SME
SEVEE & MAHER
ENGINEERS

4 Blanchard Road, P.O. Box 85A
Cumberland, ME 04021
Tel: 207.829.5016 • Fax: 207.829.5692
info@smemaine.com
smemaine.com

May 25, 2021

Ms. Carla Nixon, Town Planner
Town of Cumberland
290 Tuttle Road
Cumberland, Maine 04021

Subject: Broad Cove Ridge Condominiums
Planning Board Site Plan Review Application

Dear Ms. Nixon:

On behalf of the Snell Construction, LLC (Snell), Sevee & Maher Engineers, Inc. (SME) is pleased to submit the attached Planning Board Site Plan Review Application for the proposed 50 condo multiplex on Route 1 in Cumberland.

We have enclosed two copies and a USB with a digital copy of the application package and drawings.

We look forward to reviewing the project in more detail with the Planning Board on June 15, 2021 and appreciate your consideration of our application. Please feel free to contact me at 207.829.5016 or dpd@smemaine.com if you have any questions or need additional information.

Very truly yours,

SEVEE & MAHER ENGINEERS, INC.

Daniel Diffin, P.E., LEED AP BD+C
Vice President/Senior Civil Engineer

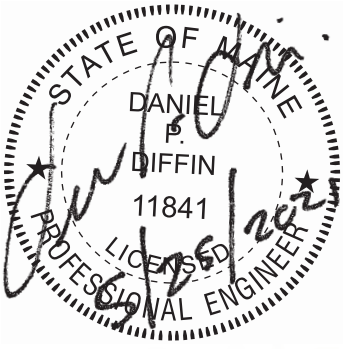
Attachments

TOWN OF CUMBERLAND PLANNING BOARD
SUBDIVISION AND SITE PLAN REVIEW APPLICATION
BROAD COVE RIDGE CONDOMINIUMS

Prepared for

SNELL CONSTRUCTION, LLC
100 US Route 1
Cumberland, Maine

May 2021



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ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

SME
SEVEE & MAHER
ENGINEERS

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SITE PLAN REVIEW
Town of Cumberland

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Planning Board Site Plan Review Application

Applicant's name Jon Snell c/o Snell Construction, LLC & 100 US Route 1, LLC

Applicant's address 97 Ledge Brook Crossing, Brunswick, ME 04011

Cell phone N/A Home phone N/A Office phone 207-751-9627

Email Address jon@jaidenlandscaping.com

Project address 102 US Route 1, Cumberland, ME 04021

Project name Broad Cove Ridge Condominiums

Describe project See Project Description Section

Number of employees None

Days and hours of operation N/A

Project review and notice fee $2,150

Name of representative Daniel Diffin, P.E., Sevee & Maher Engineers, Inc.

Contact information: Cell: 207-240-3315 Office: 207-829-5016

What is the applicant's interest in the property?

Own_____ Lease_____ Purchase and sale agreement X (provide copy of document)
If you are not the owner, list owner's name, address and phone number Dave Spellman
20 Independence Drive, Suite 1A, Freeport, Maine 04032 , 207-329-8306

If you are not the owner, list owner's name, address and phone number _____

Boundary Survey
Submitted? Yes X No _____

Are there any deed restrictions or easements? Yes X No_____ If yes, provide information and show easement location on site plan.

Building Information
Are there existing buildings on the site? Yes _____ No X Number: _____
Will they be removed? Yes _____ No_____(Note: A demolition permit is required 10 days prior to demolition.)

Will a new structure(s) be built on the site? Yes X No _____
Describe: 50-Unit Condominium Building with below grade parking.
Number of new buildings 1
Square footage 12,800 SF
Number of floor levels including basement 5

Parking
Number of existing parking spaces 0
Number of new parking spaces 98
Number of handicapped spaces 4
Will parking area be paved? X Yes ___ No

Entrance
Location: One (1) off US Route 1
Width 24 ft Length 40 ft
Is it paved? X Yes X No _____ If not, do you plan to pave it?

Where will snow storage for entrance and parking be located? Show on site plan.

Utilities

Water: Public water X Well _____ (Show location on site plan.)

Sewer/septic: Public sewer X Private septic _____ Show location on site plan and submit HHE-200 septic design or location of passing test pit locations if new system is proposed. Also show any wells on abutting properties within 200 feet of the site.

Electric: On site? Yes X No _____
Show location of existing and proposed utilities on the site plan and indicate if they are above or below ground.

Signs
Number: _____
Size: _____
Material: _____
Submit sign design and completed sign application.
Will the sign be lighted? _____ Submit information on type and wattage of lights.
Show location of sign(s) on the site plan.

Natural Features
Show location of any of the following on the site plan:
River _____ Stream X Wetland X Pond _____ Lake _____ Stone walls X
Are there any other historic or natural features? No features identified by MHPC.

Lighting
Will there be any exterior lights? Yes X No _____ Show location on site plan (e.g., pole fixtures, wall packs on building) and provide fixture and lumen information.

Trees
Show location of existing trees on the site plan and indicate if any are to be removed.

Landscaping
Is there existing landscaping on the site? Yes _____ No X Show type and location on site plan.

Is new landscaping proposed? (Note: if property has frontage on Route 100, a twenty-five-foot landscape easement to the Town is required.)

Buffering
Show any existing or proposed buffering measures for adjacent properties, e.g., plantings, fences.

Erosion Control
Has an erosion and sedimentation control plan been submitted? Yes X No _____

Stormwater Management Plan
Provide stormwater information for both pre and post development of the site. Show location of any detention areas and/or culverts on the site plan.

Fire Protection
Location of nearest hydrant 1 proposed Sprinklers? Yes X No _____
Do you plan to have an alarm system? Yes X No _____ Please contact the Fire/EMS Department at 829-4573 to discuss any Town or state requirements.

Trash
Will trash be stored inside _____ outside X. If outside, will a dumpster be used? Yes X No _____. Show location on site plan and show type of screening proposed (e.g., fencing, plantings).

Technical Capacity
List and provide contact information for all consultants who worked on the project, for example: licensed land surveyor, licensed soils evaluator, professional engineer, attorney, etc.
See Attachment C

Financial Capacity
Please indicate how project will be financed. If obtaining a bank loan, provide a letter from the bank See Attachment B

- Zoning district: OC-S Mixed Use Overlay
- Minimum lot size: 1 Acre
- Classification of proposed use: Residential
- Parcel size: 3.16 Acres
- Frontage: 348 feet
- Setbacks: Front 25 feet Side 10 feet Rear 15 feet
- Board of Appeals Required? No
- Tax Map R1 Lot 13B Deed book 31838 Deed page 3
- Floodplain map number 230162 0018 C Designation Zone C
- Vernal pool identified? No
- Is parcel in a subdivision? No
- Outside agency permits required:
  MDEP Tier 1 N/A MDEP Tier 2 N/A Army Corps of Engineers N/A
  MDEP general construction (stormwater) permit (for disturbance of 1 acre or more)
- MDOT entrance permit Yes
- MDOT traffic movement permit N/A
- Traffic study required N/A
- Hydrogeologic evaluation N/A
- Market study N/A
- Route 1 Design Guidelines? Yes
- Route 100, VMU or TCD Design Standards? N/A

Applicant's signature _____ Jonathan Snell, Snell Consulting LLC

Submission date: _____ David Spellman 100 US Rt 1 LLC

PLANNING BOARD SITE PLAN REVIEW
SUBMISSION CHECKLIST

FOR ALL PROJECTS:

Submission Requirement	**Provide Location in Application Packet (e.g., plan sheet number, binder section, narrative**	**If requesting a waiver, indicate below:**
Example: Erosion Control	*Plan Sheet E-1*	
General Information:		
Completed Site Plan Application Form	This Document	
Names and addresses of all consultants	Appendix C	
Narrative describing existing conditions and the proposed project	Narrative	
Evidence of right, title or interest (deed, option, etc.)	Appendix B	
Names and Addresses of all property owners within 200 feet	Appendix J	
Boundaries of all contiguous property under control of owner	Drawing C-101	
Tax map and lot numbers	Drawing C-101	
Area of the parcel	Narrative	
FEMA Floodplain designation & map #	This Document	
Zoning classification	Narrative	
Evidence of technical and financial capability to carry out the project	Appendix B and C	
Boundary survey	Drawing C-101	
List of waiver requests on separate sheet with reason for request.	Narrative	
Proposed solid waste disposal plan	Narrative	
Existing Conditions Plan showing:		
Name, registration number and seal of person who prepared plan	Drawing C-101	
North arrow, date, scale, legend	Drawing C-101	
Area of the parcel	Drawing C-101	
Setbacks and building envelope	Drawing C-101	
Utilities, including sewer & water, culverts & drains, on-site sewage	Drawing C-101	
Location of any septic systems	Drawing C-101	
Location, names, widths of existing public or private streets ROW's	Drawing C-101	

Location, dimension of ground floor elevation of all existing buildings	Drawing C-101	
Location, dimension of existing driveways, parking, loading, walkways	Drawing C-101	
Location of intersecting roads & driveways within 200 feet of the site	Drawing C-101	
Wetland areas	Drawing C-101	
Natural and historic features such as water bodies, stands of trees, streams, graveyards, stonewalls, floodplains	Drawing C-101	
Direction of existing surface water drainage across the site & off site	Drawing C-101	
Location, front view, dimensions and lighting of existing signs	Drawing C-101	
Location and dimensions of existing easements & copies of documents	Drawing C-101	
Location of nearest fire hydrant or water supply for fire protection	Drawing C-101	
Proposed Development Site Plan showing:		
Name of development	Drawing C-102	
Date	Drawing C-102	
North arrow	Drawing C-102	
Scale	Drawing C-102	
Legend	Drawing C-100	
Landscape plan	Drawing L-1	
Stormwater management	Drawing D-100 and D-101	
Wetland delineation	Drawing C-103	
Current & proposed stands of trees	Drawing C-103	
Erosion control plan	Drawing C-106	
Landscape plan		
Lighting/photometric plan		
Location and dimensions of all proposed buildings	Drawing C-103	
Location and size of utilities, including sewer, water, culverts and drains	Drawing C-104	
Location and dimension of proposed on-site septic system; test pit locations and nitrate plumes	N/A	
Location of wells on subject property and within 200’ of the site	N/A	
Location, names and widths of existing and proposed streets and ROW’s	Drawing C-103	

Location and dimensions of all accessways and loading and unloading facilities	Drawing C-103	
Location and dimension of all existing and proposed pedestrian ways	Drawing C-103	
Location, dimension and # of spaces of proposed parking areas, including handicapped spaces	Drawing C-103	
Total floor area and ground coverage of each proposed building and structure	Drawing C-103	
Proposed sign location and sign lighting		
Proposed lighting location and details	Drawing C-104	
Covenants and deed restrictions proposed	Drawing C-101	
Snow storage location	Drawing C-103	
Solid waste storage location and fencing/buffering	Drawing C-103	
Location of all fire protection	Drawing C-104	
Location of all temporary & permanent monuments	Drawing C-101	
Street plans and profiles	N/A	

ADDITIONAL REQUIREMENTS FOR MAJOR SITE PLAN PROJECTS:

Submission Requirement	**Provide Location in Application Packet (e.g., plan sheet number, binder section, narrative**	**If requesting a waiver, indicate below:**
High intensity soils survey	N/A	✓
Hydro geologic evaluation	N/A	✓
Traffic Study	Narrative	
Market Study	N/A	✓
Location of proposed recreation areas (parks, playgrounds, other public areas)	N/A	
Location and type of outdoor furniture and features such as benches, fountains.	N/A	

TOWN OF CUMBERLAND
PLANNING BOARD SUBDIVISION AND SITE PLAN REVIEW APPLICATION
BROAD COVE RIDGE CONDOMINIUMS
CUMBERLAND, MAINE

1.0 PROJECT DESCRIPTION

The Snell Construction, LLC (Applicant) proposes to develop a new 50-unit condominium building called the Broad Cove Ridge project at 100 US Route One in Cumberland, Maine. The existing property is currently owned by Dave Spellman OF 100 US Route One, LLC. The location of the project is shown in Figure 1, Site Location Map. The project is subject to Subdivision and Site Plan Review by the Town of Cumberland Planning Board. This application provides detailed project information and outlines compliance with the applicable sections of the Town Ordinance.

The 3.16-acre property is bounded by Interstate 295 (I-295) to the west, US Route One (US 1) to the east, the Ledgeview Assisted Living facility to the south, and a residential property to the north. The parcel is identified as Lot 13B on Cumberland Tax Map R1 and is located within the Office Commercial-South (OC-S) and OC-S Mixed Use Overlay Zone on the Official Zoning Map. A copy of the deed documents and the purchase & sales documents are provided in Appendix A. The property is primarily undeveloped forested land with a stream that generally parallels US 1 before turning west on the north portion of the property. There is an existing 100-foot Beautification Setback along the western boundary line parallel to the I-295 Right of Way.

The project will include a property transfer between Ledgeview Properties, LLC and 100 US Route 1, LLC for a 0.1-acre (ac) triangular portion of the Ledgeview Properties, LLC property to the 100 US Route 1, LLC parcel. This transfer will expand the property to 3.26 acres and permit the full build-out of the proposed development.

The Broad Cove Ridge condominium project will include a five story, 12.800-square-foot building that will include a mix of one-bedroom, two-bedroom, and three-bedroom condo units to be offered for sale. The site construction will include area for 96 parking spaces with 9 identified as visitor parking and 4 as ADA accessible parking spaces. Of these parking spaces, twenty-two will be within the lower level of the building as covered parking. The project will have site access from a new 24-foot access drive from US Route 1. Additional site improvements include public water and sewer, underground utilities, stormwater management, site lighting, and landscaping.

The development will feature a closed stormwater management system, including catch basins and underground storm drain piping for the roadway and parking lots. A detention pond will be provided east of the proposed building to control peak flows from the developed property.

Construction of the project is expected to result in approximately 76,101 square feet (1.75 acres) of developed area and approximately 43,450 square feet of new impervious surface. Based on review of the Maine Department of Environmental Protection (MEDEP) requirements, this project will require a MEDEP Stormwater Permit by Rule (PBR) permit prior to the start of construction. The Stormwater PBR permit will be submitted, and a copy provided to the Town prior to the Planning Board meeting.

The site is encumbered with a stream and associated wetlands that include 25-foot and 75-foot setbacks along the stream in the north and east portions of property. Portions of the building, parking, stormwater management areas, and site grading are with the 75-foot buffer of the stream, but outside of the 25-foot buffer. This work will require a MEDEP NRPA Permit-by-Rule notification for activities adjacent to a natural resource as well as the stream crossing proposed for the access road into the site. The stream crossing has been designed to comply with the MEDEP PBR and Army Corps of Engineers standards, including provided a clear opening of greater than 1.2 the bank-full width of the stream. The NRPA permit will be submitted to MEDEP separate from this application prior to the Planning Board meeting. A copy of the application will be provided to the Town.

This project will require a Driveway Entrance Permit from the Maine Department of Transportation (MEDOT) at the intersection with and US Route 1. SME met with Tony Fontaine of the MEDOT to review the project and the Entrance Permit is the only requirement of the MEDOT. The MEDOT Driveway Entrance Permit will be submitted, and a copy provided to the Town prior to the Planning Board meeting.

The remaining details for the project are described in the following Section which defines how the project complies with the applicable Chapters of the Town of Cumberland Zoning and Site Plan Review Ordinances.

BASEMAP ADAPTED FROM 7.5 MIN USGS TOPO QUADS
YARMOUTH, ME - 1975
PORTLAND-EAST, ME - 1975

1000 0 2000 FEET

DWG: SITELOC LMN: NONE CTB: SME-STD REV: 5/25/2021

FIGURE 1
SITE LOCATION MAP
BROAD COVE RIDGE CONDOMINIUMS
CUMBERLAND, MAINE

SME
SEVEE & MAHER
ENGINEERS

\\Nserver\cfs\Platz Associates\Route 1 Cumberland Condos\Acad\Figures\SITELOC.dwg, 5/25/2021 11:17:56 AM, bwb

2.0 CHAPTER 229 – SITE PLAN REVIEW

2.1 §229-4 Waivers and modifications

As part of this application, the Applicant requests the following waivers from the Site Plan Review ordinance:

- A waiver from performing a high intensity soil survey for the project. A medium density soil survey from a Custom Soil Resource Report by the U.S. Natural Resources Conservation Service (NRCS) and a series of test pits on the property were used to evaluate suitability for construction on the property.
- A waiver from performing a hydrogeological evaluation for the project. The site is served by public water and sewer, therefore there will be no subsurface wastewater disposal or other anticipated groundwater impacts associated with this project. The site is not within the watershed of a significant sand and gravel aquifer.
- A waiver from performing a market study. The proposed use of the site is consistent with existing developments along Route One. Based on the proposed use and function of this property, a market study does not apply to this project.
- A waiver from marking all trees greater than 10-inches in caliper.

2.2 §229-8 Financial and Technical Capacity

The Applicant has provided a letter in Appendix B to prove financial capacity to complete the project.

Technical capacity and contact information for Sevee & Maher Engineers, Inc. (SME) is provided in Appendix C.

2.3 229-10 Approval Standards and Criteria

A. Utilization of the Site

The project has been designed within the site constraints to provide the appropriate building area and minimize impact to adjacent properties and natural resources. The parcel is not currently located in an environmentally sensitive area or a significantly mapped sand and gravel aquifer.

The Maine Natural Areas Program (MNAP) identified no rare, threatened, or endangered plant species within the project area. The Maine Department of Inland Fisheries and Wildlife (MDIFW) Service has not mapped designated essential or significant wildlife habitats in the project area. Tree clearing is necessary

for this project and will not affect Maine's endangered species of bats. Request letters and responses from the MNAP and MDIFW are included in Appendix D for reference.

The stream and associated wetlands on the property are being protected as much as possible through avoidance of impacts within 25-feet of the stream and providing appropriate

B. Traffic, Circulation and Parking

The project site will be accessed from US 1 with a 24-foot-wide access drive sized to accommodate the Town of Cumberland Fire Department's 46-foot-long ladder truck. The entrance location will provide much greater than 500-feet of sight distance to the north and south as US 1 is straight with minimal change in grade at this location. The proposed multiplex 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. The anticipated number of daily vehicle trips generated will be 5.86 per dwelling unit (for a residential condominium), as established by the Trip Generation Manual, published by the Institute of Transportation Engineers. At full build out, the total anticipated weekday trips form the multiplex will be 293 trips. The peak hour trips were analyzed as well, and it is estimated that the development will result in 22 trips in the weekday a.m. peak hour and 27 trips in the weekday p.m. peak hour. This is well below the 100 peak hour trips that would trigger further review by the MEDOT. During a project review meeting with Tony Fontaine of MEDOT, there were no high-crash locations within the area or other issues identified for the access onto US 1.

The project will provide 96 parking spaces for the 50 condo units proposed. The ordinance requires 1.5 parking spaces per condominium which totals up to 75 parking spaces. The proposed parking area and drive aisles were designed to meet the requirements for ninety-degree off-street parking outlined in this Ordinance. The Site Layout Plan, Drawing C-103, outlines design and construction dimensions for the proposed parking area. The 98 parking spaces include 22 resident parking spaces in the lower level of the building, 9 visitor parking spaces, 4 ADA accessible parking spaces and the remaining 63 will serve as exterior resident parking.

Site circulation has been designed to provide two-way access within the parking areas as well as a one-way in and one-way out of the below-building parking spaces. The circulation has also been designed to accommodate access by the Town of Cumberland 46-foot ladder truck. The truck will be able to access the rear of the building and turn around using the two striped areas adjacent to the below-building parking entrance.

Pedestrian access at the site will be limited to the four building entrances. The various changes in grade and the constraints imposed by the 100-foot beautification trip and stream setbacks limited what could be accomplished with pedestrian connectivity and internal circulation. There will be a grassed area east of the building in and around the proposed detention basin that can be used for outdoor gatherings.

C. Stormwater Management and Erosion Control

Stormwater management of the site is described in detail in the Stormwater Management Report included as Appendix E.

All grading, filling, and associated site construction will be conducted in accordance with the Maine Erosion and Sediment Control Best Management Practices (BMPs), latest edition dated October 2016. This will be the minimum standard for erosion and sedimentation control for the project, as adopted by the Town of Cumberland from the Maine Department of Environmental Protection (DEP) standards. Erosion and sedimentation control notes and details are included on Drawing C-106, Drawing C-300, and Drawing C-301.

D. Water, Sewer and Fire Protection

Public water for Broad Cove Ridge Condominium will be supplied by the Portland Water District (PWD). The proposed Condominium multiplex will have 13 one-bedroom condos and 37 two-bedroom. Design flow for the proposed condominium is estimated of 180 gallons per day for two bedroom per condo unit and 120 gallons per day for one bedroom per condo for a total of 8,220 gallons per day.

SME has requested a capacity to serve letter from the Portland Water District (PWD) to verify adequate water supply for the proposed project and will provide a final authorization letter once received from PWD. A copy of the capacity request letter is provided in Appendix F. Separate water entrances for domestic water and sprinkler services have been coordinated with PWD and are shown into the building at the site.

The parcel will be serviced by the Town sewer system along US 1 that was constructed as a low-pressure gravity system several years ago. The existing system was designed with an extra 2-inch force main pipe connection at the manhole immediately north of the Ledgeview Assisted Living's northerly driveway. This project will extend the force main to a proposed manhole at the access drive entrance and provide a 2-inch stub for connections that may occur from the north. The lift station design was completed for the 50-unit condominium building and is included within the submitted drawing set.

The proposed building will be sprinklered for fire protection. The water entrance into the Broad Cove Ridge Condominium property will be separated into a domestic water entrance and sprinkler entrance at the request of PWD, providing more reliable sprinkler access.

Existing utilities are shown on the Existing Conditions Plan, Drawing C-101. Proposed water and sewer utilities are shown on the Site Utilities Plan, Drawing C-104.

E. Water Protection

There will be no groundwater used or hazardous materials discharged as a result of this project. The property is not located within an area designated as a source protection area or a sand and gravel aquifer.

No effects to groundwater are anticipated from this project. Pavement will be graded to drain away to minimize runoff or snow melt impact to infrastructure.

F. Floodplain Management

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the project area is included in Appendix H. The project is located in Zone C and is indicated as an area of minimal flood hazard.

G. Historic and Archaeological resources.

A site review has been requested from the Maine Historic Preservation Commission (MHPC). A copy of the request for review and the written response from the MHPC is provided in Appendix I. There are no known National Register eligible properties or areas considered sensitive for archaeological resources.

H. Exterior Lighting

Exterior lighting proposed for the site will provide adequate lighting to provide lighting for residents as they enter the building. The lighting at the property has been minimized to the areas of the site where use is expected during nighttime or early morning hours. The sight lights will be full cut-off LED lights that are located around the outside of the building and parking lot. A Site Photometric Plan showing the light distribution at the property is provided as Appendix M.

I. Buffering and Landscaping

Buffering of the site from adjacent properties will be accomplished through preservation of existing vegetation and the addition of proposed plantings shown on the Landscape Plan, L-1. The views from I-295 to the west will be well buffered through the 100-foot beautification setback parallel to the property line. The residential property to the north will be buffered by a minimum of 35-feet of existing vegetation at the northern most point of the parking lot. This protected vegetative buffer expands to 65-feet at the closest point to the building. Additionally, there is approximately 80-feet of wooded area on the abutter's property prior to the clearing for the house. The views from US 1 will be buffered with the existing vegetation remaining along the stream.

The views from Ledgeview Assisted Living will be buffered by a change in site grade as the parking area will be approximately 10-feet below the elevation at the property corner and to the south and 4 to 6-feet below at the visitor parking area. The view of the building will be buffered by the grade and by the proposed landscaping.

Landscape design was completed by Peter Beigel, ASLA of Land Design Solutions in Cumberland. A landscape plan outlining planting location and species is included in the project plan set. The landscaping will have variety of plants to provide seasonal colors and variety of heights.

J. Noise

The noise levels of the proposed Condominium multiplex are expected to be under 65 dB between 7:00 am and 10:00 pm and under 55 dB between 10:01 pm and 6:59 am.

Construction of the project will generally occur between the hours of 7:00 am and 7:00 pm on Mondays through Fridays unless otherwise approved by the Town. The project will require ledge removal for the building construction and site grading. A Blasting Plan will be prepared and reviewed with Town Staff prior to start of construction.

K. Storage of Materials

There will be no storage of hazardous materials on site. A dumpster pad is proposed on site and will be enclosed with a gated fence. The location of the dumpster receptacle is outlined on the Site Layout Plan.

L. Capacity of the Applicant

Financial and technical capacity of The Applicant are outlined in Appendices B and C of this application.

M. Design and Performance Standards

Proposed Condominium project is consistent with the performance standards of Route 1 Design Guidelines. New buildings, proposed lighting, drainage design, parking standards, and landscaping are in conformance with §315-Zoning Route 1 Design Guidelines. A narrative describing conformance with these guidelines is provided in Appendix K.

3.0 CHAPTER 250 – SUBDIVISION OF LAND

3.1 250-4 Subdivision Approval Criteria

This section addresses each of the provisions presented in Article I – General Provisions of Chapter 250: Subdivision of Land.

A Pollution

The proposed multiplex will not result in undue water or air pollution.

1. The property is not within a 100-year floodplain as shown in the FEMA Firmette maps included in Appendix H.
2. The proposed building will be connected to the public sewer system. The soils will not be impacted.
3. The impact of pollution from surface runoff will be minimized through erosion control best management practices during and after construction.

4. The project will include a 25 ft stream setback per MEDEP standards to protect the existing waterway on the north and east portions of the property. The setback is shown on the drawing set and building windows have been adjusted to reflect the setback.
5. State and local health and water resource rules and regulations will be adhered to in the design of stormwater management system.

B. Sufficient water

Public water for Broad Cove Ridge Condominium will be supplied by the Portland Water District (PWD). The proposed Condominium multiplex will have 13 one-bedroom condos and 37 two-bedroom. Design flow for the proposed condominium is estimated of 180 gallons per day for two bedroom per condo unit and 120 gallons per day for one bedroom per condo for a total of 8,220 gallons per day.

C. Municipal water supply

The proposed condominium will be served by municipal water.

SME has requested a capacity to serve letter from the Portland Water District (PWD) to verify adequate water supply for the proposed project and will provide a final authorization letter once received from PWD. A copy of the capacity request letter is provided in Appendix F. Separate water entrances for domestic water and sprinkler services have been coordinated with PWD and are shown into the two buildings at the site.

D. Erosion.

See the Erosion and Sedimentation Control Plan located on Drawing C-106.

E. Traffic

The proposed multiplex 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 as described in Section 2.3.A of this application>

F. Sewage disposal.

The parcel will be serviced by a 160-foot extension of the Town's 2-inch force main along US 1 which will convey the approximately 8,220 GPD of anticipated wastewater. A capacity request letter was sent to the Town and the response will be forwarded once received.

G. Municipal solid waste disposal.

The project will be serviced by private waste haulers from the on-site dumpster provided on the plans.

H. Aesthetic, cultural, and natural values

The proposed subdivision will not have an undue adverse effect on the scenic or natural beauty of the area. Aesthetics, historic sites, significant wildlife habitat, or rare and irreplaceable natural areas have not been identified on the property. Letters from the Maine Department of Inland Fisheries and Wildlife (MDIFW) and the Maine historic Preservation Commission (MHPC) are included in Appendix D and I.

I. Conformity with local ordinances and plans.

The proposed multiplex conforms to Cumberland Ordinance Section 229- Site Plan Review, Section 250- Subdivision of Land, Section 315- Zoning, and the Route 1 Design Guidelines.

J. Financial and technical capacity.

Evidence of financial and technical capacity is included in Appendix B and C.

K. Surface waters; outstanding river segments.

The proposed project will not adversely affect the quality of the mapped wetland or unreasonably affect the shoreline of the stream on the parcel. Plans include a MEDEP 25-foot stream setback to protect the resource.

L. Groundwater

The proposed project will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater. There is no septic system on site.

M. Flood areas

Based on the Federal Emergency Management Agency's Flood Boundary and Floodway Maps and Flood Insurance Rate Maps, the project is not in a flood-prone area. FEMA Firmette maps are included in Appendix H.

N. Stormwater

The proposed multiplex will provide for adequate stormwater management. A Stormwater Permit-By-Rule application has been submitted to MEDEP. A copy of the stormwater management report supporting the application is included in Appendix E.

O. Freshwater wetlands.

All wetlands within the proposed multiplex are outlined in the project plan set. There are minimal impacts to the wetlands to accommodate the stream crossing for the proposed access drive.

P. River, stream, or brook

An unnamed tributary to Chenery Brook is located within the proposed multiplex and outlined in the project plan set.

3.2 250-29 - Review and approval by other agencies.

A Stormwater Permit by Rule and Natural Resources Protection Act (NRPA) Permit by Rule are required from the Maine Department of Environmental Protection (MEDEP). The Stormwater Permit by Rule and NRPA Permit by Rule will be submitted, and a copy provided to the Town prior to the Planning Board meeting.

3.3 250-30 - Conformity with other state and local regulations.

The proposed multiplex is in conformance with the comprehensive plan for the Town of Cumberland and with the provisions of all pertinent state and local codes and ordinances.

3.4 250-31 – Common open spaces.

There are no proposed public sites or dedicated open spaces associated with the proposed development.

3.5 250-23 - Preservation of natural features

There are no significant historic features associated with the existing property as described in the MHPC letter included in Appendix D. The existing stream will be preserved and protected from the proposed development using a 25-foot stream setback.

3.6 250-27 - Utilities.

Proposed underground utilities include public water, public sewer with a pump station, natural gas through Summit, electric and communications services, as well as a closed stormwater management system.

Existing utilities are shown on the Existing Conditions Plan, Drawing C-101. Proposed utilities are shown on the Site Utilities Plan, Drawing C-104.

3.7 250-28 - Water supply.

Public water for Broad Cove Ridge Condominium will be supplied by the Portland Water District (PWD). The proposed Condominium multiplex will have 13 one-bedroom condos and 37 two-bedroom. Design flow for the proposed condominium is estimated of 180 gallons per day for two bedroom per condo unit and 120 gallons per day for one bedroom per condo for a total of 8,220 gallons per day.

SME has requested a capacity to serve letter from the Portland Water District (PWD) to verify adequate water supply for the proposed project and will provide a final authorization letter once received from PWD. A copy of the capacity request letter is provided in Appendix F. Separate water entrances for domestic water and sprinkler services have been coordinated with PWD and are shown into the building at the site.

The proposed building will be sprinklered for fire protection. The single water entrance into the Broad Cove Ridge Condominium will be separated into a domestic water entrance and sprinkler entrance at the request of PWD, providing more reliable sprinkler access.

APPENDIX A

TITLE, RIGHT, OR INTEREST

SME
SEVEE & MAHER
ENGINEERS

(2)

SHORT FORM WARRANTY DEED

Frederick B. Jensen and **Darleen E. Jensen** of 10 Brookfield Road, Falmouth, ME, 04105, FOR CONSIDERATION PAID, grant to **100 US Route 1 LLC**, a Maine limited liability company, with a mailing address of c/o David Spellman, 127 Foreside Road, Cumberland, ME, 04110, with WARRANTY COVENANTS, the following described real property located in the Town of Cumberland, County of Cumberland and State of Maine:

A certain lot or parcel of land located on the westerly side of US Route One in the Town of Cumberland, County of Cumberland and State of Maine, described as follows:

BEGINNING at a 5/8" rebar located on the westerly sideline of U.S. Route One marking the southeasterly corner of land now or formerly Glenn S. Porter as described in an instrument recorded in the Cumberland County Registry of Deeds in Book 10526, Page 233; thence

SOUTH 12°-04'-36" WEST along the westerly sideline of U.S. Route One, a distance of three hundred forty-eight and 00/100 (348.00) feet to a 5/8" rebar at land now or formerly Ledgeview Properties, LLC as described in an instrument recorded in said Registry of Deeds in Book 17591, Page 242; thence

NORTH 45°-48'-00" WEST along land of said Ledgeview Properties, LLC, a distance of two hundred nine and 98/100 (209.98) feet to a 5/8" rebar; thence

SOUTH 54°-59'-52" WEST continuing along land of said Ledgeview Properties, LLC, a distance of ninety-five and 03/100 (95.03) feet to a 5/8" rebar; thence

NORTH 54°-42'-05" WEST continuing along land of said Ledgeview Properties, LLC, a distance of two hundred and 62/100 (200.62) feet to a 5/8" rebar located on the easterly sideline of Interstate I-95; thence

NORTH 25°-46'-38" EAST along the easterly sideline of Interstate I-95, a distance of three hundred seventy-four and 57/100(374.57) feet to a 5/8" rebar at land of Porter as previously described; thence

SOUTH 55°-51'-33" EAST along land of said Porter, a distance of three hundred sixty-four and 93/100 (364.93) feet to the POINT OF BEGINNING.

The parcel herein described is the remaining portion of land described in an instrument recorded in the Cumberland County Registry of Deeds in Book 10386, Page 175

Bearings herein are referenced to magnetic meridian of the year 1991.

MAINE REAL ESTATE TAX PAID

This conveyance is made subject to any easements and/or right-of-ways of record, including a one hundred foot wide beautification easement adjoining the easterly sideline of Interstate I-95 to the State of Maine, dated May 28, 1969 recorded in Cumberland County Registry of Deeds in Book 3087, Page 593 and an easement granted by the Grantors herein to Ledgeview Properties, LLC in an instrument recorded in said Registry of Deeds in Book 17951, Page 242.

This conveyance is subject to an easement for the location and maintenance of a leach bed drainage plume associated with the nursing home leach bed located on the property and bounded and described as follows:

Commencing at a No. 5 rebar located on the westerly sideline of Route One, said rebar marking the northeasterly corner of land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89; thence

NORTH 54° 42' 05" WEST along land now or formerly of Jensen, as described in a deed recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89, a distance of two hundred sixty-three and 93/100 (263.93) feet to the point of beginning; thence

NORTH 54° 42' 05" WEST along land now or formerly of Jensen, as described in a deed recorded in said Registry of Deeds in Book 8492, Page 89, a distance of two hundred and 62/100 (200.62) feet to a No. 5 rebar located on the easterly sideline of Interstate I-95; thence

NORTH 25° 46' 38" EAST along the easterly sideline of Interstate I-95, a distance of one hundred thirty-one and 11/100 (131.11) feet to a point; thence

SOUTH 45° 48' 00" EAST crossing over other land now or formerly of Jensen, as described in a deed recorded in said Registry of Deeds in Book 10386, Page 175, a distance of two hundred fifty-seven and 44/100 (257.44) feet to a point; thence

SOUTH 54° 59' 52" WEST crossing over other land now or formerly of Jensen, as described in a deed recorded in said Registry of Deeds in Book 10386, Page 175, a distance of ninety-five and 03/100 (95.03) feet to the point of beginning. Bearings are magnetic of the 1991.

The premises are conveyed together with and subject to any and all easements or appurtenances of record, insofar as the same are in force and applicable.

Meaning and intending to convey and hereby conveying a portion of the same premises conveyed to the Grantors herein by deed of the Trustees of Twin Town Trust, dated November 2, 1992 and recorded in the Cumberland County Registry of Deeds in Book 10386, Page 175.

(7)

WITNESS our hands this 9th day of October, 2014.

WITNESS

Frederick P. Jensen

Darleen E. Jensen

STATE OF MAINE
Cumberland, ss.

October 9, 2014

Personally appeared the above named Frederick P. Jensen and Darleen E. Jensen and acknowledged the foregoing instrument to be their free act and deed.

Before me,

Notary Public/Attorney at Law

SUSAN GAGE KNEDLER
Notary Public. Maine
My Commission Expires November 22 2018

print name

S:\CStoddard\DOCUMENT\CRS\Closings\2014\J\Jensen 5518-14\deed.wpd

Received
Recorded Register of Deeds
Oct 09,2014 03:29:37P
Cumberland County
Pamela E. Lovley

PURCHASE AND SALE AGREEMENT - LAND ONLY

("days" means business days unless otherwise noted, see paragraph 20)

February 27 , **2021**
Offer Date

March 2, 2021 , _____ Effective Date
Effective Date is defined in Paragraph 20 of this Agreement.

1. PARTIES: This Agreement is made between **Snell Construction LLC (Jon Snell)** ("Buyer") and **100 US Route 1 LLC (David S. Spellman)** ("Seller").

2. DESCRIPTION: Subject to the terms and conditions hereinafter set forth, Seller agrees to sell and Buyer agrees to buy [X] all [ ] part of (if "part of" see para. 22 for explanation) the property situated in municipality of **Cumberland**, County of **Cumberland**, State of Maine, located at **102 US Route 1** and described in deed(s) recorded at said County's Registry of Deeds Book(s) **31838** _____, Page(s) **003** _____.

3. PURCHASE PRICE/EARNEST MONEY: For such Deed and conveyance Buyer agrees to pay the total purchase price of $**350,000.00**. Buyer [ ] has delivered; or [X] will deliver to the Agency within **5** days of the Effective Date, a deposit of earnest money in the amount $**5,000.00**. Buyer agrees that an additional deposit of earnest money in the amount of $**n/a** will be delivered **n/a**. If Buyer fails to deliver the initial or additional deposit in compliance with the above terms Seller may terminate this Agreement. This right to terminate ends once Buyer has delivered said deposit (s). The remainder of the purchase price shall be paid by wire, certified, cashier's or trust account check upon delivery of the Deed.

This Purchase and Sale Agreement is subject to the following conditions:

4. ESCROW AGENT/ACCEPTANCE: **Keller Williams Realty** ("Agency") shall hold said earnest money and act as escrow agent until closing; this offer shall be valid until **March 1, 2021** (date) **5:00** [ ] AM [X] PM; and, in the event of non-acceptance, this earnest money shall be returned promptly to Buyer.

5. TITLE AND CLOSING: A deed, conveying good and merchantable title in accordance with the Standards of Title adopted by the Maine Bar Association shall be delivered to Buyer and this transaction shall be closed and Buyer shall pay the balance due and execute all necessary papers on **See #26** (closing date) or before, if agreed in writing by both parties. If Seller is unable to convey in accordance with the provisions of this paragraph, then Seller shall have a reasonable time period, not to exceed 30 calendar days, from the time Seller is notified of the defect, unless otherwise agreed to in writing by both Buyer and Seller, to remedy the title. Seller hereby agrees to make a good-faith effort to cure any title defect during such period. If, at the later of the closing date set forth above or the expiration of such reasonable time period, Seller is unable to remedy the title, Buyer may close and accept the deed with the title defect or may terminate this Agreement in which case the parties shall be relieved of any further obligations hereunder and any earnest money shall be returned to the Buyer.

6. DEED: The property shall be conveyed by a **Warranty** deed, and shall be free and clear of all encumbrances except covenants, conditions, easements and restrictions of record which do not materially and adversely affect the continued current use of the property.

7. POSSESSION: Possession of premises shall be given to Buyer immediately at closing unless otherwise agreed in writing.

8. RISK OF LOSS: Until the closing, the risk of loss or damage to said premises by fire or otherwise, is assumed by Seller. Buyer shall have the right to view the property within 24 hours prior to closing for the purpose of determining that the premises are in substantially the same condition as on the date of this Agreement.

9. PRORATIONS: The following items, where applicable, shall be prorated as of the date of closing: rent, association fees, (other) **none**. Real estate taxes shall be prorated as of the date of closing (based on municipality's fiscal year). Seller is responsible for any unpaid taxes for prior years. If the amount of said taxes is not known at the time of closing, they shall be apportioned on the basis of the taxes assessed for the preceding year with a reapportionment as soon as the new tax rate and valuation can be ascertained, which latter provision shall survive closing. Buyer and Seller will each pay their transfer tax as required by State of Maine.

10. DUE DILIGENCE: Buyer is encouraged to seek information from professionals regarding any specific issue or concern. Neither Seller nor Licensee makes any warranties regarding the condition, permitted use or value of Sellers' real property. This Agreement is subject to the following contingencies, with results being satisfactory to Buyer:

 Buyer(s) Initials DS _____ _____ _____ Seller(s) Initials DS _____ _____ _____ _____

CONTINGENCY	YES	NO	FULL RESOLUTION	OBTAINED BY	TO BE PAID FOR BY
1. SURVEY	X		within **Done** days	**Seller**	**Seller**
Purpose: **Survey work completed by Sevee & Maher Engineers Cumberland Center, ME**					
2. SOILS TEST		X	within _____ days		
Purpose:					
3. SEPTIC SYSTEM DESIGN	X		within **30** days	**Buyer**	**Buyer**
Purpose: **To confirm costs associated with hook up to town sewer on Route 1**					
4. LOCAL PERMITS	X		within **6 Months +/-** days	**Buyer & Seller**	**Buyer**
Purpose: **To go before Cumberland Planning Board w/building design provided by buyers architect for approval**					
5. HAZARDOUS WASTE REPORTS	X		within **10** days	**Seller**	**Seller**
Purpose: **Seller to provide any/all reports on any type of waste on property**					
6. UTILITIES	X		within **30** days	**Buyer**	**Buyer**
Purpose: **Buyer to obtain estimates for all utilities needed for building project**					
7. WATER	X		within **30** days	**Buyer**	**Buyer**
Purpose: **Confirm town water hook up and estimate from water department**					
8. SUB-DIVISION APPROVAL		X	within _____ days		
Purpose:					
9. DEP/LUPC/ACOE APPROVALS	X		within **6 month +/-** days	**Buyer & Seller**	**Buyer**
Purpose: **To obtain any needed permits for Buyers proposed building**					
10. ZONING VARIANCE		X	within _____ days		
Purpose:					
11. HABITAT REVIEW/ WATERFOWL		X	within _____ days		
Purpose:					
12. REGISTERED FARMLAND		X	within _____ days		
Purpose:					
13. MDOT DRIVEWAY/ ENTRANCE PERMIT	X		within **60** days	**Buyer**	**Buyer**
Purpose: **Buyer to obtain driveway permit from MDOT**					
14. DEED RESTRICTION		X	within _____ days		
Purpose:					
15. TAX STATUS*		X	within _____ days		
Purpose:					
16. BUILD PACKAGE	X		within **6 Months +/-** days	**Buyer**	**Buyer**
Purpose: **Buyer to have architect design building(s) for property and obtain approval/permits from Cumberland Town**					
17. OTHER		X	within _____ days		
Purpose:					

* If the land is enrolled in the Maine Tree Growth Tax program, Seller agrees to provide Buyer with the current Forest Management and Harvest Plan within **n/a** days. ☐ Yes ☒ No

Further specifications regarding any of the above: **Buyer requests Seller to assist and or take lead on working with Cumberland Planning Board and or other boards to obtain necessary permits for construction of apartment and or condo building(s). Permitting may include blasting for parking and 4 floors to 50' max height of structures.**

Unless otherwise specified above, all of the above will be obtained and paid for by Buyer. Seller agrees to cooperate with Buyer and shall give Buyer and Buyer's agents and consultants reasonable access to the property in order to undertake the above investigations. Buyer agrees to take reasonable steps to return the property to its pre-inspection condition. If the result of any investigation or other condition specified herein is unsatisfactory to Buyer in Buyer's sole discretion, Buyer will declare the Agreement null and void by notifying Seller in writing within the specified number of days, and any earnest money shall be returned to Buyer. If the result of any investigation or other condition specified herein is unsatisfactory to Buyer, and Buyer wishes to pursue remedies other than voiding the Agreement, Buyer must do so to full resolution within the time period set forth above; otherwise this contingency is waived. If Buyer does not notify Seller that an investigation is unsatisfactory within the time period set forth above, or if any investigation under this paragraph is not performed or completed during the period specified in this paragraph, this contingency and the right to conduct an investigation are waived by Buyer. In the absence of inspection(s) mentioned above, Buyer is relying completely upon Buyer's own opinion as to the condition of the property.

11. FINANCING: Buyer's obligation to close:

Not Subject to Financing

☐ is not subject to a financing contingency. Buyer has provided Seller with acceptable proof of the funds.

☐ is not subject to a financing contingency. Buyer shall provide proof of the funds acceptable to Seller within **n/a** days. If such proof is unacceptable to Seller, Seller may terminate this Agreement no later than **n/a** days from receipt. If proof of funds is not provided within such time period, Seller may terminate this Agreement which right shall end once such proof is received, however Seller retains the agreed upon time period to terminate if such proof is unacceptable. If Seller terminates in either case, the earnest money shall be returned to Buyer.

☐ Buyer's ability to purchase ☐ is ☒ is not subject to the sale of another property. See addendum ☐ Yes ☒ No.

Subject to Financing

☒ Buyer's obligation to close is subject to financing as follows:

a. Buyer's obligation to close is subject to Buyer obtaining a **Land Loan** loan of **80.000** % of the purchase price, at an interest rate not to exceed **Prevailing** % and amortized over a period of **10** years. Buyer is under a good faith obligation to seek and obtain financing on these terms. If such financing is not available to Buyer as of the closing date, Buyer is not obligated to close and may terminate this Agreement in which case the earnest money shall be returned to Buyer.

b. Buyer to provide Seller with letter from lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested within **5** days from the Effective Date of the Agreement. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.

c. Buyer hereby authorizes, instructs and directs its lender to communicate the status of the Buyer's loan application to Seller, Seller's licensee and Buyer's licensee.

d. After (b) is met, if the lender notifies Buyer that it is unable or unwilling to provide said financing, Buyer is obligated to provide Seller with written documentation of the loan denial within two days of receipt. After notifying Seller, Buyer shall have **3** days to provide Seller with a letter from another lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.

e. Buyer agrees to pay no more than **0** points. Seller agrees to pay up to $**Zero** toward Buyer's actual pre-paids, points and/or closing costs, but no more than allowable by Buyer's lender.

f. Buyer's ability to obtain financing ☐ is ☒ is not subject to the sale of another property. See addendum ☐ Yes ☒ No.

g. Buyer may choose to pay cash instead of obtaining financing. If so, Buyer shall notify Seller in writing including providing proof of funds and the Agreement shall no longer be subject to financing, and Seller's right to terminate pursuant to the provisions of this paragraph shall be void and Seller's obligations pursuant to 11e shall remain in full force and effect.

12. BROKERAGE DISCLOSURE: Buyer and Seller acknowledge they have been advised of the following relationships:

Matt Cartmell (**011648**) of **Keller Williams Realty** (**3005**)
Licensee MLS ID Agency MLS ID

is a ☐ Seller Agent ☐ Buyer Agent ☒ Disc Dual Agent ☐ Transaction Broker

Matt Cartmell (**011648**) of **Keller Williams Realty** (**3005**)
Licensee MLS ID Agency MLS ID

is a ☐ Seller Agent ☐ Buyer Agent ☒ Disc Dual Agent ☐ Transaction Broker

If this transaction involves Disclosed Dual Agency, the Buyer and Seller acknowledge the limited fiduciary duties of the agents and hereby consent to this arrangement. In addition, the Buyer and Seller acknowledge prior receipt and signing of a Disclosed Dual Agency Consent Agreement.

13. PROPERTY DISCLOSURE FORM: Buyer acknowledges receipt of Property Disclosure Form.

14. DEFAULT/RETURN OF EARNEST MONEY: Buyer's failure to fulfill any of Buyer's obligations hereunder shall constitute a default and Seller may employ all legal and equitable remedies, including without limitation, termination of this Agreement and forfeiture by Buyer of the earnest money. Seller's failure to fulfill any of Seller's obligations hereunder shall constitute a default and Buyer may employ all legal and equitable remedies, including without limitation, termination of this Agreement and return to Buyer of the earnest money. Agency acting as escrow agent has the option to require written releases from both parties prior to disbursing the earnest money to either Buyer or Seller. In the event that the Agency is made a party to any lawsuit by virtue of acting as escrow agent, Agency shall be entitled to recover reasonable attorney's fees and costs which shall be assessed as court costs in favor of the prevailing party.

15. MEDIATION: Earnest money or other disputes within the jurisdictional limit of small claims court will be handled in that forum. All other disputes or claims arising out of or relating to this Agreement or the property addressed in this Agreement (other than requests for injunctive relief) shall be submitted to mediation in accordance with generally accepted mediation practices. Buyer and Seller are bound to mediate in good faith and to each pay half of the mediation fees. If a party fails to submit a dispute or claim to mediation prior to initiating litigation (other than requests for injunctive relief), then that party will be liable for the other party's legal fees in any subsequent litigation regarding that same matter in which the party who failed to first submit the dispute or claim to mediation loses in that subsequent litigation. This clause shall survive the closing of the transaction.

16. PRIOR STATEMENTS: Any representations, statements and agreements are not valid unless contained herein. This Agreement completely expresses the obligations of the parties and may only be amended in writing, signed by both parties.

17. HEIRS/ASSIGNS: This Agreement shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns of the Seller and the assigns of the Buyer.

18. COUNTERPARTS: This Agreement may be signed on any number of identical counterparts, such as a faxed copy, with the same binding effect as if the signatures were on one instrument. Original, faxed or other electronically transmitted signatures are binding.

19. NOTICE: Any notice, communication or document delivery requirements hereunder may be satisfied by providing the required notice, communication or documentation to or from the parties or their Licensee. Only withdrawals of offers and counteroffers will be effective upon communication, verbally or in writing.

20. EFFECTIVE DATE/BUSINESS DAYS: This Agreement is a binding contract when the last party signing has caused a paper or electronic copy of the fully executed agreement to be delivered to the other party which shall be the Effective Date. Licensee is authorized to fill in the Effective Date on Page 1 hereof. Except as expressly set forth to the contrary, the use of the term "days" in this Agreement, including all addenda made a part hereof, shall mean business days defined as excluding Saturdays, Sundays and any observed Maine State/Federal holidays. Deadlines in this Agreement, including all addenda, expressed as "within x days" shall be counted from the Effective Date, unless another starting date is expressly set forth, beginning with the first day after the Effective Date, or such other established starting date, and ending at 5:00 p.m. Eastern Time on the last day counted. Unless expressly stated to the contrary, deadlines in this Agreement, including all addenda, expressed as a specific date shall end at 5:00 p.m. Eastern Time on such date.

21. CONFIDENTIALITY: Buyer and Seller authorize the disclosure of the information herein to the real estate licensees, attorneys, lenders, appraisers, inspectors, investigators and others involved in the transaction necessary for the purpose of closing this transaction. Buyer and Seller authorize the lender and/or closing agent preparing the entire closing disclosure and/or settlement statement to release a copy of the closing disclosure and/or settlement statement to the parties and their licensees prior to, at and after the closing.

22. OTHER CONDITIONS: **Lender will be Katahdin Trust: (lot is Tax Map R01 Lot 13B); Buyer agrees to close within 10 business days of obtaining any/all permits from Town of Cumberland and or ME DEP/US Army Corp. Engineers. Per email Thursday 2/11/2021 Seller has authorized Sevee & Maher to release all documents associated with property to Buyer and or associates working on behalf of Buyer at no charge to Buyer.**

23. GENERAL PROVISIONS:

a. A copy of this Agreement is to be received by all parties and, by signature, receipt of a copy is hereby acknowledged. If not fully understood, contact an attorney. This is a Maine contract and shall be construed according to the laws of Maine.
b. Seller acknowledges that State of Maine law requires buyers of property owned by non-resident sellers to withhold a prepayment of capital gains tax unless a waiver has been obtained by Seller from the State of Maine Revenue Services.
c. Buyer and Seller acknowledge that under Maine law payment of property taxes is the legal responsibility of the person who owns the property on April 1, even if the property is sold before payment is due. If any part of the taxes is not paid when due, the lien will be filed in the name of the owner as of April 1 which could have a negative impact on their credit rating. Buyer and Seller shall agree at closing on their respective obligations regarding actual payment of taxes after closing. Buyer and Seller should make sure they understand their obligations agreed to at closing and what may happen if taxes are not paid as agreed.
d. Buyer acknowledges that Maine law requires continuing interest in the property and any back up offers to be communicated by the listing agent to the Seller.
e. Whenever this Agreement provides for earnest money to be returned or released, agency acting as escrow agent must comply with Maine Real Estate Commission rules which may require written notices or obtaining written releases from both parties.

24. ADDENDA: [X] Yes [ ] No Explain: **Preliminary design by Sevee & Maher showing building envelope, parking and other possible development options.**

 Buyer(s) Initials DS _____ _____ _____ _____ Seller(s) Initials DS _____ _____ _____ _____

25. ELECTRONIC SIGNATURES: Pursuant to the Maine Uniform Electronic Transactions Act and Digital Signature Act, the parties authorize and agree to the use of electronic signatures as a method of signing/initialing this Agreement, including all addenda. The parties hereby agree that either party may sign electronically by utilizing an electronic signature service.

Buyer's Mailing address is _____ .

BUYER **Snell Construction LLC (Jon Snell)**	DATE	BUYER	DATE
BUYER DocuSigned by: [signature] 2BBA28E590A84B1...	DATE 3/2/21	BUYER	DATE

Seller accepts the offer and agrees to deliver the above-described property at the price and upon the terms and conditions set forth and agrees to pay agency a commission for services as specified in the listing agreement.

Seller's Mailing address is _____ .

SELLER **100 US Route 1 LLC (David S. Spellman)**	DATE	SELLER	DATE
SELLER DocuSigned by: DAVID SPELLMAN 162179EE581E47B...	DATE 2/28/21	SELLER	DATE

COUNTER-OFFER

Seller agrees to sell on the terms and conditions as detailed herein with the following changes and/or conditions:

The parties acknowledge that until signed by Buyer, Seller's signature constitutes only an offer to sell on the above terms and the offer will expire unless accepted by Buyer's signature with communication of such signature to Seller by (date) _____ (time) _____ ☐ AM ☐ PM.

SELLER	DATE	SELLER	DATE
SELLER	DATE	SELLER	DATE

The Buyer hereby accepts the counter offer set forth above.

BUYER	DATE	BUYER	DATE
BUYER	DATE	BUYER	DATE

EXTENSION

The closing date of this Agreement is extended until _____ .
DATE

SELLER	DATE	SELLER	DATE
SELLER	DATE	SELLER	DATE
BUYER	DATE	BUYER	DATE
BUYER	DATE	BUYER	DATE

Dept. of Professional & Financial Regulation
Office of Professional & Occupational Regulation
MAINE REAL ESTATE COMMISSION
35 State House Station Augusta ME 04333-0035

REAL ESTATE BROKERAGE RELATIONSHIPS FORM

Right Now You Are A Customer

Are you interested in buying or selling residential real estate in Maine? Before you begin working with a real estate licensee it is important for you to understand that Maine Law provides for different levels of brokerage service to buyers and sellers. You should decide whether you want to be represented in a transaction (as a client) or not (as a customer). To assist you in deciding which option is in your best interest, please review the following information about real estate brokerage relationships:

Maine law requires all real estate brokerage companies and their affiliated licensees ("licensee") to perform certain basic duties when dealing with a buyer or seller. You can expect a real estate licensee you deal with to provide the following **customer-level services:**

- # To disclose all material defects pertaining to the physical condition of the real estate that are known by the licensee;
- # To treat both the buyer and seller honestly and not knowingly give false information;
- # To account for all money and property received from or on behalf of the buyer or seller; and
- # To comply with all state and federal laws related to real estate brokerage activity.

Until you enter into a written brokerage agreement with the licensee for client-level representation you are considered a "customer" and the licensee is not your agent. **As a customer, you should not expect the licensee to promote your best interest, or to keep any information you give to the licensee confidential, including your bargaining position.**

You May Become A Client

If you want a licensee to represent you, you will need to enter into a written listing agreement or a written buyer representation agreement. These agreements **create a client-agent relationship** between you and the licensee. As a client you can expect the licensee to provide the following services, **in addition to** the basic services required of all licensees listed above:

- # To perform the terms of the written agreement with skill and care;
- # To promote your best interests;
  - For seller clients this means the agent will put the seller's interests first and negotiate the best price and terms for the seller;
  - For buyer clients this means the agent will put the buyer's interests first and negotiate for the best prices and terms for the buyer; and
- # To maintain the confidentiality of specific client information, including bargaining information.

COMPANY POLICY ON CLIENT-LEVEL SERVICES - WHAT YOU NEED TO KNOW

The real estate brokerage company's policy on client-level services determines which of the three types of agent-client relationships permitted in Maine may be offered to you. The agent-client relationships permitted in Maine are as follows:

- # The company and all of its affiliated licensees represent you as a client (called **"single agency"**);
- # The company appoints, with your written consent, one or more of the affiliated licensees to represent you as an agent(s) (called **"appointed agency"**);
- # The company may offer limited agent level services as a **disclosed dual agent.**

WHAT IS A DISCLOSED DUAL AGENT?

In certain situations a licensee may act as an agent for and represent both the buyer and the seller in the same transaction. This is called **disclosed dual agency**. *Both the buyer and the seller must consent to this type of representation in writing.*

Working with a dual agent is not the same as having your own exclusive agent as a single or appointed agent. For instance, when representing both a buyer and a seller, the dual agent must not disclose to one party any confidential information obtained from the other party.

Remember!
Unless you enter into a written agreement for agency representation, you are a customer—not a client.

THIS IS NOT A CONTRACT

It is important for you to know that this form is not a contract. The licensee's completion of the statement below acknowledges that you have been given the information required by Maine law regarding brokerage relationships so that you may make an informed decision as to the relationship you wish to establish with the licensee/company.

To Be Completed By Licensee

This form was presented on (date) April 24, 2021

To David A. Landa
Name of Buyer(s) or Seller(s)

by Matt Cartmell (207) 522-8084
Licensee's Name

on behalf of Cartmell & Associates of Keller Williams Realty
Company/Agency

MREC Form#3 Revised 07/2006
Office Title Changed 09/2011

To check on the license status of the real estate brokerage company or affiliated licensee go to www.maine.gov/professionallicensing.
Inactive licensees may not practice real estate brokerage.

PURCHASE AND SALE AGREEMENT - LAND ONLY

("days" means business days unless otherwise noted, see paragraph 20)

April 24 , **2021**
Offer Date

_____ , _____ Effective Date
Effective Date is defined in Paragraph 20 of this Agreement.

1. PARTIES: This Agreement is made between **100 US Route 1 LLC/David Spellman** ("Buyer") and **Ledgeview Properties, LLC/David A. Landa** ("Seller").

2. DESCRIPTION: Subject to the terms and conditions hereinafter set forth, Seller agrees to sell and Buyer agrees to buy ☐ all ☒ part of (if "part of" see para. 22 for explanation) the property situated in municipality of **Cumberland**, County of **Cumberland**, State of Maine, located at **92 US Route 1** and described in deed(s) recorded at said County's Registry of Deeds Book(s) **17591** _____, Page(s) **242** _____.

3. PURCHASE PRICE/EARNEST MONEY: For such Deed and conveyance Buyer agrees to pay the total purchase price of $**10,000.00**. Buyer ☐ has delivered; or ☐ will deliver to the Agency within **n/a** days of the Effective Date, a deposit of earnest money in the amount $**n/a**. Buyer agrees that an additional deposit of earnest money in the amount of $**n/a** will be delivered **n/a**. If Buyer fails to deliver the initial or additional deposit in compliance with the above terms Seller may terminate this Agreement. This right to terminate ends once Buyer has delivered said deposit (s). The remainder of the purchase price shall be paid by wire, certified, cashier's or trust account check upon delivery of the Deed.

This Purchase and Sale Agreement is subject to the following conditions:

4. ESCROW AGENT/ACCEPTANCE: **n/a** ("Agency") shall hold said earnest money and act as escrow agent until closing; this offer shall be valid until **April 30, 2021** (date) **5:00** ☐ AM ☒ PM; and, in the event of non-acceptance, this earnest money shall be returned promptly to Buyer.

5. TITLE AND CLOSING: A deed, conveying good and merchantable title in accordance with the Standards of Title adopted by the Maine Bar Association shall be delivered to Buyer and this transaction shall be closed and Buyer shall pay the balance due and execute all necessary papers on **See #22** (closing date) or before, if agreed in writing by both parties. If Seller is unable to convey in accordance with the provisions of this paragraph, then Seller shall have a reasonable time period, not to exceed 30 calendar days, from the time Seller is notified of the defect, unless otherwise agreed to in writing by both Buyer and Seller, to remedy the title. Seller hereby agrees to make a good-faith effort to cure any title defect during such period. If, at the later of the closing date set forth above or the expiration of such reasonable time period, Seller is unable to remedy the title, Buyer may close and accept the deed with the title defect or may terminate this Agreement in which case the parties shall be relieved of any further obligations hereunder and any earnest money shall be returned to the Buyer.

6. DEED: The property shall be conveyed by a **Warranty** deed, and shall be free and clear of all encumbrances except covenants, conditions, easements and restrictions of record which do not materially and adversely affect the continued current use of the property.

7. POSSESSION: Possession of premises shall be given to Buyer immediately at closing unless otherwise agreed in writing.

8. RISK OF LOSS: Until the closing, the risk of loss or damage to said premises by fire or otherwise, is assumed by Seller. Buyer shall have the right to view the property within 24 hours prior to closing for the purpose of determining that the premises are in substantially the same condition as on the date of this Agreement.

9. PRORATIONS: The following items, where applicable, shall be prorated as of the date of closing: rent, association fees, (other) **none**. Real estate taxes shall be prorated as of the date of closing (based on municipality's fiscal year). Seller is responsible for any unpaid taxes for prior years. If the amount of said taxes is not known at the time of closing, they shall be apportioned on the basis of the taxes assessed for the preceding year with a reapportionment as soon as the new tax rate and valuation can be ascertained, which latter provision shall survive closing. Buyer and Seller will each pay their transfer tax as required by State of Maine.

10. DUE DILIGENCE: Buyer is encouraged to seek information from professionals regarding any specific issue or concern. Neither Seller nor Licensee makes any warranties regarding the condition, permitted use or value of Sellers' real property. This Agreement is subject to the following contingencies, with results being satisfactory to Buyer:

Keller Williams Realty, 185 Lower Main Street Freeport ME 04032 Phone: (207)522-8084 Fax: (207)879-9801 92 US Route 1
Matt Cartmell

CONTINGENCY	YES	NO	FULL RESOLUTION	OBTAINED BY	TO BE PAID FOR BY
1. SURVEY Purpose:	X		within **Done** days		
2. SOILS TEST Purpose:		X	within _____ days		
3. SEPTIC SYSTEM DESIGN Purpose:		X	within _____ days		
4. LOCAL PERMITS Purpose:		X	within _____ days		
5. HAZARDOUS WASTE REPORTS Purpose:		X	within _____ days		
6. UTILITIES Purpose:		X	within _____ days		
7. WATER Purpose:		X	within _____ days		
8. SUB-DIVISION APPROVAL Purpose:		X	within _____ days		
9. DEP/LUPC/ACOE APPROVALS Purpose: **Release any/all easements on the parcel of land & obtain any/all ME DEP/Army Corp permits**	X		within **120** days	**Buyer**	**Buyer**
10. ZONING VARIANCE Purpose:		X	within _____ days		
11. HABITAT REVIEW/ WATERFOWL Purpose:		X	within _____ days		
12. REGISTERED FARMLAND Purpose:		X	within _____ days		
13. MDOT DRIVEWAY/ ENTRANCE PERMIT Purpose:		X	within _____ days		
14. DEED RESTRICTION Purpose:		X	within _____ days		
15. TAX STATUS* Purpose:		X	within _____ days		
16. BUILD PACKAGE Purpose:		X	within _____ days		
17. OTHER Purpose:		X	within _____ days		

* If the land is enrolled in the Maine Tree Growth Tax program, Seller agrees to provide Buyer with the current Forest Management and Harvest Plan within **n/a** days. ☐ Yes ☒ No

Further specifications regarding any of the above: **None**

Unless otherwise specified above, all of the above will be obtained and paid for by Buyer. Seller agrees to cooperate with Buyer and shall give Buyer and Buyer's agents and consultants reasonable access to the property in order to undertake the above investigations. Buyer agrees to take reasonable steps to return the property to its pre-inspection condition. If the result of any investigation or other condition specified herein is unsatisfactory to Buyer in Buyer's sole discretion, Buyer will declare the Agreement null and void by notifying Seller in writing within the specified number of days, and any earnest money shall be returned to Buyer. If the result of any investigation or other condition specified herein is unsatisfactory to Buyer, and Buyer wishes to pursue remedies other than voiding the Agreement, Buyer must do so to full resolution within the time period set forth above; otherwise this contingency is waived. If Buyer does not notify Seller that an investigation is unsatisfactory within the time period set forth above, or if any investigation under this paragraph is not performed or completed during the period specified in this paragraph, this contingency and the right to conduct an investigation are waived by Buyer. In the absence of inspection(s) mentioned above, Buyer is relying completely upon Buyer's own opinion as to the condition of the property.

11. FINANCING: Buyer's obligation to close:

Not Subject to Financing

☐ is not subject to a financing contingency. Buyer has provided Seller with acceptable proof of the funds.

☒ is not subject to a financing contingency. Buyer shall provide proof of the funds acceptable to Seller within **n/a** days. If such proof is unacceptable to Seller, Seller may terminate this Agreement no later than **n/a** days from receipt. If proof of funds is not provided within such time period, Seller may terminate this Agreement which right shall end once such proof is received, however Seller retains the agreed upon time period to terminate if such proof is unacceptable. If Seller terminates in either case, the earnest money shall be returned to Buyer.

☐ Buyer's ability to purchase ☐ is ☒ is not subject to the sale of another property. See addendum ☐ Yes ☒ No.

Subject to Financing

☐ Buyer's obligation to close is subject to financing as follows:

a. Buyer's obligation to close is subject to Buyer obtaining a **n/a** loan of **n/a** % of the purchase price, at an interest rate not to exceed **n/a** % and amortized over a period of **n/a** years. Buyer is under a good faith obligation to seek and obtain financing on these terms. If such financing is not available to Buyer as of the closing date, Buyer is not obligated to close and may terminate this Agreement in which case the earnest money shall be returned to Buyer.

b. Buyer to provide Seller with letter from lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested within **n/a** days from the Effective Date of the Agreement. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.

c. Buyer hereby authorizes, instructs and directs its lender to communicate the status of the Buyer's loan application to Seller, Seller's licensee and Buyer's licensee.

d. After (b) is met, if the lender notifies Buyer that it is unable or unwilling to provide said financing, Buyer is obligated to provide Seller with written documentation of the loan denial within two days of receipt. After notifying Seller, Buyer shall have **n/a** days to provide Seller with a letter from another lender showing that Buyer has made application for loan specified in (a) and, subject to verification of information, is qualified for the loan requested. If Buyer fails to provide Seller with such letter within said time period, Seller may terminate this Agreement and the earnest money shall be returned to Buyer. This right to terminate ends once Buyer's letter is received.

e. Buyer agrees to pay no more than **0** points. Seller agrees to pay up to $**Zero** toward Buyer's actual pre-paids, points and/or closing costs, but no more than allowable by Buyer's lender.

f. Buyer's ability to obtain financing ☐ is ☒ is not subject to the sale of another property. See addendum ☐ Yes ☒ No.

g. Buyer may choose to pay cash instead of obtaining financing. If so, Buyer shall notify Seller in writing including providing proof of funds and the Agreement shall no longer be subject to financing, and Seller's right to terminate pursuant to the provisions of this paragraph shall be void and Seller's obligations pursuant to 11e shall remain in full force and effect.

12. BROKERAGE DISCLOSURE: Buyer and Seller acknowledge they have been advised of the following relationships:

Matt Cartmell (**011648**) of **Keller Williams Realty** (**3005**)
Licensee — MLS ID — Agency — MLS ID

is a ☐ Seller Agent ☒ Buyer Agent ☐ Disc Dual Agent ☐ Transaction Broker

Matt Cartmell (**011648**) of **Keller Williams Realty** (**3005**)
Licensee — MLS ID — Agency — MLS ID

is a ☐ Seller Agent ☒ Buyer Agent ☐ Disc Dual Agent ☐ Transaction Broker

If this transaction involves Disclosed Dual Agency, the Buyer and Seller acknowledge the limited fiduciary duties of the agents and hereby consent to this arrangement. In addition, the Buyer and Seller acknowledge prior receipt and signing of a Disclosed Dual Agency Consent Agreement.

13. PROPERTY DISCLOSURE FORM: Buyer acknowledges receipt of Property Disclosure Form.

14. DEFAULT/RETURN OF EARNEST MONEY: Buyer's failure to fulfill any of Buyer's obligations hereunder shall constitute a default and Seller may employ all legal and equitable remedies, including without limitation, termination of this Agreement and forfeiture by Buyer of the earnest money. Seller's failure to fulfill any of Seller's obligations hereunder shall constitute a default and Buyer may employ all legal and equitable remedies, including without limitation, termination of this Agreement and return to Buyer of the earnest money. Agency acting as escrow agent has the option to require written releases from both parties prior to disbursing the earnest money to either Buyer or Seller. In the event that the Agency is made a party to any lawsuit by virtue of acting as escrow agent, Agency shall be entitled to recover reasonable attorney's fees and costs which shall be assessed as court costs in favor of the prevailing party.

15. MEDIATION: Earnest money or other disputes within the jurisdictional limit of small claims court will be handled in that forum. All other disputes or claims arising out of or relating to this Agreement or the property addressed in this Agreement (other than requests for injunctive relief) shall be submitted to mediation in accordance with generally accepted mediation practices. Buyer and Seller are bound to mediate in good faith and to each pay half of the mediation fees. If a party fails to submit a dispute or claim to mediation prior to initiating litigation (other than requests for injunctive relief), then that party will be liable for the other party's legal fees in any subsequent litigation regarding that same matter in which the party who failed to first submit the dispute or claim to mediation loses in that subsequent litigation. This clause shall survive the closing of the transaction.

16. PRIOR STATEMENTS: Any representations, statements and agreements are not valid unless contained herein. This Agreement completely expresses the obligations of the parties and may only be amended in writing, signed by both parties.

17. HEIRS/ASSIGNS: This Agreement shall extend to and be obligatory upon heirs, personal representatives, successors, and assigns of the Seller and the assigns of the Buyer.

18. COUNTERPARTS: This Agreement may be signed on any number of identical counterparts, such as a faxed copy, with the same binding effect as if the signatures were on one instrument. Original, faxed or other electronically transmitted signatures are binding.

19. NOTICE: Any notice, communication or document delivery requirements hereunder may be satisfied by providing the required notice, communication or documentation to or from the parties or their Licensee. Only withdrawals of offers and counteroffers will be effective upon communication, verbally or in writing.

20. EFFECTIVE DATE/BUSINESS DAYS: This Agreement is a binding contract when the last party signing has caused a paper or electronic copy of the fully executed agreement to be delivered to the other party which shall be the Effective Date. Licensee is authorized to fill in the Effective Date on Page 1 hereof. Except as expressly set forth to the contrary, the use of the term "days" in this Agreement, including all addenda made a part hereof, shall mean business days defined as excluding Saturdays, Sundays and any observed Maine State/Federal holidays. Deadlines in this Agreement, including all addenda, expressed as "within x days" shall be counted from the Effective Date, unless another starting date is expressly set forth, beginning with the first day after the Effective Date, or such other established starting date, and ending at 5:00 p.m. Eastern Time on the last day counted. Unless expressly stated to the contrary, deadlines in this Agreement, including all addenda, expressed as a specific date shall end at 5:00 p.m. Eastern Time on such date.

21. CONFIDENTIALITY: Buyer and Seller authorize the disclosure of the information herein to the real estate licensees, attorneys, lenders, appraisers, inspectors, investigators and others involved in the transaction necessary for the purpose of closing this transaction. Buyer and Seller authorize the lender and/or closing agent preparing the entire closing disclosure and/or settlement statement to release a copy of the closing disclosure and/or settlement statement to the parties and their licensees prior to, at and after the closing.

22. OTHER CONDITIONS: **Closing on this parcel will occur w/in 5 days of Buyer obtaining all needed permits and approval from Town of Cumberland for the project.**

23. GENERAL PROVISIONS:

a. A copy of this Agreement is to be received by all parties and, by signature, receipt of a copy is hereby acknowledged. If not fully understood, contact an attorney. This is a Maine contract and shall be construed according to the laws of Maine.
b. Seller acknowledges that State of Maine law requires buyers of property owned by non-resident sellers to withhold a prepayment of capital gains tax unless a waiver has been obtained by Seller from the State of Maine Revenue Services.
c. Buyer and Seller acknowledge that under Maine law payment of property taxes is the legal responsibility of the person who owns the property on April 1, even if the property is sold before payment is due. If any part of the taxes is not paid when due, the lien will be filed in the name of the owner as of April 1 which could have a negative impact on their credit rating. Buyer and Seller shall agree at closing on their respective obligations regarding actual payment of taxes after closing. Buyer and Seller should make sure they understand their obligations agreed to at closing and what may happen if taxes are not paid as agreed.
d. Buyer acknowledges that Maine law requires continuing interest in the property and any back up offers to be communicated by the listing agent to the Seller.
e. Whenever this Agreement provides for earnest money to be returned or released, agency acting as escrow agent must comply with Maine Real Estate Commission rules which may require written notices or obtaining written releases from both parties.

24. ADDENDA: [X] Yes [ ] No Explain: **Survey & Deed w/easements**

25. ELECTRONIC SIGNATURES: Pursuant to the Maine Uniform Electronic Transactions Act and Digital Signature Act, the parties authorize and agree to the use of electronic signatures as a method of signing/initialing this Agreement, including all addenda. The parties hereby agree that either party may sign electronically by utilizing an electronic signature service.

DocuSigned by:
DAVID SPELLMAN
162179EE581E47B...

Buyer's Mailing address is _____ 4/25/2021 .

BUYER **100 US Route 1 LLC/David Spellman**	DATE	BUYER	DATE
BUYER	DATE	BUYER	DATE

Seller accepts the offer and agrees to deliver the above-described property at the price and upon the terms and conditions set forth and agrees to pay agency a commission for services as specified in the listing agreement.

DocuSigned by:
David Landa
617BBEADF1AE45F...

Seller's Mailing address is _____ 4/24/2021 .

SELLER **Ledgeview Properties, LLC/David A. Landa**	DATE	SELLER	DATE
SELLER	DATE	SELLER	DATE

COUNTER-OFFER

Seller agrees to sell on the terms and conditions as detailed herein with the following changes and/or conditions:

The parties acknowledge that until signed by Buyer, Seller's signature constitutes only an offer to sell on the above terms and the offer will expire unless accepted by Buyer's signature with communication of such signature to Seller by (date) _____ (time) _____ ☐ AM ☐ PM.

SELLER	DATE	SELLER	DATE
SELLER	DATE	SELLER	DATE

The Buyer hereby accepts the counter offer set forth above.

BUYER	DATE	BUYER	DATE
BUYER	DATE	BUYER	DATE

EXTENSION

The closing date of this Agreement is extended until _____ DATE .

SELLER	DATE	SELLER	DATE
SELLER	DATE	SELLER	DATE
BUYER	DATE	BUYER	DATE
BUYER	DATE	BUYER	DATE

PROPERTY LOCATED AT: **92 US Route 1, Cumberland, ME 04110**

PROPERTY DISCLOSURE – LAND ONLY

Under Maine Law, certain information must be made available to buyers prior to or during preparation of an offer. This statement has been prepared to assist prospective buyers in evaluating this property. This disclosure is not a warranty of the condition of the property and is not part of any contract between Seller and any Buyer. Seller authorizes the disclosure of the information in this statement to real estate licensees and to prospective buyers of this property. The Seller agrees to provide prompt notice of any changes in the information and this form will be appropriately changed with an amendment date. Inspections are highly recommended.

DO NOT LEAVE ANY QUESTIONS BLANK. STRIKE, WRITE N/A OR UNKNOWN IF NEEDED.

SECTION I – HAZARDOUS MATERIAL

The licensee is disclosing that the Seller is making representations contained herein.

A. UNDERGROUND STORAGE TANKS - Are there now, or have there ever been, any underground storage tanks on your property? ..... ☐ Yes ☐ No ☒ Unknown

If Yes: Are tanks in current use?..... ☐ Yes ☐ No ☐ Unknown

If no longer in use, how long have they been out of service? **n/a**

If tanks are no longer in use, have tanks been abandoned according to DEP?..... ☐ Yes ☐ No ☐ Unknown

Are tanks registered with DEP?..... ☐ Yes ☐ No ☐ Unknown

Age of tank(s): **n/a** Size of tank(s): **n/a**

Location: **n/a**

What materials are, or were, stored in the tank(s): **n/a**

Have you experienced any problems such as leakage: ..... ☐ Yes ☐ No ☐ Unknown

Comments: **Seller has no knowledge of underground tanks ever being on this section of property (see survey for small area of land)**

Source of information: **Seller**

B. OTHER HAZARDOUS MATERIALS - Current or previously existing:

TOXIC MATERIAL: ..... ☐ Yes ☐ No ☒ Unknown

LAND FILL:..... ☐ Yes ☐ No ☒ Unknown

RADIOACTIVE MATERIAL:..... ☐ Yes ☐ No ☒ Unknown

METHAMPHETAMINE:..... ☐ Yes ☒ No ☐ Unknown

Comments: **Seller has no knowledge of any hazardous materials on site now or in past**

Source of information: **Seller**

Buyers are encouraged to seek information from professionals regarding any specific issue or concern.

Buyer Initials DS _____ _____ _____ _____

Seller Initials DS _____ _____ _____ _____

Keller Williams Realty, 185 Lower Main Street Freeport ME 04032 Phone: (207)522-8084 Fax: (207)879-9801 92 US Route 1
Matt Cartmell

SECTION II – GENERAL INFORMATION

Is the property subject to or have the benefit of any encroachments, easements, rights-of-way, leases, rights of first refusal, life estates, private ways, trails, homeowner associations (including condominiums and PUD's) or restrictive covenants? ..... [X] Yes [ ] No [ ] Unknown

If Yes, explain: **Leach bed drainage plume easement:**

Source of information: **Deed**

Is access by means of a way owned and maintained by the State, a county, or a municipality over which the public has a right to pass?..... [X] Yes [ ] No [ ] Unknown

If No, who is responsible for maintenance? **n/a**

Road Association Name (if known): **n/a**

Are there any shoreland zoning, resource protection or other overlay zone requirements on the property?..... [ ] Yes [ ] No [X] Unknown

If Yes, explain: **n/a**

Source of information: **Seller**

Is the property the result of a division within the last 5 years (i.e. subdivision)? [ ] Yes [X] No [ ] Unknown

If Yes, explain: **n/a**

Source of information: **Seller**

Are there any tax exemptions or reductions for this property for any reason including but not limited to:

Tree Growth, Open Space and Farmland, Blind, Working Waterfront?..... [ ] Yes [X] No [ ] Unknown

If Yes, explain: **n/a**

Is a Forest Management and Harvest Plan available?..... [ ] Yes [X] No [ ] Unknown

Has all or a portion of the property been surveyed?..... [X] Yes [ ] No [ ] Unknown

If Yes, is the survey available?..... [X] Yes [ ] No [ ] Unknown

Has the property ever been soil tested?..... [X] Yes [ ] No [ ] Unknown

If Yes, are the results available?..... [ ] Yes [X] No [ ] Unknown

Are mobile/manufactured homes allowed?..... [ ] Yes [X] No [ ] Unknown

Are modular homes allowed?..... [X] Yes [ ] No [ ] Unknown

Source of information: **Seller**

Additional Information: **See attached Deed and Survey information**

ATTACHMENTS CONTAINING ADDITIONAL INFORMATION:..... [X] Yes [ ] No

Seller shall be responsible and liable for any failure to provide known information about property defects to Buyer. As Seller, I/we have provided the above information and represent that all information is correct.

DocuSigned by:
David Landa 4/24/2021
617BBEADE1AE45F...

SELLER DATE SELLER DATE

Ledgeview Properties, LLC/David A. Landa

SELLER DATE SELLER DATE

I/We have read and received a copy of this disclosure and understand that I/we should seek information from qualified professionals if I/we have questions or concerns.

DocuSigned by:
DAVID SPELLMAN 4/25/2021
162179EE581E47B...

BUYER DATE BUYER DATE

100 US Route 1 LLC/David Spellman

BUYER DATE BUYER DATE

WARRANTY DEED

FREDERICK B. JENSEN AND DARLEEN E. JENSEN, both of Falmouth, Maine, for consideration paid, grant to **LEDGEVIEW PROPERTIES, LLC,** a Maine limited liability company, whose mailing address is 92 U.S. Route One, Cumberland, Maine 04110, **with Warranty Covenants,** the following property in Cumberland, County of Cumberland, State of Maine, described as follows:

SEE ATTACHED SCHEDULE A

Meaning and intending to convey the same premises conveyed to Frederick B. Jensen and Darleen E. Jensen by virtue of warranty deed from William E. Randall and Eleanor A. Randall dated September 27, 1988 recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89 and by virtue of another warranty deed from William and Eleanor A. Randall dated February 4, 1992 recorded in the said Registry of Deeds in Book 9904, Page 220 and to convey a portion of the same premises conveyed to Frederick B. Jensen and Darleen E. Jensen by virtue of warranty deed of Richard A. Bobbitt, Dennis H. Perry, James A. Perry and Diane A. Travis, Sole Acting Trustees under Declaration of Trust known as Twin Town Trust dated November 2, 1992 and recorded in the said Registry of Deeds in Book 10386, Page 175.

MAINE REAL ESTATE TAX PAID

Witness our hands and seal this 1st day of May, 2002.

Signed, Sealed and Delivered
in the presence of

Frederick B. Jensen

Darleen E. Jensen

State of Maine
County of Cumberland

May 1, 2002.

Then personally appeared the above named Frederick B. Jensen and Darleen E. Jensen and acknowledged the foregoing instrument to be their free act and deed.

~~Notary Public~~/Attorney at Law

DANIEL R. FELKEL, ESQ
printed name of notary or attorney

SCHEDULE A

Parcel 1:

A certain lot or parcel of land, situated in Cumberland, County of Cumberland, State of Maine, bounded and described as follows:

Beginning at an iron pipe located on the westerly sideline of U. S. Route 1; said iron pipe marks the northeast corner of land, now or formerly of Randall; said iron pipe is also located N 12° 04' 36" E. 262', more or less, from a right of way monument;

Thence N 54° 42' 05" W, along the northerly sideline of land, now or formerly of Randall, 516.81' to a drill hole set in ledge on the easterly sideline of Interstate 95;

Thence N 25° 46' 38" E, along the easterly sideline of Interstate 95, 202.79' to an iron pipe marking the southwest corner of land, now or formerly of the Estate of Janet Lowe Palmer;

Thence S 54° 42' 05" E, along the southerly sideline of land, now or formerly of the Estate of Janet Lowe Palmer, 464.55' to a drill hole found in a stone wall on the westerly sideline of U. S. Route 1;

Thence S 12° 04' 36" W, along the westerly sideline of U. S. Route 1, 217.63' to the point of beginning. Said parcel contains 2.25 acres. Bearings are Grid North, West Zone, M.S.G.S. Reference is made to a Plan of Property, Cumberland, Maine, for William E. Randall, Eleanor A. Randall, and Frederick Jensen by Survey, Inc. dated January 1988.

Meaning and intending to convey all of the same property described in a deed of William E. Randall to Frederick B. Jensen and Darleen E. Jensen dated September 27, 1988 recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89.

Parcel 2:

Also, another certain lot or parcel of land, situated in Cumberland, County of Cumberland, State of Maine, bounded and described as follows:

Beginning at an iron pipe located on the westerly sideline of Route 1; said iron pipe marks the boundary line between land now or formerly of William E. Randall and land now or formerly of Frederick Jensen (Ledgeview Estates);

thence North 54° 42' 05" West along said boundary line, 516.81' to a drill hole located on the easterly sideline of Interstate 95; thence South 25° 46' 38" West along the easterly sideline of Interstate 95, 35.49' to a railroad spike; thence South 54° 42' 05" East, 347.42' to an iron pipe; thence South 66° 46' 58" East, 167.22' to the point of beginning. Said parcel contains 15,124 square feet. Bearings are grid north.

Meaning and intending to convey the premises conveyed to Frederick B. Jensen and Darleen E. Jensen by deed of William E. Randall dated February 4, 1992, recorded in the Cumberland County Registry of Deeds in Book 9904, Page 220.

Parcel 3:

Also, another certain lot or parcel of land situated in the Town of Cumberland, County of Cumberland, and bounded and described as follows:

Beginning at a no. 5 rebar located on the westerly sideline of Route One, said rebar marking the northeasterly corner of land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89; thence N 54° 42' 05" W along land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89, 263.93' to a point; thence N 54° 59' 52" E crossing over other land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 10386, Page 175, 95.03' to a point; thence S 45° 48' 00" E crossing over other land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 10386, Page 175, 209.98' to a point located on the westerly sideline of Route One; thence S 12° 04' 36" W along the westerly sideline of Route One, 62.00' to the point of beginning. Said parcel contains 17,319 square feet. Bearings are magnetic of the year 1991.

Meaning and intending to convey a portion of the property described in a deed from the Trustees of the Twin Town Trust to Frederick B. Jensen and Darleen E. Jensen dated November 2, 1992, recorded in the Cumberland County Registry of Deeds in Book 10386, Page 175. Said parcel is subject to easements and right-of-ways of record. The Grantors, Frederick B. Jensen and Darleen E. Jensen, reserve for themselves, their heirs and assigns, an easement for passage by foot and motor vehicle over the gravel drive that begins at the Northeast corner of that parcel. Said easement then continues from the gravel drive North to the land of the Grantors, to be limited to use for one single-family residence.

Leach bed drainage plume easement:

Together with an easement for the location and maintenance of a leach bed drainage plume associated with the operation of a leach bed for the Ledgeview Nursing Home, a nursing facility, on the following described parcel:

Commencing at a no. 5 rebar located on the westerly sideline of Route One, said rebar marking the northeasterly corner of land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89; thence N 54° 42' 05" W along land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89, 263.93 feet to the point of beginning; thence N 54° 42' 05" W along land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 8492, Page 89, 200.62 feet to a no. 5 rebar located on the easterly sideline of Interstate I-95; thence N 25° 46' 38" E along the easterly sideline of Interstate I-95, 131.11 feet to a point; thence S 45° 48' 00" E crossing over other land now or formerly of Jensen as described in a deed recorded in the County Cumberland Registry of Deeds in Book 10386, Page 175, 257.44 feet to a point; thence S 54° 59' 52"W crossing over other land now or formerly of Jensen as described in a deed recorded in the Cumberland County Registry of Deeds in Book 10386, Page 175, 95.03 feet to the point of beginning. Said parcel contains 24,987 square feet. Bearings are magnetic of the year 1991.

The Grantee, its successors and assigns, shall have the right to enter the above described easement premises with equipment for the installation, maintenance, repair or replacement of the soils associated with the operation of the leach bed located on adjoining land of Grantee, provided that Grantee shall restore the grade and re-seed any disturbed land on the easement premises following such activities.

Meaning and intending to convey an easement in and to a portion of the property of Frederick B. Jensen and Darleen E. Jensen, described in a deed recorded in the Cumberland County Registry of Deeds in Book 10386, Page 175.

RECEIVED
RECORDED REGISTRY OF DEEDS
2002 MAY -1 PM 3:41
CUMBERLAND COUNTY
John B O'Brien

ENGINEERED PUMP STATION AND FORCE MAIN WASTEWATER DISPOSAL SYSTEM LEDGEVIEW PROPERTIES, LLC CUMBERLAND, MAINE

TITLE	DWG NO
COVER SHEET	
GENERAL NOTES, LEGEND, AND ABBREVIATIONS	C-100
SITE PLAN AND PROFILE	C-101
EROSION CONTROL NOTES AND DETAILS	C-300
SECTIONS AND DETAILS	C-301

LOCATION MAP

SME
SEVEE & MAHER ENGINEERS

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

STATE OF MAINE
DANIEL P. FINN
11841
LICENSED PROFESSIONAL ENGINEER
10/21/19

GENERAL SITE NOTES:

1. BASE MAP DERIVED FROM SURVEY PERFORMED BY BOUNDARY POINTS PROFESSIONAL LAND SURVEYING, LLC, CUMBERLAND, MAINE, DATED JUNE, 2018.
2. LEDGE PROBES PERFORMED BY ENVIRONMENTAL PROJECTS INC. ON 9/29/14. PROBES LOCATED APPROXIMATE 3 FEET OFF EDGE OF PAVEMENT AND AT 25 FEET ON CENTER ALONG FROM LEDGEVIEW ASSISTED LIVING SOUTH ALONG ROUTE 1.
3. CONSTRUCTION OF FORCE MAIN SHALL BE IN ACCORDANCE WITH TOWN OF CUMBERLAND AND PORTLAND WATER DISTRICT (PWD) STANDARDS.
4. EXCAVATE AND STOCKPILE ON-SITE TOPSOIL. TOPSOIL IS TO REMAIN THE PROPERTY OF THE OWNER DURING CONSTRUCTION, AND SHALL NOT BE REMOVED FROM THE SITE. AFTER FINAL LOAM AND SEED EXCESS TOPSOIL SHALL BE REMOVED FROM SITE BY CONTRACTOR.
5. PAVEMENT EDGES SHALL BE TRUE TO LINE. SAWCUT EXISTING PAVEMENT IN SMOOTH STRAIGHT LINE WHERE NEW PAVEMENT JOINS, PROVIDE TACK COAT LAYER AS SPECIFIED.
6. PROVIDE TRAFFIC CONTROL SIGNAGE AND STRIPING AS SHOWN AND IN ACCORDANCE WITH U.S.D.O.T. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MDOT MOST RECENT VERSION).
7. HORIZONTAL DATUM: NAD83, WEST, FT. VERTICAL DATUM: NAVD 88.
8. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.
9. LEDGEVIEW PROPERTIES, LLC SHALL HAVE THE RIGHT AND AUTHORITY TO DETERMINE THE ACCEPTABILITY OF WORK AND MATERIALS IN PROGRESS OR COMPLETED. LEDGEVIEW PROPERTIES, LLC SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIALS WHICH DO NOT CONFORM, IN ITS SOLE OPINION, TO THE PLANS OR SPECIFICATIONS.
10. DISPOSITION OF SURPLUS MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SURPLUS MATERIAL SHALL NOT BE DISPOSED OF ON THE PROJECT SITE. DISPOSITION SHALL BE MADE ONLY AT WASTE AREAS WHICH ARE LICENSED TO ACCEPT SUCH MATERIALS, UNLESS THE MATERIALS CAN BE INCORPORATED IN FILLS IN OTHER PROJECTS OF THE CONTRACTOR, ALL WASTE AREAS SHALL BE APPROVED BY THE RESIDENTS.
11. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CRF PART 1926.650-.652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).
12. ALL CLEARING AND TRIMMING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE. THE ACTUAL LINES FOR CLEARING AND TRIMMING SHALL BE ESTABLISHED BY THE CONTRACTOR AND APPROVED IN THE FIELD BY THE ENGINEER.
13. BUTT JOINTS SHALL BE USED AT ALL LOCATIONS WHERE THE PROPOSED PAVEMENT MEETS EXISTING PAVEMENT.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING OPENING PERMITS. CONTRACTOR SHALL BE RESPONSIBLE APPLYING FOR AND ALL COSTS ASSOCIATED WITH OBTAINING OPENING PERMITS FROM THE TOWN IF REQUIRED.
15. MAINTENANCE OF TRAFFIC SHALL BE PER THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2009 EDITION.
16. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN ALL NECESSARY BARRICADES, LIGHTS, WARNING SIGNS AND OTHER DEVICES TO SAFEGUARD TRAFFIC PROPERLY WHILE WORK IS IN PROGRESS FOR THE DURATION OF THE PROJECT.
17. DRIVEWAY ACCESSES SHALL BE MAINTAINED AT ALL TIMES.
18. THE CONTRACTOR SHALL PROVIDE LEDGEVIEW PROPERTIES, LLC WITH A PERFORMANCE BOND, CERTIFIED CHECK OR OTHER NEGOTIABLE SECURITY ACCEPTABLE TO THE OWNER IN THE FULL AMOUNT OF THE COST TO CONSTRUCT SUCH IMPROVEMENTS WHICH CONFORMS TO THE GENERAL REQUIREMENTS FOR SUCH SURETY AS OUTLINED UNDER SECTION 110.2 IN THE STANDARD SPECIFICATIONS.
19. THE CONTRACTOR SHALL PROVIDE THE LEDGEVIEW PROPERTIES, LLC WITH A SCHEDULE OF WORK FOR CONSTRUCTING THE IMPROVEMENTS, AND AN EMERGENCY CONTACT LIST.
20. ALL IMPROVEMENTS SHALL BE CONSTRUCTED AS SHOWN ON THE FINAL PLANS IN ACCORDANCE WITH THE MAINEDOT STANDARD SPECIFICATIONS NOVEMBER 2014 EDITION, DETAILS AND ANY REVISIONS.
21. THE PLACEMENT OF BITUMINOUS PAVING MATERIALS SHALL BE SUBJECT TO ALL OF THE WEATHER AND SEASONAL LIMITATIONS OUTLINED UNDER MAINE DOT STANDARD SPECIFICATIONS, NOVEMBER 2014 EDITION DIVISION 400, PAVEMENTS, SECTION 401, PARAGRAPH 401.06.
22. ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO REMOVE AND RESET POST SIGNS, MAILBOXES, AND POLES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT BID PRICES. IF ANY DAMAGE OCCURS TO POSTS, SIGNS, MAILBOXES OR ASSOCIATED HARDWARE DURING REMOVAL, STORAGE OR RESETTING, THE DAMAGED MATERIALS SHALL BE REPLACED BY THE CONTRACTOR, TO THE SATISFACTION OF THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.
23. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. UNDERGROUND FACILITIES INDICATED ON THE CROSS SECTIONS HAVE BEEN CARRIED OVER FROM THE PLAN VIEW DATA AND MAY ALSO INCLUDE FURTHER APPROXIMATIONS OF THE ELEVATIONS BASED UPON STRAIGHT LINE INTERPOLATION FROM THE NEAREST MANHOLES, GATE VALVES, OR TEST PITS. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THEIR WORK AND SCHEDULE AND THE UTILITY RELOCATION WORK WITH THE PROPER UTILITY COMPANY. UTILITY CONTACTS FOR THIS PROJECT ARE:

CENTRAL MAINE POWER CONTACT: THOMPSON ATWOOD TELEPHONE: (207) 791-1022 CENTRAL MAINE POWER 162 CANCO ROAD PORTLAND, MAINE 04103	SPECTRUM CONTACT: MARK PELLETIER TELEPHONE: (207) 253-2324 TIME WARNER CABLE 118 JOHNSON ROAD PORTLAND, MAINE 04102
FAIRPOINT CONTACT: MR. MARTY PEASE TELEPHONE: (207) 797-1119 FAIRPOINT 5 DAVIS FARM ROAD PORTLAND, MAINE 04103	PORTLAND WATER DISTRICT CONTACT: JAY ARNOLD TELEPHONE: (207) 774-5961 P.O. BOX 3553 225 DOUGLASS STREET PORTLAND, MAINE 04530

24. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
25. PROPERTY LINE AND R.O.W. MONUMENTS SHALL NOT BE DISTURBED BY CONSTRUCTION. IF DISTURBED, THEY SHALL BE RESET TO THEIR ORIGINAL LOCATIONS AT THE CONTRACTOR'S EXPENSE, BY A MAINE PROFESSIONAL LAND SURVEYOR.
26. CONSTRUCTION SHALL NOT COMMENCE UNTIL AUTHORIZED BY LEDGEVIEW PROPERTIES, LLC.
27. THE CONTRACTOR SHALL COMPLETE THE WORK WITHIN RIGHTS-OF-WAY OR ON THE OWNER'S PROPERTY, AND WILL BE RESPONSIBLE IF TRESPASSING OCCURS ON PRIVATE PROPERTY.
28. ALL EXISTING WATER VALVE COVERS AND ANY OTHER EXISTING UTILITIES SHALL BE ADJUSTED TO GRADE BY THE APPROPRIATE UTILITY COMPANY.
29. ACTUAL GRUBBING LIMITS MAY VARY BASED ON FIELD CONDITIONS AS DIRECTED BY THE RESIDENT. ESTIMATED GRUBBING DEPTHS ARE 6 INCHES IN FIELD AREAS AND 12 INCHES IN WOODED AREAS.
30. DRIVEWAY FILL SIDE SLOPES SHALL BE THE SAME AS THE NON-GUARDRAIL FILL SLOPES UNLESS OTHERWISE NOTED ON THE PLANS.
31. GRANULAR BORROW USED TO BACKFILL MUCK EXCAVATION OR IN LOW WET AREAS TO 1' ABOVE WATER LEVEL OR OLD GROUND SHALL MEET REQUIREMENTS FOR GRANULAR BORROW UNDERWATER BACKFILL.
32. NECESSARY CLEANING OF EXISTING PAVEMENT PRIOR TO PAVING SHALL BE INCIDENTAL TO THE RELATED PAVING ITEMS.
33. THE FOLLOWING SHALL BE INCIDENTAL TO THE 603 ITEM(S):

    ANY CUTTING OF EXISTING CULVERTS AND OR CONNECTORS NECESSARY TO INSTALL NEW CULVERT REPLACEMENTS OR EXTENSIONS

    ALL PIPE EXCAVATION INCLUDING ANY CUTTING AND REMOVAL OF PAVEMENT

    ALL DITCHING AT PIPE ENDS

    FURNISHING, PLACING, GRADING, AND COMPACTING OF ANY NEW GRAVEL AND/OR FILL MATERIAL INCLUDING GRANULAR BORROW USED UNDER PIPES.

    GRANULAR BORROW UNDER THE PIPE SHALL MEET THE REQUIREMENTS FOR UNDERWATER BACKFILL

    ALL WORK NECESSARY TO CONNECT TO EXISTING PIPES AND DRAINAGE STRUCTURES

    FLOW LINES MAY BE CHANGED BY 1.5 FT

    ANY NECESSARY CLEARING OF BRUSH AND NON-PAY TREES AT CULVERT ENDS

    BACKFILL ANY NECESSARY CUTTING OF EXISTING PIPES TO FIT AREAS OF PROPOSED CATCH BASINS

34. NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED OR PLUGGED WITHOUT PRIOR APPROVAL OF THE ENGINEER.
35. INLETS AND OUTLETS OF ALL CULVERTS SHALL BE RIPRAPPED UNLESS OTHERWISE NOTIED ON THE PLANS OR DIRECTED BY THE RESIDENT.
36. LOAM HAS BEEN ESTIMATED FOR DISTURBED AREAS. ACTUAL PLACEMENT OF THE LOAM SHALL BE AS NOTED ON THE PLANS OR DESIGNATED BY THE RESIDENT.
37. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING MAILBOXES TO ENSURE THAT THE MAIL WILL BE DELIVERABLE. MAILBOXES SHALL BE RELOCATED SO THAT THE POSTS ARE 1 FOOT BEHIND EDGE OF SHOULDER OR AS DIRECTED BY THE ENGINEER. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK; IT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
38. ANY DAMAGE TO THE SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT. ALL WORK, EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE.
39. ESTIMATED QUANTITIES FOR REQUIRED STRUCTURAL EARTH EXCAVATION, DRAINAGE AND MINOR STRUCTURES ARE INFORMATIONAL ONLY AND REPRESENT THE APPROXIMATE MINIMUM QUANTITY REQUIRED TO INSTALL DRAINAGE STRUCTURES. ADDITIONAL EXCAVATION FOR THE CONTRACTOR'S CONVENIENCE OR TO COMPLY WITH BACKSLOPING REQUIREMENTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THE RELATED DRAINAGE ITEMS.
40. NO SEPARATE PAYMENT FOR SUPERINTENDENT OR FOREMAN WILL BE MADE FOR THE SUPERVISION OF EQUIPMENT BEING PAID FOR UNDER THE EQUIPMENT RENTAL ITEMS.
41. PRIOR TO UTILITY CONSTRUCTION, CONTRACTOR SHALL TRIM ALL TREE BRANCHES WITHIN THE WORK AREA, TO 18 FEET ABOVE THE PAVEMENT. AFTER PAVING IS COMPLETED, CONTRACTOR SHALL TRIM ANY BRANCHES DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION, TRIMMING OF BRANCHES SHALL BE INCIDENTAL TO THE CONTRACT.
42. TEST PITS OF ALL UTILITY CROSSINGS SHALL BE COMPLETED TWO WEEKS IN ADVANCE OF THE START OF CONSTRUCTION OR ORDERING OF MATERIALS. TEST PIT INFORMATION SHALL BE PROMPTLY PROVIDED TO ENGINEER FOR REVIEW.
43. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.
44. LOCATION OF WATER MAINS ARE APPROXIMATE AND BASED ON A COMPOSITE OF AS-BUILT PLANS AND SURVEYED FEATURES SUCH AS VALVES.
45. COORDINATE WITH APPROPRIATE UTILITY COMPANY FOR SUPPORT OF UTILITY POLES AS NECESSARY.
46. TEST PITS SHALL BE COMPLETED PRIOR TO ORDERING STRUCTURES TO DETECT EXACT ELEVATION/LOCATION OF EXISTING UTILITIES. TEST PIT INFORMATION SHALL BE PROVIDED TO THE ENGINEER TO REVIEW PRIOR TO ORDERING STRUCTURES FOR THEIR REVIEW. TEST PITS SHALL INCLUDE ALL EXCAVATION, BACKFILL AND TEMPORARY PAVEMENT IN ROAD SECTIONS.
47. ANY DAMAGE CAUSED TO THE EXISTING UTILITIES BY THE CONTRACTORS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO SEPARATE PAYMENT SHALL BE MADE.
48. ANY BASE PAVEMENT NOT SURFACED BEFORE WINTER WILL REQUIRE TEMPORARY PAVEMENT MARKINGS OF PAINT, BOTH YELLOW CENTERLINE AND WHITE EDGE LINES AND WILL BE CONSIDERED PART OF ITEM 627.76.
49. PAVED ENTRANCES SHALL BE CONSTRUCTED WITH 3-INCH HOT MIX ASPHALT 9.5MM AND 15-INCH AGGREGATE SUBBASE COURSE GRAVEL IN RECONSTRUCTED AREAS OR WHERE DRIVEWAY CULVERTS ARE REPLACED. OTHERWISE MATCH IN OVERLAY OR RECLAIM AREAS.

GRADING NOTES:

1. ADD 4" LOAM, SEED AND MULCH TO DISTURBED AREAS UNLESS OTHERWISE NOTED. PROVIDE EROSION CONTROL MESH ON ALL SLOPES STEEPER THAN 3:1, AND ALONG DITCH CHANNELS.
2. MAINTAIN TEMPORARY EROSION CONTROL MEASURES FOR THE FULL DURATION OF CONSTRUCTION. INSPECT WEEKLY AND AFTER EACH STORM AND REPAIR AS NEEDED. REMOVE SEDIMENTS FROM THE SITE. PLACE IN AREA OF LOW EROSION POTENTIAL, AND STABILIZE WITH SEED AND MULCH.
3. PLACE TEMPORARY SOIL STABILIZATION WITHIN 7 DAYS OF INITIAL DISTURBANCE. PLACE PERMANENT SOIL STABILIZATION WITHIN 7 DAYS OF FINAL GRADING.

UTILITY NOTES:

1. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION IS NOT GUARANTEED. VERIFY SITE CONDITIONS INCLUDING TEST PITS FOR LOCATIONS AND INVERTS OF UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO PROCEEDING WITH THAT PORTION OF THE WORK.
2. COORDINATE WORK ON UTILITY LINES OR WITHIN ROAD RIGHT-OF-WAY WITH THE UTILITY COMPANIES AND TOWN ROAD DEPARTMENT AND STATE MDOT.
3. ALL PIPING AND DRAINAGE STRUCTURES SHALL BE INSTALLED IN ACCORDANCE WITH THE TOWN OF CUMBERLAND AND MAINE DEPARTMENT OF TRANSPORTATION STANDARDS.

SURVEYOR'S NOTES

1. NO CERTIFICATION IS MADE TO THE EXISTENCE OR NONEXISTENCE OF HAZARDOUS SUBSTANCES, ENVIRONMENTALLY SENSITIVE AREAS, UNDERGROUND UTILITIES, UNDERGROUND STRUCTURES, ZONING REGULATIONS OR REAL ESTATE TITLE.
2. DIG SAFE MUST BE CONTACTED AND CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND DIMENSIONS OF ALL UTILITIES PRIOR TO EXCAVATION.
3. THE SOURCE OF BEARINGS FOR THIS LAND SURVEY WAS MAINE STATE GRID PLANE 1983 WEST ZONE.
4. PROPERTY BOUNDARY LINES DETERMINED BY SURVEY, INC PROJECT 01-166. BASIS OF ELEVATIONS DETERMINED FROM F.F.E. 143.41 SURVEY INC PLAN.

DIG SAFE NOTES:

PRIOR TO EXCAVATION, VERIFY THE UNDERGROUND UTILITIES, PIPES, STRUCTURES AND FACILITIES. PROVIDE THE FOLLOWING MINIMUM MEASURES:

1. PRE-MARK THE BOUNDARIES OF PLANNED EXCAVATION WITH WHITE PAINT, FLAGS OR STAKES, SO UTILITY CREWS KNOW WHERE TO MARK THEIR LINES.
2. CALL DIG SAFE, AT 811, AT LEAST THREE BUSINESS DAYS - BUT NO MORE THAN 30 CALENDAR DAYS - BEFORE STARTING WORK. DO NOT ASSUME SOMEONE ELSE WILL MAKE THE CALL.
3. IF BLASTING, NOTIFY DIG SAFE AT LEAST ONE BUSINESS DAY IN ADVANCE.
4. WAIT THREE BUSINESS DAYS FOR LINES TO BE LOCATED AND MARKED WITH COLOR-CODED PAINT, FLAGS OR STAKES. NOTE THE COLOR OF THE MARKS AND THE TYPE OF UTILITIES THEY INDICATE. TRANSFER THESE MARKS TO THE AS-BUILT DRAWINGS.
5. CONTACT THE LANDOWNER AND OTHER "NON-MEMBER" UTILITIES (WATER, SEWER, GAS, ETC.). FOR THEM TO MARK THE LOCATIONS OF THEIR UNDERGROUND FACILITIES. TRANSFER THESE MARKS TO THE AS-BUILT DRAWINGS.
6. RE-NOTIFY DIG SAFE AND THE NON-MEMBER UTILITIES IF THE DIGGING, DRILLING OR BLASTING DOES NOT OCCUR WITHIN 30 CALENDAR DAYS, OR IF THE MARKS ARE LOST DUE TO WEATHER CONDITIONS, SITE WORK ACTIVITY OR ANY OTHER REASON.
7. HAND DIG WITHIN 18 INCHES IN ANY DIRECTION OF ANY UNDERGROUND LINE UNTIL THE LINE IS EXPOSED. MECHANICAL METHODS MAY BE USED FOR INITIAL SITE PENETRATION, SUCH AS REMOVAL OF PAVEMENT OR ROCK.
8. DIG SAFE REQUIREMENTS ARE IN ADDITION TO TOWN, CITY, AND/OR STATE DOT STREET OPENING PERMIT REQUIREMENTS.
9. FOR COMPLETE DIG SAFE REQUIREMENTS, CALL THE PUC OR VISIT THEIR WEBSITE.
10. IF YOU DAMAGE, DISLOCATE OR DISTURB ANY UNDERGROUND UTILITY LINE, IMMEDIATELY NOTIFY THE AFFECTED UTILITY. IF DAMAGE CREATES SAFETY CONCERNS, CALL THE FIRE DEPARTMENT AND TAKE IMMEDIATE STEPS TO SAFEGUARD HEALTH AND PROPERTY.
11. ANY TIME AN UNDERGROUND LINE IS DAMAGED OR DISTURBED OR IF LINES ARE IMPROPERLY MARKED, YOU MUST FILE AN INCIDENT REPORT WITH THE P.U.C. FOR AN INCIDENT REPORT FORM VISIT WWW.STATE.ME.US/MPUC OR CALL THE PUC AT 1-800-452-4699.

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	EDGE OF PAVEMENT	
100	CONTOUR	100
	SEWER LINE	SS
	FORCE MAIN	FM
	CULVERT	
	UTILITY POLE	
OHE	OVERHEAD ELECTRIC	
OHE	UNDERGROUND ELECTRIC	UGE
W	WATER LINE	
	HYDRANT	
	LIGHT	
	SIGN	
	TREELINE	
	TEST PIT	TP18-02
	LEDGE PROBE	
	SILT FENCE	SF

EROSION CONTROL LEGEND

- CATCH BASIN PROTECTION WITH SILTSACK
- SF — SILT FENCE
- CHECK DAM
- STABILIZED CONSTRUCTION ENTRANCE/EXIT

TYPICAL ABBREVIATIONS:

ACCMP	ASPHALT COATED CMP	EA	EACH	OC	ON CENTER
ACP	ASBESTOS CEMENT PIPE	EG	EXISTING GROUND OR GRADE	OD	OUTSIDE DIAMETER
AC	ACRE	ELEC	ELECTRIC		
AGG	AGGREGATE	EL	ELEVATION	PC	POINT OF CURVE
ALUM	ALUMINUM	ELB	ELBOW	PD	PERIMETER DRAIN
APPD	APPROVED	EOP	EDGE OF PAVEMENT	PI	POINT OF INTERSECTION
APPROX	APPROXIMATE	EQUIP	EQUIPMENT	PIV	POST INDICATOR VALVE
ARMH	AIR RELEASE MANHOLE	EST	ESTIMATED	PT	POINT OF TANGENT
ASB	ASBESTOS	EXC	EXCAVATE	PERF	PERFORATED
ASP	ASPHALT	EXIST	EXISTING	PP	POWER POLE
AUTO	AUTOMATIC			PSI	POUNDS PER SQUARE INCH
AUX	AUXILIARY	FI	FIELD INLET	PVC	POLYVINYL CHLORIDE
AVE	AVENUE	FG	FINISH GRADE	PVMT	PAVEMENT
AZ	AZIMUTH	FBRGL	FIBERGLASS		
		FDN	FOUNDATION	QTY	QUANTITY
BCCMP	BITUMINOUS COATED CMP	FLEX	FLEXIBLE		
BM	BENCH MARK	FLG	FLANGE	RCP	REINFORCED CONCRETE PIPE
BIT	BITUMINOUS	FLR	FLOOR	ROW	RIGHT OF WAY
BLDG	BUILDING	FPS	FEET PER SECOND	RAD	RADIUS
BOT	BOTTOM	FT OR '	FEET	REQD	REQUIRED
BRG	BEARING	FTG	FOOTING	RT	RIGHT
BV	BALL VALVE			RTE	ROUTE
		GA	GAUGE		
CB	CATCH BASIN	GAL	GALLON	S	SLOPE
CEN	CENTER	GALV	GALVANIZED	SCH	SCHEDULE
CEM LIN	CEMENT LINED	GPD	GALLONS PER DAY	SF	SQUARE FEET
CMP	CORRUGATED METAL PIPE	GPM	GALLONS PER MINUTE	SHT	SHEET
CO	CLEAN OUT			SMH	SANITARY MANHOLE
CF	CUBIC FEET	HDPE	HIGH DENSITY POLYETHYLENE	ST	STREET
CFS	CUBIC FEET PER SECOND	HORIZ	HORIZONTAL	STA	STATION
CI	CAST IRON	HP	HORSEPOWER	SY	SQUARE YARD
CL	CLASS	HYD	HYDRANT		
CONC	CONCRETE			TAN	TANGENT
CONST	CONSTRUCTION	ID	INSIDE DIAMETER	TDH	TOTAL DYNAMIC HEAD
CONTR	CONTRACTOR	IN OR "	INCHES	TEMP	TEMPORARY
CS	CURB STOP	INV	INVERT	TYP	TYPICAL
CTR	CENTER	INV EL	INVERT ELEVATION		
CU	COPPER			UD	UNDERDRAIN
CY	CUBIC YARD	LB	POUND	V	VOLTS
		LC	LEACHATE COLLECTION	VA TEE	VALVE ANCHORING TEE
D	DEGREE OF CURVE	LD	LEAK DETECTION	VERT	VERTICAL
DBL	DOUBLE	LF	LINEAR FEET		
DEG OR °	DEGREE	LOC	LOCATION	WG	WATER GATE
DEPT	DEPARTMENT	LT	LEACHATE TRANSPORT	W/	WITH
DI	DUCTILE IRON			W/O	WITHOUT
DIA OR	DIAMETER	MH	MANHOLE		
DIM	DIMENSION	MJ	MECHANICAL JOINT	YD	YARD
DIST	DISTANCE	MATL	MATERIAL		
DN	DOWN	MAX	MAXIMUM		
DR	DRAIN	MFR	MANUFACTURE		
DWG	DRAWING	MIN	MINIMUM		
		MISC	MISCELLANEOUS		
		MON	MONUMENT		
		NITC	NOT IN THIS CONTRACT		
		NTS	NOT TO SCALE		
		N/F	NOW OR FORMERLY		
		NO OR #	NUMBER		

REV.	BY	DATE	STATUS
	DPD	10/2019	ISSUED FOR CONSTRUCTION
	DPD	4/2019	ISSUED FOR BID

STATE OF MAINE · DANIEL P. DIFFIN · 11841 · LICENSED PROFESSIONAL ENGINEER · 10/17/19

ENGINEERED PUMP STATION AND FORCE MAIN WASTEWATER DISPOSAL SYSTEM LEDGEVIEW PROPERTIES, LLC CUMBERLAND, MAINE

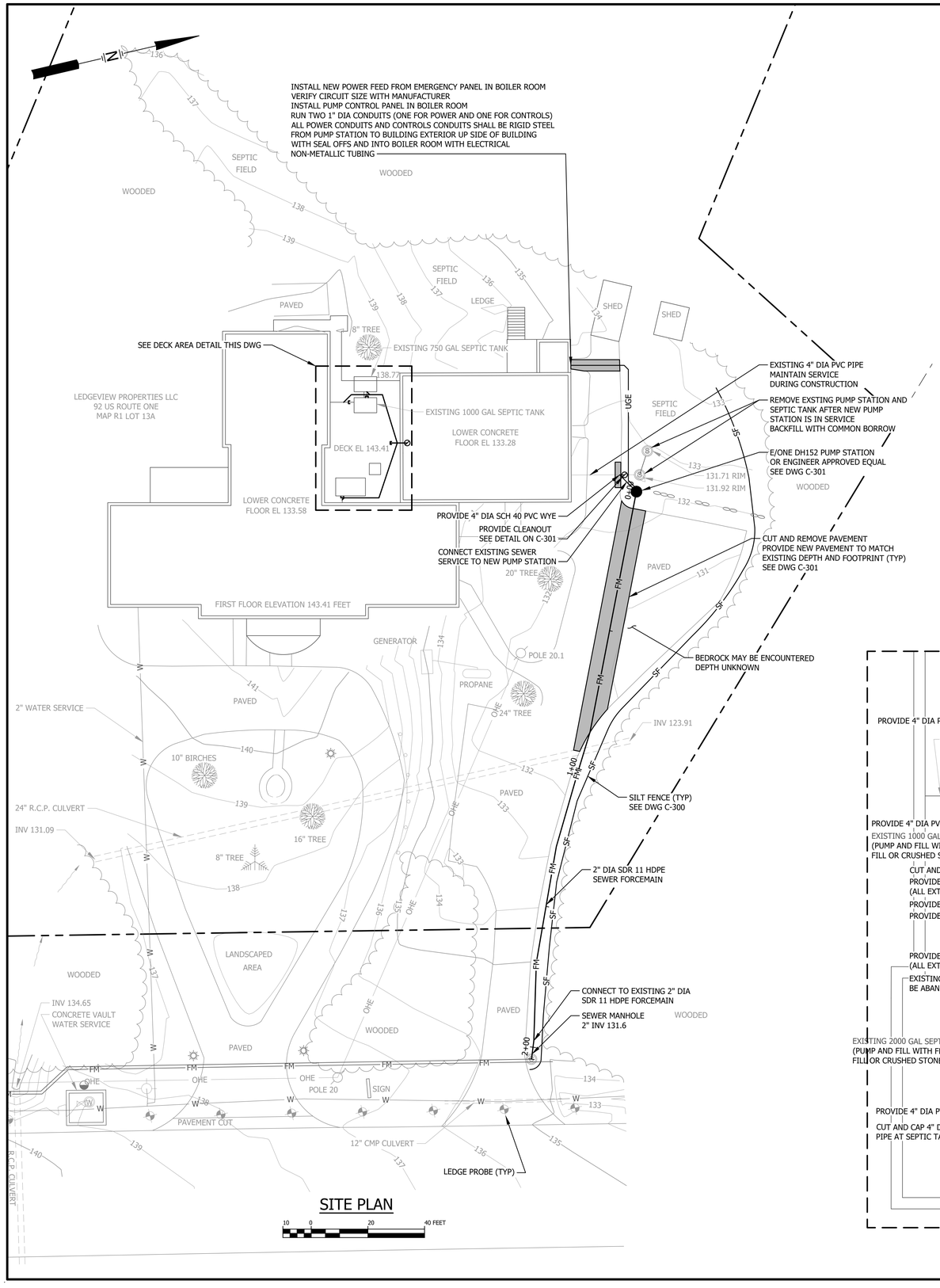
GENERAL NOTES, LEGEND, AND ABBREVIATIONS

SME
SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

DESIGN BY:	NMT
DRAWN BY:	SJM
DATE:	10/2018
CHECKED BY:	BDP
LMN:	NONE
CTB:	SME-STD

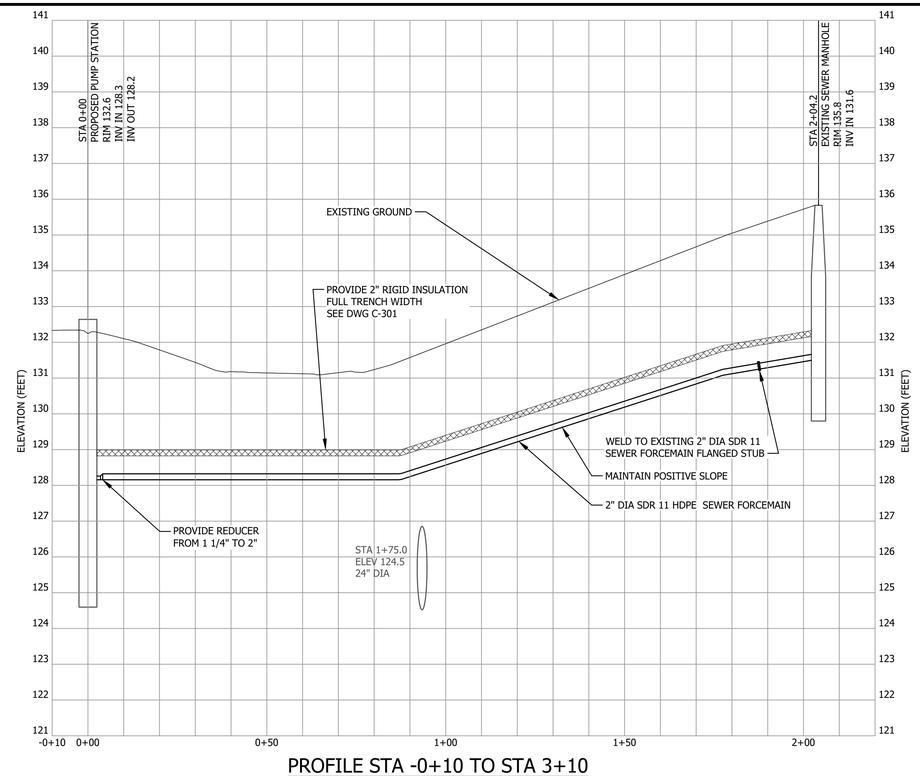
JOB NO. 18185.00 DWG FILE GEN-NOTES

C-100



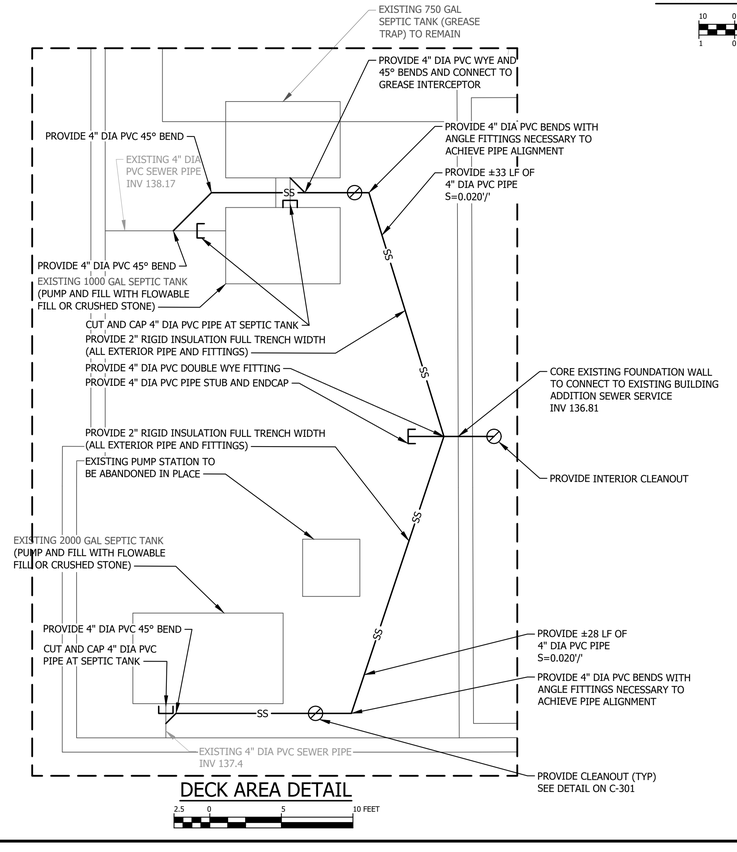
SITE PLAN

10 0 20 40 FEET



PROFILE STA -0+10 TO STA 3+10

10 0 20 40 FEET (HORZ)
1 0 2 4 FEET (VERT)



DECK AREA DETAIL

2.5 0 5 10 FEET

NOTES:

1. SEE DWG C-100 FOR DETAILS ON ORIGIN OF EXISTING CONDITIONS PLAN.
2. CONTRACTOR SHALL COMPLETE INTERIOR WORK PRIOR TO EXTERIOR WORK.
3. PLUMBING AND ELECTRICAL DESIGN PREPARED BY BENNETT ENGINEERING OF FREEPORT, MAINE.
4. ALL GRAVITY SEWER PIPING AND FITTINGS SHALL BE SCH 40 PVC.

REV.	BY	DATE	STATUS
	DPD	10/2019	ISSUED FOR CONSTRUCTION
	DPD	4/2019	ISSUED FOR BID

STATE OF MAINE
DANIEL P. DIFFIN
11841
LICENSED PROFESSIONAL ENGINEER

ENGINEERED PUMP STATION AND FORCE MAIN
WASTEWATER DISPOSAL SYSTEM
LEDGEVIEW PROPERTIES, LLC
CUMBERLAND, MAINE

SITE PLAN AND PROFILE

SME
SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

DESIGN BY:	NMT
DRAWN BY:	BWB
DATE:	7/2018
CHECKED BY:	BDP
LMN:	EXCON
CTB:	SME-STD

JOB NO. 18185.00 DWG FILE BASE

C-101

EROSION CONTROL NOTES:

A. GENERAL

1. All soil erosion and sediment control will be done in accordance with: (1) the Maine Erosion and Sediment Control Handbook: Best Management Practices, Maine Department of Environmental Protection (MEDEP), October 2016.

2. The site Contractor (to be determined) will be responsible for the repair/replacement/maintenance of all erosion control measures until all disturbed areas are stabilized.

3. Disturbed areas will be permanently stabilized within 7 days of final grading. Disturbed areas not to be worked upon within 14 days of disturbance will be temporarily stabilized within 7 days of the disturbance.

4. In all areas, removal of trees, bushes and other vegetation, as well as disturbance of topsoil will be kept to a minimum while allowing proper site operations.

5. Any suitable topsoil will be stripped and stockpiled for reuse as directed by the Owner. Topsoil will be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. In any event, stockpiles will not be located within 100 feet of wetlands and will be at least 50 feet upgradient of the stockpile's perimeter silt fence. The sideslopes of the topsoil stockpile will not exceed 2:1. Silt fence will be installed around the perimeter of all topsoil stockpiles. Topsoil stockpiles will be surrounded with siltation fencing and will be temporarily seeded with Aroostook rye, annual or perennial ryegrass within 7 days of formation, or temporarily mulched.

B. TEMPORARY MEASURES

1. STABILIZED CONSTRUCTION ENTRANCE/EXIT

A crushed stone stabilized construction entrance/exit will be placed at any point of vehicular access to the site, in accordance with the detail shown on this sheet.

2. SILT FENCE

a. Silt fence will be installed prior to all construction activity, where soil disturbance may result in erosion. Silt fence will be erected at locations shown on the plans and/or downgradient of all construction activity.

b. Silt fences will be removed when they have served their useful purpose, but not before the upgradient areas have been permanently stabilized.

c. Silt fences will be inspected immediately after each rainfall and at least daily during prolonged rainfall. They will be inspected if there are any signs of erosion or sedimentation below them. Any required repairs will be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they will be replaced with a temporary crushed stone check dam.

d. Sediment deposits will be removed after each storm event if significant build-up has occurred or if deposits exceed half the height of the barrier.

3. STONE CHECK DAMS

Stone check dams will be installed in grass-lined swales and ditches during construction.

4. EROSION CONTROL MIX SEDIMENT BARRIER

a. Where approved, erosion control mix sediment barriers may be used as a substitute for silt fence. See the details in this drawing set for specifications.

b. Rock Filter Berms: To provide more filtering capacity or to act as a velocity check dam, a berm's center can be composed of clean crushed rock ranging in size from the french drain stone to riprap.

5. TEMPORARY SEEDING

Stabilize disturbed areas that will not be brought to final grade and reduce problems associated with mud and dust production from exposed soil surface during construction with temporary vegetation.

6. TEMPORARY MULCHING

Use temporary mulch in the following locations and/or circumstances:

- In sensitive areas (within 100 feet of streams, wetlands and in lake watersheds) temporary mulch will be applied within 7 days of exposing spill or prior to any storm event.
- Apply temporary mulch within 14 days of disturbance or prior to any storm event in all other areas.
- Areas which have been temporarily or permanently seeded will be mulched immediately following seeding.
- Areas which cannot be seeded within the growing season will be mulched for over-winter protection and the area will be seeded at the beginning of the growing season.
- Mulch can be used in conjunction with tree, shrub, vine, and ground cover plantings.
- Mulch anchoring will be used on slopes greater than 5 percent in late fall (past October 15), and over-winter (October 15 - April 15).

The following materials may be used for temporary mulch:

a. Hay or Straw material shall be air-dried, free of seeds and coarse material. Apply 2 bales/1,000 sf or 1.5 to 2 tons/acre to cover 90% of ground surface.

b. Erosion Control Mix: It can be used as a stand-alone reinforcement:
- on slopes 2 horizontal to 1 vertical or less;
- on frozen ground or forested areas; and
- at the edge of gravel parking areas and areas under construction.

c. Erosion control mix alone is not suitable:
- on slopes with groundwater seepage;
- at low points with concentrated flows and in gullies;
- at the bottom of steep perimeter slopes exceeding 100 feet in length;
- below culvert outlet aprons; and around catch basins and closed storm systems.

d. Chemical Mulches and Soil Binders: Wide ranges of synthetic spray-on materials are marketed to protect the soil surface. These are emulsions that are mixed with water and applied to the soil. They may be used alone, but most often are used to hold wood fiber, hydro-mulches or straw to the soil surface.

e. Erosion Control Blankets and Mats: Mats are manufactured combinations of mulch and netting designed to retain soil moisture and modify soil temperature. During the growing season (April 15 to October 15) use mats indicated on drawings or North American Green (NAG) S75 (or mulch and netting) on:
- the base of grassed waterways;
- steep slopes (15 percent or greater); and
- any disturbed soil within 100 feet of lakes, streams, or wetlands.

During the late fall and winter (October 15 to April 15) use heavy grade mats indicated on drawings for NAG SC250 on all areas noted above plus use lighter grade mats NAG S75 (or mulch and netting) on:
- sideslopes of grassed waterways; and moderate slopes (between 8 and 15 percent).

C. TEMPORARY DUST CONTROL

To prevent the blowing and movement of dust from exposed soil surfaces, and reduce the presence of dust, use water or calcium chloride to control dusting by preserving the moisture level in the road surface materials.

D. CONSTRUCTION DE-WATERING

1. Water from construction de-watering operations shall be cleaned of sediment before reaching wetlands, water bodies, streams or site boundaries. Utilize temporary sediment basins, erosion control soil filter berms backed by staked hay bales, A Dirt Bag 55" sediment filter bag by ACF Environmental, or other approved Best Management Practices (BMP's).

2. In sensitive areas near streams or ponds, discharge the water from the de-watering operation into a temporary sediment basin created by a surrounding filter berm of uncompacted erosion control mix immediately backed by staked hay bales (see the site details). Locate the temporary sediment basin at lease 100 feet from the nearest water body, such that the filtered water will flow through undisturbed vegetated soil areas prior to reaching the water body or property line.

E. PERMANENT MEASURES

1. Ripprapped Aprons: All storm drain pipe outlets and the inlet and outlet of culverts will have riprap aprons to protect against scour and deterioration.

2. Topsoil, Seed, and Mulch: All areas disturbed during construction, but not subject to other restoration (paving, riprap, etc.) will be loamed, limed, fertilized, seeded, and mulched.

Seeded Preparation: Use stockpiled materials spread to the depths shown on the plans, if available. Approved topsoil substitutes may be used. Grade the site as needed.

a. Seeding will be completed by August 15 of each year. Late season seeding may be done between August 15 and October 15. Areas not seeded or which do not obtain satisfactory growth by October 15, will be seeded with Aroostook Rye or mulched. After November 1, or the first killing frost, disturbed areas will be seeded at double the specified application rates, mulched, and anchored.

PERMANENT SEEDING SPECIFICATIONS

Mixture:	Roadside (lbs/acre)	Lawn (lbs/acre)
Kentucky Bluegrass	20	55
White Clover	5	0
Creeping Red Fescue	20	55
Perennial Ryegrass	5	15

b. Mulch in accordance with specifications for temporary mulching.

c. If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site.

3. Ditches and Channels: All ditches on-site will be lined with North American Green S75 erosion control mesh (or an approved equal) upon installation of loam and seed.

F. WINTER CONSTRUCTION AND STABILIZATION

1. Winter excavation and earthwork will be completed so as to minimize exposed areas while satisfactorily completing the project. Limit exposed areas to those areas in which work is to occur during the following 15 days and that can be mulched in one day prior to any snow event. All areas will be considered denuded until the subbase gravel is installed in roadway areas or the areas of future loam and seed have been loamed, seeded, and mulched.

Install any added measures necessary to control erosion/sedimentation. The particular measure used will be dependent upon site conditions, the size of the area to be protected, and weather conditions.

To minimize areas without erosion control protection, continuation of earthwork operations on additional areas will not begin until the exposed soil surface on the area being worked has been stabilized.

2. Natural Resource Protection: During winter construction, a double-row 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 will be protected a minimum distance of 100 feet on either side from the resource.

3. Sediment Barriers: During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

4. Mulching:

- All areas will be considered to be denuded until seeded and mulched. Hay and straw mulch will be applied at a rate of twice the normal accepted rate.
- Mulch will not be spread on top of snow.
- After each day of final grading, the area will be properly stabilized with anchored hay or straw or erosion control matting.
- Between the dates of November 1 and April 15, all mulch will be anchored by either mulch netting, emulsion chemical, tracking or wood cellulose fiber.

5. Soil Stockpiling: Stockpiles of soil or subsoil will be mulched for over-winter protection with hay or straw at twice the normal rate or with a 4-inch layer of erosion control mix. This will be done within 24 hours of stocking and re-established prior to any rainfall or snowfall. Any soil stockpiles shall not be placed (even covered with mulch) within 100 feet from any natural resources.

6. Seeding: Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas will receive 4 inches of loam and seed at an application rate of three times the rate for permanent seeding. All areas seeded during the winter will be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75 percent catch) will be revegetated by replacing loam, seed, and mulch.

If dormant seeding is not used for the site, all disturbed areas will be revegetated in the spring.

7. Maintenance: Maintenance measures will be applied as needed during the entire construction season. After each rainfall, snow storm, or period of thawing and runoff, the site Contractor will perform a visual inspection of all installed erosion control measures and perform repairs as needed to ensure their continuous function.

Following the temporary and/or final seeding and mulching, the Contractor will, in the spring, inspect and repair any damages and/or bare spots. An established vegetative cover means a minimum of 85 to 90 percent of areas vegetated with vigorous growth.

G. OVER-WINTER CONSTRUCTION EROSION CONTROL MEASURES

1. Stabilization of Disturbed Soil: By October 15, all disturbed soils on areas having a slope less than 15 percent will be seeded and mulched. If the Contractor fails to stabilize these soils by this date, then the Contractor shall stabilize the soil for late fall and winter, by using either temporary seeding or mulching.

2. Stabilization of Disturbed Slopes: All slopes to be vegetated will be completed by October 15. The Owner will consider any area having a grade greater than 15 percent (6.5H:1V) to be a slope. Slopes not vegetated by October 15 will receive one of the following actions to stabilize the slope for late fall and winter:

a. Stabilize the soil with temporary vegetation and erosion control mesh.
b. Stabilize the slope with erosion control mix.
c. Stabilize the slope with stone riprap.

3. Stabilization of Ditches and Channels: All stone-lined ditches and channels to be used to convey runoff through the winter will be constructed and stabilized by November 15. Grass-lined ditches and channels will be complete by September 15. Grass-lined ditches not stabilized by September 15 shall be lined with either sod or riprap.

H. MAINTENANCE PLAN

1. Routine Maintenance: Inspection will be performed as outlined in the project's Erosion Control Plan. Inspection will be by a qualified person during wet weather to ensure that the facility performs as intended. Inspection priorities will include checking erosion controls for accumulation of sediments.

I. Housekeeping

1. 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.

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.

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.

4. Debris and other materials. Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.

5. Trench or foundation de-watering. Trench 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 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 by the department.

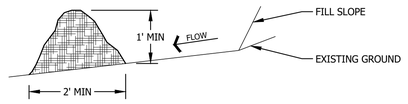
6. Non-stormwater discharges. Identify and prevent contamination by non-stormwater discharges.

7. Additional requirements. Additional requirements may be applied on a site-specific basis.

J. CONSTRUCTION SEQUENCE

In general, the expected sequence of construction for each phase is provided below. Construction is proposed to start in Spring 2019 and be complete in Summer 2019.

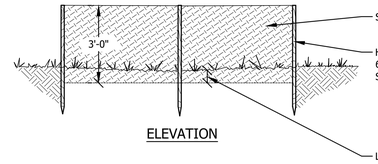
- Mobilization
- Install temporary erosion control measures
- Clearing and grubbing
- Complete interior plumbing work
- Install pump station
- Install 6" gravity sanitary sewer pipe
- Install 2" forcemain sewer pipe



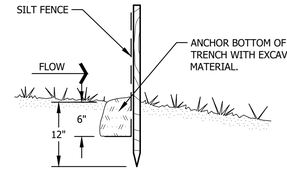
EROSION CONTROL MIX SEDIMENT BARRIER

NOTES:

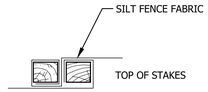
1. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER-FLUME LOG HANDLING SYSTEMS.
WOOD CHIPS, GROUND CONSTRUCTION DEBRIS, REPROCESSED WOOD PRODUCTS OR BARK CHIPS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.
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 MATERIAL: BETWEEN 20% - 100% (DRY WEIGHT BASIS)
   B. PARTICLE SIZE: BY WEIGHT, 100% PASSING 6" SCREEN, 70-85% PASSING 0.75" SCREEN
   C. THE 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 LESS THAN 4.0 MMHOS/CM.
   F. PH: 5.0 - 8.0
2. ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF SLOPES 2:1 OR LESS UP TO 20 FEET LONG, THE BARRIER MUST CONFORM TO THE ABOVE DIMENSIONS. ON THE LONGER OR STEEPER SLOPES, THE BARRIER SHOULD BE WIDER TO ACCOMMODATE THE ADDITIONAL FLOW.
3. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL ELEVATION. 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.
4. LOCATIONS WHERE OTHER BMP'S SHOULD BE USED:
   A. AT LOW POINTS OF CONCENTRATED FLOW
   B. BELOW CULVERT OUTLET APRONS
   C. WHERE A PREVIOUS STAND-ALONE EROSION CONTROL MIX APPLICATION HAS FAILED
   D. AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM (LARGE UPGRADIENT WATERSHED)
   E. AROUND CATCH BASINS AND CLOSED STORM DRAIN SYSTEMS.
5. THE EROSION CONTROL MIX BARRIERS SHOULD BE INSPECTED REGULARLY AND AFTER EACH LARGE RAINFALL. REPAIR ALL DAMAGED SECTIONS OF BERM IMMEDIATELY BY REPLACING OR ADDING ADDITIONAL MATERIAL PLACED ON THE BERM TO THE DESIRED HEIGHT AND WIDTH.
6. IT MAY BE NECESSARY TO REINFORCE THE BARRIER WITH SILT FENCE OR STONE CHECK DAMS IF THERE ARE SIGNS OF UNDERCUTTING OR THE IMPOUNDMENT OF LARGE VOLUMES OF WATER.
7. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
8. REPLACE SECTIONS OF BERM THAT DECOMPOSE, BECOME CLOGGED WITH SEDIMENT OR OTHERWISE BECOME INEFFECTIVE. THE BARRIER SHOULD BE RESHAPED AS NEEDED.
9. EROSION CONTROL MIX BARRIERS CAN BE LEFT IN PLACE AFTER CONSTRUCTION. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER BARRIER IS NO LONGER REQUIRED SHOULD BE SPREAD TO CONFORM TO THE EXISTING GRADE AND BE SEEDED AND MULCHED. WOODY VEGETATION CAN BE PLANTED INTO THE BARRIERS, OR THEY CAN BE OVER-SEEDED WITH LEGUMES. IF THE BARRIER NEEDS TO BE REMOVED, IT CAN BE SPREAD OUT INTO THE LANDSCAPE.



ELEVATION



SECTION



OVERLAP JOINTS

NOTE:
CONTRACTORS OPTION TO USE SEDIMENT BARRIER OR SILT FENCE FOR SLOPE PROTECTION.

SILT FENCE

SURFACE DRAINAGE SEDIMENT CONTROL

NTS

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STATE OF MAINE — DANIEL P. DIFFIN — 11841 — LICENSED PROFESSIONAL ENGINEER

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WASTEWATER DISPOSAL SYSTEM
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EROSION CONTROL NOTES AND DETAILS

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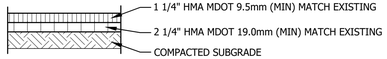
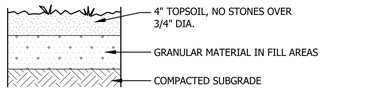
JOB NO. 18185.00 DWG FILE DETAILS

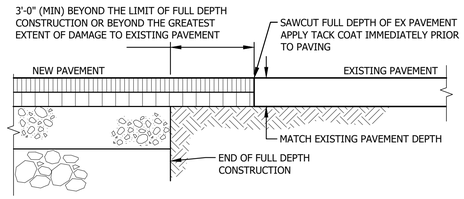
C-300

CONSTRUCTION	USE
	BITUMINOUS DRIVEWAY
	GRASS ALL DISTURBED AREAS OTHER THAN PLAY FIELDS

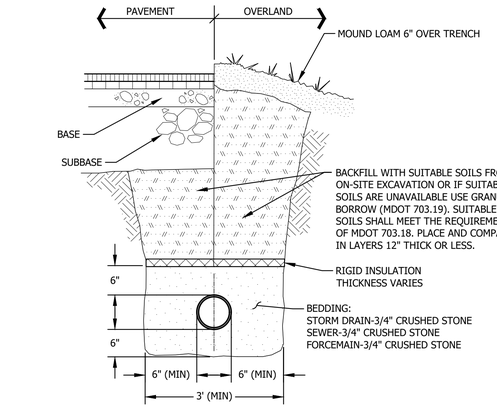
NOTES:

1. HMA = HOT MIX ASPHALT.
   MDOT = MAINE DEPARTMENT OF TRANSPORTATION.
2. ALL COURSE THICKNESS AFTER FINAL COMPACTION.

SCHEDULE OF SURFACE FINISHES
NTS

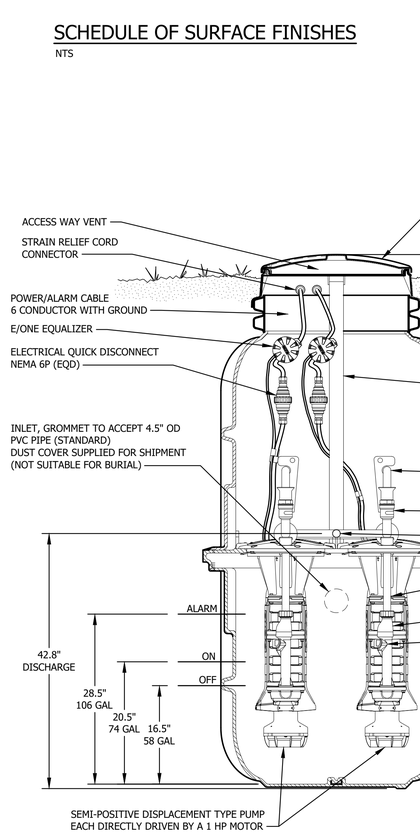


PAVEMENT BUTT JOINT
NTS



NOTES:
1. DIMENSIONS SHOWN DENOTE PAY LIMIT FOR ALL MATERIALS INCLUDING BEDROCK.
2. FORCE MAIN PIPE SHALL BE INSTALLED AND TESTED PER PORTLAND WATER DISTRICT REQUIREMENTS.

TYPICAL PIPE TRENCH
NTS



NOTES:
1. MODEL DH152 BY E/ONE SEWER SYSTEMS.
2. CONCRETE BALLAST MAY BE REQUIRED. SEE DETAIL THIS DWG.
3. DIMENSIONS ARE FOR REFERENCE ONLY.

W SERIES DUPLEX

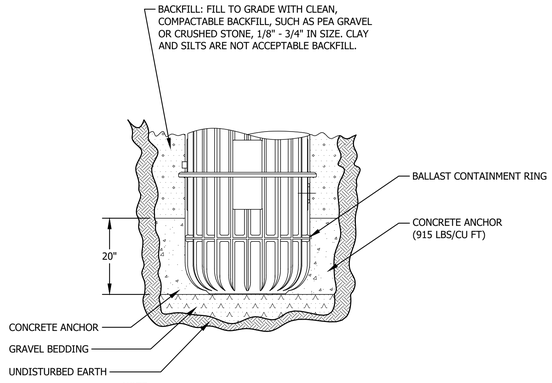
PUMP STATION
NTS

ANIT-FLOTATION NOTES:

THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE ENGINEER FOR APPROVAL. SUBMITTALS SHALL INCLUDE BUT NOT LIMITED TO THE FOLLOWING:

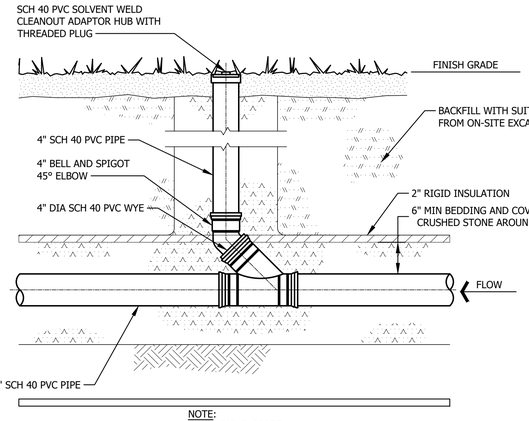
PRODUCT DATA: SUBMIT PRODUCT DATA FOR ALL MATERIALS USED ON THE JOB FOR REVIEW FOR LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH INFORMATION GIVEN AND DESIGN CONCEPT EXPRESSED IN CONTRACT DOCUMENTS.

SHOP DRAWINGS: SUBMIT FOR REVIEW SHOP DRAWINGS OF ALL PRECAST UNITS. MANUFACTURER'S INFORMATION SHALL BE SUBMITTED FOR JOINT SEALANTS AND WATERPROOFING. MANUFACTURE SHALL PROVIDE ANTI-FLOTATION DESIGN SHOP DRAWINGS AND CALCULATIONS, INCLUDING ANY EXTENDED BASE SLABS AS NECESSARY, FOR PROPOSED MANHOLES. MANUFACTURER SHALL ASSUME GROUNDWATER LEVELS EQUAL TOP OF GROUND ELEVATIONS AND PROVIDE FOR A 1.2 FACTOR OF SAFETY AGAINST FLOTATION.



NOTE:
1. PROVIDE CALCULATIONS FOR ANTI-FLOTATION BALLAST

ANTI-FLOTATION BALLAST
NTS



NOTE:
PLACE CAP @ GRADE

TYPICAL CLEANOUT
NTS

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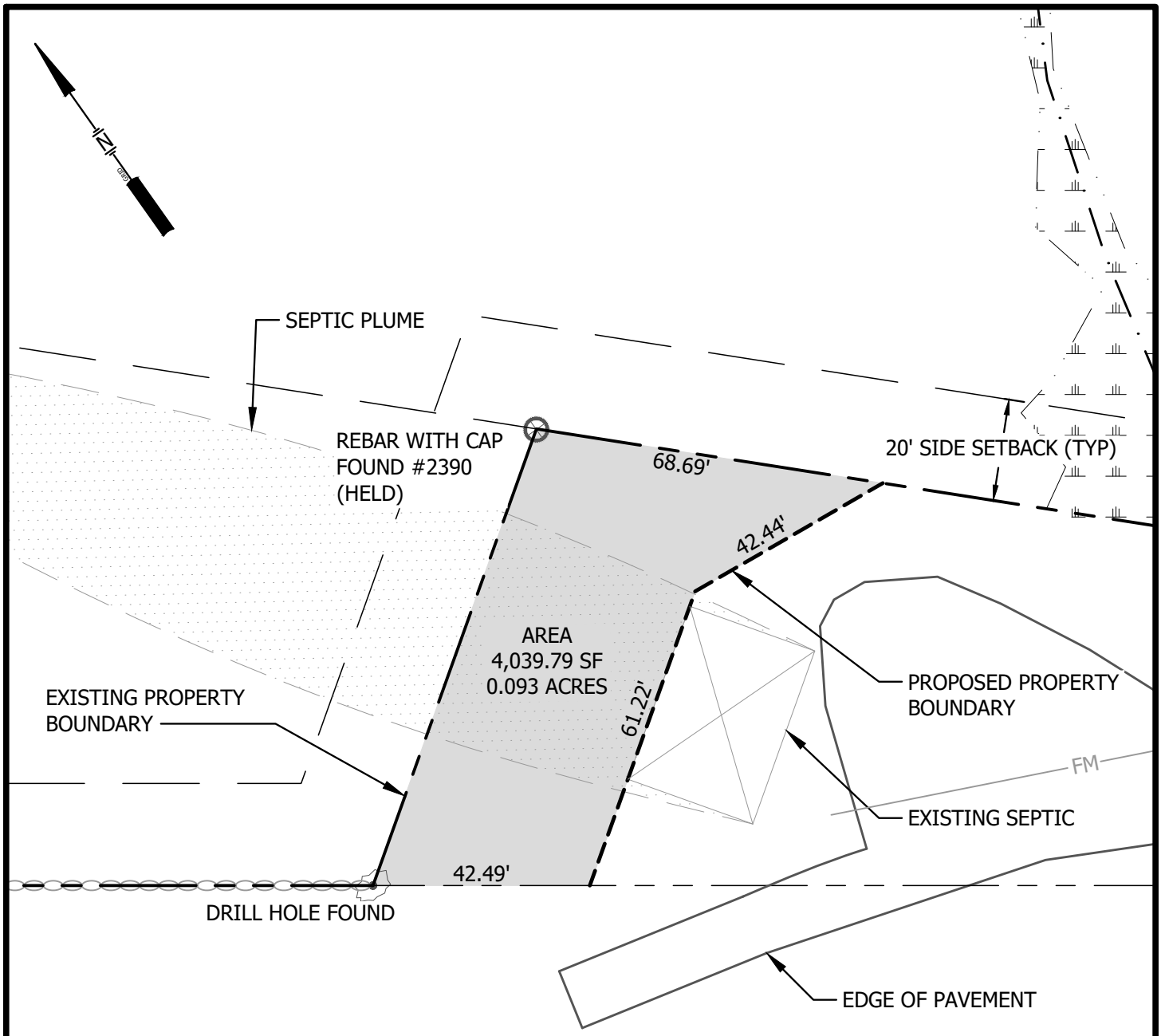

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ABUTTER PROPERTY ACQUISITION
SNELL CONSTRUCTION LLC
EVERGREEN CONDOMINIUMS
102 US ROUTE 1
CUMBERLAND, MAINE

SME
SEVEE & MAHER
ENGINEERS

\\Nserver\cfs\Platz Associates\Route 1 Cumberland Condos\Acad\Plans\BASE.dwg, 4/23/2021 9:43:24 AM, bwb

LETTER OF INTENT

BETWEEN

LEDGEVIEW PROPERTIES LLC/DAVID LANDA (SELLER) AND 100 US ROUTE 1 LLC/DAVID (BUYER)

April 26, 2021

The purpose of this Letter of Intent is to confirm Ledgeview Properties, LLC as Seller and 100 US Route 1, LLC have executed a Purchase and Sale Agreement to transfer the plot of land as presented in the attached drawing provided by Sevee & Maher Engineers, Inc. The plot of land is to be included in the development proposal for the property owned by 100 US Route 1, LLC and is contingent upon approval of said proposal by the Town of Cumberland, acceptance and partial release of collateral as noted in said Purchase and Sale by HUD, and other contingencies in the Purchase and Sale Agreement.

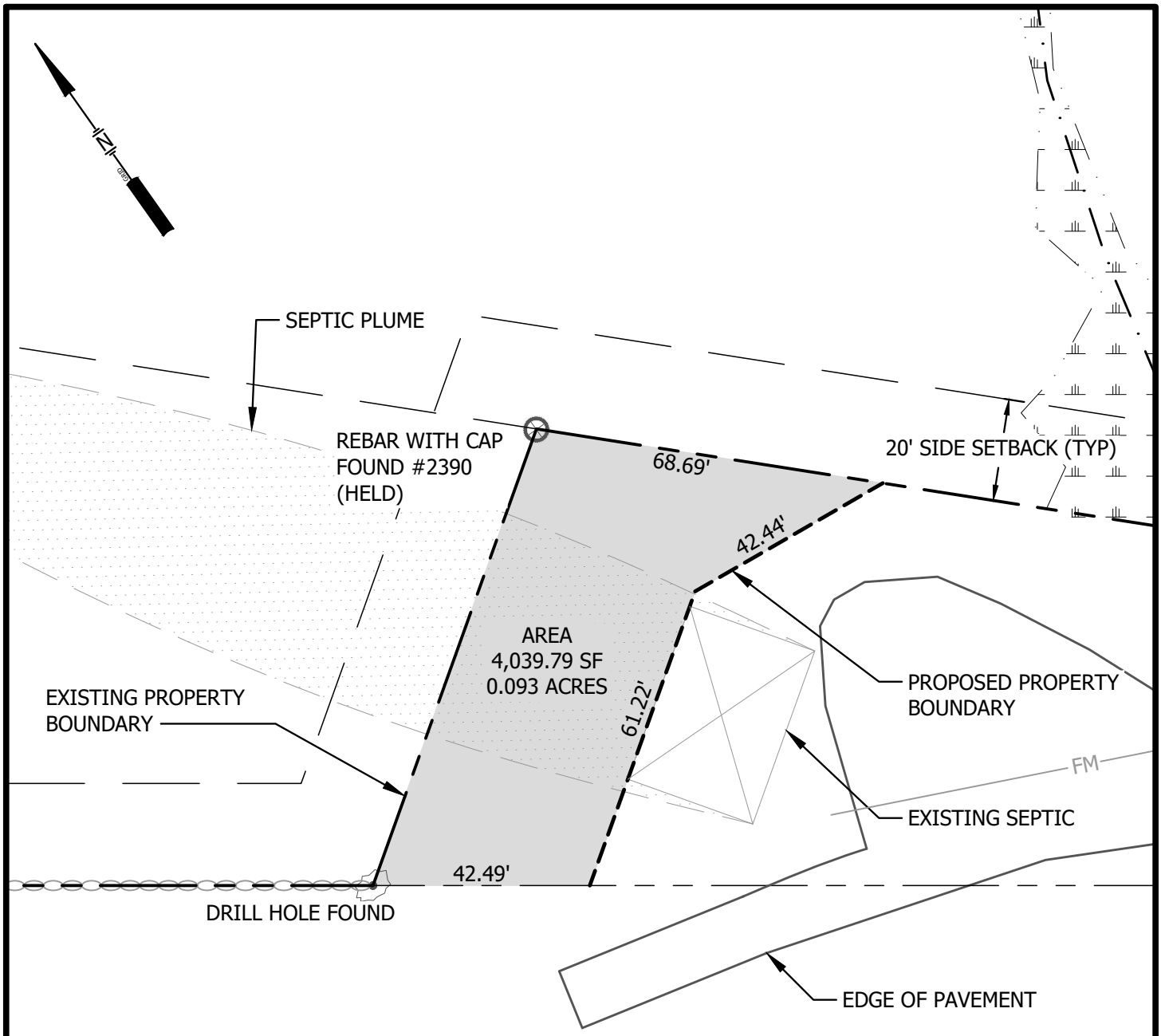
Signed:

DocuSigned by:
David A Landa
617BBEADF1AE45F...

LEDGEVIEW PROPERTIES, LLC/DAVID LANDA

DocuSigned by:
DAVID SPELLMAN
162179EE581E47B...

100 US ROUTE 1 LLC, DAVID SPELLMAN



N/F
LEDGEVIEW PROPERTIES, LLC
TM R01, PARCEL 13A
BOOK 17591, PAGE 242

DRAFT

15 0 30 FEET

DWG: BASE LMN: ABUT PROP CTB: SME-STD REV: 4/23/2021

ABUTTER PROPERTY ACQUISITION
SNELL CONSTRUCTION LLC
EVERGREEN CONDOMINIUMS
102 US ROUTE 1
CUMBERLAND, MAINE

SME
SEVEE & MAHER
ENGINEERS

APPENDIX B

FINANCIAL CAPABILITY

SME
SEVEE & MAHER
ENGINEERS

Katahdin Trust Company
Community Banking at its Best!

May 17, 2021

Town of Cumberland

Planning Dept

290 Tuttle Rd.

Cumberland, ME 04021

Re: Snell Construction LLC / Evergreen Condos

This bank has an established commercial banking relationship with Snell Construction LLC. Subject to normal and routine conditions, financing would be available to the company.

Sincerely

Aaron Cannan

Sr. Vice President

APPENDIX C

TECHNICAL CAPABILITY

SME
SEVEE & MAHER
ENGINEERS

TECHNICAL CAPACITY

Snell Construction, LLC is working with the following permit application representative and site design engineer:

Sevee & Maher Engineers, Inc. (SME)

SME of Cumberland, Maine is providing technical assistance for the site design and environmental permitting. Founded in 1985, SME has obtained hundreds of local, state, and federal permits related to environmental projects throughout the Northeast, including Site Location Permits for Backyard Farms in Madison, the Pineland Center in New Gloucester, the Mill Stream Subdivision in Freeport, and the Pine Tree Landfill in Hampden.

Sevee & Maher Engineers, Inc.
4 Blanchard Road
Cumberland, Maine 04021
207-829-5016

Daniel P. Diffin, P.E., LEED AP – Permitting and Site Design, SME

Mr. Diffin has more than twelve years of experience on a wide variety of civil engineering design and construction management projects for private and public sector clients. Mr. Diffin has been responsible for the engineering, design, and construction services for land development projects, commercial, industrial, and medical site developments, educational campuses, stormwater management and erosion control projects, and local, state, and federal permitting. Projects include: Backyard Farms, Madison; Maine R&D Station and other facility upgrades; and 2015 Mill Build-out Plan, Woodland Mill, Baileyville Maine.

Snell Construction, LLC is working with the following subconsultants to support the project:

Peter Biegel, ASLA, LEED AP– Maine Licensed Landscape Architect, Land Design Solutions

Land Design Solutions
1 Faraday Drive, Suite 7
Cumberland, ME 04021

Travis Nadeau, LEED AP BD+C– Maine Licensed Architect, Platz Associates

Platz Associates
Two Great Falls Plaza
Auburn, Maine 04210

APPENDIX D

MNAP AND MDIFW REVIEW LETTERS

SME
SEVEE & MAHER
ENGINEERS

SME
SEVEE & MAHER
ENGINEERS

4 Blanchard Road, P.O. Box 85A
Cumberland, ME 04021
Tel: 207.829.5016 • Fax: 207.829.5692
info@smemaine.com
smemaine.com

April 13, 2021

Mr. Lisa St. Hilaire
Maine Natural Areas Program
93 State House Station
Augusta, Maine 04333-0093

Subject: Evergreen Ridge Condominiums
US Route 1, Cumberland, Maine

Dear Lisa,

Snell Construction, LLC is seeking approval for construction of a 50-condo multiplex, with approximately 75 parking spaces and associated site improvement in Cumberland, Maine, under a Maine Department of Environmental Protection (MEDEP) Stormwater Management Permit. The project location is outlined in the attached Figure 1 - Site Location Map.

We would appreciate receiving any information relative to unusual natural areas at, or in the immediate vicinity of our project.

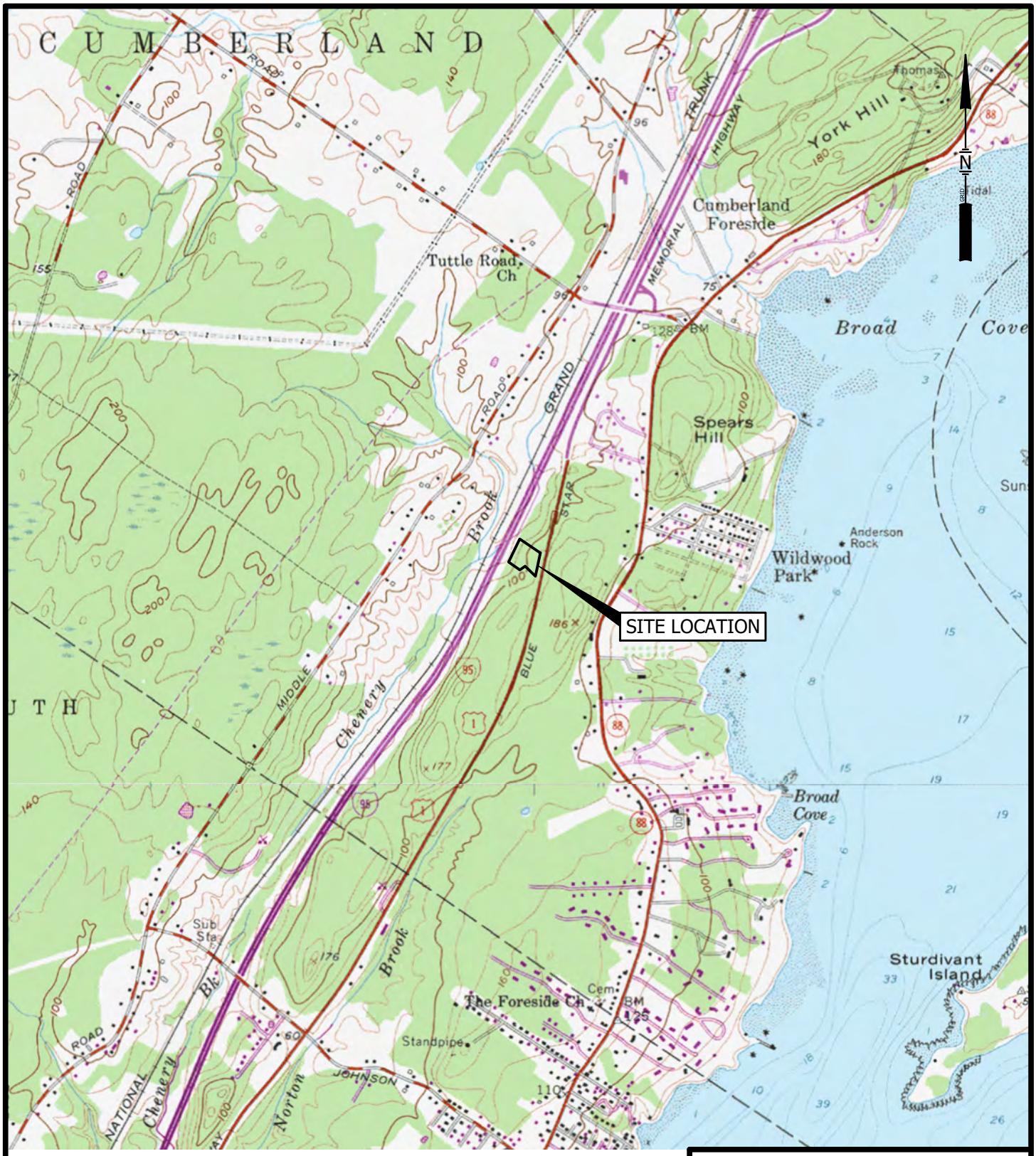
Please feel free to contact me at 207.829.5016 or dpd@smemaine.com if you have any questions or need additional information.

Sincerely,

SEVEE & MAHER ENGINEERS, INC.

Daniel P. Diffin, P.E., LEED AP BD+C
Vice President/Project Manager

Attachments: Figure 1 - Site Location Map



BASEMAP ADAPTED FROM 7.5 MIN USGS TOPO QUADS
YARMOUTH, ME - 1975
PORTLAND-EAST, ME - 1975

1000 0 2000 FEET

DWG: SITELOC LMN: NONE CTB: SME-STD REV: 4/12/2021

FIGURE 1
SITE LOCATION MAP
EVERGREEN RIDGE CONDOMINIUMS
CUMBERLAND, MAINE

SME
SEVEE & MAHER
ENGINEERS

\\Nserver\cfs\Platz Associates\Route 1 Cumberland Condos\Acad\Figures\SITELOC.dwg, 4/12/2021 10:38:50 AM, sjm

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
177 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

April 15, 2021

Daniel Diffin
Sevee & Maher Engineers
PO Box 85A
Cumberland, ME 04021

Via email: dpd@smemaine.com

Re: Rare and exemplary botanical features in proximity to: Evergreen Ridge Condominiums, US Route 1, Cumberland, Maine

Dear Mr. Diffin:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received April 13, 2021 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Cumberland, 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.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
BLOSSOM LANE, DEERING BUILDING

DEPARTMENT OF Agriculture Conservation & Forestry

PHONE: (207) 287-804490
WWW.MAINE.GOV/DACF/MNAP

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: Evergreen Ridge Condominiums, Cumberland, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
Adder's Tongue Fern						
	SC	S1	G5	1905-08-10	7	Non-tidal rivershore (non-forested, seasonally wet),Open wetland, not coastal nor rivershore (non-forested, wetland),Old field/roadside (non-forested, wetland or upland)
American Chestnut						
	SC	S4	G3	2001-02-13	2	Hardwood to mixed forest (forest, upland)
Bottlebrush Grass						
	SC	S3	G5	1905-09-13	10	Hardwood to mixed forest (forest, upland)
Engelmann's Spikerush						
	PE	SH	G4G5	1916-08-31	2	Open wetland, not coastal nor rivershore (non-forested, wetland)
Fern-leaved False Foxglove						
	SC	S3	G5	1902-09-02	13	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
Foxtail Bog-clubmoss						
	E	S1	G5	2017-08-22	1	<null>
Great Blue Lobelia						
	PE	SX	G5	1905-09	3	Forested wetland,Non-tidal rivershore (non-forested, seasonally wet)
Horned Pondweed						
	SC	S2	G5	1913-09-13	9	Tidal wetland (non-forested, wetland)
Marsh Milkwort						
	PE	SH	G5T4	1903-08-18	1	Dry barrens (partly forested, upland),Open wetland, not coastal nor rivershore (non-forested, wetland)
Mountain-laurel						
	SC	S2	G5	1985-08-01	13	Conifer forest (forest, upland),Hardwood to mixed forest (forest, upland)
Mountain Honeysuckle						
	E	S2	G5	2009-07-16	12	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest,

Rare and Exemplary Botanical Features within 4 miles of
Project: Evergreen Ridge Condominiums, Cumberland, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
						upland)
Rattlesnake Hawkweed						
	E	S1	G5T4Q	1909-07	1	Dry barrens (partly forested, upland)
Salt-hay Saltmarsh						
	<null>	S3	G5	2009	24	Tidal wetland (non-forested, wetland)
	<null>	S3	G5	2015-08-19	62	Tidal wetland (non-forested, wetland)
Saltmarsh Sedge						
	PE	SH	G4G5	1909-07-02	3	Tidal wetland (non-forested, wetland)
Screwstem						
	T	S1	G5	2014-09-24	17	Coastal non-tidal wetland (non-forested, wetland)
Slender Knotweed						
	PE	SH	G5	1902-09-07	1	Dry barrens (partly forested, upland)
Smooth Winterberry Holly						
	SC	S3	G5	2017-08-22	32	Forested wetland
Upper Floodplain Hardwood Forest						
	<null>	S3	GNR	2012	20	Forested wetland
Variable Sedge						
	E	S1	G3	1985-07-16	5	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
	E	S1	G3	2012-08-09	1	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
	E	S1	G3	2018-08-29	6	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
	E	S1	G3	2017-08-22	4	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
Water-plantain Spearwort						

Rare and Exemplary Botanical Features within 4 miles of
Project: Evergreen Ridge Condominiums, Cumberland, Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
	PE	SH	G4	1903-07-29	2	Open water (non-forested, wetland)
Wild Garlic						
	SC	S2	G5	1918-07-16	6	Forested wetland,Hardwood to mixed forest (forest, upland)

STATE RARITY RANKS

S1 Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.

S2 Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.

S3 Rare in Maine (20-100 occurrences).

S4 Apparently secure in Maine.

S5 Demonstrably secure in Maine.

SU Under consideration for assigning rarity status; more information needed on threats or distribution.

SNR Not yet ranked.

SNA Rank not applicable.

S#? Current occurrence data suggests assigned rank, but lack of survey effort along with amount of potential habitat create uncertainty (e.g. S3?).

Note: **State Rarity Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines State Rarity Ranks for animals.

GLOBAL RARITY RANKS

G1 Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extinction.

G2 Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.

G3 Globally rare (20-100 occurrences).

G4 Apparently secure globally.

G5 Demonstrably secure globally.

GNR Not yet ranked.

Note: **Global Ranks** are determined by NatureServe.

STATE LEGAL STATUS

Note: State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's **Endangered** and **Threatened** plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

E ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future; or federally listed as Endangered.

T THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

NON-LEGAL STATUS

SC SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.

PE Potentially Extirpated; Species has not been documented in Maine in past 20 years or loss of last known occurrence has been documented.

ELEMENT OCCURRENCE RANKS - EO RANKS

Element Occurrence ranks are used to describe the quality of a rare plant population or natural community based on three factors:

- **Size**: Size of community or population relative to other known examples in Maine. Community or population's viability, capability to maintain itself.
- **Condition**: For communities, condition includes presence of representative species, maturity of species, and evidence of human-caused disturbance. For plants, factors include species vigor and evidence of human-caused disturbance.
- **Landscape context**: Land uses and/or condition of natural communities surrounding the observed area. Ability of the observed community or population to be protected from effects of adjacent land uses.

These three factors are combined into an overall ranking of the feature of **A**, **B**, **C**, or **D**, where **A** indicates an **excellent** example of the community or population and **D** indicates a **poor** example of the community or population. A rank of **E** indicates that the community or population is **extant** but there is not enough data to assign a quality rank. The Maine Natural Areas Program tracks all occurrences of rare (S1-S3) plants and natural communities as well as A and B ranked common (S4-S5) natural communities.

Note: **Element Occurrence Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines Element Occurrence ranks for animals.

Visit our website for more information on rare, threatened, and endangered species!
http://www.maine.gov/dacf/mnap

SME
SEVEE & MAHER
ENGINEERS

4 Blanchard Road, P.O. Box 85A
Cumberland, ME 04021
Tel: 207.829.5016 • Fax: 207.829.5692
info@smemaine.com
smemaine.com

April 13, 2021

John Perry, Environmental Review Coordinator
Maine Department of Inland Fisheries and Wildlife
284 State Street, 41 SHS
Augusta, Maine 04333-0041

Subject: Evergreen Ridge Condominiums
US Route 1, Cumberland, Maine

Dear John:

Snell Construction, LLC is seeking approval for construction of a 50-condo multiplex, with approximately 75 parking spaces and associated site improvement in Cumberland, Maine, under a Maine Department of Environmental Protection (MEDEP) Stormwater Management Permit. The project location is outlined in the attached Figure 1 - Site Location Map. The lot is bordered to the east by US Route 1. to the west by Route I-295, and to south by Ledgeview Assisted Living. Undeveloped properties to the north.

We would appreciate receiving any information relative to rare, threatened, or endangered species or the presence of important wildlife or fisheries habitat at or in the immediate vicinity of our project.

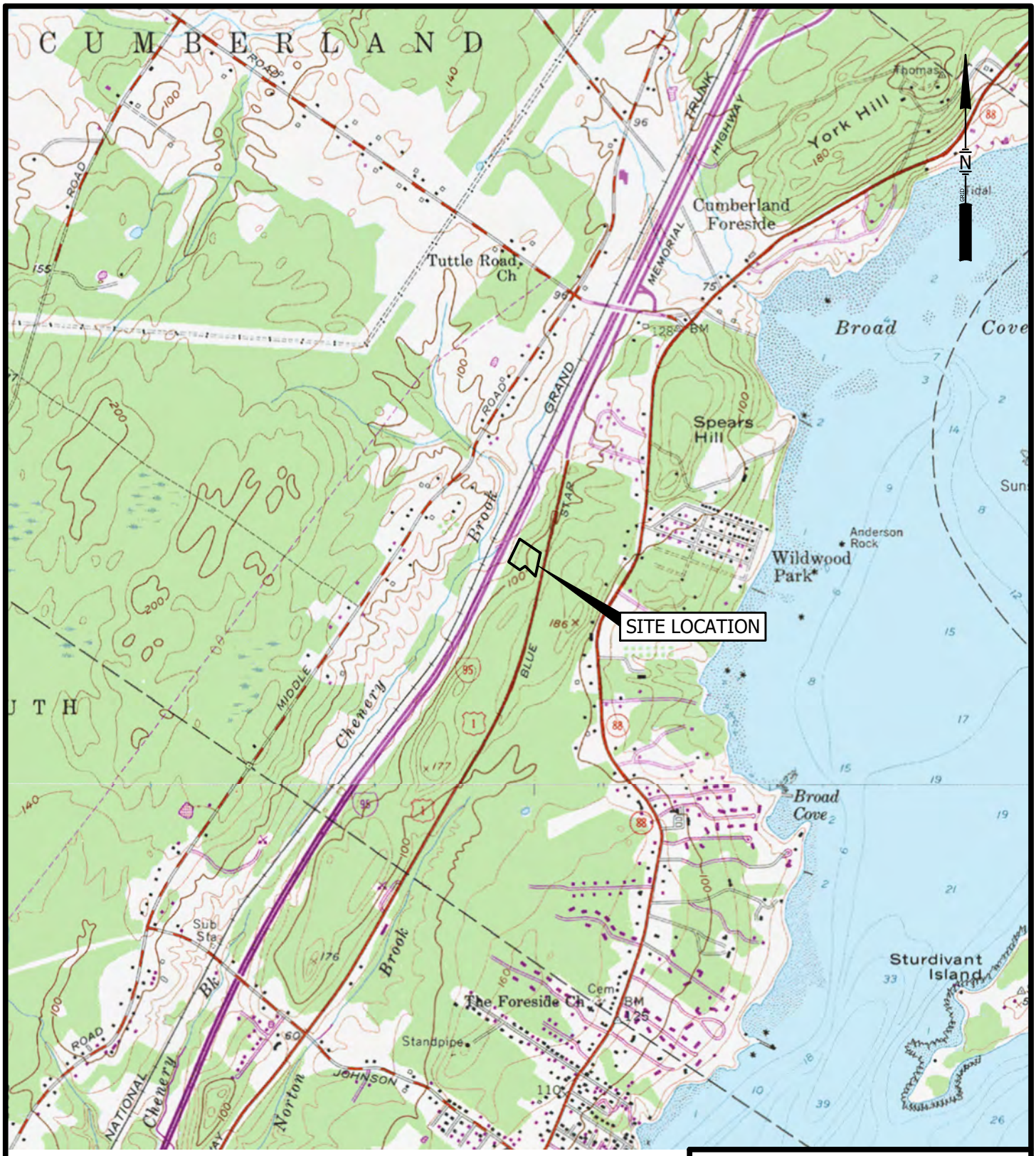
Should you have any questions or require additional information, please contact me. Thank you in advance for your consideration.

Sincerely,

SEVEE & MAHER ENGINEERS, INC.

Daniel Diffin, P.E., LEED AP BD+C
Vice President/Project Manager

Attachments: Figure 1 - Site Location Map



BASEMAP ADAPTED FROM 7.5 MIN USGS TOPO QUADS
YARMOUTH, ME - 1975
PORTLAND-EAST, ME - 1975

1000 0 2000 FEET

DWG: SITELOC LMN: NONE CTB: SME-STD REV: 4/12/2021

FIGURE 1
SITE LOCATION MAP
EVERGREEN RIDGE CONDOMINIUMS
CUMBERLAND, MAINE

SME
SEVEE & MAHER
ENGINEERS

\\Nserver\cfs\Platz Associates\Route 1 Cumberland Condos\Acad\Figures\SITELOC.dwg, 4/12/2021 10:38:50 AM, sjm

JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
284 STATE STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041

JUDITH CAMUSO
COMMISSIONER

May 11, 2021

Daniel Diffin
Sevee & Maher Engineers
4 Blanchard Rd., P.O. Box 85A
Cumberland Center, ME 04021

RE: Information Request – Evergreen Ridge Condominiums Project, Cumberland

Dear Daniel:

Per your request received on April 13, 2021, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and inland fisheries habitat concerns within the vicinity of the *Evergreen Ridge Condominiums* project in Cumberland. For purposes of this review we are assuming tree clearing will be part of your project.

Our Department has not mapped any Essential Habitats or inland fisheries habitats that would be directly affected by your project.

Endangered, Threatened, and Special Concern Species

Bat Species – Of the eight species of bats that occur in Maine, the three *Myotis* species are protected under Maine's Endangered Species Act (MESA) and are afforded special protection under 12 M.R.S §12801 - §12810. The three *Myotis* species include little brown bat (State Endangered), northern long-eared bat (State Endangered), and eastern small-footed bat (State Threatened). The five remaining bat species are listed as Special Concern: big brown bat, red bat, hoary bat, silver-haired bat, and tri-colored 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 migration and/or the breeding season. However, our Agency 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 SWHs subject to protection under the Natural Resources Protection Act (NRPA) within the project area, which include Waterfowl and Wading Bird Habitats, Seabird Nesting Islands, Shorebird Areas, and Significant Vernal Pools. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. Therefore, 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

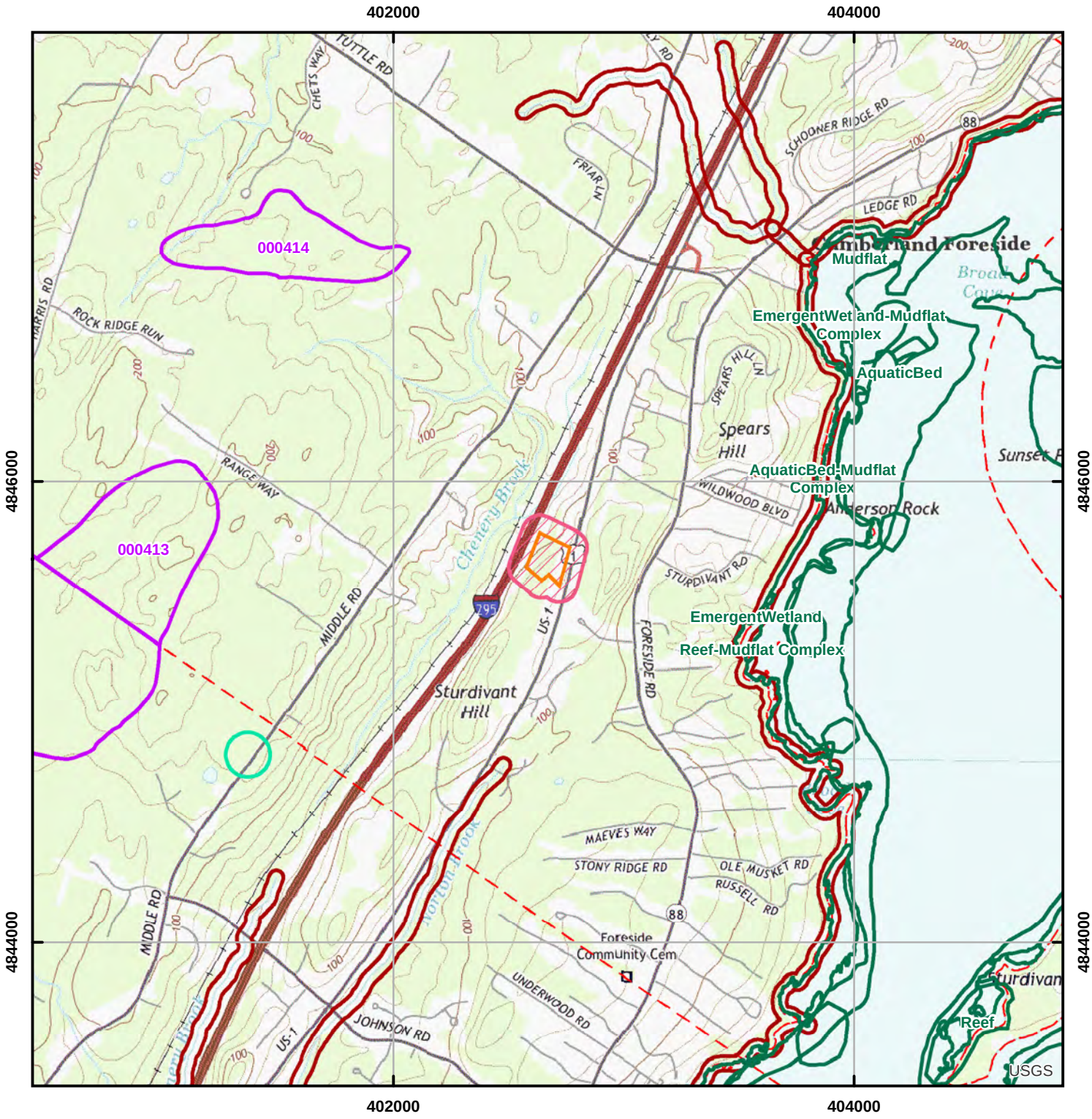
Agency for review well before the submission of any necessary permits. Our Department will need to review and verify any vernal pool data prior to final determination of significance.

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 agencies including the Maine Natural Areas Program, Maine Department of Marine Resources, and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

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,

Becca Settele
Wildlife Biologist



Environmental Review of Fish and Wildlife Observations and Priority Habitats

Project Name: Evergreen Ridge Condominiums, Cumberland (Version 1)

Miles

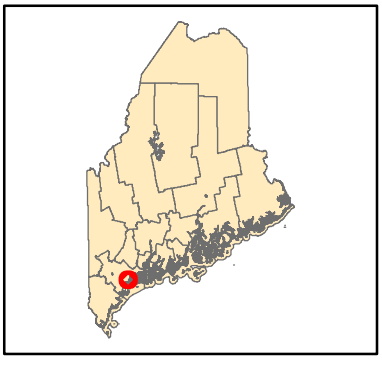
0 0.125 0.25 0.5 0.75 1

Projection: UTM, NAD83, Zone 19N

Date: 4/15/2021

Maine Department of Inland Fisheries and Wildlife

- ProjectSearchAreas - All Versions
- Maine Cliff and Talus Areas
- Deer Winter Area
- LUPC p-fw
- Cooperative DWAs
- Seabird Nesting Islands
- Shorebird Areas
- Inland Waterfowl and Wading Bird
- 2008 Iwwh - Shoreland Zoning
- Tidal Waterfowl and Wading Bird
- Significant Vernal Pools
- Environmental Review Polygons
- Roseate Tern
- Piping Plover and Least Tern
- Aquatic ETSc - 2.5 mi review
- Rare Mussels - 5 mi review
- Maine Heritage Fish Waters
- Arctic Charr Habitat
- Redfin Pickerel and Swamp Darter Habitats - buffer100ft
- Special Concern occupied habitats - 100ft buffer
- Wild Lake Trout Habitats



APPENDIX E

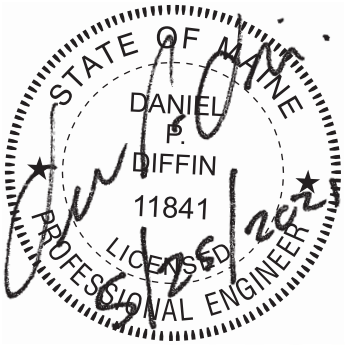
STORMWATER MANAGEMENT REPORT

SME
SEVEE & MAHER
ENGINEERS

STORMWATER MANAGEMENT REPORT
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

Prepared for

SNELL CONSTRUCTION, LLC
97 Ledge Brook Crossing
Brunswick, Maine



May 2021

4 Blanchard Road
P.O. Box 85A
Cumberland, Maine 04021
Phone: 207.829.5016 smemaine.com

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

SME
SEVEE & MAHER
ENGINEERS

TABLE OF CONTENTS

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STORMWATER MANAGEMENT REPORT
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

1.0 INTRODUCTION

This Stormwater Management Report was prepared by Sevee & Maher Engineers, Inc. (SME) to assess stormwater management design for the construction for the proposed 50-unit condominium building located in Cumberland, Maine. Stormwater design is based on the Town's water quantity objectives identified in Town Ordinances. This project will require a Stormwater Permit by Rule from the MEDEP for disturbed areas in excess of one acre, less than one acre of impervious surface, and less than five acres of developed area.

2.0 PROJECT DESCRIPTION

The Snell Construction, LLC (Applicant) proposes to develop a new 50-unit condominium building called the Broad Cove Ridge project at 100 US Route One in Cumberland, Maine. The existing property is currently owned by Dave Spellman OF 100 US Route One, LLC. The location of the project is shown in Figure 1, Site Location Map.

The 3.16-acre property is bound by Interstate 295 (I-295) to the west, US Route One (US 1) to the east, the Ledgeview Assisted Living facility to the south, and a residential property to the north. The project will include a property transfer between Ledgeview Properties, LLC and 100 US Route 1, LLC for a 0.1-acre (ac) triangular portion of the Ledgeview Properties, LLC property to the 100 US Route 1, LLC parcel. This transfer will expand the property to 3.26 acres and permit the full build-out of the proposed development.

The Broad Cove Ridge condominium project will include a five story, 12.800-square-foot building that will include a mix of one-bedroom, two-bedroom, and three-bedroom condo units to be offered for sale. The site construction will include area for 96 parking spaces with 9 identified as visitor parking and 4 as ADA accessible parking spaces. Of these parking spaces, twenty-two will be within the lower level of the building as covered parking. The project will have site access from a new 24-foot access drive from US Route 1. Additional site improvements include public water and sewer, underground utilities, stormwater management, site lighting, and landscaping.

Construction of the project is expected to result in approximately 76,101 square feet (1.75 acres) of developed area and approximately 43,450 square feet of new impervious surface. Based on review of the Maine Department of Environmental Protection (MEDEP) requirements, this project will require a MEDEP Stormwater Permit by Rule (PBR) permit prior to the start of construction.

BASEMAP ADAPTED FROM 7.5 MIN USGS TOPO QUADS
YARMOUTH, ME - 1975
PORTLAND-EAST, ME - 1975

1000 0 2000 FEET

DWG: SITELOC LMN: NONE CTB: SME-STD REV: 5/25/2021

FIGURE 1
SITE LOCATION MAP
BROAD COVE RIDGE CONDOMINIUMS
CUMBERLAND, MAINE

SME
SEVEE & MAHER
ENGINEERS

\\Nserver\cfs\Platz Associates\Route 1 Cumberland Condos\Acad\Figures\SITELOC.dwg, 5/25/2021 11:17:56 AM, bwb

3.0 SITE WATERSHED

On-site soils were identified using the Natural Resources Conservation Service (NRCS) soil information for Cumberland and Part of Oxford County, Maine. A copy of the custom Soil Resource Report is included in Appendix A of this report. The report includes a soil map for the project area. Soil mapping information is also included in the project plan sets.

The soil within the watersheds consists of Suffield (SuE2) silt loam, Lyman-Tunbridge complex, (HrB/HrC), Hartland (HfC2) very fine sandy loam, and Lyman-Abram complex (HsC). Soil natural drainage classifications range from "Somewhat excessively drained" to "Moderately well drained." Hydrologic soil groups range from Type B to Type D.

The site is currently undeveloped woods and generally slopes from a high point southeast of the property to the north off the property toward an unnamed tributary to Chenery Brook. The slopes range from 5 to 20 percent. The east portion of the site drains via overland flow to a stream which drains off the property at Analysis Point 1 (AP-1) for the purposes of this analysis. The stream and analysis point convey runoff from off the property to the south through an existing culvert as well as flow from roadside drainage along US 1. There is also an existing culvert that conveys runoff from east of US 1 to the northeast portion of the site that enters the stream before leaving the property to the north.

The west portion of the subject area drains to the west via overland flow to shallow concentrated flow which eventually drains offsite to a wetland complex to the northwest. The drainage off the west side of the site is identified as Analysis Point 2 (AP-2) for the purposes of this analysis.

The areas draining to AP1 in post developed conditions will generally flow similar to existing conditions. The proposed building is a flat roof and will drain through a roof drain to a detention pond east of the proposed building. The front entrance parking area will drain into a closed system and outlet to the detention pond as well. These flows will be attenuated to control peak flows from the development on the property before the stream leaves the site. An open bottomed stream crossing will be constructed to provide adequate flow space so the stream can flow freely and convey the off-site flows from the south. The off-site flows were not included in the peak flow analysis below, but were evaluated to evaluate the opening of the precast stream crossing.

The flow patterns to AP2 will include a closed storm drain system that will convey flow from the side and rear parking areas prior to outletting into a riprap apron on the northwest portion of the property. The total area to AP2 was reduced in post development conditions to control peak flows to the west of the property.

Stormwater management plans identify the on-site drainage patterns before and after development (see Drawings D-100 and D-101). These drawings are included in the project plan set for reference. Appendix B provides pre-development stormwater calculations and Appendix C includes post-development

calculations. These calculations were prepared using TR-20 methodologies within the HydroCAD Version 10.0 computer stormwater modeling system by Applied Microcomputer Systems of Chocorua, New Hampshire.

4.0 STORMWATER QUALITY ANALYSIS

As previously outlined, stormwater treatment will not be required for this project based on MEDEP Chapter 500 standards. Based on the size of the project and the scope of proposed development, SME does not anticipate that development of the parcel will adversely impact the quality of stormwater runoff from the property. New construction will include clearing the site, a proposed paved parking lot, building, concrete transformer pad, and stormwater distribution systems.

This project is designed to meet basic standards outlined in MEDEP Chapter 500 standards, and construction will adhere to MEDEP Best Management Practices (BMPs) for erosion and sedimentation control.

5.0 FLOODING STANDARDS

Stormwater quantity is managed to the maximum extent practicable through minimizing the amount of impervious area on the site, revegetating the cleared and grubbed area with grass, and a new detention pond area east of the proposed building.

The stormwater model for this project was developed to size the water quality treatment BMPs and to determine peak flow rates to AP-1 and AP-2. Stormwater peak flow rates were modeled for the 2-, 10-, and 25-year/24-hour storm events with Type III Soil Conservation Service rainfall distribution, using the HydroCAD computer modeling system by Applied Microcomputer Systems of Chocorua, New Hampshire. The peak flow rates are summarized in Table 1. Rainfall intensities were taken from Appendix H of MEDEP's Chapter 500 for each of the storms. Copies of the calculations for the pre-development are in Appendix B and post-development models are provided in Appendix C.

TABLE 1

STORMWATER QUANTITY SUMMARY

	2-Year Storm		10-Year Storm		25-Year Storm	
	Existing	**Proposed**	**Existing**	**Proposed**	**Existing**	**Proposed**
Analysis Point 1 (cfs)	2..35	2.49	4.88	4.76	7.07	6.68
Analysis Point 2 (cfs)	2.11	2.79	4.49	5.08	6.55	6.99

Site drainage from the proposed development will generally follow the pre-development conditions. As outlined in Table 1, our model indicates similar peak flow rates at AP-1 with an insignificant increase at Analysis Point 1 during the 2-year storm and a decrease during the 10-year and 25-year storms. There is a minor increase at AP-2 during the three storms between 0.44 cfs and 0.68 cfs. The drainage area to this analysis point was reduced from predevelopment conditions to post development to minimize flows at this analysis point. The downstream drainage includes stable vegetated waterways that the minor increase in peak flow rates will not adversely effect.

6.0 CONCLUSION

The stormwater management for the Broad Cove Ridge Condominiums project was designed in accordance with Town Ordinances stormwater standards and will have no adverse effects on downstream drainage or abutting properties.

APPENDIX A

NRCS SOIL SURVEY

SME
SEVEE & MAHER
ENGINEERS

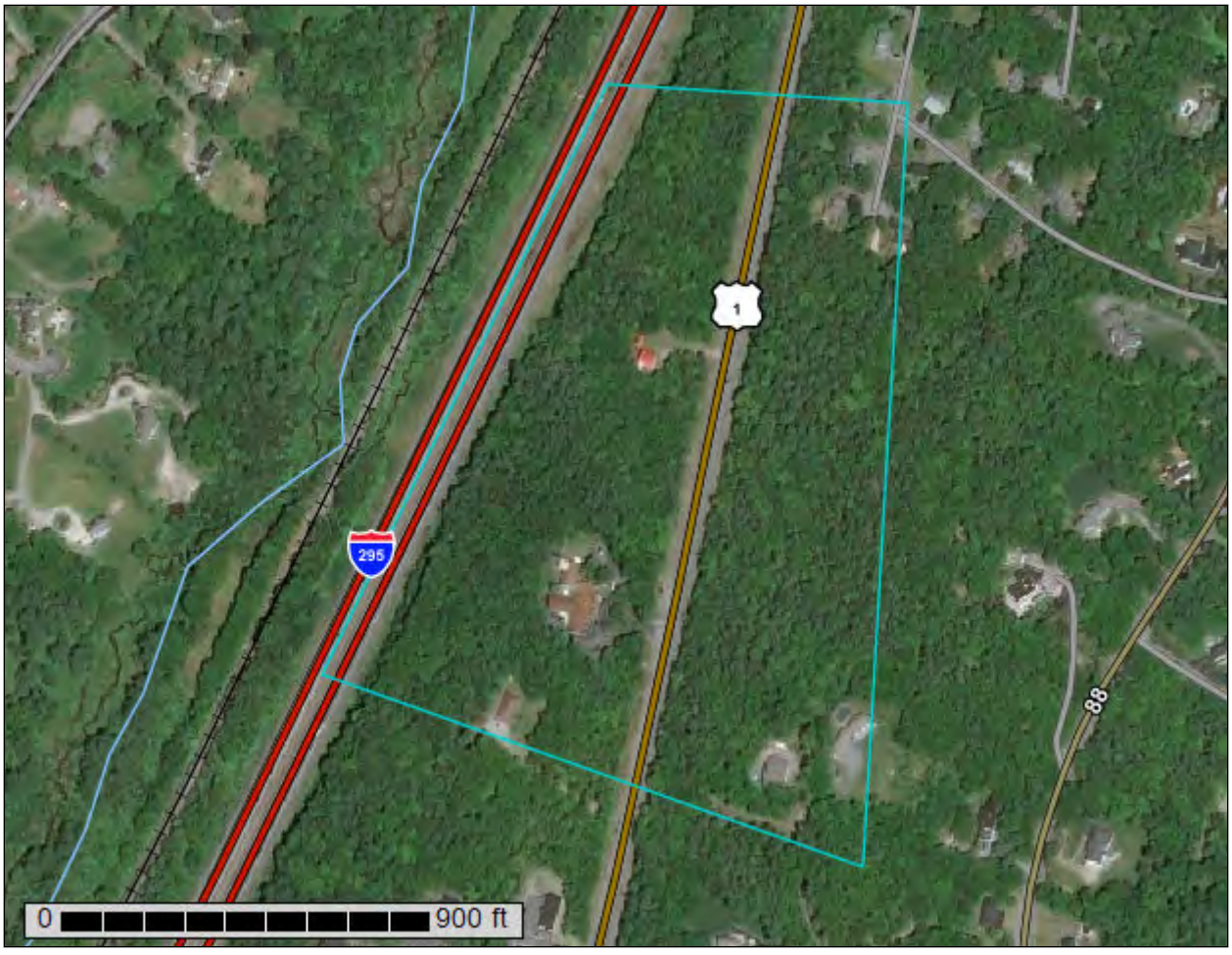
United States Department of Agriculture

NRCS

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 Cumberland County and Part of Oxford County, Maine



April 5, 2021

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.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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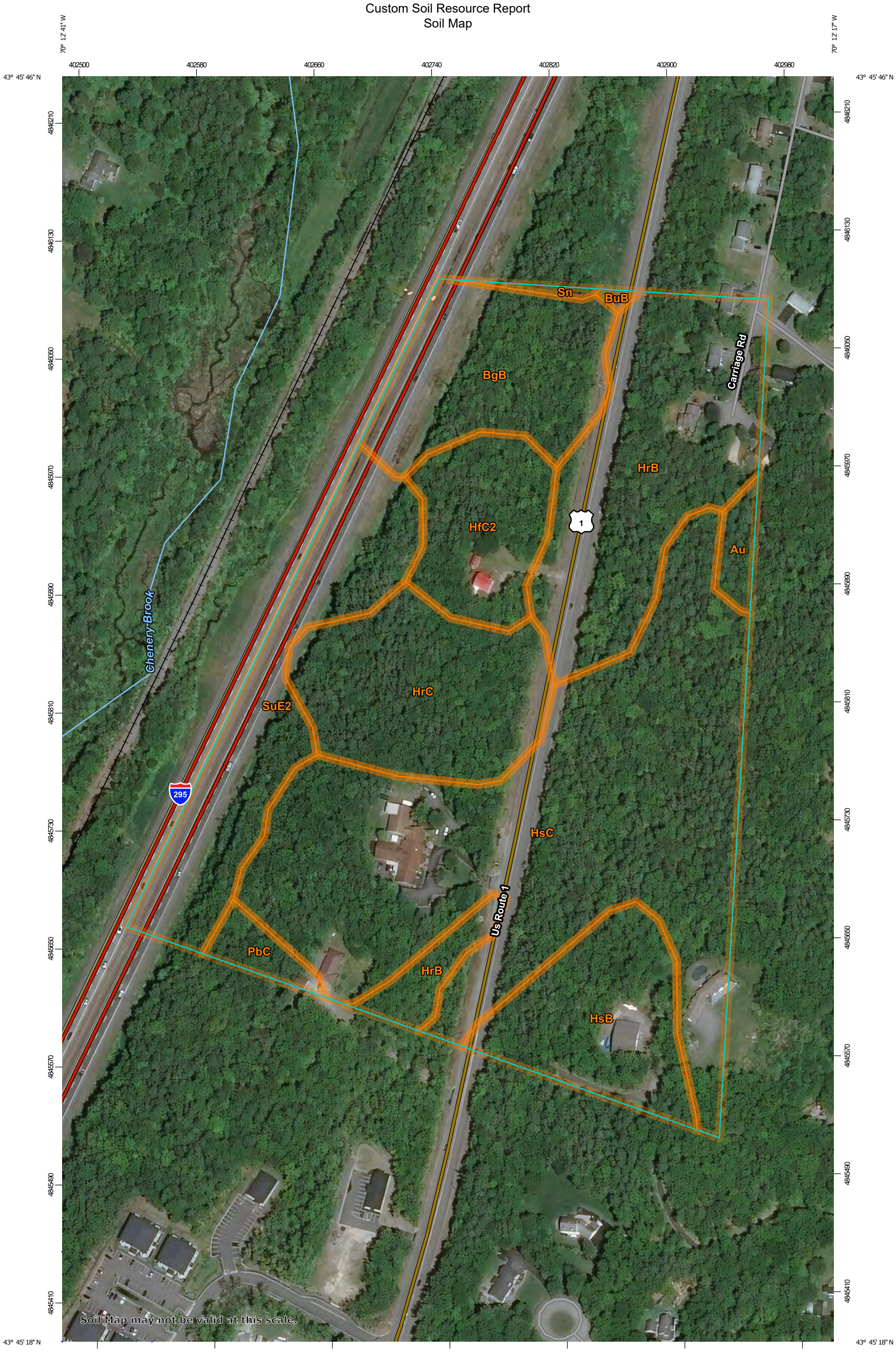
Contents

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.

Custom Soil Resource Report
Soil Map



Map Scale: 1:2,400 if printed on B portrait (11" x 17") sheet.

N

Meters: 0 35 70 140 210

Feet: 0 100 200 400 600

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 1:24,000.

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: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 17, Jun 5, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 7, 2019—Jul 2, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

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
Au	Au Gres loamy sand	0.4	1.1%
BgB	Nicholville very fine sandy loam, 0 to 8 percent slopes	3.8	9.2%
BuB	Lamoine silt loam, 3 to 8 percent slopes	0.1	0.2%
HfC2	Hartland very fine sandy loam, 8 to 15 percent slopes, eroded	2.6	6.1%
HrB	Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky	7.0	16.8%
HrC	Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky	4.4	10.5%
HsB	Lyman-Abram complex, 0 to 8 percent slopes, very rocky	3.3	7.8%
HsC	Lyman-Abram complex, 8 to 15 percent slopes, very rocky	14.9	35.8%
PbC	Paxton fine sandy loam, 8 to 15 percent slopes	0.5	1.3%
Sn	Scantic silt loam, 0 to 3 percent slopes	0.1	0.2%
SuE2	Suffield silt loam, 25 to 45 percent slopes, eroded	4.6	10.9%
Totals for Area of Interest		**41.6**	**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.

Cumberland County and Part of Oxford County, Maine

Au—Au Gres loamy sand

Map Unit Setting

National map unit symbol: blgr
Elevation: 10 to 2,200 feet
Mean annual precipitation: 29 to 50 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 70 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Au gres and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Au Gres

Setting

Landform: Outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy glaciofluvial deposits derived from granite and gneiss

Typical profile

H1 - 0 to 10 inches: loamy sand
H2 - 10 to 32 inches: loamy sand
H3 - 32 to 65 inches: sand

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): High (2.00 to 6.00 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Hydric soil rating: Yes

Minor Components

Saugatuck

Percent of map unit: 6 percent
Landform: Outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf

Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Deerfield

Percent of map unit: 4 percent
Landform: Outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Scantic

Percent of map unit: 2 percent
Landform: Coastal plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Walpole

Percent of map unit: 2 percent
Landform: Outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Windsor

Percent of map unit: 1 percent
Landform: Outwash plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

BgB—Nicholville very fine sandy loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2yjg5
Elevation: 20 to 2,300 feet
Mean annual precipitation: 34 to 50 inches
Mean annual air temperature: 37 to 45 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Nicholville and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nicholville

Setting

Landform: Lakebeds (relict)
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-silty glaciomarine deposits

Typical profile

Ap - 0 to 7 inches: very fine sandy loam
Bs - 7 to 19 inches: very fine sandy loam
BC - 19 to 30 inches: very fine sandy loam
C - 30 to 65 inches: loamy very fine sand

Properties and qualities

Slope: 0 to 8 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 (0.14 to 1.42 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: High (about 10.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Roundabout, somewhat poorly drained

Percent of map unit: 5 percent
Landform: Lakebeds (relict)
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Croghan

Percent of map unit: 5 percent
Landform: Lakebeds (relict)
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear

Across-slope shape: Linear
Hydric soil rating: No

Salmon

Percent of map unit: 3 percent
Landform: Lakebeds (relict)
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Roundabout

Percent of map unit: 2 percent
Landform: Lakebeds (relict)
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

BuB—Lamoine silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2t0kc
Elevation: 10 to 490 feet
Mean annual precipitation: 33 to 60 inches
Mean annual air temperature: 36 to 52 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Lamoine and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lamoine

Setting

Landform: Marine terraces, river valleys
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine glaciomarine deposits

Typical profile

Ap - 0 to 7 inches: silt loam
Bw - 7 to 13 inches: silt loam
Bg - 13 to 24 inches: silty clay loam
Cg - 24 to 65 inches: silty clay

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): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 6 to 17 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water capacity: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Scantic

Percent of map unit: 10 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Buxton

Percent of map unit: 3 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Ragmuff

Percent of map unit: 1 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Biddeford

Percent of map unit: 1 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: F144BY002ME - Marine Terrace Depression
Hydric soil rating: Yes

HfC2—Hartland very fine sandy loam, 8 to 15 percent slopes, eroded

Map Unit Setting

National map unit symbol: blhc
Elevation: 0 to 2,500 feet
Mean annual precipitation: 34 to 50 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 60 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Hartland and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hartland

Setting

Landform: Lakebeds
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-silty glaciolacustrine deposits

Typical profile

H1 - 0 to 9 inches: very fine sandy loam
H2 - 9 to 29 inches: silt loam
H3 - 29 to 65 inches: silt loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 11.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Belgrade

Percent of map unit: 6 percent
Landform: Lakebeds
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Buxton

Percent of map unit: 3 percent
Landform: Lakebeds
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Tunbridge

Percent of map unit: 2 percent
Landform: Lakebeds
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Hollis

Percent of map unit: 2 percent
Landform: Lakebeds
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Hartland, slopes >15%

Percent of map unit: 1 percent
Landform: Lakebeds
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Hartland, slopes <8%

Percent of map unit: 1 percent
Landform: Lakebeds
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

HrB—Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky

Map Unit Setting

National map unit symbol: 2x1cx
Elevation: 0 to 520 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: Farmland of statewide importance

Map Unit Composition

Lyman and similar soils: 50 percent
Tunbridge and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lyman

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Crest, nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 3 inches: loam
E - 3 to 5 inches: fine sandy loam
Bhs - 5 to 7 inches: loam
Bs1 - 7 to 11 inches: loam
Bs2 - 11 to 18 inches: channery loam
R - 18 to 79 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.5 percent
Depth to restrictive feature: 11 to 24 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Tunbridge

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 3 inches: moderately decomposed plant material
Oa - 3 to 5 inches: highly decomposed plant material
E - 5 to 8 inches: fine sandy loam
Bhs - 8 to 11 inches: fine sandy loam
Bs - 11 to 26 inches: fine sandy loam
BC - 26 to 28 inches: fine sandy loam
R - 28 to 79 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.5 percent
Depth to restrictive feature: 21 to 41 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Ragmuff

Percent of map unit: 10 percent
Landform: Ridges, hills
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Base slope, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Abram

Percent of map unit: 5 percent
Landform: Hills, ridges
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Nose slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Peru

Percent of map unit: 4 percent
Landform: Hills, ridges
Landform position (two-dimensional): Footslope, backslope
Landform position (three-dimensional): Base slope, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent
Landform: Hills, ridges
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Nose slope, crest, free face
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

HrC—Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky

Map Unit Setting

National map unit symbol: 2x1cy
Elevation: 0 to 520 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

Lyman and similar soils: 45 percent
Tunbridge and similar soils: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lyman

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, nose slope

Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 3 inches: loam
E - 3 to 5 inches: fine sandy loam
Bhs - 5 to 7 inches: loam
Bs1 - 7 to 11 inches: loam
Bs2 - 11 to 18 inches: channery loam
R - 18 to 79 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.5 percent
Depth to restrictive feature: 11 to 24 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Tunbridge

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 3 inches: moderately decomposed plant material
Oa - 3 to 5 inches: highly decomposed plant material
E - 5 to 8 inches: fine sandy loam
Bhs - 8 to 11 inches: fine sandy loam
Bs - 11 to 26 inches: fine sandy loam
BC - 26 to 28 inches: fine sandy loam
R - 28 to 79 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 21 to 41 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Ragmuff

Percent of map unit: 5 percent
Landform: Hills, ridges
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Base slope, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Abram

Percent of map unit: 5 percent
Landform: Ridges, hills
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Nose slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Peru

Percent of map unit: 4 percent
Landform: Hills, ridges
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Base slope, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent
Landform: Ridges, hills
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Nose slope, crest, free face
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

HsB—Lyman-Abram complex, 0 to 8 percent slopes, very rocky

Map Unit Setting

National map unit symbol: 2x1d0
Elevation: 0 to 520 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

Lyman and similar soils: 50 percent
Abram and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lyman

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 3 inches: loam
E - 3 to 5 inches: fine sandy loam
Bhs - 5 to 7 inches: loam
Bs1 - 7 to 11 inches: loam
Bs2 - 11 to 18 inches: channery loam
R - 18 to 79 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.5 percent
Depth to restrictive feature: 11 to 24 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Abram

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Nose slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy subglacial till

Typical profile

Oa - 0 to 2 inches: highly decomposed plant material
E - 2 to 3 inches: loam
Bs - 3 to 6 inches: loam
R - 6 to 79 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent
Surface area covered with cobbles, stones or boulders: 1.5 percent
Depth to restrictive feature: 3 to 13 inches to lithic bedrock
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Very low (about 1.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Ragmuff

Percent of map unit: 6 percent
Landform: Ridges, hills
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Base slope, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Tunbridge

Percent of map unit: 5 percent
Landform: Hills, ridges
Landform position (two-dimensional): Backslope, shoulder, footslope
Landform position (three-dimensional): Side slope, crest

Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Hogback

Percent of map unit: 3 percent
Landform: Mountains
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Mountaintop, upper third of mountainflank
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Rock outcrop

Percent of map unit: 3 percent
Landform: Ridges, hills
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Free face, nose slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Knob lock

Percent of map unit: 3 percent
Landform: Hills, ridges
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Crest, nose slope, free face
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

HsC—Lyman-Abram complex, 8 to 15 percent slopes, very rocky

Map Unit Setting

National map unit symbol: 2x1d1
Elevation: 0 to 520 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

Lyman and similar soils: 45 percent
Abram and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lyman

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 3 inches: loam
E - 3 to 5 inches: fine sandy loam
Bhs - 5 to 7 inches: loam
Bs1 - 7 to 11 inches: loam
Bs2 - 11 to 18 inches: channery loam
R - 18 to 79 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.5 percent
Depth to restrictive feature: 11 to 24 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Abram

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Nose slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy subglacial till

Typical profile

Oa - 0 to 2 inches: highly decomposed plant material
E - 2 to 3 inches: loam
Bs - 3 to 6 inches: loam
R - 6 to 79 inches: bedrock

Properties and qualities

Slope: 8 to 15 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent
Depth to restrictive feature: 3 to 13 inches to lithic bedrock
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Very low (about 1.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Knob lock

Percent of map unit: 6 percent
Landform: Ridges, hills
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Crest, nose slope, free face
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Tunbridge

Percent of map unit: 5 percent
Landform: Hills, ridges
Landform position (two-dimensional): Backslope, footslope, shoulder
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Hogback

Percent of map unit: 4 percent
Landform: Mountains
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Mountaintop, upper third of mountainflank
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Rock outcrop

Percent of map unit: 3 percent
Landform: Ridges, hills
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Free face, nose slope, crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Ragmuff

Percent of map unit: 2 percent

Landform: Ridges, hills
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Base slope, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

PbC—Paxton fine sandy loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: bljg
Elevation: 0 to 3,500 feet
Mean annual precipitation: 34 to 50 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 100 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Paxton and similar soils: 86 percent
Minor components: 14 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Paxton

Setting

Landform: Drumlinoid ridges
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Crest, nose slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Coarse-loamy lodgment till derived from mica schist

Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 20 inches: fine sandy loam
H3 - 20 to 65 inches: fine sandy loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 18 to 40 inches to densic material
Drainage class: 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 30 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Woodbridge
Percent of map unit: 4 percent
Landform: Drumlinoid ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Colonel
Percent of map unit: 3 percent
Landform: Drumlinoid ridges, till plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Berkshire
Percent of map unit: 3 percent
Landform: Drumlinoid ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Nose slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Lyman
Percent of map unit: 2 percent
Landform: Drumlinoid ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Rock outcrop
Percent of map unit: 2 percent
Landform: Drumlinoid ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Sn—Scantic silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2slv3
Elevation: 10 to 900 feet
Mean annual precipitation: 33 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

Scantic and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Scantic

Setting

Landform: Marine terraces, river valleys
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Glaciomarine deposits

Typical profile

Ap - 0 to 9 inches: silt loam
Bg1 - 9 to 16 inches: silty clay loam
Bg2 - 16 to 29 inches: silty clay
Cg - 29 to 65 inches: silty clay

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): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: D
Hydric soil rating: Yes

Minor Components

Lamoine

Percent of map unit: 8 percent
Landform: River valleys, marine terraces
Landform position (three-dimensional): Riser, rise
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Biddeford

Percent of map unit: 3 percent
Landform: Marine terraces, river valleys
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave, linear
Ecological site: F144BY002ME - Marine Terrace Depression
Hydric soil rating: Yes

Roundabout

Percent of map unit: 2 percent
Landform: River valleys, marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Buxton

Percent of map unit: 2 percent
Landform: Marine terraces, river valleys
Landform position (three-dimensional): Riser, rise
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

SuE2—Suffield silt loam, 25 to 45 percent slopes, eroded

Map Unit Setting

National map unit symbol: blk3
Elevation: 10 to 1,500 feet
Mean annual precipitation: 34 to 48 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Suffield and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Suffield

Setting

Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine glaciolacustrine deposits

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 23 inches: silt loam
H3 - 23 to 33 inches: silty clay
H4 - 33 to 65 inches: silty clay

Properties and qualities

Slope: 25 to 45 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Hartland

Percent of map unit: 7 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Suffield, slopes <25%

Percent of map unit: 4 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Belgrade

Percent of map unit: 3 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Suffield, slopes >45%

Percent of map unit: 1 percent
Landform: Coastal plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

Soil Physical Properties

This folder contains a collection of tabular reports that present soil physical properties. The reports (tables) include all selected map units and components for each map unit. Soil physical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission

rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group

index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Percentage of rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Engineering Properties–Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
Au—Au Gres loamy sand														
Au gres	85	A/D	0-10	Loamy sand	SP-SM, SW-SM, SM	A-4, A-2, A-3	0- 0- 0	0- 0- 0	95-98-100	90-95-100	50-68-85	5-25- 45	0-7 -14	NP
			10-32	Loamy fine sand, loamy sand, sand	SM, SP-SM, SW-SM	A-1, A-2, A-3	0- 0- 0	0- 0- 0	95-98-100	90-95-100	45-65-85	5-20- 35	0-7 -14	NP
			32-65	Coarse sand, sand, loamy fine sand	SM, SP-SM, SW-SM	A-1, A-2, A-3	0- 0- 0	0- 0- 0	95-98-100	90-95-100	45-63-80	5-20- 35	0-7 -14	NP
BgB—Nicholville very fine sandy loam, 0 to 8 percent slopes														
Nicholville	85	C	0-7	Very fine sandy loam, silt loam	ML	A-4, A-6	0- 0- 0	0- 0- 0	95-100-100	90-100-100	86-98-100	61-71-81	21-28 -41	2-5 -11
			7-19	Very fine sandy loam, silt loam	CL-ML	A-6, A-4	0- 0- 0	0- 0- 0	95-100-100	90-100-100	87-98-100	62-71-82	19-25 -37	2-5 -12
			19-30	Very fine sandy loam, silt loam	ML, CL-ML	A-6, A-4	0- 0- 0	0- 0- 0	96-100-100	92-100-100	89-98-100	62-69-80	19-21 -32	2-4 -12
			30-65	Very fine sandy loam, silt loam, very fine sand, loamy very fine sand	ML	A-4	0- 0- 0	0- 0- 0	92-100-100	84-100-100	81-97-100	45-55-65	0-0 -26	NP-0 -8

Engineering Properties–Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
BuB—Lamoine silt loam, 3 to 8 percent slopes														
Lamoine	85	C/D	0-7	Silt loam	ML, MH	A-6, A-7, A-7-5	0- 0- 0	0- 0- 0	96-100-100	91-100-100	85-98-100	77-90-94	37-46-54	12-15-18
			7-13	Silty clay loam, silt loam	CL, ML, MH	A-7, A-6	0- 0- 0	0- 0- 0	96-100-100	92-100-100	87-98-100	80-91-100	34-40-51	15-19-25
			13-24	Silty clay loam	CL	A-6, A-7-6, A-7	0- 0- 0	0- 0- 0	96-100-100	93-100-100	88-100-100	82-93-99	37-43-50	19-23-28
			24-65	Clay, silty clay, silty clay loam	CL, CH	A-7, A-7-6	0- 0- 0	0- 0- 0	97-100-100	93-100-100	88-100-100	83-95-100	45-52-67	27-32-43
HfC2—Hartland very fine sandy loam, 8 to 15 percent slopes, eroded														
Hartland	85	B	0-9	Very fine sandy loam	CL-ML, ML	A-4, A-6	0- 0- 0	0- 0- 0	100-100-100	85-93-100	80-90-100	70-83-95	20-30-40	2-7 -12
			9-29	Very fine sandy loam, silt loam	CL-ML, ML	A-4	0- 0- 0	0- 0- 0	100-100-100	85-93-100	80-90-100	70-83-95	15-20-25	NP-3 -5
			29-65	Very fine sandy loam, silt loam	CL-ML, ML	A-4	0- 0- 0	0- 0- 0	100-100-100	85-93-100	80-90-100	70-83-95	15-20-25	NP-3 -5

Engineering Properties–Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
HrB—Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky														
Lyman	50	D	0-1	Moderately decomposed plant material, highly decomposed plant material, slightly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			1-3	Loam, fine sandy loam, very fine sandy loam, gravelly sandy loam	ML	A-4	0- 0- 28	0- 0- 18	55-100-100	53-100-100	38-82-90	22-55-62	0-35 -65	NP-3 -5
			3-5	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SC-SM	A-4	0- 0- 22	0- 0- 14	64-84-98	63-84-98	46-69-89	23-41-57	0-23 -34	NP-4 -6
			5-7	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SM	A-4	0- 0- 28	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-40 -76	NP-3 -5
			7-11	Loam, fine sandy loam, very fine sandy loam, gravelly sandy loam	SM	A-4	0- 0- 27	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-34 -61	NP-3 -5
			11-18	Channery loam, fine sandy loam, sandy loam, very fine sandy loam	SM	A-4	0- 0- 25	0-14- 30	52-84-99	50-83-99	36-69-89	21-46-61	0-26 -36	NP-4 -6

Engineering Properties–Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			18-79	Bedrock	—	—	—	—	—	—	—	—	—	—
Tunbridge	30	C	0-3	Moderately decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			3-5	Highly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			5-8	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SC-SM	A-4	0- 0- 0	0- 8- 24	53-91-96	51-91-96	37-75-87	19-45-55	0-23 -34	NP-4 -6
			8-11	Loam, very fine sandy loam, fine sandy loam, gravelly sandy loam	SM	A-4	0- 0- 0	0- 4- 30	43-78-90	41-77-90	30-64-81	15-38-52	0-40 -76	NP-3 -5
			11-26	Very fine sandy loam, fine sandy loam, loam, gravelly sandy loam	SM	A-4	0- 0- 0	0- 6- 30	43-78-91	41-77-90	30-64-82	15-38-52	0-31 -60	NP-3 -5
			26-28	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SC-SM	A-4	0- 0- 0	0- 0- 25	52-91-91	50-91-91	36-75-83	19-45-53	0-21 -30	NP-4 -6
			28-79	Bedrock	—	—	—	—	—	—	—	—	—	—

Engineering Properties–Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
HrC—Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky														
Lyman	45	D	0-1	Moderately decomposed plant material, highly decomposed plant material, slightly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			1-3	Loam, fine sandy loam, very fine sandy loam, gravelly sandy loam	ML	A-4	0- 0- 28	0- 0- 18	55-100-100	53-100-100	38-82-90	22-55-62	0-35 -65	NP-3 -5
			3-5	Very fine sandy loam, loam, fine sandy loam, gravelly sandy loam	SC-SM	A-4	0- 0- 22	0- 0- 14	64-84-98	63-84-98	46-69-89	23-41-57	0-23 -34	NP-4 -6
			5-7	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SM	A-4	0- 0- 28	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-40 -76	NP-3 -5
			7-11	Loam, fine sandy loam, very fine sandy loam, gravelly sandy loam	SM	A-4	0- 0- 27	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-34 -61	NP-3 -5
			11-18	Sandy loam, very fine sandy loam, channery loam, fine sandy loam	SM	A-4	0- 0- 25	0-14- 30	52-84-99	50-83-99	36-69-89	21-46-61	0-26 -36	NP-4 -6

Engineering Properties–Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			18-79	Bedrock	—	—	—	—	—	—	—	—	—	—
Tunbridge	40	C	0-3	Moderately decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			3-5	Highly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			5-8	Loam, fine sandy loam, very fine sandy loam, gravelly sandy loam	SC-SM	A-4	0- 0- 0	0- 8- 24	53-91-96	51-91-96	37-75-87	19-45-55	0-23 -34	NP-4 -6
			8-11	Very fine sandy loam, loam, fine sandy loam, gravelly sandy loam	SM	A-4	0- 0- 0	0- 4- 30	43-78-90	41-77-90	30-64-81	15-38-52	0-40 -76	NP-3 -5
			11-26	Very fine sandy loam, fine sandy loam, loam, gravelly sandy loam	SM	A-4	0- 0- 0	0- 6- 30	43-78-91	41-77-90	30-64-82	15-38-52	0-31 -60	NP-3 -5
			26-28	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SC-SM	A-4	0- 0- 0	0- 0- 25	52-91-91	50-91-91	36-75-83	19-45-53	0-21 -30	NP-4 -6
			28-79	Bedrock	—	—	—	—	—	—	—	—	—	—

Engineering Properties–Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
HsB—Lyman-Abram complex, 0 to 8 percent slopes, very rocky														
Lyman	50	D	0-1	Moderately decomposed plant material, highly decomposed plant material, slightly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			1-3	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	ML	A-4	0- 0- 28	0- 0- 18	55-100-100	53-100-100	38-82-90	22-55-62	0-35 -65	NP-3 -5
			3-5	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SC-SM	A-4	0- 0- 22	0- 0- 14	64-84-98	63-84-98	46-69-89	23-41-57	0-23 -34	NP-4 -6
			5-7	Fine sandy loam, loam, very fine sandy loam, gravelly sandy loam	SM	A-4	0- 0- 28	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-40 -76	NP-3 -5
			7-11	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SM	A-4	0- 0- 27	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-34 -61	NP-3 -5
			11-18	Channery loam, fine sandy loam, sandy loam, very fine sandy loam	SM	A-4	0- 0- 25	0-14- 30	52-84-99	50-83-99	36-69-89	21-46-61	0-26 -36	NP-4 -6

Engineering Properties–Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			18-79	Bedrock	—	—	—	—	—	—	—	—	—	—
Abram	30	D	0-2	Moderately decomposed plant material, highly decomposed plant material	PT	A-8	0- 0- 16	0- 0- 16	—	—	—	—	—	—
			2-3	Silt loam, fine sandy loam, loam, sandy loam, gravelly fine sandy loam	SC-SM, GM	A-2, A-4	0- 0- 6	0- 0- 19	60-79-89	60-79-89	50-68-80	30-43-51	0-22 -27	NP-5 -6
			3-6	Sandy loam, fine sandy loam, loam, silt loam, gravelly fine sandy loam	GM, SM	A-4, A-2	0- 0- 6	0- 0- 19	60-79-89	60-79-89	50-68-80	30-43-51	0-31 -43	NP-4 -5
			6-79	Bedrock	—	—	—	—	—	—	—	—	—	—

Engineering Properties–Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
HsC—Lyman-Abram complex, 8 to 15 percent slopes, very rocky														
Lyman	45	D	0-1	Moderately decomposed plant material, highly decomposed plant material, slightly decomposed plant material	PT	A-8	0- 0- 0	0- 0- 0	—	—	—	—	—	—
			1-3	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	ML	A-4	0- 0- 28	0- 0- 18	55-100-100	53-100-100	38-82-90	22-55-62	0-35 -65	NP-3 -5
			3-5	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SC-SM	A-4	0- 0- 22	0- 0- 14	64-84-98	63-84-98	46-69-89	23-41-57	0-23 -34	NP-4 -6
			5-7	Fine sandy loam, loam, very fine sandy loam, gravelly sandy loam	SM	A-4	0- 0- 28	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-40 -76	NP-3 -5
			7-11	Fine sandy loam, very fine sandy loam, loam, gravelly sandy loam	SM	A-4	0- 0- 27	0- 0- 18	77-89-99	53-77-97	38-64-88	22-42-60	0-34 -61	NP-3 -5
			11-18	Channery loam, fine sandy loam, sandy loam, very fine sandy loam	SM	A-4	0- 0- 25	0-14- 30	52-84-99	50-83-99	36-69-89	21-46-61	0-26 -36	NP-4 -6

Engineering Properties–Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
			18-79	Bedrock	—	—	—	—	—	—	—	—	—	—
Abram	35	D	0-2	Moderately decomposed plant material, highly decomposed plant material	PT	A-8	0- 0- 16	0- 0- 16	—	—	—	—	—	—
			2-3	Silt loam, fine sandy loam, loam, sandy loam, gravelly fine sandy loam	SC-SM, GM	A-2, A-4	0- 0- 6	0- 0- 19	60-79-89	60-79-89	50-68-80	30-43-51	0-22 -27	NP-5 -6
			3-6	Sandy loam, fine sandy loam, loam, silt loam, gravelly fine sandy loam	GM, SM	A-4, A-2	0- 0- 6	0- 0- 19	60-79-89	60-79-89	50-68-80	30-43-51	0-31 -43	NP-4 -5
			6-79	Bedrock	—	—	—	—	—	—	—	—	—	—
PbC—Paxton fine sandy loam, 8 to 15 percent slopes														
Paxton	86	C	0-8	Fine sandy loam, gravelly fine sandy loam	CL-ML, ML, SC, SM	A-2, A-4	0- 1- 1	0- 5- 10	90-95-100	75-85-90	50-70-90	30-55-80	15-23 -30	NP-5 -10
			8-20	Fine sandy loam, loam, gravelly sandy loam	CL-ML, ML, SC-SM, SM	A-1-b, A-2, A-4	0- 1- 1	0- 8- 15	75-85-95	60-80-90	40-63-85	20-43-65	15-23 -30	NP-5 -10
			20-65	Fine sandy loam, loam, gravelly sandy loam	CL-ML, ML, SC-SM, SM	A-1-b, A-2, A-4	0- 1- 1	0- 5- 15	70-80-90	60-80-85	35-58-80	20-40-60	15-23 -30	NP-5 -10

Engineering Properties–Cumberland County and Part of Oxford County, Maine														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			In				*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*	*L-R-H*
Sn—Scantic silt loam, 0 to 3 percent slopes														
Scantic	85	D	0-9	Silt loam	ML	A-7-5	0- 0- 0	0- 0- 0	100-100-100	93-96-100	84-90-99	75-84-93	31-46-53	9-15-16
			9-16	Silt loam, silty clay loam	CL	A-7-6	0- 0- 0	0- 0- 0	100-100-100	95-96-100	85-92-99	77-85-94	32-43-51	13-20-24
			16-29	Silty clay loam, silty clay	CH	A-7-6	0- 0- 0	0- 0- 0	100-100-100	95-97-100	89-96-100	81-91-100	43-52-72	24-29-43
			29-65	Silty clay, clay	CH	A-7-6	0- 0- 0	0- 0- 0	100-100-100	95-97-100	90-96-100	85-95-100	47-55-72	28-34-47
SuE2—Suffield silt loam, 25 to 45 percent slopes, eroded														
Suffield	85	C	0-6	Silt loam	MH, ML	A-4, A-5, A-7	0- 0- 0	0- 0- 0	98-99-100	95-98-100	95-98-100	85-93-100	36-46-55	5-10-15
			6-23	Silt loam, silty clay loam, silty clay	CL, MH, ML	A-4, A-6, A-7	0- 0- 0	0- 0- 0	98-99-100	95-98-100	95-98-100	85-93-100	28-42-55	8-17-25
			23-33	Silt loam, silty clay loam, silty clay	CL, MH, ML	A-4, A-6, A-7	0- 0- 0	0- 0- 0	98-99-100	95-98-100	95-98-100	85-93-100	28-42-55	8-17-25
			33-65	Silty clay, silty clay loam, clay	CL, MH	A-6, A-7	0- 0- 0	0- 0- 0	98-99-100	95-98-100	95-98-100	90-95-100	30-45-60	10-18-25

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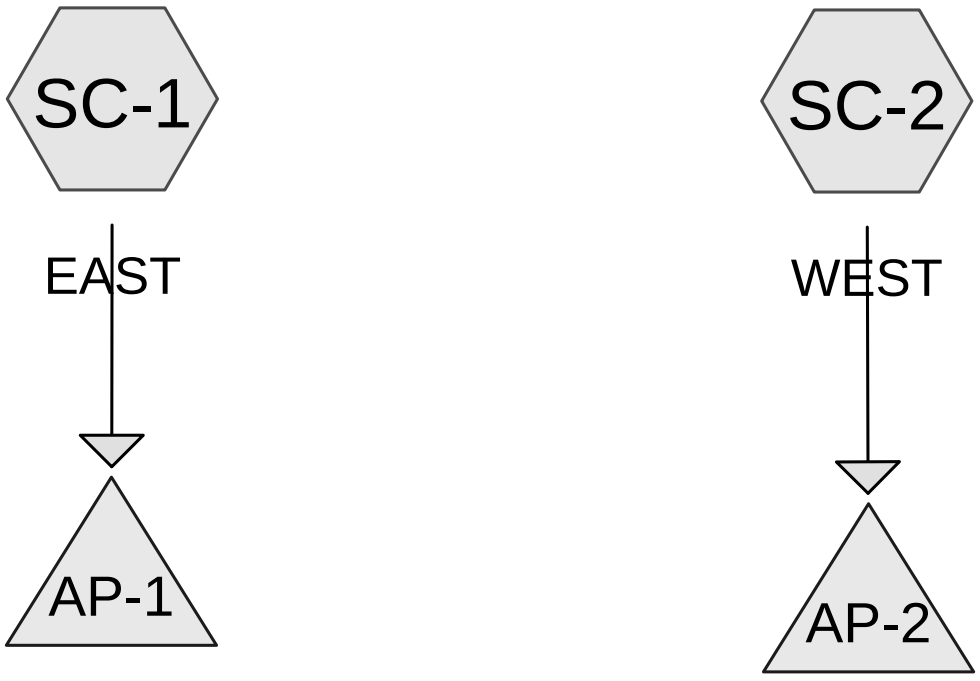
APPENDIX B

PRE-DEVELOPMENT HYDROCAD CALCULATIONS

SME
SEVEE & MAHER
ENGINEERS



STREAM TO OFF-SITE

WEST PROPERTY LINE

Subcat Reach Pond Link

Routing Diagram for Broad Cove Pre-Development
Prepared by {enter your company name here}, Printed 5/25/2021

Summary for Subcatchment SC-1: EAST

Runoff = 2.35 cfs @ 12.19 hrs, Volume= 0.218 af, Depth= 1.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	6,713	98	Pavement
	3,259	55	Woods, Good, HSG B
	9,360	70	Woods, Good, HSG C
	80,382	77	Woods, Good, HSG D
	99,714	77	Weighted Average
	93,001		93.27% Pervious Area
	6,713		6.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0865	0.14		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.10"
0.3	32	0.1250	1.77		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
0.7	467	0.0810	11.28	60.14	**Parabolic Channel, C-D** W=4.00' D=2.00' Area=5.3 sf Perim=5.9' n= 0.035 Earth, dense weeds
13.1	599	Total			

Summary for Subcatchment SC-2: WEST

Runoff = 2.11 cfs @ 12.18 hrs, Volume= 0.193 af, Depth= 1.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	552	98	Pavement
	3,249	55	Woods, Good, HSG B
	9,357	70	Woods, Good, HSG C
	79,986	77	Woods, Good, HSG D
	93,144	76	Weighted Average
	92,592		99.41% Pervious Area
	552		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1231	0.16		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.10"
1.8	230	0.1739	2.09		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
12.3	330	Total			

Summary for Pond AP-1: STREAM TO OFF-SITE

Inflow Area = 2.289 ac, 6.73% Impervious, Inflow Depth = 1.14" for 2-yr Storm event
Inflow = 2.35 cfs @ 12.19 hrs, Volume= 0.218 af
Primary = 2.35 cfs @ 12.19 hrs, Volume= 0.218 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Summary for Pond AP-2: WEST PROPERTY LINE

Inflow Area = 2.138 ac, 0.59% Impervious, Inflow Depth = 1.08" for 2-yr Storm event
Inflow = 2.11 cfs @ 12.18 hrs, Volume= 0.193 af
Primary = 2.11 cfs @ 12.18 hrs, Volume= 0.193 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Summary for Subcatchment SC-1: EAST

Runoff = 4.88 cfs @ 12.18 hrs, Volume= 0.437 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Storm Rainfall=4.60"

	Area (sf)	CN	Description
*	6,713	98	Pavement
	3,259	55	Woods, Good, HSG B
	9,360	70	Woods, Good, HSG C
	80,382	77	Woods, Good, HSG D
	99,714	77	Weighted Average
	93,001		93.27% Pervious Area
	6,713		6.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0865	0.14		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.10"
0.3	32	0.1250	1.77		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
0.7	467	0.0810	11.28	60.14	**Parabolic Channel, C-D** W=4.00' D=2.00' Area=5.3 sf Perim=5.9' n= 0.035 Earth, dense weeds
13.1	599	Total			

Summary for Subcatchment SC-2: WEST

Runoff = 4.49 cfs @ 12.17 hrs, Volume= 0.394 af, Depth= 2.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Storm Rainfall=4.60"

	Area (sf)	CN	Description
*	552	98	Pavement
	3,249	55	Woods, Good, HSG B
	9,357	70	Woods, Good, HSG C
	79,986	77	Woods, Good, HSG D
	93,144	76	Weighted Average
	92,592		99.41% Pervious Area
	552		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1231	0.16		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.10"
1.8	230	0.1739	2.09		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
12.3	330	Total			

Summary for Pond AP-1: STREAM TO OFF-SITE

Inflow Area = 2.289 ac, 6.73% Impervious, Inflow Depth = 2.29" for 10-yr Storm event
Inflow = 4.88 cfs @ 12.18 hrs, Volume= 0.437 af
Primary = 4.88 cfs @ 12.18 hrs, Volume= 0.437 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Summary for Pond AP-2: WEST PROPERTY LINE

Inflow Area = 2.138 ac, 0.59% Impervious, Inflow Depth = 2.21" for 10-yr Storm event
Inflow = 4.49 cfs @ 12.17 hrs, Volume= 0.394 af
Primary = 4.49 cfs @ 12.17 hrs, Volume= 0.394 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Summary for Subcatchment SC-1: EAST

Runoff = 7.07 cfs @ 12.18 hrs, Volume= 0.630 af, Depth= 3.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Storm Rainfall=5.80"

	Area (sf)	CN	Description
*	6,713	98	Pavement
	3,259	55	Woods, Good, HSG B
	9,360	70	Woods, Good, HSG C
	80,382	77	Woods, Good, HSG D
	99,714	77	Weighted Average
	93,001		93.27% Pervious Area
	6,713		6.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0865	0.14		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.10"
0.3	32	0.1250	1.77		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
0.7	467	0.0810	11.28	60.14	**Parabolic Channel, C-D** W=4.00' D=2.00' Area=5.3 sf Perim=5.9' n= 0.035 Earth, dense weeds
13.1	599	Total			

Summary for Subcatchment SC-2: WEST

Runoff = 6.55 cfs @ 12.17 hrs, Volume= 0.572 af, Depth= 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Storm Rainfall=5.80"

	Area (sf)	CN	Description
*	552	98	Pavement
	3,249	55	Woods, Good, HSG B
	9,357	70	Woods, Good, HSG C
	79,986	77	Woods, Good, HSG D
	93,144	76	Weighted Average
	92,592		99.41% Pervious Area
	552		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1231	0.16		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.10"
1.8	230	0.1739	2.09		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
12.3	330	Total			

Summary for Pond AP-1: STREAM TO OFF-SITE

Inflow Area = 2.289 ac, 6.73% Impervious, Inflow Depth = 3.31" for 25-yr Storm event
Inflow = 7.07 cfs @ 12.18 hrs, Volume= 0.630 af
Primary = 7.07 cfs @ 12.18 hrs, Volume= 0.630 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Summary for Pond AP-2: WEST PROPERTY LINE

Inflow Area = 2.138 ac, 0.59% Impervious, Inflow Depth = 3.21" for 25-yr Storm event
Inflow = 6.55 cfs @ 12.17 hrs, Volume= 0.572 af
Primary = 6.55 cfs @ 12.17 hrs, Volume= 0.572 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Summary for Subcatchment SC-1: EAST

Runoff = 11.41 cfs @ 12.18 hrs, Volume= 1.024 af, Depth= 5.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Storm Rainfall=8.10"

	Area (sf)	CN	Description
*	6,713	98	Pavement
	3,259	55	Woods, Good, HSG B
	9,360	70	Woods, Good, HSG C
	80,382	77	Woods, Good, HSG D
	99,714	77	Weighted Average
	93,001		93.27% Pervious Area
	6,713		6.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0865	0.14		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.10"
0.3	32	0.1250	1.77		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
0.7	467	0.0810	11.28	60.14	**Parabolic Channel, C-D** W=4.00' D=2.00' Area=5.3 sf Perim=5.9' n= 0.035 Earth, dense weeds
13.1	599	Total			

Summary for Subcatchment SC-2: WEST

Runoff = 10.67 cfs @ 12.17 hrs, Volume= 0.935 af, Depth= 5.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Storm Rainfall=8.10"

	Area (sf)	CN	Description
*	552	98	Pavement
	3,249	55	Woods, Good, HSG B
	9,357	70	Woods, Good, HSG C
	79,986	77	Woods, Good, HSG D
	93,144	76	Weighted Average
	92,592		99.41% Pervious Area
	552		0.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1231	0.16		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.10"
1.8	230	0.1739	2.09		**Shallow Concentrated Flow, B-C** Woodland Kv= 5.0 fps
12.3	330	Total			

Summary for Pond AP-1: STREAM TO OFF-SITE

Inflow Area = 2.289 ac, 6.73% Impervious, Inflow Depth = 5.37" for 100-yr Storm event
Inflow = 11.41 cfs @ 12.18 hrs, Volume= 1.024 af
Primary = 11.41 cfs @ 12.18 hrs, Volume= 1.024 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Summary for Pond AP-2: WEST PROPERTY LINE

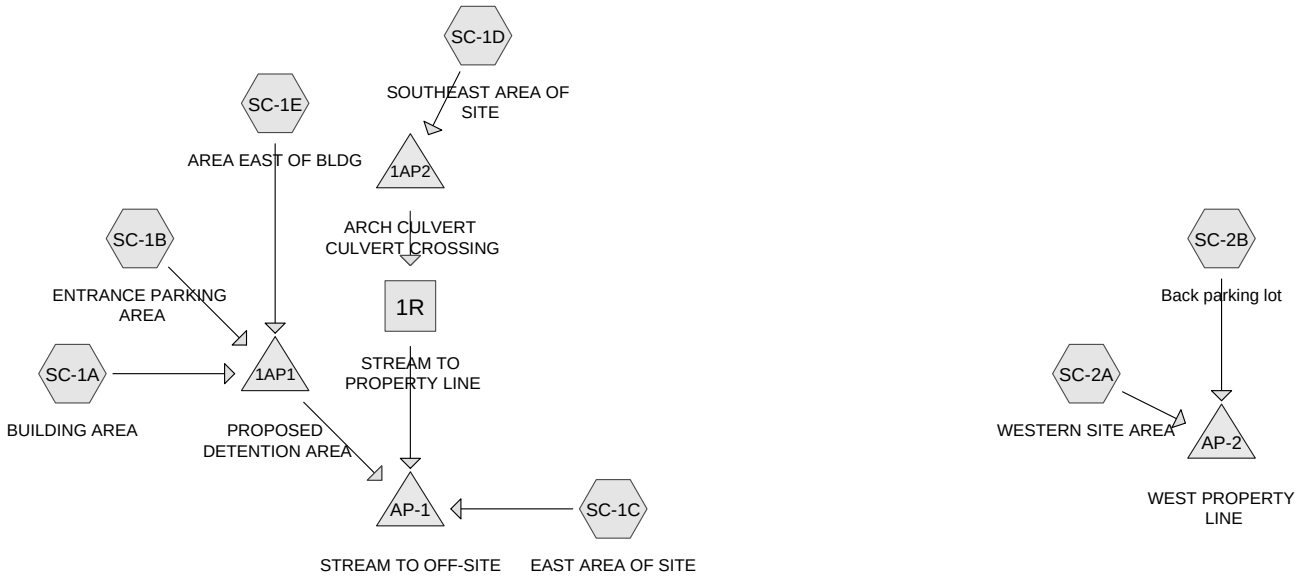
Inflow Area = 2.138 ac, 0.59% Impervious, Inflow Depth = 5.25" for 100-yr Storm event
Inflow = 10.67 cfs @ 12.17 hrs, Volume= 0.935 af
Primary = 10.67 cfs @ 12.17 hrs, Volume= 0.935 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

APPENDIX C

POST-DEVELOPMENT HYDROCAD CALCULATIONS

SME
SEVEE & MAHER
ENGINEERS



Subcat Reach Pond Link

Routing Diagram for Broad Cove Post-Development
Prepared by {enter your company name here}, Printed 5/25/2021

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-yr Storm	Type III 24-hr		Default	24.00	1	3.10	2

Summary for Subcatchment SC-1A: BUILDING AREA

Runoff = 0.91 cfs @ 12.07 hrs, Volume= 0.070 af, Depth= 2.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	12,700	98	Pavement
	12,700		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment SC-1B: ENTRANCE PARKING AREA

Runoff = 0.74 cfs @ 12.07 hrs, Volume= 0.052 af, Depth= 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	8,377	98	Impervious Area
	2,700	80	>75% Grass cover, Good, HSG D
	989	77	Woods, Good, HSG D
	12,066	92	Weighted Average
	3,689		30.57% Pervious Area
	8,377		69.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Subcatchment SC-1C: EAST AREA OF SITE

Runoff = 0.95 cfs @ 12.18 hrs, Volume= 0.092 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	264	98	Impervious
	17,080	55	Woods, Good, HSG B
	682	61	>75% Grass cover, Good, HSG B
	10,766	80	>75% Grass cover, Good, HSG D
	29,901	77	Woods, Good, HSG D
	58,693	71	Weighted Average
	58,429		99.55% Pervious Area
	264		0.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5	100	0.1000	0.15		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.10"
0.5	344	0.0810	11.28	60.14	**Parabolic Channel,** W=4.00' D=2.00' Area=5.3 sf Perim=5.9' n= 0.035 Earth, dense weeds
12.0	444	Total			

Summary for Subcatchment SC-1D: SOUTHEAST AREA OF SITE

Runoff = 0.79 cfs @ 12.16 hrs, Volume= 0.067 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	4,565	98	Impervious
	3,120	80	>75% Grass cover, Good, HSG D
	17,576	77	Woods, Good, HSG D
	25,261	81	Weighted Average
	20,696		81.93% Pervious Area
	4,565		18.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	100	0.1100	0.15		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.10"
0.1	68	0.0660	10.18	54.29	**Parabolic Channel, B-C** W=4.00' D=2.00' Area=5.3 sf Perim=5.9' n= 0.035 Earth, dense weeds
11.1	168	Total			

Summary for Subcatchment SC-1E: AREA EAST OF BLDG

Runoff = 0.14 cfs @ 12.08 hrs, Volume= 0.010 af, Depth= 1.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

Area (sf)	CN	Description
3,875	80	>75% Grass cover, Good, HSG D
3,875		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Tc MUST BE GREATER THAN OR EQUAL TO 5 MI**

Summary for Subcatchment SC-2A: WESTERN SITE AREA

Runoff = 0.97 cfs @ 12.16 hrs, Volume= 0.086 af, Depth= 1.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

Area (sf)	CN	Description
477	61	>75% Grass cover, Good, HSG B
4,937	80	>75% Grass cover, Good, HSG D
2,179	55	Woods, Good, HSG B
9,357	70	Woods, Good, HSG C
26,714	77	Woods, Good, HSG D
43,664	75	Weighted Average
43,664		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1231	0.16		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.10"
0.3	32	0.1739	2.09		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
10.8	132	Total			

Summary for Subcatchment SC-2B: Back parking lot

Runoff = 1.84 cfs @ 12.13 hrs, Volume= 0.151 af, Depth= 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Storm Rainfall=3.10"

	Area (sf)	CN	Description
*	23,236	98	Pavement
	12,120	80	>75% Grass cover, Good, HSG D
	994	61	>75% Grass cover, Good, HSG B
	36,350	91	Weighted Average
	13,114		36.08% Pervious Area
	23,236		63.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	40	0.0450	0.09		**Sheet Flow, A-B** Woods: Light underbrush n= 0.400 P2= 3.10"
0.8	22	0.5000	0.45		**Sheet Flow, B-C** Grass: Short n= 0.150 P2= 3.10"
0.4	38	0.0500	1.61		**Sheet Flow, C-D** Smooth surfaces n= 0.011 P2= 3.10"
0.6	150	0.0500	4.54		**Shallow Concentrated Flow, D-E** Paved Kv= 20.3 fps
0.3	210	0.0500	10.14	7.97	**Pipe Channel, E-F** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
9.7	460	Total			

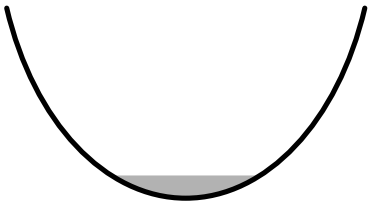
Summary for Reach 1R: STREAM TO PROPERTY LINE

Inflow Area = 0.580 ac, 18.07% Impervious, Inflow Depth = 1.37" for 2-yr Storm event
Inflow = 0.79 cfs @ 12.16 hrs, Volume= 0.066 af
Outflow = 0.78 cfs @ 12.21 hrs, Volume= 0.066 af, Atten= 2%, Lag= 3.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 3.54 fps, Min. Travel Time= 1.7 min
Avg. Velocity = 1.41 fps, Avg. Travel Time= 4.4 min

Peak Storage= 81 cf @ 12.18 hrs
Average Depth at Peak Storage= 0.24' , Surface Width= 1.38'
Bank-Full Depth= 2.00' Flow Area= 5.3 sf, Capacity= 63.11 cfs

4.00' x 2.00' deep Parabolic Channel, n= 0.035 Earth, dense weeds
Length= 370.0' Slope= 0.0892 '/'
Inlet Invert= 117.00', Outlet Invert= 84.00'



Summary for Pond 1AP1: PROPOSED DETENTION AREA

Inflow Area = 0.658 ac, 73.59% Impervious, Inflow Depth = 2.40" for 2-yr Storm event
Inflow = 1.79 cfs @ 12.07 hrs, Volume= 0.132 af
Outflow = 0.79 cfs @ 12.24 hrs, Volume= 0.132 af, Atten= 56%, Lag= 10.1 min
Primary = 0.79 cfs @ 12.24 hrs, Volume= 0.132 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 115.36' @ 12.24 hrs Surf.Area= 1,007 sf Storage= 990 cf

Plug-Flow detention time= 20.5 min calculated for 0.132 af (100% of inflow)

Center-of-Mass det. time= 20.5 min (799.8 - 779.2)

Volume	Invert	Avail.Storage	Storage Description
#1	114.00'	7,362 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
114.00	450	0	0
116.00	1,270	1,720	1,720
116.50	2,324	899	2,619
118.00	4,000	4,743	7,362

Device	Routing	Invert	Outlet Devices
#1	Primary	114.00'	**6.0" Round Culvert** L= 54.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 114.00' / 113.00' S= 0.0185 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Secondary	116.50'	**10.0' long x 5.0' 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) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.79 cfs @ 12.24 hrs HW=115.36' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.79 cfs @ 4.00 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=114.00' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 1AP2: ARCH CULVERT CULVERT CROSSING

Inflow Area = 0.580 ac, 18.07% Impervious, Inflow Depth = 1.39" for 2-yr Storm event
Inflow = 0.79 cfs @ 12.16 hrs, Volume= 0.067 af
Outflow = 0.79 cfs @ 12.16 hrs, Volume= 0.066 af, Atten= 0%, Lag= 0.2 min
Primary = 0.79 cfs @ 12.16 hrs, Volume= 0.066 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 119.90' @ 12.16 hrs Surf.Area= 76 sf Storage= 52 cf

Plug-Flow detention time= 12.7 min calculated for 0.066 af (98% of inflow)
Center-of-Mass det. time= 3.8 min (849.6 - 845.9)

Volume	Invert	Avail.Storage	Storage Description
#1	119.00'	1,967 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
119.00	40	0	0
120.00	80	60	60
122.00	1,827	1,907	1,967

Device	Routing	Invert	Outlet Devices
#1	Primary	119.80'	**84.0" W x 18.0" H Box Culvert** L= 44.0' Box, 30-75° wingwalls, square crown, Ke= 0.400 Inlet / Outlet Invert= 119.80' / 117.50' S= 0.0523 '/' Cc= 0.900 n= 0.035 Earth, dense weeds, Flow Area= 10.50 sf
#2	Secondary	122.25'	**10.0' long x 20.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.78 cfs @ 12.16 hrs HW=119.90' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.78 cfs @ 1.10 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=119.00' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond AP-1: STREAM TO OFF-SITE

Inflow Area = 2.585 ac, 23.01% Impervious, Inflow Depth = 1.34" for 2-yr Storm event
Inflow = 2.49 cfs @ 12.20 hrs, Volume= 0.290 af
Primary = 2.49 cfs @ 12.20 hrs, Volume= 0.290 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Summary for Pond AP-2: WEST PROPERTY LINE

Inflow Area = 1.837 ac, 29.04% Impervious, Inflow Depth = 1.54" for 2-yr Storm event
Inflow = 2.79 cfs @ 12.14 hrs, Volume= 0.236 af
Primary = 2.79 cfs @ 12.14 hrs, Volume= 0.236 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	10-yr Storm	Type III 24-hr		Default	24.00	1	4.60	2
2	25-yr Storm	Type III 24-hr		Default	24.00	1	5.80	2
3	100-yr Storm	Type III 24-hr		Default	24.00	1	8.10	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.049	61	>75% Grass cover, Good, HSG B (SC-1C, SC-2A, SC-2B)
0.861	80	>75% Grass cover, Good, HSG D (SC-1B, SC-1C, SC-1D, SC-1E, SC-2A, SC-2B)
0.111	98	Impervious (SC-1C, SC-1D)
0.192	98	Impervious Area (SC-1B)
0.825	98	Pavement (SC-1A, SC-2B)
0.442	55	Woods, Good, HSG B (SC-1C, SC-2A)
0.215	70	Woods, Good, HSG C (SC-2A)
1.726	77	Woods, Good, HSG D (SC-1B, SC-1C, SC-1D, SC-2A)
4.422	**80**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.492	HSG B	SC-1C, SC-2A, SC-2B
0.215	HSG C	SC-2A
2.587	HSG D	SC-1B, SC-1C, SC-1D, SC-1E, SC-2A, SC-2B
1.128	Other	SC-1A, SC-1B, SC-1C, SC-1D, SC-2B
4.422		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.049	0.000	0.861	0.000	0.911	>75% Grass cover, Good	SC-1B, SC-1C, SC-1D, SC-1E, SC-2A, SC-2B
0.000	0.000	0.000	0.000	0.111	0.111	Impervious	SC-1C, SC-1D
0.000	0.000	0.000	0.000	0.192	0.192	Impervious Area	SC-1B
0.000	0.000	0.000	0.000	0.825	0.825	Pavement	SC-1A, SC-2B
0.000	0.442	0.215	1.726	0.000	2.383	Woods, Good	SC-1B, SC-1C, SC-1D, SC-2A
0.000	**0.492**	**0.215**	**2.587**	**1.128**	**4.422**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	SC-2B	0.00	0.00	210.0	0.0500	0.013	12.0	0.0	0.0
2	1AP1	114.00	113.00	54.0	0.0185	0.013	6.0	0.0	0.0
3	1AP2	119.80	117.50	44.0	0.0523	0.035	84.0	18.0	0.0

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 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 SC-1A: BUILDING AREA Runoff Area=12,700 sf 100.00% Impervious Runoff Depth=4.36"
Tc=5.0 min CN=98 Runoff=1.36 cfs 0.106 af

Subcatchment SC-1B: ENTRANCE Runoff Area=12,066 sf 69.43% Impervious Runoff Depth=3.70"
Tc=5.0 min CN=92 Runoff=1.19 cfs 0.085 af

Subcatchment SC-1C: EAST AREA OF SITE Runoff Area=58,693 sf 0.45% Impervious Runoff Depth=1.82"
Flow Length=444' Tc=12.0 min CN=71 Runoff=2.30 cfs 0.204 af

Subcatchment SC-1D: SOUTHEAST AREA Runoff Area=25,261 sf 18.07% Impervious Runoff Depth=2.63"
Flow Length=168' Tc=11.1 min CN=81 Runoff=1.51 cfs 0.127 af

Subcatchment SC-1E: AREA EAST OF BLDG Runoff Area=3,875 sf 0.00% Impervious Runoff Depth=2.55"
Tc=5.0 min CN=80 Runoff=0.28 cfs 0.019 af

Subcatchment SC-2A: WESTERN SITE Runoff Area=43,664 sf 0.00% Impervious Runoff Depth=2.13"
Flow Length=132' Tc=10.8 min CN=75 Runoff=2.11 cfs 0.178 af

Subcatchment SC-2B: Back parking lot Runoff Area=36,350 sf 63.92% Impervious Runoff Depth=3.59"
Flow Length=460' Tc=9.7 min CN=91 Runoff=2.99 cfs 0.250 af

Reach 1R: STREAM TO PROPERTY LINE Avg. Flow Depth=0.32' Max Vel=4.29 fps Inflow=1.51 cfs 0.126 af
n=0.035 L=370.0' S=0.0892 '/' Capacity=63.11 cfs Outflow=1.49 cfs 0.126 af

Pond 1AP1: PROPOSED DETENTION AREA Peak Elev=116.08' Storage=1,830 cf Inflow=2.82 cfs 0.210 af
Primary=1.01 cfs 0.210 af Secondary=0.00 cfs 0.000 af Outflow=1.01 cfs 0.210 af

Pond 1AP2: ARCH CULVERT CULVERT Peak Elev=119.96' Storage=57 cf Inflow=1.51 cfs 0.127 af
Primary=1.51 cfs 0.126 af Secondary=0.00 cfs 0.000 af Outflow=1.51 cfs 0.126 af

Pond AP-1: STREAM TO OFF-SITE Inflow=4.76 cfs 0.541 af
Primary=4.76 cfs 0.541 af

Pond AP-2: WEST PROPERTY LINE Inflow=5.08 cfs 0.428 af
Primary=5.08 cfs 0.428 af

Total Runoff Area = 4.422 ac Runoff Volume = 0.970 af Average Runoff Depth = 2.63"
74.49% Pervious = 3.294 ac 25.51% Impervious = 1.128 ac

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 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 SC-1A: BUILDING AREA Runoff Area=12,700 sf 100.00% Impervious Runoff Depth=5.56"
Tc=5.0 min CN=98 Runoff=1.72 cfs 0.135 af

Subcatchment SC-1B: ENTRANCE Runoff Area=12,066 sf 69.43% Impervious Runoff Depth=4.87"
Tc=5.0 min CN=92 Runoff=1.54 cfs 0.112 af

Subcatchment SC-1C: EAST AREA OF SITE Runoff Area=58,693 sf 0.45% Impervious Runoff Depth=2.74"
Flow Length=444' Tc=12.0 min CN=71 Runoff=3.53 cfs 0.307 af

Subcatchment SC-1D: SOUTHEAST AREA Runoff Area=25,261 sf 18.07% Impervious Runoff Depth=3.70"
Flow Length=168' Tc=11.1 min CN=81 Runoff=2.12 cfs 0.179 af

Subcatchment SC-1E: AREA EAST OF BLDG Runoff Area=3,875 sf 0.00% Impervious Runoff Depth=3.60"
Tc=5.0 min CN=80 Runoff=0.39 cfs 0.027 af

Subcatchment SC-2A: WESTERN SITE Runoff Area=43,664 sf 0.00% Impervious Runoff Depth=3.11"
Flow Length=132' Tc=10.8 min CN=75 Runoff=3.11 cfs 0.260 af

Subcatchment SC-2B: Back parking lot Runoff Area=36,350 sf 63.92% Impervious Runoff Depth=4.76"
Flow Length=460' Tc=9.7 min CN=91 Runoff=3.91 cfs 0.331 af

Reach 1R: STREAM TO PROPERTY LINE Avg. Flow Depth=0.38' Max Vel=4.73 fps Inflow=2.12 cfs 0.178 af
n=0.035 L=370.0' S=0.0892 '/' Capacity=63.11 cfs Outflow=2.09 cfs 0.178 af

Pond 1AP1: PROPOSED DETENTION AREA Peak Elev=116.51' Storage=2,642 cf Inflow=3.64 cfs 0.274 af
Primary=1.10 cfs 0.274 af Secondary=0.03 cfs 0.000 af Outflow=1.13 cfs 0.274 af

Pond 1AP2: ARCH CULVERT CULVERT Peak Elev=120.00' Storage=60 cf Inflow=2.12 cfs 0.179 af
Primary=2.12 cfs 0.178 af Secondary=0.00 cfs 0.000 af Outflow=2.12 cfs 0.178 af

Pond AP-1: STREAM TO OFF-SITE Inflow=6.68 cfs 0.760 af
Primary=6.68 cfs 0.760 af

Pond AP-2: WEST PROPERTY LINE Inflow=6.99 cfs 0.591 af
Primary=6.99 cfs 0.591 af

Total Runoff Area = 4.422 ac Runoff Volume = 1.352 af Average Runoff Depth = 3.67"
74.49% Pervious = 3.294 ac 25.51% Impervious = 1.128 ac

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 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 SC-1A: BUILDING AREA Runoff Area=12,700 sf 100.00% Impervious Runoff Depth=7.86"
Tc=5.0 min CN=98 Runoff=2.40 cfs 0.191 af

Subcatchment SC-1B: ENTRANCE Runoff Area=12,066 sf 69.43% Impervious Runoff Depth=7.14"
Tc=5.0 min CN=92 Runoff=2.21 cfs 0.165 af

Subcatchment SC-1C: EAST AREA OF SITE Runoff Area=58,693 sf 0.45% Impervious Runoff Depth=4.67"
Flow Length=444' Tc=12.0 min CN=71 Runoff=6.06 cfs 0.524 af

Subcatchment SC-1D: SOUTHEAST AREA Runoff Area=25,261 sf 18.07% Impervious Runoff Depth=5.84"
Flow Length=168' Tc=11.1 min CN=81 Runoff=3.30 cfs 0.282 af

Subcatchment SC-1E: AREA EAST OF BLDG Runoff Area=3,875 sf 0.00% Impervious Runoff Depth=5.72"
Tc=5.0 min CN=80 Runoff=0.61 cfs 0.042 af

Subcatchment SC-2A: WESTERN SITE Runoff Area=43,664 sf 0.00% Impervious Runoff Depth=5.13"
Flow Length=132' Tc=10.8 min CN=75 Runoff=5.12 cfs 0.429 af

Subcatchment SC-2B: Back parking lot Runoff Area=36,350 sf 63.92% Impervious Runoff Depth=7.02"
Flow Length=460' Tc=9.7 min CN=91 Runoff=5.64 cfs 0.488 af

Reach 1R: STREAM TO PROPERTY LINE Avg. Flow Depth=0.47' Max Vel=5.37 fps Inflow=3.29 cfs 0.281 af
n=0.035 L=370.0' S=0.0892 '/' Capacity=63.11 cfs Outflow=3.27 cfs 0.281 af

Pond 1AP1: PROPOSED DETENTION AREA Peak Elev=116.72' Storage=3,155 cf Inflow=5.22 cfs 0.398 af
Primary=1.14 cfs 0.356 af Secondary=2.42 cfs 0.043 af Outflow=3.56 cfs 0.398 af

Pond 1AP2: ARCH CULVERT CULVERT Peak Elev=120.07' Storage=67 cf Inflow=3.30 cfs 0.282 af
Primary=3.29 cfs 0.281 af Secondary=0.00 cfs 0.000 af Outflow=3.29 cfs 0.281 af

Pond AP-1: STREAM TO OFF-SITE Inflow=12.74 cfs 1.203 af
Primary=12.74 cfs 1.203 af

Pond AP-2: WEST PROPERTY LINE Inflow=10.72 cfs 0.917 af
Primary=10.72 cfs 0.917 af

Total Runoff Area = 4.422 ac Runoff Volume = 2.121 af Average Runoff Depth = 5.76"
74.49% Pervious = 3.294 ac 25.51% Impervious = 1.128 ac

APPENDIX F

PWD ABILITY TO SERVE REQUEST LETTER

SME
SEVEE & MAHER
ENGINEERS

SME
SEVEE & MAHER
ENGINEERS

4 Blanchard Road, P.O. Box 85A
Cumberland, ME 04021
Tel: 207.829.5016 • Fax: 207.829.5692
info@smemaine.com
smemaine.com

April 22, 2021

VIA E-MAIL
MEANS Group
Portland Water District
225 Douglass Street
Portland, ME 04102

Subject: Evergreen Ridge Condominiums
Route 1, Cumberland, Maine

To Whom It May Concern:

On behalf of Snell Construction, LLC, Sevee & Maher Engineers, Inc. (SME) is requesting a letter from the Portland Water District (PWD) to verify their capacity to serve a 50-unit Condominium multiplex at 102 US Route 1 in Cumberland. The parcel is indicated as Lot 13B on the Town of Cumberland Tax Map R1. The location of the facility is outlined in the attached Figure 1 - Site Location Map. Existing conditions of the site is outlined in the attached Existing Conditions Plan.

The proposed project includes a 50-unit Condominiums multiplex 5-story building with parking for visitors and residents. The proposed Condominiums will be serviced by a 2-inch domestic line connected to public water available along US Route 1.

SME anticipates 13 one-bedroom condos and 37 two-bedroom condos for this proposed condominium. The total anticipated water demand for the property is 8,220 gallons per day which includes an estimated 180 gallons of water per day for a two-bedroom condo unit and 120 gallons of water per day for a one-bedroom condo.

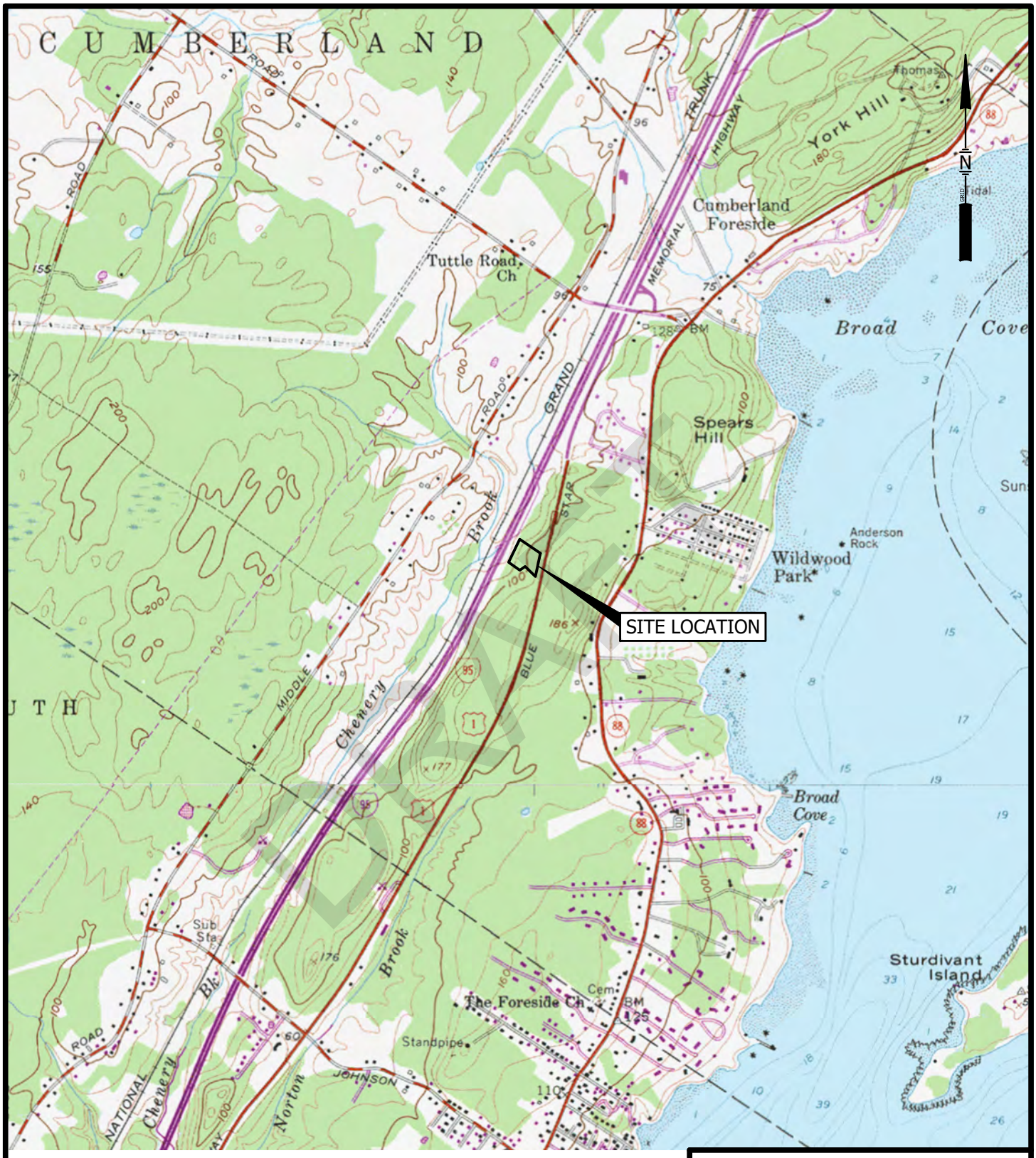
Please feel free to contact me at 207.829.5016 or dpd@smemaine.com if you have any questions or need additional information.

Sincerely,

SEVEE & MAHER ENGINEERS, INC.

Daniel Diffin, P.E., LEED AP BD+C
Vice President/Project Manager

Attachments



BASEMAP ADAPTED FROM 7.5 MIN USGS TOPO QUADS
YARMOUTH, ME - 1975
PORTLAND-EAST, ME - 1975

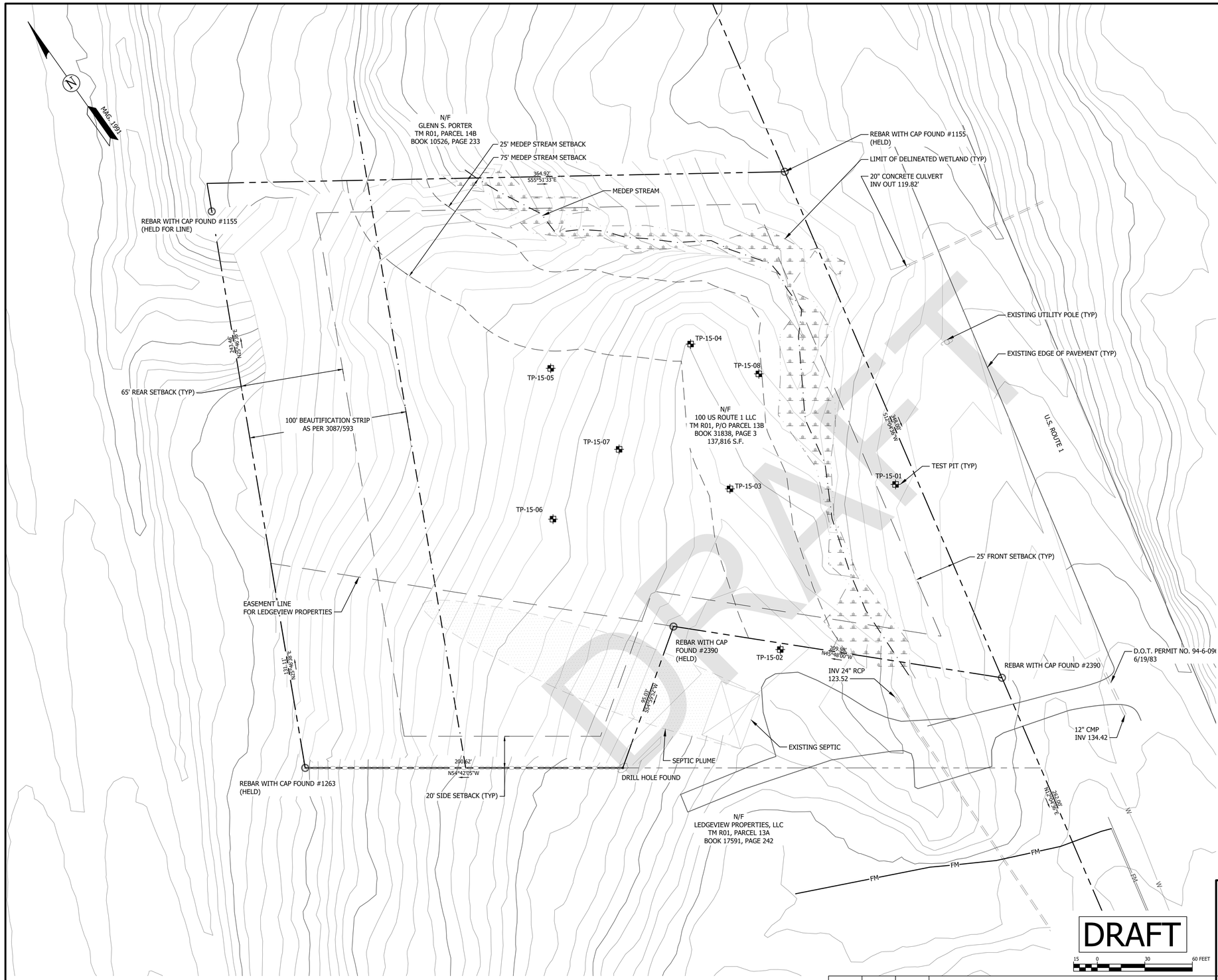
1000 0 2000 FEET

DWG: SITELOC LMN: NONE CTB: SME-STD REV: 4/12/2021

FIGURE 1
SITE LOCATION MAP
EVERGREEN RIDGE CONDOMINIUMS
CUMBERLAND, MAINE

SME
SEVEE & MAHER
ENGINEERS

\\Nserver\cfs\Platz Associates\Route 1 Cumberland Condos\Acad\Figures\SITELOC.dwg, 4/12/2021 10:38:50 AM, sjm



NOTES:

1. SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.

REV.	BY	DATE	STATUS
-	-	-	

SNELL CONSTRUCTION LLC
EVERGREEN CONDOMINIUMS
102 US ROUTE 1
CUMBERLAND, MAINE

EXISTING CONDITIONS AND CLEARING PLAN

SME
SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

DESIGN BY:	AML
DRAWN BY:	SJM
DATE:	4/2021
CHECKED BY:	DPD
LMN:	EXCON
CTB:	SME-STD

JOB NO. 21241.01 DWG FILE BASE

C-101

APPENDIX G

WASTEWATER CAPACITY REQUEST

SME
SEVEE & MAHER
ENGINEERS

Abigail Latulippe

From: Dan Diffin
Sent: Tuesday, May 25, 2021 8:51 AM
To: Bill Shane
Cc: Abigail Latulippe
Subject: Broad Cove Ridge Condos - Sewer Capacity to Serve

Hi Bill,

Would you be able to provide a capacity to serve letter for the Broad Cove Ridge Condominium project off Route 1? This is directly north of the sewer system that was constructed up to the Ledgeview Assisted Living Facility. As you know, the existing sewer system along Route 1 included an additional 2-inch force main pipe that was sized to accommodate the future development of this property. We estimate that the 50-unit condominium development, which includes a combination of 13 one-bedroom units and 37 two-bedroom units will result in approximately 8,000 GPD of wastewater flow.

Let us know if you need more information to provide the capacity to serve letter.

Thanks!

Dan

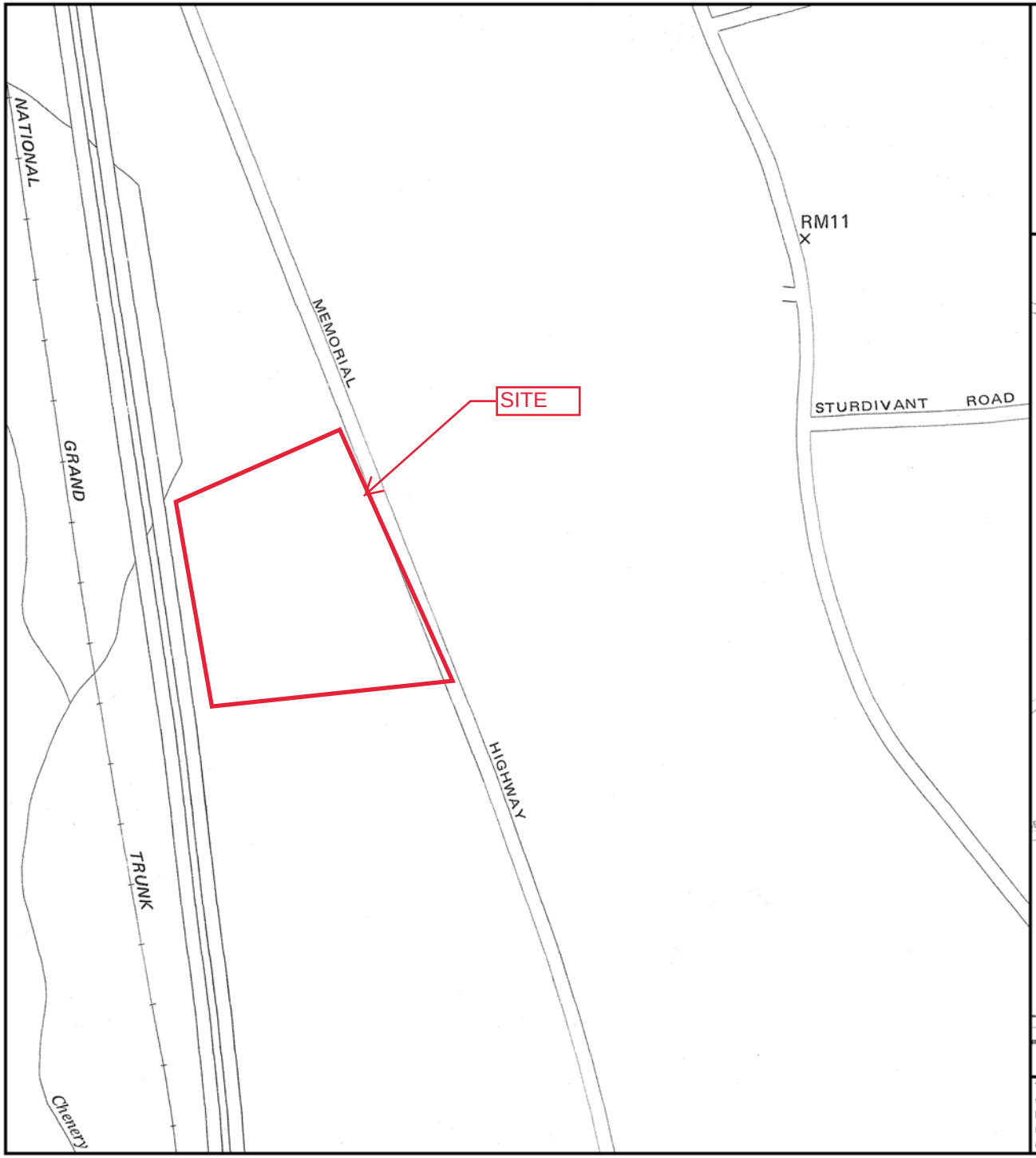
Daniel P. Diffin, P.E., LEED AP BD+C
Vice President/Senior Civil Engineer

SME
SEVEE & MAHER ENGINEERS
Sevee & Maher Engineers, Inc.
4 Blanchard Road, P.O. Box 85A
Cumberland, ME 04021
Office: 207.829.5016
Cell: 207.240.3315
Fax: 207.829.5692

APPENDIX H

FEMA FIRM MAP

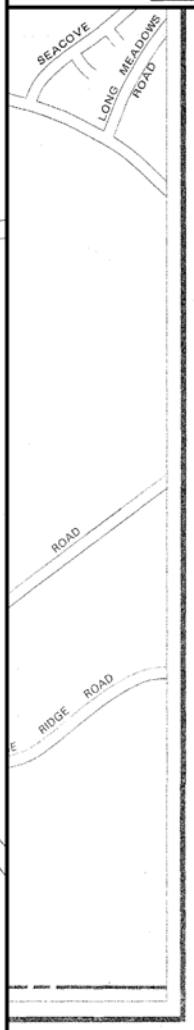
SME
SEVEE & MAHER
ENGINEERS



Program, at (800) 638-6620.

APPROXIMATE SCALE

400 0 400 FEET



NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

TOWN OF
CUMBERLAND, MAINE
CUMBERLAND COUNTY

PANEL 18 OF 25
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230162 0018 C

MAP REVISED:
OCTOBER 15, 1985

Federal Emergency Management Agency

APPENDIX I

MHPC REVIEW LETTER

SME
SEVEE & MAHER
ENGINEERS

SME
SEVEE & MAHER
ENGINEERS

4 Blanchard Road, P.O. Box 85A
Cumberland, ME 04021
Tel: 207.829.5016 • Fax: 207.829.5692
info@smemaine.com
smemaine.com

April 13, 2021

Mr. Kirk F. Mohney, Director
Maine Historic Preservation Commission
55 Capitol Street
65 State House Station
Augusta, Maine 04333-0065

Subject: Evergreen Ridge Condominiums
US Route 1, Cumberland, Maine

Dear Mr. Mohney:

Snell Construction, LLC is seeking approval for construction of a 50-condo multiplex with approximately 75 parking spaces and associated site improvement in Cumberland, Maine under a Maine Department of Environmental Protection (MEDEP) Stormwater Management Permit.

PROJECT DESCRIPTION

Snell Construction is proposing a 50-condo multiplex, with approximately 75 parking spaces and associated site improvement in Cumberland, Maine. The property is primarily undeveloped forested land. The property is accessed by a paved driveway off US Route 1.

The 3.16-acre parcel is bordered to the east by US Route 1, to the west by Route I-295, to south by Ledgeview Assisted Living, and undeveloped properties to the north. The project location is outlined in the attached Figure 1 - Site Location Map.

HISTORICAL FINDINGS

A search of the National Register of Historic Places online maps did not identify any historic places adjacent to the parcel.

In addition to searching the National Register of Historic Places, records of neighboring properties were searched for any buildings over fifty (50) years old. There are no neighboring properties with buildings over fifty (50) years old.

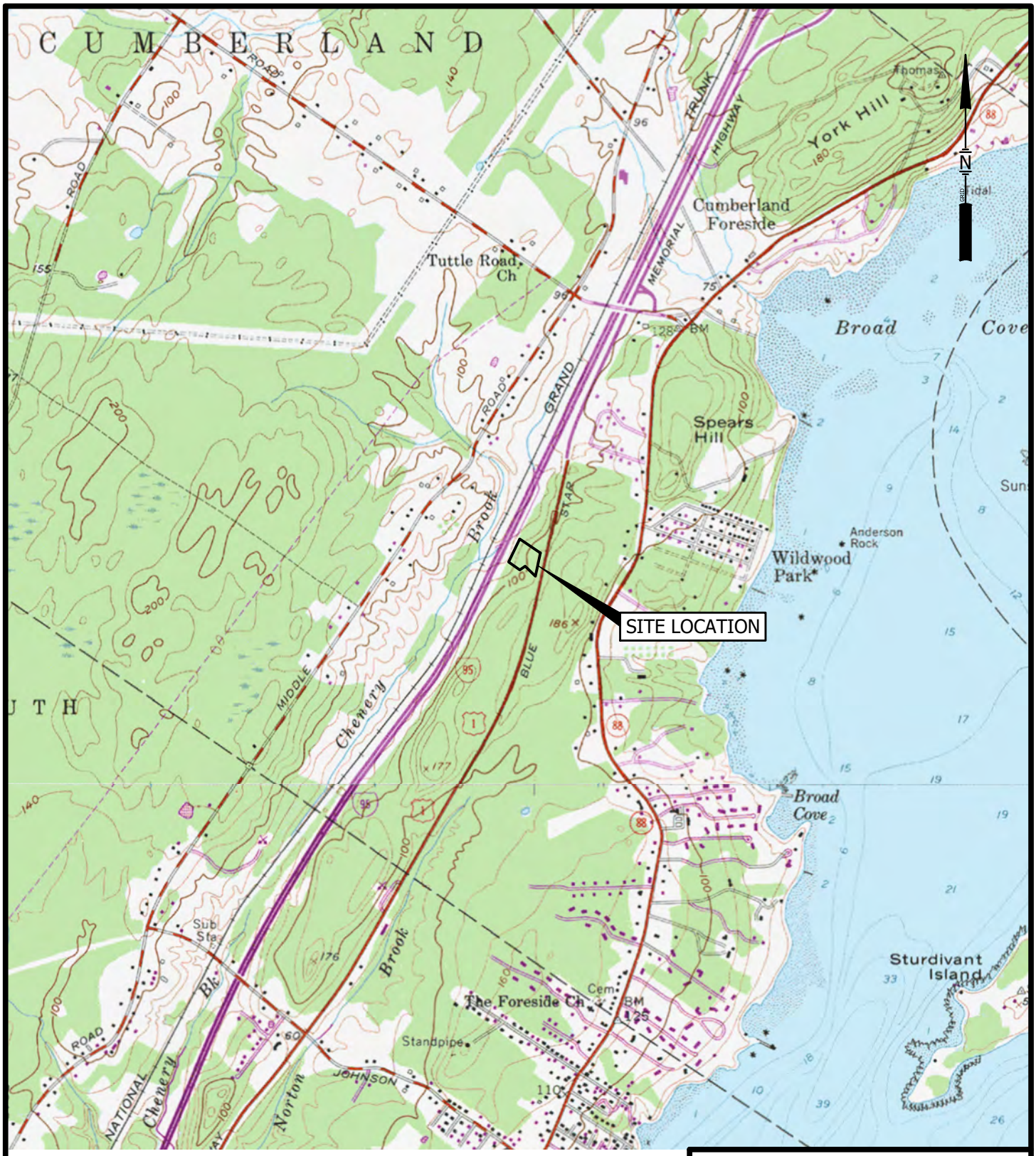
Please feel free to contact me at 207.829.5016 or dpd@smemaine.com if you have any questions or need additional information.

Sincerely,

SEVEE & MAHER ENGINEERS, INC.

Daniel Diffin, P.E., LEED AP BD+C
Vice President/Project Manager

Attachment: Figure 1 – Site Location Map



BASEMAP ADAPTED FROM 7.5 MIN USGS TOPO QUADS
YARMOUTH, ME - 1975
PORTLAND-EAST, ME - 1975

1000 0 2000 FEET

DWG: SITELOC LMN: NONE CTB: SME-STD REV: 4/12/2021

FIGURE 1
SITE LOCATION MAP
EVERGREEN RIDGE CONDOMINIUMS
CUMBERLAND, MAINE

SME
SEVEE & MAHER
ENGINEERS

\\Nserver\cfs\Platz Associates\Route 1 Cumberland Condos\Acad\Figures\SITELOC.dwg, 4/12/2021 10:38:50 AM, sjm

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

JANET T. MILLS
GOVERNOR

KIRK F. MOHNEY
DIRECTOR

April 26, 2021

Mr. Daniel Diffin
Sevee & Maher Engineers
PO Box 85A
Cumberland, ME 04021

Project: MHPC #0677-21 — Snell Construction LLC; Evergreen Ridge Condominiums
Construction of 50 Condo Multiplex

Town: Cumberland, ME

Dear Mr. Diffin:

In response to your recent request, I have reviewed the information received April 14, 2021 to initiate consultation on the above referenced project in accordance with the requirements of the Maine Department of Environmental Protection.

Based on the information submitted, I have concluded that there will be no historic properties (archaeological or architectural) affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act.

Please contact Megan Rideout at (207) 287-2992 or megan.m.rideout@maine.gov if we can be of further assistance in this matter.

Sincerely,

Kirk F. Mohney

Kirk F. Mohney
State Historic Preservation Officer

APPENDIX J

LIST OF ABUTTERS

SME
SEVEE & MAHER
ENGINEERS

BROAD COVE RIDGE CONDOMINIUMS
LIST OF ABUTTERS WITHIN 200 FEET
MAY 2021

MAP	LOT	NAME	LOCATION	ADDRESS
R1	13	LEDGEVIEW PROPERTIES LLC	92 US ROUTE ONE	SAME
R1	14	GLENN S & SANDRA L PORTER	106 US ROUTE ONE	SAME
U5	2	NATHANIEL G HUBER	83 US ROUTE ONE	SAME

APPENDIX K

ROUTE ONE DESIGN GUIDELINES NARRATIVE

SME
SEVEE & MAHER
ENGINEERS

PLATZ ASSOCIATES
Since 1980 Architects • Engineers
Construction Managers
www.platzassociates.com

Two Great Falls Plaza
Auburn, Maine 04210
tel (207) 784 2941
fax (207) 784 3856

James A. Platz, P.E.
Thomas H. Platz, AIA

May 24, 2021

Carla Nixon, Town Planner
Town of Cumberland
290 Tuttle Road
Cumberland, ME 04021

Re: Rt.1 Design Guidelines Appropriateness:
Broad Cove Ridge Condominiums- Rt. 1, Cumberland, Maine

Dear Carla,

The general goal of this memorandum is to provide clarification to the development review application in response to the consideration of the Route 1 Design Guidelines that apply to this project in addition to the Site Plan review standards.

The project is proposed as a 50-unit, single-lot residential condominium with a condominium association that would own and maintain the building and property. The units are envisioned as a mix of one, two, and three-bedroom units and will be served by a parking field of 98 spaces, including 22 underground parking spaces.

ROUTE 1 DESIGN GUIDELINE RESPONSES

1.0 Site planning & Design:

1.5 Building Placement

Objective: Buildings should be placed on their sites in a way that is sensitive to existing site conditions and respectful of adjacent uses. Generous setbacks and landscaping are desirable to maintain the wooded character of the Route One corridor.

The building placement was well considered to take advantage of the dramatically-sloping site, with the “spine” of the building oriented along the ridgeline and parallel to Route 1. This building location allows for most of the parking areas to be located down-grade and around the side and rear of the building so views of the on-grade lots are screened from Route 1. The existing stream traversing the site and I-95 beautification strip will enhance the integration of the project into the natural landscape and the wooded character will be maintained along Route 1 except for a roughly 60’ wide initial canopy opening for a stream crossing and site access road.

2.0 Building Types:

2.1 General Architectural Form:

Drawing from traditional New England residential vernacular, the building form is intended to offer a timeless, classic appeal with modern transitional architectural detailing. The building is divided in three equal segments, with the center section shifting 6 feet towards Route 1 as a form of centerpiece to symmetrically-organize the façade. Vertically, the top floor is tucked into the roof, and the lowest level of housing and garage below is half underground, so the mass of the 6-level building is tucked into the ridgeline and couched from view on approach from Route 1.

2.1.1 Roofs:

The roof forms are a gabled in a staggered arrangement of three sections alternating 90 degrees, with shed dormers included on both sides on each set of rooflines.

2.1.2 Windows:

At the building entrances and center circulation stairwells, a modern glass and aluminum storefront system will utilized for durability, ease of cleaning and maintenance, and enhanced security provided by the large glass openings. At the residential units, the windows will include a mix of single or ganged double-hung windows with matching entry doors to the outdoor patios.

2.1.3 Detailing:

While many of the larger details owe more to traditional vernacular like the deep gable roof projections and use of siding materials like shingle and stone, it is the clean modern details like the cable railing systems and sharp, unfussy building trims that will form the more modern transitional design elements.

2.1.4 Building Materials:

The exterior façade will be a combination of traditional cedar shingles and painted composite/wood trims for a body, low-maintenance artificial stone or nickel-gap painted composite/wood cladding at the base, and durable standing seam metal and 60 mil adhered EPDM (rubber) roofing.

2.2 Large Scale Buildings:

Objective: Due to their visibility and mass, the design of new large structures (10,000 square feet or greater) have the ability to greatly enhance or detract from Route One's visual character. These structures should be designed as attractive pieces of commercial architecture that are responsive to their site and compatible with adjacent development.

While the project includes a building footprint of 12,700 square feet and a total area of just over 69,500 square feet, the architectural massing, detailing, and design is focused on

delivering an attractive and contributing modern style that would appeal to empty nesters, frequent vacationers, and young professionals alike.

2.2.1 Design and Massing

With the building on either end bisected by a contrasting glassy aluminum storefront system, the mass of the building is broken into smaller more traditional bay structure widths. To further accentuate the effect of reducing the scale of the building, the base has a more rugged texture and materiality stratification with the shingle siding on the body. A contrasting standing seam metal roof and decorative balconies cap the building with a varied skyline, as if comprised of a number of building additions over time.

2.2.2 Site Design:

The building sits along a 30-foot tall ridgeline with a wrapping driveway that connects three parking area tiers with the underground parking. The first section is reserved for accessible and visitor parking and is attached to a main entry and elevator access via a concrete paver sidewalk. The second section has a sidewalk connection to a center stairwell, while the rear parking area has connection to a main building entry and elevator access.

2.2.3 Architectural Details:

The building has incorporated a number of architectural details to create visual interest and personalization of the individual units within the context of the overall building. From the modern glass aluminum storefront window and door systems at the building entries to the simple detailing of the wood-capped and open cable balcony guardrails, the focus is on high quality and durable materials brought together with fine craftsmanship and clean detailing.

2.2.4 Facades and Exterior Walls:

To personalize the design and offer a more human scale to what would otherwise be a large, imposing structure, the sectioning of the building into three segments with a 90 degree rotating axial relationship serves to reduce the expression of scale. Extending 30% at both ends, these shifts are well over the “good practice” threshold of 20% of facade length. A 6 foot footprint shift that extends the mass reduction with deep shadows and roofline expression also exceeds the recommended length/depth threshold of 3% façade’s length by providing over 8.5% in foundation offset(s).

2.2.5 Building Entrances:

The building will be punctuated by four pedestrian building entrances, two of which will be ADA-compliant, and two garage entrances. The main building entries are identified by vestibule enclosure and large overhead canopies with flanking columnar supports, while the secondary entrance/exits have a smaller, more simple canopy overhang.

2.3 Linear Commercial Buildings: n/a

2.4 Smaller Freestanding Commercial Buildings: n/a

2.5 Residential Structures:

Objective: Cumberland's future housing stock in the Route One corridor should be well designed and constructed, and is encouraged to have some connection to the traditional styles of New England residential architecture. The large mass of duplex and, even more of multiplex dwellings, can be broken up by façade articulation and architectural detailing in order to reduce their apparent size.

As indicated in previous guideline responses, the architecture of the Broad Cove Ridge condominiums incorporates a number of design strategies that draw on local and regional traditions and features, while incorporating a modern sensibility in the detailing and overall aesthetic appeal. From segmenting the building massing and footprint offsets to the roofline variety and assortment of traditional double-hung fenestration arrangements, the design is intended to invoke the traditions, scale, and materiality of the past while forging exciting new relationships with more openness and modern indoor/outdoor connectivity.

2.7 Hotels and Motels: n/a

2.7.1 All Building Types- Awnings and Canopies:

The building design incorporates outdoor balconies, arranged in vertical stacks to offer light to the unit interior and shelter from the weather. Additionally, rooftop terrace porches are provided to the penthouse units that are envisioned with modern industrial steel trellis canopies.

3.0 Signage: n/a (no pylon or wayfinding signage is proposed at this time)

4.3 Types of Lighting:

The lighting scheme for the building balances the need for consistent, code-minimum lighting levels across all parking areas with dark-sky/cutoff requirements designed to reduce off-site light spoilage. Additionally, by utilizing a variety of building-mounted and pole-mounted lighting, the light levels may be "right-sized" to provide more intimate lighting levels at the pedestrian building entries by using canopy/balcony downlights and sconces with a softer pole-mounted general lighting at the parking areas.

4.3.1 Façade and Landscaping Lighting:

While no landscape lighting is proposed at this time, the façade lighting will consist of wall sconces at each of the four building pedestrian entries and two garage entrances, and wall-mounted lighting at the exterior balconies and rooftop patios.

4.3.2 Parking Lot and Driveway Lighting:

Parking lot lighting will be provided by cutoff-style LED fixtures on a 15' pole and 18" dia. concrete base elevated 2' above grade.

4.3.3 Pedestrian Lighting:

Pedestrian lighting will be provided in the form of wall-mounted sconces at each of the four building entries, as augmented by the pole-mounted parking area lights that are also designed to illuminate the sidewalks.

I hope this is helpful information and I am happy to answer questions about it. Please don't hesitate to call with any questions or comments.

Sincerely,

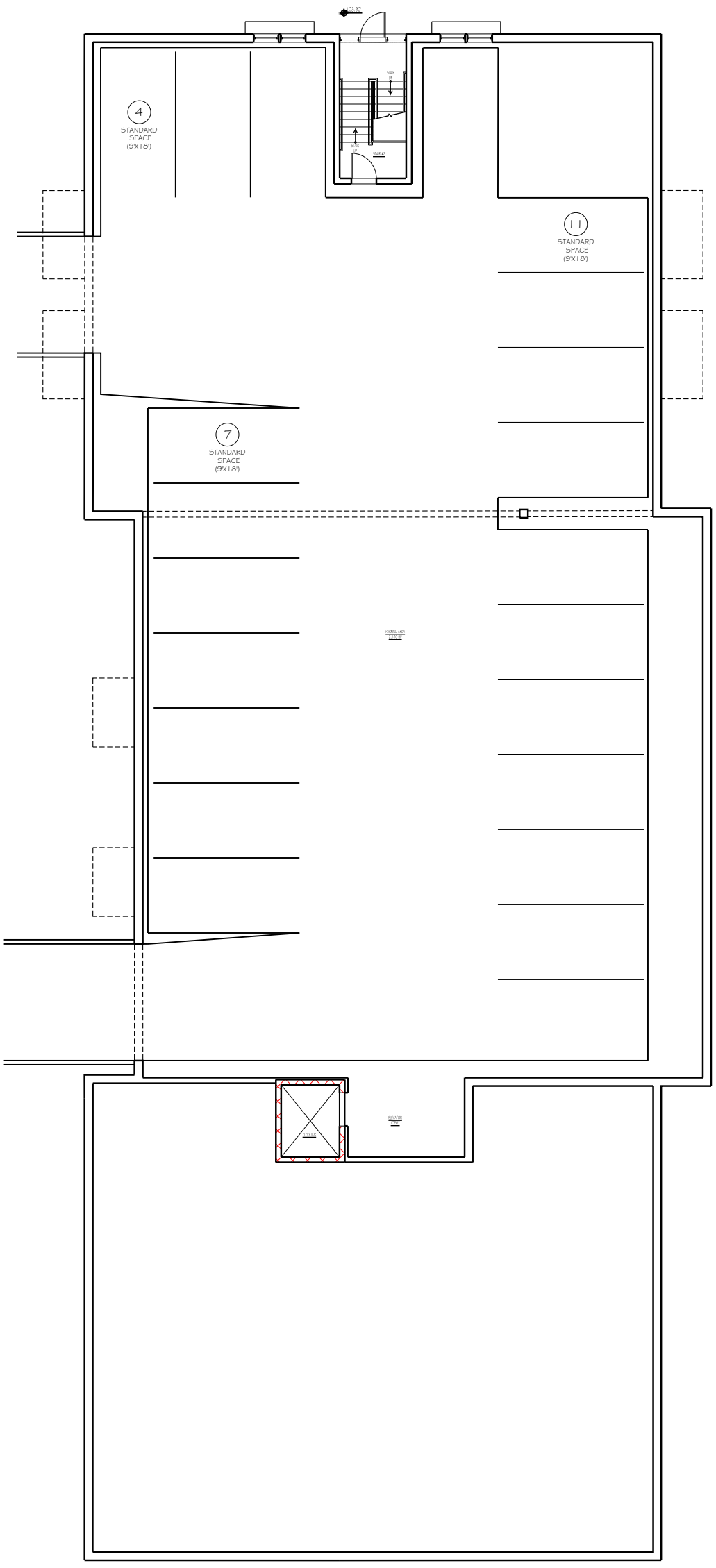
Travis Nadeau, LEED AP BD+C
Maine Licensed Architect

Cc: Jon Snell, Snell Construction LLC
Dan Diffin, SME

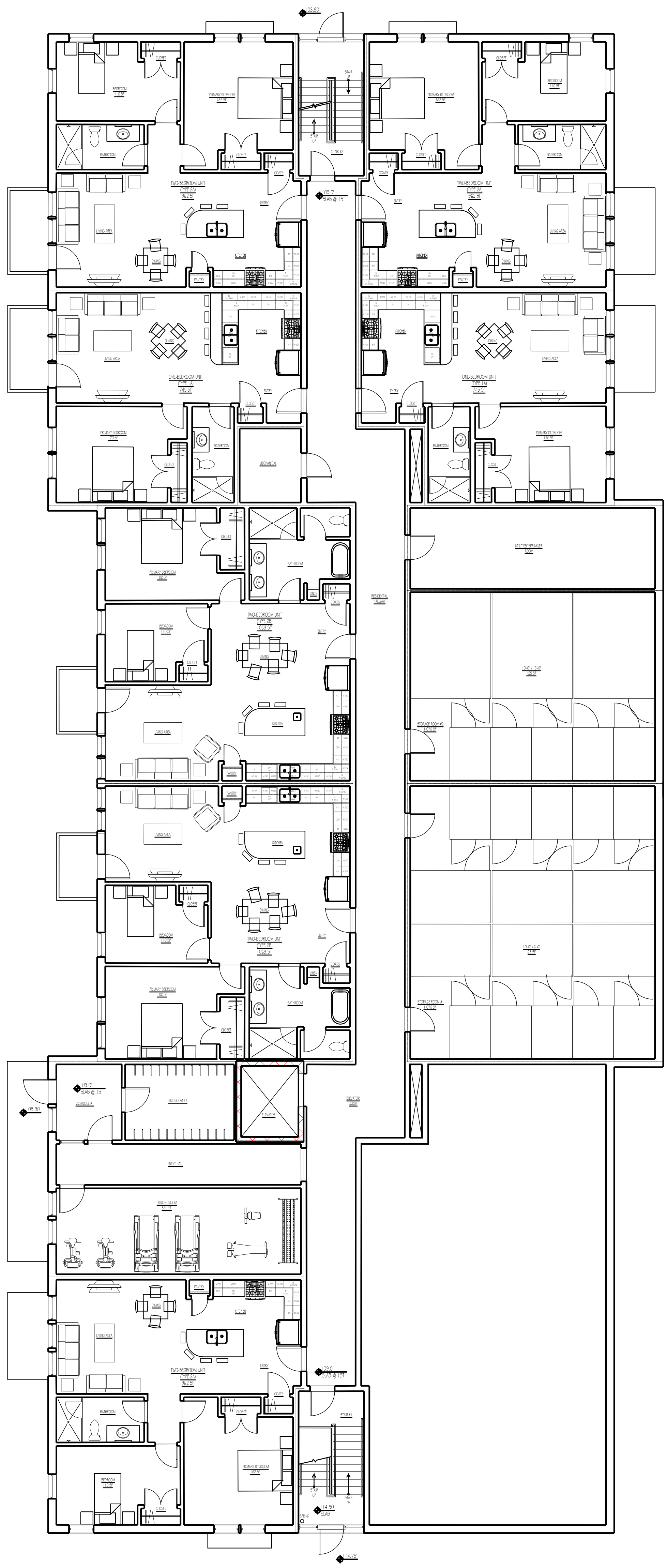
APPENDIX L

ARCHITECTURAL DRAWINGS

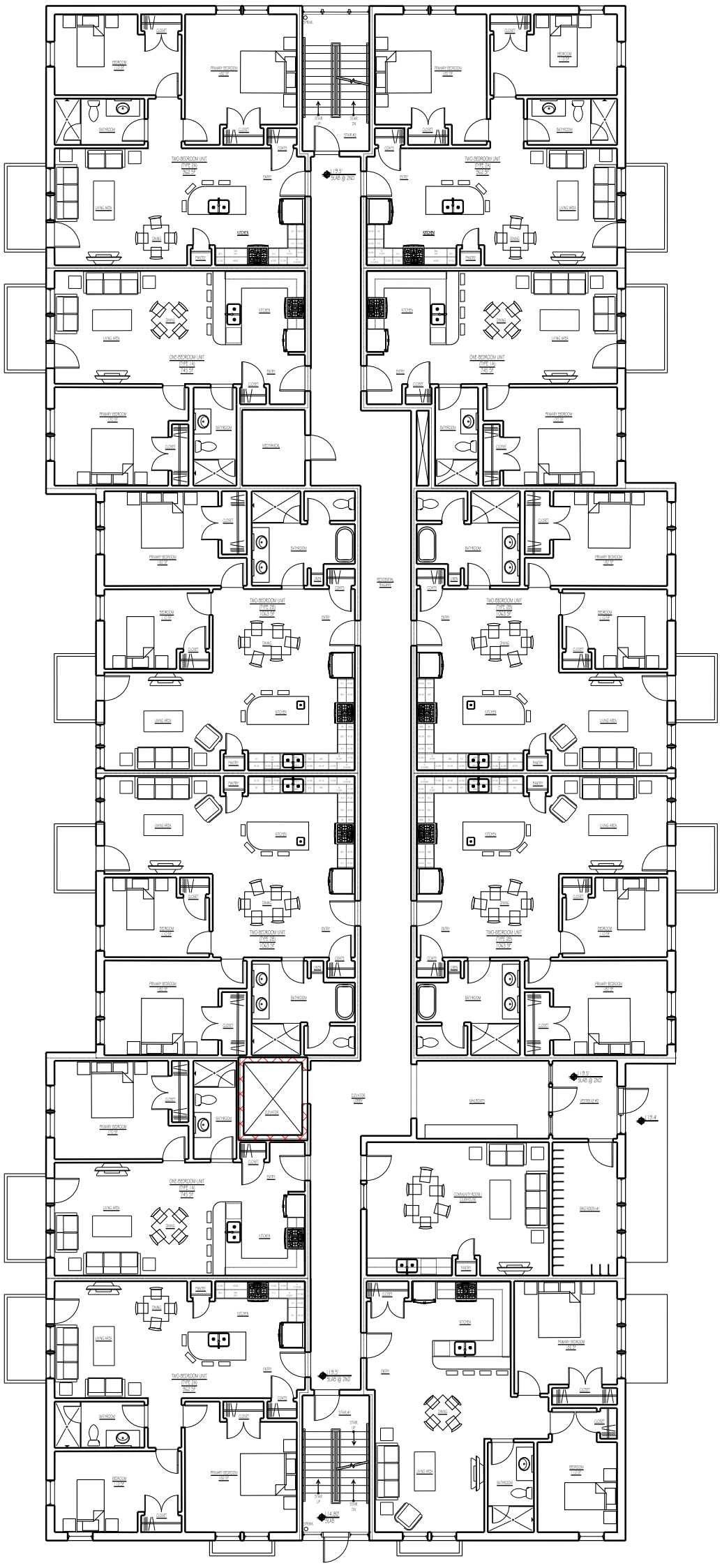
SME
SEVEE & MAHER
ENGINEERS



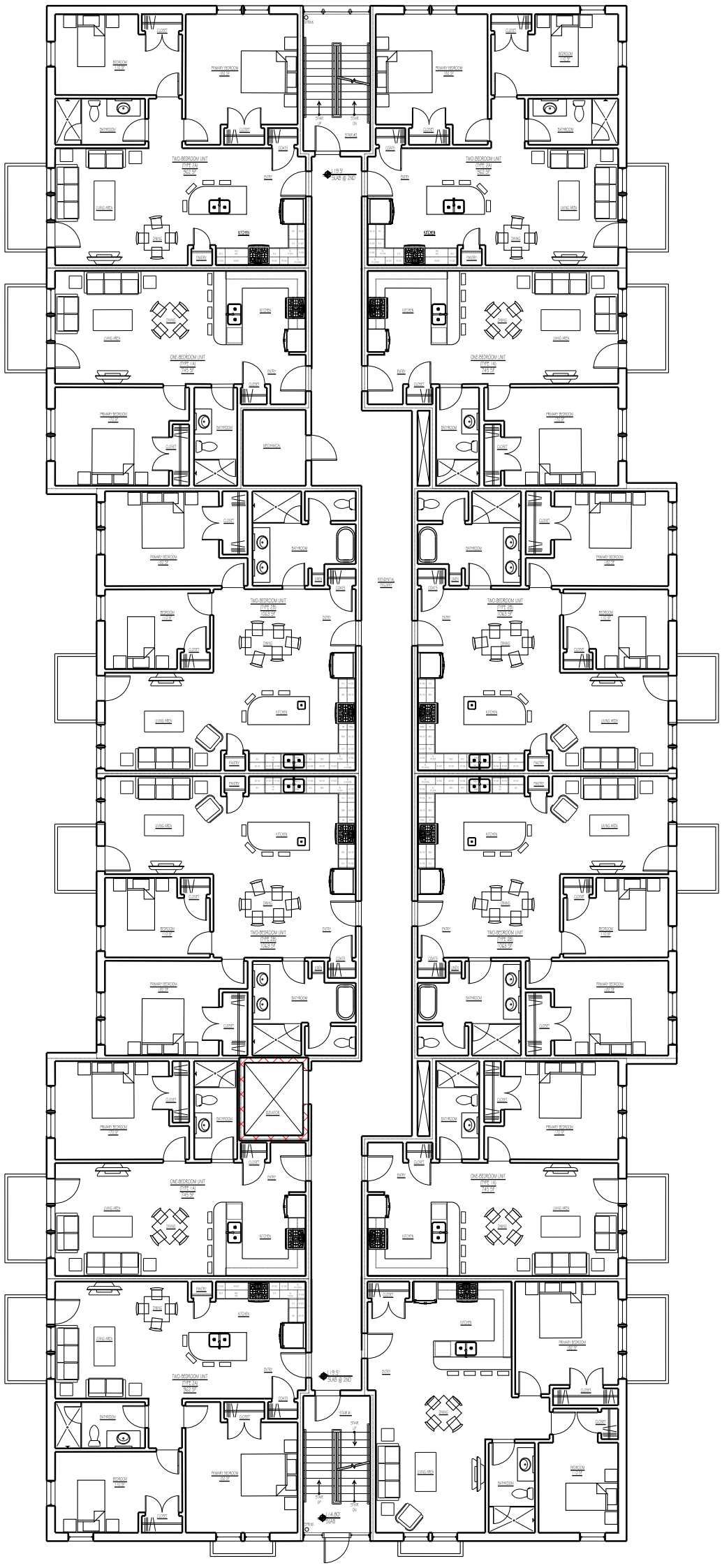
BASEMENT- 22 PARKING SPACES



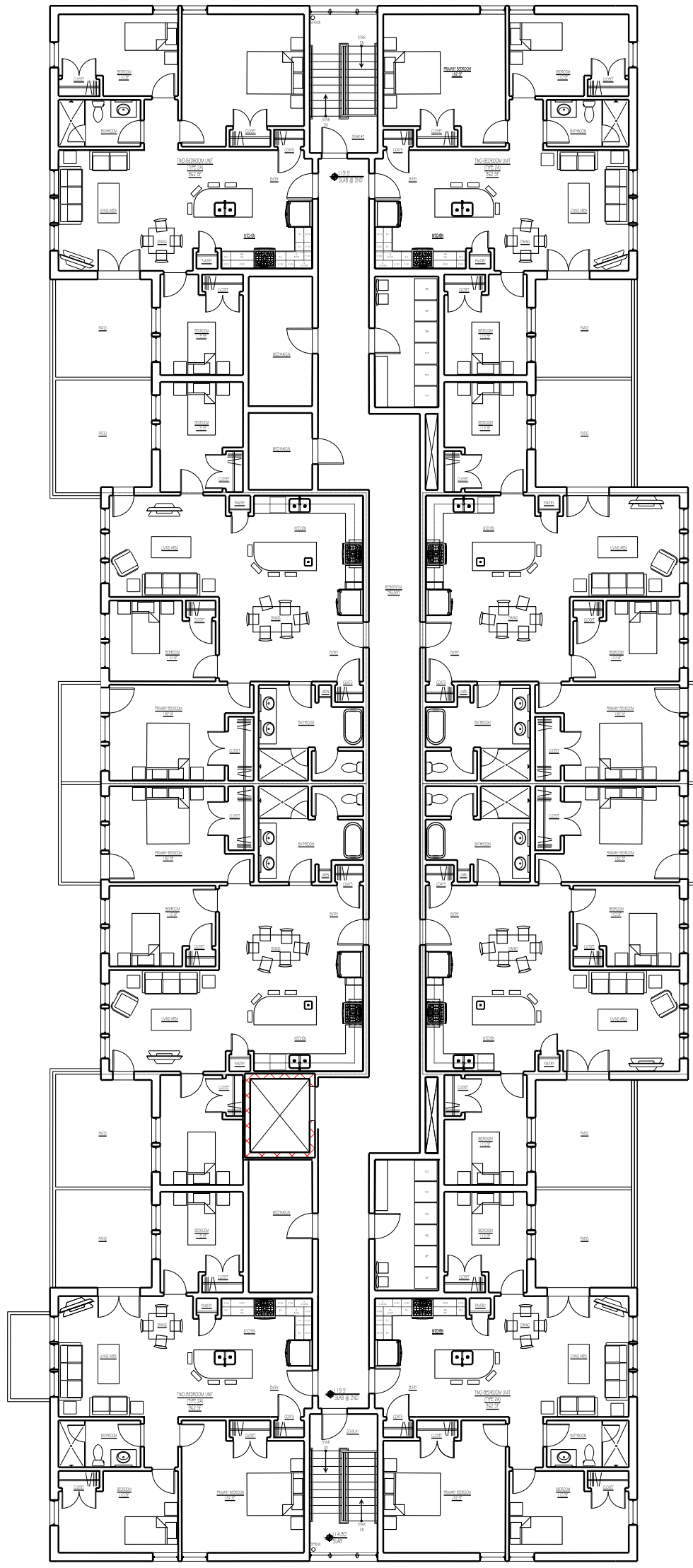
1ST FLOOR- 7 UNITS



2ND FLOOR- 11 UNITS



3RD & 4TH FLOORS- 12 UNITS EA.



5TH FLOOR- 8 UNITS

APPENDIX M

SITE LIGHTING CUT SHEETS AND PHOTOMETRIC PLAN

SME
SEVEE & MAHER
ENGINEERS

KIMLIGHTING®

DATE: | LOCATION:
TYPE: | PROJECT:
CATALOG #:

UR20 EDGE-LIT
ARCHITECTURAL AREA/SITE

Ouro™ EDGE-LIT

FEATURES
- 20" size in post top, pole and wall mount
- High performance optics up to 16,091 delivered lumens
- Elegant form factor
- Edge-Lit Light Guide
- SiteSync™ and NX wireless control options
- UL/cUL listed for wet locations, IP66 and 1.5G and 4G vibration rated

RELATED PRODUCTS
Ouro Small Post Top · Ouro Large Post Top · Ouro Large Arm Mount

CONTROL TECHNOLOGY
SiteSync · NX DISTRIBUTED™ INTELLIGENCE

PHOTOMETRY · BROCHURE · DELIVERED LUMENS · DIMENSIONAL DRAWINGS

SPECIFICATIONS

CONSTRUCTION
- Low copper aluminum alloy die-casting is designed as one-piece, low profile luminaire
- Molded silicone gasket throughout ensures the sealing between the two compartments and provides ingress protection
- Housing is designed with integral heat sink fins to aid in thermal transfer of the electrical components
- IK07 rated enclosure protects electrical equipment against external mechanical impacts
- All fasteners are stainless steel
- One-piece low copper aluminum alloy die-cast lens frame is secured to housing with a tool-less latch and integral offset hinge
- LEDs mount to a metal printed circuit board assembly (MCPCB)

INSTALLATION
- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury

ELECTRICAL
- Universal voltage, 120 through 277V with a ±10% tolerance. Driver is Underwriters Laboratories listed
- High voltage configurations, 347/480. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories listed

ELECTRICAL (CONTINUED)
- "Thermal Shield", secondary side, thermistor provides protection for the sustainable life of LED module and electronic components
- Drivers shall have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments
- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C
- Surge protection: 10kV and 20kA in series
- Wiring: No. 18AWM rated 105°C, wet rating

CONTROLS
7PR
- Fully gasketed and wired 7-pin receptacle option. Easy access location above the electrical compartment. 7-pin construction allows for a user-defined interface and provides a controlled definition of operational performance. ANSI twist-lock control module by-others

Standard customer operation modes:
- Traditional on/off photoelectric control
- 5-pin wireless photoelectric control for added dimming feature

7PR OPTION

CONTROLS (CONTINUED)
- 7-pin wireless photoelectric control for for dimming and additional I/O connections for customer use

Standard Input Black (L) · White (N) · Green (GND) · Gray Dimming Lead (-) · Purple Dimming Lead (+) · Fixture Housing · 1 mA Max

DIMMING:
- Dimming range from 100% to 10% through the use of the standard 0-10V interface on the programmable driver
- Modular wiring harness in the service area provides user access to the dimming circuitry

(Specifications continued on page 3)

KEY DATA	
Lumen Range	3,105 - 16,091
Wattage Range	27.5 - 138.3W
Efficacy Range (LPW)	88.8 - 131.8 lm/W
Reported Life (Hours)	L70/>60,000
Weight	21 lbs - 9.5 Kg
EPA	0.372

KIMLIGHTING

DATE: | LOCATION:
TYPE: | PROJECT:
CATALOG #:

UR20 EDGE-LIT
ARCHITECTURAL AREA/SITE

PHOTOMETRY

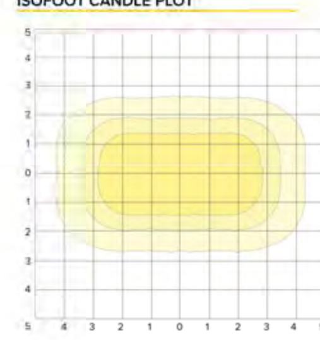
UR20-96L-50-4K7-2M

LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	5140
Watts	46.6
Efficacy	110.3
IES Type	III
BUG Rating	B3-U0-G3
Mounting Height	15 ft
Grid Scale	10 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	2570	50%
Downward House Side	2570	50%
Downward Total	5140	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	5140	100%

ISOFOOT CANDLE PLOT


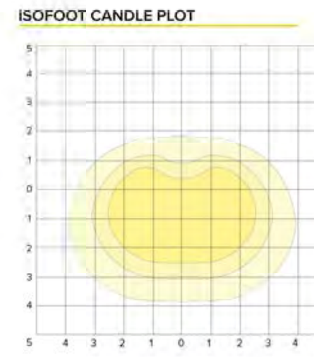
UR20-96L-50-4K7-3

LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	5576
Watts	46.6
Efficacy	119.7
IES Type	IV
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	10 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	4615	83%
Downward House Side	961	17%
Downward Total	5576	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	5576	100%

ISOFOOT CANDLE PLOT


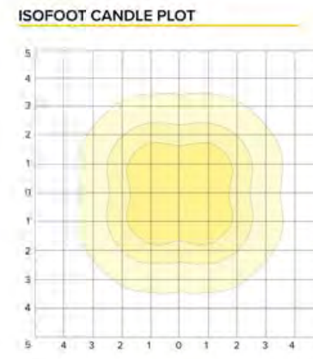
UR20-192L-75-4K7-5W

LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	9366
Watts	73.6
Efficacy	127.3
IES Type	VS
BUG Rating	B3-U0-G3
Mounting Height	15 ft
Grid Scale	10 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	4683	50%
Downward House Side	4683	50%
Downward Total	9366	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	9366	100%

ISOFOOT CANDLE PLOT


LIGHTING TYPE W1 -
WALL-MOUNTED SCONCE DOWNLIGHT (12' MOUNTING HEIGHT)

KIMLIGHTING®

DATE: | LOCATION:
TYPE: | PROJECT:
CATALOG #:

UR20 EDGE-LIT
ARCHITECTURAL AREA/SITE

Ouro™ EDGE-LIT

FEATURES
- 20" size in post top, pole and wall mount
- High performance optics up to 15,227 delivered lumens
- Elegant form factor
- Edge-Lit Light Guide
- SiteSync™ and NX wireless control options
- UL/cUL listed for wet locations, IP66 and 4G/1.5G vibration rated

RELATED PRODUCTS
Ouro Small Arm Mount · Ouro Large Post Top · Ouro Large Arm Mount

CONTROL TECHNOLOGY
SiteSync · NX DISTRIBUTED™ INTELLIGENCE

PHOTOMETRY · BROCHURE · DELIVERED LUMENS · DIMENSIONAL DRAWINGS

SPECIFICATIONS

CONSTRUCTION
- Low copper aluminum alloy die-casting is designed as one-piece, low profile luminaire
- Molded silicone gasket throughout ensures the sealing between the two compartments and provides ingress protection
- Housing is designed with integral heat sink fins to aid in thermal transfer of the electrical component
- IK07 rated enclosure protects electrical equipment against external mechanical impacts
- All fasteners are stainless steel
- Cover is secured to lens frame by the latch and hinge
- One-piece low copper aluminum alloy die-cast lens frame is secured to housing with a tool-less latch and integral offset hinge
- LEDs mount to a metal printed circuit board assembly (MCPCB)

INSTALLATION
- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury

ELECTRICAL
- Universal voltage, 120 through 277V with a ±10% tolerance. Driver is Underwriters Laboratories listed
- High voltage configurations, 347/480. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories listed
- "Thermal Shield", secondary side, thermistor provides protection for the sustainable life of LED module and electronic components

ELECTRICAL (CONTINUED)
- Drivers shall have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments
- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C
- Surge protection: 10kV and 20kA in series
- Wiring: No. 18AWM rated 105°C, wet rating

CONTROLS
7PR
- Fully gasketed and wired 7-pin receptacle option. Easy access location above the electrical compartment. 7-pin construction allows for a user-defined interface and provides a controlled definition of operational performance. ANSI twist-lock control module by-others

Standard customer operation modes:
- Traditional on/off photoelectric control
- 5-pin wireless photoelectric control for added dimming feature.

7-Pin receptacle placement

CONTROLS (CONTINUED)
- 7-pin wireless photoelectric control for for dimming and additional I/O connections for customer use.

Gray Wire 0-10V Dimming · White Wire Neutral · Brown Wire 10V Customer Defined · Red Wire Line Voltage · Black Wire Line Voltage · Purple Wire 0-10V Dimming · Orange Wire 10V Customer Defined

DIMMING:
- Dimming range from 100% to 10% through the use of the standard 0-10V interface on the programmable driver
- Modular wiring harness in the service area provides user access to the dimming circuitry

(Specifications continued on page 3)

KEY DATA	
Lumen Range	2,958 - 15,227
Wattage Range	27.5 - 138.3 W
Efficacy Range (LPW)	84.6 - 124.8 lm/W
Reported Life (Hours)	L70/>60,000
Weight	24 lbs - 10.9 Kg
EPA	0.608

KIMLIGHTING

DATE: | LOCATION:
TYPE: | PROJECT:
CATALOG #:

UR20 EDGE-LIT
ARCHITECTURAL AREA/SITE

PHOTOMETRY

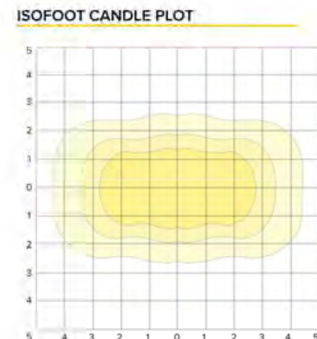
UR20-96L-50-4K7-2M-PT

LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	4896
Watts	46.6
Efficacy	105.1
IES Type	III
BUG Rating	B3-U0-G3
Mounting Height	15 ft
Grid Scale	10 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	2448	50%
Downward House Side	2448	50%
Downward Total	4896	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	4896	100%

ISOFOOT CANDLE PLOT


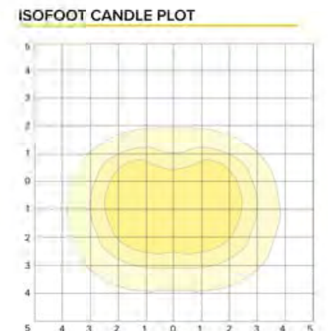
UR20-96L-50-4K7-3-PT

LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	5505
Watts	46.6
Efficacy	118.1
IES Type	IV
BUG Rating	B1-U0-G2
Mounting Height	15 ft
Grid Scale	10 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	4433	80%
Downward House Side	1072	20%
Downward Total	5505	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	5505	100%

ISOFOOT CANDLE PLOT


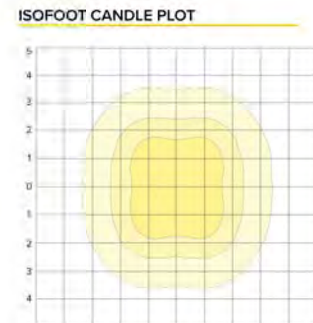
UR20-192L-75-4K7-5W-PT

LUMINAIRE DATA

Description	4000K, 70CRI
Delivered Lumens	8863
Watts	73.6
Efficacy	120.4
IES Type	VS
BUG Rating	B3-U0-G3
Mounting Height	15 ft
Grid Scale	10 ft

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
Downward Street Side	4432	50%
Downward House Side	4432	50%
Downward Total	8863	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	8863	100%

ISOFOOT CANDLE PLOT


LIGHTING TYPE A1 -
SITE/AREA POST-TOP DOWNLIGHT (15' POLE, 2' BASE)

2 | LIGHTING FIXTURE SELECTIONS
~ | SCALE: N.T.S.

1 | SITE PHOTOMETRIC PLAN
~ | SCALE: N.T.S.

PLATZ ASSOCIATES
Architects - Engineers
Construction Managers
Tel 207-784-2941
Fax 207-784-3856
Two Great Falls Plaza, Auburn, Maine 04210

Proposed New Construction of:
BROAD COVE RIDGE RESIDENTIAL CONDOMINIUM
U.S. Route 1
Cumberland, Maine 04021

SEAL
LICENSED ARCHITECT
TRAVIS R. NADEAU
4038
STATE OF MAINE
[illegible]

ORIGINAL DATE: 05/25/2021

DRAWING ISSUE

No.	DESCRIPTION	DATE

JOB NO. 202039

DRAWN BY: WMc | CHECKED BY: TRN

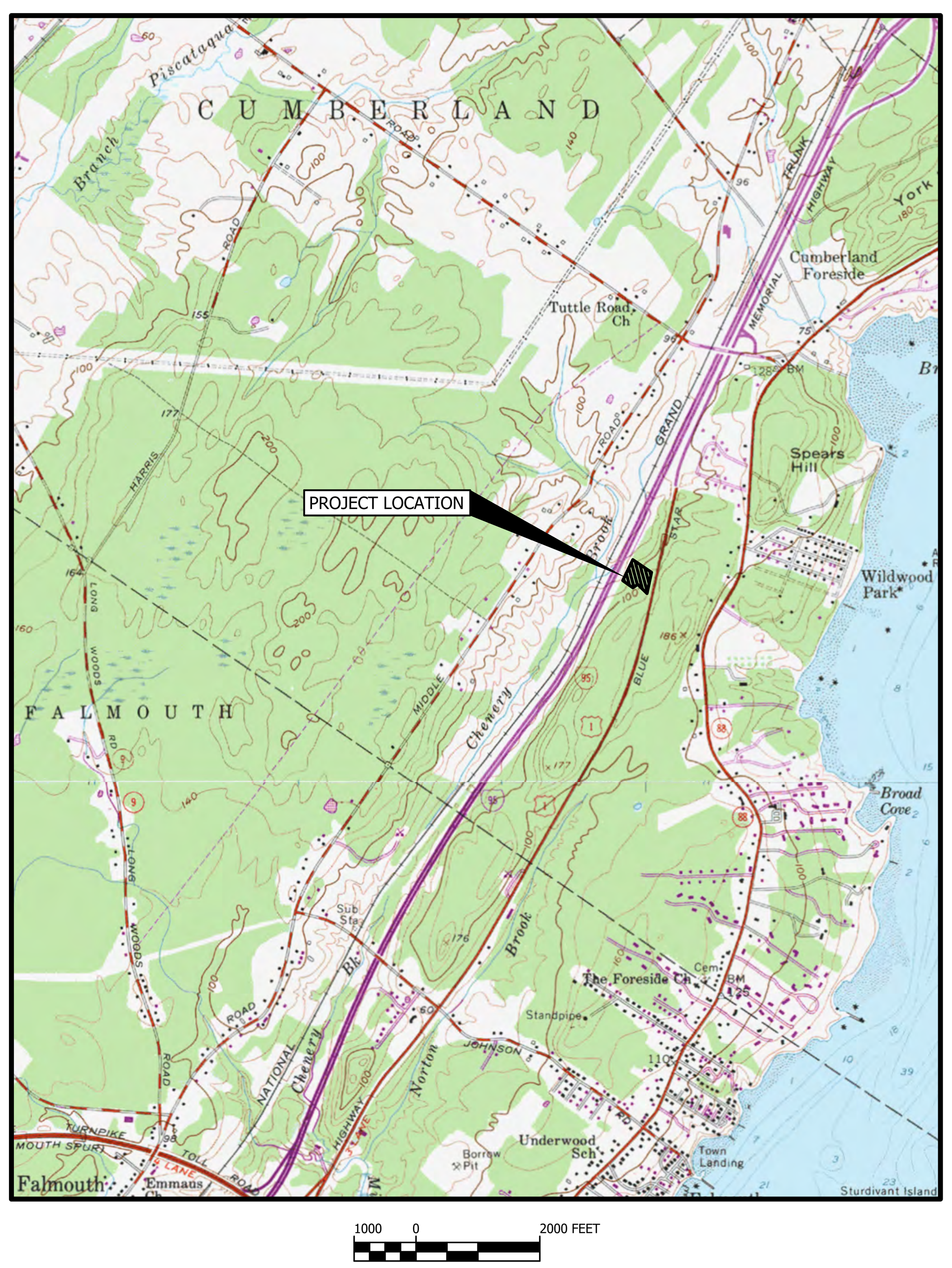
SHEET TITLE: SITE PHOTOMETRIC PLAN & DETAILS

SHEET: SKE-1

i:\202034/CONDOCS/A100-FLOORPLAN

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

LOCATION MAP



ISSUED FOR PERMITTING - NOT FOR CONSTRUCTION

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4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

STATE OF MAINE
DANIEL P. DIFFIN
11841
LICENSED
PROFESSIONAL ENGINEER
[illegible]

GENERAL SITE NOTES:

1. BASE MAP FROM PLAN ENTITLED "BOUNDARY/EXISTING CONDITIONS SURVEY, US ROUTE 1, CUMBERLAND ME, DAVE SPELLMAN, 127 FORESIDE ROAD, FALMOUTH, MAINE 04110" PREPARED BY SURVEY INC., DATED FEBRUARY 3, 2015. TOPOGRAPHIC DATA AND EXISTING CONDITIONS ARE BASED UPON A GROUND SURVEY CONDUCTED WITH ASSUMED ELEVATIONS BY SURVEY, INC. JANUARY 15 & 16, 2015
2. WETLAND BOUNDARIES DELINEATED BY ALBERT FRICK ASSOCIATES, FALMOUTH, MAINE.
3. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION IS NOT GUARANTEED. VERIFY SITE CONDITIONS INCLUDING TEST PITS FOR LOCATIONS AND INVERTS OF UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO PROCEEDING WITH THAT PORTION OF WORK.
4. ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.
5. PAVEMENT EDGES SHALL BE TRUE TO LINE. SAWCUT EXISTING PAVEMENT IN SMOOTH STRAIGHT LINE WHERE NEW PAVEMENT JOINS. PROVIDE TACK COAT LAYER IF SPECIFIED.

SURVEYOR'S NOTES

1. OWNER OF RECORD:
   100 US ROUTE 1 LLC PER DEED BOOK 31838, PAGE 3 RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS.
2. TAX MAP R01, P/O PACEL 13B
3. SURVEY REFERENCES:
   (A) "PLAN OF PROPERTY IN CUMBERLAND, MAINE FOR WM. RANDALL, ELEANOR A. RANDALL & FRED JENSEN" BY: SURVEY, INC. JANUARY 1988
   (B) "STANDARD BOUNDARY SURVEY, PLAN SHOWING A DIVISION OF LAND" FOR TWIN TOWN TRUST, BY LAND USE CONSULTANTS DATED OCTOBER 16, 1992.
   (C) "SITE PLAN LEDGEVIEW PROPERTIES, LLC." FOR DAVID & KAREN LANDA, BY SURVEY INCORPORATED DATED DECEMBER 2001 AND REVISED THROUGH NOVEMBER 2002.
4. TOPOGRAPHIC DATA AND EXISTING CONDITIONS ARE BASED UPON A GROUND SURVEY CONDUCTED WITH ASSUMED ELEVATIONS BY SURVEY, INC. JANUARY 15 & 16, 2015
5. PROPERTY IS LOCATED IN THE "OC-S" OFFICE COMMERCIAL-SOUTH DENSITY RESIDENTIAL REQUIREMENTS:
   MINIMUM LOT SIZE- 1 ACRE
   MINIMUM LOT FRONTAGE- 150 FEET

   SETBACK REQUIREMENTS:
   FRONT: 25 FEET
   REAR: 65 FEET
   SIDE: 20 FEET

GRADING NOTES:

1. ADD 4" LOAM, SEED AND MULCH TO DISTURBED AREAS UNLESS OTHERWISE NOTED. PROVIDE EROSION CONTROL MESH ON ALL SLOPES STEEPER THAN 3:1, AND ALONG DITCH CHANNELS.
2. MAINTAIN TEMPORARY EROSION CONTROL MEASURES FOR THE FULL DURATION OF CONSTRUCTION. INSPECT WEEKLY AND AFTER EACH STORM AND REPAIR AS NEEDED. REMOVE SEDIMENTS FROM THE SITE. PLACE IN AREA OF LOW EROSION POTENTIAL, AND STABILIZE WITH SEED AND MULCH.
3. PLACE TEMPORARY SOIL STABILIZATION WITHIN 7 DAYS OF INITIAL DISTURBANCE. PLACE PERMANENT SOIL STABILIZATION WITHIN 7 DAYS OF FINAL GRADING.

UTILITY NOTES:

1. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION IS NOT GUARANTEED. VERIFY SITE CONDITIONS INCLUDING TEST PITS FOR LOCATIONS AND INVERTS OF UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO PROCEEDING WITH THAT PORTION OF THE WORK.
2. COORDINATE WORK ON UTILITY LINES OR WITHIN ROAD RIGHT-OF-WAY WITH THE UTILITY COMPANIES AND TOWN ROAD DEPARTMENT AND MEDOT.
3. ALL PIPING AND DRAINAGE STRUCTURES SHALL BE INSTALLED IN ACCORDANCE WITH THE TOWN OF CUMBERLAND MUNICIPAL STANDARDS.

DIG SAFE NOTES:

PRIOR TO EXCAVATION, VERIFY THE UNDERGROUND UTILITIES, PIPES, STRUCTURES AND FACILITIES. PROVIDE THE FOLLOWING MINIMUM MEASURES:

1. PRE-MARK THE BOUNDARIES OF PLANNED EXCAVATION WITH WHITE PAINT, FLAGS OR STAKES, SO UTILITY CREWS KNOW WHERE TO MARK THEIR LINES.
2. CALL DIG SAFE, AT 811, AT LEAST THREE BUSINESS DAYS - BUT NO MORE THAN 30 CALENDAR DAYS - BEFORE STARTING WORK. DO NOT ASSUME SOMEONE ELSE WILL MAKE THE CALL.
3. IF BLASTING, NOTIFY DIG SAFE AT LEAST ONE BUSINESS DAY IN ADVANCE.
4. WAIT THREE BUSINESS DAYS FOR LINES TO BE LOCATED AND MARKED WITH COLOR-CODED PAINT, FLAGS OR STAKES. NOTE THE COLOR OF THE MARKS AND THE TYPE OF UTILITIES THEY INDICATE. TRANSFER THESE MARKS TO THE AS-BUILT DRAWINGS.
5. CONTACT THE LANDOWNER AND OTHER "NON-MEMBER" UTILITIES (WATER, SEWER, GAS, ETC.). FOR THEM TO MARK THE LOCATIONS OF THEIR UNDERGROUND FACILITIES. TRANSFER THESE MARKS TO THE AS-BUILT DRAWINGS.
6. RE-NOTIFY DIG SAFE AND THE NON-MEMBER UTILITIES IF THE DIGGING, DRILLING OR BLASTING DOES NOT OCCUR WITHIN 30 CALENDAR DAYS, OR IF THE MARKS ARE LOST DUE TO WEATHER CONDITIONS, SITE WORK ACTIVITY OR ANY OTHER REASON.
7. HAND DIG WITHIN 18 INCHES IN ANY DIRECTION OF ANY UNDERGROUND LINE UNTIL THE LINE IS EXPOSED. MECHANICAL METHODS MAY BE USED FOR INITIAL SITE PENETRATION, SUCH AS REMOVAL OF PAVEMENT OR ROCK.
8. DIG SAFE REQUIREMENTS ARE IN ADDITION TO TOWN, CITY, AND/OR STATE DOT STREET OPENING PERMIT REQUIREMENTS.
9. FOR COMPLETE DIG SAFE REQUIREMENTS, CALL THE PUC OR VISIT THEIR WEBSITE.
10. IF YOU DAMAGE, DISLOCATE OR DISTURB ANY UNDERGROUND UTILITY LINE, IMMEDIATELY NOTIFY THE AFFECTED UTILITY. IF DAMAGE CREATES SAFETY CONCERNS, CALL THE FIRE DEPARTMENT AND TAKE IMMEDIATE STEPS TO SAFEGUARD HEALTH AND PROPERTY.
11. ANY TIME AN UNDERGROUND LINE IS DAMAGED OR DISTURBED OR IF LINES ARE IMPROPERLY MARKED, YOU MUST FILE AN INCIDENT REPORT WITH THE P.U.C. FOR AN INCIDENT REPORT FORM VISIT WWW.STATE.ME.US/MPUC OR CALL THE PUC AT 1-800-452-4699.

LEGEND

EXISTING	PROPOSED
	PROPERTY LINE
	SETBACK
	EASEMENT
	IRON PIPE
	STONE POST
	EDGE OF PAVEMENT
	EDGE OF GRAVEL
100	CONTOUR 100
	SPOT GRADE 114.23
X	FENCE X
SD	STORM DRAIN SD
	CULVERT
	UNDERDRAIN UD
	CATCH BASIN
	UTILITY POLE
	SEWER MANHOLE
	SEWER FORCE MAIN
	LIGHT POLE
	WALL PACK LIGHT
UGU	UNDERGROUND UTILITY UGU
	OVERHEAD UTILITY OHU
	GAS LINE G
W	WATER LINE W
	HYDRANT
	SIGN
	RIPRAP
	TREELINE
	TEST PIT
	WETLAND

EROSION CONTROL LEGEND

- CATCH BASIN PROTECTION WITH SILTSACK
- SF — SILT FENCE
- CHECK DAM
- STABILIZED ENTRANCE

TYPICAL ABBREVIATIONS:

ACCMP	ASPHALT COATED CMP	EA	EACH	OC	ON CENTER
ACP	ASBESTOS CEMENT PIPE	EG	EXISTING GROUND OR GRADE	OD	OUTSIDE DIAMETER
AC	ACRE	ELEC	ELECTRIC		
AGG	AGGREGATE	EL	ELEVATION	PC	POINT OF CURVE
ALUM	ALUMINUM	ELB	ELBOW	PD	PERIMETER DRAIN
APPD	APPROVED	EOP	EDGE OF PAVEMENT	PI	POINT OF INTERSECTION
APPROX	APPROXIMATE	EQUIP	EQUIPMENT	PIV	POST INDICATOR VALVE
ARMH	AIR RELEASE MANHOLE	EST	ESTIMATED	PT	POINT OF TANGENT
ASB	ASBESTOS	EXC	EXCAVATE	PERF	PERFORATED
ASP	ASPHALT	EXIST	EXISTING	PP	POWER POLE
AUTO	AUTOMATIC			PSI	POUNDS PER SQUARE INCH
AUX	AUXILIARY	FI	FIELD INLET	PVC	POLYVINYL CHLORIDE
AVE	AVENUE	FG	FINISH GRADE	PVMT	PAVEMENT
AZ	AZIMUTH	FBRGL	FIBERGLASS		
		FDN	FOUNDATION	QTY	QUANTITY
BCCMP	BITUMINOUS COATED CMP	FLEX	FLEXIBLE		
BM	BENCH MARK	FLG	FLANGE	RCP	REINFORCED CONCRETE PIPE
BIT	BITUMINOUS	FLR	FLOOR	ROW	RIGHT OF WAY
BLDG	BUILDING	FPS	FEET PER SECOND	RAD	RADIUS
BOT	BOTTOM	FT OR '	FEET	REQD	REQUIRED
BRG	BEARING	FTG	FOOTING	RT	RIGHT
BV	BALL VALVE			RTE	ROUTE
		GA	GAUGE		
CB	CATCH BASIN	GAL	GALLON	S	SLOPE
CEN	CENTER	GALV	GALVANIZED	SCH	SCHEDULE
CEM LIN	CEMENT LINED	GPD	GALLONS PER DAY	SF	SQUARE FEET
CMP	CORRUGATED METAL PIPE	GPM	GALLONS PER MINUTE	SHT	SHEET
CO	CLEAN OUT			SMH	SANITARY MANHOLE
CF	CUBIC FEET	HDPE	HIGH DENSITY POLYETHYLENE	ST	STREET
CFS	CUBIC FEET PER SECOND	HORIZ	HORIZONTAL	STA	STATION
CI	CAST IRON	HP	HORSEPOWER	SY	SQUARE YARD
CL	CLASS	HYD	HYDRANT		
CONC	CONCRETE			TAN	TANGENT
CONST	CONSTRUCTION	ID	INSIDE DIAMETER	TDH	TOTAL DYNAMIC HEAD
CONTR	CONTRACTOR	IN OR "	INCHES	TEMP	TEMPORARY
CS	CURB STOP	INV	INVERT	TYP	TYPICAL
CTR	CENTER	INV EL	INVERT ELEVATION		
CU	COPPER			UD	UNDERDRAIN
CY	CUBIC YARD	LB	POUND	V	VOLTS
		LC	LEACHATE COLLECTION	VA TEE	VALVE ANCHORING TEE
D	DEGREE OF CURVE	LD	LEAK DETECTION	VERT	VERTICAL
DBL	DOUBLE	LF	LINEAR FEET		
DEG OR °	DEGREE	LOC	LOCATION	WG	WATER GATE
DEPT	DEPARTMENT	LT	LEACHATE TRANSPORT	W/	WITH
DI	DUCTILE IRON			W/O	WITHOUT
DIA OR	DIAMETER	MH	MANHOLE		
DIM	DIMENSION	MJ	MECHANICAL JOINT	YD	YARD
DIST	DISTANCE	MATL	MATERIAL		
DN	DOWN	MAX	MAXIMUM		
DR	DRAIN	MFR	MANUFACTURE		
DWG	DRAWING	MIN	MINIMUM		
		MISC	MISCELLANEOUS		
		MON	MONUMENT		
		NITC	NOT IN THIS CONTRACT		
		NTS	NOT TO SCALE		
		N/F	NOW OR FORMERLY		
		NO OR #	NUMBER		

REV.	BY	DATE	STATUS
	DPD	5/2021	ISSUED FOR TOWN AND MEDEP REVIEW

STATE OF MAINE — DANIEL P. GRIFFIN 11841 — REGISTERED PROFESSIONAL ENGINEER — 5/25/21

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

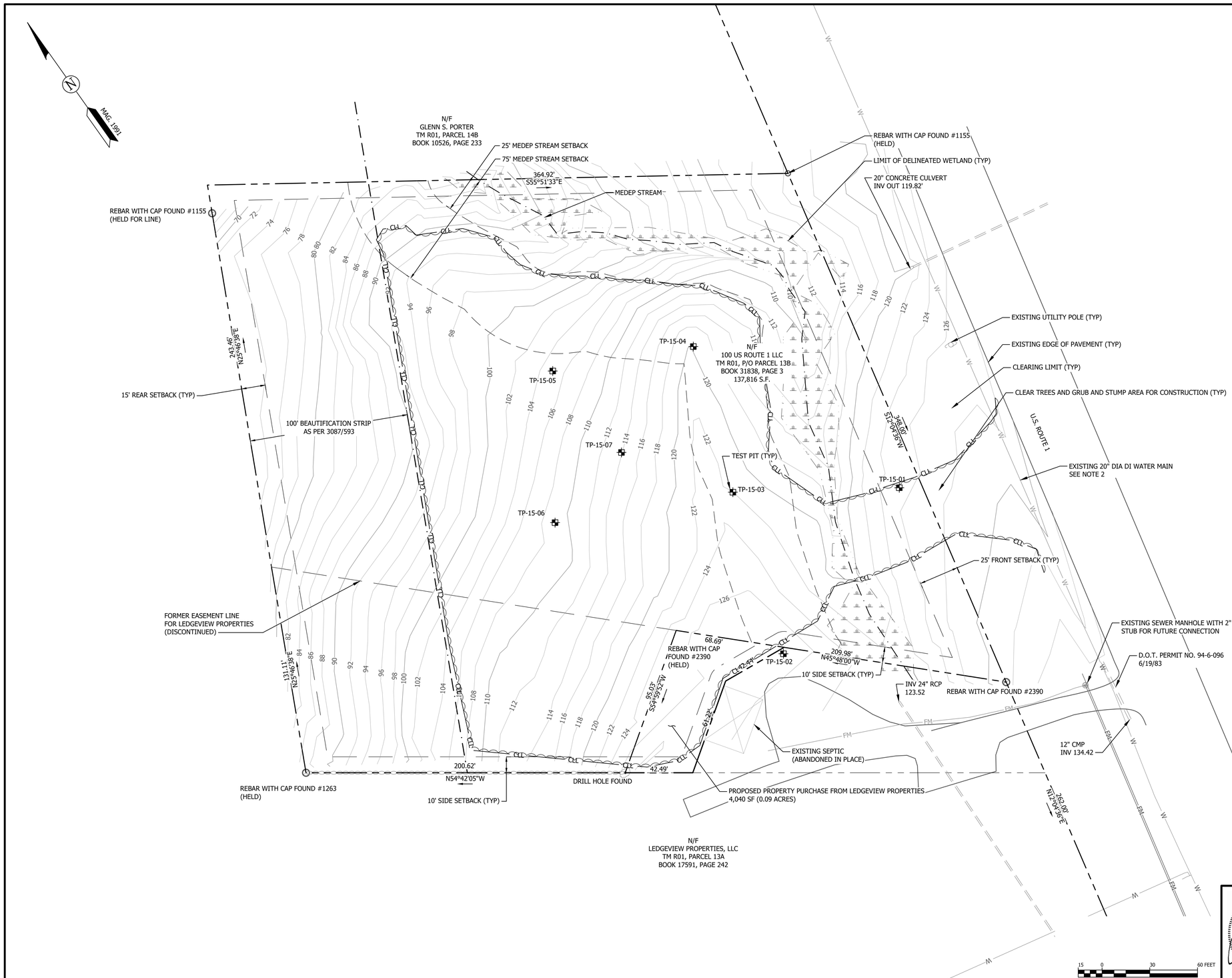
GENERAL NOTES, LEGEND, AND ABBREVIATIONS

SME
SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

DESIGN BY:	AML
DRAWN BY:	SJM
DATE:	5/2021
CHECKED BY:	DPD
LMN:	UTIL
CTB:	SME-STD

JOB NO. 21241.01 DWG FILE BASE

C-100



NOTES:

1. SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.
2. FIELD VERIFY LOCATION OF EXISTING WATER MAIN PRIOR TO START OF CONSTRUCTION.

REV.	BY	DATE	STATUS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW

STATE OF MAINE
DANIEL P. GRIFFIN
11841
REGISTERED PROFESSIONAL ENGINEER

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

EXISTING CONDITIONS AND CLEARING PLAN

SME
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4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

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CTB:	SME-STD

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C-101

1. PROJECT INFORMATION:

   ADDRESS: 100 U.S. ROUTE 1
   CUMBERLAND, MAINE
   OWNER: DAVID SPELLMAN - 100 U.S. ROUTE 1, LLC
   APPLICANT: SNELL CONSTRUCTION LLC
   PROJECT: BROAD COVE CONDOMINIUMS

2. ZONING DISTRICT: OFFICE COMMERCIAL SOUTH (OC-S)/OC-S MIXED USE OVERLAY DISTRICT

3. PROPOSED USE: RESIDENTIAL MULTIPLEX (50 UNITS)

4. DIMENSIONAL STANDARDS:

	REQUIRED	PROVIDED
MIN LOT SIZE	1 ACRE	3.2 ACRES
MIN ROAD FRONTAGE	150 FT	348 FT
SETBACKS		
FRONT	25 FT	>25 FT
SIDE	10 FT	>15 FT
REAR	15 FT	100 FT
BUILDING HEIGHT	50 FT	<50 FT
MINIMUM DWELLING UNIT SIZE	600 SF	>600 SF
OPEN SPACE	10%	65.8%

5. PARCEL ID: MAP R3/LOT 54
   MAP U10A/LOT 13

6. PROPOSED IMPERVIOUS AREA: 43,450 SF (0.99 ACRES)

7. PROJECT LOCATION IS OUTSIDE OF THE 100-YEAR FLOODPLAIN.

8. PARKING SUMMARY: 1.5 SPACES PER UNIT PER ORDINANCE

REQUIRED	PROVIDED
75 SPACES	96 SPACES

9. THERE ARE WETLANDS WITHIN THE PROJECT LIMITS IDENTIFIED FOR THE PROJECT SITE. PROPOSED IMPACTS TOTAL 451 SF FOR THE STREAM CROSSING.

10. OUTSIDE AGENCY APPROVALS:
    MEDEP NATURAL RESOURCE PROTECTION ACT PERMIT BY RULE
    MEDEP STORMWATER PERMIT BY RULE
    MEDOT DRIVEWAY ENTRANCE PERMIT

11. UTILITIES PROVIDED:
    WATER: PORTLAND WATER DISTRICT
    SEWER: PUBLIC (TOWN OF CUMBERLAND)
    POWER: CENTRAL MAINE POWER
    NATURAL GAS: SUMMIT NATURAL GAS

NOTES:

1. SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.
2. AERIAL IMAGE FROM GOOGLE EARTH, DATED 5/4/2018.

REV.	BY	DATE	STATUS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW

STATE OF MAINE
DANIEL P. GRIFFIN
11841
REGISTERED PROFESSIONAL ENGINEER
5/26/2021

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

SITE OVERVIEW PLAN

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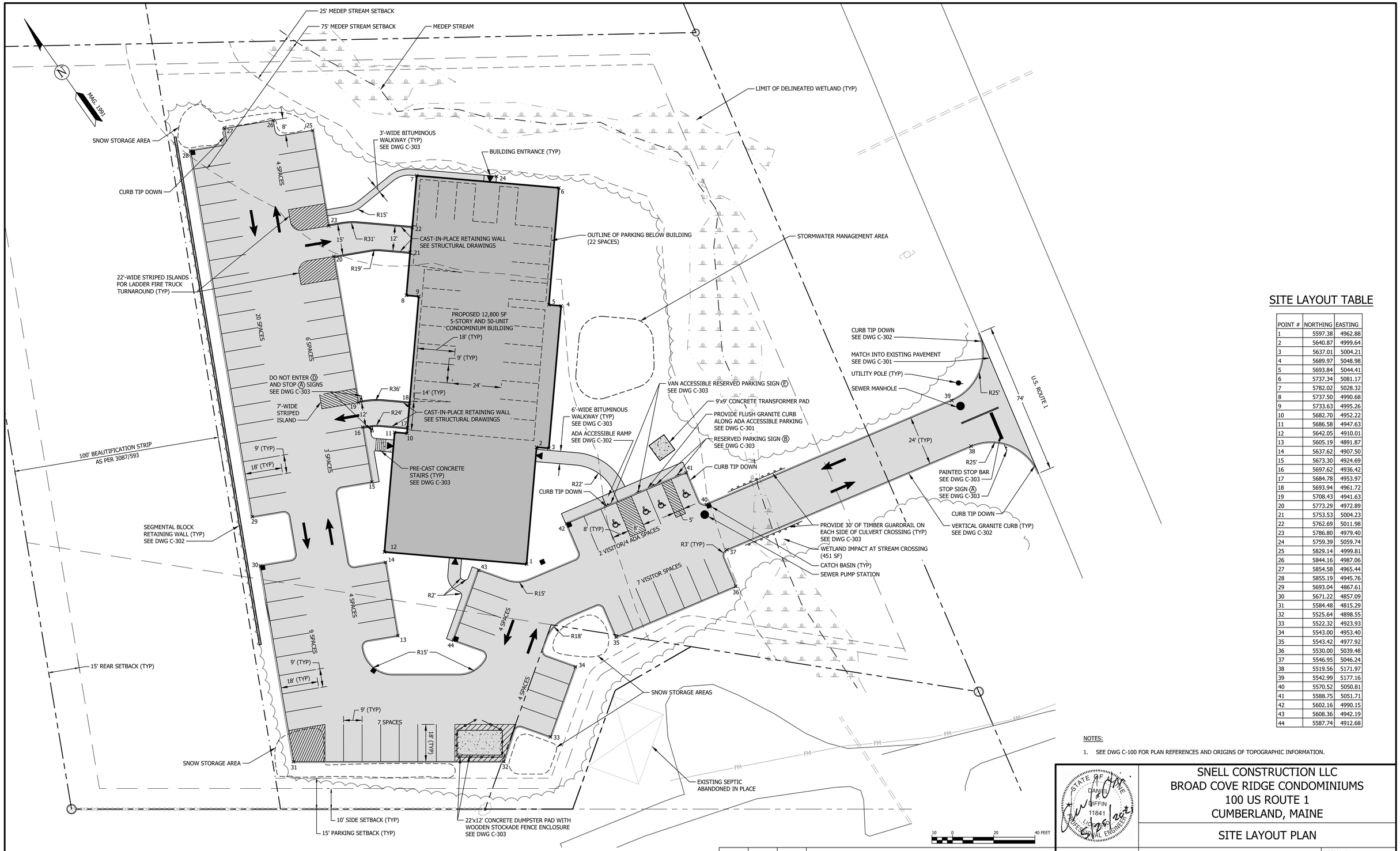
JOB NO. 21241.01	DWG FILE BASE
	C-102



SITE LAYOUT TABLE

POINT #	NORTHING	EASTING
1	5597.38	4962.88
2	5640.87	4999.64
3	5637.01	5004.21
4	5689.97	5048.98
5	5693.84	5044.41
6	5737.34	5081.17
7	5782.02	5028.32
8	5737.50	4990.68
9	5733.63	4995.26
10	5682.70	4952.22
11	5686.58	4947.63
12	5642.05	4910.01
13	5605.19	4891.87
14	5637.62	4907.50
15	5673.30	4924.69
16	5697.62	4936.42
17	5684.78	4953.97
18	5693.94	4961.72
19	5708.43	4941.63
20	5773.29	4972.89
21	5753.53	5004.23
22	5762.69	5011.98
23	5786.80	4979.40
24	5759.39	5059.74
25	5829.14	4999.81
26	5844.16	4987.06
27	5854.58	4965.44
28	5855.19	4945.76
29	5693.04	4867.61
30	5671.22	4857.09
31	5584.48	4815.29
32	5525.64	4898.55
33	5522.32	4923.93
34	5543.00	4953.40
35	5543.42	4977.92
36	5530.00	5039.48
37	5546.95	5046.24
38	5519.56	5171.97
39	5542.99	5177.16
40	5570.52	5050.81
41	5588.75	5051.71
42	5602.16	4990.15
43	5608.36	4942.19
44	5587.74	4912.68

NOTES:

1. SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.

REV.	BY	DATE	STATUS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW

STATE OF MAINE DANIEL J. GIFFIN 11841 LICENSED PROFESSIONAL ENGINEER

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

SITE LAYOUT PLAN

SME
SEVEE & MAHER ENGINEERS
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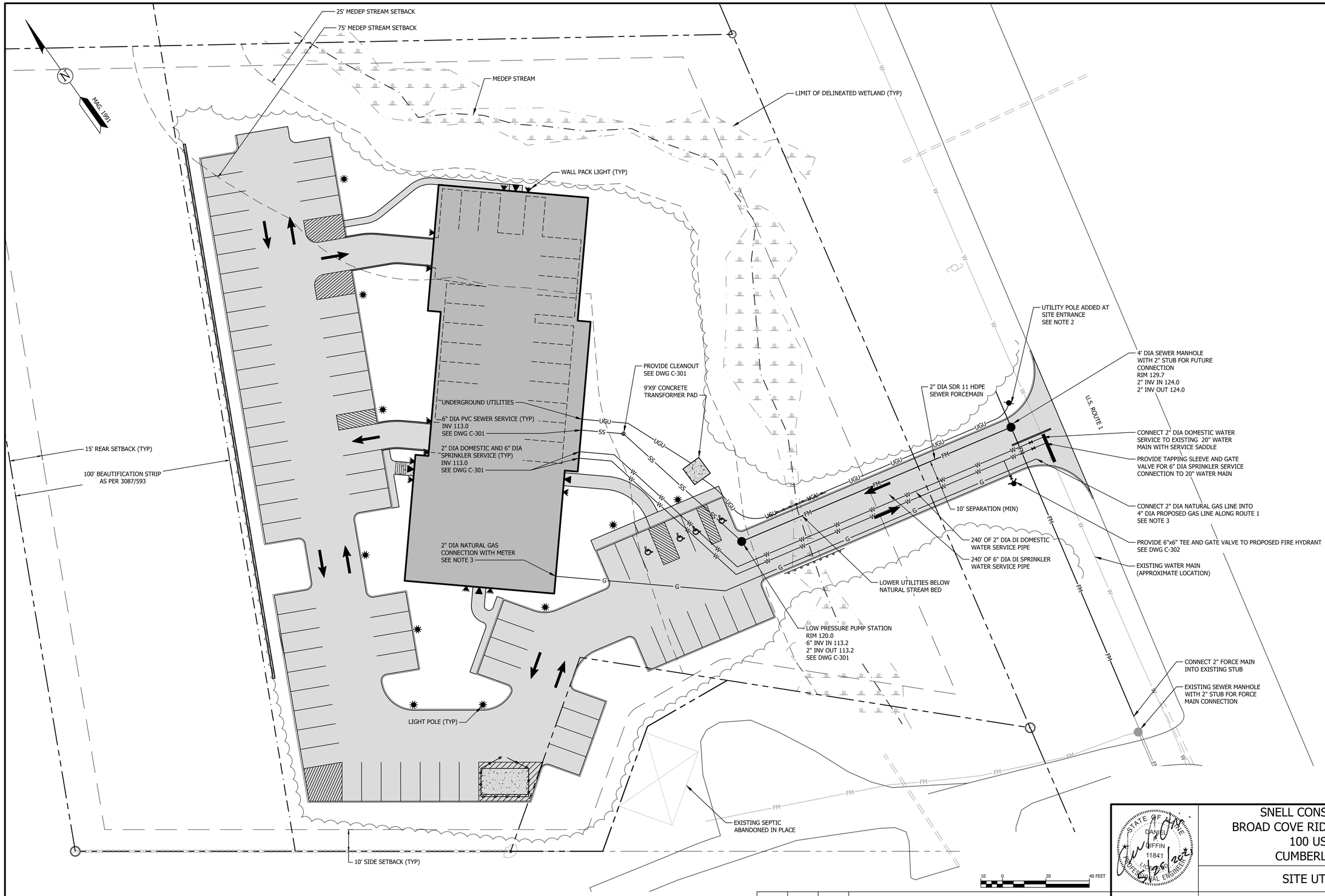
CTB:	SME-STD

JOB NO. 21241.01 DWG FILE BASE

C-103



NOTES:

1. SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.
2. COORDINATE LOCATION OF UTILITY LINES ALONG U.S. ROUTE 1 WITH CENTRAL MAINE POWER.
3. COORDINATE GAS LINE CONSTRUCTION WITH SUMMIT NATURAL GAS. PROPOSED 4" GAS MAIN TENTATIVELY SCHEDULED FOR SPRING 2022 CONSTRUCTION.

REV.	BY	DATE	STATUS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW

STATE OF MAINE
DANIEL P. GRIFFIN
11841
REGISTERED PROFESSIONAL ENGINEER
5/26/2021

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

SITE UTILITY PLAN

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LMN:	UTIL
CTB:	SME-STD

JOB NO. 21241.01 DWG FILE BASE

C-104

PROPOSED STORM DRAIN SCHEDULE

STRUCTURE	DIA	RIM EL	INV IN	FROM STRUCTURE	INV OUT	TO STRUCTURE	PIPE
CB #101	4'	120.1	-	-	117.1	CB#102	64 LF OF 12" DIA PIPE
CB #102	4'	118.1	114.5	CB 101/CB 103	114.4	DP 1	70 LF OF 12" DIA PIPE
CB # 103	4'	117.0	-	-	114.8	CB #102	18 LF OF 12" DIA PIPE
CB #104	4'	113.3	-	-	109.3	CB #105	39 LF OF 12" DIA PIPE
CB #105	4'	110.7	106.7	CB #104	106.6	CB #106	69 LF OF 12" DIA PIPE
CB#106	4'	107.0	103.0	CB #105	102.9	CB #107	200 LF OF 12" DIA PIPE
CB #107	4'	95.5	91.0	CB #106	90.9	OUTFALL	10 LF OF 12" DIA PIPE

25' MEDEP STREAM SETBACK
75' MEDEP STREAM SETBACK
MEDEP STREAM
LIMIT OF DELINEATED WETLAND (TYP)
4" 6" AND 12" DIA CPP INV 90.0
SLOPE AT 1H:1V AND PROVIDE RIPRAP SLOPE PROTECTION
MAG. 1991
TC 96.0 BC 95.5
TW 94.0 BW 90.2
CB 107
TC 97.0 BC 96.5
4" DIA FOUNDATION DRAIN OUTLET PIPE
PROVIDE 6" DRAIN FROM INTERNAL TRENCH DRAIN
ENTRY SLAB 104.0
TC 99.7 BC 99.2
250' OF SEGMENTAL BLOCK RETAINING WALL SEE DWG C-303
TW 101.0 BW 98.5
PROVIDE TRENCH DRAIN AT PARKING ENTRANCE
6" LOAM AND SEED ON ALL DISTURBED AREAS UNLESS OTHERWISE NOTED (TYP)
PROVIDE PIPE CAP AND DRILL 6" ORIFICE OUTLET
12" ROOF DRAIN TO DETENTION POND 1
51' OF 12" DIA CPP STORM DRAIN INV IN 114.0 INV OUT 113.5
DETENTION POND 1 BOTTOM EL. 114.0
117.0
10'-WIDE OVERFLOW SPILLWAY EL. 116.5
PARKING SLAB 98.5
TW 103.0 BW 98.5
103.0
SLOPE UNDER BUILDING PARKING TO INTERIOR DRAINAGE TRENCH
TW 98.0 BW 91.5
TW 100.0 BW 90.0
TC 104.0 BC 103.5
TW 104.0 BW 100.4
PARKING SLAB 100.5
TW 105.0 BW 99.5
ENTRY SLAB 108.9
ENTRY SLAB 118.6
105.3
TC 105.2 BC 104.7
TC 105.7 BC 105.2
PROPOSED CONDOMINIUM BUILDING
1ST STORY EL 118.7
GROUND FLOOR EL 109.0
TC 118.6 BC 118.1
CB 102
TC 119.1 BC 118.6
TC 119.3 BC 119.3
TC 120.0 BC 119.5
PROVIDE EROSION CONTROL MESH ON ALL SLOPES STEEPER THAN 6H:1V UNLESS OTHERWISE NOTED
U.S. ROUTE 1
128.6
SLOPE FIRST 40' @ 0.03'/' MAX
100' BEAUTIFICATION STRIP AS PER 3087/593
TC 105.0 BC 104.5
105.4
105.1
TW 104.0 BW 98.0
SLOPE @ 0.10'/'
107.5
TC 107.5 BC 107.0
CB 106
ENTRY SLAB 114.8
CB 103
118.9
118.4
TC 122.0 BC 121.5
SLOPE @ 0.08'/'
PROVIDE 2' DEEP SWALE ALONG ACCESS DRIVE
45' LONG OPEN BOTTOM PRECAST CONCRETE ARCH STREAM CROSSING WITH WINGWALLS SEE DWG C-304
CATCH BASIN (CB) 101
15' REAR SETBACK (TYP)
TC 109.2 BC 108.7
TC 110.0 BC 109.5
TC 116.0 BC 115.5
TC 115.2 BC 114.7
TC 120.0 BC 119.5
CB 104
TC 113.8 BC 113.3
TC 114.5 BC 114.0
CB 105
SLOPE @ 2H:1V PROVIDE EROSION CONTROL MATTING ON SLOPE
EXISTING SEPTIC ABANDONED IN PLACE
10' SIDE SETBACK (TYP)
TRANSITION SLOPE TO 1.5H:1V AND PROVIDE RIPRAP SLOPE PROTECTION
10 0 20 40 FEET

NOTES:

1. SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.

REV.	BY	DATE	STATUS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW

STATE OF MAINE DANIEL P. GRIFFIN 11841 REGISTERED PROFESSIONAL ENGINEER

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

GRADING AND DRAINAGE PLAN

SME
SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

DESIGN BY:	AML
DRAWN BY:	SJM
DATE:	5/2021
CHECKED BY:	DPD
LMN:	GRADE
CTB:	SME-STD

JOB NO. 21241.01 DWG FILE BASE

C-105

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NOTES:

1. SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.

REV.	BY	DATE	STATUS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW

STATE OF MAINE
DANIEL P. GRIFFIN
11841
LICENSED PROFESSIONAL ENGINEER
5/26/21

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

EROSION CONTROL PLAN

SME
SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
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CTB:	SME-STD

JOB NO. 21241.01 DWG FILE BASE

C-106

EROSION CONTROL NOTES:

A. GENERAL

1. All soil erosion and sediment control will be done in accordance with: (1) the Maine Erosion and Sediment Control Handbook: Best Management Practices, Maine Department of Environmental Protection (MEDEP), October 2016.

2. The site Contractor (to be determined) will be responsible for the inspection and repair/replacement/maintenance of all erosion control measures, disturbed areas, material storage areas, and vehicle access points until all disturbed areas are stabilized.

3. Disturbed areas will be permanently stabilized within 7 days of final grading. Disturbed areas not to be worked upon within 14 days of disturbance will be temporarily stabilized within 7 days of the disturbance.

4. In all areas, removal of trees, bushes and other vegetation, as well as disturbance of topsoil will be kept to a minimum while allowing proper site operations.

5. Any suitable topsoil will be stripped and stockpiled for reuse as directed by the Owner. Topsoil will be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. In any event, stockpiles will not be located within 100 feet of wetlands and will be at least 50 feet upgradient of the stockpile's perimeter silt fence. The sideslopes of the topsoil stockpile will not exceed 2:1. Silt fence will be installed around the perimeter of all topsoil stockpiles. Topsoil stockpiles will be surrounded with siltation fencing and will be temporarily seeded with Aroostook rye, annual or perennial ryegrass within 7 days of formation, or temporarily mulched.

6. Winter excavation and earthwork will be completed so as to minimize exposed areas while satisfactorily completing the project. Limit exposed areas to those areas in which work is to occur during the following 15 days and that can be mulched in one day. All areas will be considered denuded until the subbase gravel is installed in roadway areas or the areas of future loam and seed have been loamed, seeded, and mulched.

   Install any added measures necessary to control erosion/sedimentation. The particular measure used will be dependent upon site conditions, the size of the area to be protected, and weather conditions.

   To minimize areas without erosion control protection, continuation of earthwork operations on additional areas will not begin until the exposed soil surface on the area being worked has been stabilized.

B. TEMPORARY MEASURES

1. STABILIZED CONSTRUCTION ENTRANCE/EXIT

   A crushed stone stabilized construction entrance/exit will be placed at any point of vehicular access to the site, in accordance with the detail shown on this sheet.

2. SILT FENCE

   a. Silt fence will be installed prior to all construction activity, where soil disturbance may result in erosion. Silt fence will be erected at locations shown on the plans and/or downgradient of all construction activity.

   b. Silt fences will be removed when they have served their useful purpose, but not before the upgradient areas have been permanently stabilized.

   c. Silt fences will be inspected immediately after each rainfall and at least daily during prolonged rainfall. They will be inspected if there are any signs of erosion or sedimentation below them. Any required repairs will be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they will be replaced with a temporary crushed stone check dam.

   d. Sediment deposits will be removed after each storm event if significant build-up has occurred or if deposits exceed half the height of the barrier.

3. STONE CHECK DAMS

   Stone check dams should be installed before runoff is directed to the swale. Stone check dams will be installed in grass-lined swales and ditches during construction. Remove stone check dams when they have served their useful purpose, but not before upgradient areas have been permanently stabilized.

4. EROSION CONTROL MIX SEDIMENT BARRIER

   a. It may be necessary to cut, pack down, or remove tall grasses, brush, or woody vegetation to avoid voids and bridges that allow the washing away of fine soil particles.

   b. Where approved, erosion control mix sediment barriers may be used as a substitute for silt fence. See the details in this drawing set for specifications.

   b. Rock Filter Berms: To provide more filtering capacity or to act as a velocity check dam, a berm's center can be composed of clean crushed rock ranging in size from the french drain stone to riprap.

5. TEMPORARY SEEDING

   Stabilize disturbed areas that will not be brought to final grade and reduce problems associated with mud and dust production from exposed soil surface during construction with temporary vegetation.

6. TEMPORARY MULCHING

   Use temporary mulch in the following locations and/or circumstances:

   - In sensitive areas (within 100 feet of streams, wetlands and in lake watersheds) temporary mulch will be applied within 7 days of exposing spill or prior to any storm event.
   - Apply temporary mulch within 14 days of disturbance or prior to any storm event in all other areas.
   - Areas which have been temporarily or permanently seeded will be mulched immediately following seeding.
   - Areas which cannot be seeded within the growing season will be mulched for over-winter protection and the area will be seeded at the beginning of the growing season.
   - Mulch can be used in conjunction with tree, shrub, vine, and ground cover plantings.
   - Mulch anchoring will be used on slopes greater than 5 percent in late fall (past October 15), and over-winter (October 15 - April 15).

   The following materials may be used for temporary mulch:

   a. Hay or Straw material shall be air-dried, free of seeds and coarse material. Apply 2 bales/1,000 sf or 1.5 to 2 tons/acre to cover 90% of ground surface.

   b. Erosion Control Mix: It can be used as a stand-alone reinforcement:
      - 2-inches thick for slopes flatter than 3H:1V;
      - 4-inches thick for slopes greater than 3H:1V;
      - on slopes 2 horizontal to 1 vertical or less;
      - on frozen ground or forested areas; and
      - at the edge of gravel parking areas and areas under construction.

   c. Erosion control mix alone is not suitable:
      - on slopes with groundwater seepage;
      - at low points with concentrated flows and in gullies;
      - at the bottom of steep perimeter slopes exceeding 100 feet in length;
      - below culvert outlet aprons; and around catch basins and closed storm systems.

   d. Chemical Mulches and Soil Binders: Wide ranges of synthetic spray-on materials are marketed to protect the soil surface. These are emulsions that are mixed with water and applied to the soil. They may be used alone, but most often are used to hold wood fiber, hydro-mulches or straw to the soil surface.

   e. Erosion Control Blankets and Mats: Mats are manufactured combinations of mulch and netting designed to retain soil moisture and modify soil temperature. During the growing season (April 15th to November 1st) use mats indicated on drawings or North American Green (NAG) S75 (or mulch and netting) on:
      - the base of grassed waterways;
      - steep slopes (15 percent or greater); and
      - any disturbed soil within 100 feet of lakes, streams, or wetlands.

   During the late fall and winter (November 1st to April 15th) use heavy grade mats indicated on drawings for NAG SC250 on all areas noted above plus use lighter grade mats NAG S75 (or mulch and netting) on:
      - sideslopes of grassed waterways; and moderate slopes (between 8 and 15 percent).

C. TEMPORARY DUST CONTROL

   To prevent the blowing and movement of dust from exposed soil surfaces, and reduce the presence of dust, use water or calcium chloride to control dusting by preserving the moisture level in the road surface materials.

D. CONSTRUCTION DE-WATERING

1. Water from construction de-watering operations shall be cleaned of sediment before reaching wetlands, water bodies, streams or site boundaries. Utilize temporary sediment basins, erosion control soil filter berms backed by staked hay bales, A Dirt Bag 55" sediment filter bag by ACF Environmental, or other approved Best Management Practices (BMP's).

2. In sensitive areas near streams or ponds, discharge the water from the de-watering operation into a temporary sediment basin created by a surrounding filter berm of uncompacted erosion control mix immediately backed by staked hay bales (see the site details). Locate the temporary sediment basin at lease 100 feet from the nearest water body, such that the filtered water will flow through undisturbed vegetated soil areas prior to reaching the water body or property line.

E. PERMANENT MEASURES

1. Riprapped Aprons: All storm drain pipe outlets and the inlet and outlet of culverts will have riprap aprons to protect against scour and deterioration.

2. Topsoil, Seed, and Mulch: All areas disturbed during construction, but not subject to other restoration (paving, riprap, etc.) will be loamed, limed, fertilized, seeded, and mulched.

   Seeded Preparation: Use stockpiled materials spread to the depths shown on the plans, if available. Approved topsoil substitutes may be used. Grade the site as needed.

   a. Seeding will be completed by August 15 of each year. Late season seeding may be done between August 15 and October 15. Areas not seeded or which do not obtain satisfactory growth by October 15, will be seeded with Aroostook Rye or mulched. After November 1, or the first killing frost, disturbed areas will be seeded at double the specified application rates, mulched, and anchored.

   PERMANENT SEEDING SPECIFICATIONS OUTSIDE OF SOLAR ARRAY FOOTPRINT

Mixture:	Roadside (lbs/acre)	Lawn (lbs/acre)
Kentucky Bluegrass	20	55
White Clover	5	0
Creeping Red Fescue	20	55
Perennial Ryegrass	5	15

   b. Provide New England Meadow mix seed in areas of solar array

   c. Mulch in accordance with specifications for temporary mulching.

   d. If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site.

3. Ditches and Channels: All ditches on-site will be lined with North American Green S75 erosion control mesh (or an approved equal) upon installation of loam and seed.

F. WINTER CONSTRUCTION AND STABILIZATION

1. Natural Resource Protection: During winter construction, a double-row 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 will be protected a minimum distance of 100 feet on either side from the resource.

2. Sediment Barriers: During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

3. Mulching:

   - All areas will be considered to be denuded until seeded and mulched. Hay and straw mulch will be applied at a rate of twice the normal accepted rate.
   - Mulch will not be spread on top of snow.
   - After each day of final grading, the area will be properly stabilized with anchored hay or straw or erosion control matting.
   - Between the dates of November 1 and April 15, all mulch will be anchored by either mulch netting, emulsion chemical, tracking or wood cellulose fiber.

5. Soil Stockpiling: Stockpiles of soil or subsoil will be mulched for over-winter protection with hay or straw at twice the normal rate or with a 4-inch layer of erosion control mix. This will be done within 24 hours of stocking and re-established prior to any rainfall or snowfall. Any soil stockpiles shall not be placed (even covered with mulch) within 100 feet from any natural resources. Sediment barriers should be installed downgradient of stockpiles. Stormwater shall be directed away from stockpiles.

6. Seeding: Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas will receive 4 inches of loam and seed at an application rate of three times the rate for permanent seeding. All areas seeded during the winter will be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75 percent catch) will be revegetated by replacing loam, seed, and mulch.

   If dormant seeding is not used for the site, all disturbed areas will be revegetated in the spring.

7. Maintenance: Maintenance measures will be applied as needed during the entire construction season. After each rainfall, snow storm, or period of thawing and runoff, and at least once a week, the site Contractor will perform a visual inspection of all installed erosion control measures and perform repairs as needed to ensure their continuous function.

8. Identified repairs will be started no later than the end of the net work day and be completed within seven (7) calendar days.

   Following the temporary and/or final seeding and mulching, the Contractor will, in the spring, inspect and repair any damages and/or bare spots. An established vegetative cover means a minimum of 85 to 90 percent of areas vegetated with vigorous growth.

G. OVER-WINTER CONSTRUCTION EROSION CONTROL MEASURES

1. Stabilization of Disturbed Soil: By October 15, all disturbed soils on areas having a slope less than 15 percent will be seeded and mulched. If the Contractor fails to stabilize these soils by this date, then the Contractor shall stabilize the soil for late fall and winter, by using either temporary seeding or mulching.

2. Stabilization of Disturbed Slopes: All slopes to be vegetated will be completed by October 15. The Owner will consider any area having a grade greater than 15 percent (6.5H:1V) to be a slope. Slopes not vegetated by October 15 will receive one of the following actions to stabilize the slope for late fall and winter:

   a. Stabilize the soil with temporary vegetation and erosion control mesh.
   b. Stabilize the slope with erosion control mix.
   c. Stabilize the slope with stone riprap.
   d. Slopes steeper than 1.5:1 are prohibited.

3. Stabilization of Ditches and Channels: All stone-lined ditches and channels to be used to convey runoff through the winter will be constructed and stabilized by November 15. Grass-lined ditches and channels will be complete by September 15. Grass-lined ditches not stabilized by September 15 shall be lined with either sod or riprap.

H. MAINTENANCE PLAN

1. Routine Maintenance: Inspection will be performed as outlined in the project's Erosion Control Plan. Inspection will be by a qualified person during wet weather to ensure that the facility performs as intended. Inspection priorities will include checking erosion controls for accumulation of sediments.

I. Housekeeping

1. 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.

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.

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. If off-site tracking occurs roadways should be swept immediately and no loss once a week and prior to significant storm events.

4. Debris and other materials. Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.

5. Trench or foundation de-watering. Trench 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 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 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 and section I3;

   (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 (see requirements in section I5);

   (k) Potable water sources including waterline flushings; and

   (l) Landscape irrigation.

7. Unauthorized non-stormwater discharges. The Department's approval under this Chapter does not authorize a discharge that is mixed with a source of non stormwater, other than those discharges in compliance with section I6. Specifically, the Department's approval does not authorize discharges of the following:

   (a) Wastewater from the washout or cleanout 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

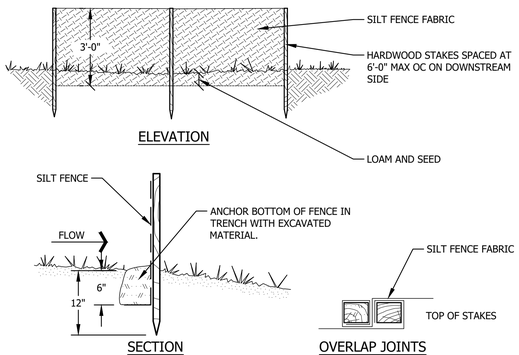
   (d) Toxic or hazardous substances from a spill or other release.

8. Additional requirements. Additional requirements may be applied on a site-specific basis.

J. CONSTRUCTION SEQUENCE

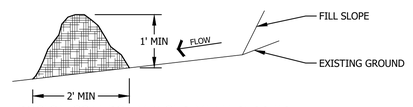
   In general, the expected sequence of construction for each phase is provided below. Construction is proposed to start in Spring 2021 and end in 2022.

   - Mobilization
   - Install temporary erosion control measures
   - Clearing and grubbing
   - Site Grading
   - Install gravel access road
   - Install site utilities and solar panels
   - Site stabilization, loam and seed, and landscaping



NOTE:
CONTRACTORS OPTION TO USE SEDIMENT BARRIER OR SILT FENCE FOR SLOPE PROTECTION.

SILT FENCE



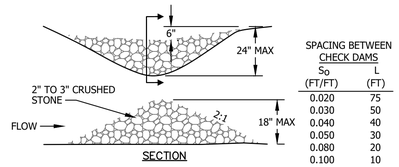
NOTES:

EROSION CONTROL MIX SEDIMENT BARRIER

1. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER-FLUME LOG HANDLING SYSTEMS.
   WOOD CHIPS, GROUND CONSTRUCTION DEBRIS, REPROCESSED WOOD PRODUCTS OR BARK CHIPS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.
   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 MATERIAL: BETWEEN 20% - 100% (DRY WEIGHT BASIS)
   B. PARTICLE SIZE: BY WEIGHT, 100% PASSING 6" SCREEN, 70-85% PASSING 0.75" SCREEN
   C. THE 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 LESS THAN 4.0 MMHOS/CM.
   F. PH: 5.0 - 8.0
2. ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF SLOPES 2:1 OR LESS UP TO 20 FEET LONG, THE BARRIER MUST CONFORM TO THE ABOVE DIMENSIONS. ON THE LONGER OR STEEPER SLOPES, THE BARRIER SHOULD BE WIDER TO ACCOMMODATE THE ADDITIONAL FLOW.
3. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL ELEVATION. 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.
4. LOCATIONS WHERE OTHER BMP'S SHOULD BE USED:
   A. AT LOW POINTS OF CONCENTRATED FLOW
   B. BELOW CULVERT OUTLET APRONS
   C. WHERE A PREVIOUS STAND-ALONE EROSION CONTROL MIX APPLICATION HAS FAILED
   D. AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM (LARGE UPGRADIENT WATERSHED)
   E. AROUND CATCH BASINS AND CLOSED STORM DRAIN SYSTEMS.
5. THE EROSION CONTROL MIX BARRIERS SHOULD BE INSPECTED REGULARLY AND AFTER EACH LARGE RAINFALL. REPAIR ALL DAMAGED SECTIONS OF BERM IMMEDIATELY BY REPLACING OR ADDING ADDITIONAL MATERIAL PLACED ON THE BERM TO THE DESIRED HEIGHT AND WIDTH.
6. IT MAY BE NECESSARY TO REINFORCE THE BARRIER WITH SILT FENCE OR STONE CHECK DAMS IF THERE ARE SIGNS OF UNDERCUTTING OR THE IMPOUNDMENT OF LARGE VOLUMES OF WATER.
7. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
8. REPLACE SECTIONS OF BERM THAT DECOMPOSE, BECOME CLOGGED WITH SEDIMENT OR OTHERWISE BECOME INEFFECTIVE. THE BARRIER SHOULD BE RESHAPED AS NEEDED.
9. EROSION CONTROL MIX BARRIERS CAN BE LEFT IN PLACE AFTER CONSTRUCTION. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER BARRIER IS NO LONGER REQUIRED SHOULD BE SPREAD TO CONFORM TO THE EXISTING GRADE AND BE SEEDED AND MULCHED. WOODY VEGETATION CAN BE PLANTED INTO THE BARRIERS, OR THEY CAN BE OVER-SEEDED WITH LEGUMES. IF THE BARRIER NEEDS TO BE REMOVED, IT CAN BE SPREAD OUT INTO THE LANDSCAPE.

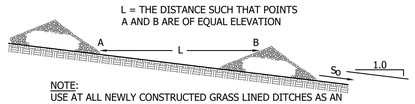
SURFACE DRAINAGE SEDIMENT CONTROL

NTS



SPACING BETWEEN CHECK DAMS	
S_o (FT/FT)	L (FT)
0.020	75
0.030	50
0.040	40
0.050	30
0.080	20
0.100	10

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



NOTE:
USE AT ALL NEWLY CONSTRUCTED GRASS LINED DITCHES AS AN EROSION CONTROL MEASURE AND WHERE OTHERWISE NOTED ON PLANS.

STONE CHECK DAM

NTS

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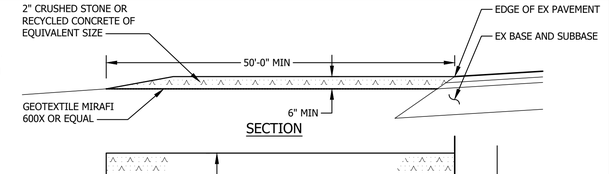
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW

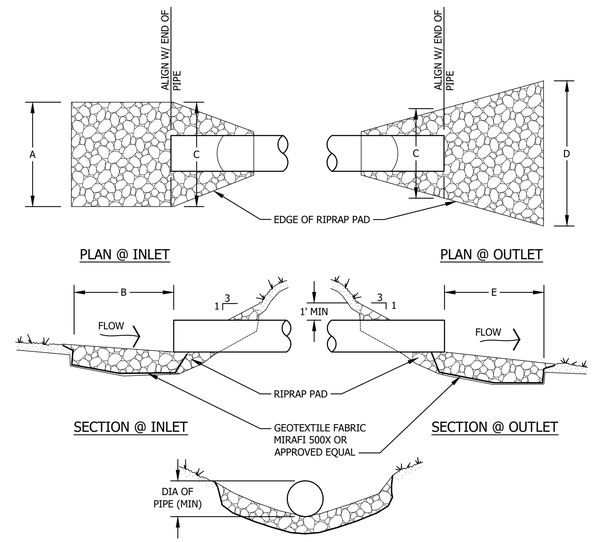


NOTES:

1. MAINTAIN ENTRANCE IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. IF WASHING IS REQUIRED PREVENT SEDIMENT FROM ENTERING WATERWAYS, DITCHES OR STORM DRAINS.
2. REMOVE STABILIZED CONSTRUCTION ENTRANCE TO FINISH ROAD CONSTRUCTION & PAVEMENT.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

NTS



RIPRAP PAD MUST BE INSTALLED WITHIN 48 HOURS OF INSTALLING NEW PIPE OR CULVERT.

PIPE	A	B	C	D	E	PAD DEPTH	D_{50}
12"~	3 FT.	2 FT.	3 FT.	9 FT.	8 FT.	6"	6"
15"~	3.75 FT.	2.5 FT.	3.75 FT.	11.5 FT.	10 FT.	6"	6"
18"~	4.5 FT.	3 FT.	4.5 FT.	11.5 FT.	10 FT.	9"	6"

PIPE INLET/OUTLET DETAILS

NTS

STATE OF MAINE DANIEL J. GIFFIN 11841 REGISTERED PROFESSIONAL ENGINEER

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

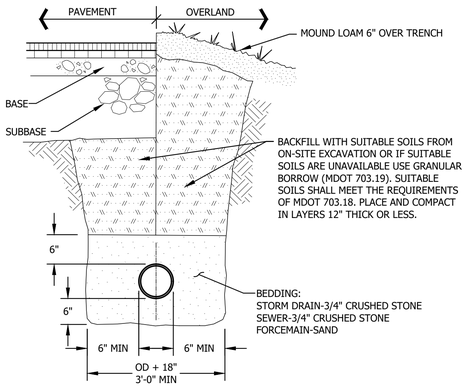
EROSION CONTROL NOTES AND DETAILS

SME
SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

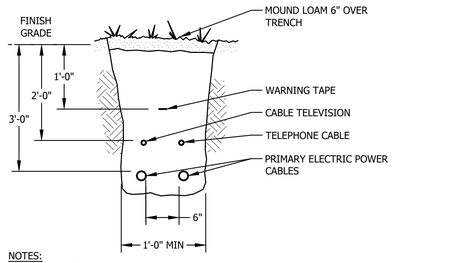
DESIGN BY:	AML
DRAWN BY:	SJM
DATE:	5/2021
CHECKED BY:	DPD
LMN:	SITE
CTB:	SME-STD

JOB NO. 21241.01 DWG FILE DETAILS

C-300

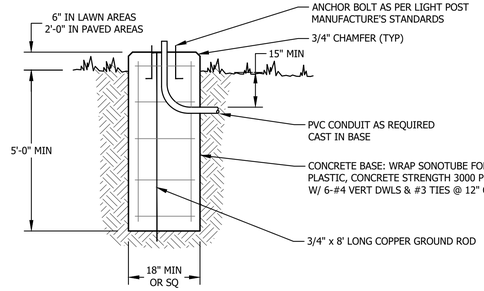


TYPICAL TRENCH SECTION
NTS

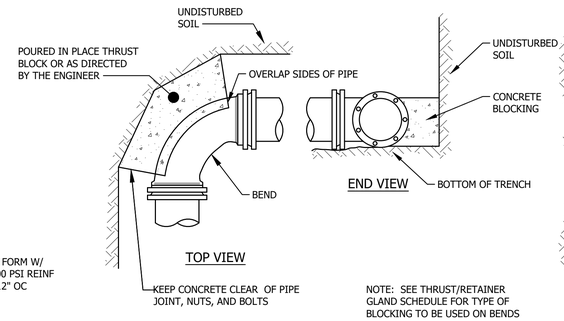


NOTES:
1. SEE CMP CO. STANDARD TRENCH FOR BACKFILL MATERIAL REQUIREMENTS.
2. DIRECT BURY CABLES EXCEPT UNDER PAVED AREAS. PROVIDE SCH. 40 PVC CONDUIT UNDER PAVED AREAS, EXTEND CONDUIT 5' BEYOND EDGE OF PAVEMENT.
3. TRENCH SHOWN FOR INFORMATION ONLY. SEE ELECTRICAL DRAWINGS FOR FINAL DETAILS.

UNDERGROUND UTILITY TRENCH SECTION
NTS



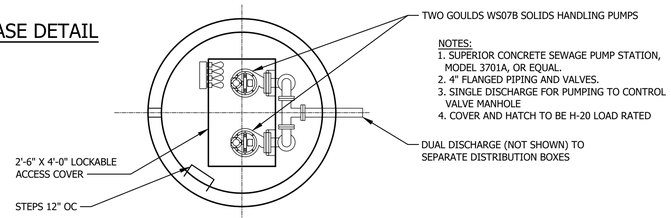
LIGHT POLE BASE DETAIL
NTS



NOTE: SEE THRUST/RETAINER GLAND SCHEDULE FOR TYPE OF BLOCKING TO BE USED ON BENDS

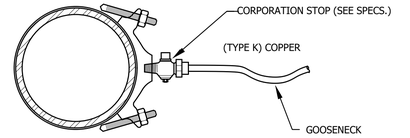
NOTE: IF DEAD END WITH TEE, THRUST BLOCK WOULD BE REQUIRED OR AS DIRECTED BY THE ENGINEER

STANDARD BEND BLOCKING
NTS



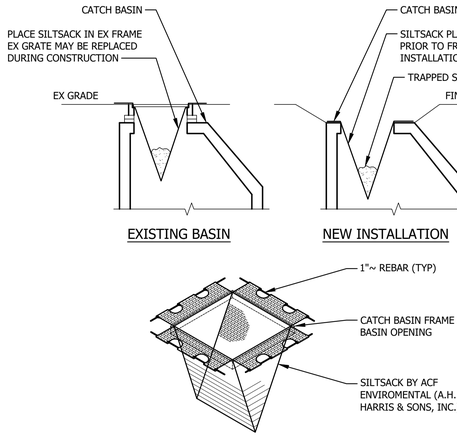
NOTES:
1. SUPERIOR CONCRETE SEWAGE PUMP STATION, MODEL 3701A, OR EQUAL.
2. 4" FLANGED PIPING AND VALVES.
3. SINGLE DISCHARGE FOR PUMPING TO CONTROL VALVE MANHOLE
4. COVER AND HATCH TO BE H-20 LOAD RATED

PLAN VIEW



(1-1/2" AND 2" C.C. THREAD)

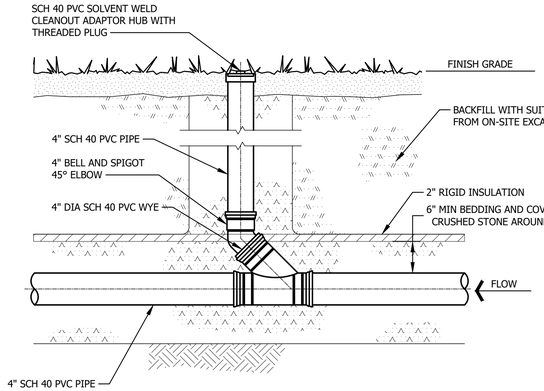
SERVICE SADDLE
NTS



EXISTING BASIN NEW INSTALLATION

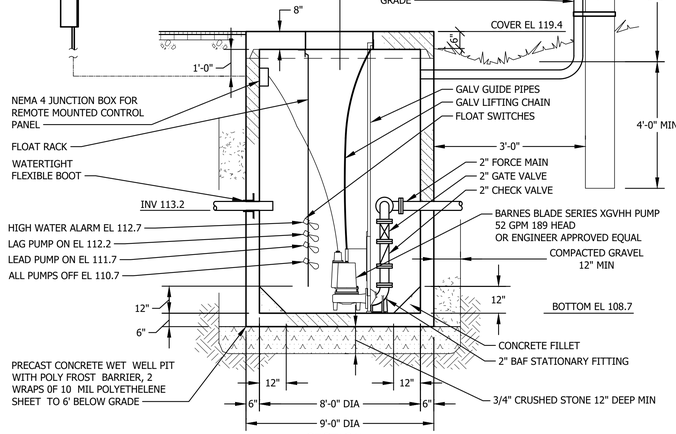
SILTSACK

CATCH BASIN PROTECTION
NTS



NOTE:
PLACE CAP @ GRADE

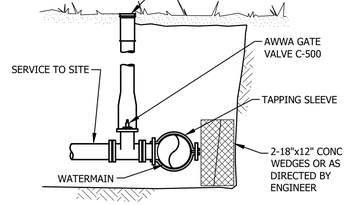
TYPICAL CLEANOUT
NTS



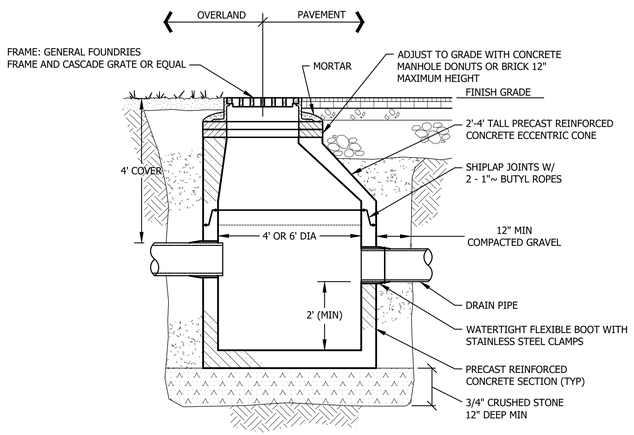
SECTION

NOTE:
PROVIDE FINAL DESIGN FROM LIFT STATION MANUFACTURER PRIOR TO CONSTRUCTION.

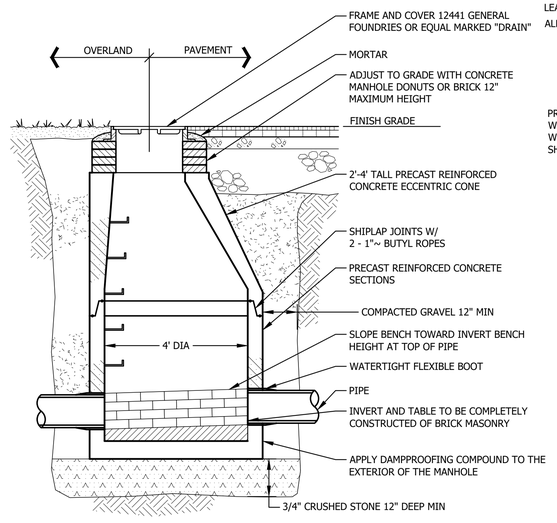
LIFT STATION
NTS



TYPICAL TAPPING SLEEVE AND GATE VALVE
NTS



CATCH BASIN
NTS



CONCRETE MANHOLE SECTION
NTS

CATCH BASIN, MANHOLE, AND LIFT STATION NOTES:

THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE ENGINEER FOR APPROVAL. SUBMITTALS SHALL INCLUDE BUT NOT LIMITED TO THE FOLLOWING:

PRODUCT DATA: SUBMIT PRODUCT DATA FOR ALL MATERIALS USED ON THE JOB FOR REVIEW FOR LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH INFORMATION GIVEN AND DESIGN CONCEPT EXPRESSED IN CONTRACT DOCUMENTS.

SHOP DRAWINGS: SUBMIT FOR REVIEW SHOP DRAWINGS OF ALL PRECAST UNITS. MANUFACTURER'S INFORMATION SHALL BE SUBMITTED FOR JOINT SEALANTS AND WATERPROOFING. MANUFACTURE SHALL PROVIDE ANTI-FLOTATION DESIGN SHOP DRAWINGS AND CALCULATIONS, INCLUDING ANY EXTENDED BASE SLABS AS NECESSARY, FOR PROPOSED MANHOLES. MANUFACTURER SHALL ASSUME GROUNDWATER LEVELS EQUAL TOP OF GROUND ELEVATIONS AND PROVIDE FOR A 1.2 FACTOR OF SAFETY AGAINST FLOTATION.

REV.	BY	DATE	STATUS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW

STATE OF MAINE
DANIEL J. DIFFIN
11841
REGISTERED PROFESSIONAL ENGINEER
6/25/21

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

SECTIONS AND DETAILS

SME
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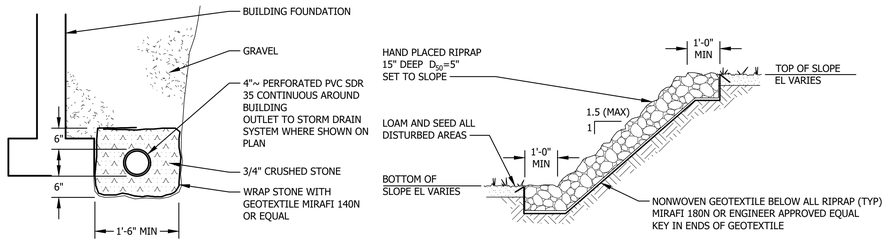
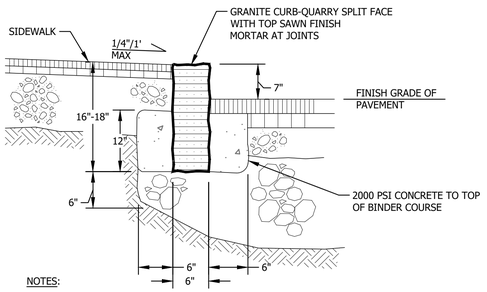
JOB NO. 21241.01 DWG FILE DETAILS

C-301



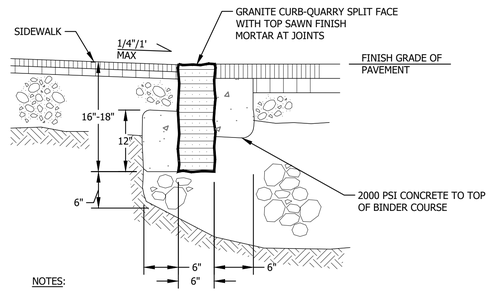
FOUNDATION DRAIN @ BUILDING
NTS

RIPRAP SLOPE SECTION
NTS



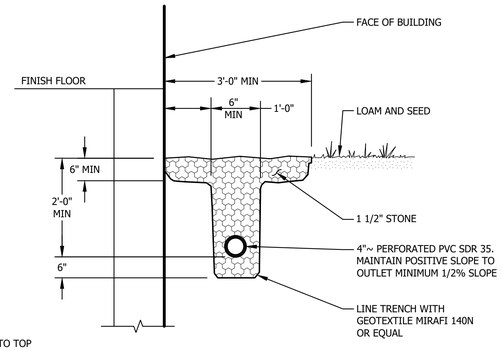
NOTES:
1. MINIMUM LENGTH OF THE CURB SECTIONS SHALL BE 3'-0"
2. FOR ALL CURBS WITH RADIUS LESS THAN 15' INSTALL STONES CUT TO THE RADIUS REQUIRED (NOT STRAIGHT SECTIONS)

VERTICAL GRANITE CURB SECTION
NTS

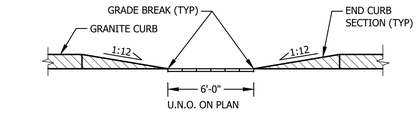


NOTES:
1. MINIMUM LENGTH OF THE CURB SECTIONS SHALL BE 3'-0"
2. FOR ALL CURBS WITH RADIUS LESS THAN 15' INSTALL STONES CUT TO THE RADIUS REQUIRED (NOT STRAIGHT SECTIONS)

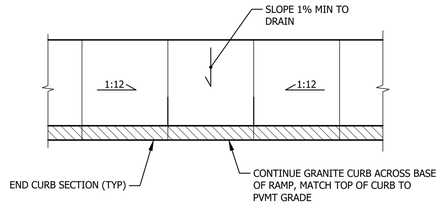
FLUSH GRANITE CURB SECTION
NTS



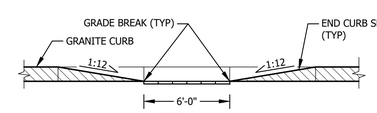
STONE DRIPSTRIP SECTION
NTS



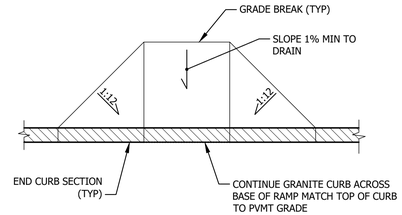
ELEVATION



RAMP WITH CENTER LANDING - PLAN

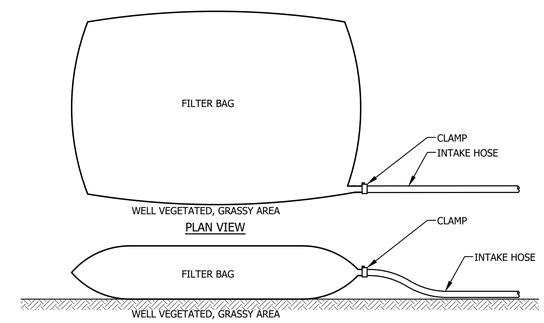


ELEVATION



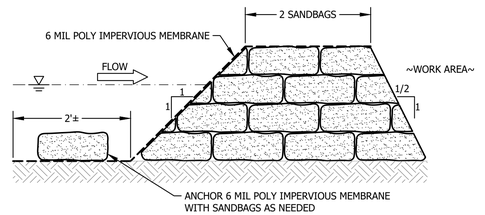
FLARED SIDE RAMP - PLAN

ACCESSIBLE SIDEWALK RAMPS
NTS

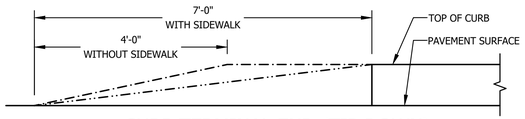


NOTES:
1. FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
3. BAGS SHALL BE LOCATED IN WELL-VEGTATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.
4. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED.
5. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.

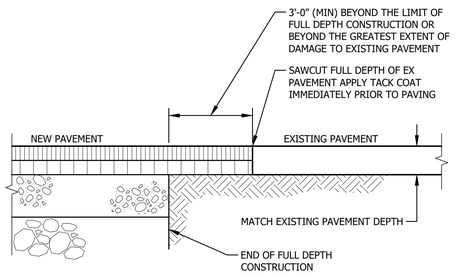
PUMPED WATER FILTER BAG
NTS



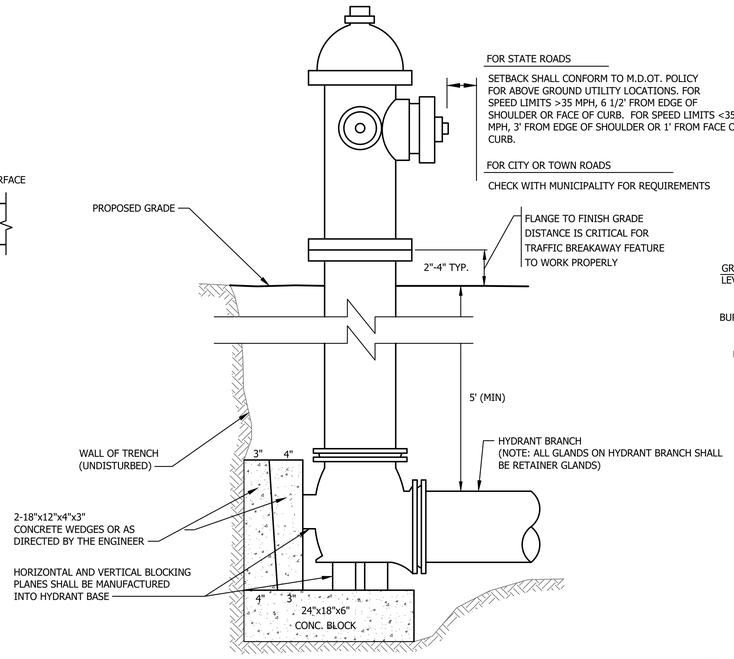
SANDBAG COFFER DAM
NTS



CURB TERMINAL END (TIP DOWN)
NTS



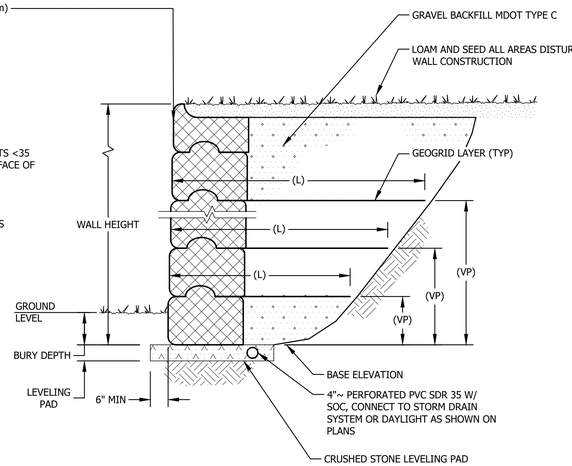
PAVEMENT CUTTING AND MATCHING
NTS



NOTES:
1. INSTALL IN ACCORDANCE WITH PORTLAND WATER DISTRICT STANDARDS.
2. ALL HYDRANT INSTALLATIONS SHALL CONSIST OF 12"x6" SWIVEL TEE, 6" GATE VALVE, 6" DI PIPE AND HYDRANT.

TYPICAL HYDRANT INSTALLATION
NTS

GEOGRID WALL BY REDI-ROCK® INTERNATIONAL LLC
28" WIDE GEOCONNECTOR BLOCK
STYLE: COBBLESTONE OR SPLIT LIMESTONE
(www.redi-rock.com)



WALL HEIGHT	BURY DEPTH	LEVELING PAD	MIRAFI GEOGRID TYPE	GEOGRID VERTICAL PLACEMENT (VP) AND LENGTHS (L) (SEE DIAGRAM FOR LOCATIONS) DIMENSIONS MEASURED IN FEET			
7'-6"	6"	6"	5xt	VP	1.5	4.5	
				L	4.5	7	
9'-0"	6"	1'-0"	5xt	VP	1.5	4.5	6
				L	6	7	8
10'-6"	6"	1'-0"	5xt	VP	1.5	4.5	7.5
				L	6.5	6.5	8.5

NOTE:
CONTRACTOR TO PROVIDE FINAL DESIGN STAMPED BY PROFESSIONAL ENGINEER.

MODULAR BLOCK WALL
NTS

REV.	BY	DATE	STATUS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW

STATE OF MAINE
DANIEL M. GRIFFIN
11841
REGISTERED PROFESSIONAL ENGINEER

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

SECTIONS AND DETAILS

SME
SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
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LMN:	SITE
CTB:	SME-STD

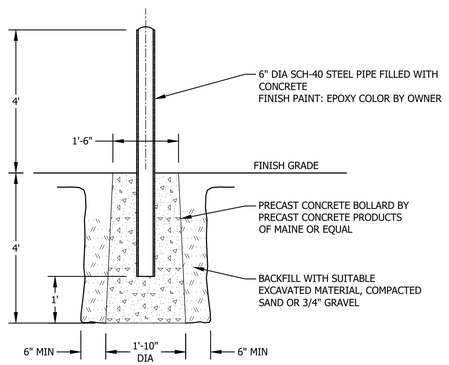
JOB NO. 21241.01 DWG FILE DETAILS

C-302

CONSTRUCTION	USE
1 1/4" HMA MDOT 9.5mm 2 1/4" HMA MDOT 19.0mm 3" COMPACTED AGGREGATE BASE, MDOT 703.06(a) TYPE A 15" COMPACTED AGGREGATE SUBBASE, MDOT 703.06(b) TYPE D COMPACTED SUBGRADE	BITUMINOUS PARKING LOT
2" HMA MDOT 9.5mm 12" COMPACTED AGGREGATE BASE, MDOT 703.06(a) TYPE A COMPACTED SUBGRADE	BITUMINOUS SIDEWALKS
12" 8" CONC. SLAB W/ #4 @ 12" E.W. @ MIDHEIGHT OF SLAB THICKENED SLAB 2 - #4 CONT. 12" COMPACTED AGGREGATE BASE, MDOT 703.06(a) TYPE A COMPACTED SUBGRADE 12" 12"	CONCRETE SIDEWALKS, DUMPSTER, AND EQUIPMENT PADS
4" TOPSOIL, NO STONES OVER 3/4" DIA. GRANULAR MATERIAL IN FILL AREAS COMPACTED SUBGRADE	GRASS ALL DISTURBED AREAS

NOTES:
1. HMA = HOT MIX ASPHALT.
   MDOT = MAINE DEPARTMENT OF TRANSPORTATION.
2. ALL COURSE THICKNESS AFTER FINAL COMPACTION.

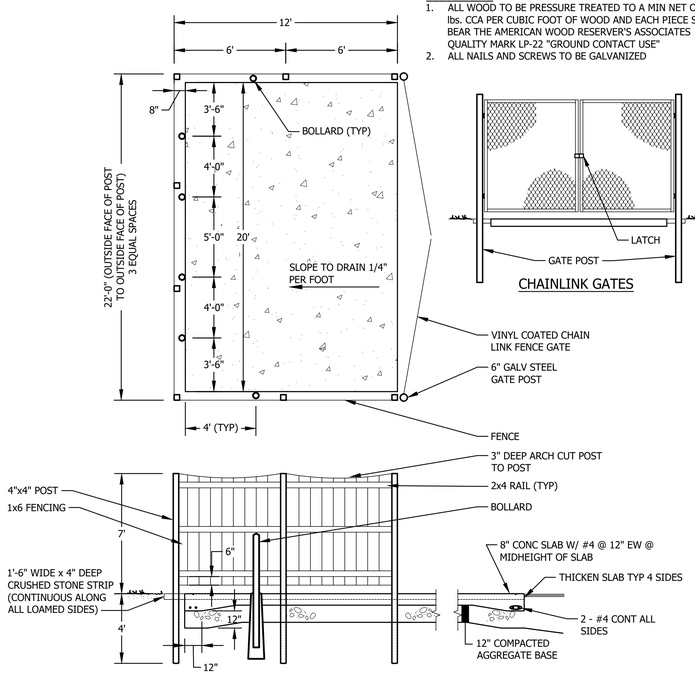
SCHEDULE OF SURFACE FINISHES
NTS



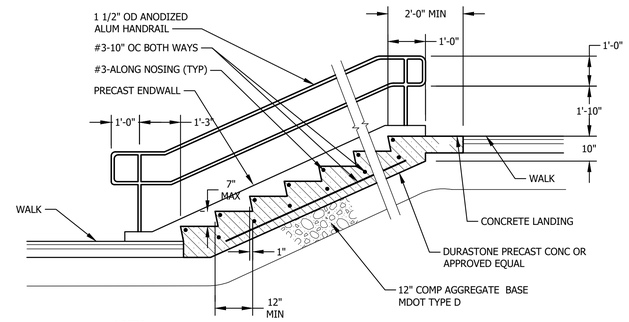
STEEL BOLLARD DETAIL
NTS

WOOD BARRIER DETAIL
NTS

WOOD NOTES:
1. ALL WOOD TO BE PRESSURE TREATED TO A MIN NET OF .40 lbs. CCA PER CUBIC FOOT OF WOOD AND EACH PIECE SHALL BEAR THE AMERICAN WOOD RESERVER'S ASSOCIATES QUALITY MARK LP-22 "GROUND CONTACT USE"
2. ALL NAILS AND SCREWS TO BE GALVANIZED

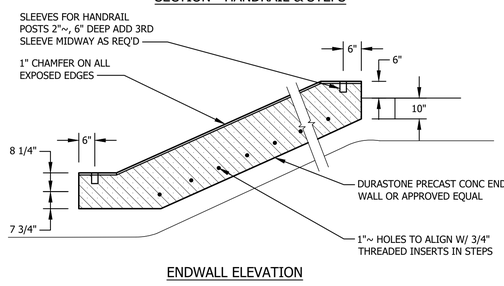


DUMPSTER ENCLOSURE DETAIL
NTS



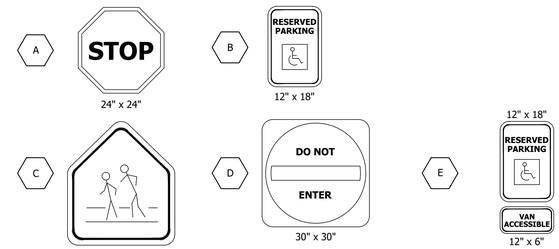
NOTES:
1. CONSTRUCT STEPS IN COMPLIANCE WITH ANSI A117.1-1986 4.9.
2. CONCRETE- 5000 PSI/28 DAYS
   5-6% AIR INTRAINED
   NON-SKID, STIFF BRISTLE BROOM FINISH (STEPS ONLY)
3. SUBMIT SHOP DRAWINGS IN ACCORDANCE W/ SECTION 01300- SUBMITTALS.
4. BOLT ENDWALLS TO STEPS W/ 3/4" BOLT & FLAT WASHER.
5. CENTER HANDRAIL REQUIRED WHERE NOTED ON THE PLANS.

SECTION - HANDRAIL & STEPS

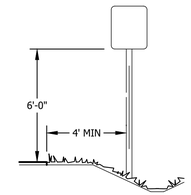


ENDWALL ELEVATION

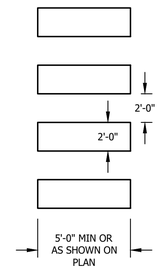
PRECAST CONCRETE STEPS DETAILS
NTS



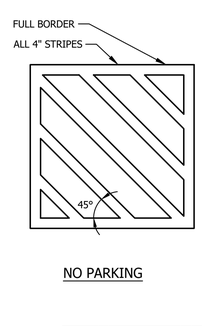
NOTES:
1. SIGNS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, HIGHWAYS AND BRIDGES REVISION OF DECEMBER 2002, SECTION 645.
2. ALL PERMANENT SIGNS ON THIS PROJECT ARE CLASSIFIED UNDER SECTION 645.03(b) TYPE 1 REGULATORY WARNING AND ROUTE MARKER ASSEMBLY SIGNS.
3. SIGN MATERIAL SHALL BE AS SPECIFIED IN SECTION 719 OF THE MDOT STANDARD SPECIFICATIONS.
4. POSTS SHALL BE METAL CHANNELS AS SPECIFIED IN SECTION 720.08. ALTERNATE POSTS MAY BE 4"x6" WOOD AS SPECIFIED IN SECTION 720.12, AS APPROVED BY ENGINEER.
5. POSTS IN THE PUBLIC RIGHT-OF-WAY TO BE ON BREAKAWAY POSTS AS SPECIFIED IN SECTION 720 OF THE MDOT STANDARD SPECIFICATIONS.



ROAD SIGN LEGEND
NTS



CROSSWALK



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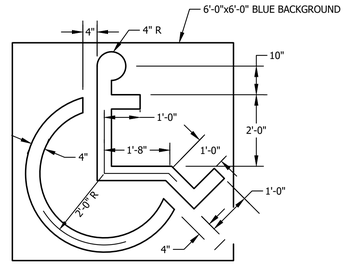
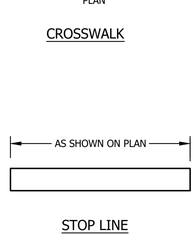
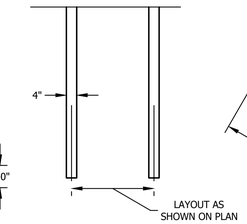


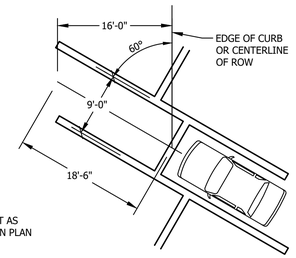
BARRIER FREE STALL SYMBOL



STOP LINE



PARKING SPACE



PARKING SPACE

STRIPING DETAILS
NTS

REV.	BY	DATE	STATUS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW

STATE OF MAINE DANIEL J. GRIFFIN 11841 REGISTERED PROFESSIONAL ENGINEER

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

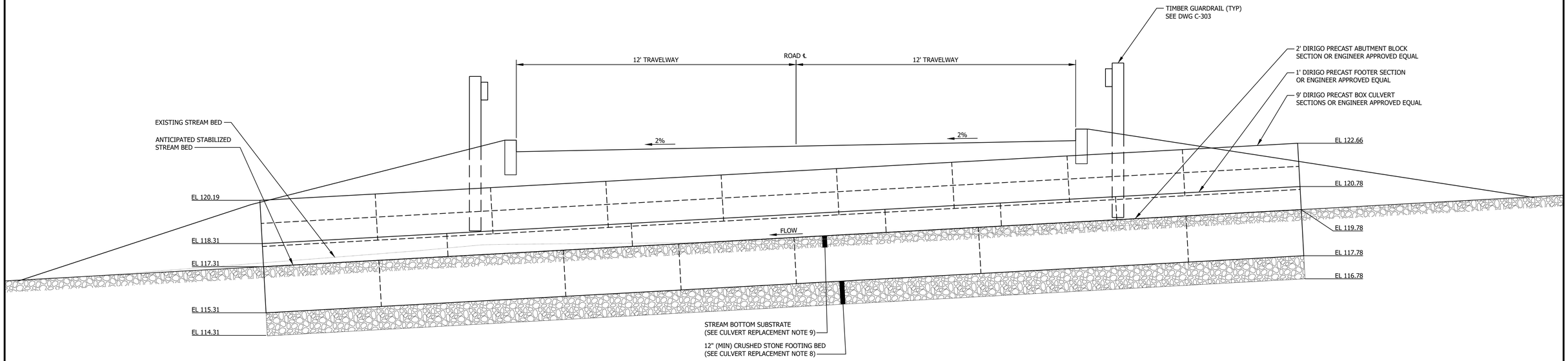
SECTIONS AND DETAILS

SME
SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

DESIGN BY:	AML
DRAWN BY:	SJM
DATE:	5/2021
CHECKED BY:	DPD
LMN:	SITE
CTB:	SME-STD

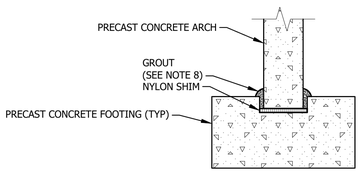
JOB NO. 21241.01 DWG FILE DETAILS

C-303

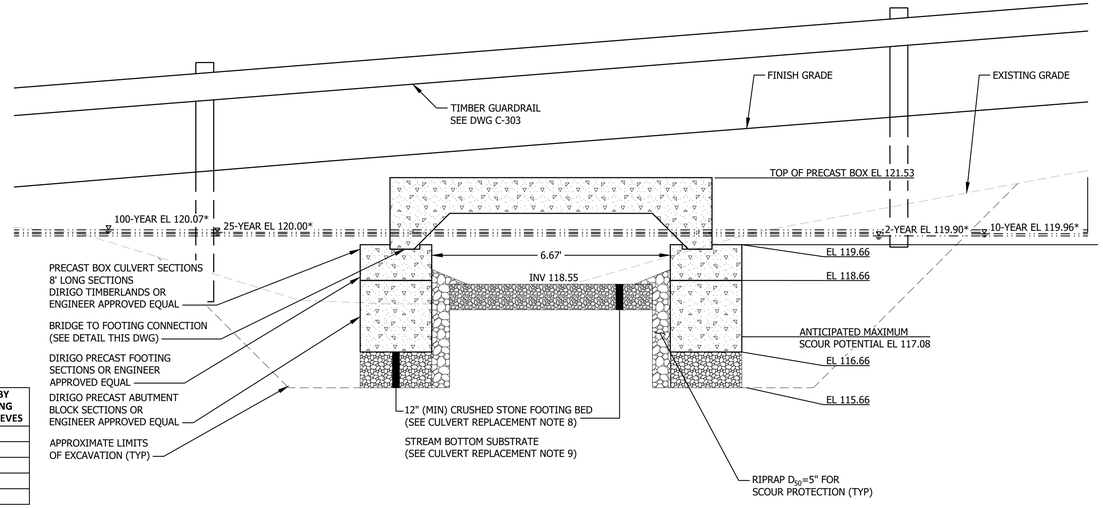


A SECTION A
C-105

5 0 10 20 FEET (HORZ)
5 0 10 20 FEET (VERT)



ARCH TO FOOTING CONNECTION
NTS



B SECTION B
C-105

5 0 10 20 FEET (HORZ)
5 0 10 20 FEET (VERT)

CULVERT CONSTRUCTION NOTES:

1. ALL WORK SHALL BE SCHEDULED TO START AFTER JULY 15, 2021 AND BE CONCLUDED BEFORE OCTOBER 1, 2021.
2. ALL WORK SHALL BE IN ACCORDANCE WITH THE STREAM CROSSING STANDARDS CONTAINED IN THE STATE OF MAINE, DEPARTMENT OF ENVIRONMENTAL PROTECTION, NATURAL RESOURCE PROTECTION ACT, PERMIT BY RULE STANDARDS, CHAPTER 305, AS CURRENTLY REVISED. ADDITIONALLY ALL WORK SHALL MEET OR EXCEED THE EXPECTATIONS OF THE MAINE AUDUBON "STREAM SMART" GUIDELINE FOR FISH FRIENDLY STREAM CROSSINGS.
3. EROSION AND SEDIMENT CONTROLS SHALL COMPLY WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPs, DATED OCTOBER 2016, OR AS CURRENTLY REVISED.
4. LOCATION, ORIENTATION AND INVERT OF PRECAST CONCRETE ARCH AND FOOTING BLOCKS MAY BE ADJUSTED TO MEET FIELD CONDITIONS FOUND AT THE TIME OF CONSTRUCTION.
5. PRECAST CONCRETE ARCH AND FOOTING BLOCKS SHALL BE MANUFACTURED BY DIRIGO BRIDGE CO. OF NORTH ANSON, MAINE.
6. MINIMIZE DISTURBANCE TO EXISTING SUBSURFACE STREAM BED MATERIAL TO THE GREATEST EXTENT POSSIBLE.
7. GROUT SHALL BE NON-SHRINK SIKAGROUT 328 BY SIKA CORPORATION OR ENGINEER APPROVED EQUAL.
8. 3/4-INCH CRUSHED STONE SHALL MEET THE FOLLOWING GRADATION:

SIEVE DESIGNATION	PERCENTAGE BY WEIGHT PASSING SQUARE MESH SIEVES
1 INCH	100.00
3/4 INCH	90-100
1/2 INCH	20-55
3/8 INCH	0-15
No. 4	0-5

9. EXISTING STREAM SUBSTRATE TO REMAIN INTACT TO THE GREATEST EXTENT PRACTICABLE. ANY REQUIRED SUPPLEMENTAL GRAVEL SHALL MEET THE REQUIREMENTS OF MEDOT TYPE D GRAVEL (703.06C). MATERIAL SHALL NOT CONTAIN PARTICLES OF ROCK WHICH WILL NOT PASS THE 6-INCH SQUARE MESH SIEVE. THE GRADATION OF THE MATERIAL THAT PASSES THE 3-INCH SIEVE SHALL MEET THE FOLLOWING REQUIREMENTS:

SIEVE DESIGNATION	PERCENTAGE BY WEIGHT PASSING SQUARE MESH SIEVES
1/2 INCH	35-80
1/4 INCH	25-65
No. 40	0-30
No. 200	0-7.0

10. PRECAST CONCRETE ARCH AND FOOTINGS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.
11. FINAL FOOTING DIMENSIONS TO BE DETERMINED BASED ON OBSERVATION OF SUBGRADE MATERIAL BY ENGINEER AT TIME OF CONSTRUCTION.

REV.	BY	DATE	STATUS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW

STATE OF MAINE
DANIEL P. GRIFFIN
11841
LICENSED PROFESSIONAL ENGINEER
5/28/21

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

SECTIONS AND DETAILS

SME
SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

DESIGN BY:	AML
DRAWN BY:	SJM
DATE:	5/2021
CHECKED BY:	DPD
LMN:	SITE
CTB:	SME-STD

JOB NO. 21241.01 DWG FILE DETAILS

C-304

STORMWATER MANAGEMENT LEGEND

SC-1	SUBCATCHMENT DESIGNATION
	SUBCATCHMENT BOUNDARY
A B C	TIME OF CONCENTRATION SEGMENT DESIGNATION TIME OF CONCENTRATION PATH
Sht L=50' S=0.005	TIME OF CONCENTRATION TYPE, LENGTH AND SLOPE. (75% TEXT HT)
Sht	SHEET FLOW
Shc	SHALLOW CONCENTRATED FLOW
Cf	CHANNEL FLOW
	DRAINAGE REACH
R4	REACH DESIGNATION (HYDROCAD)
P9	POND/STRUCTURE DESIGNATION (HYDROCAD)
tc 1	TIME OF CONCENTRATION WITH SUBCATCHMENT DESIGNATION
	SOIL TYPE BOUNDARY
Su	SOIL TYPE DESIGNATION

SOILS LEGEND

HfC	HARTLAND - HSG B
HrC	LYMAN/TUNBRIDGE - HSG D
HsC	LYMAN/ABRAMS - HSG D
Su	SUFFIELD - HSG C

NOTES:

1. SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.

15 0 30 60 FEET

REV.	BY	DATE	STATUS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW

STATE OF MAINE · DANIEL P. GRIFFIN · 11841 · REGISTERED PROFESSIONAL ENGINEER

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

STORMWATER MANAGEMENT PLAN
PRE-DEVELOPMENT CONDITIONS

SME
SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

DESIGN BY:	AML
DRAWN BY:	SJM
DATE:	5/2021
CHECKED BY:	DPD
LMN:	SMP-E
CTB:	SME-STD

JOB NO. 21241.01 DWG FILE BASE

D-100

STORMWATER MANAGEMENT LEGEND

SC-1C	SUBCATCHMENT DESIGNATION
	SUBCATCHMENT BOUNDARY
A B C	TIME OF CONCENTRATION SEGMENT DESIGNATION TIME OF CONCENTRATION PATH
Sht L=100' S=0.035	TIME OF CONCENTRATION TYPE, LENGTH AND SLOPE. (75% TEXT HT)
Sht	SHEET FLOW
Shc	SHALLOW CONCENTRATED FLOW
Cf	CHANNEL FLOW
	DRAINAGE REACH
R4	REACH DESIGNATION (HYDROCAD)
P9	POND/STRUCTURE DESIGNATION (HYDROCAD)
tc 2	TIME OF CONCENTRATION WITH SUBCATCHMENT DESIGNATION
	SOIL TYPE BOUNDARY
Su	SOIL TYPE DESIGNATION

SOILS LEGEND

HfC	HARTLAND - HSG B
HrC	LYMAN/TUNBRIDGE - HSG D
HsC	LYMAN/ABRAMS - HSG D
Su	SUFFIELD - HSG C

NOTES:

1. SEE DWG C-100 FOR PLAN REFERENCES AND ORIGINS OF TOPOGRAPHIC INFORMATION.

REV.	BY	DATE	STATUS
	DPD	5/2021	ISSUED TO TOWN AND MEDEP FOR REVIEW

STATE OF MAINE
DANIEL P. GRIFFIN
11841
REGISTERED PROFESSIONAL ENGINEER
5/26/21

SNELL CONSTRUCTION LLC
BROAD COVE RIDGE CONDOMINIUMS
100 US ROUTE 1
CUMBERLAND, MAINE

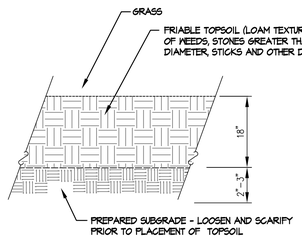
STORMWATER MANAGEMENT PLAN
POST-DEVELOPMENT CONDITIONS

SME
SEVEE & MAHER ENGINEERS
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE
4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021
Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com

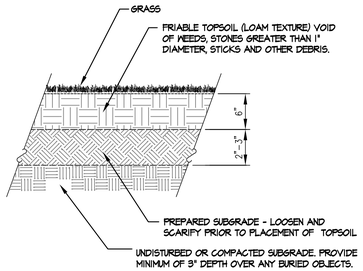
DESIGN BY:	AML
DRAWN BY:	SJM
DATE:	5/2021
CHECKED BY:	DPD
LMN:	SMP-P
CTB:	SME-STD

JOB NO. 21241.01 DWG FILE BASE

D-101

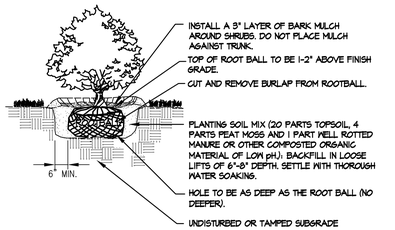


1 SHRUB BED INSTALLATION
SCALE: NTS



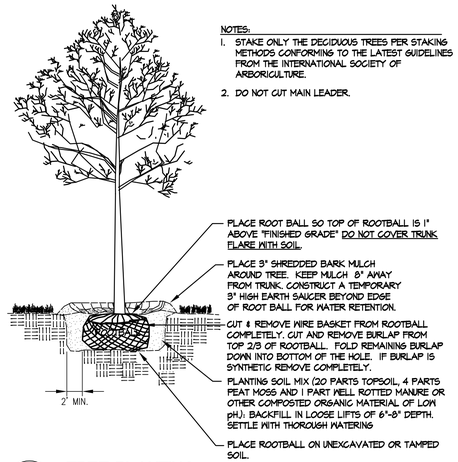
2 LAWN INSTALLATION
SCALE: NTS

NOTES:
1. CONSTRUCT TEMPORARY PLANT SAUCER FROM MULCH TO ASSIST WITH WATER RETENTION. SAUCER NOT REQUIRED WHEN SHRUB OCCURS IN A PLANT BED.
2. WHEN PLANTING CONTAINER GROWN PLANTS-REMOVE THE BALL FROM THE CONTAINER AND LOOSEN THE OUTSIDE LAYER OF THE ROOT SYSTEM BY SCORING WITH A CLEAN KNIFE. DIVIDE ALL CIRCLING ROOTS.
3. SHRUBS TO BE WATERED IMMEDIATELY AFTER PLANTING.

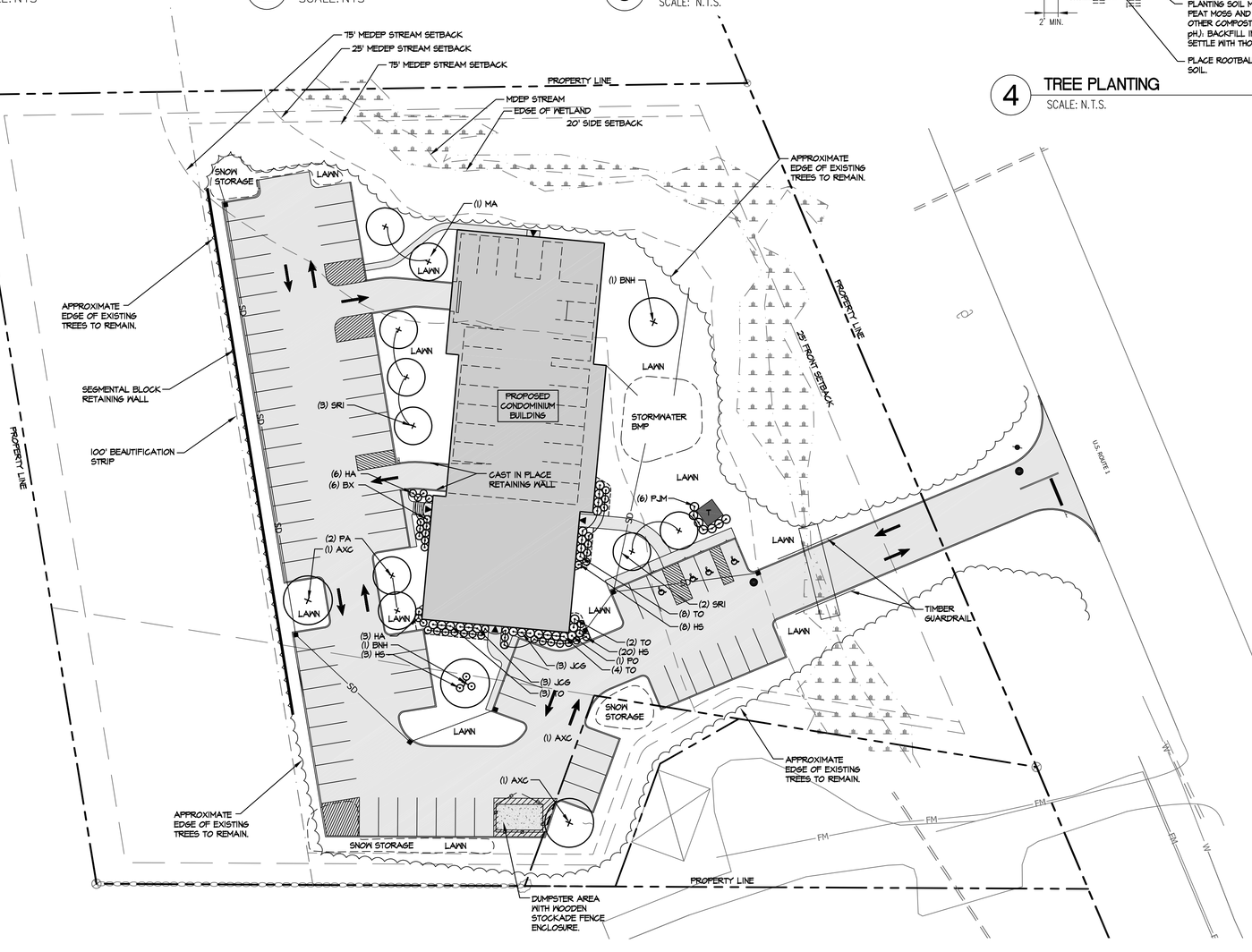


3 SHRUB PLANTING DETAIL
SCALE: N.T.S.

NOTES:
1. STAKE ONLY THE DECIDUOUS TREES PER STAKING METHODS CONFORMING TO THE LATEST GUIDELINES FROM THE INTERNATIONAL SOCIETY OF ARBORICULTURE.
2. DO NOT CUT MAIN LEADER.



4 TREE PLANTING
SCALE: N.T.S.



LANDSCAPE NOTES:

1. PRIOR TO THE START OF ANY EXCAVATION FOR THE PROJECT BOTH ON AND OFF THE SITE, THE CONTRACTOR SHALL NOTIFY DIGSAFE AND BE PROVIDED WITH A DIGSAFE NUMBER INDICATING THAT ALL EXISTING UTILITIES HAVE BEEN LOCATED AND MARKED.
2. ANY TREES DESIGNATED TO REMAIN THAT ARE DAMAGED OR REMOVED DURING CONSTRUCTION, SHALL BE REPLACED WITH TREES EQUALING THE SPECIES AND CALIPER LOST.
3. LANDSCAPE CONTRACTOR IS ENCOURAGED TO PROVIDE THE LANDSCAPE ARCHITECT WITH CONCERNS AND/OR SUGGESTIONS WITH REGARDS TO PROPOSED PLANT MATERIAL SELECTION PRIOR TO PLACING A PURCHASE ORDER.
4. THE LANDSCAPE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE ALL PLANTINGS SHOWN GRAPHICALLY ON THIS DRAWING. CLARIFY ANY DISCREPANCIES WITH THE LANDSCAPE ARCHITECT PRIOR TO PRICING ANY PLANT MATERIAL.
5. ALL PLANT MATERIALS SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S "AMERICAN STANDARD OF NURSERY STOCK".
6. ALL PLANT MATERIALS ARE SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE AT THE SITE. PLANTS WHICH ARE REJECTED SHALL BE REMOVED FROM THE SITE IMMEDIATELY AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
7. MULCH FOR PLANTED AREAS TO BE AGED SPRUCE AND FIR BARK, PARTIALLY DECOMPOSED, DARK BROWN IN COLOR AND FREE OF WOOD CHIPS THICKER THAN 1/4 INCH.
8. NO PLANTS SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING AND BEFORE CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
9. ALL SHRUB GROUPINGS SHALL BE INCORPORATED INTO BEDS. WHERE MULCHED PLANT BED ABUTS LAWN, CONTRACTOR SHALL PROVIDE A TURF CUT EDGE.
10. PRUNE TREES ALONG WALKS AND PARKING AREA SO LOWER BRANCHS ARE NO LOWER THAN 6' HT. MIN.
11. ALL PLANT MATERIAL OR REPRESENTATIVE SAMPLES SHALL BE LEGIBLY TAGGED WITH PROPER COMMON AND BOTANICAL NAMES. TAGS SHALL REMAIN ON THE PLANTS UNTIL FINAL ACCEPTANCE.
12. CONTRACTOR SHALL LOAMED DISTURBED AREAS AS FOLLOWS:
    - LAWN AREAS 6" MIN. DEPTH OF TOPSOIL (LOAM)
    - PLANT BEDS 18" TOPSOIL (LOAM).
    - 10'x10' SQUARE AROUND THE PROPOSED TREES 24" TOPSOIL (LOAM).
13. LAWN AREAS CALLED OUT TO BE SEEDED SHALL BE SEEDED WITH "COTTAGE MIX" AS DISTRIBUTED BY ALLEN, STERLING & LOTHRUP OF FALMOUTH MAINE. SEED AT THE RATE RECOMMENDED BY THE DISTRIBUTOR BUT NOT LESS THAN 5 LBS. PER 1,000 S.F. LAWN AREAS CALLED OUT TO BE SOD SHALL BE SODDED WITH HIGH QUALITY SOD MADE UP OF A GRASS BLEND FOR SUNNY AREAS OR SHADE AREAS DEPENDING ON THE LOCATION OF THE AREA TO BE SODDED.
14. CONTRACTOR SHALL BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING AND WILL CONTINUE UNTIL FINAL ACCEPTANCE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS AND METHODS OF WATERING AND MAINTENANCE.
15. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR ONE (1) FULL YEAR FROM DATE OF FINAL ACCEPTANCE.
16. SCREENED IMAGES SHOW EXISTING CONDITIONS. WHERE EXISTING CONDITIONS LIE UNDER OR ARE IMPINGED UPON BY PROPOSED BUILDINGS AND OR SITE ELEMENTS, THE EXISTING CONDITION WILL BE REMOVED, ABANDONED AND OR CAPPED OR DEMOLISHED AS REQUIRED.
17. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
18. THE CONTRACTOR SHALL INSTALL WATERING BAGS SUCH AS THE TREEGATOR ON ALL TREES AT THE TIME OF INSTALLATION. BAGS TO BE LEFT ON UNTIL FREEZING TEMPERATURES.

PLANT LIST:

SYMBOL	BOTANICAL NAME	COMMON NAME	QTY	SIZE	COMMENTS
DECIDUOUS TREES					
AXC	ACER X FREEMANI 'CELEBRATION'	CELZAM MAPLE	2	2" CAL.	SINGLE LEADER, B&B
BNH	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	2	12'-14' HT.	CLUMP, B&B
MA	MALUS 'ADIRONDACK'	ADIRONDACK CRABAPPLE	2	1.5' CAL.	SINGLE LEADER, B&B
PA	PRUNUS X ACCOLADE	ACCOLADE CHERRY	2	1.5' CAL.	SINGLE LEADER, B&B
SRI	SYRINGA RETICULATA 'IVORY SILK'	IVORY SILK JAPANESE TREE LILAC	5	1.5' CAL.	SINGLE LEADER, B&B
SHRUBS, GROUNDCOVERS & HERBACEOUS MATERIALS					
BX	BUXUS X GREEN VELVET'	GREEN VELVET BOXWOOD	6	5 GAL.	FULL & BUSHY
HA	HOSTA AUGUST MOON	AUGUST MOON HOSTA	9	1 GAL.	-
HS	HEMEROCALLIS 'STELLA D' ORO'	STELLA D' ORO DAYLILY	28	1 GAL.	-
JCG	JUNIPERUS CHINENSIS 'CASINO GOLD'	CASINO GOLD JUNIPER	6	24" SPD.	FULL & BUSHY
PJM	RHODODENDRON P.J.M 'COMPACTA'	COMPACT P.J.M RHODODENDROM	6	24" HT.	FULL & BUSHY
PO	PHYSOCARPUS OPULIFOLIUS 'LITTLE DEVIL'	LITTLE DEVIL NINEBARK	1	3'-4' HT.	FULL & BUSHY
TO	THUJA O. 'MR. BOWLING BALL'	MR. BOWLING BALL ARBORVITAE	17	24" HT.	FULL & BUSHY

REV.	DATE	STATUS	DEPT. BY	CHKD.	APPD.
A	5/25/21	ISSUED FOR SITE PLAN REVIEW	PBB	PBB	

LICENSED LANDSCAPE ARCHITECT
PETER B. BIEGEL
NO. 2624
STATE OF MAINE
5/25/21

LAND DESIGN SOLUTIONS
LAND PLANNING, SITE PLANNING & LANDSCAPE ARCHITECTURE
1 Faraday Drive, Suite 7, Cumberland, ME 04021 tel:(207) 939-1717

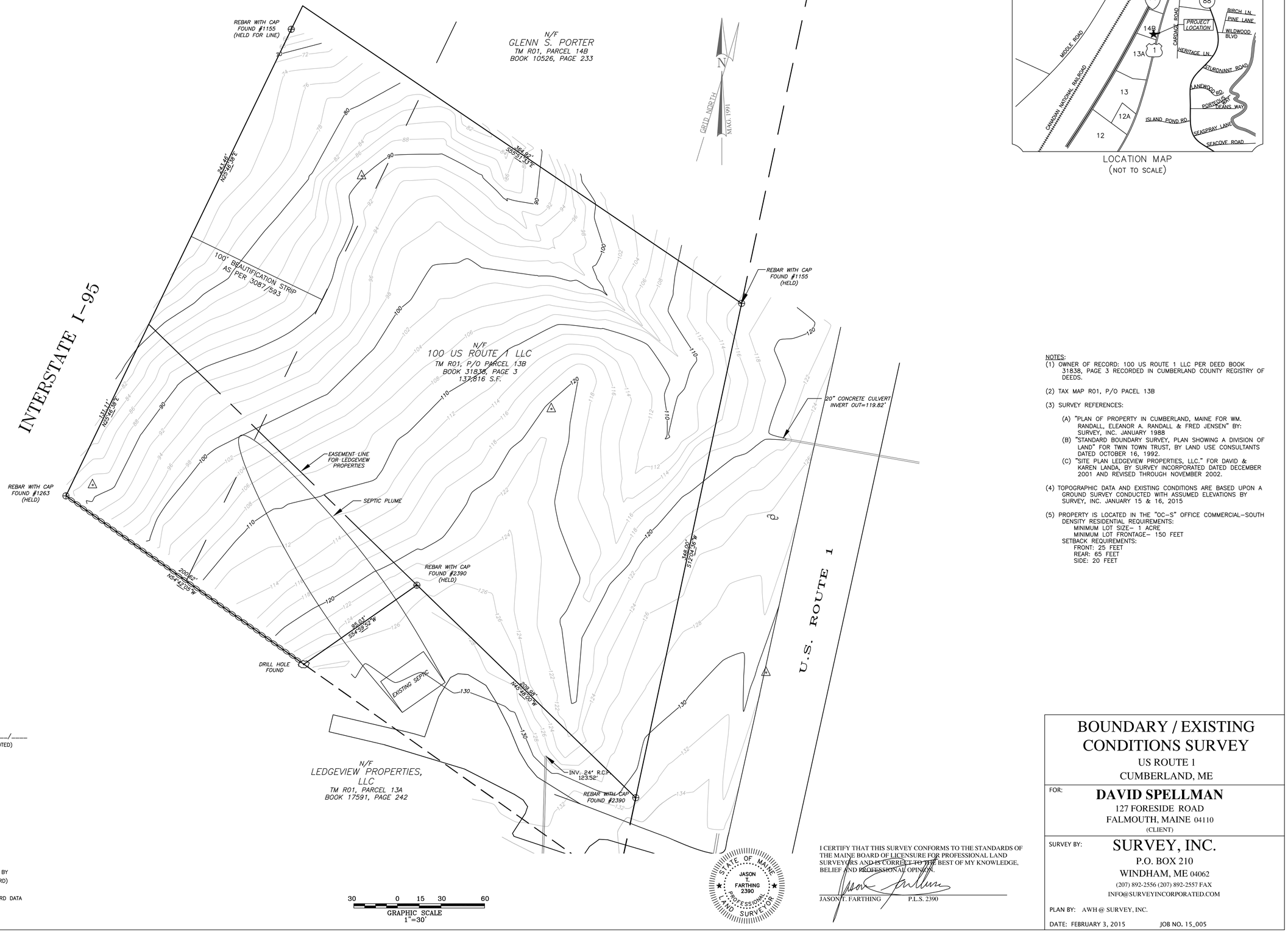
CLIENT:
SEVEE & MAHER ENGINEERS INC.
4 BLANCHARD ROAD, CUMBERLAND CENTER, MAINE

DESIGN: PBB
DRAWN: DEPT.
CHKD: PBB
DATE: MAY 2021
SCALE: 1"=30'

BROAD COVE RIDGE CONDOMIMIUMS
102 US ROUTE ONE, CUMBERLAND, MAINE

LANDSCAPE PLAN

PROJ. NO. 21-116
DWG. NO. L-1
REV. A



LOCATION MAP
(NOT TO SCALE)

NOTES:
(1) OWNER OF RECORD: 100 US ROUTE 1 LLC PER DEED BOOK 31838, PAGE 3 RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS.

(2) TAX MAP R01, P/O PACEL 13B

(3) SURVEY REFERENCES:

(A) "PLAN OF PROPERTY IN CUMBERLAND, MAINE FOR WM. RANDALL, ELEANOR A. RANDALL & FRED JENSEN" BY: SURVEY, INC. JANUARY 1988
(B) "STANDARD BOUNDARY SURVEY, PLAN SHOWING A DIVISION OF LAND" FOR TWIN TOWN TRUST, BY LAND USE CONSULTANTS DATED OCTOBER 16, 1992.
(C) "SITE PLAN LEDGEVIEW PROPERTIES, LLC." FOR DAVID & KAREN LANDA, BY SURVEY INCORPORATED DATED DECEMBER 2001 AND REVISED THROUGH NOVEMBER 2002.

(4) TOPOGRAPHIC DATA AND EXISTING CONDITIONS ARE BASED UPON A GROUND SURVEY CONDUCTED WITH ASSUMED ELEVATIONS BY SURVEY, INC. JANUARY 15 & 16, 2015

(5) PROPERTY IS LOCATED IN THE "OC-S" OFFICE COMMERCIAL-SOUTH DENSITY RESIDENTIAL REQUIREMENTS:
MINIMUM LOT SIZE- 1 ACRE
MINIMUM LOT FRONTAGE- 150 FEET
SETBACK REQUIREMENTS:
FRONT: 25 FEET
REAR: 65 FEET
SIDE: 20 FEET

LEGEND:

- #5 REBAR WITH PLASTIC CAP STAMPED "SURVEY, INC. PLS 2390" SET ON ___/___/_____
- FOUND IRON PIPE (SIZE & TYPE AS NOTED)
- FOUND DRILL HOLE
- FOUND IRON ROD
- UTILITY POLE (NUMBER AS NOTED)
- GUY WIRE ANCHOR

- STONEWALL
- BOUNDARY LINE
- EASEMENT LINE
- EDGE OF GRAVEL
- EDGE OF PAVEMENT
- RIGHT-OF-WAY LINE
- ABUTTER LINE
- OVERHEAD UTILITY
- N/F — NOW OR FORMERLY OWNED BY
- 1234/567 — DEED BOOK AND PAGE (CCRD)
- 12-45 — TAX MAP-LOT
- (123.45') — PARENTHESIS DENOTE RECORD DATA

30 0 15 30 60
GRAPHIC SCALE
1"=30'

STATE OF MAINE
JASON T. FARTHING
2390
PROFESSIONAL LAND SURVEYOR

I CERTIFY THAT THIS SURVEY CONFORMS TO THE STANDARDS OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS AND IS CORRECT TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL OPINION.

JASON T. FARTHING P.L.S. 2390

BOUNDARY / EXISTING CONDITIONS SURVEY

US ROUTE 1
CUMBERLAND, ME

FOR:
DAVID SPELLMAN
127 FORESIDE ROAD
FALMOUTH, MAINE 04110
(CLIENT)

SURVEY BY:
SURVEY, INC.
P.O. BOX 210
WINDHAM, ME 04062
(207) 892-2556 (207) 892-2557 FAX
INFO@SURVEYINCORPORATED.COM

PLAN BY: AWH @ SURVEY, INC.

DATE: FEBRUARY 3, 2015 JOB NO. 15_005