CITY OF BELFAST
PRELIMINARY SITE PLAN
REVIEW APPLICATION

Prepared for:

Rock Extraction
104 & 114 Waterville Road
Belfast, Maine 04915

Applicant:

Rockport Granite, Inc.
P.O. Box 1140
Rockport, Maine 04856

Prepared by:

Sebago Technics, Inc.
75 John Roberts Road, Suite 4A
South Portland, Maine 04106

April 2025
240078

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SEBAGO
TECHNICS

April 9, 2025
240078

Bub Fournier, Director, Code and Planning
Alexandra Sykes, City Planner
Belfast Planning Board
City of Belfast, Maine
131 Church Street
Belfast, ME 04915

Rock Excavation, Waterville Road (Route 137)
104 and 114 Waterville Road, Belfast
Applicant: Rockport Granite, Inc.
Tax Map 6/Lots 76 and 77

Dear Mr. Fournier, Ms. Sykes, and Planning Board members:

On behalf of our client, Rockport Granite, Inc. (applicant), based on comments received from your office based on past submittals via email on January 28, 2025, and previously on September 26, 2024, we are resubmitting a Site Plan application, exhibits, and plans for a proposed rock excavation (quarry) site located on a portion of Tax Map 6, Lots 76 and 77, on Waterville Road/Route 137 in the City of Belfast. The site is located in the Outside Rural 1 Zoning District and is approximately 98.37 acres in size, with access to the work area originating from existing drives at 104 and 114 Waterville Road.

The enclosed Site Plan Review application and plans were prepared in accordance with applicable zoning standards and comments received from the City (See Application Appendix), with relevant responses offered throughout the application.

The rock extraction proposal does not include structures or other permanent features. The proposed activity is temporary and is based on resource availability. The property is significant in size, and the overall activity is buffered along the external property lines by maintaining mature vegetation where appropriate. The distance, elevation change, and work yard locations provide visual interruption between the work area and the public right of way (Route 137, Waterville Road).

Operations, stormwater management, erosion and sedimentation control, resources, other permitting, and additional associated information are addressed in detail throughout the application package and plans.

Operations, stormwater management, erosion and sedimentation control, resources, other permitting, and additional associated information are addressed in detail throughout the application package and plans.

The applicant intends to restore the four overall stone harvest work areas to their natural condition upon the completion of the excavation activities, as shown on the appended plans. Each work area will consist of several smaller open areas, referred to as *pods* that will be restored as they are worked, thus providing immediate reclamation prior to beginning work on the subsequent exploration and harvest pod. This method is significantly different from other gravel pits or rock quarries, which typically have 10 or more acres of open excavation at any time. Reference is made to Exhibit 1-Project description for details and images of typical harvest conditions and materials.

After acknowledgment of application completion, we look forward to discussing this project at the next regularly scheduled Planning Board meeting. Thank you for your time and consideration relative to this project.

Sincerely,

SEBAGO TECHNICS, INC.
James R. Seymour

James R. Seymour, P.E.
Senior Project Manager

cc J. Carle, Rockport Granite, Inc.
D. Noyes, Rockport Granite, Inc.

enc

JRS/skn

CITY OF BELFAST
SITE PLAN APPLICATION

Property Information

Daniel Tibert
Map 006/Lot 076

Paul and Lori Belden
Map 006/Lot 077

Record Owner Name/Address:

Daniel Tibert
104 Waterville Road
Belfast, ME 04195

Paul D. and Lori J. Belden
114 Waterville Road
Belfast, ME 04195

Applicant Name:

Rockport Granite, Inc.
c/o Joshua Carle

Applicant email:

jcarle@rockportgraniteinc.com

Zoning District:

Outside Rural 1

Shoreland District:

Not Applicable

CONTRACTOR/DESIGN PROFESSIONAL

James R. Seymour, P.E.
Sebago Technics, Inc.
(207) 200-2083
jseymour@sebagotechnics.com

Contractor(s)

ROCKPORT GRANITE, INC.
P.O. Box 1140
Rockport, ME 04856

Property Address:

104 and 114 Waterville Road
Belfast, ME 04195

Applicant Mailing Address:

PO Box 1140
Rockport, ME 04856

Is the Applicant the owner? No

Flood Zone: No

Description of the proposed project:

Rock removal per an executed Extraction Agreement between Rockport Granite, Inc. and the Record Owners, Belden, and Tibert, in accordance with applicable local, state, and federal regulations and ordinances.

CITY OF BELFAST
SITE PLAN APPLICATION

Upload Requirements:
Acknowledged, provided.

1. Plot plan showing
   a) 50’-100’ scale
   b) True North Scale
   c) Abutters w/in 150’
   d) 5’ Contours
   e) Available utilities
   f) Road frontage/ Exist street name
   g) Location plan
   h) Name of owner

Notes/Comments:
The project is located in a primarily unimproved setting. The project has been previously reviewed and approved by the State of Maine as follows:

1. MDOT Drive/Entrance Permit 40214, Belden, 114 Waterville Rd., 10/30/2024

   MDOT Drive/Entrance Permit 40215, Tibert, 104 Waterville Rd., 10/30/2024

2. MDEP NRPA PBR# 80813, 10/1/2024
   (10-Stream Crossing,
   2-Adjacency)

3. Temporary Stream Crossings, MDEP NRPA PBR# 78438, 1/2/2024.

4. Quarry, MDEP NOITC GPID# 947 permit issued 6/29/2023.

5. Clearing, State of Maine Forestry Permit, issued to record owners prior to local site plan review by applicant.

   Copies of the permits are located in *Exhibit 2-Other Permits.*

Ch 90: Site Plans Art. III Preliminary Plan

Sec. 90-73. Required information and format. [Ord. No. 58-1997, § 6.2, 6-17-1997]

(a) The preliminary plan shall contain the following minimum information:

(1) ☒The proposed name of the development.

(2) ☒The owner's name and address.

(3) ☒A deed reference to land being developed and the identity of current immediate abutters.

(4) ☒Engineer, registered in the state, including name, address, signature and seal.

(5) ☒Surveyor, registered in the state, including name, address, signature and seal.

(6) ☒Scale, both graphic and written.

(7) ☒Date and revision box.

(8) ☒Zoning designation (see chapter 102 and chapter 82).

(9) ☒North arrow (true, magnetic, dated or grid).

(10) ☒The notation "Preliminary Site Plan."

(11) ☒The ownership, location and present use of abutting properties.

(12) ☒A location map showing where the proposed development is situated in relation to existing streets and landmarks. This shall show the development's outline only…

Response: See Plan Cover Sheet.

(13) Streets. Street plans and profiles shall be at a scale of one inch equals 20 feet horizontal, and one inch equals four feet vertical, unless a different scale is approved by the code enforcement officer and/or the City engineer.

Response: Not applicable; streets are not proposed.

(14) ☒Drainage/erosion facilities. Type, location, profile of all existing surface water drainage and subsurface drainage as it relates to the affected watersheds both on and off the site. A written plan describing the existing and proposed drainage, with calculations, shall be submitted. Permanent and temporary erosion control plans are required in accordance with specifications outlined in chapter 98.

(15) Utilities.

a. ☐Preliminary location, profile, contours, and typical cross sections on all proposed utilities, drainage, and streets shall be included, designed in accordance with chapter 98.

Response: Not applicable. Utilities are not proposed

☒The location of existing utilities, including water, electricity, telephone, hydrants, municipal sewer, or other utilities, shall be shown.

b. The location of all existing sanitary and storm sewers showing size and profile, or the description…

Response: Not applicable; neither municipal nor subsurface wastewater disposal is proposed.

c. ☐Should any expansion of municipal sewer be required for the development, the developer shall provide the code enforcement officer with a design of the sewer extension.

Response: Not applicable.

(16) ☒Topography at two-foot contour intervals,… In addition, the location of existing natural or manmade features influencing the layout of the proposed development shall be shown.

(17) ☒Lot lines and approximate dimensions.

(18) ☒Proposed uses of the property

Response: See Cover Letter and Application.

(19) Proposed public or common areas, if any.

Response: Not applicable; public and common areas are not proposed.

(20) ☒Standard boundary survey and description, provided by a registered land surveyor, of

entire contiguous holdings. Such survey shall have been within the past five years.

Response: Reference is made to the enclosed plan set.

(21) ☒Traffic estimates and controls and off-street parking needs and facilities. A traffic study may be required by the City.

Response: Reference is made to Exhibit 9-Traffic

(22) Fire protection needs and plans.

Response: Not applicable; structures are not proposed.

(23) ☒Landscaping and buffer plans.

Response: Not applicable; formal landscaping is not proposed.

(24) Road names. The developer shall name all development roads. Road names are subject to the approval of the City council. copy of the development plan with slash marks every 50 feet from the entrance to the development. The purpose of this plan is to assist in the assigning of street numbers for the E-911 emergency system.

Response: Not applicable; roads are not proposed.

(25) A statement from the City sewage treatment plant indicating present capacity of the wastewater treatment facility for the development.

Response: Not applicable; sewer disposal is not proposed.

(26) ☒The location on the plan of all existing buildings on the property being developed.

(27) ☐Results of any and all soil tests or soil reports completed for the proposed development.

Response: Not applicable; soil tests for structural development are not necessary.

(28) ☒Location of the limits of the floodplain, as defined on the flood insurance rate maps for the City. If not applicable, a note should be on the plan stating that no portion of the development is located in the floodplain.

Response: A note is included on the Site Plan that states no portion of the development is located in the floodplain.

(29) ☒A note on the plan referencing the current City tax map number and lot number.

(b) ☒Each sheet of the preliminary plan shall be 36 inches by 24 inches… The scale shall be one inch equals 100 feet or as determined by the CEO and/or the City engineer…

B

AGENT AUTHORIZATION

APPLICANT/ OWNER	**Name**	Rockport Granite, Inc. c/o Josh Carle		Belfast
PROPERTY DESCRIPTION	**Physical Address**	P.O. Box 1140 ← mailing Rockport, ME 04856 physical 465 West St Rockport	**Map**	6
			Lot	77
APPLICANT'S AGENT INFORMATION	**Name**	James Seymour, P.E.		
	Phone	(207) 200-2083	**Business Name & Mailing Address**	Sebago Technics, Inc. 75 John Roberts Road, Suite 4A South Portland, ME 04106

9.11.24

APPLICANT SIGNATURE DATE

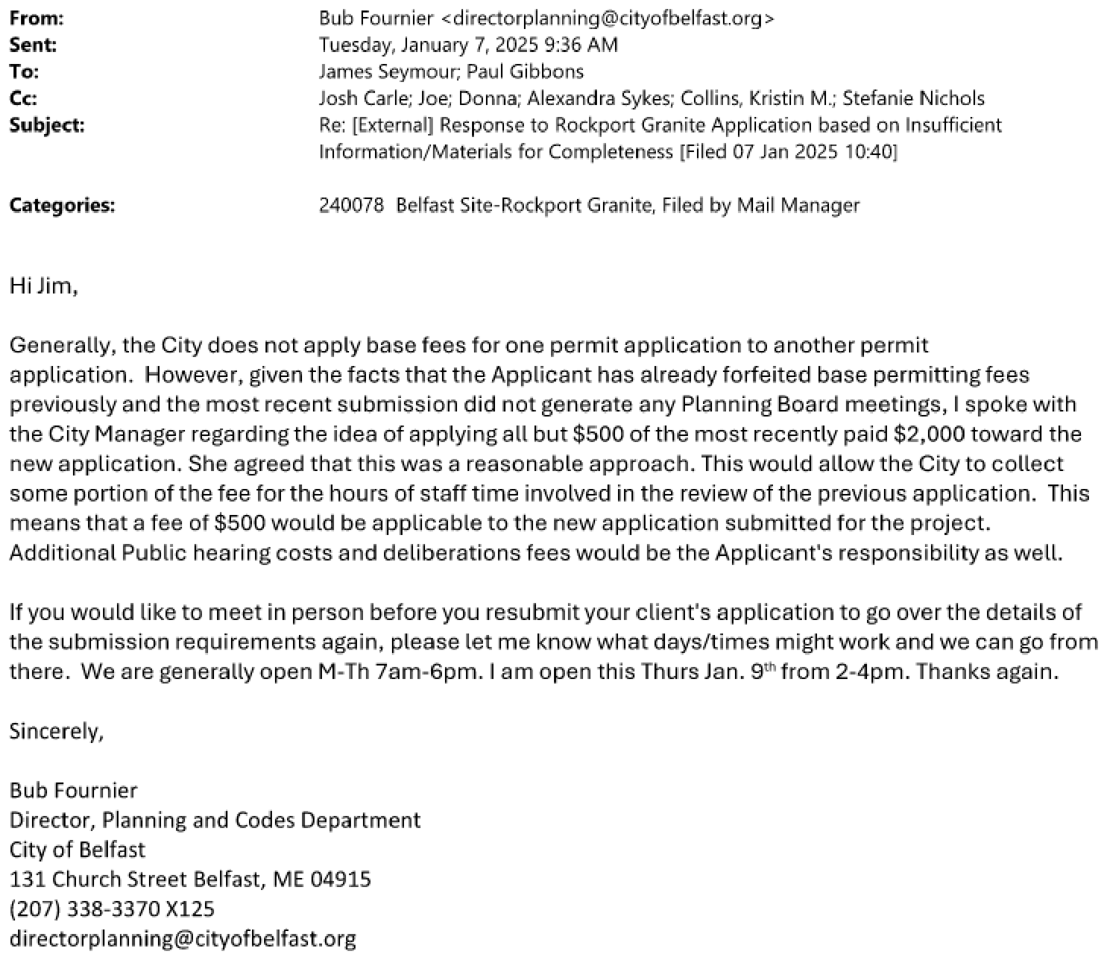
James R. Seymour 9/11/2024

APPLICANT'S AGENT SIGNATURE DATE

James Seymour, P.E., Sebago Technics, Inc.

Fee Statement

The applicant includes $500.00 fee as discussed and agreed upon by the Planning Director, Bub Fournier per the following correspondence:



From: Bub Fournier <directorplanning@cityofbelfast.org>
Sent: Tuesday, January 7, 2025 9:36 AM
To: James Seymour; Paul Gibbons
Cc: Josh Carle; Joe; Donna; Alexandra Sykes; Collins, Kristin M.; Stefanie Nichols
Subject: Re: [External] Response to Rockport Granite Application based on Insufficient Information/Materials for Completeness [Filed 07 Jan 2025 10:40]

Categories: 240078 Belfast Site-Rockport Granite, Filed by Mail Manager

Hi Jim,

Generally, the City does not apply base fees for one permit application to another permit application. However, given the facts that the Applicant has already forfeited base permitting fees previously and the most recent submission did not generate any Planning Board meetings, I spoke with the City Manager regarding the idea of applying all but $500 of the most recently paid $2,000 toward the new application. She agreed that this was a reasonable approach. This would allow the City to collect some portion of the fee for the hours of staff time involved in the review of the previous application. This means that a fee of $500 would be applicable to the new application submitted for the project. Additional Public hearing costs and deliberations fees would be the Applicant's responsibility as well.

If you would like to meet in person before you resubmit your client's application to go over the details of the submission requirements again, please let me know what days/times might work and we can go from there. We are generally open M-Th 7am-6pm. I am open this Thurs Jan. 9th from 2-4pm. Thanks again.

Sincerely,

Bub Fournier
Director, Planning and Codes Department
City of Belfast
131 Church Street Belfast, ME 04915
(207) 338-3370 X125
directorplanning@cityofbelfast.org

Property Tax, Utility and Other Municipal Payments

PayPort Online Payment Service

Confirmation

Thank you for your purchase. Your confirmation number is: **75833248**. Your order was billed to credit card number: **************1489**. The description on your credit card statement for this order will be: **Belfast iWorq Permit Payments**. A confirmation has been sent to the email address provided. Please print this page for your records. Below are the details of your order.

Payment Type: **General Payment**
IWorq Permit #: **4026**
Property Owner: **Rockport Granite, LLC**
Property Address: **114 Waterville Road**
Location: **Belfast iWorq Permit Payments**
Maine.gov Total Cost: $512.50

$500.00 will be remitted to your municipality.
The remainder funds the operation of this online service and other Maine.gov online services like this one.
(More about Maine.gov Total Cost)

The payment you have submitted will need to be approved by your municipality, or district before it is applied toward your bill. In the event that your payment is not approved your card will be refunded.

If you have any questions about your order, contact Belfast iWorq Permit Payments at:
planningandcodes@cityofbelfast.org

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Credits

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Exhibit 1

Project Description

Planning Board Review Criteria a.
Ch. 98 Zoning Technical Standards b.
Ch. 102, Art IX, Performance Standards, Div 2 Environmental c.
MDEP, Art 8-A, Performance Standards for Quarries d.

PROJECT DESCRIPTION

This Site Plan Review application and Plan Set for a Rock Excavation Project ("Project") by applicant Rockport Granite Inc. have been prepared in accordance with applicable zoning standards and comments received from the City of Belfast Director of the Planning and Codes Department. Responses to Planning Board Review Criteria (Section 90), Zoning Technical Standards (Chapter 98), and related Performance Standard (Chapter 102) are presented in numerical order in *Exhibit 1-Review Criteria*. The activity is temporary, based on resource availability, and is subject to a formal agreement between the record property owners (Tibert and Belden), and the applicant, Rockport Granite, Inc. (*Exhibit 4-Right, Title and Interest*). Additional relevant information is also presented in *Exhibit 3-Location Maps*, *Exhibit 5-Abutters,* and *Exhibit 6-Financial Capacity and Technical Ability*.

Location and Permitting:
Rockport Granite, Inc. relies on locations in the City of Belfast as a source of high-quality and uniquely distinctive rock to create custom interior and exterior stonework for residential and commercial projects (https://www.rockportgraniteinc.com/?page_id=13). Access to the project on the south side of Waterville Road/Route137 has been approved by the Maine Department of Transportation (MDOT: *Exhibit 2-Other Permits, Exhibit 9-Traffic*) and originates from existing driveways at 104 (Tibert: Lot 76, Tax Map 6) and 114 (Beldon: Lot 77, Tax Map 6) Waterville Road.

Collectively, the two lots ("Site") cover approximately 98.37 acres, and both properties occur in the Outside Rural (OR-1) District https://www.cityofbelfast.org/DocumentCenter /View/4901/Adopted-Belfast-Zoning-Map-2022-FinMay- 2022pdf where "gravel excavation" (not including removal of bedrock material through blasting) is identified as a Permitted Use (#287) requiring approval by the Planning Board, and "fill removal of 100 cubic yards or more of material "is identified as a Permitted Use (#290) requiring approval by the Code Enforcement Officer (https://www.cityofbelfast.org/DocumentCenter/View/ 4842/Doc-3B---Use-Table---Adopted-4-5-22-CC-Mtgpdf).

The Maine Department of Environmental Protection (MDEP – *Exhibit 2- Other Permits*) issued a license (GPID #947) subject to Performance Standards for Quarries (38 M.R.S.A. §490-Z) for the Project on June 29, 2023. MDEP has also accepted as presented, applications for Activities Adjacent to Protected Natural Resources and Stream Crossings under the Permit by Rule (PBR) Standards (Ch 305 §2, 10) of the Natural Resources Protection Act (NRPA- 38 38 M.R.S.A. §§ 480 A to 480-HH).

Site Description:
Existing conditions at and near the ±98.37-acre site are described and addressed in *Exhibit 3-Location Maps and Exhibit 8-Resources* and cover:

Areas or Structures of Historic Significance
Rare and Exemplary Botanical Features
Essential Wildlife Habitat
Flooding
Soils, Geology, and Groundwater
Wetlands

Based on the related responses and information from- the Maine Historic Preservation Commission (MHPC), the Maine Natural Areas Program (MNAP), the Maine Department of Inland Fisheries and Wildlife (MDIFW), the Federal Emergency Management Agency (FEMA), the United States Department of

Agriculture Natural Resources Conservation Service (USDA NRCS) and the Maine Geological Survey (MGS), conditions at the Site are suitable and conducive for proposed rock excavation within the ±33.5-acre Work Area ("WA") designated on the Project Plans and Location Maps (*Exhibit 4*). No historic properties, rare and exemplary botanical features, essential wildlife habitat, or flood hazard areas are identified to occur at the Site or within the WA.

Geologic conditions at the Site and throughout the WA are described and illustrated by relevant excerpts in *Exhibit 3* from the following maps prepared by the Maine Geological Survey:

- Bedrock Geology: https://digitalmaine.com/cgi/viewcontent.cgi?article=1067&context=mgs_maps
- Surficial Geology: https://digitalmaine.com/cgi/viewcontent.cgi?article=2964&context=mgs_maps
- Surficial Materials: https://digitalmaine.com/cgi/viewcontent.cgi?article=2963&context=mgs_maps
- Sand & Gravel Aquifer: https://digitalmaine.com/cgi/viewcontent.cgi?article=2973&context=mgs_maps

Surficial geology and the thickness of surficial materials or overburden are fundamental to the occurrence of the high-quality and uniquely distinctive rock that is to be systematically excavated throughout the WA. The surficial geology above bedrock was deposited by glaciers more than 11,700 years ago and is referred to as till (Pt), a non-sorted to poorly sorted mixture of fine clay, silt, sand, pebbles, cobbles, and boulders (> 12" diameter). In contrast to transport by water, where velocity sorts or grades sediment more similarly in size (as commonly seen in gravel pits), this wide range of size in till (microscopic to boulders as large as houses) results from transport and deposition by the indiscriminate power of glacial ice, which in the greater Belfast area moved toward the southeast. Boulders to be excavated from the designated WA are therefore not necessarily from the Bucksport Formation (SOb) as shown at the Site on the bedrock map, but have been transported by glaciers from sources located to the northwest such as- the Appleton Ridge Formation (SOar), an unnamed gneiss (DOgn), the Passagassawakeag Gneiss (DOpg) or fine-grained granite (Dfg). Rock excavation will not occur below the seasonal high-water table.

Due to poor sorting and compaction, till is unsuitable as a sand and gravel aquifer, and where present, residential water supply wells are therefore drilled into bedrock instead of drawing water from saturated overburden. No existing water supply wells occur within 150 ft of the WA (*Exhibit 3- Location Maps*).

As described in the December 2024 Wetland Delineation Report (*Exhibit 8*), streams and the boundaries of wetlands were delineated at the Site near the WA and located with a submeter accuracy, handheld GPS unit. As displayed on Project Plans, this information has been used to site the MDEP NRPA PBR approved stream crossings at optimal locations and to establish a 75 ft setback between the WA and streams and wetland. As shown on Project Plans, wetland impacts are confined to the approaches to the four stream crossings approved by the MDEP under PBR. No other wetland impacts will result from the Project.

Operations and Reclamation Description:
The MDEP has issued a license (GPID #947 – *Exhibit 2- Other Permits*) for the Project subject to Performance Standards for Quarries (38 M.R.S.A. §490-Z). Related definitions applicable to the Project include the following (https://www.mainelegislature.org/legis/statutes/38/title38sec490-W.html):

1) "Affected land means all reclaimed and unreclaimed land, land that has or will have the overburden removed, land on which stumps, spoil or other solid waste has or will be deposited and storage areas or other land, except natural buffer strips, that will be or has been used in connection with a quarry."

10) "Natural buffer strip means an undisturbed area or belt of land that is covered with trees or other vegetation."

14) "Private drinking water supply means a surface water supply a dug well, a spring or hole drilled, driven or bored into the earth to extract drinking water for human consumption and that is not part of a public drinking water supply."

17) "Quarry means a place where rock is excavated."

18) "Reclamation means the rehabilitation of the area affected."

20) "Rock means a hard, non-metallic material that requires cutting, blasting or similar methods of forced excavation." (*Underline added for emphasis*)

24) "Working pit means the extraction area, including overburden, of an excavation for rock. "Working pit" does not include a stockpile area that has a permanent fixture such as an office building, permanent facility or fixed storage structure."

Blasting **will not** take place for the project and therefore the following remaining definitions of the Performance Standards do not apply to the project:

"2) Airblast, 3) Blaster, 4) Blasting, 5) Blast site,6) Detonating cord, 7) Explosive, 8) Flyrock, 9) Matting, 11) Passenger car equivalents at peak hour, 12) Peak particle velocity, 13) Pre-blast Survey, 15) Production Blasting, 16) Public drinking water source, 21) Stemming, 22) Surface blasting and 23) Underground production blasting."

Performance Standards for Quarries (https://www.mainelegislature.org/legis/statutes/38/title38sec490-Z.html) cover the following and, as applicable, *are addressed in this application as noted*:

1. Significant wildlife habitat and other protected areas- *Addressed above, see Exhibit 8*
2. *Solid waste- See below*
3. Groundwater protection- See *Exhibits 3, 8,* and Plan Set
4. Natural buffer strips- *See Plan Set*
5. Protected natural resource buffers- *See below and Plan Set*
6. Roads- *See Plan Set and Exhibit 9*
7. Property boundary- *See below and Plan Set*
8. Erosion and sedimentation control- *See below, Exhibit 7 and Plan Set*
9. Water quality protection and stormwater management- *See below, Exhibit 6 and Plan Set*
10. Traffic- See *Exhibit 9*
11. Noise-See *Exhibit 1 and Appendix A, #9*
12. Dust-See *Plan C-500*
13. Reclamation- *See below, and Plan Set*
14. Blasting- **Not Applicable to Project**
15. Lighting- *No lighting or utilities are proposed or necessary for the Project, See Exhibit 10*

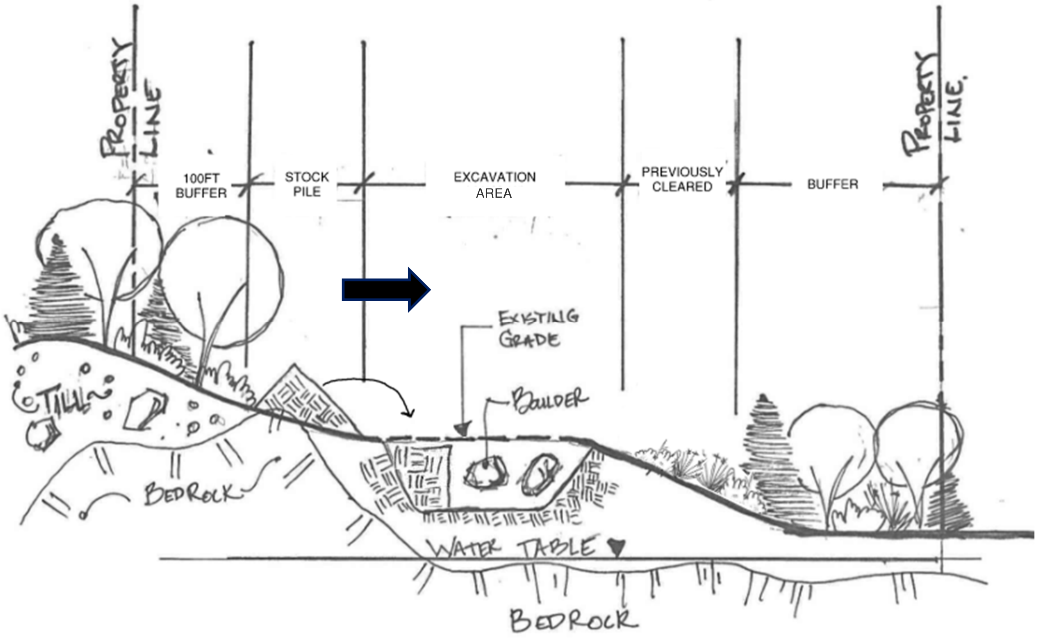
The WA for rock removal is located more than 350 ft from Waterville Road, within unimproved acreage behind the two existing residences and therefore is not visible from the highway due to intervening terrane and tree cover. A total of four (4) informal parking spaces will be available within the WA along the access roads from Waterville Road. No structures or other permanent features are proposed for the project. No utilities are proposed or necessary for the proposed rock extraction activities (*Exhibit 10-Utilities)*.

As displayed on Project Plans, a Buffer Strip of natural vegetation (consisting primarily of mature trees) with a minimum width of 100 feet, now exists along property lines surrounding the Site and will be retained. A Buffer Strip of natural vegetation with a minimum width of 75 feet will also be retained along the four streams crossing the Site and along the edge of wetlands near work areas. Based on an October 2024 field review by MDEP (See Exhibit 7-Stormwater/Erosion Controls), buffers along the four streams are largely intact and will regrow.

Photos: To create custom interior and exterior stonework of any size, style, or complexity for residential and commercial projects, Rockport Granite Inc. will systematically excavate high quality and uniquely distinctive rock from the Site in a manner compliant with regulatory requirements. Irregular shaped slabs and boulders of varying textures, patterns, and sizes will be removed from Work Areas that have been established to address and protect streams, wetlands, and neighboring property. Work Areas will be reclaimed and re-vegetated and the excavated rock will be trucked to its manufacturing facility in Rockport for processing and distribution.

Although not laid out in neatly spaced uniform rows, the Project is much like harvesting potatoes. As rock is removed from the Site for processing, reclamation of the WA will be ongoing and take place during systematic rock excavation (Project Plan Set). Between the four fixed PBR-approved stream crossings, temporary haul routes will be used for excavation equipment movement throughout the WA and for transport of rock to the Product Stockpile Area accessed from Waterville Road. Stumps, limbs and other woody land clearing debris dislodged during excavation will be collected at locations within the WA for periodic onsite production of erosion control mix (ECM). Prior to excavation within the WA, the temporary haul routes will also be used to transport ECM for placement as sediment control filter barrier (FB) along streams and wetland buffers at locations displayed on Project Plans. As illustrated in the following General Operation Sequence Detail, overburden removed from the excavation area ("EA") will be temporarily side cast to an edge of the EA, while rock meeting Project requirements is being selected. The bottom or depth of the EA will be above the seasonal high-water table and is also controlled by overburden thickness above bedrock. After rock meeting Project requirements has been removed, a new EA will then begin in the adjoining unexcavated area, and the side-cast overburden will be used to backfill the adjoining completely excavated EA. This systematic excavation and backfill of EAs will progress through the WA for an "affected land area" of no more than 2 acres. The backfilled and graded EAs and any other adjacent disturbed soil will then be seeded with a permanent vegetative cover as described in the Erosion Sedimentation Control (ESC) Plan.

General Operations Sequence:



Stormwater Management / Erosion Sedimentation Control:
A stormwater management report (*Exhibit 7*) has been prepared for the Project and evaluates pre- and post-development drainage conditions for the 2, 10, 25 and 50-year frequency storm events at three points of analysis across the Site. The Project will be managed in accordance with the requirements of the MDEP Notice of Intent to Comply (NOITC) GPID #947, June 29, 2023. As described and illustrated above, through the systematic excavation, backfill, and reclamaotion of ECs, the WA will be internally drained in accordance with MDEP standards for quarries. The Project has been designed so that post-development runoff from the Site wiil be at or below existing conditions for the the 2, 10, 25 and 50-year frequency storm events at all three point of analysis.

A written ESC plan prepared in accordance with the *Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers, October 2016,* as published by MDEP, is enclosed in the submittal plan set (Sheet C-500). The proposed measures for activities meet local and State requirements. A typical general site ESC Stormwater Inspection, Maintenance, and Housekeeping log is provided for the City's reference.

Replanting plan

Rockport Granite will replant the former boundary of the now merged Belden and Tibert lot as part of the reclamation plan for the proposed quarry. Saplings of varying species and heights will be sourced locally and replanted with random spacing to mimic natural regrowth. The replanted area will be left undisturbed to allow natural revegetation to occur in addition to the replanting effort. The replanting area will extend 100' from the boundary into the Belden lot and 100' into the Tibert lot.

Replanting will occur as pods located along the former Belden Tibert boundary are closed. Prior to the termination of the project, as the final pod is being closed, Rockport Granite will inspect previously replanted areas for dead trees. Rockport Granite will replant any dead trees at that time.

Reclamation Cost Estimate

Rockport Granite has direct experience reclaiming multiple quarry projects of comparable scale and operation type to the proposed quarry. The cost to close up to two acres of excavated area would not exceed $10,000 as the material to fill the excavation area would be side cast and stockpiled directly adjacent to the area requiring fill. Upon approval of all permits and prior to operations commencing Rockport Granite will deposit $10,000 USD to be held in escrow by the city of Belfast until such time as the quarry is deemed reclaimed by the Belfast code enforcement officer.

1.1

City of Belfast
Sec 90-43 Criteria for review by planning board. [Ord. No. 58-1997,§ 5.2, 6-17-1997]

(b) *The criteria for review are as set out in this subsection. No development shall be approved unless the planning board makes an affirmative finding that the development meets or exceeds the following enumerated criteria:*

(1) ***Pollution.*** *The proposed development will not result in undue water or air pollution. In making this determination, consideration shall be given to:*

a. *The elevation of the land above sea level and its relation to the floodplain (compliance with chapter 78, article II).*
b. *The nature of soils and subsoils and their ability to adequately support waste disposal.*
c. *The slope of the land and its effect on effluents.*
d. *The availability of streams for disposal of effluents.*
e. *The applicable state and local health and water resource rules, regulations and codes.*

Response: The proposed development will not result in undue water or air pollution when consideration is given to the elevation of the site and the nature of the soils and slopes. The site is not located in a floodplain, requiring adherence to the development standards of Ch. 78, Art II, Flood Hazard Reduction.

(2) ***Sufficient water.*** *The proposed development has sufficient water available…and will not unreasonably affect other existing local drinking water resources.*
Response: Not applicable; water service is not proposed.

(3) ***Municipal water supply.*** *The proposed development will not cause an unreasonable burden on an existing municipal water supply, if one is to be used.*
Response: Not applicable; water service is not proposed or necessary.

(4) ***Soil erosion and sediment control.*** *The proposed development will not cause unreasonable soil erosion or a reduction in the land's capacity to hold water so that a dangerous or unhealthy condition results. The criteria in Maine Erosion and Sediment Control Handbook for Construction, Best Management Practices, prepared by Cumberland County SWCD and the state department of environmental protection,(MDEP) 1991, shall be followed.*
Response: The proposed development will not cause unreasonable soil erosion or a reduction in the water-holding capacity of the land that causes dangerous or unhealthy conditions. Properly installed and maintained ESC measures provide protection to the aquifer and downstream waters. A written ESC plan was prepared in accordance with the *Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers, October 2016,* published by MDEP, and is included in the plan set (C-500).

(5) ***Highway or public road congestion.*** *The proposed development will not cause unreasonable highway or public road congestion or unsafe conditions with respect to the use of the highways or public roads existing or proposed, and, furthermore, the developer*

has made adequate provision for traffic movement of all types into, out of or within the development area. The board shall consider traffic movement both on-site and off-site. Before issuing a permit, the board shall find that any traffic increase attributable to the proposed development will not result in unreasonable congestion or unsafe conditions on a road in the vicinity of the proposed development. A traffic study may be required.

Response: The proposed development will not cause unreasonable public road congestion or unsafe conditions with respect to the use of the existing roadways. Traffic movement in/within/out of the site is limited to occasional delivery of equipment, employees' personal vehicles, and removal of harvested stone. Traffic increase will be negligible and will not create congestion on roadways in the vicinity of the proposed development. Reference is made to Exhibit 9-Traffic for a description of traffic-related conditions and Exhibit 2-Other Permits for copies of Maine Department of Transportation driveway approvals for proposed site access.

(6) ***Sewage waste disposal.*** *The proposed development will provide adequate sewage waste disposal in compliance with federal, state and local laws, rules, ordinances and regulations.*

Response: Not applicable; sewage waste disposal is not proposed or necessary for the project.

(7) ***Municipal solid waste and sewage waste disposal.*** *The proposed development will not cause an unreasonable burden on the City's ability to dispose of solid waste and sewage. If municipal services are to be utilized, a letter from the City indicating current capacity and availability of municipal sewer shall be submitted for the record.*

Response: Not applicable; solid and sewage disposal is not proposed or necessary for the project.

(8) ***Aesthetic, cultural and natural values.*** *The proposed development will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, archeological sites, significant wildlife habitat identified by the state department of inland fisheries and wildlife or the City as rare and irreplaceable natural areas…*

Response: The proposed development will not have undue adverse effects on natural, scenic, historical, or wildlife resources. See Section 8-Resources for copies of site review responses received from the Maine Historic Preservation Commission, Maine Natural Areas Program, and the Maine Department of Inland Fisheries & Wildlife confirming no adverse effect. A wetland delineation report and map is also enclosed in Section 8.

(9) ***Conformity with City ordinances and plans.*** *The proposed development conforms with the floodplain regulations (chapter 78, article II), the comprehensive plan, the zoning regulations (chapter 102), the shoreland zoning regulations (chapter 82), the subdivision ordinance, and the technical standards (chapter 98).*

Response: As required, the proposed development conforms with applicable

regulations and standards: Ch. 78/Art II-Flood Hazard Reduction and Subdivision regulations are not applicable. The 2024 Comprehensive Plan indicates that the site is not located in a designated growth area or within areas of critical natural resources, Zoning Regulations (Ch. 102) and Shoreland and Technical Standard responses are included in this section.

(10) ***Financial and technical capacity.*** *The developer has adequate financial and technical ability to develop the project in a manner consistent with state and local performance, environmental and technical standards.*
Response: The applicant has adequate financial and technical ability as demonstrated in Exhibit 6-Financial Capacity and Technical Ability.

(11) ***Surface waters; outstanding river segments.*** *Whenever situated entirely or partially within the watershed of any pond or lake or within 250 feet of any wetland, great pond or river as defined in 38 MRSA chapter 3, subchapter I, article 2-B, the proposed development will not adversely affect the quality of that body of water or unreasonably affect the shoreline of that body of water.*
Response: Waterbodies will not be adversely affected. Properly installed, monitored, and maintained erosion and sedimentation control measures as specified in the written ESC notes (plan set, C-500) provide water quality protection.

(12) ***Groundwater.*** *The proposed development will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater or any public or private water source.*
Response: The proposed development will not adversely affect the quality or quantity of groundwater or any public or private water source. A detailed erosion and sedimentation (ESC) plan to protect downstream waters is enclosed in the plan set.

Reference is made to Exhibit 8-Resources for a copy of an email received from the Maine Department of Environmental Protection's Mining Coordinator, Michael Clark, regarding quarry operations indicating that per a MDEP site visit in November 2024, the site is stabilized and in compliance with 8-A Quarry standards.

(13) ***Flood areas.*** *If the development or any part of it is located in a floodprone area, based on the Federal Emergency Management Agency's flood boundary and floodway maps and flood insurance rate maps and information presented by the applicant, then the developer shall determine the one-hundred-year flood elevation and flood hazardboundaries within the development. All structures in the proposed development must be constructed with their lowest floor, including the basement, at least two feet above the one-hundred-year elevation.*
Response: The project development area is not located in a FEMA flood-prone area. Reference is made to Exhibit 7-Resources for a FEMA FIRM Map Exhibit demonstrating that the site is not within a flood zone.

(14) ***Freshwater wetlands.*** *All mapped freshwater wetlands within the proposed development*

shall be identified on plans submitted as part of the application.
Response: Wetlands are shown on the appended site plan, as required. Wetlands were field identified, and a description of site conditions, Wetland Delineation Report and resource map is enclosed in Exhibit 8-Resources.

(15) ***Rivers or streams.*** *Any river or stream within or abutting the proposed development shall be identified on maps submitted as part of the application. For purposes of this section, the terms "river" and "stream" are defined as provided in section 90-1.*
Response: Natural resources within and in close proximity to the site have been identified and are shown on the appended site plans, as required by this section.

(16) ***Stormwater.****The proposed development will provide for adequate stormwater management.*
Response: The project will be internally drained, meeting Maine DEP standards. A complete Stormwater Report with pre and post development plans meeting local review standards is included in Exhibit 7.

a. ***Access to direct sunlight*** *for abutting property owner for solar energy system…*
Response: Not applicable; the proposed use does not include structures that affect direct sunlight access on abutting properties.

(17) ***Solid waste management****. The proposed development will provide for adequate disposal of solid wastes…*
Response: Not applicable; solid waste will not be collected or stored on the site. Operations will include a strict carry-in, carry-out policy to restrict solid waste disposal on the site.

(18) ***Exterior lighting.*** *The proposed development will provide for adequate exterior lighting to provide for the safe use of the development in nighttime hours if such use is contemplated. All exterior lighting will be designed and shielded to avoid undue glare and adverse impact on neighboring properties and rights-of-way.*
Response: Not applicable; nighttime hours and lighting are not proposed.

(19) ***Buffering of adjacent uses.*** *The development will provide for the buffering of adjacent uses where there is a transition from one type of use to another use and for the screening of service and storage areas. The buffer may be provided by distance, landscaping, fencing, changes in grade, and/or a combination of these or other techniques.*
Response: Visual buffering will be achieved by maintaining existing mature vegetation where practicable. Equipment storage will be screened by a combination of distance, elevation, and mature vegetation. The former internal lot line between parcels will be revegetated in accordance with the plan provided by Rockport Granite, in this section.

(20) ***Noise.*** *The development will control noise levels such that it will not create unreasonable interference with use and enjoyment of neighboring properties.*

Response: The proposed rock extraction use will operate within recognized noise levels and hours operation of Ch. 102, Art IX, Div 2 Environmental Standards, Sec. 102-1129, allowing 75dB(A) at boundary lines or peak activity of 60 minutes in 24-hours, noise may not exceed 115dB(A) when measured at the source.

*(21) **Storage of materials.***

a. *Exposed nonresidential storage areas, exposed machinery, and areas used for the storage or collection of discarded automobiles, auto parts, metals or other articles of salvage or refuse shall have sufficient setbacks and screening, such as a stockade fence or a dense evergreen hedge, to provide a visual buffer sufficient to screen the proposed use from abutting residential uses and users of public streets.*
Response: Exposed machinery, when not in use and stored, will be screened from direct view from the street and neighboring residential properties by a combination of distance, elevation, and existing mature vegetation.

b. *All dumpsters or similar large collection receptacles for trash or other waste shall be located on level surfaces which are paved or graveled. Where the dumpster or receptacle is located in a yard which abuts a residential or institutional use or a public street, it shall be screened by fencing or landscaping.*
Response: Not applicable; dumpsters are not proposed. The site will be subject to a carry-in/carry-out policy.

c. *Where a potential safety hazard to children is likely to arise, physical screening sufficient to deter small children from entering the premises shall be provided and maintained in good condition.*
Response: The applicant does not anticipate that small children will enter the premises based on the rural location that is not in close proximity to established neighborhoods.

(22) Landscaping. The development plan will provide for landscaping that breaks up parking areas, softens the appearance of the development and protects abutting properties from any significant adverse impacts of the development. (See chapter 98 for standards for landscaping parking lots.)
Response: Formal landscaping is not proposed as the existing mature vegetation will remain to provide screening and mitigate the potential for significant adverse impact on neighboring properties. We note that the closest residential uses are that of the record owners (Belden and Tibert) of the properties adjacent to Route 137. Significant adverse impact from the development is not anticipated.

(23) Buffering of residential uses.

a. *Any lot within the urban compact line as now existing or as from time to time modified of the community that is used for nonresidential or multifamily residential purposes shall have a landscaped buffer on any property line that abuts a residential use or residentially zoned lot. The width of the buffer may vary depending on the treatment* *of the area. A buffer with dense planting, fencing, or changes in grade may be as little as five feet in width. A buffer with moderate levels of planting should be 10 feet to 15 feet in width.*

b. *In all residential settings, the width of the vegetated buffer should be increased to a minimum of 25 feet. Areas adjacent to service, loading, or storage areas should be screened by dense planting, berms, or a combination thereof.*

Response: As shown on the Project Plans a natural buffer of existing vegetation consisting primarily of mature trees will be maintained onsite for a minimum width of 100 ft along property lines of neighboring properties.

(24) *Location of off-street parking. See chapter 98.*

Response: The specific site use does not fall within the parameters of Table 98-242 Schedule of Required Off-Street Parking in Chapter 98-Technical Standards, Art VIII Parking and Loading. Parking by employees will occur off the street in an informal arrangement consisting of up to 5 vehicles during daylight hours. Parking is not proposed in areas with the potential to affect sight distances along the public roadway.

(25) *Hazardous waste. The applicant shall demonstrate compliance with federal and state laws and regulations when hazardous waste is generated or stored on-site.*

Response: Hazardous waste will not be generated on the site. Temporary mobile fueling at the site meets state requirements.

(26) *Prevention or control of air pollution. No use shall be allowed which creates a substantial risk of air pollution, whether by dust, chemicals, odor or otherwise, which would pose a significant risk of harm to local populations within the City or injury to wildlife, vegetation or to property, or harm to use and enjoyment or surrounding property. It is not the intent of this provision to merely require compliance with state or federal air quality standards, but rather to enforce a standard which may be more encompassing and strict than those state and federal standards as presently constituted.*

Response: A substantial risk of air pollution is generally not associated with rock extraction practices where boulders are unearthed, and removed from the site. The proposed activity does not require additional air quality permits or licenses.

(27) *Protection of public health and safety. The proposed development shall provide for safe and healthful conditions. No proposed use may be approved which creates a substantial risk of causing damage to the public health or welfare.*

Response: The temporary activity regarding granite removal use on the site does not create a substantial risk of damage to public health or welfare.

(28) ***Adequacy of waste disposal.*** *The applicant shall clearly demonstrate to the planning board that all quantities and types of waste generated by the proposed use can be dealt with and disposed of while maintaining safe and healthful conditions.*

Response: Any waste generated on the site will be carried out daily. On site storage of solid waste is not proposed. The carry in/carry out policy maintains safe and

healthful conditions.

(29) ***Additional standards for development that may substantially affect the environment.*** *Additionally, if the proposed development meets the definition of development that may substantially affect the environment, as defined in 38 MRSA § 481 et seq., then section 484, Standards for Development, chapter 371, Definition of Terms used in the Site Location of Development Law and Regulations, chapter 372, Policies and procedures, chapter 373, Financial Capacity Standard, chapter 374, Traffic Movement Standard, chapter 375, No Adverse Environmental Effect Standard, chapter 376, Soil Types Standard, and chapter 377, Review of Roads and/or Major Development, and the provisions of section 90-17 shall apply.*

Response: Acknowledged. The project is not a development typically associated with the potential for substantial environmental impact. The Maine Department of Environmental Protection (MDEP) approved the quarry activity (GPID #947, June 29, 2023). See Section 2-Other Permits for a copy of the MDEP approval mentioned above.

1.2

City of Belfast
Chapter 98 Zoning - Technical Standards

Article III, Street Design Standards, Sec 98-81 through 98-92 and Article IV Street Construction Specifications, Sec 98-121 through 98-129
Response: Not applicable; the project does not include streets.

Art V, Traffic Control.
Sec 98-151 through 98-153
Response: Per Exhibit 9-Traffic initially submitted in September 2024, a typical day will include approximately four trips via employees. A maximum 4 employees x 4 trips equals 16 trips. A busy day might include ten (10) flatbed trips, which is the equivalent of 20 daily vehicle trips. Overall trip generation is far below the MDOT Traffic Movement Permit threshold for 100 peak hour generation trips.

Sec 98-154. Driveways and access control generally.
Response: The proposed drive design meets the width and gravel base for commercial truck use, as required. The maneuvering area within the site provides for parking and loading altogether outside of the street right-of-way. The curb openings are existing and permitted by the Maine Department of Transportation. The approvals and submittal documents are included in this package (Exhibit 2-Other Permits) in support of deeming the information complete for review by the Planning Board.

Sec. 98-155 Sight Distance.
Response: Based on the posted speed limit of 50 mph, the minimum sight distance of 475 feet (recommended sight distance 500 feet) per the ITE Handbook is met. Actual distances exceed 500 feet in both directions.

Sec. 98-156. Parking spaces and aisles.
Sec. 98-157. Standards for construction of parking lots or parking areas.
Sec. .98-158. Off-street loading bays.
Response: Formal parking is not proposed or necessary. The size of the extraction site easily accommodates four employees and delivery/removal trucks. The gravel driveway will be constructed in accordance with City requirements and/or to meet heavy equipment loading requirements. Off-street loading bays are not applicable to the extraction project; there are no existing or proposed buildings associated with the proposed site activities.

Article VI Water Quality
Sec. 98-182. Classifications of drainage systems.
Sec. 98-183. Design and construction of drainage systems.
(2) Rural systems. Drainage facilities located within areas defined by this chapter…
Response: Per Maine DEP standards, the project is internally drained and does not require a formal stormwater management plan for MDEP. Also, due to the type of use, location, and recognized MDEP quarry standards, this site does not require a Stormwater Law or Site Location of Development permits; however, we have included a complete stormwater management plan in accordance with local standards. Reference is made to Exhibit 7-Stormwater/Erosion Controls

for the written plan, calculations, plans, inspection, maintenance, and housekeeping provisions.

ESC methods at stream crossings and adjacent to wetlands will be installed and removed as necessary as the work progresses throughout the site. The open work area will be revegetated and reclaimed or stabilized by other accepted methods, as required by the final Site Plan review requirements, prior to moving to the next excavation cell within the designated work area. Reclamation fee provision will be facilitated at the time of Final Site Plan review.

Sec. 98-184. Erosion and sediment control (ESC) requirements.

Response: The enclosed Ch. 102 (Exhibit 1.3)responses directly address ESC requirements. Reference is also made to the formal written plan enclosed in the plan set as sheet C-500, Erosion Control The notes and details were developed in accordance with Maine DEP Best Management Practices. Maine DEP has previously reviewed the standard notes, applicable to most projects, for accuracy and completeness.

Sec. 98-185. Submission requirements.

(1) *Map submissions.*

a. *Location map with boundaries of the the development clearly marked.*

Response: A location map is shown on the plan set cover sheet, and a USGS site location map is enclosed in *Exhibit 3-Location Maps*.

b. *USGS topographic map, …with boundaries of the site clearly marked and drainage areas used for stormwater management calculations noted. Predevelopment drainage areas shall be noted. Post-developed drainage areas shall be noted.*

Response: Pre and post-drainage area maps are included in the Stormwater Report located in Exhibit 7. Reference is made Exhibit 3 for the USGS topographic map site location exhibit and watershed map showing the overall area watersheds.

c. *Topographic maps specifically for the project with:*
   1. *Pre-development contours noted.*
   2. *Post-development contours noted.*
   3. *Limits of clearing and grading noted.*
   4. *Location of stormwater control structures.*
   5. *Location of sediment and erosion control practices*
   6. *Pre-development drainage pattern noted*
   7. *Post-development drainage pattern noted*
   8. *Flow lengths used in time-of-concentration calculations noted*

Response: See Exhibit 7-Stormwater/Erosion Controls for pre and post-development plans, include the above elements of this section. Erosion and Sedimentation controls and details are also shown on the plan sheets.

d. *SCS medium intensity soil survey for the site.*

Response: The SCS medium-intensity soil survey map is included in *Exhibit 8-Resources* and within the Stormwater Report, Exhibit 7.

(2) Narrative submissions.

a. Description of the development which shall:

1. *Describe the nature of the development*
2. *Describe pre and post-development land use cover*
3. *Describe which areas will be disturbed by construction*
4. *Describe adjacent areas which will be disturbed by construction*
5. *Describe areas on-site especially vulnerable to erosion*
6. *Describe the soils found on site*

Response: Complete narrative submissions are included in the Stormwater Management Report, Exhibit 7.

b. Description of stormwater handling, which shall include the following:

1. *Summary and analysis of existing stormwater movement*
2. *Analysis of post-development stormwater movement*
3. *Methods being proposed to control stormwater*

Response: See the description of stormwater handling, pre and post development analysis and stormwater control methods proposed in Exhibit 7-Stormwater Management Report. The site is internally drained, and cells will be graded in shallow bowls, allowing for infiltration of surface flow.

c. Description of erosion and sedimentation control, which shall list and describe the practices and structures to be used and shall:

1. *Indicate how accelerated erosion will be minimized*
2. *Indicate how sedimentation will be minimized.*

Response: The ESC notes plan (C-500) and details address erosion and sedimentation minimization.

d. Schedule of construction, including a schedule of installation/implementation of temporary and permanent sediment and erosion control structures and management practices.

Response: Erosion control features will be installed prior to beginning work on each excavation cell within the work areas. Reference is made to Exhibit 1-Project Description, Plan Set Sheet C-500, Detail Plans, and Exhibit 7-Stormwater/Erosion Controls.

e. Description of inspection and maintenance for sediment and erosion control measures.

Response: Appendix 2 of the Stormwater Report (Exhibit 7) provides a detailed inspection, maintenance, and housekeeping plan with a maintenance log.

(3) Design drawings and calculations.

a. Detail drawing of any structural practices used that are not referenced.

b. Calculations for stormwater management practices, which shall include the following:

1. *Worksheets, showing assumptions used*
2. *Detension basins*
3. *Culverts*
4. *Ditches and waterways*
5. *Other calculations*

Response: Required drawings and calculations for all proposed Stormwater Management measures are included in Exhibit 7-Stormwater/Erosion Controls.

c. Calculations for sediment and erosion control practices, which shall include the following:

1. *Worksheets*
2. *Sediment basins*
3. *Diversions*
4. *Ditches and waterways*
5. *Other calculations*

Response: Required drawings and calculations for ESC practices are included in Exhibit 7-Stormwater/Erosion Controls and are shown on the appended site plans C-500 and associated details.

Sec. 98-186. Resource publications for preparing erosion and sediment control plans.

Response: The erosion and sediment control (ESC) plan (Sheet C-500 of Plan Set) has been designed to comply with the *Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers* (October 2016). As described in the Stormwater Management Report (Exhibit 7) SCS Technical Release TR-55 has been used for pre and post drainage studies to design the Project to comply with MDEP Chapter 500 Stormwater Management Rules.

Sec. 98-187. General criteria for sediment and erosion control plans.

Response: The twelve general criteria of this section are addressed in detail in the ESC Plan (Sheet C-500).

Sec. 98-188. Appurtenances to erosion control measures.

Response: All associated erosion and control measures are addressed on Plan Sheet C-500 and associated detail plan.

Article VII PUBLIC SAFETY

Sec. 98-212. Required information.

In addition to information required by zoning regulations (Ch 102) and the site plan regulations (Ch 90), the public safety director requires that plans submitted for review and approval shall include the following information:

(1) Existing and proposed hydrants or alternate fire protection water supply.

Response: Along with readily available hand tools, on-site earthwork excavation equipment will be capable of smothering fires with soil. All equipment will contain fire extinguishers.

(2) All streets, culs-de-sac, hammerheads and emergency access routes.
Response: Access roads from Waterville Road (Route 137) and temporary haul route direction within the Project Area are displayed on site plans.

(3) Any geographic or structural barriers to the site or proposed structures.
Response: Not applicable; barriers to the site do not exist.

(4), (5)Building construction, occupancy
Response: Not applicable; structures are not proposed.

(6) Any special usage or materials storage that might present a significant fire protection problem.
Response: Special use or materials storage that presents a significant fire protection problem are not associated with the proposed use.

Sec. 98-213. Hydrants
Response: Hydrants are not proposed. Extraction activities do not include structures.

Sec 98-214. Access for emergency vehicles.
Response: The temporary haul routes are constructed to support heavy-duty construction equipment and will accommodate emergency vehicles.

ARTICLE VIII PARKING AND LOADING FACILITIES

Sec. 98-242. Off-street parking requirements.
Response: Parking is provided for up to five employee vehicles. The parking location will vary in location as the working area changes. The site will not host guests or require additional provision for parking.

Sec. 98-250. Lighting.
Where artificial lighting is provided for parking facilities, it shall be…
Response: Not applicable; artificial lighting is not required or proposed.

Sec. 98-251. Circulation.
Response: Vehicular entrances and exits are for private use only. Interior circulation is limited to access to the work and staging areas.

Sec. 98-252. Parking requirements in shoreland districts.
Response: Not applicable; parking will not be located within a shoreland district.

END

1.3

City of Belfast
Chapter 102 Zoning, Article IX Performance Standards
Division 2 Environmental Standards Sec 102-1122 through 102-1136

Sec 102-1121 Applicability.

These standards apply to all properties located within the City, except for properties that are located in the ...

Response: Acknowledged.

Sec 102-1122 Subsurface wastewater disposal.

Response: Not applicable. Permanent structures requiring wastewater disposal are not proposed.

Sec 102-1123 Erosion control.

Erosion of soil and sedimentation of water courses and water bodies shall be minimized by emplying the following best management practices as set forth in the Maine Erosion and Sediment Control Handbook for Construction Best Management Practices,…

Response: The proposed development will not cause unreasonable soil erosion or a reduction in the water-holding capacity of the land that causes dangerous or unhealthy conditions. A written ESC plan (Erosion Control Notes, Sheet C-500) was prepared in accordance with the *Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers, October 2016,* published by MDEP, and is included in the plan set.

Sec 102-1124 Control of Stormwater.

Surface water runoff shall be minimized and detained on-site if possible. If it not possible to detain water on site, downstream improvements to the channel may be required to prevent flooding. The natural state of watercourses, swales, floodways, or rights-of-way shall be maintained as nearly as possible. The stormwater design shall be for a fifty-year storm,…

Response: The project will be internally drained and meets Maine DEP standards. Per local standards a complete Stormwater Management Report is included in Exhibit 7.

Sec 102-1125 Wastewater pollution.

Response: Not applicable; sewage waste disposal is not proposed or necessary for the project.

Sec 102-1126 Air pollution

Uses which could cause emission of dust, fly ash, fumes, vapors or gases which will have an adverse impact on human health, animals, vegetation, or property…emission shall be prohibited…Construction is not a use for the purposes of this section.

Response: A substantial risk of air pollution is generally not associated with rock extraction practices where boulders will be unearthed, cut, and removed from the site. The proposed site activity does not require additional permits or licenses for any emission.

Sec 102-1127 Odors

No land use or establishment shall be permitted to produce noxious or harmful odors perceptible beyond the lot lines…

Response: Not applicable; rock extraction is not an activity associated with noxious or harmful odors.

City of Belfast
Chapter 102 Zoning, Article IX Performance Standards
Division 2 Environmental Standards Sec 102-1122 through 102-1136

Sec 102-1128 Glare.

No land use or establishments shall be permitted to produce a light or reflection of that light beyond its lot lines…

Response: Not applicable. Rock extraction is not associated with light reflection causing glare.

Sec 102-1129 Noise.

Noise may be equal to but not exceed, during any consecutive eight-hour period, an average of 75 dB(A) measured at any boundary line…

Response: The proposed rock extraction use will operate within recognized noise levels and hours operation of Ch. 102, Art IX, Div 2 Environmental Standards, Sec. 102-1129, allowing 75dB(A) at boundary lines or peak activity of 60 minutes in 24-hours, noise may not exceed 115dB(A) when measured at the source.

Sec 102-1130 Gravel extraction.

Regardless of the acreage involved, all gravel extraction operations in the City shall be subject to the rules and guidelines of the state department of environmental protection (DEP) reference under the Site Location Law, 38 MRSA §§ 481-490, and the DEP protection regulations pursuant to the Site Location of Development, 38 MRSA chapters 371-377, and the provisions of chapter 90, pertaining to site plan review, no matter what the size of the non-vegetated area.

Response: Per consultation with Maine DEP, the proposed extraction activities are permitted and in compliance with the Department's requirements. Reference is made to GPID #947 NOITC approval enclosed in Exhibit 2-Other Permits, Exhibit 8-Resources, and the email the City received from Maine DEP's Mining Coordinator, Michael Clark, on Friday, November 8, 2024, enclosed in Exhibit 7-Stormwater/Erosion Control.

The email states that no quarrying activity has occurred since timber harvesting activities, and he notes that the buffers are largely intact and will regrow. The email to the City also states that the site was in substantial compliance with the Maine DEP Performance Standards for Quarries at the time of their inspection.

Sec 102-1131 Heating systems and oil storage tanks.

Home heating oil systems, including oil storage tanks, shall be installed…

Response: Not applicable. Home heating and associated storage tanks are not proposed.

Sec 102-1132 Burning of household trash, brush and stumps.

All burning or disposal of household trash, brush, and stumps require approval from…

Response: Not applicable. Burning is not proposed on the site.

Sec 102-1133 Timber harvesting.

Persons carrying on timber harvesting operations must submit a forestry harvesting plan prepared by a Maine-licensed forester. The requirements of this section shall be met by selecting the most *appropriate best management practices options contained in the publication "Erosion and Sediment Control Handbook for Maine Timber Harvesting Operations: Best Management Practices,"...*

Response: Clearing at the Site occurred by the record owner(s) prior to RTI Exhibit 4.1 amended agreement recorded registry date, this application date, and prior to the Applicant's MDEP submittal for the Notice of Intent to Comply was approved in June 2023.

8. Relationship to municipal rules and regulations. Nothing in this subchapter may be construed to preempt or otherwise limit the existing authority of municipalities to regulate harvesting, except that municipalities regulating timber harvesting shall adopt definitions for forestry terms used in their ordinances that are consistent with definitions in section 8868 and with forestry terms adopted by the commissioner pursuant to this subchapter. Municipal timber harvesting ordinances adopted before September 1, 1990 must meet this standard of compliance with definitions no later than January 1, 2001.

Response: Acknowledged.

Sec. 102-1134 Uses in wetlands.

Any proposed land use located in wetlands must demonstrate compliance with the provisions of the National Resource Protection Act (NRPA).

Response: Wetland setbacks will be observed in accordance with the MDEP NRPA requirements. The wetlands and associated setbacks are shown on the Site Plans. Wetlands were field identified by Cole Peters, Professional Wetland Scientist of Sebago Technics on April 20, June 5, and June 11, 2024. The wetland report and map are enclosed in Exhibit 8-Resources. MDEP Natural Resources Protection Act (NRPA) Permit by Rule notices necessary for stream crossings have been secured and are available for review in Exhibit 2-Other Permits.

Sec. 102-1135 Uses in floodplains.

Any proposed land use located in a floodplain must be in compliance with the provisions of chapter 78, article II.

Response: The project development area is not located in a FEMA flood-prone area. Reference is made to *Exhibit 7-Resources* for the FEMA FIRM Map Exhibit confirming that the site is not located within a flood-prone area and does not require compliance with Ch. 78, Art II of the Zoning Ordinance.

Sec. 102-1136 Soils.

Soils must be adequate for the intended purpose.

Response: The soils are appropriate for proposed rock extraction harvesting activities. Reference is made to *Exhibit 8-Resources* for an excerpt from the County soil map and Exhibit 7-Stormwater/Erosion Controls for the NRCS Web Soil Survey report.

END

1.4

Maine Department of Environmental Protection Bureau of Land Resources
Article 8-A-Performance Standards for Quarries

We note that the following MDEP quarry performance standards responses are offered as a courtesy and are not formally required for City Site Plan Review.

38 §490W. Definitions
Response: The applicant recognizes the terms and meanings.

38 §490X. Applicability.
This article applies to any quarry, including reclaimed and unreclaimed areas, if the quarry is more than one acre in size, the total excavated area, including adjacent parcels under a common owner or operator, is more than one acre in size or underground production blasting is proposed…A person with a valid permit for a quarry under article 6 must operate that quarry in compliance with the terms and conditions of that permit. Any modification of the permit must be in comformance with section 484. A person with a permit under article 6 may file a notice of intent to comply this article…
Response: Operations are permitted per the MDEP Notice of Intent to Comply secured by Rockport Granite, Inc. for the proposed extraction activities. A copy of NOITC GPID #947 issued June 29, 2023, is located in *Exhibit 2-Other Permits (2.5).*

38 §490-Z. Performance standards for quarries.

1. *Significant wildlife habitat and other protected areas.*
   See Exhibit 8-Resources for agency letters.

   Response: The Maine Department of Inland Fisheries & Wildlife (MDIFW) responded to a site review request by letter dated January 7, 2025. Per the letter, the Department did not map any essential habitats that would be affected by this Project.

   A site review response dated September 12, 2024, received from the Maine Natural Areas Program (MNAP), did not result in concerns requiring a request for additional investigation within the proposed extraction site. We note that MNAP routinely requests additional investigation if there are known botanical rare or unique habitats of concern nearby, and this Project did not include a specific request for additional information. In support of that statement, we enclose a follow-up email from MNAP dated February 28, 2025, indicating that they are not specifically requesting a botanical survey and do not have concerns regarding the Project.

   The Maine Historic Preservation Commission also reviewed the proposed site for historical significance and archaeological importance. MNAP's September 25, 2024, response letter states there will be no historic properties affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act, and no further consultation is required.

Maine Department of Environmental Protection Bureau of Land Resources
Article 8-A-Performance Standards for Quarries

2. *Solid waste.*
   Solid waste, including stumps, wood waste, and land-clearing debris generated on the land, must be disposed of in accordance with Chapter 13…
   Response: Solid waste removal is limited to employees who are required to carry out MSW that they carry on the site for lunches, snacks, etc. Land clearing debris on the land occurred previously by the record owners. The applicant intends to grind and/or chip land-clearing debris from harvesting operations by the record owners for use as erosion control on an as-needed basis.

3. *Groundwater protection.*
   To ensure adequate groundwater protection, the following setback requirements must be met.

   A. *A 200' separation must be maintained between an excavation and a private drinking water supply that is point driven or dug and was in existence prior to excavation.*
   Response: A field investigation did not locate dug or point-driven wells within 200' of the proposed extraction excavation pod areas. Reference is made to the enclosed well location map in Exhibit 3, showing the Maine Geological Survey (MGS) state-maintained database of registered and field-located wells. The proposed extraction work limit (existing clearing) is located 210' linear feet from the closest property line at existing offsite residential use; therefore, wells on the abutting properties exceed the required 200' separation.

   B. *A 100' separation must be maintained between an excavation and a private drinking water supply that is drilled into saturated bedrock and was in existence prior to the excavation.*
   Response: Per available MGS records and field investigation, the 100' separation is maintained as required. See Exhibit 3-Location Maps (3.2).

   C. *Separation must be maintained between an excavation and a public drinking water source.*
   Response: Per available MGS public records (maintained since 1987) and field review, the extraction area is not located within an identified public drinking water source.

   D. *Refueling operations, oil changes, other maintenance activities requiring the handling of fuels, petroleum products and hydraulic fluids, and other on-site activity involving storage or use of products that, if spilled, may contaminate groundwater, must be conducted in accordance with the department's spill prevention, control, and countermeasures plan (SPCC). Petroleum products and other substances that may contaminate groundwater must be stored and handled over impervious areas that are designed to contain spills. The SPCC must be posted on the site.*
   Response: The storage, handling, and use of materials will be conducted in accordance with the applicable standards. The SPCC will be posted on the site when work commences. Excavation and transport equipment will be onsite seasonally and maintenance will be conducted offsite. A spill kit will be available when operations

occur at the site.

E. *In the event of excavation below the seasonal high water table. A 300' separation must be maintained between the limit of excavation and any predevelopment private drinking water supply, and a 1,000' separation must be maintained between the limit of excavation and a public water source or area previously designated for potential use as a public drinking water source by a municipality or private water company.*
Response: Excavation below the seasonal high-water table is not proposed.

4. *Natural buffer strip. Existing vegetation within a natural buffer strip may not be removed. If vegetation within the natural buffer strip has been removed or disturbed by the excavation or activities related to operation of a quarry before submission of a notice of intent to comply, that vegetation must be reestablished as soon as practicable after filing the notice of intent to comply. The department may not grant a variance from the provisions of this subsection.*
Response: Natural buffering along the external overall project boundary will remain as it exists. We note that forestry activities were performed by the record owners prior to the applicant's stone harvesting agreement and MDEP GPID#947 NOITC in mid 2023.

5. *Protected natural resource buffers. A natural buffer strip must be maintained between the working edge of an excavation and a river, stream, brook, great pond or coastal wetland as defined in section 480-B. A natural buffer strip must also be maintained between the working edge of an excavation and certain freshwater wetlands as defined in section 480-B and have the characteristics listed in paragraph B. Excavation activities conducted within 100 feet of a protected natural resource must comply with the applicable permit requirements under article 5-A. The width requirements for natural buffer strips are as follows.*

A. *A natural buffer strip at least 100 feet wide must be maintained between the working edge of the excavation and the normal high-water line of a great pond classified as GPA, a river flowing to a great pond classified as GPA or a segment of the Kennebec River identified in Title 12, section 403, subsection 7.*
Response: The 100' buffer strip is not applicable; the work area is not adjacent to a great pond, a river flowing to a great pond, or the Kennebec River.

B. *A natural buffer strip at least 75 feet wide must be maintained between the working edge of the excavation and a body of water other than as described in paragraph A, a river, stream or brook, coastal wetland or significant wildlife habitat contained within a freshwater wetland consisting of or containing:*

(1) Under normal circumstances, at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, except for artificial ponds or impoundments; or
Response: A natural buffer strip of 75' is maintained as required and shown on the appended plans. Reference is made to the enclosed Wetland Delineation Report (Exhibit 8-Resources) describing the natural resources, applicable standards, and

agency jurisdiction.

(2) Peat lands dominated by shrubs, sedges and sphagnum moss.
Response: The 75'-wide buffer is not applicable; the site is not adjacent to peat lands populated by ericaceous shrubs or sphagnum moss.

6. *Roads. A natural buffer strip must be maintained between the working edge of an excavation and a road or right-of-way as follows.*
Response: As shown on Site Plans along Waterville Road (Route 137) the work area is buffered by a combination of existing residential development and existing vegetation. A natural buffer of more than 100 feet in width, which chiefly consists of mature trees, has been retained along property lines shared with neighboring properties.

7. *Property boundary. A natural buffer strip at least 100 feet wide must be mainted between an excavation and any property boundary. This distance may be reduced to 10 feet with the written permission of the affected abutting property owner or owners,... The natural buffer strip between quarries owned by abutting owners may be eliminated with the abutter's written permission if the elimination of this natural buffer strip does not increase the runoff from either excavation across the property boundary. Any written permission to reduce a buffer must provide that it remains in effect until mining ceases and must be recorded in the registry of deeds. All property boundaries must be identified in the field by markings such as metal posts, stakes, flagging or blazed trees. The department may not grant a variance from the provisions of this subsection.*
Response: As provided above, the amended and recorded agreement included in Exhibit 4 (Waldo County Registry of Deeds Bk. 4922/Pg. 202) between the record owners and their respective lots have been temporarily combined for this Project to create a common extraction site where the property boundaries are temporarily modified as shown on the appended plan set. The lot combination, as it exists, is allowed by Maine DEP. The buffer strip between the lots, as permitted by this section of the quarry standards, will be revegetated in accordance with the plan provided by Rockport Granite in this section.

8. *Erosion and sedimentation control.*
A working pit must be naturally internally drained at all times unless a variance is obtained from the department. Stockpiles consisting of topsoil to be used for reclamation must be seeded, mulched, or otherwise temporarily stabilized.
A. Sediment may not leave the parcel or enter a protected natural resource.
B. Grubbed areas not internally drained must be stabilized.
C. Erosion and sedimentation control for access roads must be conducted in accordance with the department's best management practices for erosion and sedimentation control.
D. All areas other than a working pit area that are not naturally internally drained must meet the erosion and sedimentation control standards of section 420-C. The department may not grant a variance from the provisions of paragraph A, B, C or Areas are not considered "naturally internally drained" if surface discharge is impeded through the use of structures such as detention ponds, retention ponds and undersized culverts.

Response: The pit is naturally internally drained, as required, and sediment will, therefore, not leave the site or enter a protected resource. Topsoil stockpiles will also be temporarily stabilized, as required. The ESC requirements of A through C above are met. Reference is made to the Site Plans, Erosion Control Plan on sheet C-500 and details. As previously stated, the plan was developed in accordance with MDEP BMPs and applicable local standards.

9. Water quality protection and stormwater management.
Standards of the laws governing stormwater management and waste discharge must be met as provided by this subsection.

A. A variance must be obtained, and stormwater standards adopted pursuant to section 420-D must be met for any part of a project, other than the working pit area, that is not naturally internally drained if that part of the Project would require a stormwater management permit pursuant to section 420-D but for the exception for certain excavations in section 420-D, subsection 5. A stormwater management permit pursuant to section 420-D is not required.
Response: Work areas are internally drained, and systematically excavated, backfilled, and reclaimed (loamed and seeded) so that exposed soil throughout the Work Area (WA) will be no more than 2 acres in extent. Completed excavation throughout the WA will be allowed to grow back to natural conditions. The overall Project does not require a Maine DEP Stormwater Law or site location of development (SLODA, Site Law) permit.

B. A waste discharge must meet standards and obtain authorization if required pursuant to section 413.
Response: Not applicable; waste discharge is not proposed.

10. Traffic. The following provisions govern traffic.
B. Any excavation activity that generates 100 or more passenger car equivalents at peak hour must comply with the applicable permit requirements under Title 23, section 704-A.
Response: Not applicable, the extraction activity does not generate 100 passenger car equivalents at peak hours. See Exhibit 9-Traffic, up to five passenger cars for employees and ten truck trips are anticipated per day.

11. Noise.
Noise levels may not exceed applicable noise limits in rules adopted by the board.
Response: The proposed rock extraction use will operate within recognized noise levels and hours operation of Ch. 102, Art IX, Div 2 Environmental Standards, Sec. 102-1129, allowing 75dB(A) at boundary lines or peak activity of 60 minutes in 24-hours, noise may not exceed 115dB(A) when measured at the source.

12. Dust.
Dust generated by activities at a quarry, including dust associated with traffic to and from a quarry, must be controlled by sweeping, paving, watering, or other best management practices for control of fugitive emissions…Visible emissions from a fugitive emission source

may not exceed an opacity of 20% for more than 5 minutes in any one-hour period.
Response: Acknowledged. Sweeping pavement adjacent to the gravel entrance and other dust control methods will be implemented when necessary. Traffic-related and visible emissions will be controlled by utilizing recognized BMPs contained in the written plan; see plan C-500.

13. Reclamation.
The affected land must be restored to a condition that is similar to or compatible with the conditions that existed before excavation. Reclamation may be conducted in accordance with the department's best management practices for erosion and sedimentation control and must include the following…
Response: Reclamation will occur as the extraction activities are performed. One area will be worked and reclaimed prior to beginning excavation in the next pod. The reclamation will occur above the static groundwater table elevation and will be loamed and seeded upon completion of the rock harvesting to achieve full vegetative reclamation as the pods are worked. Reference is made to Exhibit 1-Project Description for details and replanting of the former boundary of the merged lot.

B A vegetative cover must be established by seeding or planting within one year of the completion of excavation…Topsoil must be placed, seeded, and mulched within 30 days of final grading. Vegetative cover is accepted if within one year of seeding…
Response: Open work cells will be limited to less than two acres. Work will occur within portions of the designated work areas, as shown on the enclosed plans. As previously stated, the work area will be revegetated or stabilized depending on the growing season prior to moving on to the next work area.

14. Blasting.
Response: Blasting activities are not proposed or required.

15. Lighting.
Response: Not applicable; project lighting is not proposed.

END

Exhibit 2

Other Permits

Exhibit 2 – Other Permits

The applicant has previously received the following permits in support of the proposed rock extraction activities. Copies of the approvals and any complete application documentation, if prepared by Sebago Technics, are enclosed in this section, as requested by the City Planner.

1. MDOT Drive/Entrance Permit 40214, Belden, 114 Waterville Rd., 10/30/2024
2. MDOT Drive/Entrance Permit 40215, Tibert, 104 Waterville Rd., 10/30/2024
3. MDEP NRPA PBR# 80813, 10/1/2024, (10-Stream Crossing, 2-Adjacency)
4. MDEP NRPA PBR# 78438, 1/2/2024, Temporary Stream Crossings
5. Quarry, MDEP NOITC GPID# 947 permit issued 6/29/2023.

2.1

COPY

Maine Department of Transportation

Driveway/Entrance Permit

Janet T. Mills
Governor

Bruce A. Van Note
Commissioner

Permit Number: 40214 - **Entrance ID:** 1

OWNER

Name: **Russell & Lori Belden**
Address: **114 Waterville Rd.**
Belfast, ME 04915
Telephone: **(207)230-7325**

Date Printed: **October 30, 2024**

LOCATION

Route:	**0137X, Waterville Road**
Municipality:	**Belfast**
County:	**Waldo**
Tax Map:	**6** Lot Number: **77**
Culvert Size:	**0 inches**
Culvert Type:	**N/R**
Culvert Length:	**0 feet**
Date of Permit:	**October 30, 2024**
Approved Entrance Width:	**30 feet**

In accordance with rules promulgated under 23 M.R.S.A., Chapter 13, Subchapter I, Section 704, the Maine Department of Transportation (MaineDOT) approves a permit and grants permission to perform the necessary grading to construct, in accordance with sketch or attached plan, **an Entrance** to **Commercial** at a point **4810** feet **West** from **Doak Road**, subject to the Chapter 299 Highway Driveway and Entrance Rules, standard conditions and special conditions (if any) listed below.

Conditions of Approval:

This Permittee acknowledges and agrees to comply with the Standard Conditions and Approval attached hereto and to any Specific Conditions of Approval shown here.

(G = GPS Location; W = Waiver; S = Special Condition)

G - THE ENTRANCE SHALL BE LOCATED AT GPS COORDINATES: 44.441090N, -69.048900W.

S - NO CULVERT NEEDED AT THIS TIME. IF IN THE FUTURE A CULVERT IS NEEDED, THE OWNER MUST PURCHASE, INSTALL, AND MAINTAIN A EIGHTEEN (18) INCH BY FORTY SIX (46) FOOT CULVERT. OWNER MUST ALSO DITCH TO ENSURE SUFFICIENT WATER DRAINAGE.

S - MUST PAVE A 3 FOOT APRON TO INCLUDE RADIUS TO PROTECT EDGE OF HIGHWAY PAVEMENT.

S - OWNER IS RESPONSIBLE FOR ANY AND ALL CULVERT(S) AND MUST DITCH TO ENSURE WATER FLOWS ADEQUATELY THRU CULVERT(S) AND AT NO TIME ALLOW WATER TO FLOW INTO OR ONTO THE HIGHWAY. PERMITTEE MUST KEEP BUSHES & ALL VEGETATION CUT BACK AND CLEARED AS GENERAL MAINTENANCE OF SIGHT DISTANCE FOR DRIVEWAYS OR ENTRANCES.

S - ENTRANCE MUST NOT BE USED TO PROVIDE ACCESS TO ANY PORTION OF A SUBDIVISION.

Approved by: ____________________ Date: 10/30/2024

STANDARD CONDITIONS AND APPROVAL

1. Provide, erect and maintain all necessary barricades, lights, warning signs and other devices as directed by MaineDOT to properly safeguard traffic while the construction is in progress.

2. At no time cause the highway to be closed to traffic

3. Where the driveway is located within a curb, curb and gutter, and/or sidewalk section, completely remove the existing curb, curb and gutter, and/or sidewalk as may be required to create the driveway and restore drainage. All driveways abutting sidewalk sections shall meet the requirements set forth in the Americans with Disabilities Act of 1990, 42 U.S.C. Sec. 12131 et seq.

4. Obtain, have delivered to the site, and install any culverts and/or drainage structures which may be necessary for drainage, the size, type and length as called for in the permit pursuant to 23 M.R.S.A. Sec. 705. All culverts and/or drainage structures shall be new.

5. Start construction of the proposed driveway within twenty-four (24) months of the date of permit issuance and substantially complete construction of the proposed driveway within twelve months of commencement of construction.

6. Comply with all applicable federal, state and municipal regulations and ordinances.

7. Do not alter, without the express written consent of the MaineDOT, any culverts or drainage swales within the MaineDOT right of way.

8. File a copy of the approved driveway permit with the affected municipality or LUPC, as appropriate within 5 business days of receiving the MaineDOT approval.

9. Construct and maintain the driveway side slopes to be no steeper than the adjacent roadway side slopes, but in no case to be steeper than 3 horizontal to 1 vertical, unless the side slope is behind existing roadway guardrail, in which case it shall be no steeper than 2 horizontal to 1 vertical.

10. Notify the MaineDOT of a proposed change of use served by the driveway when increase in traffic flow is expected to occur. This does not exempt the need for obtaining a Traffic Movement Permit (TMP) if trip generation meets or exceeds 100 passenger car equivalents (PCE) during the peak hour of the day.

11. Construct or implement and maintain erosion and sedimentation measures sufficient to protect MaineDOT facilities.

12. Driveways shall be designed such that all maneuvering and parking of any vehicles will take place outside the highway right-of-way and where vehicles will exit the premises without backing onto the highway traveled way or shoulders. All driveways will have a turnaround area to accomodate vehicles using the premises.

13. Closing any portion of a highway or roadway including lanes, shoulders, sidewalks, bike lanes, or ATV access routes is not permitted without MaineDOT approval.

FURTHER CONDITION OF THE PERMIT

The owner shall assume, the defense of, and pay all damages, fines, and penalties for which he/she shall become liable, and shall indemnify and safe harmless said Department, its representatives, agents and employees from liability, actions against all suits, claims, damages for wrongful death, personal injuries or property damage suffered by any person or association which results from the willful or negligent action or inaction of the owner/applicant (agent) and in proceedings of every kind arising out of the construction and maintenance of said entrance(s), including snow removal.

Nothing herein shall, nor is intended to, waive any defense, immunity or limitation of liability which may be available to the MaineDOT, their officers, agents or employees under the Maine Tort Claims Act or any other privileges and/or immunities provided by law. It is a further condition that the owner will agree to keep the right of way inviolate for public highway purposes and no signs (other than traffic signs and signals), posters, billboards, roadside stands, culvert end walls or private installations shall be permitted within Right of Way limits.

Date Received:	
Application No. ________	

APPLICATION FOR DRIVEWAY/ENTRANCE PERMIT
MAINE DEPARTMENT OF TRANSPORTATION

98 Statehouse Station
Augusta, ME 04330
(207)-624-8200 FAX: (207)-287-4753 E-mail: Region2Permits@maine.gov

Application is hereby made to construct, change location, grade or use served by a driveway or entrance to property in accordance with Title 23 M.R.S.A. § 704 and §705.

Section A Property Owner Information

1A. Land Owner's Name: Russell and Lori Belden
1B. Lessee's Name: Rockport Granite, Inc. c/o Joshua Carle 207-230-7325
2A. Land Owner's Mailing Address: 114 Waterville Road Belfast, ME 04915
2B. Lessee's Mailing Address: P.O. Box 1140 Rockport, ME 04856
3. Applicant or Agent's Name: Sebago Technics, Inc. 207-200-2100
4. Applicant/Agent Mailing Address: 75 John Roberts Rd., Suite 4A South Portland, ME 04106
5. Email Address: jseymour@sebagotechnics.com

Section B Property Location Information

6. Directions to property: From U.S. Route 1, turn onto Route 7/137 Waldo Avenue in Belfast. Continue straight onto Waterville Road for approximately 1 mile and the property is on the left.

7. Route No. 7/137 Road Name: Waterville Road
8. ○ North ○ South ○ East ● West – side of highway
9. City/Town: Belfast County: Waldo
10. Distance from nearest intersection: 3,700 feet Name of Intersection: Waterville Rd/ Shepard Rd
11. Nearest Utility Pole #: CMP #20 Attach Survey Data *(if available)*
12. Map and Lot number Map 6, Lot 77 Lot prior to May 25,2002? ☐ Yes ☑ No

A copy of the tax map must be provided by the applicant.

Proposed location of driveway/entrance shall be staked and flagged by the applicant.

Section C Driveway/ Entrance Information

13. Desired width of Driveway/Entrance: 50 (feet) Type of Surface: gravel (gravel, pavement, etc.)

14. Will the development associated with this driveway/entrance have more than 10,000 square feet of impervious surface draining towards the highway? YES ☐ NO ☑ "Impervious surfaces" are the footprint of buildings, pavement, gravel, or other low-permeability or compacted surfaces, not including natural or man-made water bodies.

15. Does your property have an existing access? ☑ yes ☐ no (If no go to line 18)
16. If this is an existing access and you are changing its use, please describe Currently a single-family house lot access to be changed to rock extraction use. Go to Section D.
17. If this is an existing access and you are physically modifying, please describe: Proposed entrance will be an improvement of the existing single family house driveway entrance Go to Section D.
18. Proposed Driveway/Entrance Purpose: ○ Single Family ○ Home Business ● Commercial/Industrial
Subdivision or Development ○ Multi-family with 5 or less units ○ Multifamily with more than 5 units
Retail ○ Office ○ School ○ Business Park ○ Mall ○ Other (explain)

employees/day 3 #customer/day None Busiest time of day 8 am to 4 # of Lots 1

Section D Construction Information

19. Construction expected to begin on November 2024 (date) and be completed on January 2025 (date)
20. Person/Company constructing entrance Rockport Granite, Inc.
21. Construction contacts name Joshua Carle Phone 207-230-7325

Region 1 *Rev. 9/10/20*

Site Sketch or attach Site Plan

Draw arrow to show "North"

THE OWNER HEREBY AGREES

1) Provide, erect and maintain all necessary barricades, lights, warning signs and other devices to direct traffic safely while the work is in progress.
2) At no time cause the highway to be closed to traffic.
3) Where the drive/entrance is located within a curb, curb and gutter, and/or sidewalk section, completely remove the existing curb, curb and gutter, and/or sidewalk as may be required to create the drive/entrance and restore drainage. All driveways/entrances abutting sidewalk sections shall meet the requirements set forth in the Americans with Disabilities Act of 1990, 42 U.S.C. §§ 12132 et seq.
4) Obtain, deliver to site and install any culverts and/or drainage structures necessary for drainage; the size, type and length of such culverts or structures shall be as specified in the permit pursuant to 23 M.R.S.A. § 705. **All culverts and/or drainage structures shall be new.**
5) Complete construction of proposed driveway/entrance within twelve months of commencement of construction.
6) COMPLY WITH ALL FEDERAL, STATE AND MUNICIPAL LAWS AND ORDINANCES.
7) Not alter, without the express written consent of the MDOT, any culverts, drainage patterns or swales within MDOT right-of-way.
8) File a copy of the approved driveway/entrance permit with the affected municipality or LURC, as appropriate, within 5 business days of receiving the MDOT approval.
9) Shall construct and maintain the entrance side slopes to be no steeper than the adjacent roadway side slopes, but in no case to be steeper than 3 horizontal to 1 vertical, unless the side slope is behind existing roadway guardrail, in which case it shall be no steeper than 2 horizontal to 1 vertical.
10) Notify the MeDOT(in writing) of a proposed change to use served by driveway/entrance when increase in traffic flow is expected to occur. This does not exempt the need for obtaining a Traffic Movement Permit (TMP) if trip generation meets or exceeds 100 passenger car equivalents (pce) during the peak hour of the day.

FURTHER CONDITION OF THE PERMIT:

The owner shall assume the defense of, and pay all damages, fines, and penalties for which he/she shall become liable, and shall indemnify and safe harmless said Department, its representatives, agents and employees from liability, actions against all suite, claims, damages for wrongful death, personal injuries or property damage suffered by any person or association which results from the willful or negligent action or inaction of the owner/applicant/agent and in proceedings of every kind arising out of the construction and maintenance of said entrance(s), including snow removal. Nothing herein shall, nor is intended to, waive and defense, immunity or limitation of liability which may be available to the MDOT, their officers, agents or employees under the Maine Tort Claims Act or any other privileges and/or immunities provided by law.

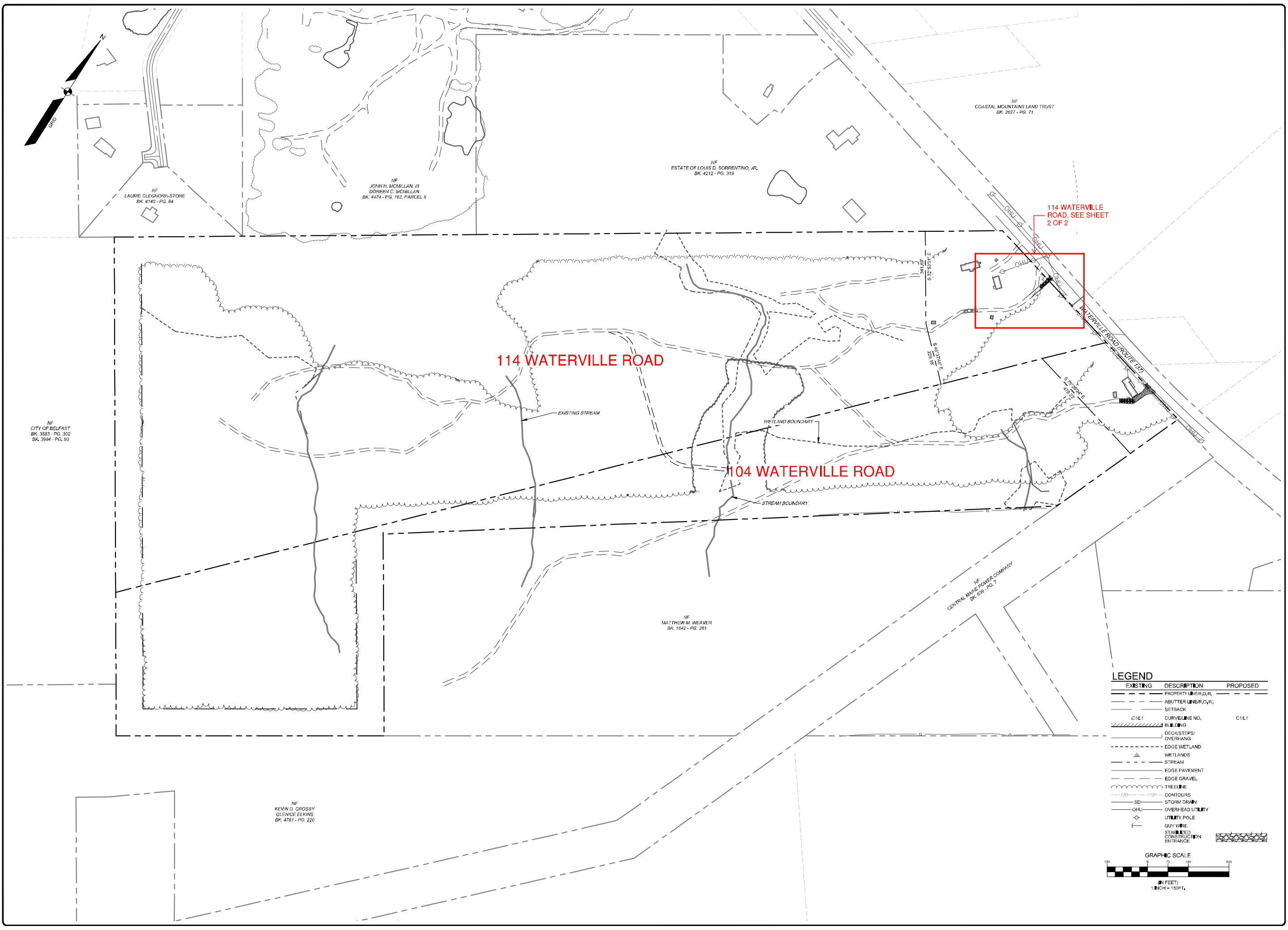
The submission of false or misleading statements on or with this application, or the omission of information necessary to prevent statements submitted herein or herewith from being misleading, is a crime punishable under Chapter 19 of the Maine Criminal Code, and any permit issued in reliance thereon will be considered null and void without notice or further action by the Department.

Date Filed: ______________________

____
Signature of Owner

Signature of Applicant

☑ **By signing and checking this box I hereby certify that I have been granted permission from the property owner to act in their behalf.**


N
GRID
NF
LAURIE CLEGHORN-STONE
BK. 4140 - PG. 84
NF
JOHN H. MCMILLAN, III
DOREEN C. MCMILLAN
BK. 4474 - PG. 162, PARCEL II
NF
ESTATE OF LOUIS D. SORRENTINO, JR.
BK. 4212 - PG. 319
NF
COASTAL MOUNTAINS LAND TRUST
BK. 2627 - PG. 71
114 WATERVILLE ROAD, SEE SHEET 2 OF 2
OHU
341.69'
S 32°53'31" E
S 46°37'45" E
229.18'
S 75°26'24" E
478.23'
WATERVILLE ROAD (ROUTE 137)
114 WATERVILLE ROAD
104 WATERVILLE ROAD
EXISTING STREAM
WETLAND BOUNDARY
STREAM BOUNDARY
NF
CITY OF BELFAST
BK. 3883 - PG. 302
BK. 3984 - PG. 93
NF
MATTHEW M. WEAVER
BK. 1642 - PG. 281
NF
CENTRAL MAINE POWER COMPANY
BK. 639 - PG. 7
NF
KEVIN D. CROSBY
GLENICE ELKINS
BK. 4761 - PG. 220
LEGEND
EXISTING
DESCRIPTION
PROPOSED
PROPERTY LINE/R.O.W.
ABUTTER LINE/R.O.W.
SETBACK
C1/L1
CURVE/LINE NO.
C1/L1
BUILDING
DECK/STEPS/ OVERHANG
EDGE WETLAND
WETLANDS
STREAM
EDGE PAVEMENT
EDGE GRAVEL
TREELINE
120
118
CONTOURS
SD
STORM DRAIN
OHU
OVERHEAD UTILITY
UTILITY POLE
GUY WIRE
STABILIZED CONSTRUCTION ENTRANCE
GRAPHIC SCALE
150
0
75
150
300
(IN FEET)
1 INCH = 150FT.

F:\Projects\24000\240078\DWG\Design\240078 S.dwg - 10/24/2024 11:08 AM - DYLAN STUART

REV:	BY:	DATE:	STATUS:

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

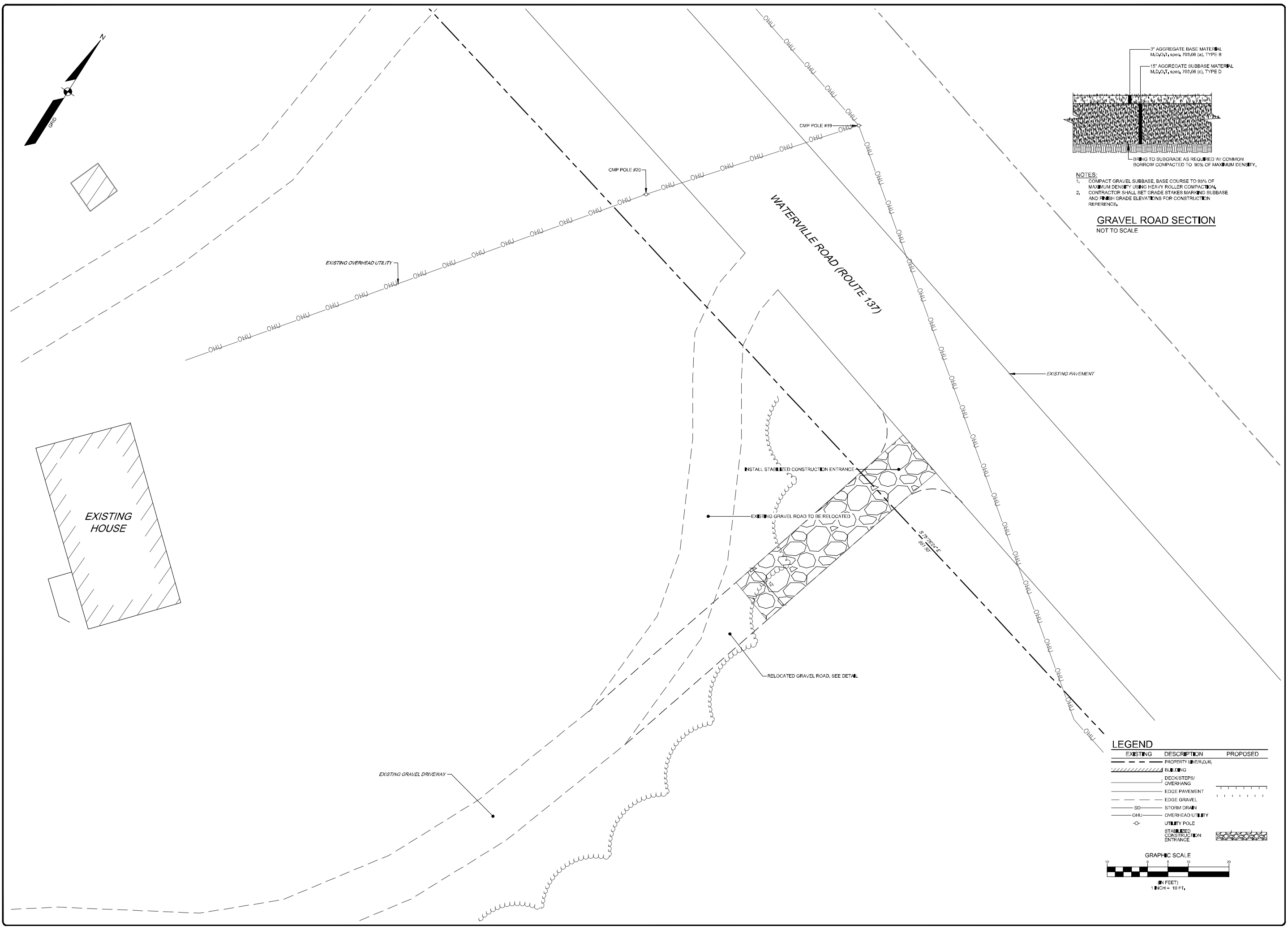
SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Rd, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford and Bath

SITE PLAN
OF:
ROCKPORT GRANITE BELFAST
114 WATERVILLE ROAD
BELFAST, MAINE
FOR:
ROCKPORT GRANITE, INC.
465 WEST STREET, PO BOX 1140
ROCKPORT, MAINE 04856

DESIGNED	DJS
DRAWN	CJC
CHECKED	JRS
DATE	06-04-2024
SCALE	1" = 150'
PROJECT	240078

240078 S.dwg, TAB:MDOT Exhibit-1

SHEET 1 OF 2


N
GRID
EXISTING HOUSE
EXISTING OVERHEAD UTILITY
CMP POLE #20
CMP POLE #19
OHU
WATERVILLE ROAD (ROUTE 137)
EXISTING PAVEMENT
INSTALL STABILIZED CONSTRUCTION ENTRANCE
EXISTING GRAVEL ROAD TO BE RELOCATED
S 75°26'24" E
951.50'
12'
RELOCATED GRAVEL ROAD, SEE DETAIL
EXISTING GRAVEL DRIVEWAY
3" AGGREGATE BASE MATERIAL
M.D.O.T. spec. 703.06 (a), TYPE B
15" AGGREGATE SUBBASE MATERIAL
M.D.O.T. spec. 703.06 (c), TYPE D
BRING TO SUBGRADE AS REQUIRED W/ COMMON
BORROW COMPACTED TO 90% OF MAXIMUM DENSITY.

NOTES:
1. COMPACT GRAVEL SUBBASE, BASE COURSE TO 95% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

GRAVEL ROAD SECTION
NOT TO SCALE

LEGEND

EXISTING	DESCRIPTION	PROPOSED
— — —	PROPERTY LINE/R.O.W.	
▨	BUILDING	
——	DECK/STEPS/ OVERHANG	
——	EDGE PAVEMENT	⊥⊥⊥
— —	EDGE GRAVEL	' ' '
—SD—	STORM DRAIN	
—OHU—	OVERHEAD UTILITY	
-O-	UTILITY POLE	
	STABILIZED CONSTRUCTION ENTRANCE	▨

GRAPHIC SCALE
10 0 5 10 20
(IN FEET)
1 INCH = 10 FT.

REV:	BY:	DATE:	STATUS:

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SEBAGOTECHNICS.COM
75 John Roberts Rd, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford and Bath

DRIVEWAY ENTRANCE PLAN
OF:
ROCKPORT GRANITE BELFAST
114 WATERVILLE ROAD
BELFAST, MAINE
FOR:
ROCKPORT GRANITE, INC.
465 WEST STREET, PO BOX 1140
ROCKPORT, MAINE 04856

DESIGNED	DJS
DRAWN	CJC
CHECKED	JRS
DATE	06-04-2024
SCALE	1" = 10'
PROJECT	240078

SHEET 2 OF 2

240078 S.dwg, TAB:MDOT Exhibit-3

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2.2

2.2

COPY

Maine Department of Transportation

Janet T. Mills
Governor

Driveway/Entrance Permit

Bruce A. Van Note
Commissioner

Permit Number: 40215 - **Entrance ID:** 1

OWNER

Name: **Daniel Tibert**
Address: **104 Waterville Rd.**
Belfast, ME 04915
Telephone: **(207)230-7325**

Date Printed: **October 30, 2024**

LOCATION

Route: **0137X, Waterville Road**
Municipality: **Belfast**
County: **Waldo**
Tax Map: **6** Lot Number: **76**
Culvert Size: **18 inches**
Culvert Type: **metal/plastic**
Culvert Length: **44 feet**
Date of Permit: **October 30, 2024**
Approved Entrance Width: **30 feet**

In accordance with rules promulgated under 23 M.R.S.A., Chapter 13, Subchapter I, Section 704, the Maine Department of Transportation (MaineDOT) approves a permit and grants permission to perform the necessary grading to construct, in accordance with sketch or attached plan, **an Entrance** to **Commercial** at a point **3650** feet **West** from **Doak Road**, subject to the Chapter 299 Highway Driveway and Entrance Rules, standard conditions and special conditions (if any) listed below.

Conditions of Approval:

This Permittee acknowledges and agrees to comply with the Standard Conditions and Approval attached hereto and to any Specific Conditions of Approval shown here.

(G = GPS Location; W = Waiver; S = Special Condition)

G - THE ENTRANCE SHALL BE LOCATED AT GPS COORDINATES: 44.332401N, -69.581234W.

S - MUST NOT TRACK MUD/ DEBRI ONTO HIGHWAY.

S - MUST PAVEA 3 FOOT APRON TO INCLUDE THE RADIUS TO PREVENT DANAGE TO EDGE OF PAVEMENT.

S - OWNER IS RESPONSIBLE FOR ANY AND ALL CULVERT(S) AND MUST DITCH TO ENSURE WATER FLOWS ADEQUATELY THRU CULVERT(S) AND AT NO TIME ALLOW WATER TO FLOW INTO OR ONTO THE HIGHWAY. PERMITTEE MUST KEEP BUSHES & ALL VEGETATION CUT BACK AND CLEARED AS GENERAL MAINTENANCE OF SIGHT DISTANCE FOR DRIVEWAYS OR ENTRANCES.

S - THIS ACCESS IS LIMITED TO THE APPROVED USE ONLY. ANY CHANGE IN THE USE AT THIS ACCESS WILL REQUIRE ADDITIONAL PERMIT APPROVAL OR MAY BE PROHIBITED.

S - ENTRANCE MUST NOT BE USED TO PROVIDE ACCESS TO ANY PORTION OF A SUBDIVISION.

Approved by: ______________________ Date: 10/30/2024

STANDARD CONDITIONS AND APPROVAL

1. Provide, erect and maintain all necessary barricades, lights, warning signs and other devices as directed by MaineDOT to properly safeguard traffic while the construction is in progress.

2. At no time cause the highway to be closed to traffic

3. Where the driveway is located within a curb, curb and gutter, and/or sidewalk section, completely remove the existing curb, curb and gutter, and/or sidewalk as may be required to create the driveway and restore drainage. All driveways abutting sidewalk sections shall meet the requirements set forth in the Americans with Disabilities Act of 1990, 42 U.S.C. Sec. 12131 et seq.

4. Obtain, have delivered to the site, and install any culverts and/or drainage structures which may be necessary for drainage, the size, type and length as called for in the permit pursuant to 23 M.R.S.A. Sec. 705. All culverts and/or drainage structures shall be new.

5. Start construction of the proposed driveway within twenty-four (24) months of the date of permit issuance and substantially complete construction of the proposed driveway within twelve months of commencement of construction.

6. Comply with all applicable federal, state and municipal regulations and ordinances.

7. Do not alter, without the express written consent of the MaineDOT, any culverts or drainage swales within the MaineDOT right of way.

8. File a copy of the approved driveway permit with the affected municipality or LUPC, as appropriate within 5 business days of receiving the MaineDOT approval.

9. Construct and maintain the driveway side slopes to be no steeper than the adjacent roadway side slopes, but in no case to be steeper than 3 horizontal to 1 vertical, unless the side slope is behind existing roadway guardrail, in which case it shall be no steeper than 2 horizontal to 1 vertical.

10. Notify the MaineDOT of a proposed change of use served by the driveway when increase in traffic flow is expected to occur. This does not exempt the need for obtaining a Traffic Movement Permit (TMP) if trip generation meets or exceeds 100 passenger car equivalents (PCE) during the peak hour of the day.

11. Construct or implement and maintain erosion and sedimentation measures sufficient to protect MaineDOT facilities.

12. Driveways shall be designed such that all maneuvering and parking of any vehicles will take place outside the highway right-of-way and where vehicles will exit the premises without backing onto the highway traveled way or shoulders. All driveways will have a turnaround area to accomodate vehicles using the premises.

13. Closing any portion of a highway or roadway including lanes, shoulders, sidewalks, bike lanes, or ATV access routes is not permitted without MaineDOT approval.

FURTHER CONDITION OF THE PERMIT

The owner shall assume, the defense of, and pay all damages, fines, and penalties for which he/she shall become liable, and shall indemnify and safe harmless said Department, its representatives, agents and employees from liability, actions against all suits, claims, damages for wrongful death, personal injuries or property damage suffered by any person or association which results from the willful or negligent action or inaction of the owner/applicant (agent) and in proceedings of every kind arising out of the construction and maintenance of said entrance(s), including snow removal.

Nothing herein shall, nor is intended to, waive any defense, immunity or limitation of liability which may be available to the MaineDOT, their officers, agents or employees under the Maine Tort Claims Act or any other privileges and/or immunities provided by law. It is a further condition that the owner will agree to keep the right of way inviolate for public highway purposes and no signs (other than traffic signs and signals), posters, billboards, roadside stands, culvert end walls or private installations shall be permitted within Right of Way limits.

Date Received:

Application No. ________

APPLICATION FOR DRIVEWAY/ENTRANCE PERMIT
MAINE DEPARTMENT OF TRANSPORTATION

98 Statehouse Station
Augusta, ME 04330
(207)-624-8200 FAX: (207)-287-4753 E-mail: Region2Permits@maine.gov

Application is hereby made to construct, change location, grade or use served by a driveway or entrance to property in accordance with Title 23 M.R.S.A. § 704 and §705.

Section A Property Owner Information

1A. Land Owner's Name: Daniel Tibert
1B. Lessee's Name: Rockport Granite, Inc. c/o Joshua Carle 207-230-7325
2A. Land Owner's Mailing Address: 104 Waterville Road Belfast, ME 04915
2B. Lessee's Mailing Address: P.O. Box 1140 Rockport, ME 04856
3. Applicant or Agent's Name: Sebago Technics, Inc. 207-200-2100
4. Applicant/Agent Mailing Address: 75 John Roberts Rd., Suite 4A South Portland, ME 04106
5. Email Address: jseymour@sebagotechnics.com

Section B Property Location Information

6. Directions to property: From U.S. Route 1, turn onto Route 7/137 Waldo Avenue in Belfast. Continue straight onto Waterville Road for approximately 1 mile and the property is on the left.
7. Route No. 7/137 Road Name: Waterville Road
8. ○ North ○ South ○ East ● West – side of highway
9. City/Town: Belfast County: Waldo
10. Distance from nearest intersection: 4,200 feet Name of Intersection: Waterville Rd/ Shepard Rd
11. Nearest Utility Pole #: CMP #19 Attach Survey Data *(if available)*
12. Map and Lot number Map 6, Lot 76 Lot prior to May 25,2002? ☐ Yes ☑ No

A copy of the tax map must be provided by the applicant.

Proposed location of driveway/entrance shall be staked and flagged by the applicant.

Section C Driveway/ Entrance Information

13. Desired width of Driveway/Entrance: 50 (feet) Type of Surface: gravel (gravel, pavement, etc.)
14. Will the development associated with this driveway/entrance have more than 10,000 square feet of impervious surface draining towards the highway? YES ☐ NO ☑ "Impervious surfaces" are the footprint of buildings, pavement, gravel, or other low-permeability or compacted surfaces, not including natural or man-made water bodies.
15. Does your property have an existing access? ☑ yes ☐ no (If no go to line 18)
16. If this is an existing access and you are changing its use, please describe Currently a single-family house lot access to be changed to rock extraction use. Go to Section D.
17. If this is an existing access and you are physically modifying, please describe: Proposed entrance will be an improvement of the existing single family house driveway entrance Go to Section D.
18. Proposed Driveway/Entrance Purpose: ○ Single Family ○ Home Business ● Commercial/Industrial
Subdivision or Development ○ Multi-family with 5 or less units ○ Multifamily with more than 5 units
Retail ○ Office ○ School ○ Business Park ○ Mall ○ Other (explain)
# employees/day 3 #customer/day None Busiest time of day 8 am to 4 # of Lots 1

Section D Construction Information

19. Construction expected to begin on November 2024 (date) and be completed on January 2025 (date)
20. Person/Company constructing entrance Rockport Granite, Inc.
21. Construction contacts name Joshua Carle Phone 207-230-7325

Site Sketch or attach Site Plan

Draw arrow to show “North”

THE OWNER HEREBY AGREES

1) Provide, erect and maintain all necessary barricades, lights, warning signs and other devices to direct traffic safely while the work is in progress.
2) **At no time cause the highway to be closed to traffic.**
3) Where the drive/entrance is located within a curb, curb and gutter, and/or sidewalk section, completely remove the existing curb, curb and gutter, and/or sidewalk as may be required to create the drive/entrance and restore drainage. All driveways/entrances abutting sidewalk sections shall meet the requirements set forth in the Americans with Disabilities Act of 1990, 42 U.S.C. §§ 12132 et seq.
4) Obtain, deliver to site and install any culverts and/or drainage structures necessary for drainage; the size, type and length of such culverts or structures shall be as specified in the permit pursuant to 23 M.R.S.A. § 705. **All culverts and/or drainage structures shall be new.**
5) Complete construction of proposed driveway/entrance within twelve months of commencement of construction.
6) **COMPLY WITH ALL FEDERAL, STATE AND MUNICIPAL LAWS AND ORDINANCES.**
7) Not alter, without the express written consent of the MDOT, any culverts, drainage patterns or swales within MDOT right-of-way.
8) File a copy of the approved driveway/entrance permit with the affected municipality or LURC, as appropriate, within 5 business days of receiving the MDOT approval.
9) Shall construct and maintain the entrance side slopes to be no steeper than the adjacent roadway side slopes, but in no case to be steeper than 3 horizontal to 1 vertical, unless the side slope is behind existing roadway guardrail, in which case it shall be no steeper than 2 horizontal to 1 vertical.
10) Notify the MeDOT(in writing) of a proposed change to use served by driveway/entrance when increase in traffic flow is expected to occur. This does not exempt the need for obtaining a Traffic Movement Permit (TMP) if trip generation meets or exceeds 100 passenger car equivalents (pce) during the peak hour of the day.

FURTHER CONDITION OF THE PERMIT:

The owner shall assume the defense of, and pay all damages, fines, and penalties for which he/she shall become liable, and shall indemnify and safe harmless said Department, its representatives, agents and employees from liability, actions against all suite, claims, damages for wrongful death, personal injuries or property damage suffered by any person or association which results from the willful or negligent action or inaction of the owner/applicant/agent and in proceedings of every kind arising out of the construction and maintenance of said entrance(s), including snow removal. Nothing herein shall, nor is intended to, waive and defense, immunity or limitation of liability which may be available to the MDOT, their officers, agents or employees under the Maine Tort Claims Act or any other privileges and/or immunities provided by law.

The submission of false or misleading statements on or with this application, or the omission of information necessary to prevent statements submitted herein or herewith from being misleading, is a crime punishable under Chapter 19 of the Maine Criminal Code, and any permit issued in reliance thereon will be considered null and void without notice or further action by the Department.

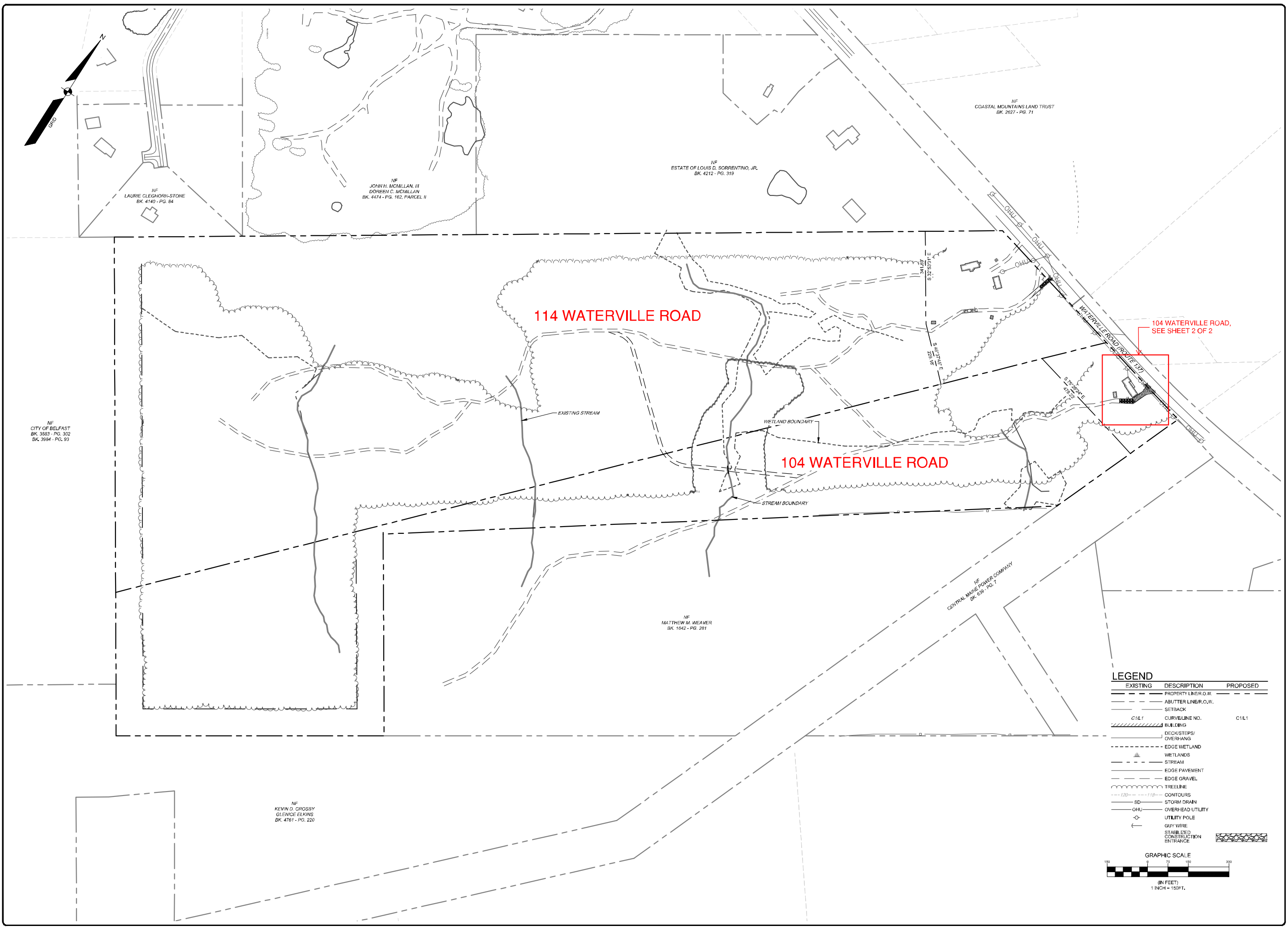
Date Filed: ______________________

Daniel Tibert

Signature of Owner

Signature of Applicant James R. Seymour

☑ **By signing and checking this box I hereby certify that I have been granted permission from the property owner to act in their behalf.**


N
GRID
NF
LAURIE CLEGHORN-STONE
BK. 4140 - PG. 84
NF
JOHN H. MCMILLAN, III
DOREEN C. MCMILLAN
BK. 4474 - PG. 162, PARCEL II
NF
ESTATE OF LOUIS D. SORRENTINO, JR.
BK. 4212 - PG. 319
NF
COASTAL MOUNTAINS LAND TRUST
BK. 2627 - PG. 71
OHU
114 WATERVILLE ROAD
341.69'
S 32°53'31" E
S 46°37'45" E
229.18'
WATERVILLE ROAD (ROUTE 137)
104 WATERVILLE ROAD,
SEE SHEET 2 OF 2
S 75°26'24" E
478.23'
NF
CITY OF BELFAST
BK. 3883 - PG. 302
BK. 3984 - PG. 93
EXISTING STREAM
WETLAND BOUNDARY
104 WATERVILLE ROAD
STREAM BOUNDARY
NF
CENTRAL MAINE POWER COMPANY
BK. 639 - PG. 7
NF
MATTHEW M. WEAVER
BK. 1642 - PG. 281
NF
KEVIN D. CROSBY
GLENICE ELKINS
BK. 4761 - PG. 220

LEGEND

EXISTING	DESCRIPTION	PROPOSED
— — — —	PROPERTY LINE/R.O.W.	— — — —
— — — —	ABUTTER LINE/R.O.W.	
—— ——	SETBACK	
C1/L1	CURVE/LINE NO.	C1/L1
▨	BUILDING	
⌐	DECK/STEPS/ OVERHANG	
- - - - -	EDGE WETLAND	
⩊	WETLANDS	
— - - —	STREAM	
———	EDGE PAVEMENT	
— — —	EDGE GRAVEL	
⌒⌒⌒⌒	TREELINE	
---120-- ---118--	CONTOURS	
——SD——	STORM DRAIN	
——OHU——	OVERHEAD UTILITY	
-○-	UTILITY POLE	
⟵	GUY WIRE	
	STABILIZED CONSTRUCTION ENTRANCE	▨

GRAPHIC SCALE

150 0 75 150 300

(IN FEET)
1 INCH = 150FT.

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240078 S.dwg, TAB:MDOT Exhibit-1

REV:	BY:	DATE:	STATUS:

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114 WATERVILLE ROAD
BELFAST, MAINE
FOR:
ROCKPORT GRANITE, INC.
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ROCKPORT, MAINE 04856

DESIGNED	DJS
DRAWN	CJC
CHECKED	JRS
DATE	06-04-2024
SCALE	1" = 150'
PROJECT	240078

SHEET 1 OF 2

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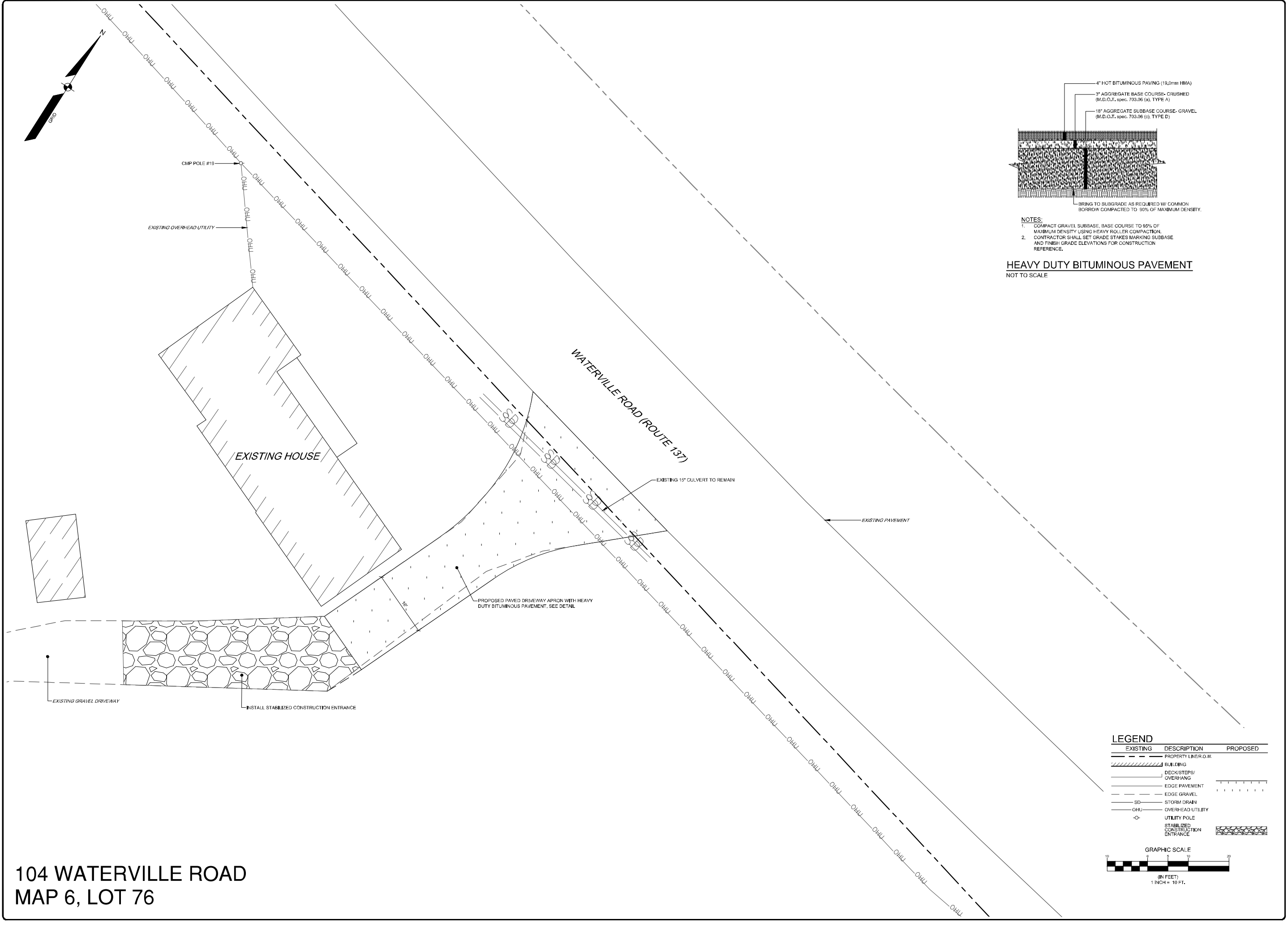
N
GRID
CMP POLE #15
EXISTING OVERHEAD UTILITY
OHU
SD
EXISTING HOUSE
WATERVILLE ROAD (ROUTE 137)
EXISTING 15" CULVERT TO REMAIN
EXISTING PAVEMENT
PROPOSED PAVED DRIVEWAY APRON WITH HEAVY DUTY BITUMINOUS PAVEMENT, SEE DETAIL
EXISTING GRAVEL DRIVEWAY
INSTALL STABILIZED CONSTRUCTION ENTRANCE
4" HOT BITUMINOUS PAVING (19.0mm HMA)
3" AGGREGATE BASE COURSE- CRUSHED (M.D.O.T. spec. 703.06 (a), TYPE A)
18" AGGREGATE SUBBASE COURSE- GRAVEL (M.D.O.T. spec. 703.06 (c), TYPE D)
BRING TO SUBGRADE AS REQUIRED W/ COMMON BORROW COMPACTED TO 90% OF MAXIMUM DENSITY.

NOTES:
1. COMPACT GRAVEL SUBBASE, BASE COURSE TO 95% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

HEAVY DUTY BITUMINOUS PAVEMENT

NOT TO SCALE

LEGEND

EXISTING	DESCRIPTION	PROPOSED
— — —	PROPERTY LINE/R.O.W.	
▨	BUILDING	
——	DECK/STEPS/ OVERHANG	
——	EDGE PAVEMENT	⊥⊥⊥
— — —	EDGE GRAVEL	' ' ' '
——SD——	STORM DRAIN	
——OHU——	OVERHEAD UTILITY	
-○-	UTILITY POLE	
	STABILIZED CONSTRUCTION ENTRANCE	▨

GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
1 INCH = 10 FT.

104 WATERVILLE ROAD
MAP 6, LOT 76

240078 S.dwg, TAB:MDOT Exhibit-2

REV:	BY:	DATE:	STATUS:

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75 John Roberts Rd, Suite 4A
South Portland, ME 04106
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South Portland, Bridgton, Sanford and Bath

DRIVEWAY ENTRANCE PLAN
OF:
ROCKPORT GRANITE BELFAST
114 WATERVILLE ROAD
BELFAST, MAINE
FOR:
ROCKPORT GRANITE, INC.
465 WEST STREET, PO BOX 1140
ROCKPORT, MAINE 04856

DESIGNED	DJS
DRAWN	CJC
CHECKED	JRS
DATE	06-04-2024
SCALE	1" = 10'
PROJECT	240078

SHEET 2 OF 2

2.3

2.3

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Permit-by-Rule & Notice of Intent Review Form

Natural Resources Protection Act	**PBR #** 80813
Stormwater Management Law	**PBR #**
Maine Construction General Permit	**NOI #**

Applicant: Rockport Granite, Inc.
Project Address: Waterville Road
Town: Belfast
Tax Map/Lot #: 006-076 & 077

NRPA PBR Sections – Ch. 305

- ☑ Sec. 2 Act. Adj. to Prot. Natural Res.
- ☐ Sec. 3 Intake Pipes
- ☐ Sec. 4 Replacement of Structures
- ☐ Sec. 6 Movement of Rocks or Veg.
- ☐ Sec. 7 Outfall Pipes
- ☐ Sec. 8 Shoreline Stabilization
- ☐ Sec. 9 Utility Crossing
- ☑ Sec. 10 Stream Crossing
- ☐ Sec. 11 State Transport. Facilities
- ☐ Sec. 12 Restoration Natural Areas
- ☐ Sec. 13 F&W Creat./Water Quality
- ☐ Sec. 15 Public Boat Ramps
- ☐ Sec. 16 Coastal Sand Dune Project
- ☐ Sec. 17 Transfer/Permit Extension
- ☐ Sec. 18 Maintenance Dredging
- ☐ Sec. 19 Act. Near SVP Habitat
- ☐ Sec. 20 Act. Near Waterfowl/Bird Habitat

Notes:
Permit accepted as presented, Department staff may inspect the site for compliance upon completion.

Reviewer:	**Deficient Date:**	☐ **NRPA**	☐ **SW**	☐ **NOI**
Reviewer: Karen McNeil	**Accepted Date:** 10/01/2024	☑ **NRPA**	☐ **SW**	☐ **NOI**

Rev. 1/28/2021

DEPARTMENT OF ENVIRONMENTAL PROTECTION
PERMIT BY RULE NOTIFICATION FORM

(For use with DEP Regulation, Natural Resources Protection Act - Permit by Rule Standards, Chapter 305)

APPLICANT INFORMATION (Owner)		AGENT INFORMATION (If Applying on Behalf of Owner)	
Name:	Rockport Granite, Inc.	Name:	Sebago Technics, Inc.
Mailing Address:	465 West Street	Mailing Address:	75 John Roberts Road, Suite 4A
Mailing Address:	PO Box 1140	Mailing Address:	
Town/State/Zip:	Rockport, Maine 04856	Town/State/Zip:	South Portland, Maine 04106
Daytime Phone #:	(207) 230-7325 Ext:	Daytime Phone #:	(207) 200-2083 Ext:
Email Address:	jcarle@rockportgraniteinc.com	Email Address:	jseymour@sebagotechnics.com

PROJECT INFORMATION

Part of a larger project? (check 1):	☐ Yes ■ No	After the Fact? (check 1):	☐ Yes ■ No	Project involves work below mean low water? (check 1):	☐ Yes ■ No	Name of waterbody:	Unnamed Intermittent Stream
Project Town:	Belfast	Town Email Address:	Bub Fournier, directorplanning@cityofbelfast.org			Map and Lot Number:	006-076 & 077
Brief Project Description:	Temporary stream crossings for MDEP approved rock extraction, Stream crossings are required to access rock for extraction and removal by truck for processing at Rockport Granite's facility in Rockport, Maine.						
Project Location & Brief Directions to Site:	From I-95 North, take Exit 113 at Augusta to Route 3. Follow Route 3 to Belfast approximately 40 miles, turn left onto Waterville Road (Route 7/137) for approximately one mile. Site is accessed via driveway on left.						

PERMIT BY RULE (PBR) SECTIONS (Check at least one): I am filing notice of my intent to carry out work that meets the requirements for Permit-by-Rule (PBR) under DEP Rules, Chapter 305. I and my agent(s), if any, have read and will comply with all of the standards in the Sections checked below.

- ■ **Sec. (2) Act. Adj. to Prot. Natural Res.**
- ☐ **Sec. (3) Intake Pipes**
- ☐ **Sec. (4) Replacement of Structures**
- ☐ **Sec. (6) Movement of Rocks or Veg.**
- ☐ **Sec. (7) Outfall Pipes**
- ☐ **Sec. (8) Shoreline Stabilization**
- ☐ **Sec. (9) Utility Crossing**
- ■ **Sec. (10) Stream Crossing**
- ☐ **Sec. (11) State Transportation Facilities**
- ☐ **Sec. (12) Restoration of Natural Areas**
- ☐ **Sec. (13) F&W Creat./Water Qual. Improv.**
- ☐ **Sec. (15) Public Boat Ramps**
- ☐ **Sec. (16) Coastal Sand Dune Projects**
- ☐ **Sec. (16-A) Beach Nourishment**
- ☐ **Sec. (17) Transfer/Permit Extension**
- ☐ **Sec. (18) Maintenance Dredging**
- ☐ **Sec. (19) Act. Near SVP Habitat**
- ☐ **Sec. (20) Act. Near Waterfowl/Bird Habitat**

NOTE: Municipal permits also *may* be required. Contact your local code enforcement office for information. Federal permits may be required for stream crossings and for projects involving wetland fill. Contact the Army Corps of Engineers at the Maine Project Office for information.

NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS AND FEE

- ■ ***Attach* all required submissions for the PBR Section(s) checked above. The required submissions for each PBR Section are outlined in Chapter 305 and may differ depending on the Section you are submitting under.**
- ■ ***Attach* a location map that clearly identifies the site (U.S.G.S. topo map, Maine Atlas & Gazetteer, or similar).**
- ■ ***Attach Proof of Legal Name* if applicant is a corporation, LLC, or other legal entity. Provide a copy of Secretary of State's *registration information* (available at http://icrs.informe.org/nei-sos-icrs/ICRS?MainPage=x). Individuals and municipalities are not required to provide any proof of identity.**

FEE: Pay by credit card at the Payment Portal. The Permit-by-Rule fee may be found here https://www.maine.gov/dep/feeschedule.pdf and is currently $307.

- ■ ***Attach* payment confirmation from the Payment Portal when filing this notification form.**

Signature & Certification:

- I authorize staff of the Departments of Environmental Protection, Inland Fisheries & Wildlife, and Marine Resources to access the project site for the purpose of determining compliance with the rules.
- I understand that this PBR becomes effective 14 calendar days after receipt by the Department of this completed form, the required submissions, and fee, *unless the Department approves or denies the PBR prior to that date.*

By signing this Notification Form, I represent that the project meets all applicability requirements and standards in Chapter 305 rule and that the applicant has sufficient title, right, or interest in the property where the activity takes place.

Signature of Agent or Applicant (may be typed):	James R. Seymour	**Date:**	September 27, 2024

***Keep a copy as a record of permit*.** Email this completed form with attachments to DEP at: DEP.PBRNotification@maine.gov. DEP will send a copy to the Town Office as evidence of DEP's receipt of notification. No further authorization will be issued by DEP after receipt of notice. A PBR is valid for two years, except Section 4, "Replacement of Structures," are valid for three years. **Work carried out in violation of the Natural Resources Protection Act or any provision in Chapter 305 is subject to enforcement.**

AGENT AUTHORIZATION

APPLICANT/ OWNER	**Name**	Rockport Granite, Inc. c/o Josh Carle		Belfast
PROPERTY DESCRIPTION	**Physical Address**	P.O. Box 1140 ← mailing Rockport, ME 04856 physical 465 West St Rockport	**Map**	6
			Lot	77
APPLICANT'S AGENT INFORMATION	**Name**	James Seymour, P.E.		
	Phone	(207) 200-2083	**Business Name & Mailing Address**	Sebago Technics, Inc. 75 John Roberts Road, Suite 4A South Portland, ME 04106

9.11.24

APPLICANT SIGNATURE DATE

James R. Seymour 9/11/2024

APPLICANT'S AGENT SIGNATURE DATE

James Seymour, P.E., Sebago Technics, Inc.

Table of Contents

Section 1: Corporate Status
Section 2: Site Location Map
Section 3: Narrative
Section 4: Site Photographs

Appended Plan Set:

Existing Conditions Boundary Survey – Sht. 1 of 1
Stream Crossing Exhibit – Sht. 1 of 1
Overall Site Plan – Sht. C-100, Rev. A
Erosion Control Notes, Sht. C-500, Rev. A
Details, Sht. C-501, Rev. A

Section 1

Corporate Status

MAINE
Department of the Secretary of State
Bureau of Corporations, Elections and Commissions

Corporate Name Search

Information Summary

Subscriber activity report

This record contains information from the CEC database and is accurate as of: Mon Jun 03 2024 09:29:14. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
ROCKPORT GRANITE INC.	20120539 D	BUSINESS CORPORATION	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
01/05/2012	N/A	MAINE

Other Names	(A=Assumed ; F=Former)
NONE	

Principal Home Office Address

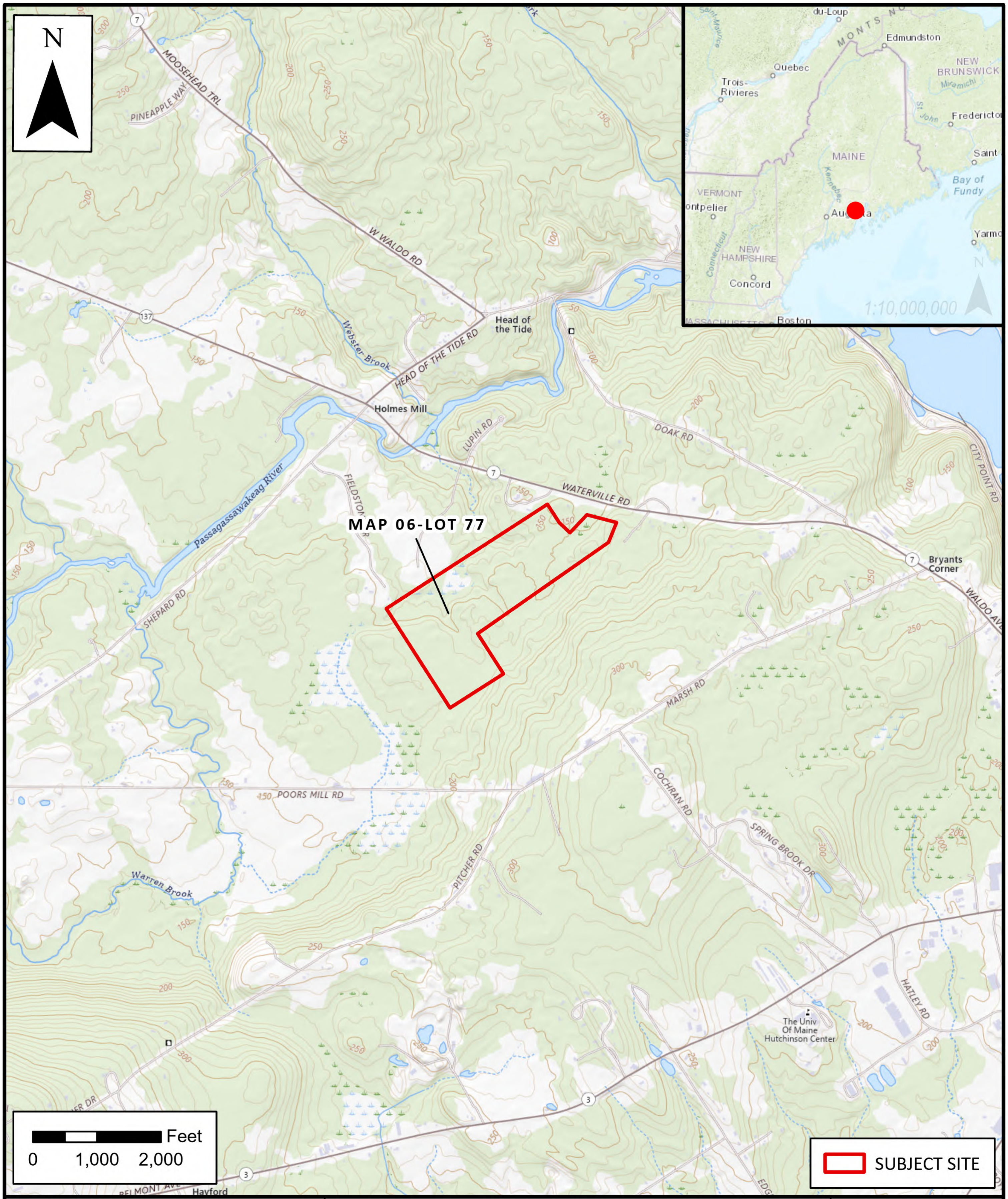
Physical	Mailing
465 WEST STREET ROCKPORT, ME 04856	P.O. BOX 1140 ROCKPORT, ME 04856

Clerk/Registered Agent

Physical	Mailing
CHRISTOPHER R. SMITH ONE PORTLAND SQUARE PORTLAND, ME 04112	CHRISTOPHER R. SMITH P.O. BOX 586 PORTLAND, ME 04112-0586

Section 2

Site Location Map


N
MAP 06-LOT 77
MOOSEHEAD TRL
PINEAPPLE WAY
W WALDO RD
Webster Brook
HEAD OF THE TIDE RD
Head of the Tide
Holmes Mill
Passagassawakeag River
FIELDSTONE
LUPIN RD
WATERVILLE RD
DOAK RD
CITY POINT RD
Bryants Corner
WALDO AVE
SHEPARD RD
MARSH RD
POORS MILL RD
COCHRAN RD
SPRING BROOK DR
PITCHER RD
Warren Brook
HATLEY RD
The Univ Of Maine Hutchinson Center
BELMONT AVE
Hayford
du-Loup
Edmundston
Quebec
Trois-Rivieres
NEW BRUNSWICK
Fredericton
Saint
MAINE
Bay of Fundy
VERMONT
Montpelier
Augusta
Yarmo
NEW HAMPSHIRE
Concord
Boston
1:10,000,000
Feet
0
1,000
2,000
SUBJECT SITE

SEBAGO
TECHNICS

WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. - Suite 4A
South Portland, ME 04106
Tel. 207-200-2100

LOCATION MAP

ROCKPORT GRANITE BELFAST

SCALE: 1:24,000

DATE: 9/5/2024

LOCATION:
WATERVILLE RD
BELFAST, ME

INFORMATION:
MAINE GEOLIBRARY
USGS QUADRANGLE

Section 3

Narrative

Exhibit 3: Narrative

This application is part of a site plan review/approval required for the rock extraction proposed by Rockport Granite, Inc. on Waterville Road (Route 137) in Belfast. The portion of the overall project site to be reviewed by this application is at 104 and 114 Waterville Road for a NRPA PBR, Section 2 – Activities Adjacent to Protected Natural Resources and Section 10 – Stream Crossing and includes the placement of (1) 25' length x 18" diameter culvert embedded 6" in the substrate. This crossing allows temporary access to the work areas proposed for rock extraction. Reference is made to the appended site plans and details, enclosed in this application.

Utilizing the upland area for rock extraction is not possible without crossing the stream. While it makes sense to avoid environmentally sensitive areas altogether, the portion of the site located southwesterly of the proposed crossing location offers the necessary upland acreage that will meet the operational needs of the applicant. In an effort to limit impact, wetland areas on site will remain unchanged. No submerged or overhead utilities are proposed as part of this project.

We note that in addition to the proposed stream crossing, the project site includes five other stream crossing locations that were previously designed and approved under PBR Permit #78438. Reference to the previous Permit-By-Rule number and location of the stream crossings is called out on the attached Sheet C-100.

The proposed stream crossing will be constructed in the location shown on the enclosed site plans and the work will be performed in accordance with the notes shown on the plans. The enclosed erosion and control notes meet the PBR 10.C.1 standards for erosion and sedimentation control.

Section 4

Site Photographs

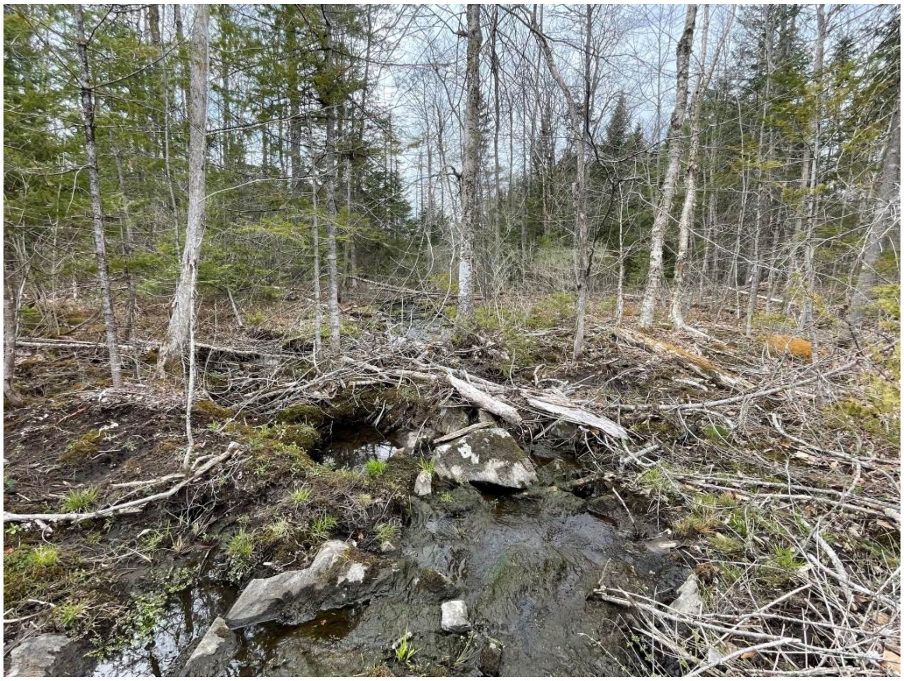


Photo 1: Unnamed Stream facing northwest.

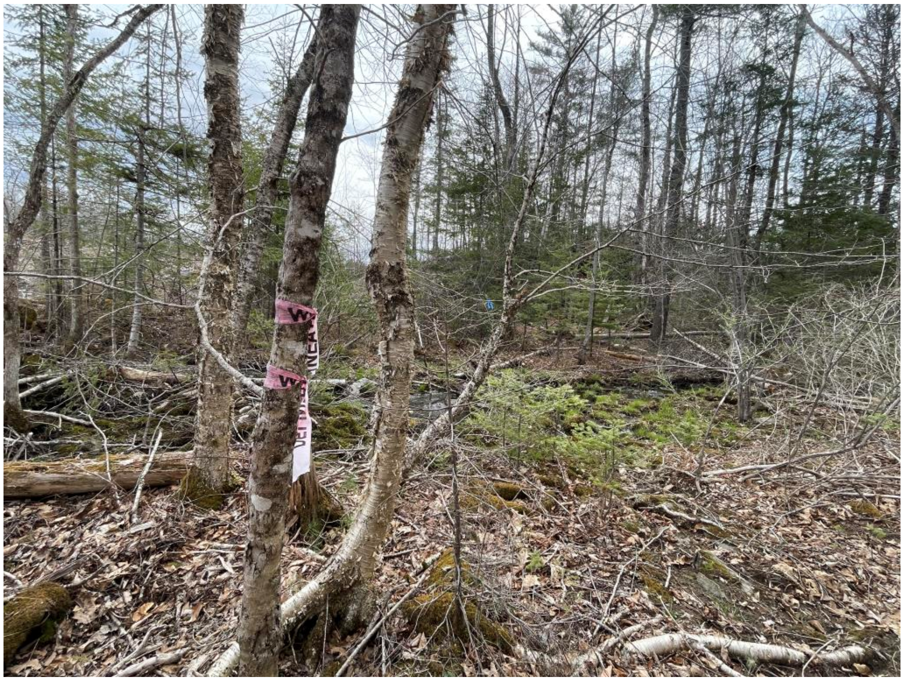
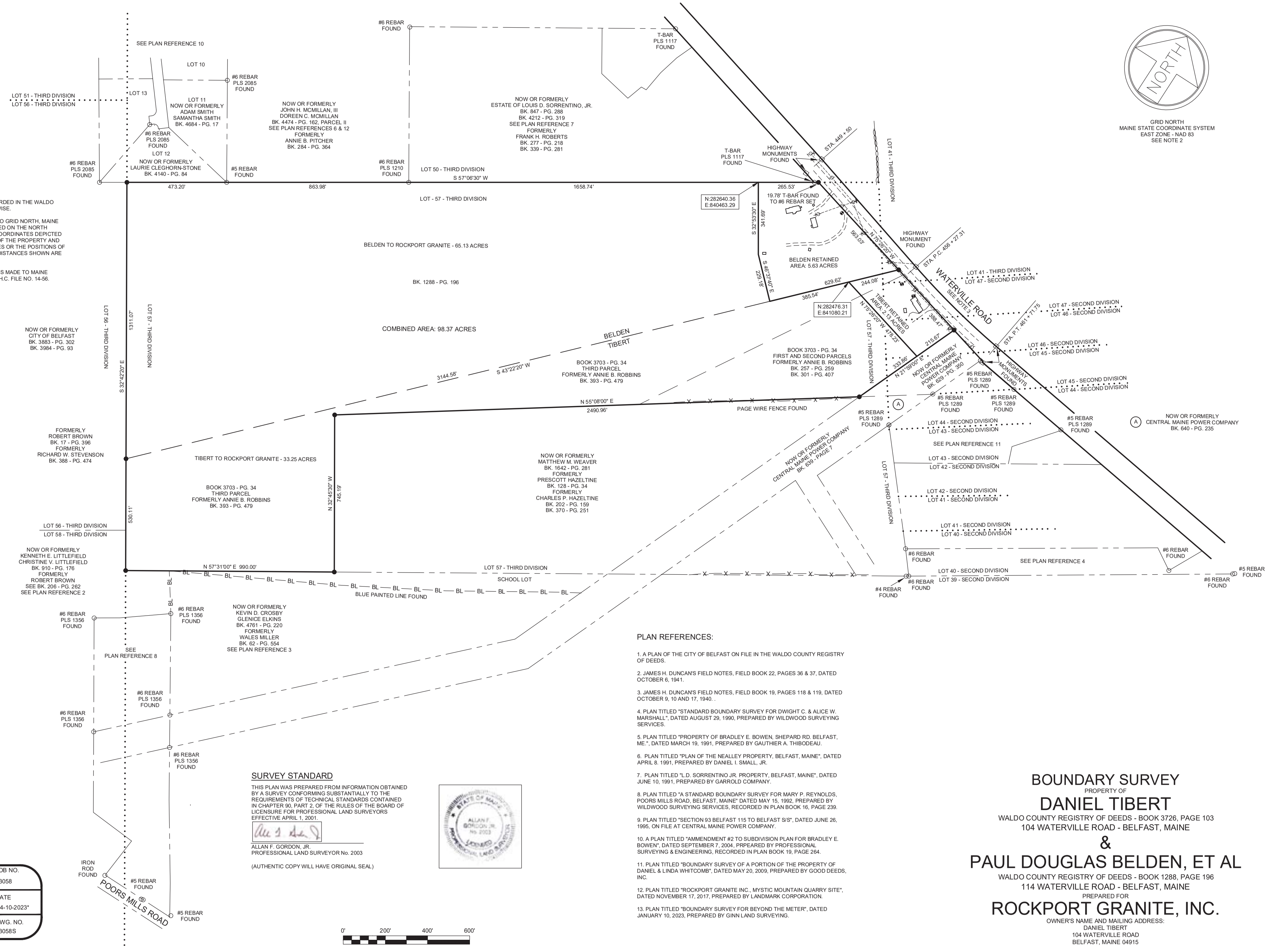


Photo 2: Edge of wetland area facing northwest.


GRID NORTH
MAINE STATE COORDINATE SYSTEM
EAST ZONE - NAD 83
SEE NOTE 2
NORTH
SEE PLAN REFERENCE 10
LOT 10
LOT 13
LOT 51 - THIRD DIVISION
LOT 56 - THIRD DIVISION
#6 REBAR PLS 2085 FOUND
LOT 11
NOW OR FORMERLY
ADAM SMITH
SAMANTHA SMITH
BK. 4684 - PG. 17
#6 REBAR PLS 2085 FOUND
LOT 12
NOW OR FORMERLY
LAURIE CLEGHORN-STONE
BK. 4140 - PG. 84
#6 REBAR PLS 2085 FOUND
#5 REBAR FOUND
NOW OR FORMERLY
JOHN H. MCMILLAN, III
DOREEN C. MCMILLAN
BK. 4474 - PG. 162, PARCEL II
SEE PLAN REFERENCES 6 & 12
FORMERLY
ANNIE B. PITCHER
BK. 284 - PG. 364
#6 REBAR FOUND
#6 REBAR PLS 1210 FOUND
NOW OR FORMERLY
ESTATE OF LOUIS D. SORRENTINO, JR.
BK. 847 - PG. 288
BK. 4212 - PG. 319
SEE PLAN REFERENCE 7
FORMERLY
FRANK H. ROBERTS
BK. 277 - PG. 218
BK. 339 - PG. 281
T-BAR PLS 1117 FOUND
LOT 50 - THIRD DIVISION
S 57°06'30" W
473.20'
863.98'
1658.74'
LOT - 57 - THIRD DIVISION
T-BAR PLS 1117 FOUND
HIGHWAY MONUMENTS FOUND
STA. 449 + 50
LOT 41 - THIRD DIVISION
265.53'
19.78' T-BAR FOUND TO #6 REBAR SET
N:282640.36
E:840463.29
S 32°53'30" E
341.69'
S 46°37'40" E
229.18'
563.03'
N 75°26'20" W
HIGHWAY MONUMENT FOUND
STA. P.C. 456 + 27.31
WATERVILLE ROAD
SEE NOTE 3
BELDEN RETAINED
AREA: 5.63 ACRES
629.62'
244.08'
385.54'
N:282476.31
E:841080.21
TIBERT RETAINED
AREA: 2.13 ACRES
N 75°26'20" W 478.23'
388.47'
215.67'
333.86'
N 21°59'00" E
LOT 41 - THIRD DIVISION
LOT 47 - SECOND DIVISION
STA. P.T. 461 + 71.75
LOT 47 - SECOND DIVISION
LOT 46 - SECOND DIVISION
LOT 46 - SECOND DIVISION
LOT 45 - SECOND DIVISION
HIGHWAY MONUMENTS FOUND
LOT 45 - SECOND DIVISION
LOT 44 - SECOND DIVISION
NOW OR FORMERLY
CENTRAL MAINE
POWER COMPANY
BK. 629 - PG. 350
#5 REBAR PLS 1289 FOUND
#5 REBAR PLS 1289 FOUND
#5 REBAR PLS 1289 FOUND
#5 REBAR PLS 1289 FOUND
#5 REBAR PLS 1289 FOUND
A
A
NOW OR FORMERLY
CENTRAL MAINE POWER COMPANY
BK. 640 - PG. 235
LOT 44 - SECOND DIVISION
LOT 43 - SECOND DIVISION
SEE PLAN REFERENCE 11
LOT 43 - SECOND DIVISION
LOT 42 - SECOND DIVISION
LOT 42 - SECOND DIVISION
LOT 41 - SECOND DIVISION
LOT 41 - SECOND DIVISION
LOT 40 - SECOND DIVISION
LOT 57 - THIRD DIVISION
#6 REBAR FOUND
#6 REBAR FOUND
SEE PLAN REFERENCE 4
LOT 40 - SECOND DIVISION
LOT 39 - SECOND DIVISION
#4 REBAR FOUND
#6 REBAR FOUND
#6 REBAR FOUND
#5 REBAR FOUND
BELDEN TO ROCKPORT GRANITE - 65.13 ACRES
BK. 1288 - PG. 196
COMBINED AREA: 98.37 ACRES
BELDEN
TIBERT
3144.58'
S 43°22'20" W
BOOK 3703 - PG. 34
FIRST AND SECOND PARCELS
FORMERLY ANNIE B. ROBBINS
BK. 257 - PG. 259
BK. 301 - PG. 407
BOOK 3703 - PG. 34
THIRD PARCEL
FORMERLY ANNIE B. ROBBINS
BK. 393 - PG. 479
LOT 57 - THIRD DIVISION
N 55°08'00" E
2490.96'
PAGE WIRE FENCE FOUND
NOW OR FORMERLY
CENTRAL MAINE POWER COMPANY
BK. 639 - PAGE 7
NOW OR FORMERLY
CITY OF BELFAST
BK. 3883 - PG. 302
BK. 3984 - PG. 93
LOT 56 - THIRD DIVISION
1311.07'
S 32°42'20" E
LOT 57 - THIRD DIVISION
FORMERLY
ROBERT BROWN
BK. 17 - PG. 396
FORMERLY
RICHARD W. STEVENSON
BK. 388 - PG. 474
TIBERT TO ROCKPORT GRANITE - 33.25 ACRES
BOOK 3703 - PG. 34
THIRD PARCEL
FORMERLY ANNIE B. ROBBINS
BK. 393 - PG. 479
N 32°45'30" W
745.19'
NOW OR FORMERLY
MATTHEW M. WEAVER
BK. 1642 - PG. 281
FORMERLY
PRESCOTT HAZELTINE
BK. 128 - PG. 34
FORMERLY
CHARLES P. HAZELTINE
BK. 202 - PG. 159
BK. 370 - PG. 251
530.11'
LOT 56 - THIRD DIVISION
LOT 58 - THIRD DIVISION
NOW OR FORMERLY
KENNETH E. LITTLEFIELD
CHRISTINE V. LITTLEFIELD
BK. 910 - PG. 176
FORMERLY
ROBERT BROWN
SEE BK. 206 - PG. 262
SEE PLAN REFERENCE 2
N 57°31'00" E 990.00'
LOT 57 - THIRD DIVISION
SCHOOL LOT
BL
BLUE PAINTED LINE FOUND
#6 REBAR PLS 1356 FOUND
#6 REBAR PLS 1356 FOUND
NOW OR FORMERLY
KEVIN D. CROSBY
GLENICE ELKINS
BK. 4761 - PG. 220
FORMERLY
WALES MILLER
BK. 62 - PG. 554
SEE PLAN REFERENCE 3
SEE
PLAN REFERENCE 8
#6 REBAR PLS 1356 FOUND
#6 REBAR PLS 1356 FOUND
#6 REBAR PLS 1356 FOUND
IRON ROD FOUND
#5 REBAR FOUND
POORS MILLS ROAD
#5 REBAR FOUND
0'
200'
400'
600'

NOTES:

1. DOCUMENTS REFERENCED ON THIS PLAN ARE RECORDED IN THE WALDO COUNTY REGISTRY OF DEEDS UNLESS NOTED OTHERWISE.

2. BEARINGS DEPICTED ON THIS PLAN ARE ORIENTED TO GRID NORTH, MAINE STATE COORDINATE SYSTEM OF 1983, EAST ZONE BASED ON THE NORTH AMERICAN DATUM OF 1983 (2011) (EPOCH 2010.0000). COORDINATES DEPICTED ON THIS PLAN ARE PROVIDED AS AN AID IN LOCATION OF THE PROPERTY AND ARE NOT INTENDED TO CONTROL BEARINGS, DISTANCES OR THE POSITIONS OF MONUMENTS DEFINING THE PROPERTY BOUNDARIES. DISTANCES SHOWN ARE GRID DISTANCES.

3. FOR DEFINITION OF WATERVILLE ROAD REFERENCE IS MADE TO MAINE SATATE HIGHWAY COMMISSION RIGHT OF WAY MAP, S.H.C. FILE NO. 14-56. DATED APRIL, 1952 SHEETS 3 & 4 OF 5.

LEGEND

These standard symbols will be found in the drawing.

□ WOOD POST
⊥ ANGLE IRON
○ IRON ROD OR PIPE
⊗ AXLE
⌀ UTILITY POLE
+ ANCHOR
● #6 X 48" REBAR WITH IDENTIFYING CAP SET
⊕ WELL/SPRING
- - - - - - - OVERHEAD WIRES
-○○○○- STONE WALL

PLAN REFERENCES:

1. A PLAN OF THE CITY OF BELFAST ON FILE IN THE WALDO COUNTY REGISTRY OF DEEDS.

2. JAMES H. DUNCAN'S FIELD NOTES, FIELD BOOK 22, PAGES 36 & 37, DATED OCTOBER 6, 1941.

3. JAMES H. DUNCAN'S FIELD NOTES, FIELD BOOK 19, PAGES 118 & 119, DATED OCTOBER 9, 10 AND 17, 1940. .

4. PLAN TITLED "STANDARD BOUNDARY SURVEY FOR DWIGHT C. & ALICE W. MARSHALL", DATED AUGUST 29, 1990, PREPARED BY WILDWOOD SURVEYING SERVICES.

5. PLAN TITLED "PROPERTY OF BRADLEY E. BOWEN, SHEPARD RD. BELFAST, ME.", DATED MARCH 19, 1991, PREPARED BY GAUTHIER A. THIBODEAU.

6. PLAN TITLED "PLAN OF THE NEALLEY PROPERTY, BELFAST, MAINE", DATED APRIL 8. 1991, PREPARED BY DANIEL I. SMALL, JR.

7. PLAN TITLED "L.D. SORRENTINO JR. PROPERTY, BELFAST, MAINE", DATED JUNE 10, 1991, PREPARED BY GARROLD COMPANY.

8. PLAN TITLED "A STANDARD BOUNDARY SURVEY FOR MARY P. REYNOLDS, POORS MILLS ROAD, BELFAST, MAINE" DATED MAY 15, 1992, PREPARED BY WILDWOOD SURVEYING SERVICES, RECORDED IN PLAN BOOK 16, PAGE 239.

9. PLAN TITLED "SECTION 93 BELFAST 115 TO BELFAST S/S", DATED JUNE 26, 1995, ON FILE AT CENTRAL MAINE POWER COMPANY.

10. A PLAN TITLED "AMMENDMENT #2 TO SUBDIVISION PLAN FOR BRADLEY E. BOWEN", DATED SEPTEMBER 7, 2004, PRPEARED BY PROFESSIONAL SURVEYING & ENGINEERING, RECORDED IN PLAN BOOK 19, PAGE 264.

11. PLAN TITLED "BOUNDARY SURVEY OF A PORTION OF THE PROPERTY OF DANIEL & LINDA WHITCOMB", DATED MAY 20, 2009, PREPARED BY GOOD DEEDS, INC.

12. PLAN TITLED "ROCKPORT GRANITE INC., MYSTIC MOUNTAIN QUARRY SITE", DATED NOVEMBER 17, 2017, PREPARED BY LANDMARK CORPORATION.

13. PLAN TITLED "BOUNDARY SURVEY FOR BEYOND THE METER", DATED JANUARY 10, 2023, PREPARED BY GINN LAND SURVEYING.

SURVEY STANDARD

THIS PLAN WAS PREPARED FROM INFORMATION OBTAINED BY A SURVEY CONFORMING SUBSTANTIALLY TO THE REQUIREMENTS OF TECHNICAL STANDARDS CONTAINED IN CHAPTER 90, PART 2, OF THE RULES OF THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS EFFECTIVE APRIL 1, 2001.

ALLAN F. GORDON, JR.
PROFESSIONAL LAND SURVEYOR No. 2003

(AUTHENTIC COPY WILL HAVE ORIGINAL SEAL)

ALLAN F. GORDON JR. No. 2003

BOUNDARY SURVEY

PROPERTY OF

DANIEL TIBERT

WALDO COUNTY REGISTRY OF DEEDS - BOOK 3726, PAGE 103
104 WATERVILLE ROAD - BELFAST, MAINE

&

PAUL DOUGLAS BELDEN, ET AL

WALDO COUNTY REGISTRY OF DEEDS - BOOK 1288, PAGE 196
114 WATERVILLE ROAD - BELFAST, MAINE
PREPARED FOR

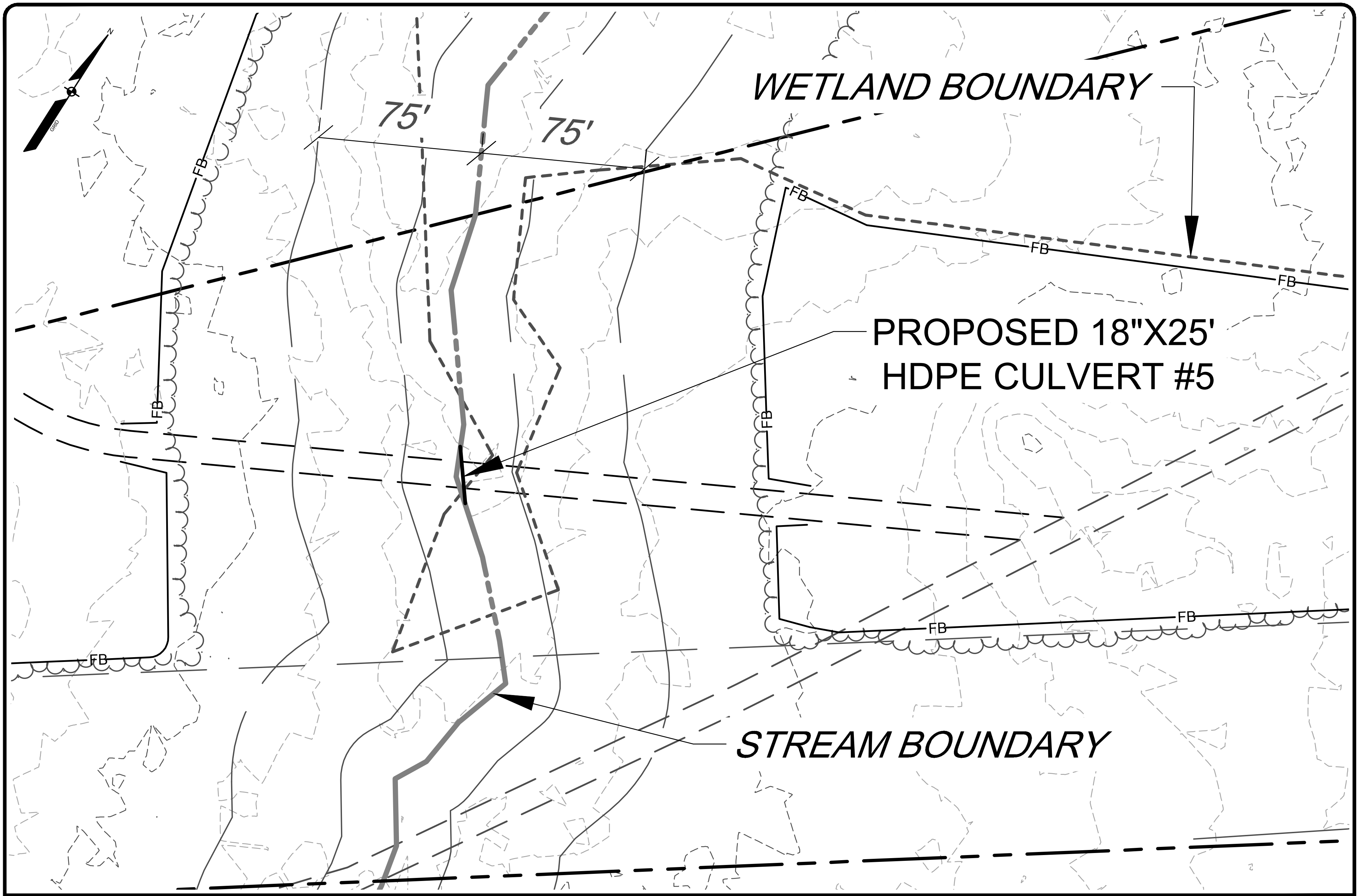
ROCKPORT GRANITE, INC.

OWNER'S NAME AND MAILING ADDRESS:
DANIEL TIBERT
104 WATERVILLE ROAD
BELFAST, MAINE 04915

GOOD DEEDS
LAND SURVEYING • DEED RESEARCH
109 MAIN STREET
BELFAST, ME 04915
(207) 338-5743

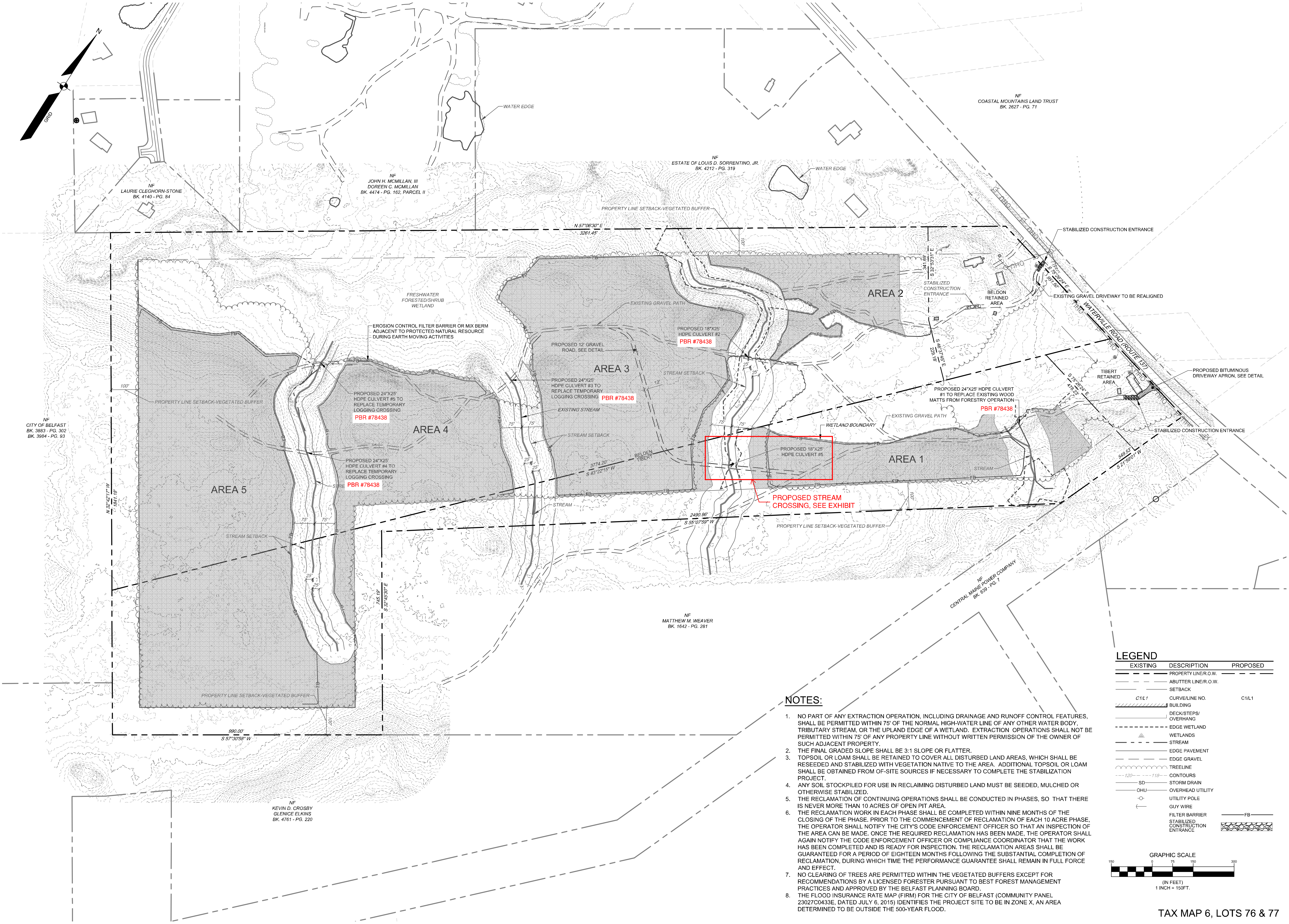
JOB NO.	23058
DATE	04-10-2023*
DWG. NO.	23058S

AMENDED 06-2- 2023* COMBINED AREA


WETLAND BOUNDARY
PROPOSED 18"X25'
HDPE CULVERT #5
STREAM BOUNDARY
75'
75'
FB
GRID
N

SEBAGO TECHNICS WWW.SEBAGOTECHNICS.COM 75 John Roberts Rd., Suite 4A South Portland, ME 04106 Tel. 207-200-2100	PERMIT BY RULE EXHIBIT ROCKPORT GRANITE	SCALE: 1" = 60' DATE: 09-19-2024
	LOCATION: 104/114 WATERVILLE ROAD BELFAST, MAINE	FOR: ROCKPORT GRANITE, INC. PO BOX 1140, ROCKPORT, MAINE
		SHEET: 1 OF 1

240078 S.dwg, TAB:PBR Exhibit


N
GRID
WATER EDGE
NF
LAURIE CLEGHORN-STONE
BK. 4140 - PG. 84
NF
JOHN H. MCMILLAN, III
DOREEN C. MCMILLAN
BK. 4474 - PG. 162, PARCEL II
NF
ESTATE OF LOUIS D. SORRENTINO, JR.
BK. 4212 - PG. 319
NF
COASTAL MOUNTAINS LAND TRUST
BK. 2627 - PG. 71
PROPERTY LINE SETBACK-VEGETATED BUFFER
N 57°06'30" E
3261.45'
STABILIZED CONSTRUCTION ENTRANCE
EXISTING GRAVEL DRIVEWAY TO BE REALIGNED
WATERVILLE ROAD (ROUTE 137)
AREA 2
STABILIZED CONSTRUCTION ENTRANCE
BELDON RETAINED AREA
FRESHWATER FORESTED/SHRUB WETLAND
EROSION CONTROL FILTER BARRIER OR MIX BERM ADJACENT TO PROTECTED NATURAL RESOURCE DURING EARTH MOVING ACTIVITIES
EXISTING GRAVEL PATH
PROPOSED 18"X25' HDPE CULVERT #2
PBR #78438
PROPOSED 12' GRAVEL ROAD, SEE DETAIL
AREA 3
STREAM SETBACK
PROPOSED 24"X25' HDPE CULVERT #3 TO REPLACE TEMPORARY LOGGING CROSSING
PBR #78438
EXISTING STREAM
PROPOSED 24"X25' HDPE CULVERT #5 TO REPLACE TEMPORARY LOGGING CROSSING
PBR #78438
AREA 4
PROPOSED 24"X25' HDPE CULVERT #4 TO REPLACE TEMPORARY LOGGING CROSSING
PBR #78438
TIBERT RETAINED AREA
PROPOSED BITUMINOUS DRIVEWAY APRON, SEE DETAIL
PROPOSED 24"X25' HDPE CULVERT #1 TO REPLACE EXISTING WOOD MATTS FROM FORESTRY OPERATION
PBR #78438
EXISTING GRAVEL PATH
WETLAND BOUNDARY
STABILIZED CONSTRUCTION ENTRANCE
PROPOSED 18"X25' HDPE CULVERT #5
AREA 1
STREAM
PROPOSED STREAM CROSSING, SEE EXHIBIT
100'
PROPERTY LINE SETBACK-VEGETATED BUFFER
NF
CITY OF BELFAST
BK. 3883 - PG. 302
BK. 3984 - PG. 93
AREA 5
N 32°42'17" W
1841.18'
STREAM SETBACK
STREAM
BELDEN
TIBERT
3774.20'
S 43°22'15" W
2490.96'
S 55°07'59" W
PROPERTY LINE SETBACK-VEGETATED BUFFER
549.53'
S 21°59'01" W
NF
CENTRAL MAINE POWER COMPANY
BK. 639 - PG. 7
NF
MATTHEW M. WEAVER
BK. 1642 - PG. 281
745.19'
S 32°45'30" E
PROPERTY LINE SETBACK-VEGETATED BUFFER
990.00'
S 57°30'58" W
NF
KEVIN D. CROSBY
GLENICE ELKINS
BK. 4761 - PG. 220
75'
25'

NOTES:

1. NO PART OF ANY EXTRACTION OPERATION, INCLUDING DRAINAGE AND RUNOFF CONTROL FEATURES, SHALL BE PERMITTED WITHIN 75' OF THE NORMAL HIGH-WATER LINE OF ANY OTHER WATER BODY, TRIBUTARY STREAM, OR THE UPLAND EDGE OF A WETLAND. EXTRACTION OPERATIONS SHALL NOT BE PERMITTED WITHIN 75' OF ANY PROPERTY LINE WITHOUT WRITTEN PERMISSION OF THE OWNER OF SUCH ADJACENT PROPERTY.
2. THE FINAL GRADED SLOPE SHALL BE 3:1 SLOPE OR FLATTER.
3. TOPSOIL OR LOAM SHALL BE RETAINED TO COVER ALL DISTURBED LAND AREAS, WHICH SHALL BE RESEEDED AND STABILIZED WITH VEGETATION NATIVE TO THE AREA. ADDITIONAL TOPSOIL OR LOAM SHALL BE OBTAINED FROM OF-SITE SOURCES IF NECESSARY TO COMPLETE THE STABILIZATION PROJECT.
4. ANY SOIL STOCKPILED FOR USE IN RECLAIMING DISTURBED LAND MUST BE SEEDED, MULCHED OR OTHERWISE STABILIZED.
5. THE RECLAMATION OF CONTINUING OPERATIONS SHALL BE CONDUCTED IN PHASES, SO THAT THERE IS NEVER MORE THAN 10 ACRES OF OPEN PIT AREA.
6. THE RECLAMATION WORK IN EACH PHASE SHALL BE COMPLETED WITHIN NINE MONTHS OF THE CLOSING OF THE PHASE. PRIOR TO THE COMMENCEMENT OF RECLAMATION OF EACH 10 ACRE PHASE, THE OPERATOR SHALL NOTIFY THE CITY'S CODE ENFORCEMENT OFFICER SO THAT AN INSPECTION OF THE AREA CAN BE MADE. ONCE THE REQUIRED RECLAMATION HAS BEEN MADE, THE OPERATOR SHALL AGAIN NOTIFY THE CODE ENFORCEMENT OFFICER OR COMPLIANCE COORDINATOR THAT THE WORK HAS BEEN COMPLETED AND IS READY FOR INSPECTION. THE RECLAMATION AREAS SHALL BE GUARANTEED FOR A PERIOD OF EIGHTEEN MONTHS FOLLOWING THE SUBSTANTIAL COMPLETION OF RECLAMATION, DURING WHICH TIME THE PERFORMANCE GUARANTEE SHALL REMAIN IN FULL FORCE AND EFFECT.
7. NO CLEARING OF TREES ARE PERMITTED WITHIN THE VEGETATED BUFFERS EXCEPT FOR RECOMMENDATIONS BY A LICENSED FORESTER PURSUANT TO BEST FOREST MANAGEMENT PRACTICES AND APPROVED BY THE BELFAST PLANNING BOARD.
8. THE FLOOD INSURANCE RATE MAP (FIRM) FOR THE CITY OF BELFAST (COMMUNITY PANEL 23027C0433E, DATED JULY 6, 2015) IDENTIFIES THE PROJECT SITE TO BE IN ZONE X, AN AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
— — — —	PROPERTY LINE/R.O.W.	— — — —
— — — —	ABUTTER LINE/R.O.W.	
—— ——	SETBACK	
C1/L1	CURVE/LINE NO.	C1/L1
//////	BUILDING	
——	DECK/STEPS/ OVERHANG	
- - - - - -	EDGE WETLAND	
ıllı	WETLANDS	
— - - —	STREAM	
——	EDGE PAVEMENT	
— — —	EDGE GRAVEL	
⌒⌒⌒⌒	TREELINE	
---120--- ---118---	CONTOURS	
——SD——	STORM DRAIN	
——OHU——	OVERHEAD UTILITY	
-○-	UTILITY POLE	
←—	GUY WIRE	
	FILTER BARRIER	——FB——
	STABILIZED CONSTRUCTION ENTRANCE	▨

GRAPHIC SCALE

150 0 75 150 300

(IN FEET)
1 INCH = 150FT.

TAX MAP 6, LOTS 76 & 77

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JAMES R. SEYMOUR PE# 9984

JAMES R. SEYMOUR No. 9984

09-18-2024

A	BY	09-18-2024	TOWN SUBMISSION
REV:	BY:	DATE:	STATUS:

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SEBAGO TECHNICS

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South Portland, Bridgton, Sanford and Bath

SITE PLAN
OF:
ROCKPORT GRANITE BELFAST
114 WATERVILLE ROAD
BELFAST, MAINE
FOR:
ROCKPORT GRANITE, INC.
465 WEST STREET, PO BOX 1140
ROCKPORT, MAINE 04856

DESIGNED	DJS
DRAWN	CJC
CHECKED	JRS
DATE	06-04-2024
SCALE	1" = 150'
PROJECT	240078

240078 S.dwg, TAB:OAS

SHEET C-100

EROSION CONTROL MEASURES

PRE-CONSTRUCTION PHASE

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS (SILT FENCE) WILL BE STAKED/INSTALLED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. THE PLACEMENT OF SEDIMENT BARRIERS SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THIS EROSION CONTROL PLAN AND DETAILS IN THIS PLAN SET. THIS NETWORK IS TO BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED.

PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED AT THE INTERSECTION OF THE PROPOSED ENTRANCES AND EXISTING ROADWAY TO AVOID TRACKING OF MUD, DUST AND DEBRIS FROM THE SITE.

PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PREPARE A DETAILED SCHEDULE AND MARKED UP PLAN INDICATING AREAS AND COMPONENTS OF THE WORK AND KEY DATES SHOWING DATE OF DISTURBANCE AND COMPLETION OF THE WORK. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE MUNICIPAL STAFF. THREE COPIES OF THE SCHEDULE AND MARKED UP PLAN SHALL BE PROVIDED TO THE MUNICIPALITY THREE DAYS PRIOR TO THE SCHEDULED PRE-CONSTRUCTION MEETING. SPECIAL ATTENTION SHALL BE GIVEN TO THE 14 DAY LIMIT OF DISTURBANCE IN THE SCHEDULE ADDRESSING TEMPORARY AND PERMANENT VEGETATION MEASURES.

CONSTRUCTION AND POST-CONSTRUCTION PHASE

AREAS UNDERGOING ACTUAL CONSTRUCTION SHALL ONLY EXPOSE THAT AMOUNT OF MINERAL SOIL NECESSARY FOR PROGRESSIVE AND EFFICIENT CONSTRUCTION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD, SUCH AS ACTIVE EXCAVATION AND ACTIVE GRADING. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS ACTIVELY OCCURRING OR CAN BE MULCHED IN THE SAME DAY. OPEN AREAS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL AS SHOWN ON THE DESIGN PLANS AND AS DESCRIBED WITHIN THIS EROSION CONTROL PLAN WITHIN SEVEN (7) DAYS OF DISTURBANCE. AREAS LOCATED WITHIN 100 FEET OF STREAMS SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL WITHIN SEVEN (7) DAYS. REFER TO WINTER EROSION CONTROL NOTES FOR THE TREATMENT OF OPEN AREAS AFTER OCTOBER 1ST OF THE CONSTRUCTION YEAR.

THE CONTRACTOR MUST INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

EROSION CONTROL APPLICATIONS & MEASURES
THE PLACEMENT OF EROSION CONTROL MEASURES SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND DETAILS IN THE PLAN SET.

1. TEMPORARY MULCHING:

ALL DISTURBED AREAS SHALL BE MULCHED WITH MATERIALS SPECIFIED BELOW PRIOR TO ANY STORM EVENT. ALL DISTURBED AREAS NOT FINAL GRADED WITHIN 14 DAYS SHALL BE MULCHED. DISTURBED AREAS ADJACENT TO NATURAL RESOURCES THAT ARE NOT GRADED WITHIN SEVEN (7) DAYS SHALL BE MULCHED. ALSO, AREAS, WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED, SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING. EROSION CONTROL BLANKETS ARE RECOMMENDED TO BE USED AT THE BASE OF GRASSED WATERWAYS AND ON SLOPES GREATER THAN 33%. MULCH ANCHORING SHOULD BE USED ON SLOPES GREATER THAN 5% AFTER SEPTEMBER 15TH OF THE CONSTRUCTION YEAR (SEE WINTER EROSION CONTROL NOTES).
TYPES OF MULCH:

HAY OR STRAW: SHALL BE APPLIED AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE).

EROSION CONTROL MIX: SHALL BE PLACED EVENLY AND MUST PROVIDE 100% SOIL COVERAGE. EROSION CONTROL MIX SHALL BE APPLIED SUCH THAT THE THICKNESS ON SLOPES 3:1 OR LESS IS 2 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THE THICKNESS ON SLOPES BETWEEN 3:1 AND 2:1 SHALL BE 4 INCHES PLUS 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET. THIS SHALL NOT BE USED ON SLOPES GREATER THAN 2:1.

EROSION CONTROL BLANKET: SHALL BE INSTALLED SUCH THAT CONTINUOUS CONTACT BETWEEN THE MAT AND THE SOIL IS OBTAINED. INSTALL BLANKETS AND STAPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

2. SOIL STOCKPILES:

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 75 LBS/1,000 S.F. (1.5 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES. SEDIMENT BARRIERS SHALL BE INSTALLED DOWNGRADIENT OF STOCKPILES, AND STORMWATER SHALL BE PREVENTED FROM RUNNING ONTO THE STOCKPILE.

3. NATURAL RESOURCES PROTECTION:

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES SHALL BE MULCHED USING TEMPORARY MULCHING (AS DESCRIBED IN PART 1 OF THIS SECTION) WITHIN 7 DAYS OF EXPOSURE OR PRIOR TO ANY STORM EVENT. SEDIMENT BARRIERS (AS DESCRIBED IN PART 4 OF THIS SECTION) SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE.

4. SEDIMENT BARRIERS:

PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, SEDIMENT BARRIERS SHALL BE STAKED ACROSS THE SLOPE(S), ON THE CONTOUR AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT PROPERTY LINE OR WATERCOURSE TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. SEDIMENT BARRIERS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 90% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION.

SILT FENCE: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE EFFECTIVE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES. IT IS RECOMMENDED THAT SILT FENCE BE REMOVED BY CUTTING THE FENCE MATERIALS AT GROUND LEVEL SO AS TO AVOID ADDITIONAL SOIL DISTURBANCE.

HAY BALES: SHALL NOT BE INSTALLED ADJACENT TO WETLAND. INSTALL PER THE DETAIL ON THE PLANS. BALES SHALL BE WIRE-BOUND OR STRING-TIED AND THESE BINDINGS MUST REMAIN PARALLEL WITH THE GROUND SURFACE DURING INSTALLATION TO PREVENT DETERIORATION OF THE BINDINGS. BALES SHALL BE INSTALLED WITHIN A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.

EROSION CONTROL MIX: SHALL NOT BE USED ADJACENT TO WETLANDS. INSTALL PER THE DETAIL ON THE PLANS. THE MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4 INCHES IN DIAMETER. THE MIX COMPOSITION SHALL MEET THE STANDARDS DESCRIBED WITHIN THE MDEP BEST MANAGEMENT PRACTICES. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER. EROSION CONTROL MIX BERMS SHALL NOT BE USED AT THE BOTTOM OF STEEP SLOPES (>8%) OR SLOPES WITH FLOWING WATER.

CONTINUOUS CONTAINED BERM: SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THIS SEDIMENT BARRIER IS EROSION CONTROL MIX PLACED WITHIN A SYNTHETIC TUBULAR NETTING AND PERFORMS AS A STURDY SEDIMENT BARRIER THAT WORKS WELL ON HARD GROUND SUCH AS FROZEN CONDITIONS, TRAVELED AREAS OR PAVEMENT. NO TRENCHING IS REQUIRED FOR INSTALLATION OF THIS BARRIER.

5. TEMPORARY CHECK DAMS:

SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. CHECK DAMS ARE TO BE PLACED WITHIN DITCHES/ SWALES AS SPECIFIED ON THE DESIGN PLANS IMMEDIATELY AFTER FINAL GRADING. CHECK DAMS SHALL BE 2 FEET HIGH. TEMPORARY CHECK DAMS MAY BE REMOVED ONLY AFTER THE ROADWAYS ARE PAVED AND THE VEGETATED SWALE ARE ESTABLISHED WITH AT LEAST 90% OF VIGOROUS PERENNIAL GROWTH. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL OF THE CHECK DAM.

STONE CHECK DAMS: STONE DAMS SHOULD BE CONSTRUCTED OF 2 TO 3 INCH STONE AND PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAT THE OUTER EDGES.

HAY BALE CHECK DAMS: BALES SHALL BE WIRE-BOUND OR STRING-TIED. BALES SHALL BE INSTALLED WITHIN A MINIMUM 4 INCH DEEP TRENCH LINE WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER. HAY BALES SHALL BE PLACED SUCH THAT COMPLETE COVERAGE OF THE SWALE IS OBTAINED AND THAT THE CENTER OF THE DAM IS 6 INCHES LOWER THAT THE OUTER EDGES.

MANUFACTURED CHECK DAMS: MANUFACTURED CHECK DAMS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF AUTHORIZED BY THE PROPER LOCAL, STATE OR FEDERAL REGULATING AGENCIES. THESE UNITS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATIONS.

6. STORMDRAIN INLET PROTECTION:

INLET PROTECTION SHALL BE PLACED AROUND A STORMDRAIN DROP INLET OR CURB INLET PRIOR TO PERMANENT STABILIZATION OF THE IMMEDIATE AND UPSTREAM DISTURBED AREAS. THEY SHALL BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN-OUT AND DISPOSAL OF TRAPPED SEDIMENTS AND MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES. ANY RESULTANT PONDING OF WATER FROM THE PROTECTION METHOD MUST NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.

HAY BALE DROP INLET PROTECTION: WE DO NOT RECOMMEND THE USE OF HAY BALES AS INLET PROTECTION.

CONCRETE BLOCK AND STONE INLET SEDIMENT FILTER (DROP OR CURB INLET): SHALL BE INSTALLED PER THE DETAIL ON THE PLANS. THE HEIGHT OF THE CONCRETE BLOCK BARRIER CAN VARY BUT MUST BE BETWEEN 12 AND 24 INCHES TALL. A MINIMUM OF 1 INCH CRUSHED STONE SHALL BE USED.

MANUFACTURED SEDIMENT BARRIERS AND FILTER (DROP OR CURB INLET): MANUFACTURED FILTERS, AS SPECIFIED IN THE DETAIL ON THE PLANS, MAY BE USED IF INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

7. STABILIZED CONSTRUCTION ENTRANCE/EXIT:

PRIOR TO CLEARING AND/OR GRUBBING THE SITE A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE CONSTRUCTED WHEREVER TRAFFIC WILL EXIT THE CONSTRUCTION SITE ONTO A PAVED ROADWAY IN ORDER TO MINIMIZE THE TRACKING OF SEDIMENT AND DEBRIS FROM THE CONSTRUCTION SITE ONTO PUBLIC ROADWAYS. THE ENTRANCES AND ADJACENT ROADWAY AREAS SHALL BE PERIODICALLY SWEPT TO FURTHER MINIMIZE THE TRACKING OF MUD, DUST OR DEBRIS FROM THE CONSTRUCTION AREA. THE TERM “SWEEP” IS UNDERSTOOD TO MEAN REMOVAL AND RECOVERY OF TRACKED SEDIMENT WITH A STREET SWEEPER, NOT BRUSHING THE MATERIAL INTO SWALES OR STRUCTURES WITH A MECHANICAL BROOM. STABILIZED CONSTRUCTION EXITS SHALL BE CONSTRUCTED IN AREAS SPECIFIED ON THE PLANS AND AS DETAILED ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.

DUST CONTROL:

DUST CONTROL DURING CONSTRUCTION SHALL BE ACHIEVED BY THE USE OF A WATERING TRUCK TO PERIODICALLY SPRINKLE THE EXPOSED ROADWAY AREAS AS NECESSARY TO REDUCE DUST DURING THE DRY MONTHS. APPLYING OTHER DUST CONTROL PRODUCTS SUCH AS CALCIUM CHLORIDE OR OTHER MANUFACTURED PRODUCTS ARE ALLOWED IF AUTHORIZED BY THE PROPER LOCAL, STATE AND/OR FEDERAL REGULATING AGENCIES. HOWEVER, IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO MITIGATE DUST AND SOIL LOSS FROM THE SITE. IF OFFSITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEPT IMMEDIATELY AND NOT LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS.

TEMPORARY VEGETATION:

TEMPORARY VEGETATION SHALL BE APPLIED TO DISTURBED AREAS THAT WILL NOT RECEIVE FINAL GRADING FOR PERIODS UP TO 12 MONTHS. THIS PROCEDURE SHOULD BE USED EXTENSIVELY IN AREAS ADJACENT TO NATURAL RESOURCES. SEEDBED PREPARATION AND APPLICATION OF SEED SHALL BE CONDUCTED AS INDICATED IN THE PERMANENT VEGETATION SECTION OF THIS NARRATIVE. SPECIFIC SEEDS (FAST GROWING AND SHORT LIVING) SHALL BE SELECTED FROM THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUALS FOR CONTRACTORS AND ENGINEERS, LATEST REVISION. ALTERNATIVE EROSION CONTROL MEASURES SHOULD BE USED IF SEEDING CAN NOT BE DONE BEFORE SEPTEMBER 15TH OF THE CONSTRUCTION YEAR.

PERMANENT VEGETATION:

REVEGETATION MEASURES SHALL COMMENCE IMMEDIATELY UPON COMPLETION OF FINAL GRADING OF AREAS TO BE LOAMED AND SEEDED. THE APPLICATION OF SEED SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR, PLEASE REFER TO THE WINTER EROSION CONTROL NOTES FOR MORE DETAIL. REVEGETATION MEASURES SHALL CONSIST OF THE FOLLOWING:

SEEDBED PREPARATION:

A. FOUR (4) INCHES OF LOAM SHALL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. LOAM SHALL BE FREE OF SUBSOIL, CLAY LUMPS, STONES AND OTHER OBJECTS OVER 2 INCHES OR LARGER IN ANY DIMENSION, AND WITHOUT WEEDS, ROOTS OR OTHER OBJECTIONABLE MATERIAL.

B. SOILS TESTS SHALL BE TAKEN AT THE TIME OF SOIL STRIPPING TO DETERMINE FERTILIZATION REQUIREMENTS. SOILS TESTS SHALL BE TAKEN PROMPTLY AS TO NOT INTERFERE WITH THE 14-DAY LIMIT ON SOIL EXPOSURE. BASED UPON TEST RESULTS, SOIL AMENDMENTS SHALL BE INCORPORATED INTO THE SOIL PRIOR TO FINAL SEEDING. IN LIEU OF SOIL TESTS, SOIL AMENDMENTS MAY BE APPLIED AS FOLLOWS:

ITEM	APPLICATION RATE
10-20-20 FERTILIZER (N-P205-K20 OR EQUAL)	18.4 LBS./1,000 S.F.
GROUND LIMESTONE (50% CALCIUM & MAGNESIUM OXIDE)	138 LBS./1,000 S.F.

C. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH PROPER EQUIPMENT. ROLL THE AREA TO FIRM THE SEEDBED EXCEPT ON CLAY OR SILTY SOILS OR COARSE SAND.

APPLICATION OF SEED:

A. SEEDING: SHALL BE CONDUCTED BETWEEN APRIL 1ST AND OCTOBER 1ST OF THE CONSTRUCTION YEAR. GENERALLY A SEED MIXTURE MAY BE APPLIED AS FOLLOWS: (CONSERVATION MIX)

SEED TYPE	APPLICATION RATE
FESCUE, FAWN	0.34 LBS/1,000 S.F. (15 LBS/ACRE)
BIRD'S FOOT TREFOIL, VARIETY NOT STATED	0.28 LBS/1,000 S.F. (12 LBS/ACRE)
ANNUAL RYEGRASS	0.18 LBS/1,000 S.F. (8 LBS/ACRE)
TIMOTHY, CLIMAX	0.18 LBS/1,000 S.F. (8 LBS/ACRE)
ALSIKE CLOVER	0.11 LBS/1,000 S.F. (5 LBS/ACRE)
REDTOP	0.05 LBS/1,000 S.F. (2 LBS/ACRE)
TOTAL	1.14 LBS/1,000 S.F. (50 LBS/ACRE)

NOTE: A SPECIFIC SEED MIXTURE SHOULD BE CHOSEN TO MATCH THE SOILS CONDITION OF THE SITE. VARIOUS AGENCIES CAN RECOMMEND SEED MIXTURES. MDEP RECOMMENDED SEED MIXTURES ARE IN THE EROSION AND SEDIMENT CONTROL BMP MANUAL DATED 2016 OR LATEST REVISION.

B. HYDROSEEDING: SHALL BE CONDUCTED ON PREPARED AREAS WITH SLOPES LESS THAN 2:1. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. RECOMMENDED SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

C. MULCHING: SHALL COMMENCE IMMEDIATELY AFTER SEED IS APPLIED. REFER TO THE TEMPORARY MULCHING SECTION OF THIS NARRATIVE FOR DETAILS.

SODDING:
FOLLOWING SEEDBED PREPARATION, SOD CAN BE APPLIED IN LIEU OF SEEDING IN AREAS WHERE IMMEDIATE VEGETATION IS MOST BENEFICIAL SUCH AS DITCHES, AROUND STORMWATER DROP INLETS AND AREAS OF AESTHETIC VALUE. SOD SHOULD BE LAID AT RIGHT ANGLES TO THE DIRECTION OF FLOW, STARTING AT THE LOWEST ELEVATION. SOD SHOULD BE ROLLED OR TAMPED DOWN TO EVEN OUT THE JOINTS ONCE LAID DOWN. WHERE FLOW IS PREVALENT THE SOD MUST BE PROPERLY ANCHORED DOWN. IRRIGATE THE SOD IMMEDIATELY AFTER INSTALLATION. IN MOST CASES, SOD CAN BE ESTABLISHED BETWEEN APRIL 1ST AND NOVEMBER 15TH OF THE CONSTRUCTION YEAR, HOWEVER, REFER TO THE WINTER EROSION CONTROL NOTES FOR ANY ACTIVITIES AFTER OCTOBER 1ST.

STANDARDS FOR TIMELY STABILIZATION:

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES – THE CONTRACTOR WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15. THE MDEP WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% (6.67H:1V) TO BE A SLOPE. IF THE CONTRACTOR FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS -- BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF WOOD WASTE COMPOST AS DESCRIBED IN ITEM 2(C.) OF THIS STANDARD OR WITH STONE RIPRAP AS DESCRIBED IN ITEM 2(D.) OF THIS STANDARD.
B. STABILIZE THE SLOPE WITH SOD – THE CONTRACTOR WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).
C. STABILIZE THE SLOPE WITH WOOD WASTE COMPOST – THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF WOOD WASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOOD WASTE COMPOST, THE CONTRACTOR WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE CONTRACTOR WILL NOT USE WOOD WASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
D. STABILIZE THE SLOPE WITH STONE RIPRAP – THE CONTRACTOR WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE CONTRACTOR WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS -- BY SEPTEMBER 15 THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION -- BY OCTOBER 1 THE CONTRACTOR WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15, THEN THE CONTRACTOR WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM 3(C.) OF THIS STANDARD.
B. STABILIZE THE SOIL WITH SOD – THE CONTRACTOR WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
C. STABILIZE THE SOIL WITH MULCH -- BY NOVEMBER 15 THE CONTRACTOR WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE CONTRACTOR WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE CONTRACTOR WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

1. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, AND AT LEAST EVERY SEVEN (7) DAYS, THE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES. THE CONTRACTOR SHALL PERFORM REPAIRS NO LATER THAN THE END OF THE NEXT WORKDAY, TO ALLOW CONTINUED PROPER FUNCTIONING OF THE EROSION CONTROL MEASURE. THE CONTRACTOR SHALL PROVIDE THE NECESSARY REGULATING AGENCIES WITH WRITTEN DOCUMENTATION DESCRIBING DATES OF INSPECTIONS AND NECESSARY FOLLOW-UP WORK TO MAINTAIN EROSION CONTROL MEASURES MEETING THE REQUIREMENTS OF THIS PLAN WITHIN SEVEN (7) DAYS.

2. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDINGS, THE CONTRACTOR SHALL INSPECT THE WORK AREA SEMIMONTHLY UNTIL THE SEEDINGS HAVE BEEN ESTABLISHED. ESTABLISHED MEANS A MINIMUM OF 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH. RESEEDING SHALL BE CARRIED OUT BY THE CONTRACTOR WITH FOLLOW-UP INSPECTIONS IN THE EVENT OF ANY FAILURES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED.

HOUSEKEEPING:

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

2. GROUNDWATER PROTECTION. DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE-TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.

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

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

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

6. AUTHORIZED NON-STORMWATER DISCHARGES. IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:
   - A. DISCHARGES FROM FIREFIGHTING ACTIVITY;
   - B. FIRE HYDRANT FLUSHINGS;
   - C. VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
   - D. DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS;
   - E. ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
   - F. PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;
   - G. UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
   - H. UNCONTAMINATED GROUNDWATER OR SPRING WATER;
   - I. FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
   - J. UNCONTAMINATED EXCAVATION DEWATERING;
   - K. POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
   - L. LANDSCAPE IRRIGATION.

7. UNAUTHORIZED NON-STORMWATER DISCHARGES. THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON-STORMWATER, OTHER THAN THOSE DISCHARGES. SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:
   - A. WASTEWATER FROM THE WASHOUT OR CLEAN OUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
   - B. FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
   - C. SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
   - D. TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

WINTER EROSION CONTROL MEASURES

THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 1 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. AN AREA CONSIDERED OPEN IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD. LIMIT THE EXPOSED AREA TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDER TAKEN DURING THE PROCEEDING 15 DAYS AND THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL THE SUBBASE GRAVEL IS INSTALLED IN ROADWAY AREAS OR THE AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH RATE SHALL BE A MINIMUM OF 150 LBS./1,000 S.F. (3 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. THE CONTRACTOR MUST INSTALL ANY ADDED MEASURES WHICH MAY BE NECESSARY TO CONTROL EROSION/SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, IN ORDER TO MINIMIZE AREAS WITHOUT EROSION CONTROL PROTECTION.

1. SOIL STOCKPILES

STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR AT 150 LBS/1,000 S.F. (3 TONS PER ACRE) OR WITH A FOUR-INCH LAYER OF WOOD WASTE EROSION CONTROL MIX. THIS WILL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL. ANY SOIL STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH HAY OR STRAW) WITHIN 100 FEET FROM ANY NATURAL RESOURCES.

2. NATURAL RESOURCES PROTECTION

ANY AREAS WITHIN 100 FEET FROM ANY NATURAL RESOURCES, IF NOT STABILIZED WITH A MINIMUM OF 75% MATURE VEGETATION CATCH, SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL MATS. DURING WINTER CONSTRUCTION, A DOUBLE LINE OF SEDIMENT BARRIERS (I.E. SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX) WILL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA.

PROJECTS CROSSING THE NATURAL RESOURCE SHALL BE PROTECTED A MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE FROM THE RESOURCE. EXISTING PROJECTS NOT STABILIZED BY DECEMBER 1 SHALL BE PROTECTED WITH THE SECOND LINE OF SEDIMENT BARRIER TO ENSURE FUNCTIONALITY DURING THE SPRING THAW AND RAINS.

3. SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF WOOD WASTE FILTER BERMS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES AND SEDIMENT SILT FENCES.

4. MULCHING

ALL AREA SHALL BE CONSIDERED TO BE DENUDED UNTIL AREAS OF FUTURE LOAM AND SEED HAVE BEEN LOAMED, SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1.000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW WILL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA WILL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1.000 SQUARE FEET (3TONS/ACRE) AND ADEQUATELY ANCHORED THAT GROUND SURFACE IS NOT VISIBLE THOUGH THE MULCH.

BETWEEN THE DATES OF SEPTEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, TRACK OR WOOD CELLULOSE FIBER. WHEN GROUND SURFACE IS NOT VISIBLE THOUGH THE MULCH THEN COVER IS SUFFICIENT.
AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL BARE SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORK DAY.

5. MULCHING ON SLOPES AND DITCHES

SLOPES SHALL NOT BE LEFT EXPOSED FOR ANY EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY MULCHED AND ANCHORED WITH PEG AND NETTING OR WITH EROSION CONTROL BLANKETS. MULCHING SHALL BE APPLIED AT A RATE OF 230 LBS/1,000 S.F. ON ALL SLOPES GREATER THAN 8%. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 5%. EROSION CONTROL BLANKETS SHALL BE USED IN LIEU OF MULCH IN ALL DRAINAGE WAYS WITH SLOPES 8%. EROSION CONTROL MIX CAN BE USED TO SUBSTITUTE EROSION CONTROL BLANKETS ON ALL SLOPES EXCEPT DITCHES.

6. SEEDING

BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOOMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. DORMANT SEEDING MAY BE SELECTED TO BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND FABRIC NETTING ANCHORED WITH STAPLES. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4' OF LOAM AND SEED AT AN APPLICATION RATE OF 5LBS/1000 S.F. ALL AREAS SEEDED DURING THE WINTER WILL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS SUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING. SEED TYPE SHALL BE WINTER RYE.

7. INSPECTION AND MONITORING

MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. AT A MINIMUM, AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION.
FOLLOWING THE TEMPORARY AND OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL IN THE SPRING INSPECT AND REPAIR ANY DAMAGES AND/ OR UNESTABLISHED SPOTS. ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

STANDARDS FOR TIMELY STABILIZATION OF CONSTRUCTION SITES DURING WINTER

1. STANDARD FOR THE TIMELY STABILIZATION OF DITCHES AND CHANNELS -- THE APPLICANT WILL CONSTRUCT AND STABILIZE ALL STONE-LINED DITCHES AND CHANNELS ON THE SITE BY NOVEMBER 15. THE APPLICANT WILL CONSTRUCT AND STABILIZE ALL GRASS-LINED DITCHES AND CHANNELS ON THE SITE BY SEPTEMBER 15. IF THE APPLICANT FAILS TO STABILIZE A DITCH OR CHANNEL TO BE GRASS-LINED BY SEPTEMBER 15, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.

   INSTALL A SOD LINING IN THE DITCH -- THE APPLICANT WILL LINE THE DITCH WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING THE SOD WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD STRIPS FROM SLOUGHING DURING FLOW CONDITIONS.
   INSTALL A STONE LINING IN THE DITCH –THE APPLICANT WILL LINE THE DITCH WITH STONE RIPRAP BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE APPLICANT WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.

2. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES -- THE APPLICANT WILL CONSTRUCT AND STABILIZE STONE-COVERED SLOPES BY NOVEMBER 15. THE APPLICANT WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% (10H:1V) TO BE A SLOPE. IF THE APPLICANT FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

   STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS – BY OCTOBER 1 THE APPLICANT WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 1, THEN THE APPLICANT WILL COVER THE SLOPE WITH A LAYER OF WOOD WASTE COMPOST AS DESCRIBED IN ITEM III OF THIS CONDITION OR WITH STONE RIPRAP AS DESCRIBED IN ITEM IV OF THIS CONDITION.

   STABILIZE THE SLOPE WITH SOD – THE APPLICANT WILL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE APPLICANT WILL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V).

   STABILIZE THE SLOPE WITH WOOD WASTE COMPOST – THE APPLICANT WILL PLACE A SIX-INCH LAYER OF WOOD WASTE COMPOST ON THE SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOOD WASTE COMPOST, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE APPLICANT WILL NOT USE WOOD WASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

   STABILIZE THE SLOPE WITH STONE RIPRAP -- THE APPLICANT WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE APPLICANT WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

3. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS -- BY SEPTEMBER 15 THE APPLICANT WILL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE APPLICANT FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE APPLICANT WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.
   STABILIZE THE SOIL WITH TEMPORARY VEGETATION -- BY OCTOBER 1 THE APPLICANT WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE APPLICANT WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS GROW AT LEAST THREE INCHES OR COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15, THEN THE APPLICANT WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM III OF THIS STANDARD.
   STABILIZE THE SOIL WITH SOD – THE APPLICANT WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
   STABILIZE THE SOIL WITH MULCH -- BY NOVEMBER 15 THE APPLICANT WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE APPLICANT WILL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE APPLICANT WILL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

JAMES R. SEYMOUR PE# 9984

JAMES R. SEYMOUR
No. 9984
09-18-2024

A	BY	09-18-2024	TOWN SUBMISSION
REV:	BY:	DATE:	STATUS:

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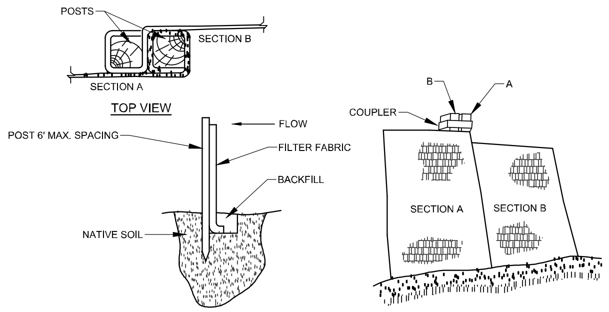
207-200-2100
South Portland, Bridgton, Sanford and Bath

EROSION CONTROL NOTES
OF:
ROCKPORT GRANITE BELFAST
114 WATERVILLE ROAD
BELFAST, MAINE
FOR:
ROCKPORT GRANITE, INC.
465 WEST STREET, PO BOX 1140
ROCKPORT, MAINE 04856

DESIGNED	DJS
DRAWN	CJC
CHECKED	JRS
DATE	06-04-2024
SCALE	NTS
PROJECT	240078

SHEET C-500

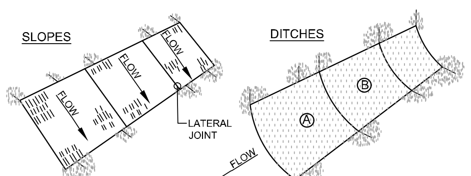

POSTS
SECTION B
SECTION A
TOP VIEW
POST 6' MAX. SPACING
FLOW
FILTER FABRIC
BACKFILL
NATIVE SOIL
COUPLER
B
A
SECTION A
SECTION B

INSTALLATION:

1. EXCAVATE A 6"x 6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.
3. DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM.
4. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. TOE-IN CAN ALSO BE ACCOMPLISHED BY LAYING THE FABRIC FLAP ON UNDISTURBED GROUND AND PILING AND TAMPING FILL AT THE BASE, BUT MUST BE ACCOMPANIED BY AN INTERCEPTION DITCH.
5. JOIN SECTION AS SHOWN ABOVE.
6. BARRIER SHALL BE MIRAFI SILT FENCE OR EQUAL.

FILTER BARRIER

NOT TO SCALE

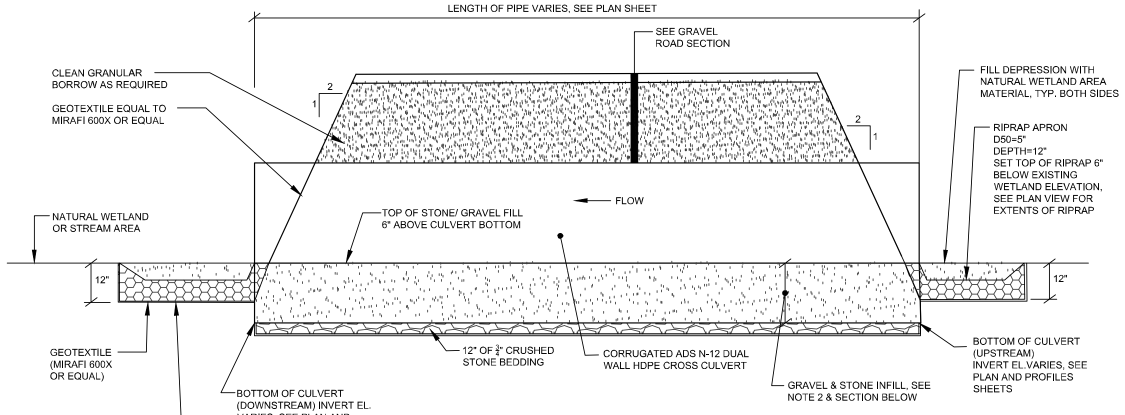

SLOPES
FLOW
FLOW
FLOW
LATERAL JOINT
DITCHES
A
B
FLOW

NOTES:

1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2" ON CENTER.
5. WIRE STAPLES TO BE MIN OF #11 WIRE 6" LONG AND 1-1/2" WIDE.
6. USE NORTH AMERICAN GREEN DS 150 OR APPROVED EQUAL.

EROSION CONTROL BLANKET

NOT TO SCALE

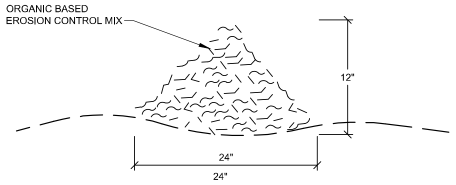

LENGTH OF PIPE VARIES, SEE PLAN SHEET
SEE GRAVEL ROAD SECTION
CLEAN GRANULAR BORROW AS REQUIRED
GEOTEXTILE EQUAL TO MIRAFI 600X OR EQUAL
2
1
2
1
FILL DEPRESSION WITH NATURAL WETLAND AREA MATERIAL, TYP. BOTH SIDES
RIPRAP APRON D50=5" DEPTH=12" SET TOP OF RIPRAP 6" BELOW EXISTING WETLAND ELEVATION, SEE PLAN VIEW FOR EXTENTS OF RIPRAP
FLOW
NATURAL WETLAND OR STREAM AREA
TOP OF STONE/ GRAVEL FILL 6" ABOVE CULVERT BOTTOM
12"
12"
GEOTEXTILE (MIRAFI 600X OR EQUAL)
12" OF ¾" CRUSHED STONE BEDDING
CORRUGATED ADS N-12 DUAL WALL HDPE CROSS CULVERT
BOTTOM OF CULVERT (UPSTREAM) INVERT EL.VARIES, SEE PLAN AND PROFILES SHEETS
GRAVEL & STONE INFILL, SEE NOTE 2 & SECTION BELOW
BOTTOM OF CULVERT (DOWNSTREAM) INVERT EL. VARIES, SEE PLAN AND PROFILE SHEETS
RIPRAP APRON D50=5" SET TOP OF RIPRAP 6" BELOW EXISTING WETLAND ELEVATION

NOTES:

1. COMPACT GRAVEL TO 95% OF MAXIMUM DRY DENSITY.
2. GRAVEL/STONE LAYER SHALL CONSIST OF BLASTED ANGULAR RIPRAP (D50=5") MIXED WITH GRAVEL TO FORM DENSE COMPACTED BASE. COORDINATE WITH ENGINEER. FILL IN VOID SPACE WITH GRAVEL.
3. THE CONTRACTOR MUST ENSURE THAT AFTER CONSTRUCTION WATER SHALL BE FLOWING OVER THE GRAVEL AND STONE INFILL AND RIPRAP APRONS AND NOT UNDER/THROUGH THESE MATERIALS. THE CONTRACTOR SHALL FILL IN VOID SPACE AT THE RIPRAP APRONS WITH GRAVEL/STONE EMBEDMENT MATERIAL.

CULVERT CROSSING LONGITUDINAL SECTION

NOT TO SCALE


ORGANIC BASED EROSION CONTROL MIX
12"
24"
24"

COMPOSITION:

EROSION CONTROL MIX SHALL BE MANUFACTURED ON OR OFF THE PROJECT SITE SUCH THAT ITS COMPOSITION IS IN ACCORDANCE WITH THE MDEP MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL, LAST REVISED 3/2003 OR LATER. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, 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 THE MIX.

INSTALLATION:

1. THE BARRIER MUST BE PLACED ACROSS THE SLOPE, ALONG THE CONTOUR.

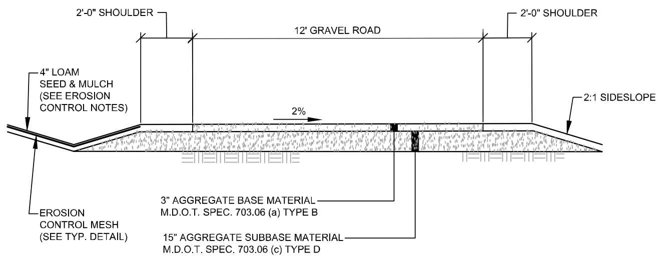
2. EXISTING GROUND SHALL BE PREPARED SUCH THAT THE BARRIER MAY LIE NEARLY FLAT ALONG THE GROUND TO AVOID THE CREATION OF VOIDS AND BRIDGES IN ORDER TO MINIMIZE THE POTENTIAL OF WASH OUTS UNDER THE BARRIER

3. THE BARRIER SHALL BE A MINIMUM OF 1 FOOT HIGH (AS MEASURED ON THE UPHILL SIDE) AND 2 FEET WIDE FOR SLOPES LESS THAN 5% IN GRADE AND SHALL BE WIDER TO ACCOMMODATE THE ADDITIONAL RUNOFF.

4. EROSION CONTROL MIX CAN BE INSTALLED WHERE SILT FENCE IS ILLUSTRATED ON THE DESIGN PLANS IN AREAS EXCEPT IN, BUT NOT LIMITED TO, THE FOLLOWING AREAS: WETLAND AREAS, AT POINTS OF CONCENTRATED FLOW, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS AND CLOSED STORM SYSTEMS AND AT THE BOTTOM OF STEEP SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM.

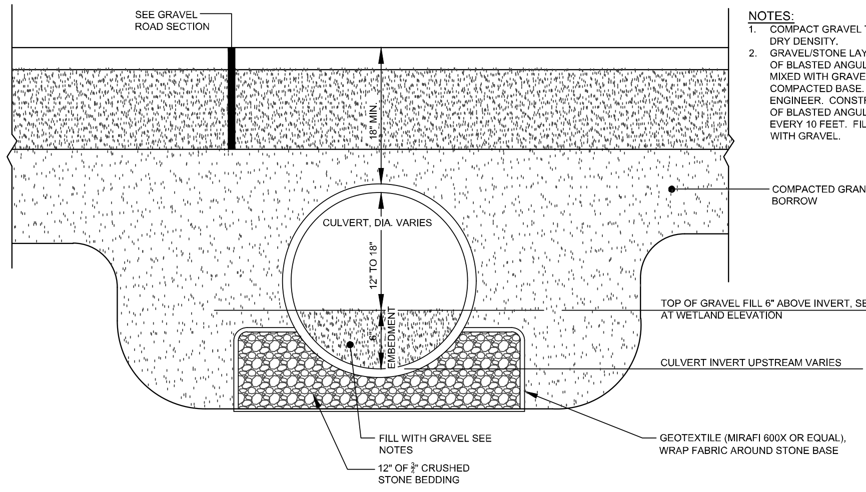
EROSION CONTROL MIX BERM

NOT TO SCALE


2'-0" SHOULDER
12' GRAVEL ROAD
2'-0" SHOULDER
4" LOAM SEED & MULCH (SEE EROSION CONTROL NOTES)
2%
2:1 SIDESLOPE
EROSION CONTROL MESH (SEE TYP. DETAIL)
3" AGGREGATE BASE MATERIAL M.D.O.T. SPEC. 703.06 (a) TYPE B
15" AGGREGATE SUBBASE MATERIAL M.D.O.T. SPEC. 703.06 (c) TYPE D

GRAVEL ROAD SECTION

NOT TO SCALE

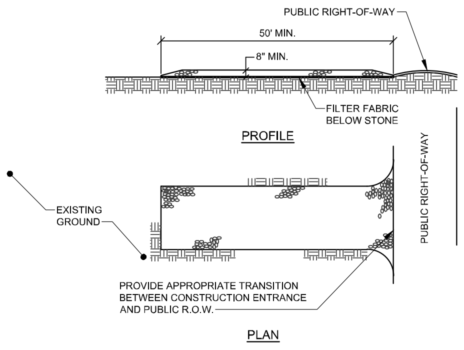

SEE GRAVEL ROAD SECTION
18" MIN.
CULVERT, DIA. VARIES
12" TO 18"
6"
EMBEDMENT
COMPACTED GRANULAR BORROW
TOP OF GRAVEL FILL 6" ABOVE INVERT, SET AT WETLAND ELEVATION
CULVERT INVERT UPSTREAM VARIES
FILL WITH GRAVEL SEE NOTES
12" OF ¾" CRUSHED STONE BEDDING
GEOTEXTILE (MIRAFI 600X OR EQUAL), WRAP FABRIC AROUND STONE BASE

NOTES:

1. COMPACT GRAVEL TO 95% OF MAXIMUM DRY DENSITY.
2. GRAVEL/STONE LAYER SHALL CONSIST OF BLASTED ANGULAR RIPRAP (D50=10") MIXED WITH GRAVEL TO FORM DENSE COMPACTED BASE. COORDINATE WITH ENGINEER. CONSTRUCT ROCK BANDS OF BLASTED ANGULAR RIPRAP (D50=10") EVERY 10 FEET. FILL IN VOID SPACE WITH GRAVEL.

CULVERT CROSSING-SECTION

NOT TO SCALE

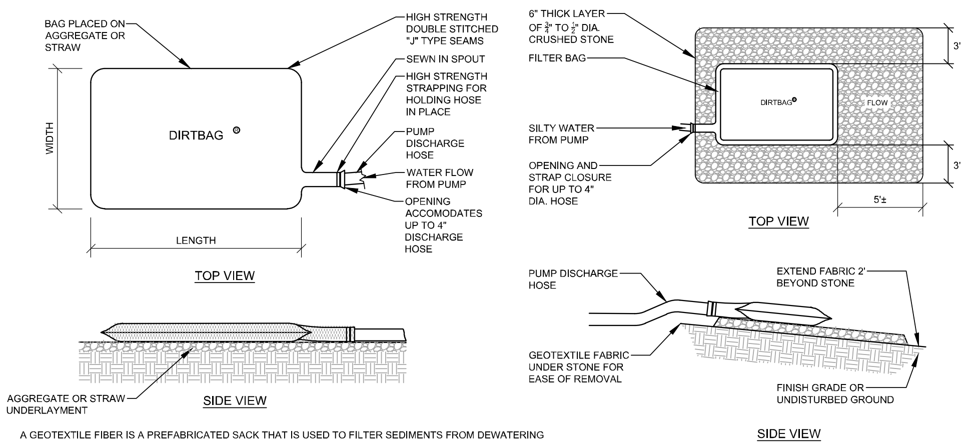

PUBLIC RIGHT-OF-WAY
50' MIN.
8" MIN.
FILTER FABRIC BELOW STONE
PROFILE
EXISTING GROUND
PUBLIC RIGHT-OF-WAY
PROVIDE APPROPRIATE TRANSITION BETWEEN CONSTRUCTION ENTRANCE AND PUBLIC R.O.W.
PLAN

NOTES:

1. STONE SIZE- AASHTO DESIGNATION M43, SIZE NO. 2 (2 1/2" TO 1 1/2"). USE CRUSHED STONE.
2. LENGTH- AS SHOWN ON PLANS, MIN. 50 FEET.
3. THICKNESS- NOT LESS THAN EIGHT (8) INCHES.
4. WIDTH- NOT LESS THAN FULL WIDTH OF ALL POINT OF INGRESS OR EGRESS.
5. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

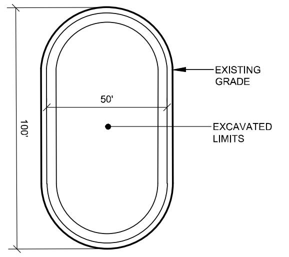

BAG PLACED ON AGGREGATE OR STRAW
HIGH STRENGTH DOUBLE STITCHED "J" TYPE SEAMS
SEWN IN SPOUT
HIGH STRENGTH STRAPPING FOR HOLDING HOSE IN PLACE
PUMP DISCHARGE HOSE
WATER FLOW FROM PUMP
OPENING ACCOMODATES UP TO 4" DISCHARGE HOSE
WIDTH
DIRTBAG ®
LENGTH
TOP VIEW
AGGREGATE OR STRAW UNDERLAYMENT
SIDE VIEW
6" THICK LAYER OF ¾" TO ½" DIA. CRUSHED STONE
FILTER BAG
SILTY WATER FROM PUMP
OPENING AND STRAP CLOSURE FOR UP TO 4" DIA. HOSE
DIRTBAG®
FLOW
3'
3'
5'±
TOP VIEW
PUMP DISCHARGE HOSE
EXTEND FABRIC 2' BEYOND STONE
GEOTEXTILE FABRIC UNDER STONE FOR EASE OF REMOVAL
FINISH GRADE OR UNDISTURBED GROUND
SIDE VIEW

A GEOTEXTILE FIBER IS A PREFABRICATED SACK THAT IS USED TO FILTER SEDIMENTS FROM DEWATERING ACTIVITIES. A FILTER BAG SHOULD BE USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED GUIDELINES. CONSULT THE DEP IF THE STRUCTURE WILL BE WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE OR IF SECONDARY CONTAINMENT IS REQUIRED.

- INSTALL THE FILTER BAG PRIOR TO INITIATING ANY ACTIVITIES WHICH WILL REQUIRE DEWATERING.
- THE TYPE OF FABRIC SHOULD BE BASED ON THE SIZE OF SOIL PARTICLES TO BE TRAPPED (I.E. A WOVEN MATERIAL FOR COARSE PARTICELS AND A NONWOVEN MATERIAL FOR FINER PARTICLES).
- A FILTER BAG SHOULD BE LOCATED IN AN AREA MOSTLY LEVEL (WITH LESS THAN 5% SLOPE). A PAD OF CRUSHED GRAVEL MAY BE PROVIDED.
- AVOID DISCHARGING TO AN AREA THAT IS BARE OF VEGETATION OR NEWLY VEGETATED. ANY SIGN OF EROSION OR CHANNELIZATION FROM THE DISCHARGED WATER REQUIRES IMMEDIATE CORRECTION.
- FILTER BAGS HAVE A FINITE CAPACITY FOR SEDIMENT COLLECTION AND MAY BE PRONE TO PLUGGING. AVOID OVER-PRESSURIZING THE BAG OR IT MAY BURST.
- IF A SEDIMENT DISCHARGE IS OBSERVED, INSPECT THE FILTER BAG FOR TEARS OR OTHER MALFUNCTIONS.

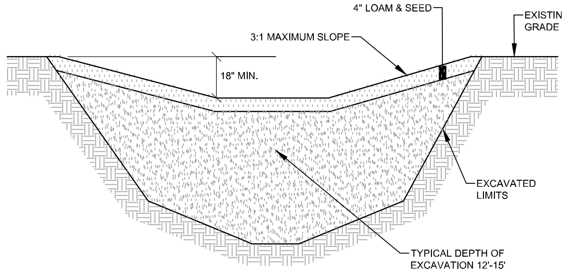
DIRTBAG PUMPED SILT CONTROL SYSTEM

NOT TO SCALE


EXISTING GRADE
50'
100'
EXCAVATED LIMITS

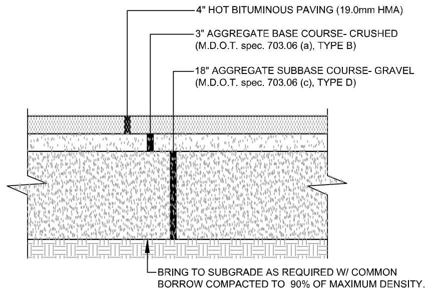
ROCK EXTRACTION PLAN VIEW

NOT TO SCALE


4" LOAM & SEED
EXISTING GRADE
3:1 MAXIMUM SLOPE
18" MIN.
EXCAVATED LIMITS
TYPICAL DEPTH OF EXCAVATION 12'-15'

ROCK EXTRACTION CROSS SECTION

NOT TO SCALE


4" HOT BITUMINOUS PAVING (19.0mm HMA)
3" AGGREGATE BASE COURSE- CRUSHED (M.D.O.T. spec. 703.06 (a), TYPE B)
18" AGGREGATE SUBBASE COURSE- GRAVEL (M.D.O.T. spec. 703.06 (c), TYPE D)
BRING TO SUBGRADE AS REQUIRED W/ COMMON BORROW COMPACTED TO 90% OF MAXIMUM DENSITY.

NOTES:

1. COMPACT GRAVEL SUBBASE, BASE COURSE TO 95% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

HEAVY DUTY BITUMINOUS PAVEMENT

NOT TO SCALE

f:\Projects\24000\240078\DWG\Design\240078 D.dwg - 9/17/2024 3:27 PM - DYLAN STUART

JAMES R. SEYMOUR PE# 9984

JAMES R. SEYMOUR
No. 9984
09-18-2024

A	BY	09-18-2024	TOWN SUBMISSION
REV:	BY:	DATE:	STATUS:

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Rd. Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford and Bath

DETAILS

OF:
ROCKPORT GRANITE BELFAST
114 WATERVILLE ROAD
BELFAST, MAINE

FOR:
ROCKPORT GRANITE, INC.
465 WEST STREET, PO BOX 1140
ROCKPORT, MAINE 04856

DESIGNED	DJS
DRAWN	CJC
CHECKED	JRS
DATE	06-04-2024
SCALE	NTS
PROJECT	240078

240078 D.dwg, TAB:DETAILS

SHEET C-501

2.4

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Permit-by-Rule & Notice of Intent Review Form

Natural Resources Protection Act **PBR #** 78438
Stormwater Management Law **PBR #**
Maine Construction General Permit **NOI #**

Applicant: Rockport Granite Inc. **Town:** Belfast
Project Address: Rockport Granite Facility **Tax Map/Lot #:** 006-076 & 077

NRPA PBR Sections – Ch. 305

- ☐ Sec. 2 Act. Adj. to Prot. Natural Res.
- ☐ Sec. 3 Intake Pipes
- ☐ Sec. 4 Replacement of Structures
- ☐ Sec. 6 Movement of Rocks or Veg.
- ☐ Sec. 7 Outfall Pipes
- ☐ Sec. 8 Shoreline Stabilization
- ☐ Sec. 9 Utility Crossing
- ☑ Sec. 10 Stream Crossing
- ☐ Sec. 11 State Transport. Facilities
- ☐ Sec. 12 Restoration Natural Areas
- ☐ Sec. 13 F&W Creat./Water Quality
- ☐ Sec. 15 Public Boat Ramps
- ☐ Sec. 16 Coastal Sand Dune Project
- ☐ Sec. 17 Transfer/Permit Extension
- ☐ Sec. 18 Maintenance Dredging
- ☐ Sec. 19 Act. Near SVP Habitat
- ☐ Sec. 20 Act. Near Waterfowl/Bird Habitat

Notes:
Permit accepted as presented.

Reviewer: **Deficient Date:** ☐ **NRPA** ☐ **SW** ☐ **NOI**
Reviewer: Nathan D. Durant **Accepted Date:** 01/03/2024 ☐ **NRPA** ☐ **SW** ☐ **NOI**

DEPARTMENT OF ENVIRONMENTAL PROTECTION
PERMIT BY RULE NOTIFICATION FORM

(For use with DEP Regulation, Natural Resources Protection Act - Permit by Rule Standards, Chapter 305)

APPLICANT INFORMATION (Owner)		AGENT INFORMATION (If Applying on Behalf of Owner)	
Name:	Rockport Granite Inc.	Name:	Plymouth Engineering, Inc.
Mailing Address:	465 West St.	Mailing Address:	Unit C
Mailing Address:	PO Box 1140	Mailing Address:	8 Main Street
Town/State/Zip:	Rockport, Maine 04856	Town/State/Zip:	Newport, Maine 04953
Daytime Phone #:	(207) 230-7325 Ext:	Daytime Phone #:	(207) 257-2071 Ext:
Email Address:	jcarle@rockportgraniteinc.com	Email Address:	fred@plymmouthengineering.com

PROJECT INFORMATION

Part of a larger project? (check 1):	☐ Yes ☑ No	After the Fact? (check 1):	☐ Yes ☑ No	Project involves work below mean low water? (check 1):	☐ Yes ☑ No	Name of waterbody:	Unnamed intermittent Stream
Project Town:	Belfast	Town Email Address:	Bub Fournier <directorplanning@cityofbelfast.org>			Map and Lot Number:	006-076 & 077
Brief Project Description:	Temporary stream crossings for MDEP approved rock extraction. Stream crossing are required to access rock for extraction and removal by truck for processing at Rockport Granite's facility in Rockport, Maine						
Project Location & Brief Directions to Site:	From I95 Norrh, take Exit 161 at Plymouth to Route . Follow Route to Belfast approximately 27 miles, turn left onto Route 7/137 for approximately one mile. Site is accesed via driveway on right, 104 Waterville Road, Belfast.						

PERMIT BY RULE (PBR) SECTIONS (Check at least one): I am filing notice of my intent to carry out work that meets the requirements for Permit-by-Rule (PBR) under DEP Rules, Chapter 305. I and my agent(s), if any, have read and will comply with all of the standards in the Sections checked below.

- ☑ **Sec. (2) Act. Adj. to Prot. Natural Res.**
- ☐ **Sec. (3) Intake Pipes**
- ☐ **Sec. (4) Replacement of Structures**
- ☐ **Sec. (6) Movement of Rocks or Veg.**
- ☐ **Sec. (7) Outfall Pipes**
- ☐ **Sec. (8) Shoreline Stabilization**
- ☐ **Sec. (9) Utility Crossing**
- ☑ **Sec. (10) Stream Crossing**
- ☐ **Sec. (11) State Transportation Facilities**
- ☐ **Sec. (12) Restoration of Natural Areas**
- ☐ **Sec. (13) F&W Creat./Water Qual. Improv.**
- ☐ **Sec. (15) Public Boat Ramps**
- ☐ **Sec. (16) Coastal Sand Dune Projects**
- ☐ **Sec. (16-A) Beach Nourishment**
- ☐ **Sec. (17) Transfer/Permit Extension**
- ☐ **Sec. (18) Maintenance Dredging**
- ☐ **Sec. (19) Act. Near SVP Habitat**
- ☐ **Sec. (20) Act. Near Waterfowl/Bird Habitat**

NOTE: Municipal permits also *may* be required. Contact your local code enforcement office for information. Federal permits may be required for stream crossings and for projects involving wetland fill. Contact the Army Corps of Engineers at the Maine Project Office for information.

NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS AND FEE

- ☑ ***Attach* all required submissions for the PBR Section(s) checked above. The required submissions for each PBR Section are outlined in Chapter 305 and may differ depending on the Section you are submitting under.**
- ☑ ***Attach* a location map that clearly identifies the site (U.S.G.S. topo map, Maine Atlas & Gazetteer, or similar).**
- ☑ ***Attach Proof of Legal Name* if applicant is a corporation, LLC, or other legal entity. Provide a copy of Secretary of State's *registration information* (available at http://icrs.informe.org/nei-sos-icrs/ICRS?MainPage=x). Individuals and municipalities are not required to provide any proof of identity.**

FEE: Pay by credit card at the Payment Portal. The Permit-by-Rule fee may be found here https://www.maine.gov/dep/feeschedule.pdf and is currently $307.

- ☑ ***Attach* payment confirmation from the Payment Portal when filing this notification form.**

Signature & Certification:

- I authorize staff of the Departments of Environmental Protection, Inland Fisheries & Wildlife, and Marine Resources to access the project site for the purpose of determining compliance with the rules.
- I understand that this PBR becomes effective 14 calendar days after receipt by the Department of this completed form, the required submissions, and fee, *unless the Department approves or denies the PBR prior to that date.*

By signing this Notification Form, I represent that the project meets all applicability requirements and standards in Chapter 305 rule and that the applicant has sufficient title, right, or interest in the property where the activity takes place.

Signature of Agent or Applicant (may be typed):		**Date:**	12-19-23

Keep a copy as a record of permit. Email this completed form with attachments to DEP at: DEP.PBRNotification@maine.gov. DEP will send a copy to the Town Office as evidence of DEP's receipt of notification. No further authorization will be issued by DEP after receipt of notice. A PBR is valid for two years, except Section 4, "Replacement of Structures," are valid for three years. **Work carried out in violation of the Natural Resources Protection Act or any provision in Chapter 305 is subject to enforcement.**

Fred Marshall

From:	Payments.DEP@maine.gov
Sent:	Tuesday, December 19, 2023 1:45 PM
To:	Fred Marshall; Payments.DEP@maine.gov
Subject:	DEP Payment Confirmation - 2399

DEP Payment Confirmation - 2399

Contact Information: Fred Marsha - 8 Main Street-Unit C, Newport, ME, 04953
(207) 257-2071
fred@plymouthengineering.com

Product	Reference Number	Customer Number	Payment Amount	Comments
Natural Resources Protection Act (Permit-by-Rule)	N/A		$307.00	Rockport Granite NRPA PBR for Belden Tibert Quarry, 104 Waterville Road, Belfast, Maine

Transaction Summary	
Payment	$307.00
Service Fee	$2.00
Total	$309.00

ReceiptID: 2399
Transaction Date: Tuesday, December 19, 2023

Thank you for your successful transaction.
If you have questions or concerns, please call (207) 287-7688
or Email: Payments.DEP@maine.gov

Belden Tibert Quarry-Rock Excavation
104 Waterville Road, Belfast
Rockport Granite Inc.

Project Description:

The Belden/Tibert Quarry has been permitted by the Maine Department of Environmental Protection, Mining Division for the extraction of granite from the approximately 90+ acre site. No blasting will occur due to the City of Belfast's prohibition of blasting for rock excavation. Initially granite pieces on the surface of the ground and to a depth of 6′ feet to 10′ will be removed and processed at Rockport Granite's facility in Rockport.

Existing forest roads will be utilized and upgraded for trucks and excavation equipment. There are four stream crossings currently needing upgrading from forestry crossings to semi-permanent stream crossings. The streams are generally seasonal runoff.

The four stream crossings are:

> #1 24″x25′ HDPE Culvert to replace the wooden mat installed as part of the preceding wood harvesting operation. Approximate coordinates are 44° 26′ 24.16″ N, 69° 02′ 51.06″ W.
>
> #2 18″x25′ HDPE Culvert for existing tote road stream crossing. Approximate coordinates are 44° 26′ 22.60″ N, 69° 02′ 05.64″ W.
>
> #3 24″x25′ HDPE Culvert to replace existing forestry road stream crossing. Approximate coordinates are 44° 26′ 14.67″ W.
>
> #4 24″x30′ HDPE Culvert to replace existing temporary forestry road stream crossing. Approximate coordinates are 44° 26′ 12.42″ N, 69° 03′ 12.67″ W.

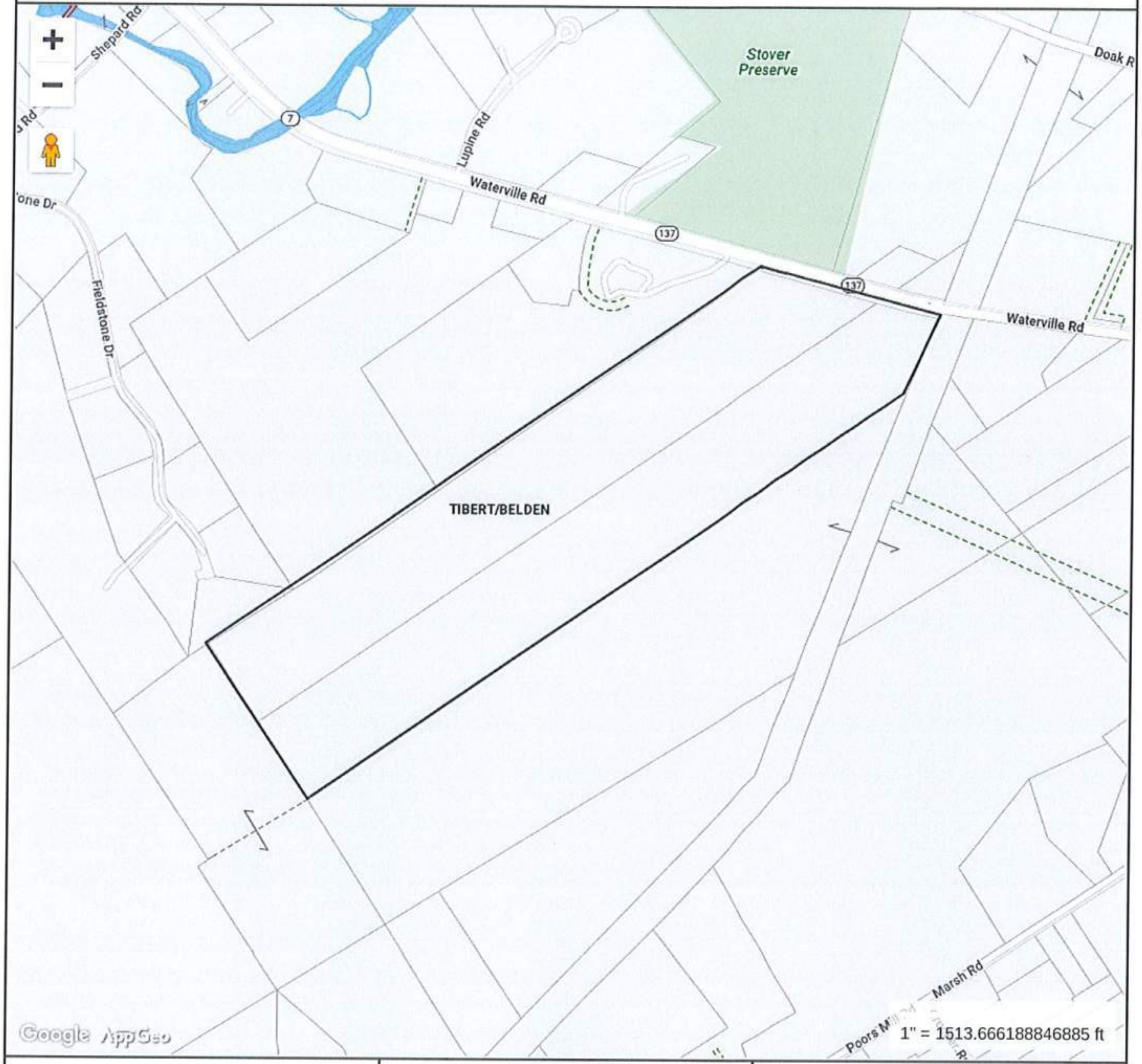
The quarry is anticipated to operate for approximately ten years. At the end of rock extraction and restoration of the land, the culverts will be removed.

Installation of the culverts will follow Best Management Practices as described in the *Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers*, October 2016, Maine Department of Environmental Protection.

City of Belfast, ME

August 14, 2023

LOCATION MAP FOR TIBERT/BELDEN PROPERTY


Shepard Rd
Stover Preserve
Doak R
Lupine Rd
7
Waterville Rd
137
137
Waterville Rd
one Dr
Fieldstone Dr
TIBERT/BELDEN
Marsh Rd
Poors M
Google AppGeo
1" = 1513.661188846885 ft

1853

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

City of Belfast, ME makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

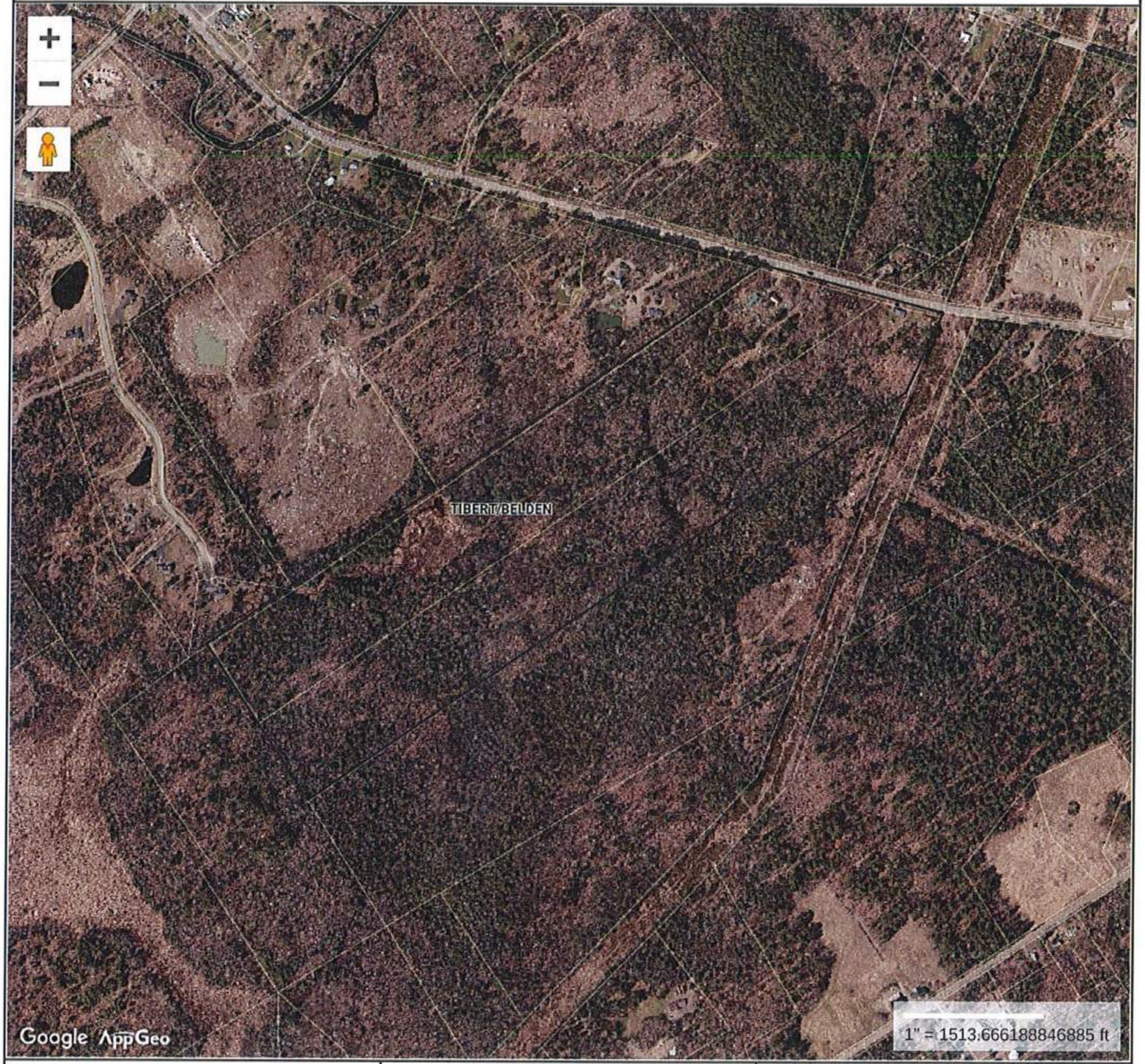
Geometry updated September 15, 2020
Data updated September 15, 2020

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

City of Belfast, ME

August 14, 2023

TIBERT/BELDEN PROPERTY AERIAL MAP


+
−
TIBERT/BELDEN
Google AppGeo
1" = 1513.666188846885 ft

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

City of Belfast, ME makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated September 15, 2020
Data updated September 15, 2020

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

Interactive Corporate Services

MAINE
Department of the Secretary of State
Bureau of Corporations, Elections and Commissions

Corporate Name Search

Information Summary

Subscriber activity report

This record contains information from the CEC database and is accurate as of: Tue Oct 17 2023 16:17:14. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
ROCKPORT GRANITE INC.	20120539 D	BUSINESS CORPORATION	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
01/05/2012	N/A	MAINE

Other Names **(A=Assumed ; F=Former)**

NONE

Clerk/Registered Agent

CHRISTOPHER R. SMITH
P.O. BOX 586
PORTLAND, ME 04112 0586

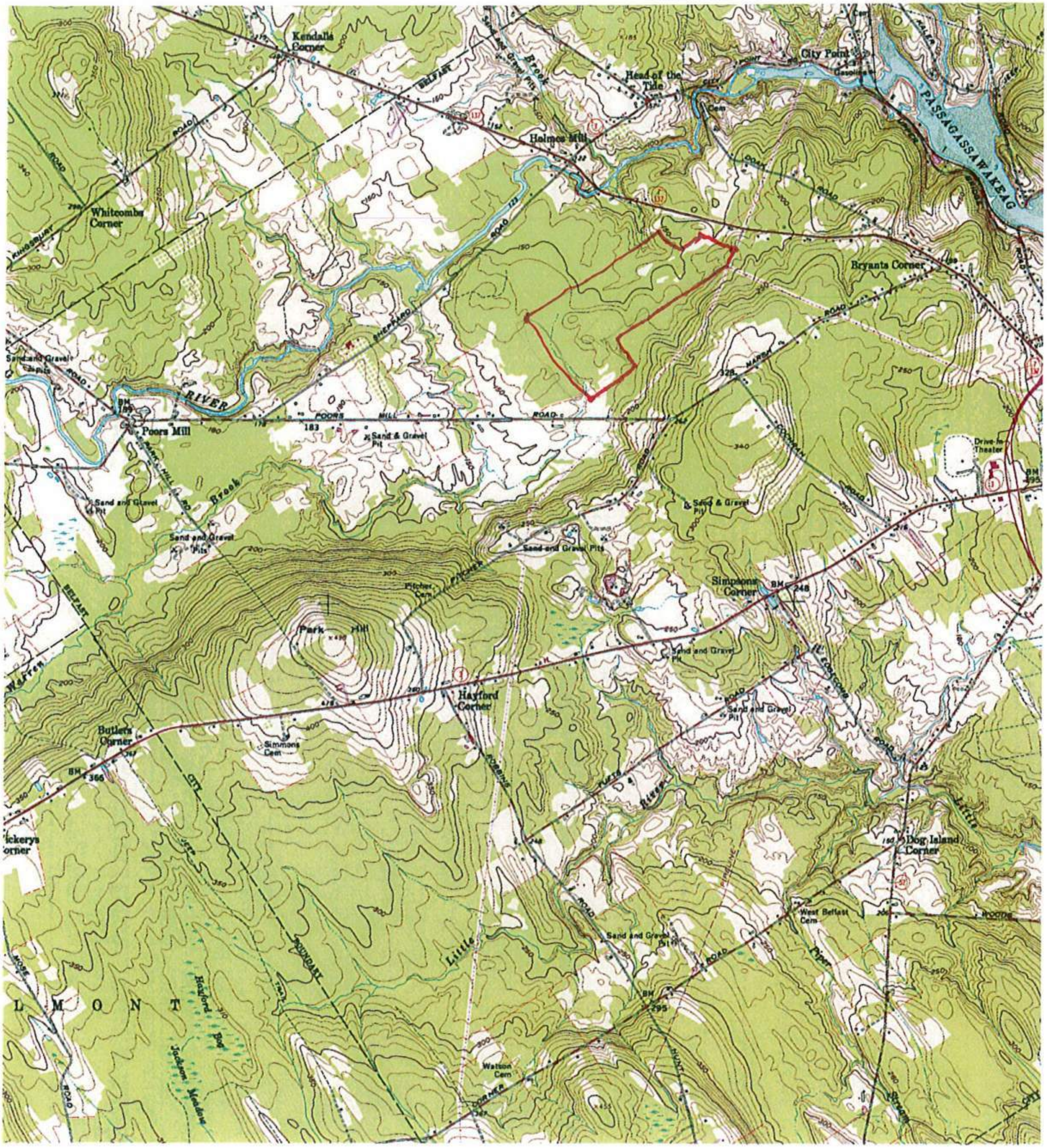
New Search

Click on a link to obtain additional information.

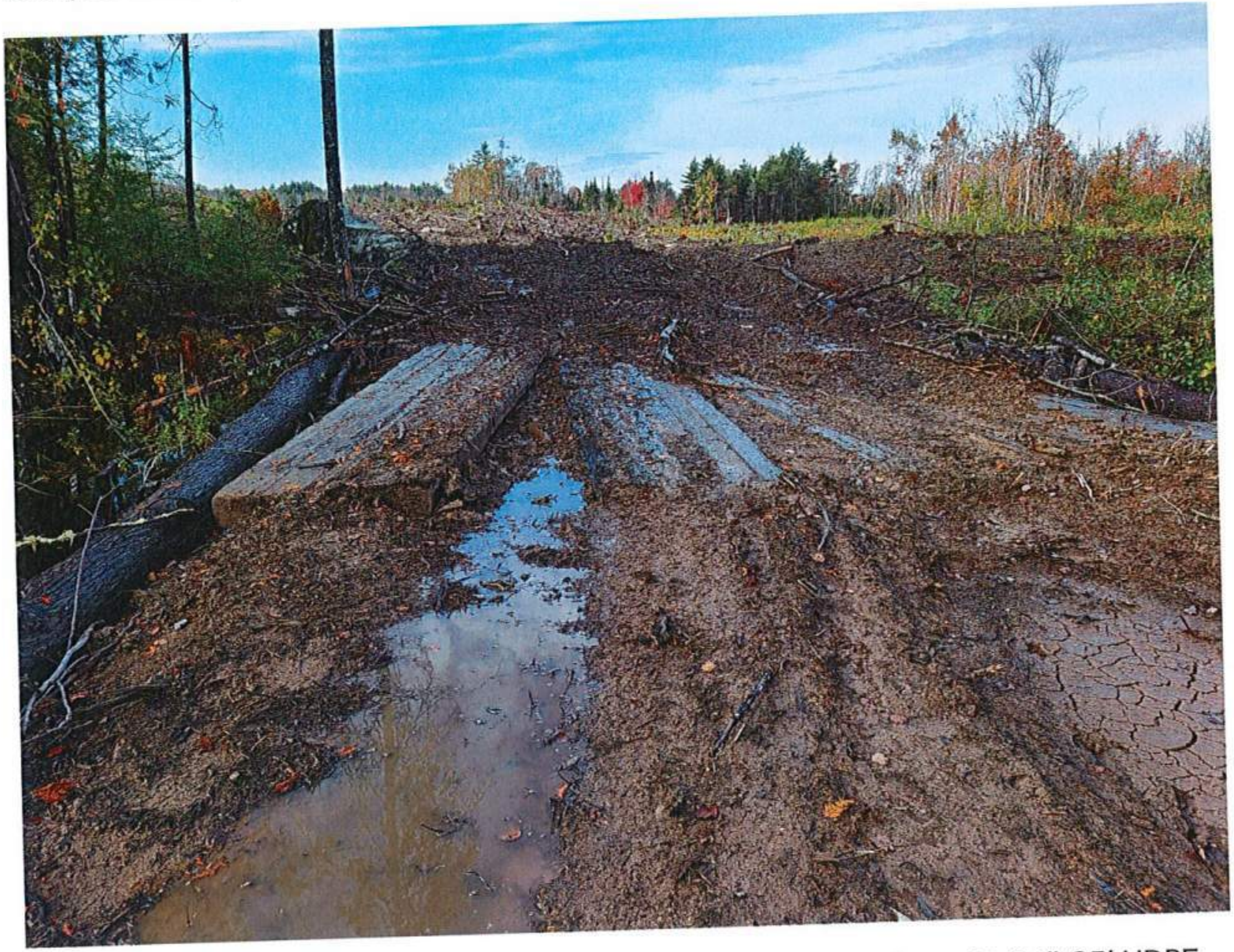
List of Filings	View list of filings	
Obtain additional information:		
Additional Addresses	Plain Copy	Certified copy
Certificate of Existence (more info)	Short Form without amendments ($30.00)	Long Form with amendments ($30.00)

You will need Adobe Acrobat version 3.0 or higher in order to view PDF files.
If you encounter problems, visit the troubleshooting page.

If you encounter technical difficulties while using these services, please contact the Webmaster. If you are unable to find the information you need through the resources provided on this web site, please contact the Division of Corporations, UCC & Commissions Reporting and Information

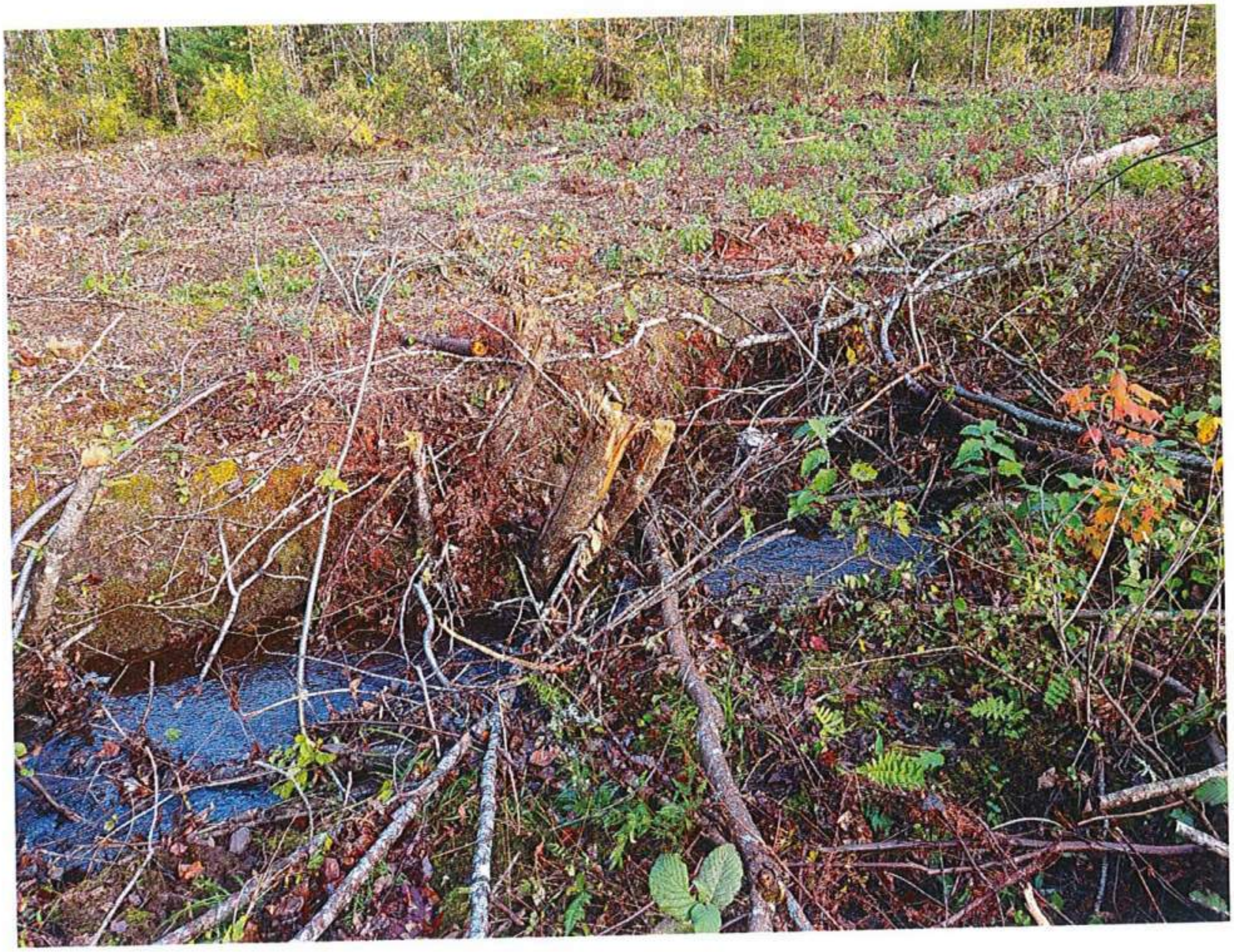

Kendalls Corner
City Point
Head of the Tide
Holmes Mill
PASSAGASSAWAKEAG
Whitcombs Corner
Bryants Corner
Poors Mill
POORS MILL ROAD
SHEPPARD ROAD
RIVER
Brook
Sand and Gravel Pits
Drive-in Theater
Pitcher Cem
Simpsons Corner
Park Hill
Hayford Corner
Butlers Corner
Simmons Cem
Dog Island Corner
West Belfast Cem
Little River
Sand and Gravel Pit
Watson Cem
Hayford Bog
Jackson Meadow
CITY BOUNDARY
Warren
BELFAST
L M O N T
Vickerys Corner

Belden/Tibert Quarry
10 Waterville Road, Belfast, Maine
Rockport Granite, Inc.



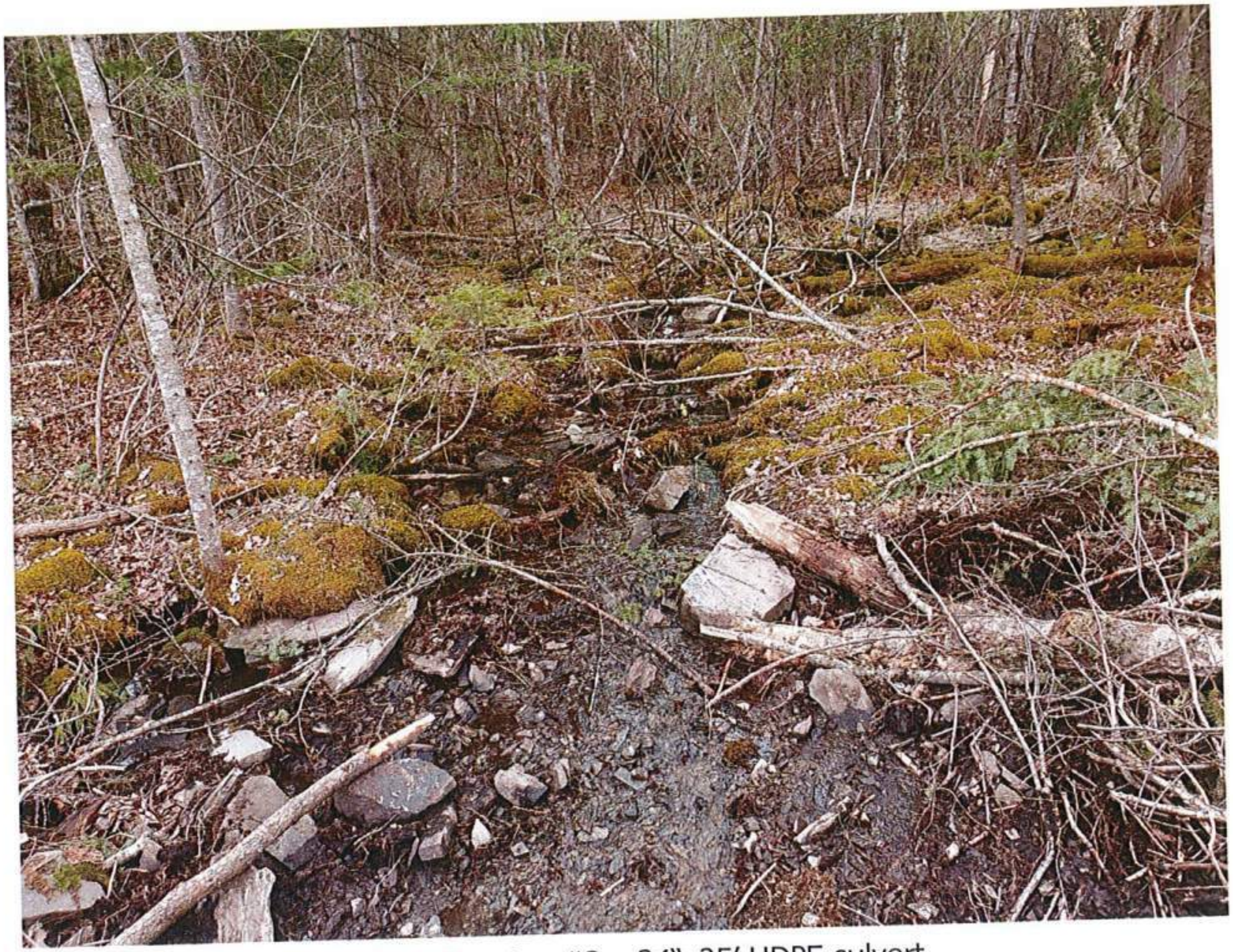
Stream Crossing #1-Tibert – replace temporary logging crossing with 24"x25' HDPE culvert

Belden/Tibert Quarry
10 Waterville Road, Belfast, Maine
Rockport Granite, Inc.



Stream Crossing #2 – 18"x25' HDPE culvert

Belden/Tibert Quarry
10 Waterville Road, Belfast, Maine
Rockport Granite, Inc.



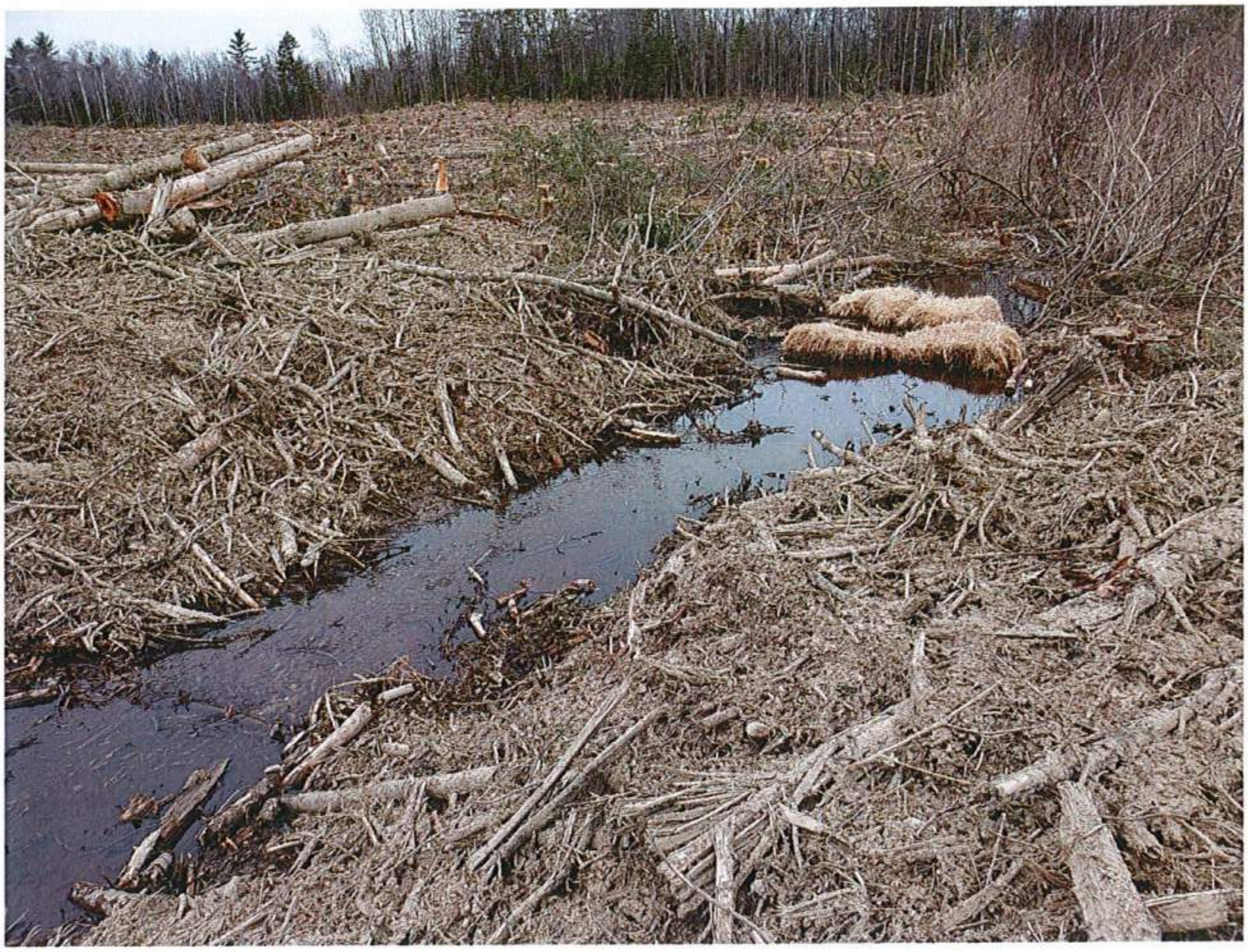
Stream Crossing #3 – 24"x25' HDPE culvert

Belden/Tibert Quarry
10 Waterville Road, Belfast, Maine
Rockport Granite, Inc.

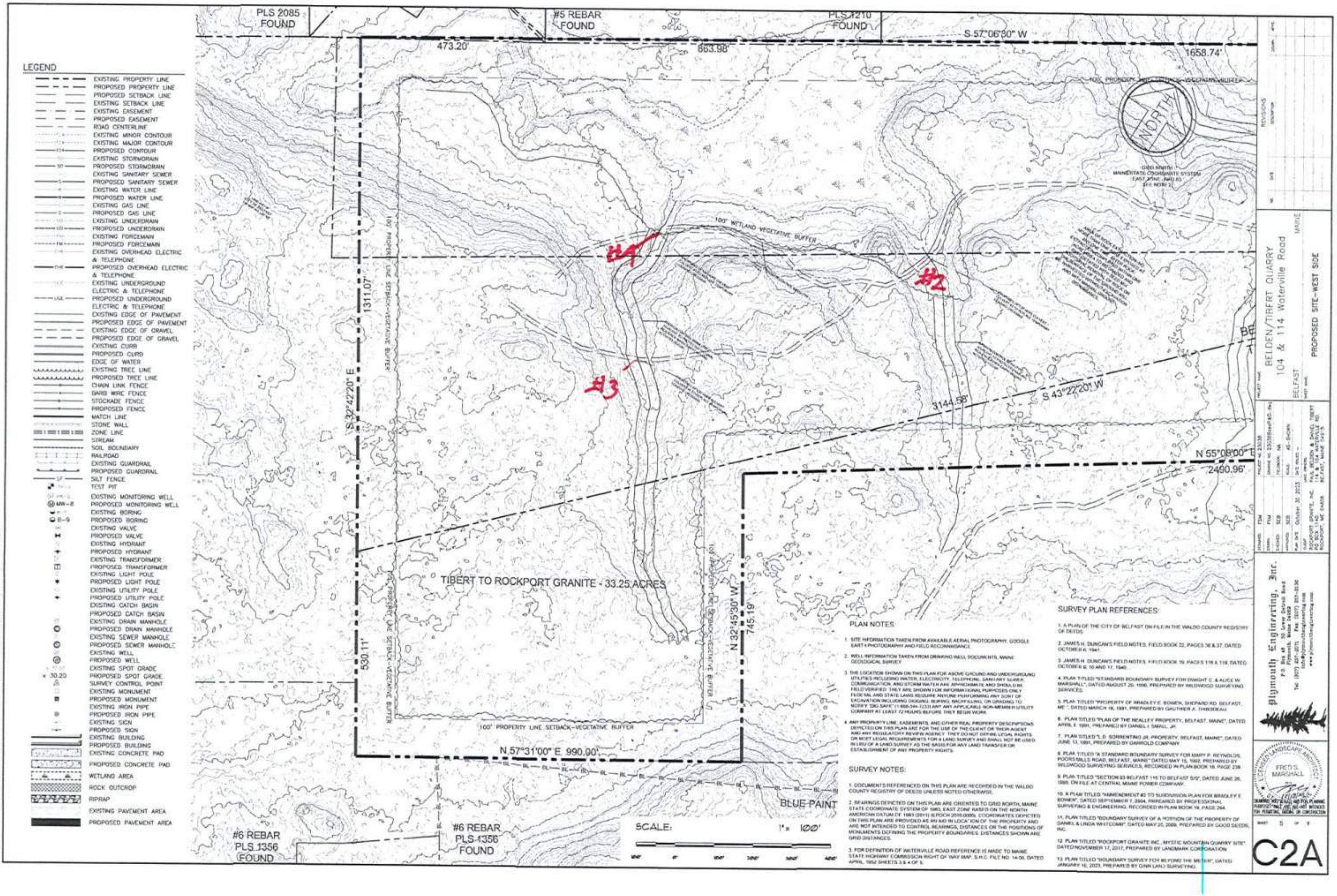
St

Stream Crossing #4 – Replace tempoary logging crossing with 24"x25' HDPE culvert

Belden/Tibert Quarry
10 Waterville Road, Belfast, Maine
Rockport Granite, Inc.



Stream Crossing # – Replace tempoary logging crossing with 24"x30' HDPE culvert


LEGEND
EXISTING PROPERTY LINE
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ROAD CENTERLINE
EXISTING MINOR CONTOUR
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EXISTING SANITARY SEWER
PROPOSED SANITARY SEWER
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EXISTING GAS LINE
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EXISTING OVERHEAD ELECTRIC & TELEPHONE
PROPOSED OVERHEAD ELECTRIC & TELEPHONE
EXISTING UNDERGROUND ELECTRIC & TELEPHONE
PROPOSED UNDERGROUND ELECTRIC & TELEPHONE
EXISTING EDGE OF PAVEMENT
PROPOSED EDGE OF PAVEMENT
EXISTING EDGE OF GRAVEL
PROPOSED EDGE OF GRAVEL
EXISTING CURB
PROPOSED CURB
EDGE OF WATER
EXISTING TREE LINE
PROPOSED TREE LINE
CHAIN LINK FENCE
BARB WIRE FENCE
STOCKADE FENCE
PROPOSED FENCE
MATCH LINE
STONE WALL
ZONE LINE
STREAM
SOIL BOUNDARY
RAILROAD
EXISTING GUARDRAIL
PROPOSED GUARDRAIL
SILT FENCE
TEST PIT
EXISTING MONITORING WELL
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EXISTING BORING
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EXISTING VALVE
PROPOSED VALVE
EXISTING HYDRANT
PROPOSED HYDRANT
EXISTING TRANSFORMER
PROPOSED TRANSFORMER
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PROPOSED LIGHT POLE
EXISTING UTILITY POLE
PROPOSED UTILITY POLE
EXISTING CATCH BASIN
PROPOSED CATCH BASIN
EXISTING DRAIN MANHOLE
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EXISTING SEWER MANHOLE
PROPOSED SEWER MANHOLE
EXISTING WELL
PROPOSED WELL
EXISTING SPOT GRADE
PROPOSED SPOT GRADE
SURVEY CONTROL POINT
EXISTING MONUMENT
PROPOSED MONUMENT
EXISTING IRON PIPE
PROPOSED IRON PIPE
EXISTING SIGN
PROPOSED SIGN
EXISTING BUILDING
PROPOSED BUILDING
EXISTING CONCRETE PAD
PROPOSED CONCRETE PAD
WETLAND AREA
ROCK OUTCROP
RIPRAP
EXISTING PAVEMENT AREA
PROPOSED PAVEMENT AREA
MW-8
B-9
30.20
PLS 2085 FOUND
#5 REBAR FOUND
PLS 1210 FOUND
S 57°06'00" W
473.20'
863.98'
1658.74'
100' PROPERTY LINE SETBACK-VEGETATIVE BUFFER
NORTH
GRID NORTH MAINE STATE COORDINATE SYSTEM EAST ZONE (NAD 83) SEE NOTE 2
100' WETLAND VEGETATIVE BUFFER
#4
#2
#3
S 32°42'20" E
1311.07'
530.11'
S 43°22'20" W
3144.58'
N 55°08'00" E
2490.96'
TIBERT TO ROCKPORT GRANITE - 33.25 ACRES
N 32°45'30" W
745.19'
N 57°31'00" E 990.00'
BLUE PAINT
#6 REBAR PLS 1356 FOUND
#6 REBAR PLS 1356 FOUND
SCALE: 1" = 100'
REVISIONS
NO. DATE DESCRIPTION DRAWN APPD
Plymouth Engineering, Inc.
P.O. Box 46 30 Lower Detroit Road Plymouth, Maine 04969
Tel. (207) 257-2071 Fax (207) 257-2130
info@plymouthengineering.com
www.plymouthengineering.com
DESIGNED FSM
DRAWN FSM
CHECKED SEB
APPROVED SEB
PLAN DATE October 30, 2023
CLIENT ROCKPORT GRANITE, INC. PO BOX 1140 ROCKPORT, ME 04856
PROJECT NO. 23038
DRAWING NO. 23038BaseP&D...
FIELDBOOK NA
SCALE AS SHOWN
DATE REVISED -
LAND OWNERS PAUL BELDEN & DANIEL TIBERT 114 & 104 WATERVILLE RD BELFAST, MAINE 04915
PROJECT NAME
BELDEN/TIBERT QUARRY
104 & 114 Waterville Road
BELFAST MAINE
SHEET NAME
PROPOSED SITE-WEST SIDE
LICENSED LANDSCAPE ARCHITECT FRED S. MARSHALL
SHEET 5 OF 9
C2A

PLAN NOTES:

1. SITE INFORMATION TAKEN FROM AVAILABLE AERIAL PHOTOGRAPHY, GOOGLE EARTH PHOTOGRAPHY AND FIELD RECONNAISSANCE.

2. WELL INFORMATION TAKEN FROM DRINKING WELL DOCUMENTS, MAINE GEOLOGICAL SURVEY.

3. THE LOCATION SHOWN ON THIS PLAN FOR ABOVE GROUND AND UNDERGROUND UTILITIES INCLUDING WATER, ELECTRICITY, TELEPHONE, SANITARY SEWER, COMMUNICATION, AND STORM WATER ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED. THEY ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. FEDERAL AND STATE LAWS REQUIRE ANYONE PERFORMING ANY SORT OF EXCAVATION INCLUDING DIGGING, BORING, BACKFILLING, OR GRADING TO NOTIFY "DIG SAFE" (1-888-344-7233) ANY ANY APPLICABLE NON-MEMBER UTILITY COMPANY AT LEAST 72 HOURS BEFORE THEY BEGIN WORK.

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3. FOR DEFINITION OF WATERVILLE ROAD REFERENCE IS MADE TO MAINE STATE HIGHWAY COMMISSION RIGHT OF WAY MAP, S.H.C. FILE NO. 14-36, DATED APRIL, 1952 SHEETS 3 & 4 OF 5.

SURVEY PLAN REFERENCES:

1. A PLAN OF THE CITY OF BELFAST ON FILE IN THE WALDO COUNTY REGISTRY OF DEEDS.

2. JAMES H. DUNCAN'S FIELD NOTES, FIELD BOOK 22, PAGES 36 & 37, DATED OCTOBER 6, 1941.

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9. PLAN TITLED "SECTION 93 BELFAST 115 TO BELFAST S/S", DATED JUNE 26, 1995, ON FILE AT CENTRAL MAINE POWER COMPANY.

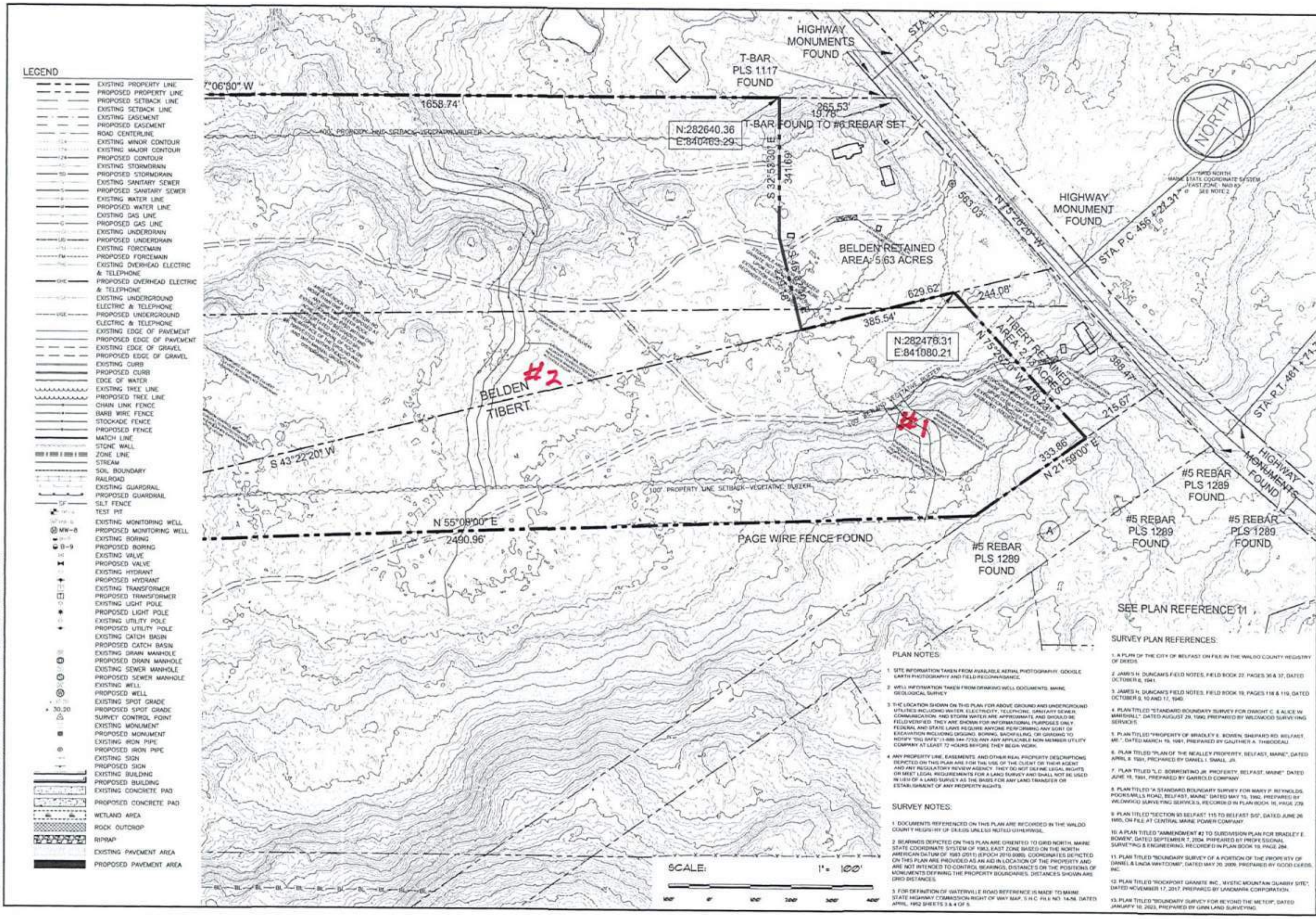
10. A PLAN TITLED "AMMENDMENT #2 TO SUBDIVISION PLAN FOR BRADLEY E. BOWEN", DATED SEPTEMBER 7, 2004, PREPARED BY PROFESSIONAL SURVEYING & ENGINEERING, RECORDED IN PLAN BOOK 19, PAGE 264.

11. PLAN TITLED "BOUNDARY SURVEY OF A PORTION OF THE PROPERTY OF DANIEL & LINDA WHITCOMB" DATED MAY 25, 2009, PREPARED BY GOOD DEEDS, INC.

12. PLAN TITLED "ROCKPORT GRANITE INC., MYSTIC MOUNTAIN QUARRY SITE" DATED NOVEMBER 17, 2017, PREPARED BY LANDMARK CORPORATION.

13. PLAN TITLED "BOUNDARY SURVEY FOR BEYOND THE METER", DATED JANUARY 10, 2023, PREPARED BY GINN LAND SURVEYING.

Dec 18, 2023 - 1:54pm
J:\2023\23038 - Tibert Quarry - Belfast - Rockport Granite\Drawings\CIVIL\23038 Belden and Tibert Plogs & Site Base with combined site dwg


LEGEND
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PROPOSED PROPERTY LINE
PROPOSED SETBACK LINE
EXISTING SETBACK LINE
EXISTING EASEMENT
PROPOSED EASEMENT
ROAD CENTERLINE
EXISTING MINOR CONTOUR
EXISTING MAJOR CONTOUR
PROPOSED CONTOUR
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PROPOSED STORMDRAIN
EXISTING SANITARY SEWER
PROPOSED SANITARY SEWER
EXISTING WATER LINE
PROPOSED WATER LINE
EXISTING GAS LINE
PROPOSED GAS LINE
EXISTING UNDERDRAIN
PROPOSED UNDERDRAIN
EXISTING FORCEMAIN
PROPOSED FORCEMAIN
EXISTING OVERHEAD ELECTRIC & TELEPHONE
PROPOSED OVERHEAD ELECTRIC & TELEPHONE
EXISTING UNDERGROUND ELECTRIC & TELEPHONE
PROPOSED UNDERGROUND ELECTRIC & TELEPHONE
EXISTING EDGE OF PAVEMENT
PROPOSED EDGE OF PAVEMENT
EXISTING EDGE OF GRAVEL
PROPOSED EDGE OF GRAVEL
EXISTING CURB
PROPOSED CURB
EDGE OF WATER
EXISTING TREE LINE
PROPOSED TREE LINE
CHAIN LINK FENCE
BARB WIRE FENCE
STOCKADE FENCE
PROPOSED FENCE
MATCH LINE
STONE WALL
ZONE LINE
STREAM
SOIL BOUNDARY
RAILROAD
EXISTING GUARDRAIL
PROPOSED GUARDRAIL
SILT FENCE
TEST PIT
EXISTING MONITORING WELL
PROPOSED MONITORING WELL
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EXISTING VALVE
PROPOSED VALVE
EXISTING HYDRANT
PROPOSED HYDRANT
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PROPOSED DRAIN MANHOLE
EXISTING SEWER MANHOLE
PROPOSED SEWER MANHOLE
EXISTING WELL
PROPOSED WELL
EXISTING SPOT GRADE
PROPOSED SPOT GRADE
SURVEY CONTROL POINT
EXISTING MONUMENT
PROPOSED MONUMENT
EXISTING IRON PIPE
PROPOSED IRON PIPE
EXISTING SIGN
PROPOSED SIGN
EXISTING BUILDING
PROPOSED BUILDING
EXISTING CONCRETE PAD
PROPOSED CONCRETE PAD
WETLAND AREA
ROCK OUTCROP
RIPRAP
EXISTING PAVEMENT AREA
PROPOSED PAVEMENT AREA
MW-8
B-9
30.20
HIGHWAY MONUMENTS FOUND
T-BAR PLS 1117 FOUND
T-BAR FOUND TO #6 REBAR SET
265.53'
19.78'
1658.74'
7°06'30" W
100' PROPERTY LINE SETBACK-VEGETATIVE BUFFER
N:282640.36
E:840463.29
S 32°58'30" E
341.69'
563.03'
N 75°26'20" W
HIGHWAY MONUMENT FOUND
NORTH
GRID NORTH MAINE STATE COORDINATE SYSTEM EAST ZONE - NAD 83 SEE NOTE 2
STA. P.C. 456+21.31
STA. P.T. 461+71.7
BELDEN RETAINED AREA: 5.63 ACRES
629.62'
244.08'
385.54'
N:282476.31
E:841080.21
TIBERT RETAINED AREA: 2.13 ACRES
N 75°26'20" W 478.23'
388.47'
215.67'
333.86'
N 21°59'00" E
#2
#1
BELDEN
TIBERT
S 43°22'20" W
100' PROPERTY LINE SETBACK-VEGETATIVE BUFFER
N 55°08'00" E
2490.96'
PAGE WIRE FENCE FOUND
#5 REBAR PLS 1289 FOUND
#5 REBAR PLS 1289 FOUND
#5 REBAR PLS 1289 FOUND
HIGHWAY MONUMENTS FOUND
A
SEE PLAN REFERENCE 11
SCALE:
1" = 100'
100
0
100
200
300
400

PLAN NOTES:

1. SITE INFORMATION TAKEN FROM AVAILABLE AERIAL PHOTOGRAPHY, GOOGLE EARTH PHOTOGRAPHY AND FIELD RECONNAISSANCE.
2. WELL INFORMATION TAKEN FROM DRINKING WELL DOCUMENTS, MAINE GEOLOGICAL SURVEY.
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3. FOR DEFINITION OF WATERVILLE ROAD REFERENCE IS MADE TO MAINE STATE HIGHWAY COMMISSION RIGHT OF WAY MAP, S.H.C. FILE NO. 14-56, DATED APRIL, 1952 SHEETS 3 & 4 OF 5.

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11. PLAN TITLED "BOUNDARY SURVEY OF A PORTION OF THE PROPERTY OF DANIEL & LINDA WHITCOMB", DATED MAY 20, 2009, PREPARED BY GOOD DEEDS, INC.
12. PLAN TITLED "ROCKPORT GRANITE INC., MYSTIC MOUNTAIN QUARRY SITE", DATED NOVEMBER 17, 2017, PREPARED BY LANDMARK CORPORATION.
13. PLAN TITLED "BOUNDARY SURVEY FOR BEYOND THE METER", DATED JANUARY 10, 2023, PREPARED BY GINN LAND SURVEYING.

NO.	DATE	REVISIONS DESCRIPTION	DRAWN	APPD

PROJECT NAME:
BELDEN/TIBERT QUARRY
104 & 114 Waterville Road
BELFAST MAINE
SHEET NAME:
PROPOSED SITE-EAST SIDE

DESIGNED	FSM	PROJECT NO. 23C38	
DRAWN	FSM	DRAWING NO. 23C38SitePAD.dwg	
CHECKED	SCB	FIELDBOOK: NA	
APPROVED	SCB	SCALE: AS SHOWN	
PLAN DATE:	October 30 2023	DATE ISSUED: -	

CLIENT:
ROCKPORT GRANITE, INC.
PO BOX 1140
ROCKPORT, ME 04856

LAND OWNERS:
PAUL BELDEN & DANIEL TIBERT
114 & 104 WATERVILLE RD
BELFAST, MAINE 04915

Plymouth Engineering, Inc.
P.O. Box 46 30 Lower Detroit Road
Plymouth, Maine 04969
Tel (207) 257-2071 Fax (207) 257-2130
info@plymouthengineering.com
www.plymouthengineering.com

LICENSED LANDSCAPE ARCHITECT
FRED S. MARSHALL

DRAWING NOT ISSUED FOR PERMITTING PURPOSES ONLY AND NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION

SHEET 6 OF 9

C2B

Dec 18, 2023 - 1:13pm
J:\2023\23C38 - Tibert Quarry - Belfast - Rockport Granite\J. Drawings\CIVIL\23C38-Belden and Tibert-Plans & Dig Base with combined lots.dwg

EROSION AND SEDIMENT CONTROL PLAN

Pre-Construction Phase

A person who conducts, or causes to be conducted, an activity that involves filling, displacing or exposing soil or other earthen materials shall take measures to prevent unreasonable erosion of soil or sediment beyond the project site or into a protected natural resource as defined in 38 MRSA § 480-B. Erosion control measures must be in place before the activity begins. Measures must remain in place and functional until the site is permanently stabilized. Adequate and timely temporary and permanent stabilization measures must be taken. The site must be maintained to prevent unreasonable erosion and sedimentation. Minimize disturbed areas and protect natural downgradient buffer areas to the extent practicable.

BMP Construction Phase

A. Sediment barriers. Prior to the beginning of any construction, properly install sediment barriers at the edge of any downgradient disturbed area and adjacent to any drainage channels within the proposed disturbed area. Maintain the sediment barriers until the disturbed area is permanently stabilized.

B. Construction entrance: Prior to any clearing or grubbing, a construction entrance shall be constructed at the intersection with the proposed access drive and the existing roadway to avoid tracking of mud, dust and debris from the site.

C. Riprap: Since riprap is used where erosion potential is high, construction must be sequenced so that the riprap is put in place with the minimum delay. Disturbance of areas where riprap is to be placed should be undertaken only when final preparation and placement of the riprap can follow immediately behind the initial disturbance. Where riprap is used for outlet protection, the riprap should be placed before or in conjunction with the construction of the pipe or channel so that it is in place when the pipe or channel begins to operate. Maintain temporary riprap, such as temporary check dams until the disturbed area is permanently stabilized.

D. Temporary stabilization. Stabilize with temporary seeding, mulch, or other non-erodable cover any exposed soils that will remain unworked for more than 14 days except, stabilize areas within 100 feet of a wetland or waterbody within 7 days or prior to a predicted storm event, whichever comes first. If hay or straw mulch is used, the application rate must be 2 bales (70-90 pounds) per 1000 sf or 1.5 to 2 tons (90-100 bales) per acre to cover 75 to 90% of the ground surface. Hay mulch must be kept moist or anchored to prevent wind blowing. An erosion control blanket or mat shall be used at the base of grassed waterways, steep slopes (15% or greater) and on any disturbed soil within 100 feet of lakes, streams and wetlands. Grading shall be planned so as to minimize the length of time between initial soil exposure and final grading. On large projects this should be accomplished by phasing the operation and completing the first phase up to final grading and seeding before starting the second phase, and so on.

E. Vegetated waterway. Upon final grading, the disturbed areas shall be immediately seeded to permanent vegetation and mulched and will not be used as outlets until a dense, vigorous vegetative cover has been obtained. Once soil is exposed for waterway construction, it should be immediately shaped, graded and stabilized. Vegetated waterways need to be stabilized early during the growing season (prior to September 15). If final seeding of waterways is delayed past September 15, emergency provisions such as sod or riprap may be required to stabilize the channel. Waterways should be fully stabilized prior to directing runoff to them.

Permanent Stabilization Defined

A. Seeded areas. For seeded areas, permanent stabilization means an 90% cover of the disturbed area with mature, healthy plants with no evidence of washing or rilling of the topsoil.

B. Sodded areas. For sodded areas, permanent stabilization means the complete binding of the sod roots into the underlying soil with no slumping of the sod or die-off.

C. Permanent mulch. For mulched areas, permanent mulching means total coverage of the exposed area with an approved mulch material. Erosion control mix may be used as mulch for permanent stabilization according to the approved application rates and limitations.

D. Riprap. For areas stabilized with riprap, permanent stabilization means that slopes stabilized with riprap have an appropriate backing of a well-graded gravel or approved geotextile to prevent soil movement from behind the riprap. Stone must be sized appropriately. It is recommended that angular stone be used.

E. Agricultural use. For construction projects on land used for agricultural purposes (E.G., pipelines across crop land), permanent stabilization may be accomplished by returning the disturbed land to agricultural use.

F. Paved areas. For paved areas, permanent stabilization means the placement of the compacted gravel subbase is completed.

G. Ditches, channels, and swales. For open channels, permanent stabilization means the channel is stabilized with mature vegetation at least three inches in height, with well-graded riprap, or with another non-erosive lining capable of withstanding the anticipated flow velocities and flow depths without reliance on check dams to slow flow. There must be no evidence of slumping of the lining, undercutting of the banks, or down-cutting of the channel.

General Construction Phase

The following erosion control measures shall be followed by the contractor throughout construction of this project:

A. All topsoil shall be collected, stockpiled, seeded with rye at 3 pounds/1,000 sf and mulched, and reused as required. Silt fencing shall be placed down gradient from the stockpiled loam. Stockpile to be located by designation of the owner and inspecting engineer.

B. The inspecting engineer at his/her discretion, may require additional erosion control measures and/or supplemental vegetative provisions to maintain stability of earthworks and finish graded areas. The contractor shall be responsible for providing and installing any supplemental measures as directed by the inspecting engineer. Failure to comply with the engineer's directions will result in discontinuation of construction activities.

C. Erosion control mesh shall be applied in accordance with the plans over all finish seeded areas as specified on the design plans.

D. All graded or disturbed areas including slopes shall be protected during clearing and construction in accordance with the approved erosion and sediment control plan until they are adequately stabilized.

E. All erosion, and sediment control practices and measures shall be constructed, applied and maintained in accordance with the approved erosion and sediment control plan.

F. Areas to be filled shall be cleared, grubbed and stripped of topsoil to remove trees, vegetation, roots or other objectionable materials.

G. Areas shall be scarified to a minimum depth of 3 inches prior to placement of topsoil.

H. All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence or other related problems. Fill intended to support buildings, structures and conduits, etc., shall be compacted in accordance with local requirements or codes.

I. All fills shall be placed and compacted in layers not to exceed 8 inches in thickness.

J. Except for approved landfills or non-structural fills, fill material shall be free of brush, rubbish, rocks, logs, stumps, building debris and other objectionable materials that would interfere with or prevent construction of satisfactory fills.

K. Frozen material or soft, mucky or highly compressible materials shall not be incorporated into fill slopes or structural fills.

L. Fill shall not be placed on a frozen foundation.

M. Seeps or springs encountered during construction shall be handled appropriately.

N. All graded areas shall be permanently stabilized immediately following finished grading.

O. Remove any temporary control measures, such as silt fence, within 30 days after permanent stabilization is attained. Remove any accumulated sediments and stabilize.

Permanent Vegetation

Permanent vegetative cover should be established on disturbed areas where permanent, long lived vegetative cover is needed to stabilize the soil, to reduce damages from sediment and runoff, and to enhance the environment.

Seedbed Preparation

A. Grade as feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application and anchoring, and maintenance.

B. Apply limestone and fertilizer according to soil tests such as those offered by the University of Maine soil testing laboratory. Soil sample mailers are available from the local cooperative extension service office. If soil testing is not feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 800 pounds per acre or 18.4 pounds per 1,000 square feet using 10-20-20 (n-p2o5-k2o) or equivalent. Apply ground limestone (equivalent to 50% calcium plus magnesium oxide) at a rate of 3 tons per acre (138 lb. per 1,000 sq. ft).

C. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, spring tooth harrow or other suitable equipment. The final harrowing operation should be on the general contour. Continue tillage until a reasonably uniform, fine seedbed is prepared. All but clay or silty soils and coarse sands should be rolled to firm the seedbed wherever feasible. D. Remove from the surface all stones 2 inches or larger in any dimension. Remove all other debris, such as wire, cable, tree roots, concrete, clods, lumps or other unsuitable material.

E. Inspect seedbed just before seeding. If traffic has left the soil compacted; the area must be tilled and firmed as above.

F. Permanent seeding should be made 45 days prior to the first killing frost or as a dormant seeding with mulch after the first killing frost and before snowfall. When crown vetch is seeded in later summer, at least 35% of the seed should be hard seed (unscarified). If seeding cannot be done within the seeding dates, mulch according to the temporary mulching BMP and overwinter stabilization and construction to protect the site and delay seeding until the next recommended seeding period.

G. Following seed bed preparation, swale areas, fill areas and back slopes shall be seeded at a rate of 3 lbs/1,000 s.f. with a mixture of 35% creeping red fescue, 6% red top, 24% Kentucky bluegrass, 10% perennial ryegrass, 20% annual ryegrass and 5% white Dutch clover.

I. Areas which have been temporarily or permanently seeded shall be mulched immediately following seeding.

J. Areas which cannot be seeded within the growing season shall be mulched for over-winter protection and the area should be seeded at the beginning of the growing season.

Winter Construction Phase

If an area is not stabilized with temporary or permanent measures by November 15, then the site must be protected with additional stabilization measures.

A. Permanent stabilization consists of at least 90% vegetation, pavement/gravel base or riprap.

B. Do not expose slopes or leave slopes exposed over the winter or for any other extended time of work suspension unless fully protected with mulch.

C. Apply hay mulch at twice the standard rate (150 lbs. per 1,000 sf). The mulch must be thick enough such that the ground surface will not be visible and must be anchored.

D. Use mulch and mulch netting or an erosion control mulch blanket on all slopes greater than 8 % or other areas exposed to direct wind.

E. Install an erosion control blanket in all drainageways (bottom and sides) with a slope greater than 3 %.

F. See the vegetation measures for more information on seeding dates and types.

G. Winter excavation and earthwork shall be completed so that no more than 1 acre of the site is without stabilization at any one time.

H. An area within 100 feet of a protected natural resource must be protected with a double row of sediment barrier.

I. Temporary mulch must be applied within 7 days of soil exposure or prior to any storm event, but after every workday in areas within 100 feet from a protected natural resource.

J. Areas that have been brought to final grade must be permanently mulched that same day.

K. If snowfall is greater than 1 inch (fresh or cumulative), the snow shall be removed from the areas due to be seeded and mulched.

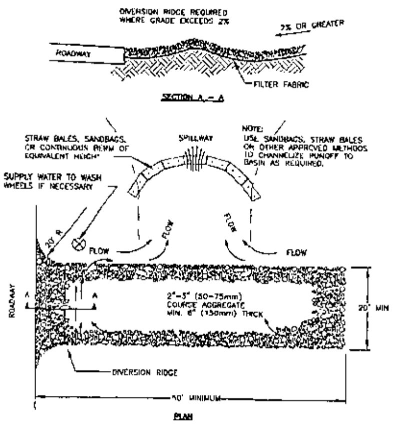
L. Loam shall be free of frozen clumps before it is applied.

M. All vegetated ditch lines that have not been stabilized by November 1, or will be worked during the winter construction period, must be stabilized with an appropriate stone lining backed by an appropriate gravel bed or geotextile unless specifically released from the standard by the department.

Maintenance and Inspection Phase

A. Contractor shall inspect disturbed and impervious areas, and erosion and stormwater control measures, areas used for storage that are exposed to precipitation, and locations where vehicles enter or exit the parcel at least once a week and before and after a storm event, prior to completion of permanent stabilization. A person with knowledge of erosion and stormwater must conduct the inspection. This person must be identified in the inspection log. If best management practices (BMPs) need to be modified or if additional BMPs are necessary, implementation must be completed within 7 calendar days and prior to any storm event (rainfall). All measures must be maintained in effective operating condition until areas are permanently stabilized.

B. A log (report) must be kept summarizing the scope of the inspection, name(s) and qualifications of the personnel making the inspection, the date(s) of the inspection, and major observations relating to operation of erosion and sedimentation controls and pollution prevention measures. Major observations must include, BMPs that need to be maintained, location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location; and location(s) where additional BMPs are needed that did not exist at the time of inspection. Follow-up to correct deficiencies or enhance controls must also be indicated in the log and dated, including what action was taken and when.



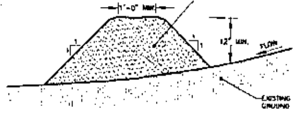
DIVERSION RIDGE REQUIRED WHERE GRADE EXCEEDS 2%
2% OR GREATER
ROADWAY
FILTER FABRIC
SECTION A – A
STRAW BALES, SANDBAGS, OR CONTINUOUS BERM OF EQUIVALENT HEIGHT
SPILLWAY
NOTE: USE SANDBAGS, STRAW BALES OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.
SUPPLY WATER TO WASH WHEELS IF NECESSARY
FLOW
2"-3" (50-75mm) COURSE AGGREGATE MIN. 6" (150mm) THICK
20' MIN
DIVERSION RIDGE
50' MINIMUM
PLAN
ROADWAY

NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

NOTE:
DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.

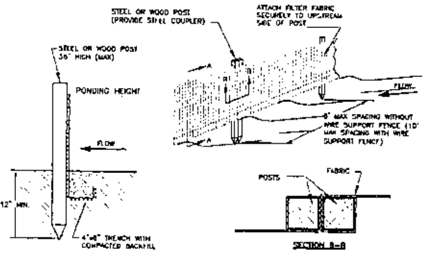


EROSION CONTROL MIX

EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & 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% - 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
- pH SHALL FALL BETWEEN 5.0 - 8.0.

EROSION CONTROL MIX BERM

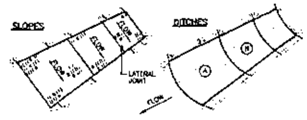
NOT TO SCALE



STEEL OR WOOD POST (PROVIDE STEEL COUPLER)
ATTACH FILTER FABRIC SECURELY TO UPSTREAM SIDE OF POST
STEEL OR WOOD POST 36" HIGH (MAX)
PONDING HEIGHT
FLOW
12" MIN.
8' MAX SPACING WITHOUT WIRE SUPPORT FENCE (10' MAX SPACING WITH WIRE SUPPORT FENCE)
POSTS
FABRIC
4"x6" TRENCH WITH COMPACTED BACKFILL
SECTION A-A
SECTION B-B

SILT FENCE

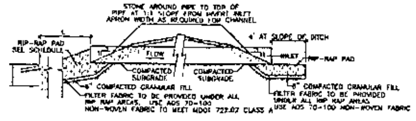
NOT TO SCALE



NOTES:
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.
5. WIRE STAPLES TO BE MIN. OF #11 WIRE, 6" LONG & 1-1/2" WIDE.
6. USE NORTH AMERICAN GREEN DS 150 (OR APPROVED EQUAL) ON SLOPES BETWEEN 4:1-2:1. USE NORTH AMERICAN GREEN VMAX SC250 PERMANENT TURF REINFORCEMENT MAT (OR APPROVED EQUAL) ON SLOPES 2:1 AND STEEPER.

EROSION CONTROL BLANKET

NOT TO SCALE



STONE AROUND PIPE TO TOP OF PIPE AT 1:1 SLOPE FROM INVERT INLET APRON WIDTH AS REQUIRED FOR CHANNEL
L
4' AT SLOPE OF DITCH
RIP-RAP PAD SEE SCHEDULE
FLOW
INLET
RIP-RAP PAD
COMPACTED SUBGRADE
COMPACTED SUBGRADE
6" COMPACTED GRANULAR FILL
FILTER FABRIC TO BE PROVIDED UNDER ALL RIP RAP AREAS. USE AOS 70-100 NON-WOVEN FABRIC TO MEET MDOT 722.07 CLASS A
6" COMPACTED GRANULAR FILL
FILTER FABRIC TO BE PROVIDED UNDER ALL RIP RAP AREAS. USE AOS 70-100 NON-WOVEN FABRIC

RIP RAP INLET SCHEDULE

DIA.	d50	t	L	W
12"	4"	9"	3.5'	3.0'
15"	5"	12"	4.5'	3.75'
18"	6"	14"	5.25'	4.5'
24"	8"	14"	7.0'	6.0'
36"	10"	23"	10.5'	9.0'
48"	12"	27"	14.0'	12.0'

RIP RAP OUTLET SCHEDULE

DIA.	d50	t	L	W
12"	4"	9"	5'	4'
15"	5"	12"	6.25'	5'
18"	6"	14"	7.5'	6'
24"	8"	14"	10'	8'
36"	10"	23"	15'	12'
48"	12"	27"	20'	16'

TEMP. STREAM CROSSING CULVERT INLET/OUTLET DETAIL

NOT TO SCALE

NOTE
1. RIP RAP PROTECTION TO BE ANGULAR STONE

CONSTRUCTION NOTES:

1. All work shall conform to the applicable codes and ordinances.

2. Contractor shall visit the site and familiarize him or herself with all conditions affecting the proposed work and shall make provisions as to the cost thereof. Contractor shall be responsible for familiarizing him or herself with all contract documents, field conditions and dimensions and confirming that the work may be accomplished as shown prior to proceeding with construction. Any discrepancies shall be brought to the attention of the engineer prior to the commencement of work.

3. Contractor shall notify engineer of all products or items noted as "existing" which are not found in the field.

4. Install all equipment and materials in accordance with manufacturer's recommendations and owner's requirements unless specifically otherwise indicated or where local codes or regulations take precedence.

5. Contractor shall verify all dimensions and conditions in the field prior to fabrication and erection of any material. Any unusual conditions shall be reported to the attention of the engineer.

6. Contractor shall clean and remove debris and sediment deposited on public streets, sidewalks, adjacent areas, or other public ways due to construction.

7. Contractor shall incorporate provisions as necessary in construction to protect existing structures, physical features, and maintain site stability during construction. Contractor shall restore all areas to original condition and as directed by design drawings.

8. Site contractor shall obtain all required permits prior to construction.

9. All erosion and sediment control measures shall be installed in accordance with "Maine Erosion and Sedimentation Control Handbook for Construction: Best Management Practices" published by the Cumberland County Soil and Water Conservation District and Maine Department of Environmental Protection, March 2004 or latest edition. It shall be the responsibility of the contractor to possess a copy of the erosion control plan at all times.

10. The contractor is hereby cautioned that all site features shown hereon are based on field observations by the surveyor and by information provided by utility companies. The information is not to be relied on as being exact or complete. The contractor shall contact Dig Safe (1-888-digsafe) at least three (3) but not more than thirty (30) days prior to commencement of excavation or demolition to verify horizontal and vertical location of all utilities.

11. Contractor shall be aware that Dig Safe only notifies its "member" utilities about the dig. When notified, Dig Safe will advise contractor of member utilities in the area. Contractor is responsible for identifying and contacting non-member utilities directly. Non-member utilities may include town or city water and sewer districts and small local utilities, as well as USG public works systems.

12. Contractors shall be responsible for compliance with the requirements of 23 MRSA 3360-A. It shall be the responsibility of the contractor to coordinate with the appropriate utilities to obtain authorization prior to relocation of any existing utilities which conflict with the proposed improvements shown on these plans. If a utility conflict arises, the contractor shall immediately notify the owner, the municipality and appropriate utility company prior to proceeding with any relocation.

13. All pavement markings and directional signage shown on the plan shall conform to the Manual of Uniform Traffic Control Devices (MUTCD) standards.

14. All pavement joints shall be sawcut prior to paving to provide a durable and uniform joint.

15. No holes, trenches or structures shall be left open overnight in any excavation accessible to the public or in public rights-of-way.

16. All work within the public right-of-way shall require a M.D.O.T. Permit as well as permits from the town as applicable.

17. The proposed limits of clearing shown hereon are approximate based upon the proposed limits of site grading. The applicant reserves the right to perform normal forest management activities outside of the clearing limit as shown. Tree removal outside of the limits of clearing may be necessary to remove dead or dying trees or tree limbs. This removal is due to potential safety hazards and to promote proper forest growth.

18. Immediately upon completion of cuts/fills, the contractor shall stabilize disturbed areas in accordance with erosion control notes and as specified on plans.

19. The contractor shall be fully and solely responsible for the removal, replacement and rectification of all damaged and defective material and workmanship in connection with the contract work. The contractor shall replace or repair as directed by the owner all such damaged or defective materials which appear within a period of one year from the date of substantial completion.

20. All work performed by the general contractor and/or trade subcontractor shall conform to the requirements of local, state or federal laws, as well as any other governing requirements, whether or not specified on the drawings.

21. Where the terms "approved equal", "other approved", "equal to", "acceptable" or other general qualifying terms are used in these notes, it shall be understood that reference is made to the ruling and judgment of the owner and/or owner's engineer.

22. The general contractor shall provide all necessary protection for the work until turned over to the owner.

23. The general contractor shall maintain a current and complete set of construction drawings on site during all phases of construction for use of all trades.

24. The contractor shall take full responsibility for any changes and deviation of approved plans not authorized by the architect/engineer and/or client/owner.

25. Details are intended to show end result of design. Any modification to suit field dimension and condition shall be submitted to the engineer for review and approval prior to any work.

26. Before the final acceptance of the project, the contractor shall remove all equipment and materials, repair or replace private or public property which may have been damaged or destroyed during construction, clean the areas within and adjacent to the project which have been obstructed by his/her operations, and leave the project area neat and presentable.

SPACE INTENTIONALLY LEFT BLANK

BELDEN/TIBERT QUARRY
104 & 114 Waterville Road
BELFAST
MAINE
EROSION & SEDIMENTATION CONTROL PLAN
AND CONSTRUCTION DETAILS

PROJECT # 23038
DRAWING 23038
SCALE AS-SHOWN
PLAN DATE October 30 2023

DESIGNED FSM
DRAWN FSM
CHECKED SEB
APPROVED SEB

ROCKPORT GRANITE INC
PO BOX 1140
ROCKPORT, ME 04856

PAUL BELDEN & DAVID TIBERT
114 & 104 WATERVILLE RD
BELFAST, MAINE 04915

Plymouth Engineering, Inc.
P.O. Box 46, 30 Lower Detroit Road
Plymouth, Maine 04969
Tel (207) 257-2071 Fax (207) 257-8150
www.plymouthengineering.com

FRED S. MARSHALL

SHEET 9 of 9

C3

Dec 18 2023 - 1:55pm

Rockport Granite, Inc.
Tibert/Beldon Property
Waterville Road, Belfast, Maine

EROSION AND SEDIMENTATION CONTROL PLAN

The purpose of the Erosion and Sedimentation Control Plan is to minimize soil erosion and transportation of sediments both off-site and into environmentally sensitive areas. Through careful construction practices and implementation of the erosion and sedimentation control measures, soil loss and the resulting environmental damage can be minimized. This plan outlines practices for temporary controls during construction of the expanded project and permanent control measures once the project is complete.

Pre-Construction: A person who conducts, or causes to be conducted, an activity that involves filling, displacing or exposing soil or other earthen materials shall take measures to prevent unreasonable erosion of soil or sediment beyond the project site or into a protected natural resource as defined in 38 MRSA § 480-B. Erosion control measures must be in place before the activity begins. Measures must remain in place and functional until the site is permanently stabilized. Adequate and timely temporary and permanent stabilization measures must be taken. The site must be maintained to prevent unreasonable erosion and sedimentation. Minimize disturbed areas and protect natural downgradient buffer areas to the extent practicable.

Site Soil Types:

BoB-Boothbay Silt Loam 3-8% slopes
Depth to restrictive feature: >80"
Natural drainage class: Somewhat poorly drained
Hydrological Soil Group: D
Surface Water Permissible Velocity-Vegetated: 3.0 ft/sec

BoC-Boothbay Silt Loam 8-15% slopes
Depth to restrictive feature: >80"
Natural drainage class: Moderately well drained
Hydrological Soil Group: C/D
Surface Water Permissible Velocity-Vegetated: 3.0 ft/sec

Ba Borosaprists, ponded
Depth to restrictive feature: >80"
Natural drainage class: Very poorly drained
Hydrological Soil Group: A/D
Surface Water Permissible Velocity-Vegetated: 3.0 ft/sec

BvB-Brayton fine sandy Loam 0-15% slopes
Depth to restrictive feature: 10-27"
Natural drainage class: Poorly drained
Hydrological Soil Group: /D
Surface Water Permissible Velocity-Vegetated: 3.0 ft/sec

MeB-Marlow Fine Sandy Loam 0-8% slopes
Depth to restrictive feature: >20”-41”
Natural drainage class: Well drained
Hydrological Soil Group: C
Surface Water Permissible Velocity-Vegetated: 4.0 ft/sec

MeC-Marlow Fine Sandy Loam 8-15% slopes
Depth to restrictive feature: >20”-41”
Natural drainage class: Well drained
Hydrological Soil Group: C
Surface Water Permissible Velocity-Vegetated: 4.0 ft/sec

PbB-Peru Fine Sandy Loam 0-8% slopes
Depth to restrictive feature: >21”-43”
Natural drainage class: Moderately well drained
Hydrological Soil Group: C/D
Surface Water Permissible Velocity-Vegetated: 4.0 ft/sec

PbC-Peru Fine Sandy Loam 8-15% slopes
Depth to restrictive feature: >21”-43”
Natural drainage class: Moderately well drained
Hydrological Soil Group: C/D
Surface Water Permissible Velocity-Vegetated: 4.0 ft/sec

Sw-Swanville silt loam 0-3% slopes
Depth to restrictive feature: >80”
Natural drainage class: Poorly drained
Hydrological Soil Group: C/D
Surface Water Permissible Velocity-Vegetated: 4.0 ft/sec

Existing Erosion Problems. Minor issues around stream crossing as a result of wood harvesting.

Critical Areas. Soil disturbance resulting from the extraction of rock and associated soil disturbance are the general areas of concern. During rock extraction, the critical areas will include: reducing sedimentation from the disturbed and exposed subgrade; temporary stabilization of the disturbed subgrade; temporary stabilization of soil stockpile, controlling silt migration offsite; stabilizing all disturbed areas after completion of rock extraction; and permanent erosion and sedimentation control through revegetation.

Protected Natural Resources. There are identified wetlands on the site. The proposed rock extraction activities are designed to avoid and minimize off site impacts to any protected natural resources through the use of buffer strips and sediment barriers.

General Construction Phase: The following erosion control measures shall be followed by the contractor throughout construction of this project:

A. All topsoil shall be collected, stockpiled, seeded with rye at 3 pounds/1,000 sf and mulched, and reused as required. Temporary silt barriers shall be placed down gradient from the stockpiled loam. Stockpile to be located by designation of the owner and inspecting engineer.
B. The inspecting engineer at his/her discretion, may require additional erosion control measures and/or supplemental vegetative provisions to maintain stability of earthworks and finish graded areas. The contractor shall be responsible for providing and installing any supplemental measures as directed by the inspecting engineer. Failure to comply with the engineer's directions will result in discontinuation of construction activities.
C. Mulch or erosion control mesh shall be applied over all finished seeded areas as specified.
D. All graded or disturbed areas including slopes shall be protected during clearing and construction until they are adequately stabilized.
E. All erosion, and sediment control practices and measures shall be constructed, applied and maintained in accordance with this erosion and sediment control plan.
F. Areas to be filled shall be cleared, grubbed and stripped of topsoil to remove trees, vegetation, roots or other objectionable materials.
G. Areas shall be scarified to a minimum depth of 3 inches prior to placement of topsoil.
H. All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence or other related problems. Fill intended to support buildings, structures and conduits, etc., shall be compacted in accordance with local requirements or codes.
I. All fills shall be placed and compacted in layers not to exceed 8 inches in thickness.
J. Fill material shall be free of brush, rubbish, rocks, logs, stumps, building debris and other objectionable materials that would interfere with or prevent construction of satisfactory lifts.
K. Frozen material or soft, mucky or highly compressible materials shall not be incorporated into fill slopes or structural fills.
L. Fill shall not be placed on a frozen foundation.
M. Seeps or springs encountered during construction shall be handled appropriately.
N. All graded areas shall be permanently stabilized immediately following finished grading.
O. Remove any temporary control measures, such as temporary silt barriers, within 30 days after permanent stabilization is attained. Remove any accumulated sediments and stabilize.

Erosion Control Best Management Practices. Standards for erosion and sedimentation control are developed with the objective of protecting the protected natural resources and abutting properties from unnecessary soil erosion. The plan and drawings were developed utilizing the Best Management

Practices contained in the *Maine Erosion and Sedimentation Control Best Management Practices, Manual for Designers and Engineers, October 2016,* Maine Department of Environmental Protection.

Erosion and sediment control structures will aid in reducing sediment inflow to undisturbed areas. Stabilization of disturbed areas will reduce erosion. It is the general contractor's responsibility (or their designated representative) to ensure the specified control structures are properly constructed and maintained. Care must be exercised to ensure control structures are installed in accordance with the plans to insure their proper functioning.

a. Temporary Sediment Barrier-fabric

(1). Purpose - A temporary sediment barrier consisting of a filter fabric stretched across and attached to supporting posts and entrenched located below disturbed areas, or at the toe of slope, where erosion would occur in the form of sheet and rill erosion.
(2). Function - To intercept and retain small amounts of sediment from disturbed areas during construction operation in order to prevent sediment from leaving the site and/or to decrease the velocity of sheet flow.
(3). Application - Serves a drainage area of no more than 1/4 acre per 100 feet of silt fence length; maximum slope length behind the fence of 100 feet; and maximum gradient behind the fence of 50% or 2:1 horizontal/vertical.
(4). Construction Specifications:
  (a) The filter fabric shall be a pervious sheet of propylene, nylon, polyester, or ethylene yarn and shall be certified by the manufacturer or supplier.
  (b) The filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 6 months of expected usable construction life at a temperature range of 0 degrees F to 120 degrees F;
  (c) Posts for silt fences shall be either construction grade wood or 1.33 pounds per linear foot steel with a minimum length of five feet. Steel posts shall have projections for fastening wire to them;
  (d) The height of the silt fence shall not exceed 3 feet;
  (e) The filter fabric shall be purchased in a continuous roll cut to length of the barrier to avoid the uses of joints. When joints are necessary, filter cloth shall be spliced together only at support post, with a minimum 6-inch overlap, and securely sealed;
  (f) Post spacing shall not exceed 6 feet;
  (g) A trench shall be excavated approximately 4-inches wide and 4-inches deep along the line of posts and up gradient from the barrier;
  (h) The standard strength of filter fabric shall be stapled or wired to the pose, and 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 existing trees;
  (i) The trench shall be backfilled and the soil compacted over the filter fabric;
  (j) Silt fences shall be removed when they have served their useful purpose, but not before the upslope areas have been permanently stabilized.
(5). Maintenance

(a) Silt fences shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall 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, sediment barriers shall be replaced promptly.

b. Temporary Sediment Barrier-mulch

(1). Purpose - A temporary sediment barrier consisting of bark mulch and wood chips extruded onto the ground located below disturbed areas, or at the toe of slope, where erosion would occur in the form of sheet and rill erosion.

(2). Function - To intercept and retain small amounts of sediment from disturbed areas during construction operation in order to prevent sediment from leaving the site and/or to decrease the velocity of sheet flow.

(3). Application - Serves a drainage area of no more than 1/4 acre per 100 feet of sediment barrier length; maximum slope length behind the fence of 100 feet; and maximum gradient behind the fence of 50% or 2:1 horizontal/vertical.

(4). Construction Specifications:

(a) The 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:

a. Organic matter content shall be between 80 and 100%, dry weight basis.
b. Particle size by weight shall be between 70 and 100% passing at a 6" screen, maximum of 85%, passing a 0.75" screen.
c. Organic portion needs to be fibrous and elongated.
d. Large portions of silts, clays, or fine sands are not acceptable in the mix.
e. Soluble salts content shall be <4.0 MMHOS/CM.
f. The pH should fall between 5.0 and 8.0.

(b) The must be placed along a relatively level contour. It may be necessary to cut tall grasses or woody vegetation to avoid creating voids and bridges that would enable fines to wash under the barrier through the grass blades or plant stems.

(c) 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" high, as measured on the uphill side of the barriers, and a minimum of two feet wide. On longer or steeper slopes, the barrier should be wider to accommodate additional runoff.

(d) Frozen ground, outcrops of bedrock and very rooted forested areas are locations were berms of erosion control mix are most practical and effective.

(e) Other BMP's should be used at low points or concentrated 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 (i.e. a large up gradient contributing watershed).

(f) Sediment barriers shall be removed when they have served their useful purpose. Disbursement of the erosion mix as mulch is permissible.

(5). Maintenance

(b) Sediment barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall 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, sediment barriers shall be replaced usable life and the barrier still is necessary, the fabric shall be replaced promptly.

c. Vegetated Waterway

(1). Purpose – A vegetated waterway is an artificial channel, ditch or outlet, shaped or graded and established with suitable vegetation. It provides for the conveyance of concentrated surface water without causing erosion and provide limited filtering of sediment and pollutants.

(2). Function - A natural or constructed waterway established with suitable vegetation for the safe conveyance of runoff.

(3). Application – Areas where concentrated runoff needs to be conveyed and controlled without causing erosion. The minimum capacity shall be that required to confine the peak runoff anticipated from a 10-year frequency storm, 24-hour duration. On slopes of less than one percent, out-of-bank flow may be permitted if such flow will not cause erosion, property damage, or threaten life. Velocity of runoff shall not exceed the maximum permissible velocity values for the particular vegetated condition.

(4). Construction Specifications:

(a) All trees, stumps, brush, stones, and other debris that will interfere with the establishment or maintenance of vegetation shall be removed.

(b) Soil shall be spread so that it will not interfere with flow into the waterway; and

(c) Seeded channels will be given the best possible protection from runoff water (mulch, netting, etc.) and will not be used as outlets until a dense, vigorous vegetative cover has been obtained.

(d) The slope of the ditch line may not be greater than eight percent.

(e) Vegetated waterways need to be stabilized early during the growing season (prior to September 15th).

d. Stone Check Dams

(1). Purpose - A temporary barrier installed across a swale or drainage way.

(2). Function - To reduce the velocity of concentrated stormwater flows, thereby reducing erosion of the swale or ditch.

(3). Application - In temporary ditches or swales which, because of their short length of service cannot receive a non-erodible lining, but still need some sort of protection.

In permanent ditches which for some reason cannot receive a permanent non-erodible lining for an extended period of time. And for either temporary or permanent ditches or swales, which need protection during the establishment of grass linings. Drainage ditches or swales shall not serve drainage areas larger than 10 acres nor used on a perennial stream.

(4). Construction Specifications:

(a) Check dams shall be placed perpendicular to the channel flow;

(b). The maximum height of each check dam should be 2 feet. The center of each dam must be 6 inches lower than the outer edges;

(c). The maximum spacing between check dams should be such that the toe of the upstream dam is at the same elevation as the top of the downstream dam; and

(d). Check dams should be constructed of 2 to 3-inch stone. Hand or mechanical placement will be necessary to achieve complete coverage of the ditch or swale and to ensure that the center of the dam is lower than the edges.

(5). Removal:

Dams shall be removed when they are no longer useful. Upon removal of the dam, the area underneath shall be filled, seeded and mulched immediately. Sediment collected should properly disposed. Check dams must be removed when a permanent lining can be installed. In the case of grass-lined ditches, check dams must be removed when the grass has matured sufficiently to protect the ditch or swale

e. Culvert Inlet Protection

(1). Purpose - A permanent erosion resistant ground cover of large, loose, and angular stone.

(2). Function - To protect the inlet of culverts and pipes from scour and deterioration resulting from runoff, and stabilize slopes surrounding the inlet.

(3). Application - Areas where soil and water interfaces such that the entrance velocity, turbulence, and suction of water entering the inlet could cause a scouring action.

(4). Construction Specifications:

(a) The subgrade shall be prepared to the required lines and grades. If fill is required in the subgrade it shall be compacted to a density approximating that of the surrounding undisturbed material. Brush, trees, stumps, and other objectionable material shall be removed.

(b) Filter Fabric shall be placed directly on the subgrade slope immediately after slope preparation (Granular filters should be spread in a uniform layer to the specified depth). Edges of fabric sheets shall be overlapped by at least 12 inches. Anchor pins, 15-inches long should be spaced every 3 feet along the overlap. The upper and lower ends of the fabric should be buried a minimum of 12 inches deep;

(c) Placement of stone should immediately follow placement of filter. Riprap should be placed to produce a well-graded mass of stone with minimum voids. It should be placed to its full thickness in one operation. Care should be taken to not damage the filter layer. If damaged occurs, the filter fabric should be removed and replaced; and

(d) The final slope should be free of pockets of small stones or clusters of large stones. Hand placing may be necessary to accomplish a uniform distribution of stone sizes. Final thickness and grade of the riprap should be within plus or minus 1/4 of the specified riprap thickness.

f. Culvert Outlet Protection

(1). Purpose - A permanent erosion resistant ground cover of large, loose, and angular stone.

(2). Application - Areas where soil and water interfaces such that conditions created by water turbulence and velocity, vegetated cover and soil conditions may erode under the design flow conditions.

(3). Construction Specifications:

(f) The subgrade shall be prepared to the required lines and grades. If fill is required in the subgrade it shall be compacted to a density approximating that of the surrounding undisturbed material. Brush, trees, stumps, and other objectionable material shall be removed.

(b) Filter Fabric shall be placed directly on the subgrade slope immediately after slope preparation (Granular filters should be spread in a uniform layer to the specified depth). Edges of fabric sheets shall be overlapped by at least 12 inches. Anchor pins, 15-inches long should be spaced every 3 feet along the overlap. The upper and lower ends of the fabric should be buried a minimum of 12 inches deep.

(c) Placement of stone should immediately follow placement of filter. Riprap should be placed to produce a well-graded mass of stone with minimum voids. It should be placed to its full thickness in one operation. Care should be taken to not damage the filter layer. If damaged occurs, the filter fabric should be removed and replaced; and

(d) The final slope should be free of pockets of small stones or clusters of large stones. Hand placing may be necessary to accomplish a uniform distribution of stone sizes. The final thickness and grade of the riprap should be within plus or minus 1/4 of the specified riprap thickness.

f. Stream Crossings

(1). Purpose – To provide safe, pollution-free access across a waterway to prevent construction equipment and vehicles from damaging the waterway, blocking fish migration, and tracking sediment and other pollutants.

(2). Application – A structure placed across or in a waterway to provide access,.

(3). Construction Specifications:

(g) Alignment of the culvert shall follow he alignment of the stream channel.

(b) Culvert shall be strong enough to support their cros sectional area under the expected maximum loads.

(c) The cross-sectional area of the culvert pipe shall be the largest pipe diameter equal to the undisturbed cross sectional area of the bank full condition of the stream. The culvert should fit into the existing channel without major excavation. The minimum sie culvert that shall be used is eighteen inches in diameter.

(d)The length of the culvert shall extend a minimum of one foot beyond the upstream and downstream toe of the aggregate placed around the culvert.

(e) Geotextile fabric shall be placed in the stream bed and streambanks prior to the placement of the pipe. The filter fabric shall cover the streambed and extend a minimum of six inches and a maximum of one foot beyond the end of the culvert and bedding material.

(f) The invert elevation of the culvert shall be installed six inches minimum below the natural streambed grade to minimize interference with fish migration.

(g)Culverts shall be covered with a minimum of one foot of aggregate.

Site Stabilization:

A. Sediment barriers. Prior to the beginning of any construction, properly install sediment barriers at the edge of any downgradient disturbed area and adjacent to any drainage channels within the proposed disturbed area. Maintain the sediment barriers until the disturbed area is permanently stabilized.

B. Construction entrance: Prior to any clearing or grubbing, a construction entrance shall be constructed at the intersection with the proposed access drive and the existing roadway to avoid tracking of mud, dust and debris from the site.

C. Riprap: Since riprap is used where erosion potential is high, construction must be sequenced so that the riprap is put in place with the minimum delay. Disturbance of areas where riprap is to be placed should be undertaken only when final preparation and placement of the riprap can follow immediately behind the initial disturbance. Where riprap is used for outlet protection, the riprap should be placed before or in conjunction with the construction of the pipe or channel so that it is in place when the pipe or channel begins to operate. Maintain temporary riprap, such as temporary check dams until the disturbed area is permanently stabilized.

D. Temporary stabilization. Stabilize with temporary seeding, mulch, or other non-erodible cover any exposed soils that will remain unworked for more than 14 days except, stabilize areas within 100 feet of a wetland or waterbody within 7 days or prior to a predicted storm event, whichever comes first. If hay or straw mulch is used, the application rate must be 2 bales (70-90 pounds) per 1000 sf or 1.5 to 2 tons (90-100 bales) per acre to cover 75 to 90% of the ground surface. Hay mulch must be kept moist or anchored to prevent wind blowing. An erosion control blanket or mat shall be used at the base of grassed waterways, steep slopes (15% or greater) and on any disturbed soil within 100 feet of lakes, streams and wetlands. Grading shall be planned so as to minimize the length of time between initial soil exposure and final grading. On large projects this should be accomplished by phasing the operation and completing the first phase up to final grading and seeding before starting the second phase, and so on.

E. Vegetated waterway. Upon final grading, the disturbed areas shall be immediately seeded to permanent vegetation and mulched and will not be used as outlets until a dense, vigorous vegetative cover has been obtained. Once soil is exposed for waterway construction, it should be immediately shaped, graded and stabilized. Vegetated waterways need to be stabilized early during the growing season (prior to September 15). If final seeding of waterways is delayed past September 15, emergency provisions such as sod or riprap may be required to stabilize the channel. Waterways should be fully stabilized prior to directing runoff to them.

Seeding and Mulching:

1. Temporary Seeding. Temporary Seeding of Disturbed Areas - Growing Season, April 15th – September 15th .
   (a). Limestone and Fertilizer - Application rates shall be according to soil test recommendations. If soil tests are not feasible or timing is critical then fertilizer may be applied at a rate of 13.8 lbs/1000 SF of 10-10-10 (N-P205-K20) or equivalent. Limestone (equivalent to 50 percent calcium plus magnesium oxide) may be applied at a rate of 138 lbs/1000 SF.
   (b). Seed - Between August 15th and September 15th, Winter Rye may be applied at a rate of 2.6 lbs/1000 SF and to a depth of 1.0-1.5 inches. Between April 15th and July 1st, Annual Rye may be applied at a rate of 1 lb/1000 SF and to a depth of .25 inches. Between July 1st and August 15th, Sudangrass may be applied at a rate of 1 lb/1000 SF and to a depth of 0.5-1.0 inches.0
   (c). Mulch - Hay or straw mulch at a rate of 80 lbs./1000 SF or equivalent mulch.
   (d). Matting - Will be applied to disturbed areas, such as the base of grassed waterways, steep slopes (>15%) and any disturbed soil within 100 feet of a wetland. Installation shall as per manufacturer directions.
2. Permanent Seeding. Growing season of April 15th to August 15th.
   (a). Seedbed Preparation - Topsoil shall be applied to a level of 4". Limestone and Fertilizer should be worked into the soil to a depth of 4 inches, when practical. All debris, stones 2 inches or larger in diameter, and other unsuitable material should be removed from the surface, when practical.
   (b). Seed - seed mixture will consist of 0.46 lbs. of Creeping Red Fescue, 0.05 lbs. of Redtop and 0.46 lbs. of Tall Fescue. Mixture shall be applied at a rate of 0.97 lbs./1000 SF.
   (c). Lime - application rates will be determined by soil tests. If soil tests are not feasible or where time is insufficient for soil tests, ground limestone (equivalent to 50 percent calcium plus magnesium oxide) may be applied at a minimum rate of 138 lbs./1000 SF.
   (d). Fertilizer - application rates will be determined by soil test results. If soil tests are not feasible or there is insufficient time for soil tests, fertilizer may be applied at a rate of 18.4 lbs. of 10:20:20(N-P205-K20) per 1000 SF.
   (e). Mulch - hay or straw bales will be applied at a rate of 60-80 lbs./1000 SF (2 bales/1000 SF), 1/2"-1" thick. Cellulose fiber mulch: 650 lbs. per half acre.
   (f). Erosion Control Mat - As per manufacturer directions.
   (g). Hydroseeding - Hydraulic application is a suitable method for the application of seed, fertilizer, limestone, and mulch. The seedbed is prepared by raking the soil to loosen and

smooth the soil and to remove surface stones exceeding 6 inches in diameter and other unsuitable organic and inorganic materials.

Limestone and fertilizer may be applied simultaneously with the seed. Straw mulch may be used with adhesive materials or 500 pounds per acre of wood fiber mulch. Seeding application rates shall be increased 10 percent when hydroseeding.

(h). Final Acceptance: Final acceptance will be granted only when seeding is done in season and there is an even stand of grass, 2" tall with 85% germination.

3. Temporary Mulching.
   - (a) Purpose – For a limited amount of time, temporary mulch prevents erosion by protecting the exposed soil surfaces and to aid in the growth of vegetation by conserving available moisture, controlling weeds, and providing protection against extreme heat and cold.
   - (b) Function – Temporary mulch is the most effective and quickest means of controlling runoff and erosion on disturbed land when permanent erosion control is not possible.
   - (c) Application – Apply to exposed soil surfaces prior to any storm event and within 7 days of soil exposure.
   - (d) Product – Organic mulches: Hay or straw mulch free of weed seeds; bark or shavings free of objectionable coarse materials; and wood fiber cellulose made from natural wood usually with green dye and dispersing agent added with a moisture content not to exceed 15%.
   - (e) Construction Specifications:
     - (1). Hay or Straw Mulch: 70-90 lbs. (2 bales) per 1,000 SF or 90-100 bales per acre. Lightly cover 75-90% of the surface.
     - (2). Bark or Shavings: 460-920 lbs. per 1,000 SF or 10-20 tones per acres applied at a depth of 2-6 inches.
     - (3). Wood Fiber Cellulose: 50 lbs. Per 1,000 SF or 2,000 lbs. per acre.
     - (4). (f) All mulches shall be inspected weekly or after every storm event to check for rill erosion. Remulching shall be required if less than 90% of soil surface is covered. Temporary mulch shall be removed once vegetative cover has been established, regrading is to be done, or a permanent erosion control measure is installed.

Maintenance During Construction: Once a week, before any forecast of rain, and after each rainstorm producing at least 1/2" of rainfall, whichever is more frequent, the General Contractor or designated alternate is responsible for and shall inspect all temporary erosion and sediment control structures. Such inspection is necessary to ensure the structures are functioning properly.

If any structures are not functioning properly, they shall be repaired or replaced. A control structure is not functioning properly if:

(1). Water is flowing around the sides of the structure.
(2). Silt has built up behind the structure to the point where it is not effective.
(3). Water is freely flowing between the hay bales.
(4). The structure is no longer constructed in accordance with the plans.
(5). Seeded areas and swales are not established.
(6). Evidence of sedimentation such as gully erosion, slumping of banks or discoloration of water.

If silt has built up behind the structure to a point where the structure is no longer effective, the silt and the structure shall be removed and a new structure installed. Used silt fence will be disposed of in the landfill. Used hay or straw bales may be used to mulch disturbed areas. Silt may be used to final grade disturbed areas, with appropriate mulch and seed. If other inefficiencies are found in erosion control structures, they shall be repaired or replaced the same day they are discovered or observed.

Completion of Construction. It shall be the responsibility of the General Contractor to ensure all erosion control structures and final site work is complete in accordance with approved plans. When all requirements of this plan are fulfilled by the General Contractor, and to the satisfaction of the site owner, the maintenance of erosion control structures will become the site owner's responsibility.

Winter Construction: If an area is not stabilized with temporary or permanent measures by November 15, then the site must be protected with additional stabilization measures.

A. Permanent stabilization consists of at least 90% vegetation, pavement/gravel base or riprap.
B. Do not expose slopes or leave slopes exposed over the winter or for any other extended time of work suspension unless fully protected with mulch.
C. Apply hay mulch at twice the standard rate (150 lbs. Per 1,000 sf). The mulch must be thick enough such that the ground surface will not be visible and must be anchored.
D. Use mulch and mulch netting or an erosion control mulch blanket or all slopes greater than 8 % or other areas exposed to direct wind.
E. Install an erosion control blanket in all drainageways (bottom and sides) with a slope greater than 3 %.
F. See the vegetation measures for more information on seeding dates and types.
G. Winter excavation and earthwork shall be completed so that no more than 1 acre of the site is without stabilization at any one time.
H. An area within 100 feet of a protected natural resource must be protected with a double row of sediment barrier.
I. Temporary mulch must be applied within 7 days of soil exposure or prior to any storm event, but after every workday in areas within 100 feet from a protected natural resource.
J. Areas that have been brought to final grade must be permanently mulched that same day.
K. If snowfall is greater than 1 inch (fresh or cumulative), the snow shall be removed from the areas due to be seeded and mulched.
L. Loam shall be free of frozen clumps before it is applied.
M. All vegetated ditch lines that have not been stabilized by November 1, or will be worked during the winter construction period, must be stabilized with an appropriate stone lining backed by an appropriate gravel bed or geotextile unless specifically released from this standard by the department.

EROSION AND SEDIMENT CONTROL MEASURES AND ACTIVITY	**INSPECTION FREQUENCY**		
	Weekly	Before and After a Storm	After Construction
SEDIMENT BARRIERS			
Sediment barriers are installed prior to soil disturbances	X	X	
Silt fences are keyed in and tight	X	X	
Barriers are repaired and replaced as necessary	X	X	
Barriers are removed when the site is stabilized - Silt fence should be cut at the ground surface			X
TEMPORARY STABILIZATION			
Areas are stabilized if idle for 14 days or more	X	X	
Daily stabilization within 100 ft of a natural resource	X	X	
MULCH			
Seed and mulch within 7 days of final grading. Ground is not visible	X	X	
Erosion control mix is 4-6 inch thick	X	X	
Erosion control blankets or hay mulch are anchored	X	X	
VEGETATION			
Vegetation provides 90% soil cover	X		X
Loam or soil amendment were provided	X		X
New seeded areas are mulched and protected from vehicle, foot traffic and runoff	X	X	X
Areas that will remain unworked for more than 1 year are vegetated with grass	X		
SLOPES AND EMBANKMENTS			
Final graded slopes and embankments are stabilized	X	X	X
Diversions are provided for areas with rill erosion	X	X	X
Areas steeper than 2:1 are riprapped	X		
Stones are angular, durable and various in size	X		
Riprap is underlain with a gravel layer or filter fabric	X		
STORMWATER CHANNELS AND CULVERTS			
Ditches and swales are permanently stabilized– channels that will be riprapped have been over-excavated	X	X	X
Ditches are clear of obstructions, accumulated sediments or debris	X	X	X
Ditch lining/bottoms are free of erosion	X	X	X
Check dams are spaced correctly to slow flow velocity	X		
Underlying filter fabric or gravel is not visible	X	X	X
Culvert aprons and plunge pools are sized for expected flows volume and velocity	X		
Stones are angular, durable and various in size	X		
Culverts are sized to avoid upgradient flooding	X	X	
Culvert protection extends to the maximum flow elevation within the ditch	X	X	X
Culvert is embedded, not hanging	X	X	X

CATCH BASIN SYSTEMS			
Catch basins are built properly	X		
Accumulated sediments and debris are removed from sump, grate and collection area		X	X
Floating debris and floating oils are removed from trap			X
ROADWAYS AND PARKING SURFACES			
The gravel pad at the construction entrance is clear from sediments	X	X	
Roads are crowned		X	X
Cross drainage (culvert) is provided	X		
False ditches (from winter sand) are graded		X	X
BUFFERS			
Buffers are free of erosion or concentrated flows		X	X
The downgradient of spreaders and turnouts is stable		X	X
Level spreaders are on the contour			X
The number of spreaders and ditch turnouts is adequate for flow distribution		X	X
Any sediment accumulation is removed from within spreader or turnouts		X	X
STORMWATER BASINS AND TRAPS			
Embankments are free of settlement, slope erosion, internal piping, and downstream swamping		X	X
All flow control structure or orifices are operational and clear of debris or sediments		X	X
Any pre-treatment structure that collects sediment or hydrocarbons is clean or maintained		X	X
Vegetated filters and infiltration basins have adequate grass growth			X
Any impoundment or forebay is free of sediment		X	X
WINTER CONSTRUCTION (November 1st-April15th)			
Final graded areas are mulched daily at twice the normal rate with hay, and anchor (not on snow)	Daily		
A double row of sediment barrier is provided for all areas within 100 ft of a sensitive resource (use erosion control mix on frozen ground)	Daily		
Newly constructed ditches are riprapped	Daily		
Slopes greater than 8% are covered with an erosion control blanket or a 4-inch layer of erosion control mix	Daily		
HOUSEKEEPING PUNCH LIST			
All disturbed areas are permanently stabilized, and plantings are established (grass seeds have germinated with 90% vegetative cover)			X
All trash, sediments, debris or any solid waste have been removed from stormwater channels, catch basins, detention structures, discharge points, etc.			X
All ESC devices have been removed: (silt fence and posts, diversions and sediment structures, etc.)			X
All deliverables (certifications, survey information, as-built plans, reports, notice of termination (NOT), etc.) in accordance with all permit requirements have been submitted to town, Maine DEP, association, owner, etc.			X

CONSTRUCTION INSPECTION FORM FOR EROSION AND SEDIMENT CONTROL

General Information:

Site Name:	Date:		Inspected by:		
Owner:					
Retained 3PI:	Last Rain Date:			Amount:	
Reason for Inspection:	Weekly	Winter	Final	Rain Event	Complaint
Description of disturbed area:					
Photos:					

	YES/NO/NA	COMMENTS
1. Is an Erosion and Sediment Control Plan available?		
ESC plan on-site and followed		
Other:		
2. Are all erosion control practices installed properly, maintained and functioning?		
Disturbed areas stable		
Concentrated flow inlet/outlet protection		
All areas at final grade		
Disturbed dormant areas stabilized		
Access roads and parking		
Hillsides and stockpiles		
Other:		
3. Are all sedimentation control practices installed properly, maintained and functioning?		
Construction entrance		
Sedimentation basins/traps/diversions		
Perimeter controls		
Check dams		
Other:		
4. Is maintenance of ESC measures, construction activities and housekeeping kept-up?		
Sedimentation/erosion in ditches		
Tracked Sediment or dust at exits		
Hazardous material storage and spill control practices		
Waste management (concrete, hazardous material, etc.)		
Other:		
5. Violation, Corrective Actions, Recommendations		
Sediment discharged from site?		
Corrective action required?		
Site compliant with all permits?		
Notice of violation or stop work order issued?		
Comments/Corrective Actions (complete corrective actions before the next rain event and within 7 day)		

2.5

2.5

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

June 29, 2023

Mr. Josh Carle
Rockport Granite, Inc.
P.O. Box 1140
Rockport, Maine 04856

RE: PLACARD FOR TIBERT QUARRY, 104 WATERVILLE ROAD, BELFAST, MAINE (GPID#: 947)

Dear Mr. Carle:

The Department received and reviewed the Notice of Intent to Comply (NOITC) you submitted for the aforementioned quarry and determined that it's complete. As such, I have enclosed a placard that states your quarry is licensed and subject to the Performance Standards for Quarries, 38 M.R.S. §490-Z. The placard contains the quarry identification number and the license date. The placard is printed on water resistant paper and should be placed in an area near the entrance of the quarry operation.

Thank you for your cooperation in this matter. If you have any questions, please feel free to contact me at (207) 899-6879 or email at Erich.Kluck@Maine.gov.

Sincerely,

Erich D Kluck

Erich D. Kluck
Mining Specialist
Division of Land Resource Regulation
Maine Department of Environmental Protection

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

website: www.maine.gov/dep

DEP

This excavation has been permitted pursuant to the Performance Standards for Quarries (38 M.R.S. Section 490-Y) administered by the Bureau of Land Resources, Department of Environmental Protection, 17 State House Station, Augusta (207-287-7688)

GPID#: 947
Permit Number

June 29, 2023
Date Issued

Operator: Rockport Granite, Inc.
P.O. Box 1140, Rockport, Maine 04856

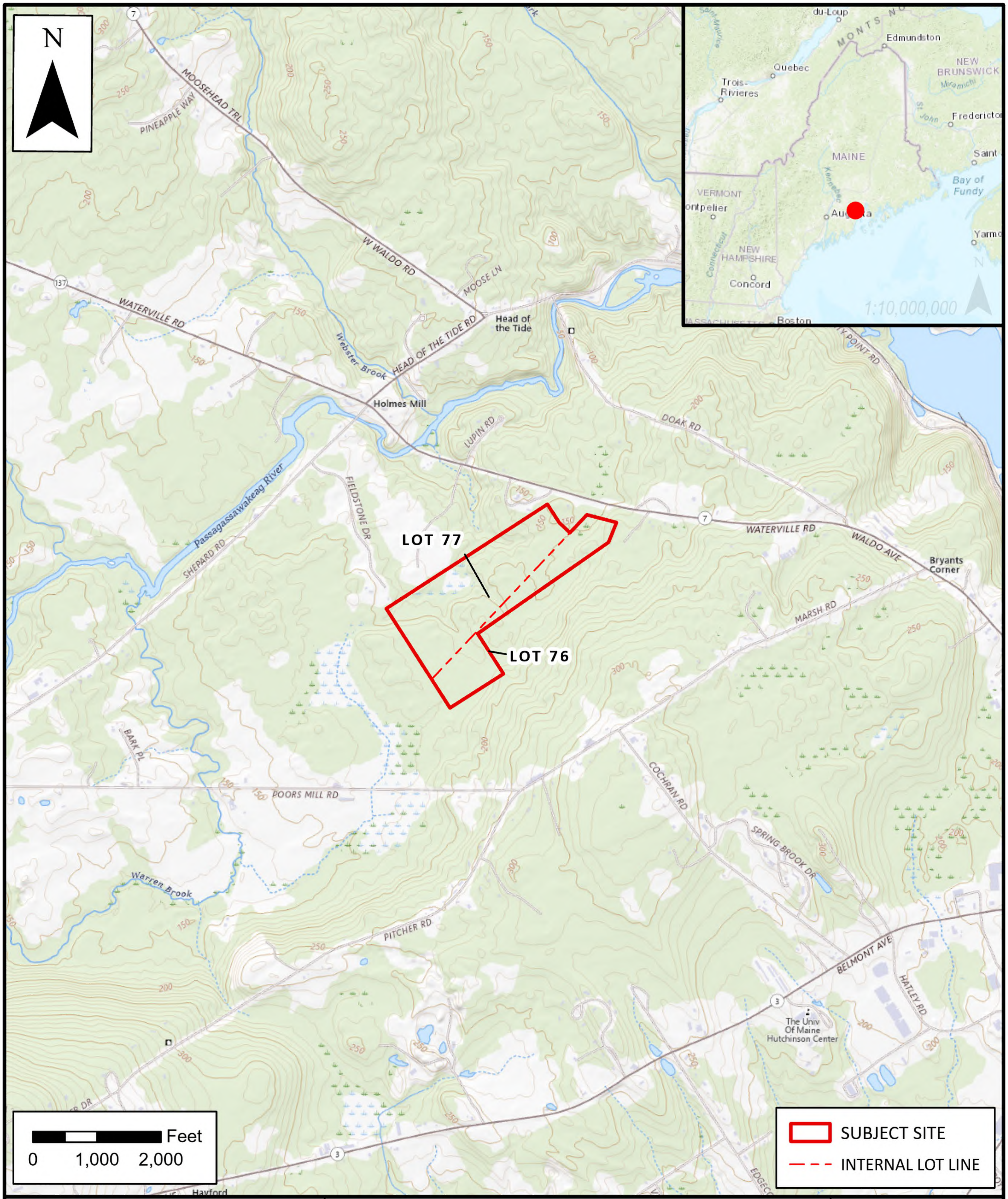
THIS PLACARD MUST BE POSTED VISIBLY
AT THE MINING SITE AT ALL TIMES

Exhibit 3

Location Maps

Exhibit 3 – Location Maps

Please see the enclosed location map, which shows the proposed site activity location. Additional maps in this section include Maine GIS significant sand & gravel aquifers, surficial geology and bedrock maps, as well as a drilled well location map generated from the state database.


N
LOT 77
LOT 76
SUBJECT SITE
INTERNAL LOT LINE
Feet
0
1,000
2,000
WATERVILLE RD
MOOSEHEAD TRL
PINEAPPLE WAY
W WALDO RD
MOOSE LN
HEAD OF THE TIDE RD
Head of the Tide
Webster Brook
Holmes Mill
Passagassawakeag River
SHEPARD RD
FIELDSTONE DR
LUPIN RD
DOAK RD
WALDO AVE
Bryants Corner
MARSH RD
BARK PL
POORS MILL RD
COCHRAN RD
SPRING BROOK DR
Warren Brook
PITCHER RD
BELMONT AVE
HATLEY RD
The Univ Of Maine Hutchinson Center
Hayford
EDGECO
7
137
3
du-Loup
MONTS N
Edmundston
NEW BRUNSWICK
Miramichi
Quebec
Trois-Rivieres
St John
Fredericton
MAINE
Saint
Bay of Fundy
VERMONT
Montpelier
Kennebec
Augusta
Yarmo
NEW HAMPSHIRE
Connecticut
Concord
MASSACHUSETTS
Boston
1:10,000,000

SEBAGO TECHNICS

WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. - Suite 4A
South Portland, ME 04106
Tel. 207-200-2100

LOCATION MAP

ROCKPORT GRANITE BELFAST

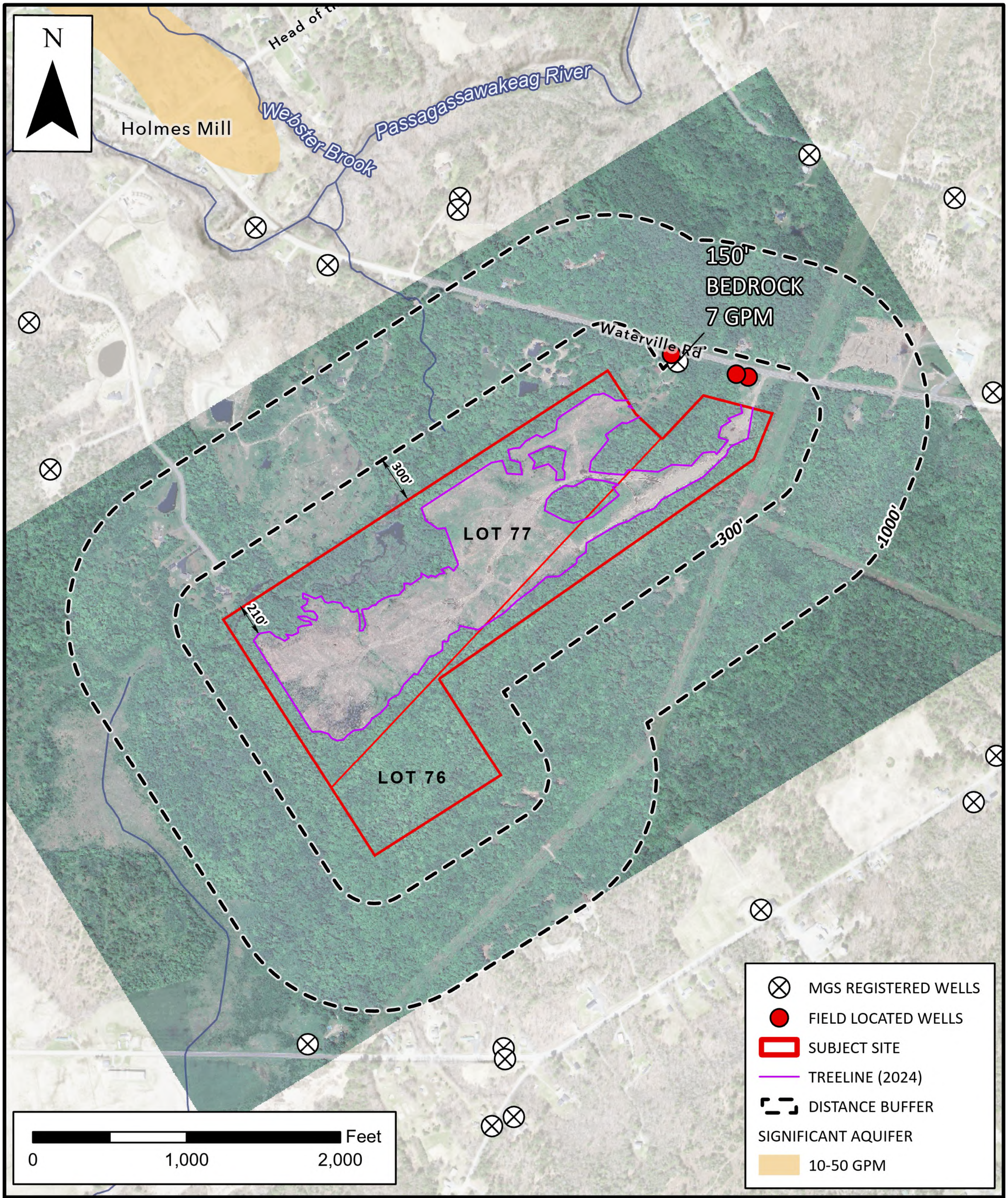
SCALE: 1:24,000

DATE: 4/3/2025

LOCATION:
WATERVILLE RD
BELFAST, ME

INFORMATION:
MAINE GEOLIBRARY
USGS QUADRANGLE

3.2


N
Head of t
Holmes Mill
Webster Brook
Passagassawakeag River
150'
BEDROCK
7 GPM
Waterville Rd
300'
210'
LOT 77
LOT 76
300'
1000'
⊗ MGS REGISTERED WELLS
● FIELD LOCATED WELLS
SUBJECT SITE
TREELINE (2024)
DISTANCE BUFFER
SIGNIFICANT AQUIFER
10-50 GPM
Feet
0
1,000
2,000

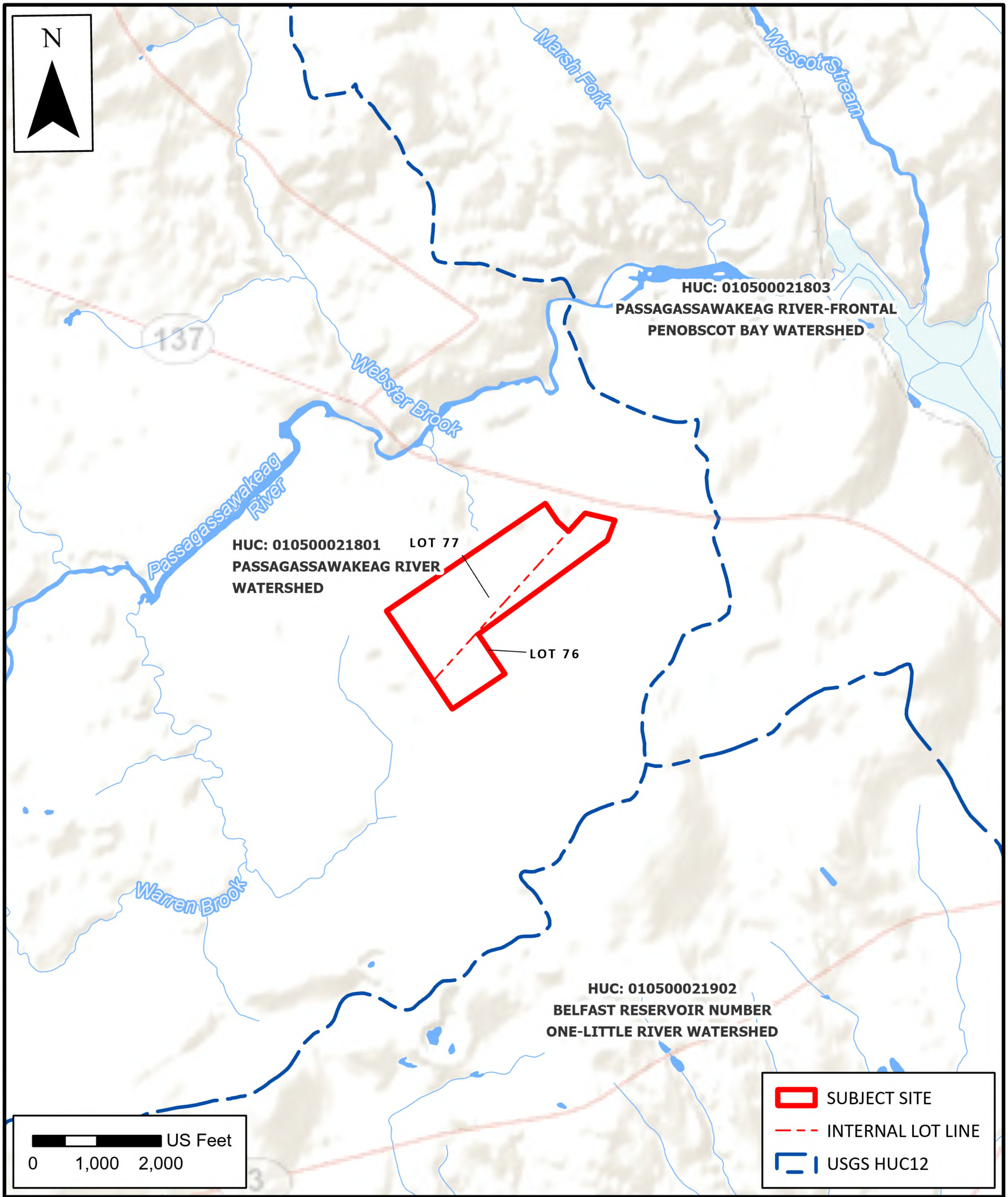
SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. - Suite 4A
South Portland, ME 04106
Tel. 207-200-2100

REGISTERED WELLS
ROCKPORT GRANITE BELFAST

SCALE:	1:10,000
DATE:	2/19/2025

LOCATION:
WATERVILLE RD
BELFAST, ME

INFORMATION: MAINE GEOLOGICAL SURVEY
REGISTERED WELLS DATABASE
2024 GOOGLE EARTH IMAGERY


N
Marsh Fork
Wescot Stream
137
Webster Brook
Passagassawakeag River
HUC: 010500021803
PASSAGASSAWAKEAG RIVER-FRONTAL
PENOBSCOT BAY WATERSHED
HUC: 010500021801
PASSAGASSAWAKEAG RIVER
WATERSHED
LOT 77
LOT 76
Warren Brook
HUC: 010500021902
BELFAST RESERVOIR NUMBER
ONE-LITTLE RIVER WATERSHED
US Feet
0 1,000 2,000
SUBJECT SITE
INTERNAL LOT LINE
USGS HUC12
3

SEBAGO
TECHNICS

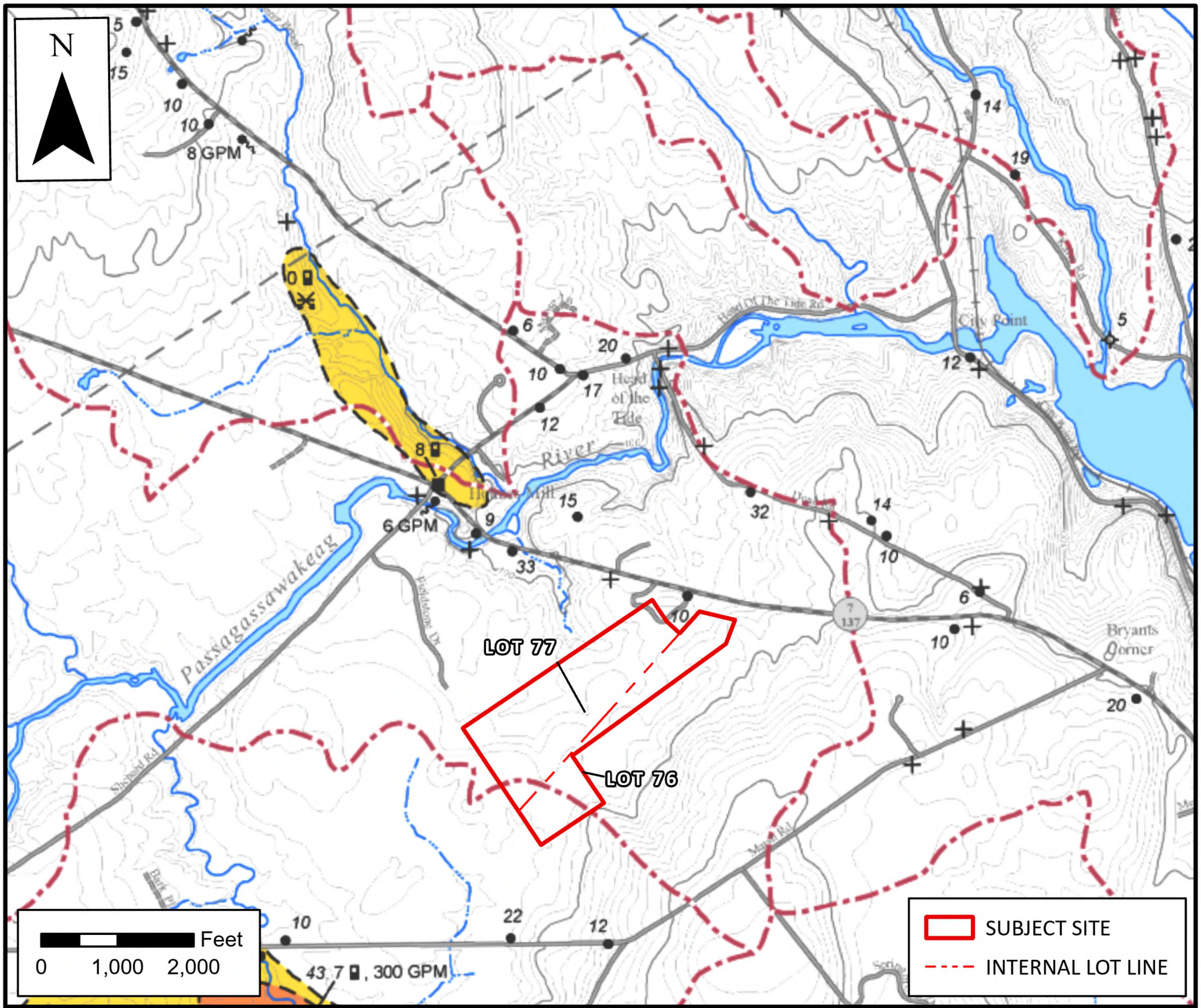
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. - Suite 4A
South Portland, ME 04106
Tel. 207-200-2100

USGS WATERSHED MAP
ROCKPORT GRANITE BELFAST

SCALE: 1:24,000
DATE: 4/3/2025

LOCATION:
WATERVILLE ROAD
BELFAST, MAINE

INFORMATION:
MAINE GEOLIBRARY
USGS WATERSHED BOUNDARY DATASET



SIGNIFICANT SAND AND GRAVEL AQUIFERS

(yields greater than 10 gallons per minute)

- - - -	Approximate boundary of surficial deposits with significant saturated thickness where potential ground-water yield is moderate to excellent.
🟧	Surficial deposits with good to excellent potential ground-water yield; yields generally greater than 50 gallons per minute to a properly constructed well. Deposits consist primarily of glacial sand and gravel, but can include areas of sandy till and alluvium; yield zones are based on subsurface data where available, and may vary from mapped extent in areas where data are unavailable.
🟨	Surficial deposits with moderate to good potential ground-water yield; yields generally greater than 10 gallons per minute to a properly constructed well. Deposits consist primarily of glacial sand and gravel, but can include areas of sandy till and alluvium; yields may exceed 50 gallons per minute in deposits hydraulically connected with surface-water bodies, or in extensive deposits where subsurface data are available.

SURFICIAL DEPOSITS WITH LESS FAVORABLE AQUIFER CHARACTERISTICS

(yields less than 10 gallons per minute)

☐	Areas with moderate to low or no potential ground-water yield (includes areas underlain by till, marine deposits, eolian deposits, alluvium, swamps, thin glacial sand and gravel deposits, or bedrock); yields in surficial deposits generally less than 10 gallons per minute to a properly constructed well.

SEISMIC-LINE INFORMATION

Profiles for 12-channel seismic lines are shown in Figure 6 of Open-File Report 87-24a (Adamik and others, 1987). Length of 12-channel seismic lines as shown on the map is to scale. All single-channel lines ranged from 80 to 250 feet long and are not shown to scale.

53	Depth to bedrock, in feet below land surface.
≥53	Depth to bedrock exceeds depth shown (based on calculations).
12 ▮	Depth to water level, in feet below land surface.
I MAP-7 131, 23 ▮	Twelve-channel seismic line, with depth to bedrock and depth to water shown at the midpoint of the line, in feet below land surface.
I 69, 12 ▮ MAP-E 72, 12 ▮	Single-channel seismic line, with depth to bedrock and depth to water shown at each end of the line, in feet below land surface. Unless otherwise indicated, data shown above the line-identifier box refers to the northern end of the seismic line.

The 3-letter identifier for a line is an abbreviation for the topographic quadrangle. If the 3-letter identifier for the line is followed by a number (ex: MAP - 7, MAP - 4), the line is a 12-channel line. If the identifier is followed by a letter (ex: MAP - E, MAP- P), the line is a single-channel line. Single-channel seismic interpretations by J. T. Adamik. Twelve-channel seismic interpretations by J. T. Adamik and C. D. Neil.

GEOLOGIC AND WELL INFORMATION

56	Depth to bedrock, in feet below land surface
≥ 13	Penetration depth of boring; ≥ symbol refers to minimum depth to bedrock based on boring depth or refusal
6 ▮	Depth to water level in feet below land surface (observed in well, spring, test boring, pit, or seismic line)
⚔	Gravel pit (overburden thickness noted in feet, e.g. 5-12')
⚒	Quarry
4 GPM	Yield (flow) of well or spring in gallons per minute (GPM)
⇣	Spring, with general direction of flow
◓	Drilled overburden well
■	Dug well
✦	Observation well (project well if labeled; nonproject well if unlabeled)
✧	Test boring (project boring if labeled; nonproject boring if unlabeled)
↓	Driven point
⊙	Test pit
●	Drilled bedrock well
▽	Potential point source of ground-water contamination
+	Bedrock outcrop
⬚	Surface-water drainage-basin boundary; surface-water divides generally correspond to ground-water divides. Horizontal direction of ground-water flow generally is away from divides and toward surface-water bodies.

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SIGNIFICANT SAND & GRAVEL AQUIFER MAP
ROCKPORT GRANITE BELFAST

SCALE: 1:24,000
DATE: 4/3/2025

LOCATION:
WATERVILLE ROAD
BELFAST, MAINE

INFORMATION:
MAINE GEOLOGICAL SURVEY
FROM: MGS OPEN-FILE NO. 14-17, 2014

STRATIFIED ROCKS

Fredericton Belt

Silurian-Ordovician(?)

SOb **Bucksport Formation.** Biotite granofels interlayered with calc-silicate granofels. The biotite granofels is brownish black to very dusky purple biotite granofels and biotite quartzite. The calc-silicate granofels is very pale green to light greenish gray. Grain size varies between very fine-grained and fine-grained. Compositional layers are well developed and pronounced. The biotite granofels layers and beds range from 5 cm to more than 1 m in thickness, and are generally consistent within an outcrop. Sections may consist entirely of thin (< 15 cm), medium (15 to 50 cm), or thick (> 50 cm) beds. The calc-silicate rock is very fine-grained and non-calcareous. Calc-silicate layers are common, but their proportion varies considerably; at some localities, calc-silicate rock may comprise 60% of the rock. In sections with medium to thick beds of biotite granofels, the calc-silicate granofels layers are commonly less than 3 cm in thickness. Where calc-silicate is most common, the calc-silicate layers may exceed 4 cm in thickness, while the interlayered biotite granofels layers are less than 1 cm.

SObg **Granofels and schist member.** Very fine-grained to fine-grained feldspar-quartz-biotite granofels and very fine-grained feldspar-quartz-biotite schist. Thin bedding is prominent and ranges in thickness from approximately 5 to 15 cm. Schistose beds are thinner, ranging from 5 to 8 cm. The granofels beds are the most volumetrically significant. Minor thin and discontinuous laminae or bands of calc-silicate rock are uncommon to rare and are commonly less than 1 cm in thickness. The calc-silicate rock consists primarily of plagioclase, quartz, amphibole, and epidote with minor garnet. Thin dikes, boudins, and lenses of grayish, very fine-grained biotite granite are common in the westernmost outcrop areas. Granite can be fairly common in the outcrops near the striped gneiss unit, which abuts this unit to the west.

HIGHLY DEFORMED ROCKS

Devonian-Ordovician(?)

DOm **Migmatite.** Texturally heterogeneous, stromatic metatexite migmatite. Thin to medium (8 to 30 cm) compositional layers of fine-grained biotite-quartz ± garnet ± plagioclase ± sillimanite granofels. Augen of quartz or alkali feldspar within the granofels range from approximately 0.5 to 2 cm. Thin layers of very fine-grained amphibolite are present locally. Granite, present as pods, boudins, lenses, stroma and/or dikes, exhibits a variety of textures, which range from fine-grained through medium-grained to very coarse-grained granite; tourmaline granite pegmatite is present locally.

Overall, these rocks lack dextral shear fabrics; granite boudins or pods are commonly biconvex. This contrasts with the ubiquitous dextral shear fabrics and asymmetric boudins of the Passagassawakeag Gneiss (**DOpg**) to the west. This migmatite also differs from the migmatites to the west in containing garnet as a minor accessory, and having lesser quantities of feldspar. Striped gneiss and mylonite are present very locally.

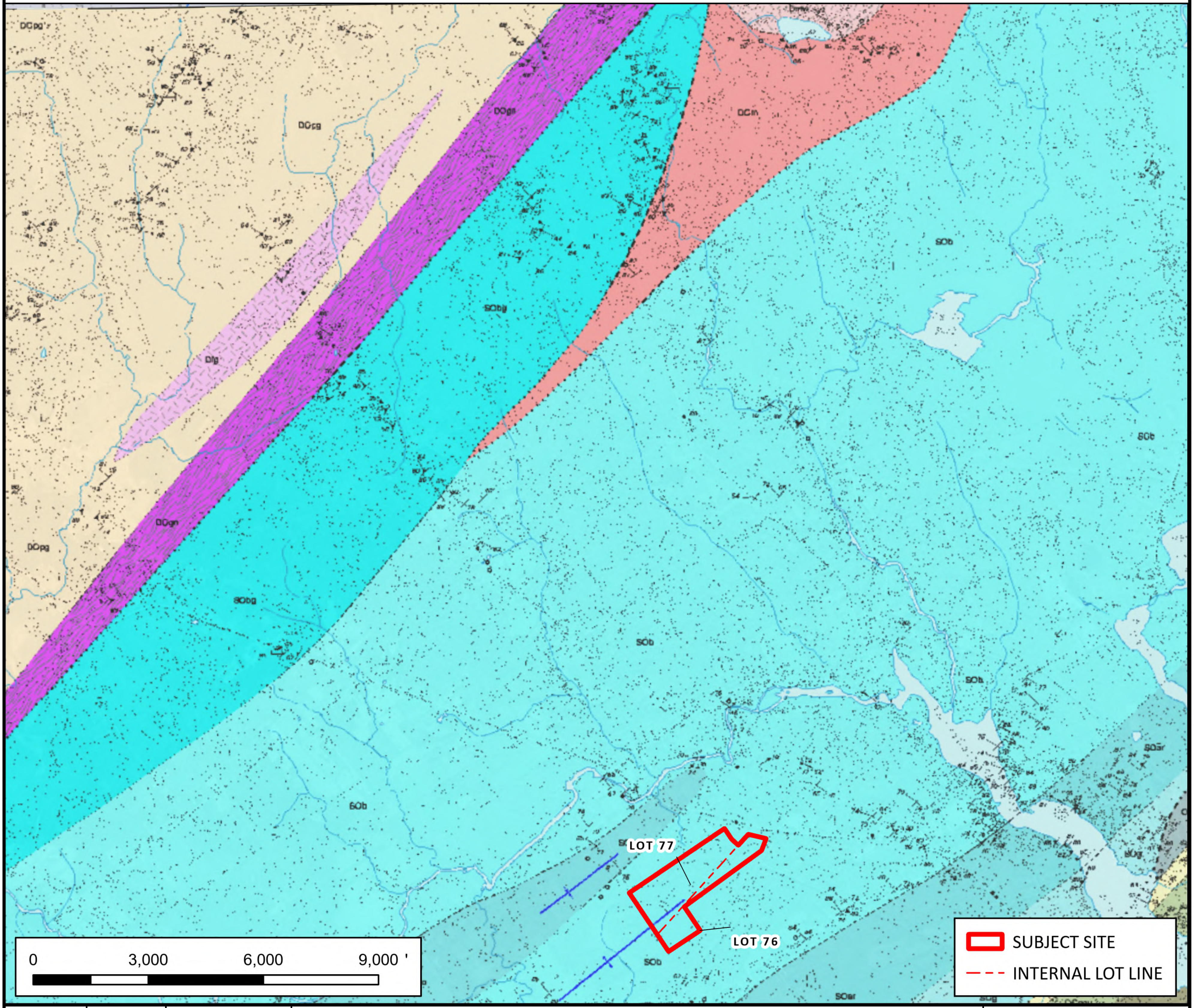
DOgn **Unnamed gneiss.** Alternating layers of fine-grained to coarse-grained granite, fine-grained quartz-feldspar-biotite granofels, and fine-grained quartz-feldspar-biotite ± garnet ± sillimanite schist. The rock is strongly foliated with steeply dipping mylonitic foliations. Lineations on foliation surfaces plunge to the north less than 20 degrees. Sillimanite, where present, is observed as a lineation on foliation surfaces. Sillimanite may also be present as radial sprays. Boudins of coarse-grained granite are present. In these boudins, the granite is commonly finer-grained at the margin and coarser-grained in the interior. Locally, adjacent to the boudin margin, porphyroclastic feldspar grains or composite porphyroclasts of quartz and feldspar are present. Granite boudins within this unit are biconvex, which differs from the asymmetric and sigmoidal shapes of granite boudins in the Passagassawakeag Gneiss (**DOpg**).

EXPLANATION OF LINES

Stratigraphic or intrusive contact (well located, approximately located, poorly located).

Fault or sheared contact (approximately located, poorly located).

Axial trace of fold, inferred from map pattern (anticline, syncline).



DRAWN	MTM
PROJECT	240078
DATE	4/3/2025
SCALE	1" = 3,000'

BEDROCK GEOLOGY
ROCKPORT GRANITE BELFAST

LOCATION:
WATERVILLE ROAD
BELFAST, MAINE

INFORMATION:
MAINE GEOLOGICAL SURVEY
FROM: MGS OPEN-FILE MAP 12-37, 2012

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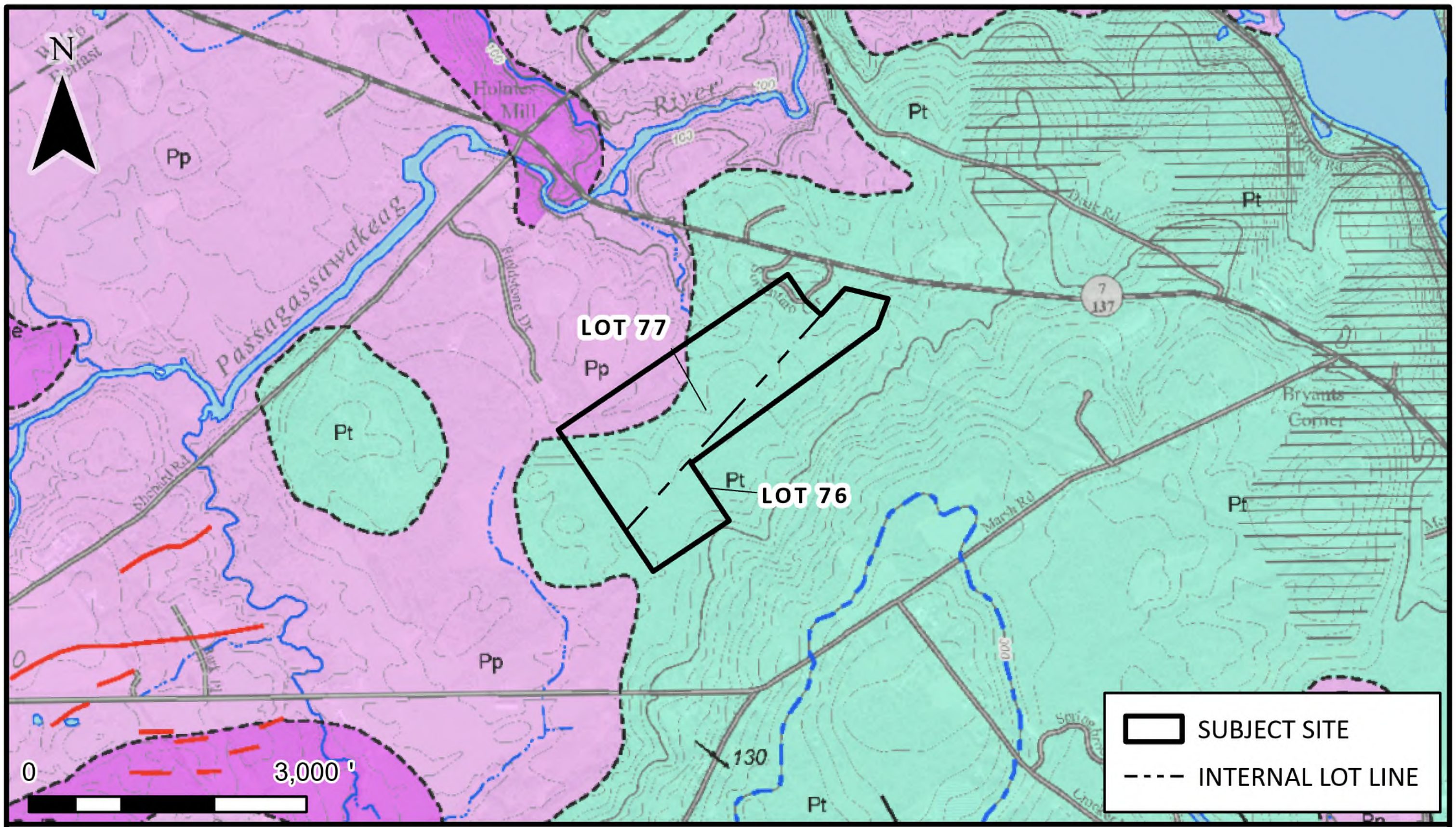

Note: The first letter of each map unit indicates the general age of the unit:
H = Holocene (postglacial deposit; formed during the last 11,700 years).
P = Pleistocene (deposit formed during glacial to late-glacial time, prior to 11,700 yr B.P. [years before present]).

af **Artificial fill** - Variable mixtures of earth, rock, and/or man-made materials used as fill for roads and airport runways. Usually shown only where large enough to affect the contour pattern on the topographic map. Minor artificial fill is present in virtually all developed areas of the quadrangle.

Hw **Wetland deposits** - Peat, muck, silt, and clay in poorly drained areas. Map unit may also include some alluvial sediments along stream valleys.

Ha **Stream alluvium** - Silt and sand deposited on the flood plain of Goose River. Locally includes organic wetland deposits and probably underlies some of the mapped wetland areas along the river.

Pmd **Marine delta** - Pleistocene marine delta formed during flooding by the sea due to isostatic submergence of the land. Very low-angle sand and silt foreset bedding is mantled by trough cross-bedded sand, deposited by braided streams which flowed over the delta top as it prograded seaward. In places, may be mantled with unmapped thin eolian deposits. Four deltas have been assigned unique geographic names listed below:

- Pmdh - Hadley Cemetery delta
- Pmdp - Paul Cemetery delta
- Pmdr - Harding Cemetery delta
- Pmds - Shorey Cemetery delta

Pmf **Glaciomarine fan** - Sand and gravel deposited in a submarine environment at the glacier margin during recession of the late Wisconsinan ice sheet.

Pp **Presumpscot Formation** - Glaciomarine silt, clay, and sand deposited on the late-glacial sea floor. This map unit commonly overlies the irregular surface of glacial till in a complex manner, so it is likely to include areas of till exposed at the ground surface.

Pp/Pge **Presumpscot Formation overlying sand and gravel** - Areas of sand and gravel deposited by glacial meltwater streams in tunnels beneath the ice. The topography of these units approximates the location of sand and gravel buried by younger glacial marine silt and clay.

Pt **Till** - Light- to dark-gray nonsorted to poorly sorted mixture of clay, silt, sand, pebbles, cobbles, and boulders; a predominantly sandy to silty diamicton containing some gravel. Generally found under most other deposits. Till reaches a thickness of 90 feet or more.

▤ **Thin-drift areas** - Ruled pattern indicates areas where bedrock outcrops are common and/or surficial sediments are generally less than 10 ft thick. Mapped from air photos and ground observations. Actual thin-drift areas probably are more extensive than shown.

------ **Contact** - Boundary between map units. Most contacts are approximately located and therefore indicated by dashed lines.

- - - **Upper limit of marine submergence** - Shows highest elevation of sea level immediately following recession of the last glacial ice sheet from the quadrangle.

k **Kettle** - Depression created by melting of large mass of buried glacial ice and collapse of overlying sediments.

- - - - **Marine shoreline** - Indicates a former shoreline formed in late-glacial time when relative sea level was higher than today.

|||||||||| **Ice-margin positions** - Shows an approximate position of the glacier margin during ice retreat based on meltwater deposits, moraines, or positions of meltwater channels.

→ **Meltwater channel** - Channel eroded by a glacial meltwater stream. Arrow shows inferred direction of water flow.

>>>>> **Axis of esker** - Alignment of symbols shows trend of esker. Chevrons point in direction of former glacial meltwater flow.

— **End moraine crests** - Shows linear ridges consisting of bedded sand and gravel interbedded with Presumpscot Formation silty clays and overlain by till on the ice-proximal faces of the moraines. Mapped from field observations and Lidar imagery.

→ **Glacially grooved or fluted till** - Formed beneath the glacier by erosion of till surfaces by boulders in the base of the ice scouring the till, or by obstructions on the till surface that allow for development of elongate till ridges parallel to ice-flow direction.

190 125 165 **Glacial striation locality** - Arrow shows ice-flow direction(s) inferred from striations on bedrock. Dot marks point of observation. Number is azimuth (in degrees) of flow direction. Where striation sets of different ages are present, the flagged arrows indicate older sets.

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SURFICIAL GEOLOGY MAP
ROCKPORT GRANITE BELFAST

SCALE: 1:24,000
DATE: 4/3/2025

LOCATION:
WATERVILLE RD
BELFAST, ME

INFORMATION: MGS - SURFICIAL GEOLOGY - 24K
BELFAST QUAD - WEDDLE, 2014
FROM: MGS OPEN-FILE NO. 14-13, 2014

Exhibit 4

Right, Title, and Interest

Exhibit 4 – Right, Title, and Interest

Rockport Granite Inc. has provided evidence of Interest with an amended agreement between themselves and record owners Tibert and Belden for the sale of granite buried on their properties to Rockport Granite, Inc. dated July 27, 2023, and recorded in Waldo County Registry of Deeds Book 4922/Page 202. A deed identifying Tibert and Belden as joint tenants of the subject property is also enclosed. Reference is made to the quitclaim deed mentioned above recorded in the Waldo County Registry of Deeds Book 4915/Page 315, recorded on July 5, 2023, enclosed in this section.

4.1

AMENDED AGREEMENT

The original agreement is dated June 21, 2023. It is recorded in the Waldo County Registry of Deeds in Book 4915, Page 319. This is an amendment to the original agreement which supersedes the original agreement.

An Agreement between two lot owners to temporarily combine a portion of their two lots into a single lot to maximize the yield of rock quarry to be sold to Rockport Granite from these two lots.

This Agreement entered into by and among Rockport Granite, Inc., a corporation organized and existing under the laws of the State of Maine, hereinafter referred to as Rockport Granite, and Daniel Tibert of Belfast, Waldo County, Maine, hereinafter referred to as Tibert, and Paul Douglas Belden of Belfast, Waldo County, Maine, Jane Denise Belden, Russell Eugene Belden and Lori Anne Belden, hereinafter referred to as Belden.

Both Tibert and Belden own property in Belfast off Waterville Road adjoining each other.

Belden and Tibert shall sell to Rockport Granite granite that is buried on both of their properties. Because the setback requirements for mining operations for granite is 100 feet, Tibert and Belden agree that it is in their best interest to combine part of their lots into one large lot to increase the volume of granite that can be mined on the property that is combined.

Receipt # 172908 WALDO SS. RECEIVED
VOL 4922 PG 202
Instr # 2023-5010
07/28/2023 09:22:35 AM
4 Pages
ATTEST Stacy L Grant, Waldo Co Registry of Deeds

Tibert and Belden agree to combine their two lots into a single lot described as follows:

A certain lot or parcel of land situated in the City of Belfast, County of Waldo and State of Maine, more particularly bounded and described as follows:

Beginning at a point on the northerly boundary line of land described in a deed to Paul Douglas Belden, et al, recorded in the Waldo County Registry of Deeds in Book 1288, Page 196 located South 57 degrees, 06 minutes, 30 seconds West a distance of 263.86 feet from a #6 rebar set on the southerly sideline of Waterville Road at the northwest corner of said land of Belden, said point of beginning located with reference to the Maine Coordinate System of 1983, East Zone, with a Northing of 282640.36 U. S. Survey Feet and an Easting of 840463.29 U. S. Survey Feet; thence South 57 degrees, 06 minutes, 30 seconds West along land described in a deed to Louis D. Sorrentino, Jr. recorded in said Registry in Book 847, Page 288 and along Parcel II described in a deed to John H. McMillan, III and Doreen C. McMillan recorded in said Registry in Book 4474, Page 162 and along land described in a deed to Laurie Cleghorn-Stone recorded in said Registry in Book 4140, Page 84 a distance of 2995.92 feet to a #6 rebar set at the southwest corner of Lot 57 in the Third Division of Belfast; thence South 32 degrees, 42 minutes, 20 seconds East along the southwesterly line of said Lot 57 a distance of 1841.18 feet to a #6 rebar set at the southeast corner of said Lot 57; thence North 57 degrees, 31 minutes, 00 seconds East along the northeasterly line of said Lot 57 a distance of 990.00 feet to a #6 rebar set; thence North 32 degrees, 45 minutes, 30 seconds West a distance of 745.19 feet to a #6 rebar set; thence North 55 degrees, 08 minutes, 00 seconds East along land described in a deed to Matthew M. Weaver recorded in said Registry in Book 1642, Page 281 a distance of 2490.96 feet to a #6 rebar set on the westerly boundary of land described in a deed to Central Maine Power Company recorded in said Registry in Book 629, Page 350; thence North 21 degrees, 59 minutes, 00 seconds East along said land of Central Maine Power Company a distance of 333.86 feet to a point located South 21 degrees, 59 minutes, 00 seconds east a distance of 215.67 feet from a #6 rebar set on the southerly sideline of Waterville Road; thence North 75 degrees, 26 minutes, 20 seconds West a distance of 478.23 feet to a point on the dividing line between said land of Belden and land described in a deed to Daniel Tibert recorded in said Registry in Book 3726, Page 103 located South 43 degrees, 22 minutes, 20 seconds West a distance of 244.08 feet from a #6 rebar set on the southerly sideline of Waterville Road, said point located with reference to the Maine Coordinate System of 1983, East Zone, with a Northing of 282476.31 U. S. Survey Feet and an Easting of 841080.21 U. S. Survey Feet; thence South 43 degrees, 22 minutes, 20 seconds West along said dividing line a distance of 385.54 feet to a point; thence North 46 degrees, 37 minutes, 40 seconds West a distance of 229.18 feet to a point; thence

North 32 degrees, 53 minutes, 30 seconds West a distance of 341.69 feet to the point of beginning, enclosing 98.37 acres.

Bearings referenced herein are oriented to Grid North, Maine State Coordinate System of 1983, East Zone based on the North American Datum of 1983 (2011) (Epoch:2010.0000), as determined from a survey conducted by Good Deeds in 2023. Coordinate values are provided as an aid in location of the property and are not intended to control bearings, distances or the positions marked by monuments defining the property boundaries.

Tibert and Belden agree that while the two lots have been merged that neither shall convey any interest in the property to a third party or otherwise encumber the property.

Rockport Granite agrees that when the quarry operation is completed, they will notify Tibert and Belden of that fact, and within 30 days therefrom.

The parties Rockport Granite, Tibert and Belden agree that in no event shall Rockport Granite take more than ten years from the date hereof to complete the removal of granite from the property, at which time the property shall be reconveyed to the original owners in accordance with this agreement.

Dated:

ROCKPORT GRANITE, INC.
By: ______________________
Joshua Carle

Daniel E. Tibert
Daniel Tibert

____
Paul Douglas Belden

Jane D Belden A'K'A Jane D Hamilton
Jane Denise Belden

Russell E Belden

Russell ~~Eugene~~ Belden

Lori Belden

Lori Ann Belden

ACKNOWLEDGMENT

STATE OF MAINE
COUNTY OF WALDEN, ss

Date: 7 - 27 - ,2023

Personally appeared the above named Joshua Cale in his capacity on behalf of rockport Granite, Inc., and acknowledged that he signed the above Instrument as his own free act and deed.

Donna M Lewis 7/27/2023
Notary Public Date

Donna M. Lewis
Printed Name of Notary

DONNA M. LEWIS
NOTARY PUBLIC
STATE OF MAINE
MY COMM. EXP. SEPTEMBER 29, 2027

SEAL

Personally appeared the above named person(s) and acknowledged that he/she signed the above instrument as his/her own free act and deed. Daniel Tibert; Paul Douglas Belden (deceased); Russell Eugene Belden; and Lori Ann Belden.

Pamela J Smith 7-27-23
Notary Public Date

SEAL

Pamela J. Smith
Printed name of Notary

PAMELA J. SMITH
Notary Public-Maine
My Commission Expires
May 21, 2027

Personally appeared the above named Jane Denise Belden And acknowledged that she signed the above Instrument as her own free act and deed.

Pamela J Smith 7-27-23
Notary Public Date

Pamela J. Smith
Printed name of Notary

SEAL

PAMELA J. SMITH
Notary Public-Maine
My Commission Expires
May 21, 2027

4.2

QUITCLAIM DEED WITH COVENANT
Maine Short Form

Daniel Tibert, of Belfast, Waldo County, Maine, **Paul Douglas Belden** of Belfast, Waldo County, Maine, **Jane Denise Belden** of Belfast, Waldo County, Maine, **Russell Eugene Belden** of Belfast, Waldo County, Maine and **Lori Anne Belden** of Belfast, Waldo County, Maine, for consideration paid, grants to **Daniel Tibert**, of Belfast, Waldo County, Maine, **Paul Douglas Belden** of Belfast, Waldo County, Maine, **Jane Denise Belden** of Belfast, Waldo County, Maine, **Russell Eugene Belden** of Belfast, Waldo County, Maine and **Lori Anne Belden** of Belfast, Waldo County, Maine, as joint tenants and not as tenants in common, with quitclaim covenant, a certain lot or parcel of land situated in the City of Belfast, County of Waldo and State of Maine, more particularly bounded and described as follows:

"MAINE REAL ESTATE TRANSFER TAX PAID"

Beginning at a point on the northerly boundary line of land described in a deed to Paul Douglas Belden, et al, recorded in the Waldo County Registry of Deeds in Book 1288, Page 196 located South 57 degrees, 06 minutes, 30 seconds West a distance of 263.86 feet from a #6 rebar set on the southerly sideline of Waterville Road at the northwest corner of said land of Belden, said point of beginning located with reference to the Maine Coordinate System of 1983, East Zone, with a Northing of 282640.36 U. S. Survey Feet and an Easting of 840463.29 U. S. Survey Feet; thence South 57 degrees, 06 minutes, 30 seconds West along land described in a deed to Louis D. Sorrentino, Jr. recorded in said Registry in Book 847, Page 288 and along Parcel II described in a deed to John H. McMillan, III and Doreen C. McMillan recorded in said Registry in Book 4474, Page 162 and along land described in a deed to Laurie Cleghorn-Stone recorded in said Registry in Book 4140, Page 84 a distance of 2995.92 feet to a #6 rebar set at the southwest corner of Lot 57 in the Third Division of Belfast; thence South 32 degrees, 42 minutes, 20 seconds East along the southwesterly line of said Lot 57 a distance of 1841.18 feet to a #6 rebar set at the southeast corner of said Lot 57; thence North 57 degrees, 31 minutes, 00 seconds East along the northeasterly line of said Lot 57

Receipt # 172489 WALDO SS. RECEIVED
VOL 4915 PG 315
Instr # 2023-4179
07/05/2023 03:34:10 PM
4 Pages

ATTEST Stacy L Grant, Waldo Co Registry of Deeds

57 degrees, 31 minutes, 00 seconds East along the northeasterly line of said Lot 57 a distance of 990.00 feet to a #6 rebar set; thence North 32 degrees, 45 minutes, 30 seconds West a distance of 745.19 feet to a #6 rebar set; thence North 55 degrees, 08 minutes, 00 seconds East along land described in a deed to Matthew M. Weaver recorded in said Registry in Book 1642, Page 281 a distance of 2490.96 feet to a #6 rebar set on the westerly boundary of land described in a deed to Central Maine Power Company recorded in said Registry in Book 629, Page 350; thence North 21 degrees, 59 minutes, 00 seconds East along said land of Central Maine Power Company a distance of 333.86 feet to a point located South 21 degrees, 59 minutes, 00 seconds east a distance of 215.67 feet from a #6 rebar set on the southerly sideline of Waterville Road; thence North 75 degrees, 26 minutes, 20 seconds West a distance of 478.23 feet to a point on the dividing line between said land of Belden and land described in a deed to Daniel Tibert recorded in said Registry in Book 3726, Page 103 located South 43 degrees, 22 minutes, 20 seconds West a distance of 244.08 feet from a #6 rebar set on the southerly sideline of Waterville Road, said point located with reference to the Maine Coordinate System of 1983, East Zone, with a Northing of 282476.31 U. S. Survey Feet and an Easting of 841080.21 U. S. Survey Feet; thence South 43 degrees, 22 minutes, 20 seconds West along said dividing line a distance of 385.54 feet to a point; thence North 46 degrees, 37 minutes, 40 seconds West a distance of 229.18 feet to a point; thence North 32 degrees, 53 minutes, 30 seconds West a distance of 341.69 feet to the point of beginning, enclosing 98.37 acres.

Bearings referenced herein are oriented to Grid North, Maine State Coordinate System of 1983, East Zone based on the North American Datum of 1983 (2011) (Epoch:2010.0000), as determined from a survey conducted by Good Deeds in 2023. Coordinate values are provided as an aid in location of the property and are not intended to control bearings, distances or the positions marked by monuments defining the property boundaries.

For Grantors source of title reference is made to:

1. A deed from Jessica A. Gal to Daniel Tibert, dated October 30, 2012, recorded in the Waldo County Registry of Deeds in Book 3726, page 103.

2. A deed from Lewelyn J. Martin and Annette M. Martin to Paul Douglas Belden, Jane Denise Belden, Russell Eugene Belden and Lori Anne Belden, dated May 12, 1992, recorded in the Waldo County Registry of Deeds in Book 1288, Page 196.

Reference is made to an Agreement among the parties, including Rockport Granite, Inc. to merge these two lots into one lot temporarily for the purposes of increasing the amount of granite that shall be removed from the property and later on to reconvey the property to its original owners in accordance with its original description.

Witness ___ hand and seal this 21st day of JUNE, 2023.

Jo Talbot
Witness

Daniel Tibert
Daniel Tibert

Jo Talbot
Witness

Paul ~~Douglas Belden~~ DECEASED

Jo Talbot
Witness

Jane D Belden Hamilton
Jane Denise Belden

Jo Talbot
Witness

Russell E Belden
Russell Eugene Belden

Jo Talbot
Witness

Lori Ann Belden

ACKNOWLEDGMENT

State of Maine
County of Knox, ss

Date: 6/21/2023

Then personally appeared the above-named Daniel Tibert, Russell Eugene Belden and Lori Ann Belden and acknowledged the foregoing instrument to be his/her free act and deed.

Before me,

Notary Public
Pamela J Smith

My Commission Expires: 5/21/2027

PAMELA J. SMITH
Notary Public-Maine
My Commission Expires
May 21, 2027

SEAL

State of Maine
County of Waldo

6·29·2023

Then personally appeared the above-named Jane Denise Belden Hamilton and acknowledged the foregoing instrument to be their free act and deed.

Before me

Lee K. Plisga

Notary Public

Lee K. Plisga

Printed Name of Notary

Commission Expires

LEE K. PLISGA
Notary Public, Maine
My Commission Expires March 13, 2027

SEAL

Exhibit 5

Abutters

Exhibit 5 – Abutters

Abutters located within a 150-foot radius of the locus properties are enclosed in this section.

Map 006/Lot 106M
Arthur S Hall
45 Fieldstone Drive
Belfast, ME 04915

Map 006/Lot 079
John H McMillan III
148 Waterville Road
Belfast, ME 04915

Map 006/Lot 078
Heirs of Louis D Sorrento, Jr.
1 Sorrento Circle
Belfast, ME 04915

Belfast Map 006/Lot 075
Matthew M Weaver
975 Waterville Road
Waldo, ME 04915

Map 005/Lot 44A
Kevin D Crosby
129 Marsh Road
Belfast, ME 04915

Belfast Map 002/Lot 104
Central Maine Power
One City Center, 5th Fl
Portland, ME 04101

240078

Map 006/Lot 106N
Craig S Butler
25 Fieldstone Drive
Belfast, ME 04915

Belfast Map 006/Lot 105K
Adam Smith
12 Central Street
Morrill, ME 04952

Map 006/Lot 11B
Ralph N Colson
105B Waterville Road
Belfast, ME 04915

Map 005/Lot 043B
Kenneth E Littlefield
9 Poors Mill Road
Belfast, ME 04915

Map 005/Lot 043A
Mary Pauline Reynolds
1 Poors Mill Road
Belfast, ME 04915

Municipal Copy and Map 003/Lot 002
City of Belfast
131 Church Street
Belfast, ME 04915

Belfast Map 006/Lot 009B
Mary Pauline Reynolds, Roger Hart
78 Bertenshaw
Woonsocket, RI 02895

Map 006/Lot 105L
Laurie Cleghorn-Stone
PO Box 508
Belfast, ME 04915

Map 006/Lot 011A
Douglas Bacon
76 Doak Road
Belfast, ME 04915

Belfast Map 006/Lot 011F
Coastal Mountains Land Trust
101 Mount Battie Street
Camden, ME 04843

LOCUS 1: Map 006/Lot 077
Paul and Lori Belden
114 Waterville Road
Belfast, ME 04915

LOCUS 2: Map 005/Lot 076
Daniel Tilbert
104 Waterville Road
Belfast, ME 04915

150’ Radius Abutters
Rock Extraction
Waterville Road, Belfast

Exhibit 6

Financial Capacity and Technical Ability

Exhibit 6 – Financial Capacity and Technical Ability

Rockport Granite is authorized to conduct business in the State of Maine. Reference is made to the Maine Secretary of State corporation status documentation enclosed in this section.

Financial Capacity

A letter of financial capacity received from Machias Savings Bank in support of the project, dated September 10, 2024, is enclosed in this section.

Technical Ability

Rockport Granite (RG) is a premier stone company led by Joshua Carle, that provides exceptional granite for high-end properties throughout the east coast and beyond. Rockport Granite has successfully harvested stones from its quarries and then completed fabrication at their high-tech facilities since 2012. The RG team has extensive experience in the stone harvesting and fabrication industry.

Sebago Technics, Inc. provided design and permitting support for the rock extraction project site in the City of Belfast. Sebago Technics is a multi-disciplinary professional firm with over forty years of experience in engineering, landscape architecture, land survey, transportation, CAD, GIS, regulatory permitting, environmental and geospatial services. In this section, we enclose resumes of STI management and project staff for this project.

6.1

MAINE

Department of the Secretary of State

Bureau of Corporations, Elections and Commissions

Interactive Corporate Services

Corporate Name Search

Information Summary

Subscriber activity report

This record contains information from the CEC database and is accurate as of: Mon Jun 03 2024 09:29:14. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
ROCKPORT GRANITE INC.	20120539 D	BUSINESS CORPORATION	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
01/05/2012	N/A	MAINE

Other Names	(A=Assumed ; F=Former)
NONE	

Principal Home Office Address

Physical	Mailing
465 WEST STREET ROCKPORT, ME 04856	P.O. BOX 1140 ROCKPORT, ME 04856

Clerk/Registered Agent

Physical	Mailing
CHRISTOPHER R. SMITH ONE PORTLAND SQUARE PORTLAND, ME 04112	CHRISTOPHER R. SMITH P.O. BOX 586 PORTLAND, ME 04112-0586

6.2

Machias
Savings Bank

Experienced people. Exceptional service.

September 10, 2024

Rockport Granite Inc
PO Box 1140
Rockport, ME 04856-1140

To Whom It May Concern,

This letter is to confirm that Rockport Granite Inc has a banking relationship with Machias Savings in good standing. This relationship began in April, 2020.

Our understanding is that the business, Rockport Granite Inc is undertaking a project for Mineral Extraction located in the City of Belfast, and that the Planning Board is requesting that there is adequate financial capacity of Rockport Granite, Inc to operate the activities supporting their rock cutting business.

Rockport Granite Inc has substantive funding available and financial capacity from Machias Savings to support the proposed mineral extraction operation.

If you have any questions, please feel free to contact me using the contact information below.

Sincerely,

Gregory S Jones

Gregory S Jones
AVP, Business Banker
3 Glen Street
Rockland, ME 04841
Direct: 207-596-5863
Cell: 207-542-1487
GJones@MachiasSavings.com

4 Center Street, PO Box 318 | Machias, ME 04654-0318
{T} 800-339-3347 | {F} 207-255-9347 | {W} machiassavings.com
Member FDIC | Equal Housing Lender

ROCKPORT GRANITE

Company Overview 2025

Rockport Granite was founded in 2012 by Josh Carle. Rockport Granite has grown to 54 employees today while still maintaining its family business roots. Josh Carle continues to run Rockport Granite as the company President. His Sister Heather Carle serves as the Chief Financial Officer, and his brother Bryan Carle as the Production Director.

Rockport Granite proudly takes care of all our employees. Many of our employees from our first few years in operation still work for us. Our employees are MSHA certified each year. Those who work for us are not simply employees, they are artisans. More than 70% of our orders are custom products. The unique stone we provide brings the rocky coast of Maine into our customers' homes in a way only Rockport Granite can. Our professional artisans craft unique, proprietary granite into custom products that last centuries.

Rockport Granite has an office in Rockport collocated with the exteriors production facility on route 90 at 465 west street in Rockport, Maine, and an interiors sales room and production facility at 61 union street in Rockland, Maine.

In 2024 Rockport Granite opened a new production facility in Hope, Maine. We are advancing plans to expand production at our Hope location with a new building that is currently under permitting. That expansion will support Rockport Granites continued growth as well as the hiring of more employees.

Rockport Granite currently operates five active quarries in Belfast, Liberty, Norridgewock, Swanville, and York Maine. We have successfully reclaimed and closed three quarries.

The Mystic Mountain granite sourced from Belfast is a unique local material and is highly sought after across New England for both interior and exterior projects. Rockport Granite is dedicated to continuing to operate as a responsible, and ethical local business for many decades to come under our mission statement of perfection, on time, integrity.

Perfection-On Time-Integrity

Amedeo Colpo

EDUCATION

ITIM U.FOLLADOR
Agordo BL 32021 Italy
Mining School – Mining Expert
Year of Graduation: 2004
100/100

EXPERIENCE

20+ years working experience in the dimensional natural stone industry.
Exploration and assessment of natural stone resources and of identification of valuable deposits. Two decades of experience in quarry plan preparation and development including infrastructure (access road, water supply, power supply), quarrying equipment, personnel, production start-up, marketing and sales. Quarry safety and environmental compliance are always forefront in all planning and execution aspects.

03/2024 - Present

Rockport Granite Inc.

465 W Street Rockport ME 04856

- VP Quarry Operations. Managing and developing different granite quarries

03/2022 - Present

StonebloX

Alpharetta, Georgia, 30005 info@stoneblox.com

- Founder & CEO. Provider of Natural Stone products and state of the art know-how in quarry management

01/2016 – 02/2024

Bagnara Nikolaus SPA

Broad River Quarries 7340 Scales Rd Lithonia GA 30058

- Quarry Master. 360 degrees operations spectrum at the Silver Cloud Granite quarry. HR, production, logistics, inventory, sales. Set records in term of productivity and profitability.

05/2017 – 11/2019.

RED Graniti

Colorado Stone Quarries 1 Marble Quarry rd Marble CO 81623

- Quarry Manager. Managing operations at the Yule Marble Quarry focus on production. Developing open pit and underground structure leading a team of 30 people. Reached record in term of production of high-quality marble blocks

09/2015 – 01/2016

Cairns Marble Australia PTY LTD

94 Cook St Portsmith QLD 4870 Australia

- Quarry Master. Startup of a marble quarry in Chillagoe QLD AU

06/2005 – 08/2015

Old Stone, RT CAVE, Marmi Colpo Luigi Srl

Conco Vicenza 36046 Italy

- Quarry Manager. Owned Family businesses. Actively participating in the day to day managing operations. Developed new quarries sites in different environments throughout the North Italy area.

06/2003 – 07/2003

ENI SPA-SNAM

Ravenna , Italy

- Intern. Assistant to Production Manager Oil & Gas Field

Bryan Carle

Education:

BS Theology, World Evangelism Fellowship, Baton Rouge LA.

Experience:

15 years' experience in stone industry management to include eight years' overseeing quarry operations for four quarries in Belfast, Moscow, Swanville, and Washington, Maine. 27 years' experience as a Pastor.

2024-present	Production director Rockport Granite
2019-2024	Earthwork foreman Shed City, Housing Division
2014-2019	General Manger Rockport Granite
2011-2013	Director of Ministries, Covenant Love Church, Fayetteville NC.
2003-2010	Quarry Manager, JC Stone
2004-2010	Pastor, Celebration Life Family Church, Rockport Maine
1998-2002	Outreach Pastor, Covenant Love Church, Fayetteville NC.
1989-1997	Pastor, Evangelical Bible Church, Baltimore MD.

ROCKPORT GRANITE

David Noyes

Education:

BS Marine Biology, University of Maine

US Army Non Commission Officer Education System: Engineers SLC, WLC, Petroleum manager course, HAZMAT courses for fuel transportation, handling, storage and dispersion US and Europe.

Experience:

20 years of experience in the Maine Army National Guard. 14 years as a member of the Army Corp of Engineers working on major construction and disaster relief projects in North America, Europe and Southeast Asia. Formally trained as a petroleum manager at Fort Lee Virginia. 15 years of environmental permitting, compliance and reporting experience across research institutions, federal, and private companies.

2025- Present	COO, Rockport Granite
2018-2025	CTO, Nordic Aquafarms
2003-2023	Senior Non Commissioned Officer Maine Army National Guard
2017-2018	assistant, USDA National Cold Water Marine Aquaculture Center
2015-2017	Operations Manager, Systems lead Acadia Harvest Inc
2015	Transgenomic genotyper, Jackson Lab
2011-2014	Research assistant Aquaculture Research Institute, UMaine
2007-2009	Earthwork Foreman Eastwood Contractors
2007	Blaster, foreman Cianbro paint and fabrication

JAMES R. SEYMOUR, PE

Senior Project Manager

Mr. Seymour joined Sebago Technics, Inc. (STI) in September of 1993. His role encompasses management of projects relating to civil engineering designs for private residential and commercial developments, and providing planning and development review services for municipal clients. His specific engineering design experience includes roadways, sewer/utilities, stormwater management plans and permitting, sediment and erosion control plans, State and Federal wetland/environmental permits for residential and commercial developments.

Mr. Seymour has strong experience in providing municipal planning and permitting review services. He has consulted with planning, code enforcement, and public services departments to assist many towns in various roles.

EXPERIENCE

Municipal Planning/Engineering Review Experience:

1998 - 2004: Consulted with the **City of Portland**, as Acting Development Review Coordinator providing engineering peer review services and onsite construction observations to assure compliance with approved plans.

1998 - 2008: Provided construction monitoring for the **Town of Windham** with responsibilities of reviewing bonding, stormwater management review, and provided onsite construction observations/reports.

2008 - 2022: Provides the **Town of Casco** planning services to assist the Planning Board with processing various site/subdivision applications, and prepares ordinance revisions, to the Shoreland Zoning per State requirements, and assisted in instituting a contract zone for Camp Sunshine.

2012 - Present: Mr. Seymour has been the consulting Planner for the **Town of Raymond** in charge of directing the Planning Board with processing various site/subdivision applications, coordinating new ordinance revisions, construction observation, and maintains weekly hours at the Town for general planner assistance.

2011 - 2017: Mr. Seymour had been the consulting engineer for the **Town of Brunswick** assisting the Town with peer reviews of site/subdivision applications, and has drafted new ordinance revisions.

2012 - Present: Mr. Seymour has been providing planning and engineering consultation to the **Town of Poland** on an as-needed basis to assist the Planning Board with plan reviews and drafting ordinances.

The variety of projects that Mr. Seymour has been involved with provides him with a well-balanced technical knowledge of planning and land use development issues and engineering experience. His experience with a variety of clientele provide a unique and positive insight to successfully communicate in a public forum and coordinate projects from design to construction stages.

Mr. Seymour also currently has established Municipal General Service Agreements with the Towns of Cornish, Hiram, Porter, Sebago, and Baldwin, Maine where duties range from road reconstruction design to planner and engineering review assistance.

EDUCATION

University of Maine, Orono, ME
Bachelor of Science, Civil Engineering

REGISTRATIONS

Professional Engineering:
Maine #9984

Certified Professional in Maintenance and Inspection for Best Management Practices by Maine DEP and Inclusion on the Qualified Third Party Inspector List for the Long Creek Watershed Management District (May 2011)

MEMBERSHIPS

Former Town of Windham Planning Board Member

New England Sports Turf Manager's Association (NESTMA)

Scarborough Little League Board of Directors League - President 2015 through 2017

SEBAGO TECHNICS

DYLAN J. STUART

Civil Engineer

Mr. Stuart joined Sebago Technics, Inc. (STI) in the summer of 2014. Mr. Stuart is a graduate of the University of Maine in Orono. Some of his skills include AutoCAD Civil 3D, Hydraflow, HydroCAD Stormwater Modeling, Sanitary Sewer Analysis program in AutoCAD, and Microsoft Office. Most recently, Mr. Stuart has also served as a construction inspector on numerous paving and utility replacement projects including Portland Water District main extension and renewal projects..

EXPERIENCE

Avita Assisted Living Facility – Auburn and Brunswick, ME: Assisted in the stormwater drainage and utility design for Avita Assisted Living Facilities in Auburn and Brunswick. A new assisted living facility was proposed with numerous under drained soil filters and wet ponds for stormwater treatment.

383 Commercial Street Development – Portland, ME: Led the design for the development of a large condominium/retail and hotel development at the former Rufus Deering Lumber site in Portland. The design for this project included coordination and design of the stormwater detention/treatment system, site grading, utility design, and construction administration. Multiple coordination took place with the clients, architects, MEP, electrical engineer, and the City of Portland for the separate hotel and condo projects for design and construction of this large project in downtown Portland.

Harvey Performance Company – Gorham, ME: Led the design for a new location for the Harvey Performance Company tool manufacturing facility in Gorham. This project involved the design of a new roadway that serves the lots on a subdivided parcel where the new facility has taken place. Stormwater treatment and detention for this project was implemented by a large wet pond that required permitting and approval by the Maine Department of Environmental Protection and the Town of Gorham. Coordination between the architect, Water District, Town of Gorham, and the client was a large factor in successfully designing and completing the construction for this project in a timely manner.

Elderly Housing Development – Poland, ME: Assisted in the design for proposed 24-unit elderly housing development on a vacant lot on Route 26 in Poland. The design for this project involved coordination with the Architect for the size and location of the housing units as well as coordination from the Auburn Water and Sewer Department for the utility connections into the public infrastructure. Stormwater detention and treatment included the design of two underdrained soil filters that required the permitting and approval from the Maine Department of Environmental Protection and the Town of Poland.

Various Subdivision Projects in Maine: Led the design in multiple subdivision projects ranging in size from 10 to 80 residential lots in the Towns of Gorham, Saco, and Standish. The design for these projects included coordination with the municipalities, utility departments, and the Maine DEP for final approval for construction. Stormwater detention and treatment included the design of many underdrained soil filters, wet ponds, and wooded buffers. These subdivisions also required significant amount of grading and utility design as well.

EDUCATION

B.S., Civil and Environmental Engineering
Minor in Construction Management Technology
University of Maine, Orono, ME
2014

CERTIFICATIONS

OSHA 10 Certified

MaineDEP Certification for Inspection and Maintenance of Stormwater BMPs

First Aid/CPR Certified

SKILLS

AutoCAD-Civil 3D

HydroCAD

Hydraflow

SEBAGO TECHNICS

COLEN R. PETERS, CG, PWS

Environmental Services Manager

Mr. Peters joined Sebago Technics, Inc., (STI) in February of 2022. He is a well-recognized, experienced, environmental professional who has had his own firms and worked for large national and regional consulting firms. Cole is a Certified Geologist and Professional Wetlands Scientist. He is experienced in large scale environmental projects including utility corridors and projects, wind/solar power development, highway projects, wetlands delineations/mitigation, commercial projects, etc.

In his role as Environmental Services Manager, Cole oversees environmental services including wetlands/vernal pools delineations, environmental site assessments, soils analyses and related work. He also serves as liaison/strategist for strategic environmental permitting with the Maine Department of Environmental Protection (DEP), Maine Land Use Preservation Commission (LUPC), US Environmental Protection Agency and US Army Corps of Engineers.

EXPERIENCE

Wetland Delineation and Vernal Pool Surveys:

- Auburn - Industrial Park lot
- Bath - Bath Iron Works
- Belfast - Commercial property
- Boothbay - Middle & High School expansion, undeveloped 63-acre parcel
- Brunswick - BTWD wellfield
- Bridgton - Commercial and condominium properties
- Cape Elizabeth - Commercial, residential, and municipal properties
- Falmouth - Undeveloped 70-acre parcel, residential property
- Gorham - Residential developments
- Kennebunk - Undeveloped rural residential parcels
- Kennebunkport - Seashore Trolley Museum
- Lewiston - Undeveloped commercial property
- Lyman - Stonefield Quarry expansion
- Naples - Undeveloped rural property
- Portland - Martins Point Hospital, Cumberland County Jail, Jetport
- Saco - Commercial property
- Scarborough - Salvage yard, industrial park, residential subdivision
- Sidney - Rock quarry
- South Portland - Commercial properties
- Raymond - Port Harbor Marine (Functions & Values Assessment)
- Wells - Campground
- Windham - Municipal Sewer right-of-way

Coastal Bluff and Dune Assessments:

- Harpswell - Mill Cove residential property, Bowdoin College Schiller Campus boat ramp
- Scarborough - Pine point residential property
- Yarmouth - Cousins Island residential property

Water Supply Well Assessments:

- Acton - Camp Kita (Boy Scouts of America Wm Nutter)
- Bridgton - Condominium development
- Scarborough - Residential subdivision

Environmental Constraints and Developability Analysis:

- Lovell - 80-acre residential property on Kezar Lake

Environmental Permitting:

- Belfast - Belfast Solar I, LLC
- Carmel - Carmel Solar I, LLC
- Naples - Naples Solar I, LLC
- Readfield - Readfield Solar I
- Troy - Troy Solar I
- Wiscasset - Wiscasset Solar I, LLC

EDUCATION

University of Rhode Island, - Kingston, RI
M.S., Geology, 1981

Marine Science Consortium
Wallops Island, VA - 1978

Edinboro State College - Edinboro, PA
B.S. in Geology, 1978

CERTIFICATIONS

Professional Wetland Scientist #760
Maine Certified Geologist #220

MEMBERSHIPS

Maine Association of Wetland Scientists
(Founding Member)

Geological Society of Maine

PUBLICATIONS

Peters, C.R., 2019: *Mitigating Wetland Impacts (Loss) in the Anthropocene*, Northeast Section Meeting of the Geological Society of America, Portland, ME

Peters, C.R., 2017: *Dingley Estates Pooled Mitigation Site*, Northeast Chapter of Society of Wetland Scientists, Wetland Compensation Symposium, University of New England Biddeford, ME

Peters, C.R., 2017: *Maine Wetland Compensation: Some Regs. Some Plans, Some Results,* Maine Association of Wetland Scientists Winter Conference and Annual Meeting, Brunswick, ME

SEBAGO TECHNICS

☎ 207.200.2125 ✉ CPETERS@SEBAGOTECHNICS.COM

MARIA MORRIS, MS

GIS Specialist

Ms. Morris joined Sebago Technics, Inc. (STI) in February of 2022 as a GIS Specialist. Maria is a graduate from the University of Glasgow with a Master's Degree in Geoinformation Technology & Cartography. Maria worked on projects including site suitability mapping, web & mobile mapping, and building land information systems. For her Master's thesis she analyzed "Spatial Multi- Criteria Decision Making for Dam Removal Prioritization in Maine." She also holds a B.A. in Environmental Studies from Vassar College where she completed her Dissertation, "Natural Spaces as Sacred Places," and conducted local campus studies on Soil Suitability for Reforestation and Solar Suitability on Campus. Originally from Southern Maine, Maria has enjoyed coming home to the state to spend most of her free time in the woods or on the water.

At Sebago, Maria develops cartographic products such as existing conditions plans, natural resource plans, web-mapping applications, and earth surface models. She designs and manages desktop and web-based geospatial databases for field data collection and land information alaysis. Maria's work provides insight into site constraints and opportunities and promotes design decisions that ensure the safety of the community and responsible stewardship of natural resources.

EXPERIENCE

Bayside Tree Planting Project – Portland, Maine
Sebago Technics was retained by the City of Portland to identify suitable locations for a surge of tree plantings as part of the Bayside Tree Planting Project funded by the American Rescue Plan Act. In coordination with City staff, Ms. Morris developed a suitability matrix to identify priority planting locations based on existing tree canopy and infrastructure. As a result of her work, the City of Portland secured a Community Development Block Grant to fund a second surge of tree planting in Spring of 2024. Sebago and the City of Portland are proud of this collaborative effort to improve community health and happiness and strengthen Portland's urban ecology.

Casco Open Space Inventory – Casco, Maine
Maria worked closely with the Town of Casco Open Space Commission to update their Open Space & Conserved Land Map with new parcel data and topographic information. In the process of developing the map, the need for an Open Space Inventory became apparent. Maria designed a web-based inventory categorizing the different kinds of open space in Casco that included pertinent information about open space locations, and functions as a living database for collaboration between commission members and organizations. Along with the Open Space & Conserved Land Map and Inventory, Maria designed a web-based map of Casco Open Spaces to be embedded on the Town's website for the public.

Pleasant Mountain Terrain Analysis – Bridgton, Maine
Maria developed a terrain model for Pleasant Mountain Ski Area utilizing publicly available lidar data in combination with surveyed land information. The model evaluates site topography and suitability for ski mountain operations, such as base lodge amenities and trail creation for different levels of ability. The model will guide Pleasant Mountain in planning for future development.

EDUCATION

University of Glasgow, Scotland
M.S., Geoinformation Technology & Cartography (with Merit), 2022

Vassar College, Poughkeepsie, NY
B.A. in Environmental Studies (Honors), 2016

COMMUNITY ENGAGEMENT

Maine Outdoor Film Festival – Volunteer – Submission Screener, October 2022 to present.

Mahoosuc Land Trust – Volunteer – GIS consultant & Trail Map Designer, October 2022 to present.

SEBAGO TECHNICS

STEFANIE K. NICHOLS

Permitting Specialist/Project Coordinator

Mrs. Nichols joined Sebago Technics, Inc. (STI) in 2018 as a Permitting Specialist/Project Coordinator and is a Regulatory Specialist with over 40 years of diverse experience. During this time, she has worked with many different disciplines in the various aspects of site permitting and site inventory, and associated reports and graphics. Other duties over the years include civil drafting-hand and ACAD, project bid tracking and construction submittal processing, sourcing landscape materials, livestock procurement/travel permits, and short-term fostering.

EXPERIENCE

Uncommon Clean - Cumberland, ME: Mixed-use, commercial and residential development
Applications: Municipal, MDEP NRPA, Stormwater, USACE

Robie Street Subdivision - Gorham, ME: Phased residential development
Applications: Municipal, MDEP NRPA, Stormwater, USACE

Solar Array Projects: Berwick, Kenduskeag, Lewiston, Livermore Falls, Mechanic Falls, Minot, Orrington, Oxford, Prospect, Searsmont, Stockton Springs, etc.
Applications: MDEP Site Law, NRPA, Stormwater, Transfer, Extension, Decommissioning, USACE, MDOT Driveway, and Municipal

Allagash Brewing - Portland, ME: Permitting for future manufacturing expansion and operational needs
Applications: Municipal Zoning Amendment, Site Plan Amendment

Hammond Lumber - Portland, ME: Retail facility and parking expansion
Applications: Site Plan Amendment, MDEP Site Law Modification

Copart of Connecticut - Windham, ME: Vehicle Auction Facility/Offices
Applications: MDEP Site Law, NRPA, AST Variance, Municipal

Homestead Farms Subdivision - Falmouth, ME: Single-Family Clustered Development
Applications: MDEP Site Law, NRPA, USACE, Municipal

Harborchase - South Portland, ME: Senior Housing/Memory Care
Applications: MDEP NRPA, FAA, Municipal

Maine Medical Center - Portland, ME: Large Medical Facility Expansion
Applications: Municipal Level III Site Plan Application, FAA

Colby College - Waterville, ME (2003-2018): Site modifications
Applications: MDEP Site Law, NRPA, USACE, Municipal

Sugarloaf - Carrabassett Valley, ME (2003-2016): Site modifications
Applications: MDEP Site Location, NRPA, USACE, Municipal

EDUCATION

Northern Maine Technical College
Presque Isle, ME
Drafting Technology

Central Maine Technical College
Auburn, ME

Maine Technical Source (MTS)
Yarmouth, ME
AutoCAD I

SEBAGO TECHNICS

☎ 207.200.2120 ✉ SNICHOLS@SEBAGOTECHNICS.COM

Exhibit 7

Stormwater/ Erosion Controls

7.1

SEBAGO
TECHNICS
CIVIL ENGINEERING • SURVEYING • LANDSCAPE ARCHITECTURE

STORMWATER MANAGEMENT REPORT

For

ROCK EXTRACTION
104 & 114 WATERVILLE ROAD
BELFAST, MAINE 04915

Prepared for:

Rockport Granite, Inc.
P.O. Box 1140
Rockport, Maine 04856

Prepared by:

Sebago Technics, Inc.
75 John Roberts Rd, Suite 4A
South Portland, ME 04106

March 2025

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Appendix 3: Subsurface Investigations
Appendix 4: Stormwater Management Plans

STORMWATER MANAGEMENT REPORT
ROCKPORT GRANITE
BELFAST, MAINE

1. Introduction

This Stormwater Management Report has been prepared to present analyses performed to address the potential impacts associated with the project due to proposed modification in stormwater runoff characteristics and land cover changes. The stormwater management controls that are outlined in this report have been designed to suit the proposed development and to comply with applicable regulatory requirements.

2. Existing Conditions

The project site consists of undeveloped land located at 104 and 114 Waterville Road. The site is located in the Residential/Agricultural District and is approximately 98.37 acres in size. The site is bounded by Waterville Road and existing single family homes to the north, undeveloped wooded area and a small housing development to the west, and undeveloped wooded area to the south and east. Slopes on the site range from 50% to 1%

The site is tributary to the Passagassawakaeg River which is not identified as an Urban Impaired Stream in Appendix B in Chapter 502 of the Maine Department of Environmental Protection (MDEP).

The proposed development area of the site is not located in an identified flood zone per the FEMA Flood Insurance Rate Map for the Town of Belfast, Community Panel 23027C0433E and 23027C0445E with a revision date of July 6, 2015.

3. Soils

Soil characteristics were obtained from the medium intensity Soil Survey obtained via the United States Department of Agriculture and Natural Resources Conservation Services Web Soil Survey. The Hydrologic Groups (HSG) of the soils is classified by Technical Release TR-55 of the Soil Conservation Service as follows:

Soil Map Symbol	Soil Name	Slope (%)	HSG
BoB	Boothbay Silt Loam	3-8	D
BoC	Boothbay Silt Loam	8-15	C/D
BvB	Brayton Fine Sandy Loam	0-8	D
MeB	Marlow Fine Sandy Loam	0-8	C
MeC	Marlow Fine Sandy Loam	8-15	C
PbB	Peru Fine Sandy Loam	0-8	C/D

PbC	Peru Fine Sandy Loam	8-15	C/D
Sw	Swanville Silt Loam	0-3	C/D

Hydrologic Soil Group boundaries are delineated on the Watershed Map. A copy of the Medium Intensity Soil Survey is included as Appendix 3.

4. Proposed Site Improvements

The proposed development will consist of rock excavation activities located on a portion of both lots with access to the work area originating from existing drives at 104 and 114 Waterville Road. The proposed extraction area is located within unimproved acreage behind the existing residential uses. The rock extraction proposal does not include structures or other permanent features on the site and is temporary activity based on resource availability. All working areas will be limited to 2-acres of open space during any rock extraction. After rock excavation activity, the land will be restored to its natural condition and all work areas will be restored to shallow bowls that provide for stormwater infiltration. The remaining impervious area after all rock extraction will be limited to some gravel access roads and the total impervious area will be less than 1-acre.

5. Existing Conditions Model

The existing conditions watershed plan consists of three subcatchments labeled 1.0S, thru 3.0S in the HydroCAD model. Three locations were identified as Points of Analyses (POA) for comparing peak runoff rates, each of the POA's being wetland areas that collect stormwater runoff via onsite streams.

POA-1 is located in the westerly side of the lot where runoff leaves the site via a wetland complex. Watershed 1.0S contributes runoff to this point of analysis with an overall runoff area of approximately 61.32 acres. POA-1 and the associated drainage area are tributary to Passagassawakaeg River, which is not listed by the Maine Department of Environmental Protection as an Urban Impaired Stream within Chapter 502.

POA-2 is located in the westerly side of the lot where runoff leaves the site via a wetland complex. Watershed 2.0S contributes runoff to this point of analysis with an overall runoff area of approximately 32.58 acres. POA-2 and the associated drainage area are tributary to Passagassawakaeg River, which is not listed by the Maine Department of Environmental Protection as an Urban Impaired Stream within Chapter 502.

POA-3 is located where the remaining northerly portion of the site drains toward Waterville Road. Watershed 3.0S contributes runoff to this point of analysis with an overall runoff area of approximately 12.23 acres. POA-3 and the associated drainage area are tributary to Passagassawakaeg River, which is not listed by the Maine Department of Environmental Protection as an Urban Impaired Stream within Chapter 502.

6. Proposed Conditions Model

The proposed development watershed area consists of the same overall area as the existing conditions development plan. The rock extraction activities do not change the direction of the existing stormwater drainage directions and the watershed areas in POA-1 and POA-3 remain unchanged from the existing conditions development plan. POA-2 includes additional gravel area that will remain in the final conditions that will drain toward a detention basin to control stormwater runoff in the proposed conditions. Watershed 20.1S includes the proposed gravel access road and the detention basin for stormwater flooding control.

7. Stormwater Management

Basic Standard - Chapter 500, Section 4(B)

Since the project will disturb more than one (1) acre of land area, MDEP Basic Standards apply, requiring that grading or other construction activities on the site do not impede or otherwise alter drainage ways to have an unreasonable adverse impact. We have avoided adverse impacts by providing an Erosion & Sedimentation Control Plan, and an Inspection, Maintenance and Housekeeping Plan (Appendix 2) to be implemented during construction and post-construction stabilization of the site. These construction requirements have been developed following Best Management Practice guidelines.

General Standard - Chapter 500, Section 4(C)

Since the finalized development will not create more than one (1) acre of impervious surface, MDEP General Standards do not apply. These standards require a project's stormwater management system to include treatment measures that will mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts. The General Standards require treatment of no less than 95% of the site's created impervious area and no less than 80% of the site's created developed area (landscaped area and impervious area combined).

Flooding Standard - Chapter 500, Section 4(F)

Since the planned project will not create more than three (3) acres of impervious surface, MDEP Flooding Standards are not required to be met. The Flooding Standard requires a project's stormwater management system detain, retain, or result in the infiltration of stormwater from 24-hour storms of the 2, 10, and 25-year frequencies such that the peak flows of stormwater from the project site do not exceed the peak flows of stormwater prior to undertaking the project. The City of Belfast ordinance section 98-183 states that peak discharge for the developed site shall not exceed the peak discharge for the undeveloped site for the 2, 25, and 50-year storms. As such, a runoff evaluation was performed using the methodology outlined in the USDA Soil Conservation Service's "Urban Hydrology for Small Watersheds - Technical Release #55 (TR-55)". HydroCAD computer software was utilized to perform the calculations.

HydroCAD Stormwater Analysis

Runoff curve numbers were determined for each of the watersheds by measuring the area of each hydrologic soil group within each type of land cover. The type of land cover was determined based on survey data, field reconnaissance and aerial photography. Times of concentration were determined from site topographic maps in accordance with SCS procedures.

The 24-hour rainfall values utilized in the hydrologic model were obtained from Appendix H of MDEP's Chapter 500: Stormwater Management (effective date August 2015). Rainfall values for Waldo County are listed in the table below.

Storm Frequency Precipitation (in./24 hr) Waldo County	
2-year	2.9
10-year	4.2
25-year	5.2
50-year	6.1

The following table presents the results of the peak runoff calculations at the analysis points for the existing and proposed conditions.

Peak Runoff Rate Summary Table

Analysis Point	Storm Event	Existing Conditions (cfs)	Proposed Conditions (cfs)
POA-1	2-year	21.2	21.2
	10-year	47.9	47.9
	25-year	71.2	71.2
	50-year	93.3	93.3
POA-2	2-year	17.1	16.4
	10-year	34.9	33.6
	25-year	49.8	47.9
	50-year	63.7	61.2
POA-3	2-year	6.3	6.3
	10-year	12.5	12.5
	25-year	17.7	17.7
	50-year	22.6	22.6

The HydroCAD Data output sheets from this analysis are appended to this report (Appendix 1) along with the Stormwater Management Plans (Appendix 4). The model predicts that the peak runoff rates in the proposed development condition at Points of Analysis 1, 2, and 3 are at or below pre-development runoff rates for the 2, 25, and 50-year storm events with implementation of the proposed stormwater management practices.

8. Summary

The proposed development has been designed to manage stormwater runoff through Best Management Practices approved by MDEP. Runoff discharging from the site will be at or below existing conditions for the 2, 10, 25, and 50-year storm events at all three points of analysis. Additionally, erosion and sedimentation controls along with associated maintenance and housekeeping procedures have been outlined to prevent unreasonable impacts on the site and to the surrounding environment.

Prepared by:

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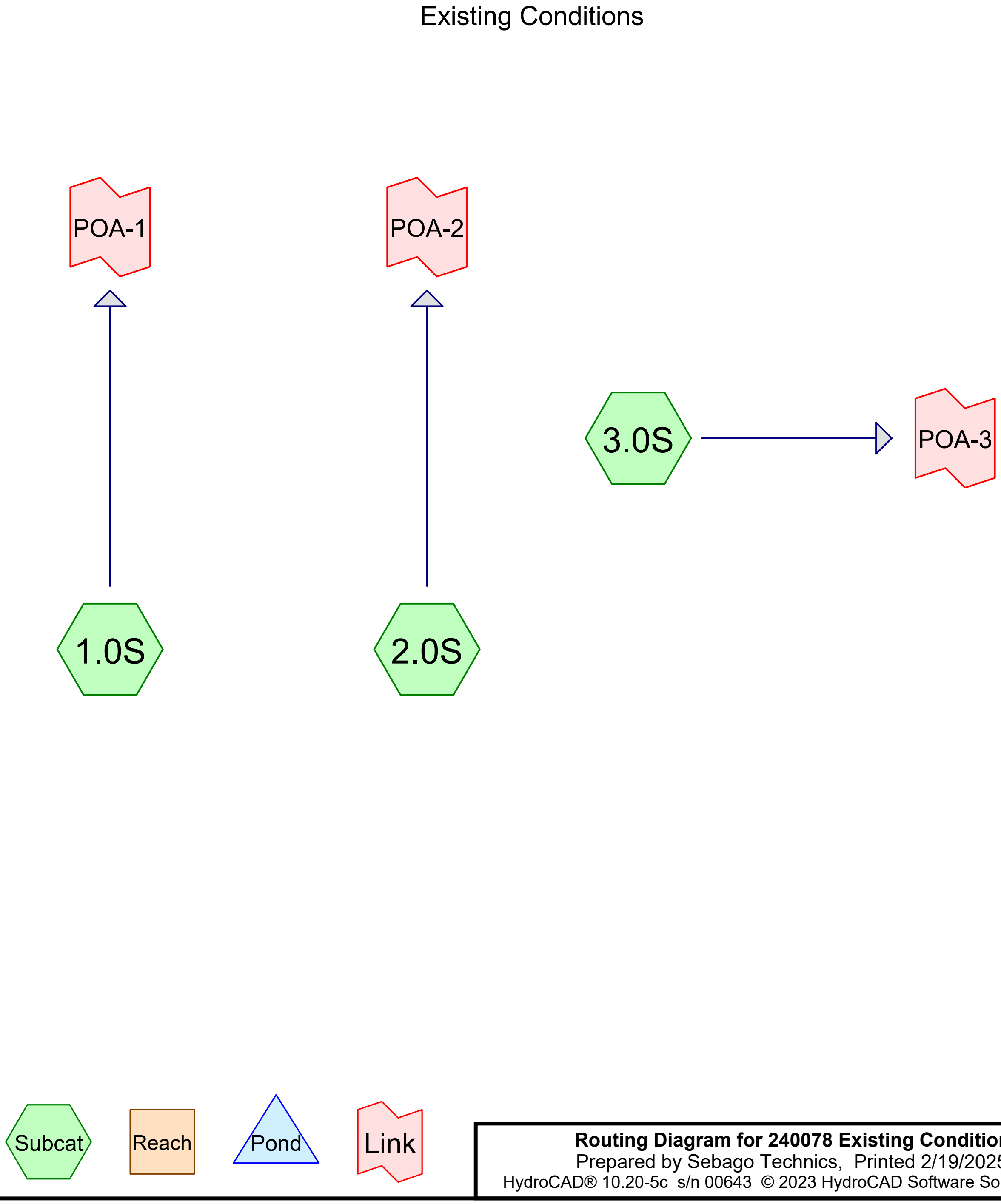
2/27/2025

Appendix 1A

Existing Conditions HydroCAD Summary


Existing Conditions
POA-1
POA-2
3.0S
POA-3
1.0S
2.0S
Subcat
Reach
Pond
Link

Routing Diagram for 240078 Existing Conditions
Prepared by Sebago Technics, Printed 2/19/2025
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
3.392	80	>75% Grass cover, Good, HSG D (2.0S, 3.0S)
0.254	96	Gravel surface, HSG D (2.0S, 3.0S)
0.128	98	Roofs (2.0S, 3.0S)
36.370	70	Woods, Good, HSG C (1.0S, 2.0S)
65.982	77	Woods, Good, HSG D (1.0S, 2.0S, 3.0S)
106.126	**75**	**TOTAL AREA**

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1.0S:	Runoff Area=2,671,015 sf 0.00% Impervious Runoff Depth>0.70" Flow Length=2,157' Tc=56.0 min CN=73 Runoff=21.2 cfs 3.593 af
Subcatchment2.0S:	Runoff Area=1,419,015 sf 0.13% Impervious Runoff Depth>0.90" Flow Length=1,669' Tc=44.2 min CN=77 Runoff=17.1 cfs 2.446 af
Subcatchment3.0S:	Runoff Area=532,797 sf 0.69% Impervious Runoff Depth>0.95" Flow Length=622' Tc=51.5 min CN=78 Runoff=6.3 cfs 0.969 af
Link POA-1:	Inflow=21.2 cfs 3.593 af Primary=21.2 cfs 3.593 af
Link POA-2:	Inflow=17.1 cfs 2.446 af Primary=17.1 cfs 2.446 af
Link POA-3:	Inflow=6.3 cfs 0.969 af Primary=6.3 cfs 0.969 af

Total Runoff Area = 106.126 ac Runoff Volume = 7.008 af Average Runoff Depth = 0.79"
99.88% Pervious = 105.997 ac 0.12% Impervious = 0.128 ac

```
                      Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
                     Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
             Reach routing by Stor-Ind+Trans method  -  Pond routing by Stor-Ind method

Subcatchment1.0S:                  Runoff Area=2,671,015 sf   0.00% Impervious   Runoff Depth>1.51"
                                 Flow Length=2,157'   Tc=56.0 min   CN=73   Runoff=47.9 cfs  7.698 af

Subcatchment2.0S:                  Runoff Area=1,419,015 sf   0.13% Impervious   Runoff Depth>1.80"
                                 Flow Length=1,669'   Tc=44.2 min   CN=77   Runoff=34.9 cfs  4.880 af

Subcatchment3.0S:                    Runoff Area=532,797 sf   0.69% Impervious   Runoff Depth>1.87"
                                   Flow Length=622'   Tc=51.5 min   CN=78   Runoff=12.5 cfs  1.903 af

Link POA-1:                                                             Inflow=47.9 cfs  7.698 af
                                                                       Primary=47.9 cfs  7.698 af

Link POA-2:                                                             Inflow=34.9 cfs  4.880 af
                                                                       Primary=34.9 cfs  4.880 af

Link POA-3:                                                             Inflow=12.5 cfs  1.903 af
                                                                       Primary=12.5 cfs  1.903 af

        Total Runoff Area = 106.126 ac   Runoff Volume = 14.481 af   Average Runoff Depth = 1.64"
                                  99.88% Pervious = 105.997 ac     0.12% Impervious = 0.128 ac
```

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1.0S: Runoff Area=2,671,015 sf 0.00% Impervious Runoff Depth>2.21"
Flow Length=2,157' Tc=56.0 min CN=73 Runoff=71.2 cfs 11.318 af

Subcatchment2.0S: Runoff Area=1,419,015 sf 0.13% Impervious Runoff Depth>2.56"
Flow Length=1,669' Tc=44.2 min CN=77 Runoff=49.8 cfs 6.961 af

Subcatchment3.0S: Runoff Area=532,797 sf 0.69% Impervious Runoff Depth>2.65"
Flow Length=622' Tc=51.5 min CN=78 Runoff=17.7 cfs 2.696 af

Link POA-1: Inflow=71.2 cfs 11.318 af
Primary=71.2 cfs 11.318 af

Link POA-2: Inflow=49.8 cfs 6.961 af
Primary=49.8 cfs 6.961 af

Link POA-3: Inflow=17.7 cfs 2.696 af
Primary=17.7 cfs 2.696 af

Total Runoff Area = 106.126 ac Runoff Volume = 20.975 af Average Runoff Depth = 2.37"
99.88% Pervious = 105.997 ac 0.12% Impervious = 0.128 ac

Summary for Subcatchment 1.0S:

Runoff = 93.3 cfs @ 12.77 hrs, Volume= 14.800 af, Depth> 2.90"
Routed to Link POA-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-Year Rainfall=6.10"

Area (sf)	CN	Description
1,556,251	70	Woods, Good, HSG C
1,114,764	77	Woods, Good, HSG D
2,671,015	73	Weighted Average
2,671,015		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	56	0.0500	0.09		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 2.90"
1.6	117	0.0600	1.22		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
12.7	416	0.0120	0.55		**Shallow Concentrated Flow, C to D** Woodland Kv= 5.0 fps
2.0	193	0.1000	1.58		**Shallow Concentrated Flow, D to E** Woodland Kv= 5.0 fps
0.4	318	0.0400	15.06	1,807.53	**Trap/Vee/Rect Channel Flow, E to F** Bot.W=10.00' D=4.00' Z= 5.0 '/' Top.W=50.00' n= 0.035 Earth, dense weeds
0.1	161	0.2000	43.13	7,245.17	**Trap/Vee/Rect Channel Flow, F to G** Bot.W=10.00' D=6.00' Z= 1.0 & 5.0 '/' Top.W=46.00' n= 0.035 Earth, dense weeds
0.2	194	0.0260	14.10	1,579.29	**Trap/Vee/Rect Channel Flow, G to H** Bot.W=20.00' D=4.00' Z= 2.0 '/' Top.W=36.00' n= 0.035 Earth, dense weeds
27.8	590	0.0050	0.35		**Shallow Concentrated Flow, H to I** Woodland Kv= 5.0 fps
1.4	112	0.0700	1.32		**Shallow Concentrated Flow, I to J** Woodland Kv= 5.0 fps
56.0	2,157	Total			

Summary for Subcatchment 2.0S:

Runoff = 63.7 cfs @ 12.61 hrs, Volume= 8.932 af, Depth> 3.29"
Routed to Link POA-2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-Year Rainfall=6.10"

	Area (sf)	CN	Description
*	1,906	98	Roofs
*	2,629	96	Gravel surface, HSG D
	46,387	80	>75% Grass cover, Good, HSG D
	28,007	70	Woods, Good, HSG C
	1,340,086	77	Woods, Good, HSG D
	1,419,015	77	Weighted Average
	1,417,109		99.87% Pervious Area
	1,906		0.13% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
35.0	150	0.0150	0.07		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 2.90"
6.3	317	0.0280	0.84		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
1.4	100	0.0600	1.22		**Shallow Concentrated Flow, C to D** Woodland Kv= 5.0 fps
1.0	434	0.0130	6.91	829.71	**Trap/Vee/Rect Channel Flow, D to E** Bot.W=10.00' D=3.00' Z= 10.0 '/' Top.W=70.00' n= 0.035 Earth, dense weeds
0.1	234	0.1300	27.66	2,766.27	**Trap/Vee/Rect Channel Flow, E to F** Bot.W=10.00' D=4.00' Z= 5.0 & 2.5 '/' Top.W=40.00' n= 0.035 Earth, dense weeds
0.4	434	0.0400	19.59	3,290.94	**Trap/Vee/Rect Channel Flow, F to G** Bot.W=10.00' D=6.00' Z= 3.0 '/' Top.W=46.00' n= 0.035 Earth, dense weeds
44.2	1,669	Total			

Summary for Subcatchment 3.0S:

Runoff = 22.6 cfs @ 12.70 hrs, Volume= 3.444 af, Depth> 3.38"
Routed to Link POA-3 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-Year Rainfall=6.10"

	Area (sf)	CN	Description
*	3,678	98	Roofs
*	8,453	96	Gravel surface, HSG D
	101,356	80	>75% Grass cover, Good, HSG D
	419,310	77	Woods, Good, HSG D
	532,797	78	Weighted Average
	529,119		99.31% Pervious Area
	3,678		0.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
42.8	141	0.0080	0.05		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 2.90"
3.5	212	0.0400	1.00		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
5.2	269	0.0300	0.87		**Shallow Concentrated Flow, C to D** Woodland Kv= 5.0 fps
51.5	622	Total			

Summary for Link POA-1:

```
Inflow Area =        61.318 ac,    0.00% Impervious,  Inflow Depth >   2.90"    for  50-Year event
Inflow      =          93.3 cfs @   12.77 hrs,  Volume=          14.800 af
Primary     =          93.3 cfs @   12.77 hrs,  Volume=          14.800 af,  Atten= 0%,  Lag= 0.0 min
```

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link POA-2:

```
Inflow Area =        32.576 ac,    0.13% Impervious,  Inflow Depth >   3.29"    for  50-Year event
Inflow      =          63.7 cfs @   12.61 hrs,  Volume=           8.932 af
Primary     =          63.7 cfs @   12.61 hrs,  Volume=           8.932 af,  Atten= 0%,  Lag= 0.0 min
```

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

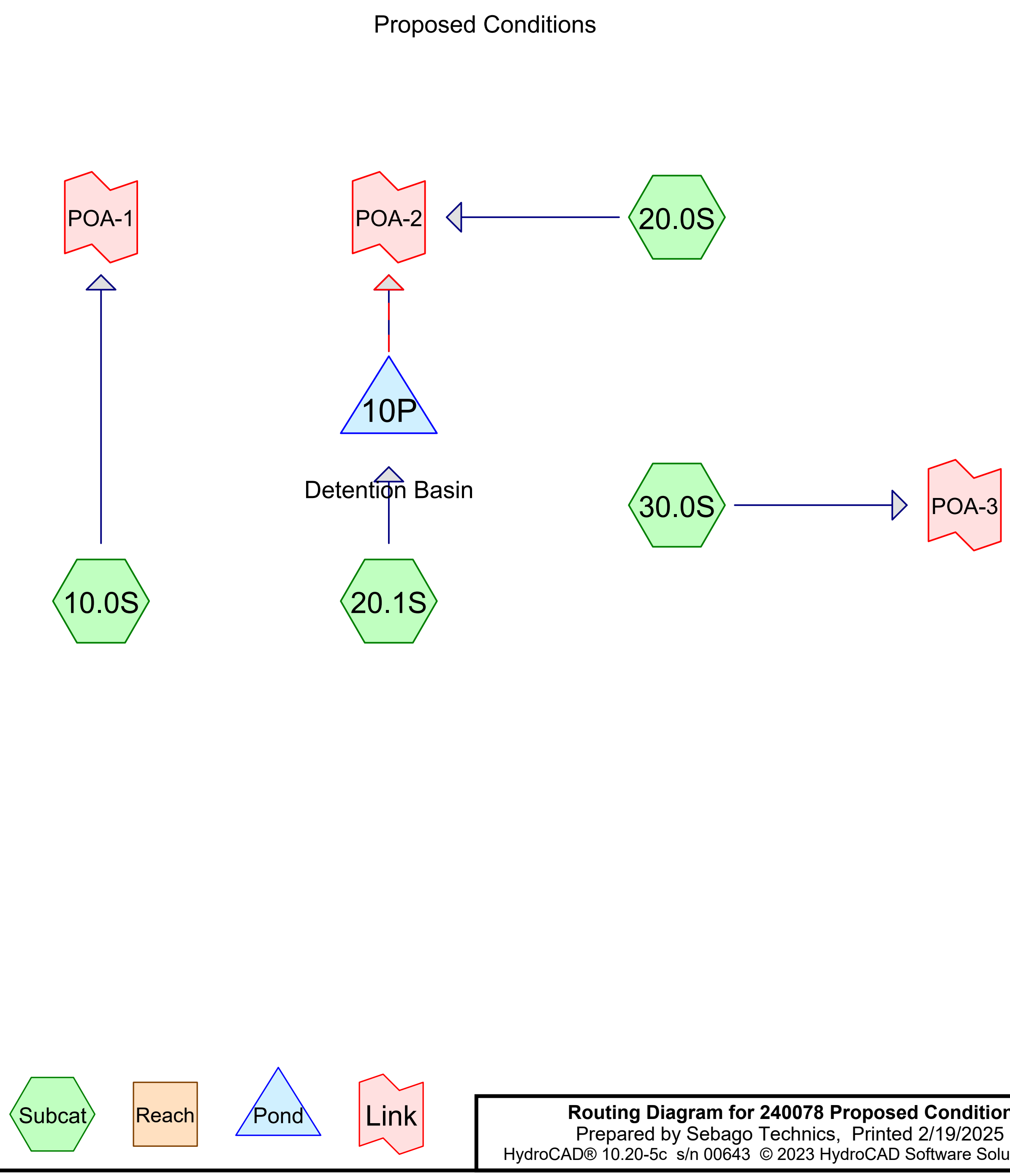
Summary for Link POA-3:

```
Inflow Area =        12.231 ac,    0.69% Impervious,  Inflow Depth >   3.38"    for  50-Year event
Inflow      =          22.6 cfs @   12.70 hrs,  Volume=           3.444 af
Primary     =          22.6 cfs @   12.70 hrs,  Volume=           3.444 af,  Atten= 0%,  Lag= 0.0 min
```

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Appendix 1B

Proposed Conditions
HydroCAD Summary


Proposed Conditions
POA-1
POA-2
20.0S
10P
Detention Basin
30.0S
POA-3
10.0S
20.1S
Subcat
Reach
Pond
Link

Routing Diagram for 240078 Proposed Conditions
Prepared by Sebago Technics, Printed 2/19/2025
HydroCAD® 10.20-5c s/n 00643 © 2023 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
4.461	80	>75% Grass cover, Good, HSG D (20.0S, 20.1S, 30.0S)
0.639	96	Gravel surface, HSG D (20.0S, 20.1S, 30.0S)
20.077	71	Meadow, non-grazed, HSG C (10.0S, 20.0S)
21.871	78	Meadow, non-grazed, HSG D (10.0S, 20.0S, 20.1S, 30.0S)
0.128	98	Roofs (20.0S, 30.0S)
16.292	70	Woods, Good, HSG C (10.0S)
42.657	77	Woods, Good, HSG D (10.0S, 20.0S, 30.0S)
106.126	**75**	**TOTAL AREA**

```
                    Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
                   Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
          Reach routing by Stor-Ind+Trans method  -  Pond routing by Stor-Ind method

Subcatchment10.0S:              Runoff Area=2,671,015 sf   0.00% Impervious   Runoff Depth>0.70"
                               Flow Length=2,157'   Tc=56.0 min   CN=73   Runoff=21.2 cfs  3.593 af

Subcatchment20.0S:              Runoff Area=1,356,392 sf   0.14% Impervious   Runoff Depth>0.90"
                               Flow Length=1,669'   Tc=44.2 min   CN=77   Runoff=16.3 cfs  2.338 af

Subcatchment20.1S:                 Runoff Area=62,538 sf   0.00% Impervious   Runoff Depth>1.19"
                                  Flow Length=529'   Tc=28.8 min   CN=82   Runoff=1.2 cfs  0.143 af

Subcatchment30.0S:                Runoff Area=532,882 sf   0.69% Impervious   Runoff Depth>0.95"
                                  Flow Length=622'   Tc=51.5 min   CN=78   Runoff=6.3 cfs  0.969 af

Pond 10P: Detention Basin           Peak Elev=149.33'  Storage=3,487 cf   Inflow=1.2 cfs  0.143 af
                    Primary=0.2 cfs  0.090 af   Secondary=0.0 cfs  0.000 af   Outflow=0.2 cfs  0.090 af

Link POA-1:                                                               Inflow=21.2 cfs  3.593 af
                                                                         Primary=21.2 cfs  3.593 af

Link POA-2:                                                               Inflow=16.4 cfs  2.429 af
                                                                         Primary=16.4 cfs  2.429 af

Link POA-3:                                                                Inflow=6.3 cfs  0.969 af
                                                                          Primary=6.3 cfs  0.969 af

          Total Runoff Area = 106.126 ac   Runoff Volume = 7.043 af   Average Runoff Depth = 0.80"
                                      99.88% Pervious = 105.997 ac     0.12% Impervious = 0.128 ac
```

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10.0S: Runoff Area=2,671,015 sf 0.00% Impervious Runoff Depth>1.51"
Flow Length=2,157' Tc=56.0 min CN=73 Runoff=47.9 cfs 7.698 af

Subcatchment 20.0S: Runoff Area=1,356,392 sf 0.14% Impervious Runoff Depth>1.80"
Flow Length=1,669' Tc=44.2 min CN=77 Runoff=33.3 cfs 4.665 af

Subcatchment 20.1S: Runoff Area=62,538 sf 0.00% Impervious Runoff Depth>2.20"
Flow Length=529' Tc=28.8 min CN=82 Runoff=2.3 cfs 0.263 af

Subcatchment 30.0S: Runoff Area=532,882 sf 0.69% Impervious Runoff Depth>1.87"
Flow Length=622' Tc=51.5 min CN=78 Runoff=12.5 cfs 1.903 af

Pond 10P: Detention Basin Peak Elev=149.63' Storage=6,736 cf Inflow=2.3 cfs 0.263 af
Primary=0.3 cfs 0.166 af Secondary=0.0 cfs 0.000 af Outflow=0.3 cfs 0.166 af

Link POA-1: Inflow=47.9 cfs 7.698 af
Primary=47.9 cfs 7.698 af

Link POA-2: Inflow=33.6 cfs 4.831 af
Primary=33.6 cfs 4.831 af

Link POA-3: Inflow=12.5 cfs 1.903 af
Primary=12.5 cfs 1.903 af

Total Runoff Area = 106.126 ac Runoff Volume = 14.529 af Average Runoff Depth = 1.64"
99.88% Pervious = 105.997 ac 0.12% Impervious = 0.128 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10.0S: Runoff Area=2,671,015 sf 0.00% Impervious Runoff Depth>2.21"
Flow Length=2,157' Tc=56.0 min CN=73 Runoff=71.2 cfs 11.318 af

Subcatchment 20.0S: Runoff Area=1,356,392 sf 0.14% Impervious Runoff Depth>2.56"
Flow Length=1,669' Tc=44.2 min CN=77 Runoff=47.6 cfs 6.654 af

Subcatchment 20.1S: Runoff Area=62,538 sf 0.00% Impervious Runoff Depth>3.03"
Flow Length=529' Tc=28.8 min CN=82 Runoff=3.1 cfs 0.363 af

Subcatchment 30.0S: Runoff Area=532,882 sf 0.69% Impervious Runoff Depth>2.65"
Flow Length=622' Tc=51.5 min CN=78 Runoff=17.7 cfs 2.697 af

Pond 10P: Detention Basin Peak Elev=149.88' Storage=9,584 cf Inflow=3.1 cfs 0.363 af
Primary=0.4 cfs 0.215 af Secondary=0.0 cfs 0.000 af Outflow=0.4 cfs 0.215 af

Link POA-1: Inflow=71.2 cfs 11.318 af
Primary=71.2 cfs 11.318 af

Link POA-2: Inflow=47.9 cfs 6.869 af
Primary=47.9 cfs 6.869 af

Link POA-3: Inflow=17.7 cfs 2.697 af
Primary=17.7 cfs 2.697 af

Total Runoff Area = 106.126 ac Runoff Volume = 21.031 af Average Runoff Depth = 2.38"
99.88% Pervious = 105.997 ac 0.12% Impervious = 0.128 ac

Summary for Subcatchment 10.0S:

Runoff = 93.3 cfs @ 12.77 hrs, Volume= 14.800 af, Depth> 2.90"
Routed to Link POA-1 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-Year Rainfall=6.10"

Area (sf)	CN	Description
846,555	71	Meadow, non-grazed, HSG C
247,097	78	Meadow, non-grazed, HSG D
709,696	70	Woods, Good, HSG C
867,667	77	Woods, Good, HSG D
2,671,015	73	Weighted Average
2,671,015		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	56	0.0500	0.09		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 2.90"
1.6	117	0.0600	1.22		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
12.7	416	0.0120	0.55		**Shallow Concentrated Flow, C to D** Woodland Kv= 5.0 fps
2.0	193	0.1000	1.58		**Shallow Concentrated Flow, D to E** Woodland Kv= 5.0 fps
0.4	318	0.0400	15.06	1,807.53	**Trap/Vee/Rect Channel Flow, E to F** Bot.W=10.00' D=4.00' Z= 5.0 '/' Top.W=50.00' n= 0.035 Earth, dense weeds
0.1	161	0.2000	43.13	7,245.17	**Trap/Vee/Rect Channel Flow, F to G** Bot.W=10.00' D=6.00' Z= 1.0 & 5.0 '/' Top.W=46.00' n= 0.035 Earth, dense weeds
0.2	194	0.0260	14.10	1,579.29	**Trap/Vee/Rect Channel Flow, G to H** Bot.W=20.00' D=4.00' Z= 2.0 '/' Top.W=36.00' n= 0.035 Earth, dense weeds
27.8	590	0.0050	0.35		**Shallow Concentrated Flow, H to I** Woodland Kv= 5.0 fps
1.4	112	0.0700	1.32		**Shallow Concentrated Flow, I to J** Woodland Kv= 5.0 fps
56.0	2,157	Total			

Summary for Subcatchment 20.0S:

Runoff = 60.9 cfs @ 12.61 hrs, Volume= 8.538 af, Depth> 3.29"
Routed to Link POA-2 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-Year Rainfall=6.10"

	Area (sf)	CN	Description
*	1,906	98	Roofs
*	2,629	96	Gravel surface, HSG D
	46,387	80	>75% Grass cover, Good, HSG D
*	28,007	71	Meadow, non-grazed, HSG C
*	609,530	78	Meadow, non-grazed, HSG D
	667,933	77	Woods, Good, HSG D
	1,356,392	77	Weighted Average
	1,354,486		99.86% Pervious Area
	1,906		0.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
35.0	150	0.0150	0.07		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 2.90"
6.3	317	0.0280	0.84		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
1.4	100	0.0600	1.22		**Shallow Concentrated Flow, C to D** Woodland Kv= 5.0 fps
1.0	434	0.0130	6.91	829.71	**Trap/Vee/Rect Channel Flow, D to E** Bot.W=10.00' D=3.00' Z= 10.0 '/' Top.W=70.00' n= 0.035 Earth, dense weeds
0.1	234	0.1300	27.66	2,766.27	**Trap/Vee/Rect Channel Flow, E to F** Bot.W=10.00' D=4.00' Z= 5.0 & 2.5 '/' Top.W=40.00' n= 0.035 Earth, dense weeds
0.4	434	0.0400	19.59	3,290.94	**Trap/Vee/Rect Channel Flow, F to G** Bot.W=10.00' D=6.00' Z= 3.0 '/' Top.W=46.00' n= 0.035 Earth, dense weeds
44.2	1,669	Total			

Summary for Subcatchment 20.1S:

Runoff = 3.9 cfs @ 12.39 hrs, Volume= 0.455 af, Depth> 3.81"
Routed to Pond 10P : Detention Basin

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-Year Rainfall=6.10"

	Area (sf)	CN	Description
*	8,313	96	Gravel surface, HSG D
	48,680	80	>75% Grass cover, Good, HSG D
	5,545	78	Meadow, non-grazed, HSG D
	62,538	82	Weighted Average
	62,538		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.6	150	0.0500	0.12		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 2.90"
0.2	29	0.0200	2.28		**Shallow Concentrated Flow, B to C** Unpaved Kv= 16.1 fps
7.0	350	0.0280	0.84		**Shallow Concentrated Flow, C to D** Woodland Kv= 5.0 fps
28.8	529	Total			

Summary for Subcatchment 30.0S:

Runoff = 22.6 cfs @ 12.70 hrs, Volume= 3.445 af, Depth> 3.38"
Routed to Link POA-3 :

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-Year Rainfall=6.10"

	Area (sf)	CN	Description
*	3,678	98	Roofs
*	16,887	96	Gravel surface, HSG D
	99,268	80	>75% Grass cover, Good, HSG D
	90,516	78	Meadow, non-grazed, HSG D
	322,533	77	Woods, Good, HSG D
	532,882	78	Weighted Average
	529,204		99.31% Pervious Area
	3,678		0.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
42.8	141	0.0080	0.05		**Sheet Flow, A to B** Woods: Light underbrush n= 0.400 P2= 2.90"
3.5	212	0.0400	1.00		**Shallow Concentrated Flow, B to C** Woodland Kv= 5.0 fps
5.2	269	0.0300	0.87		**Shallow Concentrated Flow, C to D** Woodland Kv= 5.0 fps
51.5	622	Total			

Summary for Pond 10P: Detention Basin

Inflow Area = 1.436 ac, 0.00% Impervious, Inflow Depth > 3.81" for 50-Year event
Inflow = 3.9 cfs @ 12.39 hrs, Volume= 0.455 af
Outflow = 0.4 cfs @ 14.35 hrs, Volume= 0.255 af, Atten= 90%, Lag= 117.3 min
Primary = 0.4 cfs @ 14.35 hrs, Volume= 0.255 af
Routed to Link POA-2 :
Secondary = 0.0 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Link POA-2 :

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 150.11' @ 14.35 hrs Surf.Area= 11,976 sf Storage= 12,299 cf
Flood Elev= 70.00' Storage= 0 cf

Plug-Flow detention time= 234.9 min calculated for 0.254 af (56% of inflow)
Center-of-Mass det. time= 159.0 min (953.0 - 794.0)

Volume	Invert	Avail.Storage	Storage Description
#1	149.00'	27,039 cf	**Detention Basin (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
149.00	10,235	0.0	0	0
150.00	11,801	100.0	11,018	11,018
151.00	13,424	100.0	12,613	23,631
151.25	13,844	100.0	3,409	27,039

Device	Routing	Invert	Outlet Devices
#1	Primary	147.80'	**15.0" Round Outlet** L= 42.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 147.80' / 147.50' S= 0.0071 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	150.15'	**4.0" x 4.0" Horiz. Catch Basin Grate** X 16 rows C= 0.600 Limited to weir flow at low heads
#3	Device 1	149.00'	**4.0" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#4	Secondary	150.20'	**10.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.4 cfs @ 14.35 hrs HW=150.11' (Free Discharge)
└─**1=Outlet** (Passes 0.4 cfs of 6.1 cfs potential flow)
  ├─**2=Catch Basin Grate** (Controls 0.0 cfs)
  └─**3=Orifice** (Orifice Controls 0.4 cfs @ 4.67 fps)

Secondary OutFlow Max=0.0 cfs @ 5.00 hrs HW=149.00' (Free Discharge)
└─**4=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Link POA-1:

Inflow Area = 61.318 ac, 0.00% Impervious, Inflow Depth > 2.90" for 50-Year event
Inflow = 93.3 cfs @ 12.77 hrs, Volume= 14.800 af
Primary = 93.3 cfs @ 12.77 hrs, Volume= 14.800 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link POA-2:

```
Inflow Area =      32.574 ac,   0.13% Impervious,  Inflow Depth >   3.24"    for  50-Year event
Inflow      =        61.2 cfs @   12.61 hrs,  Volume=          8.793 af
Primary     =        61.2 cfs @   12.61 hrs,  Volume=          8.793 af,  Atten= 0%,  Lag= 0.0 min
```

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link POA-3:

```
Inflow Area =      12.233 ac,   0.69% Impervious,  Inflow Depth >   3.38"    for  50-Year event
Inflow      =        22.6 cfs @   12.70 hrs,  Volume=          3.445 af
Primary     =        22.6 cfs @   12.70 hrs,  Volume=          3.445 af,  Atten= 0%,  Lag= 0.0 min
```

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond 10P: Detention Basin

Inflow Area = 1.436 ac, 0.00% Impervious, Inflow Depth > 3.03" for 25-Year event
Inflow = 3.1 cfs @ 12.40 hrs, Volume= 0.363 af
Outflow = 0.2 cfs @ 16.72 hrs, Volume= 0.048 af, Atten= 95%, Lag= 259.6 min
Primary = 0.0 cfs @ 5.00 hrs, Volume= 0.000 af
Routed to Link POA-2 :
Secondary = 0.2 cfs @ 16.72 hrs, Volume= 0.048 af
Routed to Link POA-2 :

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 150.24' @ 16.72 hrs Surf.Area= 12,183 sf Storage= 13,841 cf
Flood Elev= 70.00' Storage= 0 cf

Plug-Flow detention time= 407.0 min calculated for 0.048 af (13% of inflow)
Center-of-Mass det. time= 262.0 min (1,061.2 - 799.3)

Volume	Invert	Avail.Storage	Storage Description
#1	149.00'	27,039 cf	**Detention Basin (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
149.00	10,235	0.0	0	0
150.00	11,801	100.0	11,018	11,018
151.00	13,424	100.0	12,613	23,631
151.25	13,844	100.0	3,409	27,039

Device	Routing	Invert	Outlet Devices
#1	Primary	147.80'	**15.0" Round Outlet X 0.00** L= 42.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 147.80' / 147.50' S= 0.0071 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	150.15'	**4.0" x 4.0" Horiz. Catch Basin Grate** X 16 rows C= 0.600 Limited to weir flow at low heads
#3	Device 1	149.00'	**4.0" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#4	Secondary	150.20'	**10.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=0.0 cfs @ 5.00 hrs HW=149.00' (Free Discharge)
- **1=Outlet** (Controls 0.0 cfs)
  - **2=Catch Basin Grate** (Controls 0.0 cfs)
  - **3=Orifice** (Controls 0.0 cfs)

Secondary OutFlow Max=0.2 cfs @ 16.72 hrs HW=150.24' (Free Discharge)
- **4=Broad-Crested Rectangular Weir** (Weir Controls 0.2 cfs @ 0.46 fps)

Top of embankment - 151.25'
Emergency spillway independently conveys runoff from a 25-year, 24-hour storm while maintaining one foot of freeboard between peak storage and top of embankment.

Summary for Pond 10P: Detention Basin

Inflow Area = 1.436 ac, 0.00% Impervious, Inflow Depth > 4.78" for 100-Year event
Inflow = 4.9 cfs @ 12.39 hrs, Volume= 0.571 af
Outflow = 1.6 cfs @ 12.98 hrs, Volume= 0.348 af, Atten= 67%, Lag= 35.1 min
Primary = 1.5 cfs @ 12.98 hrs, Volume= 0.347 af
Routed to Link POA-2 :
Secondary = 0.0 cfs @ 12.98 hrs, Volume= 0.001 af
Routed to Link POA-2 :

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 150.21' @ 12.98 hrs Surf.Area= 12,148 sf Storage= 13,575 cf
Flood Elev= 70.00' Storage= 0 cf

Plug-Flow detention time= 199.4 min calculated for 0.348 af (61% of inflow)
Center-of-Mass det. time= 126.8 min (915.5 - 788.7)

Volume	Invert	Avail.Storage	Storage Description
#1	149.00'	27,039 cf	**Detention Basin (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
149.00	10,235	0.0	0	0
150.00	11,801	100.0	11,018	11,018
151.00	13,424	100.0	12,613	23,631
151.25	13,844	100.0	3,409	27,039

Device	Routing	Invert	Outlet Devices
#1	Primary	147.80'	**15.0" Round Outlet** L= 42.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 147.80' / 147.50' S= 0.0071 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	150.15'	**4.0" x 4.0" Horiz. Catch Basin Grate** X 16 rows C= 0.600 Limited to weir flow at low heads
#3	Device 1	149.00'	**4.0" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#4	Secondary	150.20'	**10.0' long x 8.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Primary OutFlow Max=1.5 cfs @ 12.98 hrs HW=150.21' (Free Discharge)
└─**1=Outlet** (Passes 1.5 cfs of 6.2 cfs potential flow)
  ├─**2=Catch Basin Grate** (Weir Controls 1.1 cfs @ 0.82 fps)
  └─**3=Orifice** (Orifice Controls 0.4 cfs @ 4.93 fps)

Secondary OutFlow Max=0.0 cfs @ 12.98 hrs HW=150.21' (Free Discharge)
└─**4=Broad-Crested Rectangular Weir** (Weir Controls 0.0 cfs @ 0.28 fps)

Top of embankment = 151.25'
Emergency spillway conveys runoff from a 100-year,
24-hour storm while not exceeding the top of embankment.

Appendix 2

Inspection, Maintenance and Housekeeping Plan

INSPECTION, MAINTENANCE, AND HOUSEKEEPING PLAN

For:
Rock Excavation, Waterville Road (Route 137)
Belfast, Maine

By:
Sebago Technics, Inc.
75 John Roberts Road, Suite 4A
South Portland, Maine

Introduction

The following plan outlines the anticipated inspection and maintenance procedures for the erosion and sedimentation control measures as well as stormwater management facilities for the project. This plan also outlines several housekeeping requirements that shall be followed during and after construction. These procedures shall be followed in order to ensure the intended function of the designed measures and to prevent unreasonably adverse impacts to the surrounding environment.

The procedures outlined in this Inspection, Maintenance and Housekeeping Plan are provided as an overview of the anticipated practices to be used on this site. In some instances, additional measures may be required due to unexpected conditions. For additional detail on any of the erosion and sedimentation control measures or stormwater management devices to be utilized on this project, refer to the most recently revised edition of the "Maine Erosion and Sedimentation Control BMP" manual and/or the "Stormwater Management for Maine: Best Management Practices" manual as published by the Maine Department of Environmental Protection (MDEP).

During Construction

1. **Inspection:** During the construction process, it is the Contractor's responsibility to comply with the inspection and maintenance procedures outlined in this section. These responsibilities include inspecting disturbed and impervious areas, erosion control measures, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. These areas shall be inspected at least once a week as well as before and after a storm event (0.5" of rainfall), and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in any applicable permits, shall conduct the inspections.

2. **Maintenance:** All measures shall be maintained in an effective operating condition until areas are permanently stabilized. If Best Management Practices (BMPs) need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation must be completed within 7 calendar days and prior to any storm event (0.5" of rainfall).

3. **Documentation:** A log summarizing the inspections and any corrective action taken must be maintained on-site. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, material storage areas, and vehicle access points to the site. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional

BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to the appropriate regulatory agency upon request. The permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

4. **Specific Inspection and Maintenance Tasks:** The following is a list of erosion control and stormwater management measures and the specific inspection and maintenance tasks to be performed during construction.

A. Sediment Barriers:

- Hay bale barriers, silt fences, and filter berms shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
- If the fabric on a silt fence or filter barrier should decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, it shall be replaced.
- Sediment deposits should be removed after each storm event (0.5" of rainfall). They must be removed before deposits reach approximately one-half the height of the barrier.
- Filter berms shall be reshaped as needed.
- Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared, and seeded.

B. Riprap Materials:

- Once a riprap installation has been completed, it should require very little maintenance. It shall, however, be inspected periodically to determine if high flows have caused scour beneath the riprap or dislodged any of the stone.

C. Erosion Control Blankets:

- Inspect these reinforced areas semi-annually and after significant rainfall events for slumping, sliding, seepage, and scour. Pay close attention to unreinforced areas adjacent to the erosion control blankets, which may experience accelerated erosion.
- Review all applicable inspection and maintenance procedures recommended by the specific blanket manufacturer. These tasks shall be included in addition to the requirements of this plan.

D. Stabilized Construction Entrances/Exits:

- The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way.
- When the control pad becomes ineffective, the stone shall be removed along with the collected soil material. The entrance should then be reconstructed.
- Areas that have received mud-tracking or sediment deposits shall be swept or washed. Washing shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device (not into storm drains, ditches, or waterways).

E. Temporary Seed and Mulch:

- Mulched areas should be inspected after rain events to check for rill erosion.
- If less than 90% of the soil surface is covered by mulch, additional mulch shall be applied in bare areas.
- In applications where seeding and mulch have been applied in conjunction with erosion control blankets, the blankets must be inspected after rain events for dislocation or undercutting.
- Mulch shall continue to be reapplied until 95% of the soil surface has established temporary vegetative cover.

F. Stabilized Temporary Drainage Swales:

- Sediment accumulation in the swale shall be removed once the cross section of the swale is reduced by 25%.
- The swales shall be inspected after rainfall events. Any evidence of sloughing of the side slopes or channel erosion shall be repaired and corrective action should be taken to prevent reoccurrence of the problem.
- In addition to the stabilized lining of the channel (i.e. erosion control blankets), stone check dams may be needed to further reduce channel velocity.

5. **Housekeeping:** The following general performance standards apply to the proposed project.

A. Spill prevention: Controls must be used to prevent pollutants from being discharged from materials on-site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.

B. Groundwater protection: During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors, accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials.

C. Fugitive sediment and dust: Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.

D. Debris and other materials: Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.

E. Trench or foundation dewatering: Trench dewatering is the removal of water from trenches, foundations, cofferdams, ponds, and other areas within the construction area that retain water after excavation. In most cases, the collected water is heavily silted and hinders correct and safe construction practices. The collected water must be removed from the ponded area, either through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved.

Post-Construction

1. **Inspection:** After construction, it is the responsibility of the owner or assigned heirs to comply with the inspection and maintenance procedures outlined in this section. All measures must be maintained in effective operating condition. The owner shall inspect and maintain the BMPs, including but not limited to any parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.

2. **Specific Inspection and Maintenance Tasks:** The following is a list of permanent erosion control and stormwater management measures and the inspection and maintenance tasks to be performed after construction. If the BMP requires maintenance, repair or replacement to function as intended by the approved post-construction stormwater management plan, the owner or operator of the BMP shall take corrective action(s) to address the deficiency or deficiencies as soon as possible after the deficiency is discovered and shall provide a record of the deficiency and corrective action(s) to the local municipality in the annual report.

   A. Vegetated Areas:

   - Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains (>0.5”) to identify active or potential erosion problems.
   - Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

   B. Ditches, Swales and Other Open Channels:

   - Inspect ditches, swales, level spreaders and other open stormwater channels in the spring, in the late fall, and after heavy rains to remove any obstructions to flow. Remove accumulated sediments and debris, remove woody vegetative growth that could obstruct flow, and repair any erosion of the ditch lining.
   - Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity.
   - Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable.
   - If the ditch has a riprap lining, replace riprap in areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged.

C. Culverts:

- Inspect culverts in the spring, in the late fall, and after heavy rains (>0.5”) to remove any obstructions to flow.
- Remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit.
- Inspect and repair any erosion damage at the culvert’s inlet and outlet.

D. Removal of Winter Sand:

- Clear accumulations of winter sand in parking lots and along roadways at least once a year, preferably in the spring.
- Accumulations on pavement may be removed by pavement sweeping.
- Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader or other acceptable method.

3. Documentation:

A. The owner or operator of a BMP or a qualified post-construction stormwater inspector hired by that person, shall, as required by the local municipality, provide a completed and signed certification on a form provided by the local municipality, certifying that the person has inspected the BMP(s) and that they are adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they required maintenance or repair, including the record of the deficiency and corrective action(s) taken.

B. A log summarizing the inspections and any corrective action taken must be maintained. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of controls. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to the appropriate regulatory agency upon request. A sample “Stormwater Inspection and Maintenance Form” has been included as Attachment 1 of this Inspection, Maintenance, and Housekeeping Plan.

4. Duration of Maintenance: Perform maintenance as described and required for any associated permits unless and until the system is formally accepted by a municipality or quasi-municipal district, or is placed under the jurisdiction of a legally created association that will be responsible for the maintenance of the system. If a municipality or quasi-municipal district chooses to accept a stormwater management system, or a component of a stormwater system, it must provide a letter to the MDEP stating that it assumes responsibility for the system. The letter must specify the components of the system for which the municipality or district will assume responsibility, and that the municipality or district agrees to maintain those components of the system in compliance with MDEP standards. Upon such assumption of responsibility, and approval by the MDEP, the municipality, quasi-municipal district, or association becomes a co-permittee for this purpose only and must comply with all terms and conditions of the permit.

ATTACHMENT 1 – STORMWATER INSPECTION AND MAINTENANCE LOG

Rock Excavation, Waterville Road (Route 137)
104 and 114 Waterville Road
Belfast, Maine

This log is intended to accompany the Inspection, Maintenance, and Housekeeping Plan for the rock excavation operations in Belfast, Maine. The following items shall be checked, cleaned, and maintained on a regular basis as specified in the Maintenance Plan and as described in the sections below. This log shall be kept on file for a minimum of five (5) years and shall be available for review by the City of Belfast and the Maine DEP. Qualified personnel familiar with the drainage systems and soils shall perform all inspections. A copy of the construction and post-construction maintenance logs are provided.

INSPECTION MAINTENANCE AND HOUSEKEEPING FORM			
General Information			
Project Name:		**Inspection Date:**	
Project Location:		**Current Weather:**	
		Date / Amount Last Precip:	
BMP Owner:		**Company conducting inspection:**	
Owner Mailing Address:		**Company Mailing Address**	
Owner Phone #:		**Company Phone #:**	
Owner Email:		**Inspector Name:**	
		Inspector Email:	

Site Element	**Suggested Maintenance (recm'd frequency)**	**Observations**	**Inspection Notes/Recommended Action**
Vegetated Areas	Inspect Slopes/Embankments for erosion (annually)		
	Replant bare areas or areas of sparse growth (annually)		
Ditches/Swales	Remove obstructions/debris/sediment (monthly)		
	Inspect for erosion/repair as needed (annually)		
	Remove woody vegetation (annually)		
	Mow vegetated ditches (annually)		
Catch Basins	Remove sediment/debris from sump (annually)		
	Remove accumulated debris from inlet grate		
Culverts	Remove sediment/debris from inlet/outlet aprons (annually)		
	Inspect inlet/outlet aprons for erosion, repair as needed (annually)		
	Inspect, repair as needed, riprap aprons for dislodged/sparse coverage (annually)		
Pipe Outlets	Remove sediment/debris from outlet aprons (annually)		
	Inspect outlet aprons for erosion, repair as needed (annually)		
	Inspect, repair as needed, riprap aprons for dislodged/sparse coverage (annually)		

Additional Notes/Observations:

Appendix 3

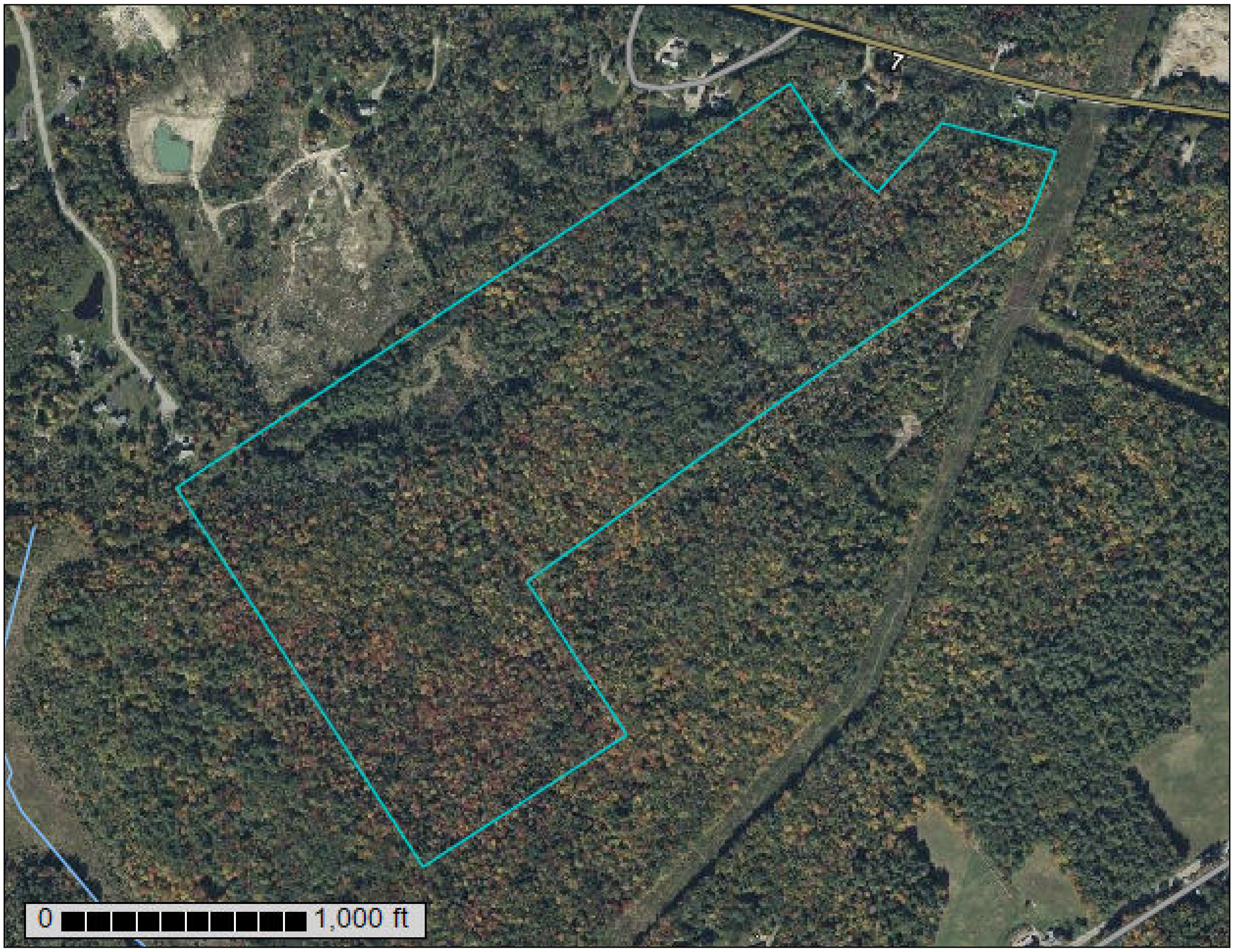
Subsurface Investigations

United States
Department of
Agriculture

Natural
Resources
Conservation
Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for
Waldo County, Maine



September 18, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

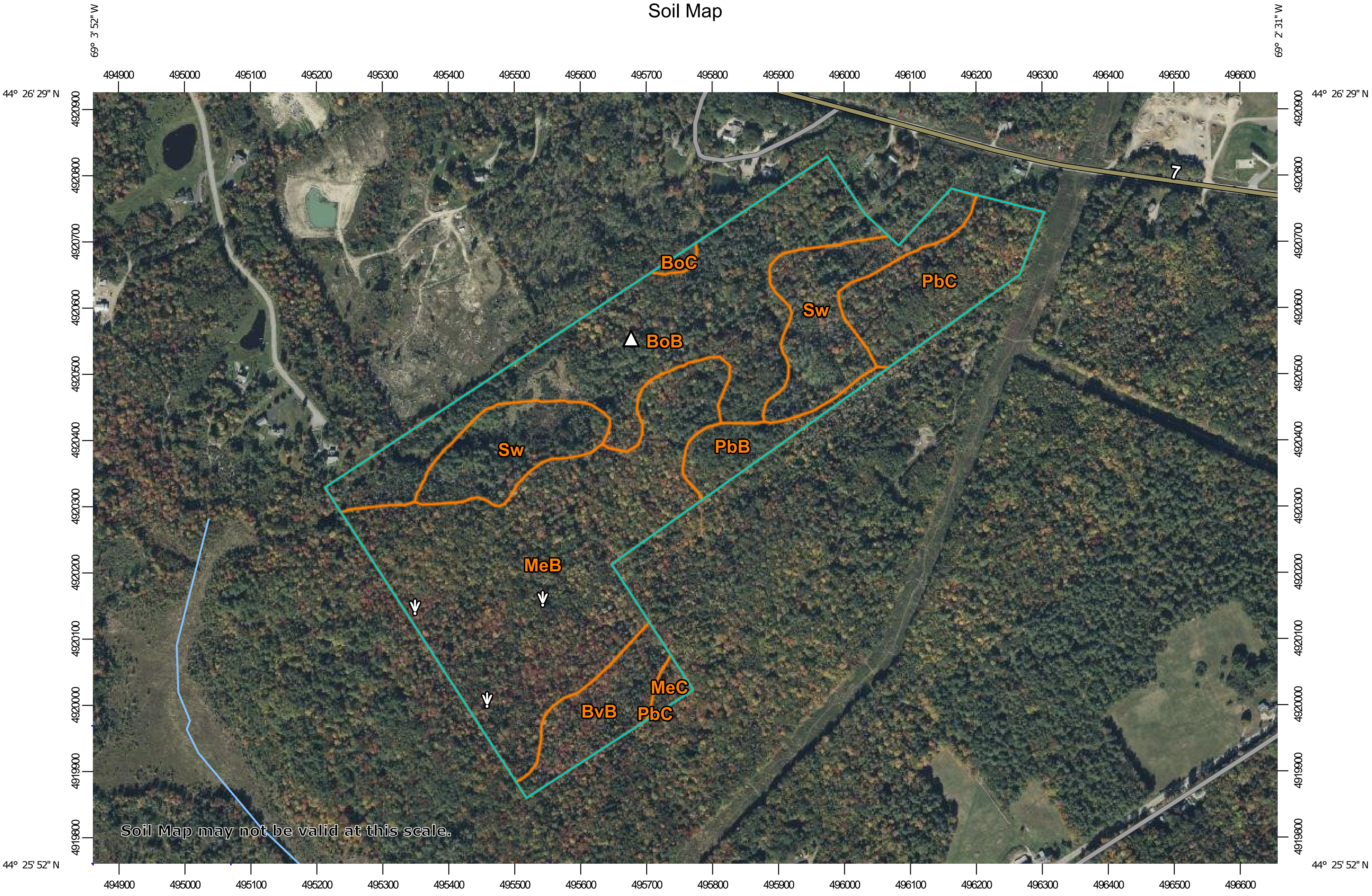
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

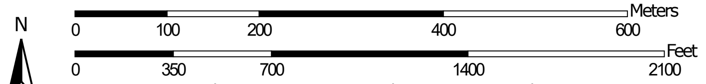
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Soil Map


69° 3' 52" W
69° 2' 31" W
44° 26' 29" N
44° 25' 52" N
494900
495000
495100
495200
495300
495400
495500
495600
495700
495800
495900
496000
496100
496200
496300
496400
496500
496600
4920900
4920800
4920700
4920600
4920500
4920400
4920300
4920200
4920100
4920000
4919900
4919800
7
BoC
BoB
Sw
PbC
Sw
PbB
MeB
MeC
BvB
PbC
Soil Map may not be valid at this scale.

Map Scale: 1:8,210 if printed on A landscape (11" x 8.5") sheet.


N
Meters
0
100
200
400
600
Feet
0
350
700
1400
2100

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Waldo County, Maine
Survey Area Data: Version 23, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 11, 2021—Oct 29, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BoB	Boothbay silt loam, 3 to 8 percent slopes	26.9	27.3%
BoC	Boothbay silt loam, 8 to 15 percent slopes	0.3	0.4%
BvB	Brayton fine sandy loam, 0 to 8 percent slopes, very stony	5.6	5.7%
MeB	Marlow fine sandy loam, 0 to 8 percent slopes, very stony	36.4	37.0%
MeC	Marlow fine sandy loam, 8 to 15 percent slopes, very stony	0.7	0.7%
PbB	Peru fine sandy loam, 0 to 8 percent slopes, very stony	3.3	3.4%
PbC	Peru fine sandy loam, 8 to 15 percent slopes, very stony	9.3	9.5%
Sw	Swanville silt loam, 0 to 3 percent slopes	15.8	16.0%
Totals for Area of Interest		**98.4**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Waldo County, Maine

BoB—Boothbay silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9k28
Elevation: 10 to 1,500 feet
Mean annual precipitation: 36 to 48 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Boothbay and similar soils: 86 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Boothbay

Setting

Landform: Marine terraces
Parent material: Fine-silty glaciolacustrine deposits and/or fine-silty marine deposits

Typical profile

H1 - 0 to 5 inches: silt loam
H2 - 5 to 22 inches: silt loam
H3 - 22 to 60 inches: silty clay loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.03 to 0.60 in/hr)
Depth to water table: About 7 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 10.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: D
Ecological site: F144BY401ME - Clay Flat
Hydric soil rating: No

BoC—Boothbay silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9k29
Elevation: 10 to 1,500 feet

Mean annual precipitation: 36 to 48 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Boothbay and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Boothbay

Setting

Landform: Marine terraces
Parent material: Fine-silty glaciolacustrine deposits and/or fine-silty marine deposits

Typical profile

H1 - 0 to 5 inches: silt loam
H2 - 5 to 22 inches: silt loam
H3 - 22 to 60 inches: silty clay loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 10.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Ecological site: F144BY402ME - Clay Hills
Hydric soil rating: No

BvB—Brayton fine sandy loam, 0 to 8 percent slopes, very stony

Map Unit Setting

National map unit symbol: 2t0jk
Elevation: 10 to 2,500 feet
Mean annual precipitation: 34 to 60 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Brayton and similar soils: 82 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brayton

Setting

Landform: Ground moraines
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lodgment till

Typical profile

Oa - 0 to 5 inches: highly decomposed plant material
A - 5 to 10 inches: fine sandy loam
Bg - 10 to 23 inches: fine sandy loam
Cd - 23 to 65 inches: fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 10 to 27 inches to densic material
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.40 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: F144BY305ME - Wet Loamy Flat
Hydric soil rating: Yes

MeB—Marlow fine sandy loam, 0 to 8 percent slopes, very stony

Map Unit Setting

National map unit symbol: 2ty5l
Elevation: 0 to 620 feet
Mean annual precipitation: 36 to 65 inches
Mean annual air temperature: 36 to 52 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Marlow, very stony, and similar soils: 86 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Marlow, Very Stony

Setting

Landform: Mountains, hills

Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainbase, interfluve, nose slope, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy lodgment till derived from granite and/or loamy lodgment till derived from mica schist and/or loamy lodgment till derived from phyllite

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
A - 2 to 5 inches: fine sandy loam
E - 5 to 8 inches: fine sandy loam
Bs1 - 8 to 15 inches: fine sandy loam
Bs2 - 15 to 19 inches: fine sandy loam
BC - 19 to 33 inches: gravelly fine sandy loam
Cd - 33 to 65 inches: fine sandy loam

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.1 percent
Depth to restrictive feature: 20 to 41 inches to densic material
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.01 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods)
Hydric soil rating: No

MeC—Marlow fine sandy loam, 8 to 15 percent slopes, very stony

Map Unit Setting

National map unit symbol: 2ty5n
Elevation: 0 to 690 feet
Mean annual precipitation: 36 to 65 inches
Mean annual air temperature: 36 to 52 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Marlow, very stony, and similar soils: 86 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Marlow, Very Stony

Setting

Landform: Hills, mountains
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainflank, mountainbase, interfluve, nose slope, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy lodgment till derived from granite and/or loamy lodgment till derived from mica schist and/or loamy lodgment till derived from phyllite

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
A - 2 to 5 inches: fine sandy loam
E - 5 to 8 inches: fine sandy loam
Bs1 - 8 to 15 inches: fine sandy loam
Bs2 - 15 to 19 inches: fine sandy loam
BC - 19 to 33 inches: gravelly fine sandy loam
Cd - 33 to 65 inches: fine sandy loam

Properties and qualities

Slope: 8 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.1 percent
Depth to restrictive feature: 20 to 41 inches to densic material
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.01 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods)
Hydric soil rating: No

PbB—Peru fine sandy loam, 0 to 8 percent slopes, very stony

Map Unit Setting

National map unit symbol: 2ty62
Elevation: 0 to 590 feet
Mean annual precipitation: 36 to 65 inches
Mean annual air temperature: 36 to 52 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Peru, very stony, and similar soils: 90 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Peru, Very Stony

Setting

Landform: Mountains, hills

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Mountainbase, interfluve

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Loamy lodgment till derived from granite and/or loamy lodgment till derived from mica schist and/or loamy lodgment till derived from phyllite

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 5 inches: fine sandy loam

E - 5 to 6 inches: fine sandy loam

Bs1 - 6 to 7 inches: fine sandy loam

Bs2 - 7 to 13 inches: fine sandy loam

Bs3 - 13 to 18 inches: fine sandy loam

BC - 18 to 21 inches: fine sandy loam

Cd1 - 21 to 37 inches: fine sandy loam

Cd2 - 37 to 65 inches: fine sandy loam

Properties and qualities

Slope: 0 to 8 percent

Surface area covered with cobbles, stones or boulders: 1.1 percent

Depth to restrictive feature: 21 to 43 inches to densic material

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.01 to 1.42 in/hr)

Depth to water table: About 17 to 34 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: C/D

Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods)

Hydric soil rating: No

PbC—Peru fine sandy loam, 8 to 15 percent slopes, very stony

Map Unit Setting

National map unit symbol: 2ty64

Elevation: 0 to 720 feet

Mean annual precipitation: 36 to 65 inches
Mean annual air temperature: 36 to 52 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Peru, very stony, and similar soils: 91 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Peru, Very Stony

Setting

Landform: Mountains, hills
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Mountainflank, mountainbase, interfluve, nose slope, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy lodgment till derived from granite and/or loamy lodgment till derived from mica schist and/or loamy lodgment till derived from phyllite

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 5 inches: fine sandy loam
E - 5 to 6 inches: fine sandy loam
Bs1 - 6 to 7 inches: fine sandy loam
Bs2 - 7 to 13 inches: fine sandy loam
Bs3 - 13 to 18 inches: fine sandy loam
BC - 18 to 21 inches: fine sandy loam
Cd1 - 21 to 37 inches: fine sandy loam
Cd2 - 37 to 65 inches: fine sandy loam

Properties and qualities

Slope: 8 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.1 percent
Depth to restrictive feature: 21 to 43 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.01 to 1.42 in/hr)
Depth to water table: About 17 to 34 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C/D
Ecological site: F144BY501ME - Loamy Slope (Northern Hardwoods)
Hydric soil rating: No

Sw—Swanville silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2slv8
Elevation: 10 to 1,200 feet
Mean annual precipitation: 33 to 48 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Swanville and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Swanville

Setting

Landform: Lake plains, marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Glaciolacustrine deposits

Typical profile

Ap - 0 to 9 inches: silt loam
Bg - 9 to 22 inches: silt loam
C - 22 to 65 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Ecological site: F144BY304ME - Wet Clay Flat, F144BY305ME - Wet Loamy Flat
Hydric soil rating: Yes

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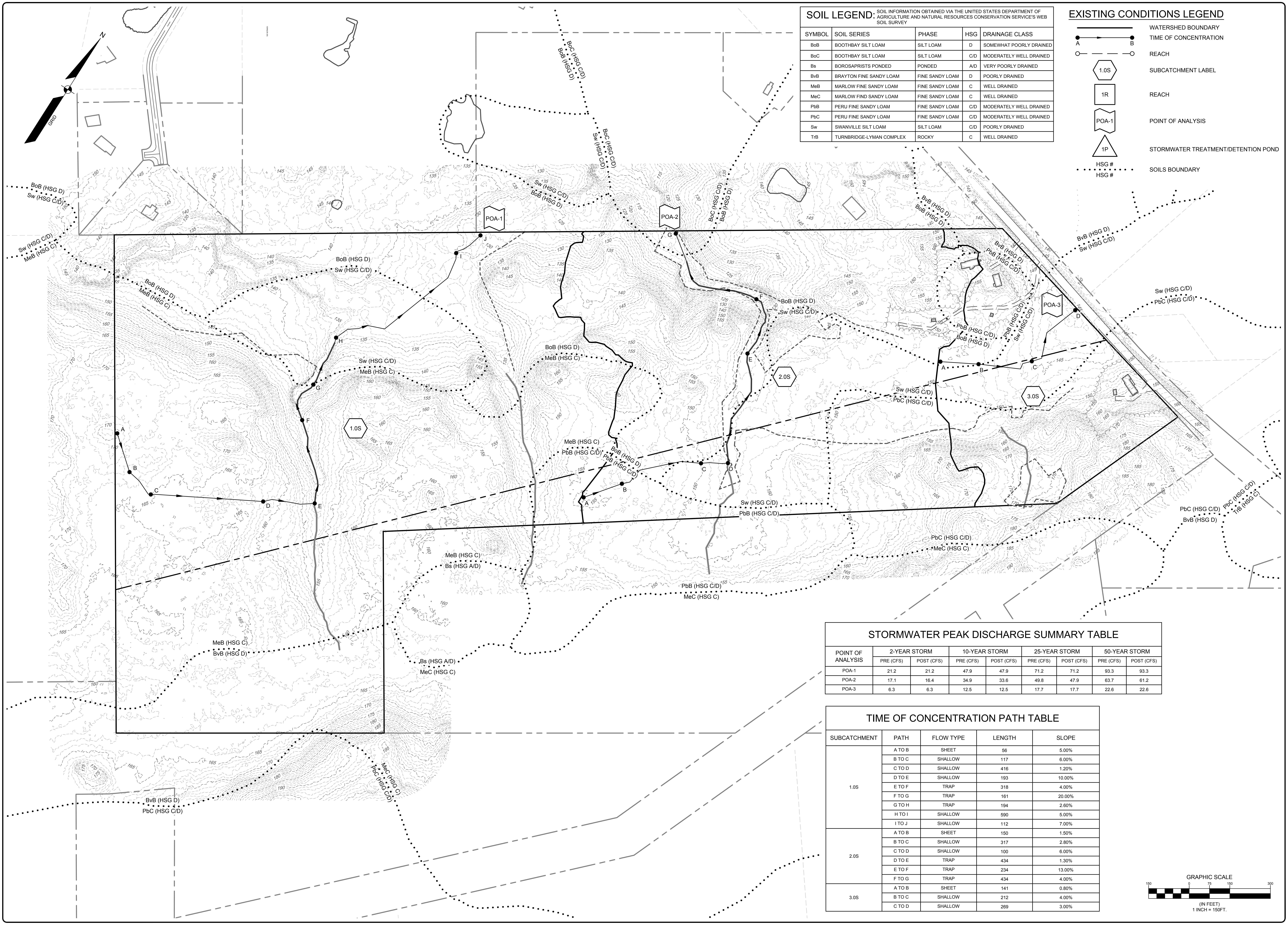
Appendix 4

Stormwater Management Plans



SOIL LEGEND:

SOIL INFORMATION OBTAINED VIA THE UNITED STATES DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES CONSERVATION SERVICE'S WEB SOIL SURVEY

SYMBOL	SOIL SERIES	PHASE	HSG	DRAINAGE CLASS
BoB	BOOTHBAY SILT LOAM	SILT LOAM	D	SOMEWHAT POORLY DRAINED
BoC	BOOTHBAY SILT LOAM	SILT LOAM	C/D	MODERATELY WELL DRAINED
Bs	BOROSAPRISTS PONDED	PONDED	A/D	VERY POORLY DRAINED
BvB	BRAYTON FINE SANDY LOAM	FINE SANDY LOAM	D	POORLY DRAINED
MeB	MARLOW FINE SANDY LOAM	FINE SANDY LOAM	C	WELL DRAINED
MeC	MARLOW FIND SANDY LOAM	FINE SANDY LOAM	C	WELL DRAINED
PbB	PERU FINE SANDY LOAM	FINE SANDY LOAM	C/D	MODERATELY WELL DRAINED
PbC	PERU FINE SANDY LOAM	FINE SANDY LOAM	C/D	MODERATELY WELL DRAINED
Sw	SWANVILLE SILT LOAM	SILT LOAM	C/D	POORLY DRAINED
TrB	TURNBRIDGE-LYMAN COMPLEX	ROCKY	C	WELL DRAINED

EXISTING CONDITIONS LEGEND

A — B	WATERSHED BOUNDARY
A ● → ● B	TIME OF CONCENTRATION
○ — — ○	REACH
1.0S	SUBCATCHMENT LABEL
1R	REACH
POA-1	POINT OF ANALYSIS
1P	STORMWATER TREATMENT/DETENTION POND
HSG # ••••• HSG #	SOILS BOUNDARY

STORMWATER PEAK DISCHARGE SUMMARY TABLE

POINT OF ANALYSIS	2-YEAR STORM		10-YEAR STORM		25-YEAR STORM		50-YEAR STORM	
	PRE (CFS)	POST (CFS)	PRE (CFS)	POST (CFS)	PRE (CFS)	POST (CFS)	PRE (CFS)	POST (CFS)
POA-1	21.2	21.2	47.9	47.9	71.2	71.2	93.3	93.3
POA-2	17.1	16.4	34.9	33.6	49.8	47.9	63.7	61.2
POA-3	6.3	6.3	12.5	12.5	17.7	17.7	22.6	22.6

TIME OF CONCENTRATION PATH TABLE

SUBCATCHMENT	PATH	FLOW TYPE	LENGTH	SLOPE
1.0S	A TO B	SHEET	56	5.00%
	B TO C	SHALLOW	117	6.00%
	C TO D	SHALLOW	416	1.20%
	D TO E	SHALLOW	193	10.00%
	E TO F	TRAP	318	4.00%
	F TO G	TRAP	161	20.00%
	G TO H	TRAP	194	2.60%
	H TO I	SHALLOW	590	5.00%
	I TO J	SHALLOW	112	7.00%
2.0S	A TO B	SHEET	150	1.50%
	B TO C	SHALLOW	317	2.80%
	C TO D	SHALLOW	100	6.00%
	D TO E	TRAP	434	1.30%
	E TO F	TRAP	234	13.00%
	F TO G	TRAP	434	4.00%
3.0S	A TO B	SHEET	141	0.80%
	B TO C	SHALLOW	212	4.00%
	C TO D	SHALLOW	269	3.00%

GRAPHIC SCALE
150 0 75 150 300
(IN FEET)
1 INCH = 150FT.

F:\Projects\240000\240078\DWG\Design\240078 SW PRE.dwg - 2/19/2025 11:00 AM - DYLAN STUART

JAMES R. SEYMOUR PE# 9984

STATE OF MAINE
JAMES R. SEYMOUR
No. 9984
LICENSED PROFESSIONAL ENGINEER
03/06/2025

A	BY	03-06-2025	TOWN SUBMISSION
REV:	BY:	DATE:	STATUS:

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TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Rd. Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford and Bath

EXISTING CONDITIONS SWM PLAN

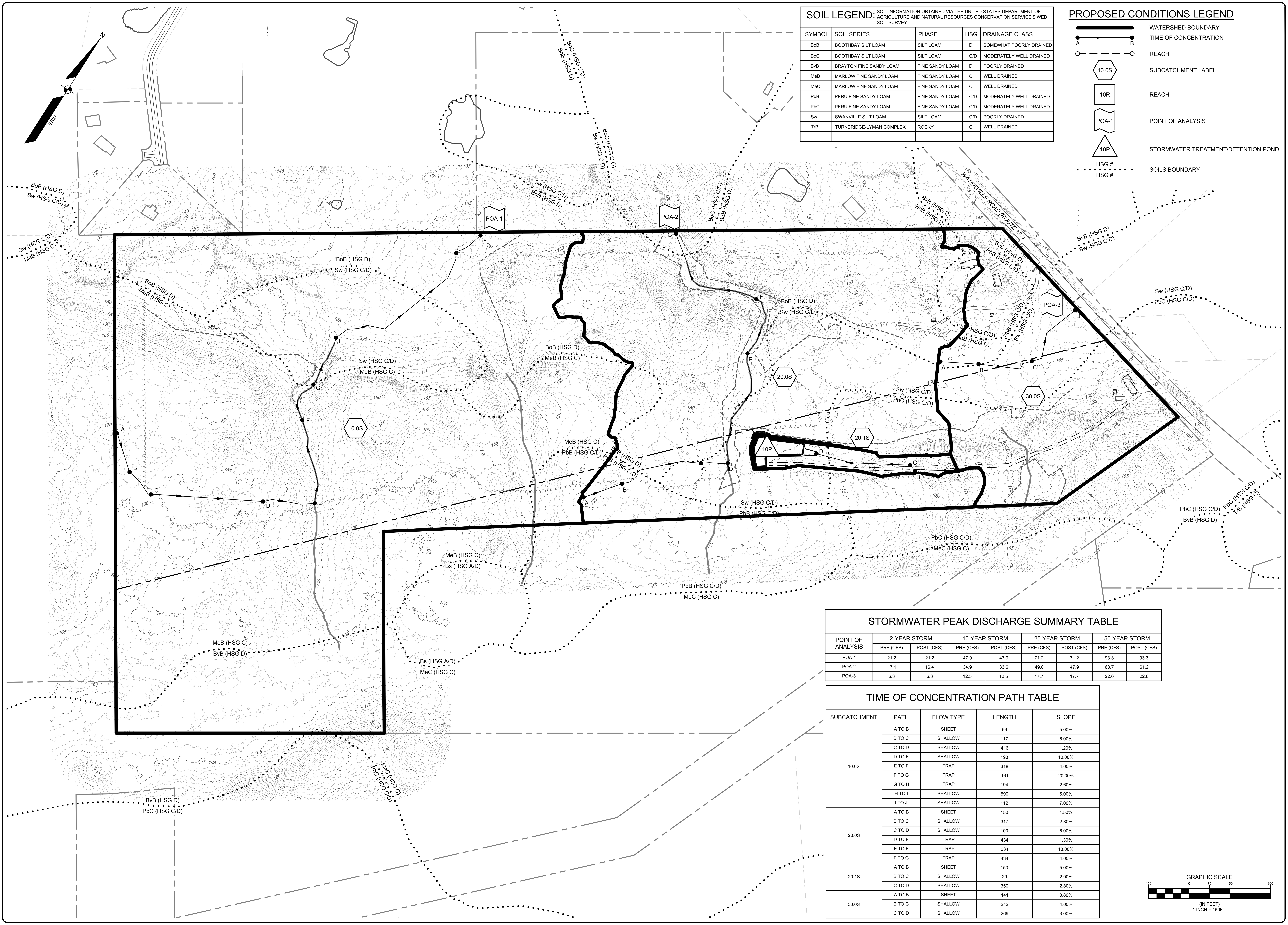
OF:
ROCKPORT GRANITE BELFAST
114 WATERVILLE ROAD
BELFAST, MAINE

FOR:
ROCKPORT GRANITE, INC.
465 WEST STREET, PO BOX 1140
ROCKPORT, MAINE 04856

DESIGNED	DJS
DRAWN	CJC
CHECKED	JRS
DATE	06-04-2024
SCALE	1" = 150'
PROJECT	240078

240078 SW PRE.dwg, TAB:SW PRE

SHEET 1 OF 2



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PbC	PERU FINE SANDY LOAM	FINE SANDY LOAM	C/D	MODERATELY WELL DRAINED
Sw	SWANVILLE SILT LOAM	SILT LOAM	C/D	POORLY DRAINED
TrB	TURNBRIDGE-LYMAN COMPLEX	ROCKY	C	WELL DRAINED

PROPOSED CONDITIONS LEGEND

▬	WATERSHED BOUNDARY
A ●→● B	TIME OF CONCENTRATION
○— — —○	REACH
10.0S	SUBCATCHMENT LABEL
10R	REACH
POA-1	POINT OF ANALYSIS
10P	STORMWATER TREATMENT/DETENTION POND
HSG # ••••• HSG #	SOILS BOUNDARY

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	F TO G	TRAP	434	4.00%
20.1S	A TO B	SHEET	150	5.00%
	B TO C	SHALLOW	29	2.00%
	C TO D	SHALLOW	350	2.80%
30.0S	A TO B	SHEET	141	0.80%
	B TO C	SHALLOW	212	4.00%
	C TO D	SHALLOW	269	3.00%

F:\Projects\24000\240078\DWG\Design\240078 SW POST.dwg - 2/19/2025 11:02 AM - DYLAN STUART

JAMES R. SEYMOUR PE# 9984

STATE OF MAINE
JAMES R. SEYMOUR
No. 9984
PROFESSIONAL ENGINEER
03/06/2025

REV:	BY:	DATE:	STATUS:
A	BY	03-06-2025	TOWN SUBMISSION

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South Portland, ME 04106
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South Portland, Bridgton, Sanford and Bath

PROPOSED CONDITIONS SWM PLAN

OF:
ROCKPORT GRANITE BELFAST
114 WATERVILLE ROAD
BELFAST, MAINE

FOR:
ROCKPORT GRANITE, INC.
465 WEST STREET, PO BOX 1140
ROCKPORT, MAINE 04856

DESIGNED	DJS
DRAWN	CJC
CHECKED	JRS
DATE	06-04-2024
SCALE	1" = 150'
PROJECT	240078

240078 SW POST.dwg, TAB:SW POST

SHEET 2 OF 2

7.2

Stefanie Nichols

From:	Clark, Michael S <Michael.S.Clark@maine.gov>
Sent:	Friday, November 8, 2024 4:59 PM
To:	Bub Fournier
Cc:	Kluck, Erich; James Seymour
Subject:	RE: [External] Stormwater questions regarding quarry operation in Belfast

Hello Bub,

Following up on the below email chain.

Erich and I visited the site last month. There has been no stump and grub activity that we could see, and consequently no quarrying activity other than rocks that appear to have been removed from access for harvesting. A 75-foot buffer to streams will be required per the Performance Standards. These buffers are largely intact and will regrow.
We did not observe any erosion or discharge to waterbodies or off site.
Once excavation activity begins, the site will need to be internally drained, essentially meaning that there shall be no discharge off site or to streams. If external drainage is anticipated or exhibited, an Application for a Variance for external drain will need to be filed.
The site was in substantial compliance with the Performance Standards for Quarries at the time of our inspection.

Please contact myself or Erich with any questions.

Thanks,
Mike

Michael S. Clark
Mining Coordinator
Bureau of Land Resources
Land Division
Maine Department of Environmental Protection
312 Canco Road, Portland ME 04103
(207) 441-1136

From: Clark, Michael S
Sent: Thursday, October 10, 2024 4:55 PM
To: Bub Fournier <directorplanning@cityofbelfast.org>
Cc: Kluck, Erich <erich.kluck@maine.gov>
Subject: FW: Stormwater questions regarding quarry operation in Belfast

Mistyped your email. See below.

Michael S. Clark
Mining Coordinator

Bureau of Land Resources
Land Division
Maine Department of Environmental Protection
312 Canco Road, Portland ME 04103
(207) 441-1136

From: Clark, Michael S
Sent: Thursday, October 10, 2024 4:54 PM
To: directorofplanning@cityofbelfast.org
Cc: Kluck, Erich <erich.kluck@maine.gov>
Subject: FW: Stormwater questions regarding quarry operation in Belfast

Hello Bub,

I was forwarded your 9/25 email to Holliday Keen by Stacia Hoover.

As you have noted, the site (GPID# 947, the Tibert quarry) is subject to the regulations found in 38 MRS § 490-Z, the Performance Standards for Quarries. Also known as Article 8-A (and the similar law for gravel pits, Article 7), were enacted around 1995 by the Maine Legislature and specifically removed these operations from regulation under the Site Location of Development Act (SLODA), creating the Notice of Intent to Comply (NOITC) and Performance Standards in lieu of site specific licensing.

The applicable performance standards to your questions are 8. Erosion and sedimentation control, and 9. Water quality protection and storm water management. Link here:
https://www.mainelegislature.org/legis/statutes/38/title38sec490-Z.pdf

Either Erich or I, (but possibly both of us) intend to inspect this quarry operation next week to assess the above performance standard compliance as well as the buffers required by standard 5, and the site operation generally. We will be evaluating whether the site exhibits internal or external drainage and whether a Variance application is required by the Operator. A Variance is how the standards of 38 MRS § 420-D (Stormwater management) are applied to externally drained excavations.

Please contact me with any questions.

Thanks,
Mike

Michael S. Clark
Mining Coordinator
Bureau of Land Resources
Land Division
Maine Department of Environmental Protection
312 Canco Road, Portland ME 04103
(207) 441-1136

From: Hoover, Stacia <Stacia.Hoover@maine.gov>
Sent: Monday, September 30, 2024 11:55 AM
To: Clark, Michael S <Michael.S.Clark@maine.gov>
Subject: FW: Stormwater questions regarding quarry operation in Belfast

Here is the message we received.
Thanks!
Stacia

From: Bub Fournier <directorplanning@cityofbelfast.org>
Sent: Wednesday, September 25, 2024 8:54 AM
To: Keen, Holliday <Holliday.Keen@maine.gov>
Subject: Stormwater questions regarding quarry operation in Belfast

EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Holliday,

I have some questions about a project that has been submitted for Planning Board review in Belfast. The project involves a large quarrying operation that has been licensed by MDEP under section 8-A quarrying rules, which I see are specifically exempt from a State Stormwater permit. My question is how the project can meet performance standards in the Stormwater Law that are still applicable. DEP staff has been on the site before, and there remain large areas of erosion without E/S controls or BMPS, open soils, and neck deep ruts. The City has issued a Notice of Violation regarding erosion on the site, but I am uncertain how the Department will address ongoing stormwater concerns. Does DEP staff from your Stormwater division do any monitoring of licensed quarry sites to determine if the project is meeting the performance standards? Please feel free to call to discuss at your earliest convenience, as I have a pending application for Planning Board review, and I am trying to get as many answers as possible for both the Applicant and the Board. The Applicant has previously received permits from the Maine Department of Environmental Protection for a quarry Notice of Intent to Comply (NOITC), GPIC #947, dated June 29, 2023, NRPA Permit by Rule - Sec. 10-Stream Crossings, #78438, and a Forestry Permit for clearing activities.

I also don't understand how this project may be exempt from Site Law, so if you will please forward this to the appropriate staff person for that topic, I would greatly appreciate it. I called today and your voicemail is full, and I was told the Site Law on call person was not in until tomorrow.

Thanks in advance.

Sincerely,

Bub Fournier
Director, Planning and Codes Department
City of Belfast
131 Church Street Belfast, ME 04915
(207) 338-3370 X125
directorplanning@cityofbelfast.org

7.3

Proposed Rockport Granite

Erosion Evaluation of Conditions Assessment

Belden/Tibert Property - 114 Waterville Road, Belfast, ME

Project #240078

Date of Site Assessment: 10/23/2024

Conducted by: James Seymour, P.E.

Purpose: Inspect site conditions to assess concerns raised by the Town of Belfast relating to soil erosion and sedimentation and drainage impacts from land clearing practices and excavation discovery.

Summary of assessment: Upon arrival it was evident there were some areas where the tree harvesting, and rock exploration activities had created some areas where vegetation has not naturally restored. The largest areas of impact appeared to be on the main access drive created over the Tibert property. The section of drive beyond the homestead and just beyond the wellhouse/shed was widened considerably for both log processing /yard operations and was part of the exploration areas conducted by Rockport Granite. The concerns raised were that much of the subject property was left in a denuded non-vegetated condition resulting in soil contamination to adjacent streams/tributaries via erosion and sedimentation from the unprotected runoff over the proclaimed non-vegetated surfaces.

During the assessment it was evident a there is a need to provide some additional restoration to address the tree harvesting front road section that was left in a barren state. We however, did notice that is commonly practiced in tree harvesting operations that will the road section is wide and appears in a bare state, it is in fact in a sloid stabilized condition due to the fact that the harvesting practices chipped much of the tree debris and that those residual chips and wood by product, have been compacted into the soils as a sort of mulch. The problem is that often tree chips or branch debris when combined with any silty soils will take a substantial time to biodegrade to provide a suitable organic condition for small plants to establish and flourish. Often these are the reasons that the tree harvesting wood or tote roads are the last items to vegetate completely, and the other part is the wood waste can sometime absorb much of the surface moisture creating an arid condition in summer growing periods.

We did note however, that the forest practice to clear the lot in the late winter of 2023, has yielded excellent natural revegetation of aspen/poplar, fir, and many varieties of natural berry shrubs, plants, and wild grasses. Much of the land beyond the first stream crossing the property is not in a state where erosion, sedimentation or stream quality is threatened. The area is now a thriving regeneration of forest and tree growth. We did note that there are sections of wood harvest roads and truck ruts that are evident, but these are typical for most forestry practices. We did not see any evidence that these remaining areas have created or will create concerns of erosion or negative impacts to wetlands or waterbodies. All the internal roads are either self-contained or shown that they are protected with purpose or inadvertently with woody branch debris, or chips.

Findings Recommendations: We have included recommendations for the correction of the first 300 + feet of the wood haul yard and exploration areas as located on the Tibert property, since this is the only section that shows evidence of activity that may create runoff conditions that could result in minor soil loss from the access surface. These recommendations will assist in alleviating the wider areas of bare soil observed. Were commend that the width of the access currently of compacted gravel/silt with woody soil mix, be reduced to 24 feet wide/ Currently the disturbed and non-vegetated surface ranges from 40-60 feet in width, but it is not necessary to have widths that wide, and that all areas shall be restored in the following manner:

1. Areas perimeters within this new reworked revegetation zone shall be protected with an erosion control berm mix or install silt fence all along the northwesterly border of the accessor lower side of the access until such time as s the new vegetation is 90% established.
2. Scarify the compacted surface, and roto till the surface approximately 6inches deep such that the wood waste is evenly mixed with underlying loam, or organic matter suitable to grow grass.
3. If the soil is not satisfactory the applicant shall add addition screened loam or equivalent to the surface.
4. Upon the surface containing a smooth transitional grade for the driveway edge to the edge of existing vegetation the site shall be sprayed with a hydroseed conservation grass mix.
5. Due to the late growing season the steps 2-4 will need to occur after the winter season ends, and frost is completely gone. At that time steps 2-4 shall be completed. In preparation for the winter months, the soil can be scarified, and an application of hay mulch shall be applied to all the areas sited to be revegetated.

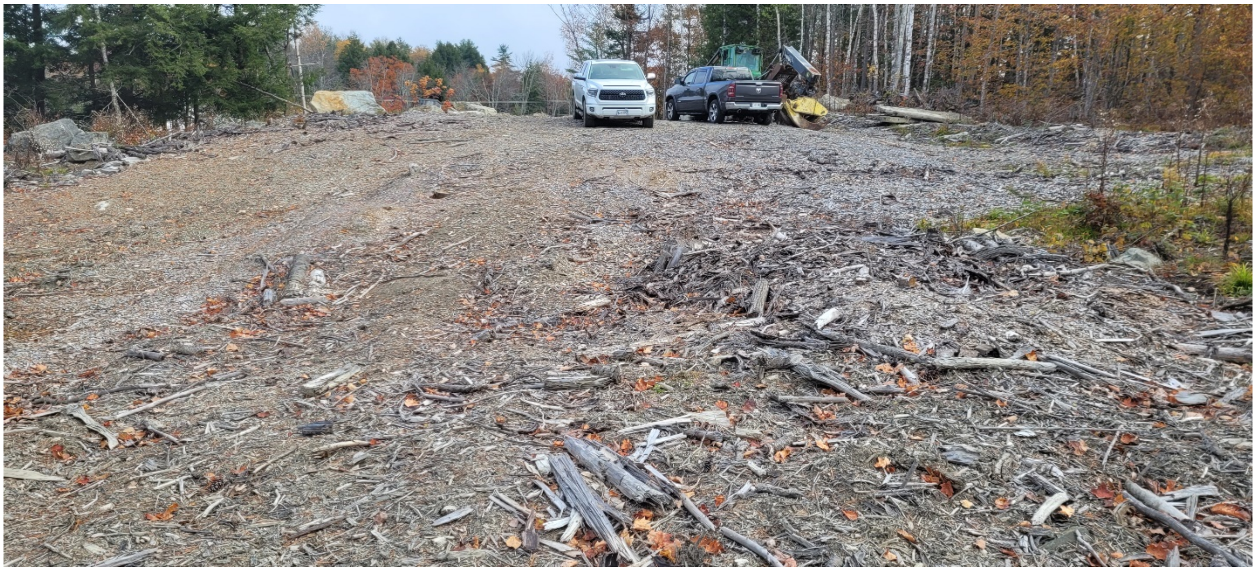
Below are a series of photographs of the areas encountered during the site assessment at the access road or previously harvested land providing evidence of the current conditions.

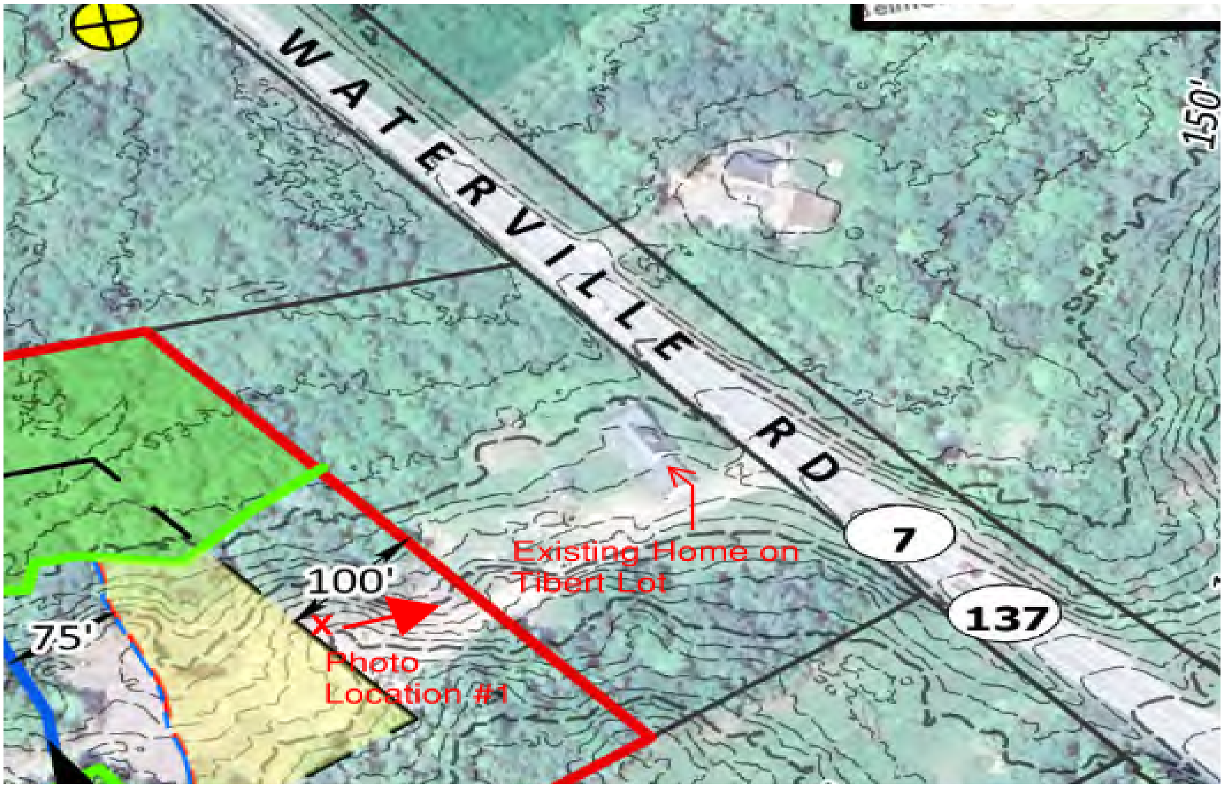
Sincerely,

James R Seymour, PE

James R. Seymour

Sr Project Manager

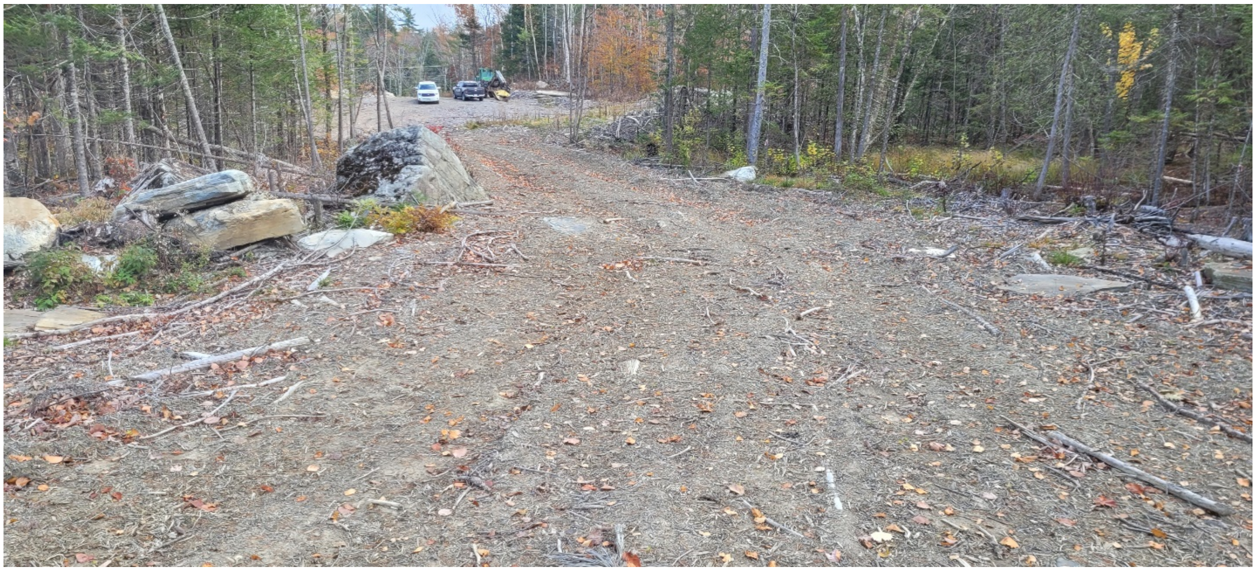


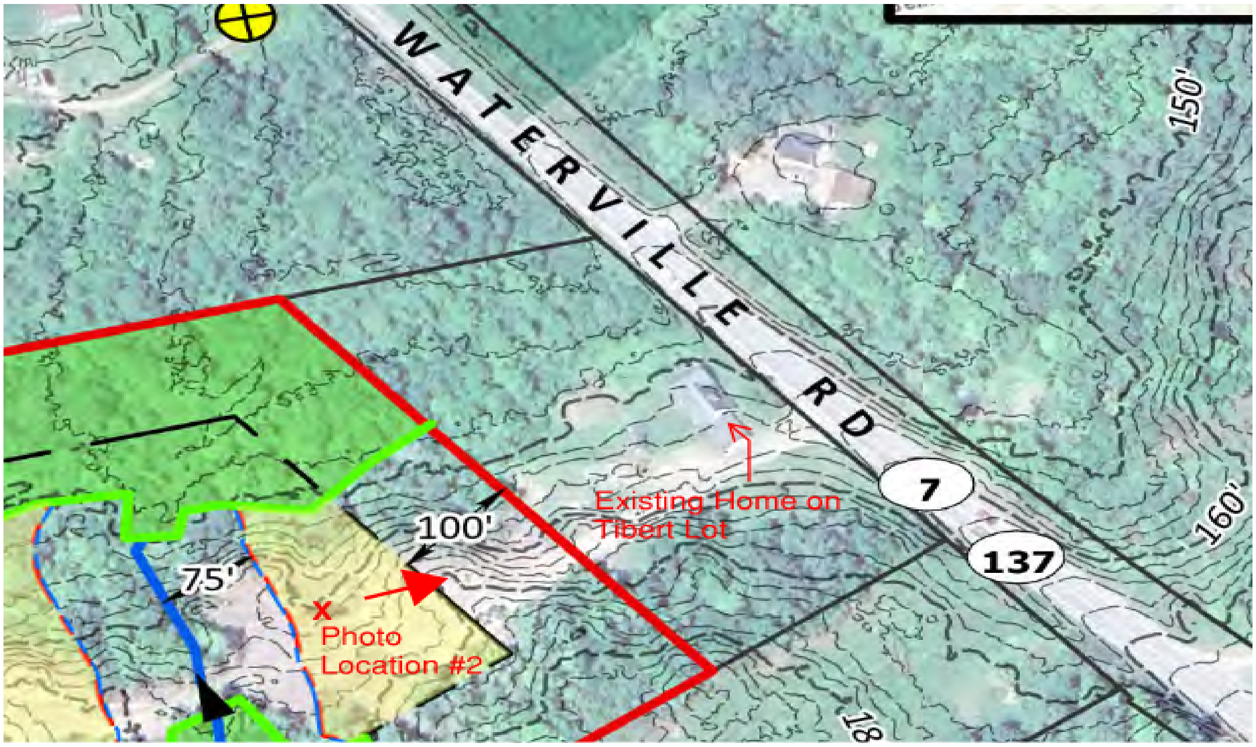

WATERVILLE RD
7
137
150'
100'
75'
Existing Home on Tibert Lot
Photo Location #1

View of Forestry Yard access and exploration area looking back toward Rt7/137

Recommendation:

1. Reduce drive width to 24 feet, set silt fence along lower side of cleared area, scarify compacted woody silt surface, hay mulch for winter. Then in spring scarify rototill wood debris to create acceptable topsoil then hydroseed with conservation seed mix.

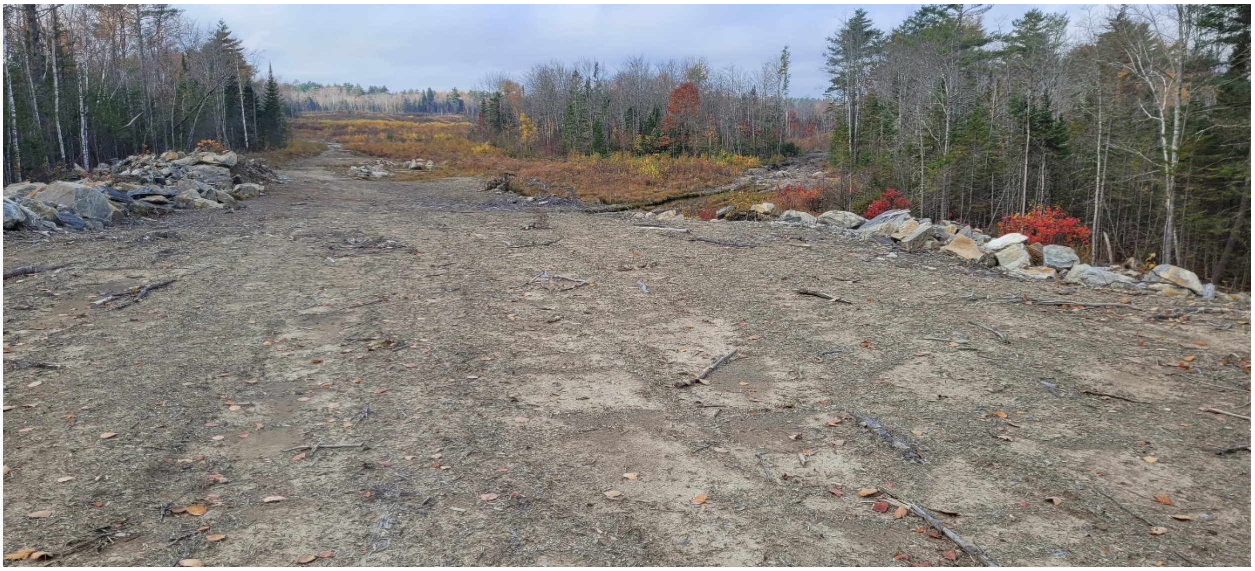



WATERVILLE RD
7
137
150'
160'
Existing Home on Tibert Lot
100'
75'
X
Photo Location #2
18

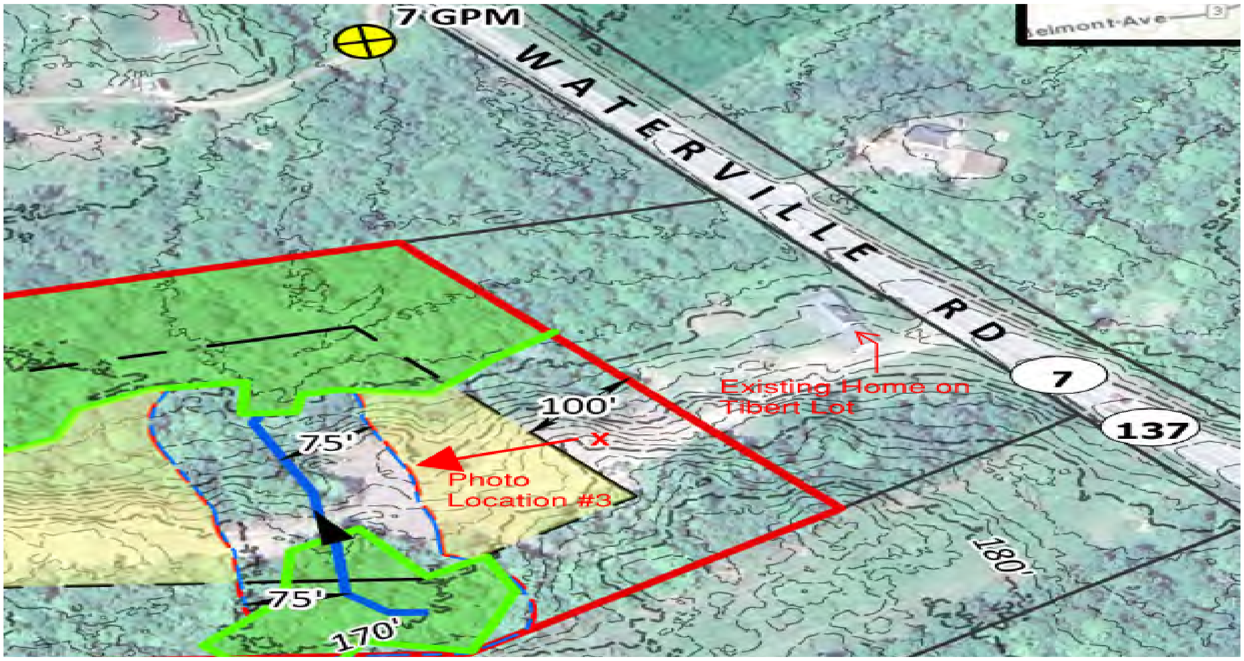
Deeper view of access road on Tibert further off entrance

2. Recommendation:

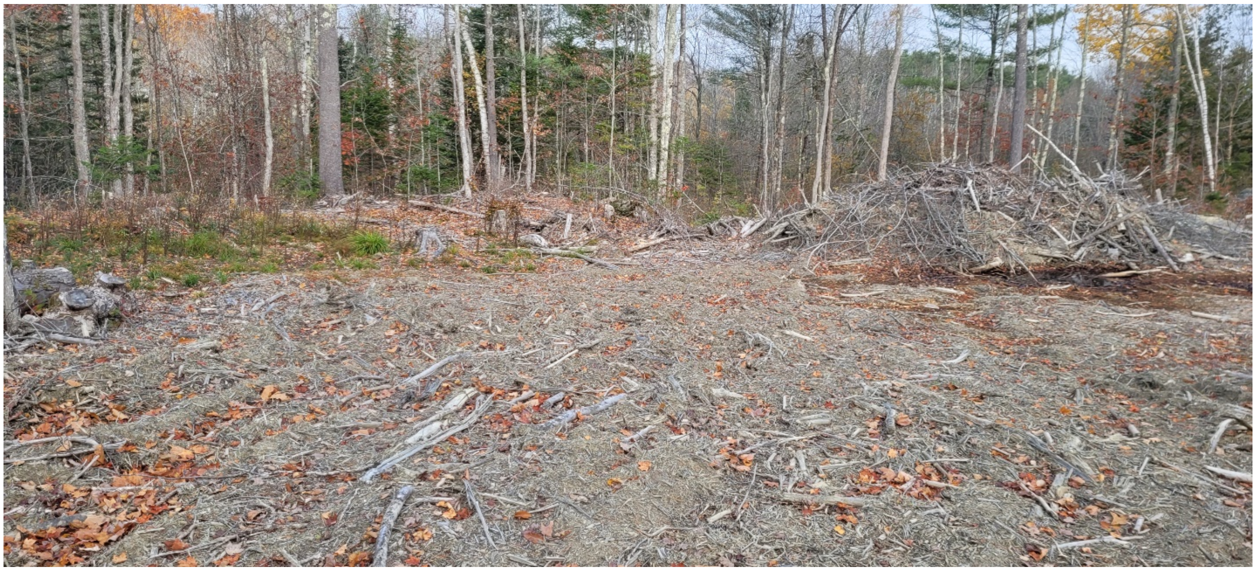
Reduce drive width to 24 feet, set silt fence along lower side of cleared area, scarify compacted woody silt surface, hay mulch for winter. Then in spring scarify rototill wood debris to create acceptable topsoil then hydroseed with conservation seed mix. Leave excavated rocks in current location.



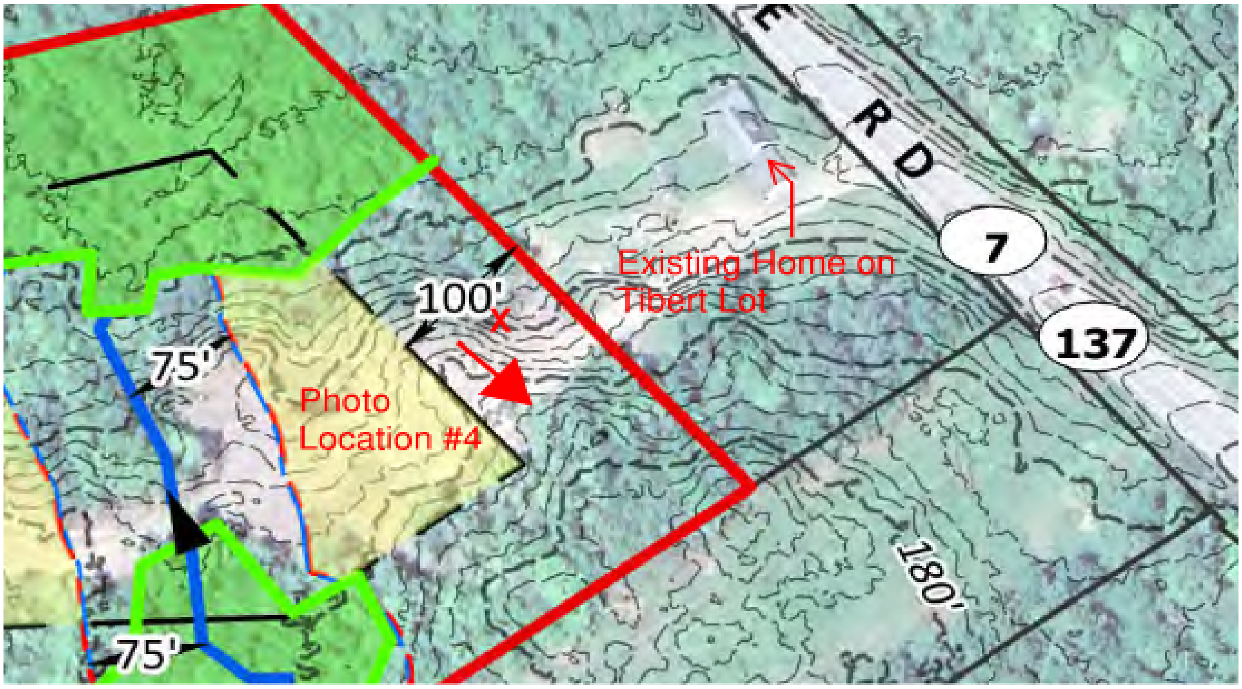
View of end of main access to first stream x-ing looking from height of land to the rear. There is connector access haul/tote road to right with ponding but not a problem as it is self-contained.


7 GPM
elmont-Ave
WATERVILLE RD
7
137
Existing Home on Tibert Lot
100'
75'
Photo Location #3
75'
170'
180'

3. Recommendation:
   Reduce drive width to 24 feet, set silt fence/erosion control berm along lower side of cleared area, scarify compacted woody silt surface, hay mulch for winter. Then in spring scarify rototill wood debris to create acceptable topsoil then hydroseed with conservation seed mix. Leave excavated rocks in current location. Future access will hug the upper side of cleared areas furthest away for wetlands to the NW.

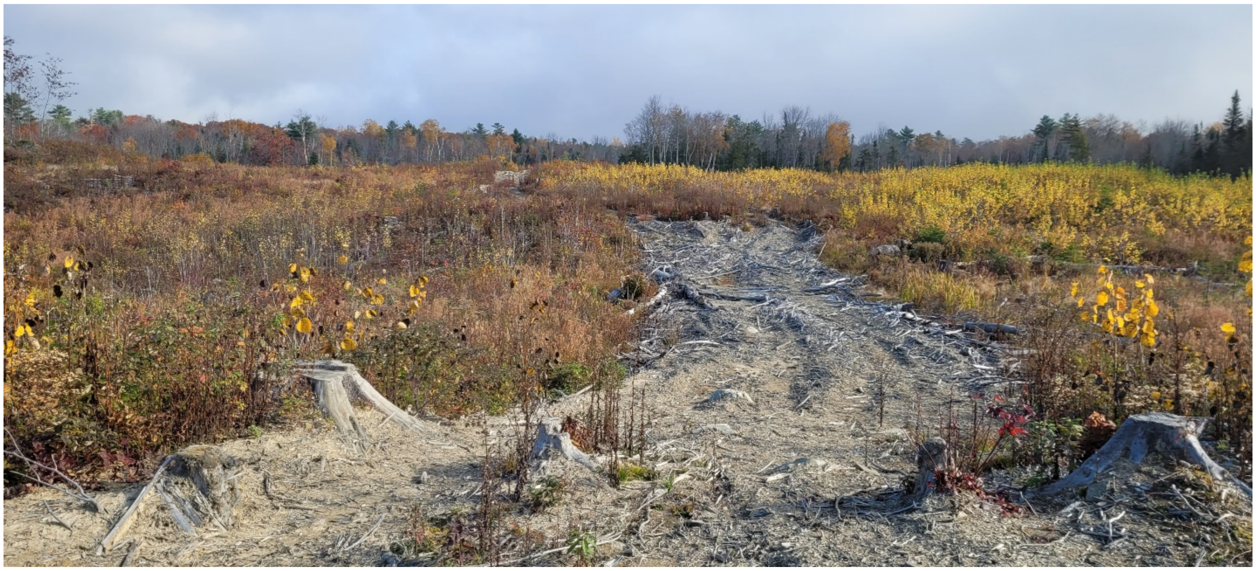


Typical remnants of wood waste/slash pile; Note: woody debris left on surface to stabilize soil in a non -vehicle travelled location.

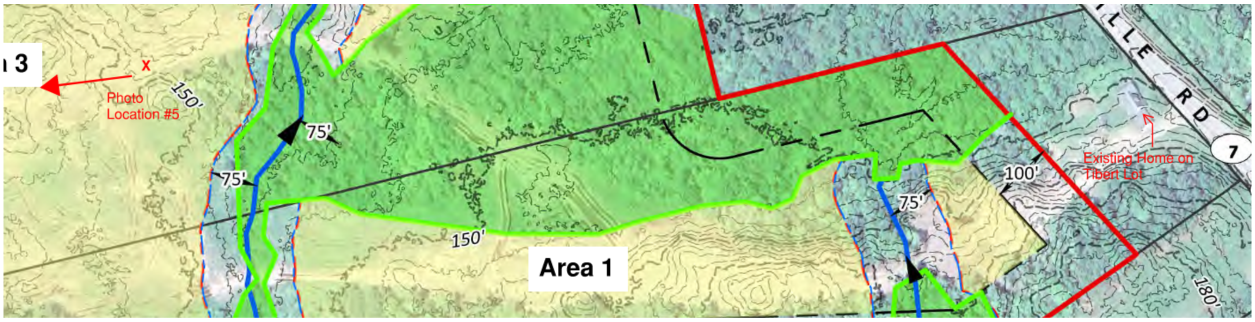


Recommendation:

4. You can allow the slash pile to naturally biodegrade, or process debris for erosion control mix for construction of berms; site shall be hay mulched for winter. The best approach may be to apply organic based loam over the debris and hydroseed in spring, or remove larger woody material and rototill, and blend to create preferred soil mix for grass planting.



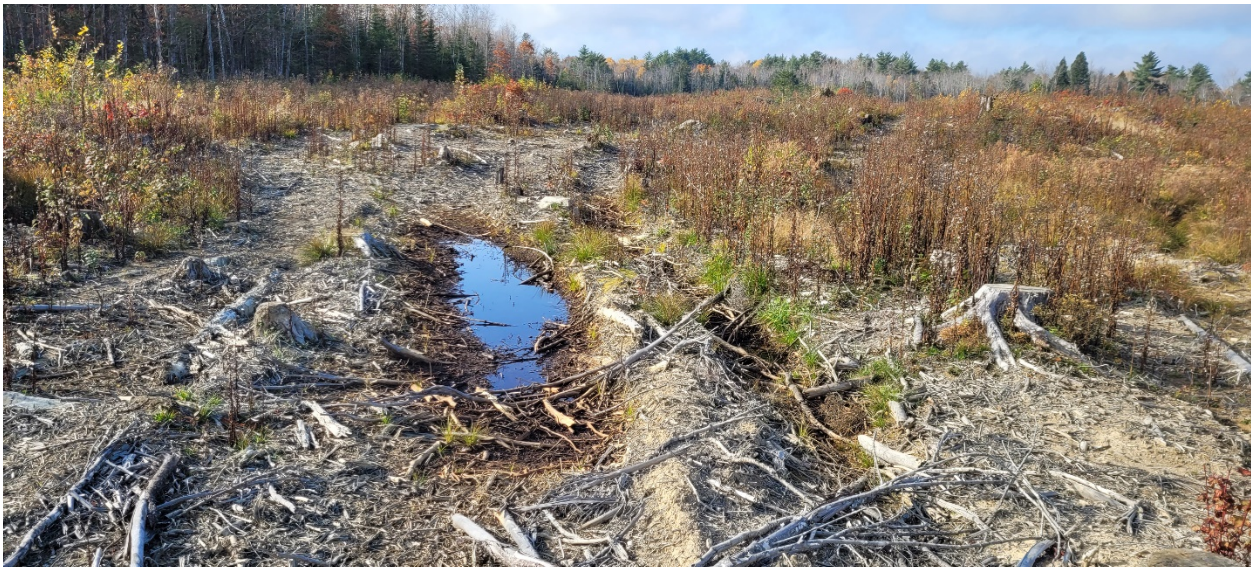
Typical wood /forestry haul road remnants, full of wood debris to naturally compost and revert to natural conditions.



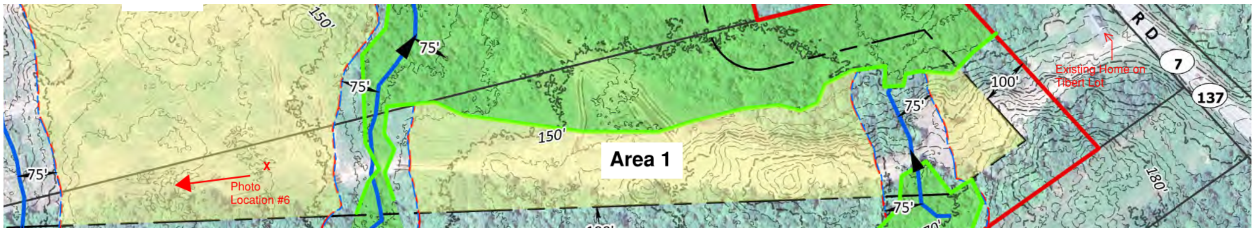
3
x
Photo Location #5
150'
75'
75'
150'
Area 1
75'
100'
Existing Home on Tibert Lot
LLE RD
7
180'

5. Recommendation:

   Site is stable, though bare of vegetation, typical forestry practices are to allow the waste to decay and brush/weeds will naturally take, seed, and fill in over a couple of years. The areas are self-contained and there are no concerns of erosion if the low area is filled up with runoff as it is self-contained, has ability to filter, and is surrounded by thick weedy vegetation.

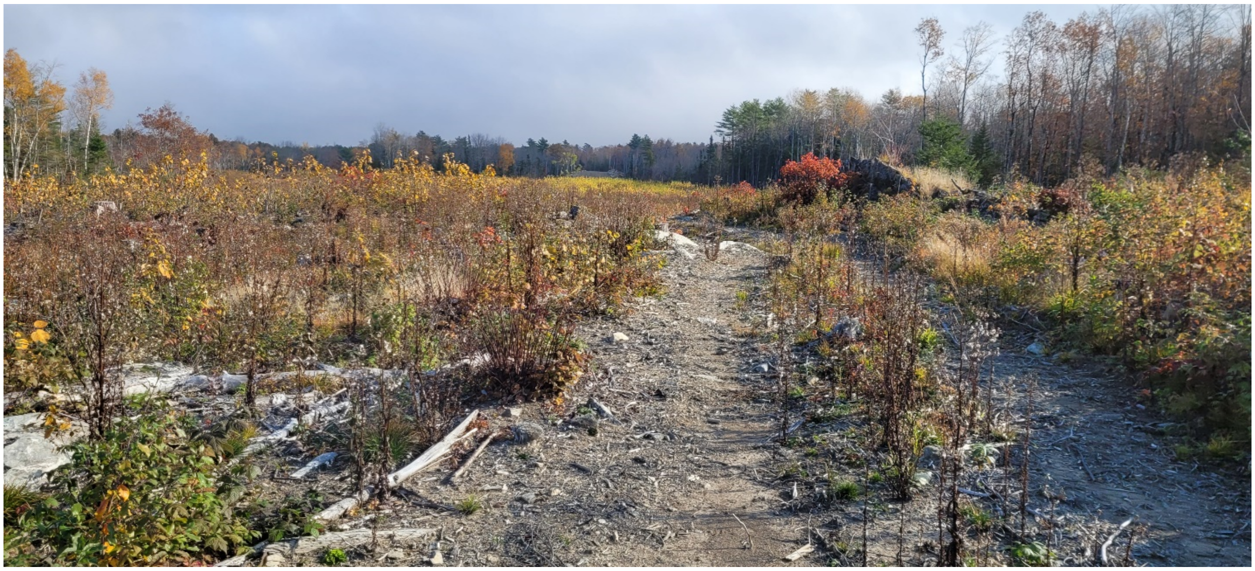


Another low-lying Shallow sump within an existing haul road. The ponding water will further speed up availability of moisture and biodegradation to convert the wood debris surface to usable organic condition to allow weeds and berry like plants to flourish.

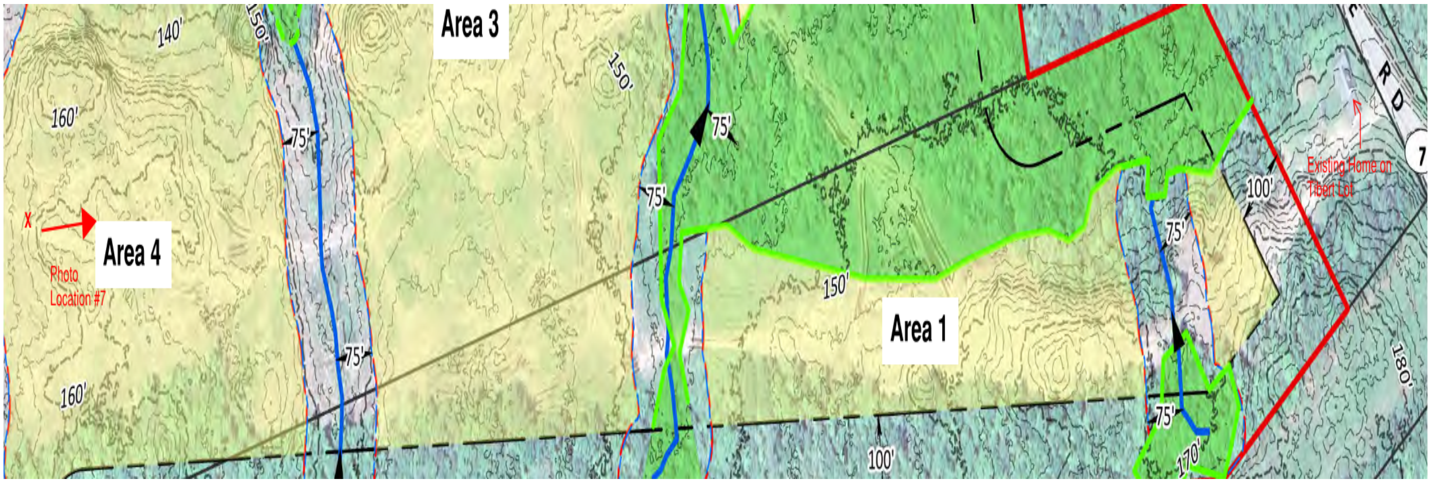

150'
75'
75'
75'
150'
Area 1
Photo Location #6
75'
75'
100'
Existing Home on Tibert Lot
R D
7
137
180'

6. Recommendation:

Do nothing allow the area to naturally fill-in, with weeds and other natural plants, which will support wildlife habitat.

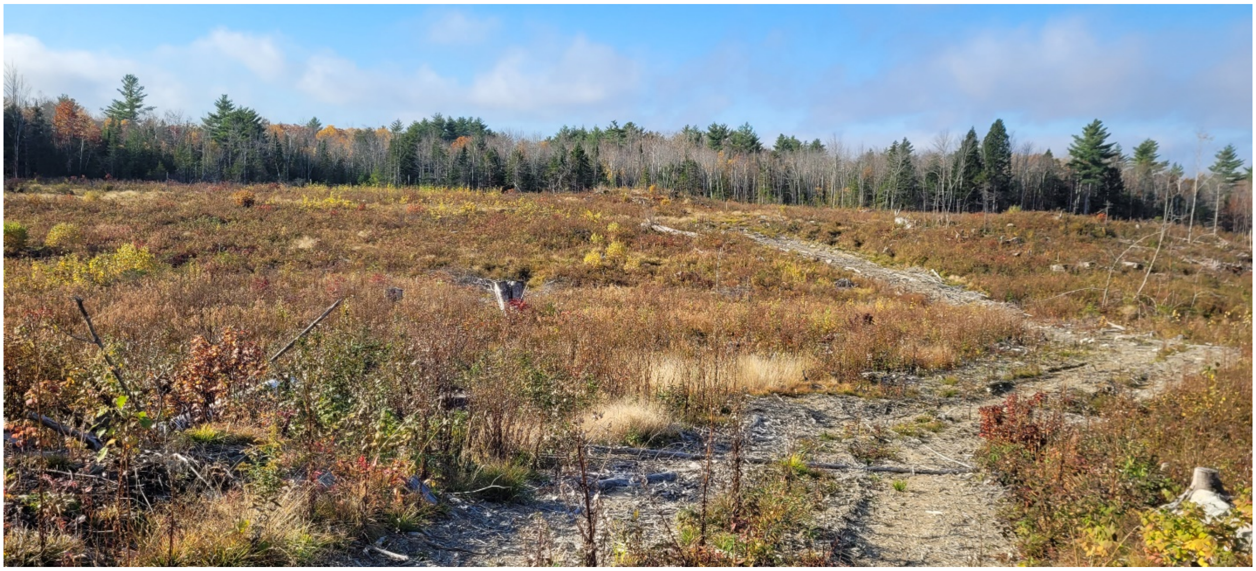


Typical wood /forestry haul road remnants with less wood debris/more chips to naturally compost and revert to natural conditions. Note Center is filling in already with new vegetation.

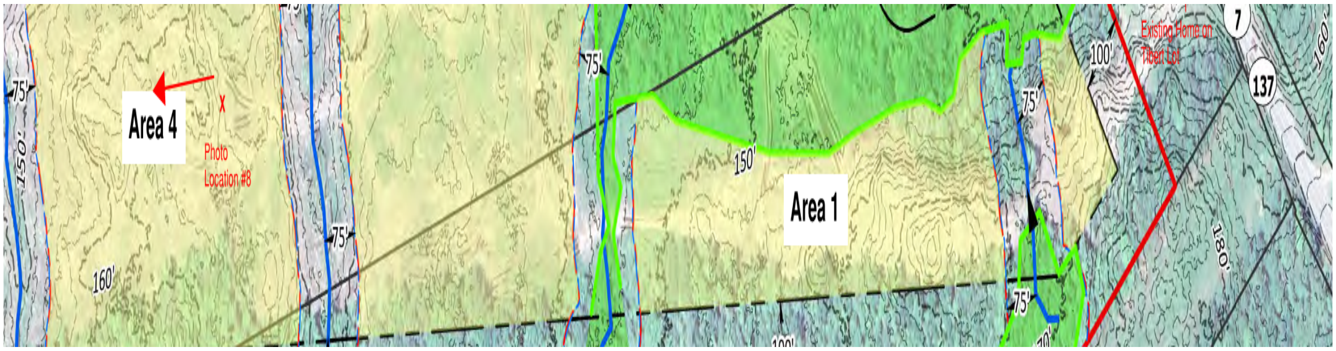

Area 3
140'
150'
150'
160'
75'
X
Area 4
Photo Location #7
75'
75'
75'
160'
150'
Area 1
100'
75'
75'
170'
100'
Existing Home on Tibert Lot
RD
7
180'

7. Recommendation:

Do nothing allow the area to naturally fill-in, with weeds and other natural plants, which will support wildlife habitat.

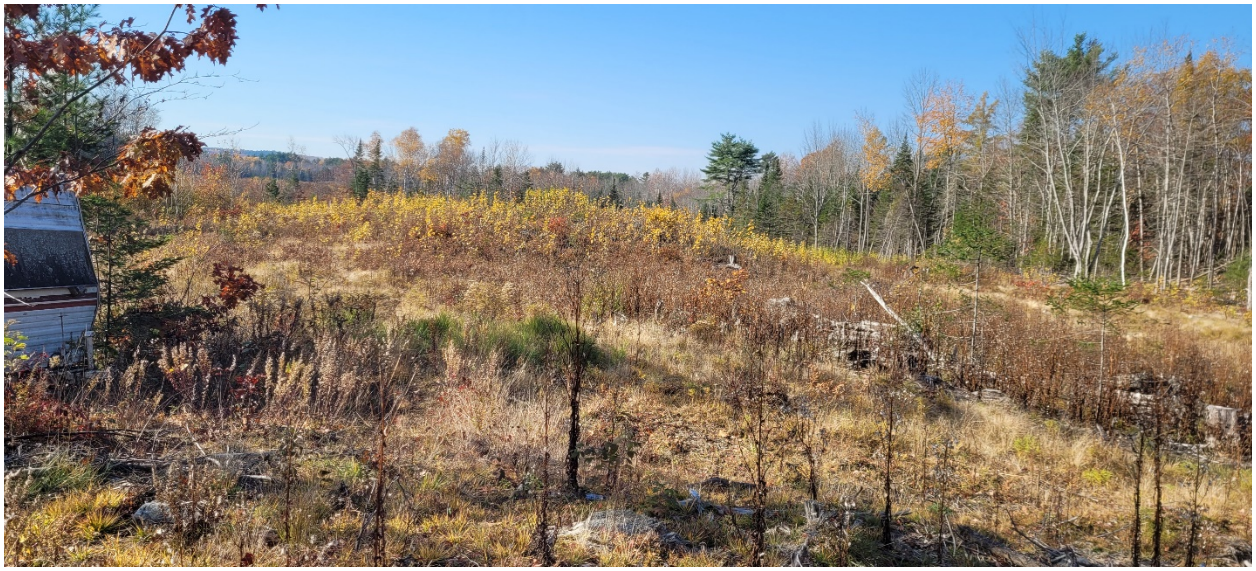


Area view or back portion of the lot showing the expansion of new dense vegetaion cover. This not a condition of concern for ersion or sedimentation in curent state.

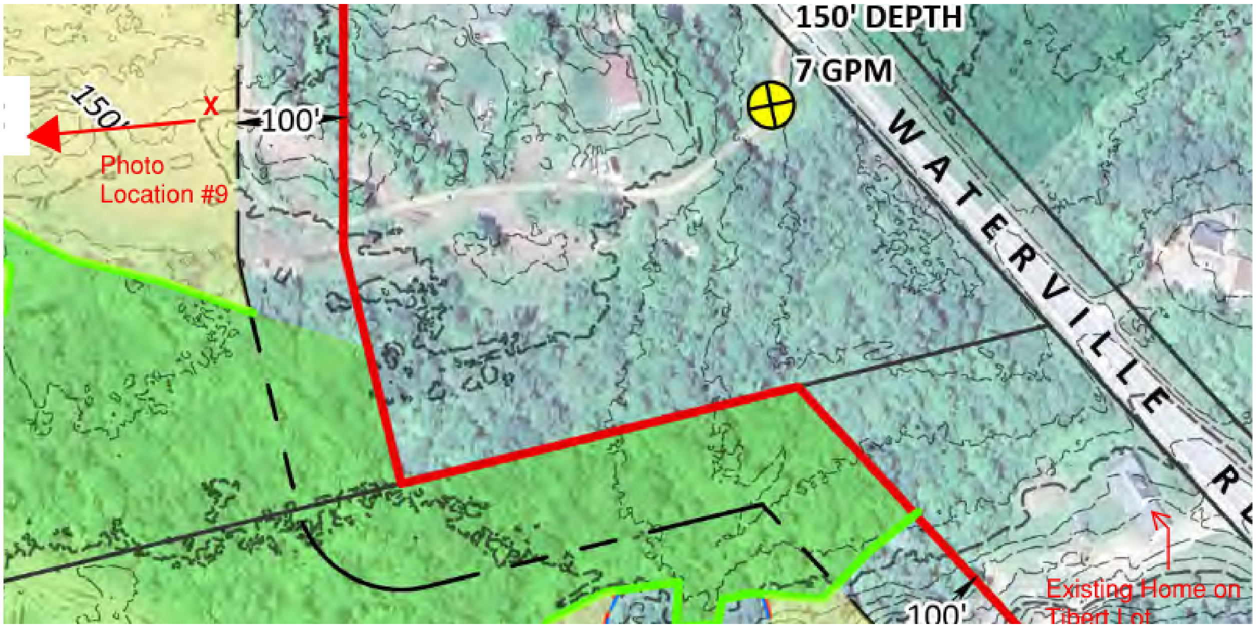

75'
150'
Area 4
x
Photo Location #8
160'
75'
75'
150'
Area 1
75'
100'
Existing Home on Tibert Lot
7
137
160'
180'
75'

8. Recommendation:

Do nothing allow the area to naturally fill-in, with weeds and other natural plants, which will support wildlife habitat.



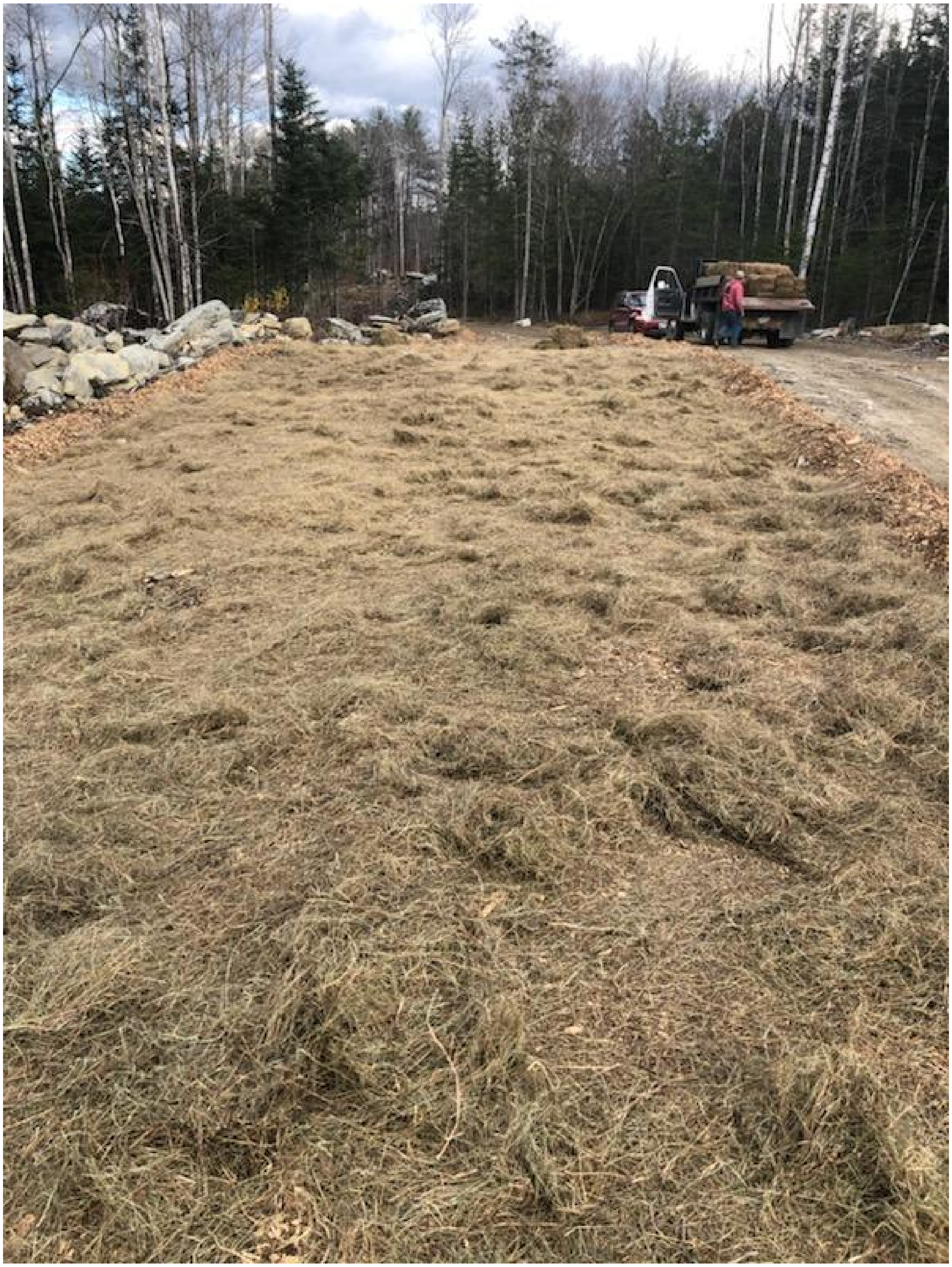
Location of view looking behind the Belden property to the rear. Yellow vegetation in the view is young poplar/aspen which has taken hold and is on average 5-6 feet tall and very dense in coverage.


150' DEPTH
7 GPM
150'
X
100'
Photo Location #9
WATERVILLE R
100'
Existing Home on Tibert Lot

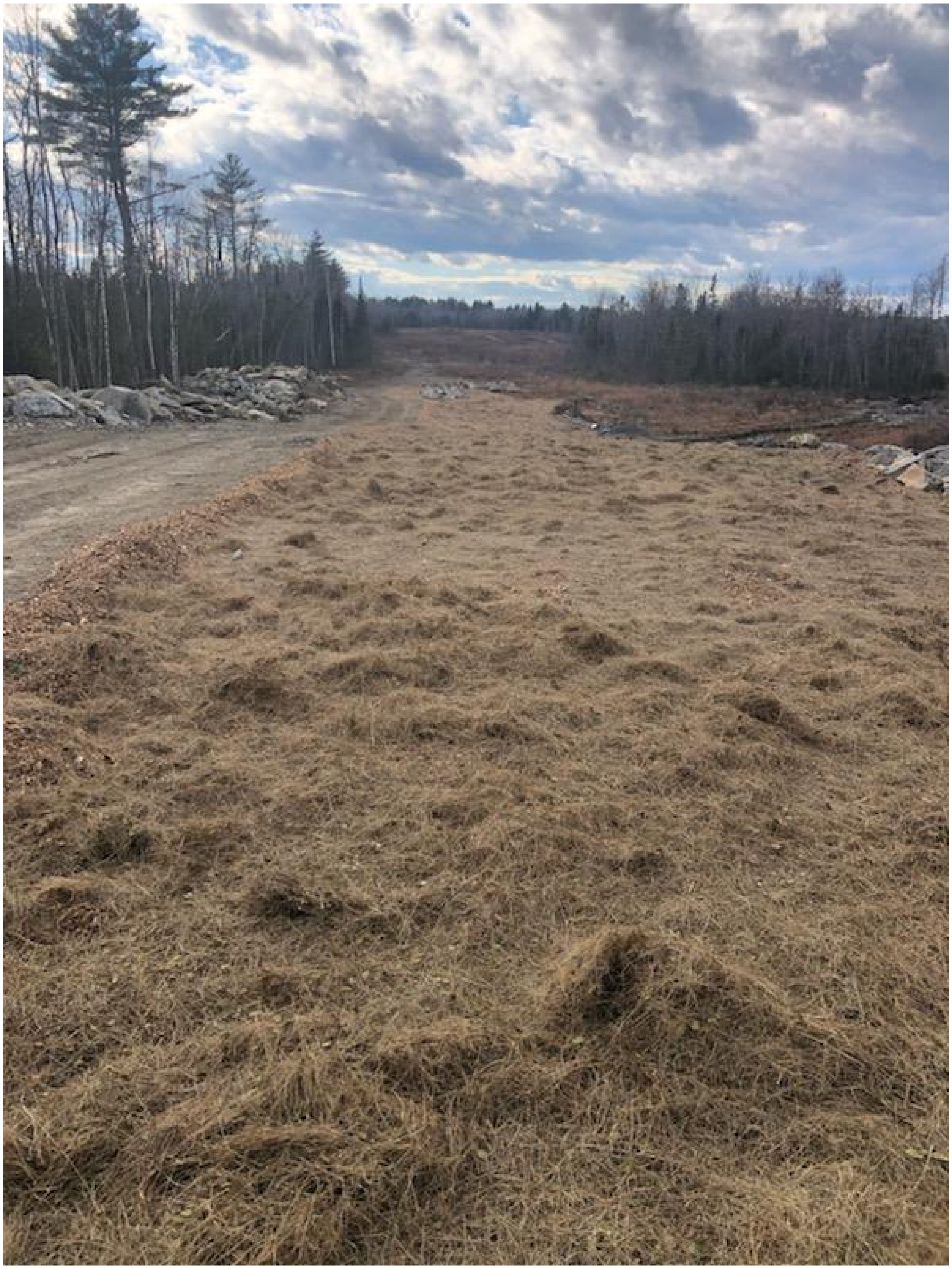
9. Recommendation:

Do nothing allow the area to naturally fill-in, with weeds and other natural plants, which will support wildlife habitat.

END of ASSESSMENT



EROSION AND SEDIMENTATION CONTROL IMAGES-HAY & MULCH PLACEMENT
NOVEMBER 2024



EROSION AND SEDIMENTATION CONTROL IMAGES-HAY & MULCH PLACEMENT
NOVEMBER 2024

Exhibit 8

Resources

Exhibit 8 – Resources

A. The Maine Historic Preservation Commission (MHPC) was contacted regarding the absence or presence of areas or structures of historic significance within the project vicinity. A copy of the response from MHPC concluding that there will be no historic properties affected by the proposed undertaking and no further consultation is required, dated September 25, 2024, is enclosed in this section.

B. In a September 12, 2024, letter regarding rare and exemplary botanical features in close proximity to the project, the State of Maine Department of Agriculture, Conservation & Forestry, Maine Natural Areas Program did not specifically identify rare botanical features within the project area. Reference is made to the letter and supporting documentation in this section. We note that the Maine Natural Areas Program did not specifically request additional investigation, indicating no concern by the State regarding botanical species or habitats.

C. Maine Department of Inland Fisheries & Wildlife (MDIFW) responded to a site review request by letter dated January 7, 2025. Per the letter, the Department did not map any essential habitats that would be affected by this project. A copy of the aforementioned letter is enclosed in this section. We note that tree removal occurred prior to this project; therefore, bats are not affected, and required stream crossings have been reviewed and permitted by MDEP NRPA Permit by Rule notices. See Exhibit 2-Other Permits.

D. Flooding The Flood Insurance Rate Map (FIRM) for the City of Belfast (Community Panel 23027C0433E, dated July 6, 2015) identifies the rock extraction project site as Zone X, an area determined to be outside the 500-year flood. Please see the attached flood map.

E. Soils A Class' D' Medium Intensity Soil Survey published by the United States Department of Agriculture, Natural Resources Conservation Service (NRCS) is included in this section. The soils are identified as Boothbay, Brayton, Marlow, Peru, and Swanville, with Hydrologic Soils Group C, C/D, and D, respectively. For additional information, the NRCS soil report for the site is included in Exhibit 7-Stormwater/Erosion controls.

F. Wetlands Wetlands were observed by Cole Peters, PWS, of Sebago Technics in the spring of 2024. No vernal pools were observed in the wetland delineated on the site. A copy of the Wetland Delineation Report and map dated December 23, 2024, is enclosed in this section. Wetlands on the site generally occur in the center of the east end and the northwest corner of the west end but are absent across the central interior of the property. Narrow bands of wetland also occur along both sides of four streams that flow northward from the south side of the site.

SEBAGO
TECHNICS

RECEIVED
SEP 12 2024
By 1675-24

September 12, 2024
240078

Mr. Kirk Mohney, Director and State Historic Preservation Officer
Maine Historic Preservation Commission
65 State House Station
Augusta, Maine 04333

Email submittal: MHPCprojectreview@maine.gov

Site Review Request – Mineral Extraction
Waterville Road, Belfast
Tax Map 6/Lots 76 & 77

Dear Kirk:

On behalf of our client, Rockport Granite, Inc., Sebago Technics respectfully requests a site review for the proposed mineral extraction on a 98± acre lot in the City of Belfast, Maine. The proposed development area is primarily unimproved and wooded. Site access will be provided by the existing entrance from Waterville Road (Route 137) in Belfast. The proposed development will not be federally funded.

A recent review of the National Register of Historic Places and other available information did not identify areas of architectural or archaeological concern near or within the viewshed of the project vicinity. The review of the City of Belfast tax assessor's database indicates two nearby buildings (Map 6/Lots 74 & 78) that appear to be older than fifty years. We have attached a site location map, a reduced-size progress copy of the site plan, and the assessor card for the aforementioned abutting structures.

Please review the material at your earliest convenience and let me know your findings. If you have any questions or require additional information, please do not hesitate to contact me at dstuart@sebagotechnics.com or directly by phone at (207) 200-2093. I look forward to hearing from you.

Sincerely,

SEBAGO TECHNICS, INC.

Dylan J. Stuart
Civil Engineer

enc. Site Location Map

Based on the information submitted, I have concluded that there will be no historic properties affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act. Consequently, pursuant to 36 CFR 800.4(d)(1), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.

Kirk F. Mohney
Kirk F. Mohney,
State Historic Preservation Officer
Maine Historic Preservation Commission

9/25/24
Date

8.2

Stefanie Nichols

From:	St.Hilaire, Lisa <Lisa.St.Hilaire@maine.gov>
Sent:	Friday, February 28, 2025 10:41 AM
To:	Stefanie Nichols
Cc:	Cole Peters; Puryear, Kristen; Doucette, Eric
Subject:	RE: [External] Rockport Granite Site, Belfast 240078
Categories:	240078 Belfast Site-Rockport Granite

Hi Stefanie,

The language you received on our response dated September 12, 2024 is our standard 'no hits' language. As noted on the response, we haven't been everywhere and so can't say with 100% certainty that there are no rare species at a site we have not visited. You may wish to have a botanist conduct a survey to reach that level of certainty, but we are not specifically recommending that such a survey is conducted.

In 'no hit' responses where MNAP believes a botanical survey is called for, we will specifically recommend that the applicant has a qualified botanist conduct such a survey. This is usually when there is a rare species or habitat in close proximity to the project site and it appears that there may be appropriate habitat for the rare species or that the rare or exemplary habitat occurs on site.

For the Rockport Granite Belfast Mineral Extraction project on Waterville Road in Belfast, MNAP is not specifically recommending a botanical survey. MNAP does not have concerns regarding the project and the American Chestnut mapped near the Tall Pines Nursing Home on Route 1.

Let me know if you need more information. Thank you,

-Lisa

MAINE NATURAL AREAS PROGRAM
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY

Lisa St. Hilaire, Information Manager
207-287-8044 (office)
she/her why pronouns matter

Maine Natural Areas Program
Department of Agriculture, Conservation and Forestry
177 State House Station | Augusta, ME 04333

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

September 12, 2024

Dylan Stuart
Sebago Technics
75 John Roberts Road, Suite 4A
South Portland, ME 04106

Via email: dstuart@sebagotechnics.com

Re: Rare and exemplary botanical features in proximity to: #240078, Rockport Granite Belfast Mineral Extraction, Waterville Road, Map 6 Lots 76 &77, Belfast, Maine

Dear Dylan Stuart:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received September 12, 2024 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Belfast, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

The Maine Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $150.00 for two hours of our services.

Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Lisa St. Hilaire

Lisa St. Hilaire | Information Manager | Maine Natural Areas Program
207-287-8044 | lisa.st.hilaire@maine.gov

Rare and Exemplary Botanical Features within 4 miles of
Project: #240078, Rockport Granite Belfast Mineral Extraction, Waterville Road, Belfast, ME

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
American Chestnut						
	SC	S4	G3	2001-02-13	3	Hardwood to mixed forest (forest, upland)

Date Exported: 2024-09-12 15:52

Conservation Status Ranks

State and Global Ranks: This ranking system facilitates a quick assessment of a species' or habitat type's rarity and is the primary tool used to develop conservation, protection, and restoration priorities for individual species and natural habitat types. Each species or habitat is assigned both a state (S) and global (G) rank on a scale of critically imperiled (1) to secure (5). Factors such as range extent, the number of occurrences, intensity of threats, etc., contribute to the assignment of state and global ranks. The definitions for state and global ranks are comparable but applied at different geographic scales; something that is state imperiled may be globally secure.

The information supporting these ranks is developed and maintained by the Maine Natural Areas Program (state ranks) and NatureServe (global ranks).

Rank	Definition
S1 **G1**	**Critically Imperiled** – At very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors.
S2 **G2**	**Imperiled** – At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
S3 **G3**	**Vulnerable** – At moderate risk of extinction or elimination due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
S4 **G4**	**Apparently Secure** – At fairly low risk of extinction or elimination due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
S5 **G5**	**Secure** – At very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.
SX **GX**	**Presumed Extinct** – Not located despite intensive searches and virtually no likelihood of rediscovery.
SH **GH**	**Possibly Extinct** – Known from only historical occurrences but still some hope of rediscovery.
S#S# **G#G#**	**Range Rank** – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem.
SU **GU**	**Unrankable** – Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
GNR **SNR**	**Unranked** – Global or subnational conservation status not yet assessed.
SNA **GNA**	**Not Applicable** – A conservation status rank is not applicable because the species or ecosystem is not a suitable target for conservation activities (e.g., non-native species or ecosystems.
Qualifier	**Definition**
S#? **G#?**	**Inexact Numeric Rank** – Denotes inexact numeric rank.
Q	**Questionable taxonomy that may reduce conservation priority** – Distinctiveness of this entity as a taxon or ecosystem type at the current level is questionable. The "Q" modifier is only used at a global level.
T#	**Infraspecific Taxon (trinomial)** – The status of infraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species' global rank.

State Status: Endangered and Threatened are legal status designations authorized by statute. Please refer to MRSA Title 12, §544 and §544-B.

Status	Definition
E	**Endangered** – Any native plant species in danger of extinction throughout all or a significant portion of its range within the State or Federally listed as Endangered.
T	**Threatened** – Any native plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range in the State or Federally listed as Threatened.
SC	**Special Concern** – A native plant species that is rare in the State, but not rare enough to be considered Threatened or Endangered.
PE	**Potentially Extirpated** – A native plant species that has not been documented in the State in over 20 years, or loss of the last known occurrence.

Element Occurrence (EO) Ranks: Quality assessments that designate viability of a population or integrity of habitat. These ranks are based on size, condition, and landscape context. Range ranks (e.g., AB, BC) and uncertainty ranks (e.g., B?) are allowed. The Maine Natural Areas Program tracks all occurrences of rare plants and natural communities/ecosystems (S1-S3) as well as exemplary common natural community types (S4-S5 with EO ranks A/B).

Rank	Definition
A	**Excellent** – Excellent estimated viability/ecological integrity.
B	**Good** – Good estimated viability/ecological integrity.
C	**Fair** – Fair estimated viability/ecological integrity.
D	**Poor** – Poor estimated viability/ecological integrity.
E	**Extant** – Verified extant, but viability/ecological integrity not assessed.
H	**Historical** – Lack of field information within past 20 years verifying continued existence of the occurrence, but not enough to document extirpation.
X	**Extirpated** – Documented loss of population/destruction of habitat.
U	**Unrankable** – Occurrence unable to be ranked due to lack of sufficient information (e.g., possible mistaken identification).
NR	**Not Ranked** – An occurrence rank has not been assigned.

Visit the Maine Natural Areas Program website for more information
http://www.maine.gov/dacf/mnap

8.3

STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
353 WATER STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041

JANET T. MILLS
GOVERNOR

JUDITH CAMUSO
COMMISSIONER

January 7, 2025

Dylan Stewart
Sebago Technics
75 John Roberts Road, Suite 4A
South Portland, ME 04106

RE: Information Request - Waterville Road, Mineral Extraction, Belfast Project ID 8071-9849

Dear Dylan:

Per your request received on September 12, 2024, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information sources for known locations of Endangered, Threatened, and Special Concern (Rare) species; designated Essential and Significant Wildlife Habitats; inland fisheries and aquatic habitats; and other protected natural resource concerns within the vicinity of the ***Waterville Road, Mineral Extraction, Belfast*** project, pursuant to MDIFW's authority. MDIFW understands the project proposes mineral extraction and presumes that tree clearing would occur. Please note that as project details are lacking, our comments should be considered preliminary.

Our Department has not mapped any Essential Habitats that would be affected by this project.

ENDANGERED, THREATENED, AND SPECIAL CONCERN SPECIES

Bat Species

Of the eight species of bats that occur in Maine, four species are afforded protection under Maines Endangered Species Act (MESA, 12 M.R.S 12801 et. seq.): little brown bat (State Endangered), northern long-eared bat (State Endangered), eastern small-footed bat (State Threatened), and tri-colored bat (State Threatened). The four remaining bat species are designated as Species of Special Concern: big brown bat, red bat, hoary bat, and silver-haired bat. While a comprehensive statewide inventory for bats has not been completed, based on historical evidence it is likely that several of these species occur within the project area during spring/fall migration, the summer breeding season, and/or for overwintering. However, our Department does not anticipate significant impacts to any of the bat species as a result of this project.

SIGNIFICANT WILDLIFE HABITAT

Significant Vernal Pools

At this time MDIFW Significant Wildlife Habitat (SWH) maps indicate no known presence of Significant Vernal Pools (SVPs) in the project search area. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. SVPs are not included on

MDIFW maps until project areas have been surveyed using approved methods and the survey results confirmed. Therefore, their absence from resource maps is not necessarily indicative of an absence on the ground. We recommend that surveys for vernal pools be conducted within the project boundary by qualified wetland scientists prior to final project design to determine whether there are Significant Vernal Pools present in the area. These surveys should extend up to 250 feet beyond the anticipated project footprint because of potential performance standard requirements for off-site Significant Vernal Pools, assuming such pools are located on land owned or controlled by the applicant. Once surveys are completed, survey forms should be submitted to our Department for review well before the submission of any necessary permits. Our Department will need to review and verify any vernal pool data prior to final determination of significance.

AQUATIC RESOURCES

Fish Habitat

We recommend that 100-foot undisturbed vegetated buffers be maintained along streams. Buffers should be measured from the edge of stream or associated fringe and floodplain wetlands. Maintaining and enhancing buffers along streams is critical to the protection of water temperatures, water quality, natural inputs of coarse woody debris, and various forms of aquatic life necessary to support conditions required by many fish species. Stream crossings should be avoided, but if a stream crossing is necessary, or an existing crossing needs to be modified, it should be designed to provide full fish passage. Small streams, including intermittent streams, can provide crucial rearing habitat, cold water for thermal refugia, and abundant food for juvenile salmonids on a seasonal basis and undersized crossings may inhibit these functions. Generally, MDIFW recommends that all new, modified, and replacement stream crossings be sized to span at least 1.2 times the bankfull width of the stream. In addition, we generally recommend that stream crossings be open bottomed (i.e., natural bottom), although embedded structures which are backfilled with representative streambed material have been shown to be effective in not only providing habitat connectivity for fish but also for other aquatic organisms. Construction Best Management Practices should be closely followed to avoid erosion, sedimentation, alteration of stream flow, and other impacts as eroding soils from construction activities can travel significant distances as well as transport other pollutants resulting in direct impacts to fisheries and aquatic habitat. In addition, we recommend that any necessary instream work occur between July 15 and October 1.

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance, we recommend additional consultation with the municipality, and other state resource and regulatory agencies including the Maine Natural Areas Program and the Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance. For information on federally listed species, contact the U.S. Fish and Wildlife Service's Maine Field Office (207-469-7300, mainefieldoffice@fws.gov).

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

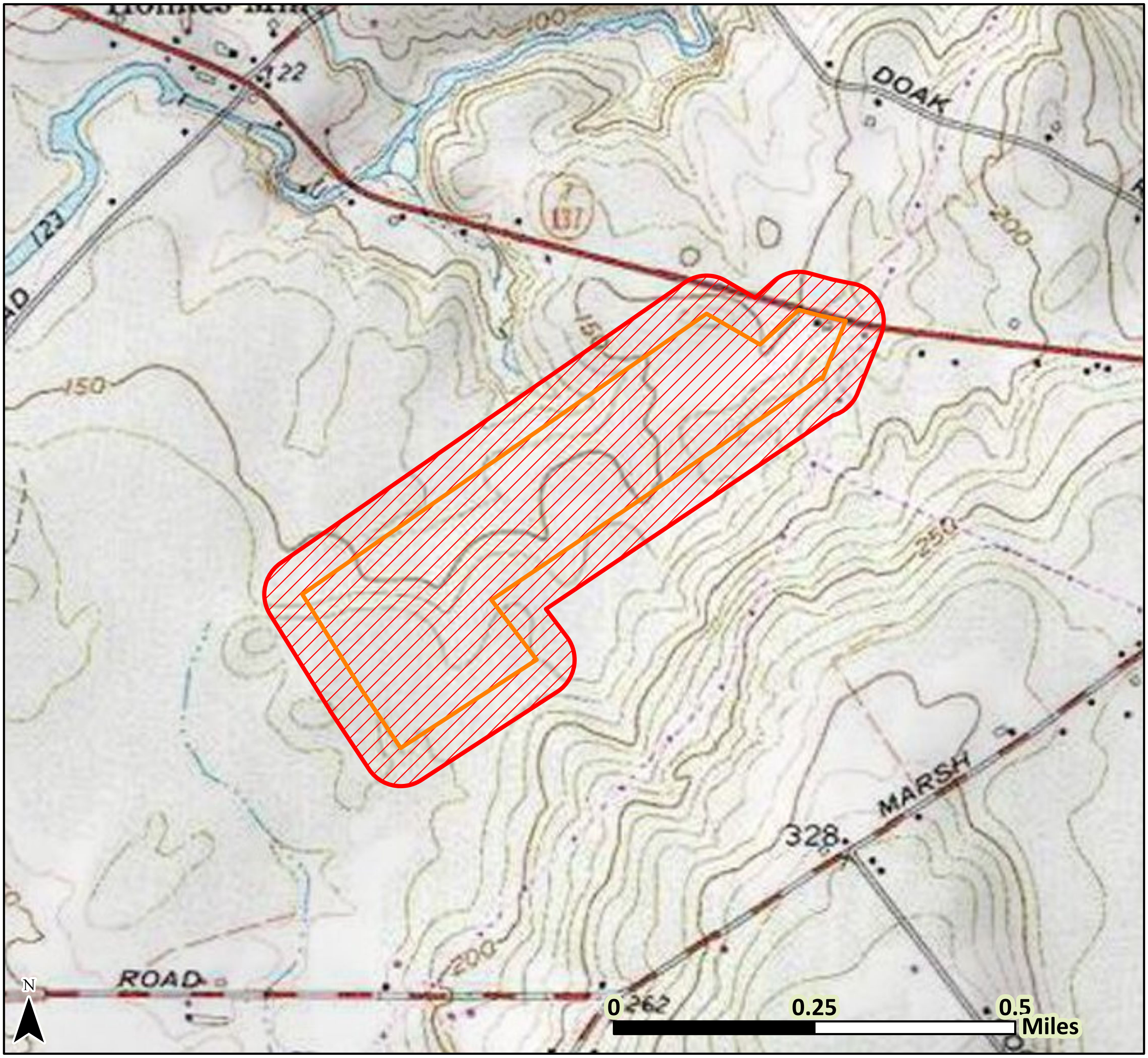
Andrew J Wood

Andrew J. Wood
Environmental Review Coordinator

Maine Department of Inland Fisheries and Wildlife
Project Area Review of Fish and Wildlife Observations and Priority Habitats

Waterville Road, Mineral Extraction, Belfast

Project ID 8071_9849



122
DOAK
123
137
150
200
250
328
MARSH
ROAD
262
N
0
0.25
0.5
Miles

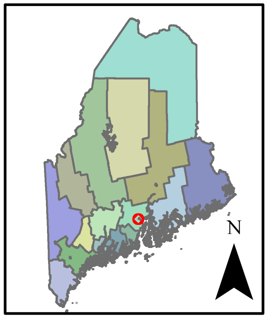
🟨 County Boundary

⬚ Township Boundary

🟧 Project Footprint (Polygon)

▨ Search Area

Date: 9/24/2024
Projection:
UTM Zone 19N, NAD83



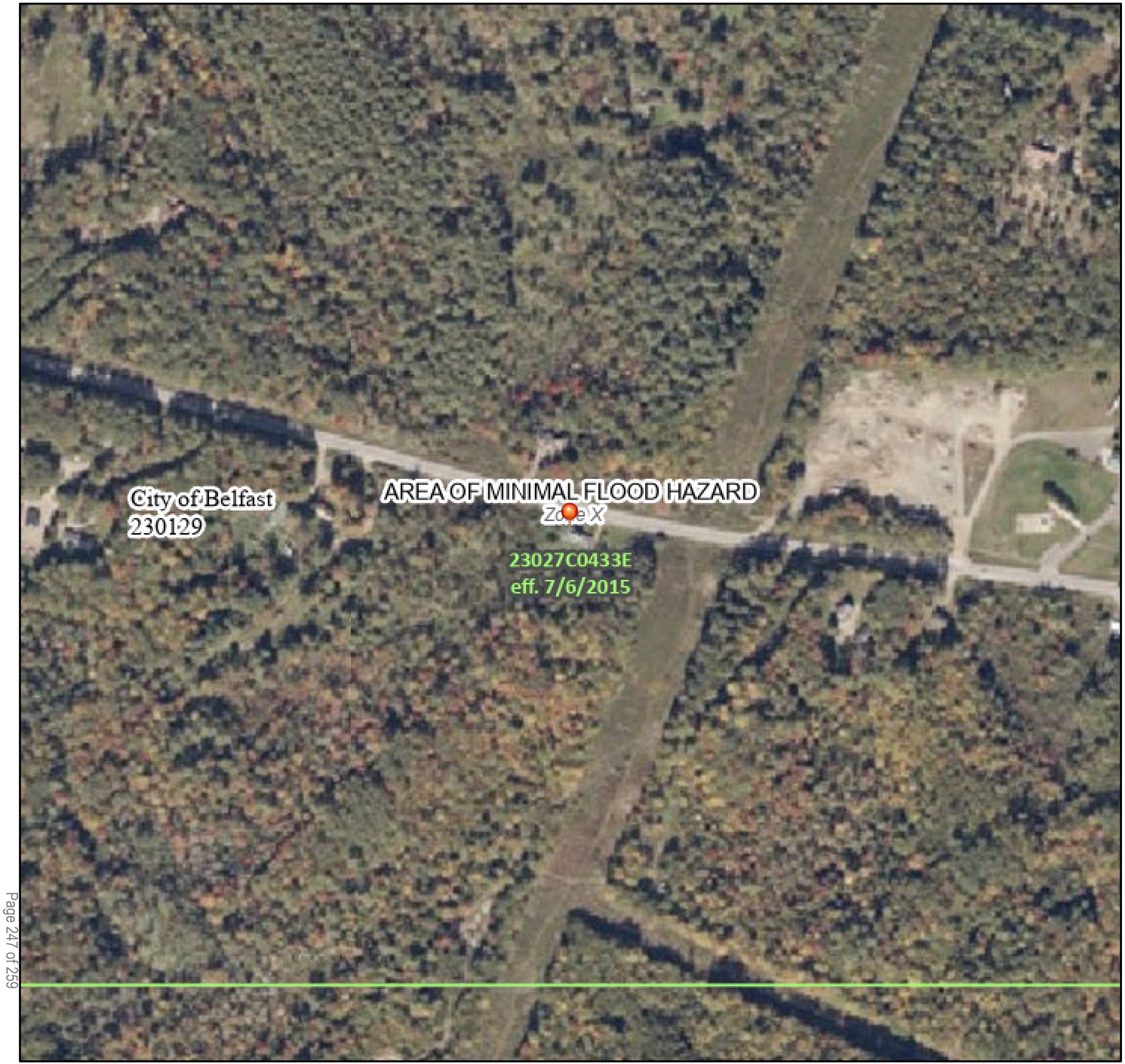
Legend only lists resources visible in the map; see response letter for all resources that were evaluated.

8.4

National Flood Hazard Layer FIRMette

FEMA

69°3'8"W 44°26'39"N



69°2'30"W 44°26'13"N

Feet 0 250 500 1,000 1,500 2,000

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	🟦	Without Base Flood Elevation (BFE) *Zone A, V, A99*
		With BFE or Depth *Zone AE, AO, AH, VE, AR*
	▨	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	🟧	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
	▨	Future Conditions 1% Annual Chance Flood Hazard *Zone X*
	▨	Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
	▨	Area with Flood Risk due to Levee *Zone D*
OTHER AREAS	NO SCREEN	Area of Minimal Flood Hazard *Zone X*
	▭	Effective LOMRs
	▭	Area of Undetermined Flood Hazard *Zone D*
GENERAL STRUCTURES	– — – –	Channel, Culvert, or Storm Sewer
	ııııııı	Levee, Dike, or Floodwall
OTHER FEATURES	B 20.2 17.5	Cross Sections with 1% Annual Chance Water Surface Elevation
	8 — — —	Coastal Transect
	〰 513 〰	Base Flood Elevation Line (BFE)
	—	Limit of Study
	—	Jurisdiction Boundary
	– – – –	Coastal Transect Baseline
	– —	Profile Baseline
	—	Hydrographic Feature
MAP PANELS	☐	Digital Data Available
	☐	No Digital Data Available
	☒	Unmapped

N

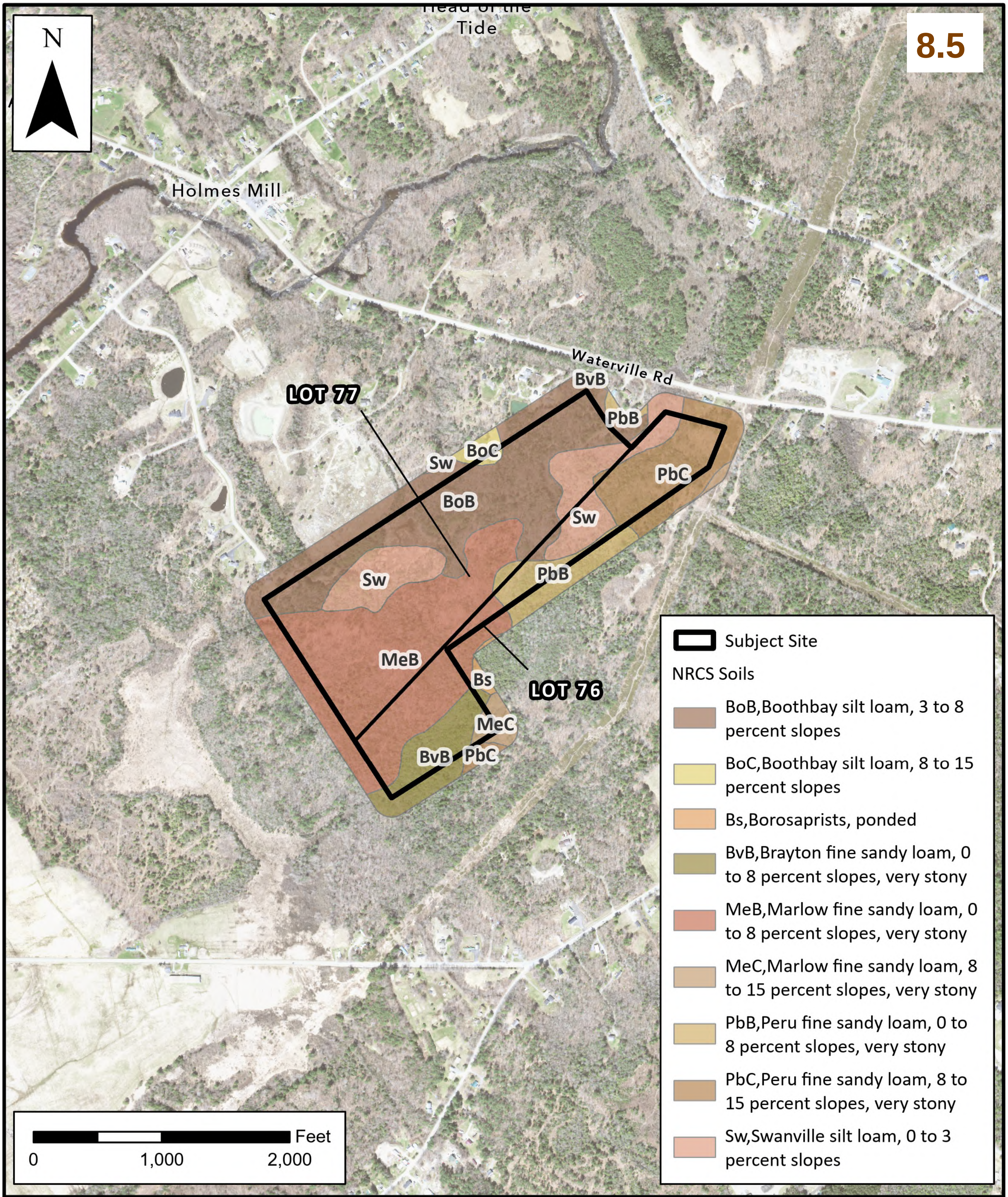
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

8.4

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/13/2024 at 8:41 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.


8.5
N
Head of the Tide
Holmes Mill
Waterville Rd
LOT 77
LOT 76
BvB
PbB
PbC
Sw
BoC
BoB
Sw
Sw
PbB
MeB
Bs
MeC
BvB
PbC
Subject Site
NRCS Soils
BoB, Boothbay silt loam, 3 to 8 percent slopes
BoC, Boothbay silt loam, 8 to 15 percent slopes
Bs, Borosaprists, ponded
BvB, Brayton fine sandy loam, 0 to 8 percent slopes, very stony
MeB, Marlow fine sandy loam, 0 to 8 percent slopes, very stony
MeC, Marlow fine sandy loam, 8 to 15 percent slopes, very stony
PbB, Peru fine sandy loam, 0 to 8 percent slopes, very stony
PbC, Peru fine sandy loam, 8 to 15 percent slopes, very stony
Sw, Swanville silt loam, 0 to 3 percent slopes
Feet
0
1,000
2,000

SEBAGO
TECHNICS
WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. - Suite 4A
South Portland, ME 04106
Tel. 207-200-2100

NRCS SOIL SURVEY MAP
ROCKPORT GRANITE BELFAST

SCALE:	1:12,000
DATE:	2/18/2025

LOCATION:
WATERVILLE RD
BELFAST, ME

INFORMATION:
USDA NRCS SOIL SURVEY 2020
2022 ORTHOREGIONAL IMAGERY

NRCS Soil Survey Map, 240078.aprx

Project Number: 240078

8.6

SEBAGO
TECHNICS

Wetland Delineation Report

To: **Jim Seymour, P.E., Project Manager, Stefanie Nichols**

From: **Cole Peters, PWS**

Date: **December 23, 2024**

Project: **240078 – 104 Waterville Road, Belfast, ME**

COLEN R. PETERS
000706

Cole R Peters

On April 30, and June 5 and 11, 2024, wetland boundaries (Figure 1) were delineated at a +/- 98.37-acre property on the west side of Waterville Road (Route 137), designated as Lots 76 and 77 on City of Belfast Tax Map 6 ("Site"). The Site ranges between approximately 118 to 226 ft in elevation and generally slopes to the north.

Beginning with Habitat Primary Map 2 (BwH-2) for the City of Belfast https://www.maine.gov/ifw/fish-wildlife/wildlife/beginning-with-habitat/maps/pdf/Belfast/Belfast%20Map%202.pdf is dated February 2024 and presents best information available compiled by the Maine Department of Inland Fish and Wildlife (MDIFW) and Maine Natural Ares Program (MNAP). BWH-2 indicates that except for the Passassawakeag River (which is approximately 0.8 mile away on the opposite side of Rte 137 and identified as Atlantic salmon rearing habitat), no other designated High Value Plant & Animals Habitat occurs within approximately 8,500 ft (1.6 mile) of the Site.

No streams are depicted at the property on the USGS 2014 Belfast, ME 7.5-minute Quadrangle Map. The Federal Emergency Management Agency (FEMA) has prepared a Flood Insurance Rate Map (FIRM) for this part of the City of Belfast (Community Panel Number 23027C0433E, effective date 7/6/2015) and no part of the Site occurs in a FEMA designated 100-year floodplain (Zone A). Also, no part of the Site is designated as being subject to the City's Shoreland Zoning Ordinance (October 16, 2018: https://www.cityofbelfast.org/DocumentCenter/View/3664/Belfast-Shoreland-Zoning-Wall-Map_20190221?bidId=).

Wetland Delineation:
Evidence indicative of wetland from three parameters – vegetation, soils and hydrology – is used to identify and delineate wetlands in accordance with the 1987 *US Army Corps of Engineers Wetland Delineation Manual*, and the subsequent *Regional Supplement to the US Army Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (January 2012). Except for unusual or atypical situations, evidence of wetland must be exhibited by all three parameters for an area or position to be designated as wetland.

Wetlands delineated at the Site generally occur in the center of the east end, and in the northwest corner of the west end, but are absent across the central interior of the property (Figure 1). Narrow bands of wetland also align both sides of four streams that flow northward from the south side of the Site.

The Site was cleared in the winter of 2023 into March 2023 as illustrated by comparing aerial imagery dated May 30, 2024 (Figure 1) and the next available, prior imagery is dated November 22,2019. A forested buffer more than 100 ft in width remains along the exterior property lines of the Site. Coniferous forest, with lesser amounts of deciduous trees, dominated the Site before being cleared slightly more than a year ago. Tree stumps from which sucker shoots have sprouted remain where cutting occurred and as is typical for winter tree cutting, with absence of shade, canopy herbaceous vegetation reestablished quickly across the Site.

The forested freshwater wetland community at the Site is chiefly dominated by balsam fir (*Abies balsamea*) and to a lesser extent red maple (*Acer rubrum*) trees and saplings with an understory of shrubs including speckled alder (*Alnus incana*), and winterberry holly (*Ilex verticillata*). Cinnamon (*Osmundustrum cinnamomeum*), sensitive (*Onoclea sensibilis*) interrupted (*Osmunda claytonia*) and royal (*O. regalis*) ferns and sphagnum moss (*Sphagnum* spp.) are also present in the understory. All these plants are identified as “Obligate” (OBL), “Facultative Wetland” (FACW) or “Facultative” (FAC) indicators of wetland by the 2022 *National Wetland Plant List* [1] prepared by the US Army Corps of Engineers and are therefore hydrophytes.

Dominant vegetation found throughout upland areas of the Site consists of white pine (*Pinus stroubus*), and red spruce (*Picea rubens*) with lesser presence of northern red oak (*Quercus rubra*), American beech (*Fagus grandifolio*), and Eastern hemlock (*Tsuga canadensis*) trees and saplings, along with witch-hazel (*Hamamelis virginiana*), wild sarsaparilla (*Aralia nudicaulis*), and bracken fern (*Pteridium aquilinum*) in the understory. All these plants are classified as “Facultative Upland” (FACU) or are not indicative of wetland, and when occurring in predominance, are indicative of upland.

The medium intensity soil survey prepared by the USDA Natural Resource Conservation Service (NRCS) indicates the Swanville silt loam (Sw) occurs in areas of the Site delineated as wetland. The Swanville Series is classified as a “poorly drained” (**PD**) soil and is designated as being “hydric”, or indicative of wetlands by NRCS. At sampling locations in areas dominated by hydrophytes, characteristics representative of hydric soil indicator criteria A2: Histic Epipedon, and A12: Thick Dark Surface were observed. The well-drained (**WD**) Marlow (MeB) very stony fine sandy loam, the moderately well drained (**MWD**) Peru (PbB,C) fine sandy loam and the somewhat poorly drained (**SPD**) Boothbay silt loam, all of which are all designated as non-hydric, are present beneath upland throughout the remainder of the Site.

Hydrology is referred to as the “*driving force*” of wetlands (Mitch and Gosselink, 1986)[2] and is inherently responsible for the adaptation by certain vegetation (hydrophytes) and development of specific soil characteristics (hydric) indicative of wetlands. Evidence indicative of wetland hydrology observed at the Site includes soils saturated within 12-inches of the surface, small, localized areas of surface water, sediment deposits, and water-stained leaves.

The National Wetland Inventory (NWI) makes use of *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et. al, 1979)[3] to differentiate types of wetlands. With this system, freshwater wetlands are classified based on dominant plant type as: Palustrine Forested (**PFO**), Palustrine Scrub-Shrub (**PSS**), Palustrine Emergent (**PEM**), Palustrine Unconsolidated Bottom (**PUB**). Wetlands classified by this system as PFO or PSS are more commonly known as swamps whereas PEM typically represents marshes or meadows, and PUB corresponds to ponds. As described above, balsam fir needle-leaved evergreen trees are the dominant vegetation in the forested (PFO4) wetland with lesser presence of deciduous red maple. Deciduous scrub shrub wetland (PSS1) is associated with a beaver flowage in the northwest corner of the Site where tree clearing did not occur.

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[1] USACOE NWPL, 2022. https://wetland-plants.sec.usace.army.mil/

[2] Mitch, W.J., and Gosselink, J.G., 2000. *Wetlands* (3rd ed.), Van Nostrand Reinhold Company, NY, 920 pgs.

[3] Cowardin, L.M., Carter, V., Golet, F.C., and LaRoe, E.T., 1979. *Classification of Wetlands and Deepwater Habitats of the United States*, US Fish and Wildlife Service, FWS/OBS79/31, 103 pgs.

Watercourses:
"Rivers, streams or brooks" (**RSB**) are a designated resource of the Natural Resources Protection Act (NRPA- 38 M.R.S.A. §480-B (9)) regulated by the Maine Department of Environmental Protection (MDEP). To be regulated as an RSB under the NRPA, two of five characteristics must be present in _a channel between defined banks created by the action of surface water_. Appearance as a blue line on a USGS 7.5-minute quadrangle map is one of five potential diagnostic criteria and the four other definitive characteristics indicative of regulated RSB include- flow duration of at least 6 months of the year in most years, substrate character, presence of aquatic flora, and presence aquatic fauna. Four eroded channels with sand and cobble-boulder bottoms bounded by low banks flow northward across the Site (Figure 1). Along with the presence of aquatic insects, flow is likely to persist in the channels for at least six months the year (Photo 2).

Vernal Pools:
Vernal pools (**VP**s) are defined by the MDEP as: "*a natural, temporary to semi-permanent body of water occurring in a shallow depression that typically fills during the spring or fall and may dry during the summer. Vernal pools have no permanent inlet or outlet and no viable populations of predatory fish*" (Chapter 335 §9). "Significant vernal pools" (**SVP**s) are recognized by the presence of fairy shrimp (*Eubrandhipus* spp.), or more than 40 wood frog (*Rana sylvatica*) egg masses or at least 10 blue spotted salamander (*Ambystoma laterale*) or 20 spotted salamander (*A. maculatum*) egg masses. VPs documented to be used by state-listed rare, endangered or threatened species such as Blanding's turtles (*Emydoidea blandingii*), spotted turtles (*Clemmys guttata*), ringed boghaunter dragonflies (*Williamsoni lintneri*), Eastern ribbon snakes (*Thamnophis sauritus*), wood turtles (*Clemmys insculpta*), four-toed salamanders (*Hemidactylium scutalum*), swamp darner dragonflies (*Epiaeschna heros*), and comet darner dragonflies (*Anax longipes*), are also considered to be SVPs (Ch 335 §9B 1-4).

Under the provisions of Section 404 of the federal Clean Water Act, the US Army Corps of Engineers (USACE) regulates activities in "*waters of the United States"* including VPs, which are defined by the USACE New England District (NED) in the State of Maine General Permit (GP, reissued on October 14, 2020). The NED definition, while very similar to MDEP's, does not reference "natural" and does not recognize or differentiate SVPs based on number of indicator species egg masses. Instead, the GP definition states: "*VPs are depressional wetland basins that typically go dry in most years and may contain inlets or outlets, typically of intermittent flow. Vernal pools range in both size and depth depending on landscape position and parent material(s). In most years, VPs support one or more of the following obligate species: wood frog (Rana sylvatica), spotted salamander (Ambystoma maculatum), blue spotted salamander (A. laterale) fairy shrimp (Eubrandhipus* spp.). *However, they should preclude sustainable populations of predatory fish."*

West of Penobscot Bay and southward from Augusta to Fryeburg, MDIFW recommends evidence of VP indicator species egg masses be observed on separate dates during periods established for wood frogs (April 10th to April 25th) and spotted salamanders (April 20th to May 10th). Potential vernal pools (**PVP**s) can be identified outside (before/after) the recommended survey period but are not necessarily indicative of regulatory jurisdiction. During the recommended survey periods VP and SVP characteristics are to be documented on MDIFW data forms and located with submeter accuracy GPS to identify the portion of Critical Terrestrial Habitat (**CTH**) within 250 feet around an SVP that is referred to as *Significant Vernal Pool Habitat* (**SVPH** Ch 335 §9A (7)).

A survey for vernal pools was conducted at the Site on April 30, 2024. No vernal pools were observed in wetlands delineated at the Site.

Regulatory Assessment:
Activities in and adjacent to wetlands at the Site are regulated by the MDEP under the provisions of the NRPA and associated Permit by Rule Standards (Chapter 305), the Wetland and Waterbodies Protection Rules (Chapter 310), and the Significant Wildlife Habitat Rules (Chapter 335). An activity specifically addressed under PBR is Stream Crossings (bridges, crossings and fords) and associated access within 25 ft of a river stream or brook (Ch 305 §10).

Under the NRPA, certain characteristics are relevant to whether a wetland is regulated as a "freshwater wetland of special significance" or "**WOSS**" (Ch 310 §4A 1-8).

Wetlands delineated at the Site (Figure 1):

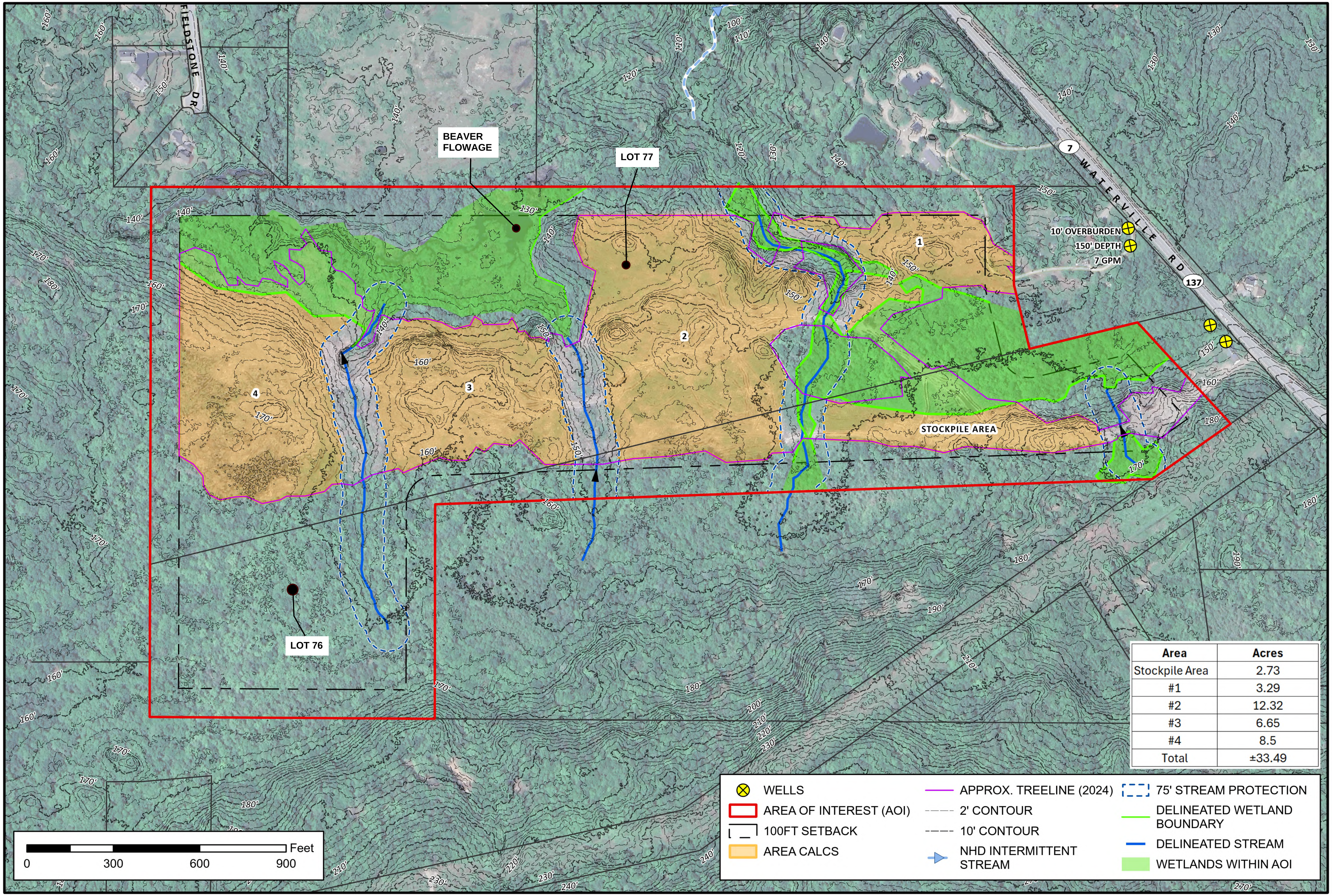
- do not contain a "critically imperiled (S1)" (Ch 310 §3F) or an "imperiled (S2)" (Ch 310 §3L) community as defined by the Natural Areas Program
- do not contain significant wildlife habitat (38 MRSA §480-B (10)) mapped, or as defined by MDIFW in accordance with criteria adopted by MDEP
- are not located within 250 feet of a "coastal wetland" (38 MRSA §480-B (2))
- are not located within 250 feet of a "great pond" (38 MRSA §480-B (5))
- do not contain more than 20,000 square feet of open water or aquatic or emergent marsh vegetation (Ch 310 §4A (5))
- are not located in a in a FEMA designated 100-year floodplain (Ch 310 §4A (6)) and therefore are not a "floodplain wetland" (38 M.R.S.A. §2-D)
- are not a "peatland" (Ch 310 §3P)
- in specific areas, occur within 25 ft of a river, stream or brook (38 M.R.S.A. §480-B (9); Ch 310 §4A (8)) along the length of the four streams that flow across the Site.

Except along the four streams, wetlands delineated at the Site are not "WOSS". Activities requiring alteration of wetlands covering less than 15,000 square feet of non-WOSS wetland are typically eligible for a Tier 1 permit under the NRPA. A Tier 2 permit would be necessary for impacts more than this up to an acre (43,560 square feet) and a Tier 3 permit would be required for more extensive impact. Under the NRPA wetland impacts exceeding 15,000 sq ft typically require compensatory mitigation.

Wetlands at the Site are also regulated by the USACE as "*waters of the United States*" under the provisions of Section 404 of the Clean Water Act. To authorize minimal-impact activities in wetlands, including placement of fill, the Corps makes use of a General Permit (GP) for the State of Maine. Such impacts to wetlands are broken down into two permit categories under the GP based on the following area thresholds: Self-Verification (SV) – less than 15,000 square feet, and Pre-Construction Notification (PCN) – 15,000 square feet to three acres. Activities eligible for SV can be authorized by a Self-Verification Notification Form submitted to the Corps. PCN requires submitting a more detailed application package with written approval from the USACE and as applicable, applications are reviewed in conjunction with the US Fish and Wildlife Service, the US Environmental Protection Agency or as appropriate the National Marine Fisheries Services. ILF is also acceptable as compensatory mitigation under the GP. The USACE however, generally requires this be implemented at a lower threshold of 5,000 sq ft of wetland impact.

Photograph 1: A mixture of balsam fir and red maple trees dominate the forested wetlands (PFO4) delineated at the Site.

Photograph 2: Southeastward, upstream view of the west-most of four narrow (< 5 ft wide), shallow (<9 in deep) streams that flow across Site.


BEAVER FLOWAGE
LOT 77
LOT 76
FIELDSTONE DR
WATERVILLE RD
7
137
10' OVERBURDEN
150' DEPTH
7 GPM
STOCKPILE AREA
1
2
3
4
WELLS
AREA OF INTEREST (AOI)
100FT SETBACK
AREA CALCS
APPROX. TREELINE (2024)
2' CONTOUR
10' CONTOUR
NHD INTERMITTENT STREAM
75' STREAM PROTECTION
DELINEATED WETLAND BOUNDARY
DELINEATED STREAM
WETLANDS WITHIN AOI
0
300
600
900
Feet

Area	Acres
Stockpile Area	2.73
#1	3.29
#2	12.32
#3	6.65
#4	8.5
Total	±33.49

EXISTING CONDITONS CONTEXTUAL MAP

ROCKPORT GRANITE BELFAST

LOCATION:
WATERVILLE ROAD
BELFAST, MAINE

INFORMATION:
MAINE GEOLOGICAL SURVEY
2021 USGS LIDAR TOPOGRAPHY
2024 GOOGLE EARTH IMAGERY

SCALE: 1:3,600
1" = 300'

DATE: 2/19/2025

SEBAGO TECHNICS

WWW.SEBAGOTECHNICS.COM
75 John Roberts Rd. - Suite 4A
South Portland, ME 04106
Tel. 207-200-2100

Project Number: 240078

11x17, 240078.aprx

Exhibit 9

Traffic

Exhibit 9 – Traffic

The applicant's rock extraction activity is not extensive as it relates to trip generation or equipment. Typical equipment would include an excavator, dump truck, and large flatbed to haul larger specimens to the rock-cutting operation in Rockport. Excavation equipment could be stored on-site, and employees would be arriving and departing via personal vehicles. A typical day would include approximately four (4) trips via employees. A maximum of 4 employees x 4 trips equals 16 total trips.

A busy day might include ten (10) delivery trips with the flatbed trailer, which would be the equivalent of 20 daily vehicle trips. Overall, the trip generation is far below any requirement for an MDOT Traffic Movement Permit for a peak hour generation of 100 trips in any given hour. Based on expectations, the maximum daily trips would be approximately 36-40 trips per day in an 8 -10-hour span.

The applicant has filed for a driveway modification with Maine DOT for the proposed entrances onto State Route 137 (Waterville Road) for widening and change of use from residential to commercial activity. The primary entrance to be utilized will be the entrance at 104 Waterville Road. We have recommended that the entrance be paved to accommodate truck traffic and to provide a stable and safe access surface rather than the current gravel-based driveway. The second proposed entrance at 114 Waterville Road is also currently gravel, but we only recommend that the entrance be modified to have a perpendicular approach as it will only be used to access Work Area 2. All other access to Work Areas 1, 3, 4, and 5 will be over the proposed paved access.

Both entrances will also be constructed with an additional stone-stabilized entrance feature to reduce wheel tracking of mud or sediment onto the state road.

Exhibit 10

Utilities

Exhibit 10 – Utilities

Not applicable. Utilities are not necessary or proposed as part of the rock extraction activity.