# 2024 COLUMBARIA WALL EXPANSION

MAINE DEPARTMENT OF DEFENSE - VETERANS AND EMERGENCY MANAGEMENT, COMMISSIONER MAJOR GENERAL DIANE L. DUNN BUREAU OF MAINE VETERANS' SERVICES, DIRECTOR DAVID A. RICHMOND



# DESIGN CONSULTANTS

PROJECT ENGINEER Walsh Engineering Associates, Inc. One Karen Drive, Suite 2A Westbrook, Maine 04092 207.553.9898

# Project Summary:

Existing:	
Total Acreage of Cemetery:	43.7 ± Acres
Developed Areas of Cemetery:	15.0 ± Acres
Disturbed Areas This Project:	0.14 ± Acres
Proposed:	

576 Niches Columbaria Niches:

# NORTHERN MAINE VETERANS' CEMETERY 37 LOMBARD ROAD, CARIBOU, MAINE

JANET T. MILLS, GOVERNOR

NATIONAL CEMETERY ADMINISTRATION PROJECT #FAI ME-23-23 STATE OF MAINE, BUREAU OF GENERAL SERVICES PROJECT #3742

# **ISSUED FOR BID** JULY 12, 2024



# LIST OF DRAWINGS

Cover Sheet
Boundary Survey
Cemetery Master Plan
Existing Conditions & Removals Plan
Site Layout Plan
Site Grading, Drainage AND Erosion Control Plan
Columbaria Numbering Plan
Alternates #1 & #2 Plans and Details

- C3.0 Site Details C3.1 Site Details
- Col-1 Columbarium Plans, Elevations, and Details
- Col-2 Columbarium Foundation Plan, Sections and Notes





Boundary Survey Property to be conveyed to The State of Maine/Department of Defense, Veterans and Emergency Management: Maine Veterans Services John T. Noble and Carolyn Joyce Noble being A Part of Lot 12, "H" Township Caribou, Aroostook County, Maine January 17, 2002

> 1<u>00</u> 1" = 100'

General Notes:

1. This survey was tied to the Maine State Coordinate System, NAD 1983, using GPS receivers. The initial GPS traverse was conducted on November 10, 1998 to establish control on the Lombard Road for a different project. This control traverse was initiated control on the Lombard Road for a different project. This control traverse was initiated at a Maine Department of Transportation control monument, 1811–15 and control was established at our control station 102. The closure of this traverse was 1:550,000 and the elevations were scaled. On September 21, 1999, we began at station 102 and established further control around this site using GPS receivers. The closure of our two control loops were 1:331,000 and 1:266,000 and again the elevation was scaled. On December 2, 1999, we ran another GPS tie to the OM station of the Crown of Maine Calibrated Rapping at the Caribou Municipal Airport to establish elevation control at this Calibrated Baseline at the Caribou Municipal Airport to establish elevation control at this site. The closure of that GPS loop was 1:1,017,600. All of the distances on this plan of survey were adjusted from grid distances to ground distances using the software that processed the GPS data. The average combined scale factor for this site is 0.99989391. The ground coordinates at each corner are shown on this plan of survey. If further information about the connection traverse is required, it can be provided at a later time. 2. For further information concerning the Washburn Road see the Maine State Highway Commission Right of Way Map, S.H.C. 2-197, sheets 4 & 5 of 7. 3. A temporary benchmark was established on this site for future use. It is a magnetic PK nail in the concrete foundation of the existing flagpoles. The elevation of this benchmark is 484.2 feet. This elevation is 8.5' higher than local benchmarks but it is the elevation used to control all elevations on this site.

4. The apparent division line between Lots 7 and 12 is a line of trees, brush and rocks. However, analysis of other lot lines and the original field notes show that the west end of this lot line at Lombard Road could be approximately 60 feet further north. The scope of this work does not involve the location of this property line. This notation is included here for information purposes only. 5. The property line is blazed and painted in wooded areas.

6. We observed a junk automobile and other various items in some of the wooded areas. 7. See plan of survey entitled, "Standard Boundary Survey of Property to be conveyed to The State of Maine/Department of Defense, Veterans and Emergency Management: Maine Veterans Services by John T Noble and Carolyn Joyce Noble being A Part of Lot 12, 'H' Township in Caribou, Aroostook County, Maine, September 21 - December 15, 1999" by Doody, Blackstone & Bubar. Said plan is referenced in Book 3365, page 35 as recorded in the Southern District of the Aroostook County Registry of Deeds.

Legend:

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- 1" x 36" iron pipe set 2 2 1/2 feet into the ground, unless otherwise noted, capped #1219
- Iron pipe found capped # 1219
- Steel rebar found
- 6"x6" granite highway monument found
- X Plan point
- Small clump of alders/brush
- Spruce tree (various sizes)
- Edge of wooded area

Center line of existing pavement

Edge of existing pavement

Coordinate Table for Property Corners Maine State Coordinates NAD83 (See General Note 1)

Corne	r Northing	Easting	
1	1,161,352.26	1,098,601.04	
2	1,161,402.11	1,098,597.18	
3	1,161,427.12	1,098,919.94	
4	1,162,832.11	1,098,793.25	
5	1,162,880.73	1,099,718.67	
6	1,161,447.75	1,099,773.05	
7	1,161,027.73	1,098,955.95	
8	1,161,377.32	1,098,924.43	
9	1,161,417.06	1,098,596.02	
10	1,161,434.33	1,098,818.84	
11	1,161,506.77	1,098,912.75	
12	1,161,342.46	1,098,927.57	
13	1,161,317.36	1,098,603.74	
14	1,160,955.35	1,098,850.52	
15	1,160,939.27	1,098,643.08	
16	1,160,878.68	1,098,637.74	
17	1,160,984.64	1,098,840.16	
18	1,161,062.17	1,098,952.84	
A	1,160,968.41	1,098,630.79	



Blackstone Land Surveying, P.A. 7 Hatch Drive, Suite 260 Caribou, Maine 04736

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## INTRODUCTION

THE FOLLOWING PLAN FOR CONTROLLING SEDIMENTATION AND EROSION IN THIS PROJECT IS BASED ON CONSERVATION PRACTICES FOUND IN THE MAINE EROSION & SEDIMENT CONTROL BMPS MANUAL, OCTOBER 2016, AND MAINE EROSION AND SEDIMENT CONTROL PRACTICE FIELD GUIDE FOR CONTRACTORS, REVISED 2014, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION. THE CONTRACTOR WHO IMPLEMENTS THIS PLAN SHALL BE FAMILIAR WITH THESE PUBLICATIONS AND ADHERE TO THEM AND THE PRACTICES PRESENTED HEREIN

REFERENCE IS MADE TO THE GRADING AND DRAINAGE PLANS WITHIN THE PLAN SET, SHOWING THE LOCATIONS AND TYPES OF PROPOSED MEASURES TO BE IMPLEMENTED.

## GENERAL EROSION AND SEDIMENTATION CONTROL PRACTICES

THE FOLLOWING IS A LIST OF GENERAL EROSION CONTROL PRACTICES THAT WILL BE USED TO PREVENT EROSION AND SEDIMENTATION BEFORE, DURING AND AFTER THE CONSTRUCTION OF THIS PROJECT. IN ADDITION, SPECIAL CARE SHALL BE USED AT ALL TIMES TO: LIMIT DISTURBANCE AND, HENCE, EROSION

1) CORRECT ANY EROSION PROBLEMS IMMEDIATELY 2) REGULARLY MONITOR THE IMPLEMENTED PRACTICES, ESPECIALLY AFTER EVERY RAINFALL 3) REVEGETATE DISTURBED AREAS AS SOON AS POSSIBLE AFTER CONSTRUCTION

4) CONFORM TO ALL REQUIREMENTS/STANDARDS OF THE SITE'S MAINE DEP EROSION & SEDIMENT CONTROL BMP MANUAL. SILT FENCE AND/OR EROSION CONTROL MIX SEDIMENT BARRIERS

SILT FENCE AND/OR EROSION CONTROL MIX SEDIMENT BARRIERS WILL BE INSTALLED ALONG THE DOWN GRADIENT SIDE OF THE PROPOSED GROUND DISTURBANCE AREAS PRIOR TO ANY CONSTRUCTION ACTIVITIES WHERE SLOPES EXCEED 8% OR THERE IS FLOWING WATER BOTH SILT FENCE AND EROSION CONTROL MATTING BERMS SHALL BE USED.

## CATCH BASIN PROTECTION

CATCH BASIN PROTECTION WILL BE INSTALLED AT THE FIRST DOWNGRADIENT CATCH BASIN IN STREET ADJACENT TO ANY CONSTRUCTION ACTIVITIES AND IN ALL ONSITE CATCH BASINS UNTIL SITE HAS BEEN COMPLETELY STABILIZED.

## CONSTRUCTION PHASE

THE FOLLOWING GENERAL PRACTICES WILL BE IMPLEMENTED TO PREVENT EROSION DURING CONSTRUCTION ON THIS PROJECT: 1. EROSION AND SEDIMENTATION CONTROL BMPS SHALL BE INTALLED PRIOR TO THE COMMENCEMENT OF EARTHWORK ACTIVITIES.

- 2. ONLY THOSE AREAS UNDER ACTIVE CONSTRUCTION WILL BE CLEARED AND LEFT IN AN UNTREATED OR UNVEGETATED CONDITION. AN AREA NO LARGER THAN WHAT CAN BE MULCHED IN ONE DAY MAY BE OPEN AT ONCE. ONCE CONSTRUCTION OF AN AREA IS COMPLETE, FINAL GRADING, LOAMING AND SEEDING SHALL OCCUR IMMEDIATELY (REFER TO "POST CONSTRUCTION REVEGETATION" SECTION). IF DURING FINAL GRADING, LOAMING AND SEEDING CAN NOT OCCUR IMMEDIATELY. IT SHALL BE DONE PRIOR TO ANY STORM EVENT AND WITHIN 15 DAYS OF COMPLETING CONSTRUCTION IN THE AREA. IF FINAL GRADING, LOAMING AND SEEDING CANNOT OCCUR WITHIN 7 DAYS, OR IF THE AREA IS NOT UNDER ACTIVE CONSTRUCTION FOR A PERIOD LONGER THAN 7 DAYS, SEE ITEM NO. 4 BELOW.
- 3. PRIOR TO THE START OF CONSTRUCTION IN A SPECIFIC AREA, SILT FENCING SHALL BE INSTALLED ON DOWNGRADIENT PORTIONS OF THE SITE AS LOCATED ON THE PLANS TO PROTECT AGAINST ANY CONSTRUCTION RELATED EROSION.
- 4. TOPSOIL WILL BE STOCKPILED WHEN NECESSARY IN AREAS WHICH HAVE MINIMUM POTENTIAL FOR EROSION AND WILL BE KEPT AS FAR AS POSSIBLE FROM EXISTING DRAINAGE AREAS AND WETLANDS. ALL STOCKPILES EXPECTED TO REMAIN LONGER THAN 7 DAYS SHALL
- A. TREATED WITH ANCHORED MULCH (WITHIN 5 DAYS OF THE LAST DEPOSIT OF STOCKPILED SOIL).
- B. SEEDED WITH CONSERVATION MIX AND MULCHED IMMEDIATELY.
- C. STOCKPILES SHALL BE EITHER PLACED UPHILL OF AN EXISTING SEDIMENT BARRIER ON THE SITE OR ENCIRCLED BY A HAY BALE OR MAINTENANCE MEASURES WILL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. IMMEDIATELY FOLLOWING ANY SILT FENCE BARRIER THE FIRST DAY THAT STOCKPILING COMMENCES.
- 5. ALL DISTURBED AREAS EXPECTED TO REMAIN LONGER THAN 7 DAYS SHALL BE:
- A. TREATED WITH STRAW AT A RATE OF 70-90 LBS. PER 1000 SQUARE FEET FROM 4/16 TO 10/1, OR AT A RATE OF 150-200 LBS. PER 1000 SQUARE FEET FROM 10/1 TO 4/15. B. SEEDED WITH CONSERVATION MIX OF PERENNIAL RYE GRASS (1.0 LBS/1000 SQ.FT.) AND MULCHED IMMEDIATELY. FROM 10/1 TO
- 4/15, FOLLOW THE SEEDING RATES AS OUTLINED BELOW IN SUB-SECTION 4.D. OF THE "POST CONSTRUCTION REVEGETATION"
- C. MONITORED EVERY TWO WEEKS UNTIL SEEDING CAN OCCUR AND REMULCHED AS NEEDED TO PROTECT SLOPES.
- 5. ALL GRADING WILL BE HELD TO A MAXIMUM 3:1 SLOPE WHERE PRACTICAL. GREATER SLOPES MAY BE USED WHERE THE BANKS ARE PROTECTED WITH SOFT ARMOUR MATTING, EROSION CONTROL MATTING, OR RIPRAP. ALL SLOPES WILL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY AFTER FINAL GRADING IS COMPLETE. (IT IS UNDERSTOOD THAT IMMEDIATELY MEANS WITHIN 5 DAYS OF THE COMPLETION OF WORK. SEE POST-CONSTRUCTION REVEGETATION FOR SEEDING SPECIFICATION).
- 6. APPLICATION RATE MUST BE 2 BALES (70-90 LBS.) PER 1,000 SQUARE FEET OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75 TO 90% OF THE GROUND SURFACE. DRIVE OVER WITH TRACKED CONSTRUCTION EQUIPMENT ON GRADES OF 5% AND LESS.
- 7. CONSTRUCTION TRAFFIC WILL BE DIRECTED OVER THE EXISTING SITE ENTRANCE. THE ROAD SHALL BE SWEPT AND VACUUMED DAILY SHOULD SEDIMENT BE TRACKED ONTO IT.
- 8. ALL AREAS DRAINING TO A STORMWATER FILTER OR BMP SHALL BE STABILIZED PRIOR TO CONSTRUCTION OF FILTER MEDIA TO PREVENT SEDIMENT FROM CLOGGING MEDIA

# **EROSION AND SEDIMENTATION CONTROL NOTES** NOT TO SCALE

![](_page_8_Figure_28.jpeg)

# STABILIZED CONSTRUCTION ENTRANCE C2.0 / NOT TO SCALE

∕C2.2∕

### DEWATERING

### POST CONSTRUCTION REVEGETATION

THE FOLLOWING GENERAL PRACTICES WILL BE IMPLEMENTED TO PREVENT EROSION AS SOON AS AN AREA IS READY TO UNDERGO FINAL GRADING:

- 1. A MINIMUM OF 6" OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND GRADED TO A UNIFORM DEPTH AND NATURAL APPEARANCE.
- 2. LAWN AREAS: "PARK MIX" GRASS SEED BY ALLEN, STERLING & LOTHROP (FALMOUTH, MAINE), OR APPROVED EQUAL.
- 3. MULCH SHALL BE HAY OR STRAW MULCHES THAT ARE DRY AND FREE FROM UNDESIRABLE SEEDS AND COURSE MATERIALS. A. APPLICATION RATE MUST BE 2 BALES (70-90 LBS.) PER 1,000 SQUARE FEET OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER
- 75 TO 90% OF THE GROUND SURFACE.
- B. DRIVE OVER WITH TRACKED CONSTRUCTION EQUIPMENT ON GRADES OF 5% AND LESS.
- C. BLANKET WITH TACKED PHOTODEGRADABLE/BIODEGRADABLE NETTING ON GRADES GREATER THAN 5%.
- 4. HYDRO-MULCH SHALL CONSIST OF A MIXTURE OF ASPHALT, WOOD FIBRE OR PAPER FIBRE AND WATER, WHICH IS SPRAYED OVER A SEEDED AREA. HYDRO-MULCH SHALL NOT BE USED BETWEEN 10/1 AND 4/15.

# SEEDING BE NECESSARY BETWEEN THESE DATES, THE FOLLOWING PROCEDURE SHALL BE FOLLOWED:

- A. ONLY UNFROZEN LOAM SHALL BE USED.
- TO PLACEMENT OF SEED.
- C. WHERE PERMANENT SEEDING IS NECESSARY, ANNUAL WINTER RYE (1.2 LBS/1000 S.F.) SHALL BE SOWN INSTEAD OF THE PREVIOUSLY NOTED SEEDING RATE.
- D. WHERE TEMPORARY SEEDING IS REQUIRED, ANNUAL WINTER RYE (2.5 LBS/1000 S.F.) SHALL BE SOWN INSTEAD OF THE PREVIOUSLY NOTED SEEDING RATE.
- E. FERTILIZING, SEEDING AND MULCHING SHALL BE DONE ON LOAM THE DAY THE LOAM IS SPREAD.
- SUFFICE. WINTER MULCHING RATES, SHALL BE DOUBLE AS SPECIFIED ABOVE IN SUBSECTION 3.A OF THE "POST CONSTRUCTION REVEGETATION" SECTION, SHOULD BE APPLIED DURING THIS PERIOD.
- CATCH IS INADEQUATE.

# MONITORING SCHEDULE

# EROSION AND SEDIMENTATION CONTROLS OR APPOINTING A QUALIFIED SUBCONTRACTOR TO DO SO.

- 1. SILT FENCE SHALL BE INSPECTED AND REPAIRED. SEDIMENT TRAPPED BEHIND THESE BARRIERS SHALL BE EXCAVATED WHEN IT REACHES A DEPTH OF 6" AND REDISTRIBUTED TO AREAS UNDERGOING FINAL GRADING.
- 2. CONSTRUCTION ENTRANCE SHALL BE VISUALLY INSPECTED AND REPAIRED AS NEEDED. ANY AREAS SUBJECT TO RUTTING SHALL BE STABILIZED IMMEDIATELY. IF THE VOIDS OF THE CONSTRUCTION ENTRANCE BECOME FILLED WITH MUD, MORE CRUSHED STONE SHALL BE ADDED AS NEEDED. THE PUBLIC ROADWAY SHALL BE SWEPT AND VACUUMED SHOULD MUD BE DEPOSITED/TRACKED ONTO THEM.

STANDARDS FOR STABILIZING SITES FOR THE WINTER

- 1. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES (ANY AREA HAVING A GRADE GREATER THAN 25%) THE THE SLOPE FOR LATE FALL AND WINTER.
- STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS: BY OCTOBER 1ST THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A RATE OF 3 POUNDS PER 1000 SQUARE FEET AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED HAY MULCH OVER THE SEEDING AT TWICE THE RATE AS SPECIFIED ABOVE IN SUBSECTION 3.A OF THE "POST CONSTRUCTION REVEGETATION" SECTION. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS.
- GRADES GREATER THAN 50% (2H:IV) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

![](_page_8_Figure_57.jpeg)

![](_page_8_Picture_58.jpeg)

### ALL DEWATERING DISCHARGE LOCATIONS SHALL BE LOCATED ON RELATIVELY FLAT GROUND AT LEAST 75' FROM STREAMS AND 25 FROM WETLANDS. THE CONTRACTOR SHALL UTILIZE DIRTBAGS, EROSION CONTROL MIX BERMS, OR SIMILAR METHODS FOR FILTRATION OF DEWATERING AND SHALL CONFORM TO THE MAINE EROSION AND SEDIMENT CONTROL BMPS G-1, G-2, AND G-3.

5. CONSTRUCTION SHALL BE PLANNED TO ELIMINATE THE NEED FOR SEEDING BETWEEN OCTOBER 1ST AND APRIL 15TH. SHOULD

- B. LOAMING, SEEDING AND MULCHING WILL NOT BE DONE OVER SNOW OR ICE COVER. IF SNOW EXISTS, IT MUST BE REMOVED PRIOR

- FOLLOWING FINAL SEEDING, THE SITE WILL BE INSPECTED EVERY 30 DAYS UNTIL 90% COVER HAS BEEN ESTABLISHED. RESEEDING WILL BE CARRIED OUT BY THE CONTRACTOR WITHIN 10 DAYS OF NOTIFICATION BY THE DESIGN PROFESSIONAL THAT THE EXISTING
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING, MONITORING, MAINTAINING, REPAIRING, REPLACING AND REMOVING ALL OF THE
- SIGNIFICANT RAINFALL, AND AT LEAST ONCE A WEEK, A VISUAL INSPECTION WILL BE MADE OF ALL EROSION AND SEDIMENTATION CONTROLS AS
- THE FOLLOWING STANDARDS AND METHODOLOGIES SHALL BE USED FOR STABILIZING THE SITE DURING THE WINTER CONSTRUCTION PERIOD:
  - CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15TH. IF THE CONTRACTOR FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15TH, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE
  - STABILIZE THE SLOPE WITH WOOD-WASTE COMPOST: THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF WOOD-WASTE COMPOST ON THE SLOPE BY NOVEMBER 15TH. THE CONTRACTOR WILL NOT USE WOOD-WASTE COMPOST TO STABILIZE SLOPES HAVING

- C. STABILIZE THE SLOPE WITH STONE RIPRAP: THE CONTRACTOR WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15TH. THE DEVELOPMENT'S OWNER WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.
- STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS BY SEPTEMBER 15TH THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SOILS ON THE SITE. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ON OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.
- A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION: BY OCTOBER 1ST THE CONTRACTOR WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER, 1, THEN THE CONTRACTOR WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM III OF THIS STANDARD.
- B. STABILIZE THE SOIL WITH SOD: THE CONTRACTOR WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
- C. STABILIZE THE SOIL WITH MULCH: BY NOVEMBER 15TH THE CONTRACTOR WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, THE CONTRACTOR WILL ANCHOR THE MULCH WITH NETTING OR OTHER METHOD TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

EROSION CONTROL REMOVAL

AN AREA IS CONSIDERED STABLE IF IT IS PAVED OR IF 90% GROWTH OF PLANTED SEEDS IS ESTABLISHED. ONCE AN AREA IS CONSIDERED STABLE, THE EROSION CONTROL MEASURES CAN BE REMOVED AS FOLLOWS:

- SILT FENCE: SILT FENCE SHALL BE DISPOSED OF LEGALLY AND PROPERLY OFF-SITE. ALL SEDIMENT TRAPPED BEHIND THESE ONTROLS SHALL BE DISTRIBUTED TO AN AREA UNDERGOING FINAL GRADING OR REMOVED AND RELOCATED OFF-SITE.
- 2. STABILIZED CONSTRUCTION ENTRANCE: THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE REMOVED ONCE THE COMPACTED ROADWAY BASE IN IN PLACE. STONE AND SEDIMENT FROM THE CONSTRUCTION ENTRANCE SHALL BE REDISTRIBUTED TO AN AREA UNDERGOING GRADING OR REMOVED AND RELOCATED OFFSITE.
- 3. MISCELLANEOUS: ONCE ALL THE TRAPPED SEDIMENTS HAVE BEEN REMOVED FROM THE TEMPORARY SEDIMENTATION DEVICES THE DISTURBED AREAS MUST BE REGRADED IN AN AESTHETIC MANNER TO CONFORM TO THE SURROUNDING TOPOGRAPHY. ONCE GRADED THESE DISTURBED AREAS MUST BE LOAMED (IF NECESSARY), FERTILIZED, SEEDED AND MULCHED IN ACCORDANCE WITH THE RATES PREVIOUSLY STATED.

THE ABOVE EROSION CONTROLS MUST BE REMOVED WITHIN 30 DAYS OF FINAL STABILIZATION OF THE SITE. F. HAY MULCH SHALL BE SECURED WITH PHOTODEGRADABLE/BIODEGRADABLE NETTING. TRACKING BY MACHINERY ALONE WILL NOT CONFORMANCE WITH THIS PLAN AND FOLLOWING THESE PRACTICES WILL RESULT IN A PROJECT THAT COMPLIES WITH THE STATE REGULATIONS AND THE STANDARDS OF THE NATURAL RESOURCES PROTECTION ACT, AND WILL PROTECT WATER QUALITY IN AREAS DOWNSTREAM FROM THE

MAINE CONSTRUCTION GENERAL PERMIT REQUIRED

SUBMISSION OF A MAINE CONSTRUCTION GENERAL PERMIT (MCGP) IS REQUIRED PRIOR TO COMMENCEMENT OF ANY EXCAVATION ACTIVITIES. INSPECTION AND MAINTENANCE (APPENDIX B)

- INSPECTION AND MAINTENANCE REQUIREMENTS: INSPECT DISTURBED AND IMPERVIOUS AREAS, EROSION AND STORMWATER CONTROL MEASURES, AREAS USED FOR STORAGE THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. INSPECT THESE AREAS AT LEAST ONCE A WEEK AS WELL AS BEFORE AND AFTER A SIGNIFICANT STORM EVENT (0.5 INCHES OF RAINFALL IN A 24-HOUR PERIOD) AND PRIOR TO COMPLETION OF PERMANENT STABILIZATION MEASURES. A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS IN THE MCGP AND ANY DEPARTMENTAL COMPANION DOCUMENT TO THE MCGP, MUST CONDUCT THE INSPECTION. THIS PERSON MUST BE IDENTIFIED IN THE INSPECTION LOG. IF BEST MANAGEMENT PRACTICES (BMPS) NEED TO BE MODIFIED OR IF ADDITIONAL BMPS ARE NECESSARY, IMPLEMENTATION MUST BE STARTED BY THE END OF THE NEXT WORKIN DAY AND COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT (RAINFALL). ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS AREA PERMANENTLY STABILIZED. DOCUMENTATION OF CORRECTION ACTIONS SHALL BE MAINTAINED WITH THE INSPECTION FORMS.
- INSPECTION LOG (REPORT): A LOG (REPORT) MUST BE KEPT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND OUALIFICATIONS OF THE PERSONNEL MAKING THE INSPECTION. THE DATE(S) OF THE INSPECTION. AND MAJOR OBSERVATIONS RELATING TO OPERATION OF EROSION AND SEDIMENTATION CONTROLS AND POLLUTION PREVENTION MEASURES. MAJOR OBSERVATIONS MUST INCLUDE BMPS THAT NEED MAINTENANCE, BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, AND LOCATIONS(S) WHERE ADDITIONAL BMPS ARE NEEDED. FOR EACH BMP REQUIRING MAINTENANCE, BMP NEEDING REPLACEMENT, AND LOCATION NEEDING ADDITIONAL BMPS, NOTE IN THE INSPECTION LOG THE CORRECT ACTION TAKEN AND WHEN IT WAS TAKEN. THE LOG MUST BE MADE ACCESSIBLE TO THE DEPARTMENT STAFF AND A COPY MUST BE PROVIDED UPON REQUEST. THE PERMITTEE SHALL RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST THREE YEARS FROM THE COMPLETION OF THE PERMANENT STABILIZATION.

HOUSEKEEPING (APPENDIX C

PREVENTION: CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.

NOTE: ANY SPILL OR RELEASE OF TOXIC OR HAZARDOUS SUBSTANCES MUST BE REPORTED TO THE DEPARTMENT. FOR OIL SPILLS, CALL 1-800-482-0777 WHICH IS AVAILABLE 24 HOURS A DAY. FOR SPILLS OF TOXIC OR HAZARDOUS MATERIAL, CALL 1-800-452-4664 WHICH IS AVAILABLE 24 HOURS A DAY. FOR MORE INFORMATION, VISIT THE DEPARTMENT'S WEBSITE AT: HTTP://WWW.MAINE.GOV/DEP/SPILLS/EMERGSPILLRESF

2. GROUNDWATER PROTECTION: DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING

INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE-TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.

NOTE .: LACK OF APPROPRIATE POLLUTANT REMOVAL BEST MANAGEMENT PRACTICES (BMPS) MAY RESULT IN VIOLATIONS OF THE GROUNDWATER QUALITY STANDARD ESTABLISHED BY 38 M.R.S.A. §465-C(1).

3. FUGITIVE SEDIMENT AND DUST: ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WAT ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SCE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF-SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEPT IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DU PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.

NOTE: DEWATERING A STREAM WITHOUT A PERMIT FROM THE DEPARTMENT MAY VIOLATE STATE WATER QUALITY STANDARDS AND THI NATURAL RESOURCES PROTECTION ACT.

4. DEBRIS AND OTHER MATERIALS: MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

NOTE: TO PREVENT THESE MATERIALS FROM BECOMING A SOURCE OF POLLUTANTS, CONSTRUCTION AND POST-CONSTRUCTION ACTIVITIES RELATED TO A PROJECT MAY BE REQUIRED TO COMPLY WITH APPLICABLE PROVISION OF RULES RELATED TO SOLID, UNIVERSAL, AND HAZARDOUS WASTE, INCLUDING, BUT NOT LIMITED TO, THE MAINE SOLID WASTE AND HAZARDOUS WASTE MANAGEMENT RULES; MAINE HAZARDOUS WASTE MANAGEMENT RULES; MAINE OIL CONVEYANCE AND STORAGE RULES; AND MAINE PESTICIDE REOUIREMENTS.

EXCAVATION DEWATERING: EXCAVATION DEWATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, MUST BE SPREAD THROUGH NATURAL WOODED BUFFE OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.

NOTE: DEWATERING CONTROLS ARE DISCUSSED IN THE "MAINE EROSION AND SEDIMENT CONTROL BMPS, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION."

6. AUTHORIZED NON-STORMWATER DISCHARGES: IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERI ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:.

DISCHARGES FROM FIREFIGHTING ACTIVITY;

- FIRE HYDRANT FLUSHINGS; VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE,
- UNDERCARRIAGE, AND TRANSMISSION WASHING IS PROHIBITED); DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3):
- ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS; PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;
- UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE:
- UNCONTAMINATED GROUNDWATER OR SPRING WATER; FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
- UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5)); POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
- LANDSCAPE IRRIGATION

UNAUTHORIZED NON-STORMWATER DISCHARGES: THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON-STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX (6). SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

 WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;

- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

8. <u>ADDITIONAL REQUIREMENTS</u>: ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.

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∕C2.1∕

C2.2

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c	2024 Columbaria Wall Expansion	at Northern Maine Veterans' Cemetery, 37 Lombard Road, Caribou, Maine	Maine Department of Defense, Veterans & Emergency Management Bureau of Veterans' Services	National Cemetery Administration Project #FAI ME-23-23 Bureau of General Services Project Number #3742
-	Rev. Date	Description		Drawn Check
	Sheet Title: Site Job No.: Date: JUL Scale: A Drawn: Checked:	112.5 Y 12, 2024 S SHOWN JDC NGC	S Sheet No.:	3.0

ENGINEERING ASSOCIATES, INC.

![](_page_9_Figure_0.jpeg)

![](_page_10_Figure_0.jpeg)

## GENERAL NOTES

1. 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 architect/engineer prior to proceeding with the affected portion of the work.

2. Consult architectural and site drawings for locations and dimensions of openings, inserts, reglets, sleeves, depressions, and other details not shown on structural drawings.

3. All dimensions and conditions must be verified in the field. Any descrepancies shall be brought to the attention of the architect/engineer before proceeding with the affected part of the work.

4. The Contractor is responsible for the stability of the structure during all phases of erection and construction.

5. Details shown as "Typical" apply to all similar conditions.

## FOUNDATION NOTES

1. Foundations shall bear on minimum 6" compacted crushed stone overlaying non-woven geotextile filter fabric on undisturbed soils having a minimum allowable bearing capacity of 3,000 psf as described in the geotechnical report dated February 15, 2015 by SW Cole.

2. The bottom of all exterior footings shall be at least 84 inches below grade.

3. All pavement, existing foundations and uncontrolled granular fill should be removed from the area of the planned construction to at least 4 feet beyond the footing limit.

4. Compacted structural full shall be used to backfill to the design footing subgrade and beneath all slabs on grade. Structural fill shall be governed by the specifications of the geotechnical report.

5. Structural fill shall be placed in uniform lifts not exceeding 8 inches in loose thickness and be compacted per ASTM D-1557, modified proctor test.

6. Slope footing excavations as required for stability and safety per OSHA requirements.

## SUBMITTALS

1. The Contractor shall submit complete shop drawings per the specifications, including: Concrete Mix Design & Concrete Reinforcing.

## TESTING

1. The Owner shall engage a qualified testing agency to conduct periodic tests to confirm construction is in accordance with the drawings and specifications. Test reports shall be submitted to the architect/engineer including:

- Structural Fill Gradation & Compaction
- Concrete Slump, Temperature & Air Content at point of placement
- Concrete Compression Tests

## **REINFORCED CONCRETE**

- 1. Concrete work shall conform to the latest editions of the following:
- ACI 301 Specification for Structural Concrete
- ACI 304 Guide for measuring mixing, transportation and placing concrete.
- ACI 305 Hot Weather Concreting.ACI 306 Cold Weather Concreting.
- ACI 318 Building Code Requirements for Reinforced Concrete.

2. Cement - ASTM C150, Type I or Type 2.

3. Concrete for footing and foundation walls shall have a minimum 28 day compressive strength of 3,000 psi and the water cement ratio shall not exceed 0.50.

4. Slump shall not exceed 5" +/- per ASTM C143 unless an approved water reducing admixture is used.

5. Concrete shall not be placed in water or on frozen ground.

6. Deposit concrete in forms in forizontal layers not deeper than 18 inches and in a manner to avoid inclined construction joints. Where placement consists of several layers, place each layer while the preceding layer is still plastic to avoid construction joints

7. Reinforcing bars shall conform to ASTM A615 with 60,000 psi yield strength with minimum achorage and splice requirements for reinforcing in accordance with the latest edition of ACI318.

8. Minimum concrete protective covering for reinforcement, unless noted otherwise shall be as follows:
Footings: 3 inches

- Foundation Walls: 2 inches

9. Reinforment shall be continuous around corners and at intersections. Provide lapped bars at necessary splices or hooked bars at dicontinuous ends. Provide class B tension lap splices for all reinforcing unless otherwise shown on plan.

10. Welding of reinforcement is not permitted.

11. Provide additional reinforcement around concrete opening as shown on the typical details.

12. Tie holes, bug holes, voids and surface irregularities larger than 1/2 inch diameter or deeper than 1/8 inch, or both, must be repaired with a lean concrete mix of grout. GC coordinate concrete smoothness tolerances to accomodate installation of prefabricated finish components in accordance with manufacturer's instructions.

NOTES
NOT TO SCALE

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