

Addendum #2

This Addendum modifies, amends, and supplements designated parts of the Contract Documents, Specifications and Drawings for:

Westbrook Armory Unheated Storage Bldg. Project, Westbrook, Maine - Project No: 23SR23-402-D, Bid Number #24-002

Directorate of Facilities Engineering

10 July 2023

It shall be the responsibility of the Contractor to notify all Subcontractors and Suppliers for various portions of the work of any changes or modifications contained in this Addendum.

Clarification Items: (Includes answers to questions submitted after the pre-bid conference):

Note: Several firms asked the same question regarding IBC, Thermal Factor, painting. They are answered once each.

1. Q: Can the bid date be moved back two weeks due to difficulty obtaining a bid price from the manufacturer due to the holiday shut down?
A: After careful consideration and consultation with the AE firm and the organization the decision was made to maintain the existing bid date of 13 July 2023.
2. Q: Colors asked for in the PEMB package call for Bronze panels to match the existing building. Please let us know if you require a custom coil color for the panels – this will be extremely expensive for this small of a building – you would be buying an entire coil to get the color desired.
A: No custom color will be required for the project.
3. Q: Drawing S-001 – Building Codes and Standards: The code we are to design to is IBC-21. The State still uses IBC-15 – please clarify.
A: This project is required to follow UFC (Unified Facilities Criteria) which designates IBC-21. There will be no adjustments to IBC-15.
4. Q : Drawing S-001 – Building Codes and Standards-Reference Standards –1. – Gravity Superimposed dead loads calls for a total of 15 PSF. The roof, roofing, metal roof deck are built into the PEMB loads. Mechanical and Sprinkler of 5 and 3 PSF respectively would be called Collateral Load. With the building having no sprinkler, Collateral Load could be 5 PSF.
A: CCE Structural Engineer is okay with the Collateral Load being 5 PSF.
5. Q: Drawing S-001 – Building Codes and Standards. Thermal Factor of 1.0 is not sufficient for an unheated building. This should be 1.2 – please clarify.
A: CCEs structural engineer agrees that the thermal factor should be 1.2 and the final roof snow load will be 41 psf.
6. Q: Drawing S-001 – Building Codes and Standards-Lateral Loads – Wind - these speeds would change if the design code is changed to IBC-15.
A: The IBC-21 code will not be changed to IBC-15. The wind loads will stay as designed.
7. Q; : Drawing S-001 – Building Codes and Standards-Seismic – these figures would change if the design code is changed to IBC-15.
A: The IBC code will not be changed to IBC-15. The Seismic load will stay as designed.
8. Q: Drawing S-002 – Pre-Engineered Metal Building Framing. (7) -Serviceability Criteria. The deflection and drift criteria are currently designed for ceilings with brittle finish. Standard metal roof and wall

deflection criteria are as per the attached (not attached this addendum) PDF file. Please clarify.

A: CCE has updated serviceability requirements for roof deflections to account for ceiling condition.

9. Q: Spec section 133419 – page 10 – G – 4. Bracing - Diaphragm bracing is not possible with PEMB standing-seam roofing or siding. Please clarify.

A: Please see structural drawings for requirements for diaphragm shear capacity. This shall be provided by the use of metal roof deck underneath the standing seam metal roofing. This diaphragm strength is required due to the space limitations at the front of the building. The front of the building cannot fit portal frames so the building's lateral system needs to be designed as a 3-sided box with the roof diaphragm providing the shear strength required to transfer lateral loads to rear and side walls.

10. Q: Spec section 133419 – page 7 H and I for Roof and Wall systems call for Liner Panel. Please provide the gauge thickness desired.

A: Gauge thickness for the roof and wall systems are selected from the PEMB manufacturer based on loads. Interior non-structural liner panels are not required for this project.

11. Q: Is (3) coat fluoropolymer necessary for the roof and wall panels. It's a little excessive and the soffit panels don't specify (3) coat.

A: CCE recommends staying with 3 coats for longevity and durability.

12. Q: There is no footing step indicated on foundation please clarify if there is any needed and where they are located.

A: No footing step is required, at this moment. The detail will remain in the set.

13. Q: Epoxy paint is called out in the finish schedule abbreviations, but not shown in the room finish schedule please clarify.

A: No epoxy painting is required. Exposed steel structure will be factory primed, other steel accessories can be galvanized.

14. Q: Notes 1 & 2 on page A601 conflict with room finish schedule. Please clarify.

A: Concrete bump walls may be bare concrete without treatment. Disregard notes 1 & 2 on finish schedule.

15. Q: Please clarify spec section 101423.16 Room Identification Panel Signage. Is this an allowance? If so, what is the amount? If this is not an allowance, please provide more detail for pricing.

A: The signage requirement will not be required for this building.

16. Q: Please confirm only blocking needed other than on detail 2-page A-602?

A: The blocking shown on A-602 is to provide a fill material to prevent trash from being deposited in the hole created between the jamb framing and the concrete bump wall. Presuming that no other blocking will be necessary, but it is available to use should the contractor need it for shimming or attachment of any wall mounted equipment.

17. Q: Please confirm fire extinguishers are by owner.

A: Owner to provide fire extinguishers as noted on LS-001 in the legend.

18. Q: Section 2.4.F.2.a of division 133419 notes 10" deep girts, would you accept an alternative of 8", 9.5" or 12" deep girts? Depth of girts will be determined by design requirements.

A: Response: 10" girts are required to coordinate with the bump walls. Spacing and gauge of the girts shall be adjusted based on the design requirements.

19. Q: 2.7.B of division 133419 notes soffit panel to match profile of wall panel. Section 2.7.C defines a flat soffit panel. Is it acceptable if the soffit panel and wall panel match but are not flat profile?

A: Yes, this is acceptable.

20. Q: Is it acceptable for the framed opening trim to be provided as 26 gage in lieu of 22 gage?
A: Yes, however, installation must be done with care to prevent denting or blemishes.
21. Q: Superimposed dead load of 15 PSF is defined on drawing S-001. The 15 PSF noted consists of 5 PSF for non ballast roofing and another 2 PSF is defined for metal roof deck due to a metal roof being specified the 5 PSF will not apply to the structure therefore, will a dead load of 10 PSF will be acceptable?
A: Yes
22. Q: Does either endwall need to be designed for a future expansion?
A: No, they do not need to be designed for future expansion.
23. Q: Is it acceptable for all roof and wall liner panels to be supplied as 28 gage, polar white SP finish?
A: The gauge of the roof and wall panels are determined by the PEMB manufacturer. The finish of the roof panels is supposed to match the existing building in a bronze color, color to be confirmed by the owner from the manufacturer's standard color palette. Wall panels are to be gray to match armory building as indicated. All color selections to be made by the Owner from the manufacturer's standard color palette. No interior non-structural liner panel is required for this project.
24. Q: The current industry standard to fabricate and receive a pre-engineered metal building is 6 months from submittal approvals. The Notice to Contractors stated the project must be substantially complete on or before 29 February 2024. Please consider extending the substantial completion date to 30 June 2024 to allow time for completion within the contracted time.
A: The substantial completion date has been moved to April 30, 2024.

Specification Items:

1. SECTION 10 14 23.16 ROOM-IDENTIFICATION PANEL SIGNAGE. **Delete** in its entirety.

Drawing Items:

1. **Remove** existing Sheets S-001, Structural General Notes & Abbreviations and S-002, Structural Notes and **Insert** revised Sheets S-001, Structural General Notes & Abbreviations and S-002, Structural Notes.
2. Sheet A-601, Architectural Sections. **Delete** Notes 1 and 2 for the room finish schedule.

- Attachments:**
1. Sheet S-001, Structural General Notes & Abbreviations
 2. Sheet S-002, Structural Notes

GENERAL NOTES:

- THE NOTES ON THESE DRAWINGS ARE NOT INTENDED TO REPLACE SPECIFICATIONS. SEE SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO GENERAL NOTES. INCONSISTENCIES BETWEEN THESE DRAWINGS AND THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER/GOVERNMENT PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, & SITE DRAWINGS. CONSULT THESE DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
- ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER/GOVERNMENT BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
- THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE ONLY AFTER THE STRUCTURAL WORK CONTAINED IN THE PEMB DRAWINGS HAS BEEN COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
- SECTIONS AND DETAILS SHOWN ON ANY STRUCTURAL DRAWINGS SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS UNLESS NOTED OTHERWISE.
- THE CONTRACTOR MUST SUBMIT COMPLETE SHOP DRAWINGS FOR ALL PARTS OF THE WORK, INCLUDING DESCRIPTION OF SHORING, AND CONSTRUCTION METHODS AND SEQUENCING WHERE APPLICABLE. NO PERFORMANCE OF THE WORK, SHALL COMMENCE WITHOUT REVIEW AND APPROVAL OF THE SHOP DRAWINGS BY THE ENGINEER/GOVERNMENT. THE CONTRACTOR MUST INDICATE ON THE SHOP DRAWINGS WHICH PORTIONS OF THE WORK ARE TO BE PERFORMED OFF SITE AND WHICH PORTIONS WILL BE PERFORMED AT THE SITE.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND CONTRACTING WITH ALL STATE, LOCAL, AND UTILITY ENTITIES AS NECESSARY TO EXECUTE THE CONTRACT DOCUMENTS. UTILITIES AND SERVICES AFFECTED BY THE WORK INCLUDE, BUT ARE NOT LIMITED TO WATER, ELECTRICAL, SANITARY SEWER, FIRE PROTECTION, AND GAS. ALL THIRD PARTY TESTING AGENCIES MUST BE FIRST-TIER SUBCONTRACTORS TO THE CONTRACTOR, AND THE CONTRACTOR MUST PROVIDE COPIES OF ALL TEST REPORTS TO THE SPECIFIED AGENCIES AND THE OWNER. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND COORDINATING INSPECTION AND ACCEPTANCE TESTS WITH AUTHORITY HAVING JURISDICTION.
- APPLICABLE FEDERAL REGULATIONS MUST BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION.

ABBREVIATIONS

@	AT
&	AND
AFF	ABOVE FINISH FLOOR
BLDG	BUILDING
BRG	BEARING
BSMT.	BASEMENT
B.O.F.	BOTTOM OF FOOTING
C.J.	CONTROL JOINT
COMP.	COMPOSITE
CONC.	CONCRETE
CONN.	CONNECTION
CONN.	CONTINUOUS
COORD.	COORDINATE
CUYD	CUBIC YARD
DEMO.	DEMOLITION
Ø, DIA	DIAMETER
DWG	DRAWING
DWGS	DRAWINGS
EL	ELEVATION
ELEC.	ELECTRIC
ELEV.	ELEVATION
EMBED.	EMBEDMENT
E.O.R.	ENGINEER OF RECORD
EQUIP.	EQUIPMENT
EXIST.	EXISTING
EXT.	EXTERIOR
EW	EACH WAY
FF	FINISH FLOOR
FIN.	FINISH
FNDN.	FOUNDATION
FTG.	FOOTING
GALV.	HOT DIPPED GALVANIZED
IN.	INCHES
MAX.	MAXIMUM
MECH.	MECHANICAL
MIL.	MILLIMETER
MIN.	MINIMUM
N/A	NOT APPLICABLE
N.S.	NEAR SIDE
NTS.	NOT TO SCALE
OPNG.	OPENING
O.S.H.A.	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
P.A.F.	POWDER ACTUATED FASTENER
PEMB.	PRE-ENGINEERED METAL BUILDING
PROJ.	PROJECTION (ANCHOR PROJECTION)
PROP.	PROPOSED
PVC.	POLYVINYL CHLORIDE
RCP.	REFLECTED CEILING PLAN
REBAR.	REINFORCING BARS PER ASTM 615 GRADE 60
REINF.	REINFORCING
SCHED.	SCHEDULE
STIFF.	STIFFENER
STL.	STEEL
SQ.	SQUARE
TBD.	TO BE DETERMINED
THK.	THICK
T.O.	TOP OF
T.O.C.	TOP OF CONCRETE
TOS.	TOP OF STEEL
TYP.	TYPICAL
UNO.	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
VIF.	VERIFY IN FIELD
W/.	WITH
XPS.	EXTRUDED POLYSTYRENE

BUILDING CODES AND STANDARDS:

- THE FOLLOWING CODES AND STANDARDS, INCLUDING ALL SPECIFICATIONS REFERENCED WITHIN, MUST APPLY TO THE DESIGN, CONSTRUCTION AND QUALITY CONTROL OF ALL WORK PERFORMED ON THE PROJECT.
 - "INTERNATIONAL BUILDING CODE – 2021" INTERNATIONAL CODE COUNCIL, INC.
 - "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES", (ANSI/ASCE 7) AMERICAN SOCIETY OF CIVIL ENGINEERS.
- ADDITIONAL DESIGN STANDARDS FOR MATERIALS MUST BE FOUND IN THE APPROPRIATE SECTIONS THAT FOLLOW. SEE THOSE SECTIONS FOR THE APPLICABLE CODES.

REFERENCED STANDARDS:

IBC 2021, ASCE/SEI 7-16, ACI 318-19, AISC 325-11, AISC 360-16 AISC DESIGN GUIDE 11 (2ND EDITION), AISC DESIGN GUIDE 7 (2ND EDITION), AWS D1.1: 2015.

- GRAVITY – SUPERIMPOSED DEAD LOADS
 - ROOF (TYPICAL)

ROOFING (NO BALLAST)	
METAL ROOF DECK	5 PSF
MECHANICAL/ELECTRICAL	
SPRINKLERS	
TOTAL	5 PSF
 - FLOOR LIVE LOADS
 - STORAGE 250 PSF
- GRAVITY – ROOF LIVE LOADS
 - TYPICAL LIVE LOAD 20 PSF (NOT REDUCIBLE)
 - SNOW LOAD (PLUS DRIFTING WHERE APPLICABLE)
 - GROUND SNOW LOAD (Pg) 60 PSF
 - SNOW EXPOSURE FACTOR (Ce) 1.0
 - SNOW LOAD IMPORTANCE FACTOR (Is) 0.8
 - THERMAL FACTOR (Ct) 1.2
 - FLAT ROOF SNOW LOAD (Pf) 41 PSF
- LATERAL LOADS – WIND
 - ULTIMATE DESIGN WIND SPEED (3 SEC. GUST) 107 MPH
 - NOMINAL WIND SPEED 84 MPH
 - RISK CATEGORY II
 - BUILDING EXPOSURE CATEGORY EXPOSURE C
- INTERNAL PRESSURE COEFFICIENT ±0.18 (ENCLOSED)
- MWFRS BASE PRESSURE 20.9 PSF
- COMPONENTS AND CLADDING SURFACE PRESSURES (10 SF EFFECTIVE WIND AREA): SEE "ROOF ZONE KEY PLAN" FOR EXTENTS

3.1 ROOF ZONE 1	+16.0 PSF / -18.9 PSF
3.2 ROOF ZONE 2	+16.0 PSF / -32.8 PSF
3.3 ROOF ZONE 3	+16.0 PSF / -48.5 PSF
3.4 WALL ZONE 4	+18.0 PSF / -19.6 PSF
3.5 WALL ZONE 5	+18.0 PSF / -23.5 PSF
3.6 "a" DIMENSION	3.4 FEET
- LATERAL LOADS – SEISMIC
 - SEISMIC IMPORTANCE FACTOR (Ie) 1.0
 - RISK CATEGORY I
 - SPECTRAL RESPONSE ACCELERATION FOR SHORT PERIOD (Ss) 0.247g
 - SPECTRAL RESPONSE ACCELERATION FOR 1-SECOND PERIOD (S1) 0.079g
 - SPECTRAL RESPONSE COEFFICIENT (SDS) 0.412g
 - SPECTRAL RESPONSE COEFFICIENT (SD1) 0.185g
 - SITE CLASS E
 - SEISMIC DESIGN CATEGORY C
- THE STRUCTURE SHALL BE DESIGNED FOR THE DEAD, LIVE AND LATERAL LOADS INDICATED ABOVE. ANY INCREASE OF LOADS DUE TO CHANGE IN USAGE OR CONSTRUCTION MATERIALS, ETC. MUST HAVE THE WRITTEN APPROVAL OF THE ENGINEER. THE CONTRACTOR IS CAUTIONED AS TO NOT STORE ANY CONSTRUCTION MATERIALS OR UNDERTAKE ANY CONSTRUCTION OPERATIONS WHICH WILL EXCEED THE DESIGN LIVE LOAD CAPACITIES NOTED.
- WEIGHT OF EQUIPMENT SHOWN ON THE STRUCTURAL DRAWINGS MUST BE CONSIDERED IN THE FRAMING DESIGN. ANY ADDITIONAL EQUIPMENT NOT SHOWN ON THE STRUCTURAL DRAWINGS AND EXCEEDING 300 POUNDS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION FOR APPROVAL PRIOR TO INSTALLATION. COORDINATE ALL WORK WITH ARCHITECTURAL AND MEP DRAWINGS.

CONCRETE NOTES:

- CONCRETE WORK SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318)," AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301)." GENERAL CONTRACTOR & CONSTRUCTION MANAGER SHALL HAVE AVAILABLE ON SITE AT ALL TIMES A COPY OF ACI "FIELD REFERENCE MANUAL SP-15".
- PORTLAND CEMENT SHALL CONFORM TO ASTM C150 TYPE I OR II. AGGREGATES SHALL CONFORM TO ASTM C33 CLASS 3S.
- READY-MIX CONCRETE SHALL COMPLY WITH THE REQUIREMENTS OF ASTM C94, AND AS SPECIFIED HEREIN. PROVIDE BATCH TICKET FOR EACH BATCH DISCHARGED AND USED IN WORK, INDICATING PROJECT NAME, MIX TYPE, MIX TIME, BATCH QUANTITY, AND PROPORTIONS OF INGREDIENTS. JOB-SITE MIXING WILL NOT BE PERMITTED.
- REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS AND SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI 315, LATEST EDITION. WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED.
- WELDED WIRE FABRIC (WWF) MAY NOT BE USED ON THIS PROJECT FOR THE PURPOSES OF CONCRETE REINFORCING.
- CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN SUBGRADE. CONCRETE MUST BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS EXCEPT WHERE SHOWN OR NOTED.
- EXPOSED CONCRETE SHALL HAVE A SMOOTH FORM FINISH AS DEFINED BY THE CURRENT EDITION OF ACI-301.
- COMPLETE SHOP DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER/GOVERNMENT FOR REVIEW. PROVIDE NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY IN POSITION.
- CONTRACTOR SHALL RETAIN A QUALIFIED TESTING AND INSPECTION AGENCY FOR THE PURPOSES OF VERIFYING CONCRETE MIX DESIGN, PLACEMENT PRACTICES, REBAR PLACEMENT AND FIELD QUALITY CONTROL. ALL TESTING AND INSPECTIONS SHALL BE IN ACCORDANCE WITH ACI 301. THE AGENCY SELECTED SHALL BE APPROVED BY THE GOVERNMENT PRIOR TO RETAINING THE AGENCY. ALL TESTING AND INSPECTION REPORTS SHALL BE FORWARDED TO THE GOVERNMENT AND ENGINEER FOR REVIEW.
- CONCRETE MIX DESIGN:**
 - STRENGTH:
 - f'c=5000 PSI @ INTERIOR SLABS EXPOSED TO EQUIPMENT TRAFFIC
 - f'c=4500 PSI @ FOOTINGS, FOUNDATION WALLS
 - AGGREGATE: SEE SPECIFICATIONS
 - W/C RATIO: SEE SPECIFICATIONS
 - AIR CONTENT: 3% MAX. ENTRAPPED @ INTERIOR SLABS
5.5%±1.5% ENTRAINED @ CONCRETE EXPOSED TO FREEZE/THAW CYCLES
 - SLUMP: SEE SPECIFICATIONS
 - ADD AIR ENTRAINING ADMIXTURE AT MANUFACTURER'S PRESCRIBED RATIO TO RESULT IN CONCRETE AT POINT OF PLACEMENT HAVING THE ABOVE NOTED AIR CONTENTS.
 - ADDITIONAL SLUMP MAY BE ACHIEVED BY THE ADDITION OF A MIDRANGE OR HIGH RANGE WATER REDUCING ADMIXTURE. MAXIMUM SLUMP AFTER ADDITION OF ADMIXTURE MUST BE 8 INCHES.
 - MIX ADJUSTMENTS MAY BE REQUESTED BY THE CONTRACTOR, WHEN CHARACTERISTICS OF THE MATERIALS, JOB CONDITIONS, WEATHER OR OTHER CIRCUMSTANCES WARRANT, AT NO ADDITIONAL COST AND AS ACCEPTED BY THE OWNER. LABORATORY TEST DATA FOR THE REVISED MIX DESIGN AND STRENGTH DATA MUST BE SUBMITTED AND ACCEPTED BY THE ENGINEER BEFORE USING IN WORK.
 - WATER MAY BE ADDED AT THE PROJECT SITE ONLY IF THE MAXIMUM SPECIFIED WATER-CEMENT RATIO AND SLUMP ARE NOT EXCEEDED. CONTRACTOR MUST HAVE BATCH TICKET INDICATING WATER AND CEMENT MIXED IN THE PLANT, AND MUST RECORD THE WATER ADDED AS EVIDENCE THAT THE WATER-CEMENT RATIO HAS NOT BEEN EXCEEDED.
 - ADDITIONAL DOSES OF SUPER PLASTICIZER SHOULD BE USED WHEN DELAYS OCCUR AND REQUIRED SLUMP HAS NOT BEEN MAINTAINED. A MAXIMUM OF TWO ADDITIONAL DOSAGES ARE PERMITTED PER ACI 212.3R RECOMMENDATIONS.

REBAR LAP SPLICE TABLE			
f'c = 4500psi			
BAR SIZE	TENSION ANCHORAGE	TENSION LAP SPLICE	STANDARD HOOK DEVELOPMENT
#3	14"	24"	7"
#4	18"	32"	9"
#5	23"	39"	12"
#6	27"	46"	14"
#7	40"	67"	16"
#8	45"	77"	18"

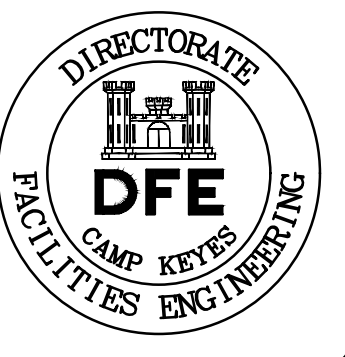
REBAR LAP SPLICE TABLE			
f'c = 5000psi			
BAR SIZE	TENSION ANCHORAGE	TENSION LAP SPLICE	STANDARD HOOK DEVELOPMENT
#3	13"	22"	7"
#4	17"	29"	9"
#5	22"	38"	12"
#6	26"	44"	14"
#7	38"	65"	16"
#8	43"	73"	18"

NOTES:

- REINFORCEMENT MUST BE ACCURATELY PLACED AND ADEQUATELY SUPPORTED BEFORE CONCRETE IS CAST, AND MUST BE SECURED AGAINST DISPLACEMENT WITHIN TOLERANCES AS REQUIRED BY ACI-315.
- THE LAP SPLICE REQUIREMENTS MUST BE SHOWN ON THE REINFORCING SHOP DRAWINGS SUBMITTED FOR APPROVAL.

FOUNDATION NOTES:

- FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT ENTITLED "GEOTECHNICAL ENGINEERING EVALUATION" BY R.W. GILLESPIE & ASSOCIATES INC. RWG&A PROJECT NUMBER 1564-030 DATED JANUARY 05, 2022.
- FOUNDATIONS ARE DESIGNED TO BEAR ON UNDERCUT AND REPLACED FILL MATERIAL CONSISTING OF SELECT GRANULAR FILL WITH ALLOWABLE BEARING CAPACITY OF 2,000 PSF. ACTUAL BEARING CAPACITY MUST BE VERIFIED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF REINFORCEMENT. ADJUST THE FOOTING ELEVATION AND/OR SIZE AS DIRECTED BY THE ENGINEER. IF SUITABLE BEARING CAPACITY IS NOT FOUND AT THE ELEVATIONS INDICATED, NO CONCRETE FOUNDATIONS MUST BE PLACED UNTIL THE SUBGRADE HAS BEEN APPROVED BY THE OWNER'S GEOTECHNICAL ENGINEER.
- CONTRACTOR IS RESPONSIBLE FOR ADEQUATE PROTECTION OF ALL EXCAVATION SLOPES. WHERE NECESSARY, SHEETING AND SHORING OF EXCAVATIONS (DESIGNED BY PROFESSIONAL ENGINEER HIRED BY CONTRACTOR) MUST BE PROVIDED WITH ALL TIE-BACKS AND BRACING.
- PLACE SELECT GRANULAR FILL PER GEOTECHNICAL REPORT AND SPECIFICATION 312000 EARTHWORK.
- USE ONLY HAND OPERATED WALK BEHIND VIBRATORY COMPACTION EQUIPMENT WITHIN 6' OF FOUNDATIONS AND WALLS TO PROTECT FROM DAMAGE. SEE GEOTECHNICAL REPORT AND SPECIFICATION 312000 EARTHWORK.
- ALL SUBGRADE PREPARATION AND FILL PLACEMENT MUST BE CONDUCTED UNDER THE OBSERVATION AND INSPECTION OF THE OWNER'S GEOTECHNICAL ENGINEER. FIELD DENSITY TESTING MUST BE PERFORMED BY THE GEOTECHNICAL ENGINEER AS REQUIRED TO ASSURE THE QUALITY OF THE FILL.
- PREPARE SUBGRADE TO SLOPE AWAY FROM ALL BUILDINGS (2% MINIMUM) AND PROTECT FROM FREEZING.
- DEWATER EXCAVATIONS AND PROTECT AS REQUIRED TO MAINTAIN REQUIRED SOIL BEARING CAPACITY. ALL SOILS THAT HAVE INSUFFICIENT BEARING CAPACITY DUE TO EXCESSIVE MOISTURE MUST BE REMOVED AND REPLACED WITH PROPERLY COMPACTED ENGINEERED FILL.
- PROTECT ADJACENT STRUCTURES AND FOUNDATIONS FROM DAMAGE DURING CONSTRUCTION OF NEW FOUNDATIONS.
- EXTEND BOTTOM OF EXTERIOR FOOTINGS AT LEAST 4.0 FEET BELOW THE FINAL EXTERIOR GRADE FOR PROTECTION AGAINST FROST, UNO. OVEREXCAVATE TO SUITABLE BEARING MATERIAL AND BRING SUBGRADE TO DESIRED ELEVATION USING COMPACTED LIFTS OF STRUCTURAL FILL.
- SOILS EXPOSED AT THE BASE OF ALL SATISFACTORY FOUNDATION EXCAVATIONS SHOULD BE PROTECTED AGAINST ANY DETRIMENTAL CHANGE IN CONDITION, SUCH AS DISTURBANCE FROM RAIN OR FROST. SURFACE RUNOFF SHOULD BE DRAINED AWAY FROM THE EXCAVATIONS AND NOT BE ALLOWED TO POND. FOUNDATION EXCAVATIONS SHOULD BE ADEQUATELY PROTECTED FROM RAINFALL OR FREEZING CONDITIONS. GROUNDWATER SHOULD BE ANTICIPATED FOR EXCAVATIONS AND APPROPRIATE DEWATERING MEASURES MUST BE EMPLOYED.
- BACKFILL WITHIN 5 FEET HORIZONTALLY OF STRUCTURES SHOULD CONSIST OF NON-FROST SUSCEPTIBLE MATERIALS, WITH FINES CONTENT LESS THAN 5 PERCENT.
- SLOPE FOOTING EXCAVATIONS AS REQUIRED FOR STABILITY AND SAFETY OR PROVIDE SHEETING OR SHORING IN ACCORDANCE WITH OSHA REQUIREMENTS.
- ALL FILL SHALL BE COMPACTED TO 95% OF THE MATERIAL'S DRY DENSITY.
- EXISTING SOILS AT BOTTOM OF EXCAVATIONS SHALL BE LEFT UNDISTURBED AND COMPACTED WITH A 3-TON PLATE COMPACTOR PRIOR TO PLACING GRANULAR STRUCTURAL FILL SUB-BASE AS APPROVED IN THE GEOTECHNICAL NOTES ON S-002.



PLAN REVISIONS			
Rev#	Description	Date	Appr.
0	ISSUED FOR BIDDING	06/13/23	

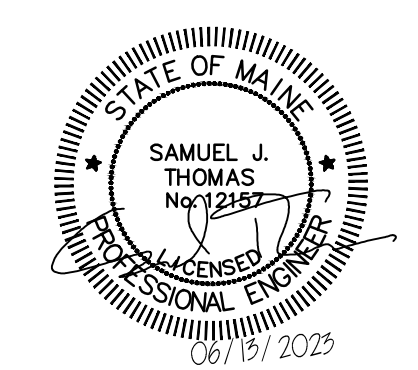
DESIGNED BY: PRD	DRWN BY: CRD
CHECKED BY: SUT	DATE: 06/13/23
SCALE: AS NOTED	DPE PROJECT NO: 23SR23-402

STATE OF MAINE
DEPARTMENT OF DEFENSE, VETERANS AND EMERGENCY MANAGEMENT
COLBY COMPANY ENGINEERING
CCE JOB #144,057,004
474 YORK STREET
PORTLAND, MAINE
207.553.7753

WESTBROOK ARMORY
WESTBROOK, MAINE
UNHEATED STORAGE FACILITY
STRUCTURAL GENERAL NOTES & ABBREVIATIONS

PLAN PROGRESS	
<input type="checkbox"/>	DRAFT
<input type="checkbox"/>	35% REVIEW
<input type="checkbox"/>	50% REVIEW
<input type="checkbox"/>	95% REVIEW
<input type="checkbox"/>	FINAL REVIEW
<input checked="" type="checkbox"/>	FOR BIDDING
<input type="checkbox"/>	ISSUED FOR CONSTRUCTION
<input type="checkbox"/>	RECORD DRAWINGS

SHEET ID:
S-001
SHEET: 11 of 29



PLEASE NOTE: THESE DRAWINGS HAVE BEEN PREPARED AS PART OF A DESIGN/BUILD CONTRACT DELIVERY METHOD. THE DRAWINGS REPRESENT A CODE COMPLIANT SCOPE AND LEVEL OF FINISH THAT IS DESIRED/REQUIRED BY THE STATE OF MAINE DEPARTMENT OF DEFENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF DETAILS BETWEEN TRADES AND WITHIN SPECIFIC TRADES. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER USING THE PROJECT RFI PROCESS TO CLARIFY ANY ISSUES PRIOR TO PROCUREMENT OF MATERIALS AND/OR SERVICES

PRE-ENGINEERED METAL BUILDING FRAMING

1. DESIGN STANDARDS
 - a. "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", AISC 360.
 - b. "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS", AISI-NAS.
 - c. "LOW RISE BUILDING SYSTEMS MANUAL", MBMA.
2. MATERIALS
 - a. WIDE FLANGE SHAPES ASTM A992
 - b. CHANNELS ASTM A572, GRADE 50
 - c. PLATES AND OTHER SHAPES ASTM A572, GRADE 50
 - d. SQUARE & RECTANGULAR TUBING ASTM A500, GRADE C, Fy=50
 - e. ROUND PIPES AND TUBING ASTM A53, GRADE B
 - f. ANCHOR RODS ASTM F1554, GRADE 36
 - g. HEADED STUDS ASTM A108
3. FIELD CONNECTIONS SHALL BE BOLTED USING ASTM A325 OR A490 HIGH STRENGTH BOLTS, UNLESS NOTED OTHERWISE.
4. U.N.O. BOLTS ARE FULLY TENSIONED. BOLT HOLES MUST BE STANDARD SIZES UNLESS OTHERWISE APPROVED BY THE ENGINEER OR RECORD.
5. ALL STEEL EXPOSED TO ATMOSPHERE AND IN DIRECT CONTACT WITH HORIZONTAL CONCRETE SURFACES (EXCLUDING PEMB FRAME BASEPLATES) MUST BE HOT DIPPED GALVANIZED ACCORDING TO ASTM 123 AND ASTM 153.
6. GENERAL
 - a. THE PRE-ENGINEERED METAL BUILDING SYSTEM MUST BE DESIGNED, FABRICATED AND ERECTED BY THE CONTRACTOR AND THEIR METAL BUILDING SYSTEMS SUPPLIER. BUILDING FRAMES MUST MEET THE PROFILE AND DIMENSIONS INDICATED ON THE STRUCTURAL AND ARCHITECTURAL DRAWINGS AND MUST BE SIZED TO SUPPORT THE DESIGN LOADING REQUIREMENTS LISTED IN THESE STRUCTURAL NOTES INCLUDING ALL ROOF SUPPORTED MECHANICAL EQUIPMENT.
 - b. ALL COLUMNS MUST BE DESIGNED AS HAVING "PINNED" BASES.
 - c. THE CONTRACTOR MUST SUBMIT DESIGN CALCULATIONS AND SHOP DRAWINGS WHICH INCLUDE AN ANCHOR ROD SETTING PLAN AND FRAME REACTION DIAGRAMS SIGNED AND SEALED BY A LICENSED STRUCTURAL ENGINEER LICENSED IN THE PROJECT'S JURISDICTION FOR ALL METAL BUILDING COMPONENTS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR THEIR REVIEW PRIOR TO MANUFACTURE.
 - d. METAL BUILDING SYSTEMS FRAME AND MEMBER DEFLECTION REQUIREMENTS MUST COMPLY WITH THE APPLICABLE PROVISIONS OF THE AISC STEEL DESIGN GUIDE SERIES 3 - "SERVICEABILITY DESIGN CONSIDERATIONS FOR LOW-RISE BUILDINGS", UNLESS OTHERWISE NOTED ON DRAWINGS OR IN SPECIFICATIONS.
 - e. ANCHOR RODS MUST BE PROVIDED AND INSTALLED BY THE CONTRACTOR CONFORMING TO THE ANCHOR ROD SETTING PLAN PREPARED BY THE METAL BUILDING SYSTEMS MANUFACTURER. ANCHOR RODS MUST HAVE THE FOLLOWING MINIMUM EMBEDMENT:

3/4" DIAMETER	18"
1" DIAMETER	24"

 UNLESS NOTED OTHERWISE IN CONTRACT DOCUMENTS.
 - f. THE CONTRACTOR MUST SUBMIT METAL BUILDING FRAME REACTIONS FOR REVIEW BY THE STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER WILL THEN VERIFY ALL PIER AND FOOTING SIZE REQUIREMENTS WITH THE INFORMATION SHOWN ON THE DRAWINGS FOR BIDDING AND MAKE ALL NECESSARY ADJUSTMENTS TO THE FOUNDATION DESIGN. FOUNDATION SHOP DRAWINGS WILL NOT BE REVIEWED AND NO FOUNDATIONS ARE TO BE PLACED PRIOR TO THE ENGINEER'S REVIEW OF THE FINAL COLUMN REACTIONS FROM THE METAL BUILDING SUPPLIER.
 - g. FOUNDATION CONTRACTOR MUST VERIFY COLUMN BASE LOCATIONS AND SIZES WITH FINAL METAL BUILDING SHOP DRAWINGS PRIOR TO PLACING FOUNDATIONS.
 - h. ALL ADDITIONAL MEMBERS SHOWN THAT ARE CONNECTED TO THE PRE-FABRICATED METAL BUILDING SYSTEM MUST BE SUPPLIED BY THE METAL BUILDING CONTRACTOR WHO MUST COORDINATE ALL CONNECTIONS AND LOADS. THIS SHALL INCLUDE ALL REQUIRED SUPPORT MEMBERS FOR ARCHITECTURAL AND MECHANICAL EQUIPMENT. SUPPORTS MUST BE COORDINATED WITH CCE PRIOR TO FABRICATION.
 - i. SUBMIT COMPLETE SHOP AND ERECTION DRAWINGS FOR REVIEW PRIOR TO FABRICATION.
 - j. ALL BUILDING ELEMENTS INCLUDING BUT NOT LIMITED TO STRUCTURE AND BUILDING ENVELOPE FROM THE BOTTOM OF BASEPLATES UP TO BE DESIGNED AND COORDINATED BY THE PEMB SUPPLIER UNLESS NOTED OTHERWISE. REFER TO SPECIFICATION 133419.
7. SERVICEABILITY CRITERIA:
 - a. ROOF DEFLECTION:

DUE TO SNOW, LIVE, WIND	L/180
DUE TO (DEAD + LIVE)	L/120
 - b. BUILDING HORIZONTAL DRIFT:

H/400 WIND DRIFT	
0.020hsx SEISMIC STORY DRIFT	
8. LATERAL SYSTEM SHALL BE DESIGNED WITHOUT THE USE OF PORTAL FRAMES AT THE FRONT OF THE BUILDING AS THERE IS NOT ENOUGH ROOM TO PROVIDE ADDITIONAL COLUMN AND BEAM MEMBERS WITH THE ARCHITECTURAL AND EQUIPMENT REQUIREMENTS. BRACING ON THREE OTHER WALLS, FRAMES, AND ROOF DIAPHRAGMS SHALL BE DESIGNED TO RESIST THE FORCES ON THE BUILDING IN A SUFFICIENT MANNER AS TO NOT INTERFERE WITH THE FUNCTIONALITY OF THE BUILDING/BUILDING SYSTEMS.

GEOTECHNICAL NOTES:

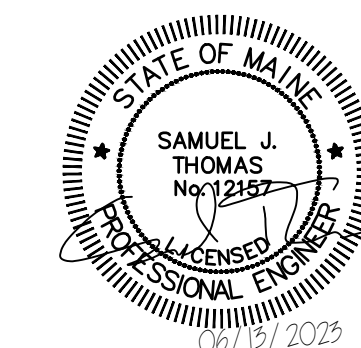
1. EXCAVATIONS ADJACENT TO EXISTING UTILITIES AND BUILDINGS TO REMAIN SHOULD BE DESIGNED TO LIMIT MOVEMENTS OF THE EXISTING STRUCTURE TO TOLERABLE AMOUNTS AS DETERMINED BY THE STRUCTURAL AND CIVIL ENGINEER. THE CONTRACTOR'S EXCAVATION PROCEDURES AND LATERAL SUPPORT DESIGN, INCLUDING LATERAL SUPPORT FOR NEW CONSTRUCTION, SHOULD BE SUBMITTED FOR REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER BEFORE CONSTRUCTION.
2. IT IS ANTICIPATED THAT OBSTRUCTIONS MAY INCLUDE, BUT NOT LIMITED TO, PIPES, CONCRETE FOOTINGS, MASONRY BLOCK, RUBBLE, DRY WELLS, AND BURIED UTILITIES. WHERE SUCH ITEMS ARE ENCOUNTERED BENEATH THE PROPOSED BUILDING LIMITS, THEY SHOULD BE EXCAVATED TO THEIR FULL EXTENT, REMOVED, AND REPLACED WITH COMPACTED STRUCTURAL FILL. THE ENDS OF UNDERGROUND PIPES AND UTILITY CONDUITS OUTSIDE THE PROPOSED BUILDING FOOTPRINT THAT WILL BE ABANDONED IN PLACE SHOULD BE FILLED WITH CONCRETE AND CAPPED TO PREVENT EROSION OF MATERIAL INTO THE CONDUIT OR PIPE.
3. DEPENDING ON THE DEPTHS OF EXCAVATIONS AND SEASON, DEWATERING MIGHT BE NEEDED. IT SHOULD BE PRACTICAL TO DEWATER EXCAVATIONS EXTENDING TO 1 FOOT BELOW GROUNDWATER LEVEL ENCOUNTERED AT THE TIME OF CONSTRUCTION BY OPEN PUMPING METHODS. GROUNDWATER SHOULD BE CONTROLLED SO EXCAVATION, FILLING, AND FOUNDATION CONSTRUCTION CAN BE COMPLETED IN-THE-DRY.
4. STRUCTURAL FILL MUST BE USED BELOW FOUNDATIONS, AS GROUND FLOOR SLAB BASE MATERIALS AND AS BACKFILL WITHIN 2 FEET OF FOOTINGS, PIERS AND FOUNDATION WALLS. STRUCTURAL FILL SHOULD BE A WELL GRADED SAND AND GRAVEL MIXTURE FREE OF ROOTS, TOPSOIL, LOAM, ORGANIC MATERIAL AND ANY OTHER DELETERIOUS MATERIALS, AS WELL AS CLODS OF SILT OR CLAY AND MEET THE FOLLOWING GRADATION REQUIREMENTS:

SCREEN OR SIEVE SIZE	PERCENT PASSING
6 INCHES	100
3 INCHES	70 - 100
NO. 4	35 - 70
NO. 40	5 - 35
NO. 200	0 - 5

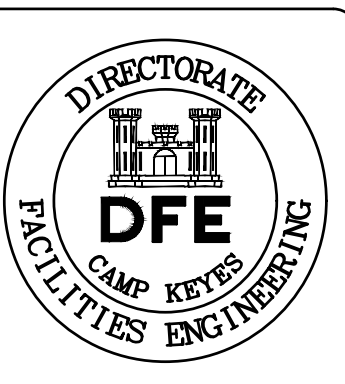
NOTE: MAXIMUM PARTICLE SIZE SHOULD BE LIMITED TO 3 INCHES WITHIN 2 FEET OF FOUNDATION WALLS, FOOTINGS AND FLOOR SLABS.

5. IN OPEN AREAS, STRUCTURAL FILL SHOULD BE PLACED IN LEVEL, UNIFORM LIFTS NOT EXCEEDING 9 INCHES IN UNCOMPACTED THICKNESS. IN CONFINED AREAS, WITHIN 4 FEET OF FOUNDATION WALLS AND AREAS WHERE SELF-PROPELLED COMPACTION EQUIPMENT SHOULD NOT BE USED BASED ON VIBRATION CONSIDERATIONS, STRUCTURAL FILL SHOULD BE PLACED IN LIFTS NOT EXCEEDING 6 INCHES IN UNCOMPACTED THICKNESS AND BE COMPACTED WITH HAND-OPERATED COMPACTION EQUIPMENT. ALL FILL PLACED FOR FOOTING AND SLAB SUPPORT SHOULD BE STRUCTURAL FILL COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DRY DENSITY, AS DETERMINED BY ASTM STANDARD D1557 "TEST METHOD FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING MODIFIED EFFORT" (56,000 FT-LB/FT³ (2,700 kN-m/m³)).
6. CRUSHED STONE WRAPPED IN GEOTEXTILE MAY BE USED AS A SUBSTITUTE FOR STRUCTURAL FILL. CRUSHED STONE SHOULD EITHER MEET THE REQUIREMENTS OF STATE OF MAINE DEPARTMENT OF TRANSPORTATION (MAINEDOT) STANDARD SPECIFICATIONS NOVEMBER 2014 EDITION SECTION 703 - AGGREGATES, 703.13 CRUSHED STONE 3/4-INCH OR 703.31 CRUSHED STONE. PARTICLE-SIZE DISTRIBUTION OF CRUSHED STONE SHALL BE TESTED FOR COMPLIANCE WITH MAINEDOT REQUIREMENTS BY ASTM DESIGNATION: C 136 STANDARD TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATE. BULK DENSITY OF CRUSHED STONE SHALL BE TESTED BY ASTM DESIGNATION: C 29/C 29M STANDARD TEST METHOD FOR BULK DENSITY ("UNIT WEIGHT") AND VOIDS IN AGGREGATE.
7. IN OPEN AREAS, CRUSHED STONE SHOULD BE PLACED IN LEVEL, UNIFORM LIFTS NOT EXCEEDING 12 INCHES IN LOOSE LIFT THICKNESS AND COMPACTED WITH A MINIMUM OF FOUR COMPLETE COVERAGES WITH A DOUBLE DRUM VIBRATORY ROLLER WITH AN OPERATING WEIGHT OF 3,000 POUNDS, MINIMUM, TO 6,000 POUNDS, MAXIMUM. ROLLERS MAY ALSO NEED TO BE OPERATED IN STATIC MODE WITH EIGHT COVERAGES TO REDUCE THE VIBRATIONS TO THE EXISTING BUILDINGS OR TO NEARBY UTILITIES.
8. IN CONFINED AREAS, WITHIN 4 FEET OF FOUNDATION WALLS CRUSHED STONE SHOULD BE PLACED IN LIFTS NOT EXCEEDING 6 INCHES IN LOOSE LIFT THICKNESS AND BE COMPACTED WITH A MINIMUM OF SIX COMPLETE COVERAGES WITH A REVERSIBLE VIBRATORY PLATE COMPACTOR WITH AN OPERATING WEIGHT OF 400 POUNDS, MINIMUM.
9. A 1-FOOT THICK OVEREXCAVATION AND REPLACEMENT WITH COMPACTED STRUCTURAL FILL OR 3/4-INCH CRUSHED STONE IS RECOMMENDED FOR ALL FOOTINGS LOCATED ON OR BELOW FINE-GRAINED NATURALLY DEPOSITED SOILS (NOTE: SILTY CLAY TO CLAYEY SILT) TO PROTECT NATURALLY DEPOSITED SOIL SUBGRADE FROM EXCESSIVE DISTURBANCE DURING CONSTRUCTION. CRUSHED STONE SHOULD BE ENCAPSULATED WITH A GEOTEXTILE FABRIC (MIRAFI 180N OR EQUIVALENT). CRUSHED STONE OR STRUCTURAL FILL SHOULD EXTEND ONE FOOT OUTSIDE THE LIMITS OF THE FOUNDATION.
10. EXCAVATION OF FOOTING AND FLOOR SLAB-BEARING SURFACES IN SOIL SHOULD BE PERFORMED BY EARTHWORK EQUIPMENT FITTED WITH SMOOTH-EDGED BUCKETS. FINAL SUBGRADE PREPARATION SHOULD INCLUDE RECOMPACTION OF FILL OR NATURALLY DEPOSITED GRANULAR SOIL SUBGRADES WITH HAND-GUIDED, VIBRATORY COMPACTION EQUIPMENT. FOLLOWING RECOMPACTION AND BEFORE CONCRETE PLACEMENT, CARE SHOULD BE TAKEN TO LIMIT DISTURBANCE OF THE BEARING SURFACES. ANY LOOSE, SOFTENED, OR DISTURBED MATERIAL DUE TO CONSTRUCTION TRAFFIC SHOULD BE REMOVED BEFORE CONCRETE PLACEMENT.
11. ONLY STRUCTURAL FILL SHOULD BE USED AS BACKFILL WITHIN 4 FEET OF FOUNDATION WALLS. ONLY VIBRATORY PLATE COMPACTORS AND/OR WALK-BEHIND ROLLERS SHOULD BE USED TO COMPACT BACKFILL WITHIN 100% OF THE DESIGN FOUNDATION WALL HEIGHT.

12. BELOW-GRADE WALLS THAT ARE NOT ALLOWED TO TRANSLATE AND ROTATE, SUCH AS THE EAST WALL RESTRAINING UNBALANCED EARTH PRESSURES, HAVE BEEN DESIGNED TO WITHSTAND AN AT-REST EQUIVALENT FLUID UNIT WEIGHT OF 65 POUNDS PER SQUARE FOOT (KO = 0.5).
13. RETAINING WALLS HAVE BEEN DESIGNED WITH THE RESULTANT LOAD WITHIN THE MIDDLE THIRD OF THE WALL FOOTING. THE MAXIMUM CONTACT PRESSURE AT THE TOE OF THE WALL IS NO GREATER THAN THE MAXIMUM ALLOWABLE BEARING PRESSURE RECOMMENDED FOR FOUNDATIONS.
14. UNDERDRAIN BACKFILL MATERIAL TYPE C. THE UNDERDRAIN STONE SHOULD BE COMPLETELY WRAPPED IN FILTER FABRIC, AND THE SURROUNDING AREA SHOULD BE PITCHED TO DRAIN AWAY TO REDUCE AVAILABLE MOISTURE FOR ICE AND FROST LENSE GENERATION.
15. PERIMETER FOOTING DRAINS SHOULD BE INSTALLED AROUND THE BUILDING TO PREVENT WATER ACCUMULATION AROUND AND NEAR THE FOUNDATION AND REDUCE FUGITIVE MOISTURE AND WATER THE DRAINS SHOULD BE INSTALLED AT THE EXTERIOR BOTTOM OF FOOTING LEVEL. THE DRAINS SHOULD CONSIST OF PERFORATED PIPE BEDDED IN 2 CUBIC FEET OF UNDERDRAIN STONE PER LINEAR FOOT. THE UNDERDRAIN STONE SHOULD BE ENCAPSULATED IN A FILTER FABRIC.
16. FLOW FROM THE FOUNDATION DRAINS SHOULD BE CONVEYED BY GRAVITY TO A SURFACE DRAINAGE FEATURE OR STORM DRAIN THAT WILL BE FREE-FLOWING AT ALL TIMES AND UNDER ALL CONDITIONS. MULTIPLE OUTLETS SHOULD BE PROVIDED SO AS NOT TO DEPEND ON A SINGLE FLOW PATH.



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PLAN REVISIONS			
Rev#	Description	Date	Appr.
0	ISSUED FOR BIDDING	06/13/23	

DESIGNED BY: PRD DRAWN BY: CRD CHECKED BY: SJT DATE: 06/13/23 SCALE: AS NOTED DFE PROJECT NO: 23SR23-402	STATE OF MAINE DEPARTMENT OF DEFENSE, VETERANS AND EMERGENCY MANAGEMENT COLBY COMPANY ENGINEERING CCE JOB #144,057,004 47A YORK STREET PORTLAND, MAINE 207.553.7753
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WESTBROOK ARMORY WESTBROOK, MAINE	UNHEATED STORAGE FACILITY
STRUCTURAL NOTES	

PLAN PROGRESS	
<input type="checkbox"/> DRAFT	<input type="checkbox"/> 35% REVIEW
<input type="checkbox"/> 50% REVIEW	<input type="checkbox"/> 95% REVIEW
<input type="checkbox"/> FINAL REVIEW	<input checked="" type="checkbox"/> FOR BIDDING
<input type="checkbox"/> ISSUED FOR CONSTRUCTION	<input type="checkbox"/> RECORD DRAWINGS

SHEET ID:
S-002
SHEET: 12 of 29