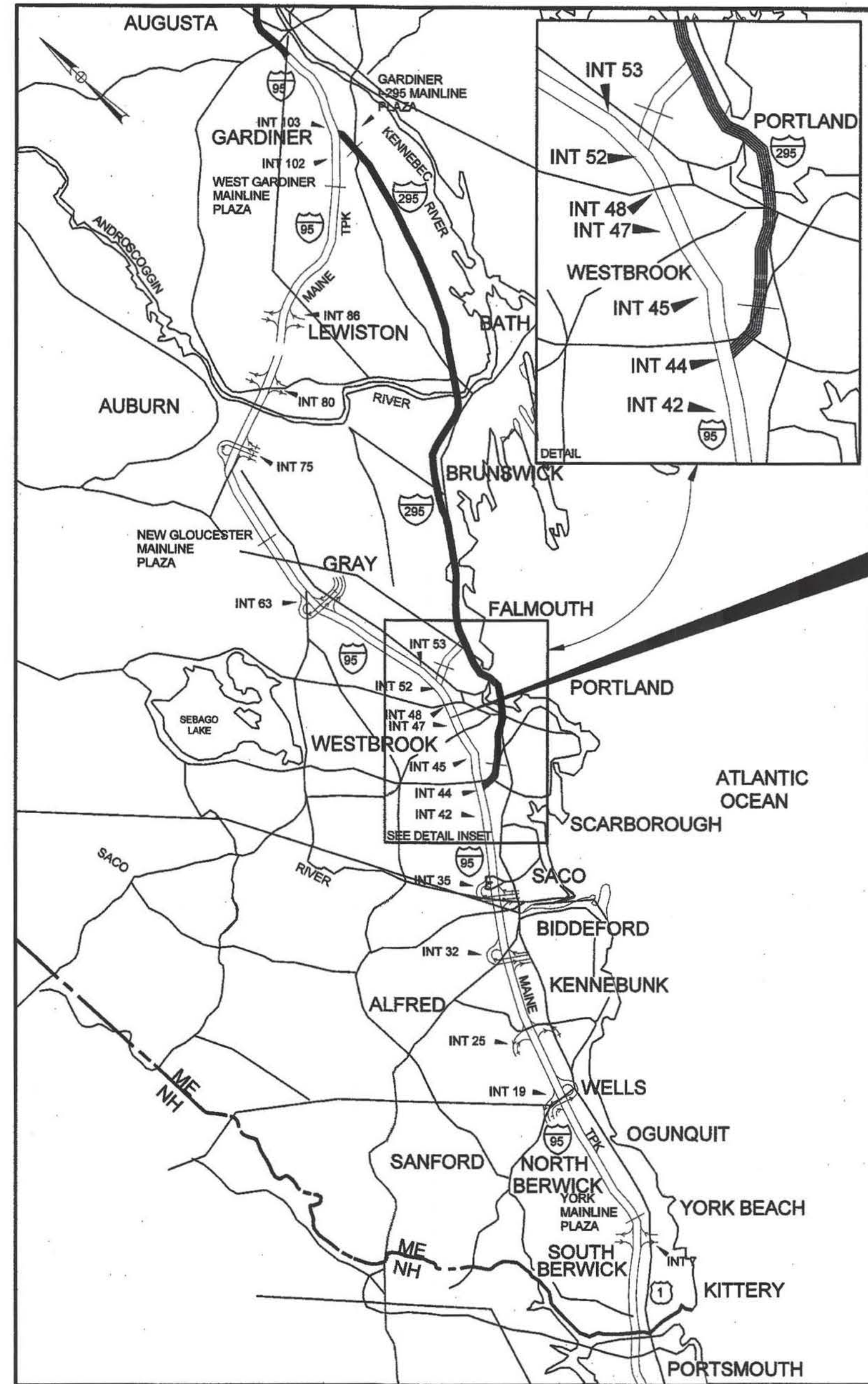




THE GOLD STAR MEMORIAL HIGHWAY

MAINE TURNPIKE AUTHORITY



CONTRACT 2021.06 CROSBY
VEHICLE STORAGE MILE
MARKER 45.8

DANIEL E. WATHEN, CHAIR
MICHAEL J. CIANCHETTE, MEMBER
JANE L. LINCOLN, MEMBER
ANN R. ROBINSON, MEMBER
ROBERT D. STONE, MEMBER
THOMAS J. ZUKE, MEMBER
BRUCE A. VAN NOTE, MEMBER EX-OFFICIO - MAINE DOT

S. PETER MILLS, EXECUTIVE DIRECTOR

CONTRACT 2021.06 CROSBY VEHICLE STORAGE GARAGE

ISSUED FOR BID
NOVEMBER 22, 2021

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
G-000	COVER SHEET
C-001	EXISTING CONDITIONS AND REMOVALS PLAN
C-101	SITE AND UTILITY PLAN
C-102	GRADING, DRAINAGE, EROSION CONTROL PLAN
C-401	DETAILS - 1
C-402	DETAILS - 2
C-403	DETAILS - 3
C-404	GENERAL NOTES AND DETAILS - 4
C-405	TYPICAL SECTIONS
A-0	ARCHITECTURAL COVER SHEET
A-1	CODE COMPLIANCE & FIRST FLOOR PLANS
A-2	ROOF PLAN & DETAILS
A-3	ELEVATIONS
A-4	BUILDING SECTIONS
A-5	WALL SECTIONS
A-6	DOOR, WINDOW & FINISH SCHEDULES
A-7	DETAILS
A-8	ACCESSIBILITY DETAILS & NOTES
S-000	STRUCTURAL - GENERAL INFORMATION
SB-100	STRUCTURAL - FOUNDATION PLAN
SB-500	STRUCTURAL - FOUNDATION DETAILS
SB-501	STRUCTURAL - FOUNDATION DETAILS
P000	PLUMBING AND HVAC NOTES, LEGEND AND ABBREVIATIONS
PL100	SANITARY PIPING PLAN
PP100	DOMESTIC PIPING PLAN
MH100	MECHANICAL PLAN
ES100	ELECTRICAL SITE PLAN
E000	ELECTRICAL LEGEND
E001	ELECTRICAL GENERAL NOTES AND SCHEDULES
EL100	LIGHTING PLAN
EP100	POWER AND SYSTEMS PLAN
EP500	POWER RISER DIAGRAM

Contract 2021.06

LOCATION MAP

Allied Engineering
Structural Mechanical Electrical Plumbing
160 Veranda Street
Portland, Maine 04103
P: 207.221.2260
F: 207.221.2266
Web: www.allied-eng.com

APPROVED:

MAINE TURNPIKE AUTHORITY

Peter S. Merfeld
PETER S. MERFELD, P.E.—CHIEF OPERATIONS OFFICER

11/19/21
DATE

Stephen R. Tartre
STEPHEN R. TARTRE, P.E.—DIRECTOR OF ENGINEERING

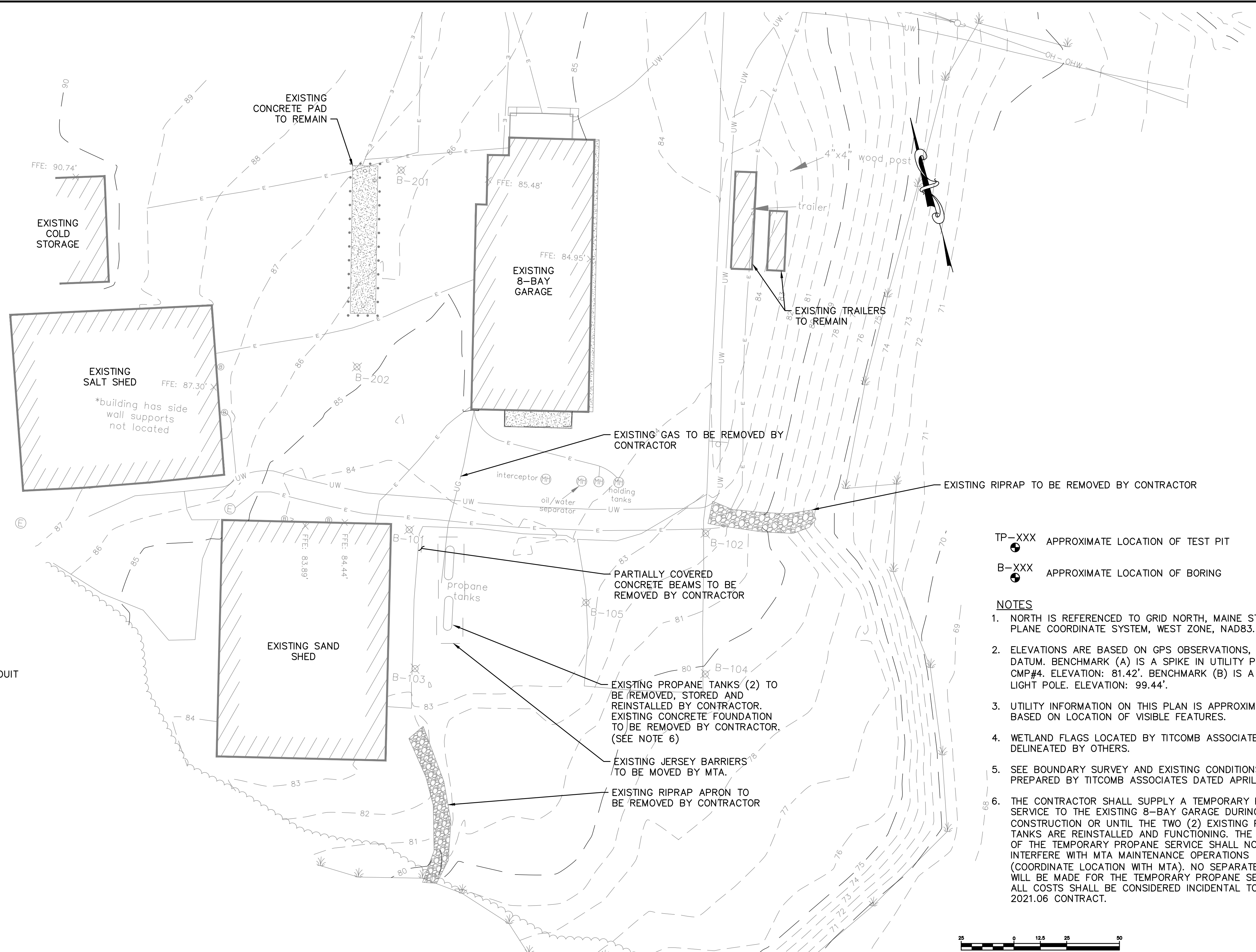
11/19/21
DATE

John W. Cannell
JOHN W. CANNELL, P.E.—DIRECTOR OF MAINTENANCE

11/19/21
DATE

William P. Faucher
WILLIAM P. FAUCHER, P.E. —
PRINCIPLE © ALLIED ENGINEERING, INC.
11-22-2021
DATE

Professional Engineer Licenses:
 - WILLIAM P. FAUCHER, No. 1133
 - ANTHONY S. DAVIS, No. 8834
 - CATHERINE A. FAUCHER, No. 7376
 - ALTON M. PALMER III, No. 6251
 - MICHAEL F. HAYS, No. 1724 (Licensed Architect)

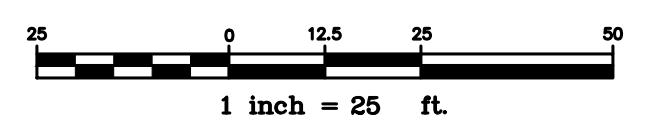


CIVIL LEGEND

SYMBOL	DESCRIPTION
---	EXISTING RIGHT-OF-WAY
- - -	EXISTING SETBACK
---	EXISTING EDGE OF PAVEMENT
~ ~ ~	EXISTING TREELINE
-x-x-	EXISTING CHAINLINK FENCE
- - -	EXISTING GUARDRAIL
- - -	EXISTING CONTOUR
▨	EXISTING BUILDING
UG	EXISTING UNDERGROUND GAS
OHW	EXISTING OVERHEAD WIRE
UC	EXISTING UNDERGROUND CABLE
UW	EXISTING UNDERGROUND WATER
UE	EXISTING UNDERGROUND ELECTRIC
15" RCP-SD	EXISTING UNDERGROUND STORM DRAIN
□	EXISTING CATCH BASIN
+	EXISTING FREE STANDING SIGN
○	EXISTING WATER SHUT OFF
○	EXISTING LIGHT POLE
○	EXISTING PROPANE TANK
○	EXISTING UTILITY POLE
○	EXISTING HYDRANT
▬	PROPOSED VERTICAL GRANITE CURB
▬	PROPOSED EDGE OF BUILDING
▬	PROPOSED GUARDRAIL
▬	PROPOSED CONCRETE
▬	PROPOSED EDGE OF PAVEMENT
▬	PROPOSED CONTOUR
▬	PROPOSED SEWER
▬	PROPOSED WATER
▬	PROPOSED UNDERGROUND ELECTRIC CONDUIT
▬	PROPOSED UNDERGROUND COMMUNICATION CONDUIT
▬	PROPOSED PROPANE LINE
▬	PROPOSED SILT FENCE
○	2019 SOIL PROBE LOCATION
○	2019 BORING LOCATION
□	PRECAST CONCRETE JUNCTION BOX

- TP-XXX APPROXIMATE LOCATION OF TEST PIT
- B-XXX APPROXIMATE LOCATION OF BORING

- NOTES**
- NORTH IS REFERENCED TO GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE, NAD83.
 - ELEVATIONS ARE BASED ON GPS OBSERVATIONS, NAVD88 DATUM. BENCHMARK (A) IS A SPIKE IN UTILITY POLE CMP#4. ELEVATION: 81.42'. BENCHMARK (B) IS A SPIKE IN LIGHT POLE. ELEVATION: 99.44'.
 - UTILITY INFORMATION ON THIS PLAN IS APPROXIMATE, BASED ON LOCATION OF VISIBLE FEATURES.
 - WETLAND FLAGS LOCATED BY TITCOMB ASSOCIATES. DELINEATED BY OTHERS.
 - SEE BOUNDARY SURVEY AND EXISTING CONDITIONS PLAN PREPARED BY TITCOMB ASSOCIATES DATED APRIL 2020.
 - THE CONTRACTOR SHALL SUPPLY A TEMPORARY PROPANE SERVICE TO THE EXISTING 8-BAY GARAGE DURING CONSTRUCTION OR UNTIL THE TWO (2) EXISTING PROPANE TANKS ARE REINSTALLED AND FUNCTIONING. THE LOCATION OF THE TEMPORARY PROPANE SERVICE SHALL NOT INTERFERE WITH MTA MAINTENANCE OPERATIONS (COORDINATE LOCATION WITH MTA). NO SEPARATE PAYMENT WILL BE MADE FOR THE TEMPORARY PROPANE SERVICE, ALL COSTS SHALL BE CONSIDERED INCIDENTAL TO THE 2021.06 CONTRACT.



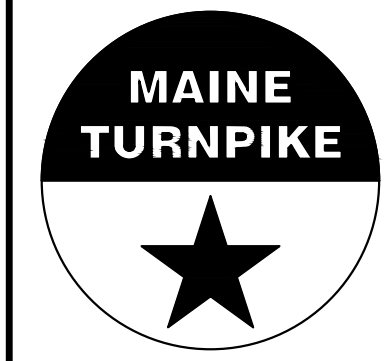
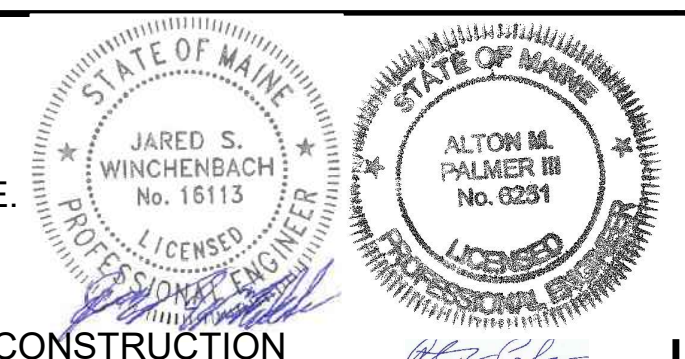
Scale: 1"=25'

No.	Revision	By	Date

Designed by:
ALTON M. PALMER, P.E.
JARED S. WINCHENBACH, P.E.

ISSUED FOR BID - NOT FOR CONSTRUCTION

By	Date	By	Date
Designed: JSW	11/22/2021	Checked: AMP	11/22/2021
Drawn: CEH	11/22/2021		



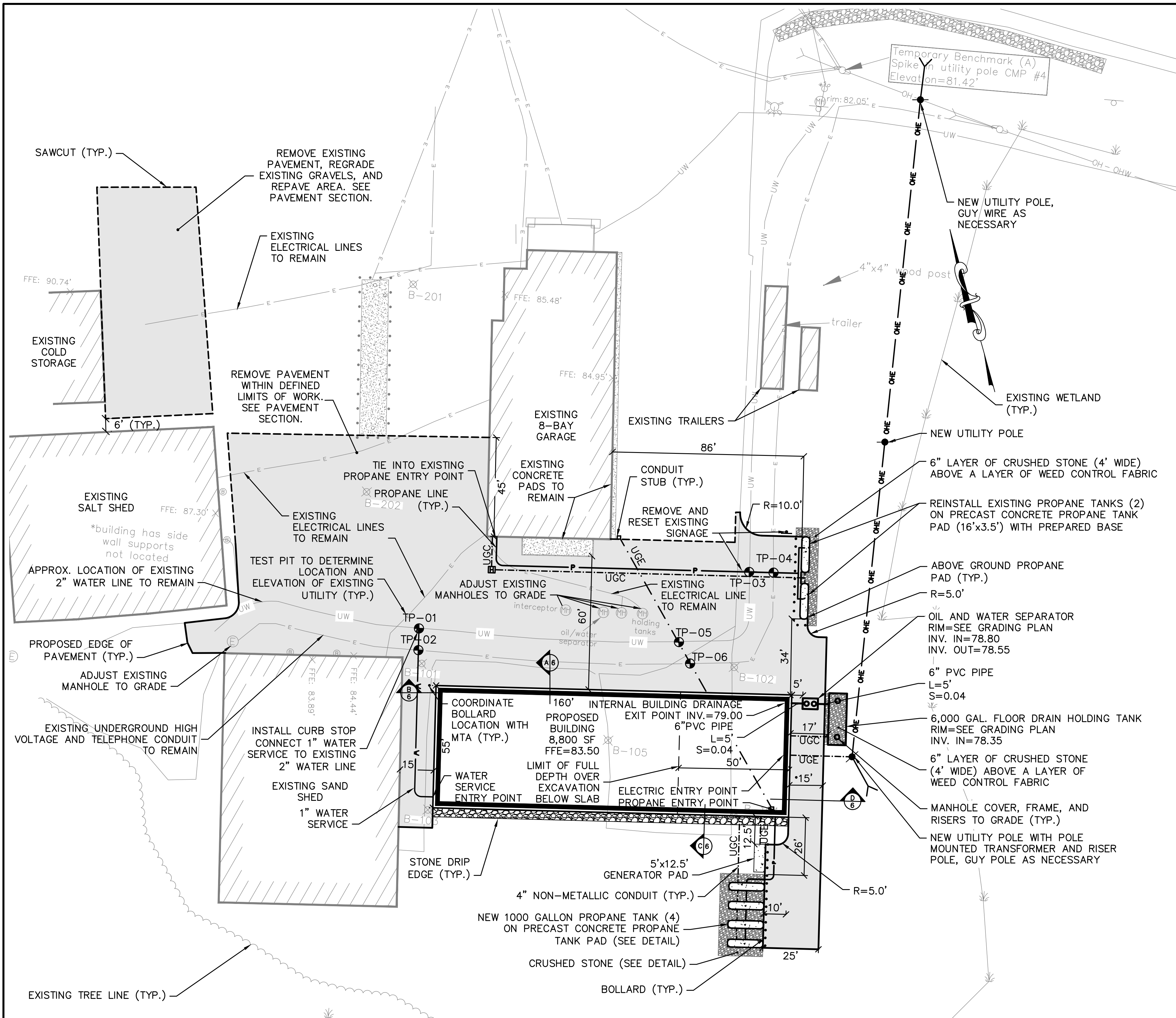
**THE GOLD STAR
MEMORIAL HIGHWAY**

**CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
EXISTING CONDITIONS AND REMOVALS PLAN**

PROJ.NO.: 3661 CAD FILE: 3661-DEMO.dwg

MTA PROJECT MANAGER: **Brian A. Taddeo, P.E.**

CONTRACT: 2021.06 SHEET NUMBER: C-001 2 OF 32

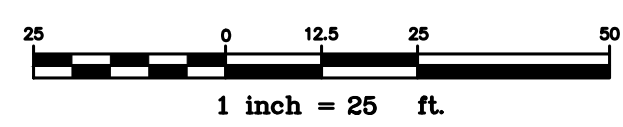


NOTES:

1. SURVEY AND TOPOGRAPHY PROVIDED BY TITCOMB ASSOCIATES OF FALMOUTH, MAINE, DATED APRIL 23, 2020.
2. ALL SITE WORK SHALL BE DONE IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, HIGHWAYS AND BRIDGES, (2014 EDITION) AND AS MODIFIED BY MAINE TURNPIKE 2016 SUPPLEMENTAL SPECIFICATIONS. SPECIAL PROVISIONS HAVE BEEN PREPARED FOR WORK ITEMS NOT ADDRESSED IN THE STANDARD SPECIFICATIONS, AND ARE ENCLOSED AS PART OF THIS CONTRACT. IN THE EVENT OF A CONFLICT BETWEEN THE STANDARD SPECIFICATIONS AND THE SUPPLEMENTAL SPECIFICATIONS, THE MORE STRINGENT STANDARD SHALL APPLY.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL SPOIL/EXCESS MATERIAL FROM THE SITE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS.
4. ALL AREAS OUTSIDE THE LIMIT OF WORK DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO PRIOR CONDITIONS AT NO EXPENSE TO THE OWNER.
5. ALL PAVEMENT SHALL BE SAWCUT PRIOR TO REMOVAL.
6. THE EXISTING PAVEMENT AREAS ON THE SITE, SHOWN AS TO BE REMOVED, SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION FOR MTA MAINTENANCE VEHICLES AND PERSONNEL.
7. REFER TO THE SPECIAL PROVISIONS FOR INFORMATION REGARDING PAVEMENT AND TACK COAT SPECIFICATIONS.
8. ALL ABOVE GROUND FEATURES AND BELOW GROUND OBSTRUCTIONS, (UTILITIES, FOUNDATIONS, ETC.) ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED AND DISPOSED OF AS NECESSARY TO ENABLE WORK TO BE COMPLETED. UNDERGROUND UTILITIES LABELED "TO REMAIN" SHALL BE PROTECTED. SAVING OR REMOVAL OF UNDERGROUND OBSTRUCTIONS NOT SHOWN ON THE PLAN SHALL BE COORDINATED WITH THE PROJECT OWNER OR THEIR REPRESENTATIVE.
9. BORING AND SOIL PROBE LOCATIONS TAKEN FROM GEOTECHNICAL REPORT PREPARED BY S.W. COLE DATED MAY 2020.
10. THE MAINTENANCE YARD AND ALL OF ITS FACILITIES WILL STAY IN OPERATION DURING THE PROJECT. TEMPORARY SHUT DOWNS DURING CERTAIN PARTS OF THE SUMMER CAN BE ALLOWED FOR GRADING AND PAVING OPERATIONS.
11. DURING CONSTRUCTION, THE PROPANE TANKS SHALL BE PROTECTED AT ALL TIMES ON ALL SIDES.
12. A MAXIMUM OF 3' CLEAR SPACE SHALL BE PERMITTED BETWEEN BOLLARDS IN FRONT OF THE PROPANE TANKS. BOLLARDS SHALL BE PLACED ON ALL SIDES THAT COULD BE IMPACTED BY VEHICLES.
13. A DELINEATOR POST (MAINEDOT STANDARD SPECIFICATIONS ITEM 606.356, UNDERDRAIN DELINEATOR POST WILL BE INSTALLED AT EACH UNDERDRAIN OUTLET.
14. WEED CONTROL FABRIC SHALL BE MIRAFI 140N OR APPROVED EQUAL.
15. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, FOR THE PRECAST CONCRETE PROPANE TANK PAD, STAMPED BY A LICENSED PROFESSIONAL ENGINEER FOR REVIEW AND APPROVAL BY THE MTA OR THE RESIDENT.
16. PROPOSED GATE VALVE AND VALVE BOXES SHALL COMPLY WITH PORTLAND WATER DISTRICT STANDARD SPECIFICATIONS.
17. FOR CONDUIT SIZING INFORMATION, SEE ELECTRICAL SITE PLAN.
18. REFER TO SHEET SB-500 FOR GENERATOR PAD DETAIL.
19. FULL DEPTH OVER EXCAVATION BELOW THE SLAB SHALL BEGIN AT THE LIMITS NOTED ON THE PLAN AND EXTEND APPROXIMATELY 50' TO THE EAST SIDE OF THE BUILDING. SEE TYPICAL SECTIONS FOR ADDITIONAL INFORMATION.

BUILDING CORNERS - LAYOUT DATA		
LOCATION	NORTHING	EASTING
NORTHWEST CORNER	294649.59	2907797.24
NORTHEAST CORNER	294603.79	2907950.54
SOUTHEAST CORNER	294551.10	2907934.77
SOUTHWEST CORNER	294596.89	2907781.50

PAVEMENT LEGEND	
	HEAVY DUTY BITUMINOUS PAVEMENT
	REINFORCED CONCRETE



Scale: 1"=25'

No.	Revision	By	Date

Designed by:
 ALTON M. PALMER, P.E.
 JARED S. WINCHENBACH, P.E.

ISSUED FOR BID - NOT FOR CONSTRUCTION

Designed:	By	Date	Checked:	By	Date
JSW	JSW	11/22/2021	AMP	AMP	11/22/2021
Drawn:	CEH	11/22/2021			

GORRILL PALMER

MAINE TURNPIKE

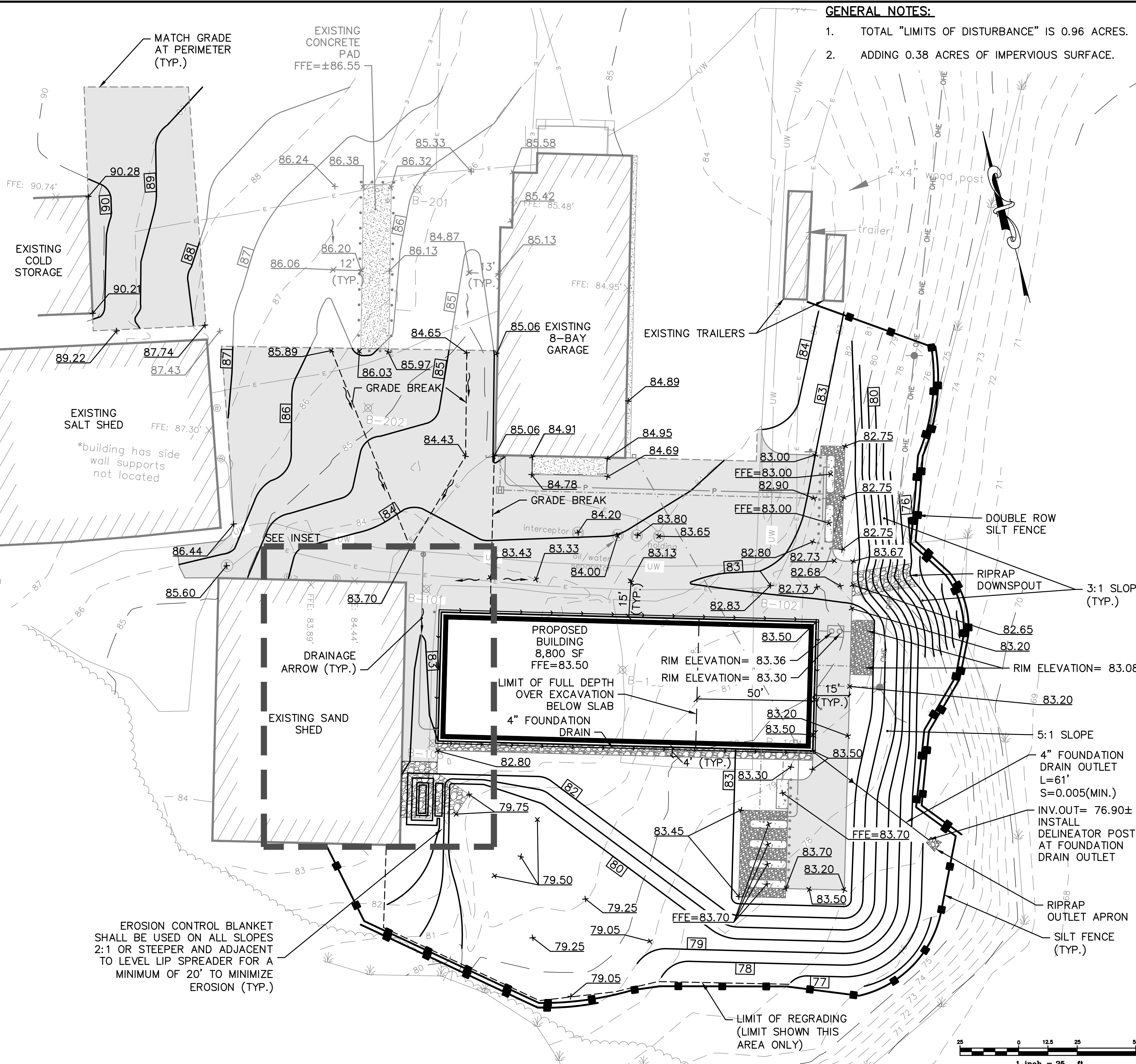
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
 CROSBY VEHICLE STORAGE GARAGE
 SITE AND UTILITY PLAN

SHEET NUMBER: C-101

CONTRACT: 2021.06 3 OF 32



GENERAL NOTES:

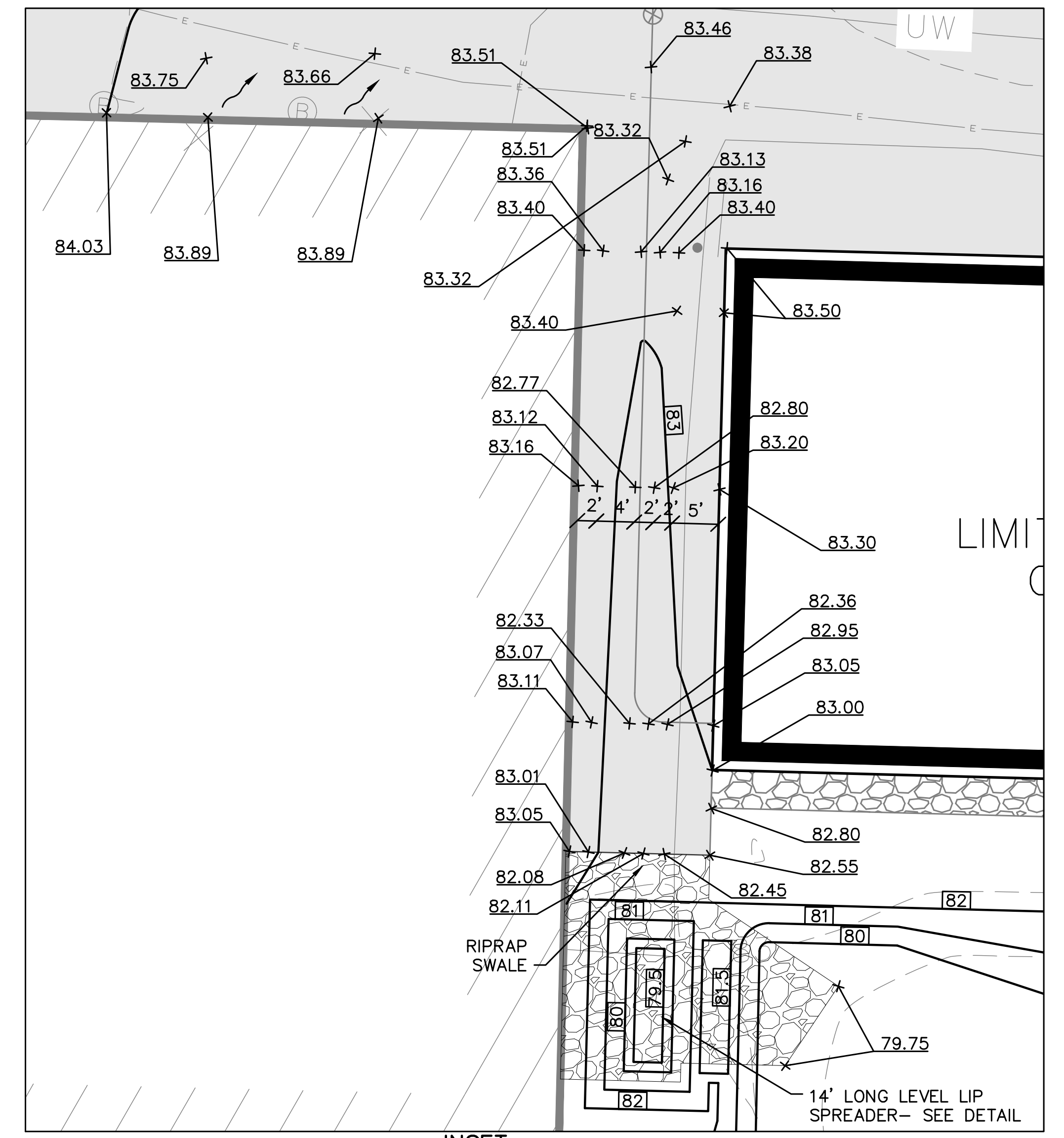
1. TOTAL "LIMITS OF DISTURBANCE" IS 0.96 ACRES.
2. ADDING 0.38 ACRES OF IMPERVIOUS SURFACE.

GRADING & DRAINAGE NOTES:

1. TOPSOIL STRIPPED IN AREAS OF CONSTRUCTION THAT IS SUITABLE FOR REUSE AS LOAM SHALL BE STOCKPILED ON SITE AT A LOCATION TO BE DESIGNATED BY THE OWNER. UNSUITABLE SOIL SHALL BE SEPARATED, REMOVED AND DISPOSED OF AT AN APPROVED DISPOSAL LOCATION OFF SITE.
2. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.
3. ALL SITE DISTURBANCE WILL REMAIN WITHIN THE GRADING LIMITS SHOWN ON PLANS. NO IMPACT TO WETLANDS ARE AUTHORIZED.

EROSION CONTROL NOTES:

1. LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE THAT CAUSES THE LEAST PRACTICAL DISTURBANCE OF THE SITE.
2. PRIOR TO BEGINNING ANY LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL THE PERIMETER SILT FENCES AND SEDIMENTATION BARRIERS.
3. ALL GROUND AREAS DISTURBED FOR CONSTRUCTION WILL BE GRADED, LOAMED AND SEEDED AS SOON AS POSSIBLE.
4. ALL NON-PAVED AREAS DISTURBED DURING CONSTRUCTION SHALL BE LOAMED AND SEEDED, UNLESS OTHERWISE DIRECTED BY THE OWNER. ALL DISTURBED AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL PRIOR TO PERMANENT SEEDING.
5. WATER FROM DEWATERING SHALL BE PUMPED THROUGH A DIRT BAG (SEE DETAIL). DIRT BAG OUTLET LOCATION SHALL NOT BE WITHIN 50' OF AN EXISTING WETLAND. NO SEPARATE PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROVIDING THE DIRT BAG, IT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.



INSET
1"=10'

Scale:
1"=25'

No.	Revision	By	Date

Designed by:
ALTON M. PALMER, P.E.
JARED S. WINCHENBACH, P.E.

ISSUED FOR BID - NOT FOR CONSTRUCTION

By	Date	By	Date
Designed: JSW	11/22/2021	Checked: AMP	11/22/2021
Drawn: CEH	11/22/2021		

GORRILL PALMER

PROJ. NO.: 3661 CAD FILE: 3661-GRADING.dwg

MAINE TURNPIKE

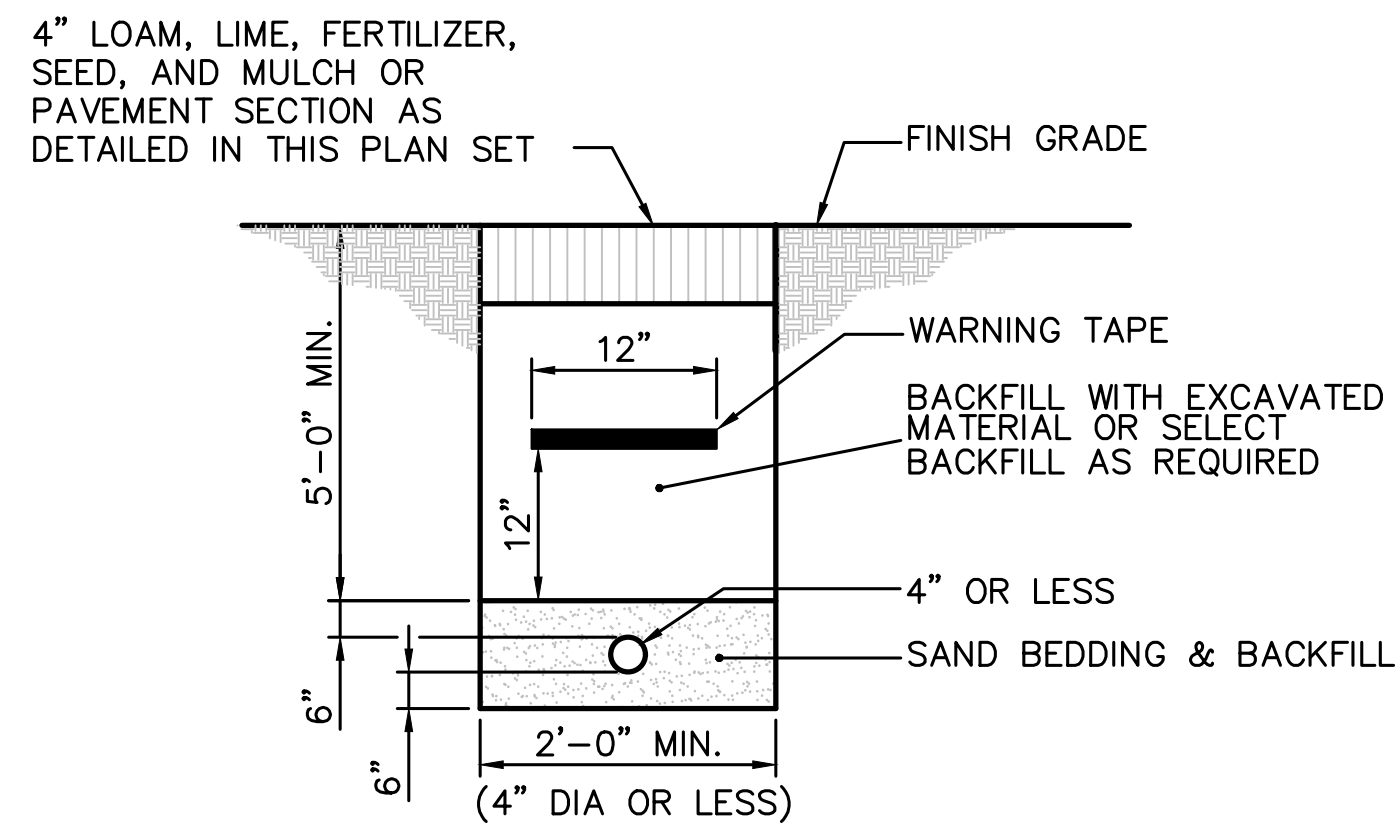
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
GRADING, DRAINAGE,
EROSION CONTROL PLAN

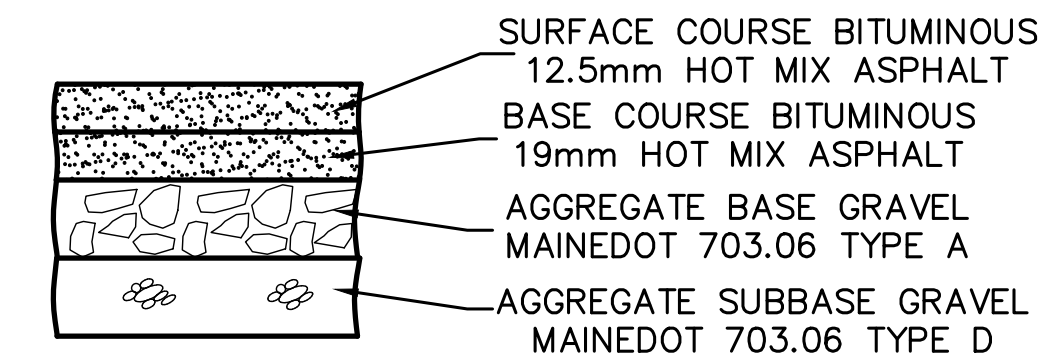
SHEET NUMBER: C-102

CONTRACT: 2021.06 4 OF 32



NOTES:
 1. CONTRACTOR TO INSTALL TRACER WIRE OVER PIPE.
 2. WATER LINE INSTALLATION TO BE COORDINATED WITH THE LOCAL WATER UTILITY COMPANY, AND SHALL COMPLY WITH ITS STANDARDS. SITE CONTRACTOR IS RESPONSIBLE FOR EXCAVATION AND BACKFILL OF THE WATER LINE AND PLACEMENT OF THE WARNING TAPES AND TRACER.

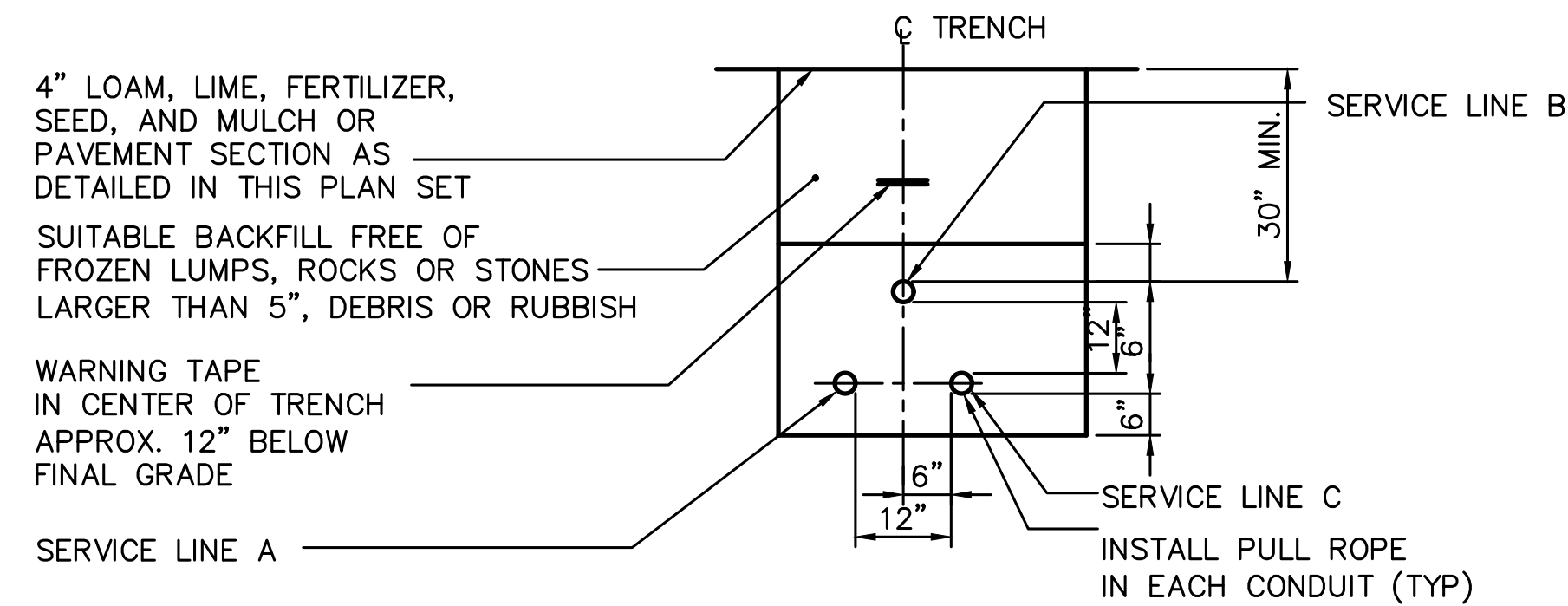
WATER SERVICE TRENCH SECTION
 NOT TO SCALE



NOTES:
 1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557.
 2. IN AREAS OF NEW PAVEMENT THE CONTRACTOR SHALL PROVIDE FULL DEPTH GRAVEL CONSTRUCTION.

THICKNESS OF LAYERS	
LAYERS	
1.5"	SURFACE COURSE BITUMINOUS 12.5mm HOT MIX ASPHALT
2.5"	BASE COURSE BITUMINOUS 19mm HOT MIX ASPHALT
6"	AGGREGATE BASE GRAVEL MAINEDOT 703.06 TYPE A
15"	AGGREGATE SUBBASE GRAVEL MAINEDOT 703.06 TYPE D

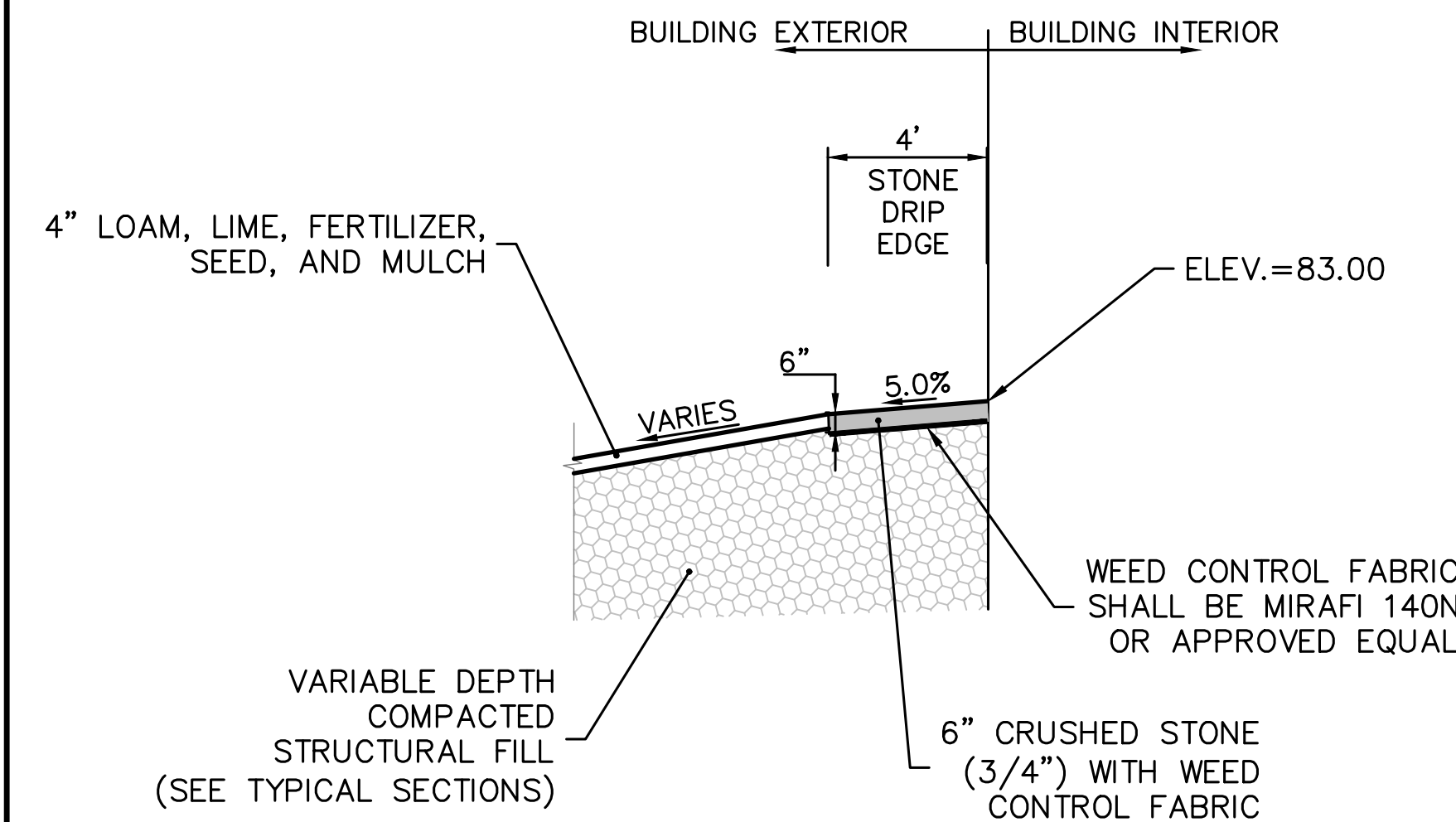
HEAVY DUTY BITUMINOUS PAVEMENT SECTION
 NOT TO SCALE



CONDUIT TYPE SCHEDULE				
SERVICE	CONDUIT SIZE	GRASS & PAVED AREAS	UTILITY	REMARKS
A	2-5"	SCHEDULE 80 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE
B	2-4"	SCHEDULE 80	TELEPHONE/DATA	SEE NOTE
C	1-1 1/2"	SCHEDULE 80	SPARE	SEE NOTE

NOTE:
 ONE CONDUIT CAPPED FOR SPARE, PROVIDE GALVANIZED STEEL LONG SWEEP AT RISER POLE AND EXTEND GALVANIZED CONDUIT TO 10" ABOVE GRADE AT POLE WITH STAND-OFF BRACKETS.

UTILITY TRENCH - PRIMARY AND SECONDARY POWER, TELEPHONE, AND CABLE
 NOT TO SCALE

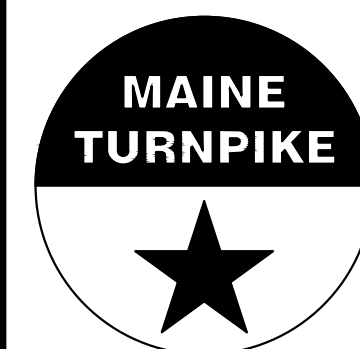
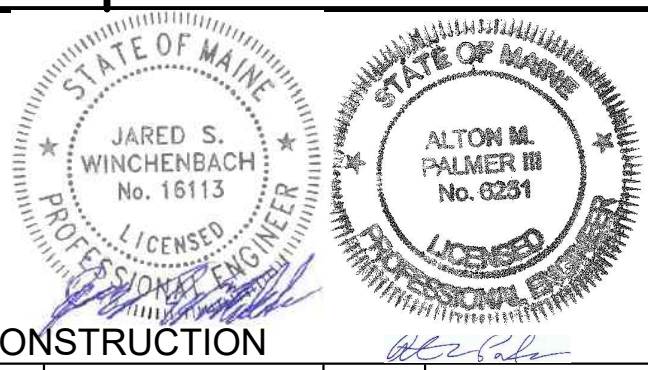


STONE DRIP EDGE DETAIL
 NOT TO SCALE

Scale: N/A

No.	Revision	By	Date

Designed by:
 ALTON M. PALMER, P.E.
 JARED S. WINCHENBACH, P.E.



THE GOLD STAR MEMORIAL HIGHWAY

CONTRACT 2021.06
 CROSBY VEHICLE STORAGE GARAGE
 DETAILS - 1

ISSUED FOR BID - NOT FOR CONSTRUCTION

By	Date	By	Date
Designed: JSW	11/22/2021	Checked: AMP	11/22/2021
Drawn: GEH	11/22/2021		

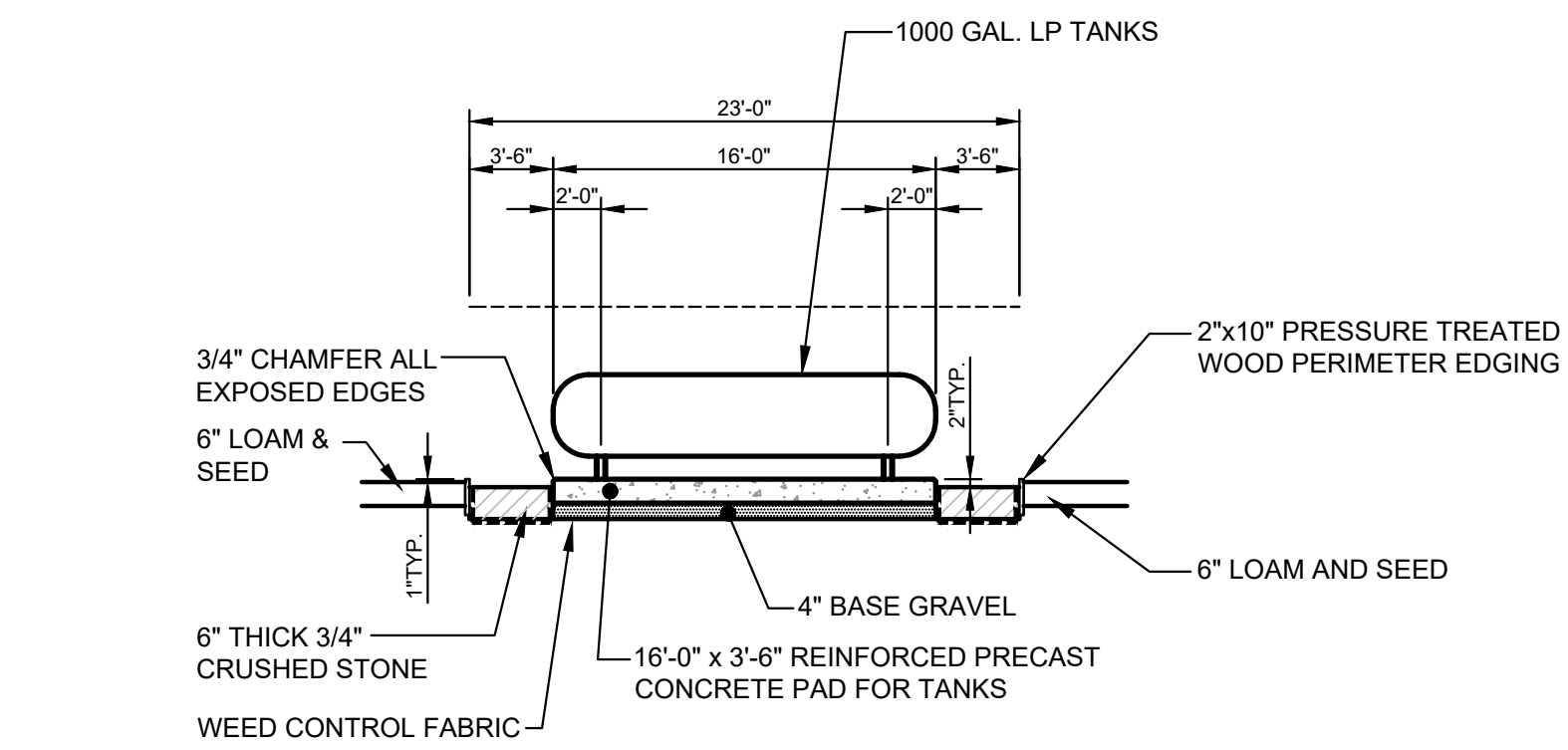
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MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

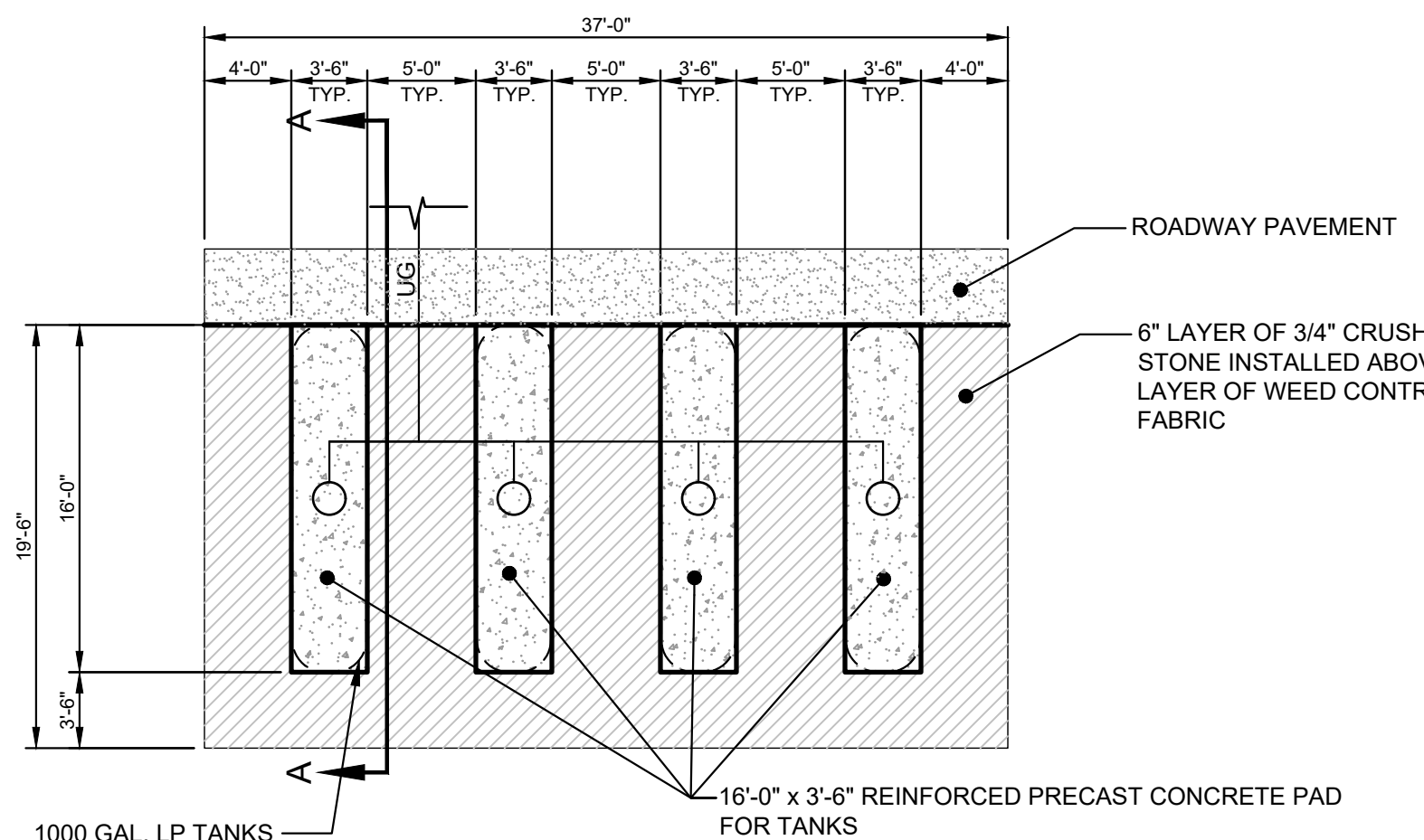
CONTRACT: 2021.06

SHEET NUMBER: C-401

5 OF 32



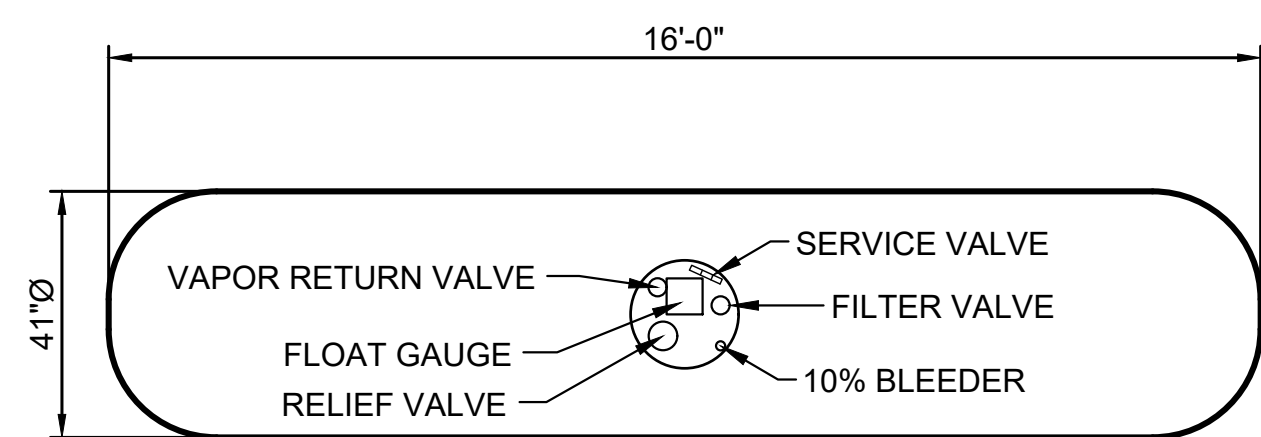
SECTION A-A



PLAN VIEW

ABOVE GROUND PROPANE GAS TANK FARM

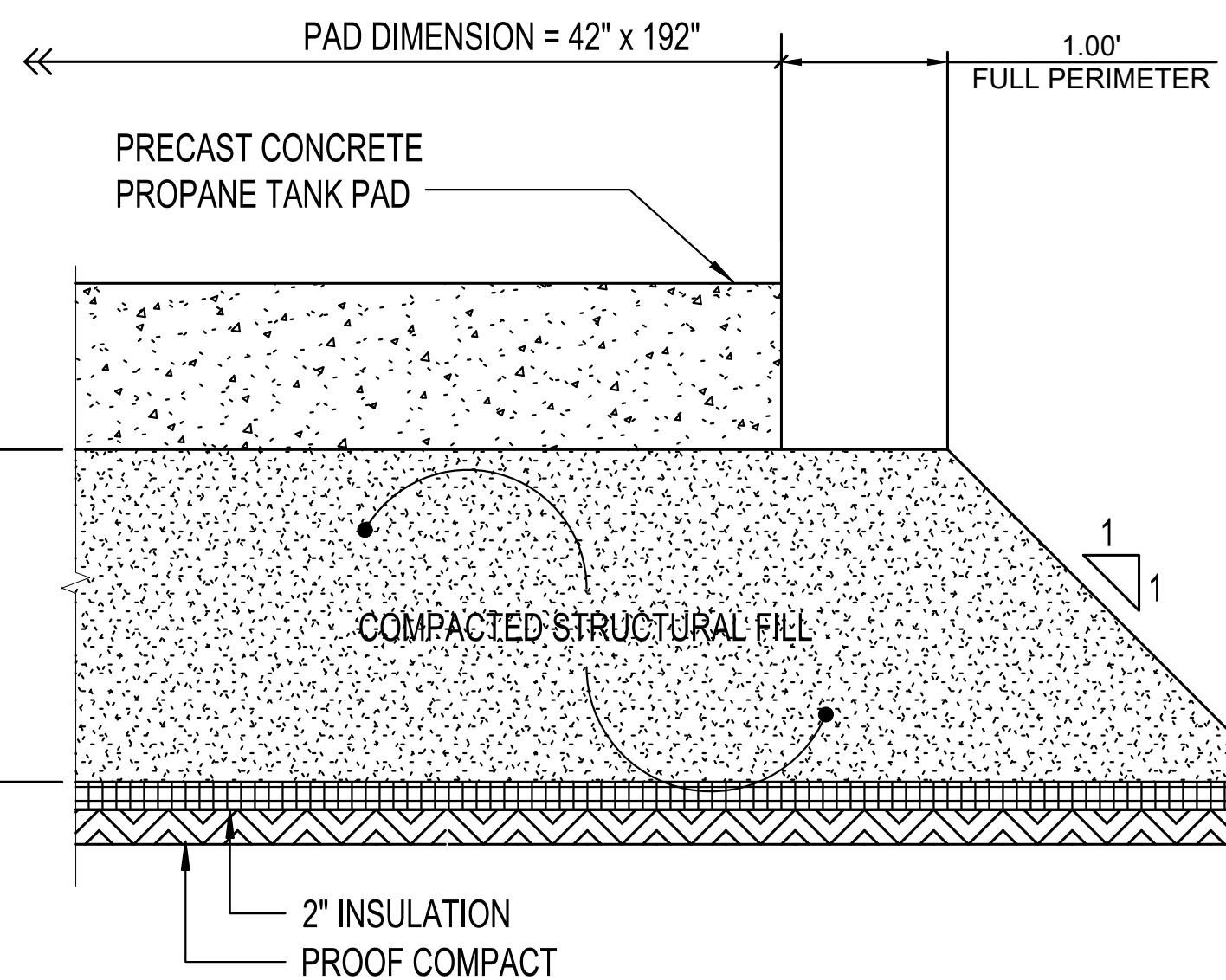
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NOTES:
1.) USE AMERICAN WELDING & TANK ASME TANK OR APPROVED EQUAL. TANK INSTALLATION TO BE COORDINATED WITH THE LOCAL GAS UTILITY COMPANY, AND SHALL COMPLY WITH ITS STANDARDS.

1,000 GALLON PROPANE GAS STORAGE TANK

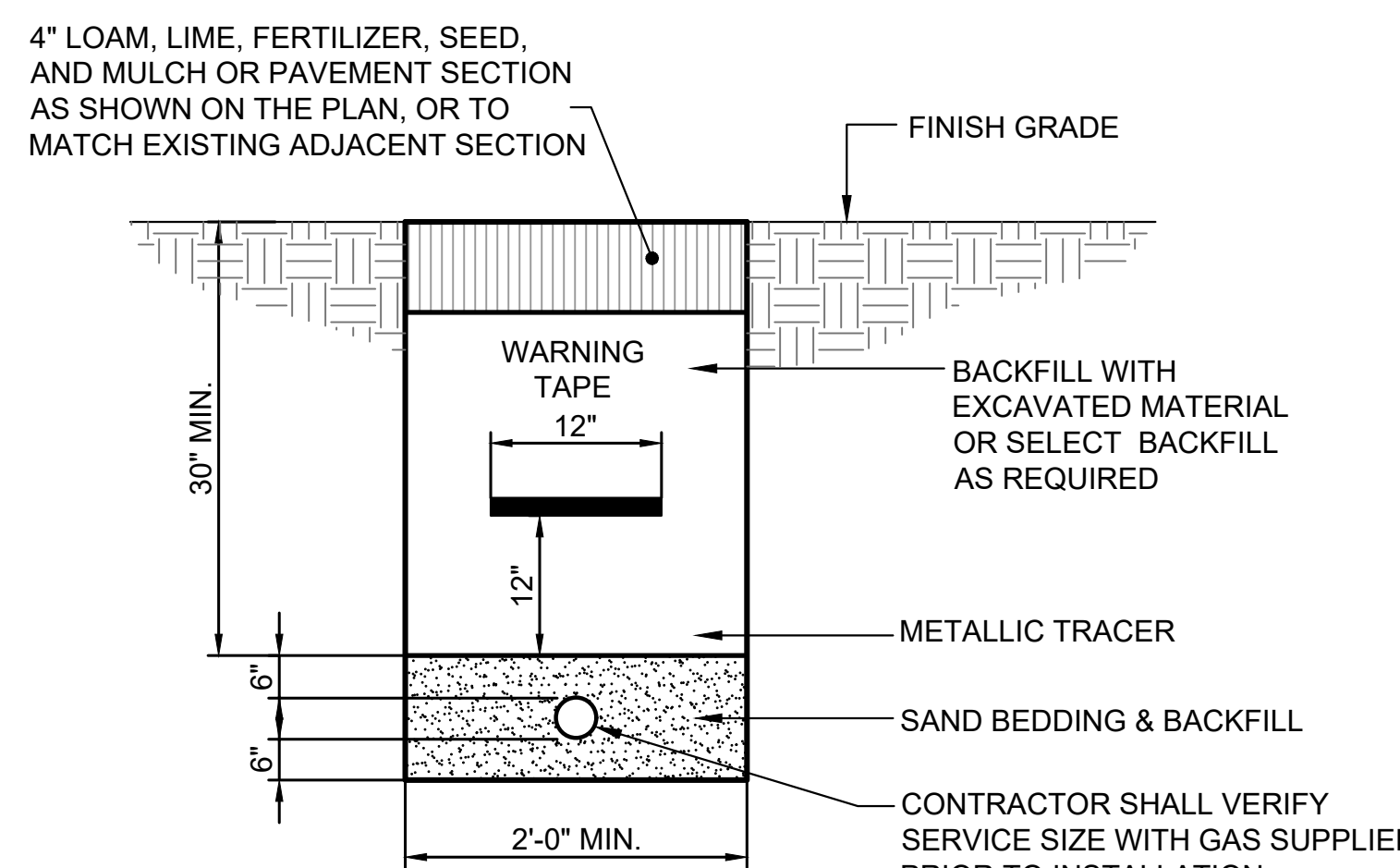
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PRECAST CONCRETE PROPANE TANK PAD

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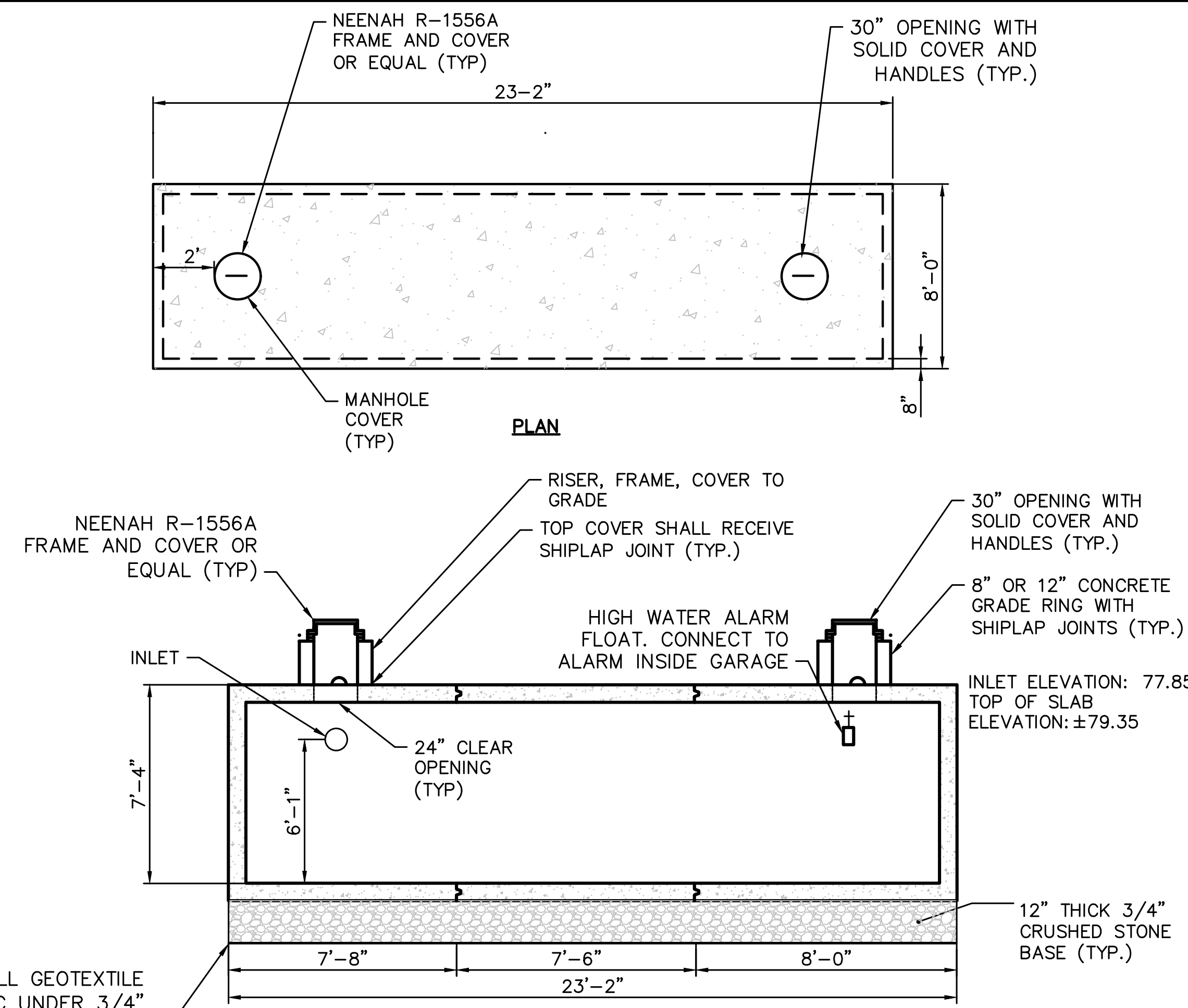
NOTES:
1. THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING STAMPED BY A LICENSED PROFESSIONAL ENGINEER FOR REVIEW AND APPROVAL.



NOTES:
1. GAS LINE INSTALLATION TO BE COORDINATED WITH THE LOCAL GAS UTILITY COMPANY, AND SHALL COMPLY WITH ITS STANDARDS.
2. PROPANE GAS LINE SHALL BE INSTALLED AS PER REQUIREMENTS OF SECTION 633.

GAS SERVICE TRENCH SECTION

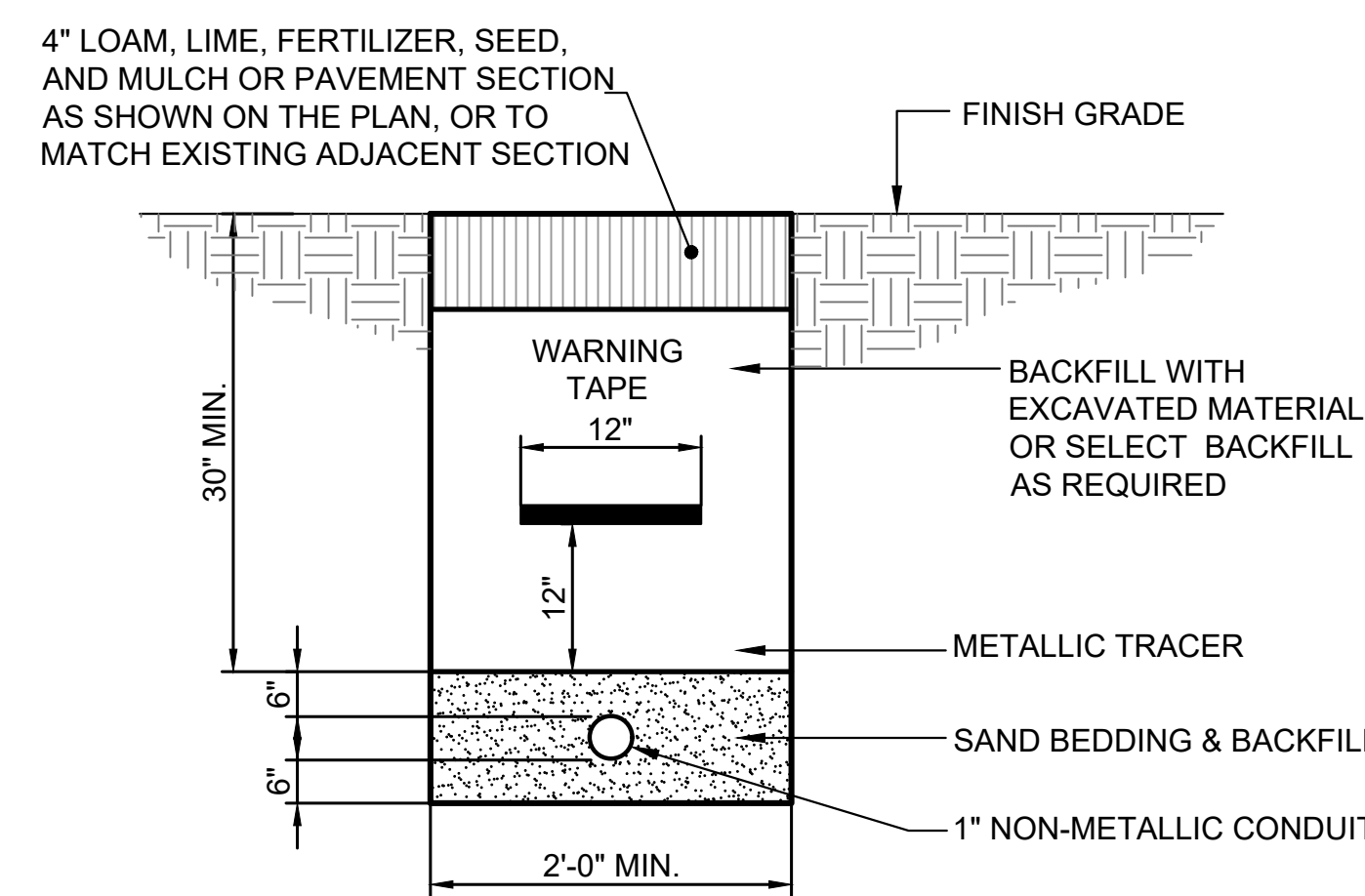
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6,000 GALLON HOLDING TANK

NOT TO SCALE

INSTALL GEOTEXTILE FABRIC UNDER 3/4\"/>



NOTES:
1. THE CONTRACTOR IS RESPONSIBLE FOR EXCAVATION AND BACKFILL OF THE CONDUIT AND PLACEMENT OF THE WARNING TAPES AND TRACER.

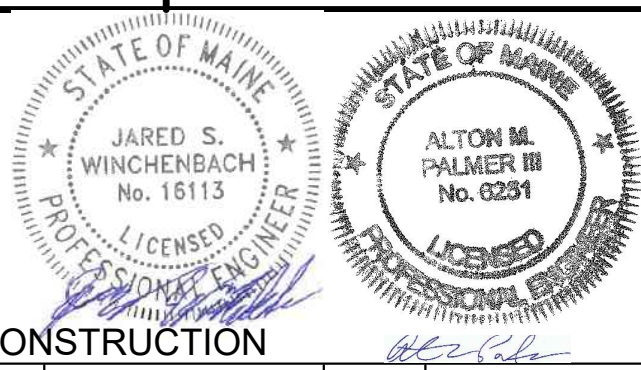
SINGLE UNDERGROUND COMMUNICATION CONDUIT DETAIL

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Scale: N/A

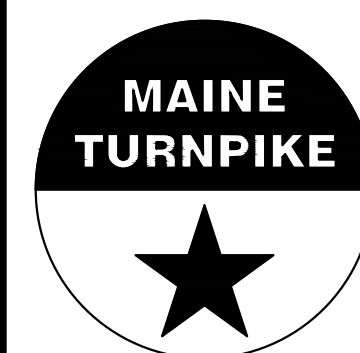
No.	Revision	By	Date

Designed by:
ALTON M. PALMER, P.E.
JARED S. WINCHENBACH, P.E.



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JSW	CEH	11/22/2021	AMP	AMP	11/22/2021



THE GOLD STAR MEMORIAL HIGHWAY

**CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
DETAILS - 2**

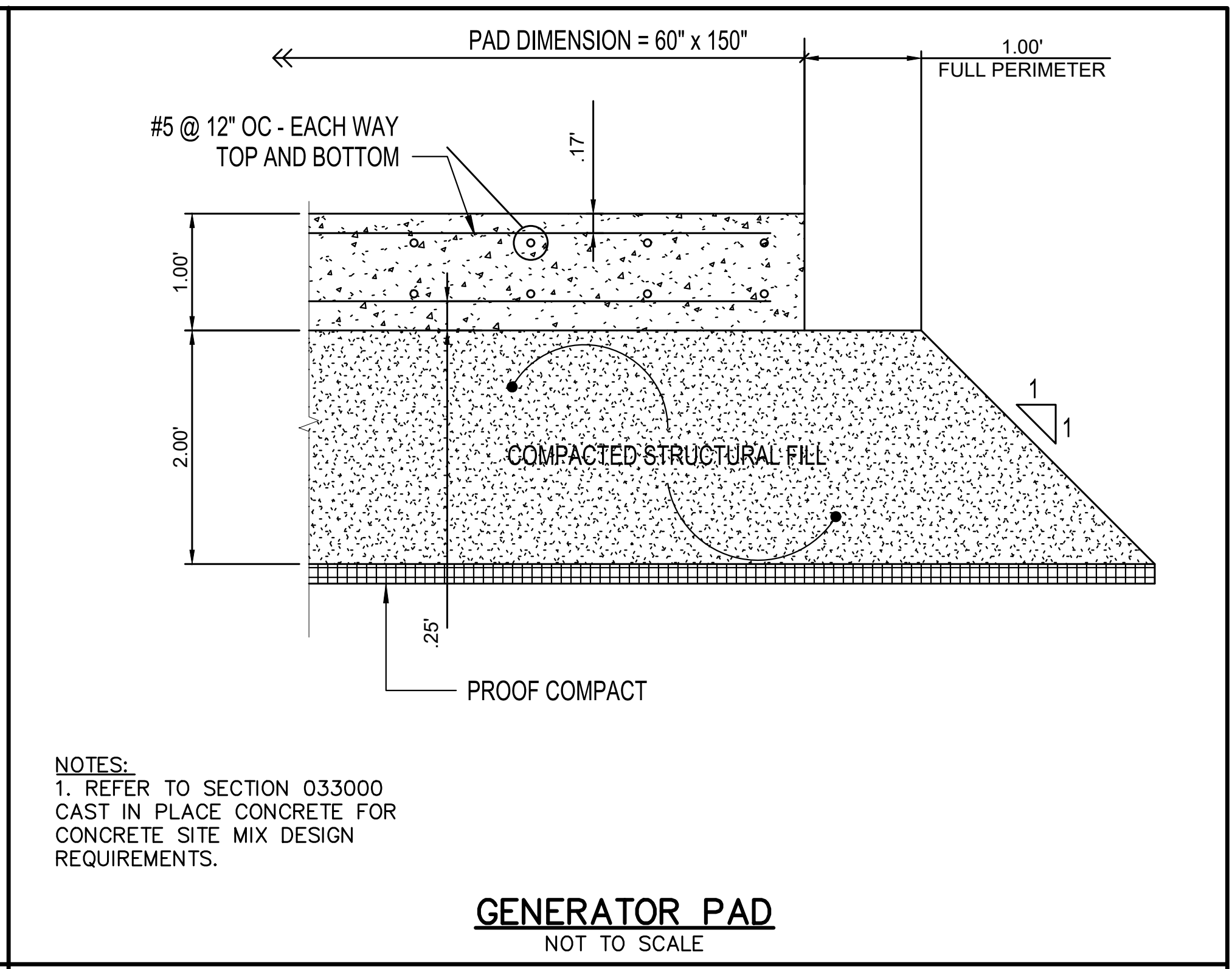
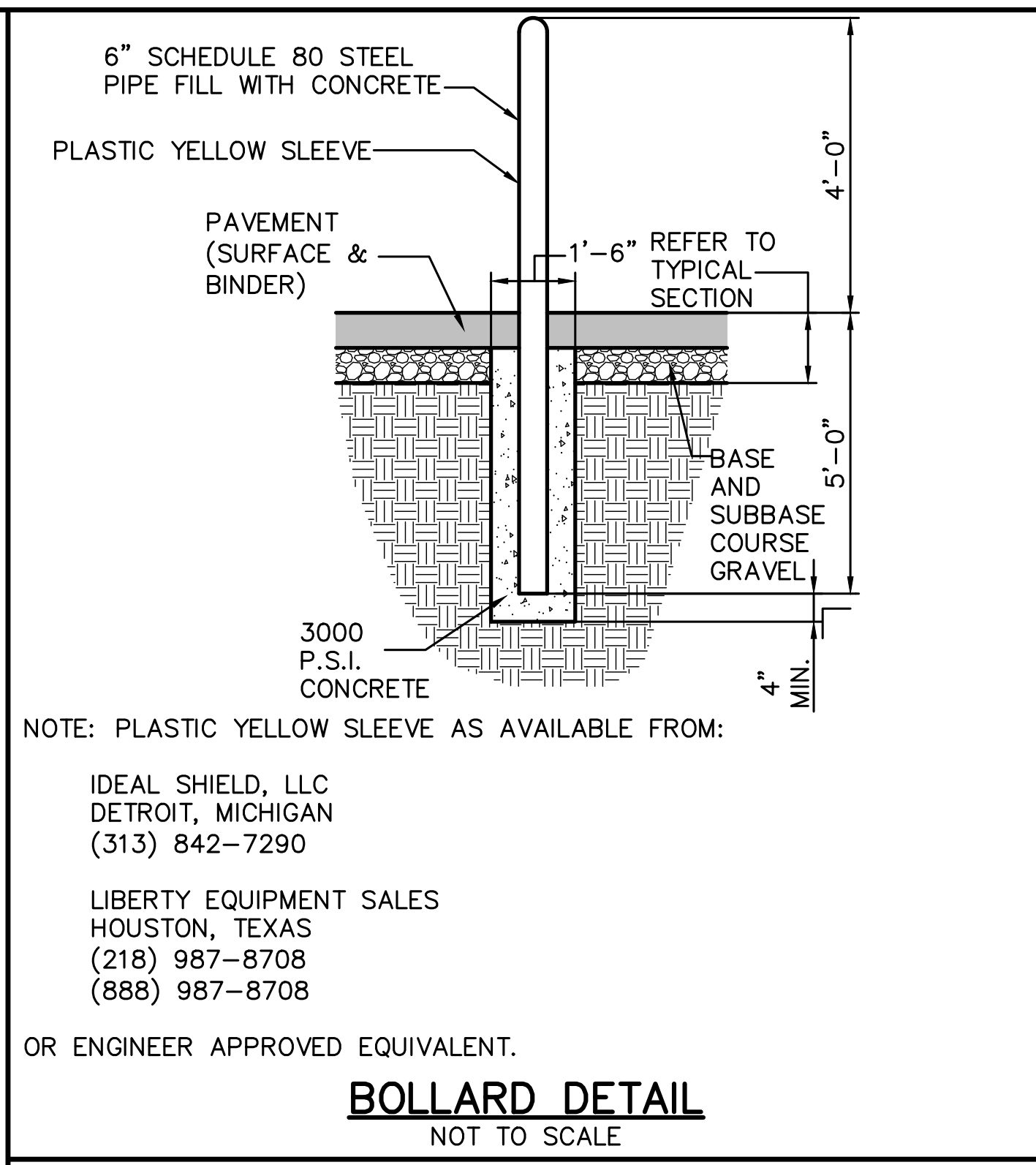
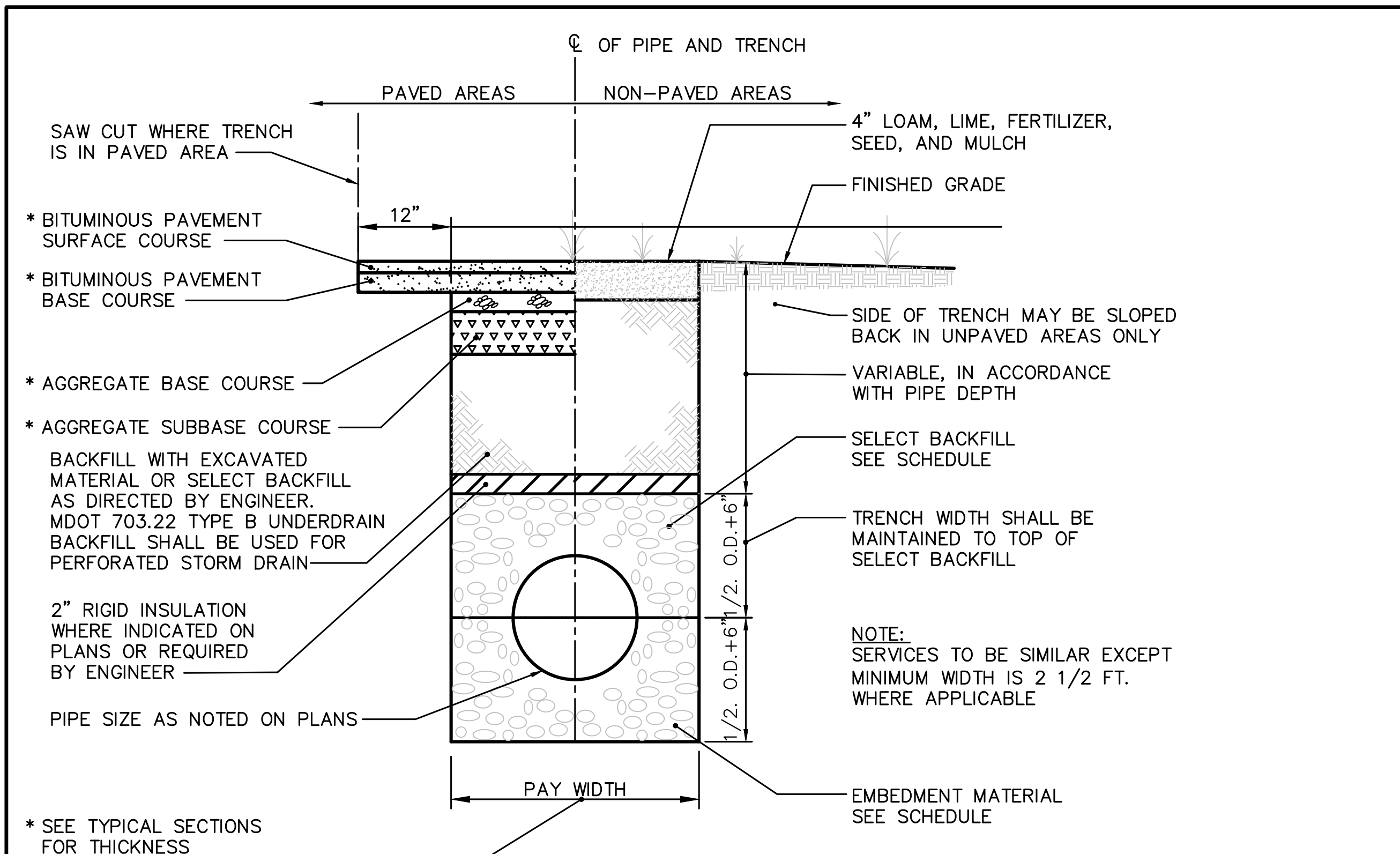
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MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT: 2021.06

SHEET NUMBER: C-402

6 OF 32



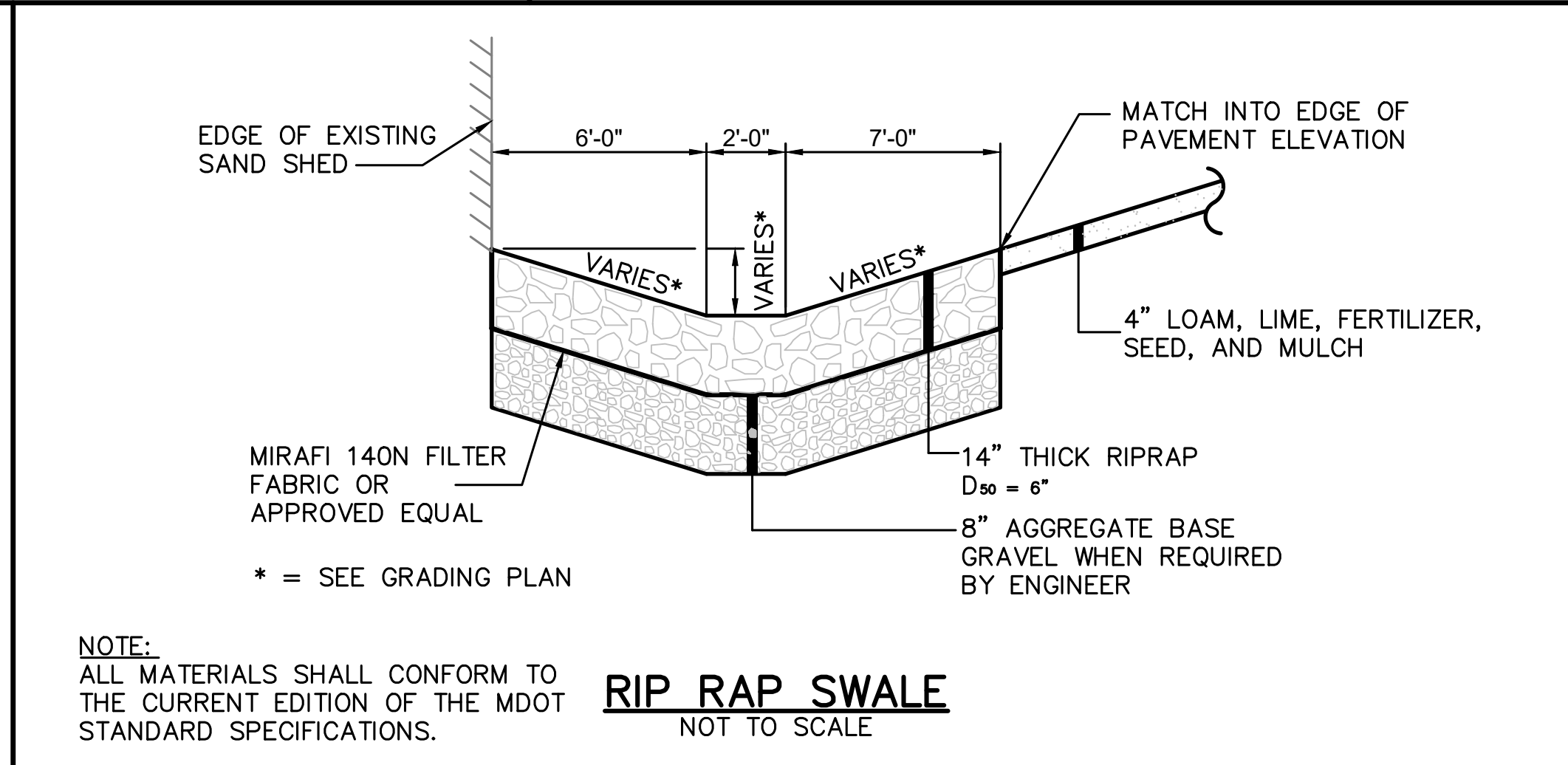
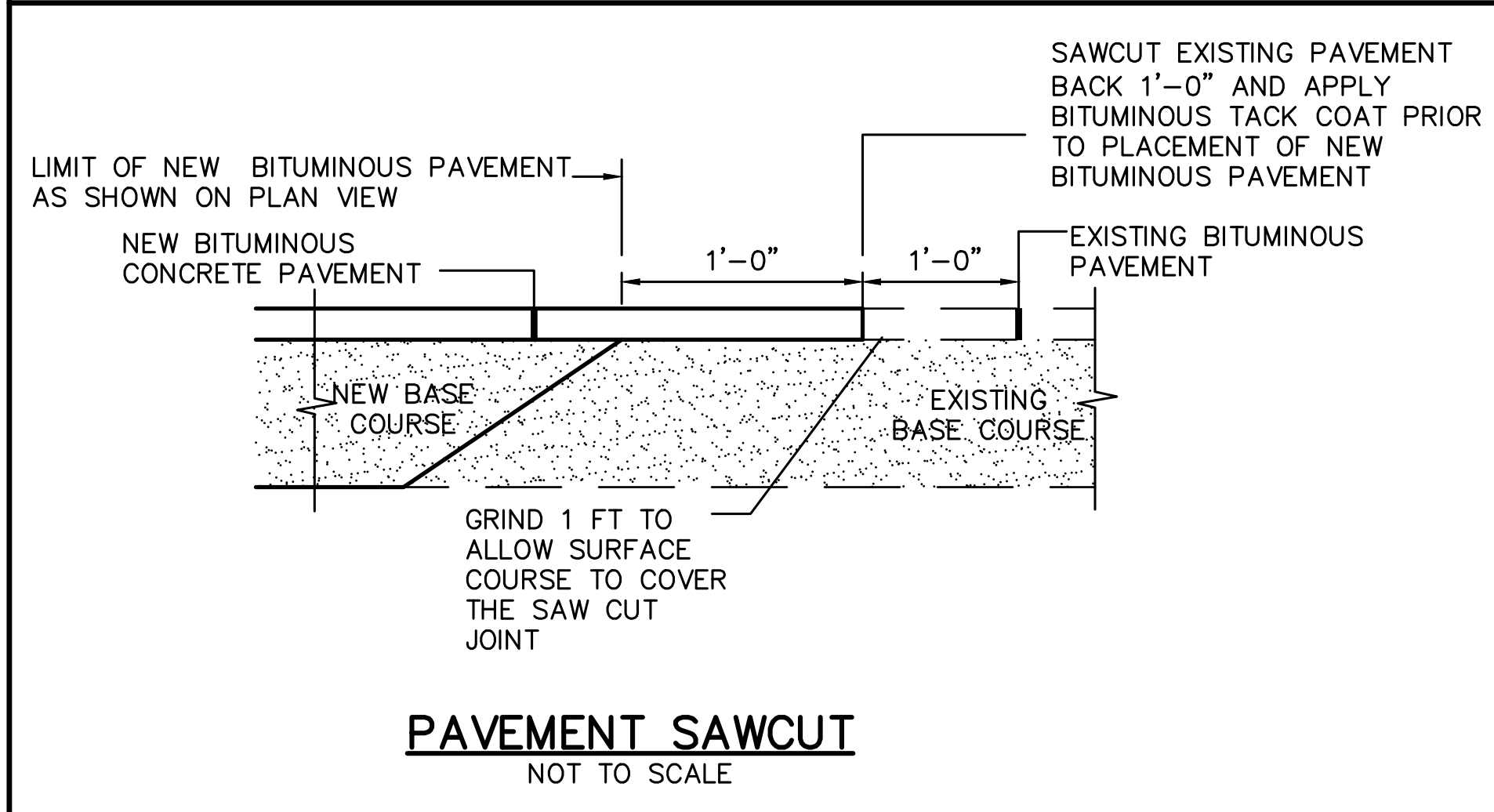
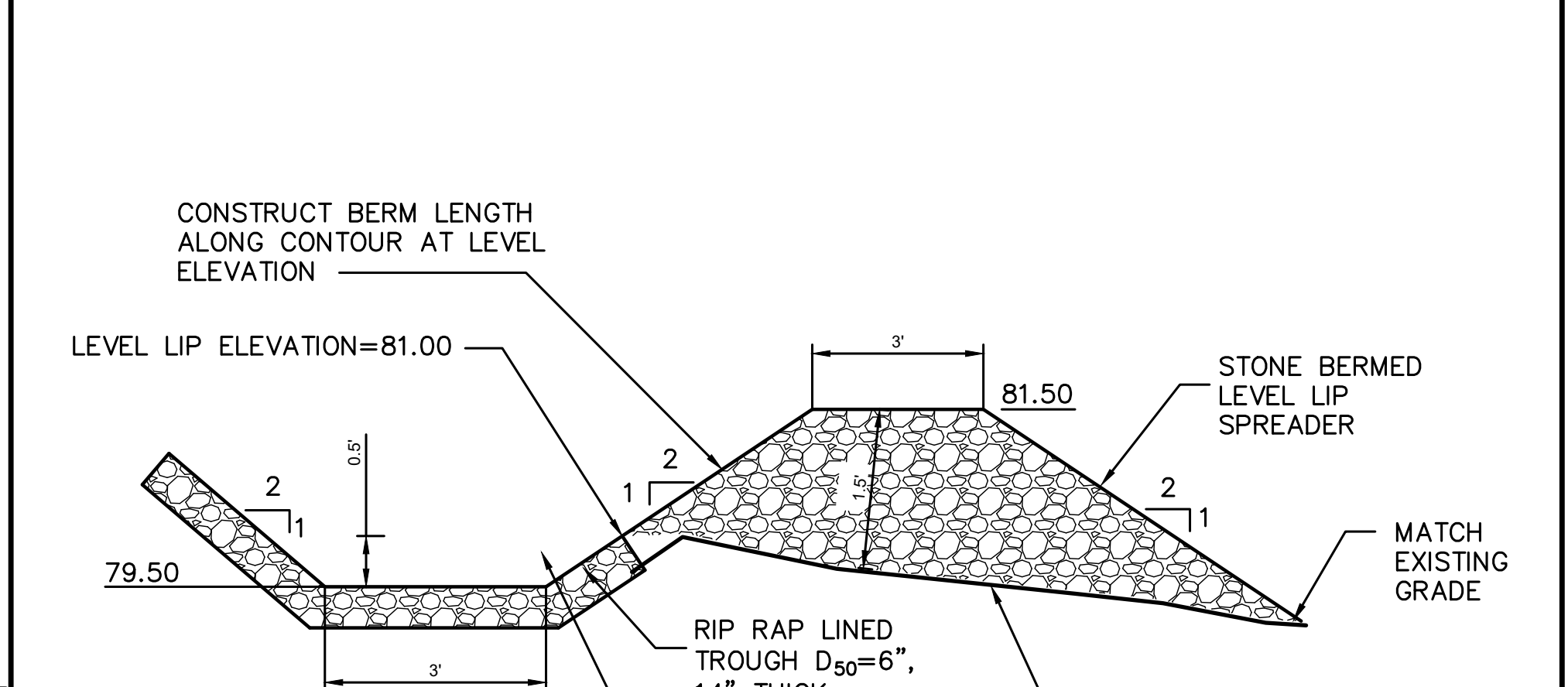
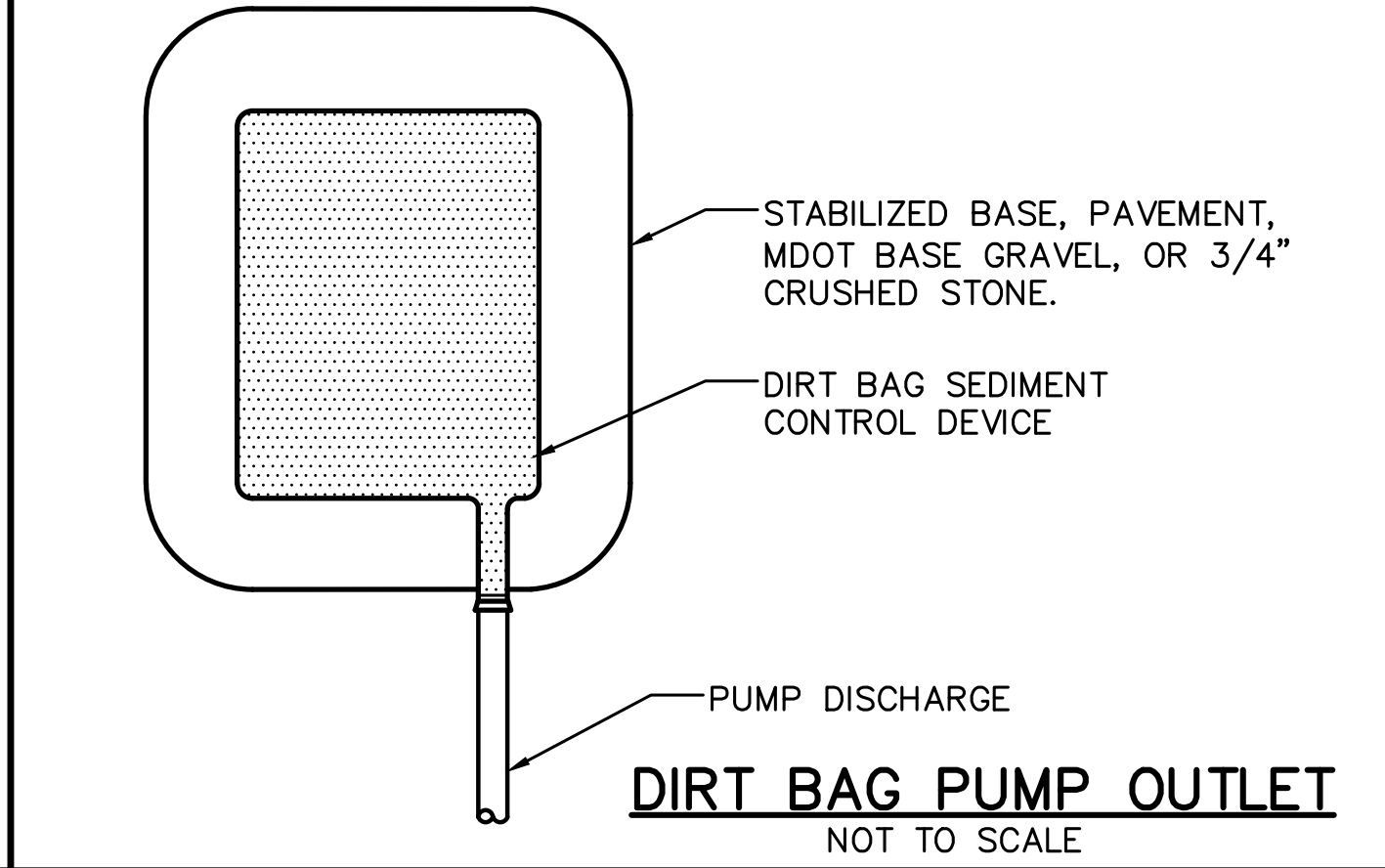
4/3 I.D. PIPE + 1'-6" (MIN. 3'-0")

SCHEDULE OF TRENCH BACKFILL		
TYPE OF PIPE	EMBEDMENT MATERIAL	SELECT BACKFILL
PVC-SDR 35 HDPE	MDOT 703.22 TYPE C 3/4" CRUSHED STONE	MDOT 703.22 TYPE B UD BACKFILL
PERFORATED PVC-SDR35 HDPE	MDOT 703.22 TYPE C 3/4" CRUSHED STONE	MDOT 703.22 TYPE C 3/4" CRUSHED STONE

MINIMUM COVER	PIPE
2'-0"	DRAIN (1)
5'-5"	WATER

(1) COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" RIGID INSULATION. COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" RIGID INSULATION.

NOTE:
1. BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. INSTALL WARNING TAPE DIRECTLY ABOVE UTILITIES, 12" BELOW FINISH GRADE.



BERM STONE SIZE	
SIEVE DESIGNATION (US CUSTOMARY)	PERCENT BY WEIGHT PASSING
12 IN	100
6 IN	84-100
3 IN	68-83
1 IN	42-55
NO. 4	8-12

NOTE: PRIOR TO CONSTRUCTION OF ANY ONSITE DRAINAGE FEATURES, THE CONTRACTOR SHALL STAKE OUT THE LEVEL LIP SPREADERS FOR REVIEW BY GORRILL PALMER. THE CONTRACTOR SHALL NOTIFY GORRILL PALMER WHEN STAKE OUT IS COMPLETE, AND PROVIDE GROUND SURVEYED ELEVATIONS OF THE LEVEL LIP SPREADER LOCATION, GORRILL PALMER WILL CONDUCT A SITE WALK WITHIN 48 HOURS TO CONFIRM LOCATION AND ORIENTATION TO VERIFY DESIGN INTENT.

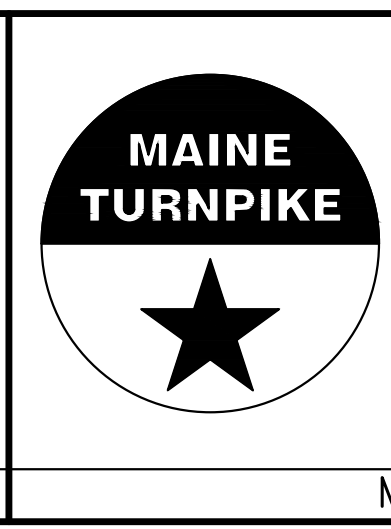
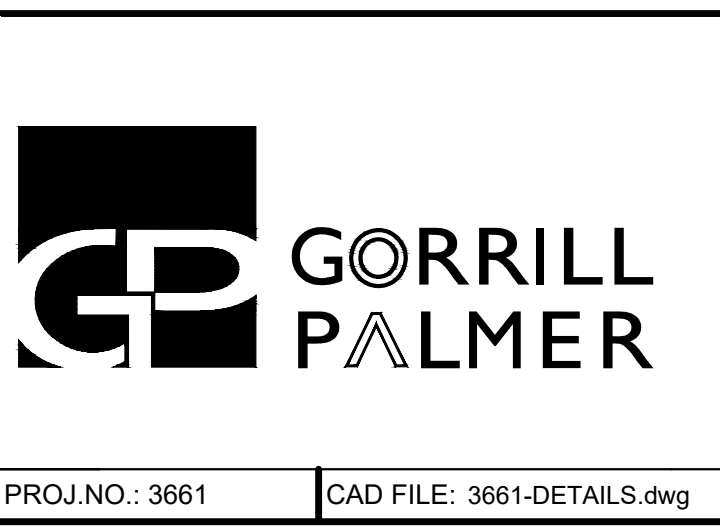
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No.	Revision	By	Date

Designed by:
ALTON M. PALMER, P.E.
JARED S. WINCHENBACH, P.E.

ISSUED FOR BID - NOT FOR CONSTRUCTION

By	Date	By	Date
Designed: JSW	11/22/2021	Checked: AMP	11/22/2021
Drawn: CEH	11/22/2021		



THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
DETAILS - 3

SHEET NUMBER: C-403
CONTRACT: 2021.06
7 OF 32

GENERAL

- ALL DETAILS SHALL BE IN CONFORMANCE WITH MAINE DEPARTMENT OF TRANSPORTATION (MAINEDOT) STANDARD DETAILS HIGHWAYS AND BRIDGES 2014 WITH UPDATES AND MAINEDOT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL LATEST REVISION UNLESS OTHERWISE INCLUDED IN THESE PLANS OR PROJECT SPECIFICATIONS.
- ALL EXISTING ROADWAYS USED IN ACCESSING THE SITE SHALL REMAIN CLEAN.
- THE CONTRACTOR SHALL SUBMIT THE PROPOSED STAGING AREA(S) AND FIELD TRAILER LOCATION TO THE RESIDENT FOR APPROVAL PRIOR TO STARTING WORK.
- CONTRACTOR IS REQUIRED TO MAINTAIN SAFE ACCESS TO PARKING AREAS FOR MTA EMPLOYEES AT ALL TIMES DURING CONSTRUCTION.
- A COPY OF THE "GEOTECHNICAL REPORT" IS INCLUDED WITH THE CONTRACT DOCUMENTS.
- DUST CONTROL IS INCIDENTAL TO CONTRACT.
- WASTE MATERIALS SHALL BE DISPOSED OF OFF THE PROJECT SITE, IN ACCORDANCE WITH CHAPTER 404, DEPARTMENT OF ENVIRONMENTAL PROTECTION SOLID WASTE MANAGEMENT RULES.
- GEOTECHNICAL INFORMATION FURNISHED OR REFERRED TO IN THIS PLAN SET IS FOR THE USE OF THE BIDDERS AND THE CONTRACTOR. NO ASSURANCE IS GIVEN THAT THE INFORMATION OR INTERPRETATIONS WILL BE REPRESENTATIVE OF ACTUAL SUBSURFACE CONDITIONS OF THE CONSTRUCTION SITE. THE MTA WILL NOT BE RESPONSIBLE FOR THE BIDDERS' OR CONTRACTOR'S INTERPRETATIONS OF, OR CONCLUSIONS DRAWN FROM, THE GEOTECHNICAL INFORMATION.
- THE CONTRACTOR WILL BE REQUIRED TO SUBMIT AS BUILT PLANS. THE MTA WILL REQUIRE A HARD COPY AS WELL AS AN ELECTRONIC COPY OF THE CAD FILES ON A THUMB DRIVE.
- ALL SITE WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

EARTHWORK

- EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA SUBPART P OF 29 CFR PART 1926.650-652 (CONSTRUCTION STANDARDS FOR EXCAVATION).

UTILITY

- EXISTING UTILITIES ON THESE PLANS WERE COMPILED FROM FIELD SURVEY AND VARIOUS OTHER SOURCES. LOCATIONS ARE NOT GUARANTEED TO BE ACCURATE NOR IS IT GUARANTEED THAT ALL UTILITIES ARE SHOWN. NO SEPARATE OR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR DUE TO ANY VARIANCE BETWEEN THE DATA SHOWN ON THE PLANS AND THE ACTUAL FIELD CONDITIONS ENCOUNTERED. NO WORK SHALL BE STARTED UNTIL THE OWNERS OF THE VARIOUS UTILITIES ARE NOTIFIED BY THE CONTRACTOR OF THE PROPOSED CONSTRUCTION. THE CONTRACTOR IS ALSO REQUIRED TO CALL DIG SAFE AT 1-888-344-7233 PRIOR TO THE START OF THE WORK.
- THE UTILITIES INVOLVED IN THIS CONTRACT ARE:
 MAINE TURNPIKE AUTHORITY
 CENTRAL MAINE POWER
 FAIRPOINT/CONSOLIDATED COMMUNICATIONS
 SPECTRUM/CHARTER COMMUNICATIONS
 PORTLAND WATER DISTRICT
- THE CONTRACTOR SHALL NOTIFY THE RESIDENT 10 DAYS PRIOR TO CONSTRUCTION SO THE RESIDENT CAN ARRANGE FOR MAINE TURNPIKE UNDERGROUND UTILITY LOCATION. ALL PROPOSED EXCAVATION LOCATIONS SHALL BE MARKED AT THE NOTIFICATION TIME. EXCAVATION WILL NOT BE PERMITTED UNTIL THE AUTHORITY HAS LOCATED AND MARKED ITS UNDERGROUND UTILITIES, OR NOTIFIED THE RESIDENT THERE ARE NO UNDERGROUND UTILITIES IN THE MARKED AREAS.

EROSION CONTROL

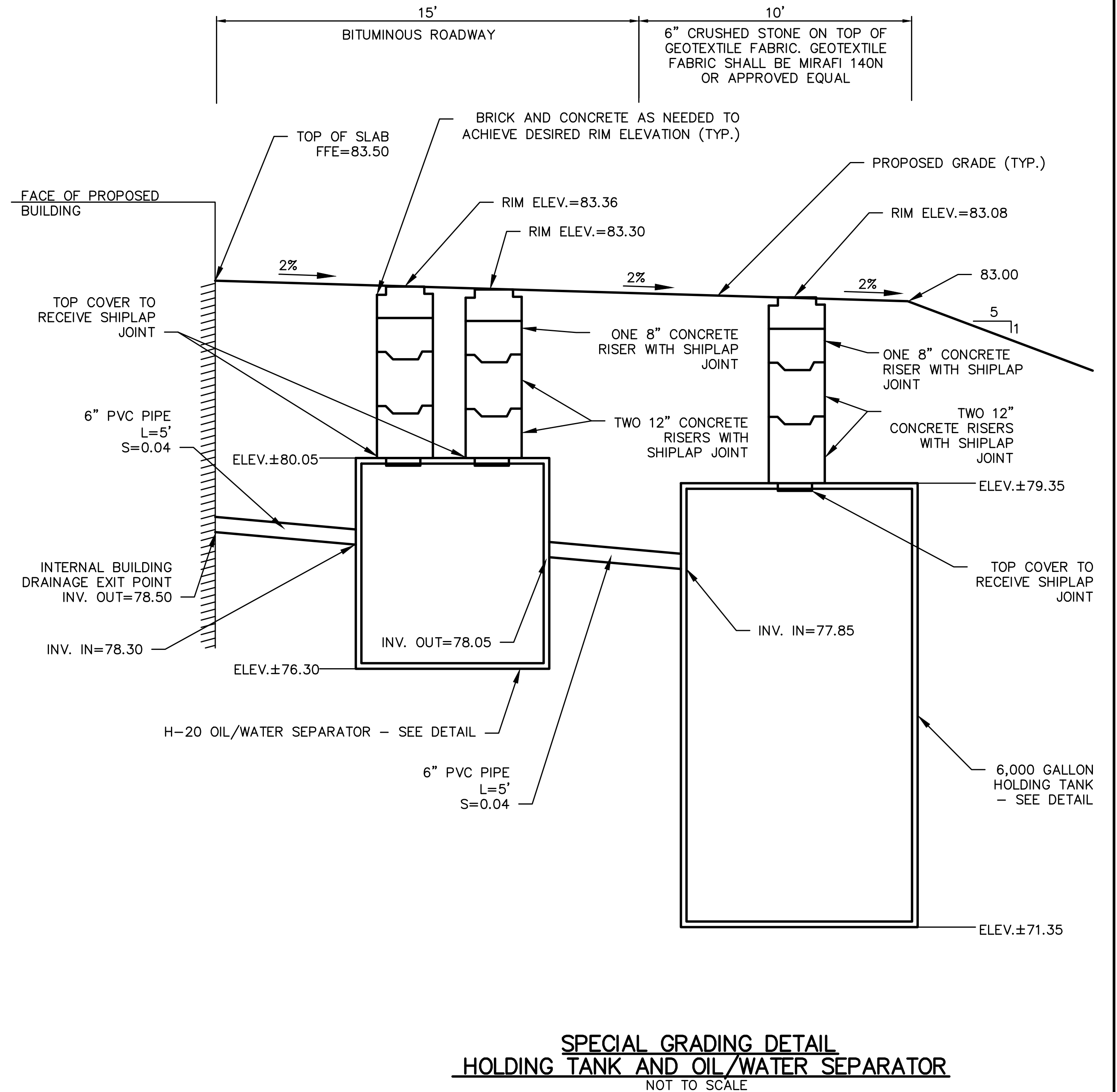
- THE ANTICIPATED EROSION CONTROL DEVICES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROPOSE ACTUAL TYPE AND LOCATION OF DEVICES FOR APPROVAL BY THE RESIDENT. ADDITIONAL MEASURES MAY BE PROPOSED BY THE CONTRACTOR DUE TO SITE OR WEATHER CONDITIONS. THE RESIDENT MAY DIRECT THE CONTRACTOR TO IMPLEMENT ADDITIONAL MEASURES. ANY ADDITIONAL MEASURES APPROVED BY THE RESIDENT WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- NEWLY DISTURBED EARTH SHALL BE MULCHED PRIOR TO A RAIN EVENT. THIS WORK NOT BE PAID FOR SEPARATELY AND SHOULD BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.
- ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION BEST MANAGEMENT PRACTICES.
- TEMPORARY SEED SHALL BE APPLIED TO ALL DISTURBED AREAS THAT WILL NOT BE COMPLETED WITHIN 30 DAYS. TEMPORARY SEED SHALL BE INCIDENTAL TO THE CONTRACT.
- EROSION CONTROL BLANKET SHALL BE INSTALLED IN ALL DITCHES AND 2:1 SLOPES FROM TOP TO TOE OF SLOPE. LOAM AND SEED SHALL BE PLACED PRIOR TO THE INSTALLATION OF THE EROSION CONTROL BLANKET. LIMITS OF THE EROSION CONTROL BLANKET IN DITCHES SHALL BE 8' WIDE OR AS DESIGNATED BY THE RESIDENT.
- LOAM SHALL BE PLACED TO A DEPTH OF 4" UNLESS OTHERWISE SPECIFIED IN THE PLANS.

PAVING

- WHERE PROPOSED PAVEMENT JOINS EXISTING PAVEMENT, THE EXISTING PAVEMENT SHALL BE SAW CUT ALONG A SMOOTH LINE TO A NEAT, EVEN AND VERTICAL JOINT, AS DIRECTED BY THE RESIDENT. SAWCUTTING SHALL BE INCIDENTAL TO THE CONTRACT.
- ANY NECESSARY CLEANING OF EXISTING PAVEMENT PRIOR TO PAVING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- A BITUMINOUS TACK COAT IS REQUIRED BETWEEN ALL PAVEMENT LIFTS.
- A BITUMINOUS TACK COAT IS REQUIRED ON ALL SAWCUT BUTT JOINTS.
- PLACEMENT OF THE FINAL LIFTS OF PAVEMENT SHALL BE DONE IN A MANNER TO LIMIT PAVEMENT JOINTS. CONTRACTOR SHALL COORDINATE WITH RESIDENT.

DRAINAGE

- NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED OR PLUGGED WITHOUT PRIOR APPROVAL OF THE RESIDENT.
- INLETS AND OUTLETS OF ALL CULVERTS SHALL BE RIPRAPPED UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE RESIDENT.
- ALL DITCH ELEVATIONS AND OFFSETS SHOWN ON THE CROSS SECTIONS ARE FOR THE FINISHED DITCH FLOW LINE.
- ONE GREEN DELINEATOR POST SHALL BE INSTALLED AT ALL UNDERDRAIN AND STORM DRAIN OUTLETS.



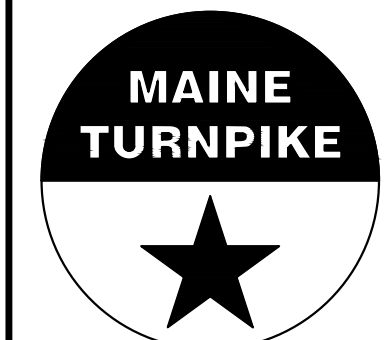
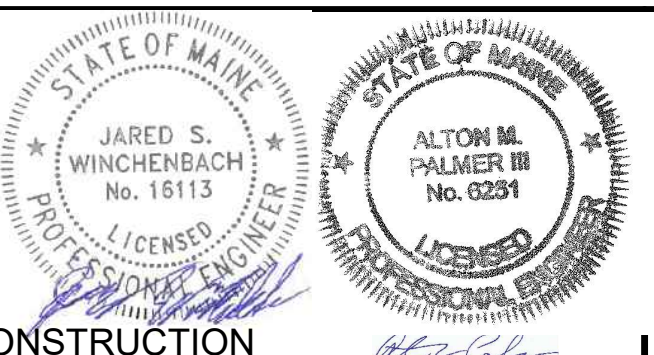
Scale: N/A

No.	Revision	By	Date

Designed by: ALTON M. PALMER, P.E.
 JARED S. WINCHENBACH, P.E.

ISSUED FOR BID - NOT FOR CONSTRUCTION

By	Date	By	Date
Designed: JSW	11/22/2021	Checked: AMP	11/22/2021
Drawn: CEH	11/22/2021		



THE GOLD STAR MEMORIAL HIGHWAY

CONTRACT 2021.06
 CROSBY VEHICLE STORAGE GARAGE
 GENERAL NOTES AND DETAILS - 4

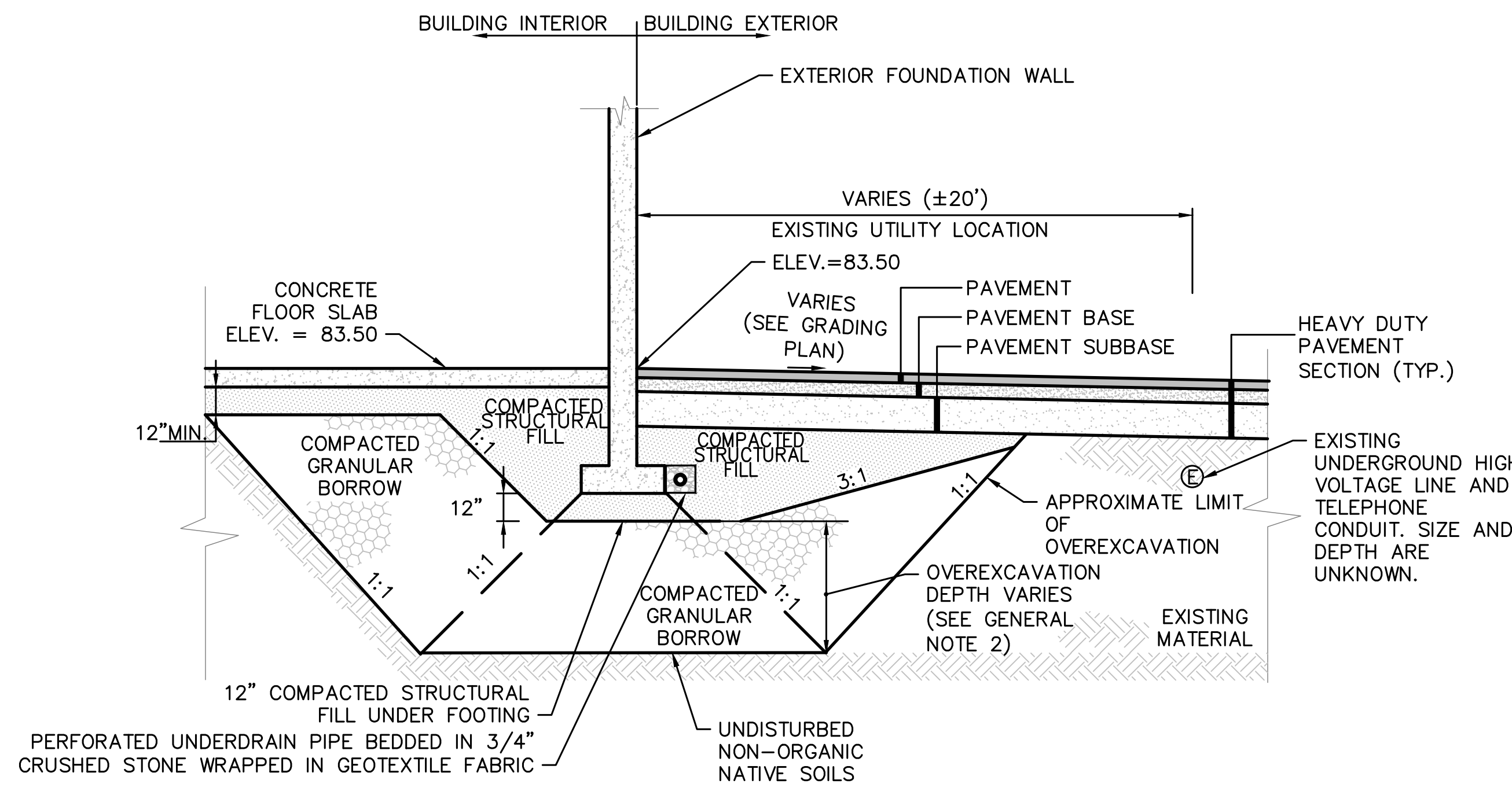
SHEET NUMBER: C-404

CONTRACT: 2021.06

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PROJ.NO.: 3661 CAD FILE: 3661-DETAILS.dwg

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.



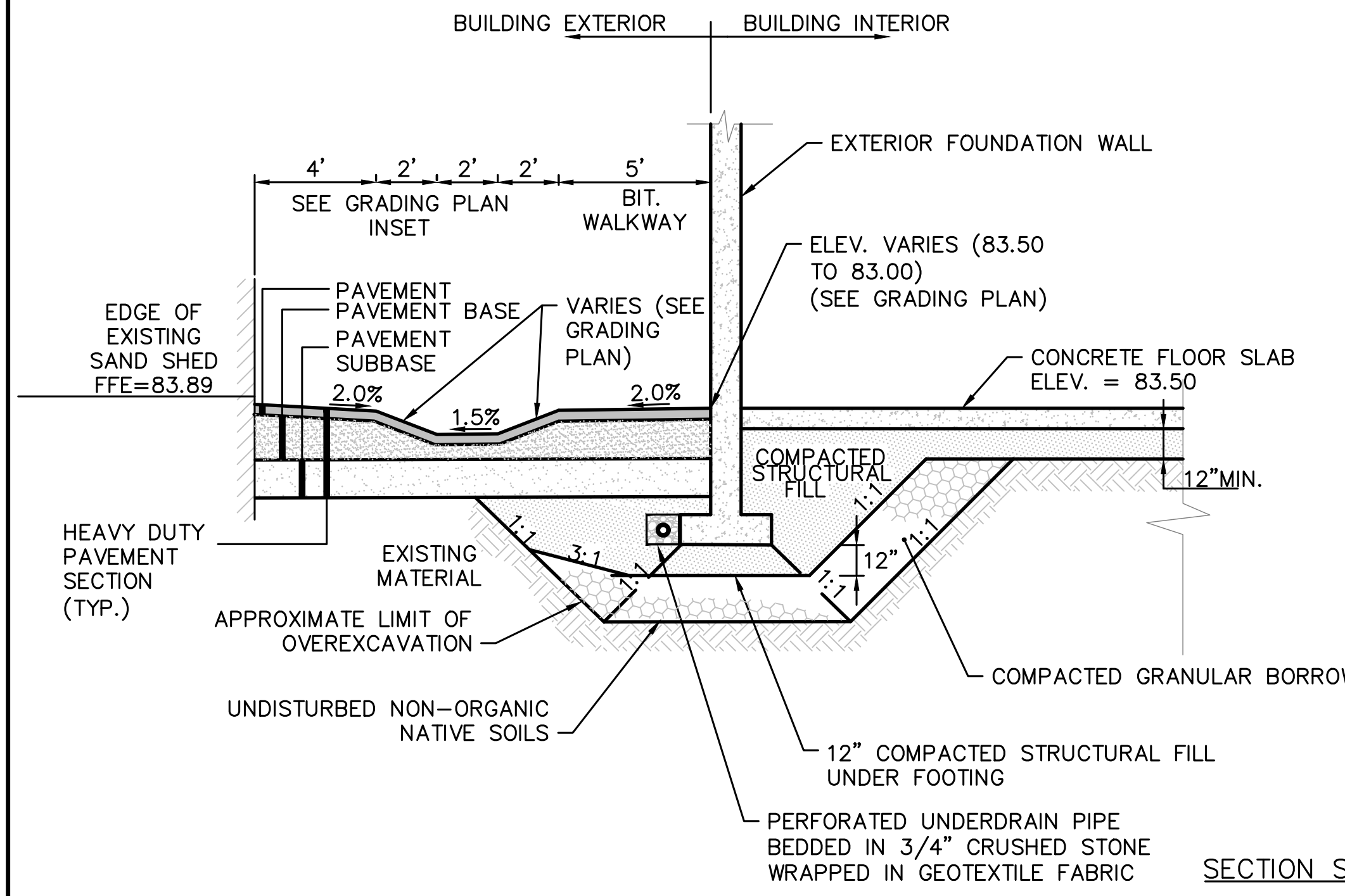
SECTION SPECIFIC NOTES:

- FOR SECTION A, SEE BORING LOG B-101 AND B-102. EXPECT EXCAVATION DEPTHS BETWEEN 7' AND 10' RESPECTIVELY, MEASURED FROM THE TOP OF EXISTING GROUND TO THE TOP OF THE UNDISTURBED NON-ORGANIC NATIVE SOILS.

SECTION A
NOT TO SCALE

GENERAL SECTION NOTES:

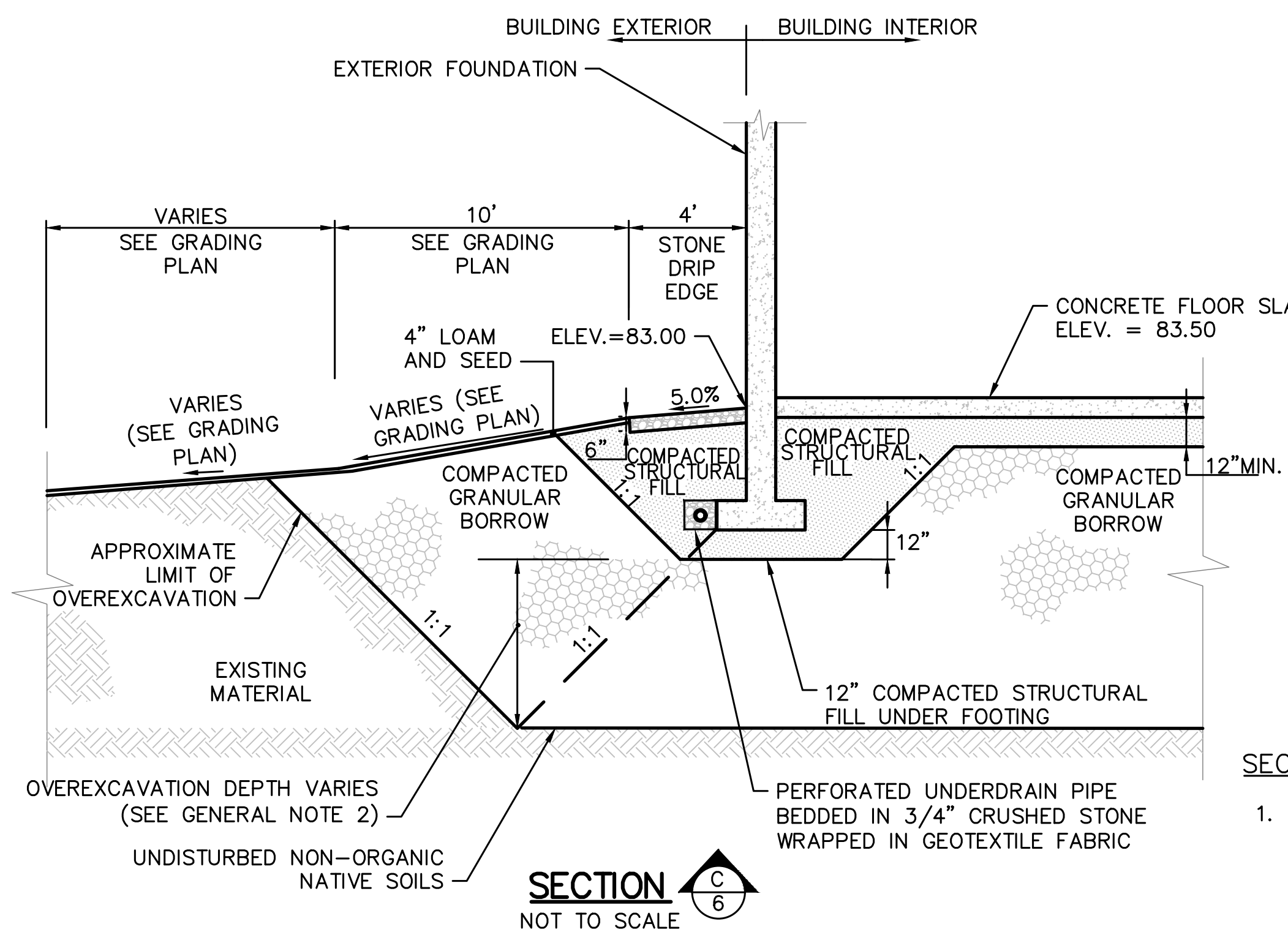
- UNDERDRAIN INSTALLATION AND MATERIAL GRADATION RECOMMENDATIONS ARE CONTAINED WITHIN THE PROJECT SPECIFICATIONS.
- OVER EXCAVATION DEPTH INCLUDES THE REMOVAL OF ALL FILL AND BURIED RELIC ORGANICS THAT ARE UNSUITABLE FOR SUPPORT OF PROPOSED FOUNDATIONS AND FLOOR SLABS. EXISTING FILL, PAVEMENT, TOPSOIL, ORGANICS, FOUNDATIONS, UTILITIES, AND STRUCTURES MUST BE COMPLETELY REMOVED FROM BENEATH THE PROPOSED BUILDING FOOTPRINTS. THE SECTION SPECIFIC NOTES SHOW THE EXCAVATION REQUIRED TO GET TO THE UNDISTURBED NON-ORGANIC NATIVE SOILS BASED ON AVAILABLE BORING LOG INFORMATION.



SECTION SPECIFIC NOTES:

- FOR SECTION B, SEE BORING LOG B-101 AND B-103. EXPECT EXCAVATION DEPTHS BETWEEN 7' AND 6' RESPECTIVELY, MEASURED FROM THE TOP OF EXISTING GROUND TO THE TOP OF THE UNDISTURBED NON-ORGANIC NATIVE SOILS.

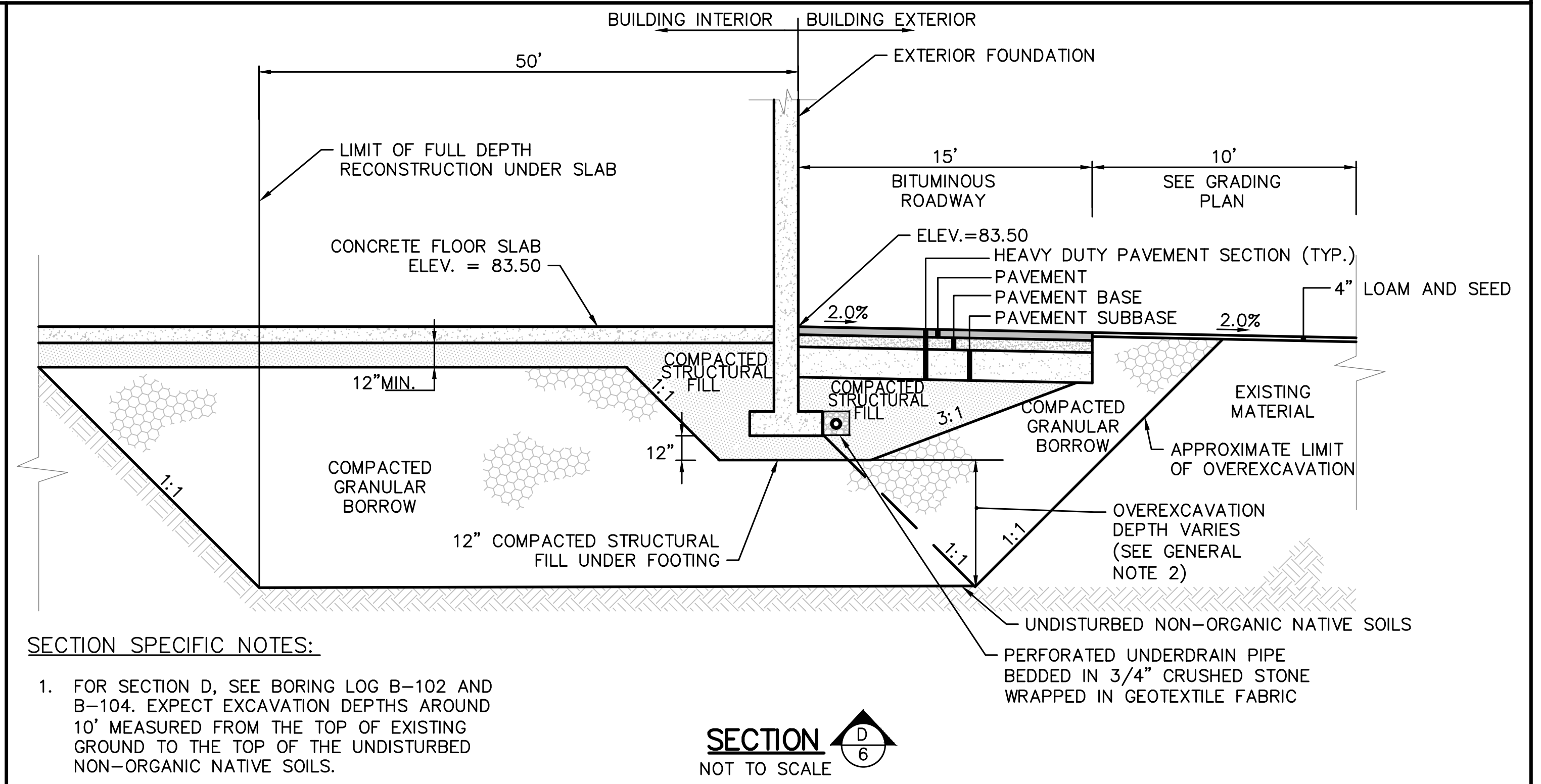
SECTION B
NOT TO SCALE



SECTION SPECIFIC NOTES:

- FOR SECTION C, SEE BORING LOG B-103 AND B-104. EXPECT EXCAVATION DEPTHS BETWEEN 6' AND 10' RESPECTIVELY, MEASURED FROM THE TOP OF EXISTING GROUND TO THE TOP OF THE UNDISTURBED NON-ORGANIC NATIVE SOILS.

SECTION C
NOT TO SCALE



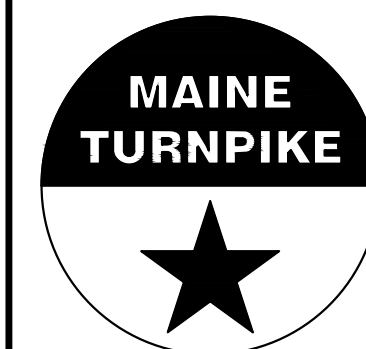
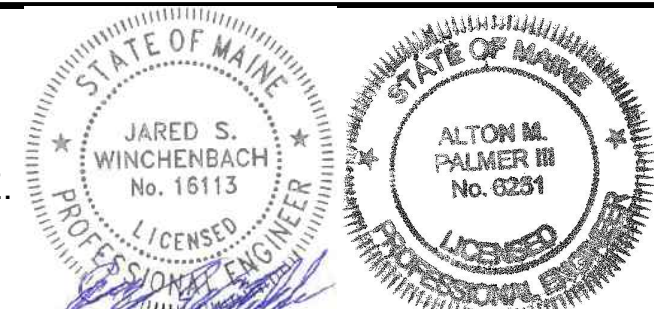
SECTION SPECIFIC NOTES:

- FOR SECTION D, SEE BORING LOG B-102 AND B-104. EXPECT EXCAVATION DEPTHS AROUND 10' MEASURED FROM THE TOP OF EXISTING GROUND TO THE TOP OF THE UNDISTURBED NON-ORGANIC NATIVE SOILS.

SECTION D
NOT TO SCALE

Scale:			
N/A			
No.	Revision	By	Date

Designed by:					
ALTON M. PALMER, P.E.					
JARED S. WINCHENBACH, P.E.					
ISSUED FOR BID - NOT FOR CONSTRUCTION					
	By	Date		By	Date
	Designed:	JSW	11/22/2021	Checked:	AMP
	Drawn:	CEH	11/22/2021		



**THE GOLD STAR
MEMORIAL HIGHWAY**

**CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
TYPICAL SECTIONS**

PROJ. NO.: 3661 CAD FILE: 3661-DETAILS.dwg

MTA PROJECT MANAGER: **Brian A. Taddeo, P.E.**

CONTRACT: 2021.06

SHEET NUMBER: C-405

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CODE ANALYSIS

NFPA 101 Life Safety Code - 2021 Edition

Building Classification: Storage - 8,800 sf
 Hazard Classification: Ordinary Hazard
 Construction Type: Type II (000)
 Occupant Loads: Storage (MP) = 8 Occupants

Building Uses
 Non-Sprinkled Building

Max. Allowable Travel Distance: 200'
 Max. Allowable Common Path: 50'
 Max. Dead End Corridor Length: 50'
 Minimum Number of Required Exits: 2
 Minimum Separation of exits: 0.5 diagonal
 Minimum Egress Door Width: 36"

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

2018 International Building Code

Use Group Classification: Storage - Use Group S2
 Construction: Type II - Non-Combustible, Unprotected
 Occupant Loads: 8,800 sf @ 500 sf/occ = 18 occupants

Building Limitations
 Construction Type: IIB Unprotected
 Maximum Height: 3 stories / 55'
 Maximum Area / Floor: 39,000 sf

Fire Resistance Ratings
 Load Bearing Exterior Walls: None
 Minimum Number of Exits: 2
 Maximum Dead-End Corridor Length: 20'
 Maximum Common Travel Path: 75'
 Maximum Travel Distance: 300'

Fire Alarm System: Not Required
 Fire Sprinkler System: Not Required (less than 24,000 sf)
 Portable Fire Extinguishers: Required
 Exit Lighting: Required
 Emergency Lighting: Required

Building Live Loads
 Storage: 125 psf @ light; 250 psf @ heavy

MUBEC (Maine Uniform Building Energy Code) MINIMUM INSULATION VALUES

Per 2009 IECC; Table 502.1.2, 502.2(1) and 502.3

ZONE GA	R-VALUE	U-FACTOR	SHGC
*Metal Building with R-5 Thermal Blockers			
Roof	R-13 + R-19*	0.049	NA
Exterior Wall	R-21*	0.069	NA
Mass Wall	13.3 ci	0.080	NA
(above Grade)			
Slab (24" band)	10.0	F-0.540	NA
Frost Wall	7.5 ci	C-0.119	NA
Doors - Swinging	1.42	0.70	NA
Doors - Overhead	2.00	0.50	NA
Windows	2.9	0.35	NR

End of Analysis

ABBREVIATIONS

AFF	ABOVE FINISH FLOOR	G	GRANITE	PB	PANIC BAR
ALUM or AL	ALUMINUM	GA	GUAGE	PL	PLATE
AWP	ACOUSTICAL WALL PANEL	GALV	GALVANIZED	PLY WD	PLYWOOD
BIT	BITUMINOUS	GB	GRAB BARS	PNL	PANEL
BM	BENCH MARK	GC	GENERAL CONTRACTOR	P.L.S.	PASSAGE LATCH SET
BOT	BOTTOM	GWB	GYPSUM WALL BOARD	P.T.	PRESSURE TREATED
BRG	BEARING			PT # D	PAPER TOWEL #
BRK	BRICK	HC	HANDICAP	PTN	WASTE DISPENSER
		HD WD	HARDWOOD		PARTITION
C	CARPET	HDR	HEADER	RD	ROOF DRAIN
CAB	CABINET	HDWE	HARDWARE	RE	REFER
CB	CHALK BOARD	HM	HOLLOW METAL	REF	REFRIGERATOR
CC	CENTER TO CENTER	HORIZ	HORIZONTAL	REINF	REINFORCED
CH	CONCRETE FLOOR WITH HARDENER	HT	HEIGHT	REQ'D	REQUIRED
CJ	CONTROL JOINT	ID	INSIDE DIAMETER	RM	ROOM
CL	CENTER LINE	IF	INSIDE FACE	RO	ROUGH OPENING
CLG	CILING	IN	INCHES	S	SOUTH
CMU	CONCRETE MASONRY UNIT	INSUL	INSULATION	SAT	SUSPENDED ACOUSTICAL TILE CEILING
CONC	CONCRETE	INT	INTERIOR	SC	SHOWER CURTAIN
CONT	CONTINUOUS	JNT or JT	JOINT	SD	SOAP DISPENSER
CONST	CONSTRUCTION	KEC	KITCHEN EQUIPMENT CONSULTANT	SCHED	SCHEDULE
CONTR	CONTRACTOR	KP	KICK PLATE	SECT	SECTION
CT	CERAMIC TILE	L	LAVATORY	SGB	SUSPENDED GYPSUM BOARD CEILING
DBL	DOUBLE	LAB	LABEL (FIRE)	SHT	SHEET
DC	DOOR CLOSER	LNTL	LINTEL	SIM	SIMILAR
DIA	DIAMETER	LOC	LOCATION	SND	SANITARY NAPKIN DISPOSAL
DIM	DIMENSION	LS	LOCKSET	SPEC	SPECIFICATIONS
DNA	DOES NOT APPLY	M	MARBLE	SQ	SQUARE
DR	DOOR	MAS	MASONRY	SSS	SYNTHETIC SPORTS SURFACE
DTL	DETAIL	MAX	MAXIMUM	STD	STANDARD
DWG	DRAWING	MECH	MECHANICAL	STL	STEEL
E	EAST	MFR	MANUFACTURER	STRUCT	STRUCTURAL
EA	EACH	MISC	MISCELLANEOUS	STV	STRAIGHT VINYL BASE SHEET VINYL
EF	EACH FACE	MO	MASONRY OPENING	T	TEMPERED (GLASS)
EJ	EXPANSION JOINT	MR	MOP OPENING	TB	TACK BOARD
EL	ELEVATION	MRGB	MOISTURE RESISTANT GYPSUM BOARD	TH	THERMAL (INSULATED) THICKNESS
ELEC	ELECTRICAL	MTL	METAL	THK	TOP OF
ELEV	ELEVATOR	N	NORTH	TOB	TOP OF BEAM
EMHO	ELECTROMAGNETIC HOLD OPEN	NA	NOT APPLICABLE	TOM	TOP OF MASONRY
EQ	EQUAL	NIC	NOT IN CONTRACT	TOW	TOP OF WALL
EW	EACH WAY	NO	NUMBER	TP	TOILET PAPER DISPENSER
EWC	ELECTRIC WATER COOLER	NOM	NOMINAL	TYP	TYPICAL
EXIST OF (E)	EXISTING	NTS	NOT TO SCALE	VB	VAPOR BARRIER
EXP	EXPANSION	OA	OVERALL	VCT	VINYL COMPOSITION TILE
EXT	EXTERIOR	OC	ON CENTER	VERT	VERTICAL
FCS	FLOOR COATING SYSTEM	OD	OUTSIDE DIAMETER	VVC	VINYL WALL COVERING
FD	FLOOR DRAIN	OF	OUTSIDE FACE	W	WEST
FDN	FOUNDATION	OPNG	OPENING	W/	WITH
FE	FIRE EXTINGUISHER	OP	OPPOSITE	WC	WATER CLOSET
FFE	FINISH FLOOR ELEVATION	P	PAINT	WD	WOOD
FIN	FINISH	PTD	PAINTED	WF	WATER FOUNTAIN
FIN FL or FF	FINISH FLOOR			WG	WIRE GLASS
FIN GR	FINISH GRADE			WP	WOOD PANELING
FL	FLOOR				
FR	FIRE RATING				
FRMG	FRAMING				
FT	FEET (FOOT)				
FV	FIELD VERIFY				
FWC	FABRIC WALL COVERING				

GENERAL NOTES

- ALL WORK SHALL CONFORM TO LOCAL AND STATE LAWS, ORDINANCES AND PREVAILING EDITIONS OF ADOPTED BUILDING CODES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL PERMITS FOR WORK.
- 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.
- THE 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 CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN A NEAT, SAFE, AND CLEAN MANNER. ALL CONSTRUCTION WASTE SHALL BE REMOVED FROM THE BUILDING. SITE BURNING IS NOT ALLOWED. LEAVE WORK AREA IN A CLEAN, SAFE CONDITION AT THE END OF EACH WORK DAY.
- ALL CONSTRUCTION DEBRIS SHALL BE DISPOSED OF AT AN APPROVED OFF-SITE FACILITY IN COMPLIANCE WITH ALL REGULATIONS.
- ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESERVATIVE TREATED.
- INSTALL SOLID BLOCKING AT WALL FRAMING BEHIND ALL SURFACE MOUNTED ITEMS.
- REFER TO THE ACCESSIBILITY DETAIL SHEET FOR AMERICANS WITH DISABILITIES ACT (ADA) AND MAINE HUMAN RIGHTS ACT (MRHA) CONSTRUCTION CRITERIA.

MATERIALS

	CONCRETE
	CONCRETE MASONRY UNIT
	BRICK
	GRAVEL
	SOIL
	STUD PARTITION (EXISTING)
	STEEL
	WOOD FRAMING
	WOOD BLOCKING
	PLYWOOD
	GYPSUM BOARD
	SUSPENDED ACOUSTICAL TILE
	BATT INSULATION
	RIGID INSULATION
	FINISH WOOD
	ONE HOUR RATED PARTITION
	TWO HOUR RATED PARTITION
	EXISTING PARTITION (SCREENED)
	NEW PARTITION

SYMBOLS

	ROOM NUMBER
	DOOR NUMBER
	WINDOW NUMBER
	BUILDING SECTION
	WALL SECTION
	DETAIL SECTION
	CASEWORK ELEVATION
	INTERIOR ELEVATION
	VERTICAL ELEVATION
	PARTITION TYPE
	STRUCTURAL CENTERLINE

EGRESS SYMBOLS LEGEND

	DIAGONAL DISTANCE
	EGRESS SEPARATION
	EGRESS PATH

NFPA LEGEND

SYMBOL	DESCRIPTION
	EXIT LIGHT
	ABC FIRE EXTINGUISHER w/ BRACKET
	EMERGENCY LIGHT
	EMERGENCY / EXIT LIGHT
	EXTERIOR EMERGENCY LIGHT

Scale: NO SCALE

No.	Revision	By	Date

Designed by: MICHAEL F. HAYS, RA

ISSUED FOR BID - NOT FOR CONSTRUCTION

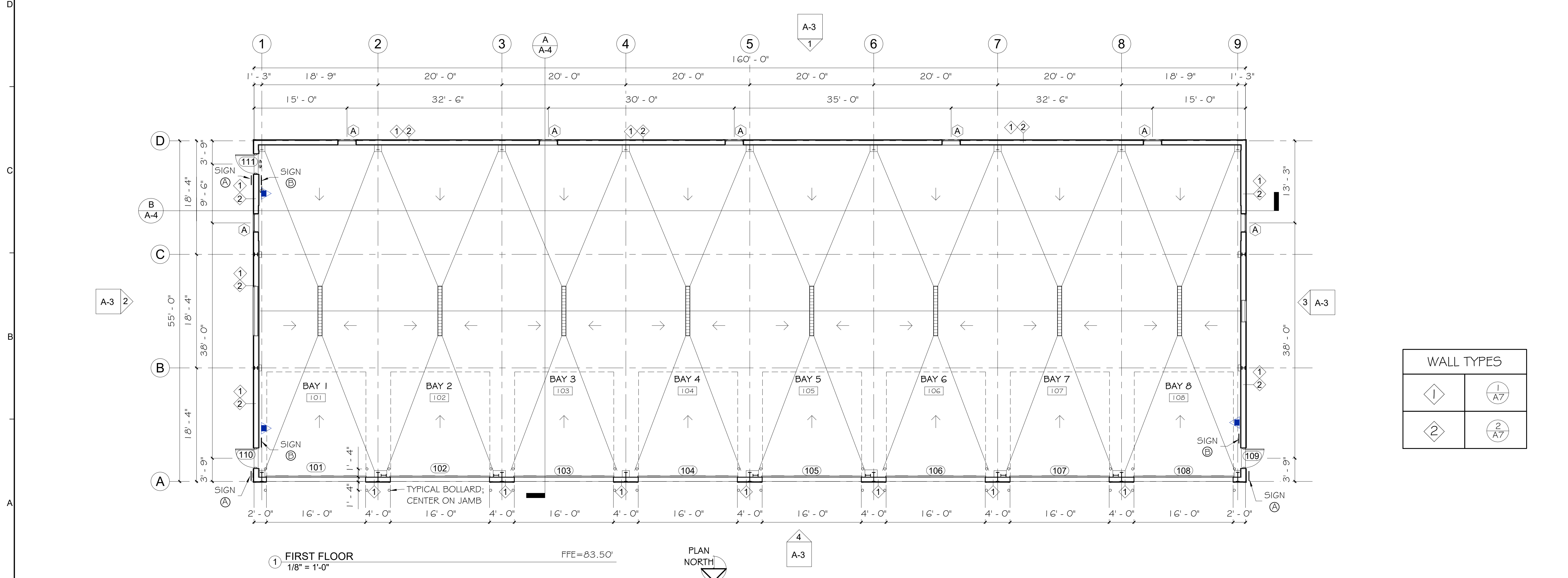
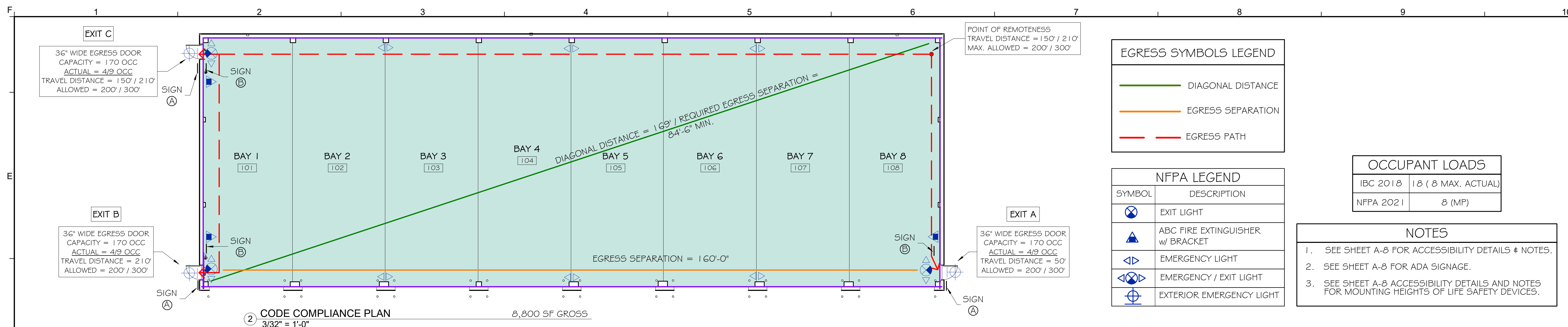
By	Date	By	Date
Designed: MFH	11/22/21	Checked: MFH	11/22/21
Drawn: MGK	11/22/21		

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

THE GOLD STAR MEMORIAL HIGHWAY
 MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
ARCHITECTURAL COVER SHEET

SHEET NUMBER: A-0
 CONTRACT: 2021.06
 10 OF 32



Scale: As indicated

No.	Revision	By	Date

Designed by: MICHAEL F. HAYS, RA

ISSUED FOR BID - NOT FOR CONSTRUCTION

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MFH	MFH	11/22/21	MFH	MFH	11/22/21
Drawn:	MGK	11/22/21			

GRANT HAYS ASSOCIATES

ARCHITECTURE & INTERIOR DESIGN
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AEI PROJ. NO.: 20019 CAD FILE:

MAINE TURNPIKE

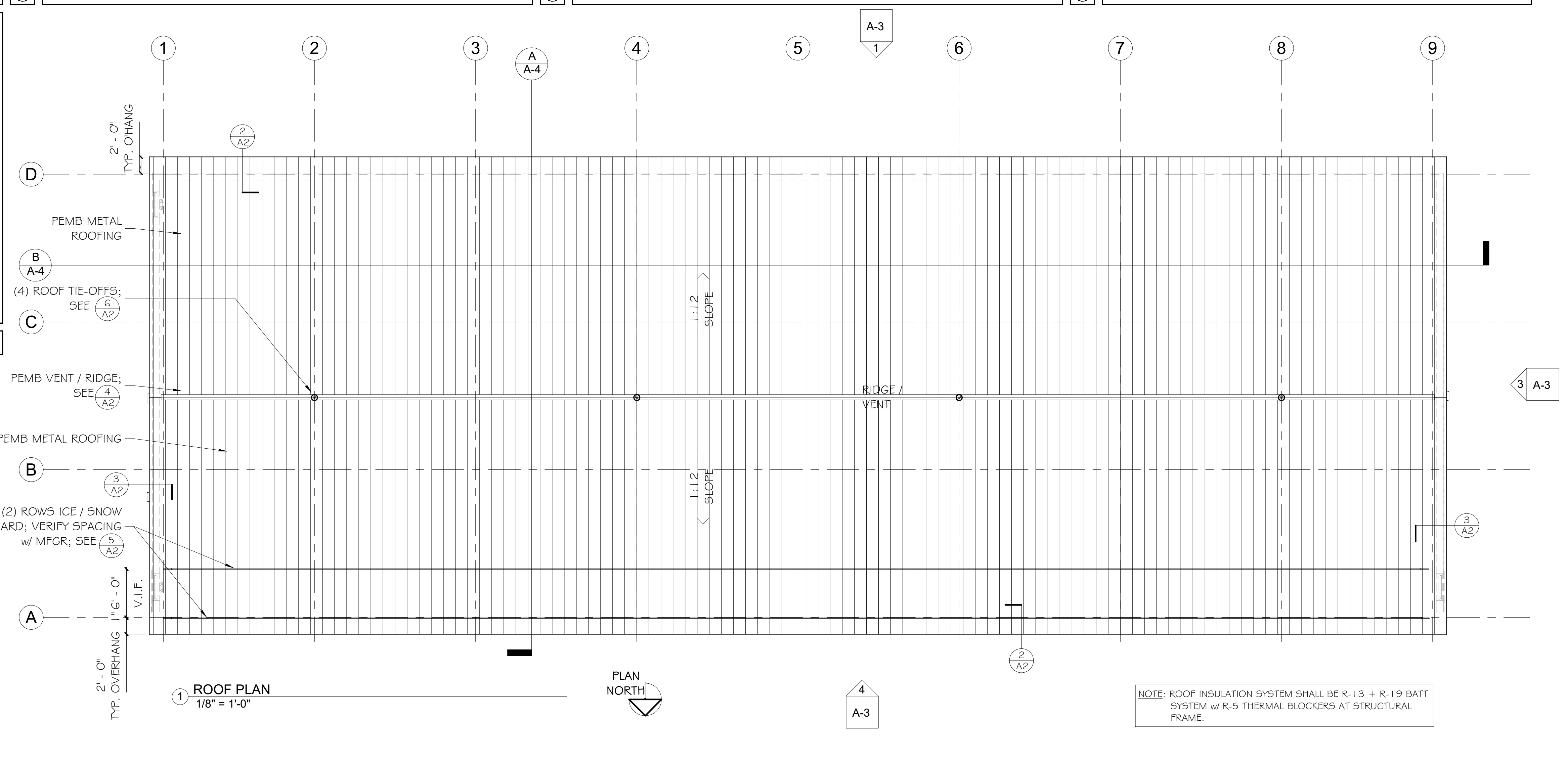
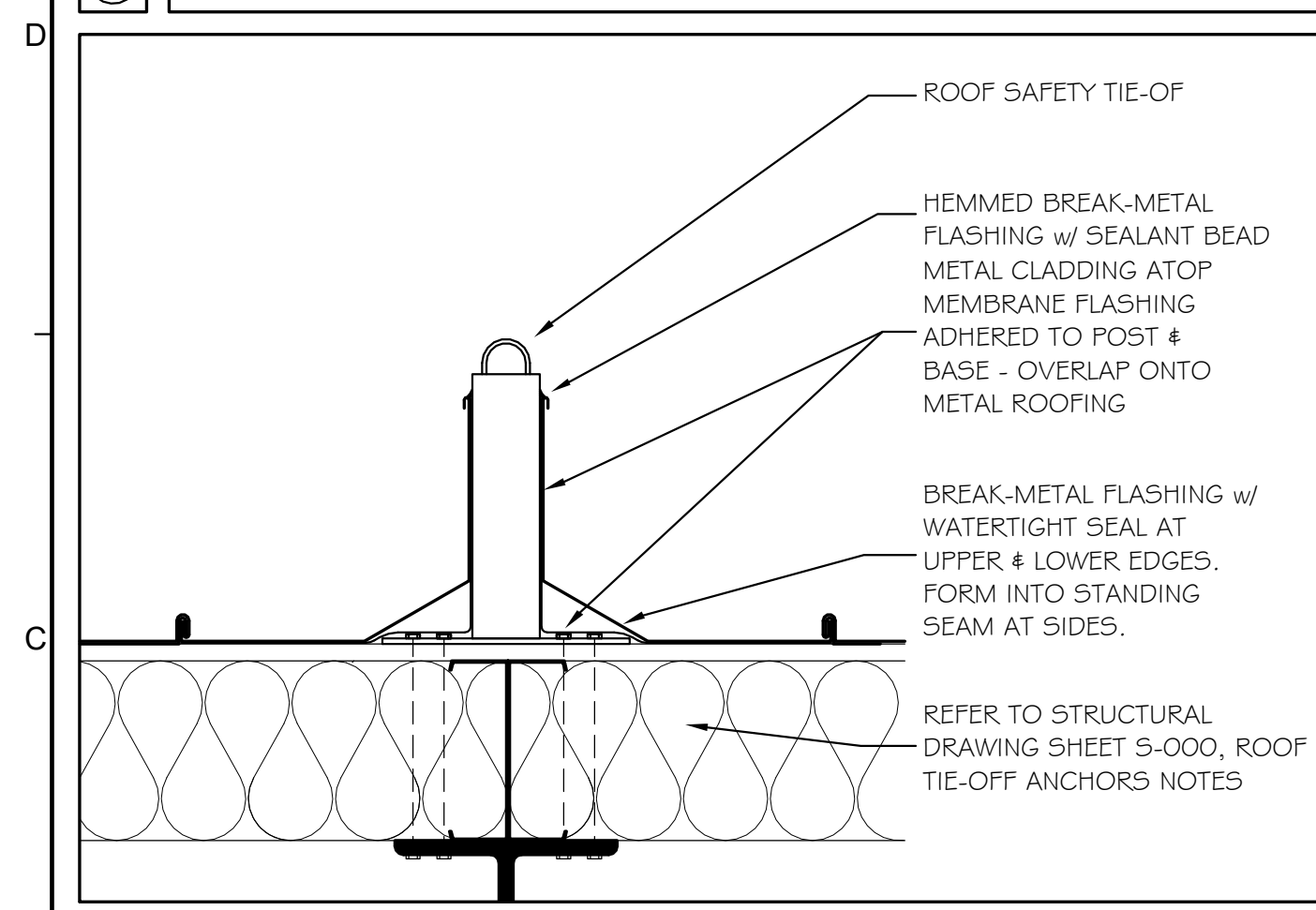
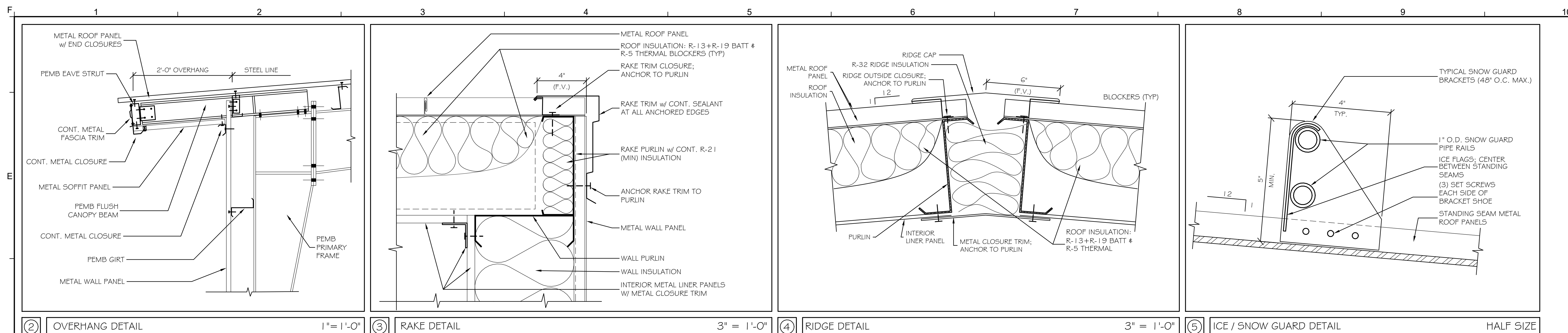
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
CODE COMPLIANCE & FIRST FLOOR PLANS

SHEET NUMBER: A-1

CONTRACT: 2021.06 11 OF 32



Scale: As indicated

No.	Revision	By	Date

Designed by: MICHAEL F. HAYS, RA

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	By	Date	By	Date
Designed:	MFH	11/22/21	Checked:	MFH 11/22/21
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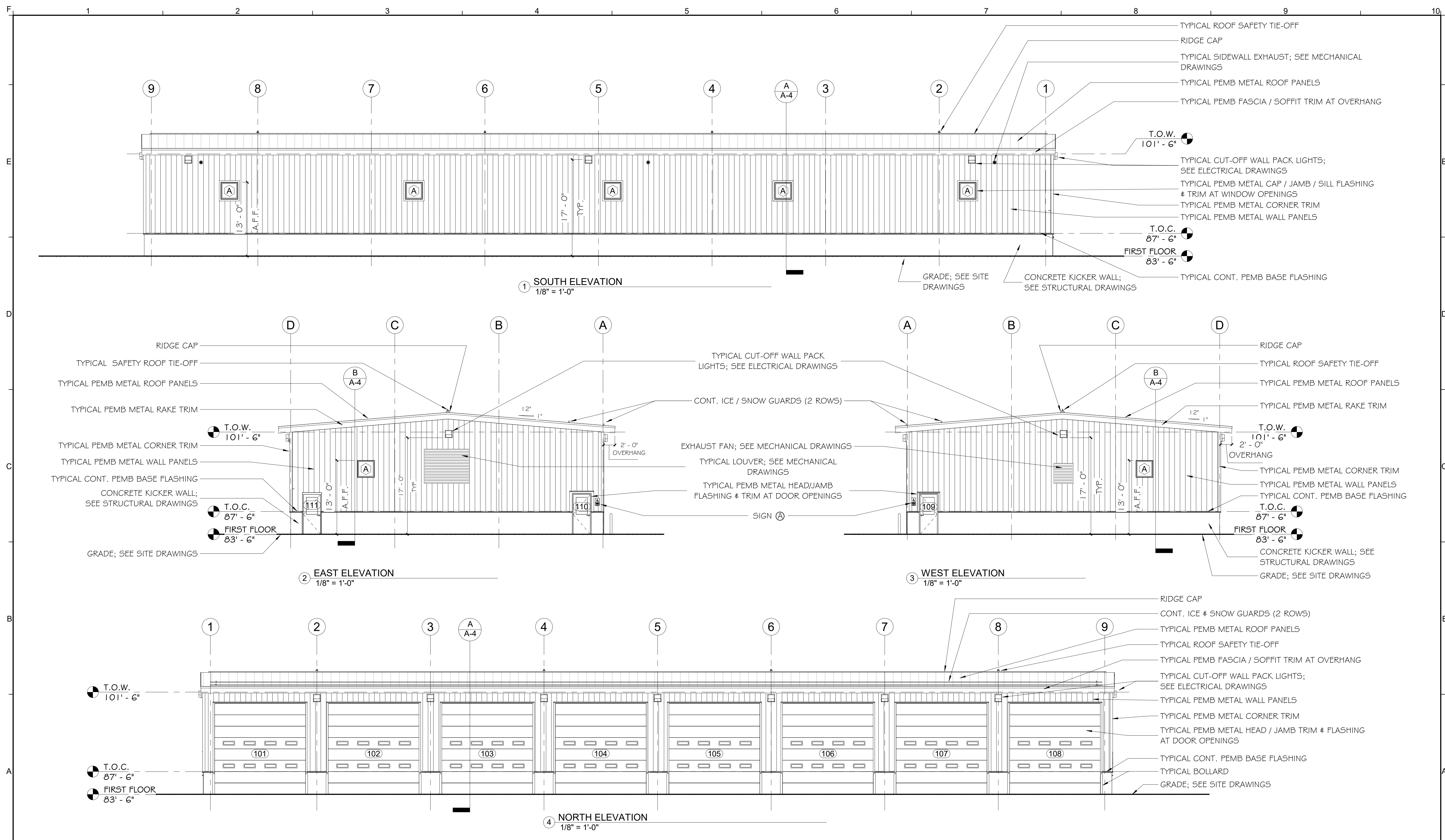
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
ROOF PLAN & DETAILS

SHEET NUMBER: A-2

CONTRACT: 2021.06 12 OF 32



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

No.	Revision	By	Date

Designed by:
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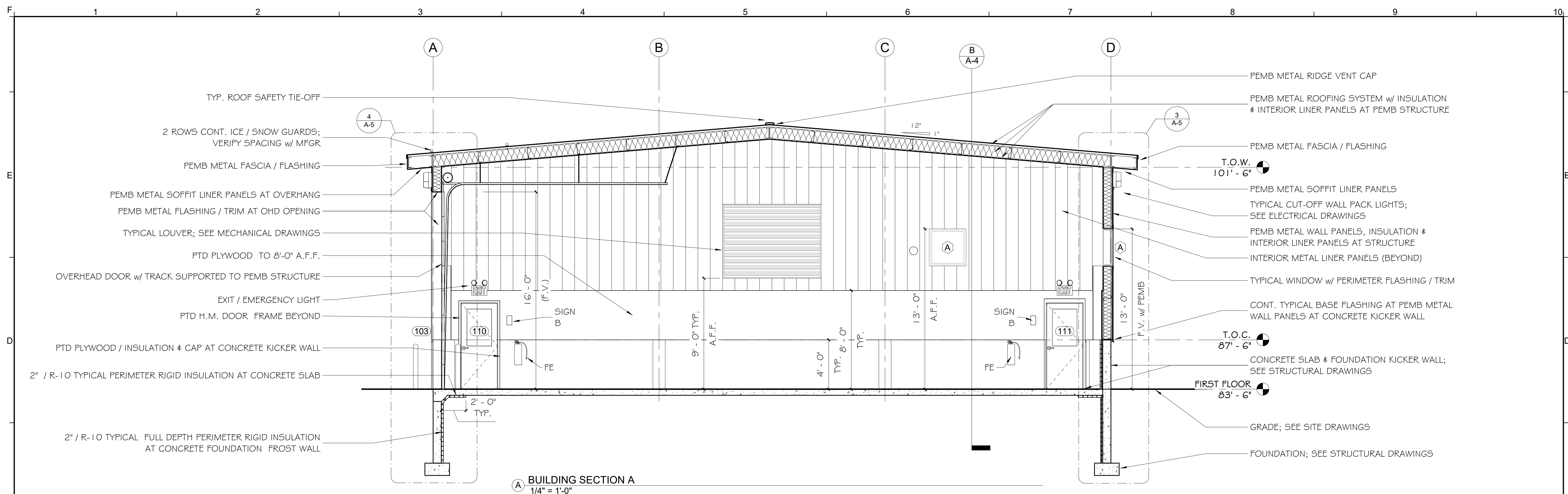
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Designed:	MFH	11/22/21	Checked:	MFH	11/22/21
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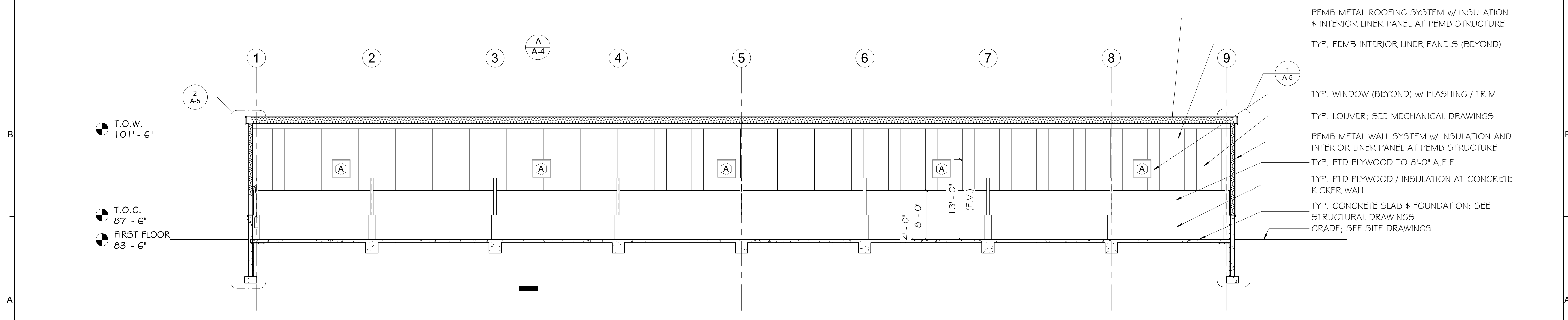
THE GOLD STAR MEMORIAL HIGHWAY
MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

**CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
ELEVATIONS**

SHEET NUMBER: A-3
CONTRACT: 2021.06
13 OF 32



A BUILDING SECTION A
1/4" = 1'-0"



B BUILDING SECTION B
1/8" = 1'-0"

Scale: As indicated

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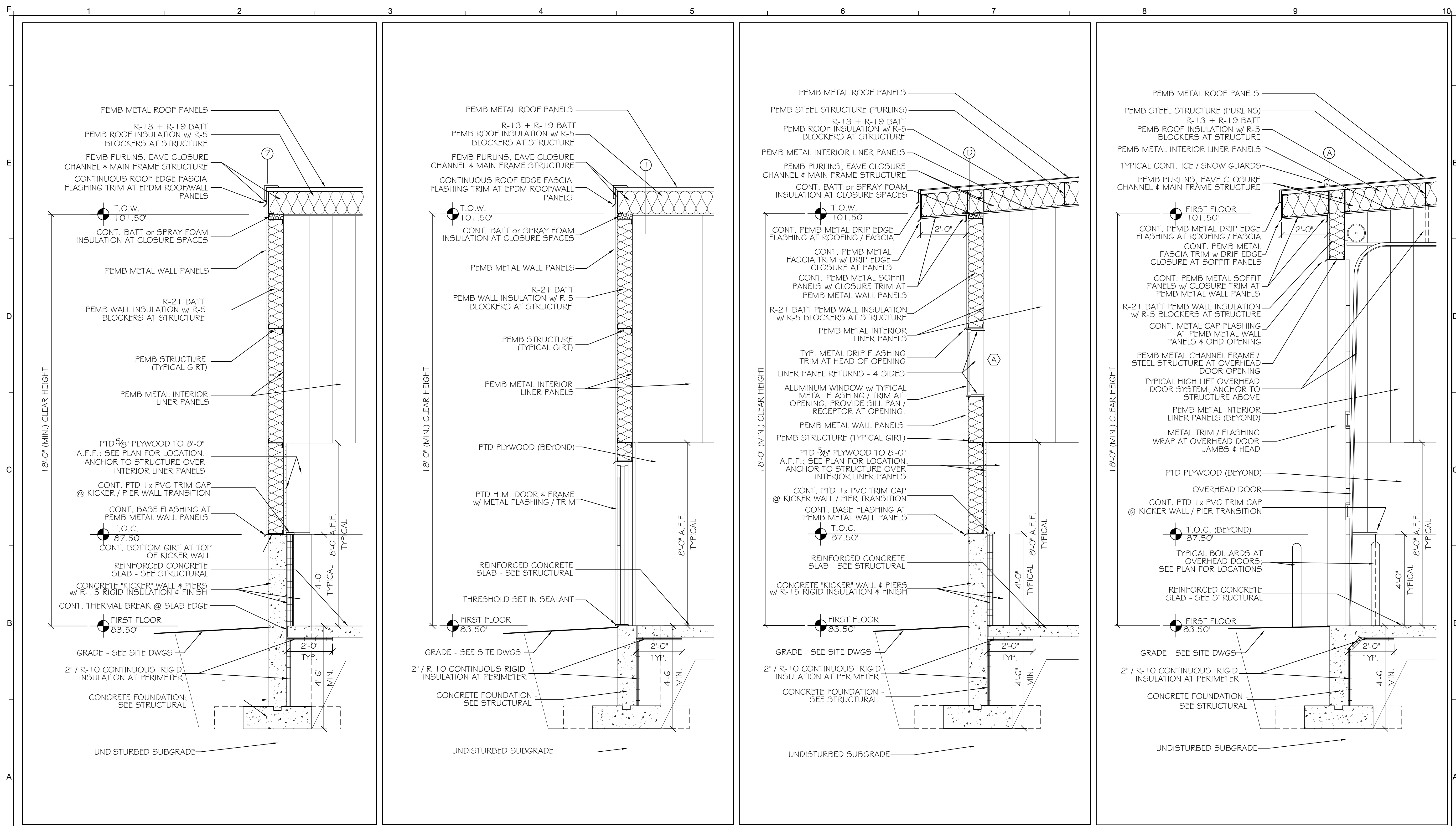
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
BUILDING SECTIONS

SHEET NUMBER: A-4

CONTRACT: 2021.06 14 OF 32



① TYPICAL WALL SECTION 1/2" = 1'-0" ② TYP. WALL SECTION AT H.M. DOOR 1/2" = 1'-0" ③ TYP. WALL SECTION AT WINDOW 1/2" = 1'-0" ④ TYP. WALL SECTION AT OVERHEAD DOOR 1/2" = 1'-0"

Scale: As indicated

No.	Revision	By	Date

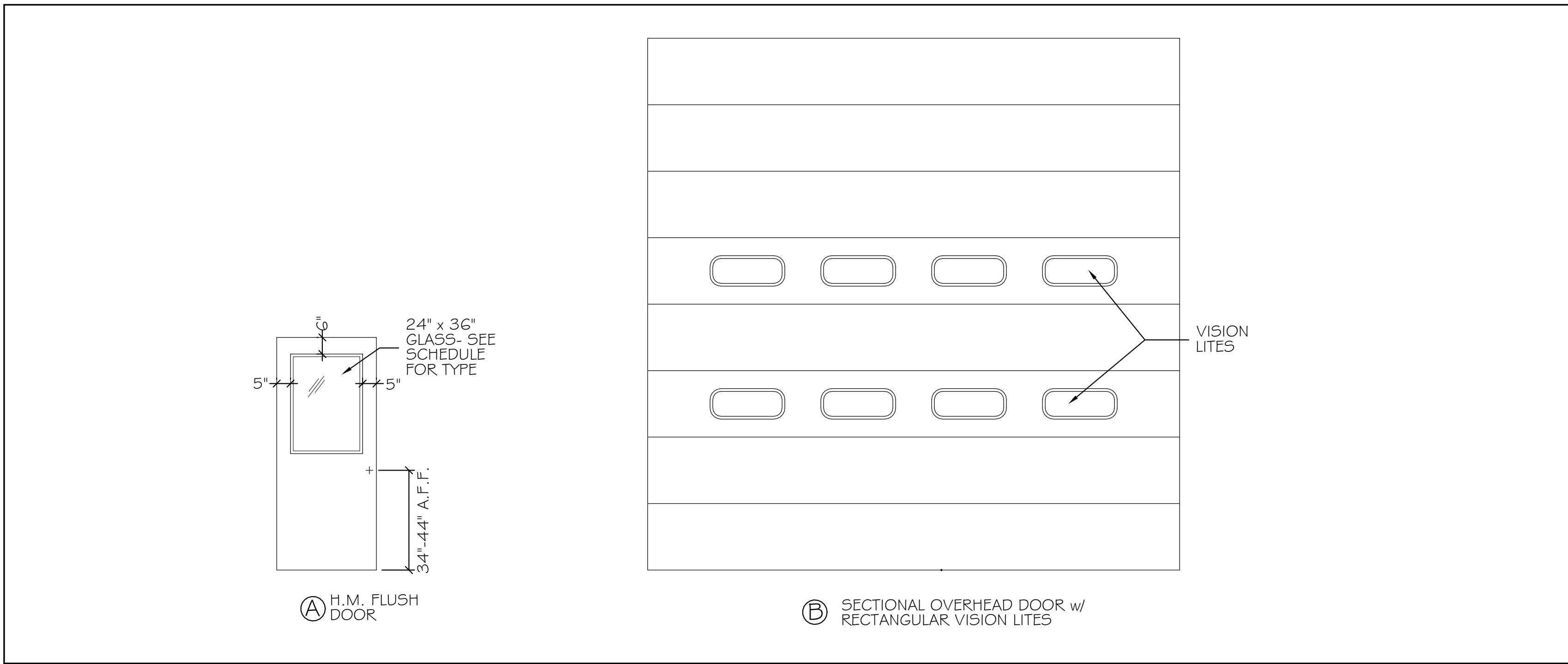
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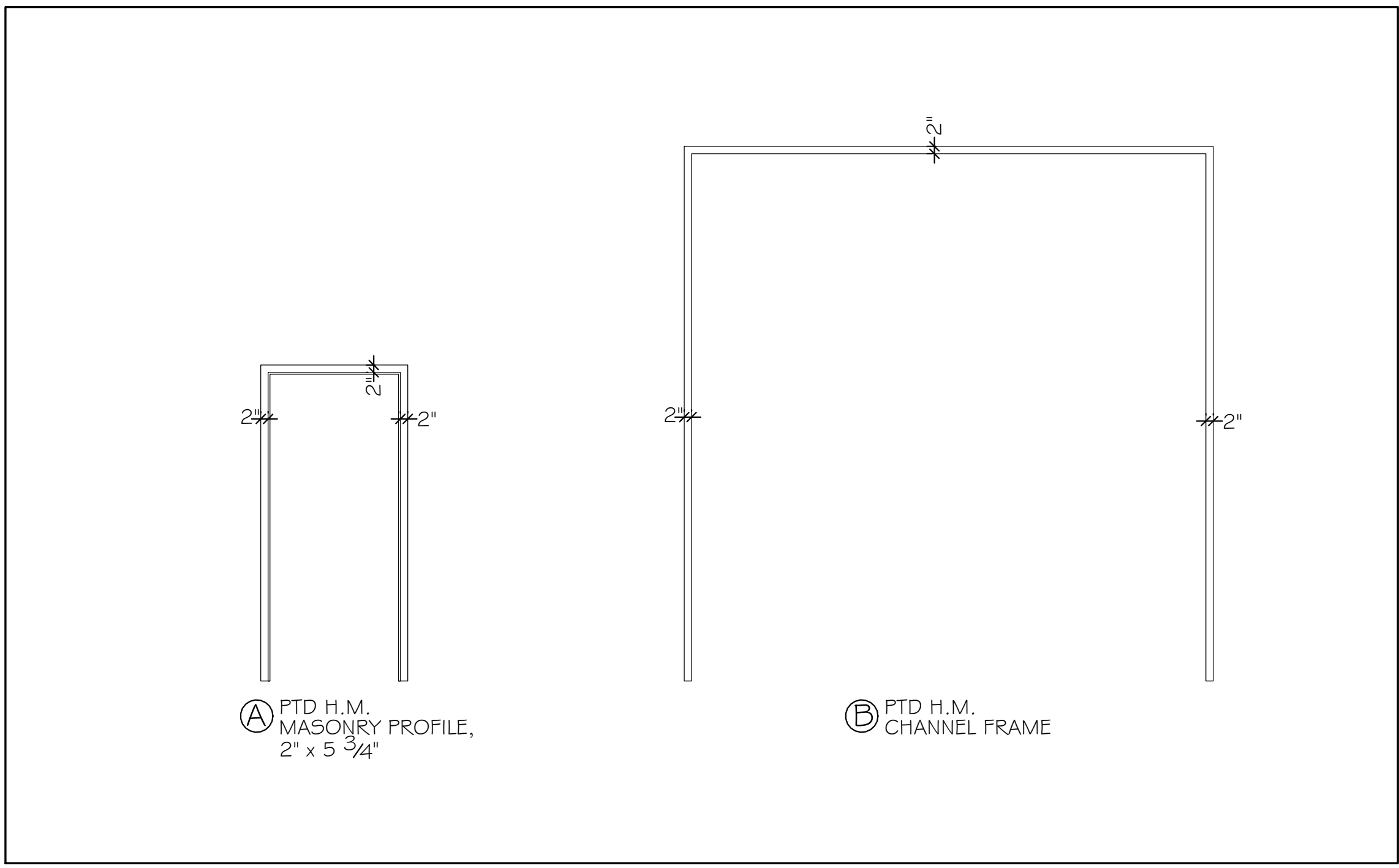
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MAINE TURNPIKE
 THE GOLD STAR MEMORIAL HIGHWAY
 MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

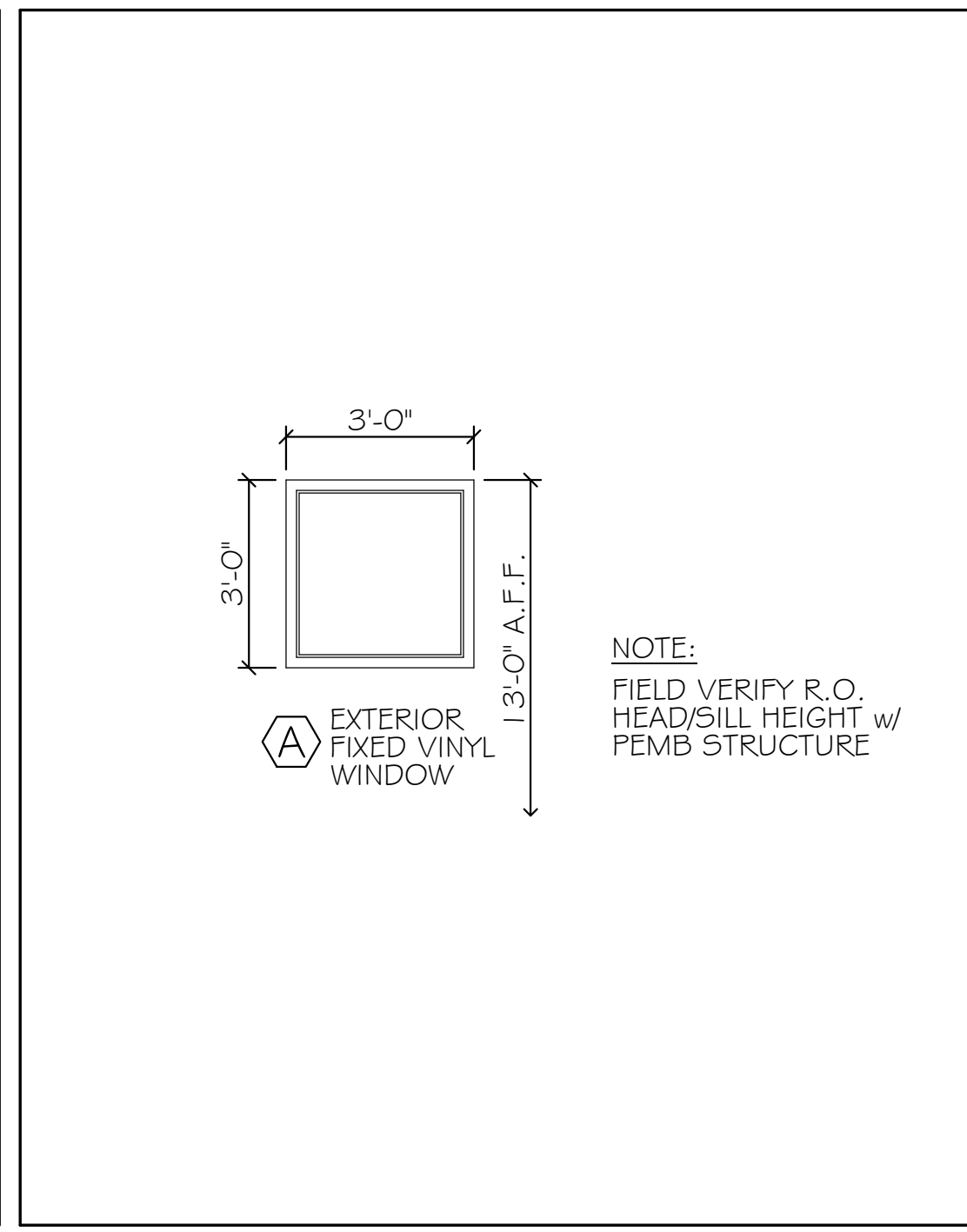
CONTRACT 2021.06
 CROSBY VEHICLE STORAGE GARAGE
 WALL SECTIONS
 SHEET NUMBER: A-5
 CONTRACT: 2021.06 15 OF 32



DOOR TYPES 3/8" = 1'-0"



FRAME TYPES 3/8" = 1'-0"



WINDOW TYPE 3/8" = 1'-0"

DOOR SCHEDULE

ABBREVIATIONS

ALUM	ALUMINUM	MAS	MASONRY
DW	DRYWALL	MFGR	MANUFACTURER
ES	EDGE STRIP	OCD	OVERHEAD COILING DOOR
EMHO	ELECTRO MAGNETIC HOLD OPENER	OHD	OVERHEAD DOOR
GL	GLASS	T	TEMPERED
HM	HOLLOW METAL	T-BREAK	THERMAL BREAK
INSUL	INSULATED	TH	THERMAL INSULATED
		TS	TRANSITION STRIP

DOORS										FRAMES				THRESHOLDS			
NO.	TYPE	SIZE (w x h)	THK	INSUL	HDWE	FR	GLASS		REMARKS	TYPE		DETAILS		MATERIAL	DETAILS		
							TYPE	SIZE		FR	FR	PROFILE	HEAD		JAMB	SILL	FIN
101	B	16x16' OHD	MFGR	YES	MFGR	---	MFGR	MFGR		B	---	MAS	5-A7	6-A7	---	---	7-A7
102	B	16x16' OHD	MFGR	YES	MFGR	---	MFGR	MFGR		B	---	MAS	5-A7	6-A7	---	---	7-A7
103	B	16x16' OHD	MFGR	YES	MFGR	---	MFGR	MFGR		B	---	MAS	5-A7	6-A7	---	---	7-A7
104	B	16x16' OHD	MFGR	YES	MFGR	---	MFGR	MFGR		B	---	MAS	5-A7	6-A7	---	---	7-A7
105	B	16x16' OHD	MFGR	YES	MFGR	---	MFGR	MFGR		B	---	MAS	5-A7	6-A7	---	---	7-A7
106	B	16x16' OHD	MFGR	YES	MFGR	---	MFGR	MFGR		B	---	MAS	5-A7	6-A7	---	---	7-A7
107	B	16x16' OHD	MFGR	YES	MFGR	---	MFGR	MFGR		B	---	MAS	5-A7	6-A7	---	---	7-A7
108	B	16x16' OHD	MFGR	YES	MFGR	---	MFGR	MFGR		B	---	MAS	5-A7	6-A7	---	---	7-A7
109	A	3' x 7'	1.34"	YES	HW-1	---	T / TH	24" x 36"		A	---	MAS	9-A7	10-A7	ALUM	11-A7	---
110	A	3' x 7'	1.34"	YES	HW-1	---	T / TH	24" x 36"		A	---	MAS	9-A7	10-A7	ALUM	11-A7	---
111	A	3' x 7'	1.34"	YES	HW-1	---	T / TH	24" x 36"		A	---	MAS	9-A7	10-A7	ALUM	11-A7	---

WINDOW SCHEDULE

NO.	TYPE	MANUFACTURER		NOMINAL SIZE		DETAILS				REMARKS	
		MFGR	MODEL	WIDTH	HEIGHT	HEAD	JAMB	SILL	MUNT		MULL
A	FIXED	VINYL	MFGR	3'-0"	3'-0"	13-A7	14-A7	15-A7	---	---	LOW 'E' INSULATED GLASS

FINISH SCHEDULE

ABBREVIATIONS

CH	CONCRETE w/ HARDENER	MLP	METAL LINER PANEL
CMU	CONCRETE MASONRY UNIT	P	PAINT
DFF	DRY FALL PAINT	RB	RUBBER BASE
E	EXISTING	RT	RUBBER TILE
EP	EPOXY PAINT		
FRP	FIBERGLASS REINFORCED PANELS	SAT	SUSPENDED ACOUSTICAL TILE
FV	FIELD VERIFY	SS	STAINLESS STEEL
GL	GLASS	WD	WOOD
GWB	GYPSON WALL BOARD		

RM NO.	NAME	WALLS				FLOORS				CEILING A		CEILING B		REMARKS
		N	E	S	W	MAT'L	BASE	MAT'L	BASE	TYPE	HT.	TYPE	HT.	
101	BAY 1	P / MLP	---	P / MLP	P / MLP	CONC	---	---	---	MLP	STRUCT.	---	---	
102	BAY 2	P / MLP	---	P / MLP	---	CONC	---	---	---	MLP	STRUCT.	---	---	
103	BAY 3	P / MLP	---	P / MLP	---	CONC	---	---	---	MLP	STRUCT.	---	---	
104	BAY 4	P / MLP	---	P / MLP	---	CONC	---	---	---	MLP	STRUCT.	---	---	
105	BAY 5	P / MLP	---	P / MLP	---	CONC	---	---	---	MLP	STRUCT.	---	---	
106	BAY 6	P / MLP	---	P / MLP	---	CONC	---	---	---	MLP	STRUCT.	---	---	
107	BAY 7	P / MLP	---	P / MLP	---	CONC	---	---	---	MLP	STRUCT.	---	---	
108	BAY 8	P / MLP	P / MLP	P / MLP	---	CONC	---	---	---	MLP	STRUCT.	---	---	

Scale: 12" = 1'-0"

No.	Revision	By	Date

Designed by: MICHAEL F. HAYS, RA

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Designed: MFH 11/22/21
 Checked: MFH 11/22/21
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MAINE TURNPIKE

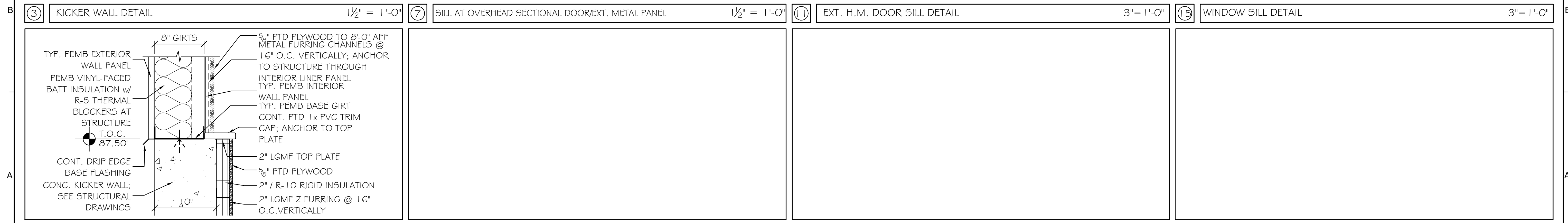
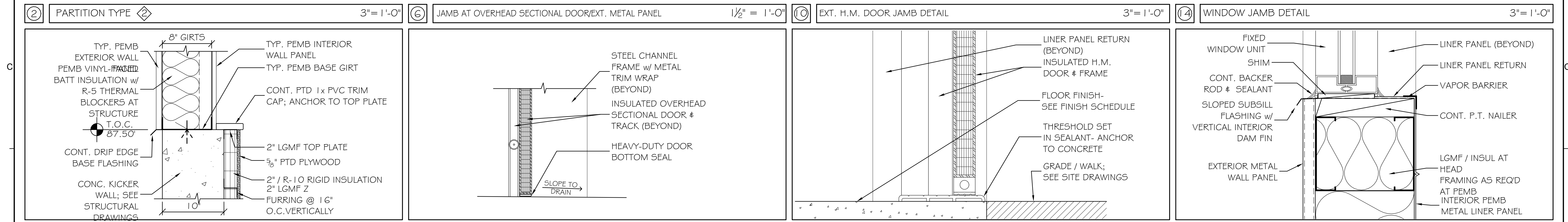
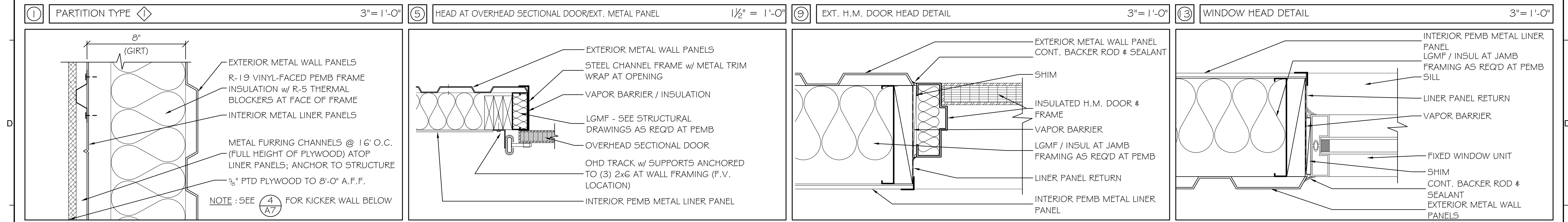
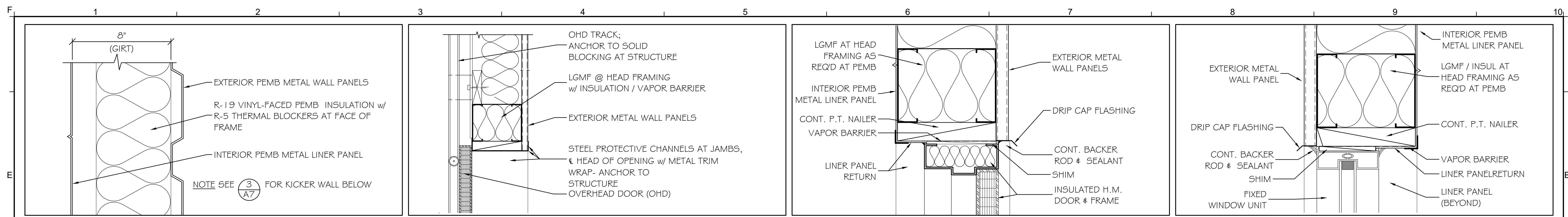
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
 CROSBY VEHICLE STORAGE GARAGE
 DOOR, WINDOW & FINISH SCHEDULES

SHEET NUMBER: A-6

CONTRACT: 2021.06 16 OF 32



① PARTITION TYPE 1 3" = 1'-0" ⑤ HEAD AT OVERHEAD SECTIONAL DOOR/EXT. METAL PANEL 1 1/2" = 1'-0" ⑨ EXT. H.M. DOOR HEAD DETAIL 3" = 1'-0" ⑬ WINDOW HEAD DETAIL 3" = 1'-0"

② PARTITION TYPE 2 3" = 1'-0" ⑥ JAMB AT OVERHEAD SECTIONAL DOOR/EXT. METAL PANEL 1 1/2" = 1'-0" ⑩ EXT. H.M. DOOR JAMB DETAIL 3" = 1'-0" ⑭ WINDOW JAMB DETAIL 3" = 1'-0"

③ KICKER WALL DETAIL 1 1/2" = 1'-0" ⑦ SILL AT OVERHEAD SECTIONAL DOOR/EXT. METAL PANEL 1 1/2" = 1'-0" ⑪ EXT. H.M. DOOR SILL DETAIL 3" = 1'-0" ⑮ WINDOW SILL DETAIL 3" = 1'-0"

④ KICKER WALL DETAIL 1 1/2" = 1'-0" ⑧ (BLANK) 1 1/2" = 1'-0" ⑫ (BLANK) 3" = 1'-0" ⑯ (BLANK) 3" = 1'-0"

Scale: 12" = 1'-0"

No.	Revision	By	Date

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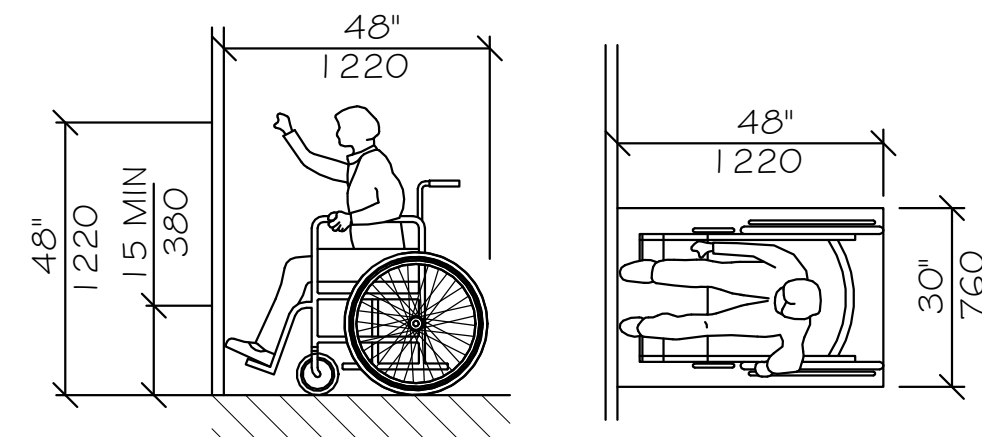
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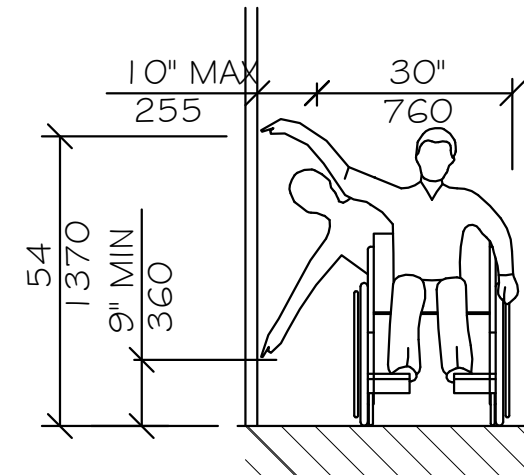
THE GOLD STAR MEMORIAL HIGHWAY
 MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
DETAILS

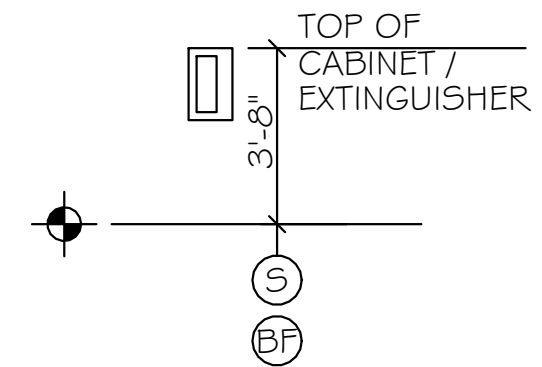
SHEET NUMBER: A-7
 CONTRACT: 2021.06 17 OF 32



HIGH FORWARD REACH LIMIT
NTS



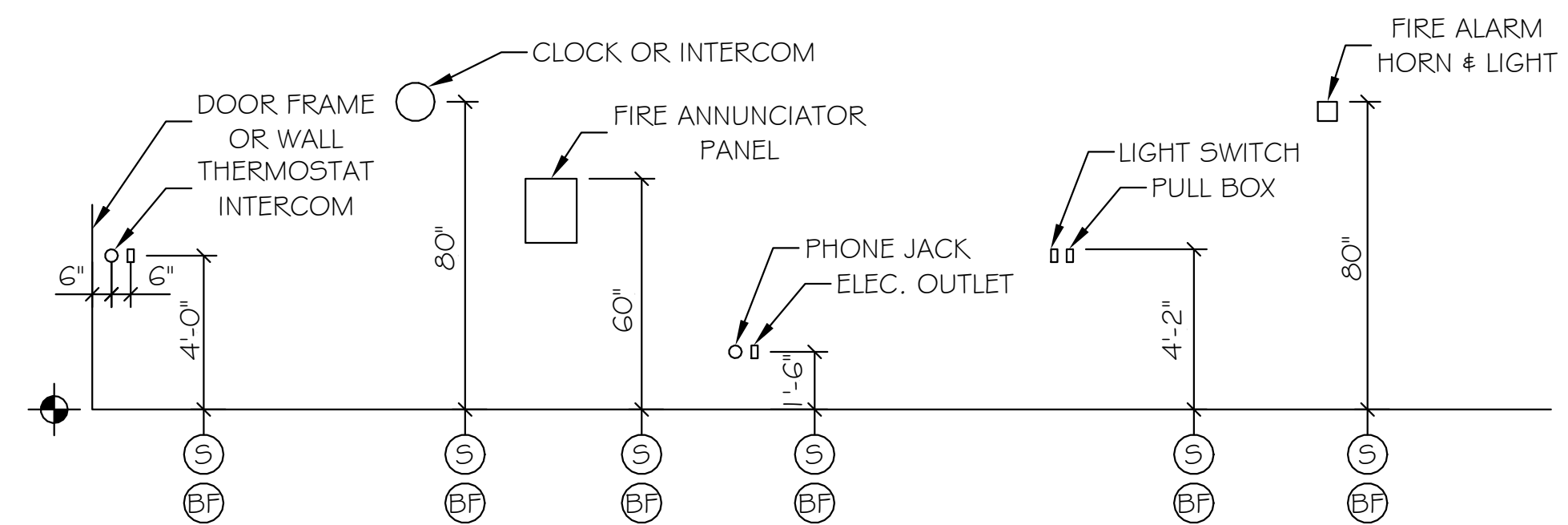
HIGH AND LOW SIDE REACH LIMITS
NTS



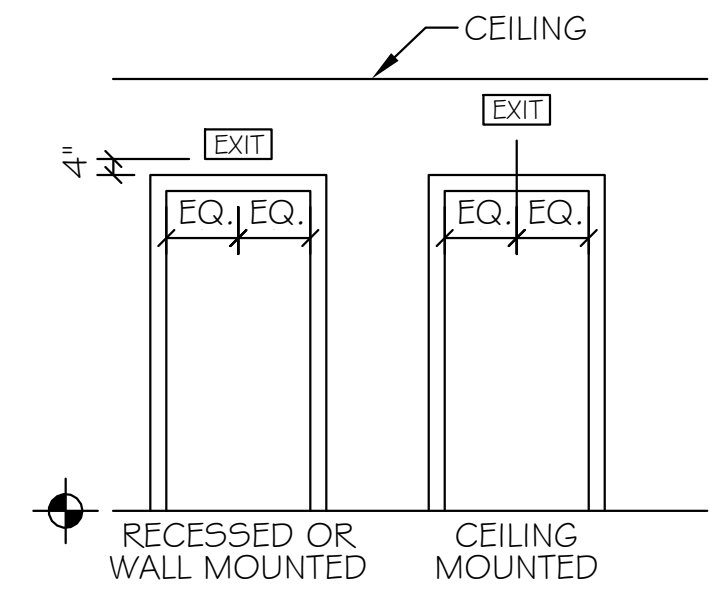
FIRE EXTINGUISHER
CABINET (FEC)
NTS

- LEGEND**
- Ⓢ STANDARD MOUNTING HEIGHT
 - Ⓟ BARRIER FREE ADULT MOUNTING HEIGHT
 - Ⓡ FINISH FLOOR LINE

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

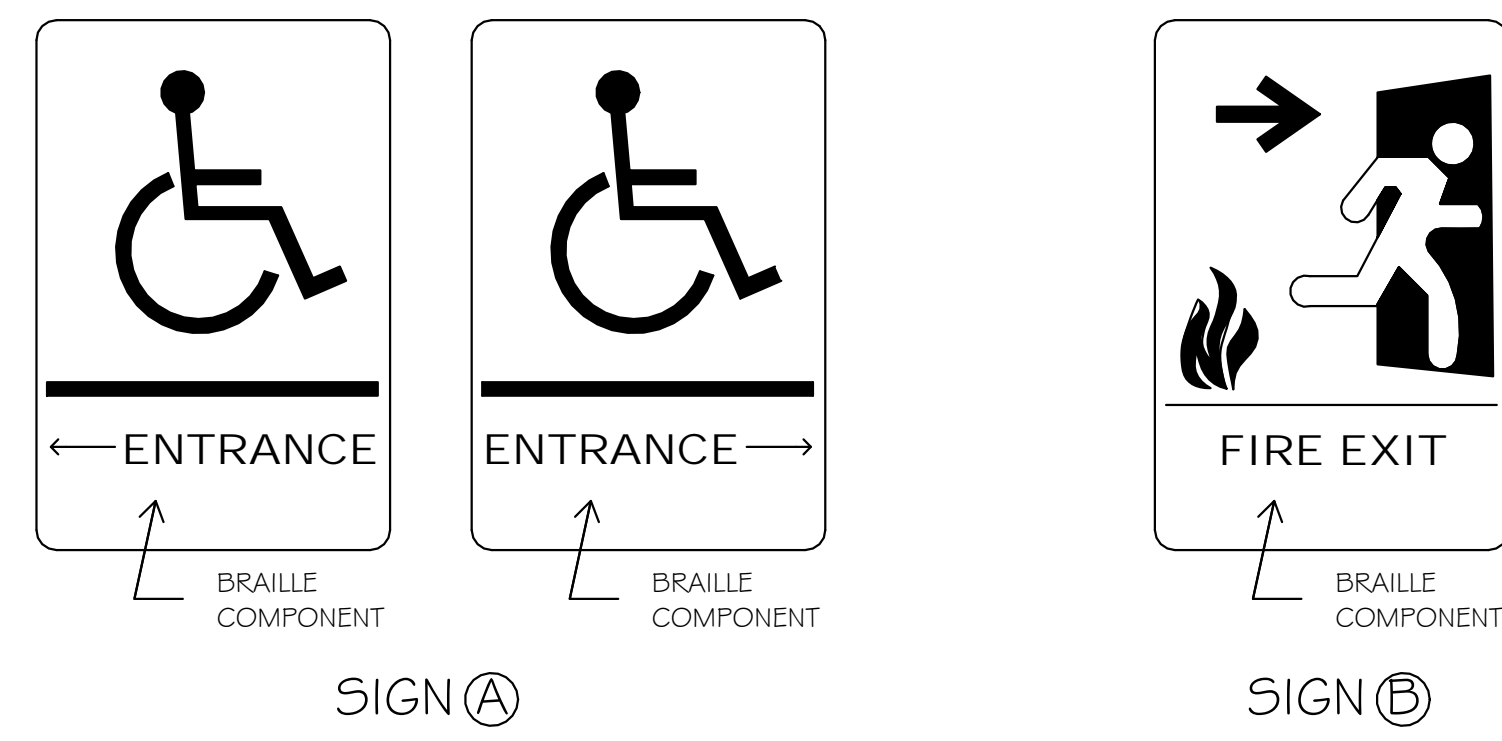


ELECTRICAL & FIRE PROTECTION DEVICES (TYPICAL U.O.N.)
NTS



EXIT SIGNS
(TYPICAL UNLESS OTHERWISE NOTED)
NTS

- 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:
12" = 1'-0"

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
ACCESSIBILITY DETAILS & NOTES

SHEET NUMBER: A-8

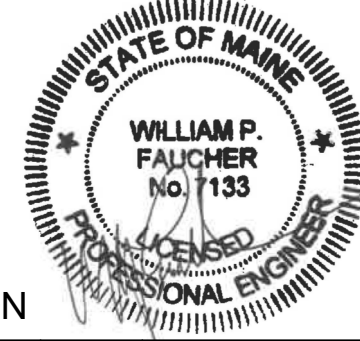
CONTRACT: 2021.06

18 OF 32

1	2	3	4	5	6	7	8	9	10
SPECIAL INSPECTIONS		CONCRETE:		STRUCTURAL NOTES:			GENERAL NOTES:		
<p>1. SPECIAL INSPECTIONS: AN INDEPENDENT INSPECTIONS PROGRAM AND SCHEDULE SHALL BE INCLUDED.</p> <p>2. A QUALIFIED PERSON APPROVED 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.</p> <p>3. INSPECTION REPORTS SHALL BE FURNISHED TO THE OWNER, BUILDING OFFICIAL, ARCHITECT AND SER. DISCREPENCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR AND IF NOT CORRECTED, SHALL BE REPORTED TO THE OWNER, BUILDING OFFICIAL, ARCHITECT AND SER.</p> <p>4. THE FOLLOWING TYPES OF WORK SHALL RECEIVE SPECIAL INSPECTION OVERSITE: STRUCTURAL STEEL FABRICATION, ERECTION AND CONNECTIONS, METAL DECK FASTENING, INSTALLATION OF REINFORCING STEEL FOR CONCRETE, ALL CONCRETE PLACEMENT AND STRENGTH TESTING, AND STRUCTURAL FILL PLACEMENT.</p>		<p>1. CONCRETE WORK SHALL COMPLY WITH ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS"; ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"; AND ACI 315 "ACI DETAIL MANUAL", AND CRSI "MANUAL OF STANDARD PRACTICE".</p> <p>2. CONTRACTOR SHALL PROVIDE TIES AND BRACING WHERE NECESSARY DURING CONSTRUCTION, TO REMAIN IN PLACE UNTIL THE STRUCTURE(S) IS/ARE COMPLETE.</p> <p>3. CONCRETE SHALL BE: A. FOOTINGS, PIERS AND FOUNDATION WALLS: 3,500 PSI AT (28) DAYS. SLUMP SHALL NOT EXCEED 6 INCHES (W/C RANGE: 0.48 - 0.52) - (AIR ENTRAINED). B. INTERIOR SLABS-ON-GRADE: (NO AIR) a. MAINTENANCE AREA - 4,000 PSI CONCRETE AT (28) DAYS. SLUMP SHALL NOT EXCEED 6 INCHES (W/C RANGE: 0.47 - 0.50). b. OFFICE AREAS - 3,500 PSI CONCRETE AT (28) DAYS. SLUMP SHALL NOT EXCEED 6-INCHES (W/C RANGE: 0.47 - 0.50). C. EXTERIOR SLABS ON GRADE SIDEWALKS, AND STAIRS SHALL BE 4000 PSI AT (28) DAYS. SLUMP SHALL NOT EXCEED 6-INCHES (W/C = 0.45 - 0.47) - (AIR ENTRAINED).</p> <p>4. CONCRETE MATERIALS: A. PORTLAND CEMENT: ASTM C150, TYPE I OR II. USE ONE TYPE THROUGHOUT PROJECT. B. NORMAL WEIGHT AGGREGATES: ASTM C33. PROVIDE FROM SINGLE SOURCE FOR ENTIRE PROJECT. NO AGGREGATE CONTAINING SOLUBLE SALTS, IRON SULFIDES, PYRITE, MARCASITE, OR OCHRE WHICH CAN CAUSE STAINS ON EXPOSED CONCRETE SURFACES. C. LIGHTWEIGHT AGGREGATES: ASTM C330 D. WATER: POTABLE E. AIR-ENTRAINING ADMIXTURE: ASTM C260 F. HIGH RANGE WATER REDUCING ADMIXTURES (SUPER PLASTICIZER): ASTM C494, TYPE F OR G CONTAINING NOT MORE THAN 1% CHLORIDE IONS. G. NORMAL RANGE WATER REDUCING ADMIXTURES: ASTM C494 TYPE A CONTAINING NO CALCIUM CHLORIDE. H. ACCELERATING ADMIXTURES: ASTM C494, TYPE C OR E.</p>		<p>MINIMUM LOADING REQUIREMENTS:</p> <p>1. DESIGN CODES: A. INTERNATIONAL BUILDING CODE - 2015 EDITION B. ASCE/SEI 7-10 - MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES C. AISC SEISMIC DESIGN MANUAL - 2012 D. MBMA'S METAL BUILDING SYSTEMS MANUAL</p> <p>2. DESIGN PARAMETERS: A. ROOF SNOW LOADS: (EXCEPT AT DRIFTING SNOW LOCATIONS AND THOSE LISTED BELOW. PEMB EOR TO DETERMINE WHERE DRIFTING SNOW MAY APPLY.) a. GROUND SNOW LOAD: $P_G = 60.0$ PSF 1. IMPORTANCE FACTOR: $I_s = 1.20$ (CATEGORY IV) 2. COLD ROOF SLOPE FACTOR: $C_s = 1.0$ 3. THERMAL FACTOR: $C_t = 1.10$ 4. EXPOSURE FACTOR: $C_e = 1.0$ 5. TERRAIN CATEGORY: "B" b. FLAT ROOF SNOW LOAD: $P_f = 55.4$ PSF B. ROOF DEAD LOAD: 20 PSF (INCL. 8.0 PSF, FOR FUTURE SOLAR ARRAY) C. ROOF LIVE LOAD: a. STANDARD ROOF LIVE LOAD: 20 PSF D. FLOOR LIVE LOADS: a. OFFICE BUILDINGS 1. VEHICLE MAINTENANCE FLOOR - DESIGN FOR TRUCKS AND BUSES PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS; HOWEVER, PROVISIONS FOR FATIGUE AND DYNAMIC LOAD ALLOWANCE HAVE NOT BEEN APPLIED. E. WIND: a. FACTORS: 1. ASCE-7-10 $V_{ult} = 127$ MPH 2. EXPOSURE CATEGORY: B 3. BUILDING HEIGHT: <30' F. SEISMIC: a. DESIGN DATA: 1. BUILDING RISK CATEGORY: IV - ESSENTIAL FACILITY 2. MAPPED RESPONSE SPECTRAL ACC. (0.2 SEC.): $S_s = 0.245G$ 3. MAPPED RESPONSE SPECTRAL ACC. (1.0 SEC.): $S_1 = 0.079G$ 4. SOIL SITE CLASSIFICATION: D 5. DESIGN RESPONSE SPECTRAL ACC. @ 5% DAMPED DESIGN: $S_{DS} = 0.262G$ $S_{D1} = 0.126G$ C 6. SEISMIC DESIGN CATEGORY: H1 (SEE BELOW) 7. BASIC SEISMIC FORCE-RESISTING SYSTEM: 32 KIPS 8. SEISMIC BASE SHEAR: $C_b = 0.124$ 9. SEISMIC RESPONSE COEFFICIENT 10. ANALYSIS PROCEDURE: <u>EQUIVALENT LATERAL FORCE PROCEDURE</u> b. DESIGN COEFFICIENTS AND FACTORS FOR SEISMIC FORCE RESISTING SYSTEMS 1. STEEL SYSTEMS NOTE SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE A. RESPONSE MODIFICATION $R = 3$ B. SYSTEM OVERSTRENGTH FACTOR $\Omega_o = 3$ C. DEFLECTION AMPLIFICATION FACTOR $C_o = 3$</p>			<p>1. CONTRACTOR SHALL CONFORM TO SAFETY REQUIREMENTS OF THE OWNER, CONTRACT DOCUMENTS, OSHA SAFETY AND HEALTH STANDARDS, AND OTHER LOCAL AUTHORITIES IN CONNECTION WITH THE PERFORMANCE OF THIS PROJECT.</p> <p>2. ALL REFERENCED STANDARDS OR PUBLICATIONS SHALL PERTAIN TO THE MOST CURRENT DATA, STANDARD OR PUBLICATION, UNLESS NOTED OTHERWISE.</p> <p>3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND CIVIL DRAWINGS AND/OR NARRATIVES, WHICH DESCRIBE THE SCOPE OF WORK.</p> <p>4. CONTRACTOR SHALL VISIT THE SITE AT A DESIGNATED TIME APPROVED BY THE OWNER, TO VERIFY EXISTING CONDITIONS, DIMENSIONS, LOCATION OF EXISTING UTILITIES, ETC. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES, WITHOUT EXCEPTION.</p> <p>5. THE STRUCTURE SHALL BE DESIGNED AS A SELF-SUPPORTING SYSTEM ONCE ALL WORK HAS BEEN COMPLETED. CONTRACTOR IS SOLELY RESPONSIBLE FOR ERECTION PROCEDURES AND SEQUENCE OF INSTALLATION TO ENSURE SAFETY OF THE BUILDING AND ITS OCCUPANTS DURING CONSTRUCTION. 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 SUB-CONTRACTORS, AS REQUIRED, FOR THE DURATION OF THE CONTRACT.</p> <p>6. WORK SHALL BE DONE IN AN ORDERLY AND PROFESSIONAL MANNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL WORK TO BE DONE BY SUB-CONTRACTORS, LOCAL AUTHORITIES, STATE AGENCIES AND/OR UTILITY COMPANIES WHICH MAY HAVE JURISDICTION OVER THIS PROJECT.</p> <p>7. UTILITY EXTENSIONS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH STATE AND LOCAL CODES.</p> <p>8. CONTRACTOR SHALL REVIEW AND SUBMIT COMPLETE SHOP DRAWINGS FOR ALL SPECIFIED PARTS OF THE WORK. NO PORTION OF THE WORK COVERED BY THESE SHOP DRAWINGS SHALL COMMENCE UNTIL RETURNED APPROVED SHOPS ARE RECEIVED BY CONTRACTOR. SHOP SUBMITTAL PACKAGES SHALL INCLUDE, BUT NOT BE LIMITED TO: A. SITE: SHORING AND CONSTRUCTION METHODS/SEQUENCING, WHERE APPLICABLE. B. CONCRETE: MIX DESIGNS, ADMIXTURES, MIX HISTORIES; REBAR ORIGIN STRENGTH/GRADE; REBAR PLACEMENT DRAWINGS. C. COLD-FORMED METAL FRAMING: COLD-FORMED METAL CUT SHEETS, CONNECTIONS, PLACEMENT DRAWINGS ALONG WITH HEADER/JAMB AT OPENINGS AND FRAMING ELEMENT CALCULATIONS SIGNED BY A PE, REGISTERED IN THE PROJECT STATE. D. PRE-ENGINEERED BUILDING: PRE-ENGINEERED BUILDING CALCULATIONS AND DRAWINGS, STEEL FRAMING COMPONENTS AND CONNECTIONS, ALL SEALED BY A PE REGISTERED IN THE PROJECT STATE. E. STRUCTURAL STEEL: MISCELLANEOUS STEEL FRAMING COMPONENT SHOP DRAWINGS, ALONG WITH APPLICABLE FRAMING COMPONENT AND CONNECTION CALCULATIONS, ALL SEALED BY A PE REGISTERED IN THE PROJECT STATE.</p> <p>9. 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 OWNER'S SATISFACTION.</p> <p>10. CONTRACTOR IS RESPONSIBLE FOR COORDINATING, HANDLING, AND STORAGE OF ITEMS/MATERIALS TO REMAIN THE PROPERTY OF THE OWNER WITH THE OWNER'S REPRESENTATIVE.</p> <p>11. SPECIAL INSPECTIONS, AS REQUIRED BY IBC 2015 SECTION 1704, SHALL BE PERFORMED BY AN INSPECTION AGENCY CONTRACTED BY THE OWNER FOR THE FOLLOWING ELEMENTS: 1. CONCRETE/FOUNDATIONS: REBAR PLACEMENTS FOR CONFORMANCE WITH CONTRACT DOCUMENTS, CONCRETE DELIVERY TICKET MIX CONFIRMATION, VOLUME TEST SAMPLES FOR CONCRETE PLACEMENTS WITH 7, 14, AND 28 DAY BREAK TEST RESULTS. 2. SOILS: COMPACTION TESTING AND GRADATION CONFIRMATION 3. STEEL INCLUDING PEMB BUILDING FRAMING: STEEL PLACEMENTS FOR CONFORMANCE WITH CONTRACT DOCUMENTS, 100% OF BOLTED CONNECTIONS TESTING, 10% OF FIELD WELDED CONNECTIONS.</p>		
FIELD TESTING									
<p>1. BOLTED CONNECTIONS: 100% OF COMPONENTS AND FASTENERS IN SLIP CRITICAL CONNECTIONS, AS IDENTIFIED IN THE PROJECT CONTRACT DOCUMENTS, SHALL BE VISUALLY INSPECTED AND TESTED FOR TIGHTNESS IN ACCORDANCE WITH AISC SPECIFICATIONS FOR STRUCTURAL JOINTS, PARTS 8 AND 9.</p> <p>2. CHECK BY CALIBRATION TORQUE WRENCH: 25% OF BOLTS IN EACH NON-SC SHEAR CONNECTION, BUT NOT LESS THAN (2) PER CONNECTION.</p> <p>3. FIELD-WELDED CONNECTIONS: PERFORM TESTING IN ACCORDANCE WITH ANSII/AWS D1.1, CHAPTER 6.</p> <p>4. CONDUCT TESTING OF 10% OF WELDS ON STRUCTURAL STEEL BY DYE PENETRATION OR MAGNETIC PARTICLE TESTING.</p> <p>5. CONDUCT TESTING OF 100% OF GROOVE, PLUG, OR SLOT WELDS IN STRUCTURAL STEEL BY ULTRASONIC TESTING OR OTHER NONDESTRUCTIVE TESTING, APPROVED BY ENGINEER OF RECORD.</p> <p>6. RADIOGRAPHICALLY TEST 5% OF ALL FULL-PENETRATION WELDS.</p> <p>7. WELDED SHEAR STUDS: 10% OF STUDS SHALL BE TESTED BY BENDING OR TORQUEING IN ACCORDANCE WITH ANSII/AWS D1.1 SECTION 7.8.</p> <p>8. THE STRUCTURAL FABRICATOR AND ERECTOR SHALL SCHEDULE ALL WORK TO ALLOW THE ABOVE INSPECTION AND TESTING REQUIREMENTS TO BE COMPLETED.</p>									
ROOF TIE-OFF ANCHOR NOTES:									
<p>1. PEMB DESIGN SHALL INCLUDE DESIGN CALCULATION AND ALL SUPPLEMENTAL STRUCTURAL FRAMING INTEGRAL WITH THE PEMB DESIGN AT THESE LOCATIONS. SYSTEM SHALL BE DESIGNED FOR A 5,000 # HORIZONTAL LOADING APPLIED IN ANY DIRECTION AT THE TOP OF THE TIE-OFF ANCHORAGE SYSTEM</p> <p>2. PROVIDE GUARDIAN FALL PROTECTION CB-18 ROOF ANCHORS (OR EQUAL) DIRECT CONNECTED TO PRE-ENGINEERED BUILDING ROOF</p>									

Scale:			
No.	Revision	By	Date

Designed by:
William P. Faucher, P.E.



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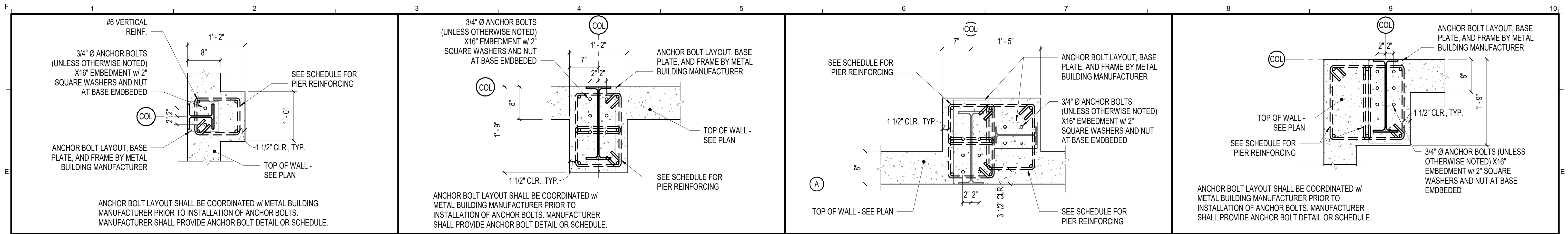
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

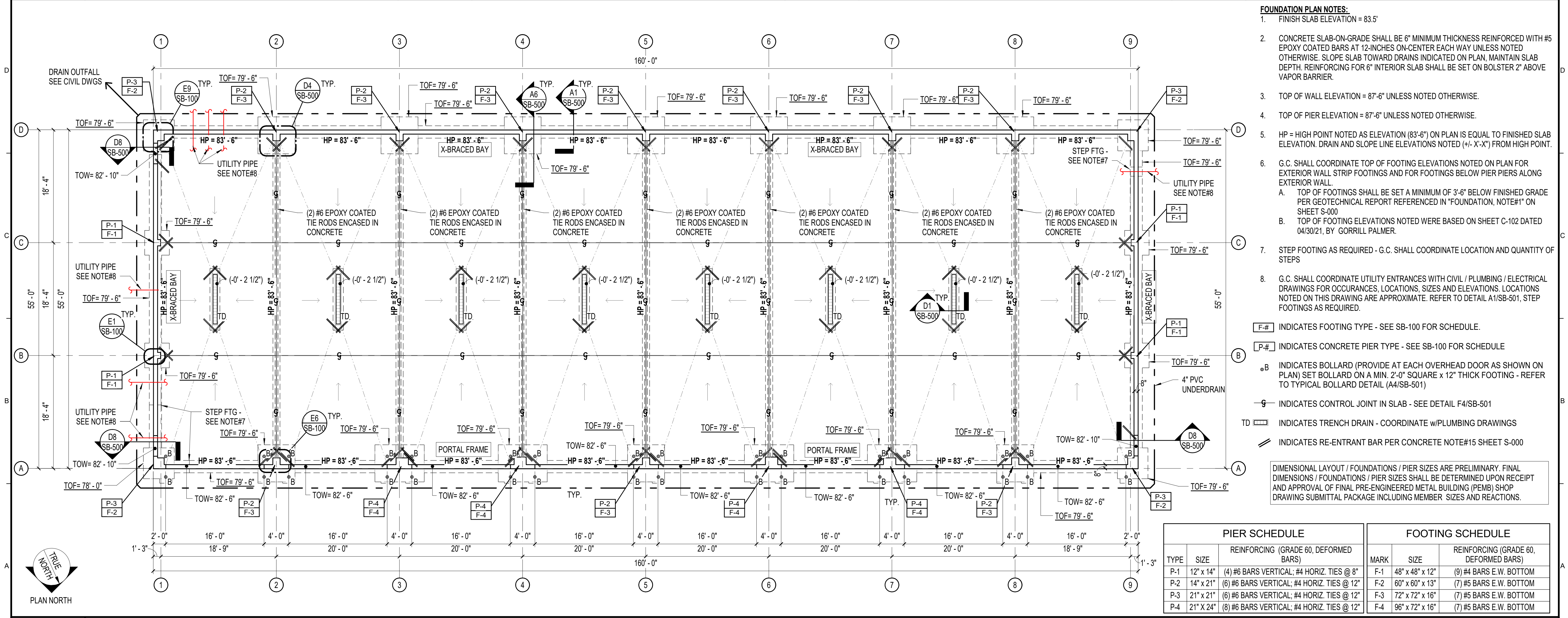
**CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
STRUCTURAL - GENERAL INFORMATION**

SHEET NUMBER: S-000

CONTRACT: 2021.06 19 OF 32



E1 PIER DETAIL ~ END COLUMNS 1" = 1'-0"
 E3 PIER DETAIL ~ MAIN FRAME COLUMNS 1" = 1'-0"
 E6 PIER DETAIL ~ PORTAL FRAME 1" = 1'-0"
 E9 PIER DETAIL ~ CORNER COLUMNS 1" = 1'-0"



- FOUNDATION PLAN NOTES:**
- FINISH SLAB ELEVATION = 83.5'
 - CONCRETE SLAB-ON-GRADE SHALL BE 6" MINIMUM THICKNESS REINFORCED WITH #5 EPOXY COATED BARS AT 12-INCHES ON-CENTER EACH WAY UNLESS NOTED OTHERWISE. SLOPE SLAB TOWARD DRAINS INDICATED ON PLAN, MAINTAIN SLAB DEPTH. REINFORCING FOR 6" INTERIOR SLAB SHALL BE SET ON BOLSTER 2" ABOVE VAPOR BARRIER.
 - TOP OF WALL ELEVATION = 87'-6" UNLESS NOTED OTHERWISE.
 - TOP OF PIER ELEVATION = 87'-6" UNLESS NOTED OTHERWISE.
 - HP = HIGH POINT NOTED AS ELEVATION (83'-6") ON PLAN IS EQUAL TO FINISHED SLAB ELEVATION. DRAIN AND SLOPE LINE ELEVATIONS NOTED (+/- X'-X") FROM HIGH POINT.
 - G.C. SHALL COORDINATE TOP OF FOOTING ELEVATIONS NOTED ON PLAN FOR EXTERIOR WALL STRIP FOOTINGS AND FOR FOOTINGS BELOW PIER PIERS ALONG EXTERIOR WALL.
 - TOP OF FOOTINGS SHALL BE SET A MINIMUM OF 3'-6" BELOW FINISHED GRADE PER GEOTECHNICAL REPORT REFERENCED IN "FOUNDATION, NOTE#1" ON SHEET S-000
 - TOP OF FOOTING ELEVATIONS NOTED WERE BASED ON SHEET C-102 DATED 04/30/21, BY GORRILL PALMER.
 - STEP FOOTING AS REQUIRED - G.C. SHALL COORDINATE LOCATION AND QUANTITY OF STEPS
 - G.C. SHALL COORDINATE UTILITY ENTRANCES WITH CIVIL / PLUMBING / ELECTRICAL DRAWINGS FOR OCCURANCES, LOCATIONS, SIZES AND ELEVATIONS. LOCATIONS NOTED ON THIS DRAWING ARE APPROXIMATE. REFER TO DETAIL A1/SB-501, STEP FOOTINGS AS REQUIRED.
- F-# INDICATES FOOTING TYPE - SEE SB-100 FOR SCHEDULE.
 P-# INDICATES CONCRETE PIER TYPE - SEE SB-100 FOR SCHEDULE
 B INDICATES BOLLARD (PROVIDE AT EACH OVERHEAD DOOR AS SHOWN ON PLAN) SET BOLLARD ON A MIN. 2'-0" SQUARE x 12" THICK FOOTING - REFER TO TYPICAL BOLLARD DETAIL (A4/SB-501)
 S INDICATES CONTROL JOINT IN SLAB - SEE DETAIL F4/SB-501
 TD INDICATES TRENCH DRAIN - COORDINATE w/PLUMBING DRAWINGS
 RE-ENTRANT BAR PER CONCRETE NOTE#15 SHEET S-000
- DIMENSIONAL LAYOUT / FOUNDATIONS / PIER SIZES ARE PRELIMINARY. FINAL DIMENSIONS / FOUNDATIONS / PIER SIZES SHALL BE DETERMINED UPON RECEIPT AND APPROVAL OF FINAL PRE-ENGINEERED METAL BUILDING (PEMB) SHOP DRAWING SUBMITTAL PACKAGE INCLUDING MEMBER SIZES AND REACTIONS.

PIER SCHEDULE			FOOTING SCHEDULE		
TYPE	SIZE	REINFORCING (GRADE 60, DEFORMED BARS)	MARK	SIZE	REINFORCING (GRADE 60, DEFORMED BARS)
P-1	12" x 14"	(4) #6 BARS VERTICAL; #4 HORIZ. TIES @ 8"	F-1	48" x 48" x 12"	(9) #4 BARS E.W. BOTTOM
P-2	14" x 21"	(6) #6 BARS VERTICAL; #4 HORIZ. TIES @ 12"	F-2	60" x 60" x 13"	(7) #5 BARS E.W. BOTTOM
P-3	21" x 21"	(6) #6 BARS VERTICAL; #4 HORIZ. TIES @ 12"	F-3	72" x 72" x 16"	(7) #5 BARS E.W. BOTTOM
P-4	21" x 24"	(8) #6 BARS VERTICAL; #4 HORIZ. TIES @ 12"	F-4	96" x 72" x 16"	(7) #5 BARS E.W. BOTTOM

A1 STRUCTURAL ~ FOUNDATION PLAN 1/8" = 1'-0"

Scale: As indicated

No.	Revision	By	Date

Designed by: William P. Faucher, P.E.

ISSUED FOR BID - NOT FOR CONSTRUCTION

By	Date	By	Date
Designed: WPF	11/22/2021	Checked: WPF	11/22/2021
Drawn: CMW	11/22/2021		

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MAINE TURNPIKE

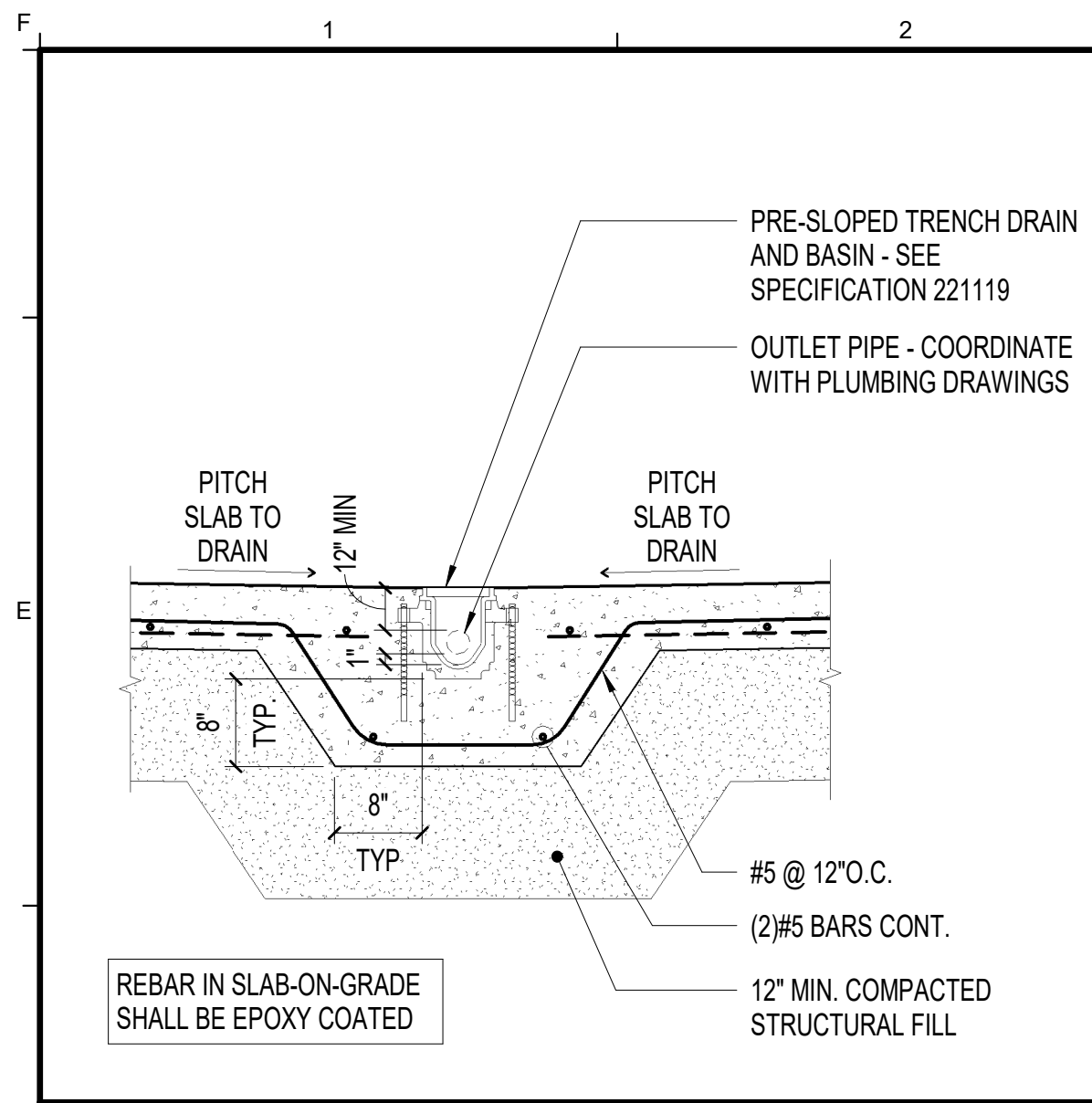
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
 CROSBY VEHICLE STORAGE GARAGE
 STRUCTURAL - FOUNDATION PLAN

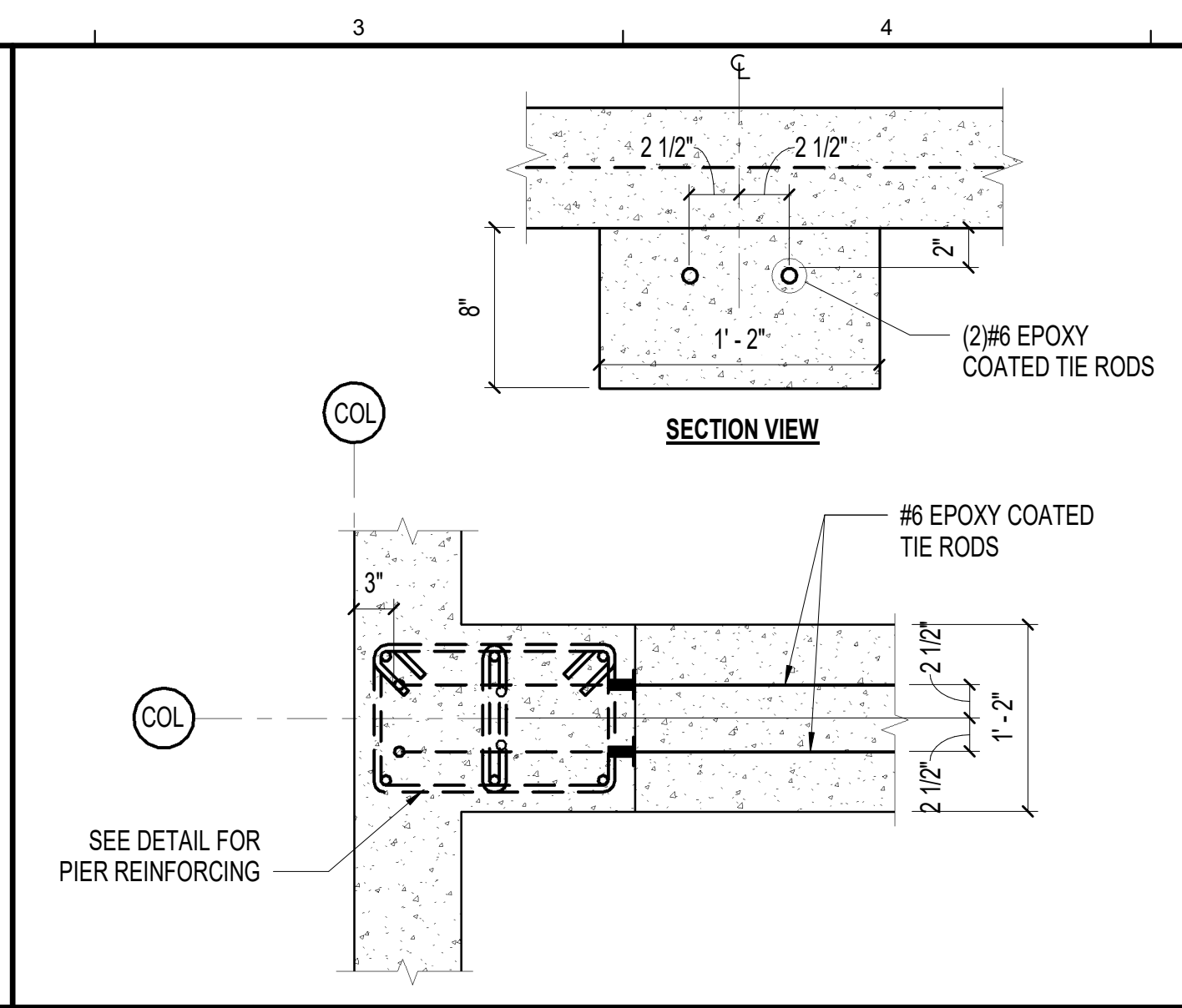
SHEET NUMBER: SB-100

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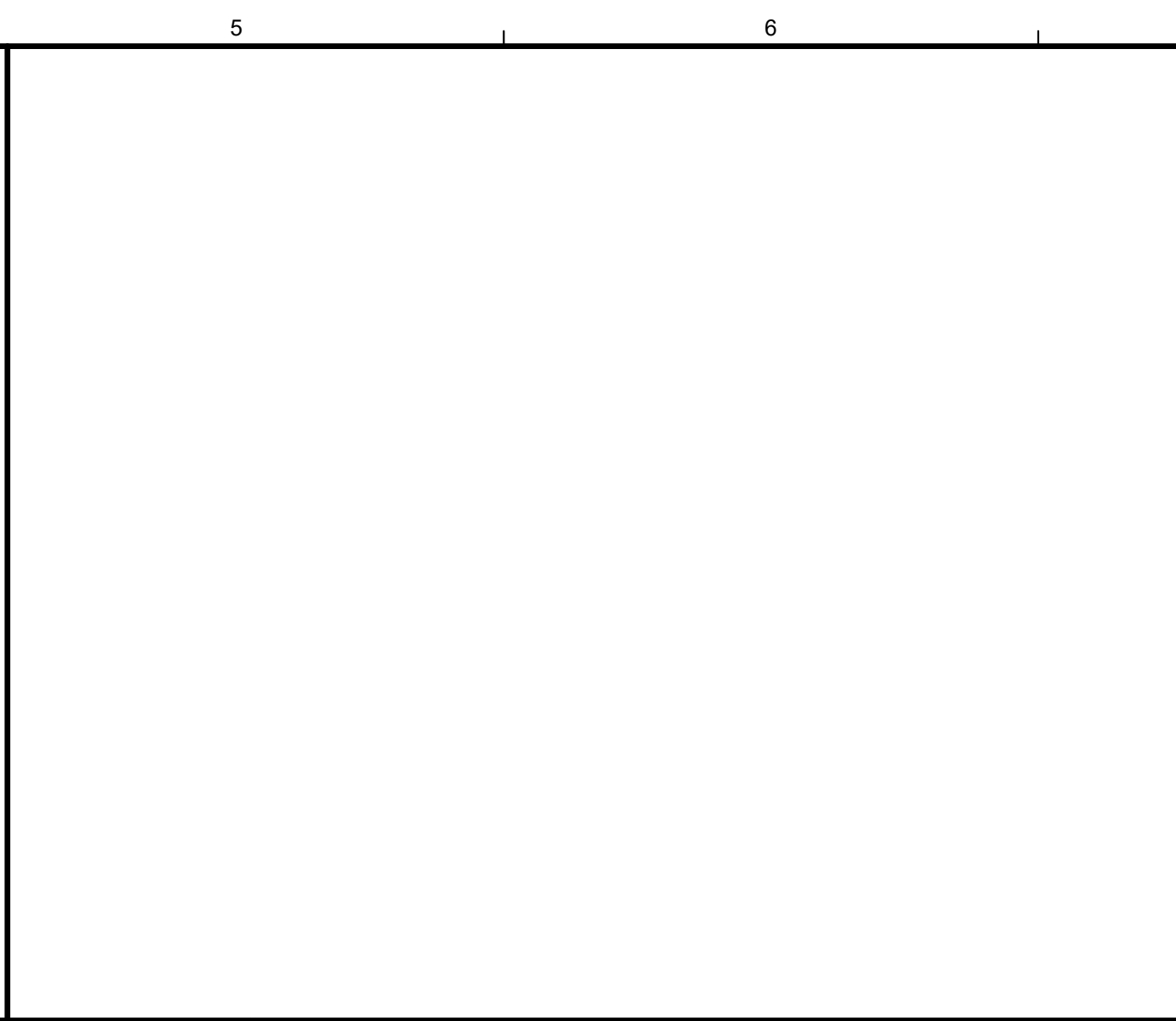
D1 DETAIL AT TRENCH DRAIN

3/4" = 1'-0"



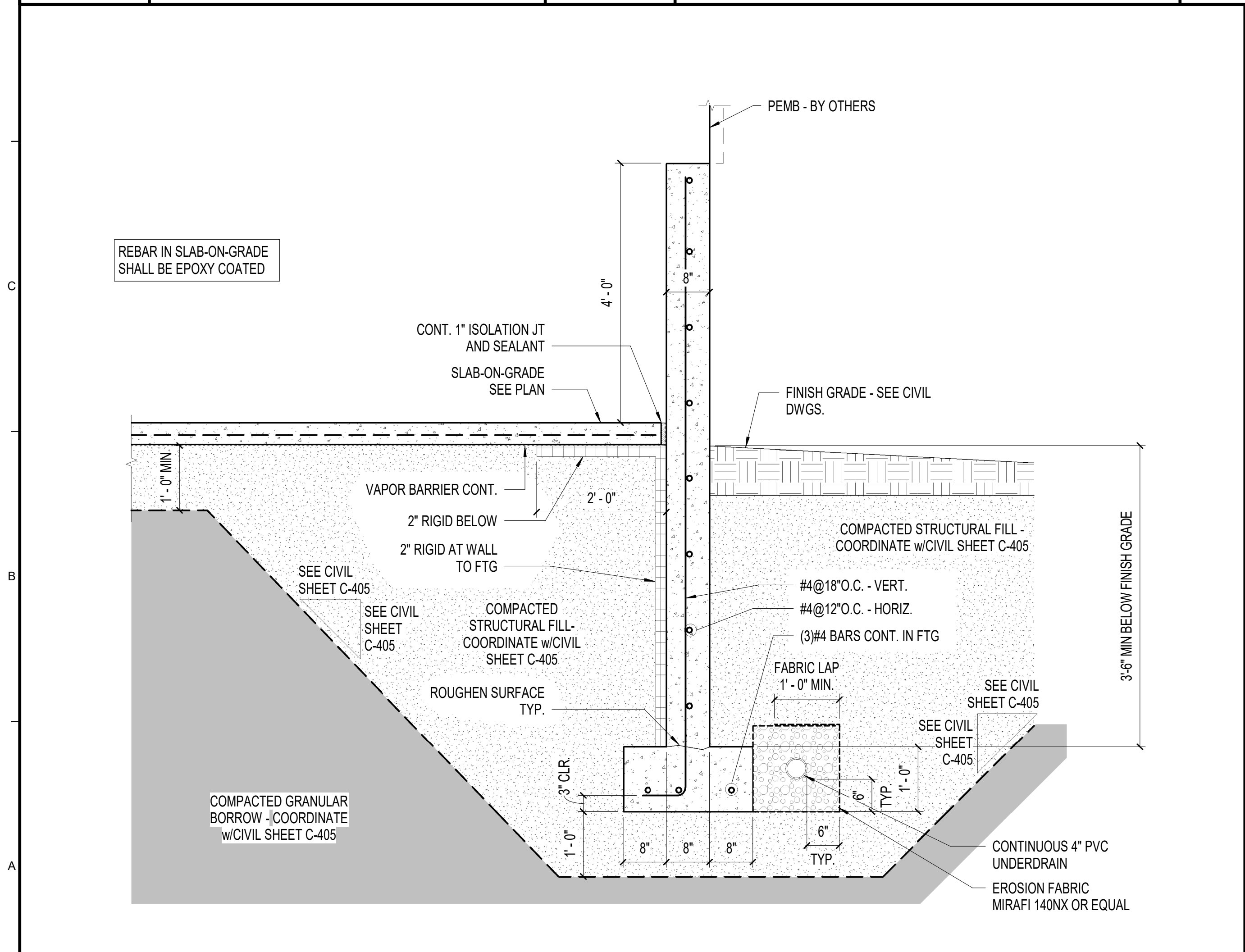
D4 TIE ROD DETAIL

1" = 1'-0"



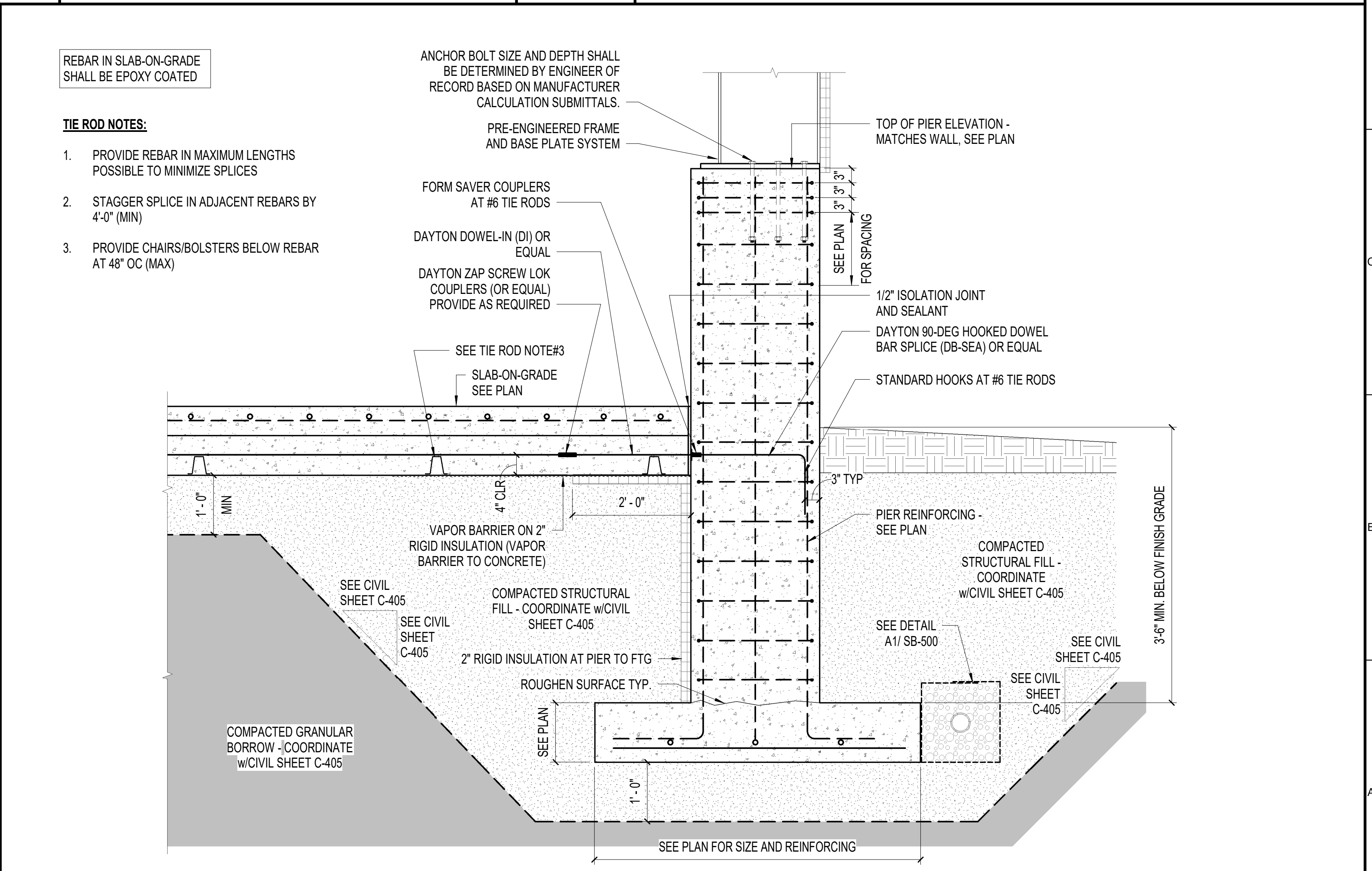
D8 TYPICAL SLAB ENTRY DETAIL

3/4" = 1'-0"



A1 TYPICAL 8" FDN WALL

3/4" = 1'-0"



A6 TYPICAL EXTERIOR PIER DETAIL

3/4" = 1'-0"

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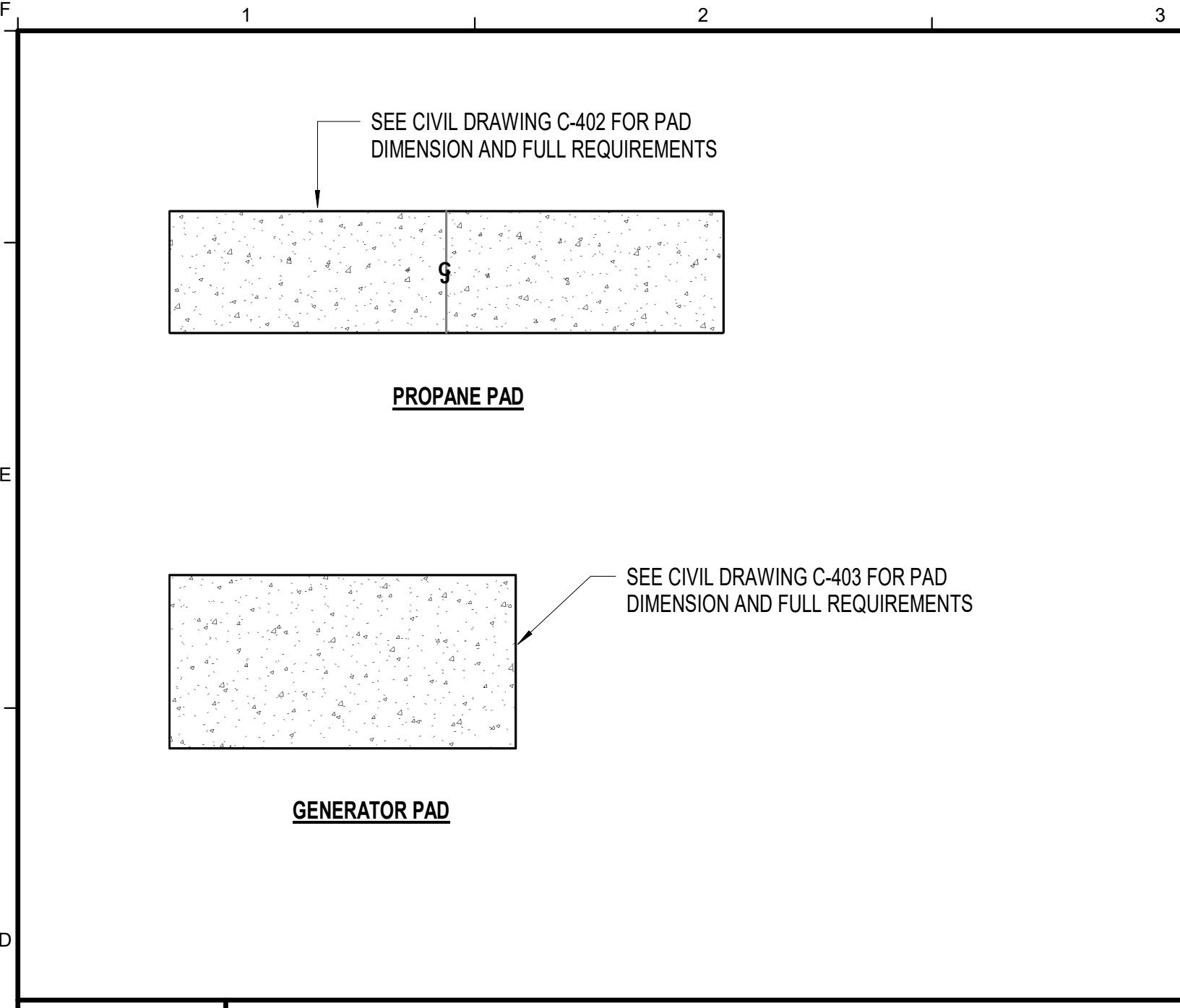
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MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

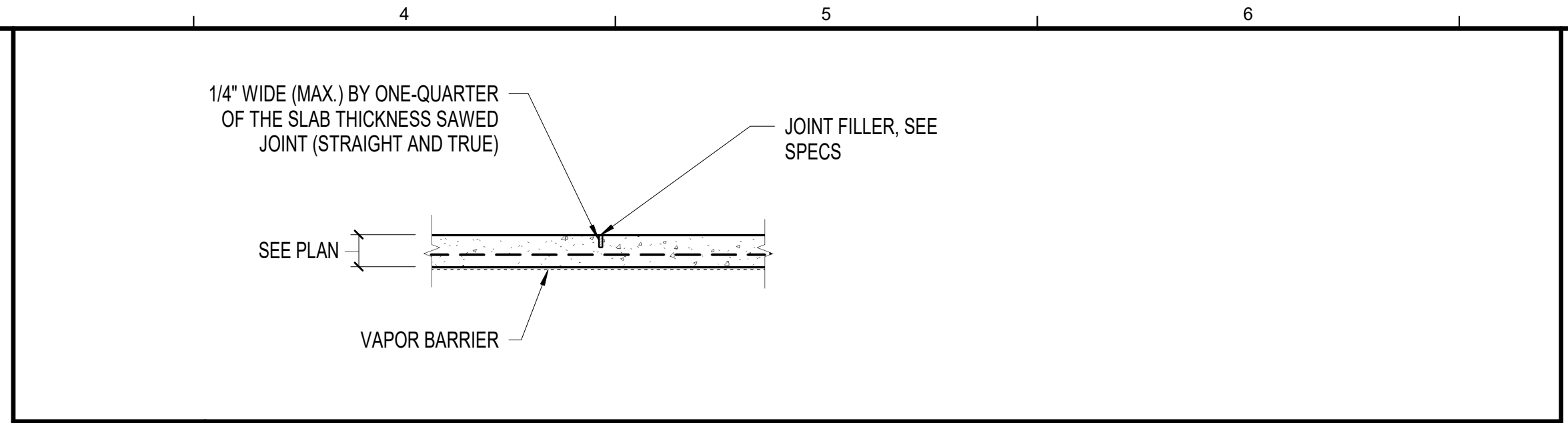
CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
STRUCTURAL - FOUNDATION DETAILS

SHEET NUMBER: SB-500

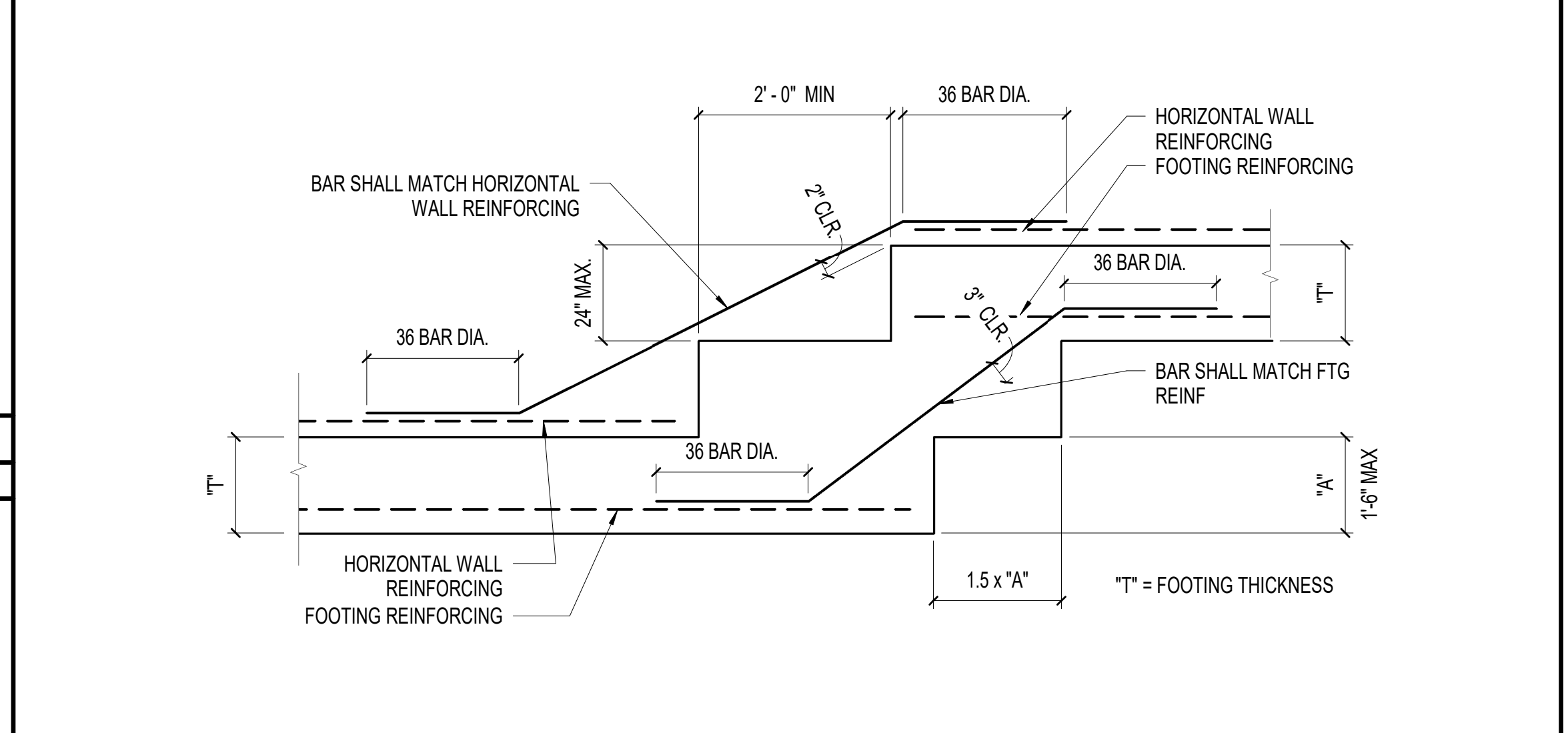
CONTRACT: 2021.06 21 OF 32



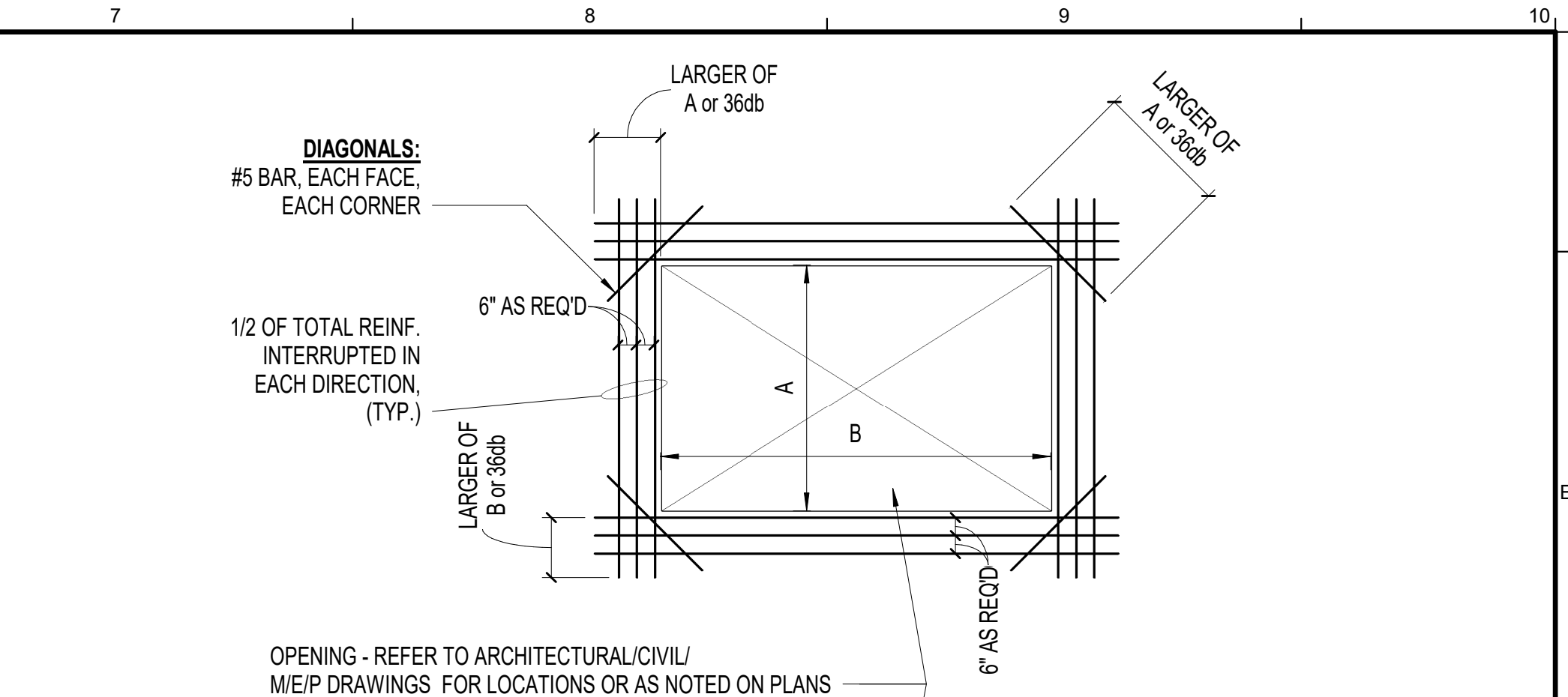
D1 PROPANE AND GENERATOR PAD
1/4" = 1'-0"



F4 TYPICAL CONTROL JOINT IN SLAB DETAIL
3/4" = 1'-0"



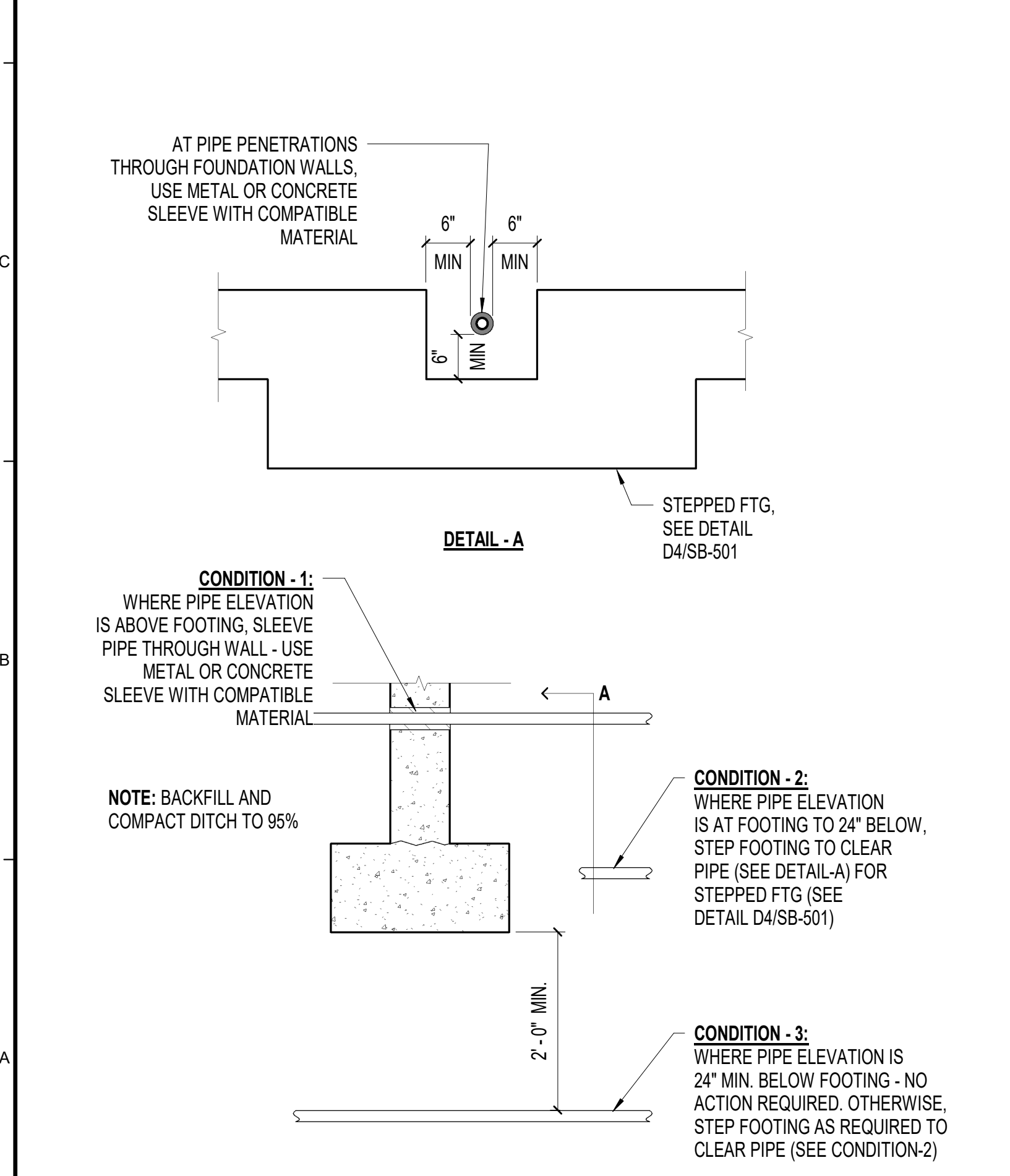
D4 TYPICAL STEPPED FOOTING DETAIL
3/4" = 1'-0"



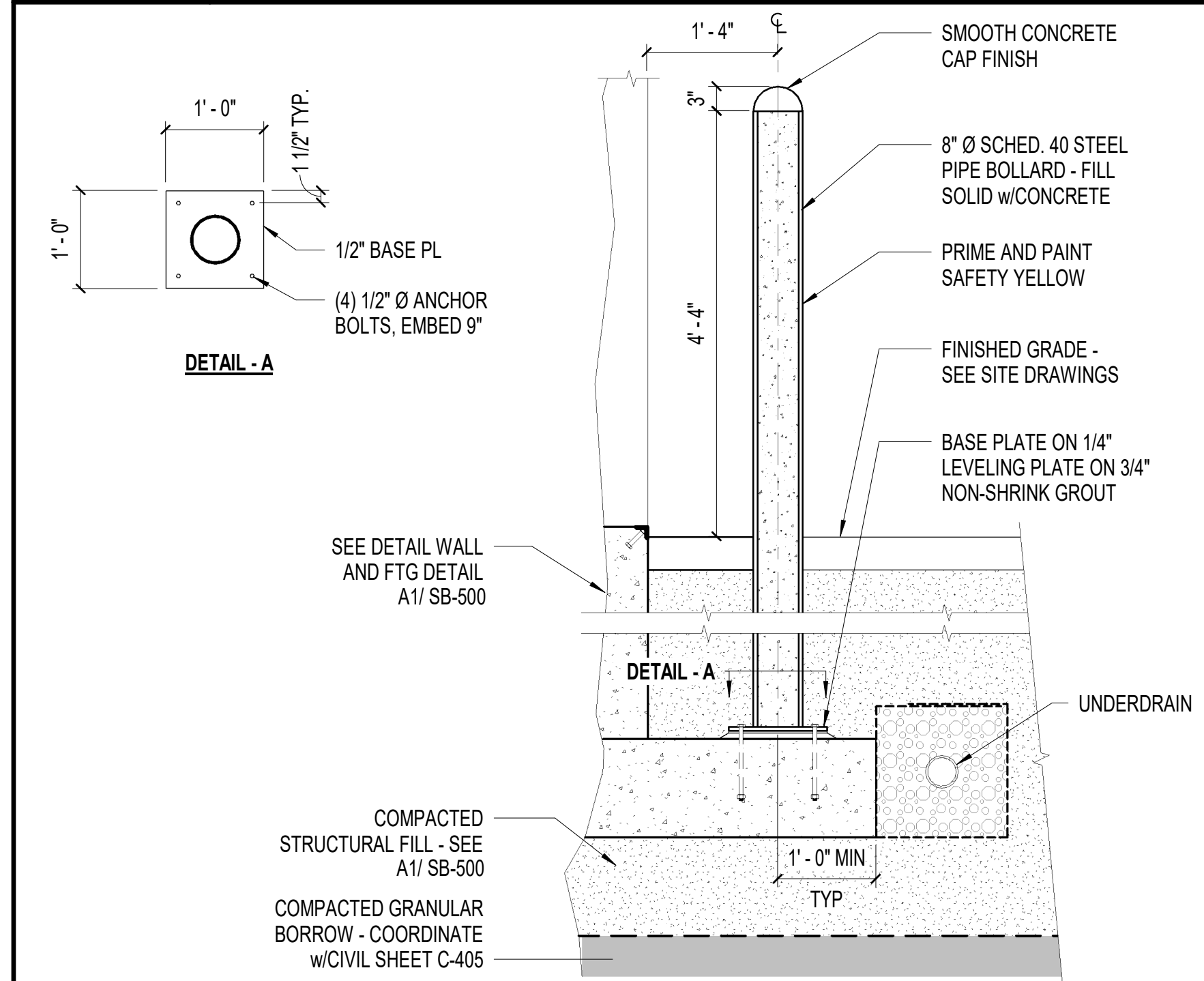
D8 TYPICAL ADDITIONAL REINFORCING FOR OPENING IN CONCRETE WALL/SLAB
3/4" = 1'-0"

NOTES:

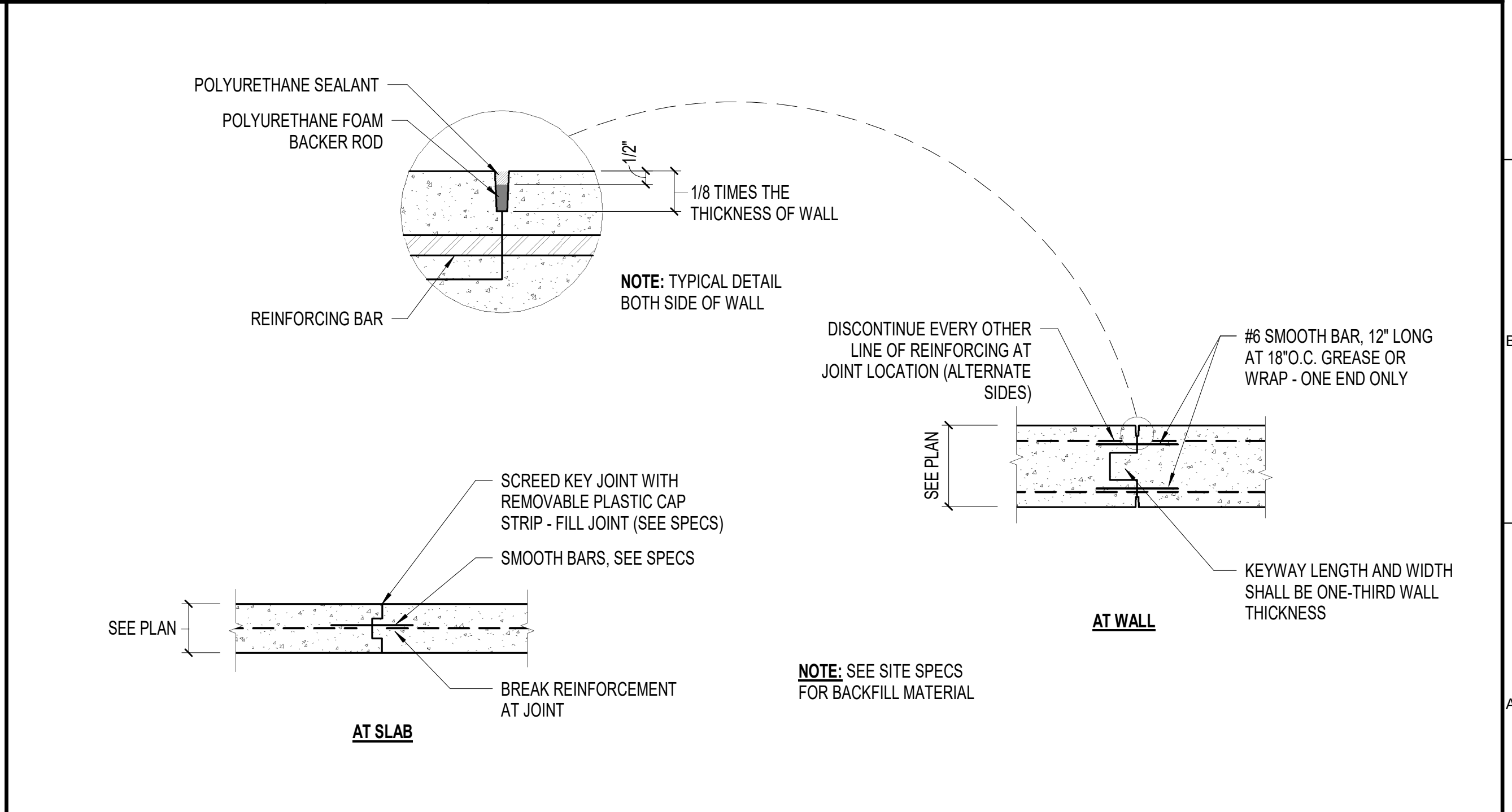
- ADDITIONAL BARS ARE NOT REQUIRED WHERE EDGE OF OPENING IS WITHIN 6-INCHES OF A BEAM OR WALL, AND PARALLEL THERETO.
- DIAGONAL BARS NOT REQUIRED AT OPENINGS SMALLER THAN 12-INCHES.
- PROVIDE HOOKED ENDS WHERE BAR EXTENSION SHOWN IS NOT POSSIBLE.
- IF MULTIPLE OPENINGS ARE REQUIRED - LOCATE OPENING EDGES 12-INCHES MINIMUM FROM EACH OTHER.
- THESE DETAIL APPLY EXCEPT WHERE SHOWN OTHERWISE.



A1 TYPICAL PIPE AT FOOTING DETAIL
3/4" = 1'-0"



A4 TYPICAL BOLLARD DETAIL
3/4" = 1'-0"



A7 TYPICAL WALL AND SLAB CONSTRUCTION JOINT DETAIL
3/4" = 1'-0"

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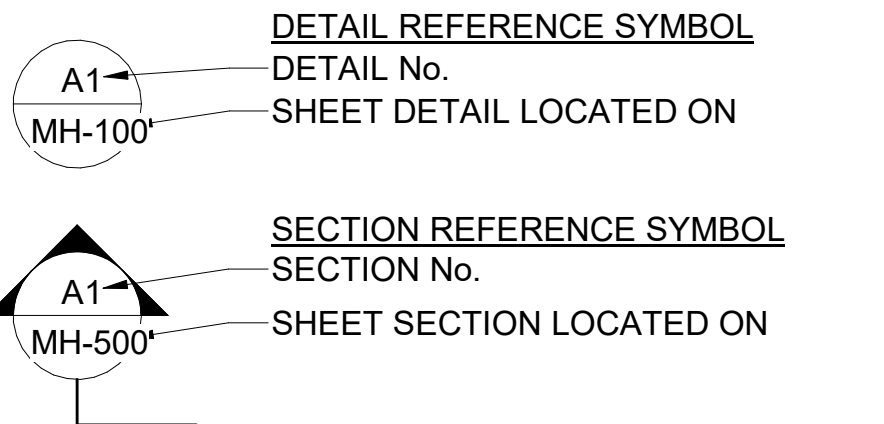
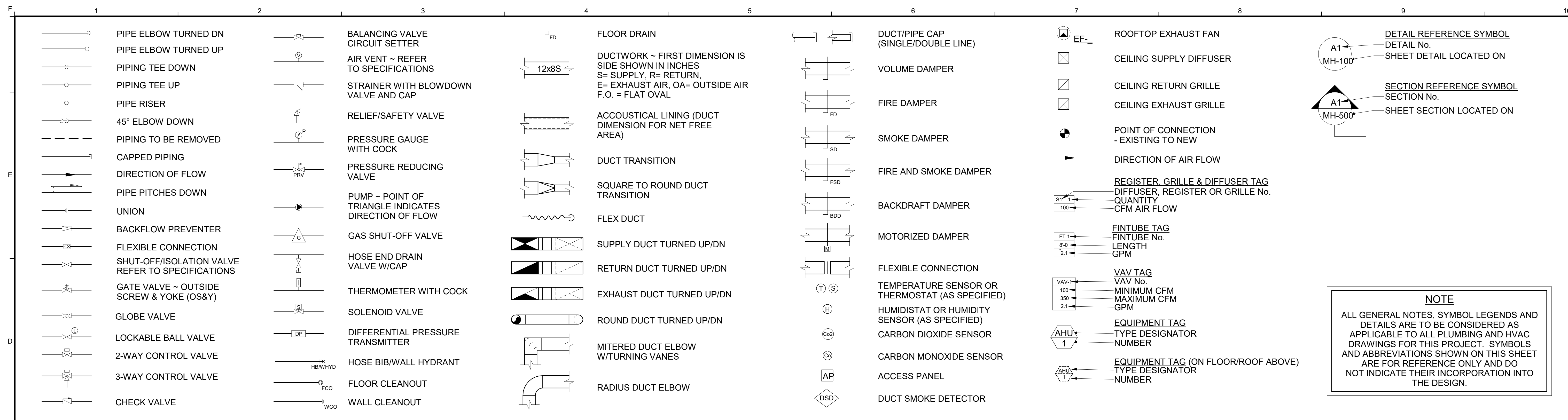
MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
STRUCTURAL - FOUNDATION DETAILS

SHEET NUMBER: SB-501

CONTRACT: 2021.06

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NOTE

ALL GENERAL NOTES, SYMBOL LEGENDS AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL PLUMBING AND HVAC DRAWINGS FOR THIS PROJECT. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION INTO THE DESIGN.

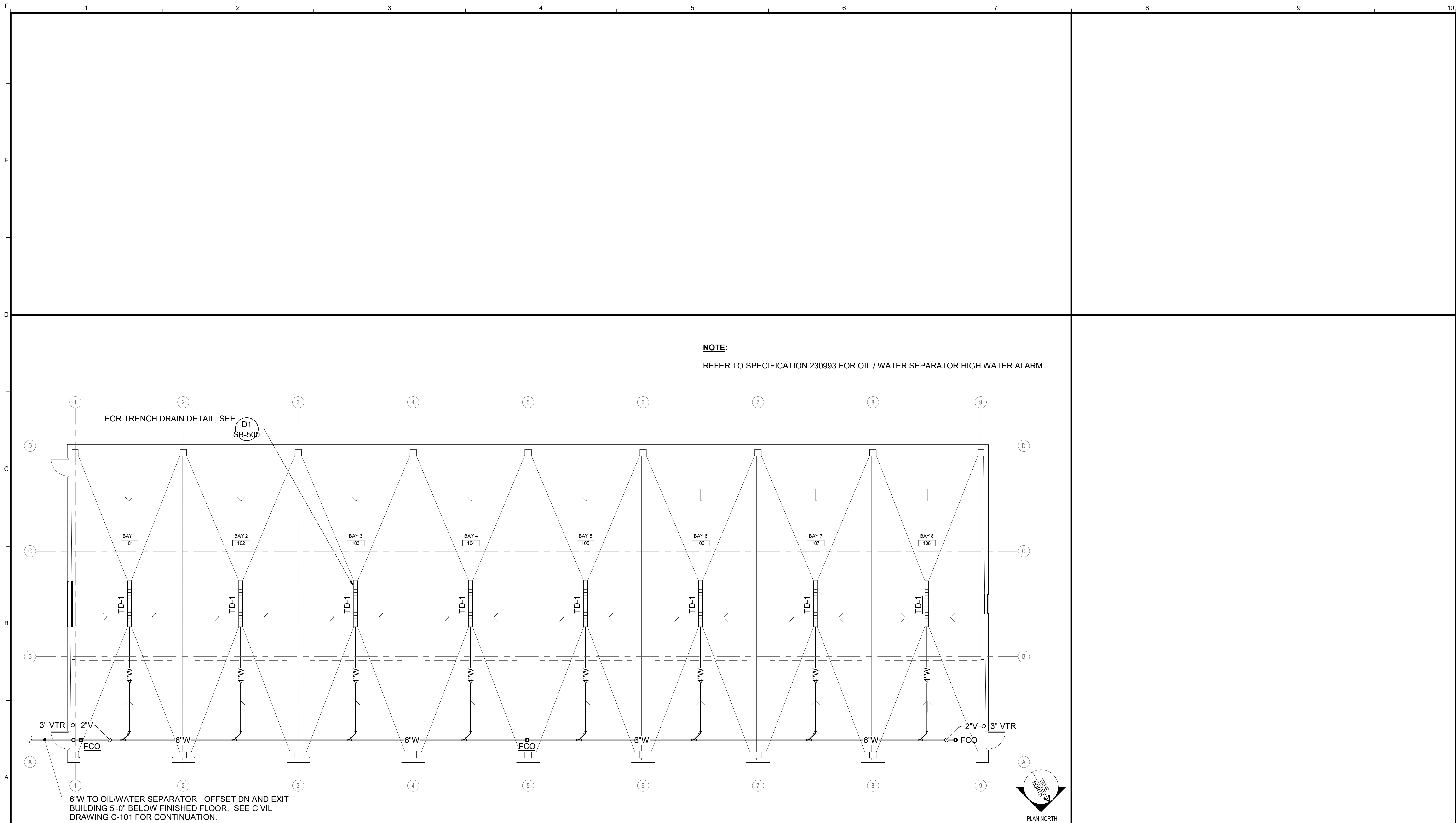
D1 SYMBOLOGY LEGEND

NONE			
AW ACID WASTE	HCR HEAT/COOL RETURN	RL REFRIGERANT LIQUID	AAV AUTOMATIC AIR VENT
ATV AIR RELIEF	HCS HEAT/COOL SUPPLY	RS REFRIGERANT SUCTION	AD ACCESS DOOR
BBBD BOILER BLOWDOWN	HPWR HEAT PUMP WATER RETURN	RO REVERSE OSMOSIS WATER	AFF; A.F.F. ABOVE FINISHED FLOOR
C CONDENSATE (HVAC DRAIN PAN)	HPWS HEAT PUMP WATER SUPPLY	RW RAIN WATER - ABOVE FLOOR	AHU AIR HANDLING UNIT
CA COMPRESSED AIR	HPC HIGH PRESSURE CONDENSATE	RW RAIN WATER - BELOW GRADE	AP ACCESS PANEL
CHWR CHILLED WATER RETURN	HPS HIGH PRESSURE STEAM	RWO RAIN WATER OVERFLOW - ABOVE FLOOR	APPROX. APPROXIMATE; APPROXIMATELY
CHWS CHILLED WATER SUPPLY	HTWR HIGH-TEMP HOT WATER RETURN	RWO RAIN WATER OVERFLOW - BELOW GRADE	ATC AUTOMATIC TEMPERATURE CONTROL
CTR COOLING TOWER RETURN	HWR HOT WATER RETURN	SP SPRINKLER MAIN PIPING	AV AIR VENT
CTS COOLING TOWER SUPPLY	HWS HOT WATER SUPPLY	SWR SOLAR WATER RETURN	BDD BACKDRAFT DAMPER
CWR CONDENSER WATER RETURN	IND INDUSTRIAL WASTE	SWS SOLAR WATER SUPPLY	BFP BACKFLOW PREVENTER
CWS CONDENSER WATER SUPPLY	IW INDIRECT WASTE	TP TRAP PRIMER - ABOVE FLOOR	BLDG BUILDING
DC DOMESTIC COLD WATER	LN LIQUID NITROGEN	TP TRAP PRIMER - BELOW GRADE	BOD BOTTOM OF DUCT
DH DOMESTIC HOT WATER	LOX LIQUID OXYGEN	TWR TEMPERED WATER RETURN	CONV. CONVECTOR
DHWR DOMESTIC HOT WATER RECIRC.	LP LIQUID PETROLEUM GAS	TWS TEMPERED WATER SUPPLY	CFM CUBIC FEET PER MINUTE
DRAIN	LPR LOW PRESSURE CONDENSATE	V SANITARY SOIL VENT - ABOVE FLOOR	CLG CEILING
FM PUMP FORCE MAIN	LPS LOW PRESSURE STEAM	V SANITARY SOIL VENT - BELOW GRADE	CO CLEANOUT
FOF FUEL OIL FILL	MA MEDICAL AIR	VAC VACUUM (AIR)	CONN CONNECT; CONNECTION
FOR FUEL OIL RETURN	MPR MEDIUM PRESSURE CONDENSATE	VC VACUUM CLEANING (HOUSE)	CONT. CONTINUE; CONTINUATION
FOS FUEL OIL SUPPLY	MPS MEDIUM PRESSURE STEAM	VPD VACUUM PUMP DISCHARGE	COORD. COORDINATE
FOV FUEL OIL TANK VENT	MUW MAKE-UP WATER	W SANITARY SOIL WASTE - ABOVE FLOOR	CTE CONNECT TO EXISTING
FW FEEDWATER	N2 NITROGEN	W SANITARY SOIL WASTE - BELOW GRADE	CTR CENTER
GR GLYCOL RETURN	NG NATURAL GAS	WV SANITARY WET VENT - ABOVE FLOOR	CU COPPER; CONDENSING UNIT
GS GLYCOL SUPPLY	NO NITROUS OXIDE	WV SANITARY WET VENT - BELOW GRADE	DDC DIRECT DIGITAL CONTROL
GW GREASE WASTE	NPW NON-POTABLE WATER		DIC DOWN IN CHASE
GWR GEOTHERMAL WATER RETURN	OX OXYGEN		DIW DOWN IN WALL
GWS GEOTHERMAL WATER SUPPLY	PC PUMPED CONDENSATE		DN DOWN
H HUMIDIFICATION LINE	PCWR PROCESS COLD WATER RETURN		EF EXHAUST FAN
H2 HYDROGEN GAS	PCWS PROCESS COLD WATER SUPPLY		ELEV ELEVATION
	RD REFRIGERANT DISCHARGE		ENC ENCLOSURE
			ERU ENERGY RECOVERY UNIT
			ET EXPANSION TANK
			(E) EXISTING
			FC FLEXIBLE CONNECTION
			FCO FLOOR CLEANOUT
			FD# FLOOR DRAIN TAG
			FD FIRE DAMPER
			FTG FOOTING
			GC GENERAL CONTRACTOR
			GPM GALLONS PER MINUTE
			GRV GRAVITY ROOF VENTILATOR
			H HUMIDIFIER
			HB HOSE BIBB
			HC; HDC HANDICAP ACCESS
			HGT; HT HEIGHT
			HP HEAT PUMP
			HRU HEAT RECOVERY UNIT
			HVAC HEATING, VENTILATING AND AC
			HW HOT WATER
			HWR HOT WATER RETURN
			HWS HOT WATER SUPPLY
			HX HEAT EXCHANGER
			INCL. INCLUDING
			LP LIQUID PETROLEUM GAS
			LPR LOW PRESSURE STEAM RETURN
			LPS LOW PRESSURE STEAM SUPPLY
			MAX MAXIMUM
			MBH 1000 BTUH/hr.
			MFR MANUFACTURER
			MIN MINIMUM
			MOD MOTOR OPERATED DAMPER
			MTD MOUNTED
			MTG MOUNTING
			MUA MAKE UP AIR
			N.C. NORMALLY CLOSED
			N.O. NORMALLY OPEN
			NG NATURAL GAS
			NIC NOT IN CONTRACT
			NPT NATIONAL PIPE THREAD
			NTS NOT TO SCALE
			OD OUTSIDE DIAMETER
			OED OPEN ENDED DUCT
			P# PLUMBING FIXTURE TAG
			PRS PRESSURE REDUCING STATION
			RD ROOF DRAIN
			RHC REHEAT COIL
			RM ROOM
			RPZ REDUCED PRESSURE BFP
			RR RETURN REGISTER
			RV RELIEF VALVE
			RW RAIN WATER
			S SUPPLY AIR
			SA- " SHOCK ABSORBER OF PDI SIZE (" ") AS INDICATED
			SCV SELF-CONTAINED VALVE
			SPLR SPRINKLER
			SQ. FT; SF SQUARE FEET
			S.S. STAINLESS STEEL
			TD TRENCH DRAIN
			TP TRAP PRIMER
			TSP TOTAL STATIC PRESSURE
			TTS TIGHT TO STEEL
			TYP TYPICAL
			UH UNIT HEATER
			UIC UP IN CHASE
			UIW UP IN WALL
			VAC VACUUM
			VCFV VALVE & CAP FOR FUTURE
			W/ WITH
			WB WET BULB TEMPERATURE, °F
			WCO WALL CLEANOUT
			WH WATER HEATER
			WHYD WALL HYDRANT

A1 PIPING LINETYPE LEGEND

NONE			
------	--	--	--

Scale: 12" = 1'-0"	Designed by: 				THE GOLD STAR MEMORIAL HIGHWAY	CONTRACT 2021.06 CROSBY VEHICLE STORAGE GARAGE PLUMBING AND HVAC NOTES, LEGEND AND ABBREVIATIONS
ISSUED FOR BID - NOT FOR CONSTRUCTION	160 Veranda Street Portland, Maine 04103 P: 207.221.2260 F: 207.221.2266 Web: www.allied-eng.com	160 Veranda Street Portland, Maine 04103 P: 207.221.2260 F: 207.221.2266 Web: www.allied-eng.com	MTA PROJECT MANAGER: Brian A. Taddeo, P.E.	CONTRACT: 2021.06	SHEET NUMBER: P000	23 OF 32

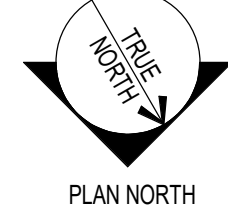


NOTE:
REFER TO SPECIFICATION 230993 FOR OIL / WATER SEPARATOR HIGH WATER ALARM.

FOR TRENCH DRAIN DETAIL, SEE

D1
SB-500

6\"/>



A1 SANITARY PIPING PLAN

1/8" = 1'-0"

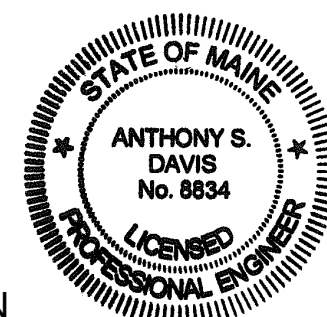
Scale:
1/8" = 1'-0"

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
SANITARY PIPING PLAN

SHEET NUMBER: PL100

CONTRACT: 2021.06

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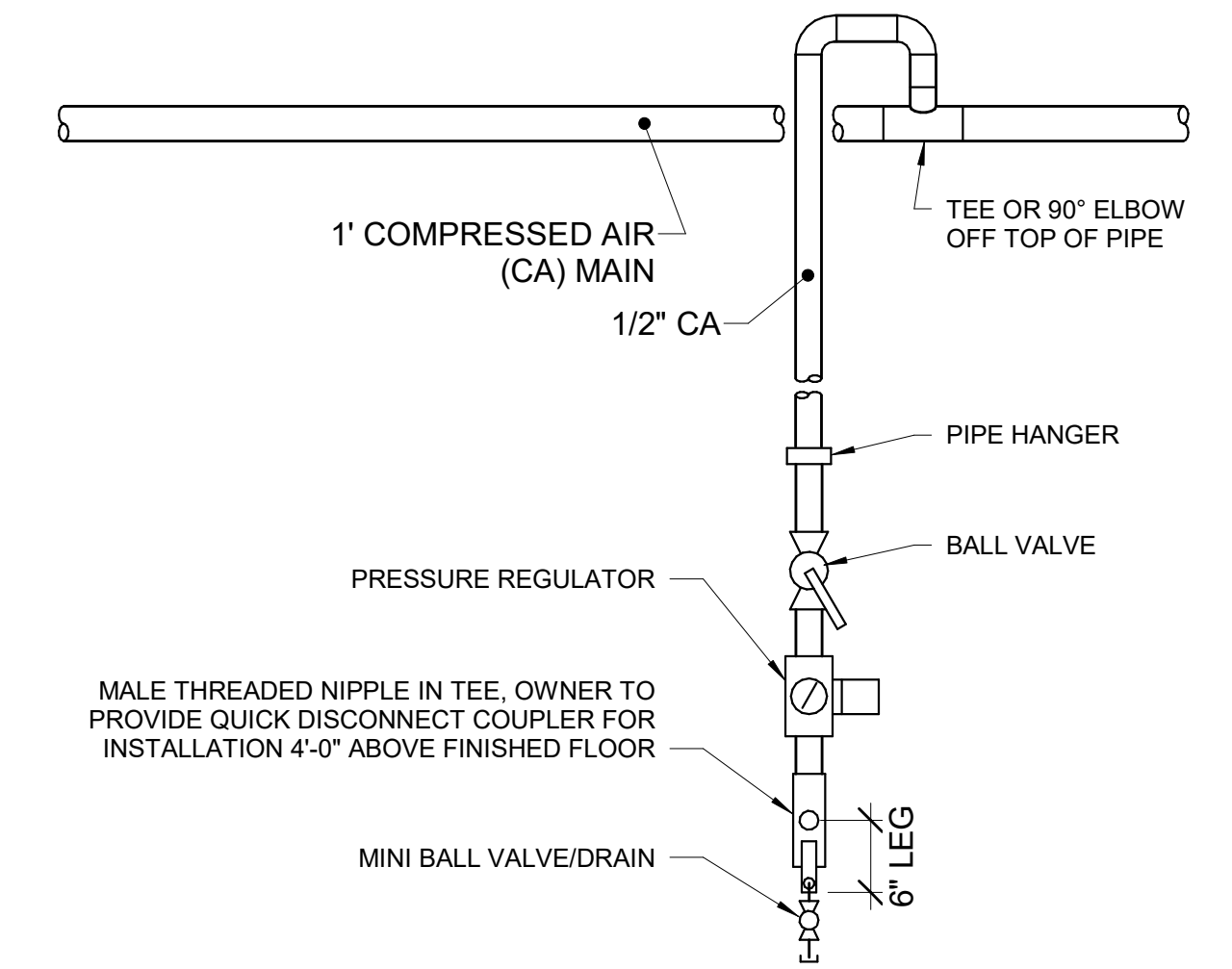
AEI PROJ.NO.: 20019 CAD FILE: MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

EXPANSION TANK SCHEDULE	
SYSTEM	DOMESTIC HOT WATER
PIPE SIZE	3/4"
BLADDER-TYPE EXPANSION TANK	
MFR-MODEL	AMTROL ST-5
TANK DIAMETER	8
TANK HEIGHT	13
ACCEPTANCE VOLUME	2
WEIGHT LBS	5

ELECTRIC WATER HEATER SCHEDULE											
TAG	MANUFACTURER	MODEL	VOLTS	PHASE	HEAT INPUT (KW)	GPH RECOVERY	TEMP RISE (DEG-F)	WATER STORAGE (GAL)	HEIGHT (INCHES)	DIAMETER (INCHES)	APPROX WEIGHT (LBS.)
WH-1	AO SMITH	EJC-10	120	1	1.65	8	90	10	18	16	130

Note: Water Heater suspended in wall pan shelf equal to Holdrite #30-SWHP-M

AIR COMPRESSOR SCHEDULE														
TAG	MANUFACTURER	MODEL	TYPE	MAXIMUM FLOW EA. PUMP (acfm)	MAXIMUM PUMP PRESS. (psig)	RECEIVER			ELECTRICAL				PHYSICAL	NOTES
						SIZE (gal.)	RECEIVER TYPE	DIA. (in.)	MOTOR QUAN.	MOTOR SIZE (hp)	MOTOR SPEED (rpm)	VOLT/PH	LENGTH/ WIDTH/ HEIGHT (in.)	
AC-1	INGERSOLL RAND	2475N7.5	2-STAGE RECIP	24	175	80	VERTICAL	38	1	7.5	---	208/3	28/38/69	

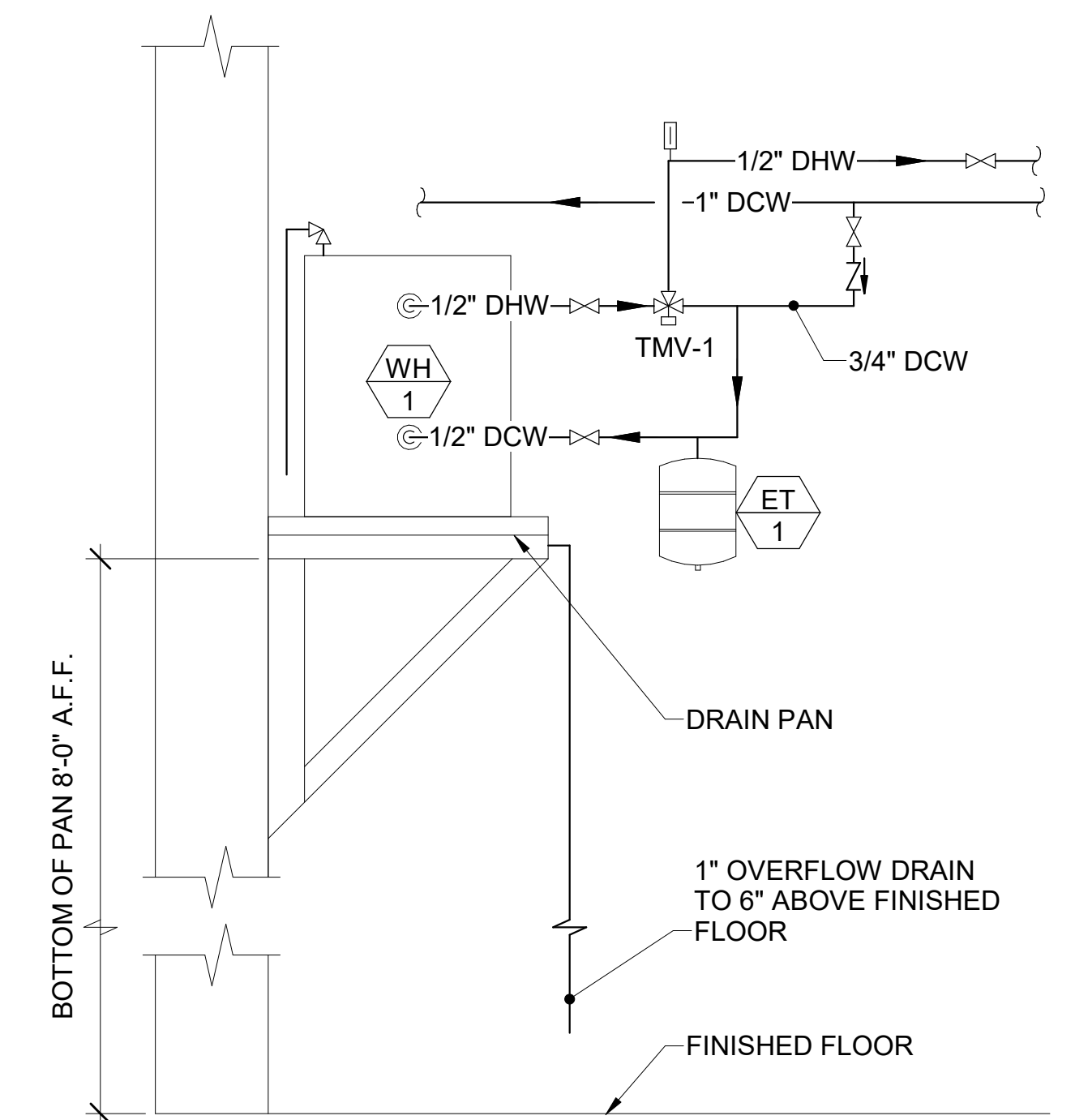
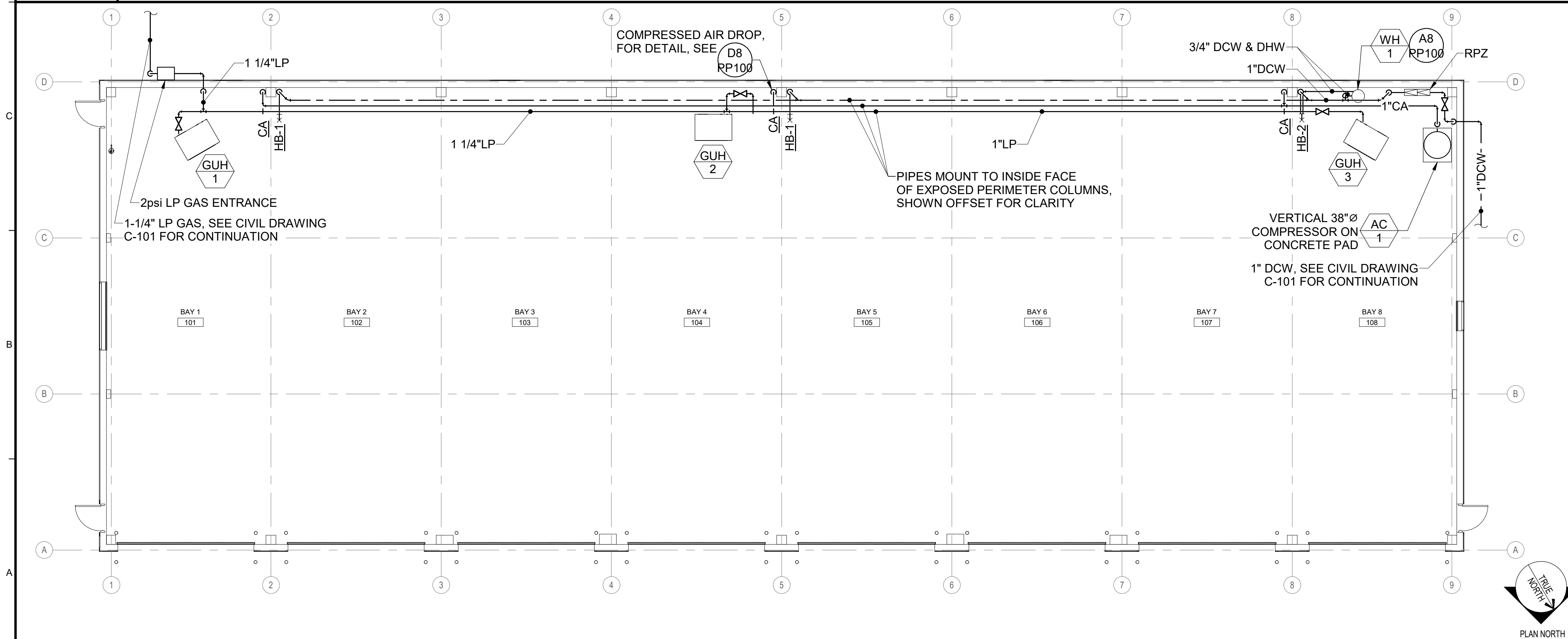


D1 PLUMBING SCHEDULES

NONE

D8 DETAIL ~ COMPRESSED AIR TOOL CONNECTION PIPING

NOT TO SCALE



A1 DOMESTIC PIPING PLAN

1/8" = 1'-0"

A8 DETAIL - DOMESTIC WATER HEATER PIPING SCHEMATIC - WH-1

NOT TO SCALE

Scale: As indicated

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
DOMESTIC PIPING PLAN

SHEET NUMBER: PP100

CONTRACT: 2021.06

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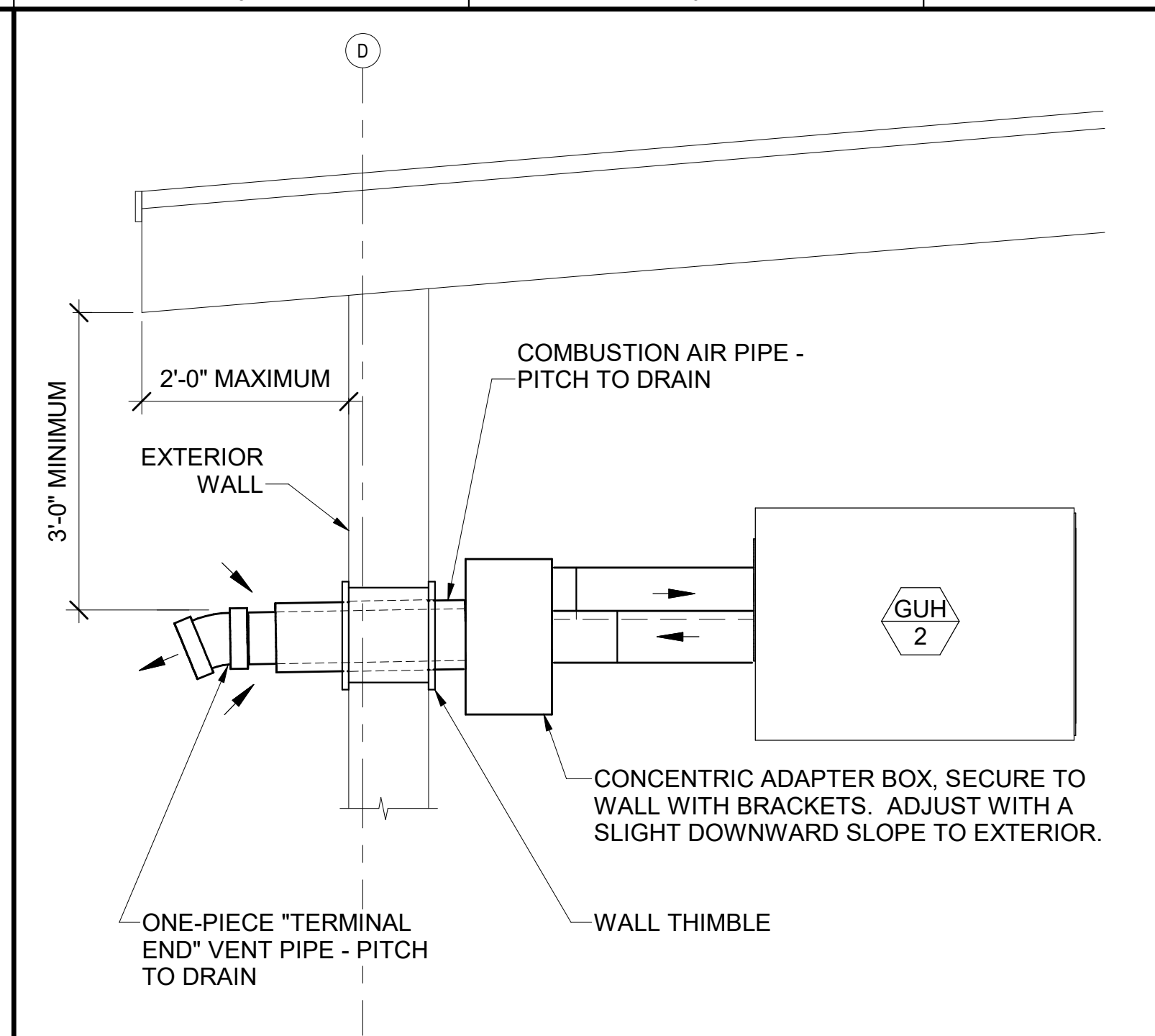
TAG	MAKE - MODEL	AIR SYSTE M	DUTY	CFM	LOUVER SCHEDULE DIMENSIONS						BEGINNING POINT OF WATER PENETRATI...	MAX P.D. MAX W.C.	SCREEN	NOTES
					HEIGHT (IN.)	WIDTH (IN.)	MIN. FREE AREA (SF)	NET VELOCITY (FT/MIN)	% FREE AREA	BLADE DEPTH				
L-1	RUSKIN ELF445DX	EF-1	INTAKE	13,500	72	96	26	519.2	54.2%	4"	873 FPM	0.06	SEE SPEC	

TAG	SERVES	MANUFACTURER-MODEL	TYPE	DRIVE	CFM	ESP	MOTOR HP	VOLTS/ PH	VFD	MAX SONES	DAMPER	WEIGHT (LBS.)	NOTES
EF-1	GARAGE EXHAUST	LOREN COOK - 36XMMWH	WALL MOUNT w/HOOD	DIRECT	13,500	0.6	3	208/3	YES	30.0	MOD	500	1, 2, 3
DF-1 thru 4	DESTRATIFICATION	ZOO FANS H60 PREMIUM	DESTRAT. FAN	DIRECT	1,500	--	106w	115/1	NO	--	N/A	23	2

- NOTES:
 1. PROVIDE UNIT MOUNTED FACTORY DISCONNECT SWITCH AND STARTER.
 2. PROVIDE WALL MOUNTED VARIABLE SPEED CONTROLLER.
 3. INTERLOCK WITH LOUVER, L-1, MOD

TAG	SERVES	MFR. -MODEL	SIZE	TYPE	EXPOSED FACE DIM.	DEPTH DIM.	WEIGHT LBS	INPUT MBH	OUTPUT MBH	DISCHARGE TEMP RISE	GAS PRESSURE RANGE (MIN-MAX)	GAS CONN. SIZE	CFM	VENT CONN.	COMB. AIR	MOTOR HP	MOP (AMPS)	ELECT	NOTES
GUH - 1	GARAGE	REZNOR - UDAS	300	LP GAS FIRED SEPARATED COMBSTN	41" x 34"	42"	290	300	249	50-60F	7" -14"	3/4"	3840	6"	6"	1/2	15	115/160	1
GUH - 2	GARAGE	REZNOR - UDAS	300	LP GAS FIRED SEPARATED COMBSTN	41" x 34"	42"	290	300	249	50-60F	7" -14"	3/4"	3840	6"	6"	1/2	15	115/160	1
GUH - 3	GARAGE	REZNOR - UDAS	300	LP GAS FIRED SEPARATED COMBSTN	41" x 34"	42"	290	300	249	50-60F	7" -14"	3/4"	3840	6"	6"	1/2	15	115/160	1

NOTES: 1. Standard Built-in (20A) Disconnect Switch
 2. Concentric Venting

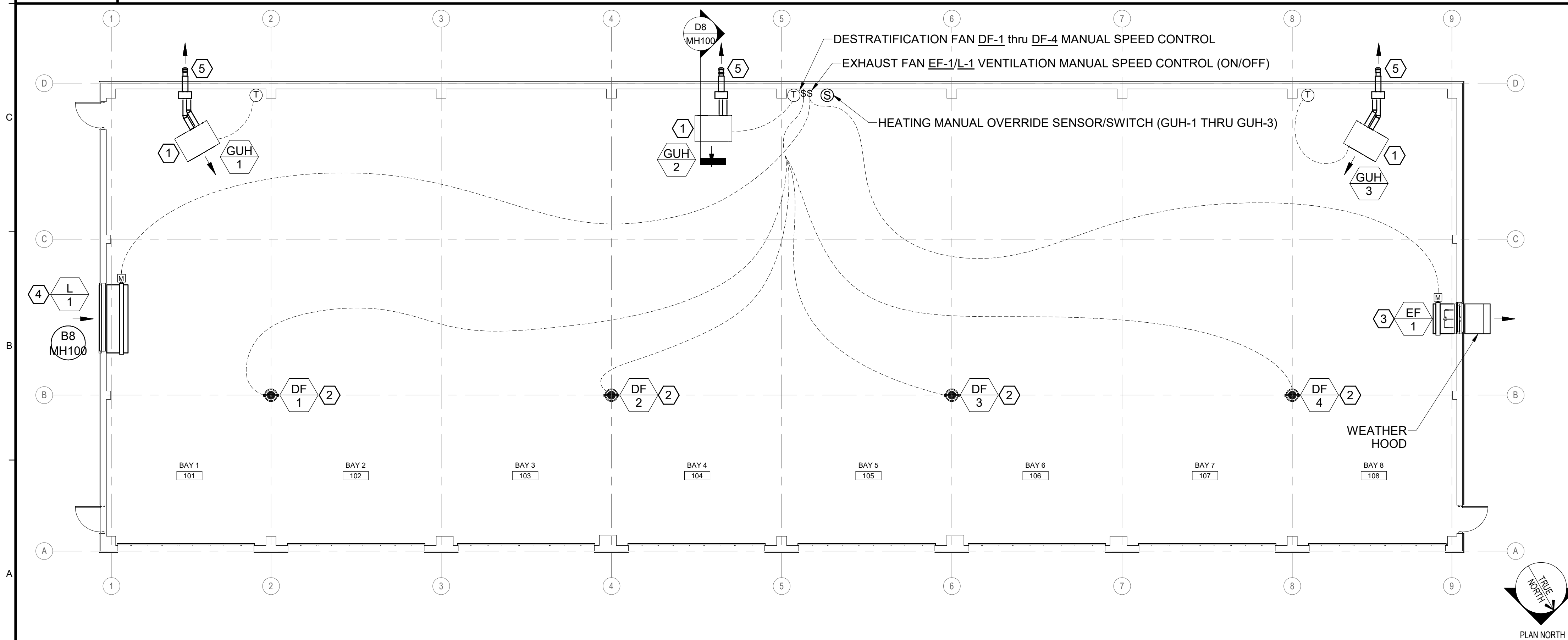


D1 MECHANICAL SCHEDULES

NONE

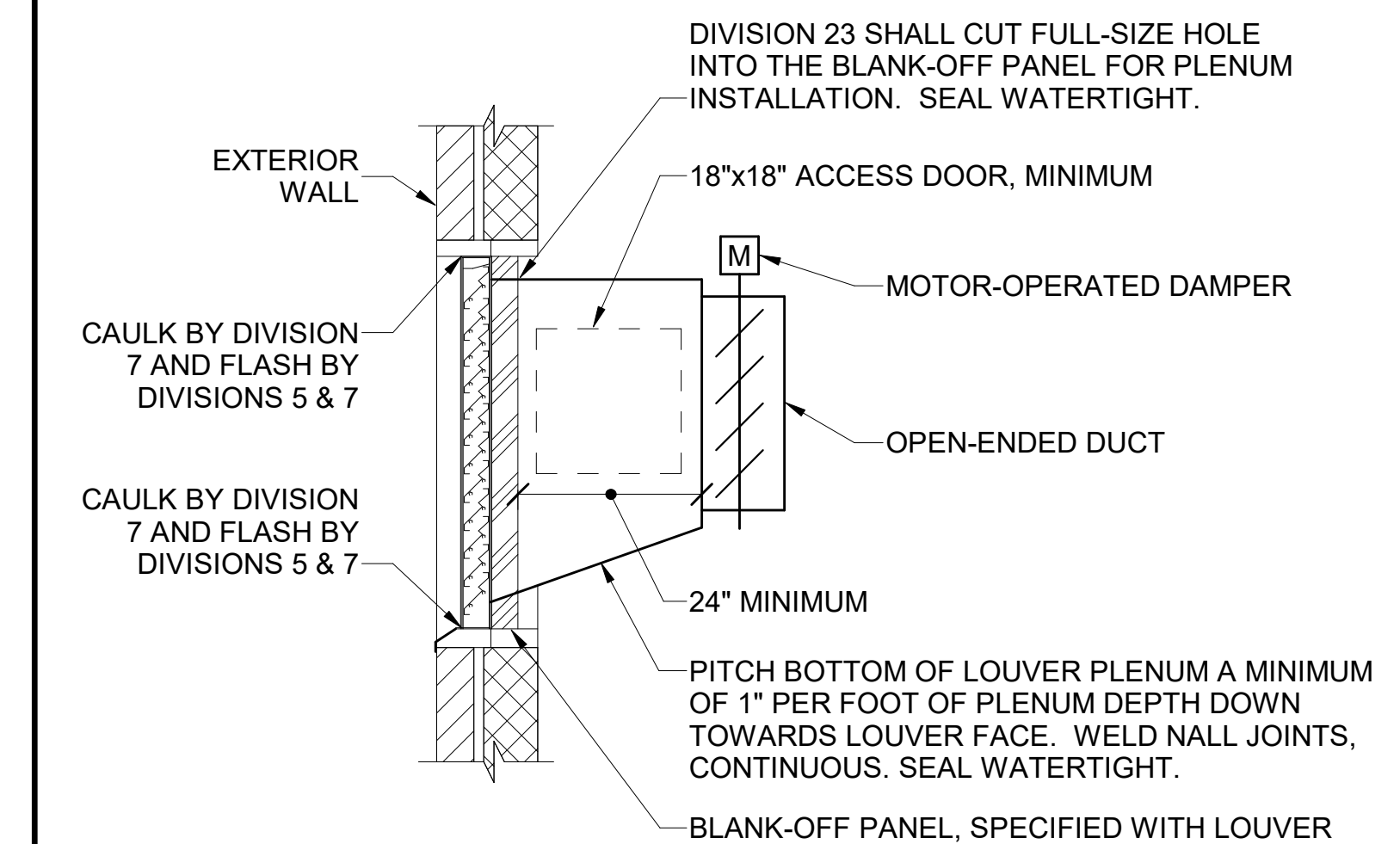
D8 DETAIL - GAS FIRED UNIT HEATER CONCENTRIC VENTING

NOT TO SCALE TYPICAL FOR ALL



A1 MECHANICAL PLAN

1/8" = 1'-0"



B8 DETAIL - EXTERIOR LOUVER

NOT TO SCALE

- ① MOUNT UNIT HIGH AS POSSIBLE, TIGHT TO ROOF STRUCTURE, MAINTAINING MANUFACTURER'S MINIMUM RECOMMENDED CLEARANCES - APPROXIMATELY 13'-0" ABOVE FINISHED FLOOR.
- ② BOTTOM OF FAN = 14'-0" ABOVE FINISHED FLOOR.
- ③ BOTTOM OF FAN = 8'-0" ABOVE FINISHED FLOOR.
- ④ BOTTOM OF LOUVER = 6'-0" ABOVE FINISHED FLOOR.
- ⑤ CONCENTRIC 6" EXHAUST VENT / 8" OUTSIDE AIR VENT THRU EXTERIOR WALL.

A8 KEYED NOTES

NONE

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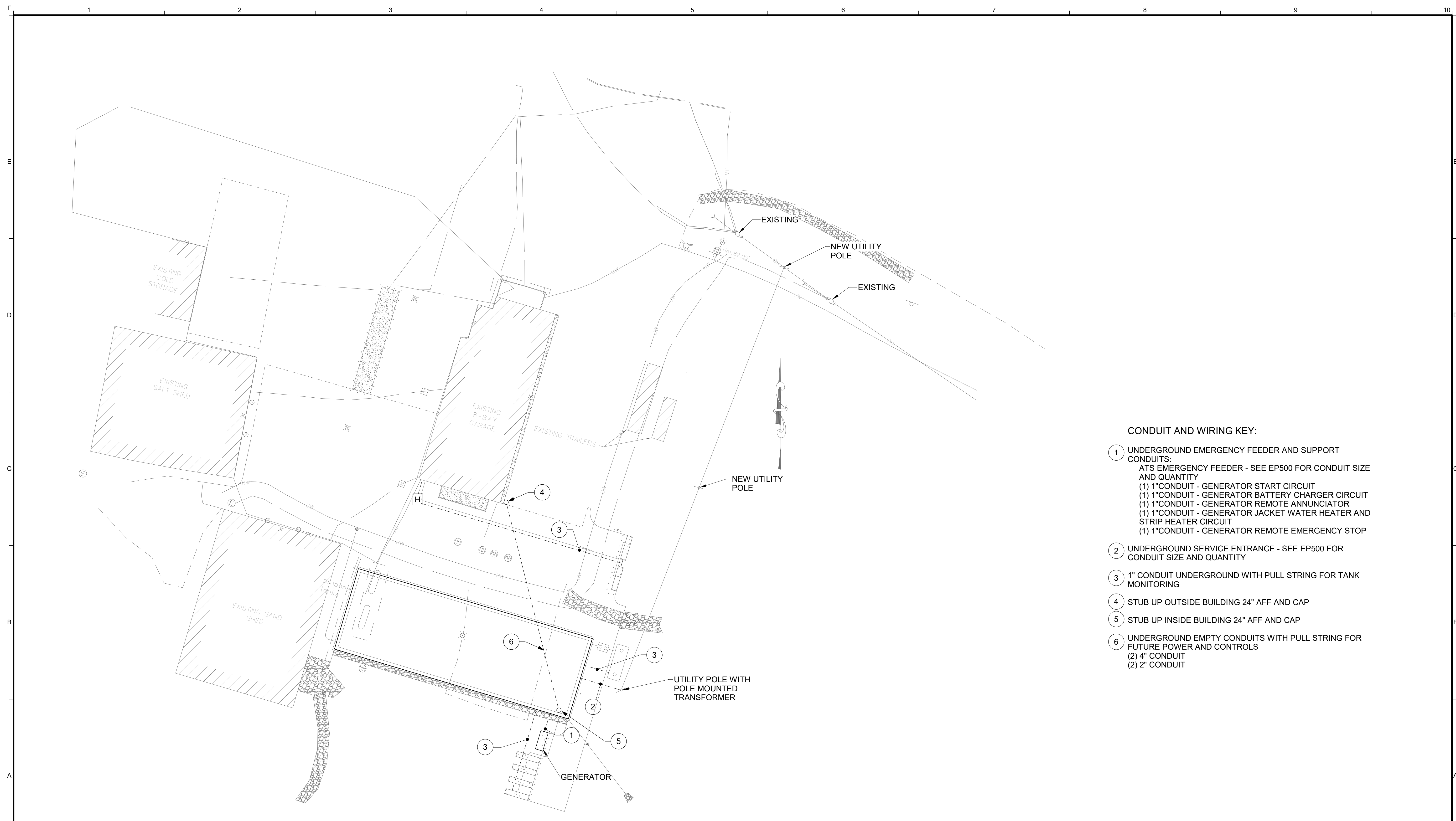
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MAINE TURNPIKE

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 MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
 CROSBY VEHICLE STORAGE GARAGE
 MECHANICAL PLAN
 SHEET NUMBER: MH100
 CONTRACT: 2021.06
 26 OF 32



- CONDUIT AND WIRING KEY:**
- ① UNDERGROUND EMERGENCY FEEDER AND SUPPORT CONDUITS:
 ATS EMERGENCY FEEDER - SEE EP500 FOR CONDUIT SIZE AND QUANTITY
 (1) 1" CONDUIT - GENERATOR START CIRCUIT
 (1) 1" CONDUIT - GENERATOR BATTERY CHARGER CIRCUIT
 (1) 1" CONDUIT - GENERATOR REMOTE ANNUNCIATOR
 (1) 1" CONDUIT - GENERATOR JACKET WATER HEATER AND STRIP HEATER CIRCUIT
 (1) 1" CONDUIT - GENERATOR REMOTE EMERGENCY STOP
 - ② UNDERGROUND SERVICE ENTRANCE - SEE EP500 FOR CONDUIT SIZE AND QUANTITY
 - ③ 1" CONDUIT UNDERGROUND WITH PULL STRING FOR TANK MONITORING
 - ④ STUB UP OUTSIDE BUILDING 24" AFF AND CAP
 - ⑤ STUB UP INSIDE BUILDING 24" AFF AND CAP
 - ⑥ UNDERGROUND EMPTY CONDUITS WITH PULL STRING FOR FUTURE POWER AND CONTROLS
 (2) 4" CONDUIT
 (2) 2" CONDUIT

A1 ELECTRICAL SITE PLAN OVERHEAD

1" = 30'-0"

Scale:
1" = 30'-0"

No.	Revision	By	Date

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

**CONTRACT 2021.06
 CROSBY VEHICLE STORAGE GARAGE
 ELECTRICAL SITE PLAN**

SHEET NUMBER: ES100
 CONTRACT: 2021.06
 27 OF 32

A AMPERE		MC MICROPHONE		<p align="center">SWITCHES</p> <p>\$a LIGHT SWITCH, 20A, 125/277V</p> <p>\$3 THREE-WAY LIGHT SWITCH</p> <p>\$4 FOUR-WAY LIGHT SWITCH</p> <p>\$2 TWO-POLE SWITCH</p> <p>\$M MOTOR RATED SWITCH WITH THERMAL OVERLOAD</p> <p>\$P SINGLE POLE SWITCH WITH RED PILOT LIGHT ~ RED LIGHT SHALL GLOW WHEN CIRCUIT IS ENERGIZED</p> <p>\$Sa \$Sb MULTI-GANGED SWITCHES, GANG UNDER ONE PLATE, LETTER INDICATES SWITCHING</p> <p>\$oS OCCUPANCY SENSOR SWITCH, WALL MOUNTED</p> <p>OS OCCUPANCY SENSOR, CEILING MOUNTED</p> <p>OS OCCUPANCY SENSOR, WALL MOUNTED</p> <p>\$LV LOW VOLTAGE LIGHT SWITCH, MOMENTARY CONTACT GROUPS</p> <p>\$LVab LOW VOLTAGE LIGHT SWITCH CONTROLLING MULTIPLE LIGHTING</p> <p>LTC LIGHTING TIME CLOCK</p> <p>LC LIGHTING CONTACTOR</p> <p>LCP LIGHTING CONTROL PANEL</p> <p>PC OUTDOOR PHOTOELECTRIC SWITCH</p> <p>NOTES:</p> <ol style="list-style-type: none"> MOUNT LIGHT SWITCHES WITH CENTERLINE 54" AFF, UNO LOWER CASE LETTER AT SWITCH INDICATES SWITCHING <p align="center">EMERGENCY LIGHTING</p> <p>EM HATCHING INDICATES EGRESS FIXTURE WITH BATTERY BALLAST ~ "EM" INDICATES EMERGENCY WHERE SYMBOL HATCHING IS UNCLEAR</p> <p>EXIT SIGN, CEILING MOUNTED, SHADING INDICATES FACE(S) ARROWHEAD INDICATES CHEVRON(S) REQUIRED, CONNECT TO UNSWITCHED PORTION OF AREA LIGHTING BRANCH CIRCUIT, U.N.O.</p> <p>EXIT SIGN, WALL MOUNTED, SHADING INDICATES FACE(S) MOUNT AT 7'-6" AFF OR OVER DOOR, CONNECT TO UNSWITCHED PORTION OF AREA LIGHTING BRANCH CIRCUIT, U.N.O.</p> <p>INV CENTRAL LIGHTING INVERTER</p> <p align="center">REFER TO LUMINAIRE SCHEDULE FOR FIXTURE TYPES</p> <p align="center">TYPICAL FOR ALL FIXTURE TYPES :</p> <p>R1 INDICATES LUMINAIRE TYPE ON SCHEDULE</p> <p>a LOWER CASE LETTER INDICATES SWITCH GROUP</p>		<p align="center">SINGLE RECEPTACLES</p> <p>MOUNT 54" AFF U.N.O.</p> <p>A REFER TO SPECIAL RECEPTACLE SCHEDULE</p> <p>CD OVERHEAD SINGLE RECEPTACLE CORD DROP</p> <p>NOTE:</p> <p>PROVIDE MATCHING CORD AND PLUG FOR SINGLE RECEPTACLES FOR NEW EQUIPMENT AND WHERE NOTED FOR RELOCATED EQUIPMENT</p> <p align="center">FLOOR AND CEILING DEVICES</p> <p>F DUPLEX RECEPTACLE, 20A, 125V, 2P, 3W, NEMA 5-20R, MOUNT IN FLUSH FLOOR BOX</p> <p>F DOUBLE DUPLEX RECEPTACLE, 20A, 125V, 2P, 3W, NEMA 5-20R, MOUNT IN FLUSH FLOOR BOX</p> <p>P DUPLEX RECEPTACLE, PEDESTAL MOUNTED</p> <p>P SINGLE RECEPTACLE, PEDESTAL MOUNTED</p> <p>C DUPLEX RECEPTACLE, FLUSH MOUNTED IN CEILING</p> <p>C DOUBLE DUPLEX RECEPTACLE, FLUSH MOUNTED IN CEILING</p> <p>C DUPLEX GFCI RECEPTACLE, FLUSH MOUNTED IN CEILING</p> <p>C DOUBLE DUPLEX GFCI RECEPTACLE, FLUSH MOUNTED IN CEILING</p> <p>CR OVERHEAD RECEPTACLE DROP, DUPLEX ~ CR= CORD REEL</p> <p>CR OVERHEAD RECEPTACLE DROP, DOUBLE DUPLEX ~ CR= CORD REEL</p> <p>CR OVERHEAD RECEPTACLE DROP, GFCI ~ CR= CORD REEL</p> <p>F MULTI-SERVICE FLUSH FLOOR BOX ~ WIREMOLD EFB45 SERIES OR APPROVED EQUAL. COVER SHALL BE FLUSH STYLE WITH FLOOR INSERT. COVER FINISH COLOR SHALL BE SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD FINISHES.</p> <p>DATA OUTLET IN FLUSH FLOOR BOX</p> <p>2-GANG JUNCTION BOX IN FLUSH FLOOR BOX</p> <p align="center">RECEPTACLES</p> <p>DUPLEX RECEPTACLE ~ 20A, 125V, 2P, 3W, NEMA 5-20R</p> <p>DOUBLE DUPLEX RECEPTACLE</p> <p>GFCI DUPLEX RECEPTACLE, MOUNT 54" AFF UNO</p> <p>GFCI DOUBLE DUPLEX RECEPTACLE, MOUNT 54" AFF UNO</p> <p>EWC GFCI RECEPTACLE FOR ELECTRIC WATER COOLER - COORDINATE LOCATION WITH DIVISION 22.</p> <p>WP GFCI RECEPTACLE WITH WEATHERPROOF COVER</p> <p>WP GFCI RECEPTACLE IN WP ENCLOSURE ON ROOF</p> <p>NOTES:</p> <ol style="list-style-type: none"> MOUNT RECEPTACLES WITH CENTERLINE 18" AFF UNO MOUNT EXTERIOR RECEPTACLES WITH CENTERLINE 24" AFG UNO 		<p align="center">POWER DISTRIBUTION</p> <p>PANELBOARD ~ SURFACE MOUNTED</p> <p>PANELBOARD ~ FLUSH MOUNTED</p> <p>AS AF FUSED DISCONNECT SWITCH</p> <p>NON-FUSED DISCONNECT SWITCH</p> <p>00 MOTOR STARTER ~ NUMBER INDICATES NEMA SIZE</p> <p>00 COMBINATION MOTOR STARTER/FUSED DISCONNECT</p> <p>MOTOR OR FAN</p> <p>M METER AND CABINET</p> <p>J JUNCTION BOX</p> <p>J JUNCTION BOX ~ WALL MOUNTED</p> <p>J DOUBLE GANG JUNCTION BOX ~ WALL MTD 18" AFF</p> <p>C JUNCTION BOX ~ FLUSH CEILING MOUNTED</p> <p>P JUNCTION BOX ~ PEDESTAL MOUNTED</p> <p>TF TRANSFORMER ~ NUMBER INDICATES DESIGNATION SEE TRANSFORMER SCHEDULE</p> <p>VFD VARIABLE FREQUENCY DRIVE</p> <p>TVSS TRANSIENT VOLTAGE SURGE SUPPRESSOR</p> <p>POWER SHUTOFF SWITCH ~ WALL MOUNTED 48" TO CENTER LINE</p> <p>CONDUIT TURNING UP</p> <p>CONDUIT TURNING DOWN</p> <p>WIRING UNDERGROUND OR UNDERSLAB</p> <p>HOMERUN ~ (2)#12+(1)#12G UNO (EXCEPT LIGHTING CIRCUITS: (1)#12+(1)#10N+(1)#12G UNO)</p> <p>SINGLE-PHASE HOMERUN OR MULTIPLE HOMERUN UTILIZING THE SAME CONDUIT</p> <p>3-PHASE HOMERUN OR MULTIPLE HOMERUN UTILIZING THE SAME CONDUIT</p> <p>FLEXIBLE CONNECTION</p> <p>GROUNDING SYSTEM</p> <p>MOTORIZED DOOR OPERATOR AND PUSH PADDLE ~ FURNISHED BY DIV 08, WIRED BY DIV 26</p> <p>CB ENCLOSED CIRCUIT BREAKER</p> <p>ATS AUTOMATIC TRANSFER SWITCH</p> <p>H HAND DRYER, COORDINATE HEIGHT WITH ARCHITECTURAL PLANS</p> <p>ENCLOSED CONTACTOR</p> <p>OVERHEAD DATA DROP</p> <p>DATA OUTLET FLUSH IN CEILING</p> <p>HI HANDHOLE, MINIMUM 18"x36"x24", SIZE PER NEC FOR NUMBER OF CONDUITS INSTALLED.</p> <p>CR CARD READER ~ PROVIDE RECESSED WALL MOUNTED SINGLE-GANG BOX 44" AFF WITH 3/4" CONDUIT. EXTERIOR BOXES SHALL BE WEATHERPROOF. DIVISION 26 TO PROVIDE 3/4" CONDUIT FROM CARD READER TO JUNCTION BOX FOR SECURITY PANEL LOCATED IN IO.T.203. FURNISH AND INSTALL ACCESS CONTROL CABLE (TAPPAN MODEL H91602-1) PER MTA REQUIREMENTS. COORDINATE LOCATION OF SECURITY PANEL WITH OWNER. CARD READER (MODEL ALLEGIAN MT15) PROVIDED BY OTHERS.</p> <p>L DOOR LOCK ~ PROVIDE EMPTY 1/2" RECESSED CONDUIT WITH PULL STRING IN DOOR FRAME, RUN FROM DOOR LOCK LOCATION IN FRAME TO DOOR LOCK POWER LOCATION.</p> <p>D DOOR LOCK POWER ~ POWER SUPPLIES BY OTHERS.</p> <p align="center">NOTES</p> <ol style="list-style-type: none"> DOOR HARDWARE BY DIV 8 U.N.O. LOW VOLTAGE WIRING AND DEVICES BY OWNER UNLESS NOTED OTHERWISE. CONDUITS SHALL BE RUN CONCEALED FROM EACH OUTLET BOX OR TERMINATION TO 6" ABOVE THE NEAREST ACCESSIBLE CORRIDOR CEILING THAT IS CONTIGUOUS TO THE NEAREST IT ROOM, J-HOOK OR CABLE TRAY PATHWAY, UNO. IN ROOMS WITHOUT CEILINGS, CONDUIT SHALL BE RUN AT UNDERSIDE OF DECK TO 6" ABOVE THE NEAREST ACCESSIBLE CORRIDOR CEILING THAT IS CONTIGUOUS TO THE NEAREST IT ROOM, J-HOOK OR CABLE TRAY PATHWAY, UNO. CONDUIT PATHWAYS SHALL BE PROVIDED FOR ANY PORTIONS OF THE PATH TO NEAREST IT ROOM, J-HOOK, OR CABLE TRAY THAT HAS EXPOSED DECK OR HAS INACCESSIBLE CEILINGS. DIVISION 26 SHALL PROVIDE 120 VOLT POWER WHERE INDICATED. DIV 26 SHALL PROVIDE EMPTY BOXES AND CONDUITS WITH PULL STRING U.N.O. 	
AC ALTERNATING CURRENT		MW MICROWAVE							
AFF ABOVE FINISHED FLOOR		MLO MAIN LUG ONLY							
AFG ABOVE FINISHED GRADE		MT MOUNT							
AHU AIR HANDLING UNIT		MTS MANUAL CONTROL SWITCH							
AIC AMPERES INTERRUPTING CAPACITY		MCP MOTOR CONTROL PANEL							
ATS AUTOMATIC TRANSFER SWITCH		MH METAL HALIDE							
AWG AMERICAN WIRE GAUGE		MDP MAIN DISTRIBUTION PANEL							
BAS BUILDING AUTOMATION SYSTEM		MIN MINIMUM							
BKBD BACKBOARD		N NEUTRAL							
C CONDUIT		NC NORMALLY CLOSED							
CAT CATALOG, CATEGORY		NEC NATIONAL ELECTRICAL CODE							
CATV CABLE TV		NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION							
CB CIRCUIT BREAKER		NFFA NATIONAL FIRE PROTECTION ASSOCIATION							
CCTV CLOSED CIRCUIT TELEVISION		NIC NOT IN CONTRACT							
CM CIRCULAR MILS		NF NON-FUSED							
COMM COMMUNICATIONS		NO NORMALLY OPEN							
CU MECH CONDENSING UNIT		NO, # NUMBER							
CU COPPER		NTS NOT TO SCALE							
CUH CABINET UNIT HEATER		OC ON CENTER							
CR CORD REEL		OCC OCCUPANCY							
DC DIRECT CURRENT		OH OVERHEAD							
DDN DOWN		P POLE							
DW DISHWASHER		PA PUBLIC ADDRESS							
DWG DRAWING		PB PULLBOX							
EF EXHAUST FAN		PH, Ø PHASE							
ELEV ELEVATOR		PIR PASSIVE INFRARED							
EMT ELECTRICAL METALLIC TUBING		PNL PANELBOARD							
EP EXPLOSION PROOF		P/O PART OF							
ERU ENERGY RECOVERY UNIT		PV PHOTOVOLTAIC							
EWC ELECTRIC WATER COOLER		PVC POLY-VINYL CHLORIDE							
FACP FIRE ALARM CONTROL PANEL		REC RECEPTACLE							
FB FLOOR BOX		REF REFRIGERATOR							
FLA FULL LOAD AMPS		RF RETURN FAN							
FWE FURNISHED WITH EQUIPMENT		RGS RIGID GALVANIZED STEEL							
G, GND GROUND		RM ROOM							
GFCI GROUND FAULT CIRCUIT INTERRUPTER		RMC RIGID METAL CONDUIT							
GFP GROUND FAULT PROTECTION		RTU ROOFTOP UNIT							
HID HIGH INTENSITY DISCHARGE		REF REFRIGERATOR							
HOA HAND-OFF-AUTO SELECTOR SWITCH		SF SUPPLY FAN							
HP HORSEPOWER		SPDT SINGLE POLE, DOUBLE THROW							
HVAC HEATING, VENTILATION AND COOLING UNIT		SQ SQUARE							
IDS INTRUSION DETECTION SYSTEM		TEL TELEPHONE							
IG ISOLATED GROUND		TVSS TRANSIENT VOLTAGE SURGE SUPPRESSOR							
IMC INTERMEDIATE METAL CONDUIT		TYP TYPICAL							
IR INFRARED		UF UNDER FLOOR							
K KILO		UG UNDERGROUND							
KCMIL KILO CIRCULAR MILS		UH UNIT HEATER							
KW KILOWATT		UL UNDERWRITER'S LABORATORY							
KVA KILO VOLT-AMPS		UNO UNLESS NOTED OTHERWISE							
LAN LOCAL AREA NETWORK		UPS UNINTERRUPTIBLE POWER SUPPLY							
LC LIGHTING CONTACTOR		V VOLTS							
LF LINEAR FEET		VFD VARIABLE FREQUENCY DRIVE							
LC LOADCENTER		W WATT							
LCP LIGHTING CONTROL PANEL		WP WEATHERPROOF							
LED LIGHT EMITTING DIODE		WG WIREGUARD							
LTG LIGHTING		XFMR TRANSFORMER							
LTS LIGHTS									
MAX MAXIMUM		(E) EXISTING ITEM TO REMAIN							
MCB MAIN CIRCUIT BREAKER		(R) REMOVE ITEM AND DISPOSE OF PROPERLY							
MECH MECHANICAL		(ER) RELOCATED ITEM AT NEW LOCATION							
MH MOUNTING HEIGHT		(RL) REMOVE AND RELOCATE							

A1	ABBREVIATIONS	A3	LIGHTING	A5	RECEPTACLES	A7	POWER DISTRIBUTION	A9	SECURITY LEGEND
NONE		NONE		NONE		NONE		NONE	

Scale: 12" = 1'-0"	Designed by:		<p>160 Veranda Street Portland, Maine 04103 P: 207.221.2260 F: 207.221.2266 Web: www.allied-eng.com</p>	<p align="center">THE GOLD STAR MEMORIAL HIGHWAY</p>	CONTRACT 2021.06 CROSBY VEHICLE STORAGE GARAGE ELECTRICAL LEGEND																													
<table border="1"> <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													ISSUED FOR BID - NOT FOR CONSTRUCTION	<table border="1"> <thead> <tr> <th>By</th> <th>Date</th> <th>By</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Designed: CAF</td> <td>11/22/2021</td> <td>Checked: CAF</td> <td>11/22/2021</td> </tr> <tr> <td>Drawn: REW</td> <td>11/22/2021</td> <td></td> <td></td> </tr> </tbody> </table>	By	Date	By	Date	Designed: CAF	11/22/2021	Checked: CAF	11/22/2021	Drawn: REW	11/22/2021			AEI PROJ.NO.: 20019 CAD FILE:
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TECHNOLOGY MATRIX					
TECHNOLOGY GENERAL NOTES:					
1. DIVISION 26 SHALL PROVIDE EMPTY BOXES AND CONDUITS WITH PULL STRINGS UNO.					
2. FOR EACH TECHNOLOGY OUTLET, PROVIDE CONCEALED CONDUIT FROM EACH OUTLET BOX TO 6" ABOVE THE NEAREST ACCESSIBLE CORRIDOR CEILING THAT IS CONTIGUOUS TO THE NEAREST IT ROOM OR J-HOOK PATHWAY UNO. IN ROOMS WITHOUT CEILINGS, CONDUIT SHALL BE RUN AT UNDERSIDE OF DECK TO 6" ABOVE THE NEAREST ACCESSIBLE CORRIDOR CEILING THAT IS CONTIGUOUS TO THE NEAREST IT ROOM OR J-HOOK UNO. CONDUIT PATHWAYS SHALL BE PROVIDED FOR ANY PORTIONS OF THE PATH TO NEAREST IT ROOM OR J-HOOK, THAT HAS EXPOSED DECK OR HAS INACCESSIBLE CEILINGS.					
SYMBOL	MTG HT AFF UNO	DESCRIPTION	KEY NOTE	CONDUIT SIZE	BOX TYPE
▶	54"	(1) VOICE AND (1) DATA OUTLETS		1"	X
▷	54"	(1) DATA OUTLET		1"	X
▶▶	54"	WALL PHONE OUTLET		1"	1
Ⓜ	NOTE 3	DATA OUTLET FOR WIRELESS ACCESS POINT	3	1" (KEY NOTE 3)	X
KEY NOTES:					
1. MOUNTING HEIGHT AS NOTED ON PLANS					
2. NOT USED					
3. FOR AREAS WITH SUSPENDED CEILINGS, INSTALL BOX ABOVE CEILING. WIRING SHALL BE CONCEALED ABOVE CEILINGS OR IN CONDUIT WHERE EXPOSED. FOR AREAS WITHOUT CEILINGS, MOUNT BOX AT UNDERSIDE OF DECK.					

VOLTAGE DROP CHART			
MAXIMUM LOAD (VA)	MAXIMUM LENGTH PER CONDUCTOR SIZE		
	#12	#10	#8
120 VOLT CIRCUITS			
800	155	245	390
1000	125	195	310
1200	105	165	260
1400	90	140	220
1600	80	125	195
1800	70	110	175
277 VOLT CIRCUITS			
2000	330	525	830
2500	265	420	665
3000	220	350	555
3500	190	300	475
4000	165	260	415

BRANCH CIRCUITS SCHEDULE	
CIRCUIT BREAKER	CONDUCTOR
120 OR 277 VOLT, 1 PH., 2W CIRCUITS	
15A-1P, 20A-1P	2#12 & 1#12 GND - 3/4" C.
30A-1P	2#10 & 1#10 GND - 3/4" C.
40A-1P	2#8 & 1#10 GND - 3/4" C.
50A-1P	2#6 & 1#10 GND - 3/4" C.
60A-1P	2#6 & 1#10 GND - 3/4" C.
208 OR 480 VOLT, 1PH., 2W CIRCUITS	
15A-2P, 20A-2P	2#12 & 1#12 GND - 3/4" C.
30A-2P	2#10 & 1#10 GND - 3/4" C.
40A-2P	2#8 & 1#10 GND - 3/4" C.
50A-2P	2#6 & 1#10 GND - 3/4" C.
60A-2P	2#6 & 1#10 GND - 3/4" C.
208 OR 480 VOLT, 3PH., 3W CIRCUITS	
15A-3P, 20A-3P	3#12 & 1#12 GND - 3/4" C.
30A-3P	3#10 & 1#10 GND - 3/4" C.
40A-3P	3#8 & 1#10 GND - 3/4" C.
50A-3P	3#6 & 1#10 GND - 3/4" C.
60A-3P	3#6 & 1#10 GND - 3/4" C.

BRANCH CIRCUIT SCHEDULE NOTES:

- TYPE MC CABLE SHALL INCLUDE FULL SIZE INSULATED GROUND CONDUCTOR. SIZES AS INDICATED IN SCHEDULE
- WIRING BASED ON MAXIMUM FEEDER LENGTH OF 150 FEET FOR 120 VOLT CIRCUITS AND 300 FEET FOR 277...
- UPGRADE WIRE AND CONDUIT SIZE AS REQUIRED TO ADDRESS VOLTAGE DROP

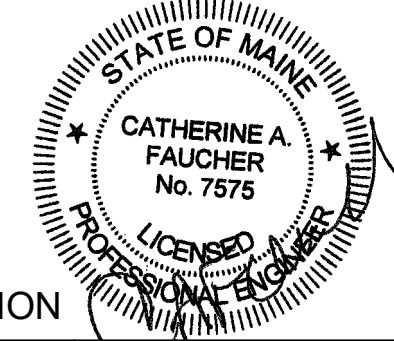
SPECIAL RECEPTACLE SCHEDULE				
TAG	NEMA	DESCRIPTION (SINGLE DEVICE)	OCPD	BRANCH CIRCUIT
A	5-15R	15A-125V, 2P, 3W	15A-1P	2#12 & 1#12GND - 3/4" C
B	5-20R	20A-125V, 2P, 3W	20A-1P	2#12 & 1#12GND - 3/4" C
C	5-30R	30A-125V, 2P, 3W	30A-1P	2#10 & 1#10GND - 3/4" C
D	5-50R	50A-125V, 2P, 3W	50A-1P	2#6 & 1#10GND - 3/4" C
E	6-20R	20A-250V, 2P, 3W	20A-2P	2#12 & 1#12GND - 3/4" C
F	L6-20R	20A-250V, 2P, 3W	20A-2P	2#12 & 1#12GND - 3/4" C
G	6-30R	30A-250V, 2P, 3W	30A-2P	2#10 & 1#10GND - 3/4" C
H	L6-50R	50A-250V, 2P, 3W-LOCKING	50A-2P	2#6 & 1#10GND - 3/4" C
I	14-20R	20A-125/250V, 3P, 4W	20A-2P	3#12 & 1#12GND - 3/4" C
J	14-30R	30A-125/250V, 3P, 4W	30A-2P	2#10 & 1#10GND - 3/4" C
K	14-50R	50A-125/250V, 3P, 4W	50A-2P	3#6 & 1#10GND - 1" C
L	14-60R	60A-125/250V, 3P, 4W	60A-2P	3#6 & 1#10GND - 1" C
M	L15-20R	20A-250V, 3PH, 3P, 4W	20A-3P	3#12 & 1#12GND - 3/4" C
N	15-30R	30A-250V, 3PH, 3P, 4W	30A-3P	3#10 & 1#10GND - 3/4" C
P	15-50R	50A-250V, 3PH, 3P, 4W	50A-3P	3#6 & 1#10GND - 1" C
Q	15-60R	60A-250V, 3PH, 3P, 4W	60A-3P	3#6 & 1#10GND - 1" C
R	L5-20R	20A-125V, 2P, 3W, TWIST LOCK	20A-1P	2#12 & 1#12GND - 3/4" C
S	L5-30R	30A-125V, 2P, 3W, TWIST LOCK	30A-1P	2#10 & 1#10GND - 3/4" C
T	L6-15R	15A-250V, 2P, 3W, TWIST LOCK	15A-2P	2#12 & 1#12GND - 3/4" C
U	L6-20R	20A-250V, 2P, 3W, TWIST LOCK	20A-2P	2#12 & 1#12GND - 3/4" C
V	L6-30R	30A-250V, 2P, 3W, TWIST LOCK	30A-2P	2#10 & 1#10GND - 3/4" C
W	L14-20R	20A-125/250V, 3P, 4W, TWIST LOCK	20A-2P	3#12 & 1#12GND - 3/4" C
X	L14-30R	30A-125/250V, 3P, 4W, TWIST LOCK	30A-2P	3#10 & 1#10GND - 3/4" C
Y	L16-20R	20A-480V, 3P, 4W, TWIST LOCK	20A-3P	3#12 & 1#12GND - 3/4" C
Z	L11-20R	20A-250V, 3P, 4W, TWIST LOCK	20A-3P	3#12 & 1#10GND - 3/4" C

A1 ELECTRICAL SCHEDULES

Scale:

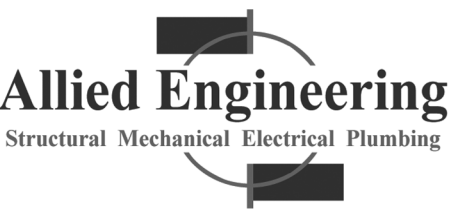
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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

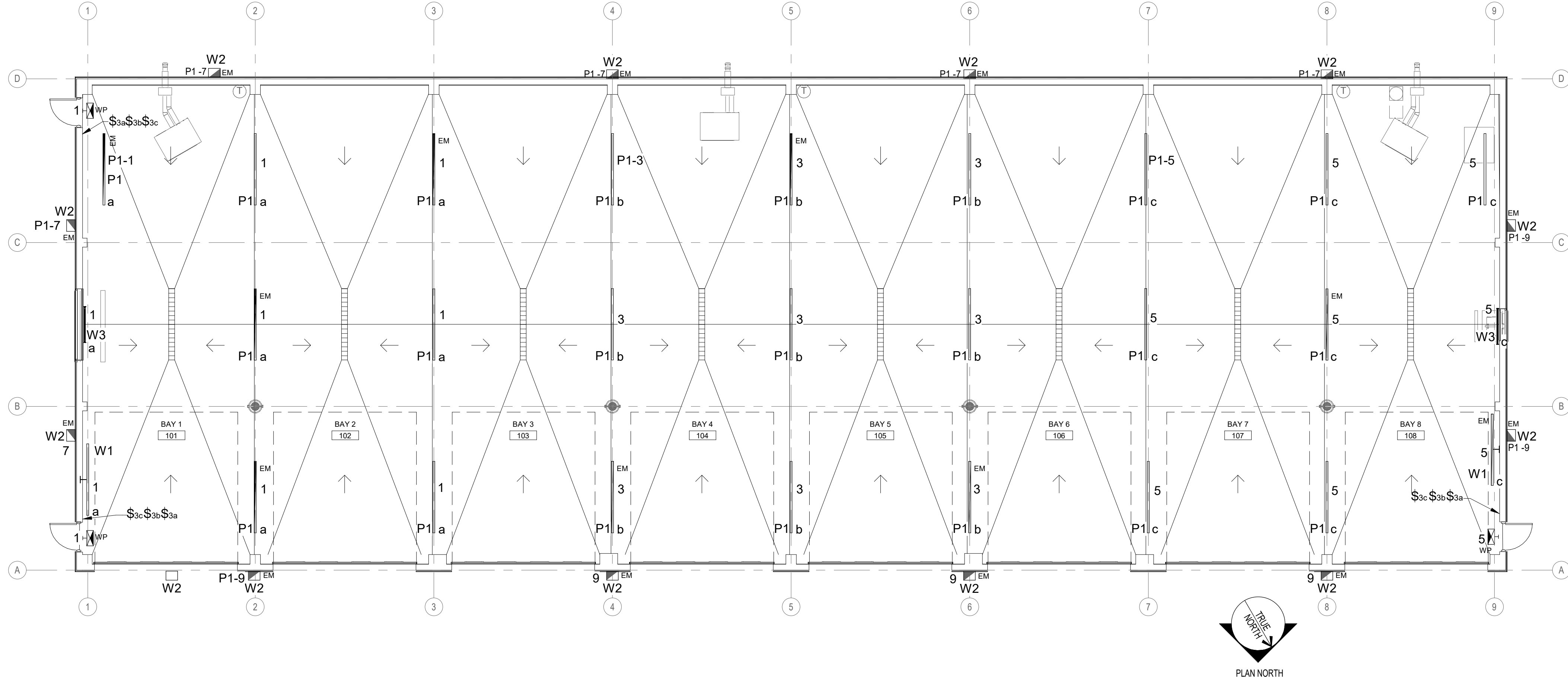
CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
ELECTRICAL GENERAL NOTES AND SCHEDULES

SHEET NUMBER: E001

CONTRACT: 2021.06 29 OF 32

LUMINAIRE SCHEDULE- KEY NOTE 1,2									
TYPE	DESCRIPTION	MFR	CATALOG SERIES NUMBER - SEE KEY NOTE 1	MOUNTING	VOLTS	LAMP/LIGHT ENGINE			KEY NOTES
						WATTS	DELIVERED LUMENS	TYPE	
P1	8' PENDANT	STARTEK	SPW8S	PENDANT 16' AFF	120V	87	12540	LED 3500K	4,5
W1	WALL MOUNT VERSION OF P1			WALL 16' AFF				LED 4000K	4
W2	EXTERIOR WALL MOUNT	MCGRAW EDISON	GWC-AF-01-LED-E1-T4W	WALL 17' AFF	120V	67	7084	LED 4000K	6
W3	4' WALL MOUNT	STARTEK	SSF-4	MOUNT 7'-6" AFF	120V	47	6846	LED 4000K	4
	EXIT LIGHT	SURELITES	LPX		120VAC/ 12VDC	1		LED	3

- KEY NOTES**
- NOTE THAT THESE NUMBERS ARE NOT COMPLETE CATALOG NUMBERS. PROVIDE ALL REQUIREMENTS ON SCHEDULE, NOTES, SPECS, AND DRAWINGS COMBINED.
 - VERIFY CEILING STRUCTURE AND MOUNTING HEIGHT PRIOR TO ORDERING ANY LIGHT FIXTURES.
 - PROVIDE WALL, CEILING, OR PENDANT MOUNTING AS INDICATED ON PLANS. PROVIDE NUMBER OF FACES AND ARROWS AS INDICATED.
 - PROVIDE SMOOTH POLYCARBONATE LENS
 - PROVIDE RIGID STEMS FOR PENDANT MOUNTED FIXTURE.
 - PROVIDE INTEGRAL PHOTOCELL AND MOTION SENSOR THAT WILL BE AUTO ON/AUTO OFF VIA MOTION SENSOR ONLY AFTER DUSK



A1 LIGHTING PLAN
1/8" = 1'-0"

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

No.	Revision	By	Date

Designed by:

CATHERINE A. FAUCHER
No. 7575
LICENSED PROFESSIONAL ENGINEER
STATE OF MAINE

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AEI PROJ.NO.: 20019 CAD FILE:

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
LIGHTING PLAN

SHEET NUMBER: EL100

CONTRACT: 2021.06 30 OF 32

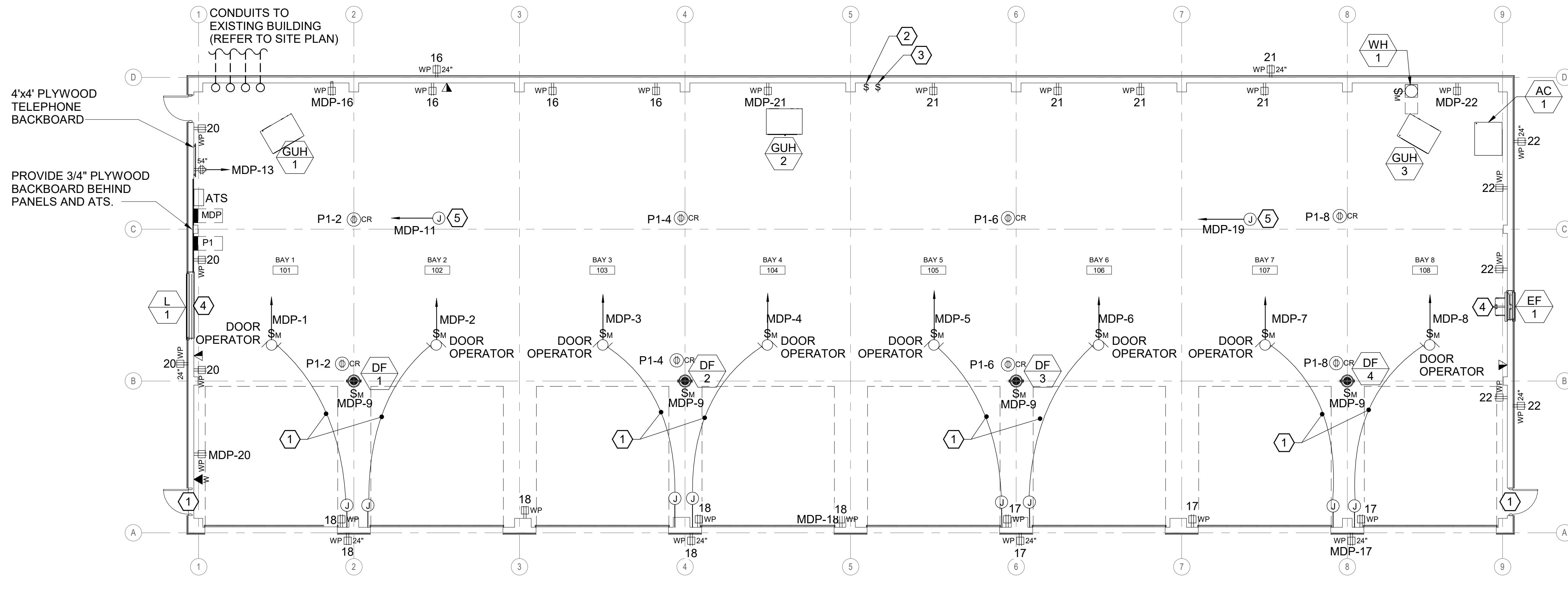
ELECTRICAL SCHEDULE OF MECHANICAL EQUIPMENT- REFER TO PANEL SCHEDULES FOR CIRCUITING

TAG	DESCRIPTION/ AREA SERVED	VOLTS	PH	LOAD	FLA	MCA	MOPD	DISCONNECT SWITCH					STARTER (NEMA)		CBD	WIRING IN CONDUIT (2 #12, 1#12 G UNO)	NOTES
								FRAME	POLES	FUSE	NEMA ENCL	FBD	SIZE/ VFD	FBD			
AC-1	AIR COMPRESSOR	208	3	7.5 HP	40	46	50	60	3	50	1	22	22	22	2 #6, 1 #8G		
GUH-1	BLOWER HEATER	120	1	.5 hp	9.8		20	-	-	-	-	23	23	23	3 #12, 1 #12G		
GUH-2	BLOWER HEATER	120	1		9.8		20	-	-	-	-	23	23	23	3 #12, 1 #12G		
GUH-3	BLOWER HEATER	120	1		9.8		20	-	-	-	-	23	23	23	3 #12, 1 #12G		
DF-1,2,3,4	DESTRATIFICATION FANS	120	1	106W	1.0		15	MRT				26	23	23			
EF-1	EXHAUST FAN	208	3	3 HP	10.6		20	-	-	-	-	23	23	23	3 #12, 1 #12G		
WH-1	ELECTRIC WATER HEATER	120	1	1650W	14.0		20	MRT				23	23	23			

NOTES:

ABBREVIATIONS:

FWE	FURNISHED WITH EQUIPMENT
NF	NOT FUSED
SWBD	SWITCHBOARD
FBD	FURNISHED BY DIVISION
CBD	CONTROL WIRING BY DIVISION
MRT	MOTOR RATED TOGGLE SWITCH (VOLTAGE, CURRENT RATING AND POLE QUANTITY AS REQUIRED)



KEYED NOTES:

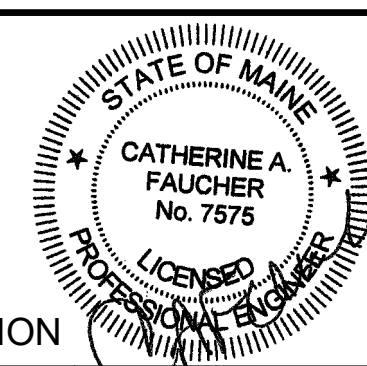
- 1 PROVIDE EMPTY J-BOX 44" ABOVE FINISHED FLOOR AND 1-1/2" EMPTY CONDUIT FOR DOOR CONTROL WIRING AND CONTROLS BY OTHERS.
- 2 DESTRATIFICATION FAN DF-1 thru DF-4 MANUAL SPEED CONTROL-CONTROLS BY OTHERS
- 3 EXHAUST FAN EF-1/L-1 VENTILATION MANUAL CONTROL-CONTROLS BY OTHERS
- 4 WIRE AND CONNECT DAMPERS VIA HVAC CONTROLS AT UNDERSIDE OF DECK.
- 5 PROVIDE 120 VOLT POWER FOR HVAC CONTROLS AT UNDERSIDE OF DECK. CONTROLS BY OTHERS.

A1 POWER AND SYSTEMS PLAN

1/8" = 1'-0"

No.	Revision	By	Date

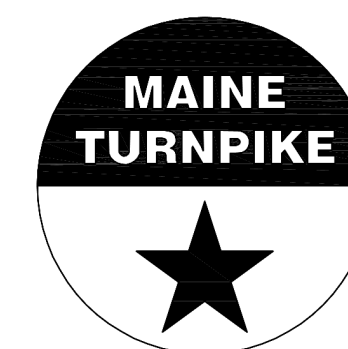
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**THE GOLD STAR
MEMORIAL HIGHWAY**

AEI PROJ.NO.: 20019 CAD FILE:

MTA PROJECT MANAGER:

Brian A. Taddeo, P.E.

**CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
POWER AND SYSTEMS PLAN**

CONTRACT: 2021.06

SHEET NUMBER: EP100

31 OF 32

Lighting and Appliance Panelboard:

Location: BAY 1 101
Supply From: MDP
Mounting: Surface

P1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 42kA
Mains Type: MLO
Bus Rating: 100 A
MCB Rating:

CKT	Circuit Description	Trip Amps	Poles	A (kVA)	B (kVA)	C (kVA)	Poles	Trip Amps	Circuit Description	CKT	
1	Lighting, Switch a	20	1	0.72	0.72			1	20	CORD REELS BAYS 1-2	2
3	Lighting, Switch b	20	1		0.78	0.72		1	20	CORD REELS BAYS 3-4	4
5	Lighting, Switch c	20	1			0.72	0.72	1	20	CORD REELS BAYS 5-6	6
7	EXTERIOR BUILDING LIGHTING	20	1	0.4	0.72			1	20	CORD REELS BAYS 7-8	8
9	EXTERIOR BUILDING LIGHTING	20	1		0.47	0.5		1	20	GENERATOR BATTERY CHARGER	10
11	GENERATOR START	20	1			0.5	1.4	1	20	GEN JACKET WH AND STRIP HEATER	12
13	SPARE	20	1	0	0			1	20	SPARE	14
15	SPARE	20	1		0	0		1	20	SPARE	16
17	SPARE	20	1			0	0	1	20	SPARE	18
19	SPARE	20	1	0	0			1	20	SPARE	20
21	SPARE	20	1		0	0		1	20	SPARE	22
23	SPARE	20	1			0	0	1	20	SPARE	24
25	SPARE	20	1	0	0			1	20	SPARE	26
27	SPARE	20	1		0	0		1	20	SPARE	28
29	SPARE	20	1			0	0	1	20	SPARE	30
31	SPARE	20	1	0	0			1	20	SPARE	32
33	SPARE	20	1		0	0		1	20	SPARE	34
35	SPARE	20	1			0	0	1	20	SPARE	36
37	SPARE	20	1	0	0			1	20	SPARE	38
39	SPARE	20	1		0	0		1	20	SPARE	40
41	SPARE	20	1			0	0	1	20	SPARE	42
Total Load:				2.1 kVA	1.9 kVA	2.8 kVA					
Total Amp:				17 A	16 A	23 A					

Notes:

NEMA 3R ENCLOSURE

Lighting and Appliance Panelboard:

Location: BAY 1 101
Supply From: Surface
Mounting: Surface

MDP

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 42kA
Mains Type: MCB
Bus Rating: 400 A
MCB Rating: 400 A

CKT	Circuit Description	Trip Amps	Poles	A (kVA)	B (kVA)	C (kVA)	Poles	Trip Amps	Circuit Description	CKT	
1	DOOR OPERATOR BAY 1	20	1	1.44	1.44			1	20	DOOR OPERATOR BAY 2	2
3	DOOR OPERATOR BAY 3	20	1		1.44	1.44		1	20	DOOR OPERATOR BAY 4	4
5	DOOR OPERATOR BAY 5	20	1			1.44	1.44	1	20	DOOR OPERATOR BAY 6	6
7	DOOR OPERATOR BAY 7	20	1	1.44	1.44			1	20	DOOR OPERATOR BAY 8	8
9	DESTRAT FANS	15	1		0.48	1.18		1	20	GAS UNIT HEATER 1	10
11	HVAC CONTROL POWER	20	1			0.5	1.18	1	20	GAS UNIT HEATER 2	12
13	TELEPHONE BACKBOARD	20	1	0.36	1.18			1	20	GAS UNIT HEATER 3	14
15	WATER HEATER	20	1		1.68	0.9		1	20	Receptacles	16
17	Receptacles	20	1			0.9	1.08	1	20	Receptacles	18
19	HVAC CONTROL POWER	20	1	0.5	0.9			1	20	Receptacles	20
21	Receptacles	20	1		1.08	1.08		1	20	Receptacles	22
23	SPARE	20	1			0	0	1	20	SPARE	24
25	SPARE	20	1	0	0			1	20	SPARE	26
27	SPARE	20	1		0	0		1	20	SPARE	28
29	SPARE	20	1			0	0	1	20	SPARE	30
31				1.44	0						32
33	EF-1	20	3		1.44	0		3	200	SPARE	34
35						1.44	0				36
37				2.07	4.14						38
39	P1	100	3			1.92	4.14	3	50	AIR COMPRESSOR - AC-1	40
41						2.78	4.14				42
Total Load:				16.2 kVA	16.5 kVA	14.8 kVA					
Total Amp:				136 A	139 A	123 A					

Notes:

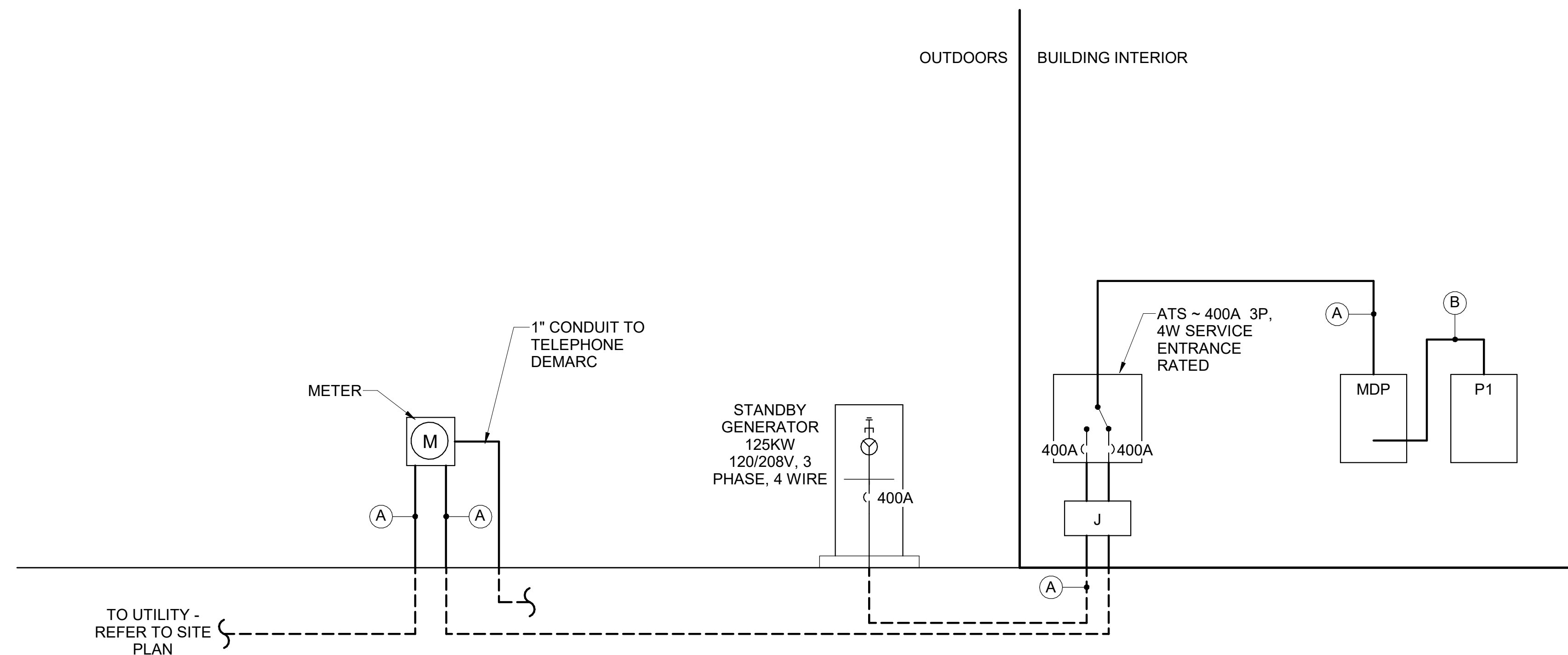
NEMA 3R ENCLOSURE

FEEDER SCHEDULE

TAG	DESCRIPTION	CONDUCTORS (NOTE 1)	CONDUIT (NOTE 2)
(A)	400 AMP PRIMARY/FEEDER	(4) 500KCMIL	4"
(B)	100 AMP SECONDARY/FEEDER	(4) #2, (1) #8 G	1 1/2"

FEEDER SCHEDULE NOTES:

1. WIRING BASED ON COPPER THWN/THHN
2. CONDUIT SIZE BASED ON EMT



A1 POWER RISER DIAGRAM

Scale:			
12" = 1'-0"			
No.	Revision	By	Date

Designed by:

ISSUED FOR BID - NOT FOR CONSTRUCTION

By	Date	By	Date
Designed: CAF	11/22/2021	Checked: CAF	11/22/2021
Drawn: REW	11/22/2021		

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Brian A. Taddeo, P.E.

CONTRACT 2021.06
CROSBY VEHICLE STORAGE GARAGE
POWER RISER DIAGRAM

SHEET NUMBER: EP500

CONTRACT: 2021.06

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