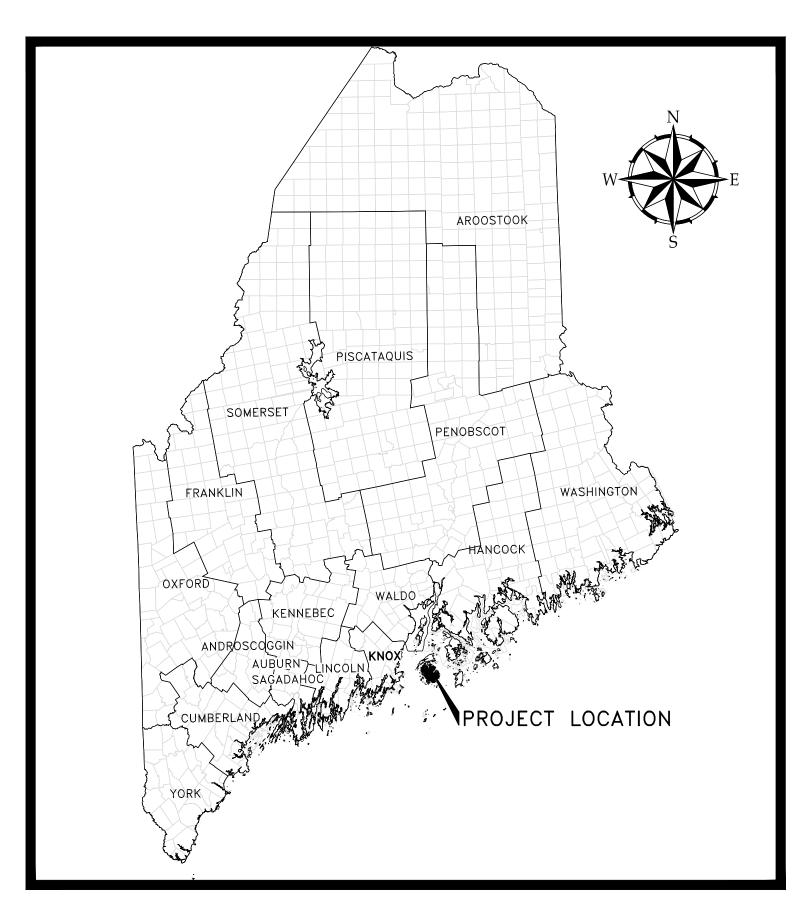
TOWN OF VINALHAVEN KNOX COUNTY, ME CARRYING PLACE CROSSING REPLACEMENT

PROJECT NO. 232140.02

APRIL 2020

ISSUED FOR BIDDING



PROJECT LOCATION MAP

HEET INDEX

SHEET NO. SHEET TITLE

GENERAL

G-000 COVER SHEET

G-001 GENERAL NOTES, LEGEND AND ABBREVIATIONS

CIVIL

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C-003 EROSION & SEDIMENT CONTROL AND TEMPORARY ROAD PLAN & PROFILE

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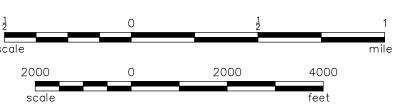


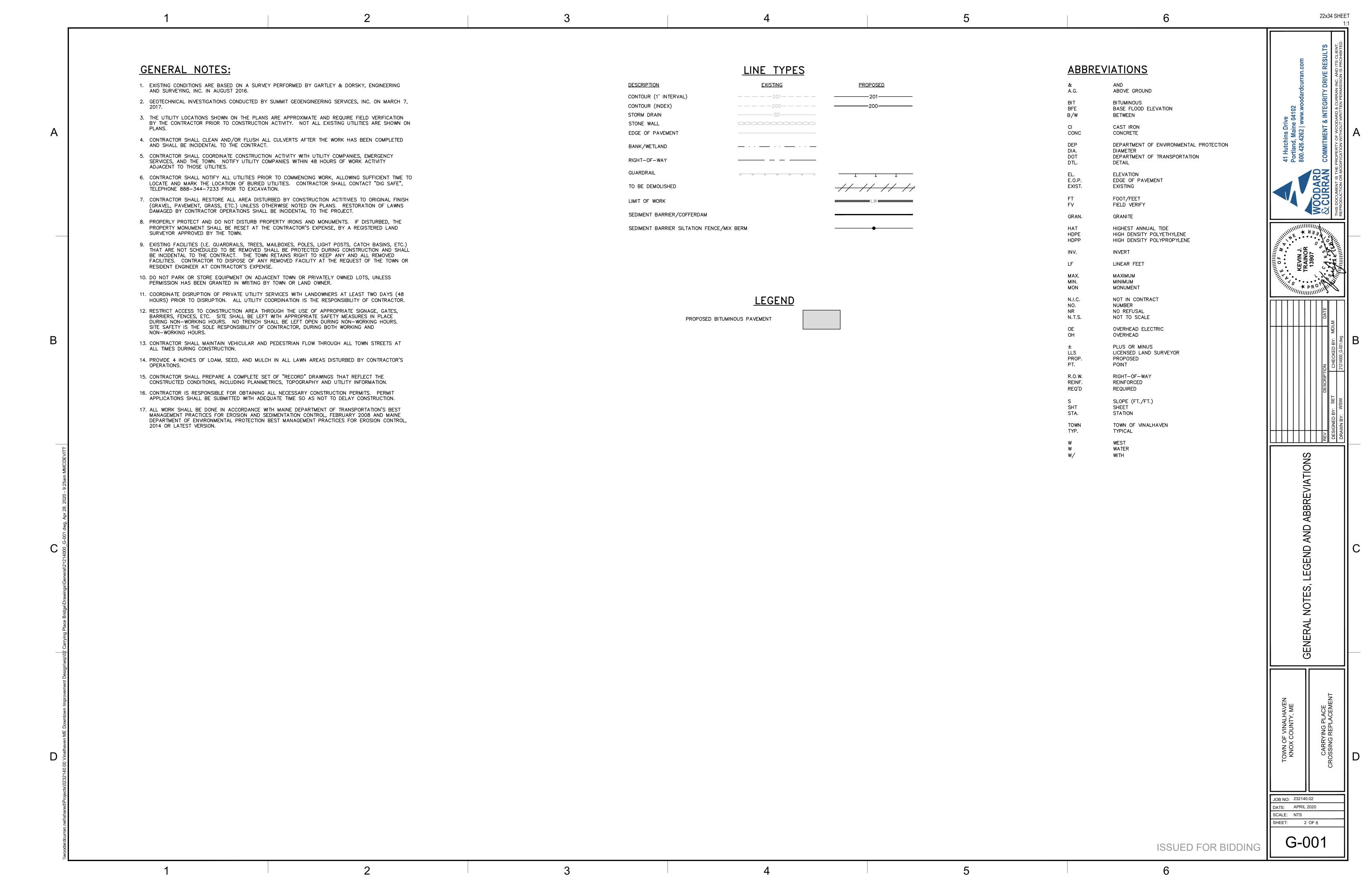
41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

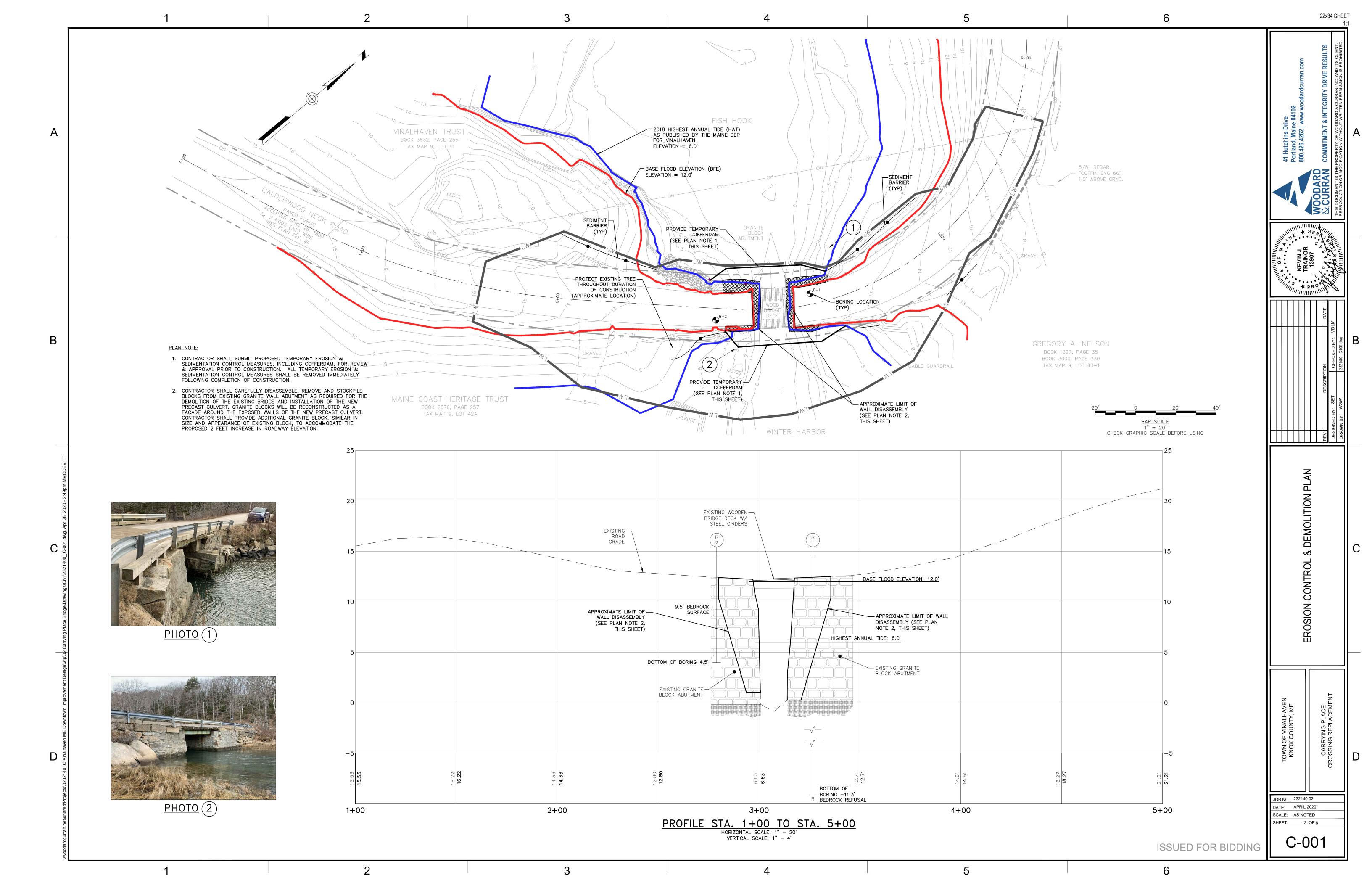
COMMITMENT & INTEGRITY DRIVE RESULTS

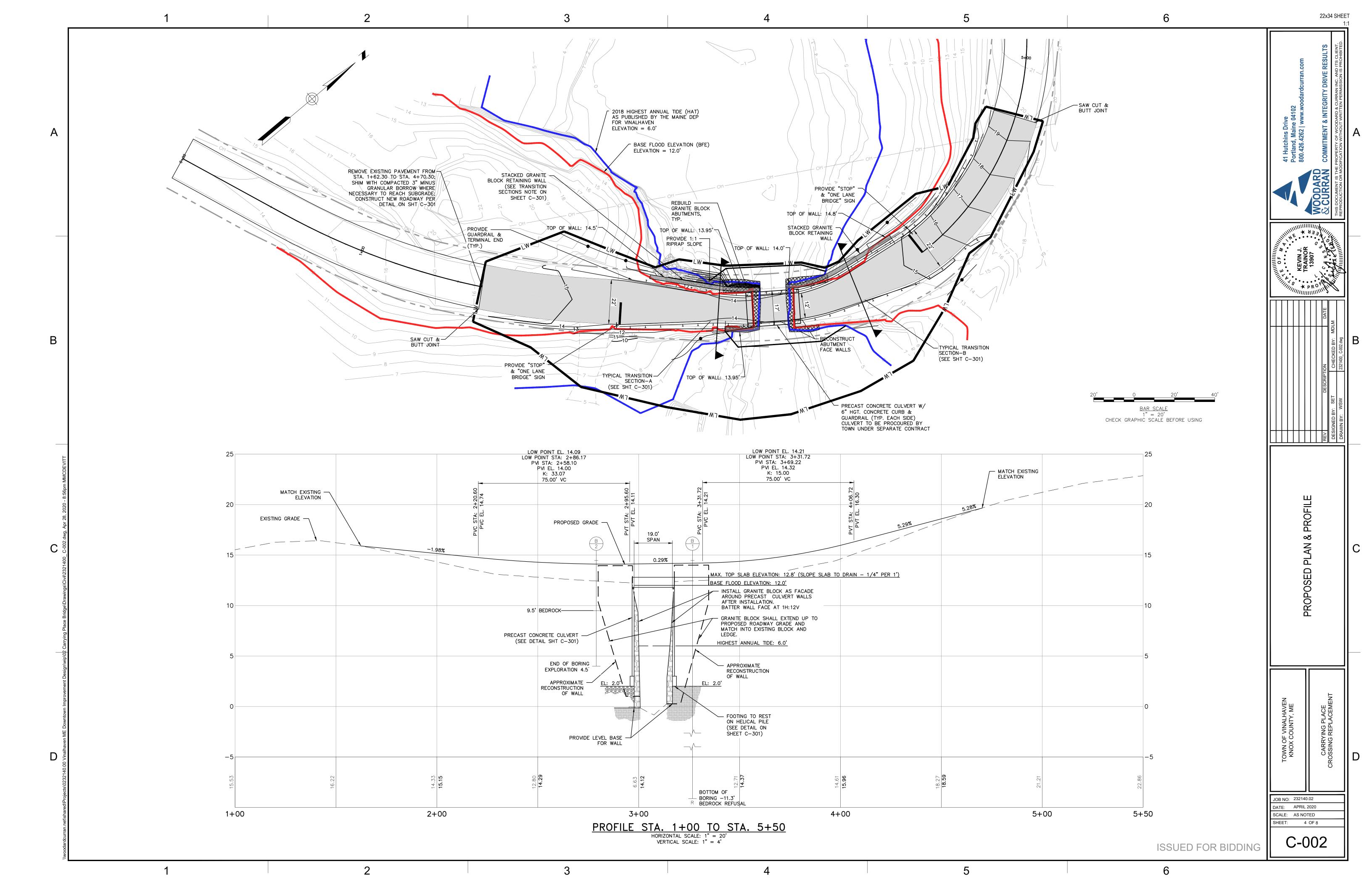


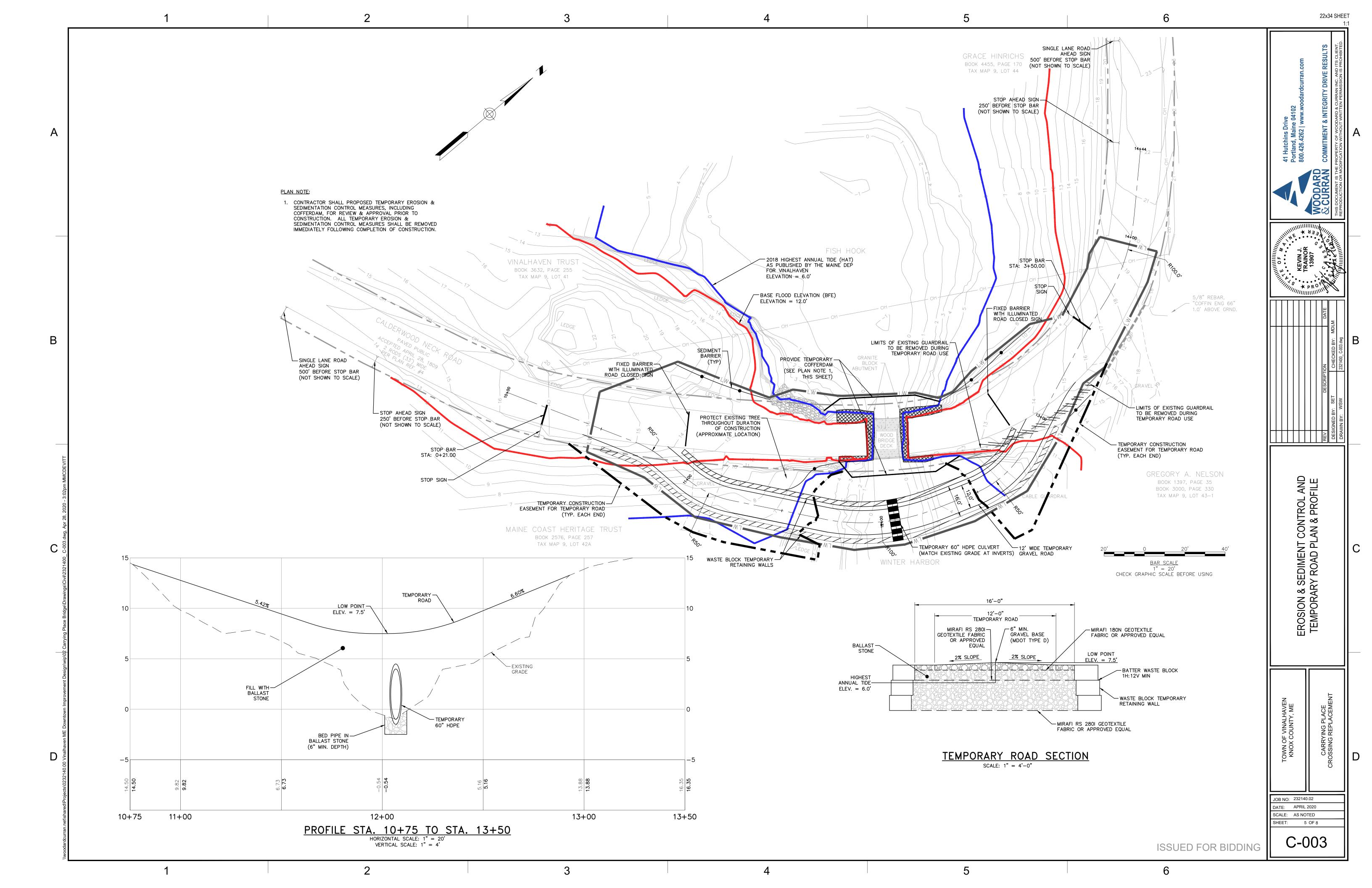












Temporary Frasian Control

Temporary Erosion Control		
Measure	Dates For Use	Timing, Activity, and Location
Sedimentation Barrier	ALL	Before soil disturbance, install downhill of areas to be disturbed and around material stockpiles.
Up-slope Diversion	ALL	Before soil disturbance, install uphill of areas to be disturbed and material stockpiles.
Catch Basin Protection	ALL	Before soil or pavement disturbance, install ACF Environmental, Inc. High Flow Siltsack, Siltsaver Inlet Filter. or equal, installed per manufacturer's requirements.
Dust Control	ALL	During dry weather, apply water and calcium chloride to control dust.
Temporary Seeding	April 15 to Oct. 1	Soil stockpiles that are not covered and disturbed areas that will not be disturbed again within 14 days. If grass growth provides less than 95% soil coverage by Nov. 1, apply mulch and anchor with erosion control blanket.
Hay Mulch	April 15 to Sept. 15	On all areas of exposed soil that will not be actively worked for 7 days and prior to rain events, apply 70—90 lbs (2 bales) per 1,000 sq ft. by mechanical blower. Provide anchoring on slopes greater than 5%.
Winter Mulch	Sept. 16 to Oct. 31	On all areas of exposed soil that will not be actively worked for 7 days and prior to precipitation, apply 140 to 180 lbs. mulch (4 bales) per 1,000 sq. ft. by mechanical blower. Erosion control blanket may be used as a substitute for winter mulch.
	Nov. 1 to April 14	On all areas of exposed soil, apply 150 to 170 lbs. mulch (4 bales) per 1,000 sq. ft. and anchor with netting <u>at the end of each working day.</u> Erosion control blanket may be used as a substitute for winter mulch.
Inspections	Until site is permanently stabilized	Inspect the erosion and sedimentation control measures daily, and maintain and repair as necessary.

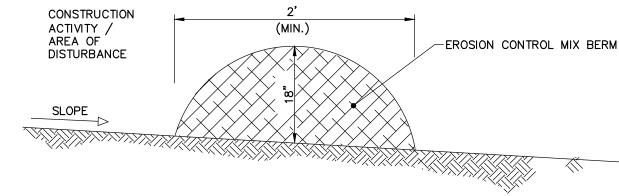
Permanent Erosion Control:

Measure	Dates For Use	Timing, Activity, and Location
Pavement — Base Course — Final Course	When no frost is in ground	Install only in areas shown on the plan, shortly after pavement base is brought to final grade. Install near completion of project.
Permanent Seeding	April 15 to Sept. 15	On final grade areas, within 7 days of grade preparation, prepare topsoil, followed by seed and mulch application.
Dormant Seeding	Sept. 16 to April 15	On final grade areas, with prepared topsoil. Apply seed at double the specified rate on bare soil, and follow with an application of winter mulch.
Ground Cover, Trees, Shrubs	April 15 to Nov. 1	Install with final landscaping.
Permanent Mulch	ALL	Install with final landscaping.

Inspections:

Regular inspections of all erosion and sedimentation controls shall be made at least weekly and prior to and following storm events. Minimum inspections shall be made as listed in the table below.

Inspected Item	Look For	
Mulched Surfaces	Thin mulch or inadequate application. Wind movement.	
Seeded Surfaces	Poor seed germination. Loss of mulch. Development of rivulets.	
Sediment Barrier	Sediment build—up to one half the height of the barrier. Undermining of the barrier. Supporting stakes loose, toppled, or unmarked. Breaks in barrier.	
Perimeter Diversion	Discharge is to stabilized area. Erosion or breaks in barrier. Supporting stakes loose, toppled or unmarked.	
Catch Basin Protection	Sediment build—up and structure blockages. Slow flow/Ponding water. Breaks in fabric or voids in barrier.	
Dewatering Filter	ter Breaks in fabric or supporting structure. Slow flow, indicating high sediment build—up.	
Construction Entrance	Sedimentation of roadways. Off—site dust complaints.	



Erosion Control Mix Berms

Erosion control mix can be manufactured on or off the project site. It must consist primarily of organic material and may include: shredded bark, stump grindings, composted bark, or acceptable manufactured products. Wood and bark chips, ground construction debris or reprocessed wood products will not be acceptable as the organic component of

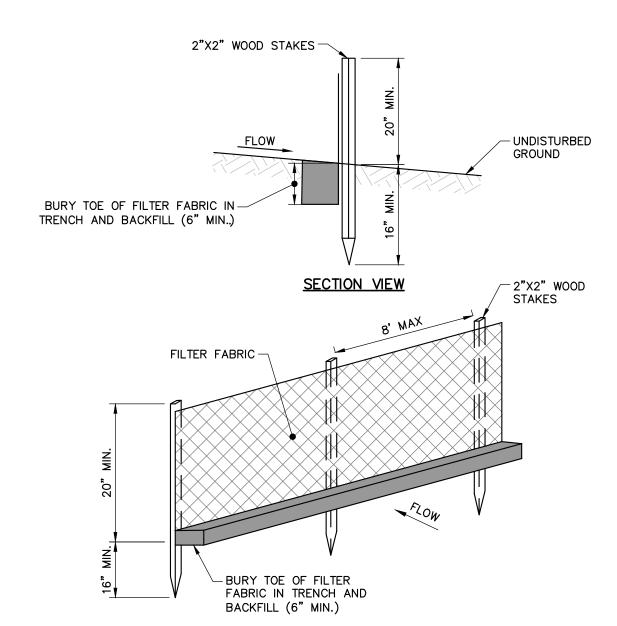
Composition

Erosion control mix shall contain 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 shall meet the following standards:

- The organic matter content shall be between 80 and 100%, dry weight basis. • Particle size by weight shall 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 shall be < 4.0 mmhos/cm. The pH should fall between 5.0 and 8.0.

SEDIMENT BARRIER DETAIL EROSION CONTROL MIX BERM

(CONTRACTOR OPTION) SCALE: NOT TO SCALE



NOTES:

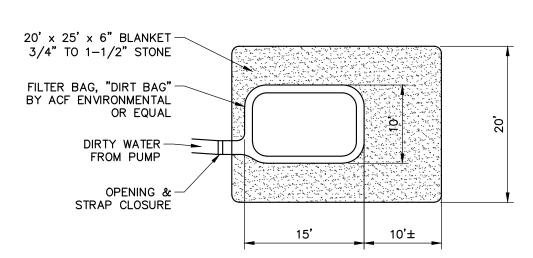
- 1. INSTALL FABRIC ON UPHILL SIDE OF WOOD STAKES.
- 2. SPACING BETWEEN WOOD STAKES PER MANUFACTURER'S RECOMMENDATION.

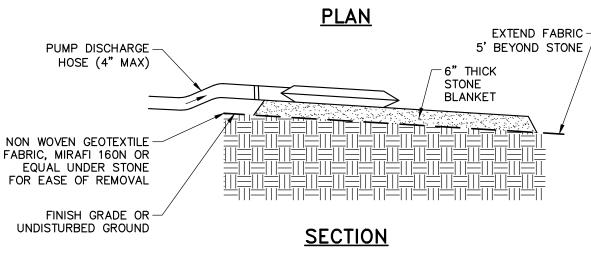
ISOMETRIC VIEW

- 3. SILT FENCE WILL NOT BE USED IN DRAINAGE WAYS.
- 4. MAINTENANCE: INSPECT FOR TEARS IN THE FABRIC OR DAMAGE TO SUPPORTS. REPAIR AS NECESSARY. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES A DEPTH OF SIX-INCHES OR MORE.
- 5. REMOVAL: WHEN UPSLOPE AREAS ARE STABILIZED, THE STRUCTURE AND ANY ACCUMULATED SEDIMENT WILL BE REMOVED.

SEDIMENT BARRIER DETAIL SILTATION FENCE (CONTRACTOR OPTION)

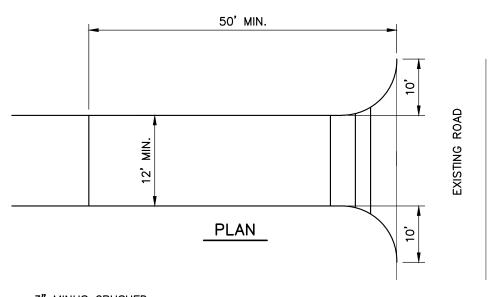
SCALE: NOT TO SCALE

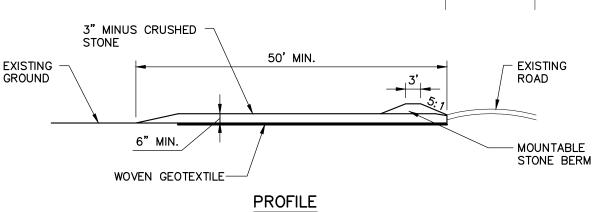




DEWATERING DISCHARGE SEDIMENT CONTROL DEVICE

SCALE: NOT TO SCALE



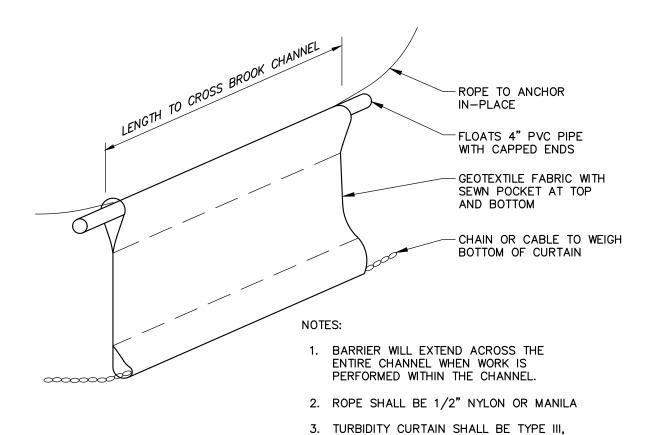


NOTES:

MAINTENANCE: INSPECT FOR EFFECTIVE REMOVAL OF SOIL FROM VEHICLES PRIOR TO LEAVING THE SITE. SWEEP ANY SOIL FROM ADJACENT ROADWAYS.

AT LEAST ONE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED UNTIL ALL AREAS OF THE SITE ARE

STABILIZED CONTRUCTION ENTRANCE SCALE: NOT TO SCALE



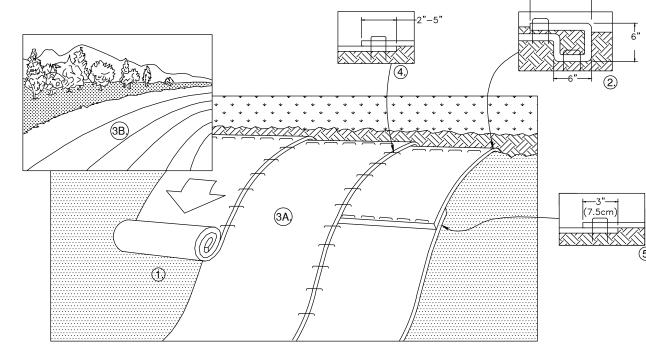
FLOATING TURBIDITY BARRIER

EXPOSURE.

SUITABLE FOR TIDAL AND WAVE

DEWATERING NOTES:

- 1. THE CONTRACTOR SHALL SUBMIT A WATER CONTROL MANAGEMENT PLAN FOR THE PROJECT LOCATION IN ACCORDANCE WITH THE SPECIFICATIONS. THE PLAN SHALL INCLUDE A DESCRIPTION OF PROPOSED PROCEDURE FOR DEWATERING METHODS.
- 2. ALL DEWATERING ACTIVITIES SHALL MEET LOCAL, STATE, AND FEDERAL REGULATIONS.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR ALL LABOR AND EQUIPMENT REQUIRED TO PERFORM THE WORK INCLUDING BUT NOT LIMITED TO PROPER SHORING, DEWATERING EQUIPMENT, AND WATER TREATMENT EQUIPMENT IN ACCORDANCE WITH THE SPECIFICATIONS AND ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
- 4. IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS GENERAL PERMIT #_ FOR ALL SILT-GENERATING, IN-WATER WORK FOR FISH HOOK AND WINTER HARBOR SHALL BE CONDUCTED BETWEEN OCTOBER 1 AND APRIL 9.
- 5. ALL DREDGING OPERATIONS SHALL BE CONDUCTED FROM UPLAND AREAS.
- 6. ALL DREDGE SPOILS SHALL BE DEWATERED AND DISPOSED OF AT AN UPLAND LOCATION (OR OTHER APPROVED LOCATION).
- . THE REMOVAL OF MATERIAL FROM THE STREAM BOTTOM SHALL BE DONE IN SUCH A MANNER AS TO ENSURE THAT THE RECONFIGURED BOTTOM AREA WILL NOT IMPEDE OR OBSTRUCT FISH MIGRATION, OR INTERFERE WITH THE NATURAL FLOW OF THE BROOK.
- 8. DEWATERING ACTIVITIES SHALL BE CONDUCTED AS SHOWN ON THE APPROVED PLANS AND SHALL BE MONITORED DAILY TO ENSURE THAT SEDIMENT LADEN WATER IS APPROPRIATELY SETTLED PRIOR TO DISCHARGE TOWARD THE RESOURCE AREAS. NO DISCHARGE OF WATER IS ALLOWED DIRECTLY INTO AN AREA SUBJECT TO JURISDICTION OF THE WETLANDS PROTECTION ACT, EMERGENCY DEWATERING REQUIREMENTS ARISE, THE APPLICANT SHALL SUBMIT A CONTINGENCY PLAN TO THE COMMISSION FOR APPROVAL WHICH PROVIDES FOR THE PUMPED WATER TO BE CONTAINED IN A SETTLING BASIN, TO REDUCE TURBIDITY TO DISCHARGE INTO A RESOURCE AREA.
- 9. DEWATERING AND WORK WITHIN TIDAL WATERS SHALL COMPLY WITH THE ARMY CORPS OF ENGINEERS PRECONSTRUCTION NOTIFICATION GENERAL CONDITIONS. CONTRACTOR MAY USE TURBIDITY CURTAIN IN LIEU OF COFFERDAMS, PROVIDED WORK IS PERFORMED DURING LOW



1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED AS WELL AS REMOVING ANY PROTRUDING ROCKS, STUMPS OR ROOTS. DURING THE GROWING SEASON (APRIL 15- SEPTEMBER 15) USE RECP'S ON THE BASE OF GRASSED WATERWAYS, SOIL SLOPES HAVING A GRADE GREATER THAT 15%, OR ANYWHERE WHERE HAY MULCH HAS PROVEN TO BE INEFFECTIVE AT CONTROLLING SHEET EROSION. RECP'S ARE A MANUFACTURED COMBINATION OF MULCH AND NETTING DESIGNED TO PREVENT EROSION AND RETAIN SOIL

2. FOR OVER WINTER PROTECTION, APPLY RECP'S ON THE BASE AND SIDE SLOPES OF GRASSED WATERWAYS AND ON SLOPES STEEPER THAN AN 8% GRADE.

3. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRÉNCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP's.

3. ROLL THE RECP's (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.

4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" - 5" OVERLAP DEPENDING ON RECP's TYPE.

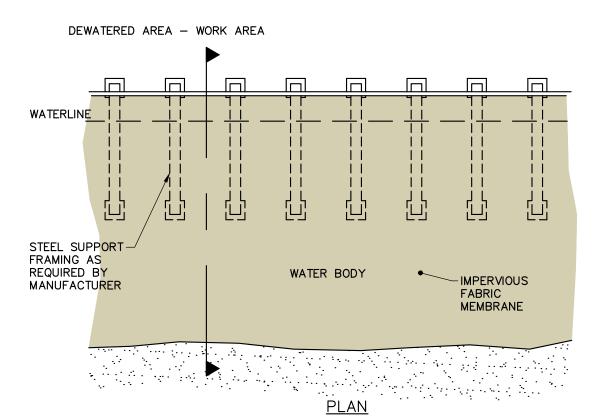
5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP's WIDTH. NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

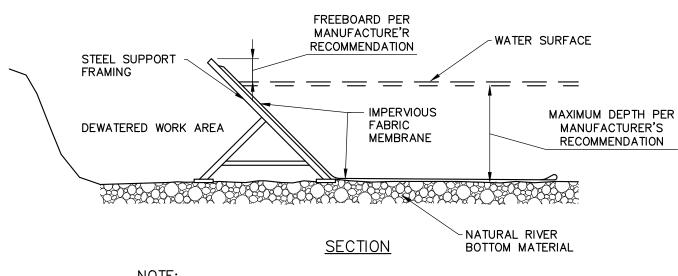
6. UNTIL GRASS IS ABUNDANT, INSPECT PERIODICALLY AND AFTER EACH RAINSTORM TO CHECK FOR EROSION. IMMEDIATELY REPAIR AND ADD MORE MULCH UNTIL GRASSES ARE FIRMLY ESTABLISHED.

7. DO NOT MOW THE FIRST YEAR.

8. DETAIL SHALL BE CONSIDERED GENERAL GUIDANCE FOR RECP INSTALLATION; CONTRACTOR SHALL INSTALL RECP IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

ROLLED EROSION CONTROL MATTING SCALE: NOT TO SCALE





COFFERDAM DETAIL SHOWN FOR REFERENCE PURPOSES. CONTRACTOR SHALL PROVIDE DESIGN OF TEMPORARY COFFERDAMS, STAMPED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MAINE.

TEMPORARY FRAME & FABRIC COFFERDAM DETAIL SCALE: NOT TO SCALE

TO BE INSTALLED AROUND WORK AREA IN ACCORDANCE WITH CONTRACTOR'S WORK PLAN

ISSUED FOR BIDDING

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22x34 SHEET

ATE: APRIL 2020 SCALE: NTS SHEET: 6 OF 8

C-300

