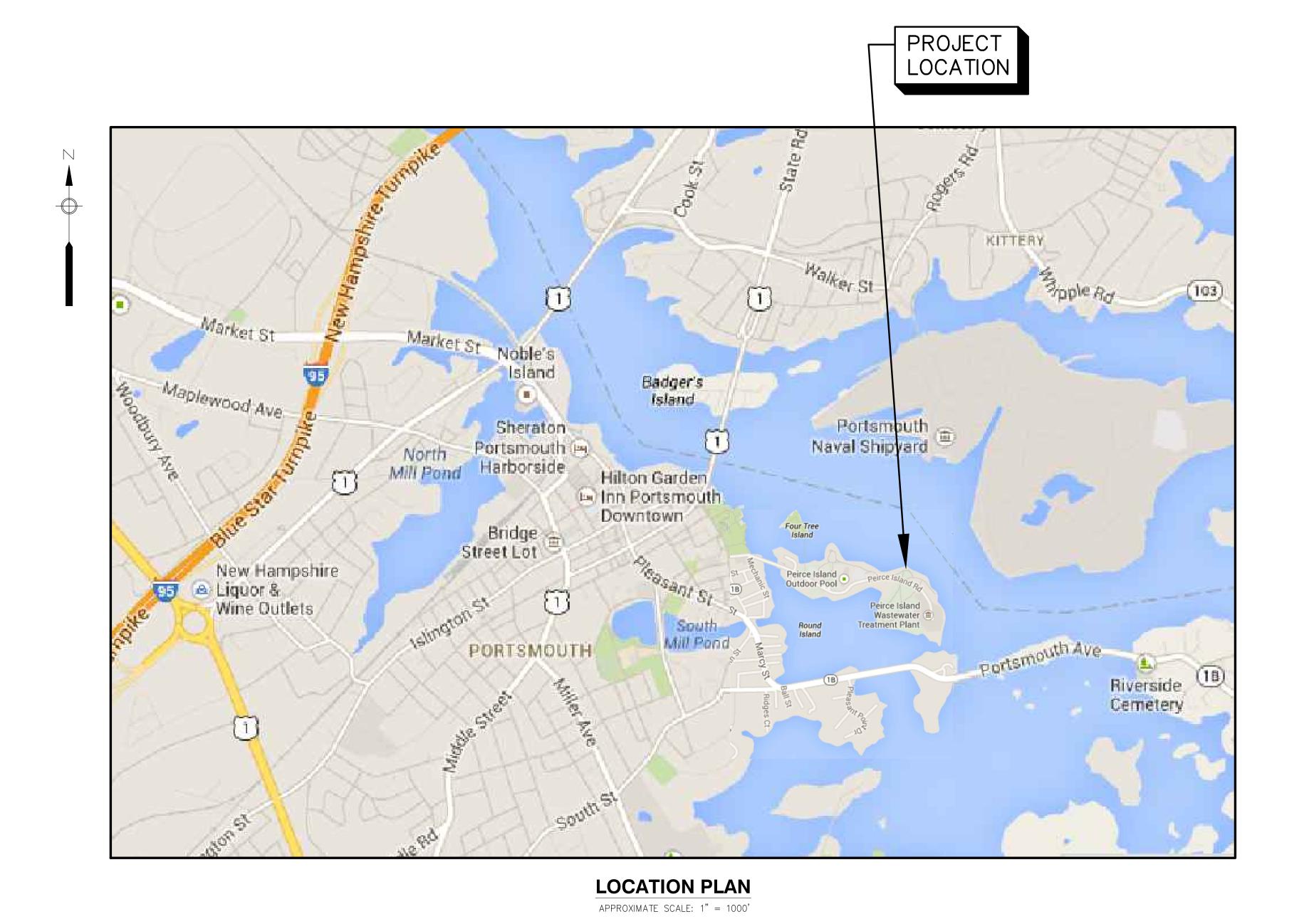
CITY OF PORTSMOUTH, NEW HAMPSHIRE

PEIRCE ISLAND ROAD COASTAL RESILIENCY PROJECT JANUARY 2024 BID NUMBER 08-24



2000

SCALE: 1"=1000'

INDEX OF DRAWINGS

SHEET NO. TITLE

GENERAL

COVER SHEET, LOCATION PLAN AND INDEX OF DRAWINGS

LEGEND, ABBREVIATIONS AND GENERAL NOTES EXISTING CONDITIONS AND DEMOLITION PLAN SITE PREPARATION PLAN SITE PLAN GRADING PLAN 00 C-006 LANDSCAPING PLAN

DETAILS (ROADWAY & STORMWATER) DETAILS (ROADWAY & STORMWATER) DETAILS (ROADWAY & STORMWATER)

DETAILS (LANDSCAPING)

TRAFFIC MANAGEMENT

TRAFFIC MANAGEMENT PLAN

NEW HAMPSHIRE FISH AND GAME AOT PERMIT CONDITIONS IN ACCORDANCE WITH ENV-WQ 1504.18 - WILDLIFE PROTECTION NOTES RELATED TO THREATENED AND

- ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES SHALL BE REPORTED IMMEDIATELY TO THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT NHFGREVIEW@WILDLIFE.NH.GOV. EMAIL SUBJECT LINE: NH23-0743, PEIRCE ISLAND ROAD COASTAL RESILIENCY PROJECT, WILDLIFE SPECIES OBSERVATION.
- PHOTOGRAPHS OF THE OBSERVED SPECIES AND NEARBY ELEMENTS OF HABITAT OR AREAS OF LAND DISTURBANCE SHALL BE PROVIDED TO NHF&G IN DIGITAL FORMAT AT THE ABOVE EMAIL ADDRESS FOR VERIFICATION AS FEASIBLE;
- IN THE EVENT A THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE TERM OF THE PERMIT, THE SPECIES SHALL NOT BE DISTURBED, HANDLED, OR HARMED IN ANY WAY PRIOR TO CONSULTATION WITH NHF&G AND IMPLEMENTATION OF CORRECTIVE ACTIONS RECOMMENDED BY NHF&G, IF ANY, TO ASSURE THE PROJECT DOES NOT APPRECIABLY JEOPARDIZE THE CONTINUED EXISTENCE OF THREATENED AND ENDANGERED SPECIES AS DEFINED IN FIS 1002.04
- THE NHF&G, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.
- ALL MANUFACTURED EROSION AND SEDIMENT CONTROL BMPS ON THE PLANS, SUCH AS EROSION CONTROL BLANKETS, SHALL SPECIFY THE FOLLOWING:
- •• THERE SHALL BE NO PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN 1/8 INCHES MATERIAL UTILIZED. (NOT APPLICABLE TO TURF REINFORCEMENT MATS).

•• TURF REINFORCEMENT MATS SHALL BE COVERED WITH SOIL TO PREVENT EXPOSURE OF THE MATS TO THE SURFACE.

AECOM

PEIRCE ISLAND ROAD COASTAL RESILIENCY **PROJECT** Peirce Island, Portsmouth NH

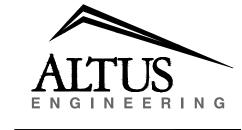
OWNER

CITY OF PORTSMOUTH **NEW HAMPSHIRE**

680 Peverly Hill Road Portsmouth, NH 03801

ENGINEER

AECOM TECHNICAL SERVICES, INC. 250 APOLLO DRIVE CHELMSFORD, MA 01824 PHONE: (978) 905-2100 www.aecom.com



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REGISTRATION



ISSUE/REVISION

I/R	DATE	DESCRIPTION

PROJECT NUMBER

60700949

Designed By:	M. DOELP
Drawn By:	M. THIBODEAU
Dept Check:	C. BENZIGER
Proj Check:	E. MESERVE
Date:	JANUARY 26, 2024
Scale:	AS NOTED

DISCIPLINE

CIVIL SHEET TITLE

COVER SHEET LOCATION PLAN AND INDEX OF DRAWINGS SHEET NUMBER

00 G-001

- 2. HORIZONTAL LOCATIONS SHOWN ARE REFERENCED TO THE NH STATE PLANE COORDINATE SYSTEM, NAD83.
- 3. VERTICAL DATUM IS NAVD 88 AND IS BASED ON NATIONAL GEODETIC SURVEY FIRST ORDER CLASS I BENCHMARKS "V31 USGS" (PID:OCO289) HAVING A PUBLISHED ELEVATION OF 29.19' AND "W31" (PID:OCO413) HAVING A PUBLISHED ELEVATION OF 20.54'. REFER ALSO TO VERTICAL DATUM CONVERSION NOTE BELOW.
- 4. TOPOGRAPHIC INFORMATION SHOWN IS THE RESULT OF A SURVEY MADE IN JULY 2013, AUGUST 2020 AND JANUARY 2021 BY DOUCET SURVEY, INC., 102 KENT PLACE, NEWMARKET, NH 03857. WETLAND BOUNDARIES, HIGHEST OBSERVABLE TIDE LINE (HOTL) AND EXISTING TREE SURVEY WERE DELINEATED BY NORMANDEAU ASSOCIATES, INC. ON JANUARY 14, 2021.
- 5. THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS BASED ON RECORD DRAWINGS AND IS APPROXIMATE. THE OWNER DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF UNDERGROUND UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 1-888-344-7233.
- 6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING CONDITIONS AT THE SITE.
- 7. THE CONTRACTOR SHALL ERECT EROSION CONTROL MEASURES PRIOR TO COMMENCING ANY CLEARING, EXCAVATION OR STORAGE OF BACKFILL MATERIAL ON-SITE. REFER TO SPECIFICATION SECTION 01568 AND DETAILS.
- 8. THE ENGINEER MAY DIRECT THE CONTRACTOR TO VARY THE PROPOSED WORK DURING CONSTRUCTION TO MEET EXISTING CONDITIONS.
- 9. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES AND SHALL PROVIDE ALL NECESSARY CONTINUOUS BARRIERS OF SUFFICIENT TYPE, SIZE AND STRENGTH TO PREVENT ACCESS TO ALL OPEN EXCAVATIONS AT THE

COMPLETION OF EACH DAYS WORK. REFER TO SPECIFICATION SECTION 01046 FOR ADDITIONAL REQUIREMENTS.

- 10. INTERRUPTION TO WATER AND OTHER EXISTING UTILITIES SHALL BE REQUESTED IN WRITING BY THE CONTRACTOR 3 DAYS IN ADVANCE OF THE WORK AND REVIEWED BY THE ENGINEER.
- 11. CONTRACTOR SHALL MAINTAIN FLOW OF SEWAGE IN ACCORDANCE WITH SECTION 01063.
- 12. EXISTING UTILITIES INTERFERING WITH THE WORK SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
- 13. ALL SIGNAGE, HEADWALLS, GUARD RAILS, GUARD POSTS, FENCES, CURBS, ROADWAYS, SIDEWALKS AND ANY OTHER OBJECTS DISTURBED BY CONTRACTOR ACTIVITIES SHALL BE RETURNED TO PRE-CONSTRUCTION CONDITION OR BETTER AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
- 14. ALL AREAS OF EXCAVATION, BACKFILL, FILL AND GRADING SHALL BE RETURNED TO THE ORIGINAL GRADE UNLESS SHOWN ON THE DRAWINGS.
- 15. ALL UTILITY BOXES, FRAMES, GRATES, ETC. DISTURBED BY CONTRACTOR AND NOT TO BE ABANDONED SHALL BE RESET TO THE PROPER GRADE AT NO ADDITIONAL COST TO THE OWNER.
- 16. UNPAVED AREAS DISTURBED BY THE CONTRACTOR SHALL BE CLEARED AND GRUBBED IF REQUIRED, AND RESTORED WITH LOAM AND SEED. SEEDED AREAS SHALL BE PROTECTED BY SNOW FENCING UNTIL APPROVED TO BE REMOVED BY THE ENGINEER.
- 17. RECORD DRAWINGS FOR EXISTING FACILITIES CAN BE FOUND IN THE SPECIFICATIONS.
- 18. PROVIDE AND MAINTAIN ORANGE CONSTRUCTION FENCING ABOVE SALT MARSH AND MARSH ELDER AS SHOWN ON THE PLANS AND DETAILS.

VERTICAL DATUM CONVERSION NOTE:

SURVEY BY DOUCET ASSOCIATES IS BASED ON NAVD 88 DATUM. TO CONVERT NAVD 88 ELEVATIONS TO NGVD 29, ADD 0.77 FEET. TO CONVERT NGVD ELEVATIONS TO NAVD 88 SUBTRACT 0.77 FEET.

GEOTECHNICAL NOTES

- 1. BORINGS WERE TAKEN FOR PURPOSES OF DESIGN AND INDICATE SUBSURFACE CONDITIONS AT BORING LOCATION ONLY. SUBSURFACE CONDITIONS MAY VARY FROM THOSE SHOWN IN THE LOG.
- 2. IN ALL AREAS WHERE DEWATERING IS NECESSARY, MEASURES SHALL BE TAKEN TO ENSURE THE PRESERVATION OF WATERCOURSES AND COMPLIANCE WITH ALL REGULATIONS AND LAWS. ALL DEWATERING MUST BE DISCHARGED INTO SEDIMENT TRAPS AS INDICATED IN THE DETAILS AND AS SPECIFIED IN SPECIFICATION SECTION 01568.

ABBREVIATIONS

SINGLE YELLOW LINE

TEST PIT

TYPICAL

VENT

VERTICAL

TEMPORARY BENCHMARK

TAPPING SLEEVE AND VALVE

UNDERGROUND ELECTRIC

VERTICAL GRANITE CURB

WATER SHUT OFF

WATER VALVE

APPROX.	APPROXIMATE	SYL
B&B	BALL AND BURLAP	TBM
BLDG.	BUILDING	TP
СВ	CATCH BASIN	TS&V
CONC.	CONCRETE	TYP.
C.I.	CAST IRON	UE
CLF	CHAIN LINK FENCE	V
C.O. OR CO	CLEANOUT	VERT.
CW	CITY WATER OR CROSS WALK	VGC
D	DRAIN	WSO
DI	DUCTILE IRON	WV
DIA.	DIAMETER	
DIM.	DIMENSION	
DMH	DRAIN MANHOLE	
DWGS	DRAWINGS	
DYL OR DYCL	DOUBLE YELLOW CENTER LINE	
E	ELECTRICAL	
ECC.	ECCENTRIC	
EL. OR ELEV.	ELEVATION	
EMERG.	EMERGENCY	
EOP	EDGE OF PAVEMENT	
EXIST.	EXISTING	
FES	FLARED END SECTION	
FF OR F.F.E.	FINISHED FLOOR ELEVATION	
F.O.T.	FLAT ON TOP	
FM	FORCE MAIN	
FPVC	FUSIBLE PVC	
GAL.	GALLON	
GL	GLASS LINED	
GP	GUARD POST	
GRAN.	GRANITE	
GV	GATE VALVE	
HOTL	HIGHEST OBSERVABLE TIDE LINE	
INV.	INVERT	
LF	LINEAR FOOT	
L.O.W.	LIMIT OF WORK	
MECH.	MECHANICAL	
МН	MANHOLE	
MHW	MEAN HIGH WATER	
MLW	MEAN LOW WATER	
MJ	MECHANICAL JOINT	
MSL	MEAN SEA LEVEL	
N.C.	NORMALLY CLOSED	
PBS	PRINTED BOTH SIDES	
PSNH	PUBLIC SERVICE OF NEW HAMPSHIRE	
PVC	POLYVINYL CHLORIDE	
RCP	REINFORCED CONCRETE PIPE	
RED.	REDUCER	
RET.	RETAIN OR RETAINING	
SAN	SANITARY DRAIN	
SD	STORM DRAIN	
SL	SLUDGE OR STOP LINE	

SEWER MANHOLE

SINGLE WHITE LINE

LEGEND

ELECTRIC BOX

CATCH BASIN

DRAIN MANHOLE

ELECTRIC MANHOLE

CHEMICAL MANHOLE

WATER MANHOLE

SEWER MANHOLE

CONIFEROUS TREE

DECIDUOUS TREE

ROW OF BOULDERS

LANDSCAPED AREA

LEDGE OUTCROP

CHAINLINK FENCE

OVERHEAD WIRES

FLAG POLE

SHRUB

CONCRETE

BOULDER

GRAVEL

BOLLARD

DRAIN LINE

TREE LINE

BORING

— — — HIGHEST OBSERVABLE TIDE LINE

SPECIAL FLOOD HAZARD BOUNDARY

.2% ANNUAL CHANCE OF FLOOD HAZARD AREA

SALT MARSH AREA

→ MW−1 MONITORING WELL

----- MEAN HIGH WATER

SHRUB LINE

___X___X____X____

• GUARDRAIL

⊕ B13−1

UNIDENTIFIED MANHOLE

JURISDICTIONAL WETLAND SYMBOL

DRAINAGE FLOW DIRECTION ARROW

EDGE OF JURISDICTIONAL WETLAND

CATCH BASIN (ROUND)

<u>PROPOSED</u> **EXISTING** LIMIT OF WORK BORING/ROCK PROBE UTILITY POLE & GUY WIRE PROPOSED CONTOUR UTILITY POLE W/ LIGHT SIGN YARD HYDRANT PAVEMENT REMOVAL WOODEN POST FIRE HYDRANT GRAVEL REMOVAL WATER METER WATER GATE VALVE EXISTING PAVEMENT VENT PIPE AREA TO BE REPAVED WATER SHUTOFF VALVE (RECLAIMED BASE) CLEANOUT NEW PAVEMENT AREA (RECLAIMED BASE) TRAFFIC DIRECTION ARROW

PROJECT

PEIRCE ISLAND ROAD COASTAL RESILIENCY **PROJECT** Peirce Island, Portsmouth NH

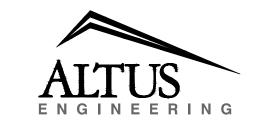
OWNER

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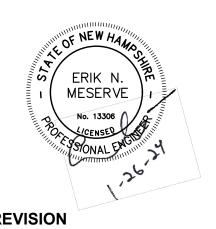
ENGINEER

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REGISTRATION



ISSUE/REVISION

I/R	DATE	DESCRIPTION

PROJECT NUMBER

60700949

Designed By:	M. DOELP
Drawn By:	M. THIBODEAU
Dept Check:	C. BENZIGER
Proj Check:	E. MESERVE
Date:	JANUARY 26, 2024
Scale:	AS NOTED

DISCIPLINE

CIVIL

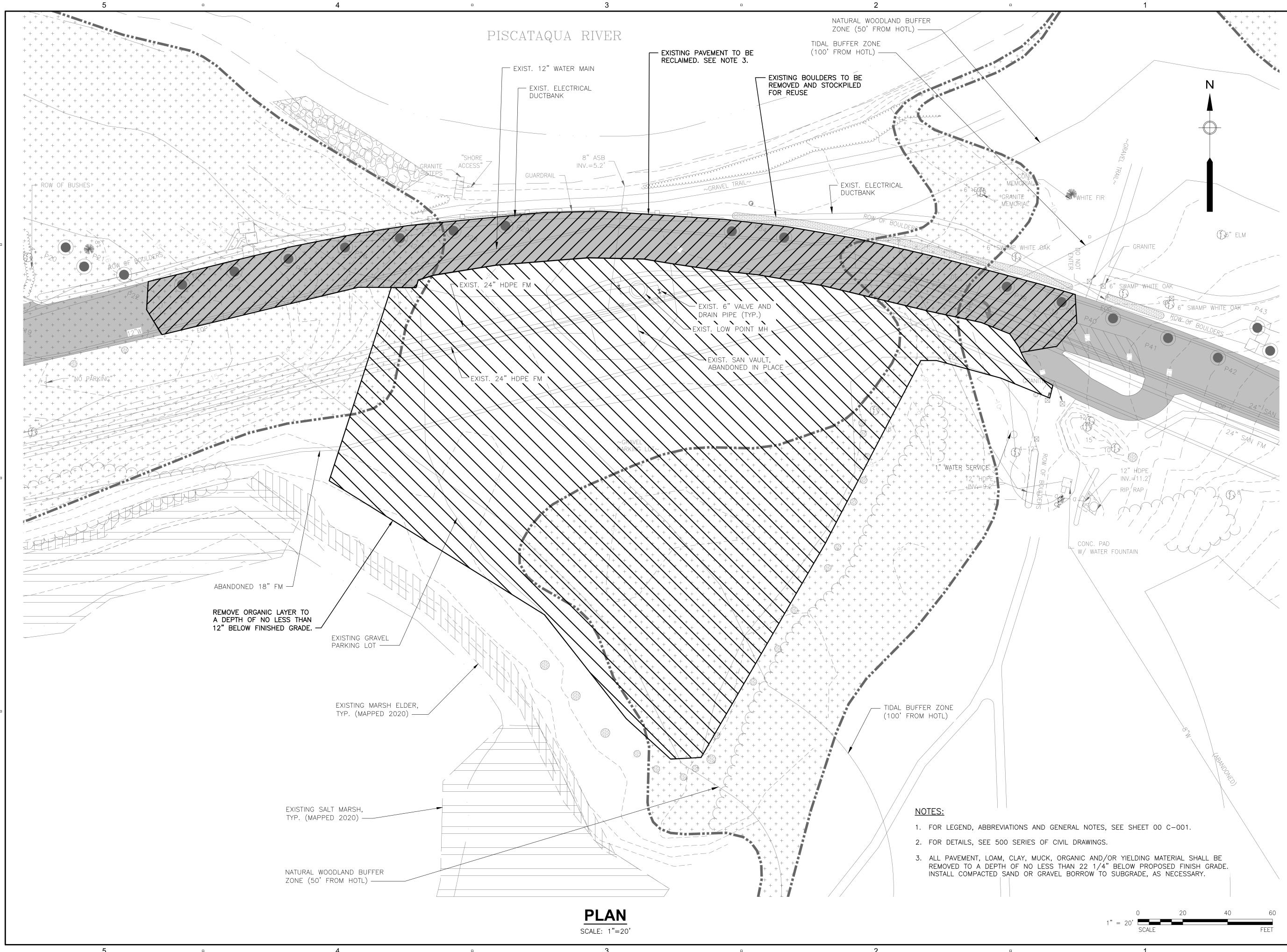
LEGEND, ABBREVIATIONS

SHEET NUMBER

00 C-001

SHEET TITLE

AND GENERAL NOTES



AECOM

DD0 154

PEIRCE ISLAND ROAD
COASTAL RESILIENCY
PROJECT
Peirce Island, Portsmouth NH

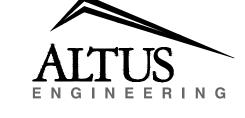
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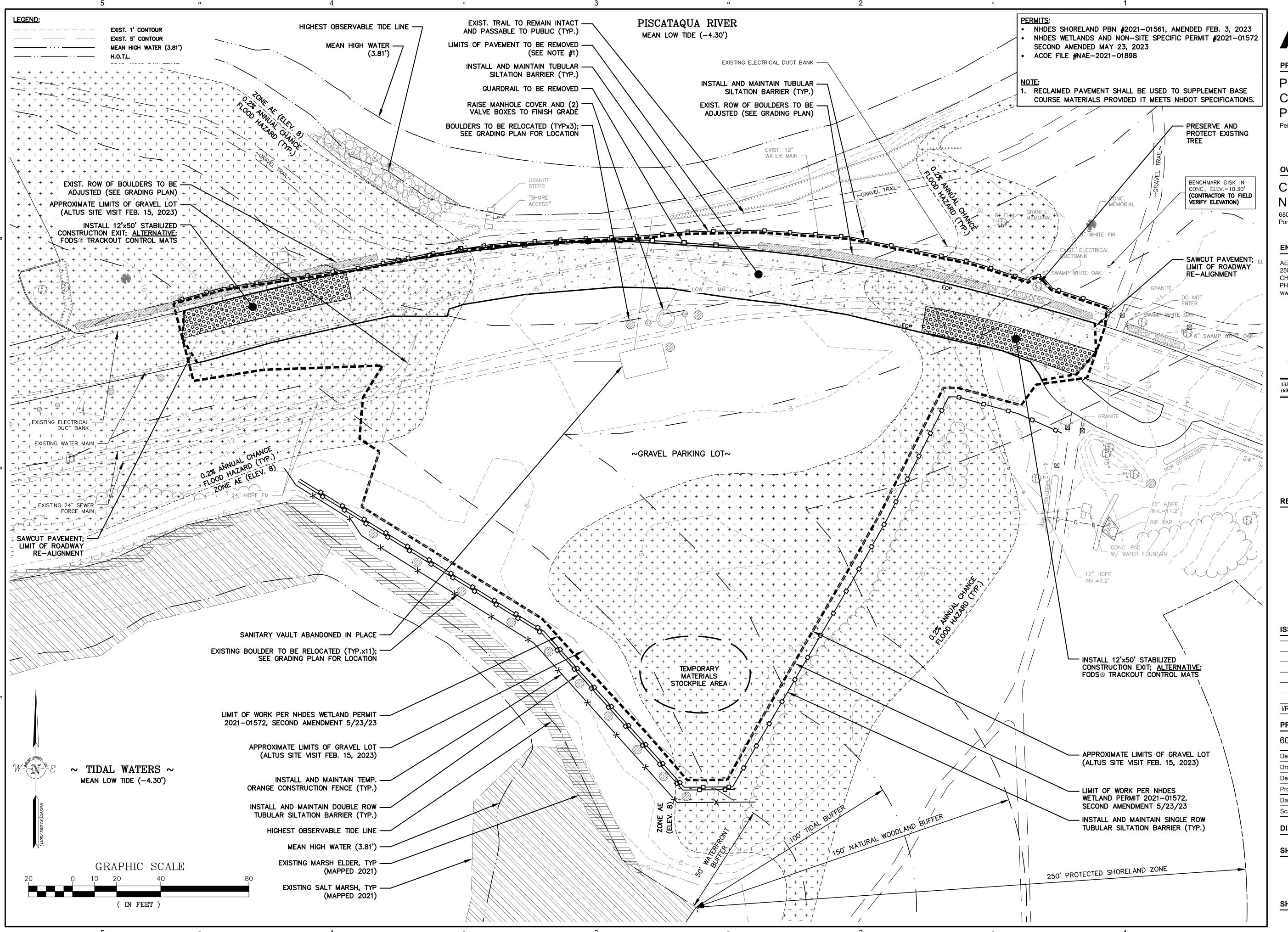
DISCIPLINE

CIVIL SHEET TITLE

EXISTING CONDITIONS AND DEMOLITION PLAN

SHEET NUMBER

00 C-002



AECOM

PROJECT

PEIRCE ISLAND ROAD COASTAL RESILIENCY PROJECT

Peirce Island, Portsmouth NH

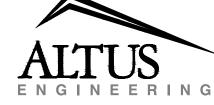
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REGISTRATION



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PROJECT NUMBER

60700949 (ALTUS #5376)

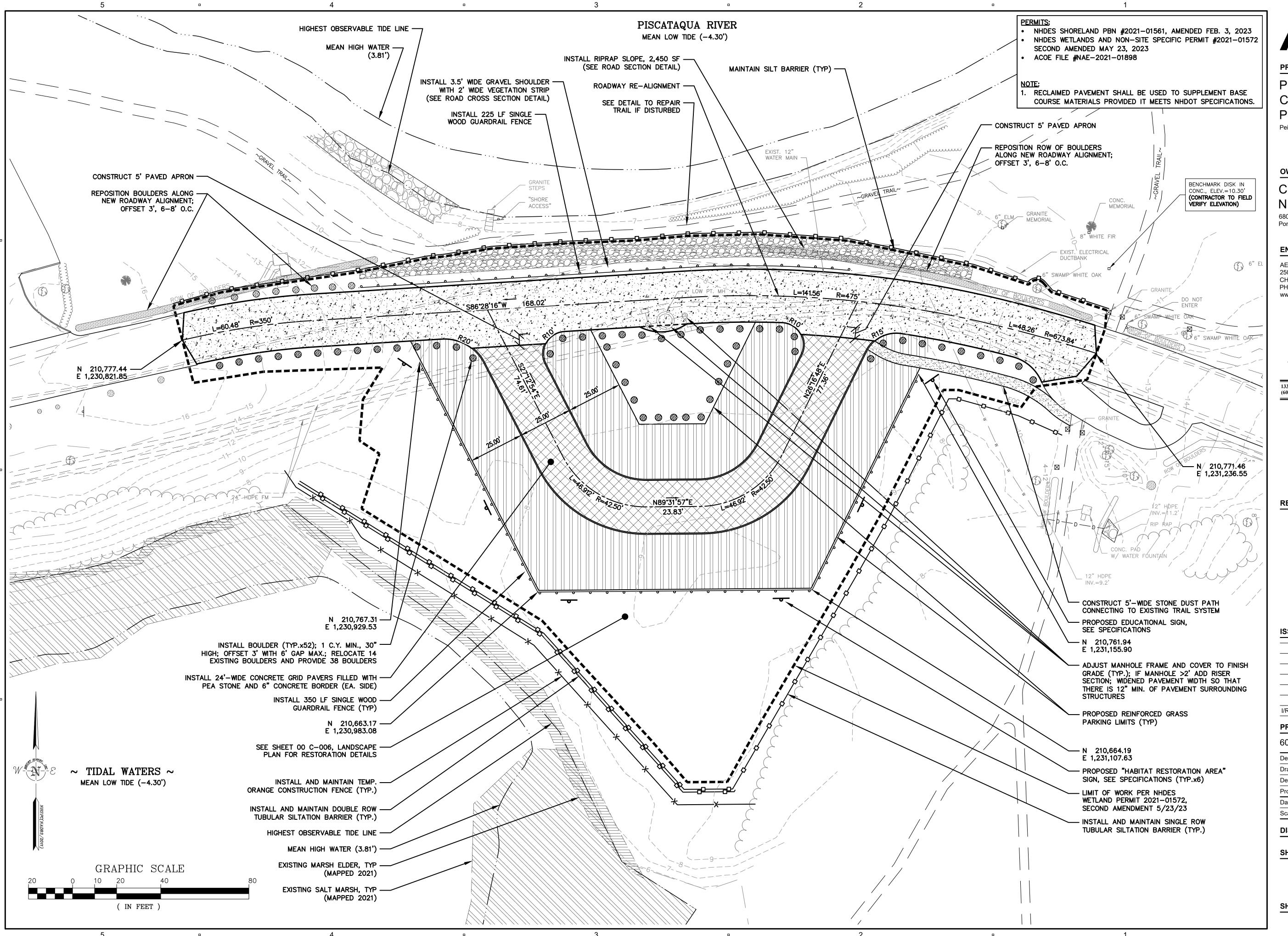
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	Drawn By:	RMB
	Dept Check:	EDW
	Proj Check:	EDW
	Date:	JANUARY 26, 2024
	Scale:	1" = 20'

DISCIPLINE

SHEET TITLE

SITE PREPARATION PLAN

SHEET NUMBER





PROJECT

PEIRCE ISLAND ROAD COASTAL RESILIENCY PROJECT

Peirce Island, Portsmouth NH

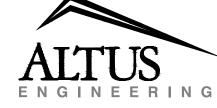
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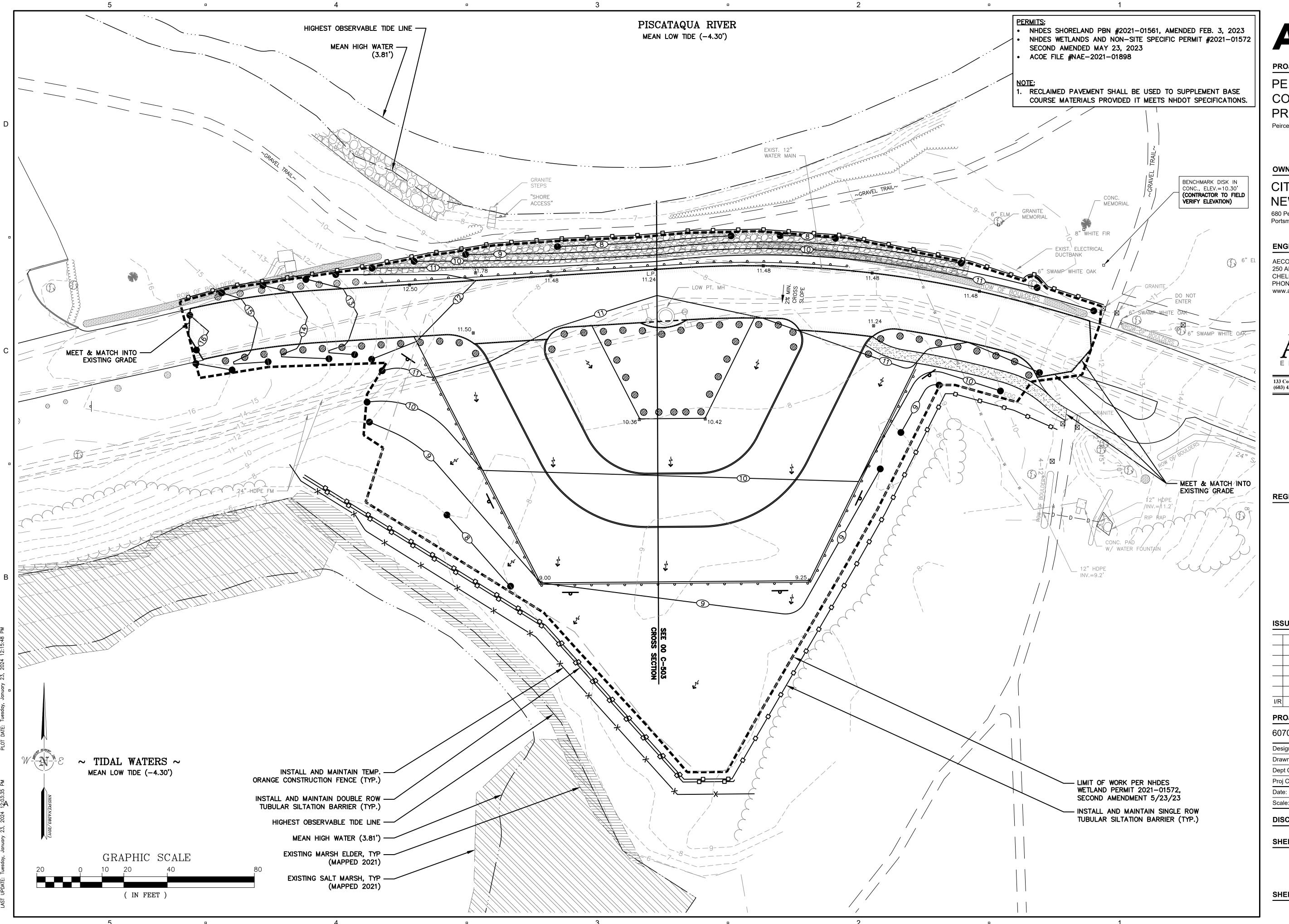
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DISCIPLINE

SHEET TITLE

SITE PLAN

SHEET NUMBER





PROJECT

PEIRCE ISLAND ROAD COASTAL RESILIENCY **PROJECT**

Peirce Island, Portsmouth NH

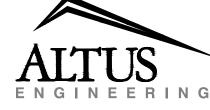
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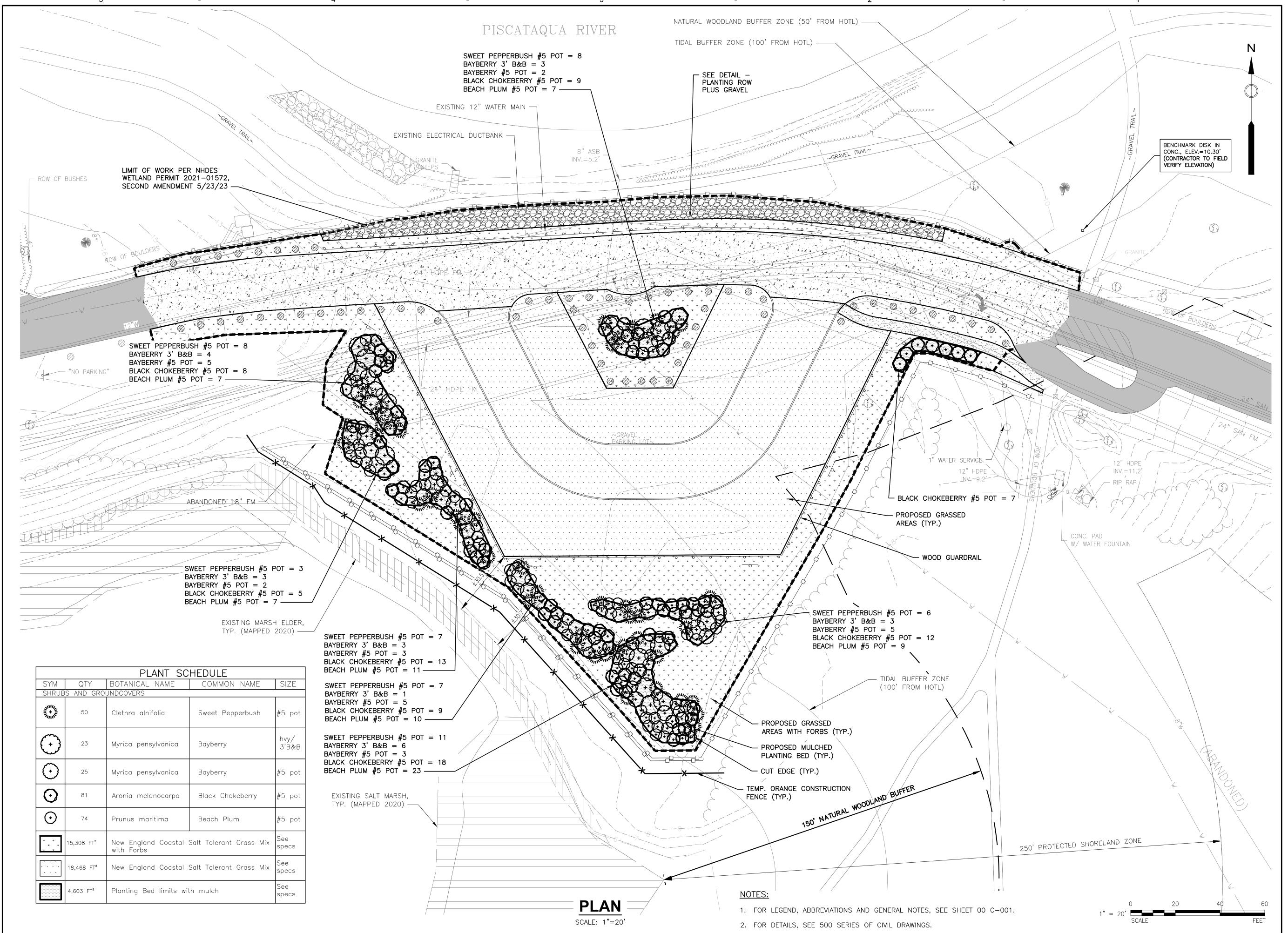
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DISCIPLINE

SHEET TITLE

GRADING PLAN

SHEET NUMBER





PROJECT

PEIRCE ISLAND ROAD
COASTAL RESILIENCY
PROJECT
Peirce Island, Portsmouth NH

OWNER

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Dept Check:	C. BENZIGER
Proj Check:	E. MESERVE
Date:	JANUARY 26, 2024
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DISCIPLINE

CIVIL SHEET TITLE

LANDSCAPING PLAN

SHEET NUMBER

00 C-006

PEIRCE ISLAND ROAD COASTAL RESILIENCY PROJECT

DESCRIPTION

The project consists of improvements to raise the access road above the current 100—year flood elevation; to convert an informal parking area the former snow dump, formerly used as laydown area and to a formal grassed public parking area.

DISTURBED AREA

The total area to be disturbed for the development improvements is approximately 51.718 SF (1.19 acres).

PROJECT PHASING

The proposed project will be completed in single phase.

NAME OF RECEIVING WATER

The site drains directly to the Piscatagua River (tidal).

NPDES CONSTRUCTION GENERAL PERMIT

Contractor shall prepare a Stormwater Pollution Prevention Plan (SWPPP) is accordance with federal storm water permit requirements. The SWPPP must be prepared in a format acceptable to the Owner and three (3) copies provided to the City at least fourteen (14) days prior to initiating construction. Contractor is responsible for all cost associated with preparation and implementation of SWPPP including any temporary erosion control measures (whether indicated or not on these drawings) as required for the contractor's sequence of activities.

The Contractor and Owner shall each file a Notice of Intent (NOI) with the U.S.E.P.A. under the NPDES Construction General Permit. (U.S.E.P.A., 1200 Pennsylvania Avenue NW, Washington, DC 20460) All work shall be in accordance with NPDES General Permit: NHR120000, including NOI requirements, effluent limitations, standards and management for construction. The Contractor shall be responsible for obtaining a USEPA Construction Dewatering Permit, if required.

SEQUENCE OF MAJOR ACTIVITIES

- 1. Prepare SWPPP and file NPDES Notice of Intent, prior to any construction activities. The Contractor and Owner shall each file a Notice of Intent (N.O.I.) to U.S.E.P.A.
- 2. Install temporary erosion control measures including silt fences, stabilized construction entrance and inlet sediment filters as noted on the plan. All temporary erosion control measures shall be maintained in good working condition for the duration of the project.
- 3. Upon completion of Items 1 through 2, clear and grub wooded areas (some stumps may require grinding). Dispose of stumps in an approved offsite location.
- 4. Strip and stockpile loam. Stockpiles shall be temporarily stabilized with hav bales. mulch and surrounded by a hay bale or silt fence barrier until material is removed and final aradina is complete.
- 5. Reclaim/remove existing paved surfaces.
- 6. Perform all required demolition activities.
- Construct ditches and swales early in construction sequence; stabilize them prior to directing flow to them.
- 8. Ditches and swales shall have sides and bottom reinforced with excelsior matting. Permanent turf reinforcement shall be installed at swale sloped greater than 5%. Rough grade site including placement of borrow materials.
- 21. Construct drainage structures, parking area & road base materials. All roadways, parking lots, cut and fill slopes shall be stabilized within 72 hours of achieving finished grade
- 19. Install base course paving, pavers & curbing.
- 20. Loam (6" min) and seed all disturbed areas not paved or otherwise stabilized within 72 hours of achieving finished grade.
- 21. Install top course paving.
- 22. When all construction activity is complete and site is stabilized, remove all hay bales, storm check dams, silt fences and sediment that has been trapped by these
- 23. File a Notice of Termination (N.O.T.) with U.S.E.P.A.

TEMPORARY EROSION & SEDIMENT CONTROL AND STABILIZATION

All work shall be in accordance with state and local permits. Work shall conform to the practices described in the "New Hampshire Stormwater Manual, Volumes 1 - 3", issued December 2008, as amended. As indicated in the sequence of Major Activities, the silt fences shall be installed prior to commencing any clearing or grading of the site. Structural controls shall be installed concurrently with the applicable activity. Once construction activity ceases permanently in an area, silt fences and any earth/dikes will be removed once permanent measures are established.

During construction, runoff will be diverted around the site with stabilized channels where possible. Sheet runoff from the site shall be filtered through hay bale barriers, stone check dams, and silt fences. All storm drain inlets shall be provided with hav bale filters or stone check dams. Stone rip rap shall be provided at the outlets of drain pipes and culverts where shown on the drawings.

Stabilize all ditches, swales and their contributing areas prior to directing flow to them.

Temporary and permanent vegetation and mulching is an integral component of the erosion and sedimentation control plan. All areas shall be inspected and maintained until vegetative cover is established. These control measures are essential to erosion prevention and also reduce costly rework of graded and shaped areas.

Temporary vegetation shall be maintained in these areas until permanent seeding is applied. Additionally, erosion and sediment control measures shall be maintained until permanent vegetation is

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

A. GENERAL

- These are general inspection and maintenance practices that shall be used to implement the
- 1. Perimeter controls shall be install prior to earth moving operations.
- 2. The project is to be managed in a manner that meets the requirements and intent of RSA 430:53 and Chapter Agr 3800 relative to invasive species.
- 3. Temporary water diversion (swales, basins, etc) must be used as necessary until areas are
- 4. The smallest practical portion of the site shall be denuded at one time, but in most cases shall it exceed 5 acres at one time.
- 5. All control measures shall be inspected at least once each week and following any storm event of 0.5 inches or greater.
- 6. All measures shall be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours.
- 7. Built-up sediment shall be removed from silt fence or other barriers when it has reached one—third the height of the fence or bale, or when "bulges" occur.
- 8. All dikes shall be inspected and any breaches promptly repaired.
- 9. Temporary seeding and planting shall be inspected for bare spots, washouts, and unhealthy
- 10. The owner's authorized engineer shall inspect the site on a periodic basis to review compliance with the Plans'
- 11. All roadways and parking lots shall be stabilized within 72 hours of achieving finished grade.
- 12. All cut and fill slopes shall be seeded/loamed within 72 hours of achieving finished grade.
- 13. An area shall be considered stable if one of the following has occurred:
- a. Base coarse gravels have been installed in greas to be paved:
- b. A minimum of 85% vegetated growth as been established; c. A minimum of 3 inches of non-erosive material such as stone of riprap has been installed: — or —
- d. Erosion control blankets have been properly installed
- 11. The length of time of exposure of area disturbed during construction shall not exceed 45
- 12. Lot disturbance, other than that shown on the approved plans, shall not commence until after the roadway has the base course to design elevation and the associated drainage is complete and stable.

MULCHING

Mulch shall be used on highly erodible soils, on critically eroding areas, on areas where conservation of moisture will facilitate plant establishment, and where shown on the plans.

- 1. Timing In order for mulch to be effective, it must be in place prior to major storm events. There are two (2) types of standards which shall be used to assure this: a. Apply mulch prior to any storm event. This is applicable when working within 100 feet of wetlands. It will be necessary to closely monitor weather predictions, usually by contacting the National Weather Service in Concord, to have adequate warning of
- significant storms. b. Required Mulching within a specified time period. The time period can range from 21 to 28 days of inactivity on a area, the length of time varying with site conditions. Professional judgment shall be used to evaluate the interaction of site conditions (soil erodibility, season of year, extent of disturbance, proximity to sensitive resources, etc.) and the potential impact of erosion on adjacent areas to choose an appropriate time restriction.

<u>Use and Comments</u>

with plantings.

Must be dry and free

Used mostly with trees

from mold. May be used

Rate per 1,000 s.f.

70 to 90 lbs.

460 to 920 lbs.

2. Guidelines for Winter Mulch Application

Hay or Straw

Wood Chips or

Bark Mulch		and shrub plantings.
Jute and Fibrous Matting (Erosion Blanket	As per manufacturer Specifications	Used in slope areas, water courses and other Control areas.
Crushed Stone 1/4" to 1-1/2" dia.	Spread more than 1/2" thick	Effective in controlling wind and water erosion.
Erosion Control Mix	2" thick (min)	* The organic matter content is between 80 and 100%, dry weight basis. * Particle size by weight is 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 is less than 4.0 mmhos/cm. * The pH should fall between 5.0 and 8.0.
Maintenance — All mulche	s must be inspected period	lically, in particular after rainstorms, to

- check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied.
- TEMPORARY GRASS COVER

. Seedbed Preparation -Apply fertilizer at the rate of 600 pounds per acre of 10-10-10. Apply limestone (equivalent to 50 percent calcium plus magnesium oxide) at a rate of three (3) tons per

2. Seeding -

- a. Utilize annual rye grass at a rate of 40 lbs/acre.
- b. Where the soil has been compacted by construction operations, loosen soil to a depth of two (2) inches before applying fertilizer, lime and seed.
- c. Apply seed uniformly by hand, cyclone seeder, or hydroseeder (slurry including seed and fertilizer). Hydroseedings, which include mulch, may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.

3. Maintenance -

Physical Property

Flow Rate

Temporary seedings shall be periodically inspected. At a minimum, 95% of the soil surface should be covered by vegetation. If any evidence of erosion or sedimentation is apparent, repairs shall be made and other temporary measures used in the interim (mulch, filter barriers, check dams, etc.).

FILTERS 1. Silt Fence

a. Synthetic filter fabric shall be a pervious sheet of propylene, nylon, polyester or ethylene yarn and shall be certified by the manufacturer or supplier as conforming to the following requirements:

<u>Requirements</u>

0.3 gal/sf/min (min)

Filtering Efficie	ncy	VTM-51	75% minimum
Tensile Strengt 20% Maximum		VTM-52	Extra Strength 50 lb/lin in (mir Standard Strengt 30 lb/lin in (mir

* Requirements reduced by 50 percent after six (6) months of installation.

Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizer to provide a minimum of six (6) months of expected usable construction life at a temperature range of 0 degrees F to 120° F.

- b. Posts shall be spaced a maximum of ten (10) feet apart at the barrier location or as recommended by the manufacturer and driven securely into the ground (minimum of 16
- c. A trench shall be excavated approximately six (6) inches wide and eight (8) inches deep along the line of posts and upslope from the barrier.

d. When standard strength filter fabric is used, a wire mesh support fence shall be fastened

- securely to the upslope side of the posts using heavy duty wire staples at least one (1) inch long, tie wires or hog rings. The wire shall extend no more than 36 inches above the original ground surfaces. e. The "standard strenath" filter fabric shall be stapled or wired to the fence, and eight (8)
- inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36 inches above the original ground surface. Filter fabric shall not be stapled to
- f. When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric is stapled or wired directly to the posts with all other provisions of item (q) applying.
- g. The trench shall be backfilled and the soil compacted over the filter fabric.
- h. Silt fences shall be removed when they have served their useful purpose but not before the upslope areas has been permanently stabilized.
- 2. Sequence of Installation -Sediment barriers shall be installed prior to any soil disturbance of the contributing upslope

a. Silt fence barriers shall be inspected immediately after each rainfall and at least daily

- during prolonged rainfall. They shall be repaired if there are any signs of erosion or sedimentation below them. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water, the sediment barriers shall be replaced with a temporary stone check dam.
- b. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier still is necessary, the fabric shall be replaced promptly.
- c. Sediment deposits must be removed when deposits reach approximately one-third (1/3)
- d. Any sediment deposits remaining in place after the silt fence or other barrier is no longer required shall be removed. The area shall be prepared and seeded.
- e. Additional stone may have to be added to the construction entrance, rock barrier and riprap lined swales, etc., periodically to maintain proper function of the erosion control structure.
- 4. Alternative Method

Filtrexx Siltsoxx or approved equal - install per manufacturer specifications.

PERMANENT SEEDING -

- 1. Bedding stones larger than $1\frac{1}{2}$, trash, roots, and other debris that will interfere with seeding and future maintenance of the area should be removed. Where feasible, the soil should be tilled to a depth of 5" to prepare a seedbed and mix fertilizer into the soil.
- 2. Fertilizer lime and fertilizer should be applied evenly over the area prior to or at the time of seeding and incorporated into the soil. Kinds and amounts of lime and fertilizer should be based on an evaluation of soil tests. When a soil test is not available, the following minimum amounts should be applied: COORDINATE WITH LANDSCAPE PLANS
- 3. Seed Mixture (recommended): SEE LANDSCAPE PLANS

WINTER CONSTRUCTION NOTES

- 1. All proposed vegetated areas which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized by seeding and installing erosion control blankets on slopes greater than 3:1, and seeding and placing 3 to 4 tons of mulch per acre, secured with anchored cotton netting elsewhere. The installation of erosion control blankets or mulch and netting shall not occur over accumulated snow or on frozen ground and shall be completed in advance of thaw or spring melt events;
- 2. All ditches or swales which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions; and
- 3. After October 15th, incomplete road or parking surfaces where work has stopped for the winter season shall be protected with a minimum of 3 inches of crushed gravel per NHDOT

SPILL PREVENTION MEASURED AND SPILL MITIGATION

Spill prevention and spill mitigation measures shall be implemented to prevent the release of fuel and other related substances to the environment. The measures shall be included at a minimum:

- a) The storage requirements shall include: Storage of regulated substances on an impervious surface.
- Secure storage areas against unauthorized entry.
- iii. Label regulated containers clearly and visibly.
- iv. Inspect stage areas weekly. v. Cover regulated containers in outside storage areas.
- vi. Whenever possible, keep regulated containers that are stored outside more than 50 feet from surface water and storm drains, 75 feet from private wells, and 400 feet from
- vii. Secondary containment is required for containers containing regulated substances stored outside, except for on premise use fuel tanks or aboveground or underground storage tanks otherwise regulated.
- b) The fuel handling requirements shall include:
- i. Except when in use, keep containers containing regulated substances closed and sealed.
- ii. Place drip pans under spigots, valves, and pumps. iii. Have spill control and containment equipment readily available in all work areas.
- iv. Use funnel and drip pans when transferring regulated substances. v. Perform transfers of regulated substances over an impervious surface.
- c) The training of on-site employees and on-site posting of release response information describing what to do in the event of regulated substances.

NOTE (OWNER'S RESPONSIBILTY UPON COMPLETION OF PROJECT):

ALL FACILITIES SHOULD BE INSPECTED BY A QUALIFIED INSPECTOR ON AN ANNUAL

BASIS AT A MINIMUM. IN ADDITION, ALL FACILITIES SHOULD BE INSPECTED AFTER

APPROPRIATELY AND TO IDENTIFY ANY DAMAGE THAT OCCURRED AS A RESULT OF

THE INCREASED RUNOFF. FOR THE PURPOSE OF THIS STORMWATER MANAGEMENT

PROGRAM, A SIGNIFICANT RAINFALL EVENT IS CONSIDERED AN EVENT OF THREE (3)

INCHES IN A 24-HOUR PERIOD OR 0.5 INCHES IN A ONE-HOUR PERIOD. IT IS

A SIGNIFICANT PRECIPITATION EVENT TO ENSURE THE FACILITY IS DRAINING

ANTICIPATED THAT A SHORT. INTENSE EVENT IS LIKELY TO HAVE A HIGHER

POTENTIAL OF EROSION FOR THIS SITE THAN A LONGER, HIGH VOLUME EVENT.

- d) Fueling and maintenance of excavation, earthmoving and other construction related equipment will comply with regulation of New Hampshire Department of Environmental Services (see WD-DWGB-22-6 Best management Practices for Fueling and Maintenance of Excavation and
- http://des.nh.gov/organization/ommissioner/pip/factsheets/dwgb/documents/dwgb-22-6.pdf

PROJECT

PEIRCE ISLAND ROAD COASTAL RESILIENCY **PROJECT**

Peirce Island, Portsmouth NH

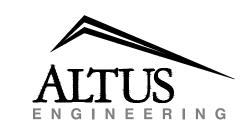
OWNER

CITY OF PORTSMOUTH **NEW HAMPSHIRE**

680 Peverly Hill Road Portsmouth, NH 03801

ENGINEER

AECOM TECHNICAL SERVICES, INC. 250 APOLLO DRIVE CHELMSFORD, MA 01824 PHONE: (978) 905-2100 www.aecom.com



(603) 433-2335 www.altus-eng.com

Portsmouth, NH 03801

REGISTRATION

133 Court Street



ISSUE/REVISION

I/R	DATE	DESCRIPTION

60700949 (ALTUS #5376)

PROJECT NUMBER

Designed By: RMB Drawn By: RMB Dept Check: **EDW** Proj Check: EDW

DISCIPLINE

Date:

Scale:

SHEET TITLE

DETAILS (ROADWAY & STORMWATER)

JANUARY 26, 2024

AS SHOWN

SHEET NUMBER

- 3. SEWER AND WATER: PORTSMOUTH DPW, JIM TOW, (603) 427-1530.
- 4. TELECOMMUNICATIONS: FAIRPOINT, JOE CONSIDINE, (603) 427-5525.
- 5. CABLE: COMCAST, MIKE COLLINS, (603) 679-5695, EXT. 1037.
- 6. ELECTRICAL: EVERSOURCE, MICHAEL BUSBY, (603) 332-4227, EXT. 5555334.
- 7. GAS: UNITIL, DAVID BEAULIEU, (603) 294-5144.
- 8. PRIOR TO CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND FIELD VERIFY JUNCTIONS. LOCATIONS AND ELEVATIONS/INVERTS OF ALL EXISTING AND PROPOSED STORMWATER AND UTILITY LINES. CONFLICTS SHALL BE ANTICIPATED AND ALL EXISTING LINES TO BE RETAINED SHALL BE PROTECTED. ANY DAMAGE DONE TO EXISTING UTILITIES SHALL BE REPAIRED AND. IF NECESSARY. EXISTING UTILITIES SHALL BE RELOCATED AT NO EXTRA COST TO THE OWNER. ALL CONFLICTS SHALL BE RESOLVED WITH THE INVOLVEMENT OF THE ENGINEER, DPW AND APPROPRIATE UTILITIES.
- CONTRACTOR SHALL SAFELY SECURE THE SITE AND WORK LIMITS WITH SECURITY FENCING WHICH SHALL BE LOCKED DURING NON-WORK HOURS.
- 10. CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES SCHEDULED TO REMAIN.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY NOTIFICATION OF ALL PARTIES, CORPORATIONS, COMPANIES, INDIVIDUALS AND STATE AND LOCAL AUTHORITIES OWNING AND/OR HAVING JURISDICTION OVER ANY UTILITIES RUNNING TO, THROUGH OR ACROSS AREAS TO BE DISTURBED BY DEMOLITION AND/OR CONSTRUCTION ACTIVITIES WHETHER OR NOT SAID UTILITIES ARE SUBJECT TO DEMOLITION, RELOCATION, MODIFICATION AND/OR CONSTRUCTION.
- 12. WHERE SPECIFIED TO REMAIN, MANHOLE RIMS, CATCH BASIN GRATES, VALVE COVERS, HANDHOLES, MONITORING WELLS, ETC. SHALL BE ADJUSTED TO FINISH GRADE UNLESS
- 13. SEE EROSION CONTROL PLANS FOR EROSION AND SEDIMENT CONTROL MEASURES THAT SHALL BE IN PLACE PRIOR TO DEMOLITION ACTIVITIES.
- 14. ALL MATERIALS SCHEDULED FOR DEMOLITION OR REMOVAL ON PRIVATE PROPERTY SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED.
- 15. ALL MATERIAL SCHEDULED TO BE REMOVED SHALL BE LEGALLY DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS/CODES.
- 16. NO BURNING SHALL BE PERMITTED PER LOCAL REGULATIONS.
- 17. HAZARDOUS MATERIALS ENCOUNTERED DURING DEMOLITION AND CONSTRUCTION ACTIVITIES SHALL BE ABATED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL
- 18. EXISTING UTILITIES TO BE DISCONTINUED SHALL BE ABANDONED IN PLACE UNLESS OTHERWISE NOTED TO BE REMOVED OR ENCOUNTERED DURING THE INSTALLATION OF NEW WORK.
- 19. SHOULD GROUNDWATER BE ENCOUNTERED DURING EXCAVATION, APPROPRIATE BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED TO ENSURE SEDIMENT LADEN WATER IS NOT DISCHARGED INTO THE CLOSED DRAINAGE SYSTEM, OFF-SITE PROPERTIES OR WATERWAYS.
- 20. THIS PLAN IS INTENDED TO PROVIDE MINIMUM GUIDELINES FOR THE DEMOLITION OF EXISTING SITE FEATURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL BUILDINGS, PAVEMENT, CONCRETE, CURBING, SIGNS, POLES, UTILITIES, FENCES, VEGETATION AND OTHER EXISTING FEATURES AS NECESSARY TO FULLY CONSTRUCT THE PROJECT.
- 21. THE LIMITS OF WORK, INCLUDING PAVEMENT REMOVAL AND SAWCUTTING, HAVE BEEN SHOWN TO DEPICT THE GENERAL LIMITS OF WORK. CONTRACTOR'S MEANS AND METHODS AS WELL AS THE PAVEMENT CONDITIONS WILL DICATE THE EXACT LIMITS OF PAVEMENT REMOVAL.

SITE NOTES

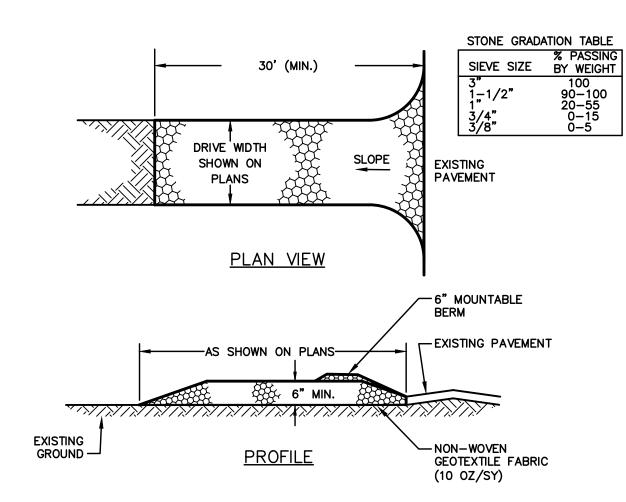
- 1. PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC DEVICES," "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AND THE AMERICANS WITH DISABILITIES ACT (ADA). LATEST EDITIONS.
- 2. CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAWCUT LINES WITH RS-1 IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
- THE CONTRACTOR SHALL VERIFY ALL BENCHMARKS AND TOPOGRAPHY IN THE FIELD PRIOR TO

GRADING NOTES

- PROJECT SUBJECT TO EPA NPDES PHASE II. NOI, SWPPP AND MINIMUM WEEKLY INSPECTIONS REQUIRED. CONTRACTOR SHALL FILE NOI WITH EPA 2 WEEKS PRIOR TO CONSTRUCTION
- UNLESS OTHERWISE AGREED IN WRITING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS (TBMS) AND PERFORMING ALL CONSTRUCTION SURVEY LAYOUT.
- 3. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DESIGN STANDARDS AND SPECIFICATIONS SET FORTH BY THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES.
- 4. CONTRACTOR SHALL CONTROL DUST BY SPRAYING WATER, SWEEPING PAVED SURFACES, PROVIDING TEMPORARY VEGETATION, AND/OR MULCHING EXPOSED AREAS AND STOCKPILES.
- CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO PREVENT EROSION, PREVENT SEDIMENT FROM LEAVING THE SITE AND/OR ENTERING WETLANDS AND ENSURE PERMANENT
- 6. SEE DETAIL SHEETS FOR PERTINENT SEDIMENT AND EROSION CONTROL DETAILS AND ADDITIONAL NOTES.
- PROTECTION OF SUBGRADE: THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STABLE, DEWATERED SUBGRADES FOR FOUNDATIONS, PAVEMENT AREAS, UTILITY TRENCHES, AND OTHER AREAS DURING CONSTRUCTION. SUBGRADE DISTURBANCE MAY BE INFLUENCED BY EXCAVATION METHODS, MOISTURE, PRECIPITATION, GROUNDWATER CONTROL, AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT SUBGRADE DISTURBANCE. SUCH PRECAUTIONS MAY INCLUDE DIVERTING STORMWATER RUNOFF AWAY FROM CONSTRUCTION AREAS, REDUCING TRAFFIC IN SENSITIVE AREAS, AND MAINTAINING AN EFFECTIVE DEWATERING PROGRAM. SOILS EXHIBITING HEAVING OR INSTABILITY SHALL BE OVER EXCAVATED TO MORE COMPETENT BEARING SOIL AND REPLACED WITH FREE DRAINING STRUCTURAL FILL. IF THE EARTHWORK IS PERFORMED DURING FREEZING WEATHER, EXPOSED SUBGRADES ARE SUSCEPTIBLE TO FROST. NO FILL OR UTILITIES SHALL BE PLACED ON FROZEN GROUND. THIS WILL LIKELY REQUIRE REMOVAL OF A FROZEN SOIL CRUST AT THE COMMENCEMENT OF EACH DAY'S OPERATIONS. THE FINAL SUBGRADE ELEVATION WOULD ALSO REQUIRE AN APPROPRIATE DEGREE OF INSULATION AGAINST FREEZING.
- UPON COMPLETION OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED AND ANY AREAS DISTURBED BY THE REMOVAL SMOOTHED AND

<u>UTILITY NOTES</u>

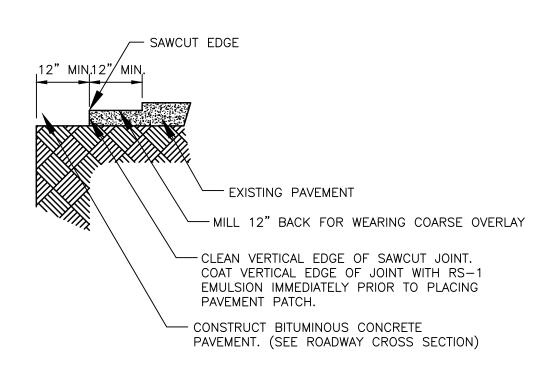
ALL ROAD/LANE CLOSURES OR OTHER TRAFFIC INTERRUPTIONS SHALL BE COORDINATED WITH PORTSMOUTH POLICE DEPARTMENT AND DEPT. OF PUBLIC WORKS AT LEAST TWO WEEKS PRIOR TO COMMENCING RELATED CONSTRUCTION.



CONSTRUCTION SPECIFICATIONS

- 1. STONE SIZE NHDOT STANDARD STONE SIZE #4 SECTION 703 OF NHDOT STANDARD.
- 2. <u>LENGTH</u> DETAILED ON PLANS (50 FOOT MINIMUM).
- 3. THICKNESS SIX (6) INCHES (MINIMUM).
- 4. <u>WIDTH</u> FULL DRIVE WIDTH UNLESS OTHERWISE SPECIFIED.
- 5. FILTER FABRIC MIRAFI 600X OR EQUAL APPROVED BY ENGINEER.
- 6. <u>SURFACE WATER CONTROL</u> ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED. DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY
- 8. WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AT ALL ENTRANCES TO PUBLIC RIGHTS-OF-WAY, AT LOCATIONS SHOWN ON THE PLANS, AND/OR WHERE AS DIRECTED BY THE

STABILIZED CONSTRUCTION EXIT NOT TO SCALE



PAVEMENT SAWCUT

SILT FENCE LAYOUT DETAIL

NOT TO SCALE

-INSTALL PROPEX — SILT STOP SEDIMENT

CONTROL FABRIC OR APPROVED EQUAL WHERE

SHOWN ON PLAN AND REQUIRED FOR SWPPP

600' MAXIMUI

-INSTALL ORANGE CONSTRUCTION FENCING WITH SILT FENCING OR

USE ORANGE SILT FENCE WHERE CONSTRUCTION ACTIVITIES

ARE WITHIN 20 FEET OF WETLANDS.

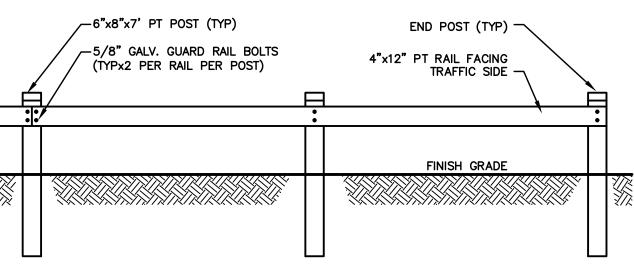
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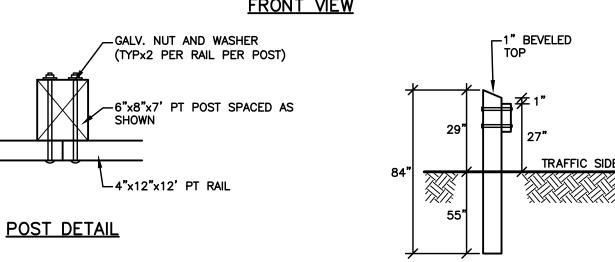
PROVIDE STORAGE CAPACITY

3. SILTSOXX COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE REQUIREMENTS OF THE SPECIFIC APPLICATION. 4. ALL SEDIMENT TRAPPED BY SILTSOXX SHALL BE DISPOSED OF PROPERLY.

TUBULAR SEDIMENT BARRIER

6' FOR INTERMEDIATE POSTS 5'-9" FOR END POSTS TRAFFIC SIDE -BUTT RAIL SECTIONS (SEE DETAIL BELOW)





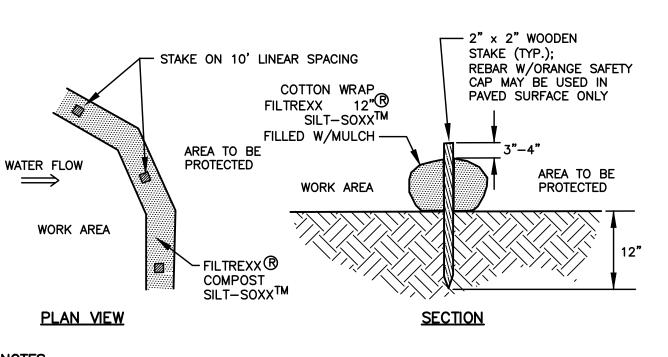
- ALL POST AND RAIL MATERIAL SHALL BE PRESSURE TREATED (PT). PT POSTS SHALL BE RATED FOR GROUND CONTACT.
- 2. BOLT LENGTH IS DETERMINED BY 8" POST AND RAIL THICKNESS PLUS 1 INCH FOR NUT AND WASHER.

WOOD BEAM GUARDRAIL

3. ALL MATERIAL TO MEET OR EXCEED NHDOT SECTION 606 - GUARDRAIL.

NOT TO SCALE

SIDE VIEW



- 1. SILTSOXX MAY BY USED IN PLACE OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
- 2. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.

NOT TO SCALE

NOT TO SCALE

60700949 (ALTUS #5376)

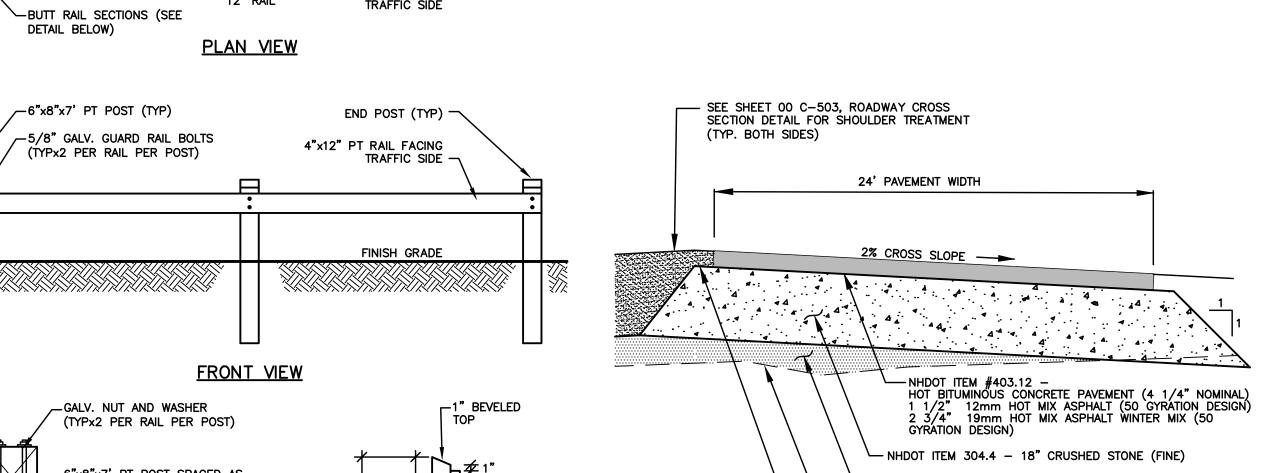
Designed By:	RMB
Drawn By:	RMB
Dept Check:	EDW
Proj Check:	EDW
Date:	JANUARY 26, 2024
Scale:	AS SHOWN

SHEET TITLE

DETAILS

SHEET NUMBER

PROVIDE STRAWBALES WITH (2) STAKES OR TUBULAR SEDIMENT BARRIFR **PROPEX FLOW** -AREA TO REMAIN NATURAL AREA OF **EMBANKMENT** PROPEX - SILT STOP CONSTRUCTION OR ANY DISTURBED SEDIMENT CONTROL AREA TO BE FABRIC OR APPROVED EQUAL STABILIZED (UPHILL) FRONT VIEW SIDE VIEW DOUBLE SILT BARRIER DETAIL NOT TO SCALE



1. ALL PAVEMENT, LOAM, CLAY, MUCK, ORGANIC AND/OR YIELDING MATERIAL SHALL BE REMOVED TO A DEPTH OF NO LESS THAN 22-1/4" BELOW PROPOSED FINISH GRADE. INSTALL COMPACTED SAND

EXISTING GROUND (TYP.)

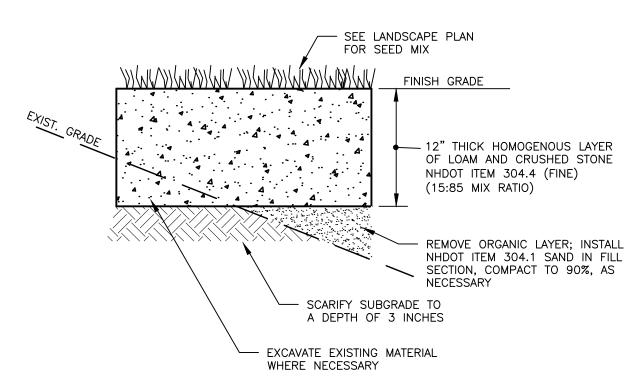
— COMPACTED RECLAIM OR GRAVEL FILL

EXTEND BASE GRAVELS 12" MIN. (TYP. BOTH SIDES)

- OR GRAVEL BORROW TO SUBGRADÉ, AS NECESSARY. 2. THOROUGHLY COMPACT THE SUBGRADE WITH A VIBRATORY ROLLER. PROOF ROLL THE SUBGRADE WITH A FULLY LOADED 10-WHEEL DUMP TRUCK AND REMOVE ANY UNSTABLE SUBGRADE SOILS. PROOF ROLLING SHALL BE WITNESSED AND APPROVED BY GEOTECHINCAL ENGINEER.
- 3. SUBGRADE SHALL BE FREE OF VOIDS THAT ALLOW MOVEMENT/SETTLEMENT OF MATERIALS. REMOVE ANY VISIBLE ORGANICS AT SUBGRADE, REPLACE WITH COMPACTED COMMON OR STRUCTURAL FILL.
- 4. EACH GRAVEL BASE COURSE TO BE CONSTRUCTED AT THE PAVEMENT CROSS SLOPE. 5. COMPACT ALL MATERIALS TO 95% MAXIMUM PROCTOR DENSITY IN 6" LIFTS.

PAVEMENT SECTION

NOT TO SCALE





NOT TO SCALE

PROJECT

PEIRCE ISLAND ROAD COASTAL RESILIENCY **PROJECT**

Peirce Island, Portsmouth NH

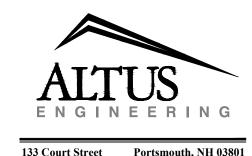
OWNER

CITY OF PORTSMOUTH **NEW HAMPSHIRE**

680 Peverly Hill Road Portsmouth, NH 03801

ENGINEER

AECOM TECHNICAL SERVICES, INC. 250 APOLLO DRIVE CHELMSFORD, MA 01824 PHONE: (978) 905-2100 www.aecom.com



www.altus-eng.com

REGISTRATION

(603) 433-2335



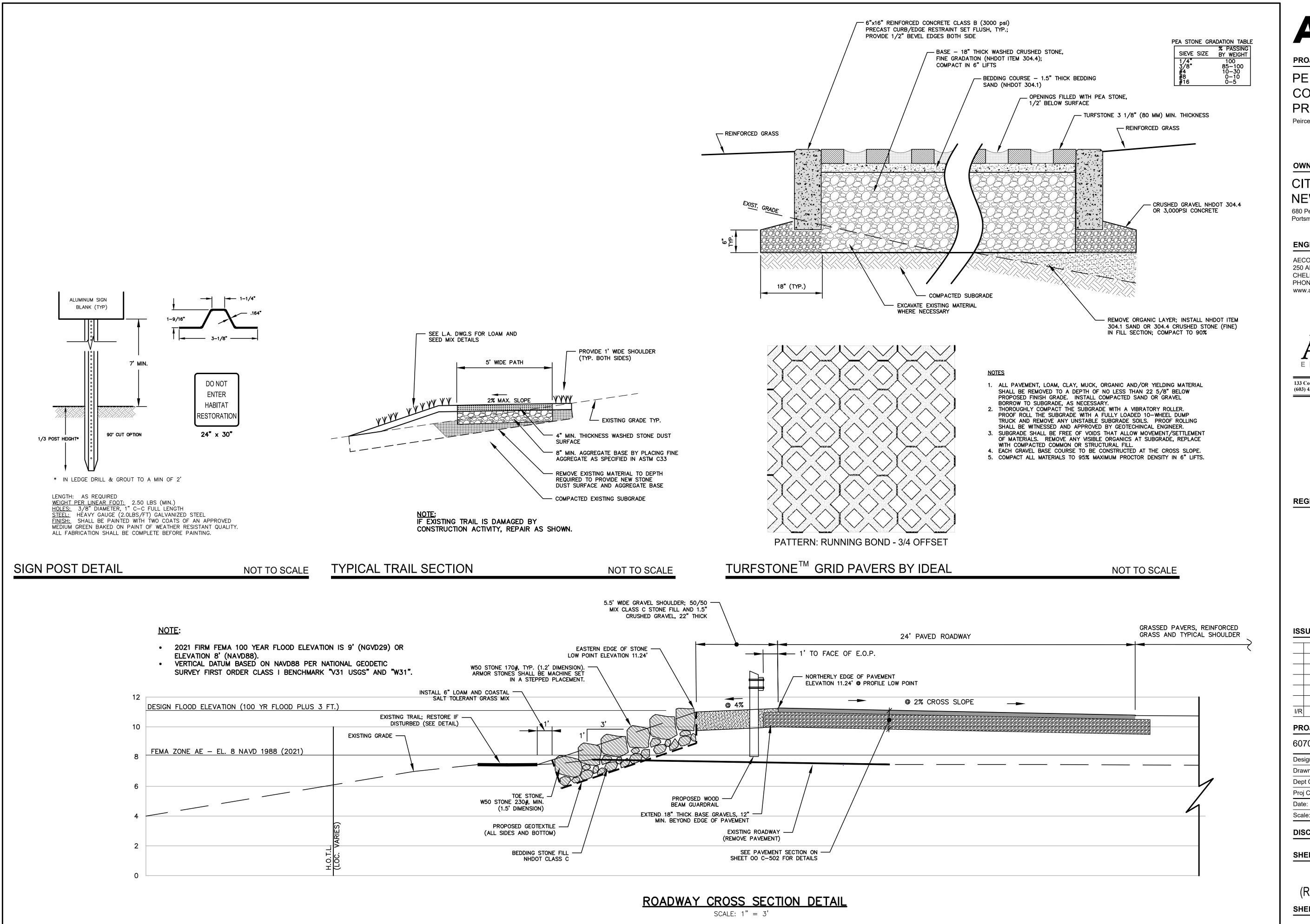
ISSUE/REVISION

I/R DATE DESCRIPTION

PROJECT NUMBER

DISCIPLINE

(ROADWAY & STORMWATER)



AECOM

PROJECT

PEIRCE ISLAND ROAD **COASTAL RESILIENCY PROJECT**

Peirce Island, Portsmouth NH

OWNER

CITY OF PORTSMOUTH **NEW HAMPSHIRE**

680 Peverly Hill Road Portsmouth, NH 03801

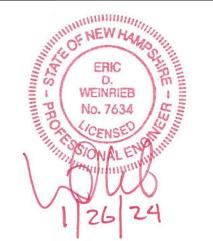
ENGINEER

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Portsmouth, NH 03801 133 Court Street (603) 433-2335 www.altus-eng.com

REGISTRATION



ISSUE/REVISION

I/R	DATE	DESCRIPTION

PROJECT NUMBER

60700949 (ALTUS #5376)

Designed By:	RMB
Drawn By:	RMB
Dept Check:	EDW
Proj Check:	EDW
Date:	JANUARY 26, 2024
Scale:	AS SHOWN

DISCIPLINE

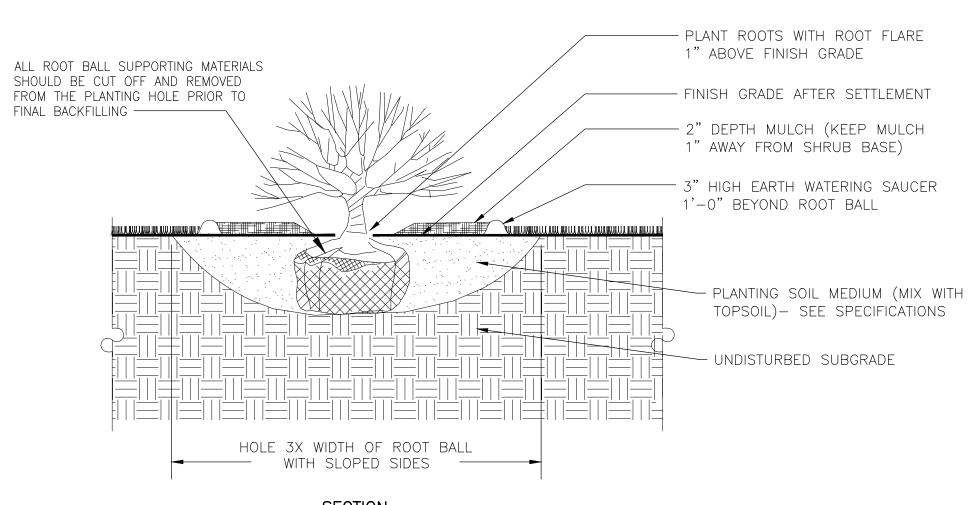
SHEET TITLE

DETAILS (ROADWAY & STORMWATER)

SHEET NUMBER

LANDSCAPING NOTES:

- 1. THE CONTRACTOR SHALL LOCATE AND VERIFY ALL UTILITIES PRIOR TO STARTING WORK. CONTRACTOR TO VERIFY THAT ADEQUATE DRAINAGE EXISTS PRIOR TO PLANTING.
- 2. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE "AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- 3. ALL PLANT MATERIALS ARE SUBJECT TO THE APPROVAL OF THE ENGINEER AT THE NURSERY AND AT THE SITE. ALL TREES SHALL HAVE A SINGLE LEADER UNLESS SPECIFIED OTHERWISE. NO UN-APPROVED SUBSTITUTIONS WILL BE ACCEPTED. PLANT SPECIES AND CULTIVAR, SIZE AND QUANTITY SHALL NOT CHANGE WITHOUT APPROVAL OF LANDSCAPE ARCHITECT.
- 4. LOCATION OF ALL SHRUBS SHALL BE MARKED FOR THE APPROVAL OF THE PROJECT ENGINEER. MARKING SHALL BE COMPLETED THE DAY PRIOR TO COMMENCEMENT OF PLANTING.
- 5. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS ORIGINAL GRADE BEFORE DIGGING. PLANT TO BE TRANSPLANTED SHALL BE DUG CAREFULLY, WITH ADEQUATE ROOT-BALLS AND PRUNED ACCORDING TO ANA STANDARD PRACTICE.
- 6. ALL SHRUBS SHALL BE BALLED IN BURLAP OR CONTAINERIZED, UNLESS SPECIFIED OTHERWISE. NO ROOT-BOUND CONTAINER GROWN STOCK WILL BE ACCEPTED. ALL PLASTIC ROOT WRAPPING AND METAL WIRE BASKETS SHALL BE CAREFULLY REMOVED AT THE TIME OF PLANTINGS.
- 7. AFTER CONDUCTING SOIL TESTS WITHIN PLANTING AREAS, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING PLANTING TOPSOIL AND/OR AMENDMENTS FOR BACKFILLING AT ALL PLANTS, AS NECESSARY. SUBMIT WRITTEN CONTENT ANALYSIS TO OWNER/REP. FOR APPROVAL. ADD 'PHC HEALTHY START 3-4-3' AND 'MYCOR TREE OR PLANT SAVER 4-7-4', OR EQUAL. FOLLOW MANUFACTURER'S GUIDELINES. THE PLANTING TOPSOIL IS TO BE SANDY LOAM MODIFIED WITH ORGANIC COMPONENT TO HAVE AT LEAST 4% ORGANIC MATTER BUT NOT MORE THAN 8% ORGANIC MATTER, DRY WEIGHT BASIS, A COMPACTED MINIMUM INFILTRATION RATE OF 2.5 CM/HR, PH RANGE OF 5.5 TO 6.5, AND NO COARSE FRAGMENTS OVER 2.5 CM IN SIZE.
- 8. CONTRACTOR SHALL PLACE 2" TO 3" OF FINE SHREDDED, AGED 2 YEARS, DARK BROWN PINE BARK MULCH THROUGHOUT THE BED AREAS. DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK. SUBMIT SAMPLE OF MULCH FOR APPROVAL.
- 9. ALL EVERGREEN PLANTS SHALL BE SPRAYED WITH AN ANTI-DESICCANT THE FIRST WEEK OF NOVEMBER, THE FIRST WINTER FOLLOWING PLANTING.
- 10. FLOOD PLANTS THOROUGHLY ONCE IMMEDIATELY AFTER PLANTING AND TWICE DURING THE FIRST TWENTY-FOUR HOUR PERIOD AFTER PLANTING.
- 11. EXTREME CARE SHALL BE TAKEN NOT TO DISTURB EXISTING PLANT MATERIALS. ANY PLANT INJURED OR DESTROYED SHALL BE REPLACED WITH A PLANT OF EQUAL OR GREATER SIZE AND SPECIES AT THE CONTRACTORS EXPENSE.
- 12. IF NECESSARY, NEW PLANTING SHOULD BE PLACED OUTSIDE OF THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES. CRZ RADIUS EQUALS ONE-FOOT TIMES THE DBH (DIAMETER-AT-BREAST-HEIGHT) OF THE TREES, MEASURED FROM THE TREE TRUNK. TREE FENCING IS NECESSARY TO PROTECT EXISTING VEGETATION TO BE PRESERVED FROM BOTH FOOT AND VEHICULAR TRAFFIC. TREE FENCING TO BE LOCATED AT THE EDGE OF THE CRZ.
- 13. THE CONTRACTOR SHALL WATER AND MAINTAIN THE PLANTS FOR A MINIMUM OF 90 DAYS FOLLOWING INSTALLATION, OR LONGER IF CONTRACTED BY THE OWNER. BEFORE THE END OF THE 90—DAY PERIOD, THE CONTRACTOR SHALL PROVIDE A WRITTEN MAINTENANCE OUTLINE TO THE OWNERS AND THE CONTRACTOR SHALL BE AVAILABLE TO ANSWER QUESTIONS OR CONCERNS AT THAT TIME.
- 14. THE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A MINIMUM OF ONE YEAR FROM FINAL ACCEPTANCE BY OWNER/REP. THE CONTRACTOR SHALL REPLACE ANY DEAD MATERIALS AT HIS/HER OWN EXPENSE.



NOTES:

SECTION

- 1. SCARIFY SOILS CONTINUOUSLY TO A DEPTH OF 4" AT INTERFACE BETWEEN SOIL TYPES AND LIFTS TO PROMOTE BLENDING OF SOILS.
- 2. SEE SHEET 00 C-107 FOR PLANT LIST AND PLAN FOR SPACING.
- 3. ALL PLANTING TO BE DONE AS PER ANSI A300 (PART 6) 2012.

SHRUB PLANTING NOT TO SCALE

PROJECT

PEIRCE ISLAND ROAD COASTAL RESILIENCY **PROJECT**

Peirce Island, Portsmouth NH

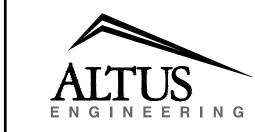
OWNER

CITY OF PORTSMOUTH **NEW HAMPSHIRE**

680 Peverly Hill Road Portsmouth, NH 03801

ENGINEER

AECOM TECHNICAL SERVICES, INC. 250 APOLLO DRIVE CHELMSFORD, MA 01824 PHONE: (978) 905-2100 www.aecom.com



(603) 433-2335

133 Court Street Portsmouth, NH 03801 www.altus-eng.com

REGISTRATION



ISSUE/REVISION

I/R DATE DESCRIPTION

PROJECT NUMBER

60700949

Designed By:	L. BLACK
Drawn By:	M. THIBODEAU
Dept Check:	C. BENZIGER
Proj Check:	E. MESERVE
Date:	JANUARY 26, 2024
Scale:	AS NOTED

DISCIPLINE

CIVIL SHEET TITLE

> **DETAILS** (LANDSCAPING)

SHEET NUMBER

99 C-504

NOTE: THIS DETAIL APPLIES TO ALL PLANTING BEDS

CUT EDGE DETAIL

NOT TO SCALE

PROPOSED GRASS

AREA WITH FORBS ---

NOTE: BEFORE LAYING PLANTING MEDIUM,

SCARIFY SUBGRADE IN THE DIRECTION OF

SLOPE FOR POSITIVE DRAINAGE

1"-2" FINE MULCH

LOOSEN TOP 6" OF

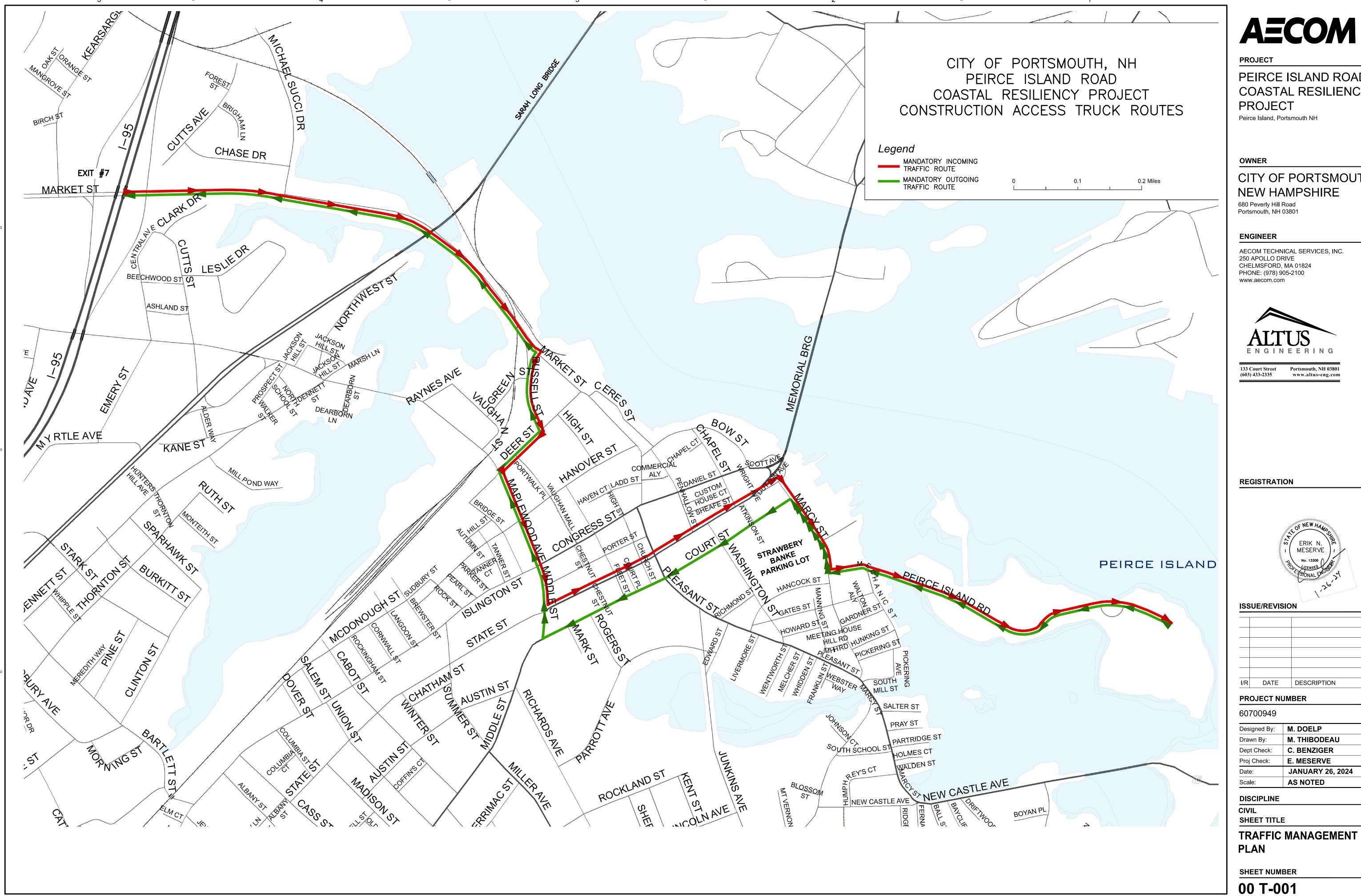
SUBGRADE AND MIX WITH

- PLANTING SOIL

PLANTING SOIL

SUBGRADE

LAYER



PEIRCE ISLAND ROAD COASTAL RESILIENCY

CITY OF PORTSMOUTH



I/R	DATE	DESCRIPTION

Designed By:	M. DOELP
Drawn By:	M. THIBODEAU
Dept Check:	C. BENZIGER
Proj Check:	E. MESERVE
Date:	JANUARY 26, 2024
Scale:	AS NOTED

TRAFFIC MANAGEMENT