WATER PIPING
	HWR	HOT WATER RETURN PIPING
	V	VENT PIPING
		PIPE DROP
		PIPE RISER
		PIPE TEE - DOWN
		PIPE TEE - UP
		PIPE CONNECTION
		PIPE BREAK - TO CONTINUE
		DIRECTION OF FLOW
		ANCHOR PIPE ANCHOR
		PIPE CAP
		PIPE GUIDE
		EXPANSION JOINT
	WHA	WATER HAMMER ARRESTOR
	U	UNION
	BLV	BALL VALVE
	BFV	BUTTERFLY VALVE
	SCV	SWING CHECK VALVE
	CBV	CIRCUIT BALANCE VALVE
	ACV	2-WAY AUTOMATIC CONTROL VALVE
	ACV	3-WAY AUTOMATIC CONTROL VALVE (MIXING PATTERN)
	GV	GATE VALVE
	GLV	GLOBE VALVE
	MPV	MULTIPURPOSE VALVE
	IV	ISOLATION VALVE
	PRV	PRESSURE REGULATING VALVE
	T	THERMOMETER
	LCV	LIFT CHECK VALVE
	FLG	FLANGE
		STRAINER W/ DRAIN VALVE AND CAP
		DRAIN VALVE AND CAP
	RSV	RELIEF OR SAFETY VALVE
	PGV	PLUG VALVE
	QC	QUICK CLOSING, FUSIBLE LINK
	QO	QUICK OPENING
	SHC	SQUARE HEAD COCK
	RPBP	REDUCED PRESSURE BACKFLOW PREVENTOR
	CRD	CONCENTRIC REDUCER (ENLARGER)
	ERD	ECCENTRIC REDUCER (ENLARGER)
		PIPE SLOPE
		AIR VENT

Scale:	NOT TO SCALE			
Designed by:				
CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.				
No.	Revision	By	Date	

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**THE GOLD STAR
MEMORIAL HIGHWAY**

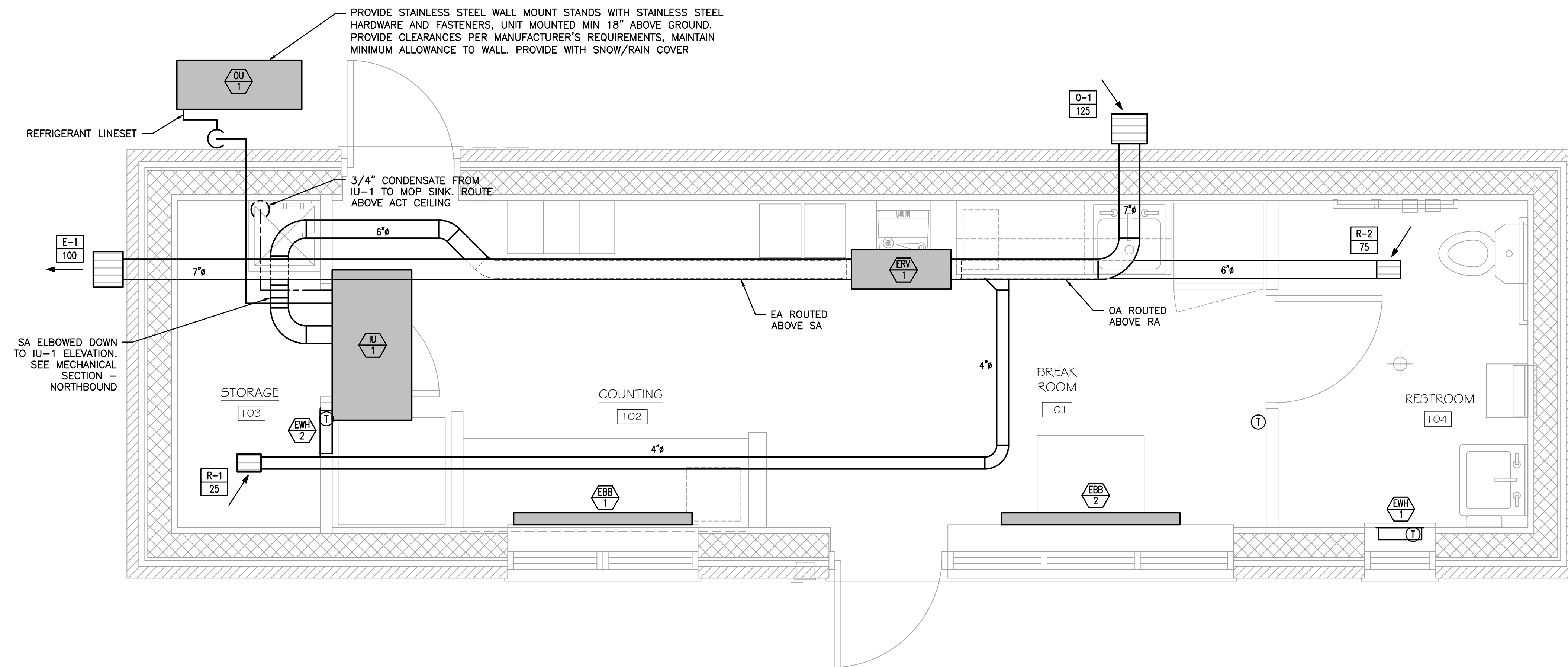
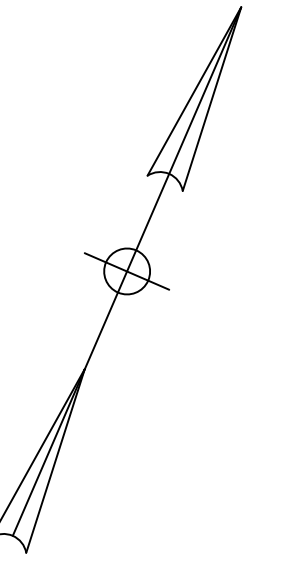
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
MECHANICAL GEN. NOTES AND LEGEND

SHEET NUMBER: M001
CONTRACT: 2022.07
703 OF 735

Date: Friday, October 07, 2022

- NOTES:**
- EQUIPMENT AND INSTALLATION WARRANTY WILL START THE FIRST DAY OF TOLL COLLECTIONS. REFER TO SPECIFICATION SECTION '800.02 BUILDING WARRANTY' IN THE TOLL ADMINISTRATION BUILDING SPECIAL PROVISION.
 - INSULATE CONDENSATE LINE IN ITS ENTIRETY. SEE INSULATION SPECIFICATION



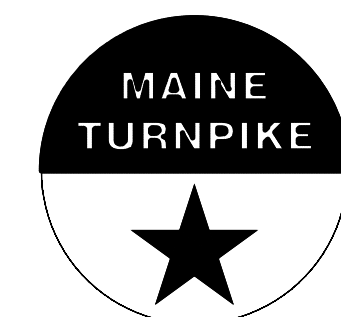
MECHANICAL PLAN – NORTHBOUND
1/2" = 1'-0"

Scale: 0 1' 2' 4'

Designed by:



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**THE GOLD STAR
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INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
MECHANICAL PLAN – NORTHBOUND

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
	By	Date		By	Date
Designed	CMP	10/22	Checked	CMP	10/22
Drawn	MCR	10/22	In Charge of	LEM	10/22

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

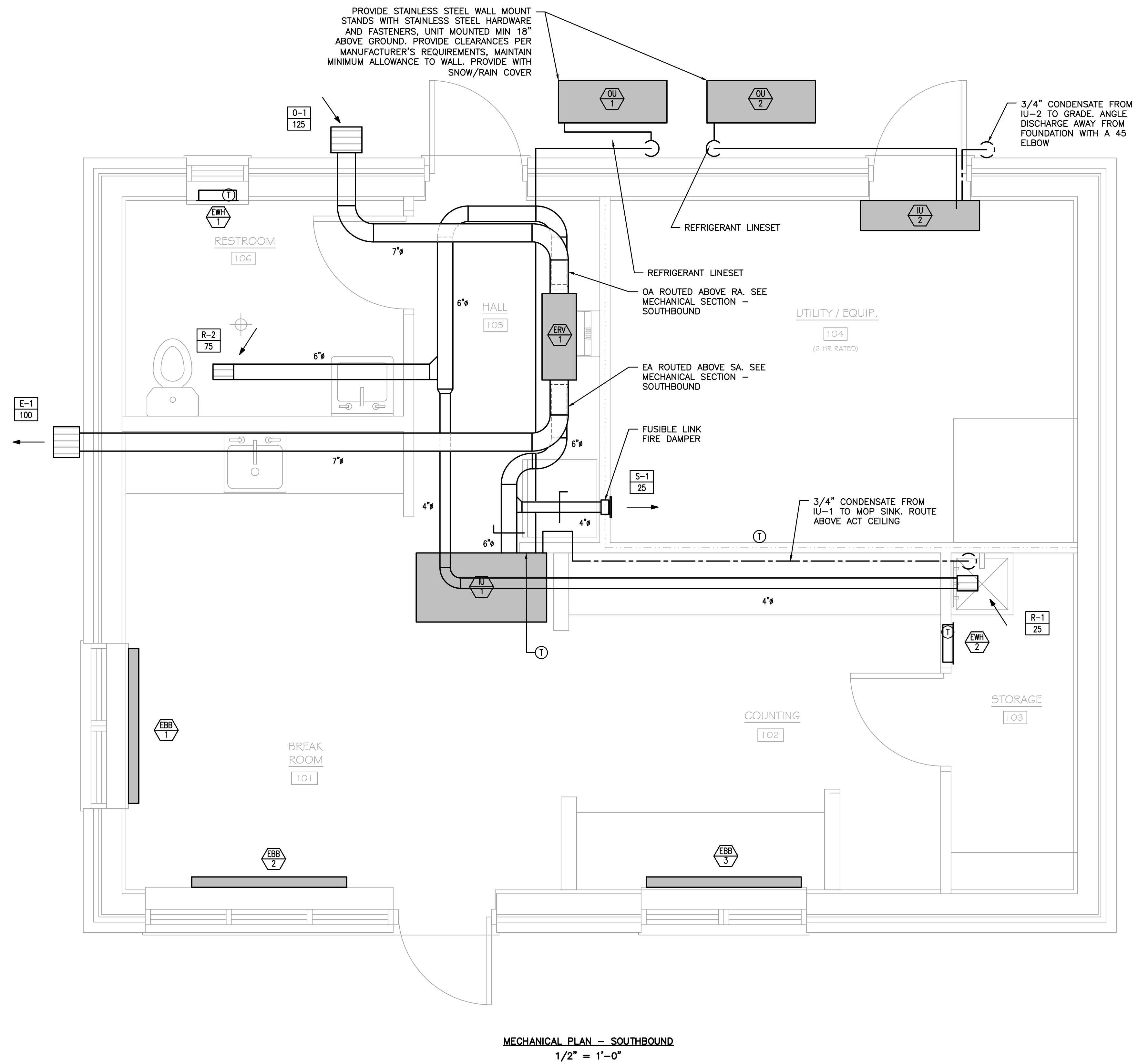
CONTRACT: 2022.07

SHEET NUMBER: M100

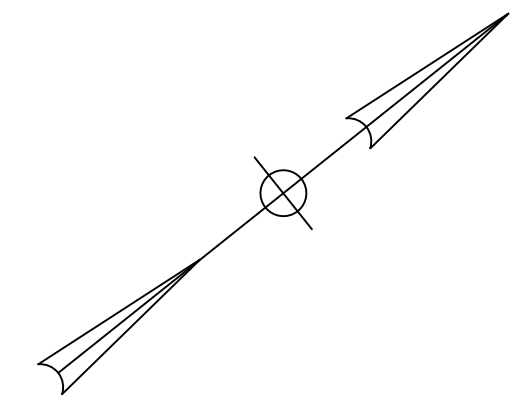
704 OF 735

Filename: M100.dwg

Date: Friday, October 07, 2022



- NOTES:**
- EQUIPMENT AND INSTALLATION WARRANTY WILL START THE FIRST DAY OF TOLL COLLECTIONS. REFER TO SPECIFICATION SECTION '800.02 BUILDING WARRANTY' IN THE TOLL ADMINISTRATION BUILDING SPECIAL PROVISION.
 - INSULATE CONDENSATE LINE IN ITS ENTIRETY. SEE INSULATION SPECIFICATION.



MECHANICAL PLAN - SOUTHBOUND
1/2" = 1'-0"

Scale: 0 1' 2' 4'

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
Designed	CMP	10/22	Checked	CMP	10/22
Drawn	MCR	10/22	In Charge of	LEM	10/22

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
MECHANICAL PLAN - SOUTHBOUND

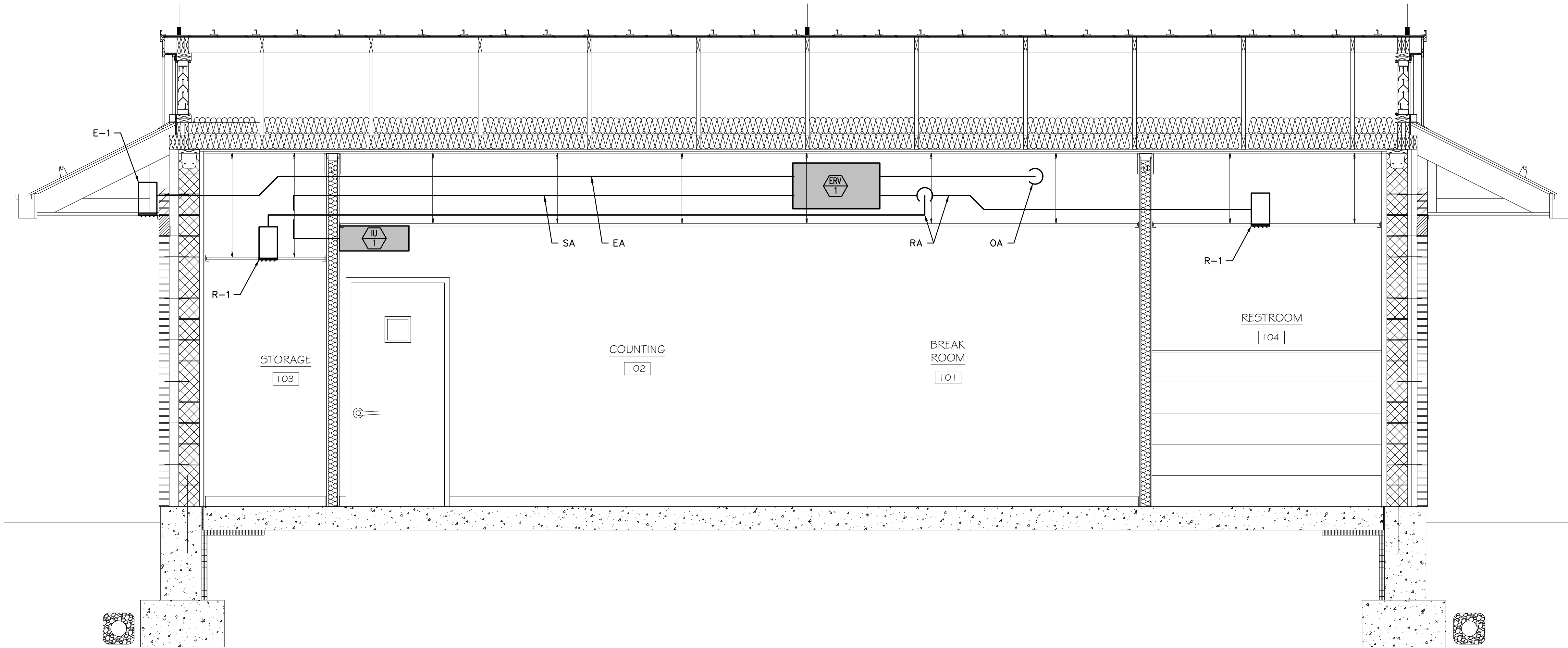
SHEET NUMBER: M101
705 OF 735

CONTRACT: 2022.07

Filename: M100.dwg

NOTES:
 1. NORTHBOUND AND SOUTHBOUND ADMINISTRATION BUILDINGS ARE DIFFERENT.
 UTILIZE THIS MECHANICAL SECTION FOR NORTHBOUND BUILDING ONLY.

Date: Friday, October 07, 2022



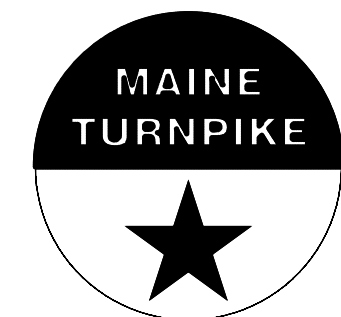
MECHANICAL SECTION - NORTHBOUND THRU IU-1 & ERV-1
 1/2" = 1'-0"

Scale: 0 1' 2' 4'

Designed by:



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THE GOLD STAR
 MEMORIAL HIGHWAY

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 TOLL ADMINISTRATION BUILDING
 MECHANICAL SECTION - NORTHBOUND

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
	By	Date		By	Date
Designed	CMP	10/22	Checked	CMP	10/22
Drawn	MCR	10/22	In Charge of	LEM	10/22

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

CONTRACT: 2022.07

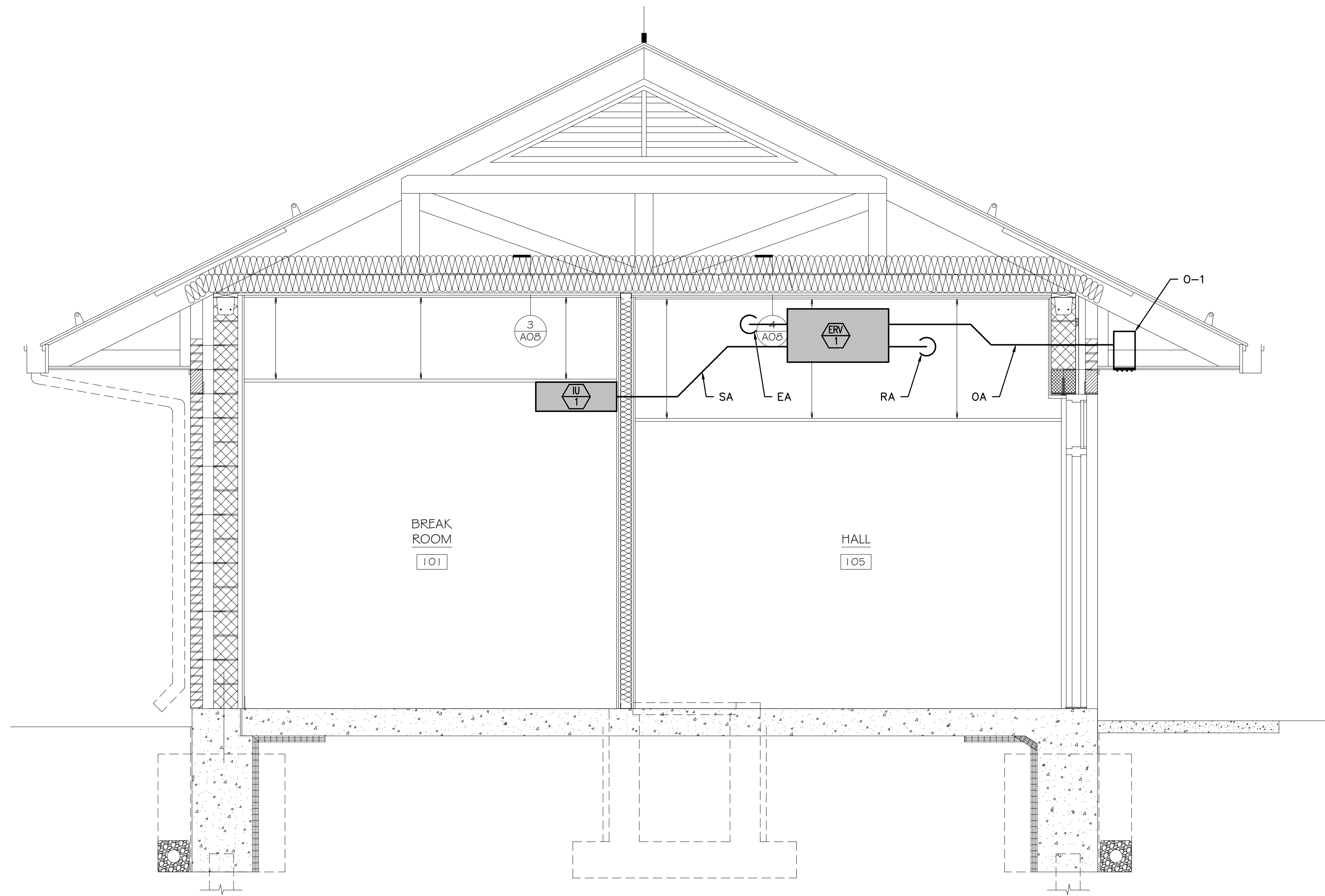
SHEET NUMBER: M300

706 OF 735

Filename: M300.dwg

Date: Friday, October 07, 2022

NOTES:
 1. NORTHBOUND AND SOUTHBOUND ADMINISTRATION BUILDINGS ARE DIFFERENT.
 UTILIZE THIS MECHANICAL SECTION FOR SOUTHBOUND BUILDING ONLY.



MECHANICAL SECTION - SOUTHBOUND THRU IU-1 & ERV-1
 1/2" = 1'-0"

Scale:

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
Designed	CMP	10/22	Checked	CMP	10/22
Drawn	MCR	10/22	In Charge of	LEM	10/22

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**THE GOLD STAR
 MEMORIAL HIGHWAY**

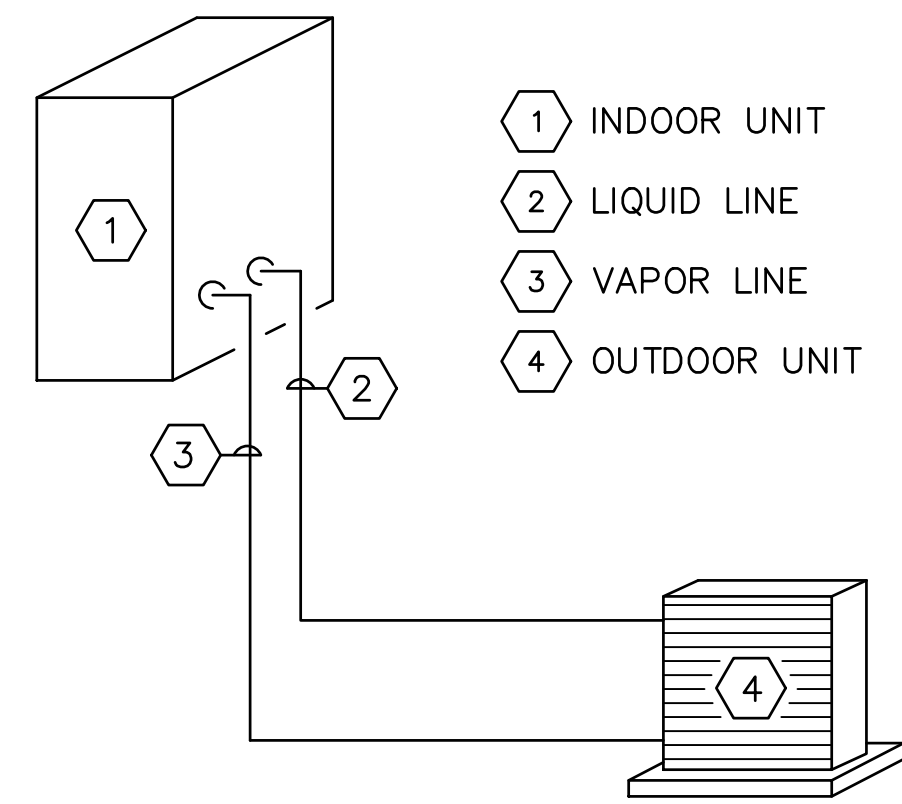
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 TOLL ADMINISTRATION BUILDING
 MECHANICAL SECTION - SOUTHBOUND

SHEET NUMBER: M301
 CONTRACT: 2022.07
 707 OF 735

Filename: M300.dwg

Date: Friday, October 07, 2022



- 1 INDOOR UNIT
- 2 LIQUID LINE
- 3 VAPOR LINE
- 4 OUTDOOR UNIT

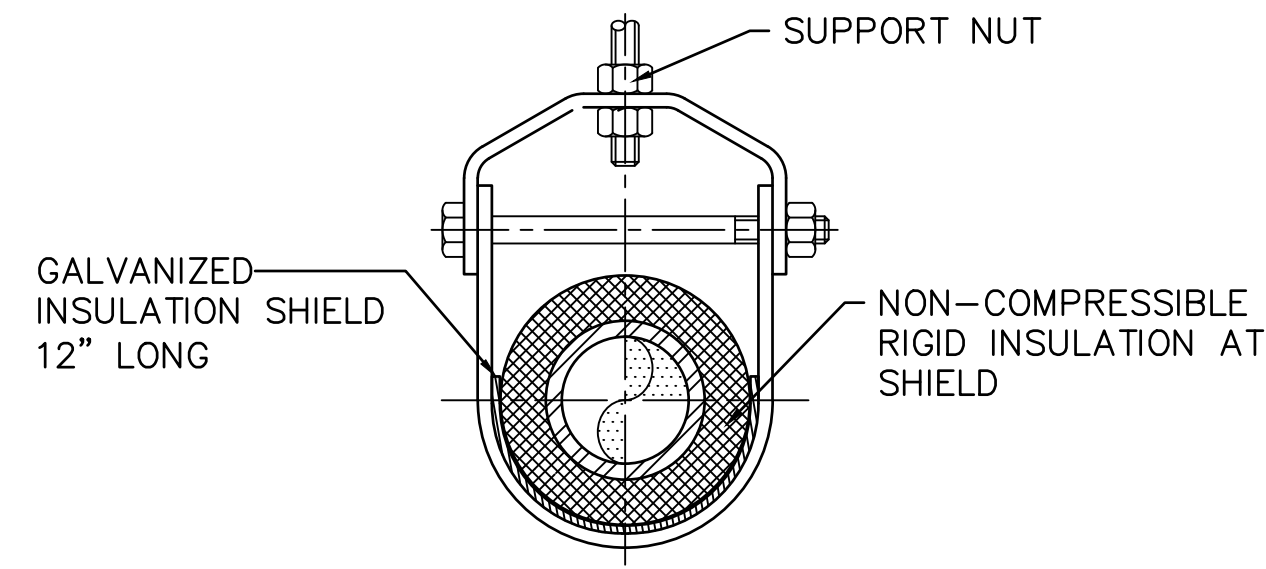
NOTES:

1. PIPING SHOWN IS DIAGRAMMATIC. FIELD ROUTE PIPING IN CLEAN AND NEAT MANNER.
2. PIPE SIZING ON DRAWINGS ARE APPROXIMATE, CONFIRM ALL PIPE SIZES WITH UNIT MANUFACTURER BASED ON ACTUAL FIELD ROUTING.
3. INSTALL TRAPS AND APPURTENANCES AS RECOMMENDED, SIZED, AND DIAGRAMMED BY THE UNIT MANUFACTURER.

REFRIGERANT PIPING DETAIL
SCALE: NTS

1

HEAVY DUTY CLEVIS HANGER
(FOR 1/2" UP TO & INCLUDING 3" PIPE)



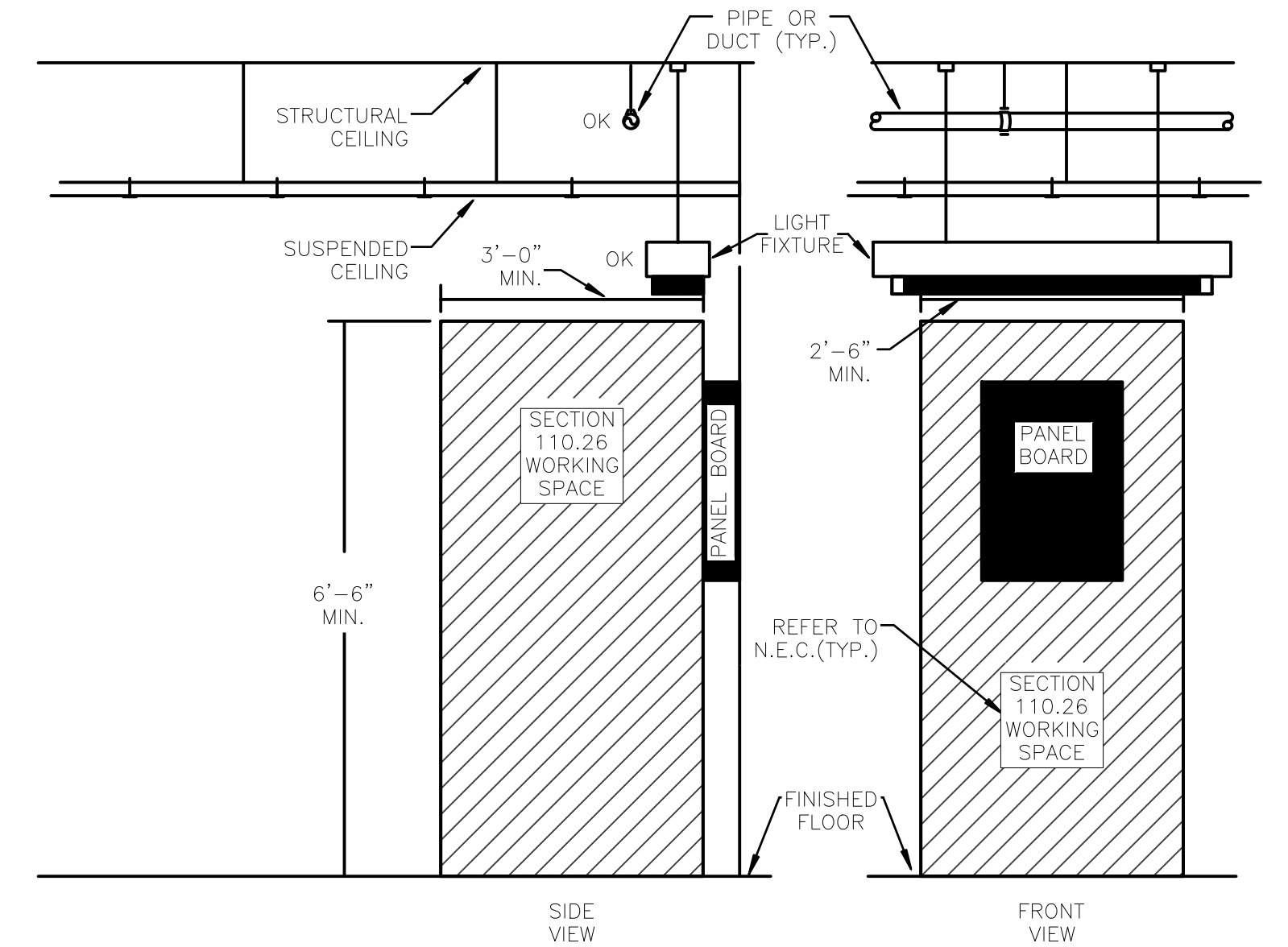
NOTE:

1. SEE SPECIFICATION FOR HANGER SIZES.

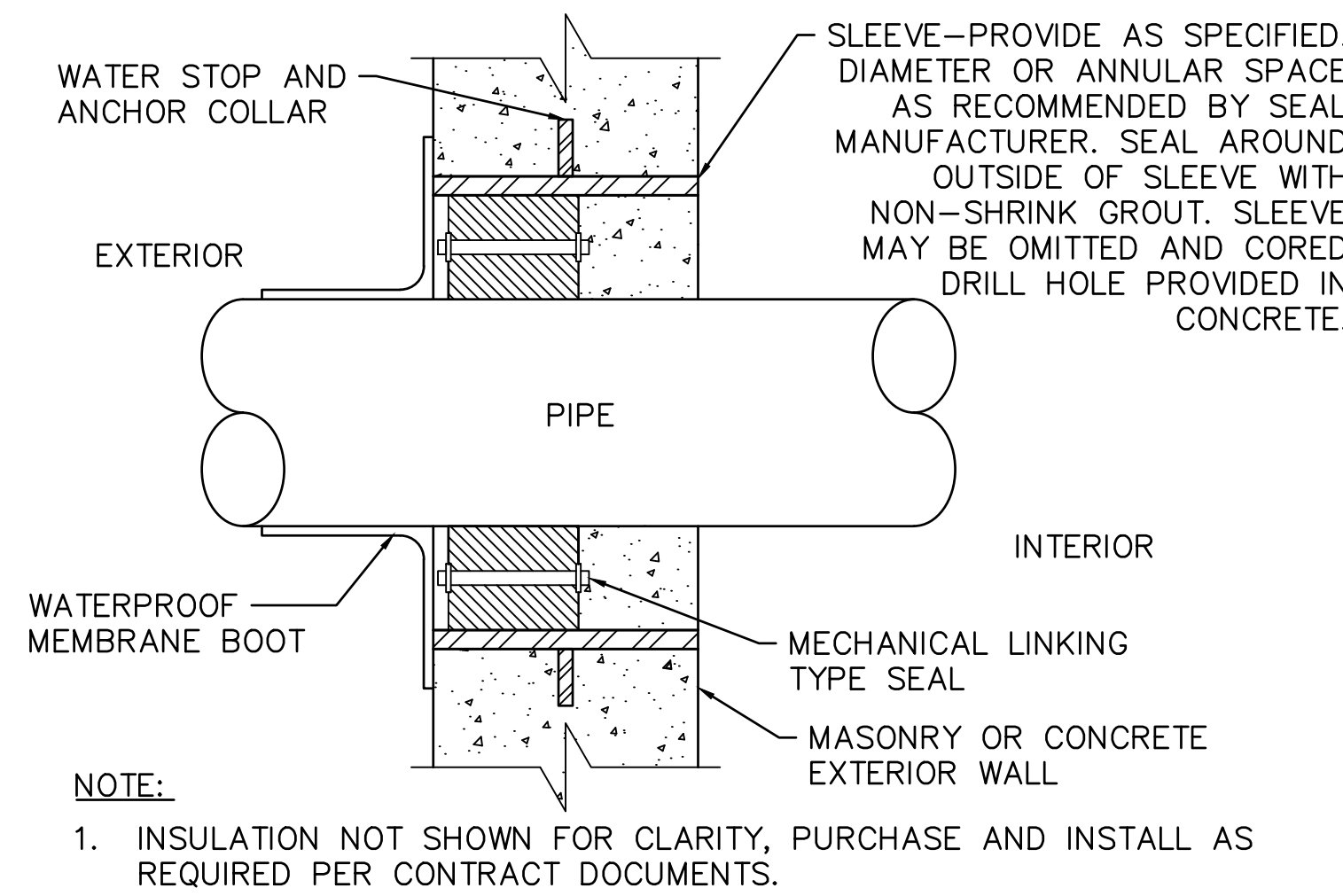
PIPE HANGER SUPPORT

SCALE: NTS

2



WORKING SPACE REQUIREMENTS

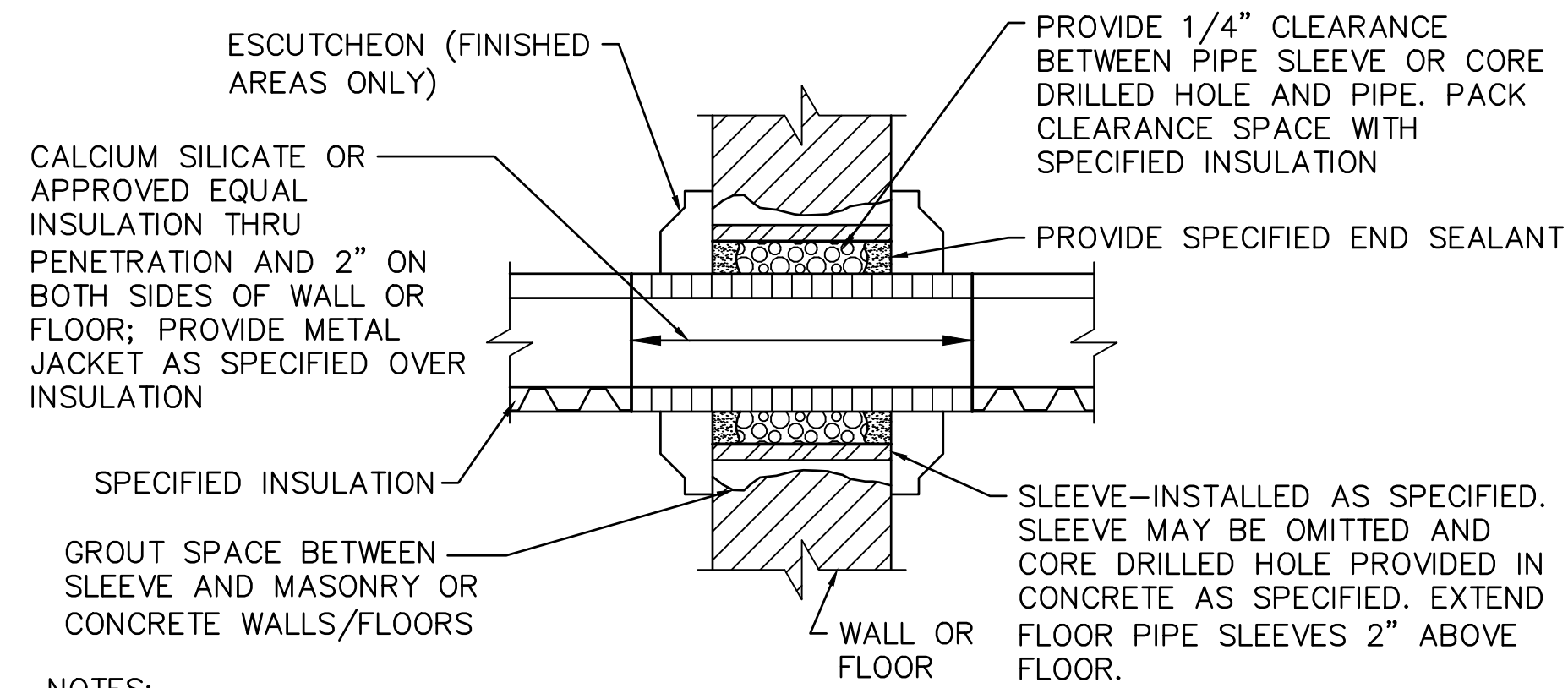


NOTE:

1. INSULATION NOT SHOWN FOR CLARITY, PURCHASE AND INSTALL AS REQUIRED PER CONTRACT DOCUMENTS.

EXTERIOR WALL PIPE PENETRATIONS
SCALE: NTS

3

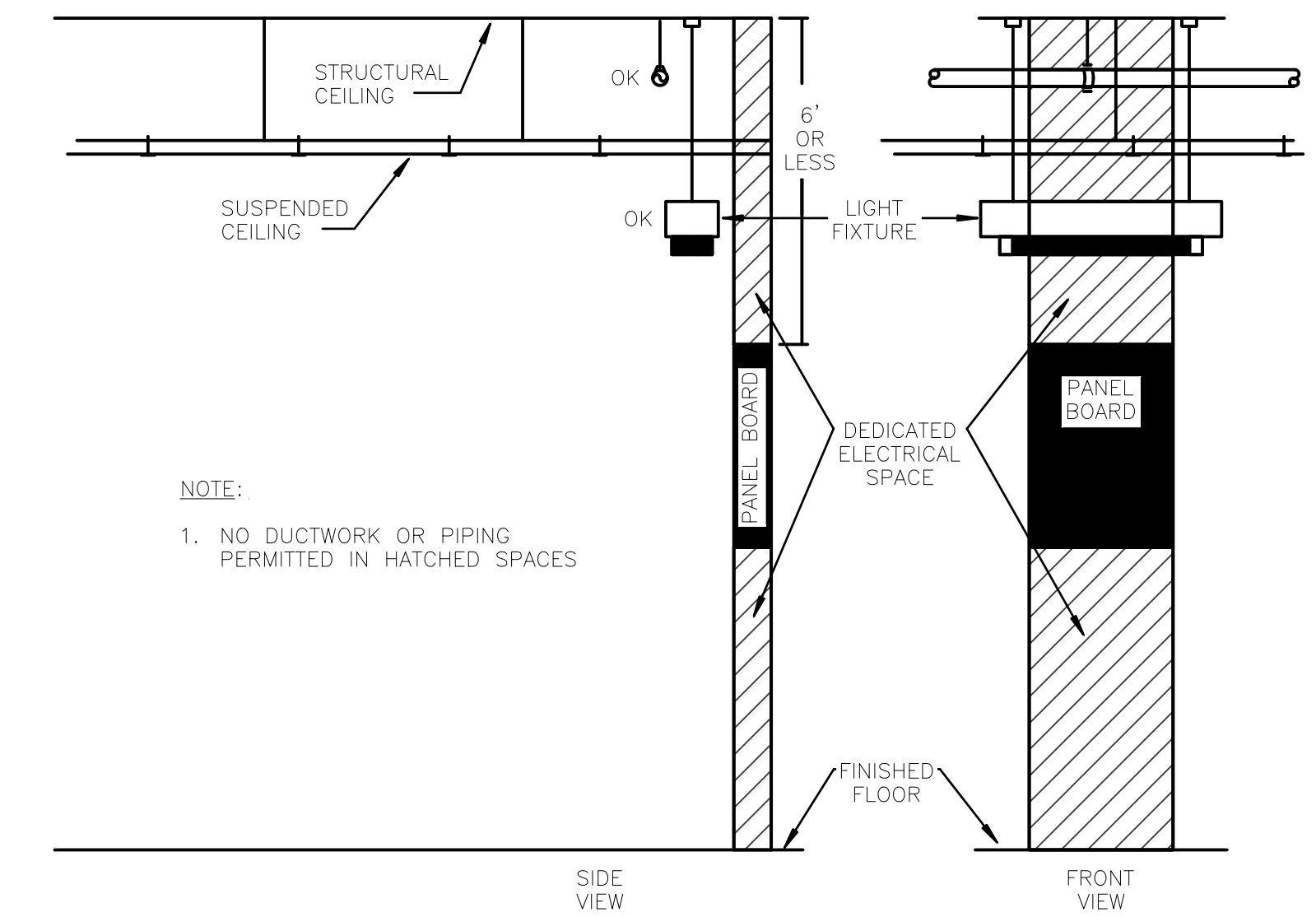


NOTES:

1. AT FIRE RATED PARTITIONS ADD ADDITIONAL LAYER OF FIRE SAFING INSULATION AROUND PENETRATIONS SO AS TO FILL CAVITY.
2. DUCT AND PIPE PENETRATIONS THROUGH CORRIDOR WALLS ABOVE THE CEILING ARE TO BE FIRE STOPPED AROUND THE PENETRATION.

INTERIOR WALL-FLOOR PIPE PENETRATIONS
SCALE: NTS

4



NOTE:

1. NO DUCTWORK OR PIPING PERMITTED IN HATCHED SPACES

DEDICATED ELECTRICAL SPACE REQUIREMENTS

CLEARANCES AT ELECTRICAL PANELS
SCALE: NTS

5

Scale: NOT TO SCALE				
No.	Revision	By	Date	

Designed by:					
CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
	By	Date		By	Date
Designed	CMP	10/22	Checked	CMP	10/22
Drawn	MCR	10/22	In Charge of	LEM	10/22

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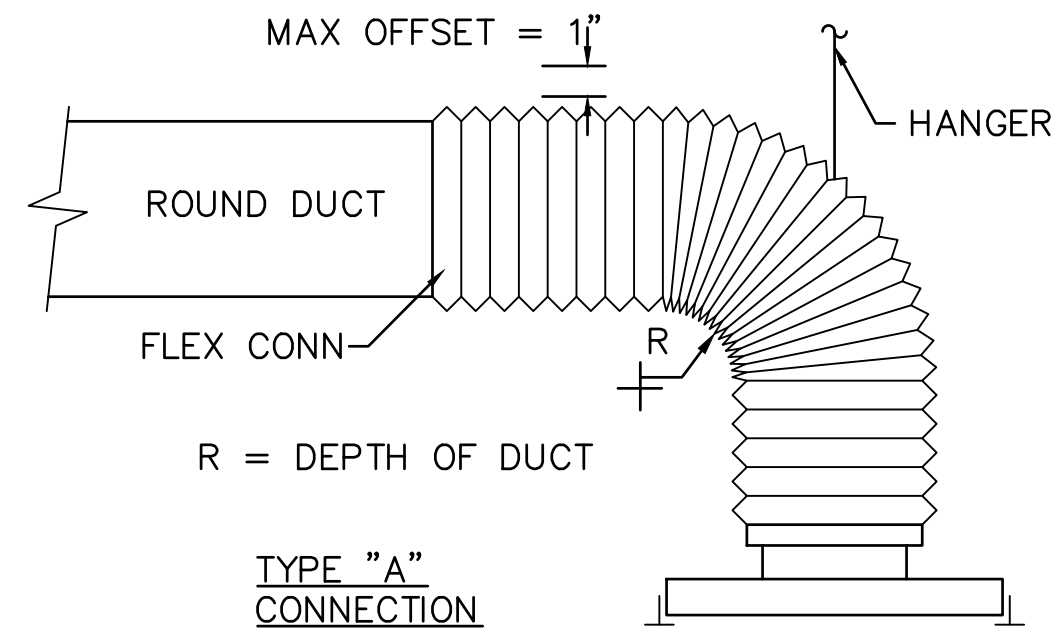
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
MECHANICAL DETAILS – 1

SHEET NUMBER: M500
708 OF 735

CONTRACT: 2022.07

Filename: M500.dwg



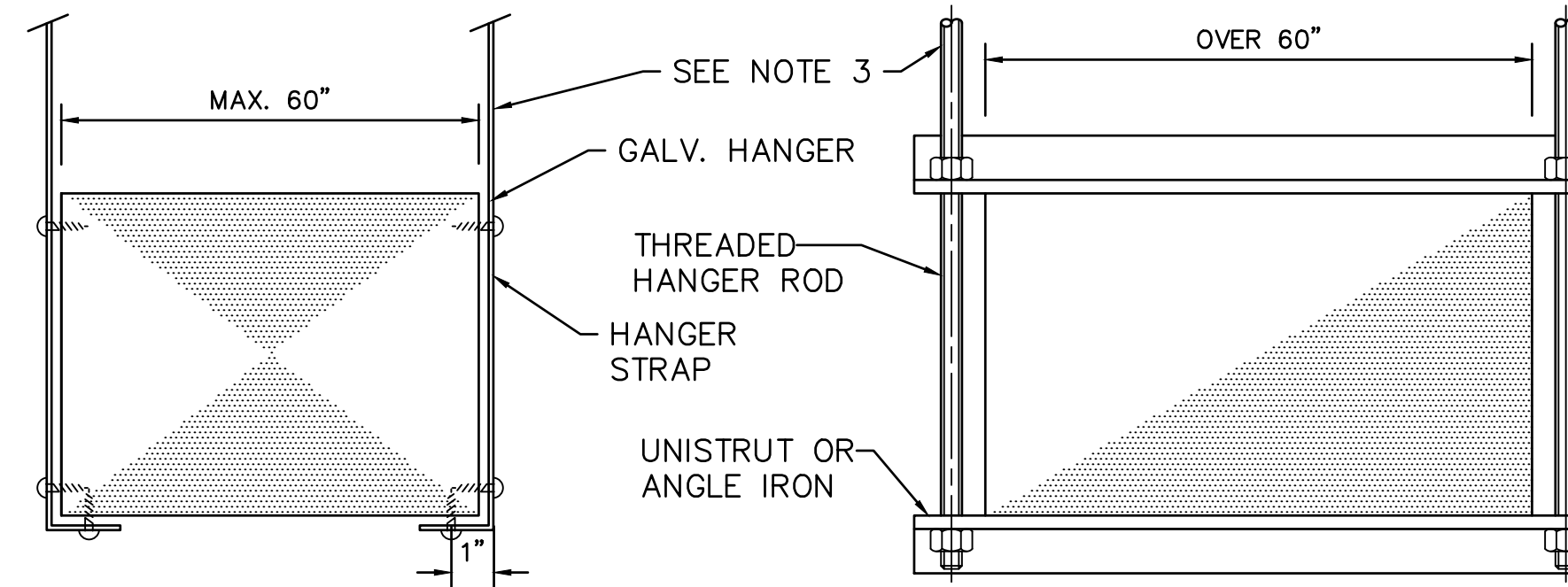
NOTES:

1. THESE DETAILS ALLOW DUCTWORK TO BE PROVIDED BEFORE CEILING GRID IS INSTALLED THEN DIFFUSER/REGISTER CAN BE POSITIONED INTO GRID.
2. INSTALL INSULATED TRANSITION ROUND TO SQUARE IF REQUIRED AT DIFFUSER.
3. INSTALL NYLON TY-WRAP TOOL OR REUSABLE SS DRAW BAND PER SPECS.
4. FLEX DUCT SHALL NOT HAVE MORE THAN 1/2" SAG PER FOOT.
5. LENGTH OF FLEX DUCT SHALL NOT EXCEED 5'-0".
6. INSTALL DUCT MOUNTED VOLUME DAMPER WHERE SHOWN.
7. SUPPORT FLEX AND ENSURE KINK FREE INSTALLATION.

TYP. SUPPLY DIFFUSER DUCTWORK & CONNECTION

SCALE: NTS

6



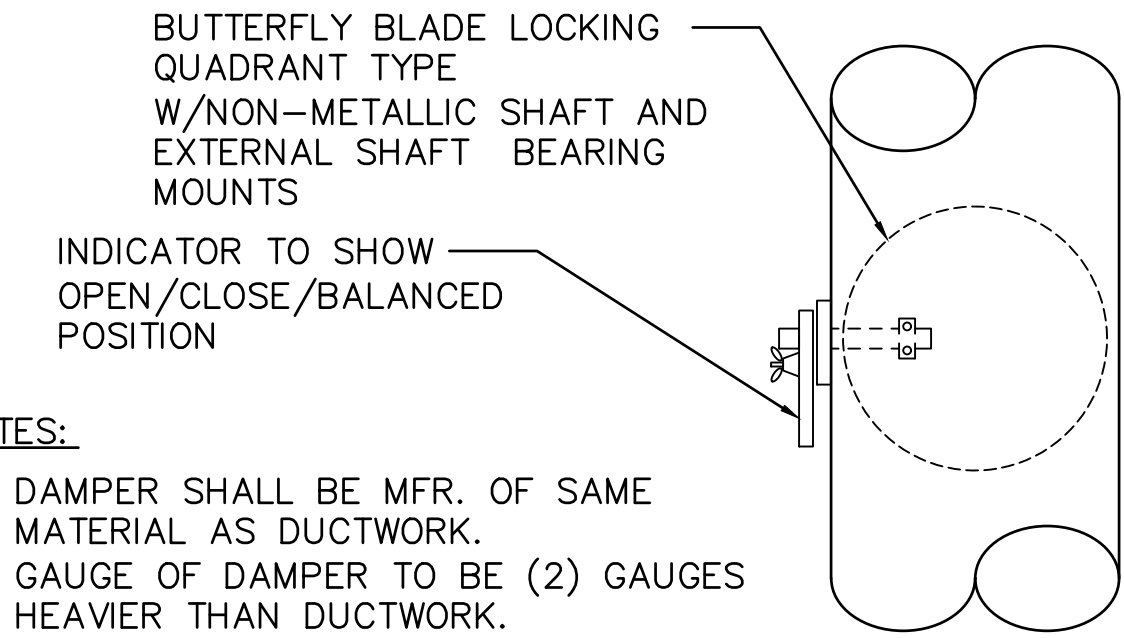
NOTES:

1. ON DUCTS OVER 48" WIDE, BOTTOM SHALL BE BRACED BY ANGLE. FOR CROSS SECTION AREA MORE THAN 8 SQ FT, DUCT SHALL BE BRACED BY ANGLES ON ALL FOUR SIDES.
2. CUTTING AND PATCHING SHALL BE LIMITED TO A MINIMUM AS REQUIRED FOR PROPER INSTALLATION.
3. SUPPORTS SHALL BE SPACED AND SIZED AS PER SMACNA.

DUCT HANGER SUPPORT

SCALE: NTS

7



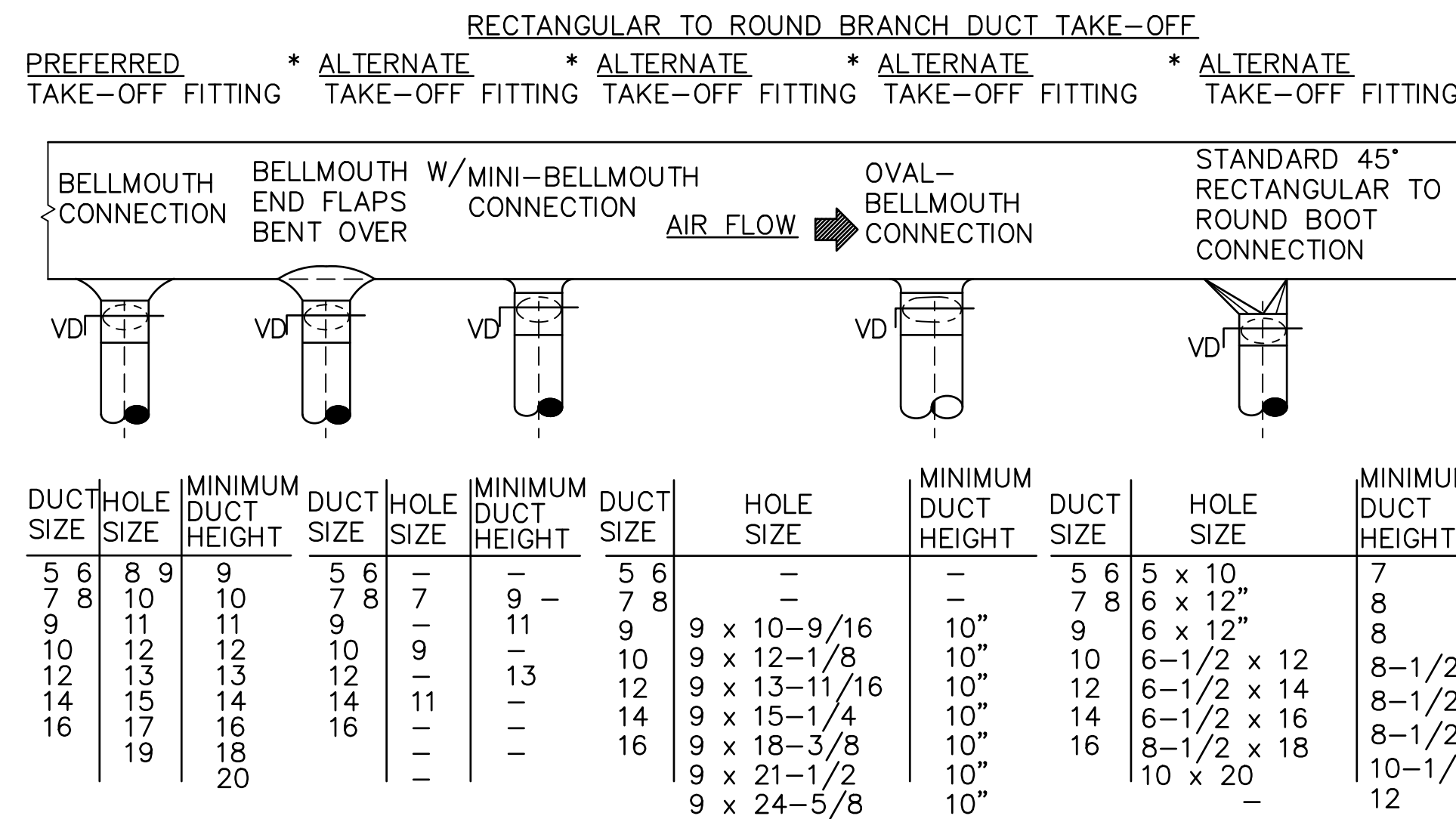
NOTES:

1. DAMPER SHALL BE MFR. OF SAME MATERIAL AS DUCTWORK.
2. GAUGE OF DAMPER TO BE (2) GAUGES HEAVIER THAN DUCTWORK.
3. INSTALL INSULATION STANDOFF FOR DUCTWORK WITH EXTERIOR INSULATION.

ROUND VOLUME DAMPER DETAIL

SCALE: NTS

8



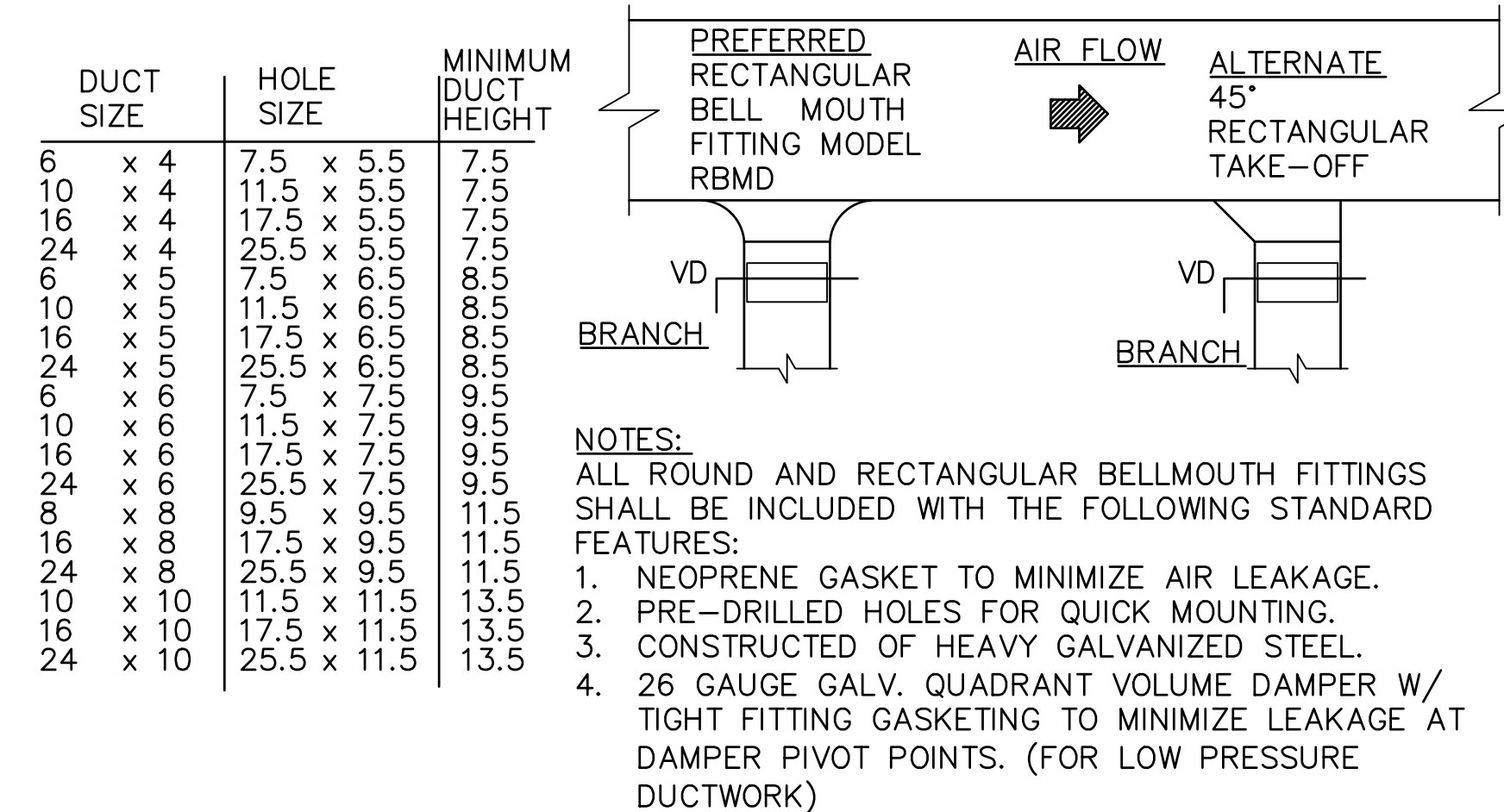
DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT	DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT	DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT	DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT
5	6	8	9	5	6	7	8	7	5	6	7
7	8	10	11	7	8	9	10	9	7	8	9
9	10	11	12	9	10	11	12	10	9	10	11
10	12	13	14	10	12	13	14	10	12	13	14
12	13	14	15	11	13	14	15	10	12	13	14
14	15	16	17	11	14	15	16	10	14	15	16
16	17	18	19	12	16	17	18	10	16	17	18
		20						10			

TYPICAL DUCT TAKE-OFF

SCALE: NTS

9

RECTANGULAR BRANCH DUCT TAKE-OFF



DUCT SIZE	HOLE SIZE	MINIMUM DUCT HEIGHT
6 x 4	7.5 x 5.5	7.5
10 x 4	11.5 x 5.5	7.5
16 x 4	17.5 x 5.5	7.5
24 x 4	25.5 x 5.5	7.5
6 x 5	7.5 x 6.5	8.5
10 x 5	11.5 x 6.5	8.5
16 x 5	17.5 x 6.5	8.5
24 x 5	25.5 x 6.5	8.5
6 x 6	7.5 x 7.5	9.5
10 x 6	11.5 x 7.5	9.5
16 x 6	17.5 x 7.5	9.5
24 x 6	25.5 x 7.5	9.5
8 x 8	9.5 x 9.5	11.5
16 x 8	17.5 x 9.5	11.5
24 x 8	25.5 x 9.5	11.5
10 x 10	11.5 x 11.5	13.5
16 x 10	17.5 x 11.5	13.5
24 x 10	25.5 x 11.5	13.5

NOTES:

- ALL ROUND AND RECTANGULAR BELLMOUTH FITTINGS SHALL BE INCLUDED WITH THE FOLLOWING STANDARD FEATURES:
1. NEOPRENE GASKET TO MINIMIZE AIR LEAKAGE.
 2. PRE-DRILLED HOLES FOR QUICK MOUNTING.
 3. CONSTRUCTED OF HEAVY GALVANIZED STEEL.
 4. 26 GAUGE GALV. QUADRANT VOLUME DAMPER W/ TIGHT FITTING GASKETING TO MINIMIZE LEAKAGE AT DAMPER PIVOT POINTS. (FOR LOW PRESSURE DUCTWORK)

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
Designed	CMP	10/22	Checked	CMP	10/22
Drawn	MCR	10/22	In Charge of	LEM	10/22

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THE GOLD STAR MEMORIAL HIGHWAY

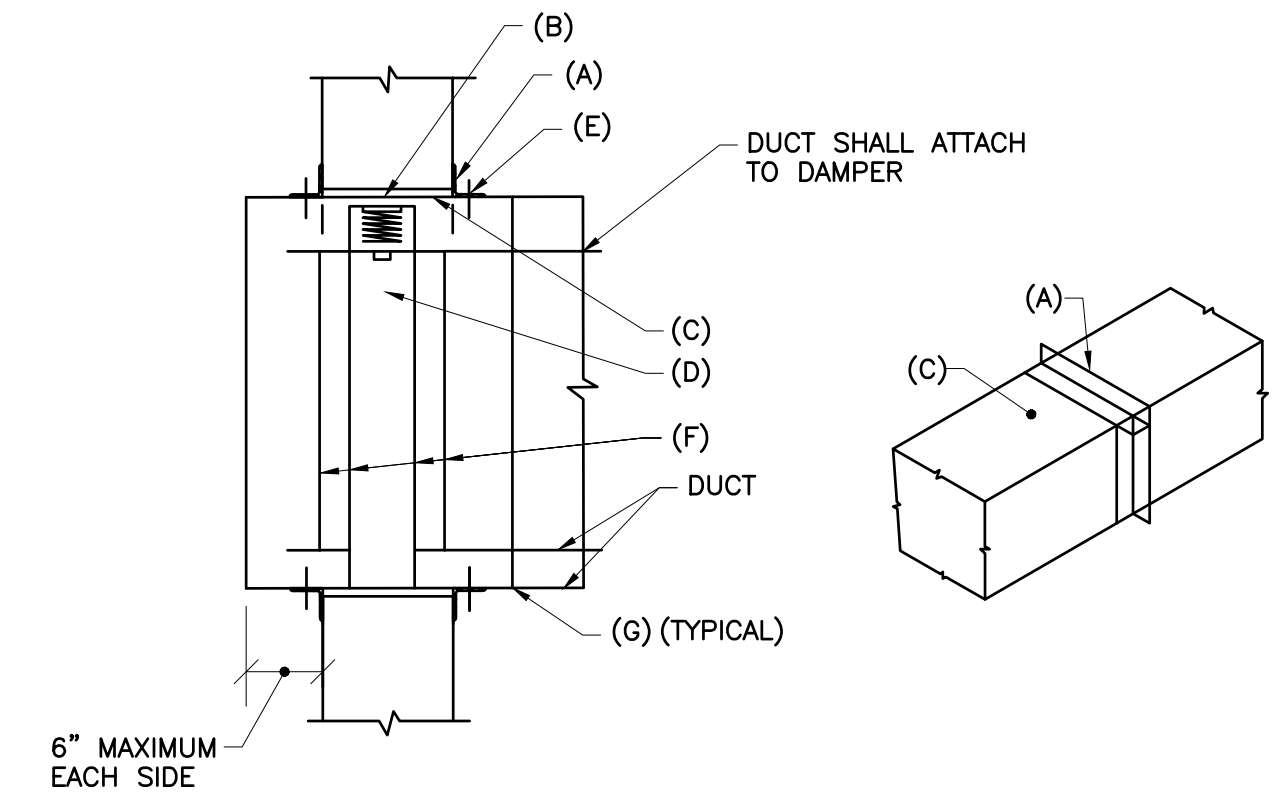
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 TOLL ADMINISTRATION BUILDING
 MECHANICAL DETAILS - 2

SHEET NUMBER: M501
 709 OF 735

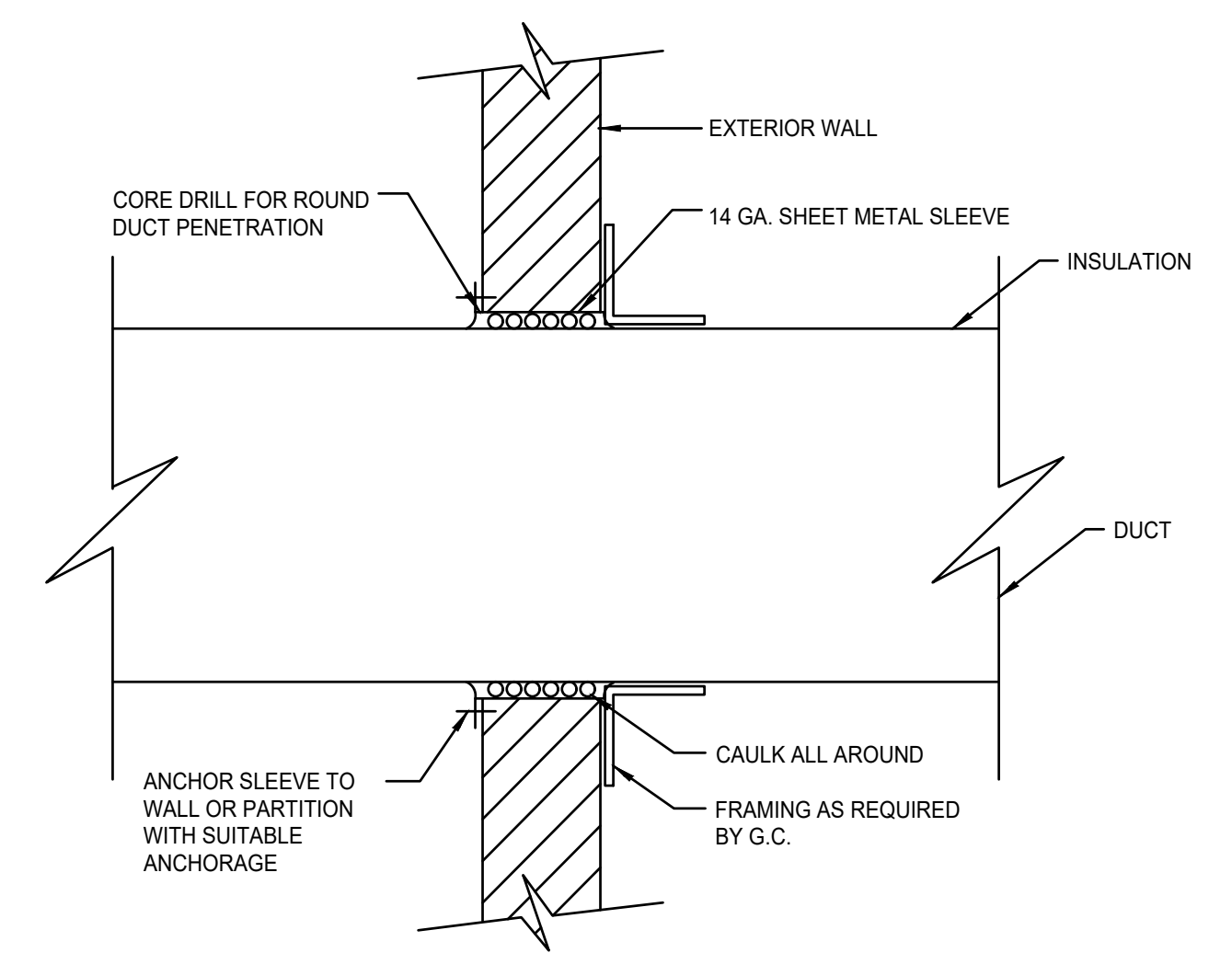
CONTRACT: 2022.07

Date: Friday, October 07, 2022



- INSTALLATION DETAIL NOTES**
- A. RETAINING ANGLES: MINIMUM 1 1/2" x 1 1/2" x .054"(16 GA.).
 - B. CLEARANCE: 1/8" PER LINEAR FOOT BOTH DIRECTIONS.
 - C. STEEL SLEEVE: 24 GAUGE MINIMUM.
 - D. APPROVED FIRE DAMPER (CURTAIN TYPE).
 - E. SECURE RETAINING ANGLES TO SLEEVE ONLY, ON 8" CENTERS.
 - F. SECURE DAMPER TO SLEEVE ON 8" CENTERS.
 - G. SECURE DUCT TO SLEEVE WITH "S" SLIP CONNECTION.
(USE OF ANY MECHANICAL FASTENERS IS STRICTLY PROHIBITED.)
 - H. "APPROVED" INSTALLATION INSTRUCTIONS SHALL GOVERN.
 - I. OBSERVE AIR FLOW DIRECTION SPECIFIED.
 - J. ACCESS SHALL BE THRU REMOVAL OF DIFFUSER
 - K. FOLLOW INSTALLATION INSTRUCTIONS FOR FUSIBLE LINK.
 - L. RETAINING ANGLES MUST LAP STRUCTURAL OPENING 1" MINIMUM AND COVER CORNERS OF OPENINGS. ANGLES MUST NOT BE ATTACHED TO EACH OTHER AT CORNERS.
 - M. INSTALLATION SHALL BE IN ACCORDANCE WITH UL-555.

FUSIBLE LINK FIRE DAMPER 10
SCALE: NTS



DUCT PENETRATION THRU EXTERIOR WALL 11
SCALE: NTS

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date	Checked	By	Date
Designed	CMP	10/22	Checked	CMP	10/22
Drawn	MCR	10/22	In Charge of	LEM	10/22

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
MECHANICAL DETAILS - 3

SHEET NUMBER: M502
710 OF 735

CONTRACT: 2022.07

Filename: M500.dwg

Date: Friday, October 07, 2022

REGISTER, GRILLE AND DIFFUSER SCHEDULE									
TAG	FUNCTION	TYPE	MOUNTING	MAX NC	STYLE		MATERIAL	FINISH	BASED ON MANUFACTURER/MODEL
					FACE SIZE (IN)	FACE TYPE			
S-1	SUPPLY	REGISTER	SURFACE/LAY-IN	20	8X8	DOUBLE DEFLECTION	STEEL	WHITE	PRICE 520S
R-1	RETURN	LOUVERED GRILLE	SURFACE/LAY-IN	20	8X8	45 DEGREE SURFACE	STEEL	WHITE	PRICE 530
R-2	RETURN	LOUVERED GRILLE	SURFACE/LAY-IN	20	10X8	45 DEGREE SURFACE	STEEL	WHITE	PRICE 530
E-1	EXHAUST	LOUVERED GRILLE	SURFACE/LAY-IN	20	12X10	45 DEGREE SURFACE	STAINLESS STEEL	WHITE	PRICE 530
O-1	OUTSIDE AIR	LOUVERED GRILLE	SURFACE/LAY-IN	20	12X10	45 DEGREE SURFACE	STAINLESS STEEL	WHITE	PRICE 730

- NOTES:**
- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR MOUNTING STYLE AND EXACT LOCATION OF ALL REGISTERS, GRILLES & DIFFUSERS
 - REFER TO FLOOR PLAN DRAWINGS FOR CFMS
 - COORDINATE COLOR AND FINISH WITH ARCHITECT
 - COORDINATE FINAL MOUNTING TYPE (SURFACE, LAY-IN) WITH ARCHITECTURAL REFLECTED CEILING PLAN

ELECTRIC BASEBOARD SCHEDULE									
TAG	TYPE	LENGTH (FT)	OUTPUT (BTU)	ELECTRICAL DATA				NOTES	BASED ON MFR/MODEL
				V	PH	HZ	AMP		
EBB-1	ELECTRIC BASEBOARD	5	4,250	208	1	60	6	1250	MARKEL F3712-060
EBB-2	ELECTRIC BASEBOARD	5	4,250	208	1	60	6	1250	MARKEL F3712-060
EBB-3	ELECTRIC BASEBOARD	5	4,250	208	1	60	6	1250	MARKEL F3712-060

- NOTES:**
- ARCHITECTURAL, 12 GAUGE WHITE HOUSING WITH BUILT-IN THERMOSTAT.
 - PROVIDE WITH MANUFACTURER SUPPLIED DISCONNECT.

ELECTRIC WALL HEATER SCHEDULE									
TAG	TYPE	OUTPUT (BTU)	ELECTRICAL DATA				NOTES	BASED ON MFR/MODEL	
			V	PH	HZ	AMP			
EW-1	ELECTRIC WALL HEATER	2,460	120	1	60	6	750	1	MARKEL E3321TD-RP
EW-2	ELECTRIC WALL HEATER	2,460	120	1	60	6	750	2	MARKEL E3321TD-RP

- NOTES:**
- COMMERCIAL FAN-FORCED WITH 4" SURFACE MOUNTING FRAME AND BUILT-IN THERMOSTAT
 - COMMERCIAL FAN-FORCED WITH 2" SEMI-RECESSED FRAME AND BUILT-IN THERMOSTAT
 - PROVIDE WITH MANUFACTURER SUPPLIED DISCONNECT.

MINI-SPLIT OUTDOOR UNIT SCHEDULE													
TAG	PERFORMANCE				ELECTRICAL DATA				OUTDOOR OPER. AMB (F)		BASED ON MANUFACTURER/MODEL		
	NOMINAL TONS	COOLING NET MBH	EER/SEER	HEATING NET MBH	COP	V	PH	HZ	MCA	UNIT MOC	COOLING MODE	HEATING MODE	MANUFACTURER/MODEL
OU-1	2.5	30	9.4/19.6	32	2.92	208	1	60	28	30	0 TO 115	-13 TO 70	mitsubishi PUZ-HA30NHA7
OU-2	2.5	30	9.5/19.8	32	2.96	208	1	60	28	30	0 TO 115	-13 TO 70	mitsubishi PUZ-HA30NHA7

- NOTES:**
- PROVIDE UNITS WITH LOW AMBIENT CONTROLS.
 - QUANTITY & SIZE OF REFRIGERANT LINES SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.
 - PROVIDE R-410A REFRIGERANT TYPE EQUIPMENT.
 - PROVIDE REFRIGERANT LINE CONNECTIONS FROM OUTDOOR UNIT TO INDOOR UNIT PER MANUFACTURER'S RECOMMENDATION.
 - PROVIDE REFRIGERANT CHARGE PER MANUFACTURERS REMCOMMENDATION, UTILIZING ACTUAL INSTALLED LINE LENGTHS FOR CALCULATIONS.
 - PROVIDE WITH SALT RESISTANT COATING.

MINI-SPLIT INDOOR UNIT SCHEDULE													
TAG	MATCHING OUTDOOR UNIT	TYPE	COOL DATA		FAN	ERV FEED	HEATING DATA		ELECTRICAL DATA			BASED ON MANUFACTURER/MODEL	
			TOTAL BTU/H	CFM	CFM	CFM	TOTAL BTU/H	V	PH	HZ	MCA	MANUFACTURER/MODEL	
IU-1	OU-1	CEILING SUSPENDED	30,000	670	100	-	32,000	208	1	60	0.54		mitsubishi PCA-A30KA
IU-2	OU-2	WALL HUNG	30,000	700	-	-	32,000	208	1	60	0.36		mitsubishi PKA-A30KA

- NOTES:**
- PROVIDE UNITS WITH UNIT MOUNTED CONDENSATE PUMP IF NOT POSSIBLE TO GRAVITY DRAIN. COORDINATE WITH ELECTRICAL CONTRACTOR FOR DISCONNECT.
 - PROVIDE UNIT WITH WIRED THERMOSTAT.
 - PROVIDE WITH HIGH HUMIDITY INSULATION KIT.
 - PROVIDE REFRIGERANT LINE CONNECTIONS FROM OUTDOOR UNIT TO INDOOR UNIT PER MANUFACTURER'S RECOMMENDATION.

ENERGY RECOVERY VENTILATOR																		
TAG	RECOVERY TYPE	SUPPLY FAN DATA			EXHAUST FAN DATA			EFFECTIVENESS			WINTER OA		ELECTRICAL DATA			BASED ON MANUFACTURER/MODEL		
		CFM	BHP	ESP	CFM	BHP	ESP	SENSIBLE	WINTER	SUMMER	TEMP. (°F)	GRAINS	V	PH	HZ		MCA	MOP
ERV-1	CORE	125	-	-	125	-	-	72%	66%	50%	-5	2.5	120	1	60	1.3	15	RENEWAIRE EV130

- NOTES:**
- ECM MOTOR
 - MERV 8 FILTER
 - PROVIDE WITH BACKDRAFT DAMPER AND 3' POWER CORD.

PACKAGED WALL-MOUNT AIR CONDITIONING UNIT SCHEDULE																																
UNIT IDENTIFICATION		NOMINAL CAPACITY (TONS)	FAN		DX COOLING COIL				COMPRESSOR			HP HEAT		ELECTRIC HEAT		FILTER			PHYSICAL CHARACTERISTICS				ELECTRICAL				MANUFACTURER	MODEL NUMBER	NOTES			
MARK	NUMBER		AIRFLOW (CFM)	HP	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EDB (F)	EWB (F)	LDB (F)	LWB (F)	TYPE	OA (F)	REFRIG	TOTAL CAPACITY (MBH)	EDB (F)	LDB (F)	TOTAL CAPACITY (MBH)	KW	TYPE	EFFICIENCY (MERV)	NO OF FILTERS	HEIGHT (IN)	WIDTH (IN)	DEPTH (IN)	OPERATING WEIGHT (LBS.)	VOLTS				PHASE	MCA	MOP
ACU	1	3.0	1,260	0.33	37.0	27.7	80.0	67.0	59.7	57.7	SCROLL	95.0	R-410A	33.0	70.0	82.0	12.8	5.0	FLAT	2	1	75	38	17		208	3	35.0	40	BARD	W36	

NOTES: 1. SEE UTILITY BUILDING LAYOUT FOR EQUIPMENT LOCATION. 2. PROVIDE WITH DEHUMIDIFICATION PACKAGE. 3. PROVIDE WITH BAROMETRIC FRESH AIR DAMPER, 1-INCH FIBERGLASS MERV 2 FILTER. 4. PROVIDE WITH FRONT RETURN GRILLE AND SUPPLY REGISTER. 5. PROVIDE WITH THERMOSTAT, LOW/HIGH PRESSURE SWITCHES, COMPRESSOR CONTROL. 6. PROVIDE WITH TECHNICOAT ON EVAPORATOR AND CONDENSER COILS AND INNER/OUTER CABINET SURFACES. 7. INSTALL WALL SLEEVES IN FINISHED WALL ASSEMBLY; SEAL AND WEATHERPROOF.


FAN SCHEDULE													
UNIT IDENTIFICATION		MAX AIRFLOW (CFM)	ESP (IN-WG)	CONTROL	FAN MOTOR				ELECTRICAL		MANUFACTURER	MODEL NUMBER	NOTES
MARK	NUMBER				BHP	HP	SPEED (RPM)	DRIVE TYPE	VOLTS	PHASE			
EF	1	1,300	0.0	THERMOSTAT	-	0.25	1,550	DIRECT	120	1	COOK	12XWD36D152	

NOTES: 1. SEE UTILITY BUILDING LAYOUT FOR EQUIPMENT LOCATION. 2. PROVIDE WITH DISCONNECT, GRAVITY SHUTTER, WALL COLLAR

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:



CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

By	Date	By	Date
Designed	CMP 10/22	Checked	CMP 10/22
Drawn	MCR 10/22	In Charge of	LEM 10/22

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 TOLL ADMINISTRATION BUILDING
 MECHANICAL SCHEDULES

SHEET NUMBER: M600
 CONTRACT: 2022.07
 711 OF 735

Filename: M600.dwg

GENERAL PLUMBING NOTES

NOTES

- ALL PLUMBING GENERAL NOTES, SYMBOLS, LISTS AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL PLUMBING DRAWINGS FOR THIS PROJECT.
- THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND EXACT LOCATIONS AND ARRANGEMENTS OF EXIST./NEW EQUIPMENT, DUCTWORK, PIPING AND OTHER COMPONENTS SHALL BE DETERMINED IN THE FIELD WITH DUE CONSIDERATION OF STRUCTURAL, ELECTRICAL AND ARCHITECTURAL SYSTEMS. EXISTING STRUCTURAL SYSTEMS SHALL NOT BE MODIFIED WITHOUT THE EXPRESS PERMISSION OF THE ENGINEER.
- THE PROJECT SHALL BE PHASED IN ACCORDANCE WITH THE OWNER'S APPROVED PHASING PLAN. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE OWNER FOR THE SEQUENCING AND TIMING OF OPERATIONS PRIOR TO COMMENCING WORK. SEE SPECIFICATIONS.
- CONTRACTOR IS TO MAINTAIN SERVICE TO ROOMS OUTSIDE THE PROJECT SCOPE OF WORK AND PHASING SCHEDULE. IF INTERRUPTION OF SERVICE IS REQUIRED COORDINATE SHUTDOWN WITH OWNER. NOTIFY THE OWNER A MINIMUM OF 96 HOURS PRIOR TO SHUT-DOWN.
- CARE SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SYSTEMS AND SURFACES TO REMAIN. RESTORE DAMAGED AREAS THAT ARE BEYOND THE SCOPE OF THIS CONTRACT TO THEIR ORIGINAL CONDITION.
- MOST PARTITIONS ARE FULL HEIGHT AND REQUIRE UTILITIES PENETRATIONS TO BE SEALED. SEE ARCHITECTURAL DWGS FOR PARTITION HEIGHTS. DUCTWORK SHOWN FOR CLARITY THAT MAY RUN PARALLEL TO WALL PARTITIONS WILL REQUIRE LOCATING IN THE FIELD TO MINIMIZE CONFLICT WITH PARTITIONS.
- TIE-IN POINT LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL DETERMINE EXACT LOCATIONS IN THE FIELD BASED ON EXISTING CONDITIONS.
- COORDINATE THE LOCATIONS OF ALL WALL MOUNTED EQUIPMENT WITH FINAL EQUIPMENT/FURNITURE LAYOUT.
- PROVIDE SEISMIC RESTRAINTS PER SPECIFICATION 22 05 11.
- AT THE END OF EACH WORKING DAY, THE CONSTRUCTION SITE SHALL BE LEFT IN A CLEAN AND NEAT CONDITION.
- INSTALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND GOOD PRACTICE NORMAL TO THE TRADE. INSTALLATION SHALL INCLUDE PROVISIONS FOR ACCESS TO NORMAL MAINTENANCE ITEMS SUCH AS BELTS, BEARINGS, FILTERS AND MOTORS. PROVIDE ADEQUATE STRUCTURAL SUPPORTS AND SECURE MOUNTING METHODS WITH PROVISIONS FOR VIBRATION ISOLATION AND EXPANSION WHERE REQUIRED.
- COORDINATE ALL PENETRATIONS WITH GENERAL CONTRACTOR. SEE ARCHITECTURAL DRAWINGS FOR PENETRATION DETAILS. PLUMBING CONTRACTOR SHALL PROVIDE FLASHING AND COUNTER FLASHING FOR ROOF PENETRATIONS AS REQUIRED.
- PROVIDE PIPE SUPPORTS, GUIDES AND OFFSETS AS NECESSARY TO PREVENT UNDUE STRAIN ON PIPING.
- SEE DETAILS AND PIPING DIAGRAMS FOR ADDITIONAL VALVES AND FITTINGS NECESSARY FOR COMPLETE PIPING SYSTEMS.
- SEE SPECIFICATIONS FOR OTHER REQUIREMENTS.
- CONTRACTOR SHALL FIELD VERIFY ALL CLEARANCES AND DIMENSIONS.
- PROVIDE ACCESS PANELS FOR ALL CONCEALED SHUT-OFF VALVES EXCEPT THOSE ABOVE SUSPENDED CEILING.
- ALL DOMESTIC WATER SUPPLY, VENT AND MEDICAL GAS PIPING SHALL BE RUN ABOVE CEILINGS OR WITHIN PARTITIONS UNLESS OTHERWISE NOTED.
- PLUMBING RISERS SHALL BE RUN CONCEALED WITHIN WALLS OR CHASES. COORDINATE WITH ARCHITECTURAL DRAWINGS.
- SANITARY AND RAIN WATER LINES SHALL SLOPE 1/4" PER FOOT UNLESS NOTED OTHERWISE.

GENERAL ABBREVIATIONS

ABBREVIATIONS

DESCRIPTIONS

AD	DUCT ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
ARCH	ARCHITECT
BS	BELOW SLAB (TYPE "K" COPPER)
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
C&HW	COLD & HOT WATER
CO	CLEAN OUT
CONN	CONNECT
CONTR	CONTRACTOR
OW	COLD WATER
DIA	DIAMETER
DN	DOWN
D	DRAIN
DWG OR DWGS	DRAWING(S)
E, EX OR (E)	EXISTING
EA	EACH
EC	ELECTRICAL CONTRACTOR
EL	EXPANSION LOOP
ET	EXPANSION TANK
ETBR	EXISTING TO BE REMOVED
ETR	EXISTING TO REMAIN
FC	FLEXIBLE CONNECTION
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FDP	FLOOR DRAIN W/ TRAP PRIMER
FFHB	FREEZE PROOF HOSE BIBB
FFM	FEET PER MINUTE
FS	FLOOR SINK
FT	FEET
GAL	GALLONS
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
GV	GATE VALVE
H	HEIGHT
HP	HORSE POWER
HW	HOT WATER
HWR	HOT WATER RECIRCULATION
I.P.C.	INTERNATIONAL PLUMBING CODE
ID	INSIDE DIAMETER
IN	INCHES
IR	INDIRECT WASTE
KW	KILOWATTS
MBH	THOUSANDS OF B.T.U.'S PER HOUR
MECH	MECHANICAL
MTD	MOUNTED
MV	MIXING VALVE
N.C. OR NC	NORMALLY CLOSED
N.O. OR NO	NORMALLY OPEN
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PSI	POUNDS PER SQUARE INCH
RD	ROOF DRAIN
RM	ROOM
RV	RELIEF VALVE
RWL	RAIN WATER LEADER
S	SANITARY
SD	SANITARY DRAIN
SF	SQUARE FEET
SP	STATIC PRESSURE
SS	STAINLESS STEEL
TP	TYPICAL
V	VENT
VB	VACUUM BREAKER
VTR	VENT THROUGH ROOF
W	WASTE
W/	WITH
WCO	WALL CLEANOUT

GENERAL SYMBOLS

SYMBOLS

DESCRIPTIONS

	POINT OF CONNECTION TO EXISTING (TIE-IN POINT)
	EQUIPMENT, GRILLE, REGISTER OR DIFFUSER TAG
	REVISION TAG
	REVISION CLOUD
	EQUIPMENT DESIGNATION
	NOTE CALL OUT
	PRESSURE GAUGE W/PETCOCK
	FLOW SWITCH
	PRESSURE SWITCH
	THERMOMETER W/IMMERSION WELL
	AUTOMATIC AIR VENT
	MANUAL AIR VENT
	PIPE SIZE (DIAMETER)
	PIPE SIZE, GANG RISERS (DIAMETER)
	TITLE FORMAT - SYMBOL NOT TO SCALE

NEW EQUIPMENT SYMBOLS

SYMBOLS

DESCRIPTIONS

	NEW MOP SINK
	NEW URINAL
	NEW TOILET
	NEW WATER COOLER
	NEW LAVATORY/SINK

PIPING SYMBOLS

SYMBOLS

ABBREVIATIONS

DESCRIPTIONS

	HWR	HOT WATER RECIRCULATION PIPING
	CW	COLD WATER PIPING
	HW	HOT WATER PIPING
	V	VENT PIPING
	G	GAS PIPING
		PIPE DROP
		PIPE RISER
		PIPE TEES - DOWN
		PIPE TEES - UP
		PIPE CONNECTION
		PIPE BREAK - TO CONTINUE
		DIRECTION OF FLOW
		NEW PLUMBING VENT PIPING
		NEW PLUMBING HOT WATER PIPING
		NEW PLUMBING COLD WATER PIPING
		NEW PLUMBING SANITARY PIPING BELOW SLAB
		GAS METER
		WATER METER
		PIPE SLOPE
		P-TRAP
	ANCHOR	PIPE ANCHOR
		PIPE CAP
	GUIDE	PIPE GUIDE
		WATER HAMMER ARRESTOR
	U	UNION
	BLV	BALL VALVE
	BFV	BUTTERFLY VALVE
	SCV	SWING CHECK VALVE
	CBV	CIRCUIT BALANCE VALVE
	ACV	2-WAY AUTOMATIC CONTROL VALVE
	ACV	3-WAY AUTOMATIC CONTROL VALVE (MIXING PATTERN)
	GV	GATE VALVE
	GLV	GLOBE VALVE
	MPV	MULTIPURPOSE VALVE
	PRV	PRESSURE REGULATING VALVE
	T	THERMOMETER
	LCV	LIFT CHECK VALVE
	FLG	FLANGE
		STRAINER W/DRAIN VALVE AND CAP
		DRAIN VALVE AND CAP
	RSV	RELIEF OR SAFETY VALVE
	PGV	PLUG VALVE
	QC	QUICK CLOSING, FUSIBLE LINK
	QO	QUICK OPENING
	SHC	SQUARE HEAD COCK
	BFP	BACK FLOW PREVENTOR
	CRD	CONCENTRIC REDUCER (ENLARGER)
	ERD	ECCENTRIC REDUCER (ENLARGER)
	FD	FLOOR DRAIN
	FCO	FLOOR CLEAN OUT

PLUMBING DRAWING LIST

NUMBER

TITLE

P001	PLUMBING GENERAL NOTES AND LEGENDS
P100	PLUMBING PIPING PLAN - NORTHBOUND
P101	PLUMBING PIPING PLAN - SOUTHBOUND
P102	PLUMBING SANITARY PLAN - NORTHBOUND
P103	PLUMBING SANITARY PLAN - SOUTHBOUND
P500	PLUMBING DETAILS - 1
P501	PLUMBING DETAILS - 2
P600	PLUMBING SCHEDULES

PLUMBING ALTERNATE LIST

NUMBER

TITLE

N/A	NONE
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Date: Friday, October 07, 2022

Filename: P001.dwg

Scale:				
NOT TO SCALE				
No.	Revision	By	Date	

Designed by:					
CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
	By	Date		By	Date
	CMP	10/22	Checked	CMP	10/22
	Drawn	MCR	In Charge of	LEM	10/22

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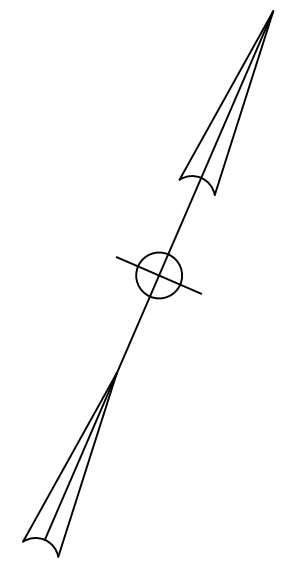
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
PLUMBING GENERAL NOTES AND LEGEND

SHEET NUMBER: P001
712 OF 735

CONTRACT: 2022.07

Date: Friday, October 07, 2022

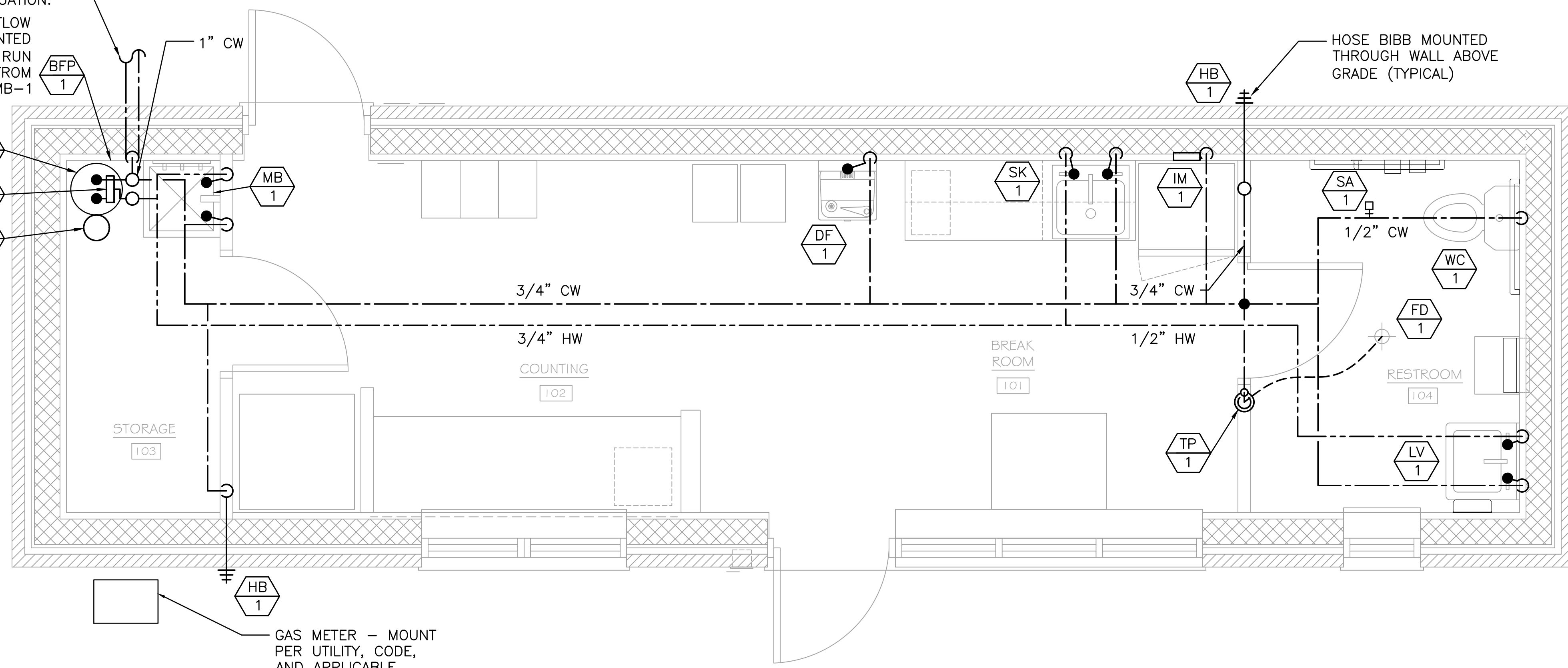


DOMESTIC WATER INLET.
INVERT 1.75' BELOW
FINISHED FLOOR ELEVATION.
REFER TO CIVIL DRAWINGS
FOR CONTINUATION.

METER AND BACKFLOW
PREVENTER MOUNTED
12" OFF WALL. RUN
INDIRECT WASTE FROM
BFP-1 TO MB-1

MOUNT WH-1
HIGH ON WALL

WH 1
MV 1
ET 1



GAS METER - MOUNT
PER UTILITY, CODE,
AND APPLICABLE
REQUIREMENTS.


NOTE: GAS SERVICE
DOES NOT ENTER THIS
BUILDING

PLUMBING PIPING PLAN - NORTHBOUND
1/2" = 1'-0"

Scale: 0 1' 2' 4'

No.	Revision	By	Date

Designed by:



CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
Designed	CMP	10/22	Checked	CMP	10/22
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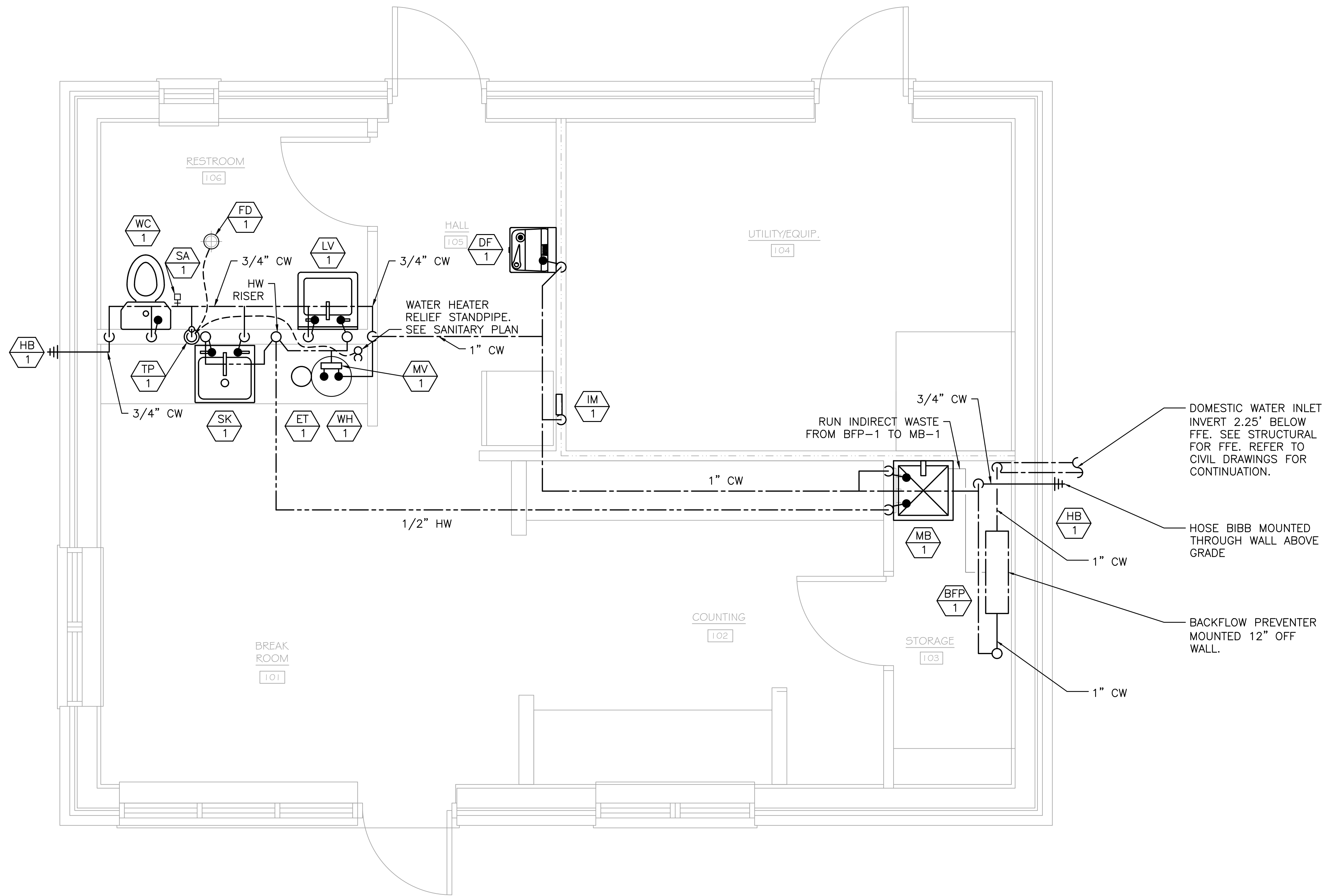
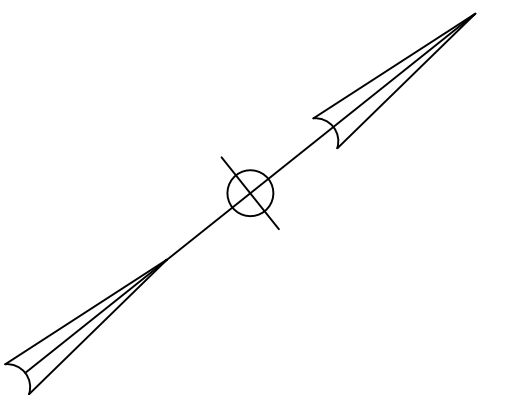
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
PLUMBING PIPING PLAN - NORTHBOUND

SHEET NUMBER: P100
CONTRACT: 2022.07
713 OF 735

Filename: P100.dwg

Date: Friday, October 07, 2022



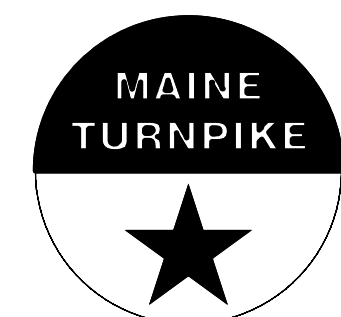
PLUMBING PIPING PLAN - SOUTHBOUND
1/2" = 1'-0"

Scale: 0 1' 2' 4'

Designed by:



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**THE GOLD STAR
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INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
PLUMBING PIPING PLAN - SOUTHBOUND

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.			
	By	Date	
Designed	CMP	10/22	Checked CMP 10/22
Drawn	MCR	10/22	In Charge of LEM 10/22

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

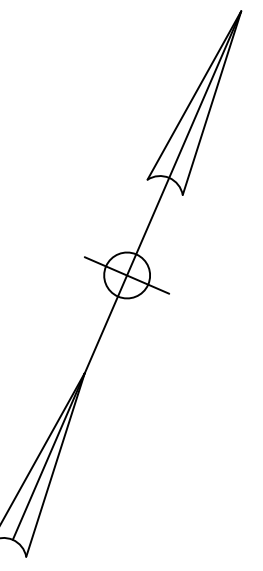
CONTRACT: 2022.07

SHEET NUMBER: P101

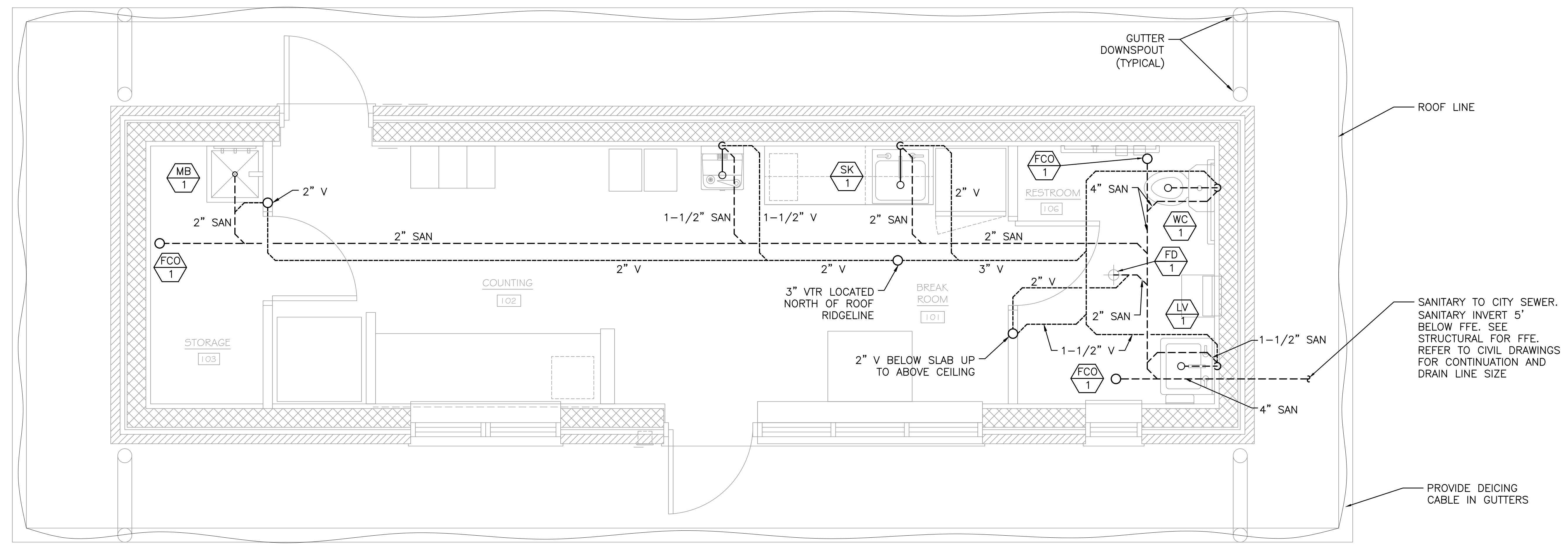
714 OF 735

Filename: P100.dwg

Date: Friday, October 07, 2022



NOTES:
 1. PROVIDE UNDERSLAB SANITARY DRAIN LINES WITH UNIFORM SLOPE OF NOT LESS THAN 1/4 INCH PER FOOT TOWARD THE POINT OF DISPOSAL. CONTRACTOR SHALL VERIFY PIPING MEETS MINIMUM REQUIRED SLOPE TO THE SATISFACTION OF THE RESIDENT PRIOR TO BACKFILLING.



PLUMBING SANITARY PLAN – NORTHBOUND
 1/2" = 1'-0"

Scale:

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
Designed	CMP	10/22	Checked	CMP	10/22
Drawn	MCR	10/22	In Charge of	LEM	10/22

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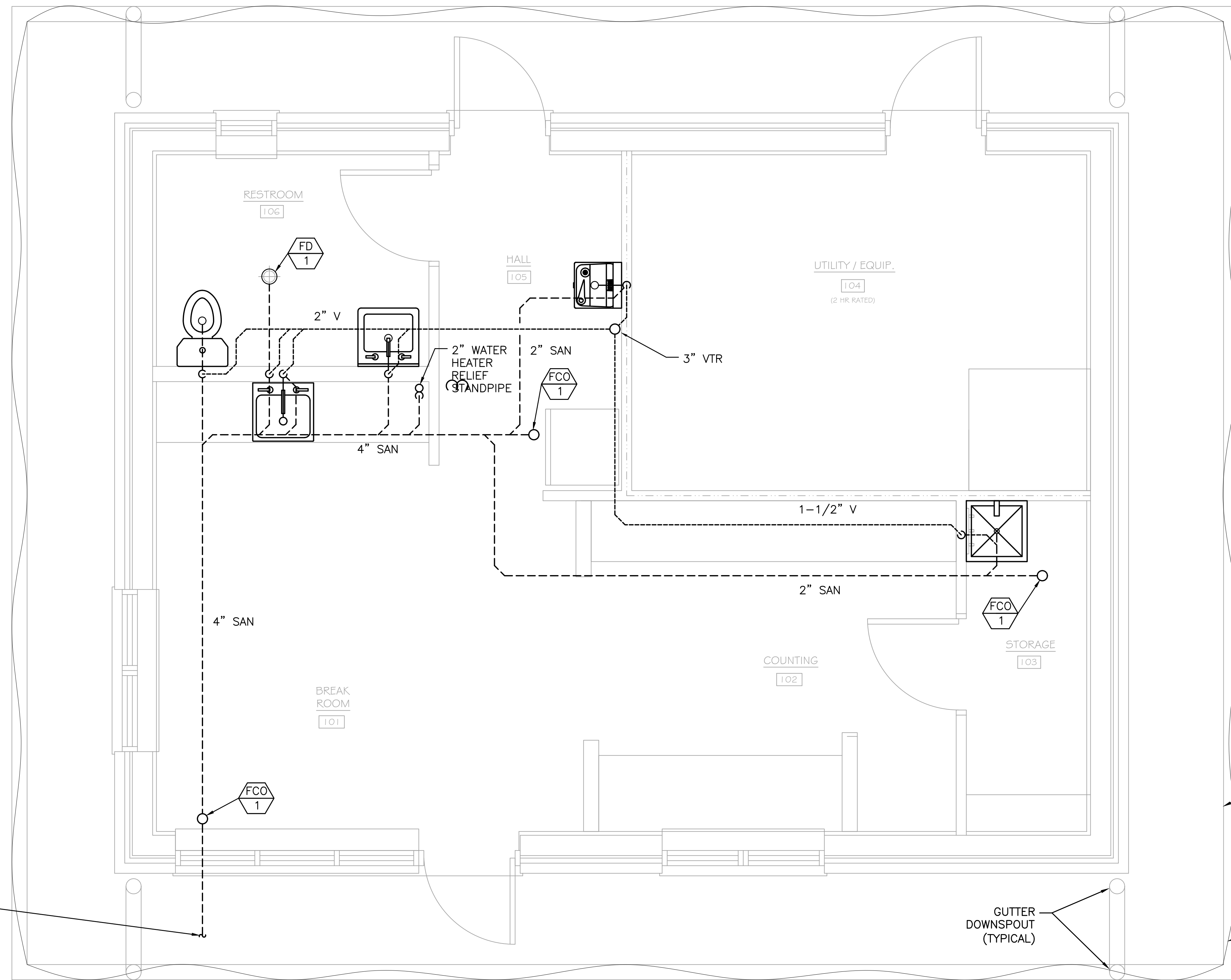
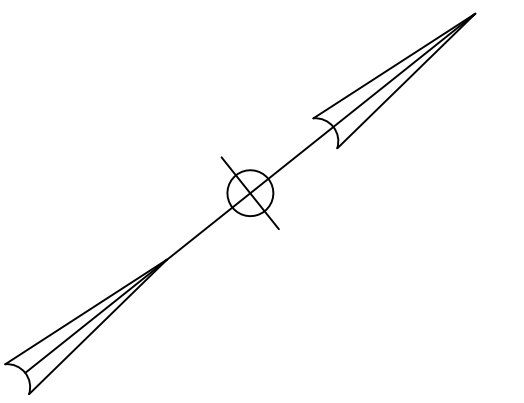
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 TOLL ADMINISTRATION BUILDING
PLUMBING SANITARY PLAN – NORTHBOUND

SHEET NUMBER: P102
 CONTRACT: 2022.07
 715 OF 735

Filename: P102.dwg

Date: Friday, October 07, 2022

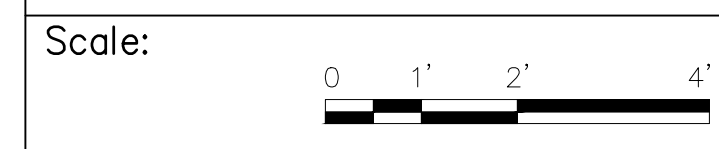


NOTES:
 1. PROVIDE UNDERSLAB SANITARY DRAIN LINES WITH UNIFORM SLOPE OF NOT LESS THAN 1/4 INCH PER FOOT TOWARD THE POINT OF DISPOSAL. CONTRACTOR SHALL VERIFY PIPING MEETS MINIMUM REQUIRED SLOPE TO THE SATISFACTION OF THE RESIDENT PRIOR TO BACKFILLING.

4-INCH SANITARY TO SEPTIC SYSTEM. SANITARY OUTLET INVERT 5' BELOW FFE. SEE STRUCTURAL FOR FFE. REFER TO CIVIL DRAWINGS FOR CONTINUATION

ROOF LINE
 PROVIDE DEICING CABLE IN GUTTERS
 GUTTER DOWNSPOUT (TYPICAL)

PLUMBING SANITARY PLAN - SOUTHBOUND
 1/2" = 1'-0"



Designed by:

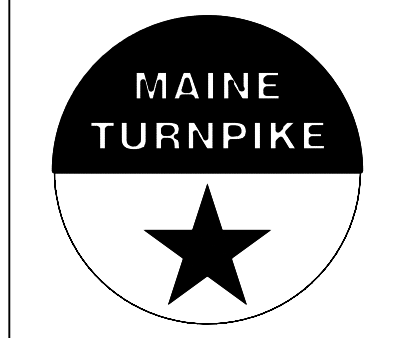
Stantec

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

No.	Revision	By	Date

	By	Date		By	Date
Designed	CMP	10/22	Checked	CMP	10/22
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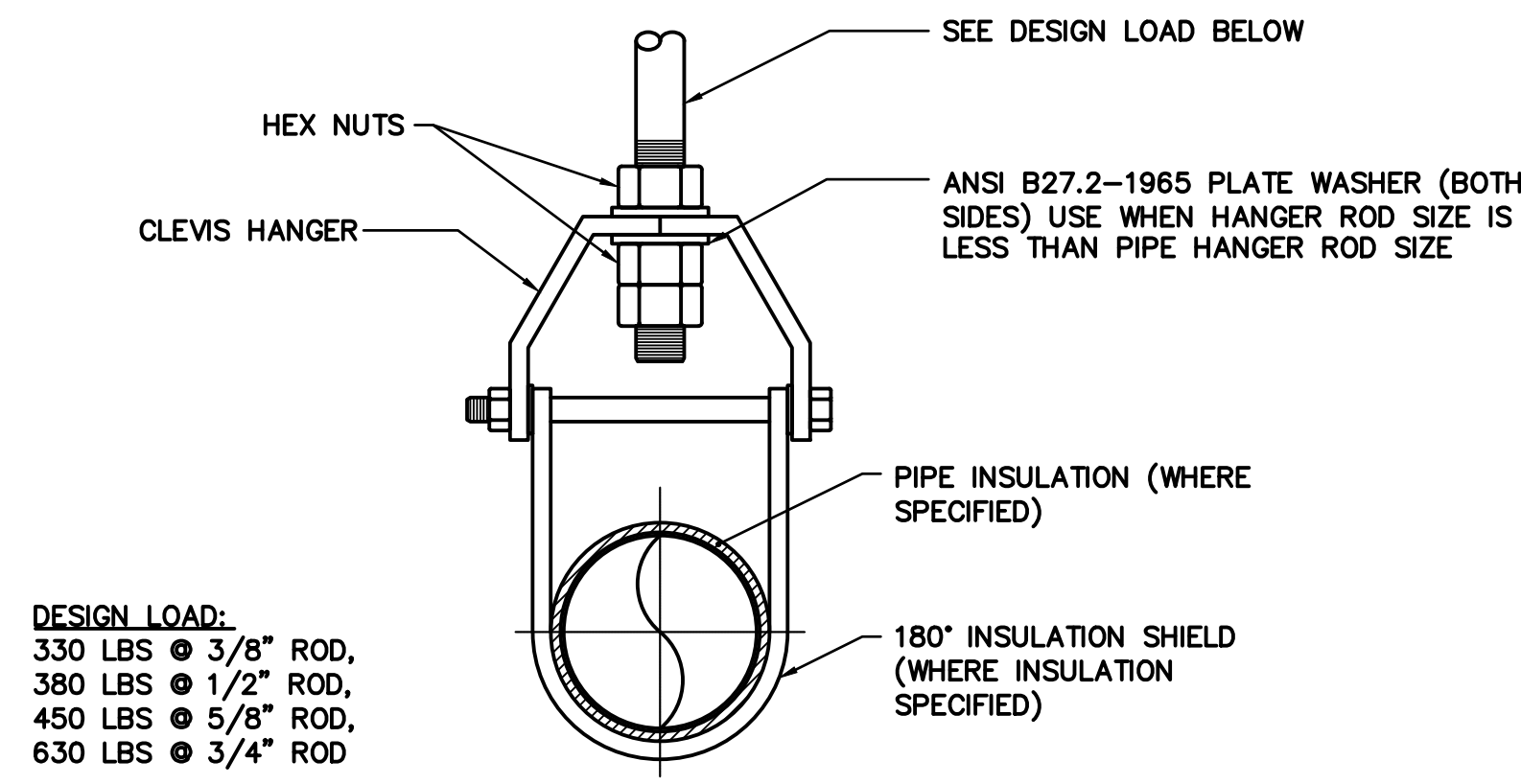
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 TOLL ADMINISTRATION BUILDING
 PLUMBING SANITARY PLAN - SOUTHBOUND

SHEET NUMBER: P103
 CONTRACT: 2022.07
 716 OF 735

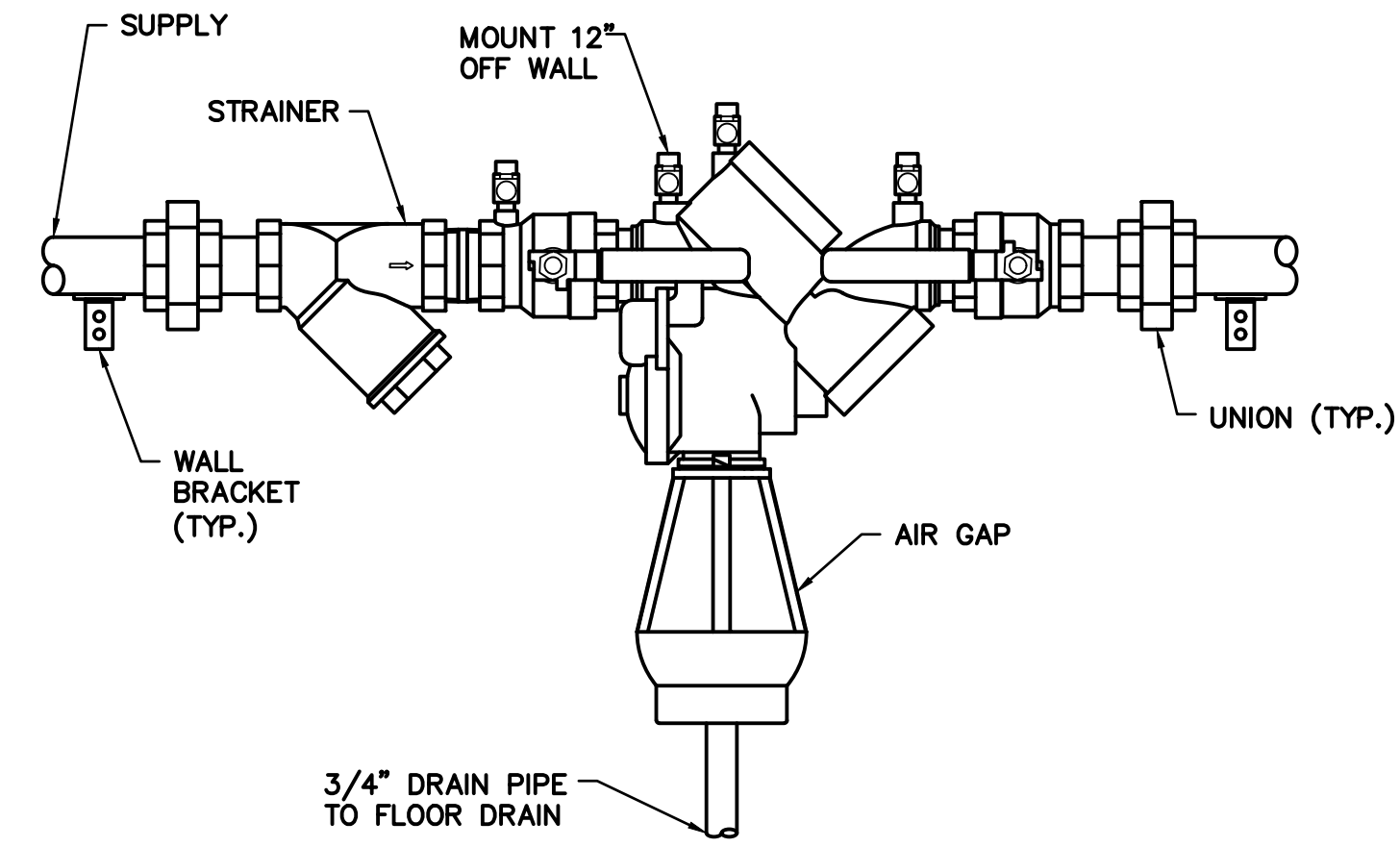
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Date: Friday, October 07, 2022

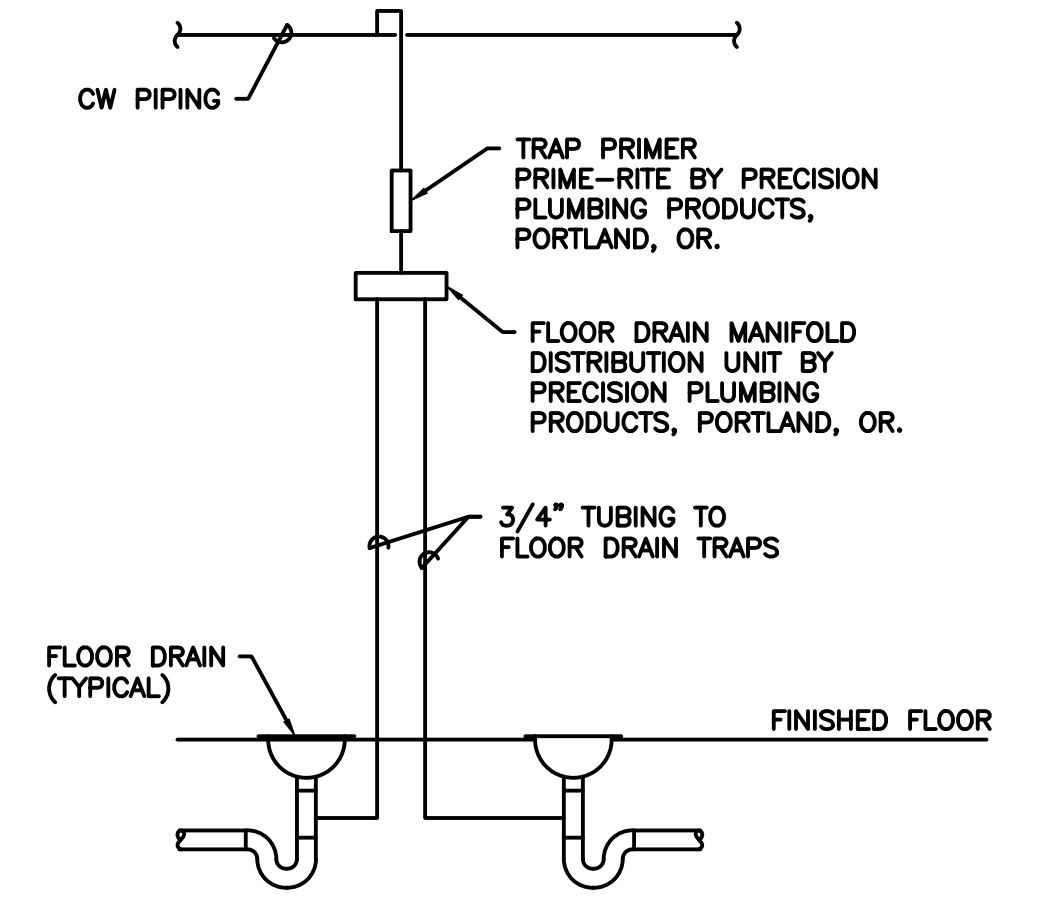


DESIGN LOAD:
 330 LBS @ 3/8" ROD,
 380 LBS @ 1/2" ROD,
 450 LBS @ 5/8" ROD,
 630 LBS @ 3/4" ROD

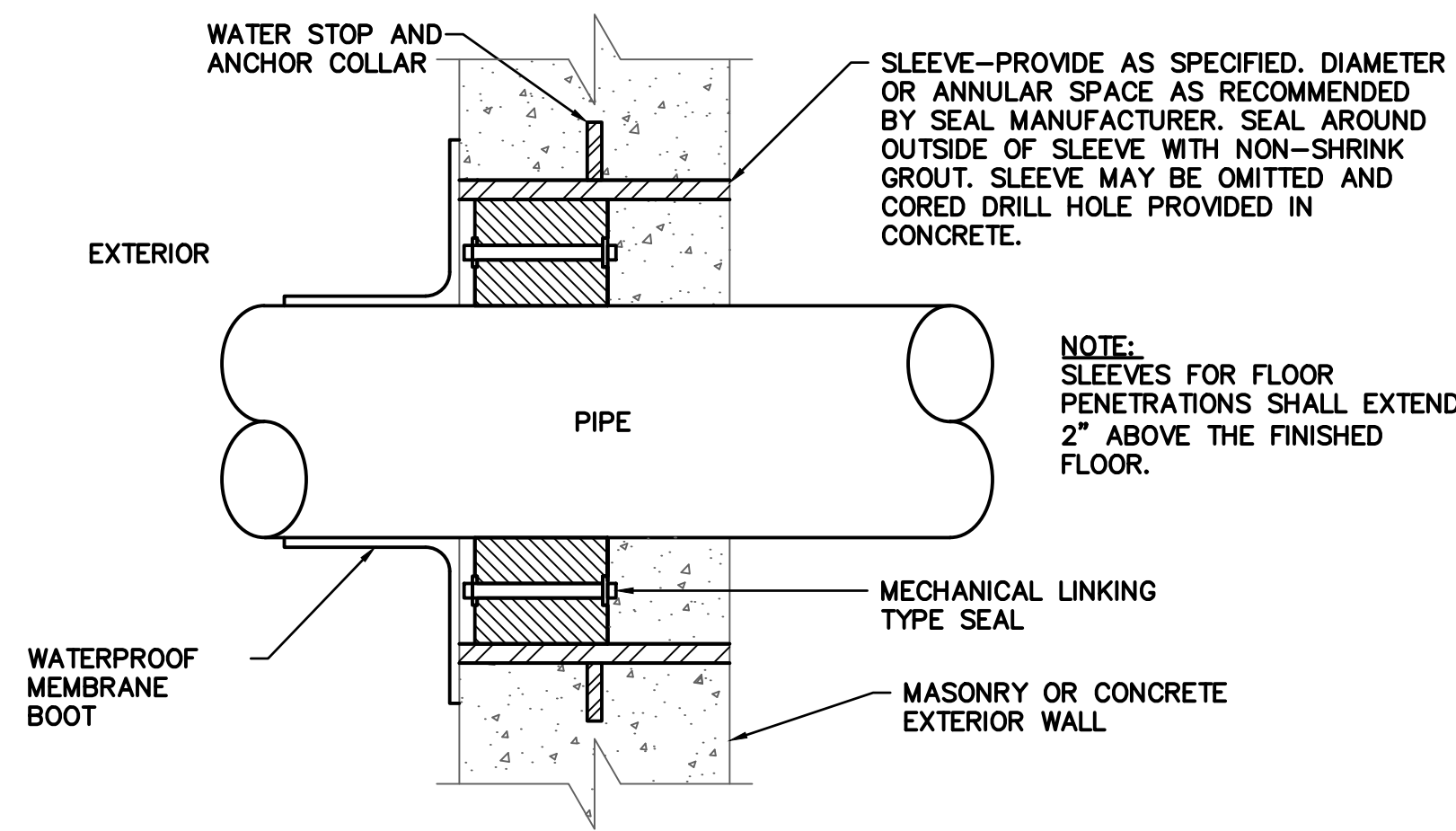
TYPICAL PIPE SUPPORT
 SCALE: NTS



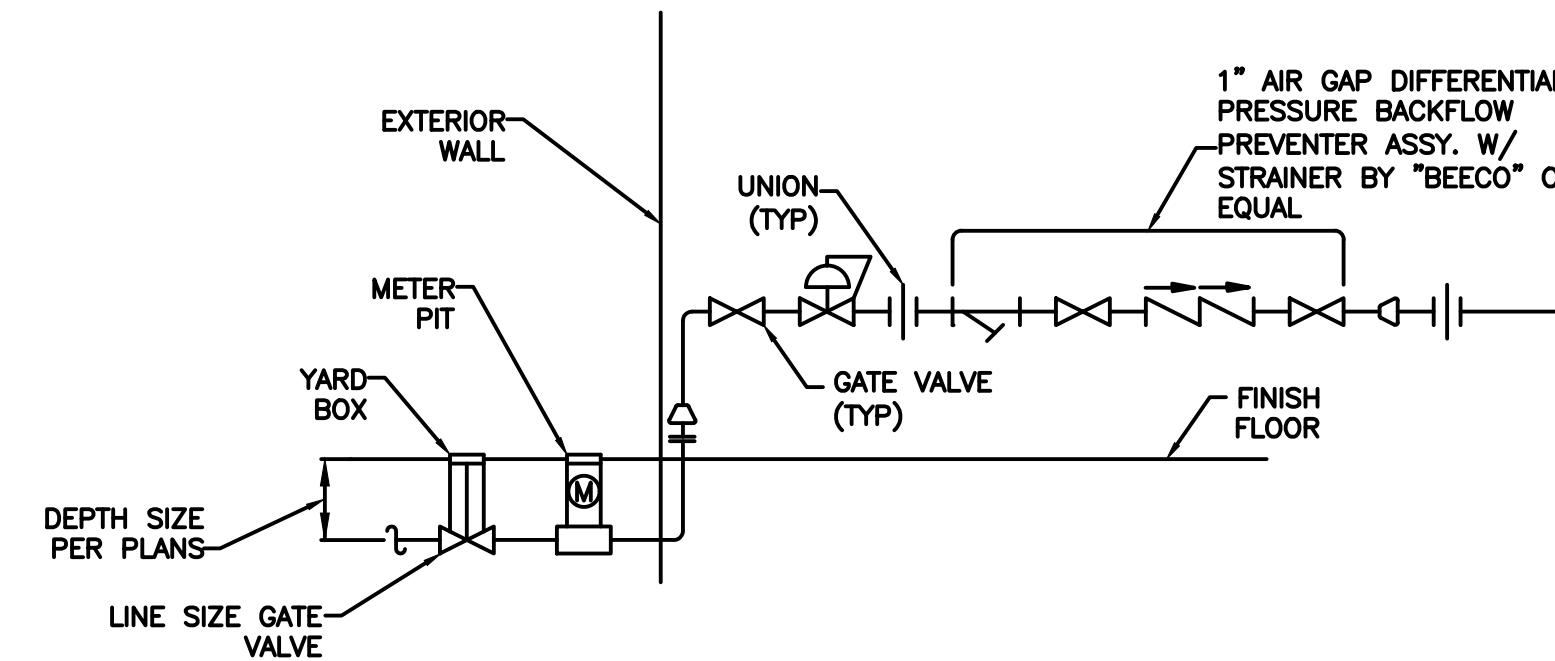
REDUCED PRESSURE BACKFLOW PREVENTOR
 SCALE: NTS



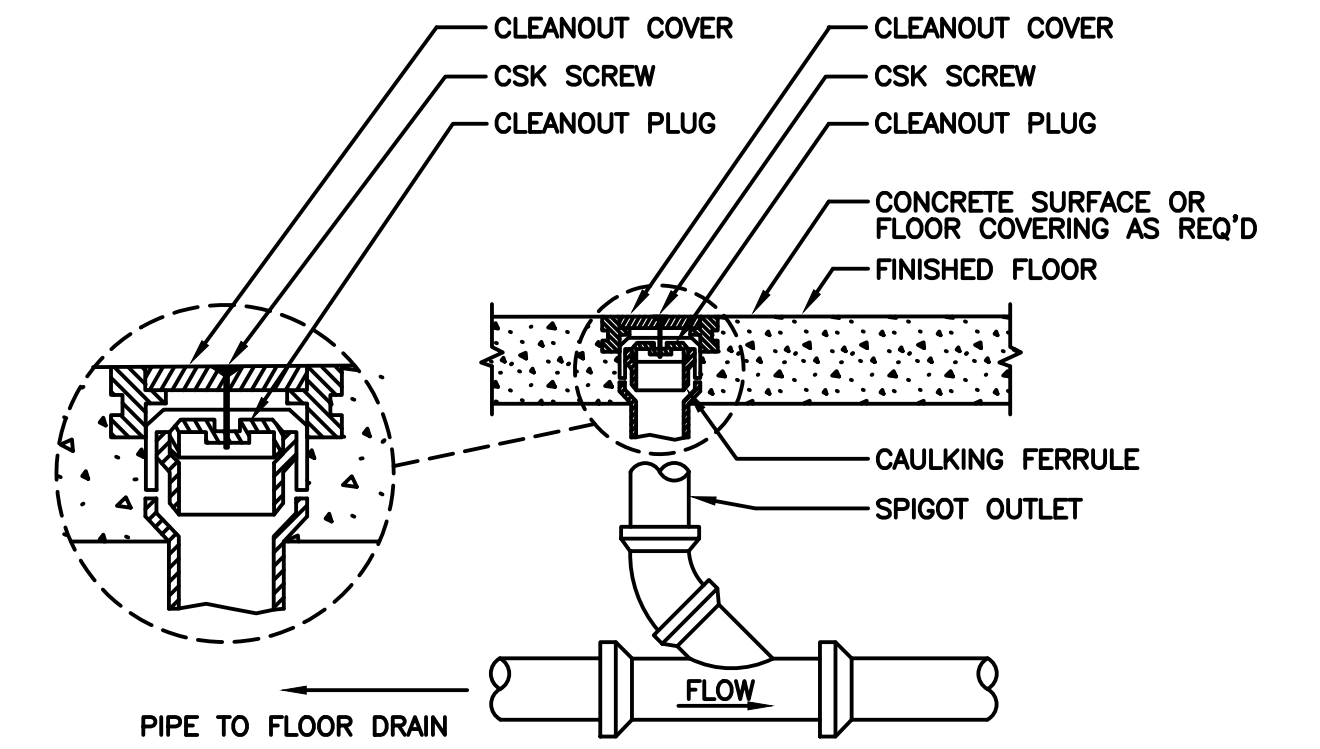
TRAP PRIMER DETAIL
 SCALE: NTS



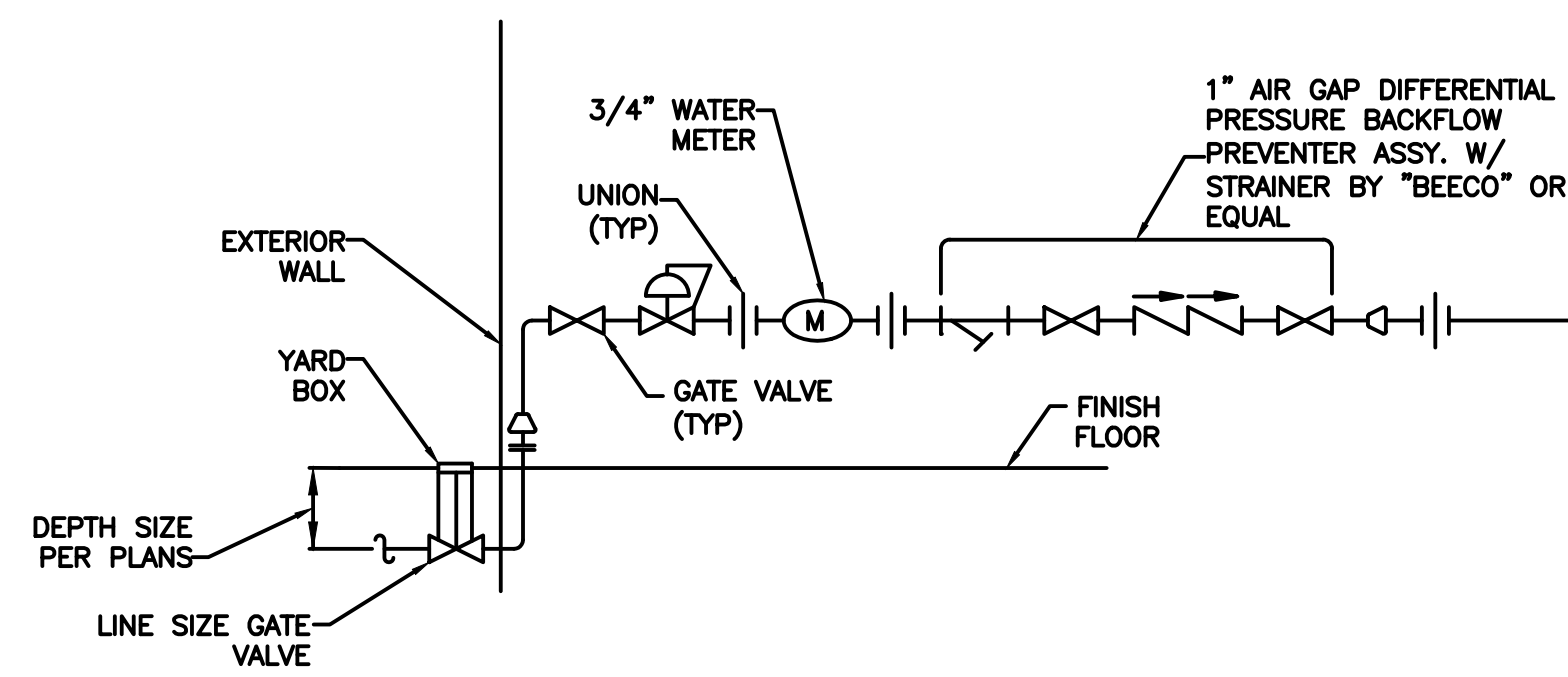
TYPICAL PENETRATION THRU FLOOR/EXT. WALL
 SCALE: NTS



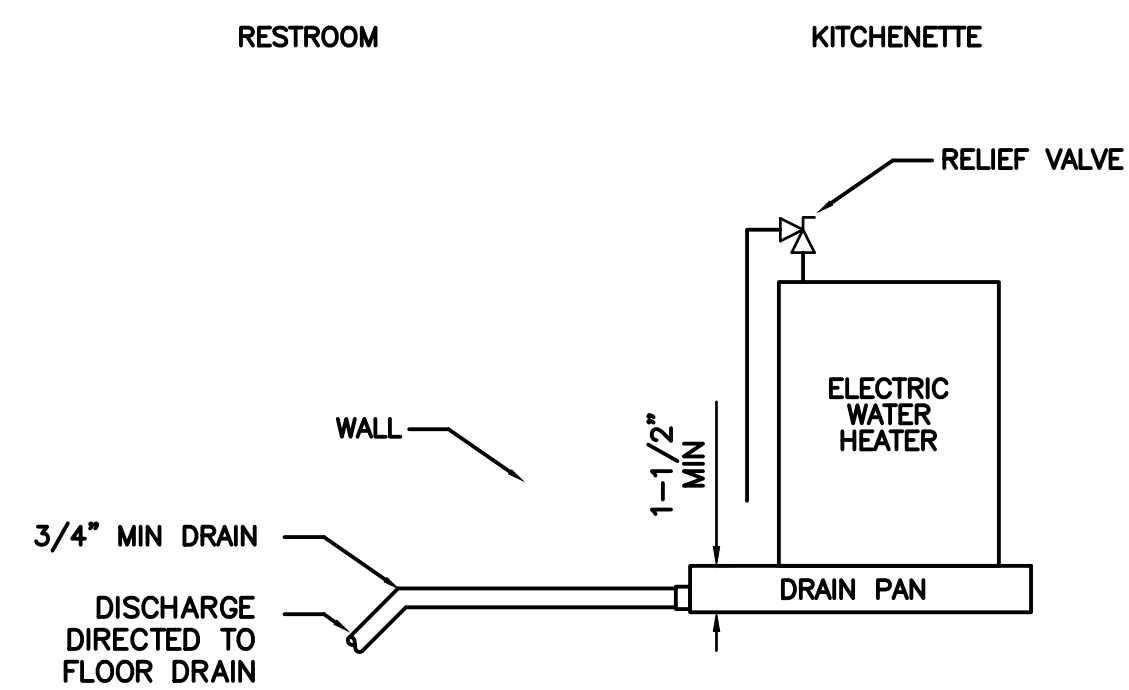
WATER SERVICE ENTRANCE/METER DETAIL - SOUTHBOUND
 SCALE: NTS



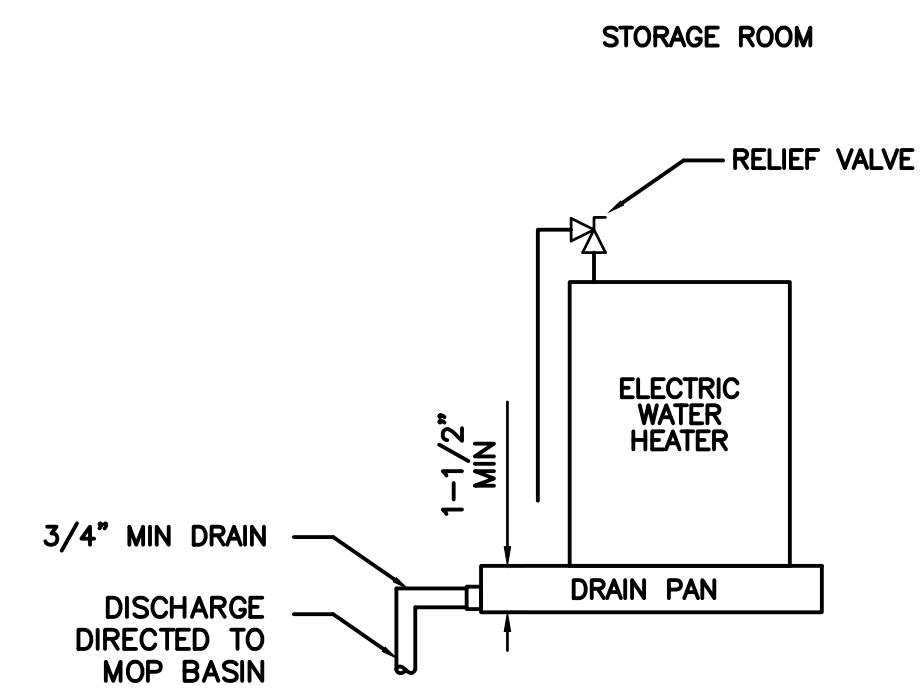
FLOOR CLEANOUT DETAIL
 SCALE: NTS



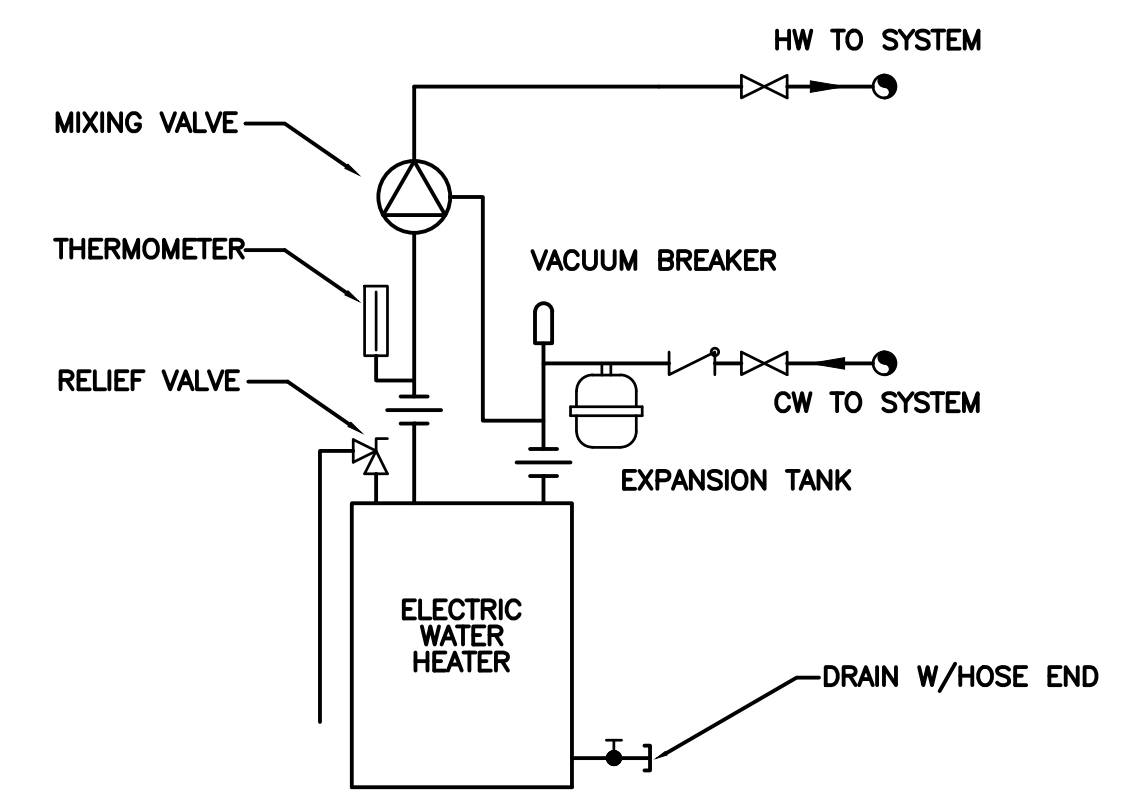
WATER SERVICE ENTRANCE/METER DETAIL - NORTHBOUND
 SCALE: NTS



DRAIN PAN PIPING DETAIL - SOUTHBOUND
 SCALE: NTS



DRAIN PAN PIPING DETAIL - NORTHBOUND
 SCALE: NTS



WATER HEATER PIPING DETAIL
 SCALE: NTS

No.	Revision	By	Date

Scale: _____

Designed by: **Stantec**

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
Designed	MCR	10/22	Checked	CMP	10/22
Drawn	MCR	10/22	In Charge of	LEM	10/22

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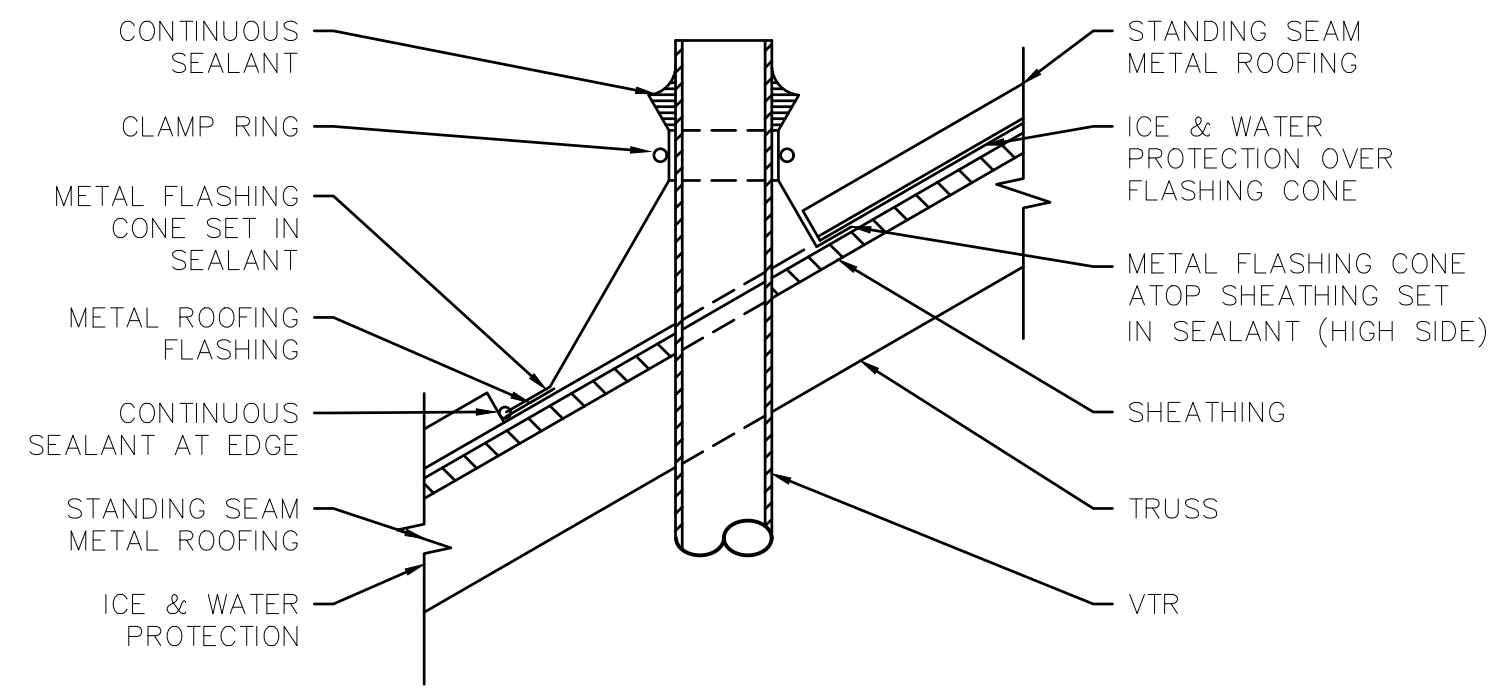
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

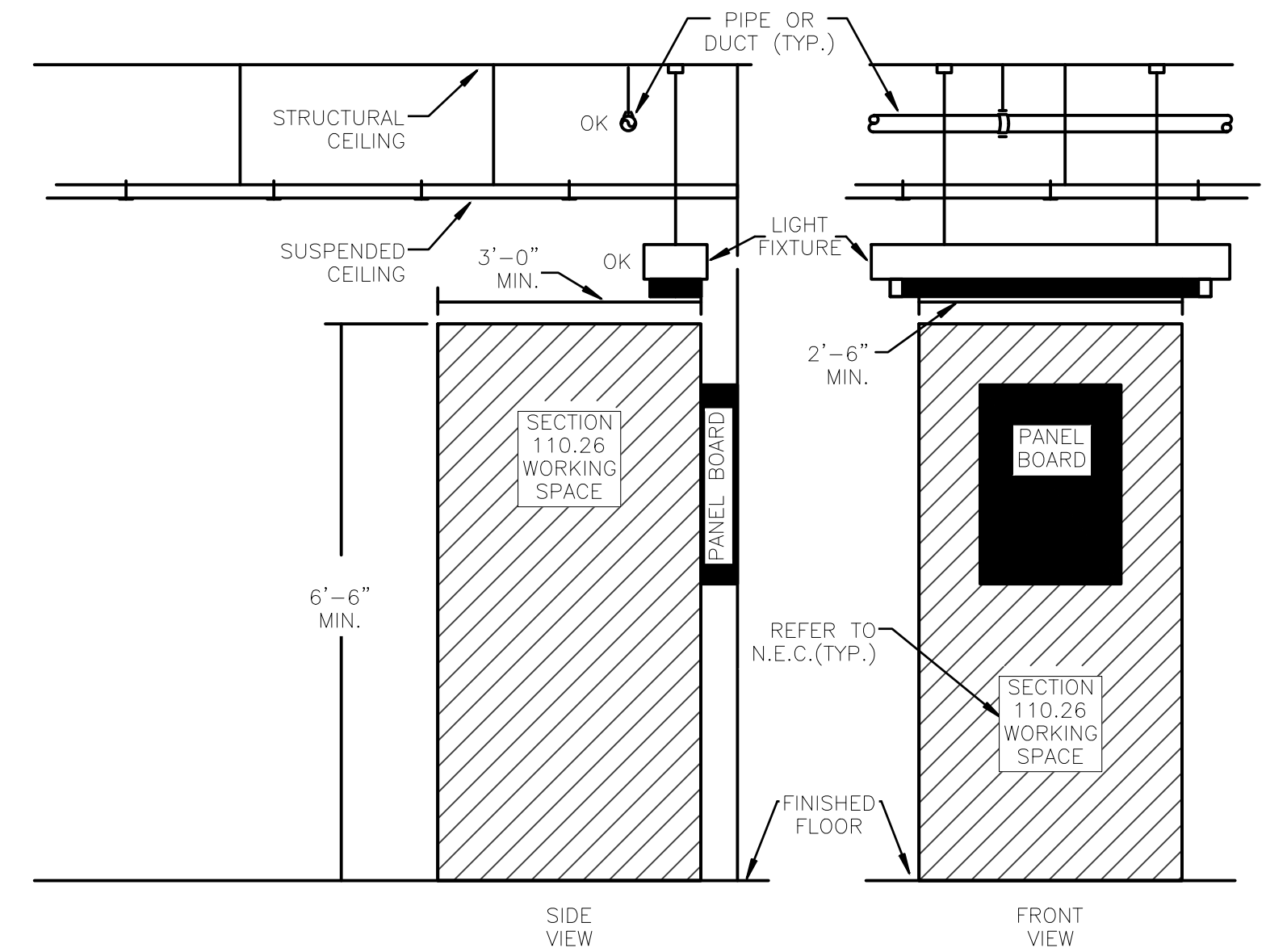
INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 TOLL ADMINISTRATION BUILDING
 PLUMBING DETAILS - 1

SHEET NUMBER: P500
 CONTRACT: 2022.07
 717 OF 735

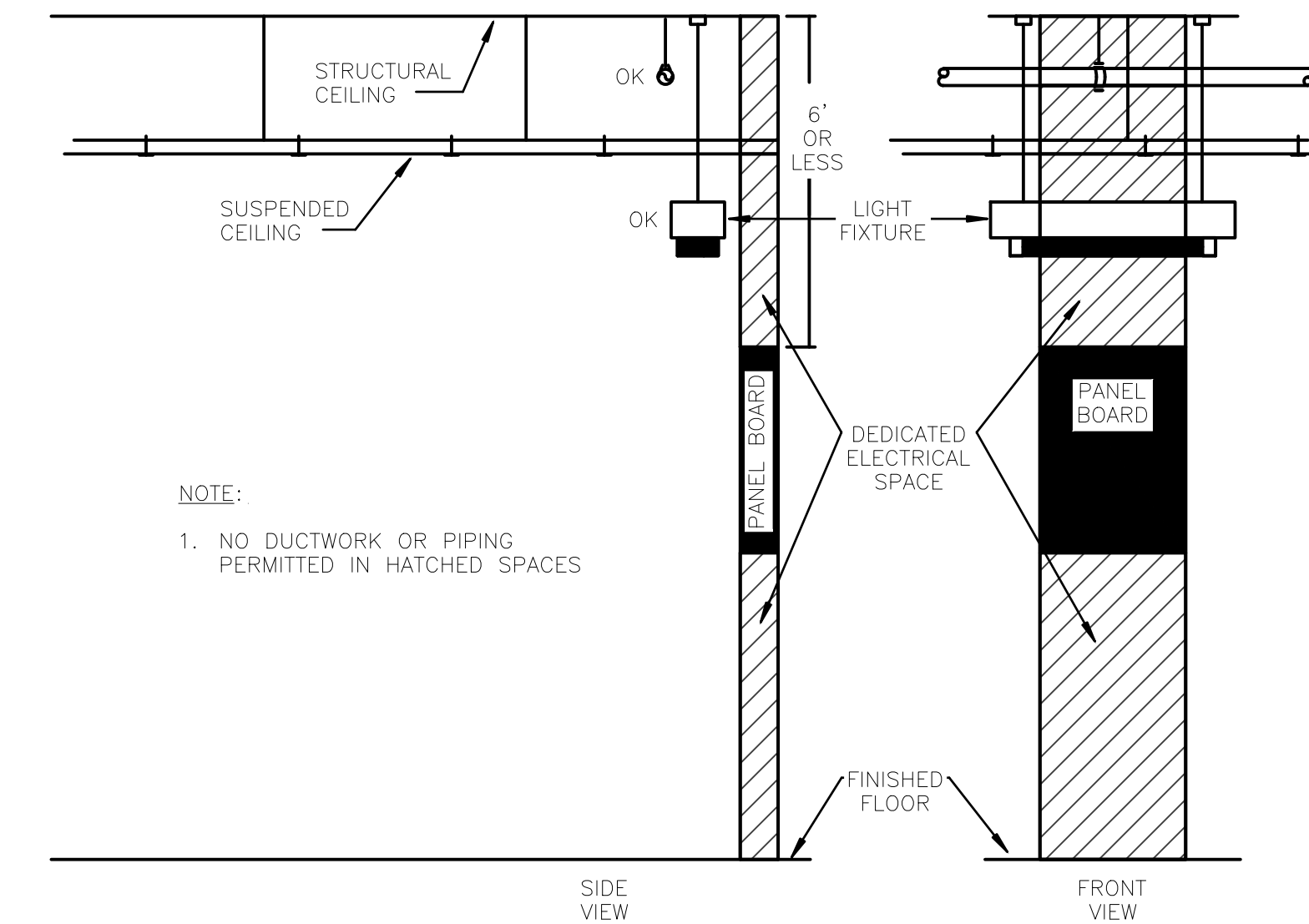
Date: Friday, October 07, 2022



VENT STACK THROUGH ROOF DETAIL
SCALE: NTS 11



WORKING SPACE REQUIREMENTS



NOTE:
1. NO DUCTWORK OR PIPING PERMITTED IN HATCHED SPACES

DEDICATED ELECTRICAL SPACE REQUIREMENTS

CLEARANCES AT ELECTRICAL PANELS
SCALE: NTS 12

Scale:				Designed by:					
NOT TO SCALE									
No.	Revision	By	Date	CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
				By	Date	By	Date		
				Designed	CMP	10/22	Checked	CMP	10/22
				Drawn	MCR	10/22	In Charge of	LEM	10/22

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				THE GOLD STAR MEMORIAL HIGHWAY			
				MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC			

				INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) TOLL ADMINISTRATION BUILDING PLUMBING DETAILS - 2			
				SHEET NUMBER: P501			
				CONTRACT: 2022.07			
				718 OF 735			

Filename: P500.dwg

Date: Friday, October 07, 2022

FIXTURE SCHEDULE														
TAG	FIXTURE	FIXTURE MAKE*	FIXTURE MODEL*	FAUCET/FLUSH/MIXING VALVE	ELECTRICAL	FAUCET/FLUSH VALVE MAKE*	FAUCET/FLUSH VALVE MODEL*	TRAP SIZE (IN)	WASTE PIPE SIZE	VENT SIZE	COLD WATER SUPPLY	HOT WATER SUPPLY	ADA	REMARKS
WC-1	WATER CLOSET	AMERICAN STANDARD	2989.101	TANK-TYPE/CADET 3 FLOWISE/RIGHT HEIGHT	N/A	N/A	N/A	BUILT-IN	4"	2"	1"	-	YES	1.28 GPF, FLOOR MOUNT, MANUAL FLUSH VALVE, ELONGATED EXTRA HEAVY DUTY BOWL, OPEN FRONT ELONGATED SEAT, VITREOUS CHINA
LV-1	LAVATORY	AMERICAN STANDARD	MURRO 0954	MANUAL	N/A	MOEN	8422	1-1/4"	2"	1-1/2"	1/2"	1/2"	YES	20X21 3-HOLE 4" CENTERS WALL HUNG, VITREOUS CHINA, 0059.020EC KNEE SHROUD. 1-HANDLE CHROME MANUAL FAUCET, DRAIN
MB-1	MOP SERVICE BASIN	FIAT	MSB2424	MANUAL LEVER VALVE	N/A	N/A	N/A	3"	3"	2"	1/2"	1/2"	-	24X24 ONE-PIECE, MOLDED-STONE, 10" BOWL, DRAIN, CHROME FAUCET WITH PALE HOOK AND VACUUM BREAKER
SK-1	KITCHENETTE SINK	AMERICAN STANDARD	COLONY 20SB	MANUAL LEVEL VALVE	N/A	AMERICAN STANDARD	COLONY PRO 7074000	1-1/2"	2"	1-1/2"	1/2"	1/2"	YES	25X22, DROP-IN, STAINLESS STEEL, 3-HOLE, SINGLE 8" BOWL, CHROME FAUCET, DRAIN
DF-1	DRINKING FOUNTAIN	HALSEY TAYLOR	HTHB-HACGBSS-WF	MANUAL/SENSOR OPERATED	HARDWIRE	N/A	N/A	1-1/2"	1-1/2"	1-1/2"	1/2"	-	YES	HIGH EFFICIENCY BOTTLE FILLING STATION & SINGLE COOLER, FILTERED, 8GPH. PROVIDE SANITARY SENSOR ACTIVATED, VISUAL FILTER MONITOR, ELECTRONIC BOTTLE FILLER SENSOR WITH MECHANICAL FRONT AND SIDE BAR BUBBLER

- NOTES:
 1. PROVIDE WATER SHUTOFF VALVES FOR HOT AND COLD WATER LINES TO ALL FIXTURES. ALL VALVES SHALL BE ACCESSIBLE.
 2. LAVATORY SHALL BE EQUIPPED WITH THERMOSTATIC MIXING VALVE.
 3. LAVATORY SHALL BE INSTALLED TO PREVENT UPLIFTING. WALL BOLTS SHALL BE TIGHT AND PROPERLY INSTALLED.

DOMESTIC WATER HEATER SCHEDULE																	
TAG	LOCATION	SERVICE	MANUFACTURER (BASIS OF DESIGN)	MODEL (BASIS OF DESIGN)	STORAGE		INPUT (WATT)	RECOVERY GPH 100' RISE	SIZE (IN)		ELECTRICAL			THERMOSTATIC MIXING VALVE			NOTES
					CAPACITY	TEMP			HEIGHT	DIAMETER	VOLTS	PH	Hz	MANUFACTURER	MODEL	SUPPLY TEMP	
WH-1	UNDER CABINET	ADMIN BUILDING	BRADFORD WHITE	LE110U3-1	10 GAL.	140 °F	4500	19	17.5	16	208	1	60	LAWLER	61-10	110	1,2

- NOTES:
 1. ASME RATED TANK.
 2. PROVIDE MIXING VALVE IN 3/4" SIZE AND WITH CHECK VALVES


PLUMBING SPECIALTIES SCHEDULE									
TAG	DESCRIPTION	MAKE*	MODEL*	OUTLET SIZE	WASTE PIPE SIZE	VENT SIZE	COLD WATER SUPPLY	REMARKS	
BFP-1	BACKFLOW PREVENTER WATER ENTRANCE	-	-	3/4"	-	-	1"	REDUCED PRESSURE ZONE, BACKFLOW PREVENTER WITH STRAINER AND UNIONS	
ET-1	EXPANSION TANK	AMTROL	ST-5	-	-	-	3/4"	POTABLE WATER, 0.85 GAL ACCEPTANCE, PRECHARGED TO 40 PSI	
HB-1	HOSE BIBB	WATTS	LFFHB	HOSE	-	-	3/4"	SELF-DRAINING, NON-FREEZING WITH VACUUM BREAKER AND GARDEN HOSE THREAD OUTLET	
SA-1	SHOCK ABSORBER	ZURN	Z-1700 #200	1"	-	-	1"	BELLOWS TYPE WATER HAMMER ARRESTOR	
TP-1	TRAP PRIMER	PPP	PR-500	PIPE SIZE	-	-	PIPE SIZE	SELF-ADJUSTING, MECHANICAL OPERATION TYPE	
IM-1	ICE MAKER	-	-	-	-	-	1/2"	REFRIGERATOR ICE MAKER OUTLET BOX	
FCO-1	FLOOR CLEANOUT	-	-	-	PIPE SIZE	-	-	ROUND - FINISHED AREAS FLOOR CLEANOUT WITH ADJUSTABLE HEIGHT	
FD-1	FLOOR DRAIN	-	-	-	3"	1-1/2"	-	ROUND - MEDIUM DUTY FLOOR DRAIN WITH TRAP PRIMER CONNECTION	

- NOTES:
 1. PROVIDE TP-1 EQUAL TO OR LARGER THAN PIPE SIZE. "FLOW-THROUGH" TYPE TRAP PRIMERS SMALLER THAN ACTUAL PIPE DIAMETER IS NOT ACCEPTABLE

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:



CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

By	Date	By	Date
Designed	CMP 10/22	Checked	CMP 10/22
Drawn	MCR 10/22	In Charge of	LEM 10/22

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 TOLL ADMINISTRATION BUILDING
 PLUMBING SCHEDULES

SHEET NUMBER: P600
 CONTRACT: 2022.07
 719 OF 735

Filename: P600.dwg

Date: Friday, October 07, 2022

ELECTRICAL GENERAL NOTES

- 1. ALL GENERAL NOTES, SYMBOL LIST & DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL ELECTRICAL DRAWINGS FOR THIS PROJECT. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION IN THE DESIGN.
2. ALL WORK PERFORMED ON THIS CONTRACT SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER AND SHALL BE IN COMPLIANCE WITH NEC, NFPA, BOCA, OSHA, AND ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.
3. THESE DRAWINGS ARE, IN GENERAL, MADE TO SCALE BUT ALL MEASUREMENTS SHALL BE TAKEN FROM FIGURED DIMENSIONS, AND NOT BY SCALING.
4. THE ELECTRICAL CONTRACTOR SHALL CONFER WITH ALL OTHER TRADES RELATIVE TO THE LOCATION OF APPARATUS AND EQUIPMENT AND SELECT LOCATIONS SO AS NOT TO CONFLICT WITH WORK OF OTHER TRADES.
5. LIGHTING FIXTURE MANUFACTURERS NAME & MODEL NUMBER ARE USED FOR DESCRIPTIVE PURPOSES ONLY AND ARE INTENDED TO INDICATE THE STANDARD OF MATERIAL OR ARTICLES REQUIRED.
6. ALL EQUIPMENT SHOWN ON THESE DRAWINGS IS INTENDED TO BE GENERALLY REPRESENTATIVE OF THE EQUIPMENT WHICH WILL BE INSTALLED UNDER THIS CONTRACT, BUT IT SHALL NOT BE ASSUMED THAT THE DRAWINGS INDICATE THE SPECIFIC CONFIGURATION, ARRANGEMENT OR POINTS OF CONNECTION OF THE ACTUAL EQUIPMENT UNLESS NOTED OTHERWISE.
7. COORDINATE W/ CONTROLS CONTRACTOR TO PROVIDE POWER FOR ALL MISCELLANEOUS CONTROL OPERATORS AND PANELS.
8. CIRCUIT BREAKERS USED FOR LIGHTING CIRCUITS SHALL BE SWITCH DUTY RATED AND APPROVED FOR USE WITH H.I.D. FIXTURES. CIRCUIT BREAKERS USED FOR HVAC AND REFRIGERATION EQUIPMENT SHALL BE "HACR" RATED.
9. ALL HOME RUNS FOR LIGHTING OR POWER CIRCUITS LONGER THAN 150 FEET SHALL BE INCREASED ONE SIZE. (IE: #12 TO #10).
10. ALL BRANCH CIRCUIT AND FEEDER CONDUCTORS SHALL BE SIZED FOR THE O.C.D. RATING FOR THAT CIRCUIT ACCORDING TO NEC ART 310 UNLESS OTHERWISE INDICATED ON THESE DRAWINGS. IN NO CASE SHALL CONDUCTORS SMALLER THAN NO. 12 AWG BE USED FOR POWER OR LIGHTING CIRCUITS.
11. PROVIDE 3/8" NYLON ROPE IN ALL EMPTY SERVICE RACEWAYS.
12. ALL SLEEVES AND OTHER PENETRATIONS THRU FIRE RATED ASSEMBLIES SHALL BE SEALED AFTER CABLE INSTALLATION WITH A FIRE RETARDANT COMPOUND.
13. ALL FLUSH MOUNTED PANELBOARDS SHALL BE PROVIDED WITH (2) 1-1/4" EMPTY CONDUITS BETWEEN PANEL & SUSPENDED CEILING.
14. THE CONTRACTOR IS RESPONSIBLE FOR FIRESTOPPING AROUND ALL CONDUITS, CABLES AND ELECTRICAL EQUIPMENT AT ALL PARTITIONS PIERCED PER NEC 300-21 AND B.O.C.A.
15. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL SEISMIC REQUIREMENTS FOR THE INSTALLATION OF ELECTRICAL EQUIPMENT UNDER B.O.C.A.
16. GROUNDING SHALL BE PER N.E.C. ARTICLE 250, INSTALL GROUNDING CONDUCTORS WITH ALL FEEDERS AND BRANCH CIRCUITS.
17. ALL WIRING SHALL BE IN CONDUIT.
18. REMOVE EQUIPMENT, FIXTURES AND DEVICES THAT ARE NOT BEING REUSED AND DISCARD. OWNER HAS THE OPTION TO KEEP ANY MATERIAL DESIRED. EXISTING FIXTURES SCHEDULED FOR REUSE SHALL BE CLEANED.

LIGHTING SYMBOLS

Table with 2 columns: SYMBOLS and DESCRIPTIONS. Contains symbols for various lighting fixtures like recessed fluorescent, downlight, and emergency exit signs.

GENERAL ABBREVIATIONS

Table with 2 columns: ABBREVIATIONS and DESCRIPTIONS. Lists abbreviations for ACU, AFF, AFG, AHU, AIC, C, CS, CB, CL, CR, CLF, CT, CTV, CU, CUH, CWP, DT, DWG, EBB, EDH, EF, EUH, EWC, EX, FACP, FBO, FC, GD, GFCI, GND, GRC, H, HD, HH, HP, HPS, HRU, HV, HWP, IG, IR, KW, KWH, LIG, LTG, MB, MC, MD, MDP, MH, MI, MLO, MMC, MTD, MW, N/A, NC, NEC, NF, NIC, NLT, NM, NO, NTS, OC, OCD, PB, PM, PT, R, RECP, REF, REQD, RF, RGE, RGS, RH, SF, SIN, TBD, TP, TV, TYP, UC, UNO, WP, WM, XFMR.

PANEL & CIRCUIT SYMBOLS

Table with 3 columns: SYMBOLS, DESCRIPTIONS, DESCRIPTIONS. Lists symbols for panelboards, circuit breakers, transformers, and other electrical components.

MISCELLANEOUS SYMBOLS

Table with 2 columns: SYMBOLS and DESCRIPTIONS. Lists symbols for speakers, cameras, door switches, recorders, keypad, locks, card readers, door controllers, etc.

FIRE ALARM & LIFE SAFETY SYMBOLS

Table with 2 columns: SYMBOLS and DESCRIPTIONS. Lists symbols for fire alarm pull stations, smoke detectors, heat detectors, and fire alarm control panels.

DATA SYMBOLS

Table with 2 columns: SYMBOLS and DESCRIPTIONS. Lists symbols for telephone outlets, data outlets, and data connection points.

RECEPTACLE OUTLET SYMBOLS

Table with 2 columns: SYMBOLS and DESCRIPTIONS. Lists symbols for various receptacle types including duplex, weather-resistant, and GFCI outlets.

LIGHTING CONTROL SYMBOLS

Table with 2 columns: SYMBOLS and DESCRIPTIONS. Lists symbols for switches, dimmers, and lighting control devices.

Scale: NOT TO SCALE. Revision table with columns for No., Revision, By, and Date.

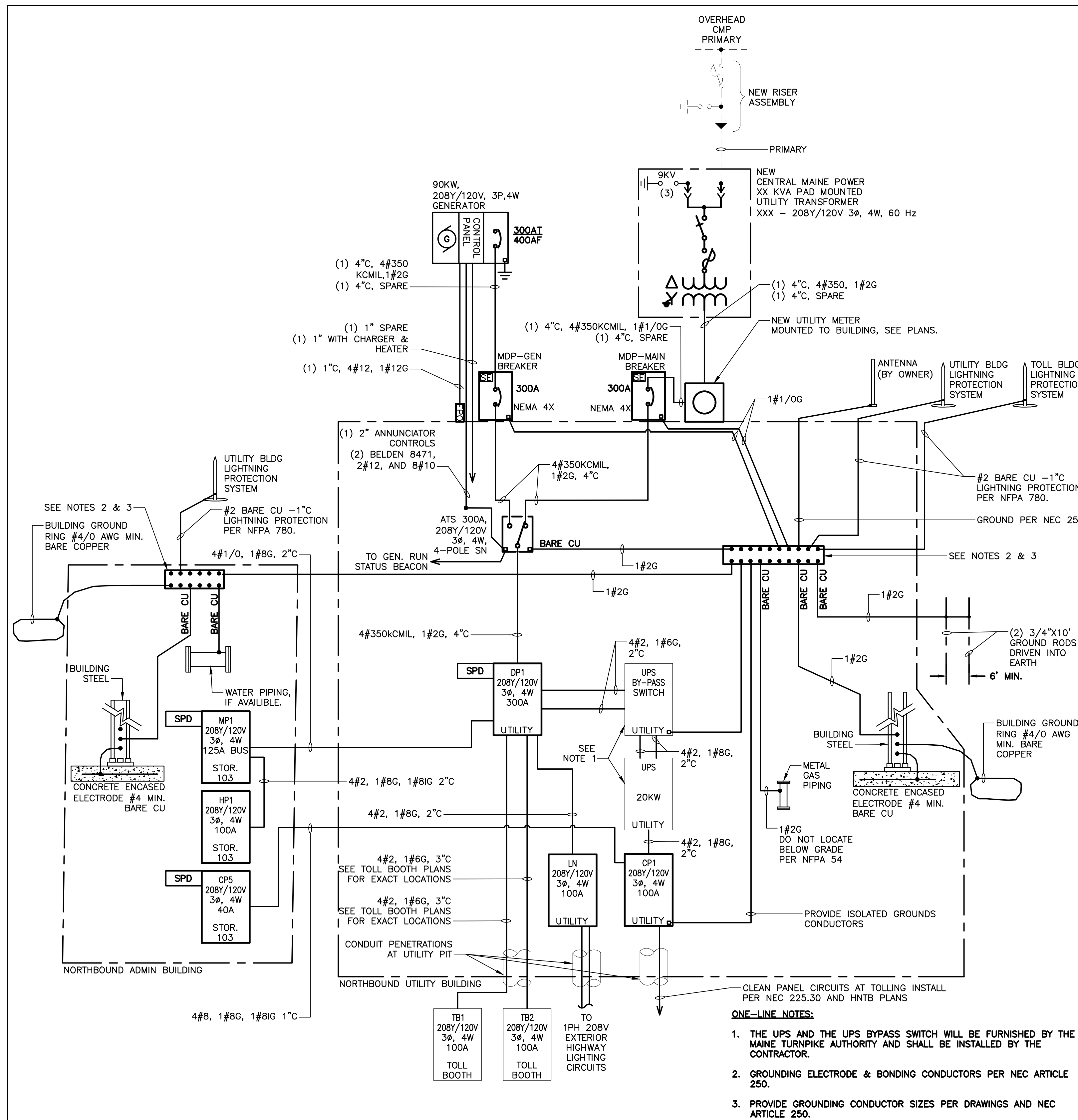
Designed by: Stantec. CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E. Table with columns for By, Date, Checked, and In Charge of.

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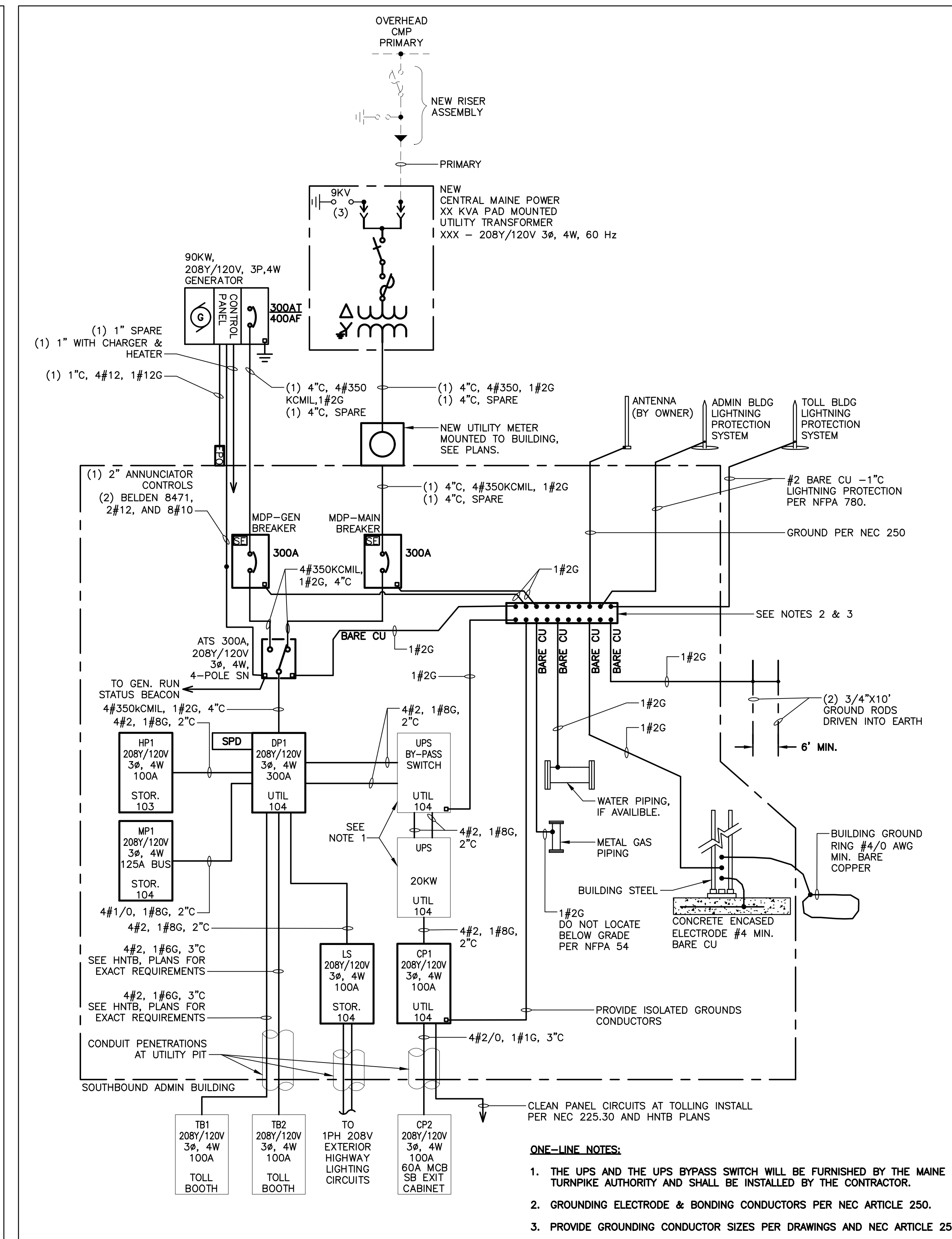
MAINE TURNPIKE THE GOLD STAR MEMORIAL HIGHWAY MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) TOLL ADMINISTRATION BUILDING ELECTRICAL GENERAL NOTES AND LEGEND SHEET NUMBER: E001 720 OF 735 CONTRACT: 2022.07

Filename: E001-GN.dwg



(LN) ELECTRICAL ONE-LINE DIAGRAM - NORTHBOUND
NOT TO SCALE



(LS) ELECTRICAL ONE-LINE DIAGRAM - SOUTHBOUND
NOT TO SCALE

Scale: NOT TO SCALE

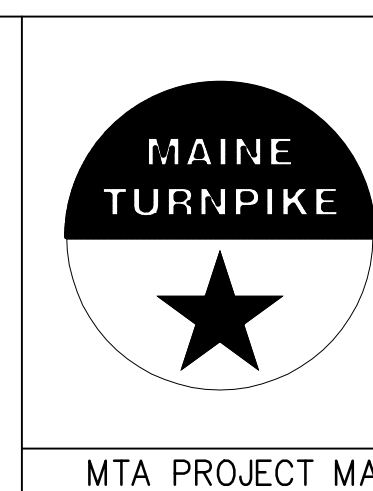
No.	Revision	By	Date

Designed by: **Stantec**

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
Designed	MLC	10/22	Checked	DPH	10/22
Drawn	MLC	10/22	In Charge of	XXX	10/22

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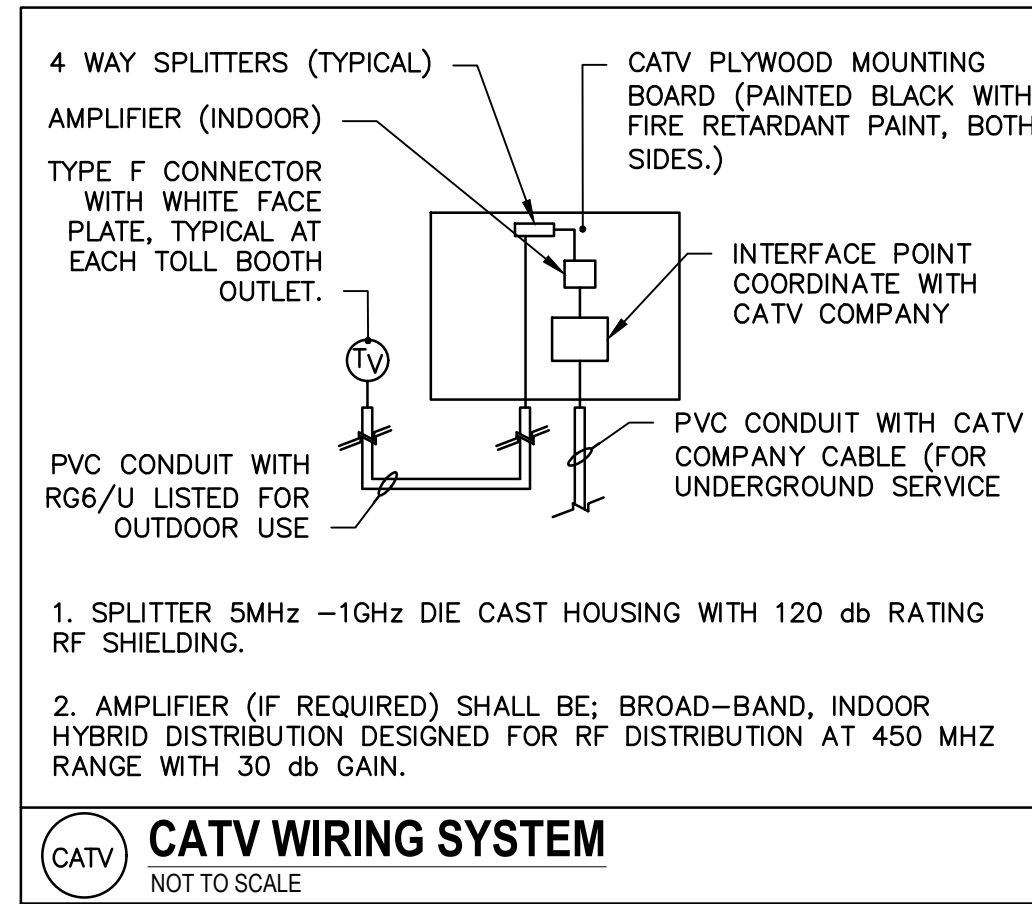
**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
ELECTRICAL ONE-LINE SB AND NB

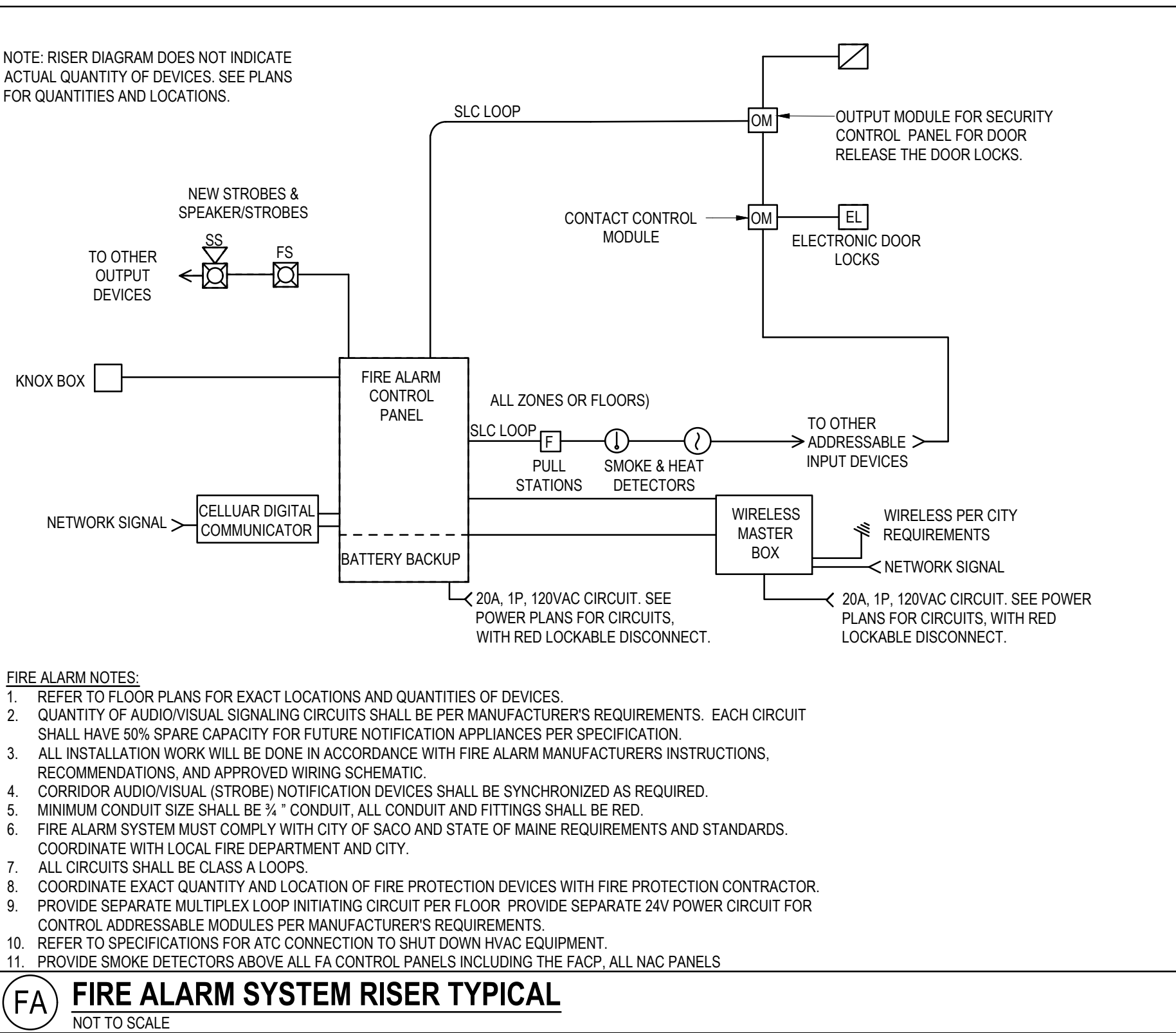
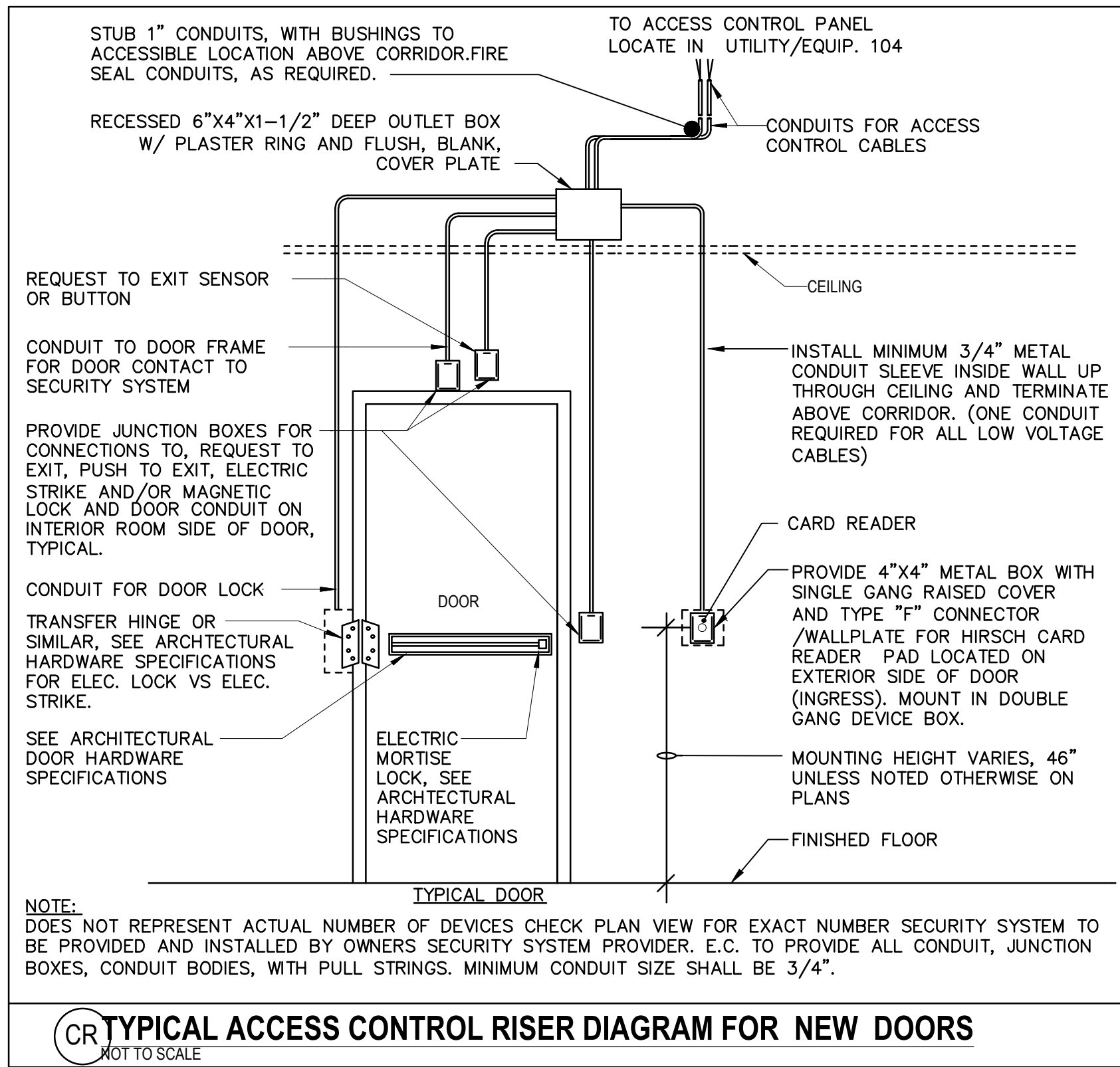
SHEET NUMBER: E002
721 OF 735

CONTRACT: 2022.07



INITIATING DEVICE SYSTEM INPUTS	INITIATING CONTROLLED DEVICES	ANNUNCIATES ALARM SIGNAL AND RECORDS AT MAIN FIRE ALARM PANEL	ALL ALARM OCCUPANT NOTIFICATION (AUDIBLE VISUAL ALARM)	ANNUNCIATES SUPERVISORY SIGNAL AND RECORDS AT FIRE ALARM PANEL	ANNUNCIATES TROUBLE SIGNAL AND AT FACP	TRANSMIT ALARM SIGNAL TO CENTRAL STATION	TRANSMITS SUPERVISORY SIGNAL TO CENTRAL STATION	TRANSMITS TROUBLE SIGNAL TO CENTRAL STATION	RELEASE ALL DOORS IN THE PATH OF EGRESS (ELECTRONICALLY LOCKED) EXCLUDING STAIRWAY REENTRY DOORS
MANUAL PULL STATION		●	●			●			●
SMOKE DETECTOR		●	●			●			●
HEAT DETECTOR		●	●			●			●
OPEN CIRCUIT					●			●	
SHORT CIRCUIT					●			●	
NOTIFICATION SHORT CIRCUIT					●			●	
FIRE ALARM AC POWER FAILURE					●			●	
FIRE ALARM SYSTEM LOW BATTERY					●			●	

FM FIRE ALARM ACTIVATION SEQUENCE
NOT TO SCALE



Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

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Drawn	MLC	10/22	In Charge of	XXX	10/22

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
ELECTRICAL FIRE ALARM AND SYSTEMS

SHEET NUMBER: E003
CONTRACT: 2022.07
722 OF 735

BUILDING LIGHTING FIXTURE SCHEDULE

MARK ID	MANUFACTURER	CATALOG NUMBER	DESCRIPTION OR SIZE	COLOR	MOUNTING	LIGHT SOURCE			DRIVER	VOLT	REMARKS	TOTAL WATTS	
						TYPE	LUMENS	CCT(K)					CRI
A1	CREE LIGHTING	ZR-24-40L-835-10V5-UNV	2X4 TROFFER	WHITE	RECESSED	LED	4040	3500	80	0-10V 5% DIMMING	120	Provide 10' 5 Wire whip	29
A2	CREE LIGHTING	ZR-22-30L-835-10V50-UNV	2X2 TROFFER	WHITE	RECESSED	LED	3490	3500	80	0-10V 5% DIMMING	120	Provide 10' 5 Wire whip	26
C	HYDREL	M9820-A-LED-WHT041K-MVOLT-NSP-FLC-34B-IHL-LP-DNA	LED IN GROUND -SPOT	N. ALUM	IN-GROUND	WH. LED	4600	4000	-	-	120		54
E1	DUAL-LITE	LZ-15-03L	EMERGENCY LIGHT	WHITE	WALL	LED	496	-	-	-	120	PROVIDE WITH LED MR-16	15
J1	CREE LIGHTING	LS8-80L-35K-10V	8' LINEAR SURFACE	WHITE	SURFACE	LED	8000	3500	90	0-10V 5% DIMMING	120	PROVIDE END CAPS	88
S1	CREE LIGHTING	S-DL-6-24L-35K-(S-DL6T-M-P-W-WF)	6" DOWNLIGHT	WHITE	RECESSED	LED	1786	3500	90	0-10V 1% DIMMING	120	LR6 REPLACED BY ESSENTIA SERIES	23
S1E	CREE LIGHTING	S-DL-6-24L-35K-EB-(S-DL6T-M-P-W-WF)	6" DOWNLIGHT WITH EM	WHITE	RECESSED	LED	1786	3500	90	0-10V 1% DIMMING	120	SUITABLE FOR DAMP LOCATIONS	23
X1	DUAL-LITE	SE-S-R-W-E-1	EXIT SIGN	WHITE	WALL/CEIL	RED LED	-	-	-	-	120	PREVIOUS LX DISCONTINUED	3.8

FURNISH AND INSTALL PHOTOCELL FOR CONTROL OF THE LIGHTING CONTROLLER. COORDINATE WITH THE RESIDENT ENGINEER FOR EXACT LOCATION.



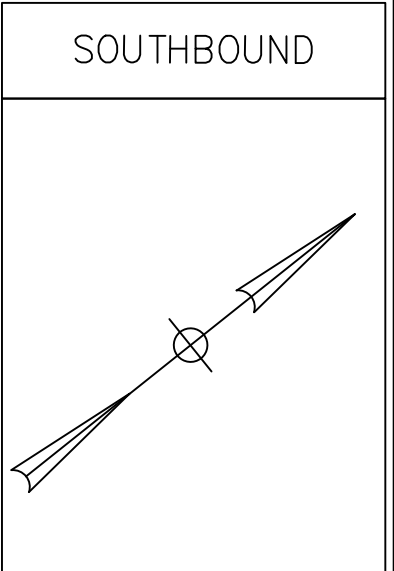
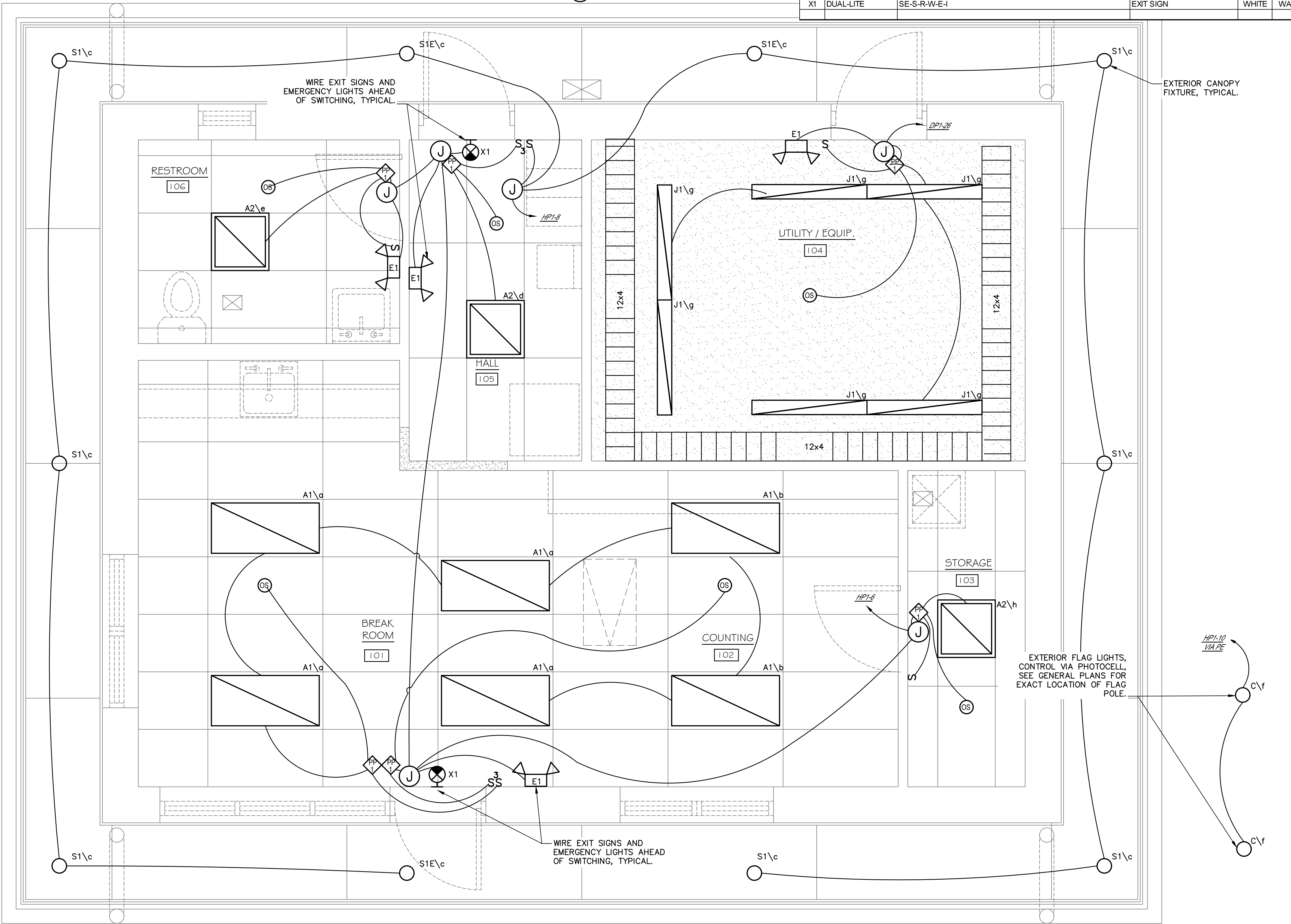
LIGHTING FIXTURE SCHEDULE NOTES:

- ELECTRICAL CONTRACTOR SHALL INSTALL AND PROVIDE TO SECURE INSTALLATION OF ALL LIGHTING FIXTURES.
- ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL PENDANTS TO SUSPEND CEILING MOUNTED EXIT SIGNS. THE EXIT SIGN MUST BE CLEARLY VISIBLE. EXIT SIGNS SHALL NOT BE INSTALLED WHERE OBSTRUCTIONS FROM BUILDING ARCHITECTURAL OR MECHANICAL SYSTEMS WILL IMPEDE VISIBILITY.
- BUILDING THERMAL INSULATION SHALL NOT BE INSTALLED WITHIN 12" OF ANY RECESSED FIXTURE OR FIXTURE ENCLOSURES AS TO TRAP HEAT AND PREVENT FREE CIRCULATION OF AIR AS RECOMMENDED BY THE MANUFACTURER.
- ALL FIXTURES SHALL BE PROPERLY SUPPORTED FROM BUILDING STRUCTURE AS RECOMMENDED BY THE MANUFACTURER.
- ALL FIXTURES SHALL BE U.L. LISTED AND IF AVAILABLE LISTED AS "ENERGY STAR".
- COLOR TEMPERATURE SHALL BE 3500 KELVIN UNLESS REQUIRED BY OWNER TO BE OTHERWISE.
- FIXTURES SHALL BE PROVIDED WITH A MINIMUM COLOR RENDERING INDEX OF 80 CRI, UNLESS NOTED OTHERWISE.
- FIXTURES SHALL BE INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL REFLECTED CEILING PLANS AND AS DIRECTED BY THE ARCHITECT.
- ELECTRICAL CONTRACTOR SHALL FIELD ADJUST FIXTURES TO AVOID CONFLICTS WITH DOOR SWINGS OR OTHER INTERFERENCES.
- NEUTRALS FOR ANY LIGHTING CIRCUITS SHALL NOT BE SHARED.
- FIXTURES SHALL BE CLEANED OF CONSTRUCTION CONTAMINANTS AND DUST, SMUDGES, FINGER PRINTS PRIOR TO SUBSTANTIAL COMPLETION.
- WALL MOUNTED AT 8'-0" A.F.F. OR 2" BELOW UNDERSIDE OF CEILING TO TOP OF EXIT SIGN AND CEILING MOUNTED DENOTES WHERE ARROWS ARE SHOWN DENOTES DIRECTIONAL ARROW IN EXIT SIGN.
- PROVIDE FIRE STOP AROUND ALL RECESSED FIXTURES.

CABLE TRAY NOTES:

- ELECTRICAL CONTRACTOR SHALL INSTALL AND PROVIDE TO SECURE INSTALLATION OF ALL CABLE TRAY REQUIRED TO SUPPORT NETWORK CABLES.
- ALL CABLE TRAY SHALL BE PROPERLY SUPPORTED FROM BUILDING STRUCTURE AS RECOMMENDED BY THE MANUFACTURER.
- CABLE TRAY SHALL NOT BE INSTALLED WHERE OBSTRUCTIONS FROM BUILDING ARCHITECTURAL OR MECHANICAL SYSTEMS WILL IMPEDE ROUTE.
- CABLE TRAY MINIMUM MOUNTING HEIGHT SHALL BE 7FT AFF AND FINAL LOCATIONS SHALL BE COORDINATED WITH IT RACKS AND AS DIRECTED BY THE MTA.
- PROVIDE FIRE STOP OR SELF-SEALING FIRE AND SMOKE DEVICES AROUND ALL CABLES EXITING A FIRE RATED SPACE.

Date: Friday, October 07, 2022



LIGHTING PLAN
1/2" = 1'-0"

Scale: 0 1' 2' 4'

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

By	Date	By	Date
Designed	MLC 10/22	Checked	DPH 10/22
Drawn	MLC 10/22	In Charge of	LEM 10/22

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THE GOLD STAR MEMORIAL HIGHWAY

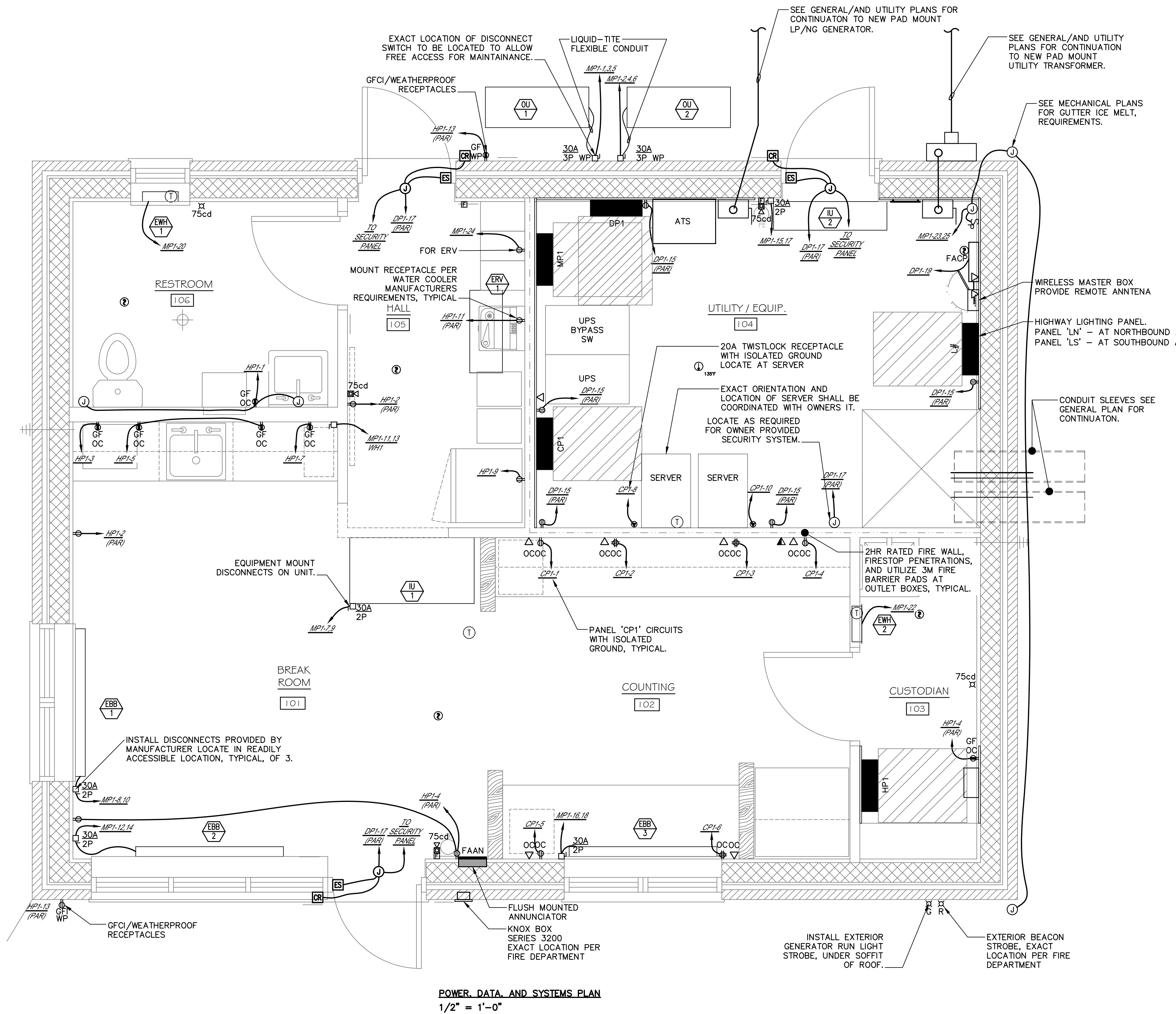
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
ELECTRICAL LIGHTING PLAN – SB

SHEET NUMBER: E100
CONTRACT: 2022.07
723 OF 735

Filename: E100-LP.dwg

Date: Friday, October 07, 2022

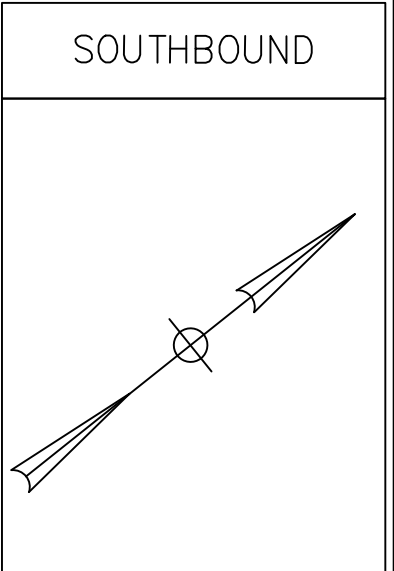


EQUIPMENT	MECHANICAL EQUIPMENT		ELECTRICAL EQUIPMENT		NOTES
	DESCRIPTION	LOCATION	DISCONNECT		
OU-1	CONDENSING UNIT 28A 208V, 1PH, 60HZ	EXTERIOR	2P, NEMA 1, 250V, HD, 30A FUSED		1, 2, & 4
IU-1	INTERIOR WALL UNIT 0.54A 208V, 1PH, 60HZ	BREAK ROOM 101	2P, NEMA 1, 250V, HD, 30A FUSED		1, 2, 3, & 4
OU-2	CONDENSING UNIT 28A 208V, 1PH, 60HZ	EXTERIOR	2P, NEMA 1, 250V, HD, 30A FUSED		1, 2, & 4
IU-2	INTERIOR WALL UNIT 0.54A 208V, 1PH, 60HZ	UTILITY/EQUIP. 104	2P, NEMA 1, 250V, HD, 30A FUSED		1, 2, & 4
ERV-1	ENERGY REC. VENT 1.3A, 120V, 1PH, 60HZ	HALL 105	RECEPTACLE VIA 15A BREAKER		1 & 2
EWH-1	WALL HEATER 750W, 120V, 1PH, 60HZ	RESTROOM 106	DISCONNECT PROVIDED WITH UNIT		2, & 5
EWH-2	WALL HEATER 750W, 120V, 1PH, 60HZ	STORAGE 103	DISCONNECT PROVIDED WITH UNIT		2, & 5
EBB-1	ELECTRIC BASE BOARD 1250W, 208V, 1PH, 60HZ	BREAK ROOM 101	DISCONNECT PROVIDED WITH UNIT		2, 4 & 5
EBB-2	ELECTRIC BASE BOARD 1250W, 208V, 1PH, 60HZ	BREAK ROOM 101	DISCONNECT PROVIDED WITH UNIT		2, 4 & 5
EBB-3	ELECTRIC BASE BOARD 1250W, 208V, 1PH, 60HZ	BREAK ROOM 101	DISCONNECT PROVIDED WITH UNIT		2, 4 & 5
WH1	WATER HEATER 4500W, 208V, 1PH, 60HZ	101	2P, NEMA 1, 250V, HD, 30A FUSED		1, 2, & 3

- NOTES:
1. PROVIDE PROPERLY SIZED FUSES (MATCH EQUIPMENT NAMEPLATE TYPICAL FOR EACH DISCONNECT).
 2. ALL MECHANICAL EQUIPMENT SHALL HAVE HACR TYPE BREAKERS.
 3. LOCATE DISCONNECTS ABOVE ACCUSTICAL TILE CEILING PER NEC 240.24
 4. LOCATE DISCONNECTS WITHIN LINE OF SIGHT AND READILY ACCESSIBLE FROM THE EQUIPMENT.
 5. UNIT SUPPLIED WITH MANUFACTURER SUPPLIED DISCONNECT.

- HEAT TRACE NOTES:**
1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH PLUMBING CONTRACTOR FOR INSTALLATION OF DE-ICING SYSTEM AT ADMIN BUILDING GUTTERS AND TOLLING ROOF DRAINS. ELECTRICAL CONTRACTOR TO PROVIDE POWER FOR EACH CABLE LENGTH, WIRING BETWEEN AND THE TWO CABLE LENGTHS AND WIRING TO A SPST SWITCH WITH PILOT LIGHT MOUNTED WITHIN THE TOLL UTILITY ROOM. PROVIDE CONTROLLER WITH BUILT-IN GF OR FEED VIA BREAKER WITH GROUND FAULT.
 2. HEAT TRACE SHALL BE SELF REGULATING TYPE CONSISTING OF TWO 16 AWG TINNED-COPPER BUS WIRES EMBEDDED IN PARALLEL IN A SELF REGULATING POLYMER CORE THAT VARIES ITS POWER OUTPUT TO RESPOND TO TEMPERATURE ALL ALONG ITS LENGTH, ALLOWING THE HEATER TO BE CROSSED OVER ITSELF WITHOUT OVERHEATING. THE HEATER SHALL BE COVERED BY A RADIATION CROSS-LINKED MODIFIED POLYOLEFIN DIELECTRIC JACKET.
 3. THE SYSTEM SHALL ALSO INCLUDE:
 - a. TYPE 10BTV2 HEATERS - 120 VAC
 - b. POWER CONNECTIONS TYPE PMKG-LP
 - c. END SEALS TYPE PMKG-LE
 - d. THERMOSTAT IN NEMA 4X ENCLOSURE TYPE AMC-F5
 - e. 2" THICK PVC INSULATION WITH WEATHERPROOF ALUMINUM SHIELD.
 4. ALL COMPONENTS SHALL BE EQUAL TO RAYCHEM CORP., INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

POWER, DATA, AND SYSTEMS PLAN
1/2" = 1'-0"



Scale: 0 1' 2' 4'

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date	Checked	By	Date
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

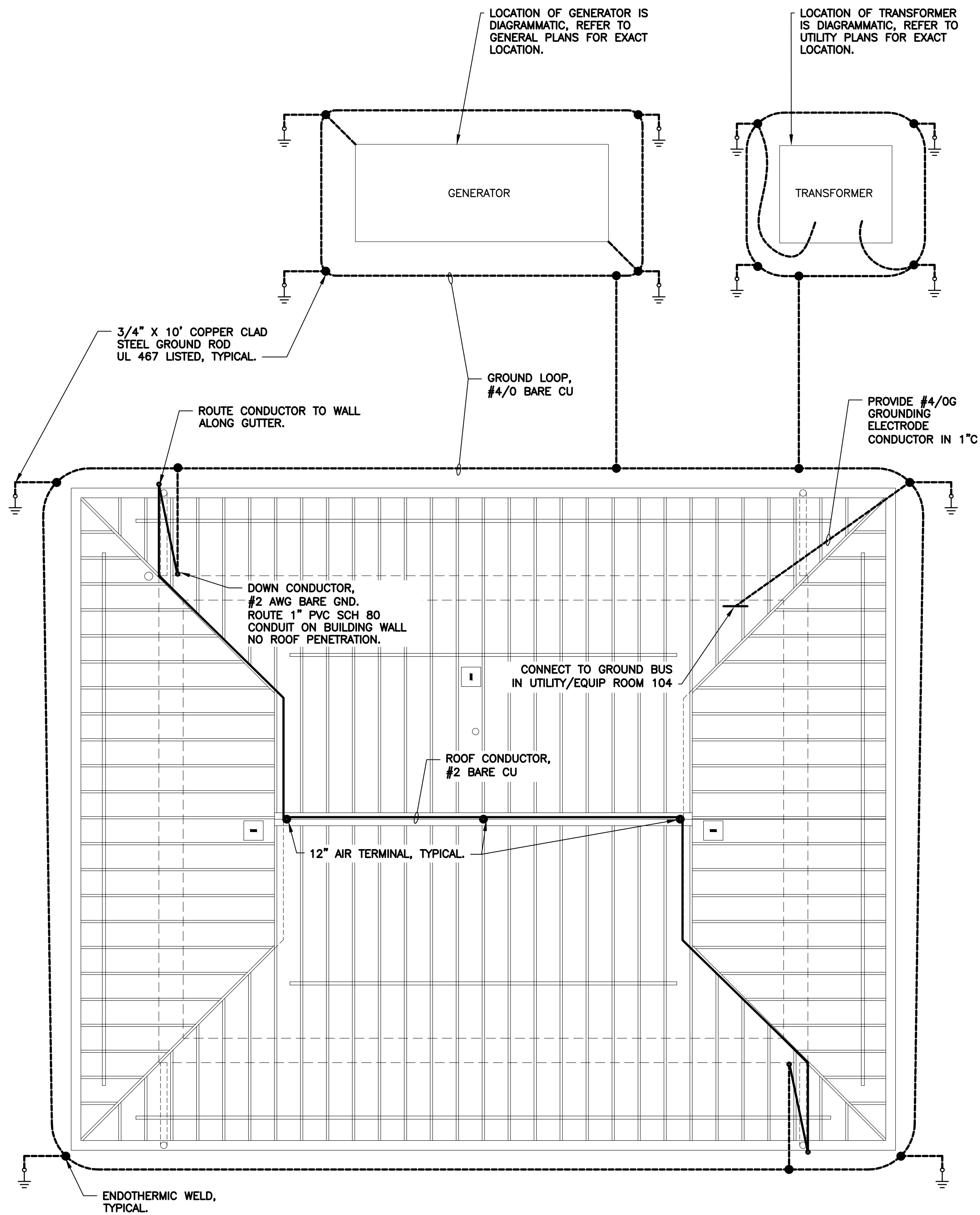
INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
ELECTRICAL POWER PLAN - SB

SHEET NUMBER: E101
724 OF 735

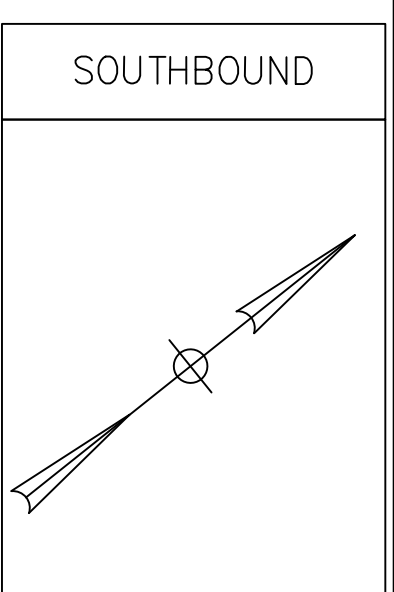
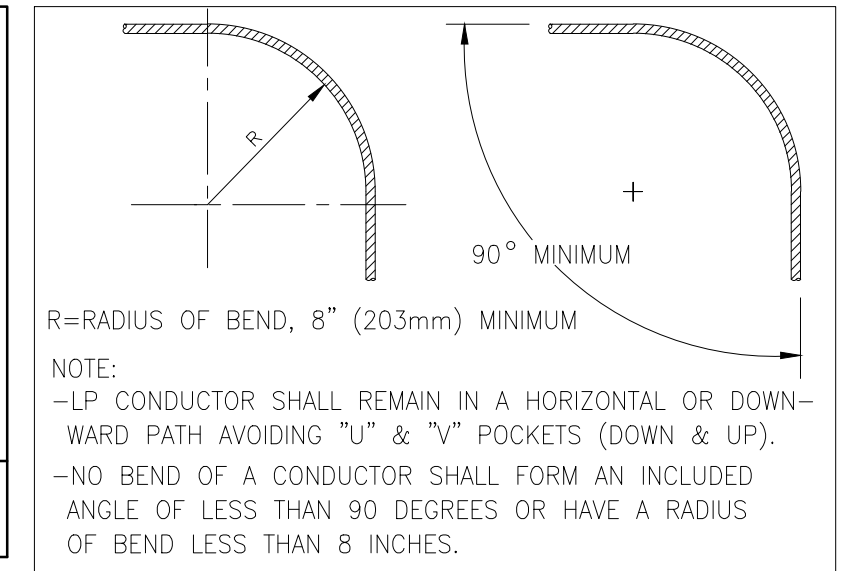
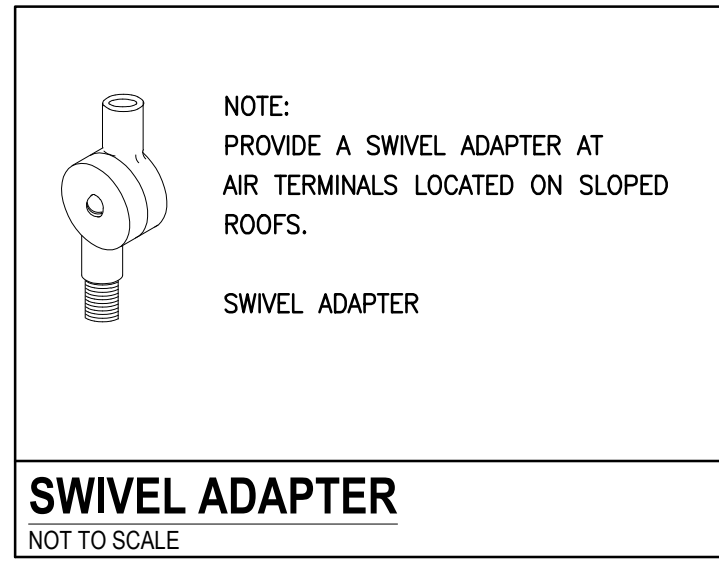
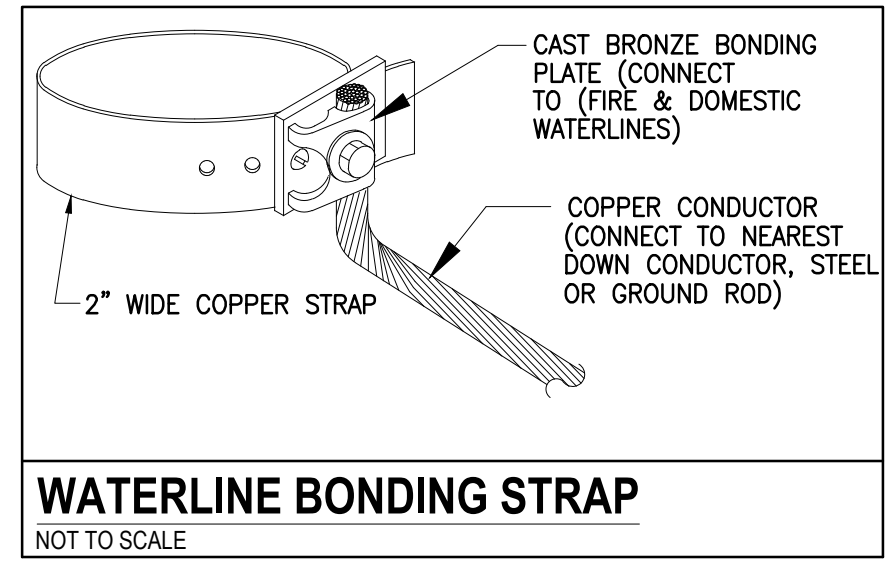
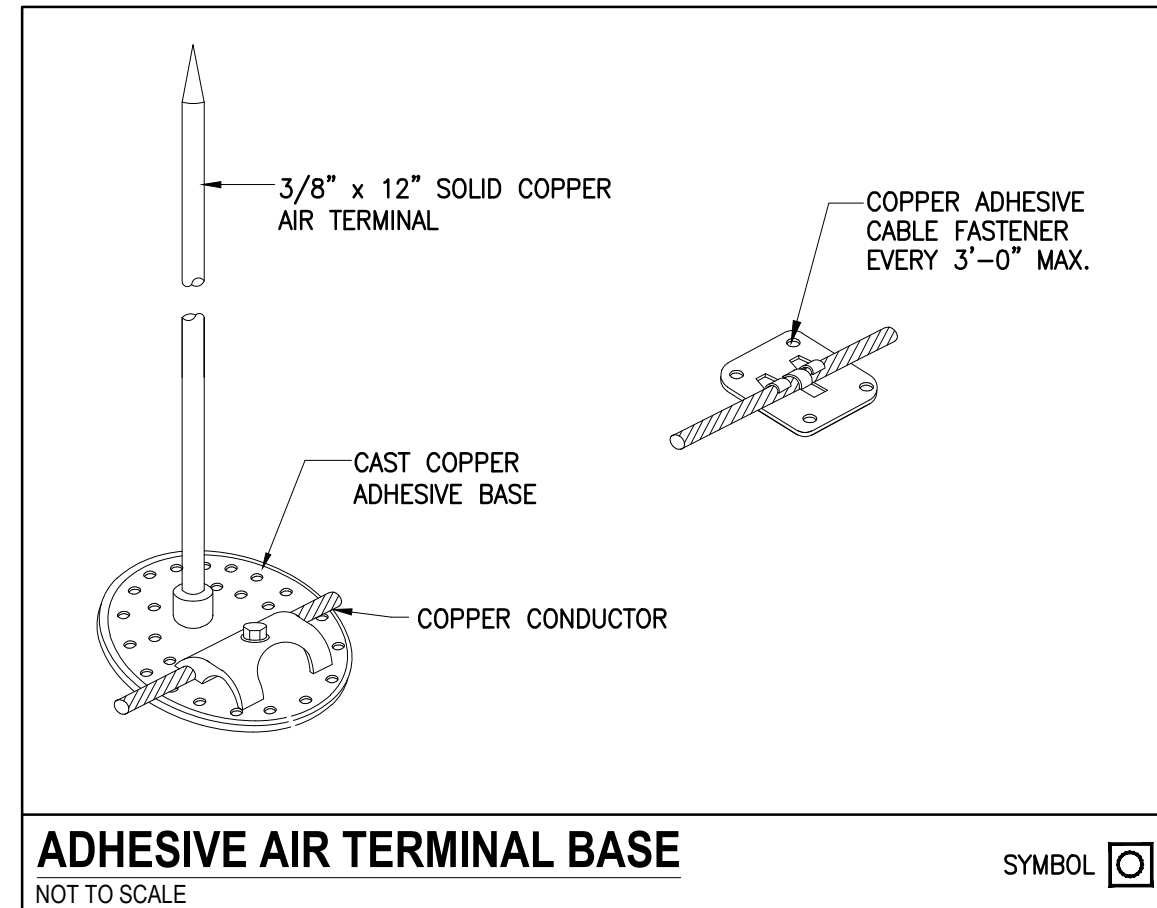
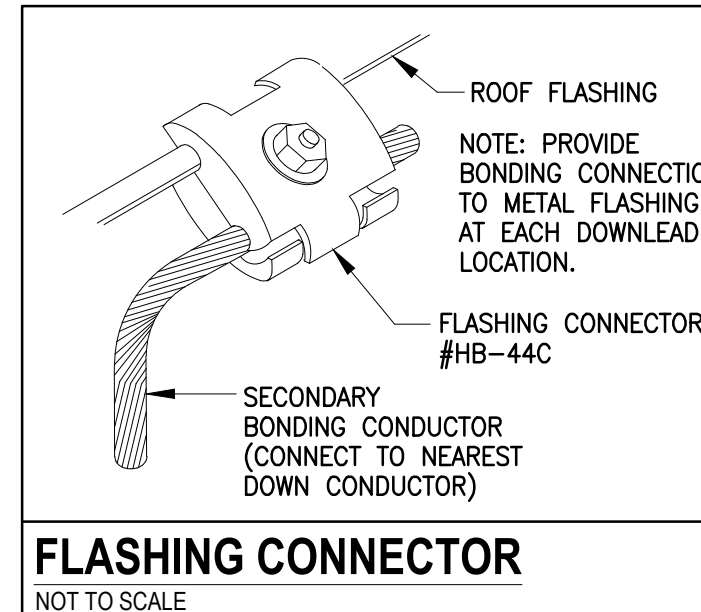
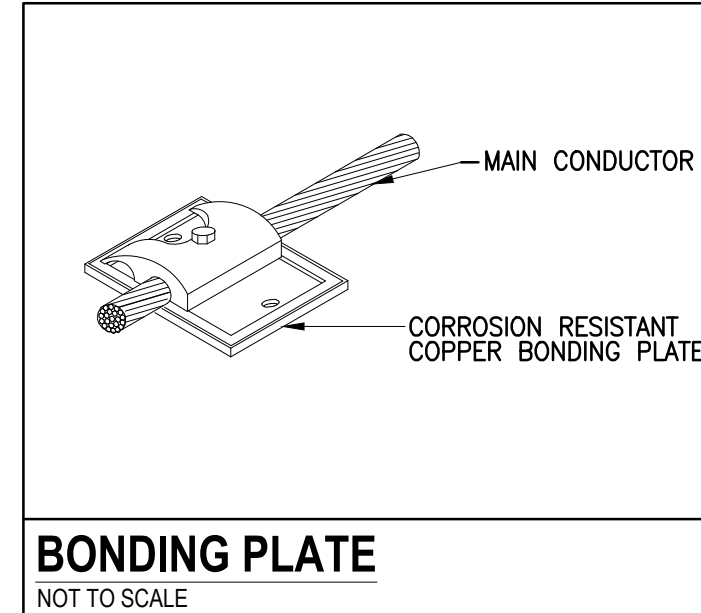
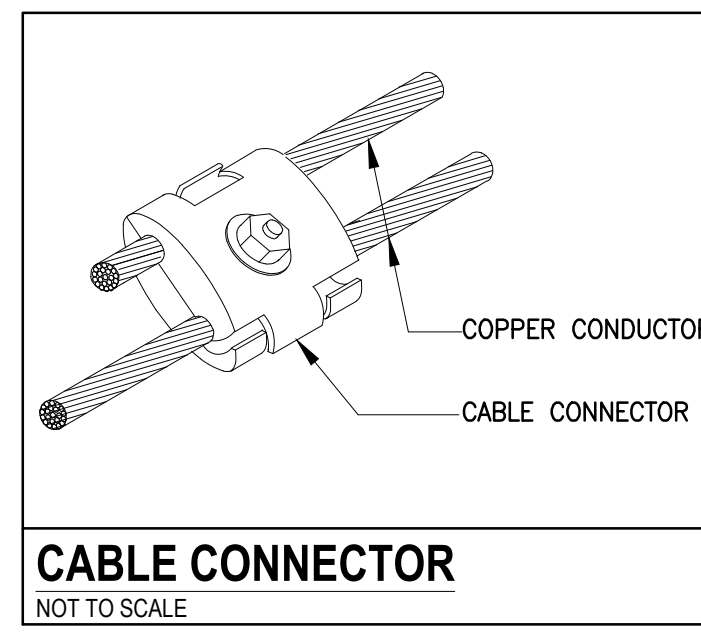
CONTRACT: 2022.07

Filename: E101-PP-Rev0.dwg

Date: Friday, October 07, 2022



LIGHTNING PROTECTION / EXTERIOR PLAN
1/2" = 1'-0"



LIGHTNING PROTECTION STANDARD NOTES:

- CONDUCTORS SHALL MAINTAIN A HORIZONTAL OR DOWNWARD COURSE, FREE FROM "U" OR "V" (DOWN AND UP) POCKETS.
- NO BEND OF A CONDUCTOR SHALL FORM AN ANGLE OF LESS THAN 90° NOR SHALL HAVE A RADIUS OF BEND LESS THAN 8 INCHES.
- AIR TERMINALS SHALL BE PLACED 20'-0" MAXIMUM SPACING AROUND THE ROOF PERIMETER OR ALONG ROOF RIDGES AND WITHIN 2'-0" OF OUTSIDE CORNER EDGE.
- ACTUAL JOBSITE CONDITIONS MAY REQUIRE SLIGHT ALTERATIONS IN AIR TERMINAL, DOWN CONDUCTOR AND GROUND ROD LOCATIONS.
- BARE COPPER MATERIALS SHALL NOT BE INSTALLED ON ALUMINUM SURFACES AND ALUMINUM MATERIALS SHALL NOT BE INSTALLED ON COPPER SURFACES.
- ALL LIGHTNING PROTECTION CONDUCTORS SHALL BE FASTENED HORIZONTALLY AND VERTICALLY NOT MORE THAN 3'-0" O.C. MAXIMUM SPACING.
- METALLIC BODIES OF INDUCTANCE SITUATED WITHIN 6'-0" OF A LIGHTNING CONDUCTOR OR ANOTHER BONDED METAL BODY SHALL BE INTERCONNECTED TO THE LIGHTNING CONDUCTOR SYSTEM, UNLESS INHERENTLY GROUNDING.
- BOND TO ALL METAL BODIES OF CONDUCTANCE WITHIN 6'-0" OF THE MAIN LIGHTNING CONDUCTOR SUCH AS EXHAUST FANS, ROOF VENTS, LADDERS, RAILINGS, ANTENNAS, METAL STACKS AND ANY OTHER LARGE METAL BODY WHOSE HEIGHT EXCEEDS THAT OF THE AIR TERMINALS IN USE, UNLESS PROTECTED BY HIGHER ROOF ELEVATIONS.
- CONNECTIONS TO GROUND ROD SHALL BE MADE AT A POINT NOT LESS THAN 1'-0" BELOW FINISHED GRADE AND 2'-0" AWAY FROM FOUNDATION WALL.
- BOND TO WATERLINES (DOMESTIC & FIRE).
- A LIGHTNING ARRESTOR, PROTECTOR OR ANTENNA DISCHARGE UNIT SHALL BE INSTALLED ON EACH ELECTRIC AND TELEPHONE SERVICE AND RADIO AND TELEVISION ANTENNA LEAD-IN BY THE ELECTRICAL CONTRACTOR, OR OTHERS, PER NFPA-70.
- SURGE TRANSIENT PROTECTION (SPD) OF SERVICES IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR OR THE SUPPLIER OF SENSITIVE EQUIPMENT. (I.E. COMPUTERS, COPIERS, TELEPHONE, ETC.)

GENERAL NOTES AND SPECIFICATIONS:

- THE SCOPE OF WORK IS TO PROVIDE ALL LABOR, MATERIALS, SERVICES, SUPPLIES, TOOLS, EQUIPMENT, TRANSPORTATION, AND FACILITIES NECESSARY TO FURNISH AND INSTALL COMPLETE ELECTRICAL WORK AS CALLED FOR ON THE DRAWINGS, SPECIFIED, OR AS MAY REASONABLY BE IMPLIED AS BEING INCIDENTAL TO THIS WORK.
- SECURE AND PAY COSTS OF PERMITS, CERTIFICATES, LICENSES, INSPECTIONS, AND APPROVALS. ANY POWER OUTAGE SHALL BE SCHEDULED AND APPROVED BY THE OWNER.
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF WORK. BASIC DESIGN CONCEPTS INDICATED ARE TO BE EITHER FOLLOWED OR BETTERED. WORK IS INTENDED TO INCLUDE ITEMS NECESSARY FOR PROPER OPERATION AND COMPLETION. FIELD VERIFY ALL LOCATIONS, ELEVATIONS, AND DIMENSIONS.
- EXECUTE ALL WORK IN A NEAT AND WORKMANLIKE MANNER IN CONFORMANCE WITH BEST MODERN TRADE PRACTICE, BY COMPETENT, EXPERIENCED TRADESMEN, PRESENTING A NEAT APPEARANCE WHEN COMPLETED. REPLACE WORK NOT APPROVED BY OWNER WITHOUT ADDITIONAL CHARGE.
- ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) & MEC, AND ALL CODES, REGULATIONS AND REQUIREMENTS OF ALL MUNICIPAL, STATE, FEDERAL AND OTHER PUBLIC OR PRIVATE AUTHORITIES WHICH HAVE JURISDICTION. IN EACH CASE, CODES ARE MINIMUM REQUIREMENTS.
- SHOP DRAWINGS: SUBMIT COMPLETE CATALOG INFORMATION FOR ALL MATERIALS AND EQUIPMENT TO BE PURCHASED AND USED ON THIS PROJECT, AS SPECIFIED ON THE DRAWINGS. DO NOT INSTALL MATERIALS OR EQUIPMENT WITHOUT APPROVAL BY THE OWNER. UNAPPROVED MATERIAL ALREADY INSTALLED SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT WITH APPROVED MATERIALS AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT APPROVED SUBSTITUTE ITEMS WILL FIT INTO AVAILABLE SPACES AND FOR ANY EXTRA CHARGES BY OTHER TRADES.
- THE FINISHED INSTALLATION SHALL BE COMPLETE IN EVERY RESPECT AND DETAIL, TESTED AND LEFT READY IN PERFECT OPERATING CONDITION FOR THE OWNER'S USE.
- MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS' LABORATORIES AND SHALL BE INSTALLED IN ACCORDANCE WITH SUCH LISTINGS.
- THE CONTRACTOR SHALL GUARANTEE THAT MATERIALS, EQUIPMENT AND WORKMANSHIP PROVIDED SHALL BE FREE FROM DEFECTS IN MATERIALS OR WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK DONE UNDER THIS CONTRACT, AND SHALL REPLACE PARTS FOUND TO BE DEFECTIVE WITHIN THE PERIOD COVERED BY SUCH GUARANTEE, WITHOUT COST TO THE OWNER.
- INSTALLATION SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

Scale: 0 1' 2' 4'

No.	Revision	By	Date

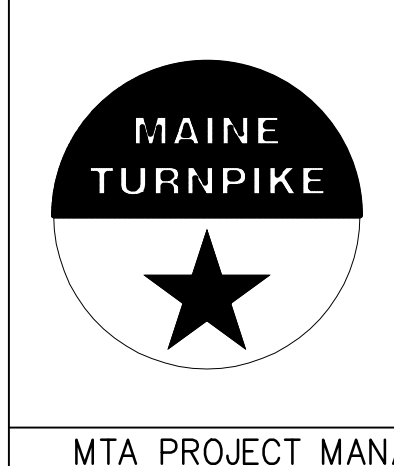
Designed by:

Stantec

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

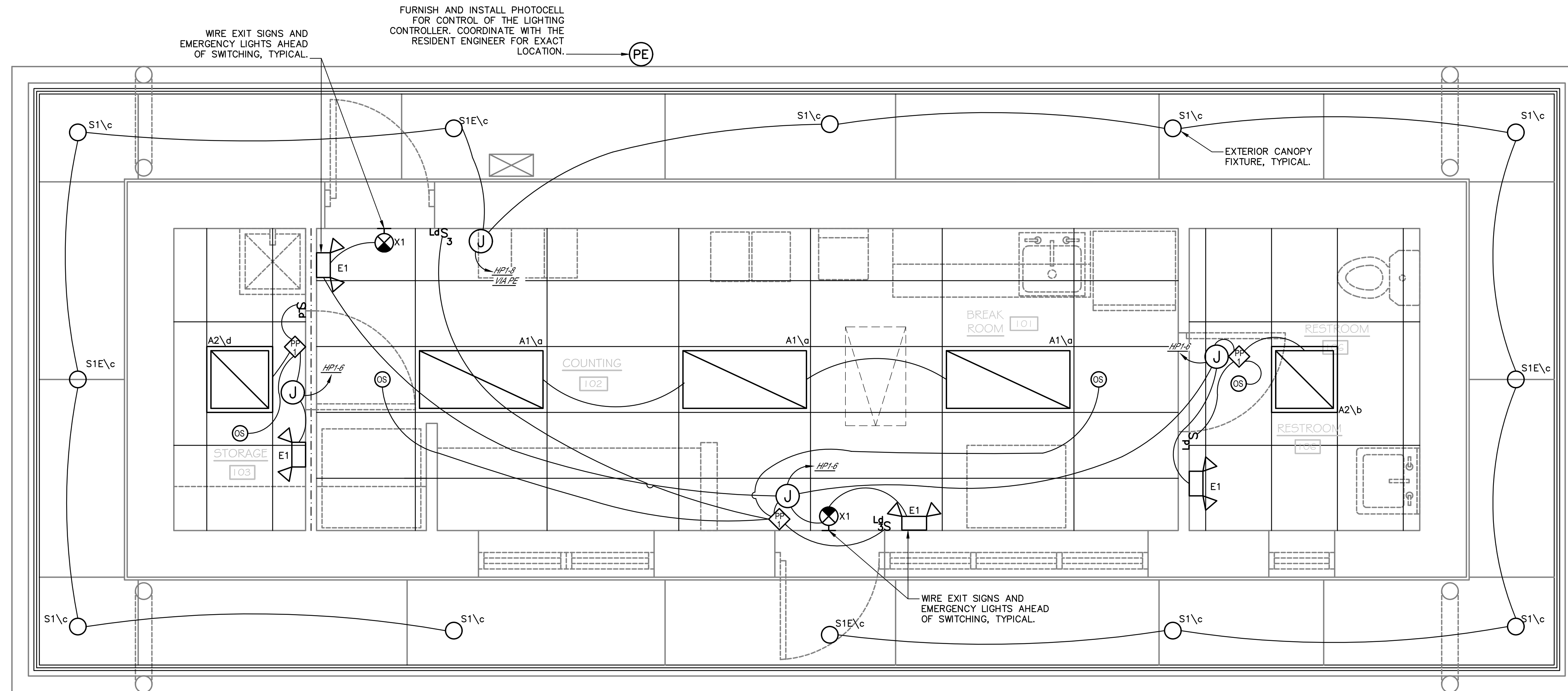
INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
ELEC. LIGHTNING PLAN AND DETAILS – SB

SHEET NUMBER: E102
725 OF 735

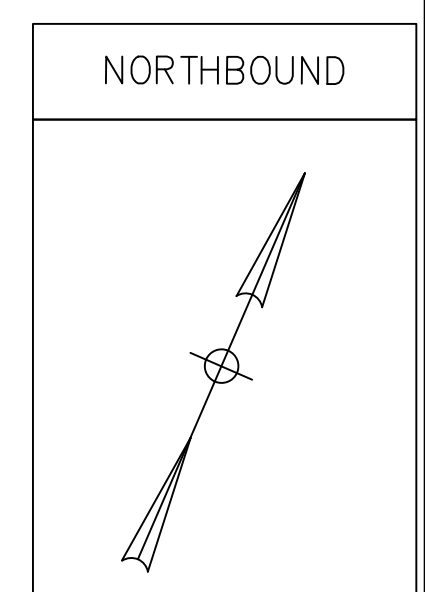
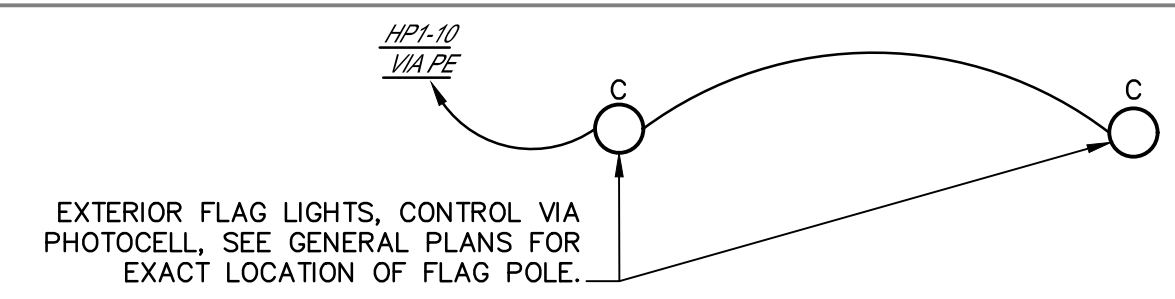
CONTRACT: 2022.07

BUILDING LIGHTING FIXTURE SCHEDULE

MARK ID	MANUFACTURER	CATALOG NUMBER	DESCRIPTION OR SIZE	COLOR	MOUNTING	LIGHT SOURCE			DRIVER	VOLT	REMARKS	TOTAL WATTS	
						TYPE	LUMENS	CCT(K)					CRI
A1	CREE LIGHTING	ZR-24-40L-835-10V5-UNV	2X4 TROFFER	WHITE	RECESSED	LED	4040	3500	80	0-10V 5% DIMMING	120	Provide 10' 5 Wire whip	29
A2	CREE LIGHTING	ZR-22-30L-835-10V50-UNV	2X2 TROFFER	WHITE	RECESSED	LED	3490	3500	80	0-10V 5% DIMMING	120	Provide 10' 5 Wire whip	26
C	HYDREL	M9820-A-LED-WHT041K-MVOLT-NSP-FLC-34B-IHL-LP-DNA	LED IN GROUND - SPOT	N. ALUM	IN-GROUND	WH. LED	4800	4000	-	-	120		54
E1	DUAL-LITE	LZ-15-03L	EMERGENCY LIGHT	WHITE	WALL	LED	496	-	-	-	120	PROVIDE WITH LED MR-16	15
J1	CREE LIGHTING	LS8-80L-35K-10V	8' LINEAR SURFACE	WHITE	SURFACE	LED	8000	3500	90	0-10V 5% DIMMING	120	PROVIDE END CAPS	88
S1	CREE LIGHTING	S-DL-6-24L-35K-(S-DL6T-M-P-W-WF)	6" DOWNLIGHT	WHITE	RECESSED	LED	1786	3500	90	0-10V 1% DIMMING	120	LR6 REPLACED BY ESSENTIA SERIES	23
S1E	CREE LIGHTING	S-DL-6-24L-35K-EB-(S-DL6T-M-P-W-WF)	6" DOWNLIGHT WITH EM	WHITE	RECESSED	LED	1786	3500	90	0-10V 1% DIMMING	120	SUITABLE FOR DAMP LOCATIONS	23
X1	DUAL-LITE	SE-S-R-W-E1	EXIT SIGN	WHITE	WALL/CEIL	RED LED	1786	3500	90	-	120	PREVIOUS LX DISCONTINUED	3.8
Z	GARDCO	PWS-196L-450-BW-G2-3-UNV-MMRH-PCB-F1-SP2-BK	WALL MOUNTED MOTION	BLACK	WALL	LED	2373	3500	80	STANDARD	120	PE CONTROLLED, MOTION SENSOR	21

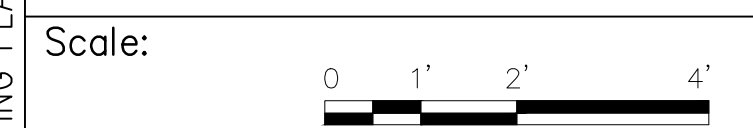


REFLECTED CEILING PLAN
SCALE: 1/2" = 1'-0"



Date: Friday, October 07, 2022

Filename: E200-LIGHTING PLAN - NB.dwg



No.	Revision	By	Date

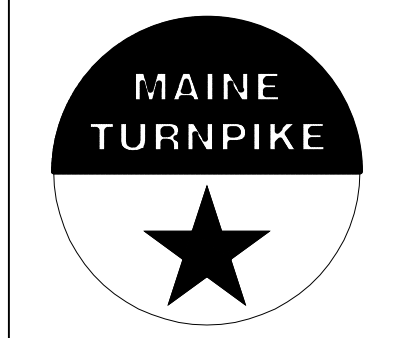
Designed by:

Stantec

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
ELECTRICAL LIGHTING PLAN - NB

CONTRACT: 2022.07

SHEET NUMBER: E200

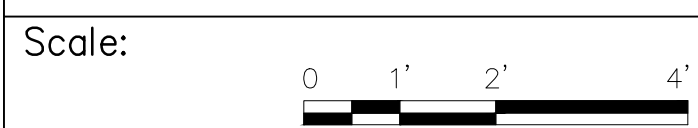
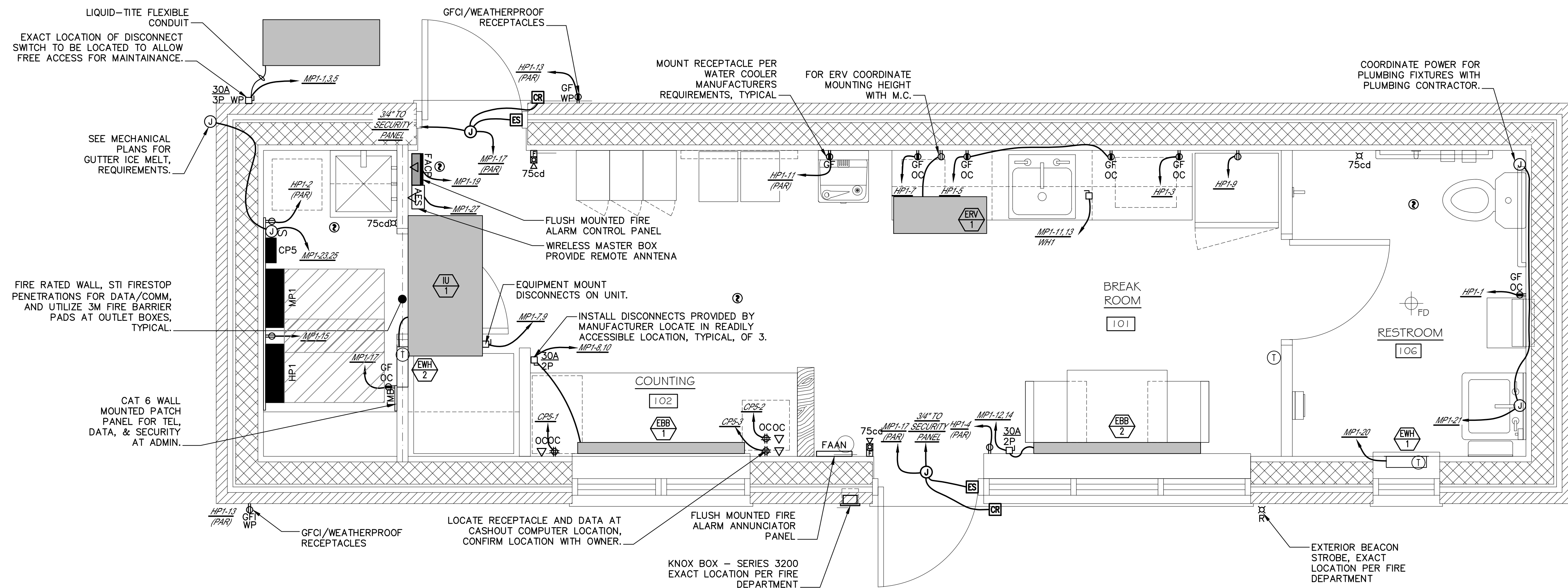
726 OF 735

Date: Friday, October 07, 2022

Filename: E201-POWER PLAN - NB.dwg

HEAT TRACE NOTES:

- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH PLUMBING CONTRACTOR FOR INSTALLATION OF DE-ICING SYSTEM AT ADMIN BUILDING GUTTERS AND TOLLING ROOF DRAINS. ELECTRICAL CONTRACTOR TO PROVIDE POWER FOR EACH CABLE LENGTH, WIRING BETWEEN AND THE TWO CABLE LENGTHS AND WIRING TO A SPST SWITCH WITH PILOT LIGHT MOUNTED WITHIN THE TOLL UTILITY ROOM. PROVIDE CONTROLLER WITH BUILT-IN GF OR FEED VIA BREAKER WITH GROUND FAULT.
- HEAT TRACE SHALL BE SELF REGULATING TYPE CONSISTING OF TWO 16 AWG TINNED-COPPER BUS WIRES EMBEDDED IN PARALLEL IN A SELF REGULATING POLYMER CORE THAT VARIES ITS POWER OUTPUT TO RESPOND TO TEMPERATURE ALL ALONG ITS LENGTH, ALLOWING THE HEATER TO BE CROSSED OVER ITSELF WITHOUT OVERHEATING. THE HEATER SHALL BE COVERED BY A RADIATION CROSS-LINKED MODIFIED POLYOLEFIN DIELECTRIC JACKET.
- THE SYSTEM SHALL ALSO INCLUDE:
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 - POWER CONNECTIONS TYPE PMKG-LP
 - END SEALS TYPE PMKG-LE
 - THERMOSTAT IN NEMA 4X ENCLOSURE TYPE AMC-F5
 - 2" THICK PVC INSULATION WITH WEATHERPROOF ALUMINUM SHIELD.
- ALL COMPONENTS SHALL BE EQUAL TO RAYCHEM CORP., INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.



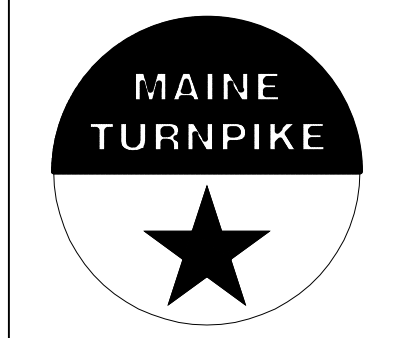
Designed by:

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date	Checked	By	Date
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**THE GOLD STAR
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

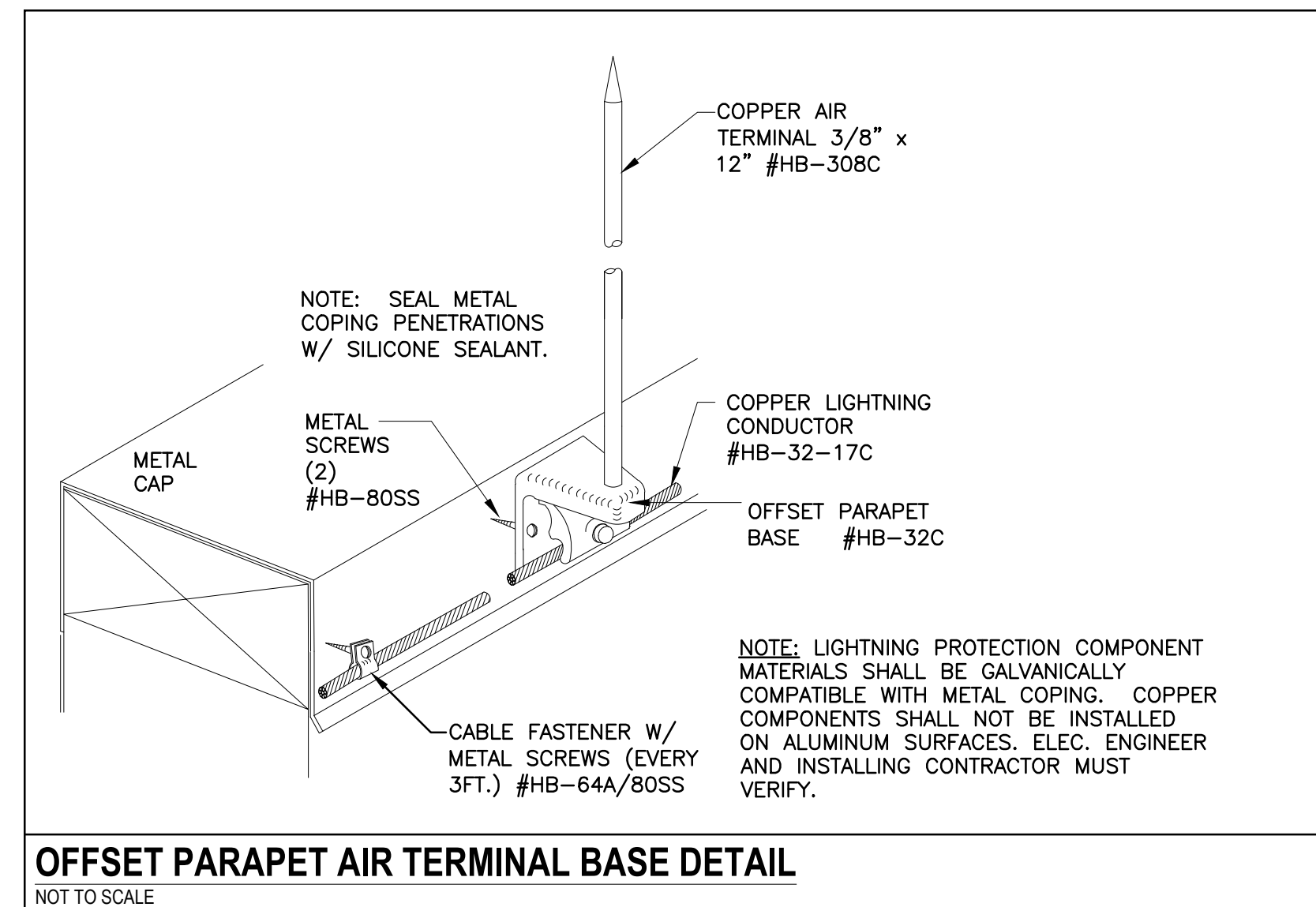
INTERCHANGE IMPROVEMENTS
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 ELECTRICAL POWER PLAN - NB

CONTRACT: 2022.07

SHEET NUMBER: E201
 727 OF 735

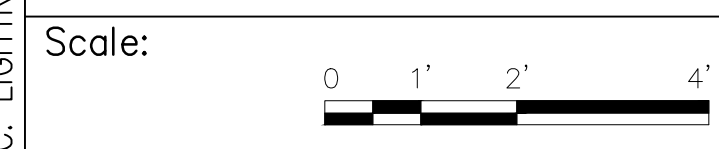
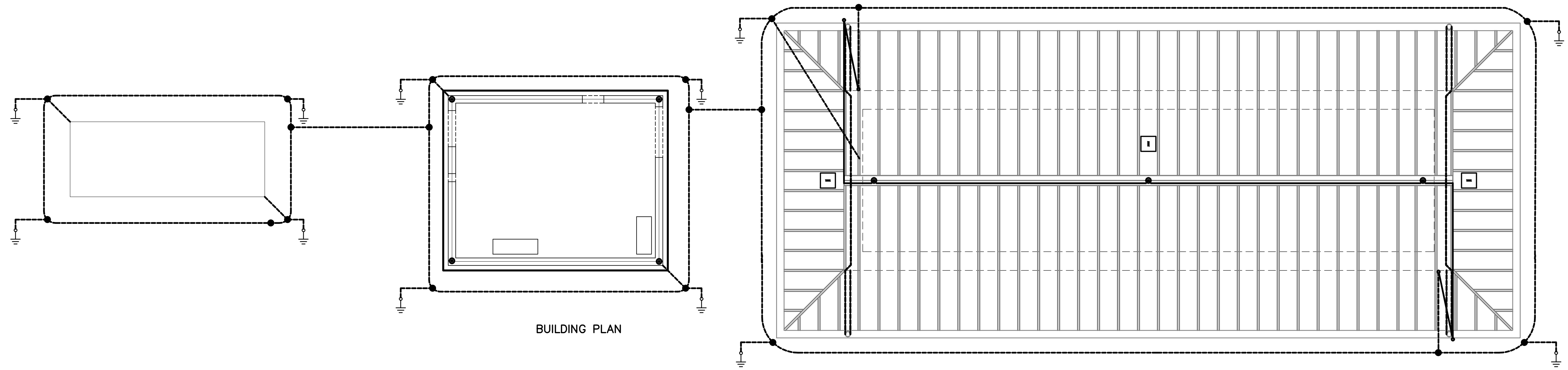
Date: Friday, October 07, 2022

Filename: E202-ELEC. LIGHTNING PLAN - NB.dwg



LIGHTNING PROTECTION STANDARD NOTES:

1. CONDUCTORS SHALL MAINTAIN A HORIZONTAL OR DOWNWARD COURSE, FREE FROM "U" OR "V" (DOWN AND UP) POCKETS.
2. NO BEND OF A CONDUCTOR SHALL FORM AN ANGLE OF LESS THAN 90° NOR SHALL HAVE A RADIUS OF BEND LESS THAN 8 INCHES.
3. AIR TERMINALS SHALL BE PLACED 20'-0" MAXIMUM SPACING AROUND THE ROOF PERIMETER OR ALONG ROOF RIDGES AND WITHIN 2'-0" OF OUTSIDE CORNER EDGE.
4. ACTUAL JOBSITE CONDITIONS MAY REQUIRE SLIGHT ALTERATIONS IN AIR TERMINAL, DOWN CONDUCTOR AND GROUND ROD LOCATIONS.
5. BARE COPPER MATERIALS SHALL NOT BE INSTALLED ON ALUMINUM SURFACES AND ALUMINUM MATERIALS SHALL NOT BE INSTALLED ON COPPER SURFACES.
6. ALL LIGHTNING PROTECTION CONDUCTORS SHALL BE FASTENED HORIZONTALLY AND VERTICALLY NOT MORE THAN 3'-0" O.C. MAXIMUM SPACING.
7. METALLIC BODIES OF INDUCTANCE SITUATED WITHIN 6'-0" OF A LIGHTNING CONDUCTOR OR ANOTHER BONDED METAL BODY SHALL BE INTERCONNECTED TO THE LIGHTNING CONDUCTOR SYSTEM, UNLESS INHERENTLY GROUNDED.
8. BOND TO ALL METAL BODIES OF CONDUCTANCE WITHIN 6'-0" OF THE MAIN LIGHTNING CONDUCTOR SUCH AS EXHAUST FANS, ROOF VENTS, LADDERS, RAILINGS, ANTENNAS, METAL STACKS AND ANY OTHER LARGE METAL BODY WHOSE HEIGHT EXCEEDS THAT OF THE AIR TERMINALS IN USE, UNLESS PROTECTED BY HIGHER ROOF ELEVATIONS.
9. CONNECTIONS TO GROUND ROD SHALL BE MADE AT A POINT NOT LESS THAN 1'-0" BELOW FINISHED GRADE AND 2'-0" AWAY FROM FOUNDATION WALL.
10. BOND TO WATERLINES (DOMESTIC & FIRE).
11. A LIGHTNING ARRESTOR, PROTECTOR OR ANTENNA DISCHARGE UNIT SHALL BE INSTALLED ON EACH ELECTRIC AND TELEPHONE SERVICE AND RADIO AND TELEVISION ANTENNA LEAD-IN BY THE ELECTRICAL CONTRACTOR, OR OTHERS, PER NFPA-70.
12. SURGE TRANSIENT PROTECTION (SPD) OF SERVICES IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR OR THE SUPPLIER OF SENSITIVE EQUIPMENT. (I.E. COMPUTERS, COPIERS, TELEPHONE, ETC.)

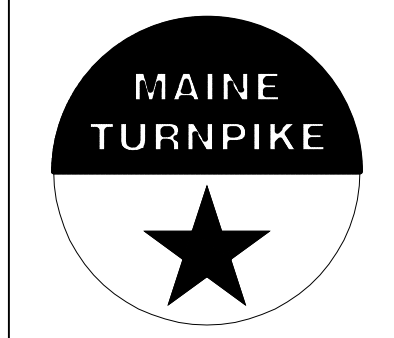


Designed by:

Stantec

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.					
	By	Date	By	Date	
Designed	MLC	10/22	Checked	DPH	10/22
Drawn	MLC	10/22	In Charge of	XXX	10/22

STANTEC CONSULTING SERVICES INC.
2211 CONGRESS STREET
PORTLAND, ME 04102
TEL (207) 887-3448
FAX (207) 883-3376



**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

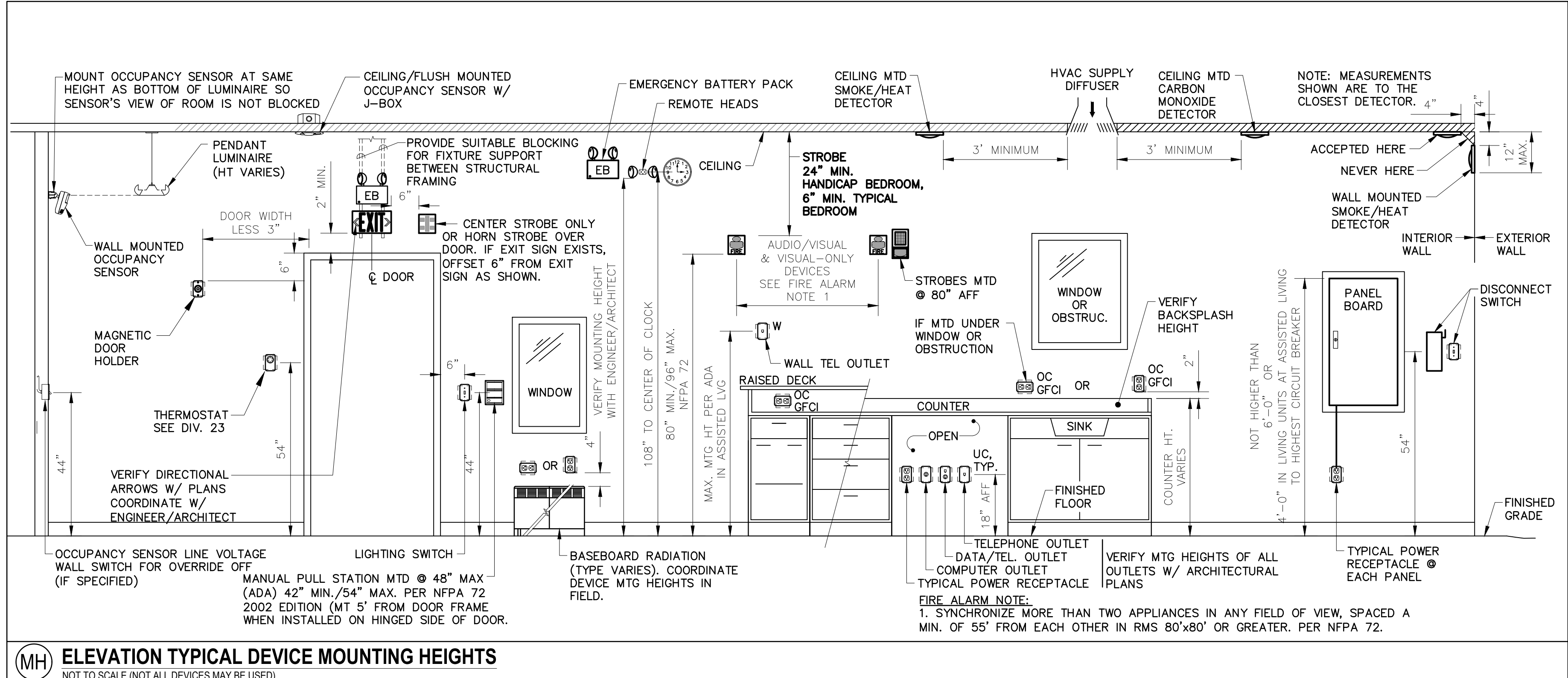
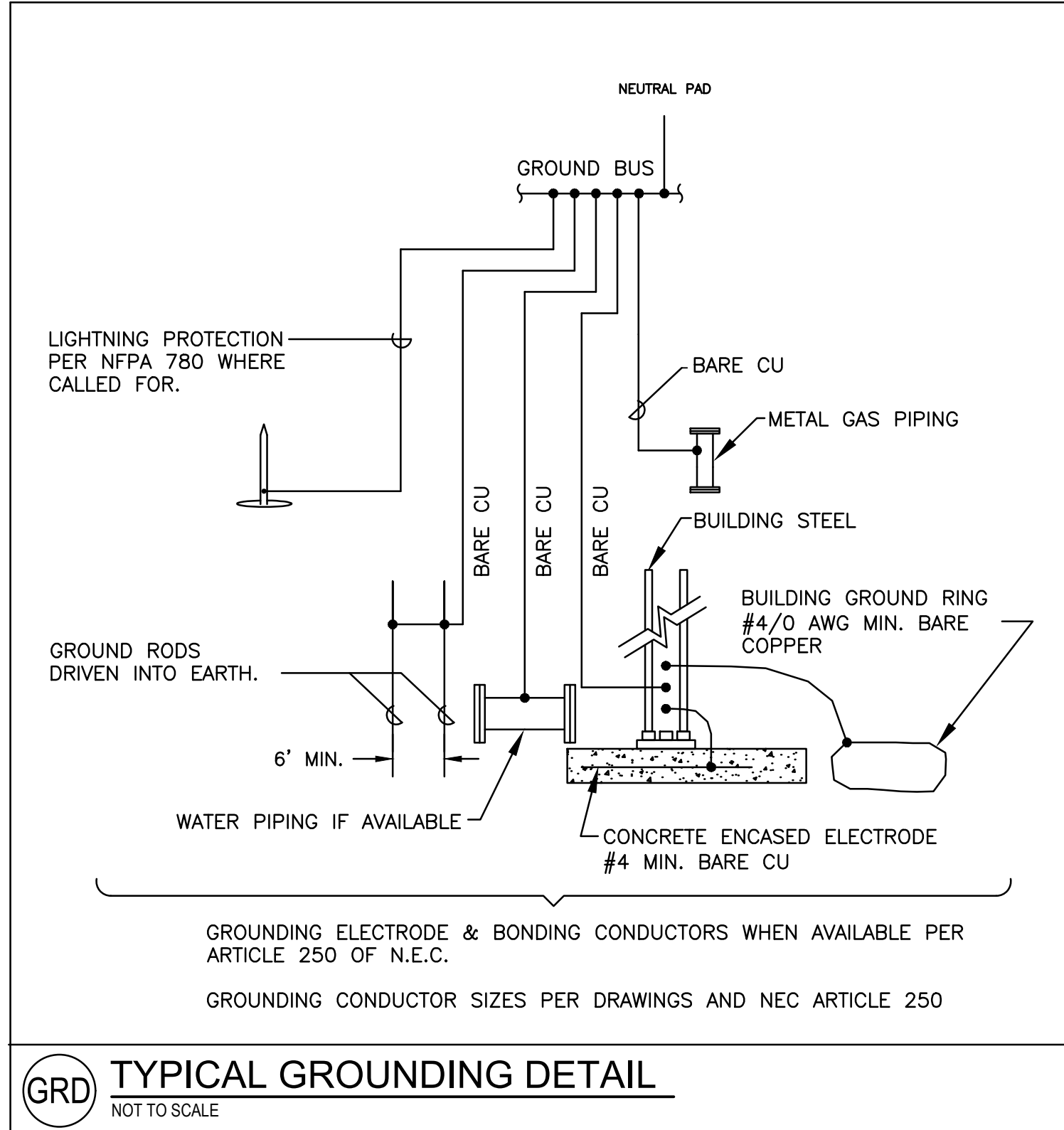
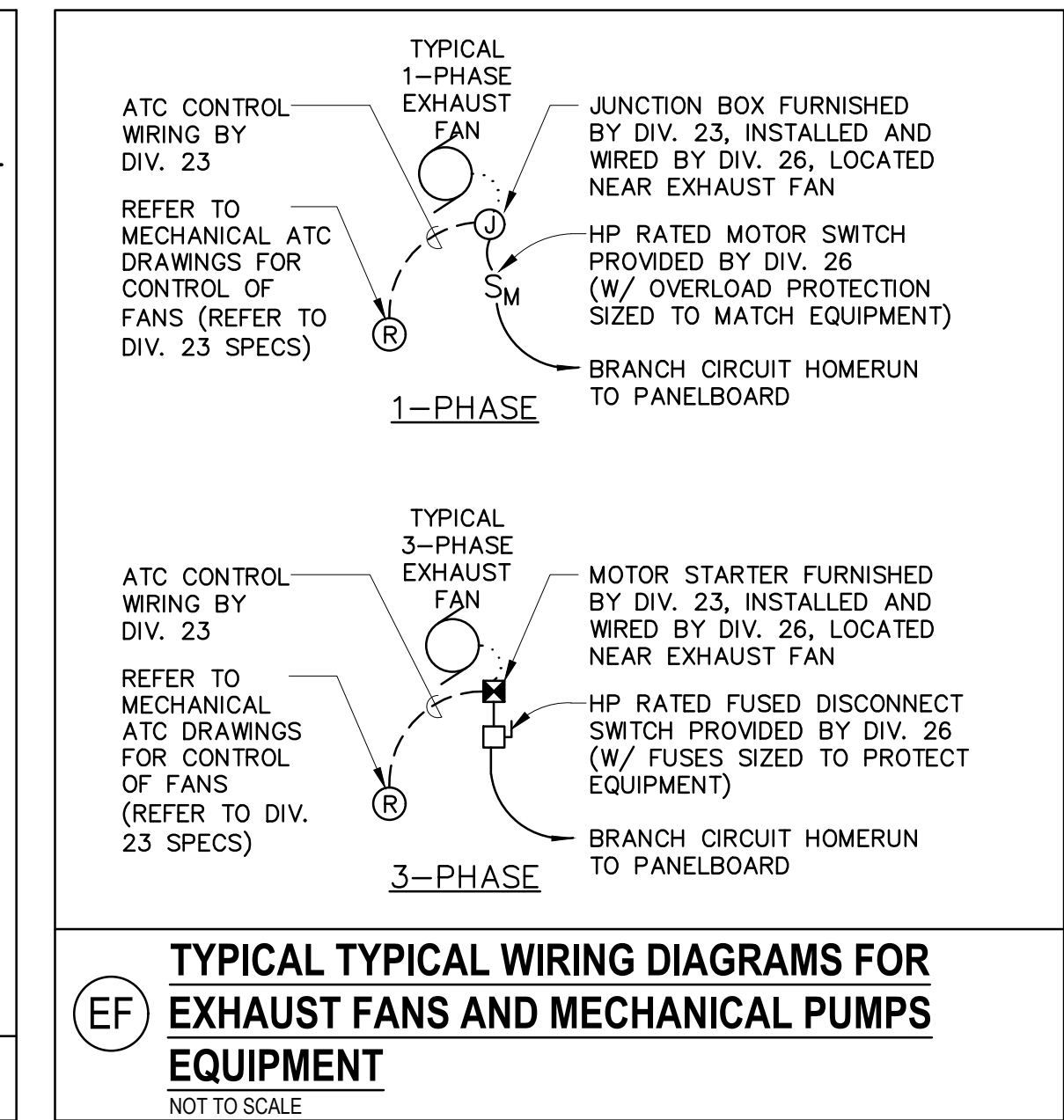
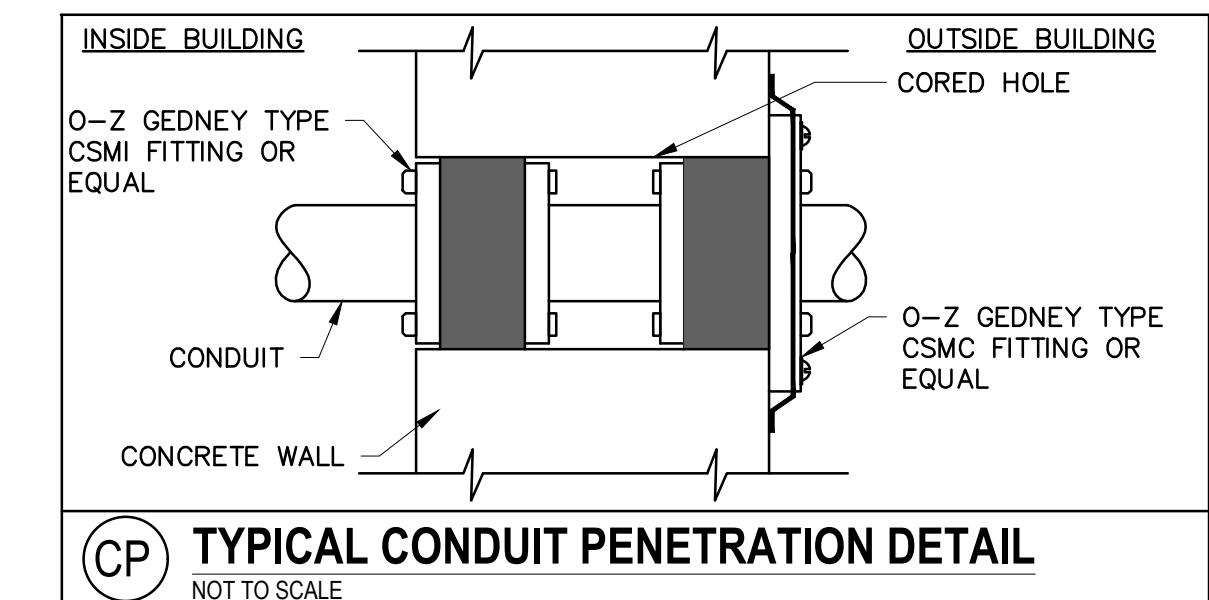
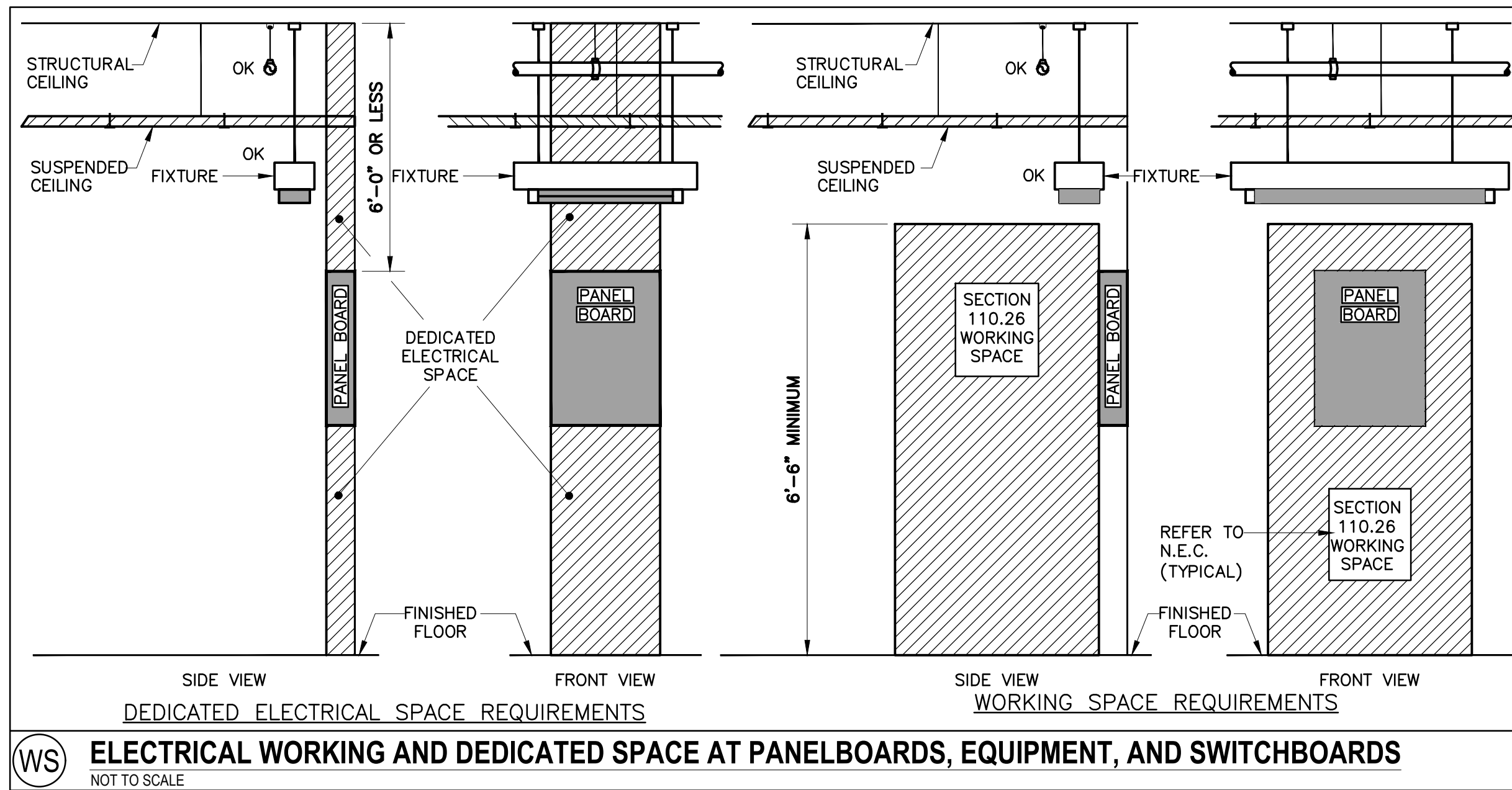
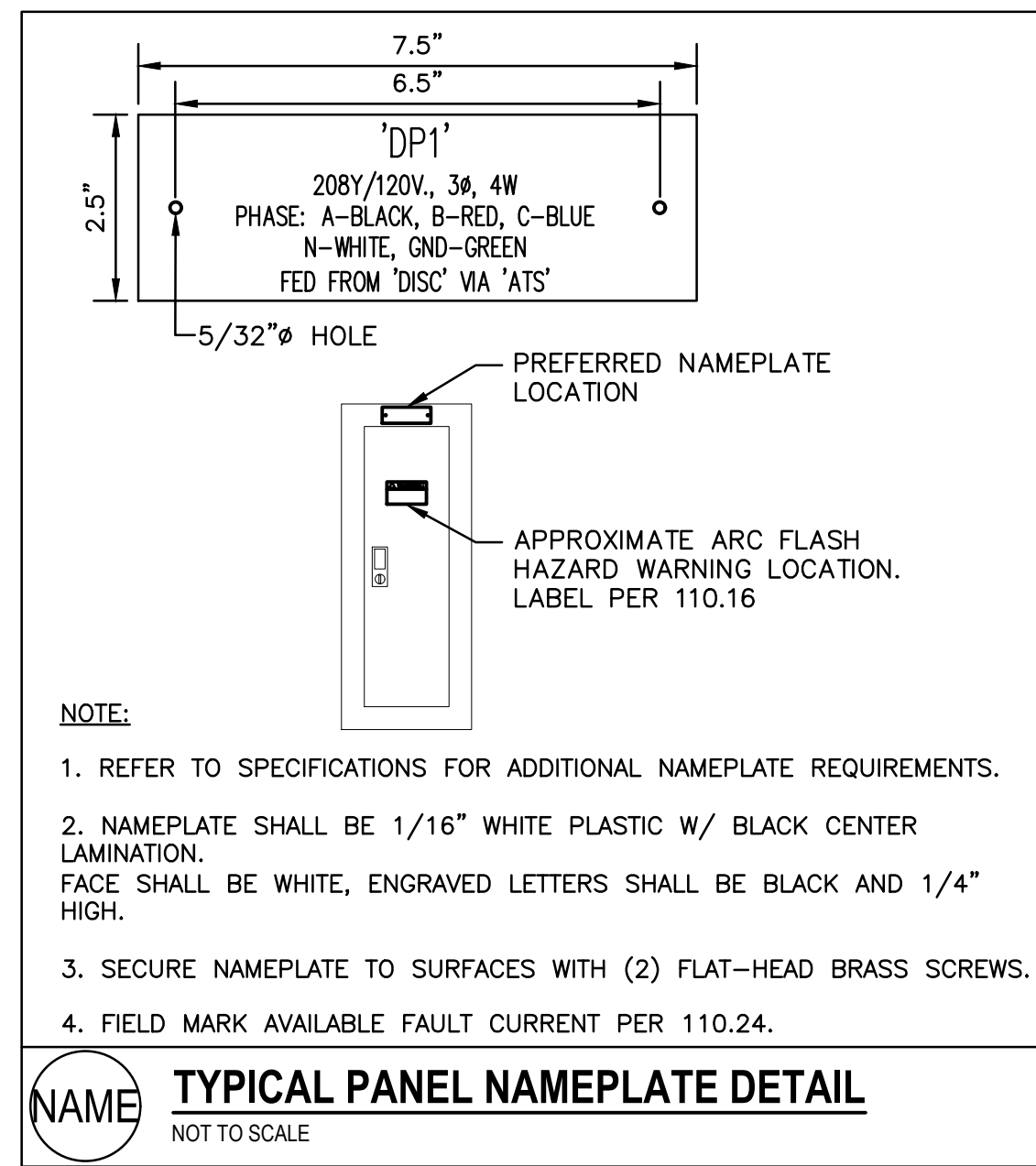
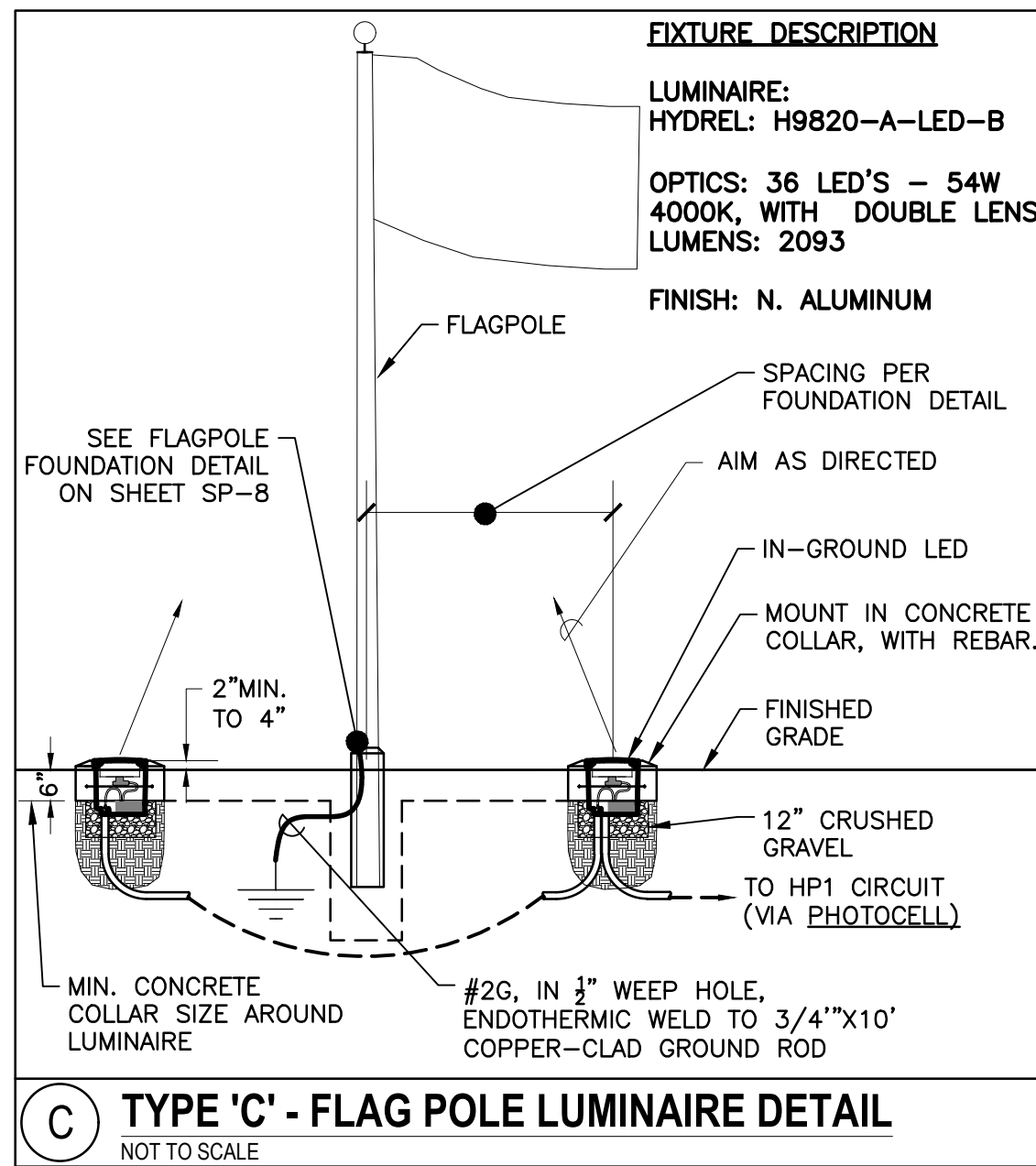
INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
ELECTRICAL LIGHTNING PLAN - NB

CONTRACT: 2022.07

SHEET NUMBER: E202

728 OF 735

Date: Friday, October 07, 2022



Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by:

Stantec

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date		By	Date
Designed	MLC	10/22	Checked	DPH	10/22
Drawn	MLC	10/22	In Charge of	LEM	10/22

STANTEC CONSULTING SERVICES INC.
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 TOLL ADMINISTRATION BUILDING
 ELECTRICAL DETAILS

SHEET NUMBER: E500
 729 OF 735

CONTRACT: 2022.07

Filename: E500-DTL.S.dwg

Date: Friday, October 07, 2022

SOUTHBOUND ADMIN BUILDING PANELS

WIRING		DESCRIPTION	VA OR W			BREAKER			BUS	CONNECTION	BREAKER	VA OR W			DESCRIPTION	WIRING	
WIRE	COND		ØA	ØB	ØC	POLE	A	NO				POLE	A	ØA		ØB	ØC
SEE ONE-LINE		PANEL TOLL BOOTH - TB1	2531	4503		3	100	3	x	2	3	100	1934	LIGHTING PANEL LS	SEE ONE-LINE		
SEE ONE-LINE		PANEL TOLL BOOTH - TB2	2331	3103		3	100	9	x	10	3	100	2390	UPS 20KW (PANEL CP1)	SEE ONE-LINE		
2#12, 1#12G MC		RECP - UTILITY / EQUIP. 104		720		1	20	15	x	16	3	125	8941	PANEL MP1	SEE ONE-LINE		
2#12, 1#12G 3/4"		EQUIP - SECURITY		300		1	20	17	x	18	3	100	11489				
2#12, 1#12G 3/4"		EQUIP - FACP		500		1	20	19	x	20	3	100	2630				
2#10, 1#10G 1"		MECH - DE-ICE		850		2	30	23	x	24	3	100	2105	LTS - UTILITY/ EQUIP 104	MC	2#12, 1#12G	
2#10, 1#10G 1"		EQUIP - GEN. CONTROL		1000		1	20	27	x	28	1	30	1020	EQUIP - TRAFFIC SIGNAL	SEE SITE PLANS		
2#10, 1#10G 1"		EQUIP - GEN. HEATER		1000		1	20	29	x	30	1	20		SPARE			
2#10, 1#10G 1"		EQUIP - GEN. CHARGER		1000		1	20	31	x	32	1	20		SPARE			
SPARE						1	20	33	x	34	1	20		SPARE			
SPARE						1	20	35	x	36	1	20		SPARE			
SPARE						1	20	37	x	38	1	20		SPARE			
SPARE						3	100	39	x	40	1	20		SPARE			
SPARE						4	100	41	x	42	1	20		SPARE			
TOTAL 1			7212	9326	2768				TOTAL 2			21203	17009	17510			
TOTAL 2			21203	17009	17510												
TOTAL 1 + 2			28415	26335	20278												
CONN. LOAD TOTAL			75027									35.2%					
CONN. AMPERES TOTAL			208									MAIN BREAKER 300A @ 80% RATED			MAIN LUGS N/A		
EST. DEMAND LOAD TOTAL			73271									FEEDER ENTRANCE TOP/BOTTOM			ENCLOSURE TYPE NEMA 1		
EST. DEMAND AMPERES TOTAL			204									FEEDER SIZE 259 A SEE ONE-LINE			ACCESSORIES * INDICATES GFI BREAKER		
												SOURCE SEE ONE-LINE			** INDICATES LOCK ON DEVICE		
												PANEL TYPE DOOR-IN-DOOR			PROVIDE WITH FEED THROUGH LUGS		

WIRING		DESCRIPTION	VA OR W			BREAKER			BUS	CONNECTION	BREAKER	VA OR W			DESCRIPTION	WIRING	
WIRE	COND		ØA	ØB	ØC	POLE	A	NO				POLE	A	ØA		ØB	ØC
3#10, 1#10G 1"		MECH - OU-1	3362	3362		3	30	3	x	4	3	30	3362	MECH - OU-2	1"	3#10, 1#10G	
2#10, 1#10G 3/4"		MCA=28		3362		2	30	5	x	6	3	30	3362	MCA=28			
2#10, 1#10G 3/4"		MECH - IU-1	108			2	30	7	x	8	2	20	625	MECH - EBB-1	MC	2#10, 1#10G	
2#8, 1#8G 1"		MECH - WH-1		108		2	30	9	x	10	2	20	625	MECH - EBB-2	MC	2#10, 1#10G	
2#10, 1#10G 3/4"		MECH - IU-2		2250		2	30	11	x	12	2	20	625	MECH - EBB-3	MC	2#10, 1#10G	
SPARE				108		1	20	17	x	18	1	20	625	MECH - EWH-1	MC	2#12, 1#12G	
SPARE						1	20	19	x	20	1	20	750	MECH - EWH-2	MC	2#12, 1#12G	
2#10, 1#10G 1"		MECH - DE-ICE		1000		2	30	23	x	24	1	20	156	MECH - ERV-1	MC	2#12, 1#12G	
SPARE						1	20	27	x	28	1	20		SPARE			
SPARE						1	20	29	x	30	1	20		SPARE			
TOTAL 1			6720	3578	6720				TOTAL 2			5362	5362	4768			
TOTAL 2			5362	5362	4768												
TOTAL 1 + 2			12082	8941	11489												
CONN. LOAD TOTAL			32512									MAIN BREAKER 125 A 10%			MAIN LUGS N/A		
AMPERES			90									FEEDER ENTRANCE TOP/BOTTOM			ENCLOSURE TYPE NEMA 1		
EST. DEMAND LOAD TOTAL			31200									FEEDER SIZE 112 A SEE ONE-LINE			ACCESSORIES *** TWISTLOCK RECEPTACLE		
EST. DEMAND AMPERES TOTAL			87									SOURCE SEE ONE-LINE			** INSTALL 3/4" - LOCATE & TERMINATE PER HNTB		
												PANEL TYPE DOOR-IN-DOOR			PROVIDE WITH FEED THROUGH LUGS		

PROVIDE 'HACR' RATED TYP. BREAKERS FOR MECHANICAL MOTOR LOADS

WIRING		DESCRIPTION	VA OR W			BREAKER			BUS	CONNECTION	BREAKER	VA OR W			DESCRIPTION	WIRING	
WIRE	COND		ØA	ØB	ØC	POLE	A	NO				POLE	A	ØA		ØB	ØC
2#12, 1#12G MC		RECP - RESTROOM 106	180			1	20	1	x	2	1	20	360	RECP - BREAK 101 & HALL 105	MC	2#12, 1#12G	
2#10, 1#10G MC		RECP - MICROWAVE		1500		1	20	3	x	4	1	20	360	RECP - BREAK 101 & CUST. 103	MC	2#12, 1#12G	
2#10, 1#10G MC		RECP - KITCHENETTE		1440		1	20	5	x	6	1	20	305	LTS - RMS, 101,102,103,105,106	MC	2#10, 1#10G	
2#10, 1#10G MC		RECP - KITCHENETTE (COFFEE)	1500			1	20	7	x	8	1	20	230	LTS - EXTERIOR	1"	2#10, 1#10G	
2#10, 1#10G MC		RECP - FRIDGE		800		1	20	9	x	10	1	20	64	LTS - FLAG	1"	2#10, 1#10G	
2#10, 1#10G MC		RECP - WATER FOUNTAIN		360		1	20	11	x	12	1	20		SPARE			
2#10, 1#10G MC		RECP - EXTERIOR		360		1	20	13	x	14	1	20		SPARE			
SPARE						1	20	15	x	16	1	20		SPARE			
SPARE						1	20	17	x	18	1	20		SPARE			
SPARE						1	20	19	x	20	1	20		SPARE			
SPARE						1	20	21	x	22	1	20		SPARE			
SPARE						1	20	23	x	24	1	20		SPARE			
TOTAL 1			2040	2300	1800				TOTAL 2			590	424	305			
TOTAL 2			590	424	305												
TOTAL 1 + 2			2630	2724	2105												
CONN. LOAD TOTAL			7459									MAIN BREAKER 100A			MAIN LUGS N/A		
AMPERES			21									FEEDER ENTRANCE TOP/BOTTOM			ENCLOSURE TYPE NEMA 1		
EST. DEMAND LOAD TOTAL			7015									FEEDER SIZE 26 A SEE ONE-LINE			ACCESSORIES * INDICATES GFI BREAKER		
EST. DEMAND AMPERES TOTAL			19									SOURCE SEE ONE-LINE			** INDICATES LOCK ON DEVICE		
												PANEL TYPE DOOR-IN-DOOR			PROVIDE WITH FEED THROUGH LUGS		

WIRING		DESCRIPTION	VA OR W			BREAKER			BUS	CONNECTION	BREAKER	VA OR W			DESCRIPTION	WIRING	
WIRE	COND		ØA	ØB	ØC	POLE	A	NO				POLE	A	ØA		ØB	ØC
2#12, 1#12G, 1#12IG MC		RECP - SEE SCAN & # SORT	180			1	20	1	x	2	1	20	360	RECP - SEE SCAN & # SORT	MC	2#12, 1#12G, 1#12IG	
2#12, 1#12G, 1#12IG MC		RECP - SEE SCAN & # SORT		360		1	20	3	x	4	1	20	180	RECP - SEE SCAN & # SORT	MC	2#12, 1#12G, 1#12IG	
2#12, 1#12G, 1#12IG MC		RECP - SEE SCAN & # SORT		180		1	20	5	x	6	1	20	360	RECP - SEE SCAN & # SORT	MC	2#12, 1#12G, 1#12IG	
2#12, 1#12G, 1#12IG 3/4"		RECP - NORTH / SOUTH BOOTH	360			1	20	7	x	8	1	20	1000	SPEC. RECP - SERVER LS-20R ***	3/4"	2#12, 1#12G, 1#12IG	
SEE HNTB TSP11-13 **		RECP - AVI READERS		100		1	20	9	x	10	1	20	1000	SPEC. RECP - SERVER LS-20R ***	3/4"	2#12, 1#12G, 1#12IG	
SEE HNTB TSP11-13 **		EQUIP - LANE CNTRL SW		100		1	20	11	x	12	1	20	180	RECP - BOOTH CP DUPLEX	**	SEE HNTB TSP11-13	
SEE HNTB TSP11-13 **		RECP - BOOTH CP DUPLEX	180			1	20	13	x	14	1	20	150	EQUIP - KEY SW - TRAFFIC PED	**	SEE HNTB TSP11-13	
SEE HNTB TSP11-13 **		EQUIP - KEY SW - TRAFFIC PED		150		1	20	15	x	16	1	20	500	EQUIP - KEY SWITCH - DVAS	**	SEE HNTB TSP11-13	
SEE HNTB TSP11-13 **		EQUIP - KEY SWITCH - DVAS		500		1	20	17	x	18	1	20	500	EQUIP - KEY SW - DVAS - GANTRY	**	SEE HNTB TSP11-13	
SEE HNTB TSP11-13 **		EQUIP - KEY SW - DVAS - GANTRY	500			1	20	19	x	20	1	20		SPARE			
SEE HNTB TSP11-13 **		RECP - AVI READERS		100		1	20	21	x	22	3	40		SPARE			
SEE HNTB TSP11-13 **		EQUIP - LANE CNTRL SW		100		1	20	23	x	24	3	40		SPARE			
SPARE						1	20	25	x	26	3	60	860	SO. TOLL EXIT LANE CAB.	3"	4#2/0, 1#1G	
SPARE						1	20	27	x	28	3	60		PANEL CP-2	**	SEE HNTB TSP-11	
SPARE						1	20	29	x	30	3	60					
TOTAL 1			1220	710	880				TOTAL 2			2370	1680	1040			
TOTAL 2			2370	1680	1040												
TOTAL 1 + 2			3590	2390	1920												
CONN. LOAD TOTAL			7900									MAIN BREAKER 100A			MAIN LUGS N/A		
AMPERES			22									FEEDER ENTRANCE TOP/BOTTOM			ENCLOSURE TYPE NEMA 1		
EST. DEMAND LOAD TOTAL			7200									FEEDER SIZE 25 A SEE ONE-LINE			ACCESSORIES *** TWISTLOCK RECEPTACLE		
EST. DEMAND AMPERES TOTAL			20									SOURCE SEE ONE-LINE			** INSTALL CONDUIT. LOCATION & TERMINATE PER HNTB		
												PANEL TYPE DOOR-IN-DOOR					

WIRING		DESCRIPTION	VA OR W			BREAKER			BUS	CONNECTION	BREAKER	VA OR W			DESCRIPTION	WIRING	
WIRE	COND		ØA	ØB	ØC	POLE	A	NO				POLE	A	ØA		ØB	ØC
PER HNTB **		EQUIP - KEY SWITCH - DVAS	500			1	20	1	x	2	1	20	360	RECP - AVI READERS (2)	**	PER HNTB	
SPARE						1	20	3	x	4	1	20		SPARE			
SPARE						1	20	5	x	6	1	20		SPARE			
SPARE						1	20	7	x	8	1	20		SPARE			
SPARE																	

NORTHBOUND ADMIN BUILDING PANELS

PANEL No. DP1 LOCATION UTILITY BUILDING MOUNTING SURFACE

BUS 400A
 PANEL RATING 42 KAIC
 SUPPLY VOLTAGE 208Y/120V
 SERVICE 3 PHASE, 4 WIRE +G

WIRING WIRE	COND	DESCRIPTION	VA OR W			BREAKER			BUS CONN	CKT NO	BREAKER			VA OR W			DESCRIPTION	WIRING	
			ØA	ØB	ØC	POLE	A	NO			POLE	A	ØA	ØB	ØC	COND		WIRE	
SEE ONE-LINE		PANEL TOLL BOOTH - TB1	2531	4503		3	100	3	X	4	3	100	1429		1389	LIGHTING PANEL LN	SEE ONE-LINE		
SEE ONE-LINE		PANEL TOLL BOOTH - TB2	2331	3103		3	100	9	X	8		2910	1570		2380	UPS 20KW (PANEL CP1)	SEE ONE-LINE		
2#12,1#12G	MC	SPARE		720		1	20	13	X	14		11075	7899			PANEL MP1	SEE ONE-LINE		
2#12,1#12G	3/4"	EQUIP - SECURITY		300		1	20	17	X	18		9468							
		SPARE				1	20	19	X	20		1667							
		SPARE				1	20	21	X	22	3	40	1667		1667	MECH - AC UNIT	3/4"	3#8,1#8G	
		SPARE				2	30	23	X	24		670			1667	MCA 35			
2#10,1#10G	1"	EQUIP - GEN. CONTROL		1000		1	20	27	X	28	1	30	369			MECH - EF FAN - 1/4 HP	3/4"	2#12,1#12G	
2#10,1#10G	1"	EQUIP - GEN. HEATER		1000		1	20	29	X	30	1	20	1020			LTS - UTILITY/EQUIP BLDG	MC	2#12,1#12G	
2#10,1#10G	1"	EQUIP - GEN. CHARGER		1000		1	20	31	X	32	1	20				EQUIP - TRAFFIC SIGNAL		SEE SITE PLANS	
		SPARE				1	20	33	X	34	1	20				SPARE			
		SPARE				1	20	35	X	36	1	20				SPARE			
		SPARE				1	20	37	X	38	1	20				SPARE			
2#10,1#10G	3/4"	SPD				3	30	39	X	40	1	20				SPARE			
		SPARE				1	20	41	X	42	1	20				SPARE			
TOTAL 1			5862	9326	1918					TOTAL 2		19140	12934	15924					
TOTAL 2			19140	12934	15924					TOTAL 1+2		25002	22260	17842					
TOTAL 1+2			25002	22260	17842														
CONN. LOAD TOTAL			65104							MAIN BREAKER	300A @ 80% RATED				MAIN LUGS	N/A			
CONN. AMPERES TOTAL			181							FEEDER ENTRANCE	TOP/BOTTOM				ENCLOSURE TYPE	NEMA 1			
EST. DEMAND LOAD TOTAL			64004							FEEDER SIZE	225 A SEE ONE-LINE				ACCESSORIES	* INDICATES GFI BREAKER			
EST. DEMAND AMPERES TOTAL			178							SOURCE	SEE ONE-LINE				** INDICATES LOCK ON DEVICE				
PROVIDE HACR RATED TYP BREAKERS FOR MECHANICAL MOTOR LOADS										PANEL TYPE	DOOR-IN-DOOR								

PANEL No. MP1 LOCATION ADMIN BUILDING MOUNTING SURFACE

BUS 125A
 PANEL RATING 22 KAIC
 SUPPLY VOLTAGE 208Y/120V
 SERVICE 3 PHASE, 4 WIRE +G

WIRING WIRE	COND	DESCRIPTION	VA OR W			BREAKER			BUS CONN	CKT NO	BREAKER			VA OR W			DESCRIPTION	WIRING	
			ØA	ØB	ØC	POLE	A	NO			POLE	A	ØA	ØB	ØC	COND		WIRE	
3#8,1#8G	1"	MECH - OU-1	3362	3362		3	30	3	X	4	1	50				SPARE			
2#10,1#10G	3/4"	MECH - IU-1	108	108		2	20	7	X	8	2	20	625		625	MECH - EBB-1	MC	2#10,1#10G	
2#8,1#8G	1"	MECH - WH-1	2250	2250		2	50	11	X	12	2	20	625		625	MECH - EBB-2	MC	2#10,1#10G	
2#12,1#12G	MC	RECP - STORAGE		180		1	20	15	X	16	2	20				SPARE			
2#12,1#12G	3/4"	EQUIP - SECURITY		300		1	20	17	X	18						SPARE			
2#12,1#12G	3/4"	EQUIP - FACP		500		1	20	19	X	20	1	20	750			MECH - EWH-1	MC	2#12,1#12G	
2#12,1#12G	MC	EQUIP - LAV CONTROLS		100		1	20	21	X	22	1	20	750			MECH - EWH-2	MC	2#12,1#12G	
2#12,1#12G	3/4"	MECH - DE-ICE		850		1	20	23	X	24	1	20	156			MECH - ERV-1	MC	2#12,1#12G	
2#12,1#12G	3/4"	MECH - DE-ICE		850		1	20	25	X	26	1	20				SPARE			
2#12,1#12G	3/4"	EQUIP - AES MSTR BOX		50		1	20	27	X	28	1	20				SPARE			
		SPARE				1	20	29	X	30	1	20				SPARE			
2#10,1#10G	3/4"	SPD				3	30	33	X	34	3	100	2630		2724	PANEL HP1		SEE ONE-LINE	
		SPARE				1	20	35	X	36						SPARE			
TOTAL 1			7070	3800	6762					TOTAL 2		4005	4099	2706					
TOTAL 2			4005	4099	2706					TOTAL 1+2		11075	7899	9468					
TOTAL 1+2			11075	7899	9468														
CONN. LOAD TOTAL			28443							MAIN BREAKER	125 A				MAIN LUGS	N/A			
AMPERES			79							FEEDER ENTRANCE	TOP/BOTTOM				ENCLOSURE TYPE	NEMA 1			
EST. DEMAND LOAD TOTAL			27787							FEEDER SIZE	98 A SEE ONE-LINE				ACCESSORIES	* INDICATES GFI BREAKER			
EST. DEMAND AMPERES TOTAL			77							SOURCE	SEE ONE-LINE				** INDICATES LOCK ON DEVICE				
										PANEL TYPE	DOOR-IN-DOOR								

PANEL No. HP1 LOCATION ADMIN BUILDING MOUNTING SURFACE

BUS 100A
 PANEL RATING 22 KAIC
 SUPPLY VOLTAGE 208Y/120V
 SERVICE 3 PHASE, 4 WIRE +G

WIRING WIRE	COND	DESCRIPTION	VA OR W			BREAKER			BUS CONN	CKT NO	BREAKER			VA OR W			DESCRIPTION	WIRING	
			ØA	ØB	ØC	POLE	A	NO			POLE	A	ØA	ØB	ØC	COND		WIRE	
2#12,1#12G	MC	RECP - RESTROOM 106		180		1	20	1	X	2	1	20	360			RECP - BREAK 101 & HALL 105	MC	2#12,1#12G	
2#10,1#10G	MC	RECP - MICROWAVE		1500		1	20	3	X	4	1	20	360			RECP - BREAK 101 & SSTOP 103	MC	2#12,1#12G	
2#10,1#10G	MC	RECP - KITCHENETTE		1440		1	20	5	X	6	1	20	305			LTS - RMS, 101,102,103,105,106	MC	2#10,1#10G	
2#10,1#10G	MC	RECP - KITCHENETTE (COFFEE)		1500		1	20	7	X	8	1	20	230			LTS - EXTERIOR	1"	2#10,1#10G	
2#10,1#10G	MC	RECP - FRIDGE		800		1	20	9	X	10	1	20	64			LTS - FLAG	1"	2#10,1#10G	
2#10,1#10G	MC	RECP - WATER FOUNTAIN		180		1	20	11	X	12	1	20				SPARE			
2#10,1#10G	MC	RECP - EXTERIOR		360		1	20	13	X	14	1	20				SPARE			
		SPARE				1	20	15	X	16	1	20				SPARE			
		SPARE				1	20	17	X	18	1	20				SPARE			
		SPARE				1	20	19	X	20	1	20				SPARE			
		SPARE				1	20	21	X	22	1	20				SPARE			
		SPARE				1	20	23	X	24	1	20				SPARE			
TOTAL 1			2040	2300	1620					TOTAL 2		590	424	305					
TOTAL 2			590	424	305					TOTAL 1+2		2630	2724	1925					
TOTAL 1+2			2630	2724	1925					CONN. LOAD TOTAL	7279				MAIN BREAKER	100 A			
AMPERES			20							FEEDER ENTRANCE	TOP/BOTTOM				ENCLOSURE TYPE	NEMA 1			
EST. DEMAND LOAD TOTAL			6835							FEEDER SIZE	25 A SEE ONE-LINE				ACCESSORIES	* INDICATES GFI BREAKER			
EST. DEMAND AMPERES TOTAL			19							SOURCE	SEE ONE-LINE				** INDICATES LOCK ON DEVICE				
										PANEL TYPE	DOOR-IN-DOOR								

PANEL No. CP1 LOCATION UTILITY BUILDING MOUNTING SURFACE

BUS 100A
 PANEL RATING 22KAIC
 SUPPLY VOLTAGE 208Y/120V
 SERVICE 3 PHASE, 4 WIRE +G

WIRING WIRE	COND	DESCRIPTION	VA OR W			BREAKER			BUS CONN	CKT NO	BREAKER			VA OR W			DESCRIPTION	WIRING	
			ØA	ØB	ØC	POLE	A	NO			POLE	A	ØA	ØB	ØC	COND		WIRE	
		SPARE				1	20	1	X	2	1	20	180			RECP - TMB AREA	3/4"	2#12,1#12G,1#12G	
		SPARE				1	20	3	X	4	1	20	180			RECP - TMB AREA	3/4"	2#12,1#12G,1#12G	
		SPARE				1	20	5	X	6	1	20	1000			SPEC. RECP - SERVER L5-20R ***	3/4"	2#12,1#12G,1#12G	
2#12,1#12G,1#12G	3/4"	RECP - NORTH / SOUTH BOOTH		360		1	20	7	X	8	1	20	1000			SPEC. RECP - SERVER L5-20R ***	3/4"	2#12,1#12G,1#12G	
SEE HNTB TSP-13	**	RECP - AVI READERS		100		1	20	9	X	10	1	20				SPARE			
SEE HNTB TSP-13	**	EQUIP - LANE CNTRL SW		100		1	20	11	X	12	1	20	180			RECP - BOOTH CP DUPLEX	**	SEE HNTB TSP-13	
SEE HNTB TSP-11-13	**	RECP - BOOTH CP DUPLEX		180		1	20	13	X	14	1	20	150			EQUIP - KEY SW - TRAFFIC PED	**	SEE HNTB TSP-13	
SEE HNTB TSP-11-13	**	EQUIP - KEY SW - TRAFFIC PED		150		1	20	15	X	16	1	20	500			EQUIP - KEY SWITCH - DVAS	**	SEE HNTB TSP-13	
SEE HNTB TSP-11-13	**	EQUIP - KEY SWITCH - DVAS		500		1	20	17	X	18	1	20	500			EQUIP - KEY SW - DVAS - GANTRY	**	SEE HNTB TSP-13	
SEE HNTB TSP-11-13	**	EQUIP - KEY SW - DVAS - GANTRY		500		1	20	19	X	20	2	20	540			PANEL - CP5	SEE ONE-LINE	SEE ONE-LINE	
SEE HNTB TSP-11-13	**	RECP - AVI READERS		100		1	20	21	X	22	1	20	540			SPARE			
SEE HNTB TSP-11-13	**	EQUIP - LANE CNTRL SW		100		1	20	23	X	24									

Date: Friday, October 07, 2022

PANEL No. TP1 BOOTH LOCATION STORAGE 103
 MOUNTING SURFACE

WIRING	DESCRIPTION	VA OR W	BREAKER	CKT. NO.	BUS CONN.	CKT. NO.	BREAKER	VA OR W	DESCRIPTION	COND	WIRING	
WIRE	COND	ØA	ØB	ØC	POLE	A	NO	ØA	ØB	ØC	COND	WIRE
3#12, 1#12G	3/4"	1248			2	20	1	56			3/4"	2#12, 1#12G
3#12, 1#12G	**	180		100	1	20	5	64			3/4"	2#12, 1#12G
SEE HNTB	**			500	1	20	7	720			3/4"	2#12, 1#12G
SEE HNTB	**			180	1	20	11	720			3/4"	2#12, 1#12G
SEE HNTB	**	120		180	1	20	13	207			3/4"	2#12, 1#12G
SPARE					1	20	15	1000			3/4"	2#12, 1#12G
SPARE					1	20	17				**	SEE HNTB
TOTAL 1		1548	1748	280				983	2755	119		
TOTAL 2		983	2755	119								
TOTAL 1 + 2		2531	4503	399								
CONN. LOAD TOTAL AMPERES		7433		21		100A		N/A				
EST. DEMAND LOAD TOTAL		7433		21		26 A		SEE ONE-LINE				
EST. DEMAND AMPERES TOTAL		21										

PANEL No. TP2 BOOTH LOCATION UTILITY / EQUIP. 104
 MOUNTING SURFACE

WIRING	DESCRIPTION	VA OR W	BREAKER	CKT. NO.	BUS CONN.	CKT. NO.	BREAKER	VA OR W	DESCRIPTION	COND	WIRING	
WIRE	COND	ØA	ØB	ØC	POLE	A	NO	ØA	ØB	ØC	COND	WIRE
3#12, 1#12G	3/4"	1248			2	20	1	56			3/4"	2#12, 1#12G
3#12, 1#12G	**	100		100	1	20	5	64			3/4"	2#12, 1#12G
SEE HNTB	**			100	1	20	7	720			3/4"	2#12, 1#12G
SEE HNTB	**			100	1	20	9	720			3/4"	2#12, 1#12G
SPARE					1	20	11	55			3/4"	2#12, 1#12G
SPARE					1	20	13	207			3/4"	2#12, 1#12G
SPARE					1	20	15				3/4"	2#12, 1#12G
SPARE					1	20	17				**	SEE HNTB
TOTAL 1		1348	1348	100				983	1755	119		
TOTAL 2		983	1755	119								
TOTAL 1 + 2		2331	3103	219								
CONN. LOAD TOTAL AMPERES		5653		16		100A		N/A				
EST. DEMAND LOAD TOTAL		5653		16		20 A		SEE ONE-LINE				
EST. DEMAND AMPERES TOTAL		16										

PANEL No. LN LOCATION ADMIN NORTH BOUND BUILDING
 MOUNTING SURFACE

WIRING	DESCRIPTION	VA OR W	BREAKER	CKT. NO.	BUS CONN.	CKT. NO.	BREAKER	VA OR W	DESCRIPTION	COND	WIRING	
WIRE	COND	ØA	ØB	ØC	POLE	A	NO	ØA	ØB	ØC	COND	WIRE
SEE SITE	PLAN	584			2	20	1	845			3/4"	2#12, 1#12G
SEE SITE	PLAN	659	659		2	20	5	730			3/4"	2#12, 1#12G
SPARE					2	20	9				3/4"	2#12, 1#12G
SPARE					1	20	13				3/4"	2#12, 1#12G
SPARE					1	20	15				3/4"	2#12, 1#12G
SPARE					1	20	17				3/4"	2#12, 1#12G
SPARE					1	20	19				3/4"	2#12, 1#12G
SPARE					1	20	21				3/4"	2#12, 1#12G
SPARE					1	20	23				3/4"	2#12, 1#12G
TOTAL 1		1243	584	659				1575	845	730		
TOTAL 2		1575	845	730								
TOTAL 1 + 2		2818	1429	1389								
CONN. LOAD TOTAL AMPERES		5636		16		100A		N/A				
EST. DEMAND LOAD TOTAL		5636		16		26 A		SEE ONE-LINE				
EST. DEMAND AMPERES TOTAL		16										

PANEL No. LS LOCATION ADMIN SOUTH BOUND BUILDING
 MOUNTING SURFACE

WIRING	DESCRIPTION	VA OR W	BREAKER	CKT. NO.	BUS CONN.	CKT. NO.	BREAKER	VA OR W	DESCRIPTION	COND	WIRING	
WIRE	COND	ØA	ØB	ØC	POLE	A	NO	ØA	ØB	ØC	COND	WIRE
SEE SITE	PLAN	571			2	20	1	584			3/4"	2#12, 1#12G
SEE SITE	PLAN	571	584		2	20	3	633			3/4"	2#12, 1#12G
SPARE					2	20	7	633			3/4"	2#12, 1#12G
SPARE					1	20	13				3/4"	2#12, 1#12G
SPARE					1	20	15				3/4"	2#12, 1#12G
SPARE					1	20	17				3/4"	2#12, 1#12G
SPARE					1	20	19				3/4"	2#12, 1#12G
SPARE					1	20	21				3/4"	2#12, 1#12G
SPARE					1	20	23				3/4"	2#12, 1#12G
TOTAL 2		1217	1363	1412				6302				
TOTAL 1 + 2		2372	1934	1996								
CONN. LOAD TOTAL AMPERES		6302		18		100A		N/A				
EST. DEMAND LOAD TOTAL		6302		18		20 A		SEE ONE-LINE				
EST. DEMAND AMPERES TOTAL		18										

PANEL No. LD LOCATION LUND ROAD
 MOUNTING MOUNT IN P44 ENCLOSURE

WIRING	DESCRIPTION	VA OR W	BREAKER	CKT. NO.	BUS CONN.	CKT. NO.	BREAKER	VA OR W	DESCRIPTION	COND	WIRING	
WIRE	COND	ØA	ØB	ØC	POLE	A	NO	ØA	ØB	ØC	COND	WIRE
SEE SITE PLAN		886			2	20	1	665			3/4"	2#12, 1#12G
SEE SITE PLAN		1010			2	20	3	798			3/4"	2#12, 1#12G
EXISTING #6		836			2	20	5	969			3/4"	2#12, 1#12G
EXISTING #6		703			2	20	7	969			3/4"	2#12, 1#12G
EXISTING #6		873			2	20	9				3/4"	2#12, 1#12G
EXISTING #6		873			2	20	11				3/4"	2#12, 1#12G
2#10, 1#10G	3/4"	100			2	30	17				3/4"	2#12, 1#12G
2#12, 1#12G	3/4"	180			1	20	21				3/4"	2#12, 1#12G
TOTAL 1		2694	2765					1634	1767			
TOTAL 2		1634	1767									
TOTAL 1 + 2		4328	4532									
CONN. LOAD TOTAL AMPERES		8859		18		60A		N/A				
EST. DEMAND LOAD TOTAL		8859		18		EXISTING		SEE ONE-LINE				
EST. DEMAND AMPERES TOTAL		18										

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by: **Stantec**

By	Date	By	Date
MLC	10/22	DPH	10/22
MLC	10/22	LEM	10/22

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

STANTEC CONSULTING SERVICES INC.
 2211 CONGRESS STREET
 PORTLAND, ME 04102
 TEL (207) 887-3448
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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
 SACO (EXITS 35 & 36)
 TOLL ADMINISTRATION BUILDING
 ELECTRICAL SCHEDULES - 3

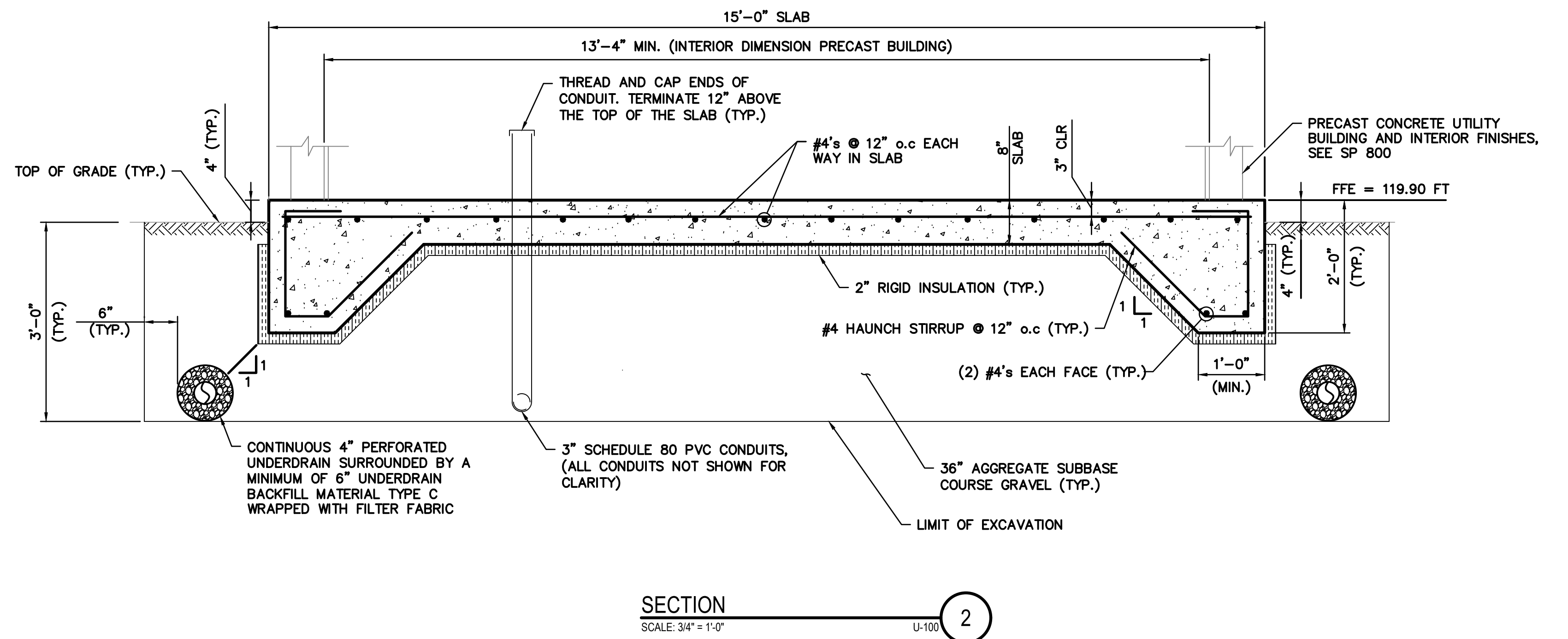
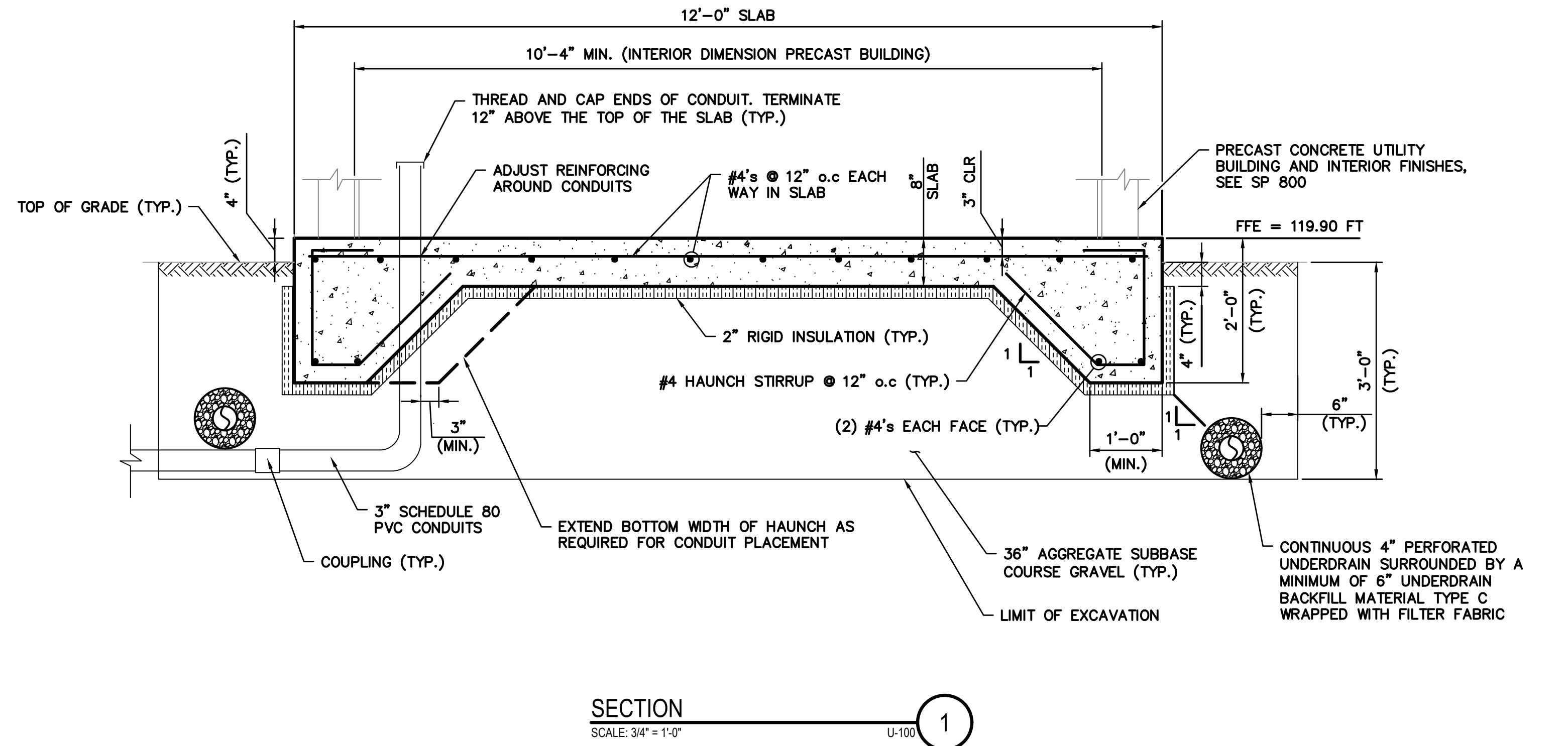
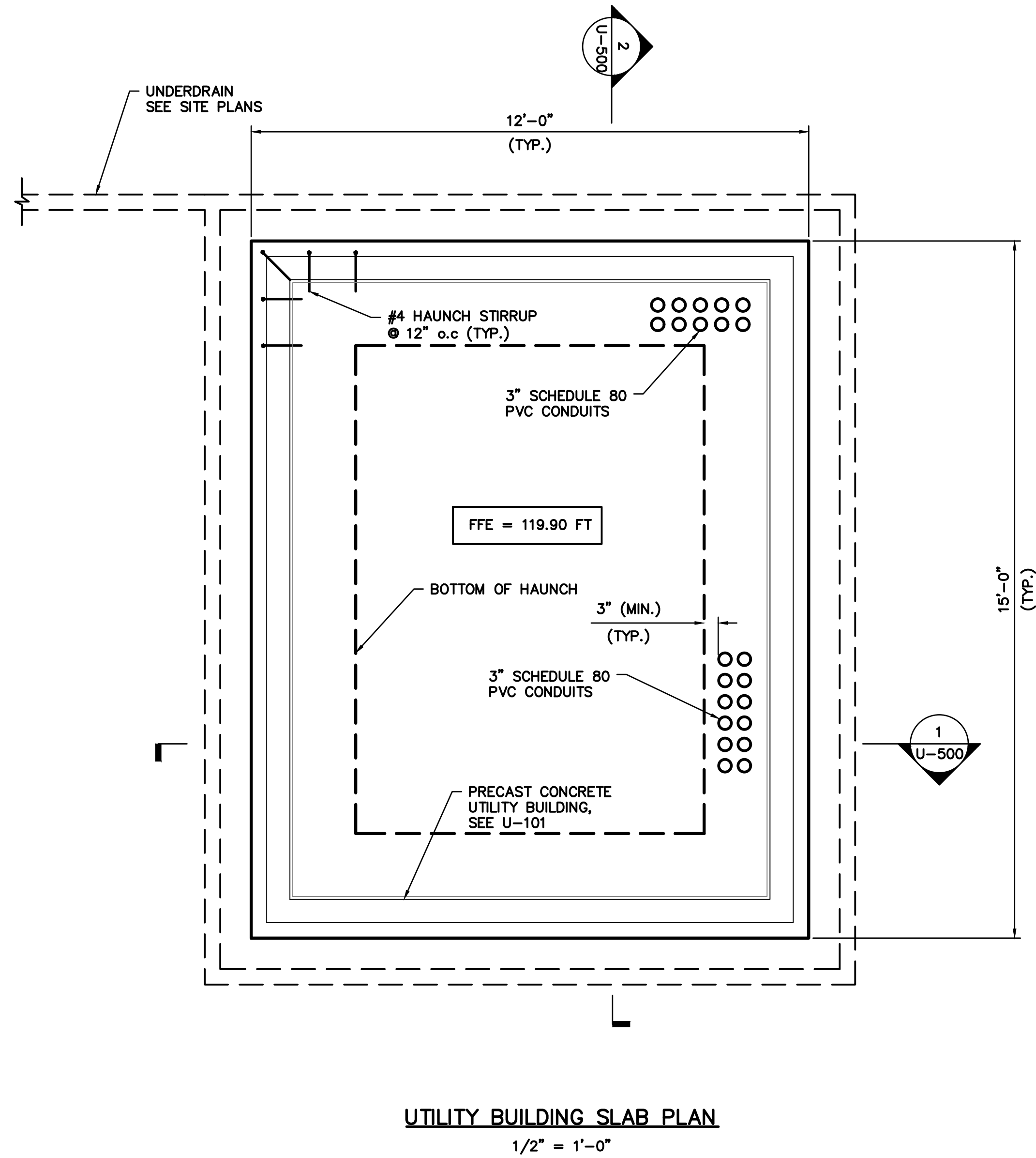
SHEET NUMBER: E602
 CONTRACT: 2022.07
 732 OF 735

Filename: E600-SCHD.dwg

Date: Friday, October 07, 2022

NOTES:

1. SEE S-001 AND S-002 FOR STRUCTURAL NOTES.
2. UTILITY BUILDING SLAB-ON-GRADE FOUNDATION SHALL BE PAID FOR UNDER ITEM 800.011 UTILITY BUILDING - NORTHBOUND.
3. SEE SITE UTILITY PLAN FOR ADDITIONAL UTILITY INFORMATION NOT SHOWN.



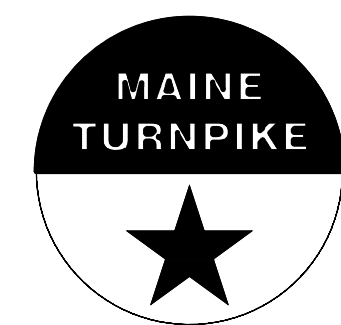
Scale: 3/4" = 1'-0"



Designed by:



STANTEC CONSULTING SERVICES INC.
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**THE GOLD STAR
MEMORIAL HIGHWAY**

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
UTILITY BUILDING - FOUNDATION

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.			
	By	Date	
Designed	SJW	10/22	Checked GGB 10/22
Drawn	SJW	10/22	In Charge of LEM 10/22

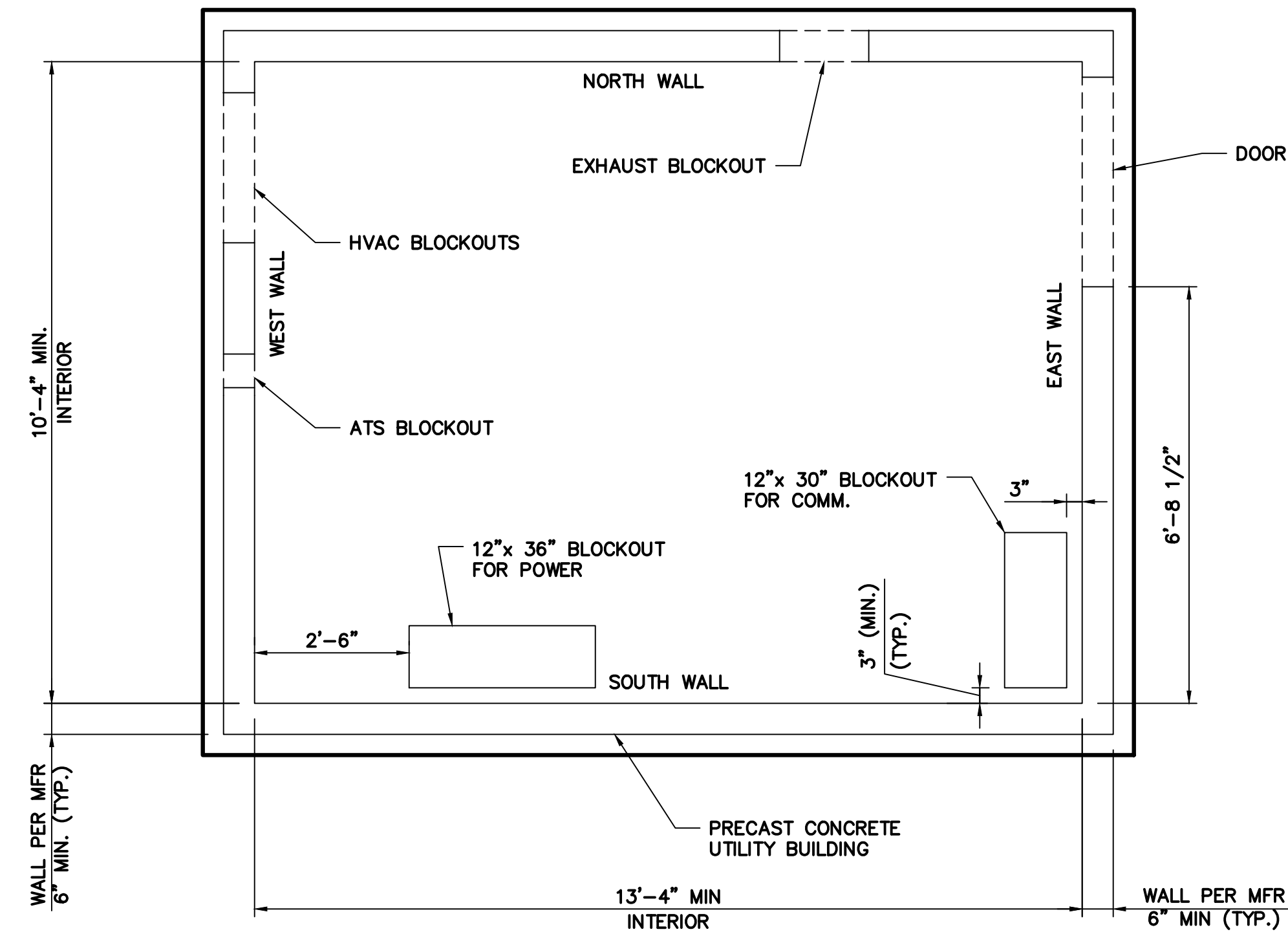
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

CONTRACT: 2022.07

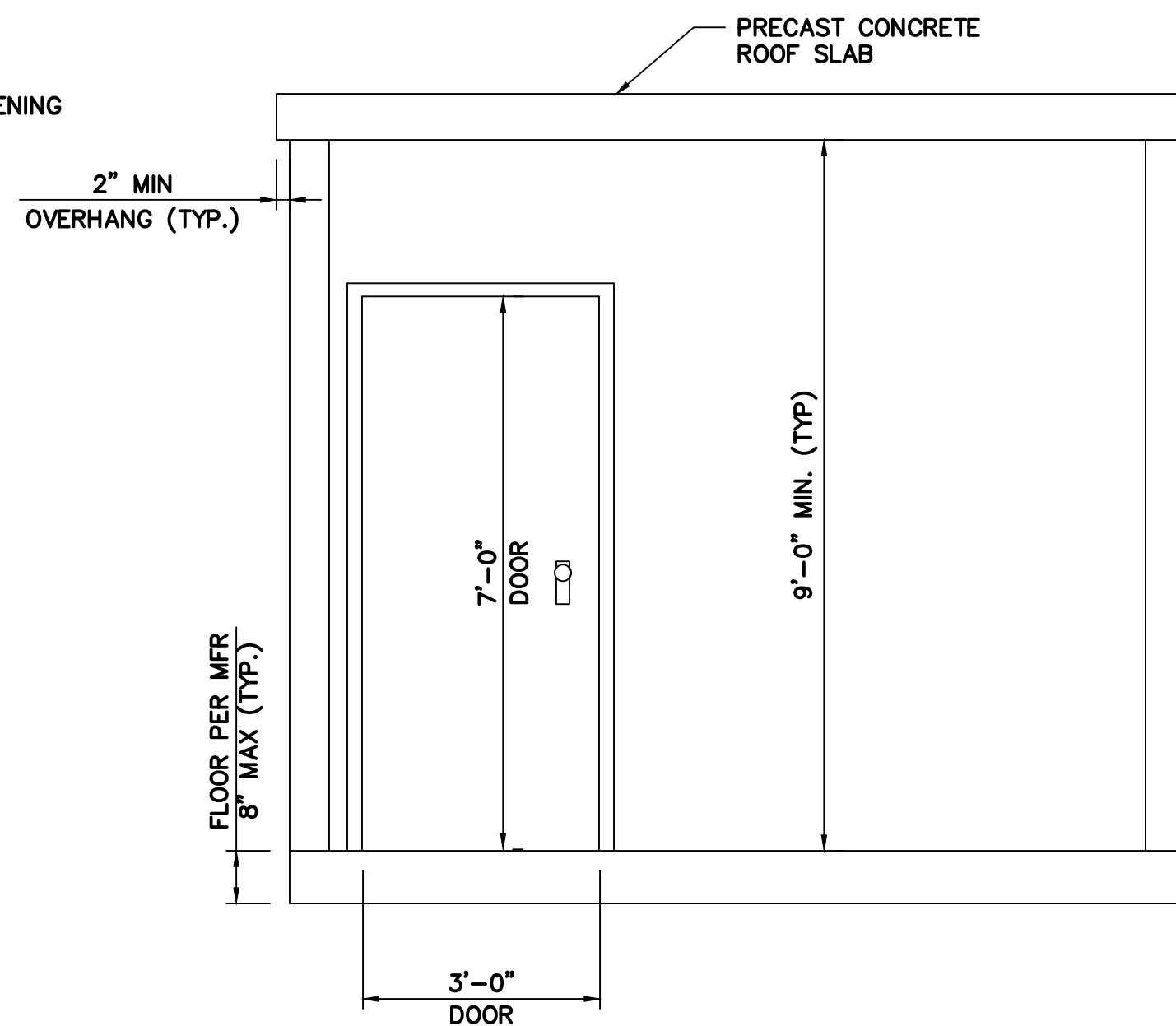
SHEET NUMBER: U-100

733 OF 735

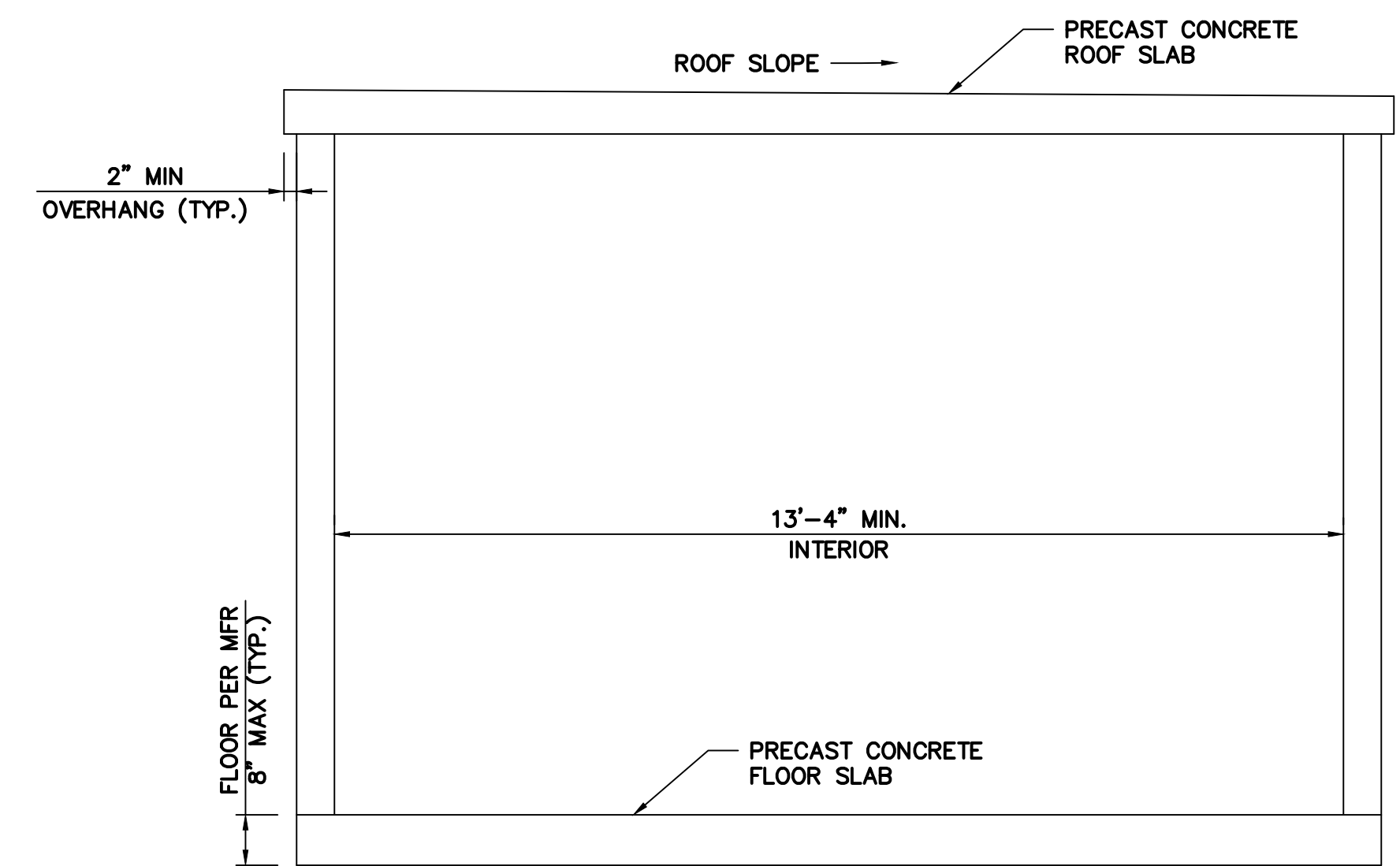
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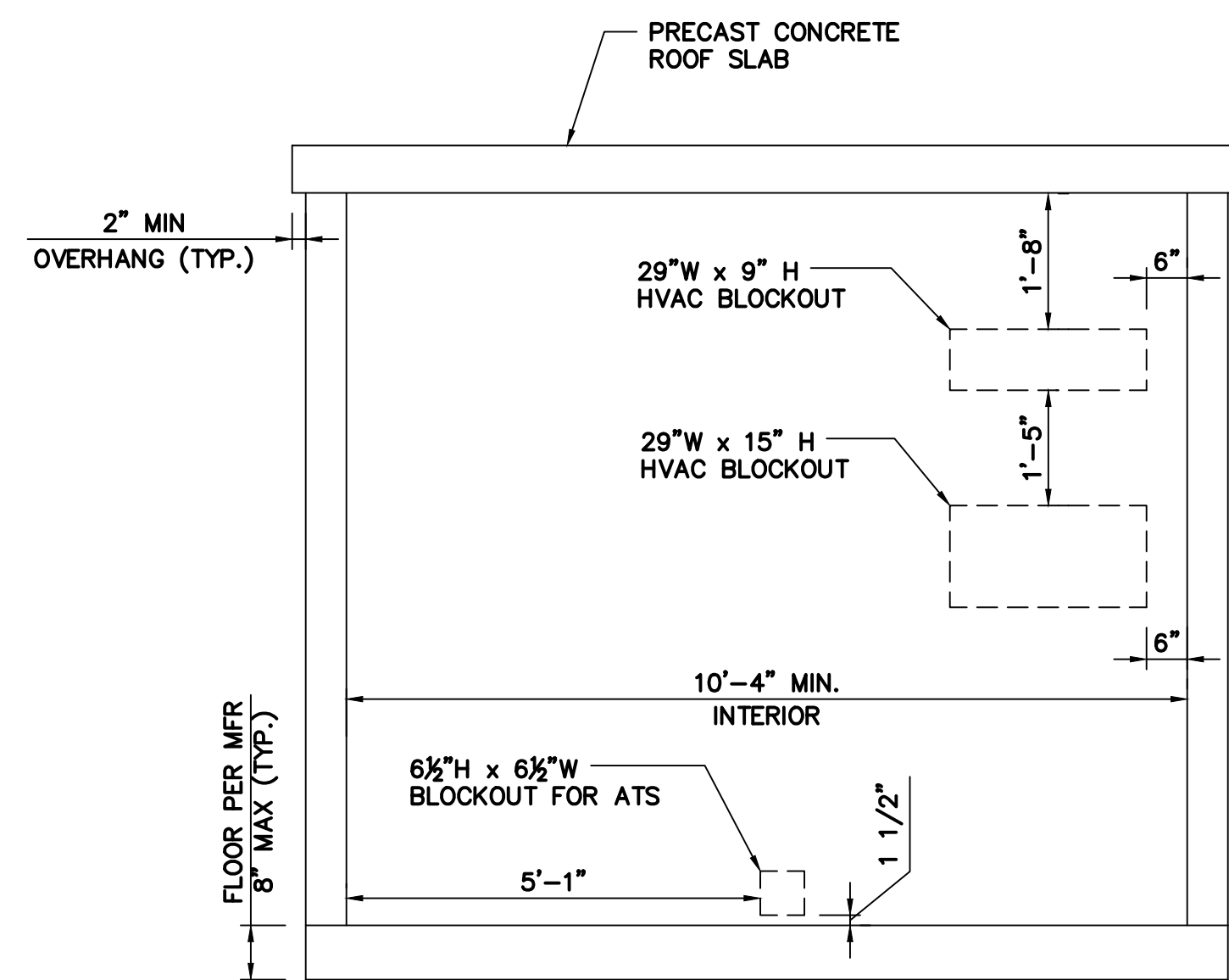
BUILDING PLAN



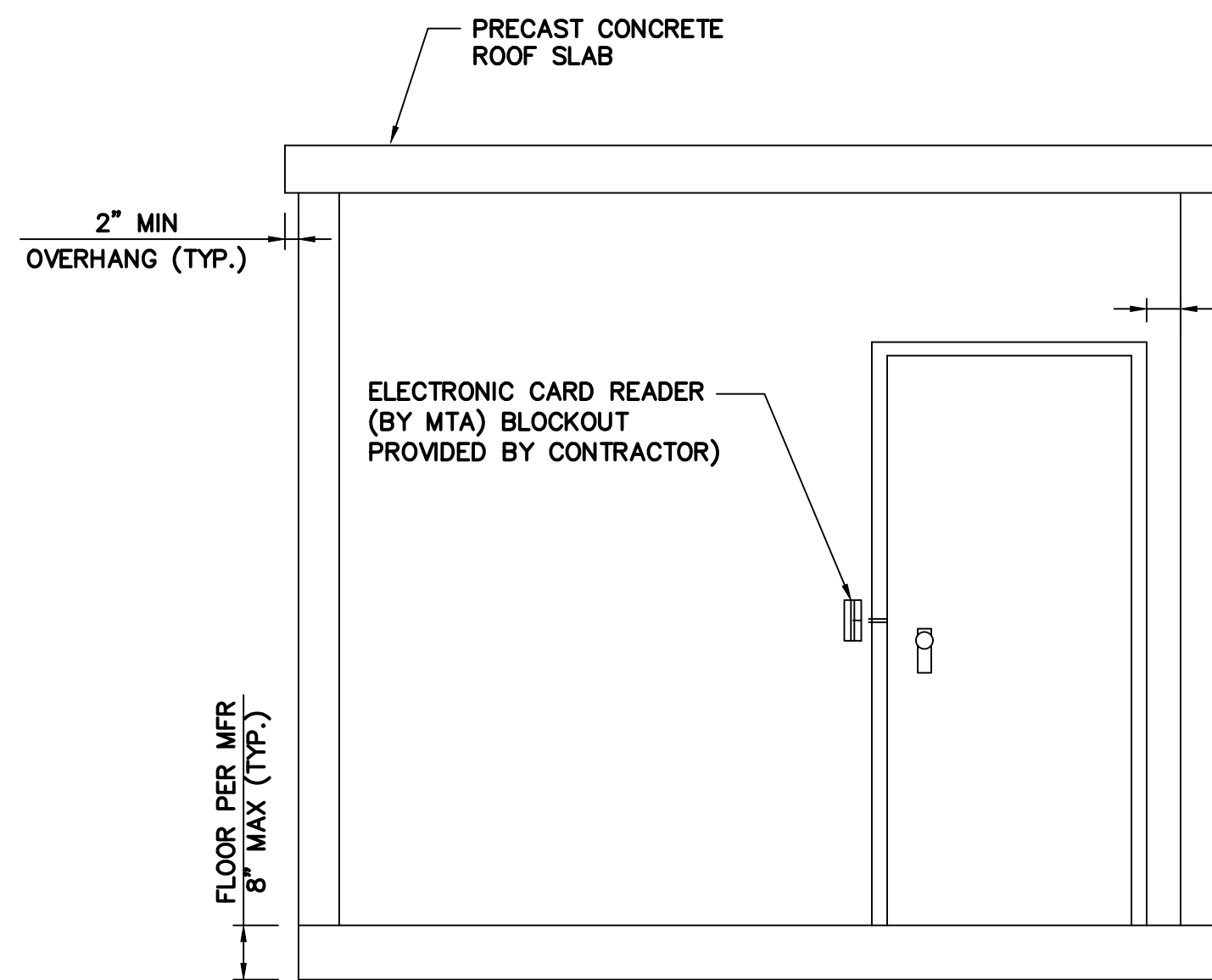
EAST WALL-INTERIOR ELEVATION



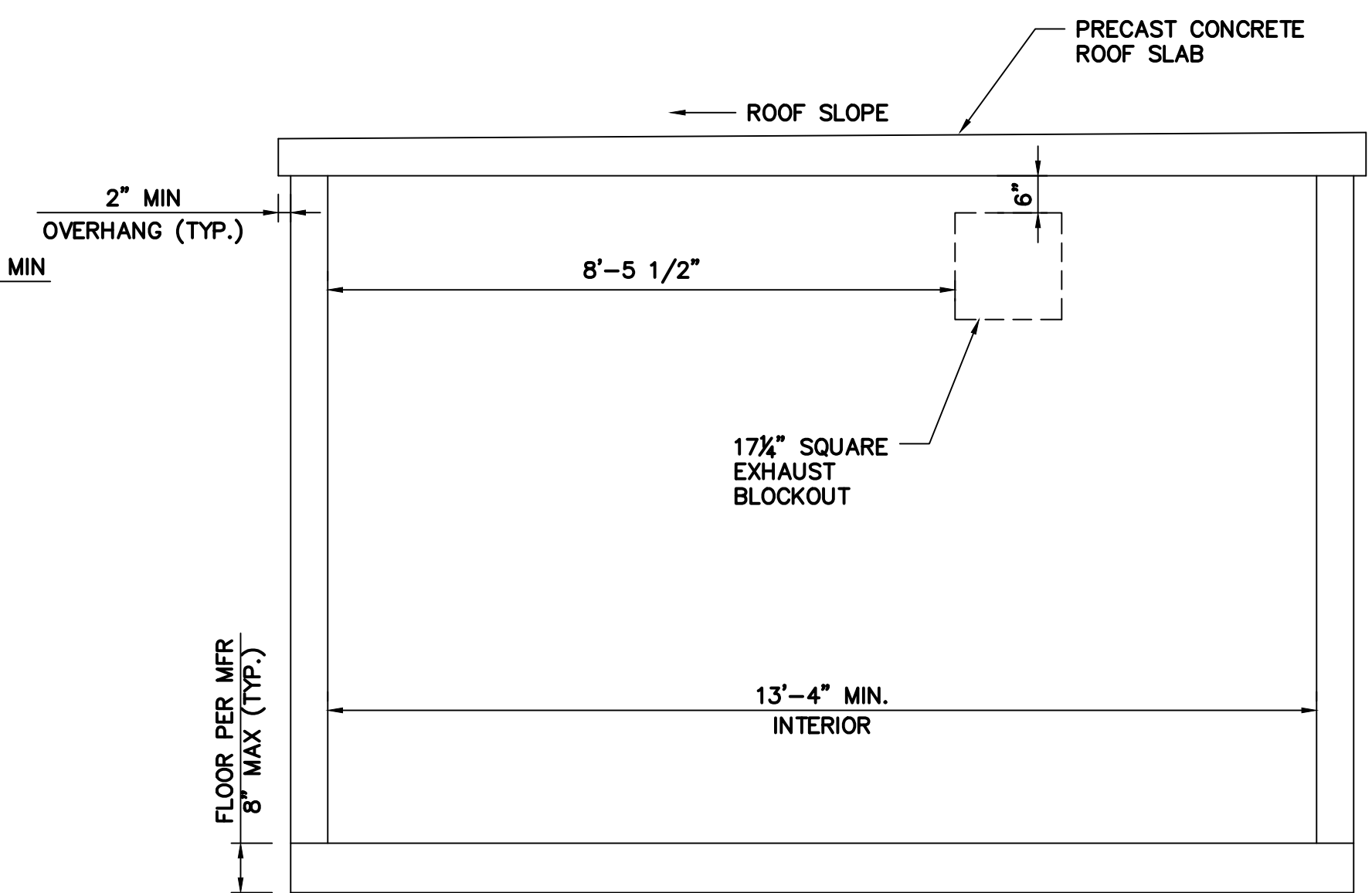
SOUTH WALL - INTERIOR ELEVATION



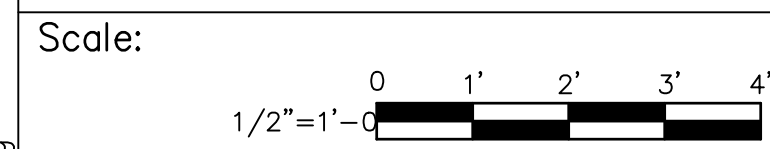
WEST WALL - INTERIOR ELEVATION



EAST WALL-EXTERIOR ELEVATION



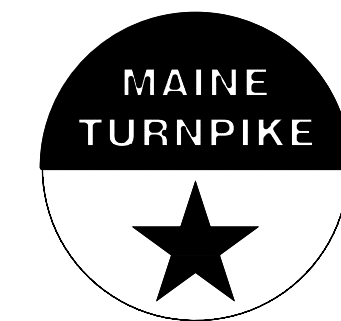
NORTH WALL - INTERIOR ELEVATION



Designed by:



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**THE GOLD STAR
MEMORIAL HIGHWAY**

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
UTILITY BUILDING - DETAILS

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.			
Designed	SJW	10/22	Checked GGB 10/22
Drawn	SJW	10/22	In Charge of LEM 10/22

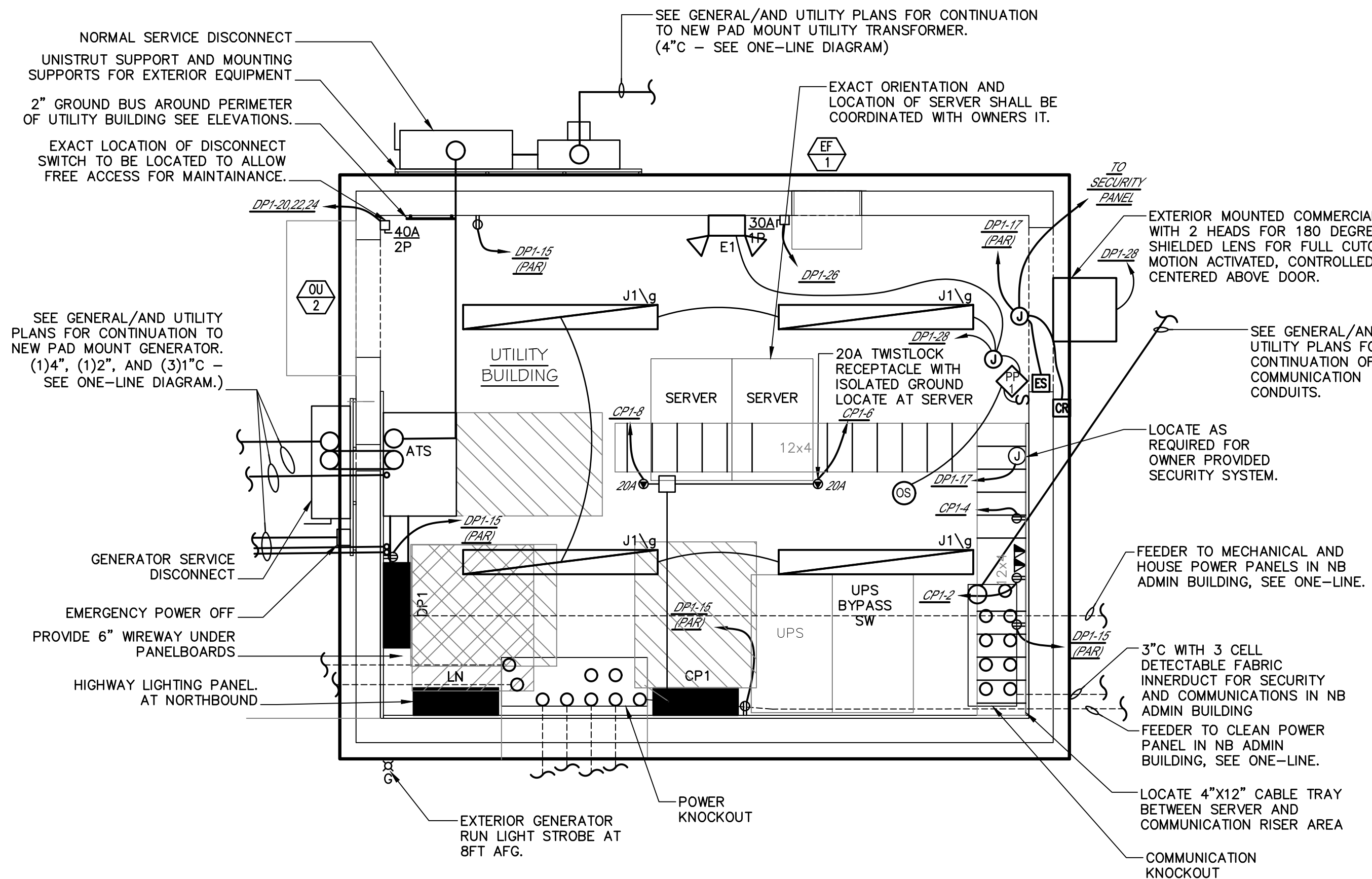
MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

CONTRACT: 2022.07

SHEET NUMBER: U-101

734 OF 735

Date: Friday, October 07, 2022



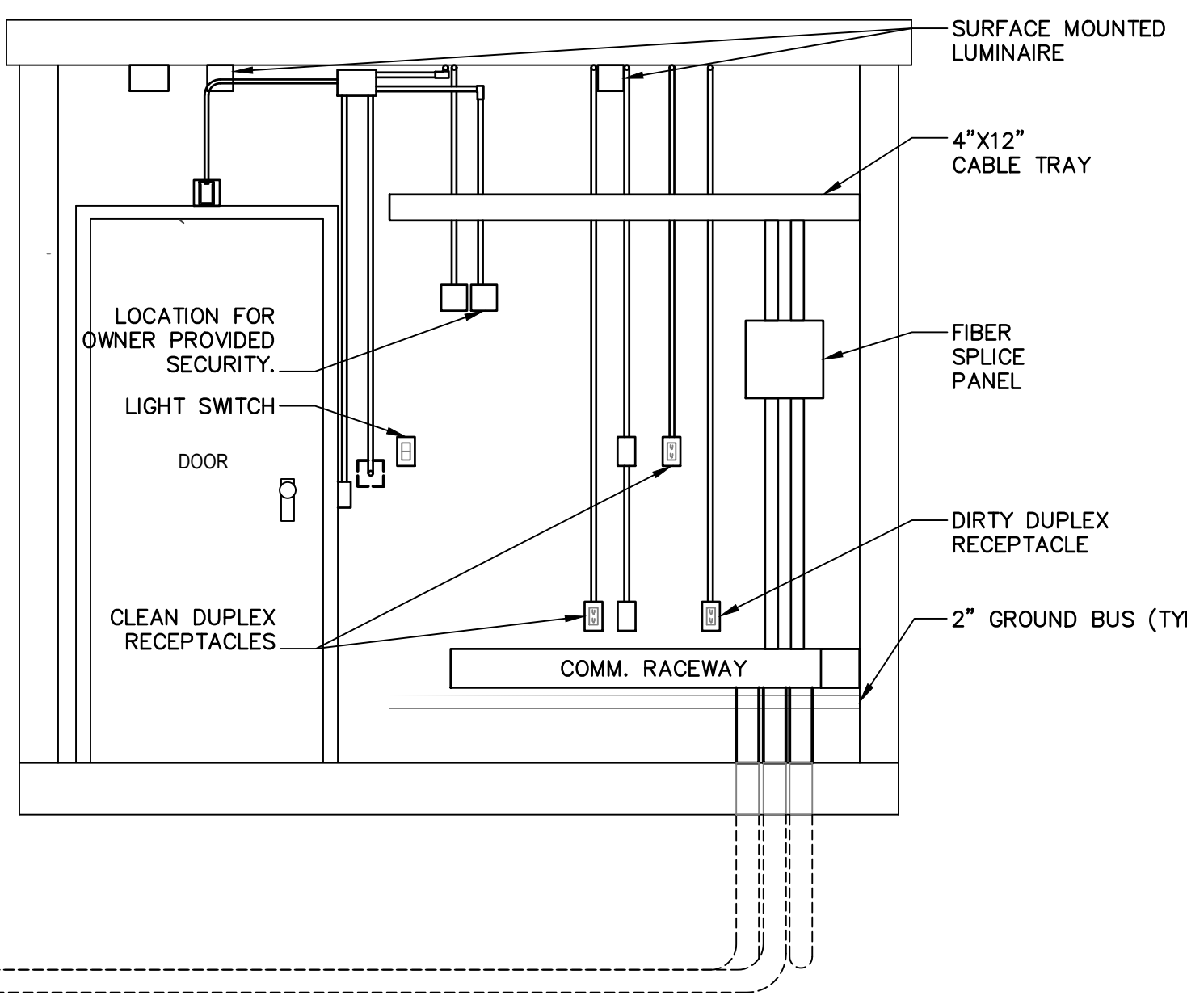
LIGHTING POWER, DATA, AND SYSTEMS PLAN
1/2" = 1'-0"

CABLE TRAY NOTES:

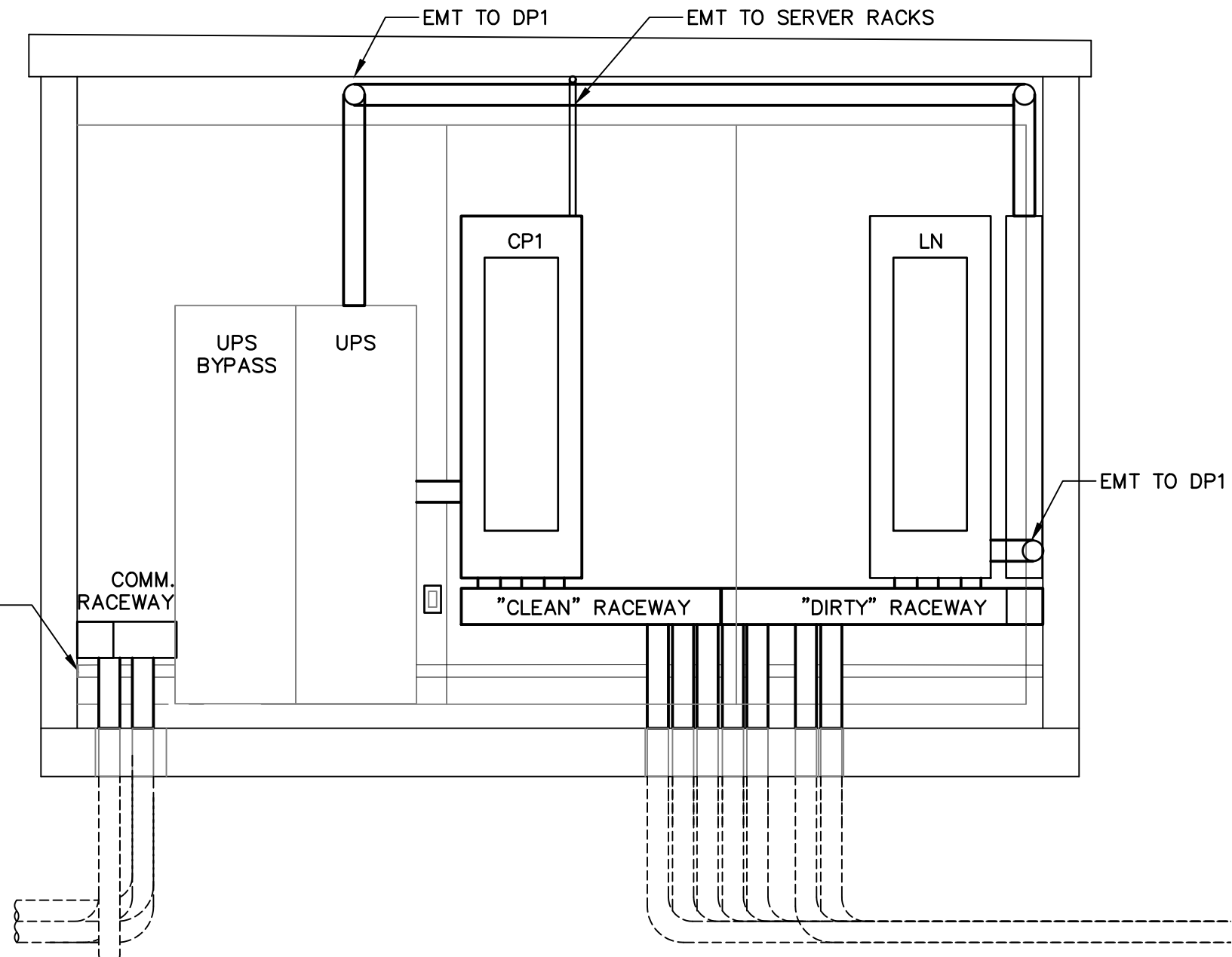
1. ELECTRICAL CONTRACTOR SHALL INSTALL AND PROVIDE TO SECURE INSTALLATION OF ALL CABLE TRAY REQUIRED TO SUPPORT NETWORK CABLES.
2. ALL CABLE TRAY SHALL BE PROPERLY SUPPORTED FROM BUILDING STRUCTURE AS RECOMMENDED BY THE MANUFACTURER.
3. CABLE TRAY SHALL NOT BE INSTALLED WHERE OBSTRUCTIONS FROM BUILDING ARCHITECTURAL OR MECHANICAL SYSTEMS WILL IMPEDE ROUTE.
4. CABLE TRAY MINIMUM MOUNTING HEIGHT SHALL BE 7FT AFF AND FINAL LOCATIONS SHALL BE COORDINATED WITH IT RACKS AND AS DIRECTED BY THE MTA.
5. PROVIDE FIRE STOP OR SELF-SEALING FIRE AND SMOKE DEVICES AROUND ALL CABLES EXITING A FIRE RATED SPACE.

ELECTRICAL WORK NOTES:

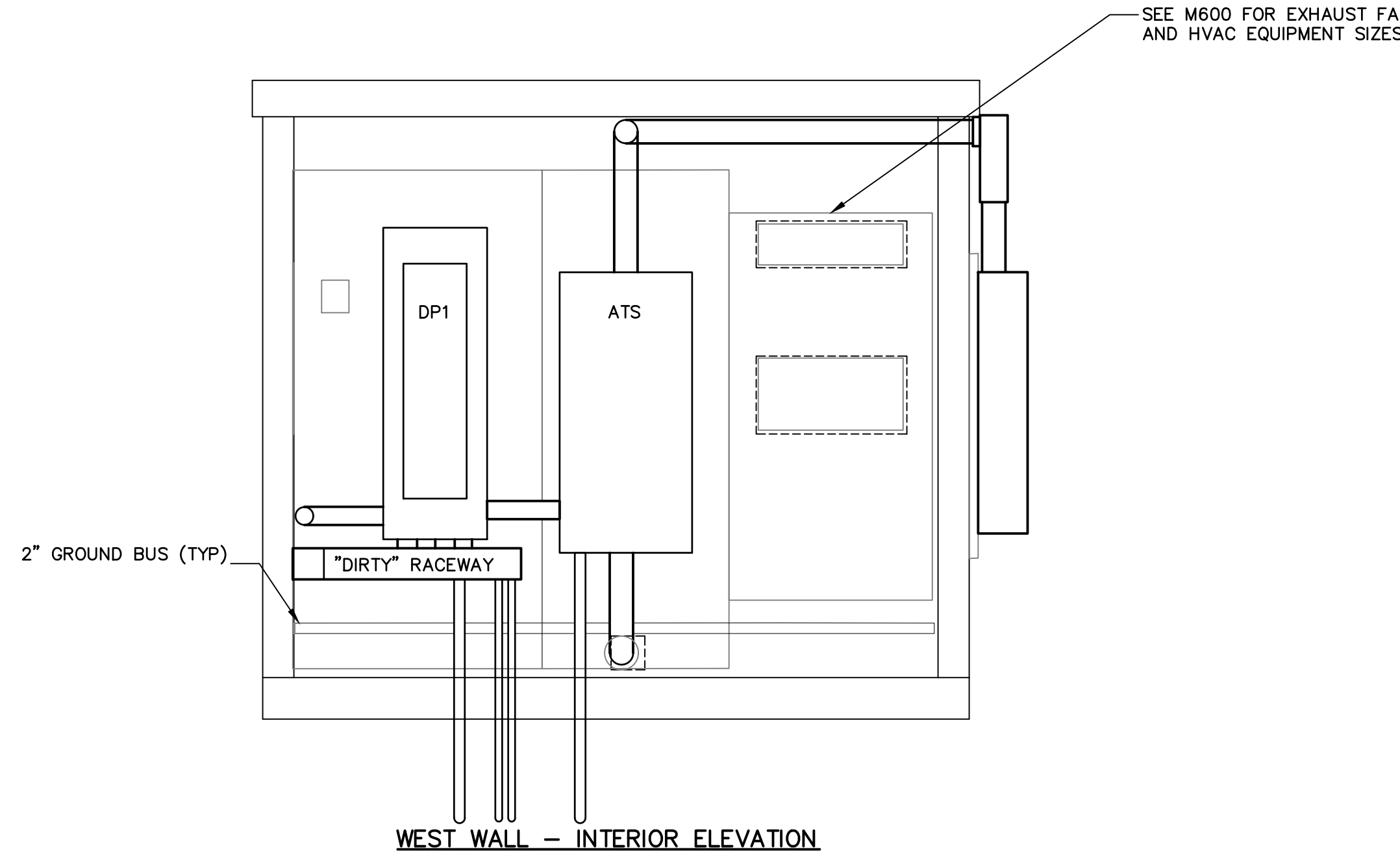
1. SEE E-001 FOR GENERAL NOTES AND LEGENDS.
2. SEE E-50X FOR PANEL DETAILS AND MOUNTING DETAILS.
3. SEE E-60X FOR PANEL SCHEDULES
4. LAYOUT IS SCHEMATIC ONLY. CONTRACTOR SHALL MEET WITH THE OWNER AND RESIDENT TO FINALIZE LAYOUT.



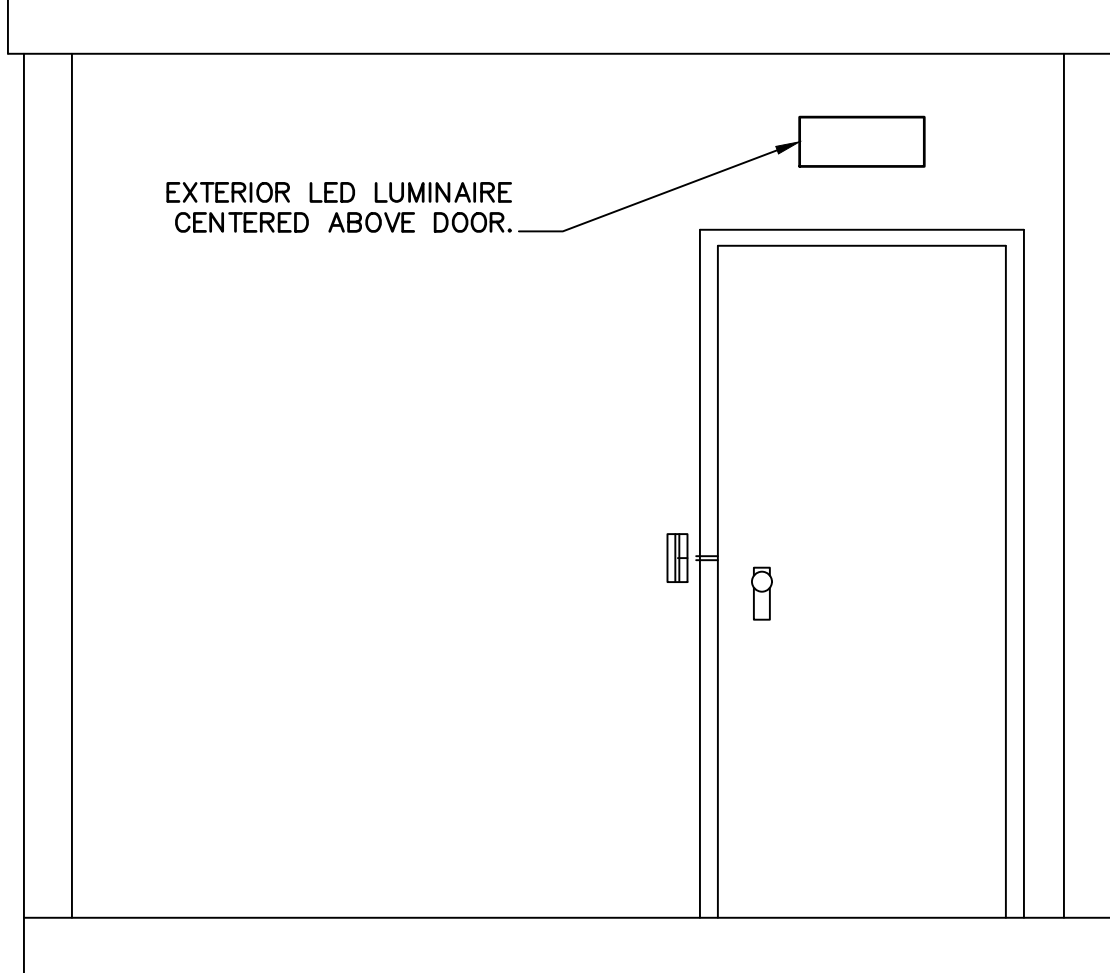
EAST WALL - INTERIOR ELEVATION
1/2" = 1'-0"



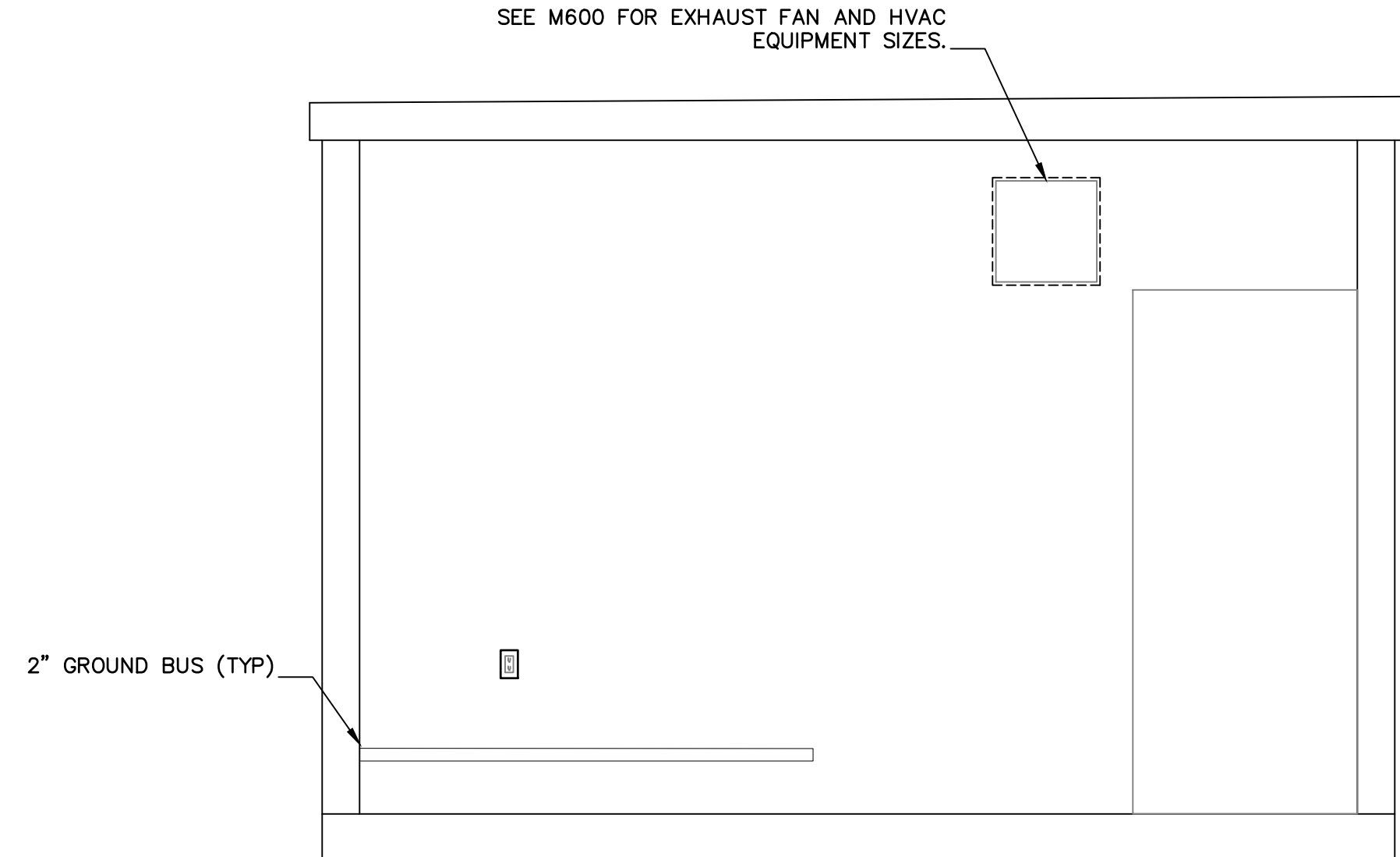
SOUTH WALL - INTERIOR ELEVATION
1/2" = 1'-0"



WEST WALL - INTERIOR ELEVATION



EAST WALL - EXTERIOR ELEVATION



NORTH WALL - INTERIOR ELEVATION

Filename: U-102 - UTILITY BUILDING .dwg

Scale: 0 1' 2' 4'

No.	Revision	By	Date

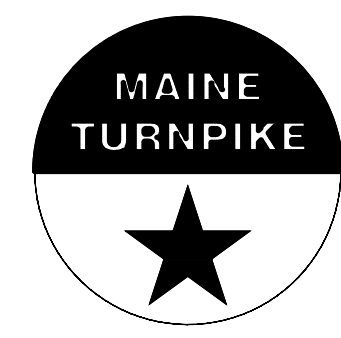
Designed by:

Stantec

CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E.

	By	Date	Checked	By	Date
Designed	MLC	10/22		DMG	10/22
Drawn	MLC	10/22	In Charge of	LEM	10/22

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

INTERCHANGE IMPROVEMENTS
SACO (EXITS 35 & 36)
TOLL ADMINISTRATION BUILDING
NB UTILITY BUILDING - LAYOUT

CONTRACT: 2022.07

SHEET NUMBER: U-102
735 OF 735