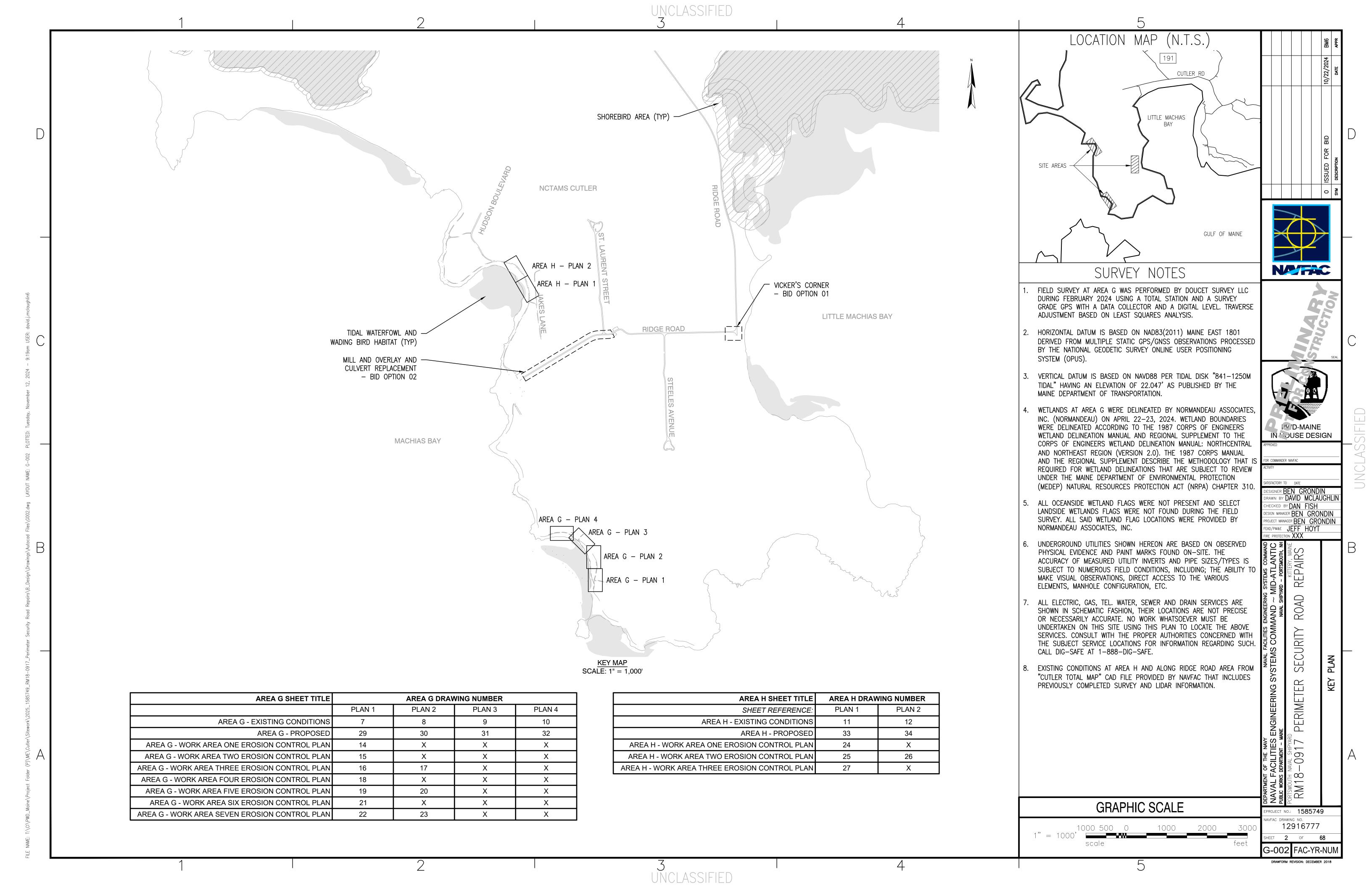


UNCLASSIFIED LIST OF DRAWINGS SHEET NO. PWD-ME NO. NAVFAC DWG. NO. DRAWING TITLE 1 OF 68 G-001 XXX-XX-XXX12916775 TITLE SHEET LIST OF DRAWINGS 2 OF 68 G-001A 12916776 XXX-XX-XXX 3 OF 68 G-002 12916777 KEY PLAN XXX-XX-XXX4 OF 68 G-003 XXX-XX-XXX 12916778 GENERAL NOTES 5 OF 68 G-004 XXX-XX-XXX12916779 GENERAL NOTES 12916780 6 OF 68 G-005 XXX-XX-XXXGENERAL CONSTRUCTION FENCE DETAILS AND NOTES AREA G - EXISTING CONDITIONS - PLAN 1 7 OF 68 V-101 12916781 XXX-XX-XXX8 OF 68 V-102 XXX-XX-XXX 12916782 AREA G - EXISTING CONDITIONS - PLAN 2 AREA G - EXISTING CONDITIONS - PLAN 3 9 OF 68 V-103 12916783 XXX-XX-XXX 10 OF 68 V-104 XXX-XX-XXX 12916784 AREA G - EXISTING CONDITIONS - PLAN 4 12916785 AREA H - EXISITING CONDITIONS - PLAN 1 11 OF 68 V-105 XXX-XX-XXX 12 OF 68 V-106 XXX-XX-XXX12916786 AREA H - EXISITING CONDITIONS - PLAN 2 **EROSION CONTROL NOTES** 13 OF 68 CEC001 XXX-XX-XXX12916787 14 OF 68 CEC002 XXX-XX-XXX12916788 **EROSION CONTROL DETAIL 1** 15 OF 68 CEC003 12916789 XXX-XX-XXXEROSION CONTROL DETAIL 2 16 OF 68 CEC101 XXX-XX-XXX 12916790 AREA G - WORK AREA ONE EROSION CONTROL PLAN 17 OF 68 CEC102 12916791 AREA G - WORK AREA TWO EROSION CONTROL PLAN XXX-XX-XXX 18 OF 68 CEC103 XXX-XX-XXX 12916792 AREA G - WORK AREA THREE EROSION CONTROL - PLAN 1 NAFAC 19 OF 68 CEC104 12916793 AREA G - WORK AREA THREE EROSION CONTROL - PLAN 2 XXX-XX-XXX AREA G - WORK AREA FOUR EROSION CONTROL PLAN 20 OF 68 CEC105 XXX-XX-XXX12916794 21 OF 68 CEC106 12916795 AREA G - WORK AREA FIVE EROSION CONTROL - PLAN 1 XXX-XX-XXX22 OF 68 CEC107 XXX-XX-XXX12916796 AREA G - WORK AREA FIVE EROSION CONTROL - PLAN 2 AREA G - WORK AREA SIX EROSION CONTROL PLAN 23 OF 68 CEC108 12916797 XXX-XX-XXX24 OF 68 CEC109 XXX-XX-XXX 12916798 AREA G - WORK AREA SEVEN EROSION CONTROL - PLAN 1 25 OF 68 CEC110 12916799 AREA G - WORK AREA SEVEN EROSION CONTROL - PLAN 2 XXX-XX-XXX26 OF 68 CEC111 XXX-XX-XXX 12916800 AREA H - WORK AREA ONE EROSION CONTROL PLAN 27 OF 68 CEC112 XXX-XX-XXX 12916801 AREA H - WORK AREA TWO EROSION CONTROL - PLAN 1 28 OF 68 CEC113 XXX-XX-XXX12916802 AREA H - WORK AREA TWO EROSION CONTROL - PLAN 2 AREA H - WORK AREA THREE EROSION CONTROL PLAN 29 OF 68 CEC114 12916803 XXX-XX-XXX30 OF 68 C-101 XXX-XX-XXX12916804 LAYDOWN PLAN 31 OF 68 C-102 AREA G - PLAN 1 XXX-XX-XXX 12916805 32 OF 68 C-103 AREA G - PLAN 2 XXX-XX-XXX 12916806 IN SUSE DESIGN 33 OF 68 C-104 XXX-XX-XXX12916807 AREA G - PLAN 3 34 OF 68 C-105 XXX-XX-XXX 12916808 AREA G - PLAN 4 OR COMMANDER NAVEAC AREA H - PLAN 1 35 OF 68 C-106 XXX-XX-XXX12916809 AREA H - PLAN 2 36 OF 68 C-107 12916810 XXX-XX-XXX37 OF 68 C-201 XXX-XX-XXX12916811 AREA G - PROFILE 1 38 OF 68 C-202 12916812 AREA G - PROFILE 2 XXX-XX-XXXCHECKED BY DAN FISH
DESIGN MANAGER BEN GRONDIN
PROJECT MANAGER BEN GRONDIN
FEAD/PM&E JEFF HOYT 39 OF 68 C-203 XXX-XX-XXX12916813 AREA G - PROFILE 3 40 OF 68 C-204 AREA G - PROFILE 4 XXX-XX-XXX12916814 41 OF 68 C-205 XXX-XX-XXX12916815 AREA G - PROFILE 5 42 OF 68 C-206 12916816 AREA G - PROFILE 6 XXX-XX-XXXPAIRS 43 OF 68 C-207 XXX-XX-XXX12916817 AREA H - PROFILE 44 OF 68 C-301 12916818 XXX-XX-XXXAREA G - TYPICAL SECTIONS 45 OF 68 C-302 XXX-XX-XXX12916819 AREA H - TYPICAL SECTIONS 46 OF 68 C-303 AREA G - CROSS SECTIONS 1 12916820 XXX-XX-XXXROAD 47 OF 68 C-304 XXX-XX-XXX 12916821 AREA G - CROSS SECTIONS 2 NAVAL FACILITIES ENGINEE SYSTEMS COMMAND 48 OF 68 C-305 AREA G - CROSS SECTIONS 3 XXX-XX-XXX12916822 49 OF 68 C-306 XXX-XX-XXX12916823 AREA G - CROSS SECTIONS 4 SECURITY 50 OF 68 C-307 12916824 AREA G - CROSS SECTIONS 5 XXX-XX-XXX51 OF 68 C-308 XXX-XX-XXX12916825 AREA G - CROSS SECTIONS 6 DRAW 52 OF 68 C-309 12916826 XXX-XX-XXXAREA G - CROSS SECTIONS 7 53 OF 68 C-310 12916827 AREA H - CROSS SECTIONS 1 XXX-XX-XXX54 OF 68 C-311 PERIMETER 12916828 AREA H - CROSS SECTIONS 2 XXX-XX-XXXENGINEERING (55 OF 68 C-312 12916829 XXX-XX-XXXAREA H - CROSS SECTIONS 3 56 OF 68 C-313 12916830 AREA H - CROSS SECTIONS 4 XXX-XX-XXX57 OF 68 C-501 XXX-XX-XXX 12916831 CONSTRUCTION DETAILS 1 58 OF 68 C-502 12916832 AREA G - BORING LOGS 1 XXX-XX-XXX59 OF 68 C-503 XXX-XX-XXX 12916833 AREA G - BORING LOGS 2 60 OF 68 C-701 XXX-XX-XXX12916834 BID OPTION 01 - DEMO SITE PLAN 5 0 61 OF 68 C-702 XXX-XX-XXX 12916835 BID OPTION 01 - SITE PLAN 62 OF 68 C-703 XXX-XX-XXX 12916836 BID OPTION 01 - STRIPING PLAN 63 OF 68 C-704 12916837 XXX-XX-XXXBID OPTION 01 - CONSTRUCTION DETAILS 1 64 OF 68 C-705 XXX-XX-XXX 12916838 BID OPTION 01 - CONSTRUCTION DETAILS 2 65 OF 68 C-706 12916839 BID OPTION 02 - OVERALL EXISTING SITE PLAN XXX-XX-XXXPROJECT NO.: 1585749 NAVFAC DRAWING NO. 66 OF 68 C-707 XXX-XX-XXX12916840 BID OPTION 02 - CULVERT REPLACEMENT PLAN 12916776 12916841 67 OF 68 C-801 TRAFFIC MANAGEMENT PLAN 1 XXX-XX-XXXHEET 2 OF 68 68 OF 68 C-802 XXX-XX-XXX12916842 TRAFFIC MANAGEMENT PLAN 2 G-001A FAC-YR-NUM DRAWFORM REVISION: DECEMBER 2018

UNCLASSIFIED



GENERAL NOTES:

- 1. PLANS HAVE BEEN COMPILED FROM EXISTING RECORD PLANS, ON-SITE FIELD SURVEY AND OBSERVATION.
- 2. EXISTING CONDITION CONTOURS SHOWN DEVELOPED BY AERIAL MAPPING PERFORMED BY AERIAL SURVEY & PHOTO, NORRIDGEWOCK, MAINE, JULY 27, 2001 AND REFERENCE PNSY VERTICAL DATUM MLLW = 96.779 (NAVD 88 00.00). SEE "TOPOGRAPHIC PLAN OF THE PORTSMOUTH NAVAL SHIPYARD KITTERY, MAINE FOR TETRA TECH NUS" DATED 11-22-02.
- 3. VERTICAL DATUM: NAVD 88.
- 4. HORIZONTAL DATUM: MAINE STATE COORDINATES. WEST ZONE NAD 83.
- UNLESS OTHERWISE NOTED, ALL EXISTING FEATURES DESIGNATED ON THE PLANS TO REMAIN INCLUDING, BUT NOT LIMITED TO, TREES, SIGNS, SIGN POSTS, CURBS, SIDEWALKS AND BACK OF SIDEWALK FEATURES MUST BE VERIFIED, LOCATED, AND PROTECTED DURING ALL PHASES OF CONSTRUCTION.
- SURVEY CONTROL BOUNDS AND STREET LINE MONUMENTATION MUST NOT BE DISTURBED DURING THE COURSE OF WORK AND MUST BE PROTECTED. SHOULD ANY BOUND BE DISTURBED, THE CONTRACTOR MUST HIRE, AT HIS OWN EXPENSE, A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF MAINE TO REPLACE AND / OR RESET THE BOUND TO ITS ORIGINAL POSITION.
- 7. SALVAGED ITEMS ARE TO BECOME THE PROPERTY OF THE GOVERNMENT.
- FEATURES MAY BE SHOWN WITHIN THE LIMIT OF WORK THAT ARE NOT EXPLICITLY CALLED OUT FOR REMOVAL OR DEMOLITION. DEMOLISH ALL FEATURES WITHIN THE LIMIT OF WORK REQUIRED TO COMPLETE THE WORK OF THE PROJECT.
- 9. PREVENT ANY DISTURBANCE OR DAMAGE TO ADJACENT PROPERTIES.
- 10. N/A
- 11. REPORT ALL SPILLS AND LEAKS OF OIL OR OTHER HAZARDOUS SUBSTANCES. (IE OIL, ANTIFREEZE, CHEMICALS, ETC.) OCCURRING DURING THE PERFORMANCE OF THIS CONTRACT IMMEDIATELY UPON DISCOVERY, REGARDLESS OF THE QUANTITY. CALL THE FIRE DEPARTMENT AND CONTRACTING OFFICER TO REPORT THE SPILL. THE GOVERNMENT RESERVES THE RIGHT TO CLEAN UP, PACKAGE AND DISPOSE OF CONTRACTOR SPILLS OCCURRING ON THE SITE, AND BILL SUCH COSTS TO THE CONTRACTOR.
- 12. UNFORESEEN HAZARDOUS MATERIAL THE DESIGN HAS IDENTIFIED MATERIALS SUCH AS PCB. LEAD PAINT. AND FRIABLE AND NON-FRIABLE ASBESTOS. IF ADDITIONAL MATERIAL, NOT INDICATED, THAT MAY BE HAZARDOUS TO HUMAN HEALTH UPON DISTURBANCE DURING CONSTRUCTION OPERATIONS IS ENCOUNTERED, STOP THAT PORTION OF WORK AND NOTIFY THE CONTRACTING OFFICER IMMEDIATELY.
- 13. ACCESS TO THIS SECURED FACILITY IS CONTROLLED. COORDINATE MATERIAL DELIVERIES. HAUL ROUTES. AND WORK SCHEDULE WITH THE CONTRACTING
- 14. WHERE CONFLICTS OCCUR WITHIN THE DOCUMENTS OR BETWEEN THE DOCUMENTS AND CODES, INDUSTRY STANDARDS, OR MANUFACTURER'S RECOMMENDATIONS, THE MORE STRINGENT REQUIREMENT, AS DETERMINED BY THE CONTRACTING OFFICER. WILL APPLY.
- 15. NO DEVIATIONS FROM THE CONTRACT DOCUMENTS ARE PERMITTED, UNLESS APPROVED BY THE CONTRACTING OFFICER.
- 16. THE PROJECT SITE CONTAINS HISTORIC AND/OR CULTURALLY SIGNIFICANT STRUCTURES AND LANDSCAPE FEATURES. DEVIATIONS FROM THE CONTRACT DOCUMENTS MAY REQUIRE ADDITIONAL CONSULTATION WITH THE STATE OF MAINE HISTORIC PRESERVATION OFFICE.

CONSTRUCTION NOTES:

- WHEELED OR TRACKED VEHICLES MUST NOT OPERATE IN THE WATER. EQUIPMENT MAY OPERATE ON SHORE AND REACH INTO THE WATER WITH A BUCKET OR SIMILAR EXTENSION.
- AVAILABLE STORAGE AND LAYDOWN AREAS ARE EXPLICITLY SHOWN ON THE DRAWINGS. NO OTHER SPACE IS AVAILABLE. COORDINATE FINAL DETAILS WITH THE CONTRACTING OFFICER.
- 3. ALL CONSTRUCTION MATERIALS MUST BE TRANSPORTED TO AND FROM THE SITE IN COVERED VEHICLES. PROVIDE VACUUM ASSISTED STREET SWEEPER AT THE SITE AS NECESSARY TO KEEP TRAFFIC AREAS CLEAN.
- COORDINATE WITH CONTRACTING OFFICER OPERATIONS DURING THE PROCESS OF THE WORK.
- 5. SUBMIT A DETAILED CONSTRUCTION SEQUENCING PLAN FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- 6. MAINTAIN SECURITY AT ALL TIMES DURING CONSTRUCTION.
- COMPLY WITH ALL APPLICABLE O.S.H.A. REGULATIONS AND SAFETY REQUIREMENTS.
- ALL CONSTRUCTION SIGNS MUST BE DESIGNED TO WITHSTAND 50MPH WINDS VELOCITY WINDS AND BE PREPARED BY A PROFESSIONAL SIGN COMPANY WITH A MINIMUM OF THREE (3) YEARS EXPERIENCE.
- 9. WHERE CONTRACTOR REMOVES EXISTING SITE FEATURES THAT ARE TO REMAIN TO FACILITATE INSTALLATION OF NEW WORK FOR THIS PROJECT, REPLACE THE EXISTING SITE FEATURES AT CONTRACTORS EXPENSE.
- 10. THE CONSTRUCTION LIMIT LINE SHOWN ON DRAWING IS AN APPROXIMATION OF THE CONSTRUCTION LIMITS. THE CONTRACTOR IN COORDINATION WITH THE CONTRACTING OFFICER MAY MODIFY THIS LINE TO ACCOMMODATE THE EFFICIENCY OF CONSTRUCTION PROJECT.

EROSION CONTROL NOTES:

- 1. ALL SITE WORK CONDUCTED ON OR AFTER JANUARY 1, 2013 IN THE STATE OF MAINE SHORELAND ZONE, INCLUDING ANY FILLING, EXCAVATION, LANDSCAPING, AND/OR OTHER EARTHWORK IN EXCESS OF ONE CUBIC YARD OF DISTURBANCE, MUST COMPLY WITH STATE OF MAINE REQUIREMENTS FOR CERTIFICATION IN EROSION AND SEDIMENTATION CONTROL PRACTICES. A CERTIFIED INDIVIDUAL MUST BE RESPONSIBLE FOR MANAGEMENT OF EROSION CONTROL PRACTICES AT THE SITE EACH DAY EARTH MOVING ACTIVITIES OCCUR. A CERTIFIED INDIVIDUAL IS REQUIRED TO VISIT THE SITE EVERY DAY TO ENSURE PROPER EROSION AND SEDIMENT CONTROL PRACTICES ARE FOLLOWED. AS AN ALTERNATIVE, THE CONTRACTOR MAY CHOOSE TO CONTRACT WITH A CERTIFIED INDIVIDUAL TO SUPERVISE THE CONTRACTORS WORK IN SHORELAND AREAS. UNDER THE STATE OF MAINE'S SHORELAND ZONING STATUES, THE SITE IS LOCATED ENTIRELY WITHIN THE STATE'S SHORELAND ZONE.
- 2. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE DESIGNED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES, LATEST EDITION.
- 3. ALL EROSION CONTROL MEASURES MUST BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR REGRADING. ALL DISTURBED AREAS ON THE SITE. NOT COVERED BY BUILDINGS OR PAVEMENT, MUST BE STABILIZED WITH LOAM, SEED AND MULCH, OR OTHER METHODS AS REQUIRED BY THE SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN.
- 4. CONSTRUCTION MUST NOT BEGIN UNTIL ALL OF THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES. HAVE BEEN INSTALLED.

TRAFFIC NOTES:

- MAINTAIN TRAFFIC FLOW DURING THE PROGRESS OF THE WORK. A DETAILED TRAFFIC CONTROL PLAN MUST BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. THE TRAFFIC CONTROL PLAN MUST CONSIDER ALL AFFECTED PORTSMOUTH SHIPYARD OPERATIONS. THE CONTRACTOR MUST UPDATE THE TRAFFIC CONTROL PLAN AS REQUIRED DURING THE PROJECT.
- 2. MAINTAIN EXISTING TRAFFIC CONTROL SIGNAGE AND INFORMATIONAL SIGNS DURING THE PROCESS OF WORK.
- 3. PROVIDE TEMPORARY TRAFFIC CONTROL DEVICES.
- 4. PROVIDE POST MOUNTED AND WALL MOUNTED TRAFFIC CONTROL AND INFORMATION SIGNS IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AS PUBLISHED BY THE FHWA.

HAZARDOUS MATERIALS NOTES:

- 1. AN ENVIRONMENTAL AND HAZARDOUS BUILDING MATERIALS SURVEY WAS COMPLETED IN JANUARY 2024. THE SURVEY INCLUDED LABORATORY TESTING OF SOIL AND HAZARDOUS MATERIALS WITHIN THE WORK AREA. THE SAMPLING RESULTS INDICATE THAT THE SOIL CONTAINS LOW CONCENTRATIONS OF METALS AND PETROLEUM, ALL OF WHICH ARE BELOW THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION (MEDEP) COMMERCIAL WORKER AND CONSTRUCTION WORKER REMEDIAL ACTION GUIDELINES (RAGS). HAZARDOUS MATERIAL SAMPLING RESULTS INDICATE THAT THE PAINTED METAL TOWERS AND A PATCHING COMPOUND APPLIED TO THE TOWER FOUNDATIONS CONTAIN VARIOUS CONCENTRATIONS OF LEAD, CADMIUM, AND CHROMIUM. TESTING FOR ASBESTOS-CONTAINING MATERIAL (ACM) IDENTIFIED MORE THAN 1% ASBESTOS IN THE SEA ANCHORS WITHIN THE WORK AREA. THE SAMPLING LOCATIONS AND A SUMMARY OF THE RESULTS ARE PROVIDED IN THE ENVIRONMENTAL AND HAZARDOUS MATERIALS DATA REPORT DATED APRIL 23, 2024.
- OSHA REGULATIONS WILL APPLY TO DEMOLITION ACTIVITIES THAT DISTURB MATERIALS CONTAINING LEAD, CADMIUM, AND CHROMIUM. OCCUPATIONAL EXPOSURE TO METALS IS REGULATED BY OSHA AND APPLICABLE STATE REGULATIONS. DISPOSAL OF HAZARDOUS MATERIALS/DEBRIS CONTAINING LEAD. CADMIUM, AND CHROMIUM IS SUBJECT TO THE REQUIREMENTS OF THE RESOURCE CONSERVATION AND RECOVERY ACT (RCRA).
- DEMOLITION OR DISTURBANCE OF MATERIALS CONTAINING EQUAL TO OR GREATER THAN 1% ASBESTOS WILL REQUIRE APPROPRIATE MANAGEMENT ACCORDING TO STATE AND FEDERAL REQUIREMENTS. ABATEMENT OF ACM REQUIRES THE USE OF A PROPERLY TRAINED AND LICENSED ASBESTOS ABATEMENT CONTRACTOR.

ENVIRONMENTAL NOTES:

- WETLAND BOUNDARIES SHOWN IN AREA H ON THESE PLANS ARE HISTORICAL BOUNDARIES DEVELOPED BY NAVFAC. WETLAND BOUNDARIES SHOWN IN AREA G WERE DELINEATED BY A CERTIFIED WETLAND SCIENTIST IN APRIL 2024.
- 2. DUNE, WADING BIRD AND WATERFOWL, AND SHOREBIRD HABITAT BOUNDARIES SHOWN ON THESE PLANS WERE OBTAINED FROM MAINE GEOLOGICAL SURVEY GIS MAPS.
- 3. COASTAL WETLAND BOUNDARIES ARE DETERMINED BY MAINE DEP BY USING HIGHEST ANNUAL TIDE (HAT) LEVELS PUBLISHED BY THE NATIONAL OCEAN SERVICE (NOAA). ALTERNATIVELY, A QUALIFIED PROFESSIONAL COULD BE USED TO DETERMINE THE EDGE OF COASTAL WETLANDS. A WETLAND DELINEATION OF AREA G WAS PERFORMED BY A CWS, AND THE WETLAND LINES SHOWN ON THESE PLANS AT AREA G REPRESENT THE WETLANDS DELINEATED BY THE CWS. THE WETLAND IMPACTS QUANTIFIED FOR THE WORK USED THE WETLAND BOUNDARIES DETERMINED BY THE CWS AT AREA G, AS THEY ARE THE MOST RECENT, FIELD VERIFIED BOUNDARY AND YIELD THE HIGHEST WETLAND IMPACT
- 4. THE NATIONAL OCEAN SERVICE REFERS TO HAT AS HIGHEST ASTRONOMICAL TIDE RATHER THAN HIGHEST ANNUAL TIDE. IN ADDITION TO THE FIELD DELINEATED WETLAND LINES, THE MOST RECENT HIGHEST ANNUAL TIDE FOR THE AREA BASED ON ELEVATION (PUBLISHED BY MAINEDEP), THE MOST RECENT HIGHEST ASTRONOMICAL TIDE OF THE AREA BASED ON ELEVATION (PUBLISHED BY NOAA), AND GIS OF THE HIGHEST ASTRONOMICAL TIDE OF THE AREA (PUBLISHED BY MAINE GEOLOGICAL SURVEY, BASED ON NOAA) ARE ALSO SHOWN ON THE PLANS FOR REFERENCE.

CULTURAL RESOURCE NOTES:

- 1. A PORTION OF BAYVIEW ROAD IS WITHIN AN AREA IDENTIFIED AS HAVING MODERATE PROBABILITY FOR HAVING CULTURAL RESOURCES. EXCAVATIONS MUST BE MONITORED BY AN ARCHEOLOGIST.
- 2. IN THE EVENT A POTENTIAL ARCHAEOLOGICAL RESOURCE IS ENCOUNTERED DURING GROUND DISTURBING ACTIVATES. STOP ALL WORK IN THE IMMEDIATE AREA AND NOTIFY THE COR. DO NOT RESUME WORK UNTIL SO DIRECTED.

GENERAL NOTES:

1. THE CONTRACTOR MUST CALL DIGSAFE AT 1-888-344-7233 AT LEAST 72 HOURS, SATURDAYS, AND HOLIDAYS EXCLUDED, PRIOR TO EXCAVATING AT ANY LOCATION. A COPY OF THE DIGSAFE PROJECT REFERENCE NUMBER(S) MUST BE GIVEN TO NAVFAC PRIOR TO EXCAVATION.

DESIGN NOTES:

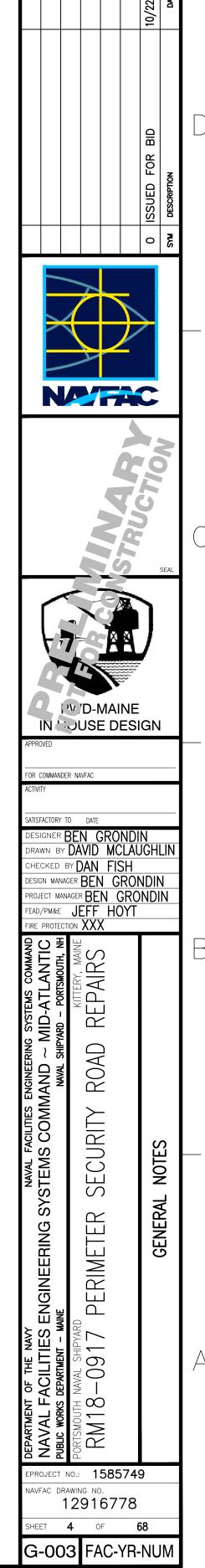
DESIGN FEATURE INFORMATION AND BACKUP CAN BE FOUND IN BASIS OF DESIGN DOCUMENT INCLUDED WITH 65% PLAN SUBMITTAL.

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UTILITY NOTES:

- VERIFY ALL EXISTING UTILITY INFORMATION AND TIE IN LOCATIONS NEEDED TO COMPLETE THE CONSTRUCTION OF NEW UTILITY SYSTEMS AND SITE IMPROVEMENTS. VERIFICATION METHODS MUST INCLUDE BUT NOT BE LIMITED TO TESTS PITS AND CCTV TO VERIFY LOCATION, ELEVATION, SIZE, MATERIAL, AND ANY OTHER INFORMATION REQUIRED TO COMPLETE THE CONSTRUCTION
- 2. UTILITIES NOT SHOWN ON THESE PLANS MAY EXIST. THE LOCATION. ELEVATION, SIZE AND MATERIAL OF ALL UTILITIES MUST BE VERIFIED BEFORE PROCEEDING WITH CONSTRUCTION. ALL UTILITY LINES AND ASSOCIATED STRUCTURES NOT AFFECTED BY THIS PROJECT MUST BE PROTECTED THROUGHOUT ALL PHASES OF WORK.
- THE LOCATION OF UNDERGROUND UTILITIES WITHIN THE LIMITS OF THE EXCAVATION OR GROUND PENETRATING WORK MUST BE LOCATED PRIOR TO COMMENCING ANY EXCAVATION OR GROUND PENETRATING WORK. "DIG SAFE" (1-888-344-7233) MUST BE NOTIFIED WITHIN 14 CALENDAR DAYS, BUT NO MORE THEN 30 DAYS, PRIOR TO THE COMMENCEMENT OF THE EXCAVATION OR GROUND PENETRATING ACTIVITY. THE STATE OF MAINE "DIG SAFE" LAW (TITLE 23, MRSA 3360-A) MUST BE FULLY COMPILED WITH.
- 4. THE EXCAVATOR MUST PREPARE A "PWD ME DIG SAFE UTILITY LOCATE REQUEST FORM" AT LEAST 14 CALENDAR DAYS PRIOR TO THE COMMENCEMENT OF THE EXCAVATION OR GROUND PENETRATING ACTIVITY AND SUBMIT THE FORM TO THE CONTRACTING OFFICER (OBTAIN FORM FROM NAVFAC ET).
- 5. THE GOVERNMENT MUST LOCATE AND MARK THE UNDERGROUND UTILITIES WITHIN 14 CALENDAR DAYS OF RECEIVING THE DIG SAFE NOTIFICATION.
- EXCAVATION OR GROUND PENETRATION ACTIVITIES CAN NOT COMMENCE UNTIL THE UTILITIES HAVE BEEN MARKED IN THE FIELD AND THE PWD ME DIG SAFE UTILITY LOCATE REQUEST FORM HAS BEEN RETURNED INDICATING THE PWD ME DIG SAFE REVIEW PROCESS HAS BEEN COMPLETED AND EXCAVATION HAS BEEN APPROVED BY THE CONTRACTING OFFICER.
- 7. IF THE EXCAVATION OR GROUND PENETRATING ACTIVITIES DO NOT COMMENCE WITHIN 27 DAYS OF DIG SAFE NOTIFICATION OR THE EXCAVATION WORK IS EXPANDED OUTSIDE THE LOCATION ORIGINALLY SPECIFIED IN THE NOTIFICATION, THE EXCAVATOR MUST RE-NOTIFY DIG SAFE, THE CONTRACTING OFFICER AND THE PWD ME DIG SAFE COORDINATOR.
- 8. MAINTAIN THE UTILITY MARKINGS THROUGHOUT THE CONTRACT PERIOD. IF ADDITIONAL MARKINGS ARE REQUIRED, THE EXCAVATOR MUST RE-NOTIFY DIG SAFE. THE CONTRACTING OFFICER, AND THE PWD ME DIG SAFE COORDINATOR AT 207-438-1082.
- 9. ALL SEWER AND DRAIN FRAMES AND GRATES OR COVERS MUST BE ADJUSTED TO MATCH FINISHED GRADE. EXISTING FRAMES AND GRATES OR COVERS MUST BE REMOVED AND NEW FRAMES AND GRATES OR COVERS MUST BE PROVIDED IF EXISTING ITEMS ARE DAMAGED DURING THE COURSE OF WORK.
- 10. ALL ELECTRIC POWER MANHOLE FRAMES AND COVERS MUST BE ADJUSTED TO MATCH FINISH GRADE. REMOVE EXISTING FRAMES AND COVERS AND PROVIDE NEW FRAMES AND COVERS WHEN DAMAGED DURING THE COURSE OF WORK.
- 11. SHORING SYSTEMS: MECHANICAL MEANS OF EXCAVATION MUST NOT BE USED WHEN EXCAVATING WITHIN 48 INCHES OF ANY MARKED UNDERGROUND UTILITY UNTIL THE UNDERGROUND UTILITY HAS BEEN EXPOSED. MECHANICAL MEANS MAY BE USED. AS NECESSARY, FOR INITIAL PENETRATION AND REMOVAL OF PAVEMENT, ROCK, OR OTHER MATERIALS REQUIRING USE OF MECHANICAL MEANS OF EXCAVATION. ONCE THE UNDERGROUND UTILITIES HAVE BEEN EXPOSED, FURTHER EXCAVATION MUST BE PERFORMED EMPLOYING REASONABLE PRECAUTIONS TO AVOID DAMAGE TO THE UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO ANY SUBSTANTIAL WEAKENING OF STRUCTURAL OR LATERAL SUPPORT OF THE UTILITY OR PENETRATION OR DESTRUCTION OF THE UTILITY OR THEIR PROTECTIVE COATINGS.
- 12. ADJUST ALL GATE VALVE BOXES AND CURB STOP BOXES TO FINISH GRADE. REMOVE EXISTING GATE VALVE BOXES AND CURB STOP BOXES AND PROVIDE NEW GATE VALVE BOXES AND CURB STOP BOXES WHEN DAMAGED DURING THE COURSE OF WORK.
- 13. THE COST FOR THE ADJUSTMENT OR RELOCATION OF PUBLIC AND PRIVATE UTILITY PIPES, STRUCTURES AND CASTINGS, INCLUDING BUT NOT LIMITED TO GAS, CABLE TV, AND TELEPHONE, MUST BE PAID BY THE CONTRACTOR. COMPLETION OF SUCH WORK MAY OR MAY NOT BE COMPLETED BY THE PUBLIC AND PRIVATE UTILITY OWNER. THE CONTRACTOR MUST COORDINATE ALL WORK WITH THE PUBLIC UTILITY COMPANIES.
- 14. PREVENT DEBRIS FROM ENTERING INLETS AND BASINS. PROVIDE AND MAINTAIN INLET PROTECTION FOR THE DURATION OF THE WORK. INSPECT INLETS WEEKLY AND AFTER EACH STORM EVENT. AND REMOVE ACCUMULATED DEBRIS. CLEAN ALL STRUCTURES AT THE COMPLETION OF THE WORK.
- 15. WHERE ITEMS SUCH AS UTILITY STRUCTURES AND EARTHWORK MATERIALS ARE INDICATED BY TYPE, SEE THE MEDOT STANDARD SPECIFICATIONS, HIGHWAY AND BRIDGES AND SUPPLEMENTARY STANDARD CONSTRUCTION DETAILS FOR CONSTRUCTION, LATEST EDITIONS.

UTILITY LOCATION NOTES

UTILITY LOCATIONS:

- 1. THE CONTRACTOR MUST PROVIDE THE SERVICES OF A THIRD PARTY, QUALIFIED INDEPENDENT UTILITY LOCATING COMPANY/PERSON(S) (CANNOT BE THE GOVERNMENT'S UTILITY LOCATING FIRM) TO POSITIVELY IDENTIFY UNDERGROUND UTILITIES IN THE WORK AREA. THE THIRD PARTY INDEPENDENT LOCATING FIRM IS IN ADDITION TO THE PWD ME DIG SAFE
- 2. THE THIRD PARTY REVIEW MUST BE COMPLETED AFTER THE PWD ME DIG SAFE MARKING HAVE BEEN COMPLETED. ONCE THE THIRD PARTY LOCATE COMPANY HAS COMPLETED THEIR REVIEW OF THE EXCAVATION AREA AND THE GOVERNMENT MARKINGS ARE CONFIRMED, THE THIRD PARTY LOCATE COMPANY & CONTRACTOR MUST SIGN THE THIRD PARTY UTILITY LOCATE CERTIFICATION FORM AND SUBMIT THE FORM TO THE CONTRACTING OFFICER PRIOR TO COMMENCING EXCAVATION. IF THE THIRD PARTY LOCATE COMPANY FINDS ANY DISCREPANCIES WITH THE GOVERNMENT'S UTILITY MARKINGS. THE CONTRACTOR MUST NOTIFY THE CONTRACTING OFFICER IMMEDIATELY.

UTILITY LOCATION VERIFICATION:

1. PHYSICALLY VERIFY UNDERGROUND UTILITY LOCATIONS, INCLUDING UTILITY DEPTH. BY HAND DIGGING USING WOOD OR FIBERGLASS HANDLED TOOLS WHEN ANY ADJACENT CONSTRUCTION WORK IS EXPECTED TO COME WITHIN 3 FEET OF THE UNDERGROUND SYSTEM.

UTILITIES WITHIN AND UNDER CONCRETE, BITUMINOUS ASPHALT, AND OTHER IMPERVIOUS SURFACES:

- 1. UTILITIES LOCATED WITHIN AND UNDER CONCRETE SLABS OR PIER STRUCTURES, BRIDGES, PARKING AREAS, AND THE LIKE, ARE EXTREMELY DIFFICULT TO IDENTIFY. WHENEVER CONTRACT WORK INVOLVES CHIPPING. SAW CUTTING. OR CORE DRILLING THROUGH CONCRETE, BITUMINOUS ASPHALT OR OTHER IMPERVIOUS SURFACES, THE EXISTING UTILITY LOCATION MUST BE COORDINATED WITH STATION UTILITY DEPARTMENTS IN ADDITION TO LOCATION AND DEPTH VERIFICATION BY A THIRD PARTY, INDEPENDENT, PRIVATE LOCATING COMPANY. THE THIRD PARTY, INDEPENDENT, PRIVATE LOCATING COMPANY MUST LOCATE UTILITY DEPTH BY USE OF GROUND PENETRATING RADAR (GPR), X-RAY, BORE SCOPE, OR ULTRASOUND PRIOR TO THE START OF DEMOLITION AND CONSTRUCTION. OUTAGES TO ISOLATE UTILITY SYSTEMS MUST BE USED IN CIRCUMSTANCES WHERE UTILITIES ARE UNABLE TO BE POSITIVELY IDENTIFIED. THE USE OF HISTORICAL DRAWINGS DOES NOT ALLEVIATE THE CONTRACTOR FROM MEETING THIS REQUIREMENT.
- 2. THE CONTRACTOR MUST ENSURE WORK IS CONDUCTED AND COMPLETED IN SUCH A MANNER TO ALLOW ACCESS FOR EMERGENCY RESPONSE VEHICLES THROUGHOUT THE CONSTRUCTION PERIOD.

(DM TO CONFIRM IF THERE ARE HAZARDOUS AND/OR MISSION CRITICAL UTILITIES WITHIN THE EXCAVATION AREAS. THIS SHOULD BE REVIEWED WITH THE UEM DSC.)

EXCAVATING WITH HAZARDOUS AND/OR MISSION CRITICAL UTILITIES WITHIN THE **EXCAVATION AREA:**

1. THE FOLLOWING UTILITIES WITH THE EXCAVATION LIMITS FOR THIS PROJECT ARE HAZARDOUS AND/OR MISSION CRITICAL:

(DM TO LIST THE HAZARDOUS AND/OR MISSION CRITICAL UTILITIES)

- a. THE CONTRACTOR MUST EMPLOY SUPPLEMENT DAILY DIG SAFE PROCEDURES TO INCLUDE AN ADDITIONAL CHECKOFF ON CONTRACTOR DAILY ACTIVITY PLAN ASKING IF ALL UTILITIES HAVE BEEN CLEARLY MARKED AND REVIEWED WITH THE SSHO.
- b. THE CONTRACTOR MUST HAVE A DIG SAFE LAMINATED UTILITY COLOR CODING SYSTEM POSTED IN OR NEAR ALL HEAVY DIGGING EQUIPMENT FOR EASY REFERENCE TO TYPE OF UTILITY.
- c. CONTRACTOR'S SSHO MUST COMPLETE A PRE-EXCAVATION WALK AS PART OF THE MORNING PROCEDURE TO HELP ENSURE ALL KNOWN UTILITIES ARE IDENTIFIED AND MARKINGS ARE REFRESHED WITH THE APPROPRIATE COLOR-CODED PAINT.
- d. CONTRACTOR MUST PROVIDE ADDITIONAL DANGER SIGNAGE, TO MARK AREAS OF KNOWN LIVE UNDERGROUND UTILITIES.
- e. CONTRACTOR MUST ENSURE A 'SPOTTER' ACCOMPANIES THE EQUIPMENT OPERATOR DURING EXCAVATION WORK.
- f. CONTRACTOR MUST PROVIDE CONSTRUCTION CM/ET NOTIFICATION NO LATER THAN 7 WORKING DAYS PRIOR TO THE PREPARATORY AND INITIAL PRE-EXCAVATION/DEMO SAFETY REVIEW MEETING WILL BE HELD.
- q. THE CONTRACTOR MUST CONFIRM & IDENTIFY THE CLOSEST UTILITY ISOLATION POINTS & DEVELOP MITIGATION STRATEGIES WITH THE UTILITY OWNER (COORDINATE WITH THE PWD ME DSC) TO ENSURE THE SAFE EXCAVATION ADJACENT TO THESE UTILITIES. UTILITY OUTAGES TO ISOLATE UTILITY SYSTEMS MAY NEED TO BE CONSIDERED IN CIRCUMSTANCES WHERE THE EXCAVATION WORK CANNOT BE COMPLETED SAFELY.

(DM TO CONFIRM IF THE FOLLOWING NOTES ARE REQUIRED & CONFIRM THE NUMBER OF TEST HOLES REQUIRED)

UTILITY LOCATION NOTES

THE CONTRACTOR MUST VERIFY LOCATION OF UNDERGROUND UTILITIES WITHIN THE EXCAVATION AREAS BY COMPLETING 10 TEST HOLES PRIOR TO THE PRIMARY EXCAVATION WORK. THE TEST HOLES MUST BE COMPLETED BY A QUALIFIED SUBSURFACE UTILITY ENGINEERING (SUE) CONTRACTOR AND MUST HAVE A MINIMUM OF THREE (3) YEARS OF VERIFIABLE EXPERIENCE INVOLVING WORK OF SIMILAR

1. TEST HOLE METHOD

UNCLASSIFIED

- A. THE CONTRACTOR MUST USE MINIMALLY INTRUSIVE EXCAVATION TECHNIQUES, ACCEPTABLE TO PWD ME, THAT ENSURE THE SAFETY OF THE EXCAVATION. THE INTEGRITY OF THE UTILITY LINE TO BE MEASURED. AND THAT OF OTHER LINES WHICH MAY BE ENCOUNTERED DURING EXCAVATION.
- B. EXCAVATION MUST BE BY MEANS OF AIR- OR WATER-ASSISTED VACUUM EXCAVATION EQUIPMENT MANUFACTURED SPECIFICALLY FOR THE PURPOSE. PROVIDED, HOWEVER, THAT APPROVAL OF WATER-ASSISTED VACUUM EXCAVATION MAY BE SUBJECT TO ADDITIONAL FINDINGS BY PWD ME THAT SUCH METHOD POSES MINIMAL RISK OF DAMAGE TO THE FACILITY OR UTILITY LINES.
- C. THE CONTRACTOR MUST COMPLETE A AHA PRIOR TO COMPLETING TEST HOLES AND THE SSHO MUST BE PRESENT TO ENSURE ALL SAFETY PROCEDURES ARE FOLLOWED DURING THE EXCAVATION OF TEST HOLES.

2. COMPLIANCE WITH PWD ME DIG SAFE

A. THE CONTRACTOR MUST COMPLY WITH ALL APPLICABLE PROVISIONS OF PWD ME DIG SAFE PROCEDURES WHEN PERFORMING EXCAVATIONS AT UTILITY TEST HOLE SITES.

3. EXCAVATION OF TEST HOLES

- A. CLEAR THE TEST HOLE AREA OF SURFACE DEBRIS.
- B. IN PAVED AREAS, NEATLY CUT AND REMOVE EXISTING PAVEMENT, WHICH CUT MUST NOT EXCEED 225 SQUARE INCHES UNLESS OTHERWISE APPROVED.
- C. EXCAVATE THE TEST HOLE BY THE METHOD(S) ACCEPTABLE TO PWD ME AND TO THE STANDARDS SET FORTH HEREIN (SEE ALSO "SELECTION OF METHOD" ABOVE). THE NOMINAL DIAMETER OF THE TEST HOLE MUST NOT EXCEED 8 INCHES UNLESS OTHERWISE
- D. EXPOSE THE UTILITY ONLY TO THE EXTENT REQUIRED FOR IDENTIFICATION AND DATA COLLECTION PURPOSES.
- E. AVOID DAMAGE TO LINES, WRAPPINGS, COATINGS, CATHODIC PROTECTION OR OTHER PROTECTIVE COVERINGS AND FEATURES.
- F. HAND-DIG AS NEEDED TO SUPPLEMENT MECHANICAL EXCAVATION AND TO ENSURE SAFETY.
- G. REVISE THE TEST HOLE LOCATION AS NECESSARY TO POSITIVELY EXPOSE THE UTILITY.
- H. STORE EXCAVATED MATERIAL FOR RE-USE OR DISPOSAL, AS APPROPRIATE.
- I. ANY DAMAGE TO ANY UTILITIES MUST BE REPORTED TO THE PWD ME DM IMMEDIATELY. THE CONTRACTOR IS RESPONSIBLE FOR ANY UTILITY DAMAGE.

4. COLLECTION, RECORDING, AND PRESENTATION OF DATA

MEASURE AND/OR RECORD THE FOLLOWING INFORMATION AND PROVIDE THE DATA TO THE CONTRACTING OFFICER:

- A. ELEVATION OF TOP AND/OR BOTTOM OF THE UTILITY TIED TO THE PROJECT DATUM, TO A VERTICAL ACCURACY OF $\pm /-$ 0.05 FEET.
- B. ELEVATION OF EXISTING GRADE OVER UTILITY AT TEST HOLE.
- C. HORIZONTAL LOCATION REFERENCED TO PROJECT COORDINATE DATUM. D. FIELD SKETCH SHOWING HORIZONTAL LOCATION REFERENCED TO A MINIMUM OF THREE (3) SWING TIES TO PHYSICAL STRUCTURES EXISTING IN THE FIELD AND SHOWN ON THE PROJECT PLANS.
- E. APPROXIMATE CENTERLINE BEARING OF UTILITY LINE.
- F. OUTSIDE DIAMETER OF PIPE, WIDTH OF DUCT BANKS, AND CONFIGURATION OF NON-ENCASED MULTI-CONDUIT SYSTEMS.
- G. UTILITY STRUCTURE MATERIAL COMPOSITION, WHEN REASONABLY ASCERTAINABLE.
- H. IDENTITY OF BENCHMARKS USED TO DETERMINE ELEVATIONS.

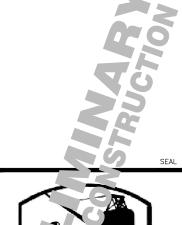
EXCAVATIONS ADJACENT TO ANY GAS LINES:

1. WORK WITHIN 20' OF GAS MAINS: CONTRACTOR MUST CONTACT UNITIL (866-933-3820) A MINIMUM OF 96 HOURS PRIOR TO DIGGING within 20' OF ANY GAS MAIN. CONTRACTOR MUST COMPLY WILTH ALL UNITIL REQUIREMENTS TO DIG IN THIS AREA. ANY COSTS ASSOCIATED WITH THIS COORDINATION AND RESULTANT REQUIREMENTS MUST BE THE RESPONSIBILITY OF THE CONTRACTOR

SOIL EXCAVATION NOTES

- 1. COSTS ASSOCIATED WITH EXCAVATION OR SOIL MANAGEMENT ARE THE RESPONSIBILITY OF THE CONTRACTOR WHICH INCLUDE, BUT ARE NOT LIMITED TO: STOCKPILING, TESTING, TRANSPORT, AND DISPOSAL.
- 2. SOIL TRANSPORTED OFF NCTAMS CUTLER MUST BE DISPOSED OF AT A LICENSED NON-MUNICIPAL LANDFILL FACILITY. LANDFILL SELECTION MUST BE REVIEWED BY PWD-ME ENVIRONMENTAL.
- 3. SOIL MUST BE TESTED FOR CONTAMINANTS AS PRESCRIBED AND REQUIRED BY THE SELECTED LANDFILL.
- 4. A WASTE CHARACTERIZATION PLAN MUST BE SUBMITTED TO PWD-ME ENVIRONMENTAL FOR REVIEW PRIOR TO SAMPLING. SAMPLING MUST BE CONDUCTED BY A QUALIFIED ENVIRONMENTAL PROFESSIONAL FOLLOWING ALL FEDERAL AND STATE SAMPLING PROTOCOL. SAMPLES MUST BE SENT TO A STATE LICENSED LABORATORY FOR CHEMICAL ANALYSIS.
- 5. IF SUSPECT CONTAMINATION IS ENCOUNTERED IN SOIL, EXCAVATION MUST STOP IMMEDIATELY AND NOTIFICATION MUST BE PROVIDED TO THE CONTRACTING OFFICERS REPRESENTATIVE.







OR COMMANDER NAVEAC

ECKED BY DAN FISH

ESIGNER BEN GRONDIN
RAWN BY DAVID MCLAUGHLIN DESIGN MANAGER BEN GRONDIN PROJECT MANAGER BEN GRONDIN FEAD/PM&E JEFF HOYT RE PROTECTION XXX VG SYSTEMS COMMAND MID-ATLANTIC PYARD - PORTSMOUTH, NH PAIRS MAIN

R_× ROAD ACILITIES ENGINEER
COMMAND CURITY SE \simeq ENGINEERING لبا PERIMET

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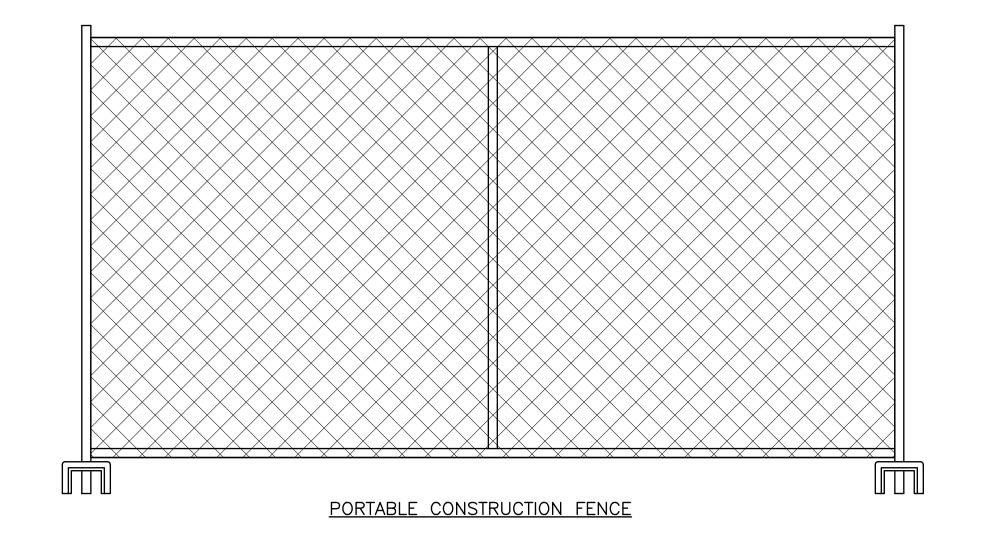
- 1. ALL BARRIERS AND SIGNAGE MUST MEET THE REQUIREMENTS OF EM-385-1-1.
- 2. PROVIDE MINIMUM CLASS 2 CONSTRUCTION BARRIER AROUND PERIMETER OF CONSTRUCTION AREA.
- 3. CONSTRUCTION BARRIER SIGNS MUST BE POSTED MINIMUM 150 FEET AROUND PERIMETER OF CONSTRUCTION AREA.
- 4. CONTRACTOR MUST COORDINATE LAYOUT AND OPENING IN FIELD WITH CM/ET.
- 5. BARRIER LAYOUT MUST NOT BE CHANGED WITHOUT PRIOR APPROVAL OF CM/ET.
- 6. IF AT ANYTIME IT IS DETERMINED THAT THE RISK TO THE PUBLIC CHANGES BASED ON THE CONTRACTORS WORK, THE CONTRACTOR MUST TAKE IMMEDIATE ACTION TO ADDRESS ANY RISK TO THE PUBLIC.

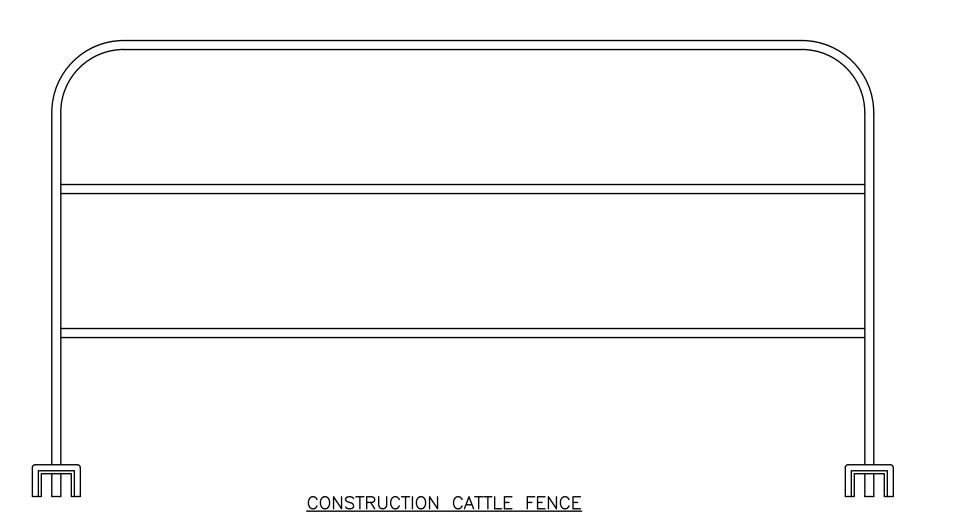
TEMPORARY FENCING REQUIREMENTS

- 1. TEMPORARY PROJECT FENCING (OR A SUBSTITUTE ACCEPTABLE TO THE CONTRACTING OFFICER (GDA) AND DELINEATED IN THE APP) MUST BE PROVIDED ON ALL PROJECTS. SEE ALSO EM385-1-1 SECTIONS 4 & 8.
- A. FENCING MUST EXTEND FROM GRADE TO A MINIMUM OF 4 FT ABOVE GRADE AND MUST HAVE A MAXIMUM MESH SIZE OF 2 IN. FENCING MUST REMAIN RIGID/TAUT WITH A MINIMUM OF 200 LBS OF FORCE EXERTED ON IT FROM ANY DIRECTION WITH LESS THAN 4 IN OF DEFLECTION.
- SIGNS WARNING OF THE PRESENCE OF CONSTRUCTION HAZARDS AND REQUIRING UNAUTHORIZED PERSONS TO KEEP OUT OF THE CONSTRUCTION AREA MUST BE POSTED ON THE FENCING. AT MINIMUM, SIGNS MUST BE POSTED EVERY 150 FT. FENCED SIDES OF PROJECTS THAT ARE LESS THAN 150 FT MUST, AT MINIMUM, HAVE AT LEAST ON WARNING SIGN.
- DEPENDING UPON THE NATURE AND LOCATION OF THE PROJECT SITE, THE CONTRACTOR MAY REQUEST TO MODIFY THE TYPE OF BARRIER OR NOT INSTALL TEMPORARY FENCING IN SOME SECTIONS OF THE PROJECT SITE. THE CONTRACTOR'S SSHO MUST SUBMIT A RISK ANALYSIS OF PUBLIC EXPOSURE AND OTHER PROJECT SPECIFIC CONSIDERATIONS, AND MUST BE INCLUDED IN THE APPLICABLE AHA.
- 2. IF THE CONTRACTING OFFICER APPROVES THE REQUEST AND HAS DETERMINED FENCING IS NOT REQUIRED, THE CONTRACTOR MUST INSTALL SIGNS, OTHER ACCEPTABLE BARRIERS SYSTEMS, WARNING OF CONSTRUCTION HAZARDS, MUST BE CONSPICUOUSLY POSTED.
- 3. IF AT ANY TIME IT IS DETERMINED THE RISK TO THE PUBLIC CHANGES BASED ON THE CONTRACTOR'S WORK, THE CONTRACTOR MUST TAKE IMMEDIATE ACTION TO ADDRESS ANY RISK TO THE PUBLIC.
- 4. THE CONTRACTOR MUST DISPOSE OF ALL REMOVED MATERIALS IN ACCORDANCE WITH THE SHIPYARD/FACILITY, LOCAL, STATE AND FEDERAL REGULATIONS.

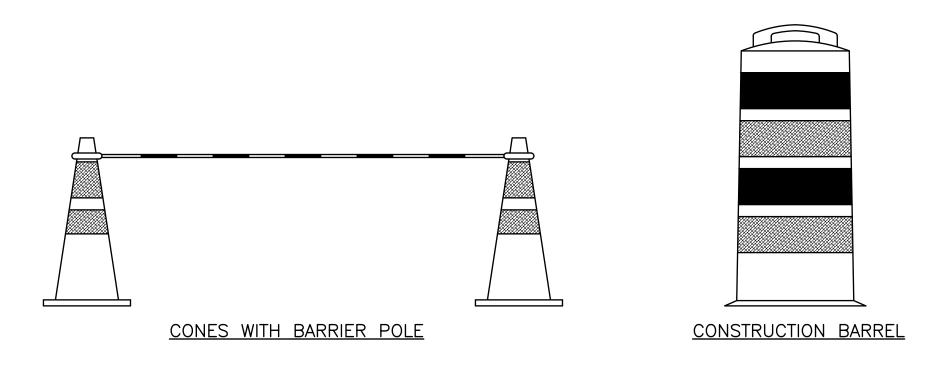


CONSTRUCTION BARRIER SIGN

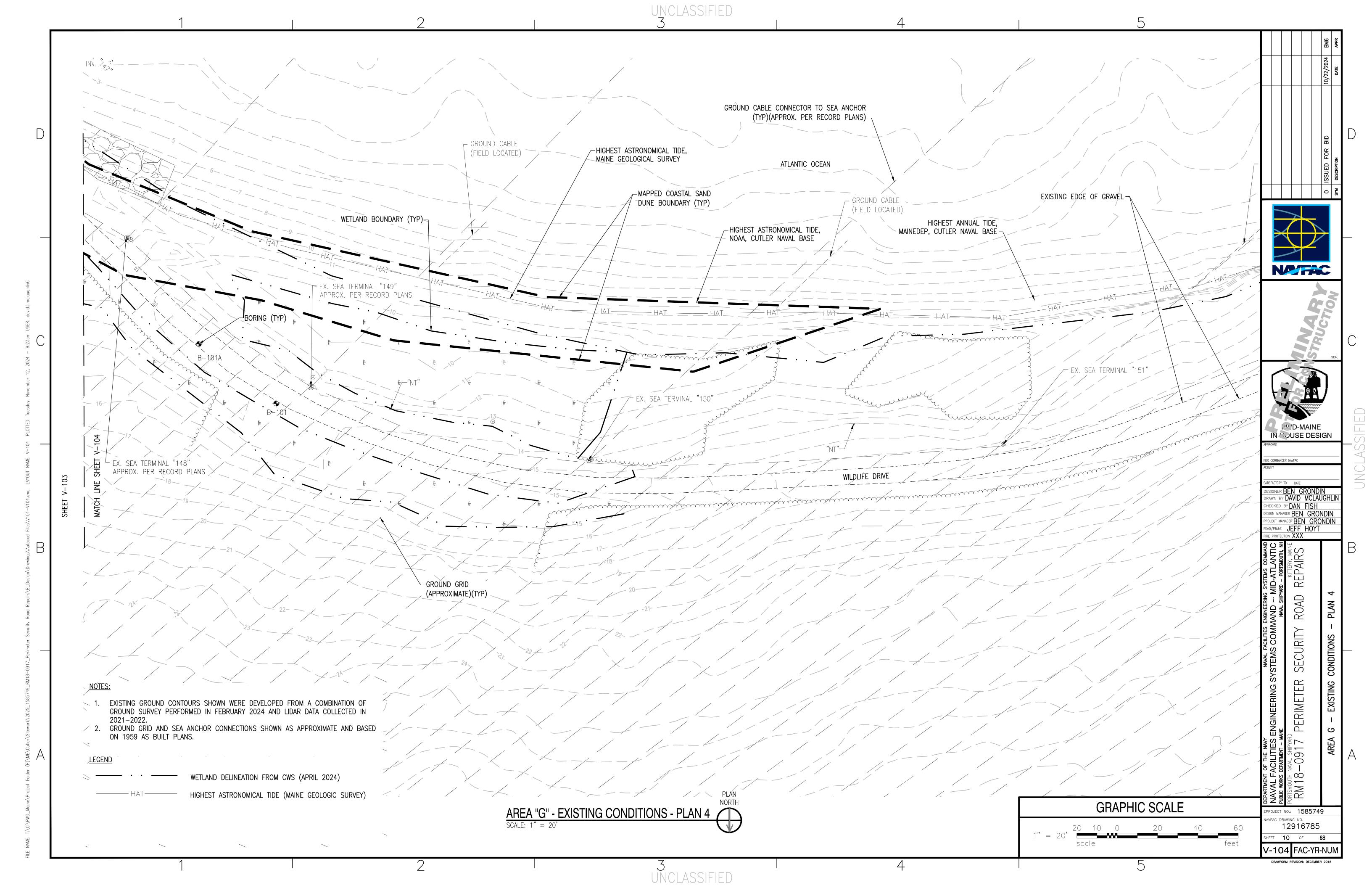


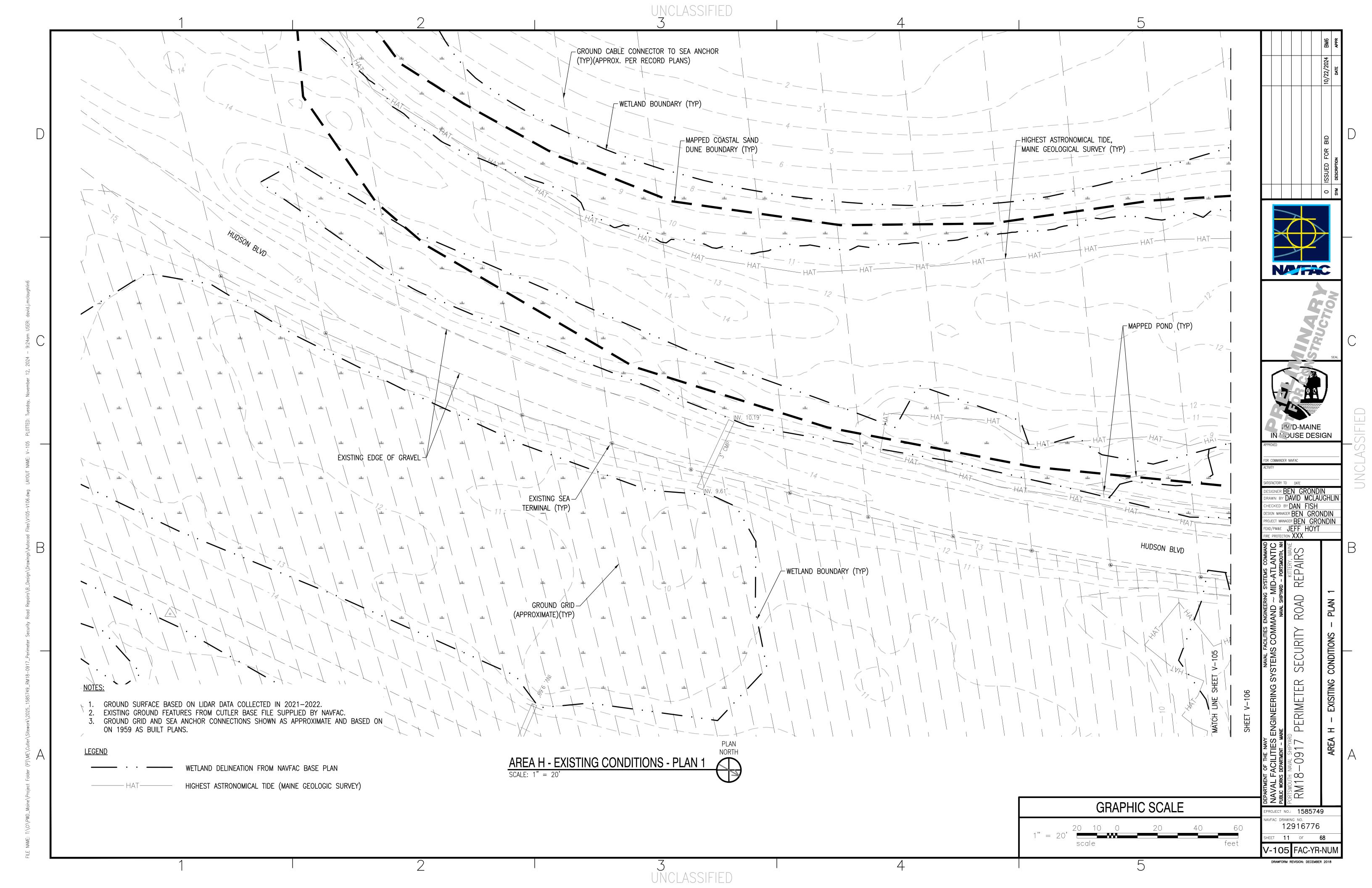


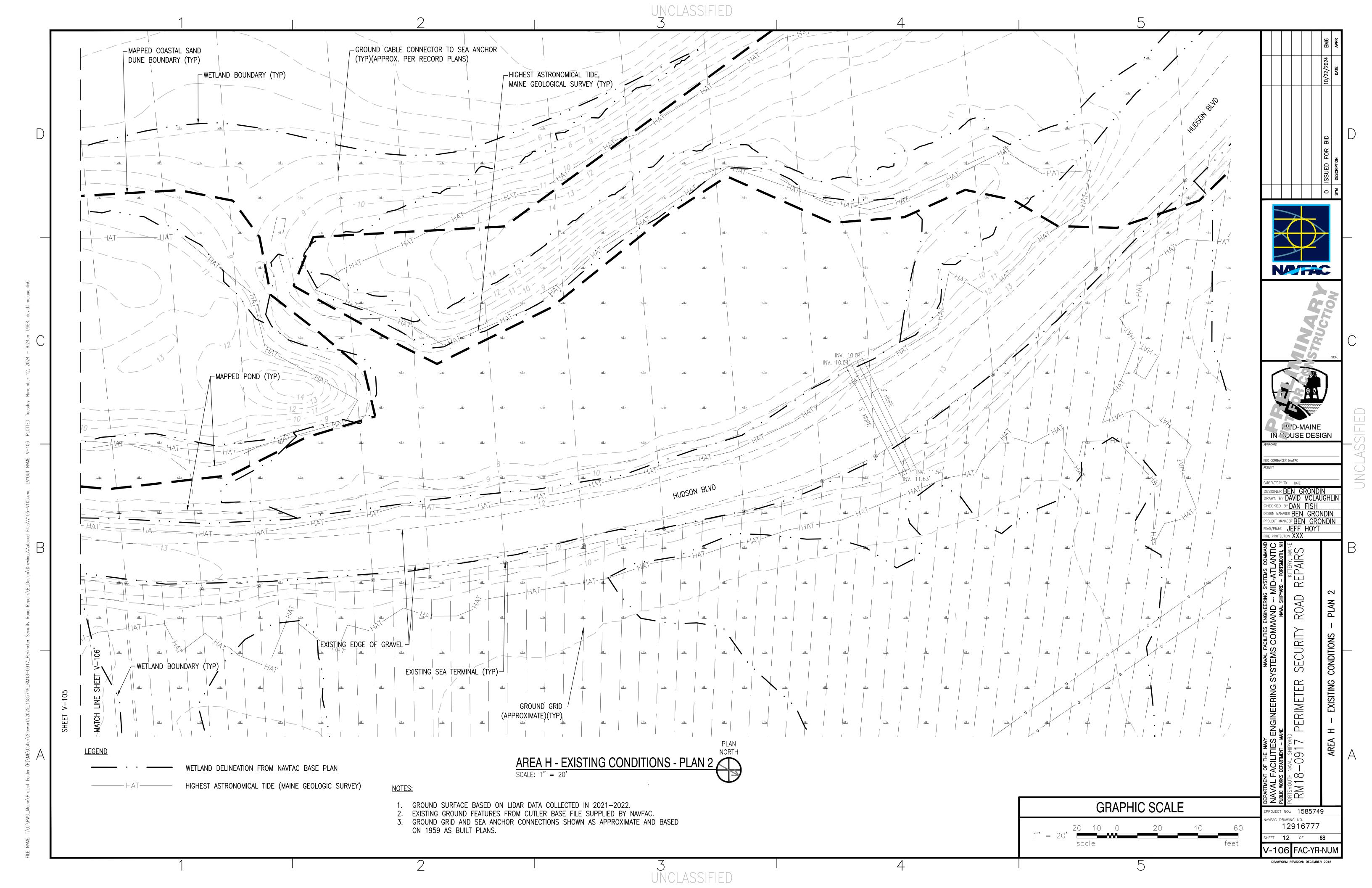
CLASS 2 CONSTRUCTION BARRIER



CLASS 3 CONSTRUCTION BARRIER







EROSION CONTROL NOTES

A. <u>GENERAL NOTES</u>

DURING CONSTRUCTION, AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. THE SMALLEST PRACTICAL AREA OF LAND MUST BE EXPOSED AT ONE TIME DURING CONSTRUCTION. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE MUST BE KEPT AT A MAXIMUM OF 30 DAYS.

EROSION AND SEDIMENT CONTROL PRACTICES INCLUDE THE USE OF THE FOLLOWING: SILT FENCE BARRIERS, TURF REINFORCEMENT MATTING, TEMPORARY CHECK DAMS, INLET PROTECTION, TEMPORARY CONSTRUCTION EXITS. TEMPORARY DIVERSION DIKES. SEDIMENT BASINS. AND PUMPED DISCHARGE SEDIMENT CONTROL DEVICES.

CONTRACTOR MUST DESIGNATE AN ENVIRONMENTAL MANAGER WHO MUST BE RESPONSIBLE FOR INSPECTING ALL INSTALLED EROSION CONTROL MEASURES, MONITORING THEIR EFFECTIVENESS, AND TO ASSESS RE-VEGETATION PROGRESS.

SUBMIT EROSION AND SEDIMENT CONTROL INSPECTION REPORTS TO THE CONTRACTING OFFICER ONCE EVERY 7 CALENDAR DAYS AND BEFORE AND AFTER (24 HOURS) A STORM EVENT PRIOR TO PERMANENT STABILIZATION. EROSION AND SEDIMENT CONTROL MEASURES REQUIRING MODIFICATION OR REPAIRS, OR IF ADDITIONAL MEASURES ARE DEEMED NECESSARY MUST BE COMPLETED WITHIN 7 DAYS AND PRIOR TO THE NEXT STORM EVENT.

THE PLACEMENT OF SEDIMENT BARRIERS MUST BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED BY MEDEP STANDARDS AND IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND DETAILS HEREIN. EROSION CONTROL MEASURES MUST CONFORM TO THE LATEST REVISION MAINE EROSION AND SEDIMENT CONTROL BMPS, PUBLISHED BY BUREAU OF LAND AND WATER QUALITY MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

CONTRACTOR MUST PREPARE DETAILED SCHEDULE AND MARKED UP SITE PLAN INDICATING AREAS OF WORK AND DATES OF DISTURBANCE. EROSION CONTROL MEASURES MUST REMAIN INSTALLED AND MAINTAINED UNTIL ALL EXPOSED SLOPES HAVE A MINIMUM 85% VIGOROUS PERENNIAL VEGETATIVE COVER. EROSION CONTROL MEASURES MUST BE REMOVED WITHIN 30 DAYS OF PERMANENT VEGETATIVE STABILIZATION BEING ATTAINED.

CONTRACTOR MUST INSTALL ADDITIONAL MEASURES TO CONTROL EROSION AS IS NECESSARY GIVEN SITE AND WEATHER CONDITIONS. SITE ENTRANCES AND ADJACENT ROADWAYS MUST BE PERIODICALLY SWEPT TO MINIMIZE TRACKING OF SEDIMENT AND DEBRIS. ALL CATCH BASINS AND DRAINAGE INLETS SUBJECT TO RUNOFF FROM PROJECT SITE MUST BE CLEANED AFTER THE SITE HAS BEEN FULLY STABILIZED.

KEEP DUST DOWN AT ALL TIMES, INCLUDING DURING NONWORKING PERIODS. SPRINKLE OR TREAT, WITH DUST SUPPRESSANTS, THE SOIL AT THE SITE, HAUL ROADS, AND OTHER AREAS DISTURBED BY OPERATIONS. DRY POWER BROOMING WILL NOT BE PERMITTED. INSTEAD, USE VACUUMING, WET MOPPING, WET SWEEPING, OR WET POWER BROOMING.

TEMPORARY VEGETATION MUST BE ESTABLISHED ON DISTURBED AREAS NOT RECEIVING FINAL GRADING WITHIN 30 DAYS TO 1 YEAR. AS SUCH, THEIR USE WILL NOT BE PERMITTED.

SOIL STOCKPILES MUST BE MULCHED WITH HAY OR STRAW AT A RATE OF 75 LBS. PER 1000 S.F. OR WITH A 4" LAYER OF EROSION CONTROL MIX WITHIN 7 DAYS OF STOCKING. SMALL STOCKPILES MUST BF COVERED WITH A TARP.

B. VEGETATIVE MEASURES

- 1. TOPSOIL STOCKPILING, TOPSOIL MUST BE STRIPPED AND STOCKPILED FOR LATER USE ON CRITICAL AREAS AND ALL OTHER AREAS TO BE SEEDED. THE STOCKPILE MUST NOT BE COMPACTED AND MUST BE STABILIZED AGAINST EROSION WITH TEMPORARY SEEDING.
- TEMPORARY SEEDING
 - (A) BEDDING REMOVE STONES AND TRASH THAT WILL INTERFERE WITH SEEDING THE AREA. WHERE FEASIBLE, TILL THE SOIL TO A DEPTH OF ABOUT 3' TO PREPARE SEED BED AND MIX THE FERTILIZER INTO THE SOIL.
 - FERTILIZER FERTILIZER MUST BE UNIFORMLY SPREAD OVER THE AREA PRIOR TO BEING TILLED INTO THE SOIL. A 10-10-10 MIX OF FERTILIZER MUST BE APPLIED AT A RATE OF 300 POUNDS PER ACRE (OR 7 POUNDS PER 1,000 SF)
 - SEED MIXTURE USE ANY OF THE FOLLOWING IN UPLAND AREAS:

SEEDIN SPECIE	IG RATE:	PER ACRE	PER 1.000 S.F.	DATES	<u>DEPTH</u>
WINTER	R RYE	112 LBS.	2.6 LBS.	8/15-10/1	1−1 ½ IN
OATS		80 LBS.	1.8 LBS.	4/1-7/1	1−1 ½ IN
ANNU	AL GRASS	40 LBS.	0.9 LBS.	4/1-7/1	1/4 IN
SUDAN	N GRASS	40 LBS.	0.9 LBS.	5/15-8/15	½-1 IN
PEREN	INIAL	40 LBS.	0.9 LBS.	8/15-9/15	1/4 IN

- MULCHING WHERE IT IS IMPRACTICAL TO INCORPORATE FERTILIZER AND SEED INTO MOIST SOIL, THE SEEDED AREA MUST BE MULCHED TO FACILITATE GERMINATION. MULCH IN THE FORM OF HAY OR STRAW MUST BE APPLIED AT A RATE OF 70 TO 90 LBS PER 1,000 SF
- INSPECTION CONTRACTOR MUST INSPECT THE SITE TWICE PER MONTH UNTIL A MINIMUM OF 85% OF THE AREA IS VEGETATED WITH VIGOROUS GROWTH.
- 3. PERMANENT SEEDING. TURF REINFORCEMENT MATTING. AND EROSION CONTROL BLANKET:
 - SITE PREPARATION INSTALL NEEDED SURFACE WATER CONTROL MEASURES PRIOR TO SEEDING. GRADE TO PERMIT USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION. PROVIDE ADEQUATE DRAINAGE WHERE INTERNAL WATER MOVEMENT MAY CAUSE SEEPS OR SLIPPAGE BEFORE SEEDING IS WELL ESTABLISHED. STONES LARGER THAN 2", TRASH, ROOTS AND OTHER DEBRIS THAT WILL INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA MUST BE REMOVED.
 - BEDDING 4" OF LOAM MUST BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. LOAM IS TO BE FREE OF SUBSOIL, CLAY, LUMPS, STONES AND OTHER OBJECTS OVER 1" IN DIAMETER, AND WITHOUT WEEDS, ROOTS OR OTHER OBJECTIONABLE MATERIAL. PERFORM ALL CULTURAL OPERATIONS ANGLES TO THE SLOPE.
 - FERTILIZER LIME AND FERTILIZER MUST BE APPLIED EVENLY OVER THE AREA PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. SOIL TESTS MUST BE TAKEN AT THE TIME OF SOIL STRIPPING TO DETERMINE FERTILIZATION REQUIREMENTS. BASED UPON TEST RESULTS, SOIL AMENDMENTS WILL BE INCORPORATED INTO THE SOIL PRIOR TO FINAL SEEDING. IF FERTILIZER IS REQUIRED, IT MUST BE WORKED INTO THE FULL 4" LAYER OF LOAM WITH PROPER EQUIPMENT.
 - SEED MIXTURE SEEDING MUST TAKE PLACE BETWEEN APRIL 1 AND SEPTEMBER 15. AN APPROPRIATE SEED MIXTURE IS AS FOLLOWS:

SEED TYPE	APPLICATION RATE
KENTUCKY BLUEGRASS	65 LBS/ACRE
RED FESCUE	39 LBS/ACRE
RED TOP	13 LBS/ACRE
PERENNIAL RYEGRASS	13 LBS/ACRE
TOTAL	130 LBS/ACRE

- MULCHING MULCH MUST BE USED ON ALL FRESHLY SEEDED AREAS. REFER TO TEMPORARY MULCHING GUIDELINES.
- HYDROSEEDING MUST BE CONDUCTED ON SLOPES STEEPER THAN 2H:1V. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. RECOMMENDED SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.
- SODDING SODDING MUST BE PLACED WHERE IT IS DESIRABLE TO RAPIDLY ESTABLISH COVER ON A DISTURBED AREA. SODDING AN AREA MAY BE SUBSTITUTED FOR PERMANENT SEEDING PROCEDURES ANYWHERE ON SITE. BED PREPARATION, FERTILIZING, AND PLACEMENT. OF SOD MUST BE PERFORMED ACCORDING TO THE USEPA-BMP. SODDING IS RECOMMENDED FOR STEEP SLOPED AREAS, AREAS IMMEDIATELY ADJACENT TO SENSITIVE WATER COURSES, EASILY ERODIBLE SOILS (FINE SAND/SILT) ETC.
- TURF REINFORCEMENT MATTING AND EROSION CONTROL BLANKETS MUST BE INSTALLED ON THE BASE OF GRASS WATERWAYS, SLOPES STEEPER THAN 15%, AND ANY DISTURBED SOIL WITHIN 100 FEET OF LAKES, PONDS, RIVERS, STREAMS AND WETLAND AREAS.

C. <u>STRUCTURAL MEASURES</u>

SILT SCREEN FENCES: SILT SCREEN FENCES MUST BE INSTALLED IN THE AREAS SHOWN ON THE DRAWINGS. THEY ARE INTENDED PRIMARILY TO INTERCEPT AND FILTER SMALL VOLUMES OF "SHEET FLOWING" RUNOFF, OR AS SEDIMENT TRAPS IN SMALL SWALES. SILT SCREEN FENCES WILL FUNCTION 6 MONTHS OR LONGER IF KEPT FREE OF SEDIMENT ACCUMULATIONS (SEE DETAILS FOR ADDITIONAL INFORMATION).

SWALES: TEMPORARY AND/OR PERMANENT SWALES MUST BE INSTALLED AS SHOWN ON THE DRAWINGS. SWALES ARE USED TO CONVERT SHEET FLOW TO CHANNEL FLOW AND CONVEY THE RUNOFF TO A PERMANENT CHANNEL, STORM DRAIN, OR DETENTION/SEDIMENT STRUCTURE, SWALES ARE INTENDED TO INTERCEPT RUNOFF AND DIVERT IT FROM EXPOSED OR NEWLY SEEDED AREAS TOWARD AN ACCEPTABLE OUTLET (GRASS SWALES, SEDIMENTATION POND, ETC.) OR TO REDUCE THE VELOCITY OF RUNOFF FLOWING DOWN FROM A DRAINAGE AREA.

D. <u>MAINTENANCE</u>

DURING THE PERIOD OF CONSTRUCTION AND/OR UNTIL LONG TERM VEGETATION IS ESTABLISHED:

1. SEEDED AREAS MUST BE FERTILIZED. MULCHED, AND MUST BE SEEDED TO INSURE NEGATIVE ESTABLISHMENT.

- 2. ALL DIVERSION CHANNELS AND SWALES MUST BE CHECKED WEEKLY AND REPAIRED UNTIL ADEQUATE VEGETATION IS ESTABLISHED
- 3. ALL SILT SCREEN FENCES MUST BE CHECKED WEEKLY. REPAIRS MUST BE MADE TO CORRECT UNDERMINING OR DETERIORATION OF THE BARRIERS.

E. WINTER CONSTRUCTION

"WINTER CONSTRUCTION" IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER THROUGH APRIL 15. IF DISTURBED AREAS ARE NOT STABILIZED WITH PERMANENT MEASURES BY NOVEMBER 1 OR IF NEW SOIL DISTURBANCE OCCURS AFTER NOVEMBER 1, BUT BEFORE APRIL 15, THEN THESE AREAS MUST BE PROTECTED AND RUNOFF FROM THEM MUST BE CONTROLLED BY ADDITIONAL MEASURES AND RESTRICTIONS.

WINTER EROSION CONTROL MEASURES MUST CONFORM TO MAINE EROSION AND SEDIMENT CONTROL BMPS SECTION A-3.

WINTER EXCAVATION AND EARTHWORK MUST BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS TO OCCUR DURING THE FOLLOWING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.

DISTURBED SOILS - BY SEPTEMBER 15 THE CONTRACTOR MUST SEED AND MULCH ALL DISTURBED SOILS ON THE SITE. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THE CONTRACTOR MUST TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND

- 1. <u>STABILIZE THE SOIL WITH TEMPORARY VEGETATION</u> BY OCTOBER 1 THE CONTRACTOR MUST 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 MUST 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 15, THEN THE CONTRACTOR MUST MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN THE "STABILIZE THE SOIL WITH MULCH" SECTION BELOW.
- 2. <u>STABILIZE THE SOIL WITH SOD</u> THE CONTRACTOR MUST STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES 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 HE DISTURBED SOIL.
- STABILIZE THE SOIL WITH MULCH BY NOVEMBER 15 THE CONTRACTOR MUST 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 MUST ANCHOR THE MULCH WITH NETTING OR OTHER METHOD TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.





D-MAINE IN JUSE DESIGN

ESIGNER BEN GRONDIN DRAWN BY DAVID MCLAUGHLIN HECKED BY DAN FISH

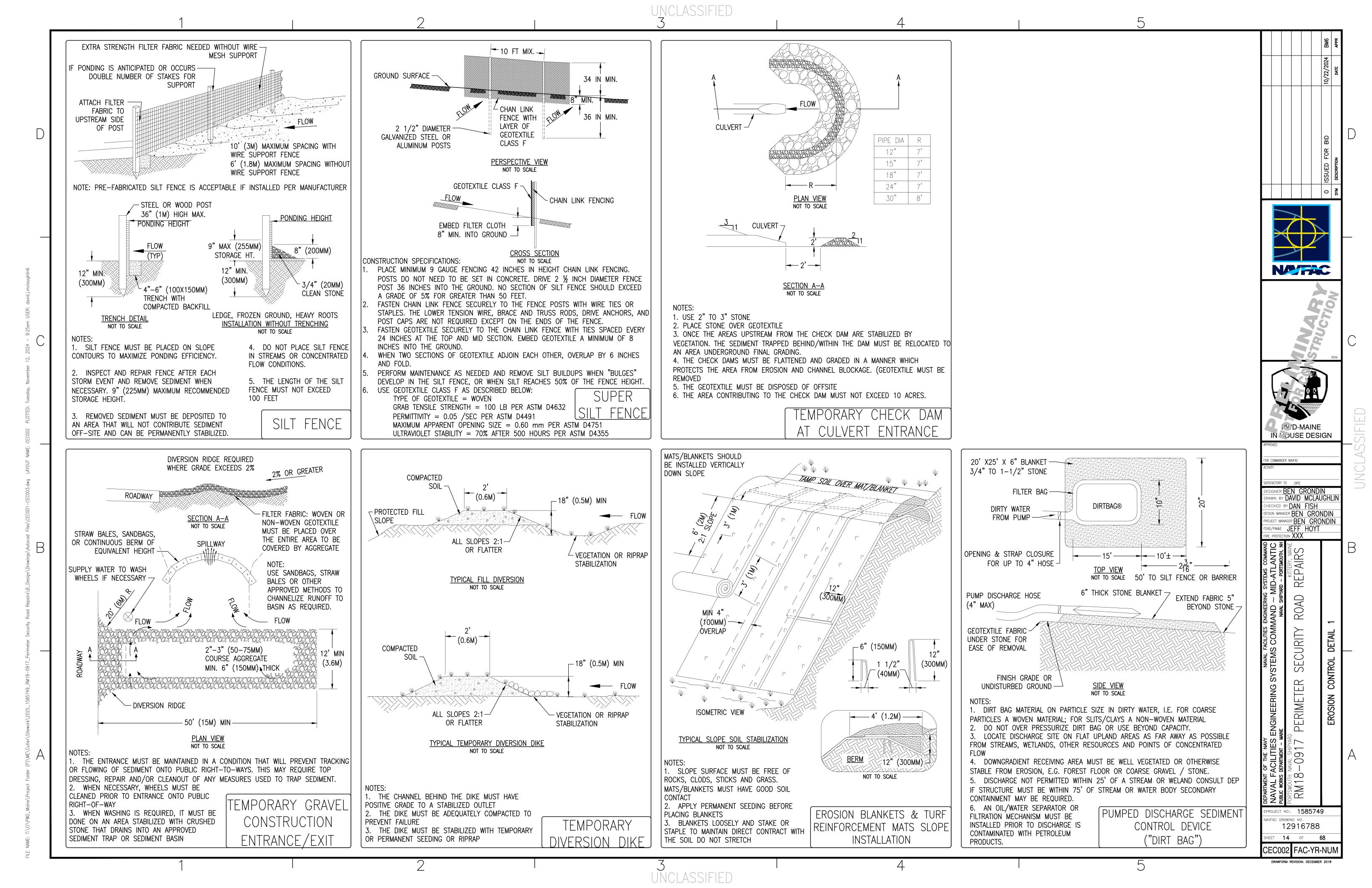
ESIGN MANAGER BEN GRONDIN PROJECT MANAGER BEN GRONDIN FEAD/PM&E JEFF HOYT E PROTECTION XXX PAIRS

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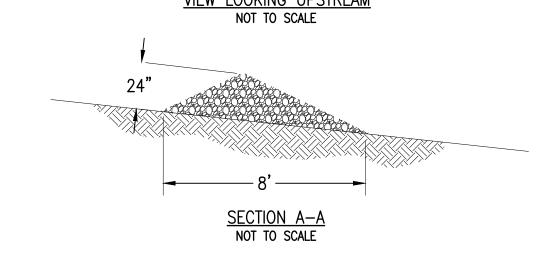
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CEC001 FAC-YR-NUM



KEY STONE INTO CHANNEL BANKS AND EXTEND IT BEYOND THE ABUTMENTS A

MINIMUM OF 18" TO PREVENT FLOW AROUND THE DAM. VIEW LOOKING UPSTREAM NOT TO SCALE



L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION - POINT B

SPACING BETWEEN CHECK DAMS NOT TO SCALE

> STONE CHECK DAM

CONTINUOUS CONTAINED BERMS:

SIDE VIEW NOT TO SCALE

DRAINAGE CHAMBER (OPTIONAL)

LOCATE DRAINAGE CHAMBER

AT LOW SPOT FOR ADEQUATE

DRAINAGE OF PONDED STORM

HOG RING

FASTENER -

WOVEN OR

NON-WOVEN

GEOSYNTHETIC

WATER

— 6'(2M) — →

PONDING HEIGHT

8"-16"

(200-400MM)

(300MM)

BERMS MUST BE FILLED WITH EROSION CONTROL MIX CONSISTING OF A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS. AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION MUST MEET THE FOLLOWING STANDARDS:

FRONT VIEW NOT TO SCALE

CONTINUOUS

BERM

(ON HARD SURFACE)

THE ORGANIC MATTER CONTENT MUST BE BETWEEN 80 AND 100%, DRY WEIGHT BASIS. PARTICLE SIZE BY WEIGHT MUST BE 100 % PASSING A 6" SCREEN AND A MINIMUM OF 70 %, MAXIMUM OF 85%, PASSING A 0.75" SCREEN.

THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED. LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX. SOLUBLE SALTS CONTENT MUST BE < 4.0 MMHOS/CM. THE PH SHOULD FALL BETWEEN 5.0 AND 8.0.

BERMS MUST BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THEY MUST BE REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER. OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, THEY MUST BE REPLACED WITH A TEMPORARY CHECK DAM.

FABRIC MUST BE REPLACED PROMPTLY SHOULD IT DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE EXPECTED USABLE LIFE. BERMS SHOULD BE RESHAPED AS NEEDED.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH ONE-HALF THE HEIGHT OF THE BARRIER.

ANY SEDIMENT DEPOSITS REMAINING AFTER THE BERM IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND

STONE CHECK DAM:

CHECK DAMS ARE INTENDED FOR USE IN AREAS OF CONCENTRATED FLOW, BUT MUST NOT BE USED IN STREAM CHANNELS (WHETHER PERENNIAL OR INTERMITTENT). THE CHECK DAM MAY BE LEFT IN PLACE PERMANENTLY TO AVOID UNNECESSARY DISTURBANCE OF THE SOIL ON REMOVAL, BUT ONLY IF THE PROJECT DESIGN HAS ACCOUNTED FOR THEIR HYDRAULIC PERFORMANCE AND CONSTRUCTION PLANS CALL FOR THEM TO BE RETAINED.

CHECK DAMS SHOULD BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY.

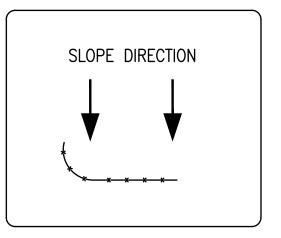
INSPECTIONS SHOULD VERIFY THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES. EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM MUST BE CORRECTED IMMEDIATELY. IF EVIDENCE OF SILTATION IN THE WATER IS APPARENT DOWNSTREAM FROM THE CHECK DAM. THE CHECK DAM SHOULD BE INSPECTED AND ADJUSTED IMMEDIATELY.

CHECK DAMS SHOULD BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH SIGNIFICANT RAINFALL. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES 1/2 OF THE ORIGINAL HEIGHT OR BEFORE.

THE MAXIMUM CONTRIBUTING DRAINAGE AREA OF THE DAM SHOULD BE LESS THAN ONE ACRE. THE MAXIMUM HEIGHT OF THE DAM SHOULD BE 2 FEET, AND THE CENTER OF THE DAM SHOULD BE AT LEAST 6 INCHES LOWER THAN THE OUTER EDGES.

THE MAXIMUM SPACING BETWEEN THE DAMS SHOULD BE SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE OVERFLOW ELEVATION OF THE DOWNSTREAM DAM. STONE CHECK DAMS SHOULD BE CONSTRUCTED OF A WELL-GRADED ANGULAR STONE RANGING FROM 2-3 INCHES IN SIZE. 34 INCH STONE ON THE UP-GRADIENT FACE IS RECOMMENDED FOR BETTER FILTERING.

SLOPE DIRECTION SLOPE DIRECTION STEP 1 - CONSTRUCT LEG



STEP 2 - CONSTRUCT DAM

2 SLOPE DIRECTIONS

2 SLOPE DIRECTIONS

SIDE 1

STEP 2 - CONSTRUCT SIDE 2

VALLEY

VALLEY

SLOPE DIRECTION

STEP 3 - CONSTRUCT LEG 2

2 SLOPE DIRECTIONS

STEP 1 - CONSTRUCT A DAM

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STEP 3 - CONSTRUCT J-HOOKS

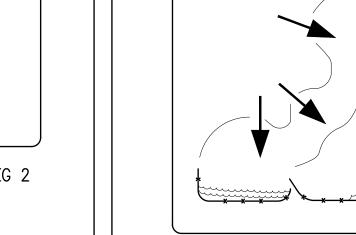
AS NEEDED

SIDE 1

VALLEY

INSTALLATION WITH J-HOOKS OR "SIMLES" INCREASES EROSION CONTROL MIX BERM EFFICIENCY.

EROSION CONTROL MIX BERM TYPICAL PLACEMENT—ONE SLOPE



SYSTEM.

INCORRECT - DO NOT LAYOUT

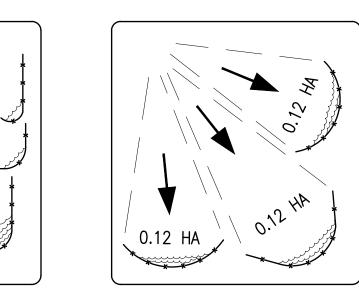
SEDIMENT LADEN RUNOFF WILL

"PERIMETER CONTROL" CONTROL MIX

BERMS ALONG PROPERTY LINES. ALL

CONCENTRATE AND OVERWHELM THE

<u>CORRECT</u> – INSTALL J-HOOKS



DISCREET SEGMENTS OF COMPOST BERMS, INSTALLED WITH J-HOODS OR "SMILES" WILL BE MUCH MORE EFFECTIVE.

EROSION CONTROL MIX BERM TYPICAL PLACEMENT FOR PERIMETER CONTROL

ECM MUST NOT CONTAIN WOOD OR BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS. SHREDDED BARK, STUMP GRINDINGS, AND COMPOSTED BARK CAN BE USED AS ORGANIC CONTENT. A BARRIER OR BERM CONTAINING ECM MUST BE CONSTRUCTED ON A LEVEL CONTOUR AND MUST HAVE MINIMUM HEIGHT OF 12 INCHES.

ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF STEEPER SLOPES (<2:1) UP TO 20 FEET LONG, THE BARRIER MUST BE A MINIMUM OF 12 INCHES HIGH, AS MEASURED ON THE UPHILL SIDE OF THE BARRIER, AND A MINIMUM OF 24 INCHES WIDE. ON LONGER OR STEEPER SLOPES, THE BARRIER SHOULD BE WIDER TO ACCOMMODATE THE ADDITIONAL RUNOFF.

BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS AND CLOSED STORM SYSTEMS, AND AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM.

EROSION CONTROL MIX BERM:

TEMPORARY MULCHING WITH EROSION CONTROL MIX (ECM) CAN BE VERY EFFECTIVE AS A BMP. THE NAVY HIGHLY ENCOURAGES ITS USE IN BERMS AND TO PROTECT EXPOSED SOILS. ECM MUST MEET THE REQUIREMENTS OF THE STATE OF MAINE, INCLUDING. BUT NOT LIMITED TO. THE FOLLOWING:

ECM MUST BE COMPOSED OF 80-100% ORGANIC MATTER, FIBROUS AND ELONGATED, WITH THE REMAINING PERCENTAGE OF CONTENT BEING A WELL-GRADED MIXTURE HAVING NO ROCKS EXCEEDING 4 INCHES IN DIAMETER. THE ENTIRETY OF THE MIX MATERIAL MUST PASS A 6" SCREEN AND 70-85% MUST PASS A 0.75" SCREEN. THE MIX MATERIAL MUST NOT CONTAIN ANY SILTS, CLAYS, OR FINE SANDS.

OTHER BMP'S SHOULD BE USED AT LOW POINTS OF CONCENTRATED RUNOFF,

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FEAD/PM&E JEFF HOYT TIRE PROTECTION XXX VG SYSTEMS COMMAND
- MID-ATLANTIC
PYARD - PORTSMOUTH, NH PAIRS : ROAD ACILITIES ENGINEER
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TYPICAL PLACEMENT-TWO SLOPE

INSTALLATION WITH J-HOOKS WILL INCREASE EROSION CONTROL MIX

BERM EFFICIENCY AND REDUCE EROSION—CAUSING FAILURES

EROSION CONTROL MIX BERM

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