ALTUS ENGINEERING, INC.

*Civil*
*Site Planning*
*Environmental*
*Engineering*

133 Court Street
Portsmouth, NH
03801-4413

December 22, 2021

Kittery Planning Board
200 Rogers Road
Kittery, Maine 03904

**Re: Preliminary Site plan Review Application**
**Wyman Hill**
**28 Wyman Avenue**
**Kittery, Maine**

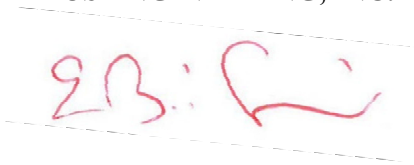
Dear Members of the Board,

On behalf of the applicant, Lusitano, LLC, we respectfully submit a Preliminary Site Plan Review application for property located at 28 Wyman Avenue. The property currently hosts a residential dwelling used as a boarding house and is primarily open lawn except for a small section of wooded wetland on the north perimeter. The application contemplates the construction of three single-family detached houses together with associated site improvements.

If you have any questions or need additional information, please contact us. Thank you for your time and consideration.

Sincerely,

**ALTUS ENGINEERING, INC.**



Erik B. Saari
Vice President

ebs/5116.aa-CoverLetter-122221

Enclosures

Preliminary Site Plan Review

**PSPR-21-5**

### Your Submission

Attachments

Guests (0)

- Finance Review
  - Planning Department Review
  - Subdivision Application Payment
  - Peer Engineer Review
  - Sewer Approval
  - Planning Department Schedules Date with the Planning Board
  - Planning Dept - Final Draft
  - Planning Board to Sign Mylar
  - Planning Dept - Registered Mylar Sign Off
  - Planning Board Decision - Upload Findings of Fact

## Your submission

Submitted Dec 22, 2021 at 12:36pm

### Contact Information

**Erik Saari**

Email address

esaari@altus-eng.com

Phone Number

603-433-2335

Mailing Address

Altus Engineering, Inc. 133 Court Street, Portsmouth, NH 03801

## Location

**28 WYMAN AVENUE**
KITTERY, ME 03904


## Property Owner Information

First Name *

Lusitano, LLC

Last Name

--

Mailing Address *

119 KINGS HIGHWAY NORTH

Phone Number *

6,175,016,149

Email Address *

jimhiggins05@comcast.net

Fax Number

1

## Agent Information

First Name
Erik

Last Name *
Saari

Firm *
Altus Engineering, Inc.

Phone Number *
6,034,332,335

Email *
esaari@altus-eng.com

Mailing Address *
esaari@altus-eng.com

Fax Number
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**Property Details**

Property Address *
28 Wyman Ave.

Tax Map and Lot *
Map 16 Lot148

Base Zone(s) *
R-U

Overlay(s) *
None

Total Acreage of Existing Lot * ❓
1.9

Disturbed Land * ❓

No

MS4 *

No

## Project Information

Existing Use *

Boarding House

Proposed Development Use *

Residential

Ownership *

Condominium

Homeowner's Association *

Yes

Site Plan Name *

Wyman Hill

Development Constraints

Wetlands are present on the northeast corner of the site.

## Waiver Request (Submittal Information or Development Standard)

No results to display

## Certification

I certify, to the best of my knowledge, the information provided in this application is true and correct, abutters to the project have been notified, and I will not deviate from the Plan submitted without notifying the Kittery Planning Department of any changes *

☑

Applicant is *

Owner's Agent

# 150 foot Abutters List Report

Kittery, ME
December 20, 2021

**Subject Property:**

| | | | |
|---|---|---|---|
| Parcel Number: | 16-148 | Mailing Address: | LUSITANO LLC |
| CAMA Number: | 16-148 | | 119 KING'S HIGHWAY NORTH |
| Property Address: | 28 WYMAN AVENUE | | ELIOT, ME 03903 |

**Abutters:**

| | | | |
|---|---|---|---|
| Parcel Number: | 10-110 | Mailing Address: | SCHENKER, JANICE C YAZGAN, YALCIN |
| CAMA Number: | 10-110 | | 29 TILTON AVENUE |
| Property Address: | 29 TILTON AVENUE | | KITTERY, ME 03904-1310 |
| Parcel Number: | 10-111 | Mailing Address: | BROWN, SARAH E. |
| CAMA Number: | 10-111 | | 31 TILTON AVENUE |
| Property Address: | 31 TILTON AVENUE | | KITTERY, ME 03904 |
| Parcel Number: | 10-112 | Mailing Address: | DEROSIER, MARA T. |
| CAMA Number: | 10-112 | | 13 DEAN ROAD |
| Property Address: | 33 TILTON AVENUE | | YORK, ME 03909-6704 |
| Parcel Number: | 10-94 | Mailing Address: | CONROY, PEGGY J |
| CAMA Number: | 10-94 | | 17 WYMAN AVENUE |
| Property Address: | 17 WYMAN AVENUE | | KITTERY, ME 03904-1317 |
| Parcel Number: | 10-95 | Mailing Address: | NAVISH, JOHN F NAVISH, MARY P |
| CAMA Number: | 10-95 | | 21 WYMAN AVENUE |
| Property Address: | 21 WYMAN AVENUE | | KITTERY, ME 03904-1317 |
| Parcel Number: | 10-96 | Mailing Address: | REUTER, ERIC L. HERBOLD, STACEY P. |
| CAMA Number: | 10-96 | | 23 WYMAN AVENUE |
| Property Address: | 23 WYMAN AVENUE | | KITTERY, ME 03904 |
| Parcel Number: | 10-97 | Mailing Address: | NIVER, PATRICIA L. |
| CAMA Number: | 10-97 | | 22 WYMAN AVENUE |
| Property Address: | 22 WYMAN AVENUE | | KITTERY, ME 03904 |
| Parcel Number: | 10-98 | Mailing Address: | MCKAY, ELIZABETH GEHRON, MICHAEL |
| CAMA Number: | 10-98 | | 18 WYMAN AVENUE |
| Property Address: | 18 WYMAN AVENUE | | KITTERY, ME 03904-1318 |
| Parcel Number: | 16-145 | Mailing Address: | SPRUCE CREEK CONDOMINIUM |
| CAMA Number: | 16-145 | | 50 WYMAN AVE |
| Property Address: | 50 WYMAN AVENUE | | KITTERY, ME 03904 |
| Parcel Number: | 16-145A | Mailing Address: | DELANEY, MITCHELL |
| CAMA Number: | 16-145A | | 50A WYMAN AVENUE |
| Property Address: | 50 A WYMAN AVENUE | | KITTERY, ME 03904 |

# 150 foot Abutters List Report

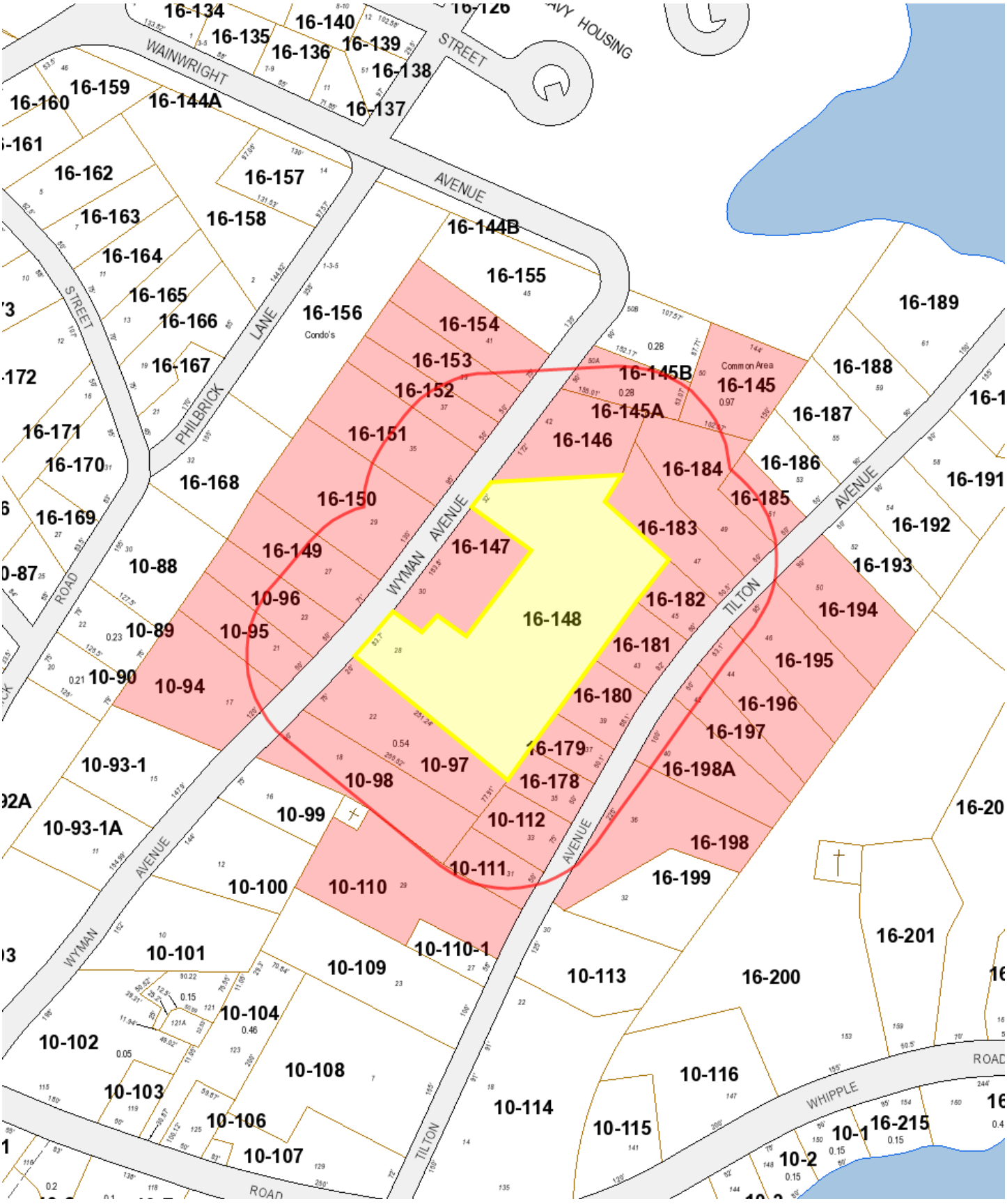
Kittery, ME
December 20, 2021

| | | | |
|---|---|---|---|
| Parcel Number: | 16-146 | Mailing Address: | BRACY, JEDIDIAH D BRACY, MARY ELIZABETH |
| CAMA Number: | 16-146 | | 42 WYMAN AVENUE |
| Property Address: | 42 WYMAN AVENUE | | KITTERY, ME 03904 |
| Parcel Number: | 16-147 | Mailing Address: | THE JOHN S. KULIGA REV. TRUST |
| CAMA Number: | 16-147 | | KULIGA, JOHN S. TR |
| Property Address: | 30 WYMAN AVENUE | | 30 WYMAN AVENUE |
| | | | KITTERY, ME 03904 |
| Parcel Number: | 16-149 | Mailing Address: | SOLEAU, JASON E SOLEAU, SARAH |
| CAMA Number: | 16-149 | | 138 BEECH RIDGE ROAD |
| Property Address: | 27 WYMAN AVENUE | | YORK, ME 03909 |
| Parcel Number: | 16-150 | Mailing Address: | PRIDE, JEFFREY A PRIDE, ANDREE L |
| CAMA Number: | 16-150 | | 29 WYMAN AVENUE |
| Property Address: | 29 WYMAN AVENUE | | KITTERY, ME 03904-1317 |
| Parcel Number: | 16-151 | Mailing Address: | HENRY, CHRISTOPHER P. HENRY, JULIA |
| CAMA Number: | 16-151 | | 35 WYMAN AVE |
| Property Address: | 35 WYMAN AVENUE | | KITTERY, ME 03904 |
| Parcel Number: | 16-152 | Mailing Address: | SMALL, ALBERT W SMALL, PATRICIA K |
| CAMA Number: | 16-152 | | 37 WYMAN AVENUE |
| Property Address: | 37 WYMAN AVENUE | | KITTERY, ME 03904-1317 |
| Parcel Number: | 16-153 | Mailing Address: | FITZGERALD TR, CARL E FITZGERALD TR, DELORES E |
| CAMA Number: | 16-153 | | 21 WENTWORTH STREET |
| Property Address: | 39 WYMAN AVENUE | | KITTERY, ME 03904-1720 |
| Parcel Number: | 16-154 | Mailing Address: | O'BRIEN, NICHOLAS D. MAILMAN, KATRINA A. |
| CAMA Number: | 16-154 | | 41 WYMAN AVE |
| Property Address: | 41 WYMAN AVENUE | | KITTERY, ME 03904 |
| Parcel Number: | 16-178 | Mailing Address: | SANDQUIST, BRETT SANDQUIST, PAMELA |
| CAMA Number: | 16-178 | | 35 TILTON AVENUE |
| Property Address: | 35 TILTON AVENUE | | KITTERY, ME 03904 |
| Parcel Number: | 16-179 | Mailing Address: | CAREY, MARY H. |
| CAMA Number: | 16-179 | | 37 TILTON AVENUE |
| Property Address: | 37 TILTON AVENUE | | KITTERY, ME 03904 |
| Parcel Number: | 16-180 | Mailing Address: | CLEARY, JENNIFER L. CLEARY, COLEY J. |
| CAMA Number: | 16-180 | | 39 TILTON AVENUE |
| Property Address: | 39 TILTON AVENUE | | KITTERY, ME 03904 |
| Parcel Number: | 16-181 | Mailing Address: | MORRELL, ZEKE MORRELL, JODI |
| CAMA Number: | 16-181 | | 43 TILTON AVENUE |
| Property Address: | 43 TILTON AVENUE | | KITTERY, ME 03904-1310 |

# 150 foot Abutters List Report

Kittery, ME
December 20, 2021

| | | | |
|---|---|---|---|
| Parcel Number: | 16-182 | Mailing Address: | O'NEILL, SHEILA J WILSON, GRANT M |
| CAMA Number: | 16-182 | | 45 TILTON AVENUE |
| Property Address: | 45 TILTON AVENUE | | KITTERY, ME 03904-1310 |
| Parcel Number: | 16-183 | Mailing Address: | ROLLINS TR, TODD P ROLLINS TR, |
| CAMA Number: | 16-183 | | CHERIA CLOW |
| Property Address: | 47 TILTON AVENUE | | 47 TILTON AVENUE |
| | | | KITTERY, ME 03904 |
| Parcel Number: | 16-184 | Mailing Address: | GRASTY, THOMAS A GRASTY, SARA |
| CAMA Number: | 16-184 | | GALLANT |
| Property Address: | 49 TILTON AVENUE | | 49 TILTON AVENUE |
| | | | KITTERY, ME 03904-1310 |
| Parcel Number: | 16-185 | Mailing Address: | CAMBRIDGE, NANCY L CAMBRIDGE, |
| CAMA Number: | 16-185 | | KEVIN W |
| Property Address: | 51 TILTON AVENUE | | 51 TILTON AVENUE |
| | | | KITTERY, ME 03904 |
| Parcel Number: | 16-194 | Mailing Address: | PIERCE TR, ANN G THE PIERCE FAMILY |
| CAMA Number: | 16-194 | | REV TRUST |
| Property Address: | 50 TILTON AVENUE | | 6 ROSELLEN DRIVE |
| | | | KITTERY POINT, ME 03905 |
| Parcel Number: | 16-195 | Mailing Address: | FIMPLE, JOSEPH L FIMPLE, HELEN |
| CAMA Number: | 16-195 | | MARJORIE |
| Property Address: | 46 TILTON AVENUE | | 46 TILTON AVENUE |
| | | | KITTERY, ME 03904-1311 |
| Parcel Number: | 16-196 | Mailing Address: | BREEN, COURTNEY E MARBLE, |
| CAMA Number: | 16-196 | | PATRICK G |
| Property Address: | 44 TILTON AVENUE | | 44 TILTON AVENUE |
| | | | KITTERY, ME 03904 |
| Parcel Number: | 16-197 | Mailing Address: | KUETHE, BENJAMIN TAPSON, KELLY |
| CAMA Number: | 16-197 | | 42 TILTON AVENUE |
| Property Address: | 42 TILTON AVENUE | | KITTERY, ME 03904 |
| Parcel Number: | 16-198 | Mailing Address: | GALLESHAW, SERENA |
| CAMA Number: | 16-198 | | 36 TILTON AVENUE |
| Property Address: | 36 TILTON AVENUE | | KITTERY, ME 03904 |
| Parcel Number: | 16-198A | Mailing Address: | SLAUGENHOUP, RAY E |
| CAMA Number: | 16-198A | | 40 TILTON AVENUE |
| Property Address: | 40 TILTON AVENUE | | KITTERY, ME 03904-1311 |




Abutting Properties Within 150’ Radius of Project Site

ALTUS ENGINEERING, INC.

*Civil*
*Site Planning*
*Environmental*
*Engineering*

133 Court Street
Portsmouth, NH
03801-4413

December 20, 2021

Abutting Property Owner

**Re: Preliminary Site Plan**
**Tax Map 16, Lot 148**
**28 Wyman Avenue**
**Kittery, Maine 03904**
**Altus Project No. 5235**

Dear Abutter,

Pursuant to the Kittery Site Plan Review Regulations, this letter is to notify you that Lusitano, LLC is submitting a Preliminary Site Plan Review Application to the Town of Kittery for property at 28 Wyman Ave. in Kittery, Maine.

The application proposes to replace the existing boarding house on the property with three detached single-family homes together with associated site improvements.

**This letter is for the notification of abutting property owners only and no action by you is required.**

Once filed, the plans that show the proposed project will be available for viewing during normal business hours at the Town of Kittery Planning Department, 200 Rogers Road, Kittery, Maine.

Thank you for your time and consideration.

Sincerely,

**ALTUS ENGINEERING, INC.**

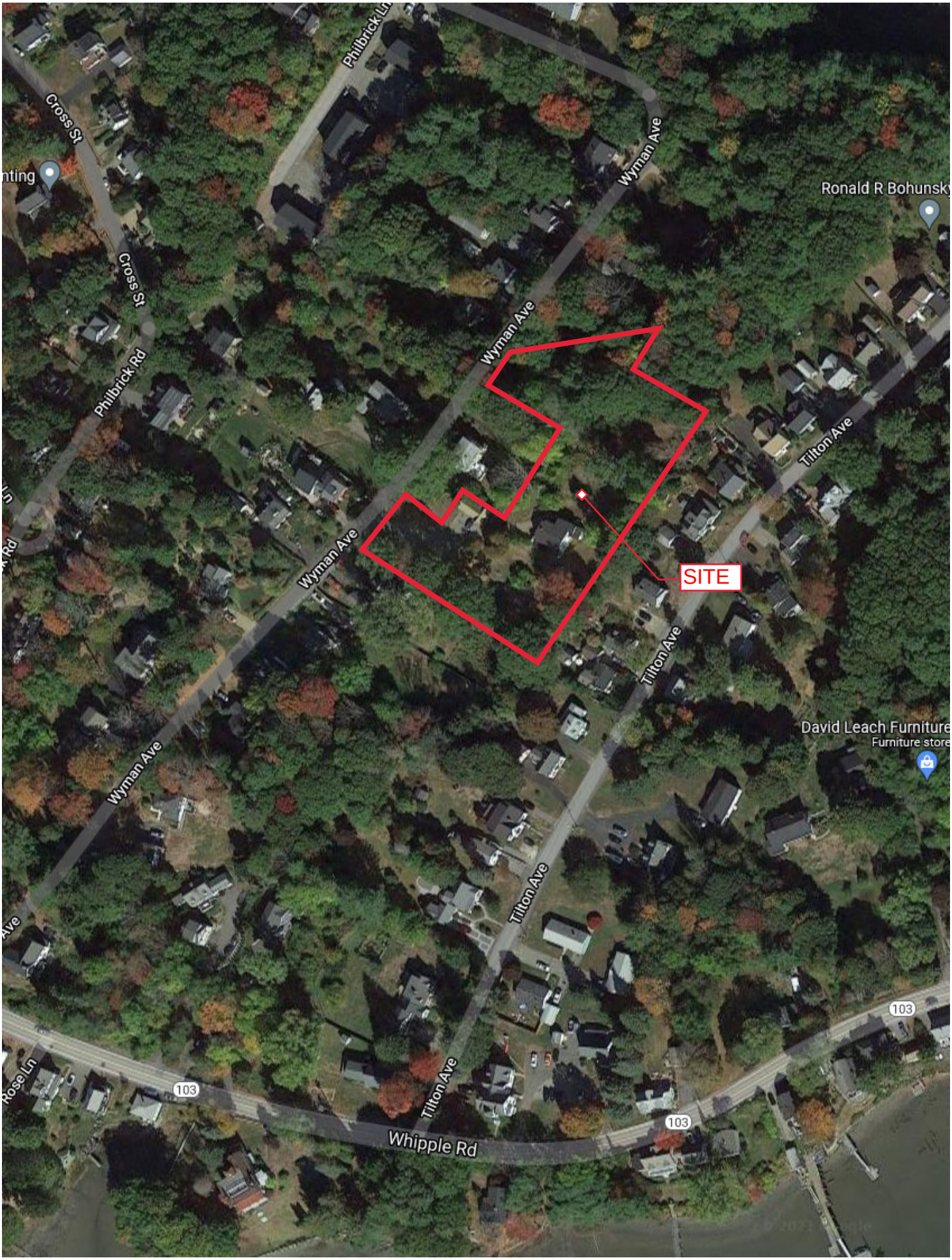
Erik B. Saari
Vice President

ebs/5235-AbutterLetter-122021

**Letter of Authorization**

I, Jim Higgins of Lusitano, LLC ("LLC"), hereby authorize Altus Engineering, Inc. of Portsmouth, NH to represent the LLC as the Owner and Applicant in all matters concerning the engineering and related permitting of a site plan on Kittery Tax Map 16, Lot 148 located at 28 Wyman Ave. in Kittery Maine. This authorization shall include any signatures required for Federal, State and Municipal permit applications.

| | | |
|---|---|---|
| Signature | JAMES D. HIGGINS<br>Jim Higgins | 12.21.21<br>Date |
| Witness | Katherine Powers<br>Print Name | 12.21.2021<br>Date |


Cross St
Philbrick Ln
Wyman Ave
Ronald R Bohunsky
Cross St
Philbrick Rd
Wyman Ave
Tilton Ave
SITE
Wyman Ave
Tilton Ave
David Leach Furniture
Furniture store
Wyman Ave
Tilton Ave
103
Rose Ln
103
Tilton Ave
Whipple Rd
103


SITE
Remick Corners
Shepherds Hill
Kittery
Admiralty Village
Briggs Corner
Eagle Point
Crocketts Neck
Kittery Point
Bedell Crossing
Kittery Foreside
Seavey Island
Jamaica Island
Hicks Rocks
Gooseberry Island
Fishing Island
Phillips Island
Gerrish Island
Sullivan Point
Clarks Island
Henderson Point
Peirce Island
New Castle
Salamander Point
Fort Point
Shaws Hill
Goat Island
Shapleigh Island
Frame Point
Pest Island
Boatswain Hill
New Castle Island
PORTSMOUTH
Lady Isle
Leachs Island
Clampit Island
Goose Island
Blunts Island
Jaffrey Point
Little Harbor
Sheafes Point
Frost Point
Foyes Corner
Odiorne Point
Wood Island
Horn Island
White Island
Whaleback Reef
White Island Reef
Phillips Rock
Kitts Rocks
Sewards Point
Seawards Cove
Pepperrell Cove
Piscataqua River
Spruce Creek
Chauncey Creek
Cutts Pond
Deerings Pond
Sagamore Creek
Witch Creek
Berrys Brook
Shepherds Hill Cove
Johnson Bank Cove
Gerry Cove
Chickering Cr
Hutchins Cr
Fuller Brook
Baxters Creek
Little Harbor
MAINE
NEW HAMPSHIRE
YORK CO
ROCKINGHAM CO

DEBRA L. ANDERSON, REGISTER OF DEEDS
E-RECORDED **Bk 17499 PG 681**
**Instr # 2017024137**
06/21/2017 04:07:45 PM
Pages 3 YORK CO

# DEED OF SALE BY PERSONAL REPRESENTATIVE

KNOW ALL MEN BY THESE PRESENTS

That **LINDA L. THERIAULT** of Eliot, County of York and State of Maine, duly appointed and acting **Personal Representative of the Estate of HARRY JOSEPH HANNIGAN a/k/a HARRY J. HANNIGAN**, deceased, who died testate, as shown by the probate records of the County of York, Maine, Docket No. 2015-0936, and having given notice to each person succeeding to an interest in the real property described below at least ten (10) days prior to the sale, by the power conferred by the Probate Code, and every other power, for consideration paid, grants to **LUSITANO LLC**, a Maine Limited Liability Company, % Rui Monteiro-Claro with a mailing address of 119 Kings Highway North, Eliot, ME 03903, all the right, title and interest of the Estate in and to the following described real estate, together with the buildings thereon, situate in Kittery, County of York and State of Maine and bounded as follows:

SEE Exhibit A attached hereto and made a part hereof.

Maine R.E. Transfer Tax Paid

BEING the same premises conveyed by Amelia M. Hannigan to Harry J. Hannigan and Patricia A. Hannigan as joint tenants by Deed dated August 4, 1986 and recorded in the York County Registry of Deeds, Book 3961, Page 42. The said Patricia A. Hannigan predeceased her husband, leaving Harry J. Hannigan the surviving joint tenant.

WITNESS my hand and seal this 20th day of June, 2017.

Witness

Linda L. Theriault
Personal Representative
of the Estate of
Harry Joseph Hannigan
a/k/a Harry J. Hannigan

STATE OF MAINE
YORK, ss. June 20, 2017

Then personally appeared the above-named LINDA L. THERIAULT in her said capacity as Personal Representative of the Estate of Harry Joseph Hannigan a/k/a Harry J. Hannigan and acknowledged the foregoing instrument to be her free act and deed,

Before me,

Donna M. Reynolds, Notary Public
My commission expires 6/30/22

Probate\HANNGAN-H.PRD.Wyman
16395-23817

28 Wyman Avenue
Kittery, Maine
Kittery Map 16, Lot 148

EXHIBIT A

A certain lot or parcel of land with the existing house and garage and all other improvements located thereon, depicted as **"TAX MAP 16, Lot 148, 82,839 square feet,1.90 acres"**, on plan entitled, **"Standard Boundary Survey for Property at 28 Wyman Avenue, Kittery, York County, Maine owned by Harry A. & Patricia J. Hannigan, 28 Wyman Avenue, Kittery, ME 03904,"** prepared by Easterly Surveying, Inc., 191 State Road, Suite #1, Kittery, Maine 03904, dated 4/3/08 and recorded in the York County Registry of Deeds on April 15, 2008 in Plan Book 329 at Page 7.

# STORMWATER INSPECTION AND MAINTENANCE MANUAL

## Wyman Hill
### Kittery Assessor's Map 16, Lot 148

**OWNER AT TIME OF APPROVAL:**
**Lusitano, LLC**
**119 King's Highway North**
**Elliot, Maine 03903**

Proper inspection, maintenance, and repair are key elements in maintaining a successful stormwater management program on a developed property. Routine inspections ensure permit compliance and reduce the potential for deterioration of infrastructure or reduced water quality. Inspections should also be carried out after any rainfall of 1" or more. Qualified inspectors shall be Professional Engineers licensed in the State of Maine or Certified Professionals in Erosion and Sediment Control. The following responsible parties shall be in charge of managing the stormwater facilities:

***RESPONSIBLE PARTIES:***

| | | | |
|---|---|---|---|
| ***Owner:*** | *Lusitano, LLC* | | *(617) 501-6149* |
| | *Name* | *Company* | *Phone* |
| ***Inspection:*** | *Lusitano, LLC* | | *(617) 501-6149* |
| | *Name* | *Company* | *Phone* |
| ***Maintenance:*** | *Lusitano, LLC* | | *(617) 501-6149* |
| | *Name* | *Company* | *Phone* |

***NOTES:***

***Inspection and maintenance responsibilities shall transfer to any future property owner(s).***

***This manual shall be updated as needed to reflect any changes related to any transfer of ownership and/or any delegation of inspection and maintenance responsibilities to any entity other than those listed above.***

ALTUS ENGINEERING, INC.

## GRASSED UNDERDRAINED SOIL FILTERS

Underdrain soil filters control stormwater quality by capturing and retaining runoff and passing it through a filter bed comprised of a specific media. The basin shall be inspected semi-annually and following major storm events for evidence of erosion, clogging or of bypass conditions.

Maintenance

- *Drainage:* The filter should within 24 to 48 hours following a one-inch storm or greater. If the system drains too fast, adjust the outlet release valve opening to regulate the outflow.
- *Sediment Removal*: Sediment and plant debris should be removed from the pretreatment structure at least annually.
- *Mowing*: If mowing is desired, only hand-held string trimmers or push-mowers are allowed on the filter (no tractor) and the grass bed should be mowed no more than 2 times per growing season to maintain grass heights of no less than 6 inches.
- *Fertilization:* Fertilization of the underdrained filter area should be avoided unless absolutely necessary to establish vegetation.
- *Weeding:* Weeding to control unwanted or invasive plants if necessary.
- *Grass cover:* Maintaining a healthy cover of grass will minimize clogging with fine sediments. If ponding exceeds 48 hours, the top of the filter bed should be rototilled to reestablish the soil's filtration capacity.
- *Soil Filter Replacement:* The top several inches of the filter can be replaced with fresh material if water is ponding for more than 72 hours, or the basin can be rototilled, seeded and mulched. Once the filter is mature, adding new material (a 1-inch to 2-inch cover of mature compost) can compensate for subsidence.

## CULVERTS AND DRAINAGE PIPES

*Function* – Culverts and drainage pipes convey stormwater away from buildings, walkways, and parking areas and to surface waters or closed drainage systems.

*Maintenance*

- Culverts and drainage pipes shall be inspected semi-annually, or more often as needed, for accumulation of debris and structural integrity. Leaves and other debris shall be removed from the inlet and outlet to insure the functionality of drainage structures. Debris shall be disposed of on site where it will not concentrate back at the drainage structures or at a solid waste disposal facility.
- Riprap Areas - Culvert outlets and inlets shall be inspected during annual maintenance and operations for erosion and scour. If scour or erosion is identified, the owner shall take appropriate means to prevent further erosion.

## YARD DRAINS

*Function* – Yard drains collect stormwater, primarily from paved surfaces, landscape areas and roofs.

*Maintenance*

- Remove leaves and debris from structure grates on an as-needed basis.
- Sumps shall be inspected and cleaned annually and any removed sediment and debris shall be disposed of at a solid waste disposal facility.

## LANDSCAPED AREAS - FERTILIZER MANAGEMENT

*Function* – Fertilizer management involves controlling the rate, timing and method of fertilizer application so that the nutrients are taken up by the plants thereby reducing the chance of polluting the surface and ground waters. Fertilizer management can be effective in reducing the amounts of phosphorus and nitrogen in runoff from landscaped areas, particularly lawns.

*Maintenance*

- Have the soil tested by your landscaper or local Soil Conservation Service for nutrient requirements and follow the recommendations.
- Do not apply fertilizer to frozen ground.
- Clean up any fertilizer spills.
- Do not allow fertilizer to be broadcast into water bodies.
- When fertilizing a lawn, water thoroughly, but do not create a situation where water runs off the surface of the lawn.

## LANDSCAPED AREAS - LITTER CONTROL

*Function* – Landscaped areas tend to filter debris and contaminates that may block drainage systems and pollute the surface and ground waters.

*Maintenance*

- Litter Control and lawn maintenance involves removing litter such as trash, leaves, lawn clippings, pet wastes, oil and chemicals from streets, parking lots, and lawns before materials are transported into surface waters.
- Litter control shall be implemented as part of the grounds maintenance program.

## VEGETATIVE SWALES

*Function* – Vegetative swales filter sediment from stormwater, promote infiltration, and the uptake of contaminates. They are designed to treat runoff and dispose of it safely into the natural drainage system.

*Maintenance*

- Timely maintenance is important to keep a swale in good working condition. Mowing of grassed swales shall be monthly to keep the vegetation in vigorous condition. The cut vegetation shall be removed to prevent the decaying organic litter from adding pollutants to the discharge from the swale.
- Fertilizing shall be bi-annual or as recommended from soil testing.
- Inspect swales following significant rainfall events.
- Woody vegetation shall not be allowed to become established in the swales or rock riprap outlet protection and if present shall be removed.
- Accumulated debris disrupts flow and leads to clogging and erosion. Remove debris and litter as necessary.
- Inspect for eroded areas. Determine cause of erosion and correct deficiency as required. Monitor repaired areas.

## RIP RAP OUTLETS, PLUNGE POOLS, SWALES, LEVEL SPREADERS AND BUFFERS

*Function* – Rip rap outlets and plunge pools slow the velocity of runoff, minimizing erosion and maximizing the treatment capabilities of associated buffers. Vegetated buffers, either forested or meadow, slow runoff which promotes and reduces peak rates of runoff. The reduced velocities and the presence of vegetation encourage the filtration of sediment and the limited bio-uptake of nutrients.

*Maintenance*

- Inspect riprap, level spreaders and buffers at least annually for signs of erosion, sediment buildup, or vegetation loss.
- Inspect level for signs of condensed flows. Level spreader and rip rap shall be maintained to disperse flows evenly over level spreader.
- If a meadow buffer, provide periodic mowing as needed to maintain a healthy stand of herbaceous vegetation.
- If a forested buffer, then the buffer should be maintained in an undisturbed condition, unless erosion occurs.
- If erosion of the buffer (forested or meadow) occurs, eroded areas should be repaired and replanted with vegetation similar to the remaining buffer. Corrective action should include eliminating the source of the erosion problem and may require retrofit or reconstruction of the level spreader.
- Remove debris and accumulated sediment and dispose of properly.

## GENERAL CLEAN UP

- Upon completion of the project, the contractor shall remove all temporary stormwater structures (i.e., temporary stone check dams, silt fence, temporary diversion swales, catch basin inlet filter, etc.). Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform to the existing grade, prepared, and seeded. Remove any sediment in catch basins and clean drain pipes that may have accumulated during construction.
- Once in operation, all paved areas of the site should be swept at least once annually at the end of winter/early spring prior to significant spring rains.

## MUNICIPAL REPORTING

The Owner shall retain a qualified post-construction stormwater inspector to inspect the site's stormwater infrastructure. By July 1 of each year, said inspector shall provide a completed and signed certification to the Town's Code Enforcement Officer that the inspection has been completed. The notification shall include a determination of the ongoing maintenance and functionality of the infrastructure, describe any deficiencies, and outline any necessary corrective action taken or recommended to the Owner.

## APPPENDIX

A. Stormwater System Operations and Maintenance Report
B. Site Grading and Drainage Plan

# STORM WATER SYSTEM OPERATION AND MAINTENANCE REPORT

| General Information | | | |
|---|---|---|---|
| **Project Name** | | | |
| **Owner** | | | |
| **Inspector's Name(s)** | | | |
| **Inspector's Contact Information** | | | |
| **Date of Inspection** | | **Start Time:** | **End Time:** |
| **Type of Inspection:** ☐ Annual Report ☐ Post-storm event ☐ Due to a discharge of significant amounts of sediment | | | |
| **Notes:** | | | |

| General Site Questions and Discharges of Significant Amounts of Sediment | | | |
|---|---|---|---|
| **Subject** | | **Status** | **Notes** |
| *A discharge of significant amounts of sediment may be indicated by (but is not limited to) observations of the following. Note whether any are observed during this inspection:* | | | *Notes/ Action taken:* |
| 1 | Do the current site conditions reflect the attached site plan? | ❑Yes ❑No | |
| 2 | Is the site permanently stabilized, temporary erosion and sediment controls are removed, and stormwater discharges from construction activity are eliminated? | ❑Yes ❑No | |
| 3 | Is there evidence of the discharge of significant amounts of sediment to surface waters, or conveyance systems leading to surface waters? | ❑Yes ❑No | |

| Permit Coverage and Plans | | | | |
|---|---|---|---|---|
| **#** | **BMP/Facility** | **Inspected** | **Corrective Action Needed and Notes** | **Date Corrected** |
| | Grassed Underdrained Soil Filters | ❑Yes ❑No | | |
| | Yard Drains | ❑Yes ❑No | | |
| | Drainage Pipes | ❑Yes ❑No | | |
| | Plunge Pools | ❑Yes ❑No | | |
| | Vegetated Areas | ❑Yes ❑No | | |
| | | ❑Yes ❑No | | |
| | | ❑Yes ❑No | | |

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 York County, Maine


September 27, 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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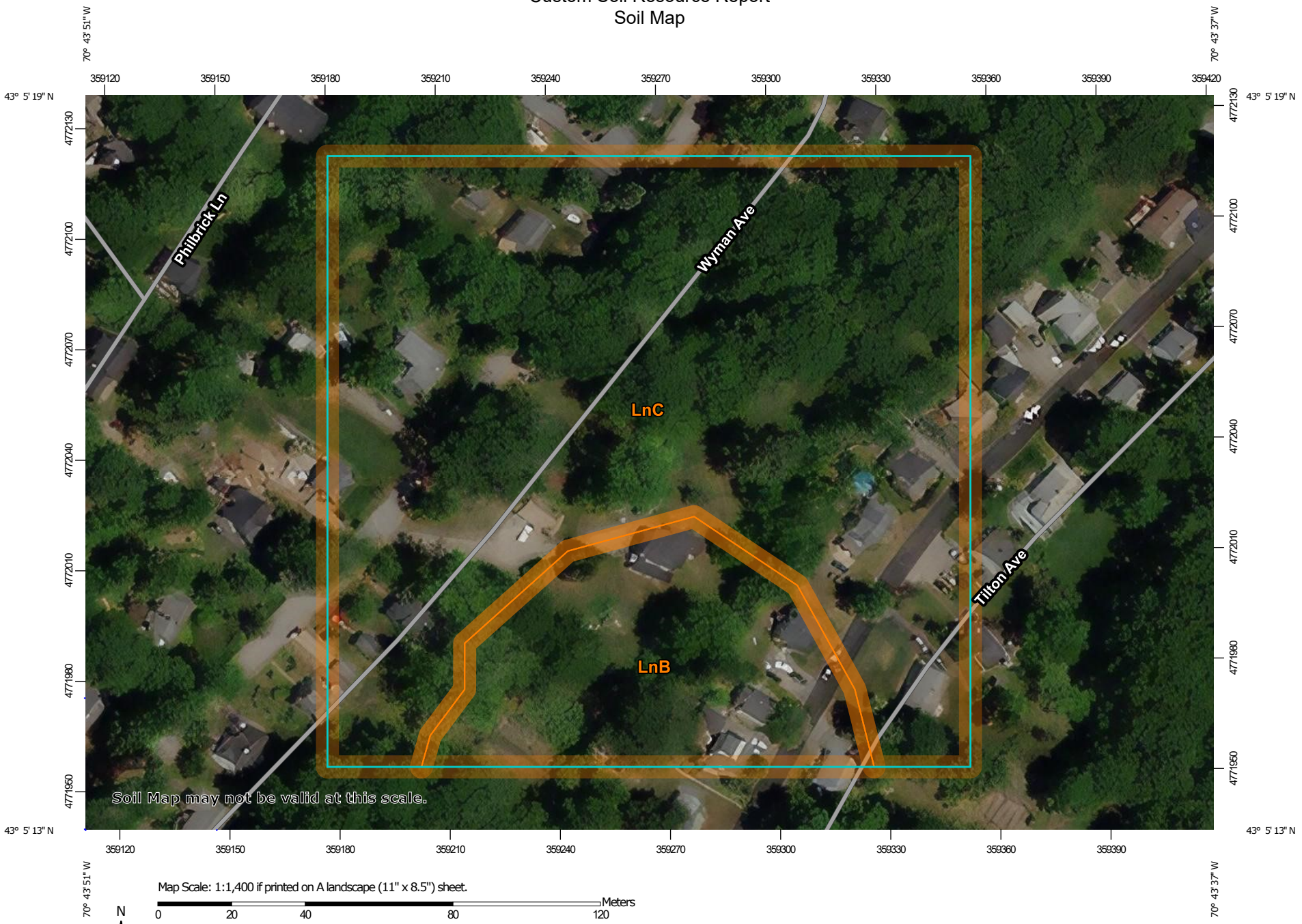
# Contents

# 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: 1:1,400 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

## MAP LEGEND

**Area of Interest (AOI)**
- Area of Interest (AOI)

**Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

**Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

**Water Features**
- Streams and Canals

**Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

**Background**
- Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: York County, Maine
Survey Area Data: Version 19, May 29, 2020

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

Date(s) aerial images were photographed: Dec 31, 2009—Sep 9, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| LnB | Lyman loam, 3 to 8 percent slopes, rocky | 1.5 | 20.2% |
| LnC | Lyman loam, 8 to 15 percent slopes, rocky | 5.8 | 79.8% |
| **Totals for Area of Interest** | | **7.2** | **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.

# York County, Maine

## LnB—Lyman loam, 3 to 8 percent slopes, rocky

### Map Unit Setting

*National map unit symbol:* 2trq7
*Elevation:* 0 to 520 feet
*Mean annual precipitation:* 36 to 65 inches
*Mean annual air temperature:* 36 to 52 degrees F
*Frost-free period:* 60 to 160 days
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

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

### Description of Lyman, Rocky

#### Setting

*Landform:* Mountains, hills
*Landform position (two-dimensional):* Shoulder, summit, backslope
*Landform position (three-dimensional):* Mountaintop, mountainbase, crest, side 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 28 inches:* bedrock

#### Properties and qualities

*Slope:* 3 to 8 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 supply, 0 to 60 inches:* Low (about 3.4 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified
*Land capability classification (nonirrigated):* 2s
*Hydrologic Soil Group:* D
*Hydric soil rating:* No

**Minor Components**

**Tunbridge, rocky**

*Percent of map unit:* 6 percent
*Landform:* Hills, mountains
*Landform position (two-dimensional):* Backslope, summit, shoulder
*Landform position (three-dimensional):* Mountaintop, mountainbase, side slope, crest
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Hydric soil rating:* No

**Skerry, rocky**

*Percent of map unit:* 5 percent
*Landform:* Hills, mountains
*Landform position (two-dimensional):* Footslope, backslope
*Landform position (three-dimensional):* Mountaintop, mountainbase, crest, side slope
*Microfeatures of landform position:* Closed depressions, closed depressions
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Hydric soil rating:* No

**Hermon, rocky**

*Percent of map unit:* 2 percent
*Landform:* Hills, mountains
*Landform position (two-dimensional):* Backslope, summit, shoulder
*Landform position (three-dimensional):* Mountaintop, mountainbase, side slope, crest
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Hydric soil rating:* No

**Brayton, rocky**

*Percent of map unit:* 1 percent
*Landform:* Hills, mountains
*Landform position (two-dimensional):* Toeslope, footslope
*Landform position (three-dimensional):* Mountaintop, mountainbase, crest, side slope
*Microfeatures of landform position:* Closed depressions, closed depressions
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Hydric soil rating:* Yes

## LnC—Lyman loam, 8 to 15 percent slopes, rocky

**Map Unit Setting**

*National map unit symbol:* 2trq9
*Elevation:* 0 to 690 feet
*Mean annual precipitation:* 36 to 65 inches

*Mean annual air temperature:* 36 to 52 degrees F
*Frost-free period:* 60 to 160 days
*Farmland classification:* Not prime farmland

**Map Unit Composition**

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

**Description of Lyman, Rocky**

**Setting**

*Landform:* Hills, mountains
*Landform position (two-dimensional):* Shoulder, summit, backslope
*Landform position (three-dimensional):* Mountaintop, mountainbase, mountainflank, crest, side 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 28 inches:* bedrock

**Properties and qualities**

*Slope:* 8 to 15 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 supply, 0 to 60 inches:* Low (about 3.4 inches)

**Interpretive groups**

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

**Minor Components**

**Tunbridge, rocky**

*Percent of map unit:* 6 percent
*Landform:* Mountains, hills
*Landform position (two-dimensional):* Backslope, summit, shoulder
*Landform position (three-dimensional):* Mountaintop, mountainbase, mountainflank, side slope, crest
*Down-slope shape:* Convex

*Across-slope shape:* Convex
*Hydric soil rating:* No

**Skerry, rocky**

*Percent of map unit:* 5 percent
*Landform:* Hills, mountains
*Landform position (two-dimensional):* Footslope, backslope
*Landform position (three-dimensional):* Mountaintop, mountainbase, mountainflank, crest, side slope
*Microfeatures of landform position:* Closed depressions, closed depressions, open depressions, open depressions
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Hydric soil rating:* No

**Hermon, rocky**

*Percent of map unit:* 2 percent
*Landform:* Hills, mountains
*Landform position (two-dimensional):* Summit, shoulder, backslope
*Landform position (three-dimensional):* Mountaintop, mountainbase, mountainflank, side slope, crest
*Down-slope shape:* Convex
*Across-slope shape:* Convex
*Hydric soil rating:* No

**Brayton, rocky**

*Percent of map unit:* 1 percent
*Landform:* Hills, mountains
*Landform position (two-dimensional):* Toeslope, footslope
*Landform position (three-dimensional):* Mountaintop, mountainbase, mountainflank, crest, side slope
*Microfeatures of landform position:* Open depressions, open depressions, closed depressions, closed depressions
*Down-slope shape:* Concave
*Across-slope shape:* Concave
*Hydric soil rating:* Yes

THIS DRAWING SET HAS NOT BEEN RELEASED FOR CONSTRUCTION

# WYMAN HILL

## 28 WYMAN AVENUE
## KITTERY, MAINE

## Assessor's Parcel 16, Lot 148

Plan Issue Date:

December 22, 2021 Planning Board Submission


*Owner/Applicant:*

LUSITANO, LLC
JIM HIGGINS
*119 KINGS HIGHWAY NO.*
*ELIOT, MAINE 03903*
*(617) 501-6149*

*Civil Engineer:*

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

*Architect:*

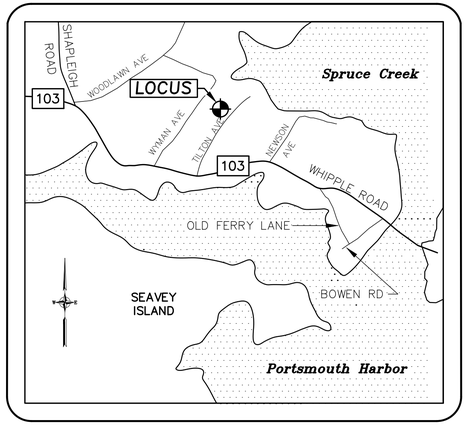
HIGGINS + DESIGN
*119 Kings Highway North*
*Eliot, ME 03903*
*(617) 501-6149*
*jimhiggins05@comcast.net*

*Surveyor:*

North Easterly Surveying, Inc.
191 STATE ROAD, SUITE #1
KITTERY, MAINE 03904

*Soils/Wetlands Scientist:*

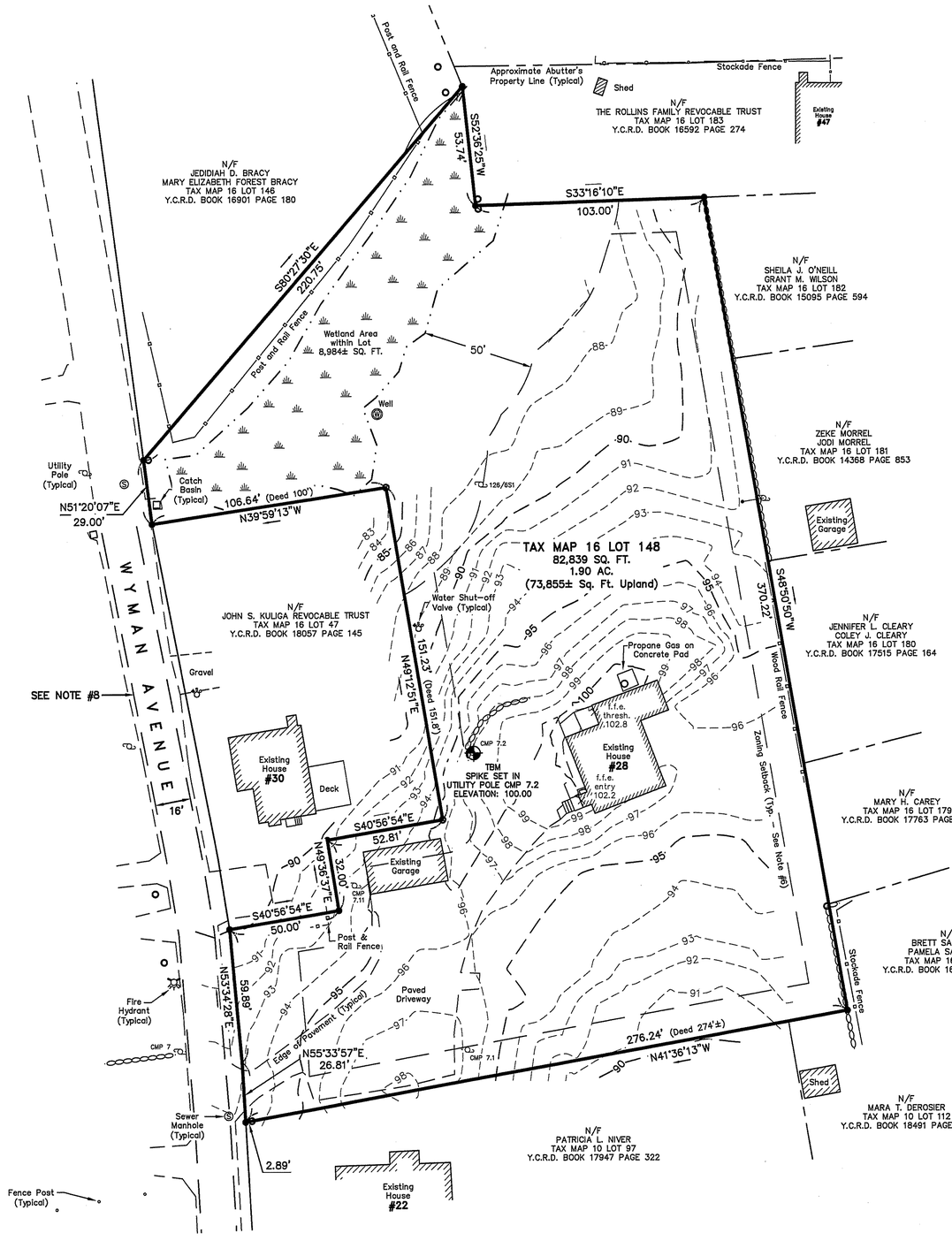
MICHAEL MARIANO, CSS
*75 Prospect Street*
*Somersworth, NH 03878*
*(603) 692-4457*

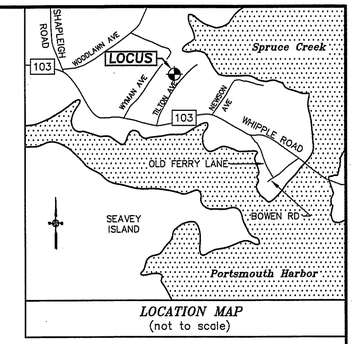



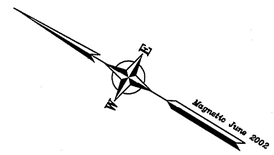

LOCUS NOT TO SCALE

| *Sheet Index Title* | *Sheet No.:* | *Rev.* | *Date* |
|---|---|---|---|
| Existing Conditions Plan | 1 of 1 | 0 | 07/09/21 |
| Demolition Plan | C-1 | 0 | 12/22/21 |
| Condominium Site Plan | C-2 | 0 | 12/22/21 |
| Grading & SWM Plan | C-3 | 0 | 12/22/21 |
| Utility Plan | C-4 | 0 | 12/22/21 |
| Erosion Control Notes | C-5 | 0 | 12/22/21 |
| Erosion Control Details | C-6 | 0 | 12/22/21 |
| Details Sheet | C-7 | 0 | 12/22/21 |
| Details Sheet | C-8 | 0 | 12/22/21 |
| Layout Plans | A01 | 0 | 11/22/21 |
| Elevations | A02 | 0 | 11/22/21 |
| Elevations | A03 | 0 | 11/22/21 |

P5235




ZONING DATA PER KITTERY ZONING ORDINANCE
(LAST AMENDED JANUARY 11, 2021 – SEE NOTE#6):

BASE ZONE: Residential–Urban (R–U)

REQUIREMENTS:

| | |
|---|---|
| MINIMUM LAND AREA PER DWELLING UNIT: | 20,000 Sq Ft |
| MINIMUM LOT SIZE: | 20,000 Sq Ft |
| MINIMUM STREET FRONTAGE: | 100 Ft |
| MINIMUM FRONT YARD: | 30 Ft |
| MAXIMUM BUILDING COVERAGE: | 20% |
| MINIMUM REAR AND SIDE YARDS: | 15 Ft* |
| MAXIMUM BUILDING HEIGHT: | 35 Ft* |

BUILDING COVERAGE CALCULATION:

LOT AREA: 82,839 SQ. FT.

HOUSE: 1,635± SQ. FT.
GARAGE: 678± SQ. FT.

TOTAL: 2,313± SQ. FT. (2.8%)

MONUMENTATION LEGEND:

- o MONUMENT FOUND PER PLAN REFERENCE #1
- ● IRON ROD WITH CAP #1322 SET PER PLAN REFERENCE #1

GRAPHIC SCALE

30 0 15 30 60 120

( IN FEET )
1 inch = 30 ft.
VERTICAL DATUM – ASSUMED

PLAN REFERENCES:

1. "STANDARD BOUNDARY SURVEY FOR PROPERTY AT 28 WYMAN AVENUE, KITTERY, YORK COUNTY, MAINE OWNED BY HARRY A. & PATRICIA J. HANNIGAN", PREPARED BY NORTH EASTERLY SURVEYING INC., DATED APRIL 14, 2008, AND RECORDED AT THE Y.C.R.D. AS PLAN BOOK 329 PAGE 7.

2. "LAND OF MATTAWAMKEAG REALTY CO., LOCATED IN KITTERY, MAINE," BY JOHN W. DURGIN CIVIL ENGINEERS DATED JUNE 10, 1941 AND RECORDED AT Y.C.R.D. PLAN BOOK 16 PAGES 31 & 32.

3. "PLAN OF PARCEL OF LOTS ON PROPERTY OF HARRY N. WYMAN IN KITTERY, YORK COUNTY, MAINE" PREPARED BY C.S. GERRISH, CE, DATED DECEMBER 8, 1938, Y.C.R.D. BOOK 17 PAGE 7.

4. "STANDARD BOUNDARY SURVEY FOR PROPERTY AT 44 TILTON AVENUE, YORK COUNTY, KITTERY, MAINE OWNED BY CANDACE J. DELISIO" PREPARED BY NORTH EASTERLY SURVEYING, INC., DATED SEPTEMBER 12, 2002.

5. "STANDARD BOUNDARY SURVEY FOR PROPERTY AT 49 TILTON AVENUE, KITTERY, YORK COUNTY, MAINE OWNED BY SARA GALLANT GRASTY" PREPARED BY NORTH EASTERLY SURVEYING, INC., DATED JANUARY 9, 2008, RECORDED Y.C.R.D. BOOK 328 PAGE 15.

NOTES:

1. OWNERS OF RECORD:
   TAX MAP 16 LOT 148
   LUSITANO, LLC
   Y.C.R.D. BOOK 17499 PAGE 681
   DATED FEBRUARY 23, 2007

2. TOTAL EXISTING PARCEL AREA:
   TAX MAP 16 LOT 148
   1.90 Acres

3. BASIS OF BEARING IS PER PLAN REFERENCE #1.

4. APPROXIMATE ABUTTER'S LINES SHOWN HEREON ARE FOR REFERENCE PURPOSES ONLY AND SHALL NOT BE RELIED UPON AS BOUNDARY INFORMATION.

5. EASEMENTS OR OTHER UNWRITTEN RIGHTS MAY EXIST THAT ENCUMBER OR BENEFIT THE PROPERTY NOT SHOWN HEREON.

6. ZONING INFORMATION AND SETBACKS SHOWN HEREON ARE FOR REFERENCE PURPOSES. CONFIRM CURRENT ZONING REQUIREMENTS WITH THE TOWN OF KITTERY PRIOR TO DESIGN OR CONSTRUCTION.

7. THE BOUNDARY SHOWN HEREON IS PER PLAN REFERENCE #1.

8. ABUTTING DEEDS CALL FOR A "16–FOOT WIDE PASSAGEWAY" WHERE WYMAN AVENUE EXISTS. A 30–FOOT WIDE RIGHT OF WAY (AS SHOWN ON ABUTTING PLANS) WAS ASSUMED FOR THE BOUNDARY SHOWN HEREON, REFERENCE IS MADE TO PLAN REFERENCE #1.

PURPOSE OF PLAN:

THE PURPOSE OF THIS PLAN IS TO SHOW EXISTING CONDITIONS FOR DESIGN PURPOSES. THIS PLAN IS NOT A STANDARD BOUNDARY SURVEY AND IS NOT INTENDED TO BE RECORDED, USED FOR CONVEYANCE, OR ANY OTHER TITLE PURPOSE.

STATE OF MAINE
PETER L. AGRODNIA
No. 2599
PROFESSIONAL LAND SURVEYOR

7/9/2021

# EXISTING CONDITIONS PLAN

FOR PROPERTY AT
**28 Wyman Avenue**
**Kittery, York County, Maine**
OWNED BY
**Lusitano, LLC**
Attn: Jim Higgins
119 Kings Highway No., Eliot, ME 03903

| REV. | DATE | STATUS | BY | CHKD | APPD. |
|---|---|---|---|---|---|
| | | | | | |


North
EASTERLY
SURVEYING, Inc.
SURVEYORS IN N.H. & MAINE
(207) 439–6333
191 STATE ROAD, SUITE #1
KITTERY, MAINE 03904


| SCALE: | PROJECT NO. | DATE: | SHEET: | DRAWN BY: | CHECKED BY: |
|---|---|---|---|---|---|
| 1" = 30' | 08610 | 7/9/21 | 1 OF 1 | A.H.P. | P.L.A. |

DRAWING No: 08610_EXISTING_CONDITIONS
FIELD BOOK No: Kittery #40

***Tax Map 16 Lot 148***


## DEMOLITION NOTES

1. CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES SCHEDULED TO REMAIN.
2. ALL MATERIALS SCHEDULED FOR DEMOLITION OR REMOVAL ON PRIVATE PROPERTY SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY NOTIFICATION OF ALL PARTIES, CORPORATIONS, COMPANIES, INDIVIDUALS AND STATE AND LOCAL AUTHORITIES OWNING AND/OR HAVING JURISDICTION OVER ANY UTILITIES RUNNING TO, THROUGH OR ACROSS AREAS TO BE DISTURBED BY DEMOLITION AND/OR CONSTRUCTION ACTIVITIES WHETHER OR NOT SAID UTILITIES ARE SUBJECT TO DEMOLITION, RELOCATION, MODIFICATION AND/OR CONSTRUCTION.
4. AT NO TIME SHALL ANY UTILITY SERVICE OR VEHICULAR ACCESS TO ADJOINING PROPERTIES BE COMPLETELY INTERRUPTED UNLESS A FULL SHUTDOWN IS COORDINATED WITH ALL AFFECTED PARTIES AND UTILITY PROVIDER(S).
5. ALL UTILITY DISCONNECTIONS/DEMOLITIONS/RELOCATIONS SHALL BE COORDINATED BETWEEN THE CONTRACTOR, ALL APPROPRIATE UTILITY COMPANIES, KITTERY DPW AND ABUTTING PROPERTY OWNERS AS NECESSARY. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELATED EXCAVATION, TRENCHING AND BACKFILLING.
6. WHERE SPECIFIED TO REMAIN, MANHOLE RIMS, CATCH BASIN GRATES, VALVE COVERS, HANDHOLES, ETC. SHALL BE ADJUSTED TO FINISH GRADE UNLESS OTHERWISE SPECIFIED.
7. SEE EROSION CONTROL PLANS FOR PERIMETER EROSION AND SEDIMENT CONTROL MEASURES THAT SHALL BE IN PLACE PRIOR TO DEMOLITION ACTIVITIES.
8. ALL MATERIAL SCHEDULED TO BE REMOVED SHALL BE LEGALLY DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS/CODES.
9. CONTRACTOR TO CONTACT KITTERY WATER DISTRICT (KWD) AND KITTERY SEWER DISTRICT (KSD) A MINIMUM OF TWO WEEKS PRIOR TO ANY DEMOLITION TO COORDINATE ALL WORK CONCERNING DISCONNECTION/DEMOLITION OF ANY PROPOSED WATER AND SEWER LINE IMPROVEMENTS.
10. ALL WATER AND SEWER DISCONNECTIONS SHALL CONFORM TO KSD AND KWD STANDARDS.
11. NO BURNING SHALL BE PERMITTED PER LOCAL REGULATIONS.
12. HAZARDOUS MATERIALS ENCOUNTERED DURING DEMOLITION AND CONSTRUCTION ACTIVITIES SHALL BE ABATED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS.
13. THIS PLAN IS INTENDED TO PROVIDE MINIMUM GUIDELINES FOR THE DEMOLITION OF EXISTING SITE FEATURES. UNLESS OTHERWISE NOTED TO REMAIN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL BUILDINGS, PAVEMENT, CONCRETE, CURBING, SIGNS, POLES, UTILITIES, FENCES, VEGETATION AND OTHER EXISTING FEATURES AS NECESSARY TO FULLY CONSTRUCT THE PROJECT.


ENGINEER:
ALTUS ENGINEERING, INC.
133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

SURVEYOR:
North
EASTERLY SURVEYING, Inc.
SURVEYORS IN N.H. & MAINE
191 STATE ROAD, SUITE #1
KITTERY, MAINE 03904
(207) 439-6333


STATE OF MAINE
ERIC D. WEINRIEB
No. 6658
LICENSED PROFESSIONAL ENGINEER
12/22/21

*THIS DRAWING HAS NOT BEEN RELEASED FOR CONSTRUCTION*

ISSUED FOR: APPROVAL

ISSUE DATE: DECEMBER 22, 2021

REVISIONS

| NO. | DESCRIPTION | BY | DATE |
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DRAWN BY: RMB
APPROVED BY: EBS
DRAWING FILE: 5235CONDO.DWG

SCALE:
(24"x36") 1" = 20'
(11"x17") N.T.S.

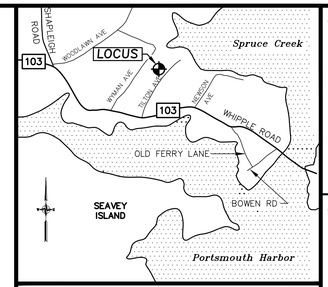
OWNER/APPLICANT:
LUSITANO. LLC
JIM HIGGINS
119 KINGS HIGHWAY NO.
ELIOT, MAINE 03903

PROJECT:
# WYMAN HILL
## TAX MAP 16, LOT 148
**28 WYMAN AVENUE**
**KITTERY, MAINE**

TITLE:
## DEMOLITION PLAN

SHEET NUMBER:
# C - 1

P5235


*LOCATION MAP*
(not to scale)

## SITE NOTES

1. DESIGN INTENT – THIS PLAN SET IS INTENDED TO DEPICT A THREE (3) SINGLE–FAMILY DETACHED CONDOMINIUM PLAN WITH SHARED COMMON DRIVE.
2. PLAN REFERENCE: "EXISTING CONDITIONS PLAN FOR PROPERTY AT 28 WYMAN AVENUE, KITTERY, MAINE" BY NORTH EASTERLY SURVEYING, INC., DATED PRELIMINARY JULY 7, 2021.
3. LOT AREA: ±82,839 S.F. (±1.90 ACRES) EXISTING
4. ZONE: RESIDENTIAL USE (R–U)
5. DIMENSIONAL REQUIREMENTS –

| | STANDARD | PROVIDE |
|---|---|---|
| MINIMUM LOT AREA PER UNIT | 20,000 S.F. | >20,000 S.F. MIN. |
| ROAD FRONTAGE | 100 FT. | 88.89 FT. MIN. |
| FRONT YARD | 30 FT. | >30 FT. MIN. |
| SIDE YARD | 15 FT. | >15 FT. MIN. |
| REAR YARD | 15 FT. | >15 FT. MIN. |
| BUILDING COVERAGE | 20 % | |
| EXISTING | | 2.8% |
| PROPOSED | | 5.7% |
| WETLANDS SETBACK (< 1 ACRE) | | |
| BUILDING | 50 FT. | >100 FT. |
| 16' DRIVEWAY (FROM TOE) | 10 FT. | > 10 FT. |

6. DENSITY CALCULATIONS:
   TOTAL LOT AREA 1.90 AC.
   LESS WETLANDS – 0.21 AC.
   MINIMUM LAND AREA 1.69 AC.
   NUMBER OF DWELLING UNITS
   (1.69 AC * 43,560 SF/AC / 20,000 S.F./UNIT)= 3.6 UNITS
   PROPOSED 3 UNITS
7. WETLANDS WERE DELINEATED BY MIKE MARIANO IN 2017.
8. AREA OF DISTURBANCE LESS THAN 43,560 SF, THEREFORE NOI AND SWPPP INSPECTIONS ARE NOT REQUIRED.
9. SNOW SHALL BE STORED AT THE EDGE OF PAVEMENT AND IN AREAS SHOWN.
10. ALL CONSTRUCTION SHALL MEET THE MINIMUM STANDARDS OF THE TOWN OF KITTERY & MEDOT'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITIONS. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
11. CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAWCUT LINES WITH RS–1 IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
12. BUILDING AREA SHOWN IS BASED ON FOOTPRINT MEASURED TO THE EDGE OF FOUNDATIONS AND/OR SLABS. ACTUAL INTERIOR SPACE WILL DIFFER.
13. WETLANDS WERE DELINEATED BY MICHAEL MARIANO DURING 2017.

*TOWN OF KITTERY, PLANNING BOARD*

| | |
|---|---|
| CHAIR | DATE |
| OWNER | DATE |
| APPLICANT | DATE |

YORK ss REGISTRY OF DEEDS
RECIEVED _____ 20____
AT _____ H _____ M ____M., AND
RECORDED IN BOOK _____ PAGE ____
ATTEST:
_____
REGISTER

GRAPHIC SCALE
20 0 10 20 40 80
( IN FEET )

P5235

ENGINEER:
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STATE OF MAINE
ERIC D. WEINRIEB
No. 6658
LICENSED
PROFESSIONAL ENGINEER
12-22-21

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(11"x17") N.T.S.

OWNER/APPLICANT:
LUSITANO. LLC
JIM HIGGINS
119 KINGS HIGHWAY NO.
ELIOT, MAINE 03903

PROJECT:
# WYMAN HILL
## TAX MAP 16, LOT 148
**28 WYMAN AVENUE**
**KITTERY, MAINE**

TITLE:
CONDOMINIUM SITE PLAN

SHEET NUMBER:
C - 2


## GRADING AND DRAINAGE NOTES

1. ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE TOWN OF KITTERY AND MEDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
2. UNLESS OTHERWISE AGREED IN WRITING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS (TBM) AND PERFORMING ALL CONSTRUCTION SURVEY LAYOUT.
3. PRIOR TO CONSTRUCTION, FIELD VERIFY JUNCTIONS, LOCATIONS AND ELEVATIONS/INVERTS OF ALL EXISTING STORMWATER AND UTILITY LINES. PRESERVE AND PROTECT LINES TO BE RETAINED.
4. ALL BENCHMARKS AND TOPOGRAPHY SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO INITIATING CONSTRUCTION.
5. ALL CATCH BASIN, MANHOLE AND OTHER DRAINAGE RIMS SHALL BE SET FLUSH WITH OR NO LESS THAN 0.1' BELOW FINISH GRADE. ANY RIM ABOVE SURROUNDING FINISH GRADE SHALL NOT BE ACCEPTED.
6. ALL SPOT GRADES ARE AT FINISH GRADE AND BOTTOM OF CURB WHERE APPLICABLE.
7. IN ORDER TO PROVIDE VISUAL CLARITY ON THE PLANS, DRAINAGE AND OTHER UTILITY STRUCTURES MAY NOT BE DRAWN TO SCALE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER SIZING AND LOCATION OF ALL STRUCTURES AND IS DIRECTED TO RESOLVE ANY POTENTIAL DISCREPANCY WITH THE ENGINEER PRIOR TO CONSTRUCTION.
8. EXISTING IMPERVIOUS SURFACES: 9,388 SF
   PROPOSED IMPERVIOUS SURFACES: 11,873 SF
   NET INCREASE 2,485 S.F

## EROSION AND SEDIMENT CONTROL NOTES

1. DO NOT BEGIN CONSTRUCTION UNTIL ALL STATE AND LOCAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
2. PERIMETER SEDIMENT CONTROLS SHALL BE INSTALLED AFTER TREE CLEARING OPERATIONS HAVE CEASED AND BEFORE ANY STUMPING, GRUBBING OR OTHER EARTH DISTURBANCE.
3. NO EARTHWORK SHALL COMMENCE UNTIL ALL APPROPRIATE SEDIMENT AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PROPERLY MAINTAINED IN GOOD WORKING ORDER FOR THE DURATION OF CONSTRUCTION AND UNTIL THE SITE IS STABILIZED.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DESIGN STANDARDS AND SPECIFICATIONS SET FORTH BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
5. THE CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO PREVENT EROSION, PREVENT SEDIMENT FROM LEAVING THE SITE AND/OR ENTERING WETLANDS AND ENSURE PERMANENT SOIL STABILIZATION.
6. ALL YARD DRAINS AND CULVERTS SHALL BE PROVIDED APPROPRIATE TEMPORARY INLET PROTECTION (SEE DETAILS).
7. ALL EROSION CONTROL BLANKETS AND FASTENERS SHALL BE BIODEGRADEABLE.
8. ALL EROSION CONTROL BLANKETS SHALL BE BY NORTH AMERICAN GREEN ("NAG") OR EQUAL AS APPROVED IN WRITING BY THE ENGINEER.
9. ALL SWALES, STORMWATER PONDS AND THEIR CONTRIBUTING AREAS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
10. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE SIX (6") INCHES OF LOAM, LIMESTONE, FERTILIZER, SEED, AND MULCH USING APPROPRIATE SOIL STABILIZATION TECHNIQUES. SEE DETAILS FOR ADDITIONAL INFORMATION.
11. CONTRACTOR TO INSTALL STONE DRIP EDGE AT ALL ROOF DRIP LINES WHERE GUTTERS ARE NOT PROPOSED. COORDINATE WITH ARCHITECTURAL PLANS.
12. UPON COMPLETION OF CONSTRUCTION, ALL DRAINAGE INFRASTRUCTURE SHALL BE CLEANED OF ALL DEBRIS AND SEDIMENT.
13. UPON COMPLETION OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED AND ANY AREAS DISTURBED BY THE REMOVAL SMOOTHED AND REVEGETATED.


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STATE OF MAINE
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JIM HIGGINS
119 KINGS HIGHWAY NO.
ELIOT, MAINE 03903

PROJECT:
# WYMAN HILL
TAX MAP 16, LOT 148
28 WYMAN AVENUE
KITTERY, MAINE

TITLE:
GRADING & SWM PLAN

SHEET NUMBER:
C - 3

P-5235


## UTILITY NOTES

1. THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED UPON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE. CATCH BASINS, MANHOLES, WATER GATES, ETC.) AND INFORMATION COMPILED FROM PLANS PROVIDED BY UTILITY PROVIDERS AND GOVERNMENTAL AGENCIES. AS SUCH, THEY ARE NOT INCLUSIVE AS OTHER UTILITIES AND UNDERGROUND STRUCTURES THAT ARE NOT SHOWN ON THE PLANS MAY EXIST. THE ENGINEER, SURVEYOR AND OWNER ACCEPT NO RESPONSIBILITY FOR POTENTIAL INACCURACIES IN THE PLAN AND/OR UNFORESEEN CONDITIONS. THE CONTRACTOR SHALL NOTIFY, IN WRITING, SAID AGENCIES, UTILITY PROVIDERS, KITTERY DPW AND OWNER'S AUTHORIZED REPRESENTATIVE AND CALL DIG SAFE AT 1 (800) DIG-SAFE AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION WORK.
2. PRIOR TO CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND FIELD VERIFY JUNCTIONS, LOCATIONS AND ELEVATIONS/INVERTS OF ALL EXISTING AND PROPOSED STORMWATER AND UTILITY LINES. CONFLICTS SHALL BE ANTICIPATED AND ALL EXISTING LINES TO BE RETAINED SHALL BE PROTECTED. ANY DAMAGE DONE TO EXISTING UTILITIES SHALL BE REPAIRED AND, IF NECESSARY, EXISTING UTILITIES SHALL BE RELOCATED AT NO EXTRA COST TO THE OWNER. ALL CONFLICTS SHALL BE RESOLVED WITH THE INVOLVEMENT OF THE ENGINEER, DPW AND APPROPRIATE UTILITIES.
3. ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE TOWN OF KITTERY AND MEDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE POSTING OF ALL BONDS AND PAYMENT OF ALL TAP, TIE-IN AND CONNECTION FEES.
5. IF REQUIRED, ALL ROAD/LANE CLOSURES OR OTHER TRAFFIC INTERRUPTIONS SHALL BE COORDINATED WITH THE KITTERY POLICE DEPARTMENT, DPW AND ABUTTING PROPERTY OWNERS (WHERE APPROPRIATE) AT LEAST TWO WEEKS PRIOR TO COMMENCING RELATED CONSTRUCTION.
6. ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL CONFORM TO FEDERAL OSHA AND TOWN REGULATIONS.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, BEDDING, BACKFILL & COMPACTION FOR ALL UTILITY TRENCHING IN ADDITION TO ALL CONDUIT INSTALLATION AND COORDINATION OF ALL REQUIRED INSPECTIONS.
8. DETECTABLE WARNING TAPE SHALL BE PLACED OVER THE ENTIRE LENGTH OF ALL BURIED UTILITIES, COLORS PER THE RESPECTIVE UTILITY PROVIDERS.
9. SEE ARCHITECTURAL/MECHANICAL DRAWINGS FOR EXACT LOCATIONS & ELEVATIONS OF UTILITY CONNECTIONS AT BUILDING. COORDINATE ALL WORK WITHIN FIVE (5) FEET OF BUILDINGS WITH BUILDING CONTRACTOR AND ARCHITECTURAL DRAWINGS. ALL CONFLICTS AND DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY AND PRIOR TO COMMENCING RELATED WORK.
10. UTILITY PROVIDERS:
    WATER: KITTERY WATER DISTRICT (KWD), (207) 439-1128
    SEWER: KITTERY SEWER DISTRICT (KSD), (207) 439-4646
    CABLE/INTERNET/TELECOMM: PER OWNER
    ELECTRIC: CMP, (800) 565-3181
11. ALL WATER AND SEWER INSTALLATIONS SHALL BE CONSTRUCTED AND TESTED PER THE TOWN OF KITTERY'S STANDARDS AND SPECIFICATIONS. ALL OTHER UTILITIES SHALL BE TO THE STANDARDS AND SPECIFICATIONS OF THE RESPECTIVE UTILITY PROVIDERS.
12. WHERE WATER LINES CROSS, RUN ADJACENT TO OR ARE WITHIN 5' OF STORM DRAINAGE PIPES OR STRUCTURES, 2"-THICK CLOSED CELL RIGID BOARD INSULATION SHALL BE INSTALLED FOR FROST PROTECTION.
13. WHERE WATER OR SEWER LINES ARE INSTALLED WITH LESS THAT 5' OF COVER, 2"-THICK CLOSED CELL RIGID BOARD INSULATION SHALL BE INSTALLED FOR THE FULL WIDTH OF THE TRENCH FOR FROST PROTECTION.
14. WATER AND SANITARY SEWER LINES SHALL BE LOCATED AT LEAST 10' HORIZONTALLY FROM EACH OTHER. WHERE CROSSING, 18" MINIMUM VERTICAL CLEARANCE SHALL BE PROVIDED WITH WATER INSTALLED OVER SEWER.
15. WATER AIR RELEASE VALVE TO BE PROVIDED BY KWD.
16. KWD & KSD TO BE PROVIDED WITH A BLANKET EASEMENT OVER THE COMMON DRIVEWAY FOR THE PURPOSE OF ACCESSING WATER AND SEWER INFRASTRUCTURE.


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ELIOT, MAINE 03903

PROJECT:
# WYMAN HILL
## TAX MAP 16, LOT 148
28 WYMAN AVENUE
KITTERY, MAINE

TITLE:
## UTILITY PLAN

SHEET NUMBER:
# C - 4

P5235

## PROJECT NAME AND LOCATION

Re-development Plan
Map 16 Lot 148
Kittery, Maine

Latitude: 043° 05' 16" N
Longitude: 070° 43' 45" W

## DESCRIPTION

The project consists of a three (3) single-family detached condominium units with shared drive. The project will be completed in a single phase.

## DISTURBED AREA

The total area to be disturbed is approximately 0.8 acres for constructing new driveway and dwelling units (including lot development). Prior to lot clearing and soil disturbance, sedimentation barrier shall be installed to prevent sediment leaving the lot.

## SEQUENCE OF MAJOR ACTIVITIES

1. Install temporary erosion control measures including perimeter controls as noted on the plan. All temporary erosion control measures shall be maintained in good working condition for the duration of the project.
2. Clear and grub wooded area; strip and stockpile loam. Stockpiles shall be temporarily stabilized with hay holes mulch and surrounded by a hay bale or silt fence barrier until material is removed and final grading is complete.
3. Shut off and terminate existing services; demolish existing structures and pavement.
4. Construct ditches and stabilize prior to directing flow to them.
5. Construct drainage structures, swales & road base materials.
5. Ditches and swales with grades over 5% shall have sides and bottom reinforced with excelsior matting.
6. Shape site to desired grades
7. Loam (6" min) and seed all disturbed areas not paved or otherwise stabilized.
8. Install landscaping.
9. When all construction activity is complete and site is stabilized, remove all temporary erosion control measures and any sediment that has been trapped by these devices.

## NAME OF RECEIVING WATER

Unnamed wetlands complex and open drainage systems to tidal waters of Spruce Creek.

## TEMPORARY EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES

All work shall be in accordance with state and local permits. Installation or construction of erosion control measures shall conform to the practices described in the "2014 Revision to the 2003 Maine Erosion and Sediment Control Field Guide for Contractors, published by the Maine Department of Environmental Protection.

Minimum erosion control measures will need to be implemented and the contractor will be responsible to maintain all components of the erosion control plan until the site is fully stabilized. However, based on site and weather conditions during construction, additional erosion control measures may need to be implemented. All areas of instability and erosion must be repaired immediately during construction and need to be maintained until the site is fully stabilized or vegetation is established. A construction log must be maintained for the erosion and sedimentation control inspections and maintenance.

As indicated in the sequence of Major Activities, perimeter controls shall be installed prior to commencing any clearing or grading of the site. Structural controls shall be installed concurrently with the applicable activity. Once construction activity ceases permanently in an area, silt fences and hay bale barriers and any earth/dikes will be removed once permanent measures are established.

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

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

Temporary vegetation shall be maintained in these areas until permanent seeding is applied. Additionally, erosion sedimentation measures shall be maintained until permanent vegetation is established.

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

A. GENERAL
3. Perimeter controls shall be installed prior to earth moving operations.
4. The smallest practical portion of the site will be denuded at one time and no more than be mulched in one day. All disturbed areas must be stabilized by temporary measures within 5 days of initial disturbance and stabilized by permanent measures immediately after final grading.
2. Sediment barriers shall be installed downgradient of stockpiles and diversion swales installed upgradient of stockpiles to prevent movement of soil.
3. Built-up sediment shall be removed from silt fence or other barriers when it has reached one-third the height of the tubular barrier or bale, or when "bulges" occur in silt fence.
4. All diversion dikes shall be inspected and any breaches promptly repaired.
5. Temporary seeding and planting shall be inspected for bare spots, washouts, and unhealthy growth.
6. The owner's authorized engineer shall inspect the site on a periodic basis to review compliance with the plans.
7. All ditches and swales shall be stabilized prior to directing runoff to them. All diversion dikes will be inspected and any breaches promptly repaired.
8. Temporary water diversion (swales, basins, etc) shall be used as necessary until areas are stabilized.
9. Ponds and swales shall be installed early on in the construction sequence (before rough grading site).
10. All cut and fill slopes shall be seeded/loamed within 72 hours of achieving finished grade.
11. An area shall be considered stable if one of the following has occurred:
    a. Base coarse gravels have been installed in areas to be paved;
    b. A minimum of 90% vegetated growth as been established;
    c. A minimum of 3 inches of non-erosive material such as stone of riprap has been installed; or
    d. Erosion control blankets have been properly installed.

B. MULCHING

Application
* In sensitive areas (within 100 ft of streams, wetlands and in lake watersheds) temporary mulch shall be applied within 7 days of exposing soil or prior to any storm event.
* Areas, which have been temporarily or permanently seeded, shall be mulched immediately following seeding.
* Areas which cannot be seeded within the growing season shall be mulched for over-winter protection and the area should be seeded at the beginning of the growing season.
* Mulch anchoring should be used on slopes greater than 5% in late fall (past September 15), and over-winter (September 15 – April 15).

Type of Mulch
Hay or Straw Mulches
Organic mulches, including hay and straw, shall be air-dried, free of undesirable seeds and coarse materials. Application rate shall be 2 bales (70-90 pounds) per 1000 sq. ft. or 1.5 to 2 tons (90-100 bales) per acre to cover 75 to 90 % of the ground surface. Hay mulch subject to wind blowing shall be anchored via: netting; peg and twine or tracking.

Erosion Control Mix
Erosion control mix shall consist primarily of organic material and shall include any of the following: shredded bark, stump grindings, composted bark or other acceptable products based on a similar raw source. Wood or bark chips, ground construction debris or reprocessed wood products shall not be acceptable as the organic component of the 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.
* At the edge of gravel parking areas and areas under construction.

Other reinforcement BMPs (i.e. riprap) should be used:
* 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.

Composition
Erosion control mix shall contain a well-graded mixture of particle sizes and may contain rocks less than 4" in diameter. Erosion control mix must be free of refuse, physical contaminants, and material toxic to plant growth. The mix composition shall meet the following standards:
* The organic matter content shall be between 80 and 100%, dry weight basis.
* Particle size by weight shall be 100% passing a 6" screen and a minimum of 70%, maximum of 85%, passing a 0.75" screen.
* The organic portion needs to be fibrous and elongated.
* Large portions of silts, clays or fine sands are not acceptable in the mix.

Installation
* Erosion control mix shall not be used on slopes steeper than 2:1.
* On slopes of 3:1 or less; 2 inches plus an additional 1/2 inch per 20 feet of slope up to 100 feet.
* On slopes between 3:1 and 2:1, 4 inch plus an additional 1/2 inch per 20 feet of slope up to 100 feet.

The thickness of the mulch at the bottom of the slope needs to be:

| | <3:1 slope | slopes between 3:1 and 2:1 |
|---|---|---|
| <20' of slope | 2.0" | 4.0' |
| <60' of slope | 3.0" | 5.0' |
| <100' of slope | 4.0" | 6.0' |

* It shall be placed evenly and must provide 100% coverage with the soil totally invisible.

Any required repairs shall be made immediately, with additional erosion control mix placed on top of the mulch to reach the recommended thickness. When the mix is decomposed, clogged with sediment, eroded or ineffective, it shall be replaced or repaired. Erosion control mix mulch shall be left in place. If the mulch needs to be removed spread it out into the landscape.

Maintenance
All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Nets shall be inspected after rain events for dislocation or failure. If washouts or breakage occur, re-install the nets as necessary after repairing damage to the slope. Inspections shall take place until grasses are firmly established (95% soil surface covered with grass). Where mulch is used in conjunction with ornamental plantings, inspect periodically throughout the year to determine if mulch is maintaining coverage of the soil surface. Repair as needed.

C. TEMPORARY VEGETATION

Considerations
* Proper seedbed preparation and the use of quality seed are important in this practice just as in permanent seeding. Failure to carefully follow sound agronomic recommendations will often result in an inadequate stand of vegetation that provides little or no erosion control.
* Nutrients and pesticides used to establish and maintain a vegetation cover shall be managed to protect the surface and ground water quality.
* Temporary seeding shall be used extensively in sensitive areas (ponds and lake watersheds, steep slopes, streambanks, etc.).
* Late fall seeding may fail and cause water quality deterioration in spring runoff events, thus other measures such as mulching shall be implemented.

Specifications
Seedbed Preparation
Apply limestone and fertilizer according to soil test recommendations. If soil testing is not feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 600 pounds per acre or 13.8 pounds per 1,000 square feet of 10-10-10 (N-P2OS-K20) or equivalent. Apply limestone (equivalent to 50 percent calcium plus magnesium oxide) at a rate of 3 tons per acre (138 lb. per 1,000 square feet).

Seeding
* Select seed from recommendations in enclosed table.
* Where the soil has been compacted by construction operations, loosen soil to a depth of 2 inches before applying fertilizer, lime and seed.
* Apply seed uniformly by hand, cyclone seeder, drill, cultipacker type seeder or hydroseeder (slurry including seed and fertilizer). Hydroseeding that includes mulch may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.

Mulching
Apply mulch over seeded area according to the TEMPORARY MULCHING BMP.

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

Temporary Seeding Rates and Dates

| Seed | Lb./Ac | Seeding Depth | Recommended Seeding Dates | Remarks |
|---|---|---|---|---|
| Winter Rye | 112 (2.0 bu) | 1-1.5 in | 8/15-10/1 | Good for fall seeding. Select a hardy species, such as Aroostook Rye. |
| Oats | 80 (2.5 bu) | 1-1.5 in | 4/1-7/1<br>8/15-9/15 | Best for spring seeding. Early fall seeding will die when winter weather moved in, but mulch will provide protection. |
| Annual Ryegrass | 40 | .25 in | 4/1-7/1 | Grows quickly but is of short duration. Use where appearance is important. With mulch, seeding may be done throughout growing season. |
| Sudangrass | 40 (1.0 bu) | .5-1 in | 5/15-8/15 | Good growth during hot summer periods. |
| Perennial | 40 (2.0 bu) | .25 in | 8/15-9/15 | Good cover, longer lasting than Annual Ryegrass. Mulching will allow seeding throughout growing season. |
| Temporary mulch with or and/or without dormant seeding | | | 10/1-4/1 | Refer to TEMPORARY MULCHING BMP PERMANENT VEGETATION BMP. |

D. SEDIMENT BARRIERS

Tubular Sediment Barrier
a. To be provided by an approved manufacturer or supplier:
b. Installed per manufacturer's specifications;
c. Barrier shall be removed when they have served their useful purpose but not before the upslope areas has been permanently stabilized.

Organic Filter Berm See detail

Installation
* Sediment barriers shall be installed along the down gradient side of proposed ground disturbance areas prior to any construction activities.
* The barrier must be placed along a relatively level contour.

Maintenance
* Hay bale barriers, silt fences and filter berms shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be repaired immediately if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam.
* Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier still is necessary, the fabric shall be replaced promptly.
* Sediment deposits should be removed when deposits reach approximately one third (1/3) the height of the barrier.
* Filter berms should be reshaped as needed.
* Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed or removed to conform to the existing grade, prepared and seeded.
* Additional stone may have to be added to the construction stabilized entrance, rock barriers, stone lined swales, etc., periodically to maintain proper function of the erosion control structure.

E. PERMANENT SEEDING

1. Bedding – stones larger than 1 1/2", trash, roots, and other debris that will interfere with seeding and future maintenance of the area should be removed. Where feasible, the soil should be tilled to a depth of 6" to prepare a seedbed and mix fertilizer (refer to Landscape Drawings and Specifications) into the soil.

2. Fertilizer (refer to Landscape Drawings and Specifications) – lime and fertilizer should be applied evenly over the area prior to or at the time of seeding and incorporated into the soil. Kinds and amounts of lime and fertilizer should be based on an evaluation of soil tests.

3. Seed Mixture (See Landscape Drawings for additional information):
   3.1. Lawn seed mix shall be a fresh, clean new seed crop. The Contractor shall furnish a dealer's guaranteed statement of the composition of the mixture and the percentage of purity and germination of each variety.
   3.2. Seed mixture shall conform to landscape specifications
4. Sodding – sodding is done where it is desirable to rapidly establish cover on a disturbed area. Sodding an area may be substituted for permanent seeding procedures anywhere on site. Bed preparation, fertilizing, and placement of sod shall be performed according to the S.C.S. Handbook. Sodding is recommended for steep sloped areas, areas immediately adjacent to sensitive water courses, easily erodible soils (fine sand/silt), etc.

DEWATERING

A dewatering plan shall be implemented to address excavation de-watering following heavy rainfall events or where the excavation may intercept the groundwater table during construction. The collected water needs treatment and a discharge point that will not cause downgradient erosion and offsite sedimentation or within a resource.

All dewatering discharge locations shall be located on relatively flat ground at least 75' from streams and 25' from wetlands. The contractor shall utilize dirtbags, erosion control mix berms, or similar methods for filtration of dewatering and shall conform to the Maine Erosion and Sediment Control BMPs.

MONITORING SCHEDULE
The contractor shall be responsible for installing, monitoring, maintaining, repairing, replacing and removing all of the erosion and sedimentation controls or appointing a qualified subcontractor to do so. Maintenance measures will be applied as needed during the entire construction cycle. immediately following any significant rainfall, and at least once a week, a visual inspection will be made of all erosion and sedimentation controls as follows:
1. Silt fence shall be inspected and repaired. Sediment trapped behind these barriers shall be excavated when it reaches a depth of 6"and redistributed to areas undergoing final grading.
2. Construction entrance shall be visually inspected and repaired as needed. Any areas subject to rutting shall be stabilized immediately. If the voids of the construction entrance become filled with mud, more crushed stone shall be added as needed. The public roadway shall be swept should mud be deposited/tracked onto them.

STANDARDS FOR STABILIZING SITES FOR THE WINTER
The following standards and methodologies shall be used for stabilizing the site during the winter construction period:
1. Standard for the timely stabilization of disturbed slopes (any area having a grade greater than 25%) – the contractor will seed and mulch all slopes to be vegetated by September 15th. If the contractor fails to stabilize any slope to be vegetated by September 15th, then the contractor will take one of the following actions to stabilize the slope for late fall and winter.

A. Stabilize the soil with temporary vegetation and erosion control mats: by October 1st the contractor will seed the disturbed slope with winter rye at a rate of 3 pounds per 1000 square feet and then install erosion control mats or anchored hay mulch over the seeding. The contractor will monitor growth of the rye over the next 30 days.
B. Stabilize the slope with wood-waste compost: the contractor will place a six-inch layer of wood-waste compost on the slope by November 15th. The contractor will not use wood-waste compost to stabilize slopes having grades greater than 50% (2h:1v) or having groundwater seeps on the slope face.
C. Stabilize the slope with stone riprap: the contractor will place a layer of stone riprap on the slope by November 15th. The development's owner will hire a registered professional engineer to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.

2. Standard for the timely stabilization of disturbed soils – by September 15th the contractor will seed and mulch all disturbed soils on the site. If the contractor fails to stabilize these soils by this date, then the contractor will take on of the following actions to stabilize the soil for late fall and winter.

A. Stabilize the soil with temporary vegetation: by October 1st the contractor will seed the disturbed soil with winter rye at a seeding rate of 3 pounds per 1000 square feet, lightly mulch the seeded soil with hay or straw at 75 pounds per 1000 square feet, and anchor the mulch with plastic netting. The contractor will monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1, then the contractor will mulch the area for over-winter protection as described in item iii of this standard.
B. Stabilize the soil with sod: the contractor will stabilize the disturbed soil with properly installed sod by October 1st. proper installation includes the contractor pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.
C. Stabilize the soil with mulch: by November 15th the contractor will mulch the disturbed soil by spreading hay or straw at a rate of at least 150 pounds per 1000 square feet on the area so that no soil is visible through the mulch. Immediately after applying the mulch, the contractor will anchor the mulch with netting or other method to prevent wind from moving the mulch off the disturbed soil.

Winter inspections shall be preformed after, each rainfall, snowstorm or thawing and at least once a week. All areas within 75 feet of a protected natural resource must be protected with a double row of sediment barrier.

EROSION CONTROL REMOVAL
An area is considered stable if it is paved or if 90% growth of planted seeds is established. once an area is considered stable, the erosion control measures can be removed as follows:
1. Silt Fence: Silt fence shall be disposed of legally and properly off-site. all sediment trapped behind these controls shall be distributed to an area undergoing final grading or removed and relocated off-site.
2. Stabilized Construction Entrance: The stabilized construction entrance shall be removed once the compacted roadway base in in place. Stone and sediment from the construction entrance shall be redistributed to an area undergoing grading or removed and relocated offsite.
3. Miscellaneous: Once all the trapped sediments have been removed from the temporary sedimentation devices the disturbed areas must be regraded in an aesthetic manner to conform to the surrounding topography. Once graded these disturbed areas must be loamed (if necessary), fertilized, seeded and mulched in accordance with the rates previously stated.

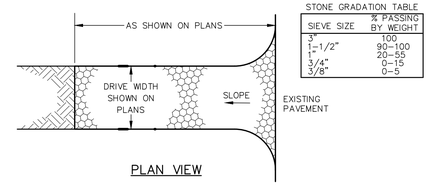
The above erosion controls must be removed within 30 days of final stabilization of the site. Conformance with this plan and following these practices will result in a project that complies with the state regulations and the standards of the natural resources protection act, and will protect water quality in areas downstream from the project.

## INSPECTION AND MAINTENANCE

1. All sediment control measures shall be inspected at least once each week and following any storm event of 0.5 inches or greater for the duration of construction and until the site is fully stabilized. An inspection report shall be made after each inspection by a qualified inspector engaged by the Owner. The qualified inspector shall be a Professional Engineer licensed in Maine or be a Certified Professional in Erosion and Sediment Control approved by the Owner.
2. All measures shall be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours and completed within 72 hours.
3. Inspection and maintenance requirements: Inspect disturbed and impervious areas, erosion and stormwater control measures, areas used for storage that are exposed to precipitation, and locations where vehicles enter or exit the site. Inspect these areas at least once a week as well as before and after a 0.5 inches or greater storm event and prior to completion of permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards in the MCGP and any departmental companion document to the MCGP, must conduct the inspection. This person must be identified in the inspection log. If best management practices (BMPs) need to be modified or if additional BMPs are necessary, implementation must be completed within 7 calendar days and prior to any storm event (rainfall). All measures must be maintained in effective operating condition until areas area permanently stabilized.
4. Inspection Log (report): A log (report) must be kept summarizing the scope of the inspection, name(s) and qualifications of the personnel making the inspection, the date(s) of the inspection, and major observations relating to operation of erosion and sedimentation controls and pollution prevention measures. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations(s) where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the inspection log the correct action taken and when it was taken. The log must be made accessible to the department staff and a copy must be provided upon request. The permittee shall retain a copy of the log for a period of at least three years from the completion of the permanent stabilization.

## HOUSEKEEPING

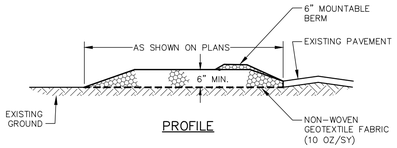
1. Spill prevention: Controls must be used to prevent pollutants from construction and waste materials stored onsite, including storage practices to minimize exposure of the materials to stormwater and appropriate spill prevention, containment, and response planning implementation. The contractor and owners need to take care with construction and waste materials such that contaminates do not enter the stormwater. The storage of materials such as paint, petroleum products, cleaning agents and the like are to be stored in watertight containers. The use of the products should be in accordance with manufacturer recommendations. When fueling equipment, including snowblowers and lawnmowers, have oil absorbent pads available below the fueling. Refueling of small engines by the owner should occur in the garage or on a paved surface. Any spill or release of toxic or




STONE GRADATION TABLE

| SIEVE SIZE | % PASSING BY WEIGHT |
|---|---|
| 3" | 100 |
| 1-1/2" | 90-100 |
| 1" | 20-55 |
| 3/4" | 0-15 |
| 3/8" | 0-5 |

PLAN VIEW



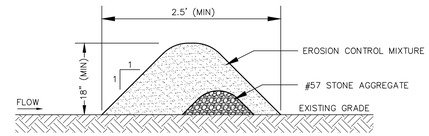

PROFILE

## CONSTRUCTION SPECIFICATIONS

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

## STABILIZED CONSTRUCTION EXIT

NOT TO SCALE




## NOTES

1. ORGANIC FILTER BERMS MAY BE UTILIZED IN LIEU OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
2. THE EROSION CONTROL MIXTURE USED IN FILTER BERMS SHALL BE A WELL-GRADED MIX OF PARTICLE SIZES THAT MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER, STUMP GRINDINGS, SHREDDED OR COMPOSTED BARK, AND/OR ACCEPTABLE MANUFACTURED PRODUCTS AND SHALL BE FREE OF REFUSE, PHYSICAL CONTAMINANTS AND MATERIAL TOXIC TO PLANT GROWTH. EROSION CONTROL MIXTURE SHALL MEET THE FOLLOWING STANDARDS:
   a) THE ORGANIC CONTENT SHALL BE 80-100% OF DRY WEIGHT.
   b) PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN, AND 70-85% PASSING A 0.75" SCREEN.
   c) THE ORGANIC PORTION SHALL BE FIBROUS AND ELONGATED.
   d) LARGE PORTIONS OF SILTS, CLAYS, OR FINE SANDS SHALL NOT BE INCLUDED IN THE MIXTURE.
   e) SOLUBLE SALTS CONTENT SHALL BE >4.0mmhos/cm.
   f) THE pH SHALL BE BETWEEN 5.0 AND 8.0.
3. ORGANIC FILTER BERMS SHALL BE INSTALLED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BERM.
4. ON SLOPES LESS THAN 5%, OR AT THE BOTTOM OF SLOPES NO STEEPER THAN 3:1 AND UP TO 20' LONG, THE BERM SHALL BE A MINIMUM OF 12" HIGH (AS MEASURED ON THE UPHILL SIDE) AND A MINIMUM OF 36" WIDE. ON LONGER AND/OR STEEPER SLOPES, THE BERM SHALL BE TALLER AND WIDER TO ACCOMMODATE THE POTENTIAL FOR ADDITIONAL RUNOFF (MAXIMUM HEIGHT SHALL NOT EXCEED 2').
5. FROZEN GROUND, OUTCROPS OF BEDROCK, AND VERY ROOTED FORESTED AREAS PRESENT THE MOST PRACTICAL AND EFFECTIVE LOCATIONS FOR ORGANIC FILTER BERMS. OTHER BMP'S SHOULD BE USED AT LOW POINTS OF CONCENTRATED RUNOFF, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS, AND AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT HAVE A LARGE CONTRIBUTING AREA.
6. SEDIMENT SHALL BE REMOVED FROM BEHIND THE FILTER BERMS WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE BERM.
7. ORGANIC FILTER BERMS MAY BE LEFT IN PLACE ONCE THE SITE IS STABILIZED PROVIDED ANY SEDIMENT DEPOSITS TRAPPED BY THEM ARE REMOVED AND DISPOSED OF PROPERLY.
8. FILTER BERMS ARE PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8% OR WHERE THERE IS FLOWING WATER WITHOUT THE SUPPORT OF ADDITIONAL MEASURES SUCH AS SILTFENCE.

## ORGANIC FILTER BERM

NOT TO SCALE

P5235

ENGINEER:
ALTUS ENGINEERING, INC.
133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

STATE OF MAINE
ERIC D. WEINRIEB
No. 6658
LICENSED
PROFESSIONAL ENGINEER
12/22/21

THIS DRAWING HAS NOT BEEN RELEASED FOR CONSTRUCTION

ISSUED FOR: APPROVAL

ISSUE DATE: DECEMBER 22, 2021

REVISIONS

| NO. | DESCRIPTION | BY | DATE |
|---|---|---|---|
| 0 | INITIAL SUBMISSION | EBS | 12/22/21 |

DRAWN BY: RMB
APPROVED BY: EBS
DRAWING FILE: 5235DETAILS.DWG

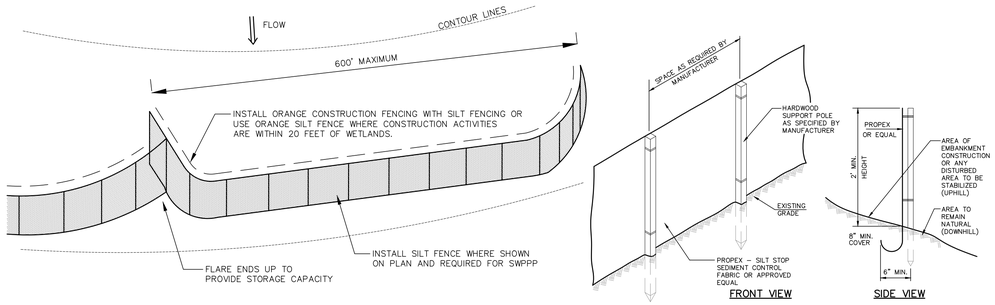
SCALE: NOT TO SCALE

OWNER/APPLICANT:
LUSITANO. LLC
JIM HIGGINS
119 KINGS HIGHWAY NO.
ELIOT, MAINE 03903

PROJECT:
RE-DEVELOPMENT PLAN
TAX MAP 16, LOT 148
28 WYMAN AVENUE
KITTERY, MAINE

TITLE:
EROSION CONTROL NOTES

SHEET NUMBER:
C - 5

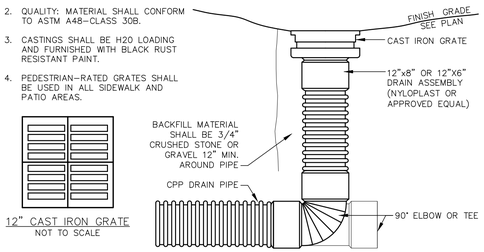



## SILT AND ORANGE CONSTRUCTION FENCE LAYOUT DETAIL

NOT TO SCALE

NOTES:

1. YARD DRAINS TO BE NYLOPLAST USA, INC., AND SUPPLIED BY ADS, INC., OR APPROVED EQUAL.
2. QUALITY: MATERIAL SHALL CONFORM TO ASTM A48–CLASS 30B.
3. CASTINGS SHALL BE H20 LOADING AND FURNISHED WITH BLACK RUST RESISTANT PAINT.
4. PEDESTRIAN–RATED GRATES SHALL BE USED IN ALL SIDEWALK AND PATIO AREAS.




12" CAST IRON GRATE
NOT TO SCALE

## YARD DRAIN (YD)

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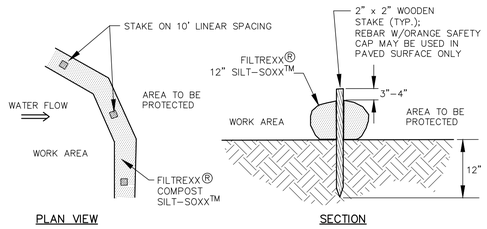
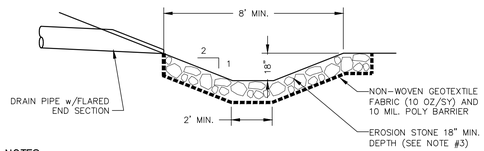



NOTES:

1. SILTSOXX MAY BY USED IN PLACE OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
2. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
3. SILTSOXX COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE REQUIREMENTS OF THE SPECIFIC APPLICATION.
4. ALL SEDIMENT TRAPPED BY SILTSOXX SHALL BE DISPOSED OF PROPERLY.

## TUBULAR SEDIMENT BARRIER

NOT TO SCALE




NOTES

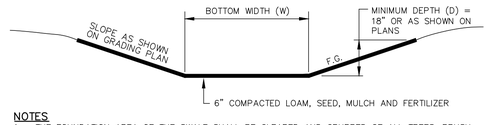
1. CONSTRUCT PLUNGE POOL TO THE WIDTHS AND LENGTHS SHOWN ON THE PLAN.
2. THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIPRAP SHALL BE PREPARED TO ACCOUNT FOR THE DEPTH OF RIPRAP.
3. EROSION STONE USED FOR THE PLUNGE POOL SHALL MEET THE FOLLOWING GRADATION:

| SIZE | PERCENT PASSING BY WEIGHT |
|---|---|
| 18" | 100 |
| 12" | 90–100 |
| 4" | 0–15 |

4. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE EROSION STONE. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 18".
5. THE EROSION STONE MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

## PLUNGE POOL

NOT TO SCALE

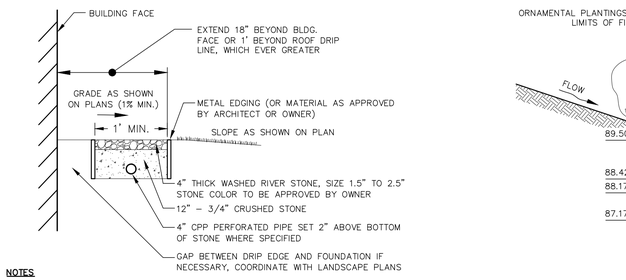



NOTES

1. THE FOUNDATION AREA OF THE SWALE SHALL BE CLEARED AND GRUBBED OF ALL TREES, BRUSH, STUMPS, AND OTHER OBJECTIONABLE MATERIAL.
2. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE DESIGN CRITERIA AND BE FREE OF IRREGULARITIES.
3. EARTH FILLS REQUIRED TO MEET SUBGRADE REQUIREMENTS BECAUSE OF OVER EXCAVATION OR TOPOGRAPHY SHALL BE COMPACTED TO THE SAME DENSITY AS THE SURROUNDING SOIL TO PREVENT UNEQUAL SETTLEMENT THAT COULD CAUSE DAMAGE TO THE COMPLETED SWALE.
4. VEGETATION SHALL BE ESTABLISHED IN THE SWALE OR AN EROSION CONTROL MATTING INSTALLED PRIOR TO DIRECTING STORMWATER TO IT.
5. MAINTENANCE OF THE VEGETATION IS EXTREMELY IMPORTANT IN ORDER TO PREVENT RILLING, EROSION, AND FAILURE OF THE SWALE. MOWING SHALL BE DONE FREQUENTLY ENOUGH TO CONTROL ENCROACHMENT OF WEEDS AND WOODY VEGETATION AND TO KEEP GRASSES IN A VIGOROUS CONDITION. THE VEGETATION SHALL NOT BE MOWED TOO CLOSELY SO AS TO REDUCE THE EROSION RESISTANCE IN THE SWALE.
6. THE SWALE SHOULD BE INSPECTED PERIODICALLY AND AFTER ANY STORM GREATER THAN 0.5" OF RAINFALL IN 24 HOURS TO DETERMINE ITS CONDITION. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND REVEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.

## VEGETATED SWALE

NOT TO SCALE

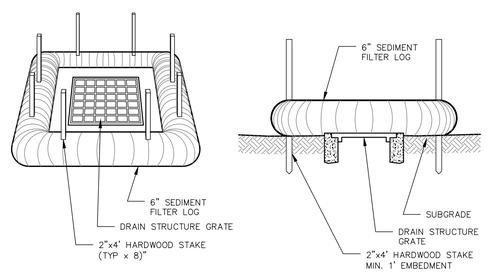



NOTES

1. INSTALL DRIP EDGE AT ALL ROOF DRIPLINES WHERE GUTTERS ARE NOT PROPOSED.

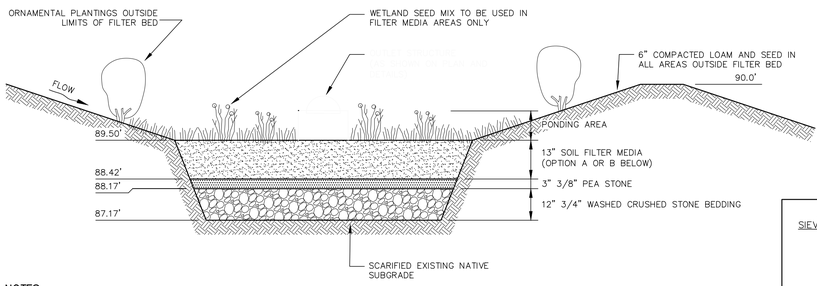
## DRIP EDGE DETAIL

NOT TO SCALE




## SEDIMENT FILTER LOG - CATCH BASIN INLET PROTECTION

NOT TO SCALE




NOTES

1. WHEN CONTRACTOR EXCAVATES RAIN GARDEN AREA TO SUBGRADE, DESIGN ENGINEER SHALL PERFORM SUBSURFACE EVALUATION PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OR OTHER BACKFILL.
2. SOIL FILTER MEDIA SHALL EITHER OPTION A OR OPTION B AT CONTRACTOR'S DISCRETION.
3. DO NOT PLACE GSF INTO SERVICE UNTIL IT HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS STABILIZED.
4. DO NOT DISCHARGE SEDIMENT–LADEN WATERS FROM CONSTRUCTION ACTIVITIES TO THE GSF DURING ANY STAGE OF CONSTRUCTION.
5. DO NOT TRAFFIC EXPOSED SURFACES OF GSF WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATION ACTIVITIES WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE BASIN.

MAINTENANCE REQUIREMENTS

- SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EXCEEDING 2.5 INCHES IN A 24–HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS A WARRANTED BY SUCH INSPECTION.
- PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWCE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY.
- AT LEAST ONCE ANNUALLY, SYSTEM SHOULD BE INSPECTED FOR DRAWDOWN TIME. IF BIORETENTION SYSTEM DOES NOT DRAIN WITHIN 72–HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION OR INFILTRATION FUNCTION (AS APPLICABLE), INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER MEDIA.
- VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING, PRUNING, REMOVAL, AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.

DESIGN REFERENCES

- UNH STORMWATER CENTER
- EPA (1999A)
- MAINE STORMWATER MANAGEMENT DESIGN MANUAL, VOLUME 3, MAY 2016 AS AMENDED.

## TYPICAL GRASSED SOIL FILTER (GSF)

NOT TO SCALE

CRUSHED STONE BEDDING *

| SIEVE SIZE | % PASSING BY WEIGHT |
|---|---|
| 1" | 100 |
| 3/4" | 90 – 100 |
| 3/8" | 20 – 55 |
| # 4 | 0 –10 |
| # 8 | 0 – 5 |

* EQUIVALENT TO STANDARD STONE SIZE #67 – SECTION 703 OF MEDOT STANDARD SPECIFICATIONS

FILTER MEDIA MIXTURES

| Component Material | Percent of Mixture by Volume | Gradation of material | |
|---|---|---|---|
| | | Sieve No. | Percent by Weight Passing Standard Sieve |
| **Filter Media Option A** | | | |
| ASTM C–33 concrete sand | 50 to 55 | | |
| Loamy sand topsoil, with fines as indicated | 20 to 30 | 200 | 15 to 25 |
| Moderately fine shredded bark or wood fiber mulch, with fines as indicated | 20 to 30 | 200 | < 5 |
| **Filter Media Option B** | | | |
| Moderately fine shredded bark or wood fiber mulch, with fines as indicated | 20 to 30 | 200 | < 5 |
| Loamy coarse sand | 70 to 80 | 10 | 85 to 100 |
| | | 20 | 70 to 100 |
| | | 60 | 15 to 40 |
| | | 200 | 8 to 15 |

ENGINEER:
ALTUS ENGINEERING, INC.
133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

STATE OF MAINE
ERIC D. WEINRIEB
No. 6658
LICENSED PROFESSIONAL ENGINEER
12/22/21

THIS DRAWING HAS NOT BEEN RELEASED FOR CONSTRUCTION

ISSUED FOR: APPROVAL

ISSUE DATE: DECEMBER 22, 2021

REVISIONS

| NO. | DESCRIPTION | BY | DATE |
|---|---|---|---|
| 0 | INITIAL SUBMISSION | EBS | 12/22/21 |

DRAWN BY: RMB
APPROVED BY: EBS
DRAWING FILE: 5235DETAILS.DWG

SCALE: NOT TO SCALE

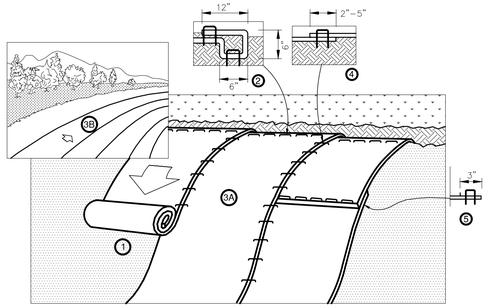
OWNER/APPLICANT:
LUSITANO. LLC
JIM HIGGINS
119 KINGS HIGHWAY NO.
ELIOT, MAINE 03903

PROJECT:
RE-DEVELOPMENT PLAN
TAX MAP 16, LOT 148
28 WYMAN AVENUE
KITTERY, MAINE

TITLE:
EROSION CONTROL DETAILS

SHEET NUMBER:
C - 6

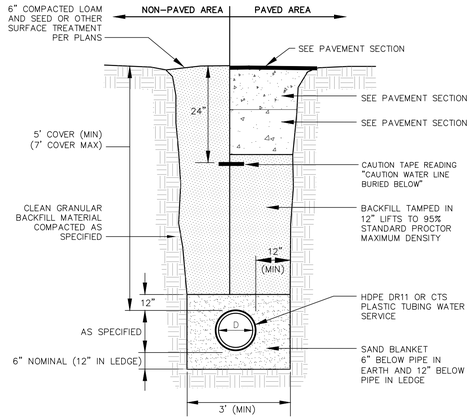
P5235




NOTES

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"–5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

## EROSION CONTROL BLANKET - SLOPE NOT TO SCALE



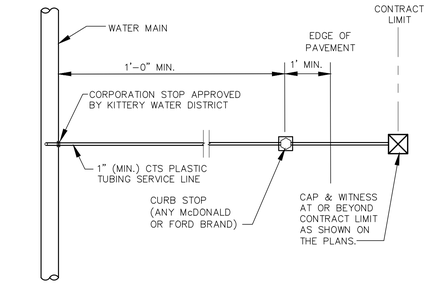

SAND BLANKET/BARRIER

| SIEVE SIZE | % FINER BY WEIGHT |
|---|---|
| 1/2" | 90 – 100 |
| 200 | 0 – 15 |

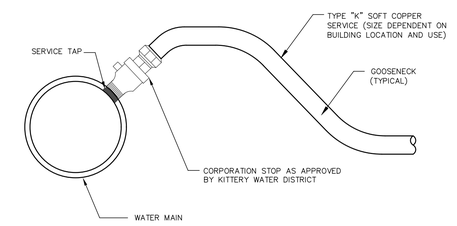
NOTES

1. BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.
2. ALL TRENCHING AND BACKFILL SHALL CONFORM WITH THE STANDARDS OF THE KITTERY WATER DISTRICT.

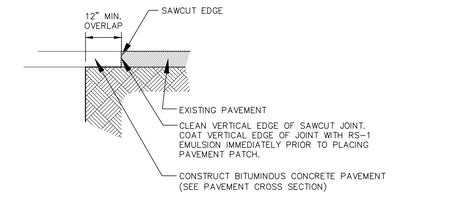
## WATER MAIN TRENCH NOT TO SCALE



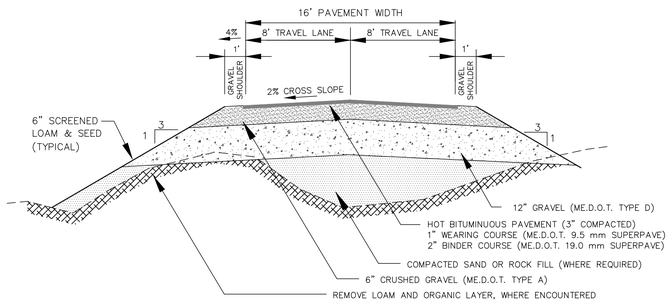

NOTE: ALL MATERIALS AND SPECIFICATIONS SHALL CONFORM TO KITTERY WATER DEPARTMENT STANDARDS AND REQUIREMENTS. VERIFY PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES.




## WATER SERVICE CONNECTION NOT TO SCALE



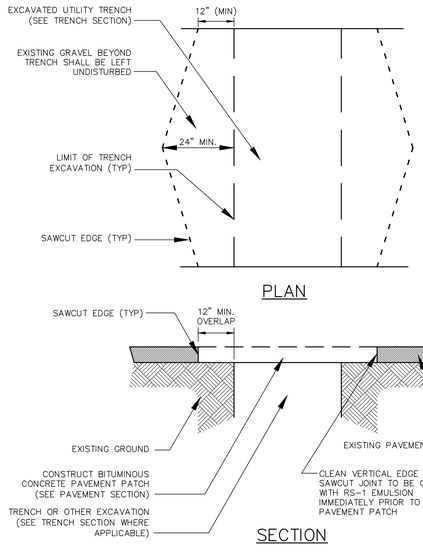

## TYPICAL PAVEMENT SAWCUT NOT TO SCALE




## TYPICAL ROADWAY CROSS SECTION NOT TO SCALE

NOTES:

1. ALL EXISTING FILL, BURIED ORGANIC MATTER, LOAM, AND/OR OTHER QUESTIONABLE MATERIAL SHALL BE REMOVED FROM BELOW ALL PAVEMENT, SHOULDERS AND UNDERGROUND PIPING/UTILITIES TO DEPTHS INDICATED.
2. SUBGRADE SHALL BE PROOFROLLED A MINIMUM OF 6 PASSES WITH A VIBRATORY COMPACTOR OPERATING AT PEAK RATED FREQUENCY OR BY MEANS APPROVED BY THE ENGINEER.
3. FILL BELOW PAVEMENT GRADES SHALL BE GRANULAR BORROW COMPACTED PER MDOT REQUIREMENTS.
4. SITEWORK CONTRACTOR SHALL COORDINATE GEOTECHNICAL ENGINEERING INSPECTIONS WITH THE CONSTRUCTION MANAGER PRIOR TO PLACING GRAVELS.
5. TACK COAT SHALL BE APPLIED BETWEEN SUCCESSIVE LIFTS OF ASPHALT.
6. THE BITUMINOUS PAVEMENT SHALL BE COMPACTED TO 92 TO 97 PERCENT OF ITS THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D–2041. THE BASE AND SUBBASE MATERIALS SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THEIR MAXIMUM DRY DENSITIES AS DETERMINED BY ASTM D–1557.




NOTES

1. MACHINE CUT EXISTING PAVEMENT.
2. ALL TEMPORARY, DAMAGED OR DEFECTIVE PAVEMENT SHALL BE REMOVED PRIOR TO PLACEMENT OF PERMANENT TRENCH REPAIRS.
3. DIAMOND PATCHES, SHALL BE REQUIRED FOR ALL TRENCHES CROSSING ROADWAY. DIAMOND PATCHES SHALL MEET MEDOT REQUIREMENTS.

## TYPICAL TRENCH PATCH NOT TO SCALE

ENGINEER:
ALTUS ENGINEERING, INC.
133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

STATE OF MAINE ERIC D. WEINRIEB No. 6658 LICENSED PROFESSIONAL ENGINEER 12-22-21

THIS DRAWING HAS NOT BEEN RELEASED FOR CONSTRUCTION

ISSUED FOR: APPROVAL

ISSUE DATE: DECEMBER 22, 2021

REVISIONS

| NO. | DESCRIPTION | BY | DATE |
|---|---|---|---|
| 0 | INITIAL SUBMISSION | EBS | 12/22/21 |

DRAWN BY: RMB
APPROVED BY: EBS
DRAWING FILE: 5235DETAILS.DWG

SCALE: NOT TO SCALE

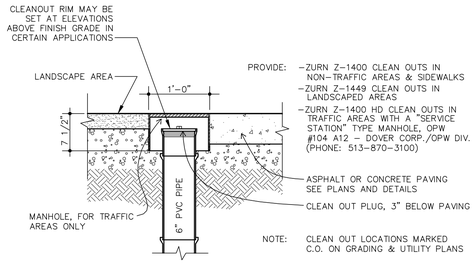
OWNER/APPLICANT:
LUSITANO. LLC
JIM HIGGINS
119 KINGS HIGHWAY NO.
ELIOT, MAINE 03903

PROJECT:
RE-DEVELOPMENT PLAN
TAX MAP 16, LOT 148
28 WYMAN AVENUE
KITTERY, MAINE

TITLE:
DETAIL SHEET

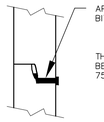
SHEET NUMBER:
C - 7

P5235




## CLEANOUT

NOT TO SCALE

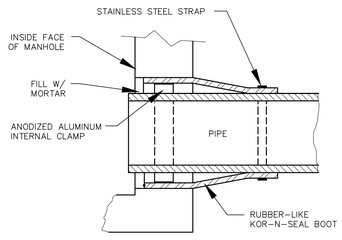



BITUMASTIC

NOTE: ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

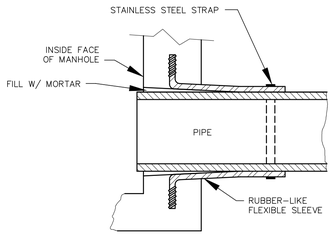
## SEWER MANHOLE DETAIL B

NOT TO SCALE




KOR-N-SEAL JOINT SLEEVE
(OR EQUAL)

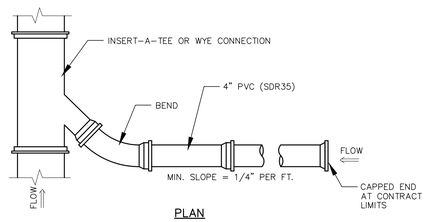
NOTE: ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.




LOCK-JOINT FLEXIBLE MANHOLE SLEEVE
(OR EQUAL)

## SEWER MANHOLE DETAIL A

NOT TO SCALE

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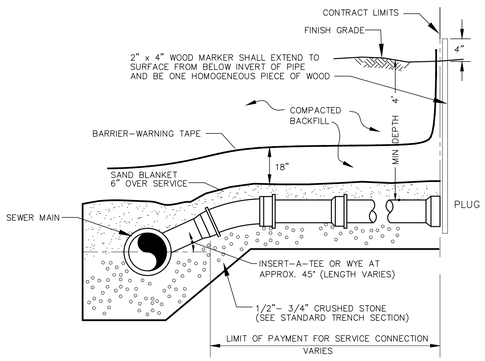
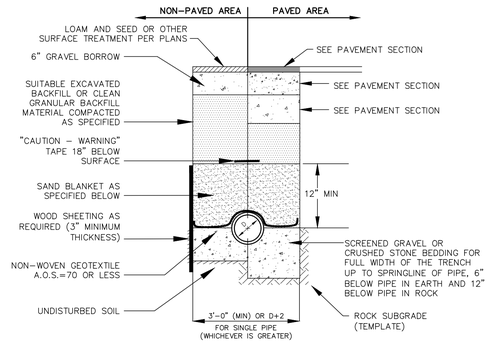



NOTE: SERVICE CONNECTION SHALL BE INSTALLED BELOW WATER MAIN WHERE POSSIBLE.

ELEVATION

## SEWER SERVICE CONNECTION

NOT TO SCALE




NOTES

1. BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.
2. INSULATE GRAVITY SEWER AND FORCEMAINS WHERE THERE IS LESS THAN 5'-0" OF COVER WITH 2" THICK CLOSED CELL RIGID BOARD INSULATION, 18" ON EACH SIDE OF PIPE.
3. MAINTAIN 12" MINIMUM HORIZONTAL SEPARATION AND WIDEN TRENCH ACCORDINGLY IF MULTIPLE PIPES ARE IN TRENCH.

SAND BLANKET/BARRIER

| SIEVE SIZE | % FINER BY WEIGHT |
|---|---|
| 1/2" | 90 - 100 |
| 200 | 0 - 15 |

SCREENED GRAVEL OR CRUSHED STONE BEDDING

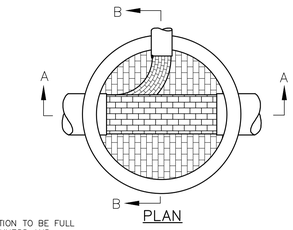
| SIEVE SIZE | % PASSING BY WEIGHT |
|---|---|
| 1" | 100 |
| 3/4" | 90 - 100 |
| 3/8" | 20 - 55 |
| # 4 | 0 - 10 |
| # 8 | 0 - 5 |

STANDARD TRENCH NOTES

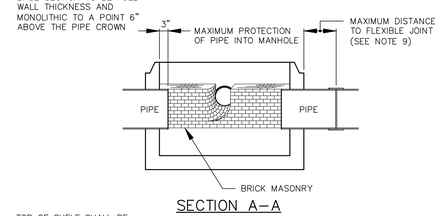
1. ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE: BACKFILL AS STATED IN THE TECHNICAL SPECIFICATIONS OR AS SHOWN ON THE DRAWING.
2. BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING THE GRADATION SHOWN IN THE TRENCH DETAIL. WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, SCREENED GRAVEL OR CRUSHED STONE 1-1/2 INCH TO 1/2 INCH SHALL BE USED.
3. SAND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER MEETING THE GRADATION SHOWN IN THE TRENCH DETAIL. BLANKET MAY BE REPLACED WITH BEDDING MATERIAL FOR CAST-IRON, DUCTILE IRON, AND REINFORCED CONCRETE PIPE PROVIDED THAT NO STONE LARGER THAN 2" IS IN CONTACT WITH THE PIPE AND THE GEOTEXTILE IS RELOCATED ACCORDINGLY.
4. SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT, OR CLAY, ALL EXCAVATED LEDGE MATERIAL, ALL ROCKS OVER 6 INCHES IN LARGEST DIMENSION, AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. IN CROSS COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK, OR PEAT, IF SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER FOR MAINTENANCE AND POSSIBLE RECONSTRUCTION WILL BE PRESERVED.
5. BASE COURSE AND PAVEMENT SHALL MEET THE REQUIREMENTS OF THE MAINE DEPARTMENT OF TRANSPORTATION'S LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES - DIVISION 700.
6. SHEETING, IF REQUIRED: WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION 1 FOOT ABOVE THE TOP OF PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAT 1 FOOT ABOVE THE TOP OF THE PIPE.
7. W = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES IN NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE OUTSIDE DIAMETER (O.D.) ALSO, W SHALL BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
8. FOR CROSS COUNTRY CONSTRUCTION, BACKFILL, FILL AND/OR LOAM SHALL BE MOUNDED TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
9. CONCRETE FOR ENCASEMENT SHALL CONFORM TO THE MAINE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS STANDARD SPECIFICATION REQUIREMENTS FOR CLASS A (3000#) CONCRETE AS FOLLOWS:
   CEMENT: 6.0 BAGS PER CUBIC YARD
   WATER: 5.75 GALLONS PER BAG
   CEMENT MAXIMUM SIZE OF AGGREGATE: 1 INCH
   CONCRETE ENCASEMENT IS NOT ALLOWED FOR PVC PIPE.
10. CONCRETE FULL ENCASEMENT: IF FULL ENCASEMENT IS UTILIZED, DEPTH OF CONCRETE BELOW PIPE SHALL BE 1/4 I.D. (4" MINIMUM). BLOCK SUPPORT SHALL BE SOLID CONCRETE BLOCKS.
11. MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION DESIGN STANDARDS REQUIRE TEN FEET (10') SEPARATION BETWEEN WATER AND SEWER. REFER TO TOWN'S STANDARD SPECIFICATIONS FOR METHODS OF PROTECTION IN AREAS THAT CANNOT MEET THESE REQUIREMENTS.
12. IN AREAS WHERE DEWATERING IS REQUIRED OR THE TRENCH SLOPE EXCEEDS 5%, THE CONTRACTOR SHALL INSTALL TRENCH DAMS IN ACCORDANCE WITH MEDEP REGULATIONS.

## DRAINAGE & SEWER TRENCH

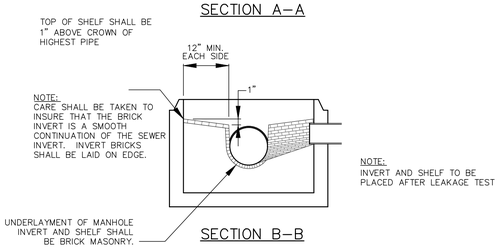
NOT TO SCALE




PLAN




SECTION A-A



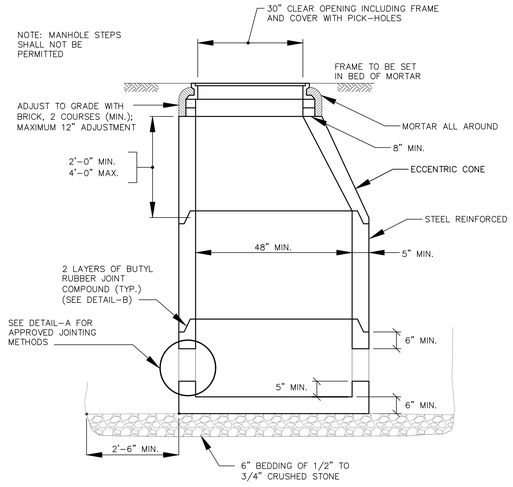

SECTION B-B

MANHOLE NOTES:

1. IT IS THE INTENTION OF THE MAINE DEP THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY BY THE COMMISSION FOR THE INTENDED SERVICE. SPACE REQUIREMENTS AND CONFIGURATIONS, SHALL BE AS SHOWN ON THE DRAWING. MANHOLES MAY BE AN ASSEMBLY OF PRECAST SECTIONS, WITH OR WITHOUT STEEL REINFORCEMENT, WITH ADEQUATE JOINTING, OR CONCRETE CAST MONOLITHICALLY IN PLACE WITH OR WITHOUT REINFORCEMENT IN ANY APPROVED MANHOLE. THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (H-20 LOADING) WITHOUT FAILURE AND PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER DAY PER VERTICAL FOOT OF MAN-HOLE CONTINUOUSLY FOR THE LIFE OF THE STRUCTURE, A PERIOD GENERALLY IN EXCESS OF 25 YEARS IS TO BE UNDERSTOOD IN BOTH CASES.
2. BARRELS AND CONE SECTIONS SHALL BE PRECAST REINFORCED.
3. PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478.
4. LEAKAGE TEST SHALL BE PERFORMED IN ACCORDANCE WITH THE TOWN'S STANDARD SPECIFICATIONS AND WITH MAINE DEP 10-144 CMR 241.
5. INVERTS AND SHELVES MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW AT CHANGES IN DIRECTION. THE INVERTS SHALL BE LAID OUT IN CURVES, OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY. BRICK MASONRY SHALL CONFORM WITH ASTM C32.
6. MORTAR MORTAR USED FOR MANHOLE CONSTRUCTION SHALL CONFORM WITH MAINE DEP 10-144 CMR 241.
7. FRAMES AND COVERS MANHOLE FRAMES AND COVERS SHALL CONFORM WITH ASTM A48/48M, BE OF HEAVY DUTY DESIGN AND PROVIDE A 30-INCH CLEAR OPENING. A 3-INCH (MINIMUM HEIGHT) LETTER "S" FOR SEWERS OR "D" FOR DRAINS SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER.
8. BEDDING SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33.
   100% PASSING 1 INCH SCREEN 0-10% PASSING #4 SIEVE
   90-100% PASSING 3/4 INCH SCREEN 0-5% PASSING #8 SIEVE
   20- 55% PASSING 3/8 INCH SCREEN
   WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, SCREENED GRAVEL OR CRUSHED STONE 1-1/2" TO 1/2" SHALL BE USED.
9. CONCRETE FOR DROP SUPPORT SHALL CONFORM TO THE REQUIREMENT FOR CLASS A (3000 LBS.) CONCRETE OF THE MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AS FOLLOWS:
   CEMENT 6.0 BAGS PER CUBIC YARD
   WATER 5.75 GALLONS PER BAG CEMENT
   MAXIMUM SIZE OF AGGREGATE 1 INCH 9.
10. FLEXIBLE JOINT A FLEXIBLE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES:
    PVC PIPE - 60"
    RCP & CI PIPE - ALL SIZES - 48"
    AC & VC PIPE - UP THROUGH 12" DIAMETER - 18"
    AC & VC PIPE - LARGER THAN 12" DIAMETER - 36"
11. SHALLOW MANHOLE IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H-20 LOADS.

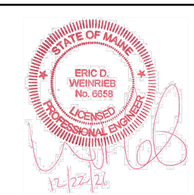
## SEWER MANHOLE

NOT TO SCALE




TYPICAL SECTION

ENGINEER:
ALTUS ENGINEERING, INC.
133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com




*THIS DRAWING HAS NOT BEEN RELEASED FOR CONSTRUCTION*

ISSUED FOR: APPROVAL

ISSUE DATE: DECEMBER 22, 2021

REVISIONS

| NO. | DESCRIPTION | BY | DATE |
|---|---|---|---|
| 0 | INITIAL SUBMISSION | EBS | 12/22/21 |

DRAWN BY: RMB
APPROVED BY: EBS
DRAWING FILE: 5235DETAILS.DWG

SCALE: NOT TO SCALE

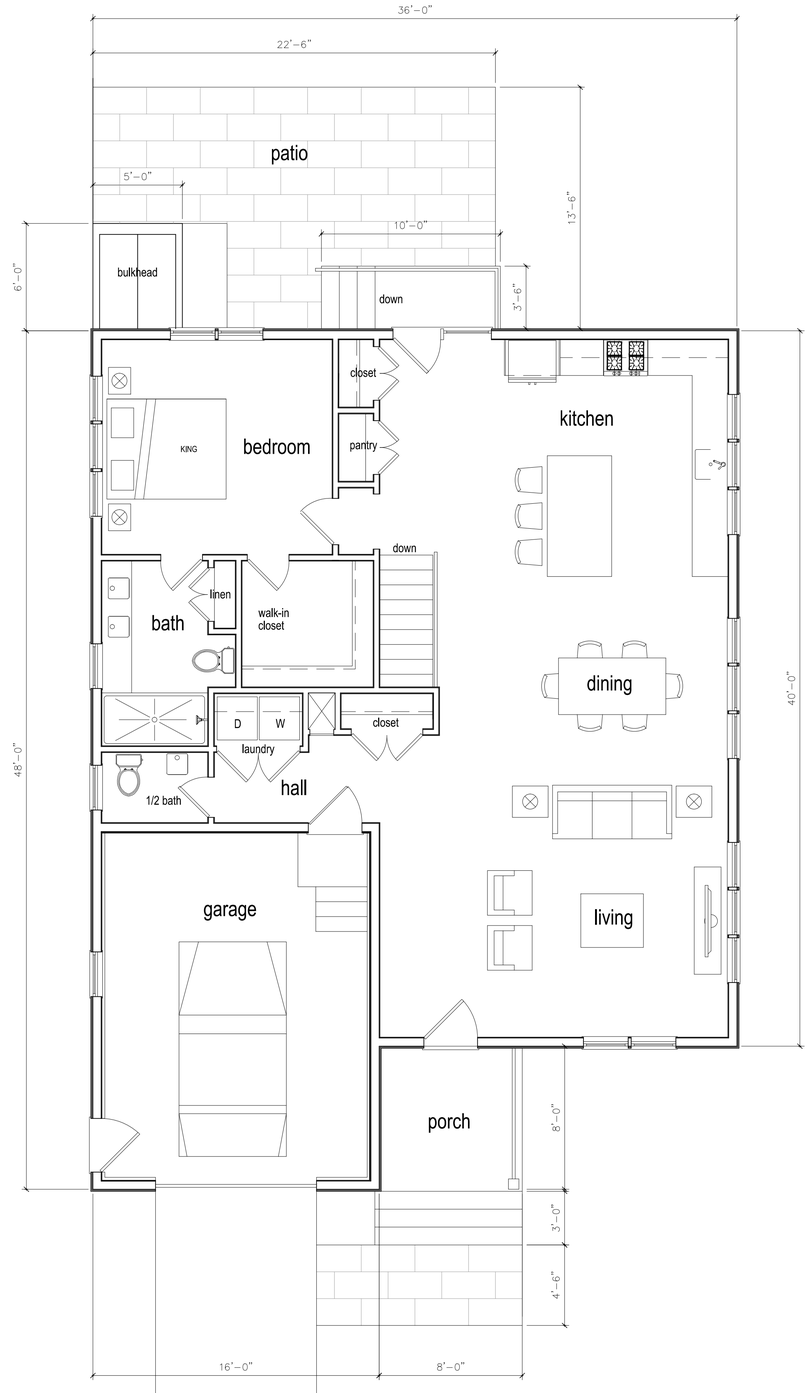
OWNER/APPLICANT:
LUSITANO. LLC
JIM HIGGINS
119 KINGS HIGHWAY NO.
ELIOT, MAINE 03903

PROJECT:
RE-DEVELOPMENT PLAN
TAX MAP 16, LOT 148
28 WYMAN AVENUE
KITTERY, MAINE

TITLE:
DETAIL SHEET

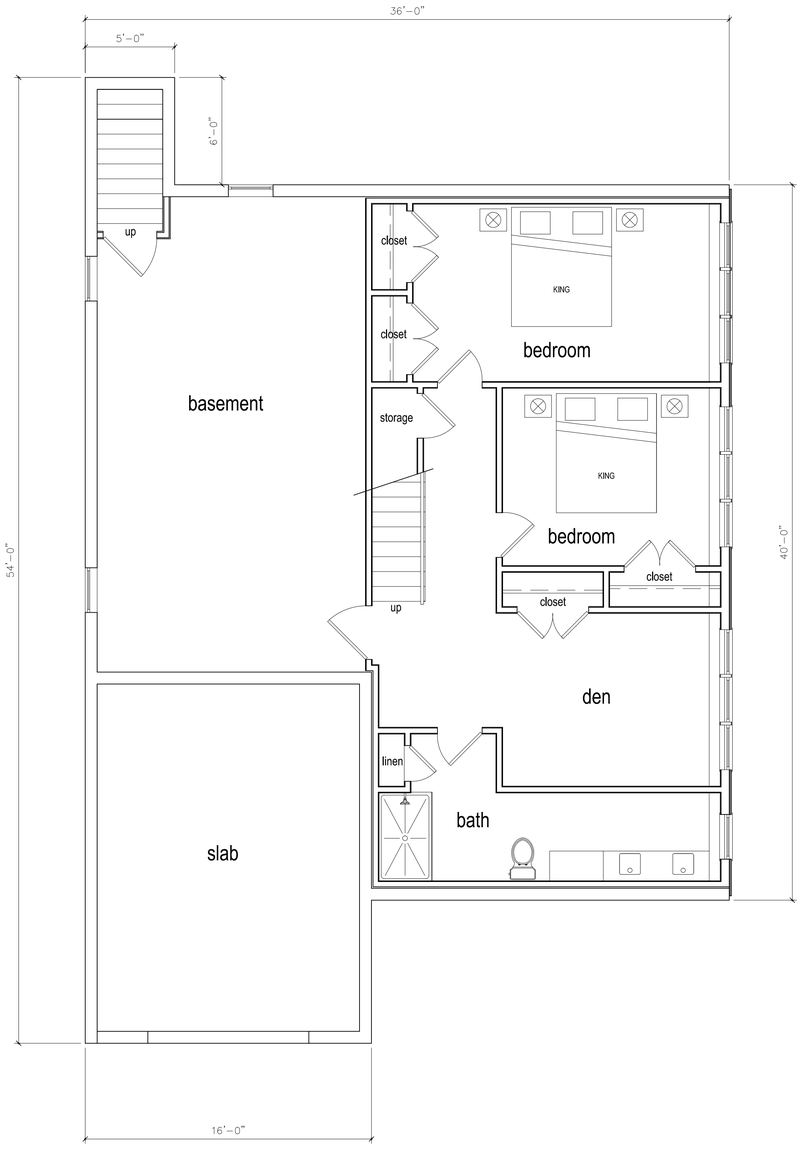
SHEET NUMBER:
C - 8

P5235




PROPOSED 1ST FLOOR

(Living Space: 1177 sq. ft.)




PROPOSED LOWER LEVEL

(Living Space: 729 sq. ft.)

revisions

# Wyman Hill

## Residential Unit

28 Wyman Avenue
Kittery Maine

architectural designer

**HIGGINS + DESIGN**

119 Kings Highway North
Eliot, ME 03903
Tel 617.501.6149
jimhiggins05@comcast.net

## Proposed Residential Unit

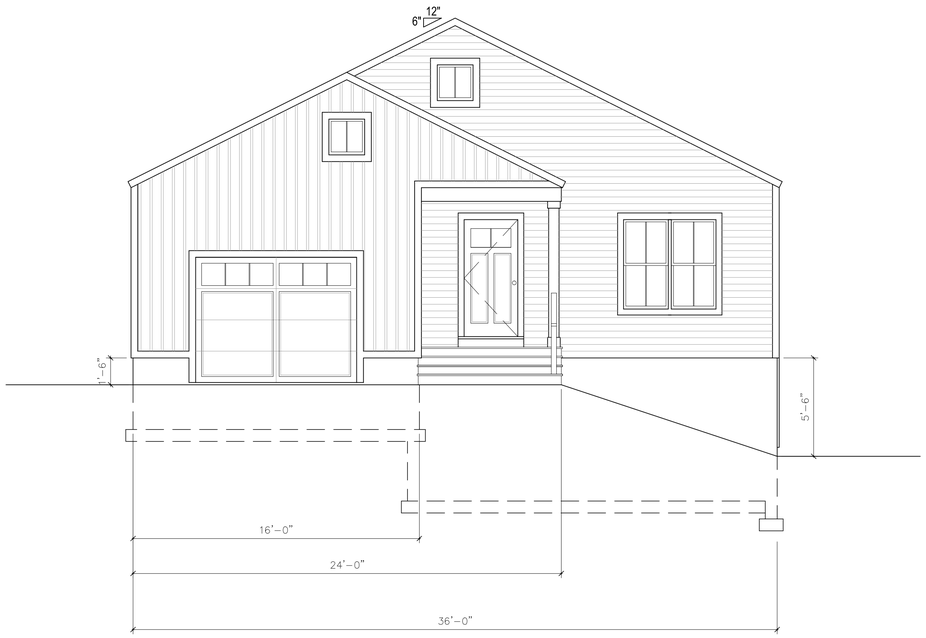
## LAYOUT PLANS

scale
1/4"=1'-0"

date
November 22, 2021

project
Kittery01

**A01**




FRONT ELEVATION


RIGHT SIDE ELEVATION

revisions

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Tel 617.501.6149
jimhiggins05@comcast.net

## Proposed Residential Unit

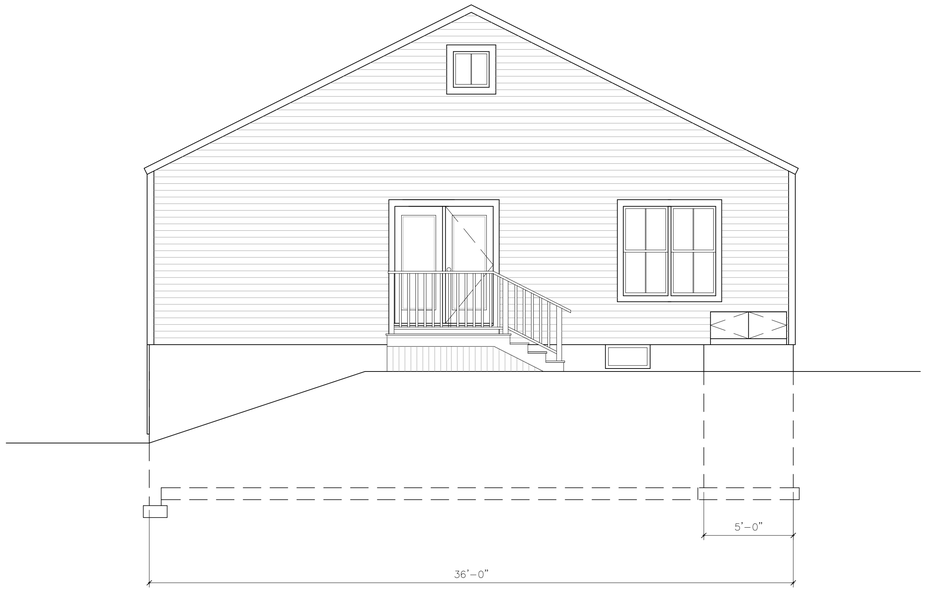
## ELEVATIONS

scale
1/4"=1'-0"

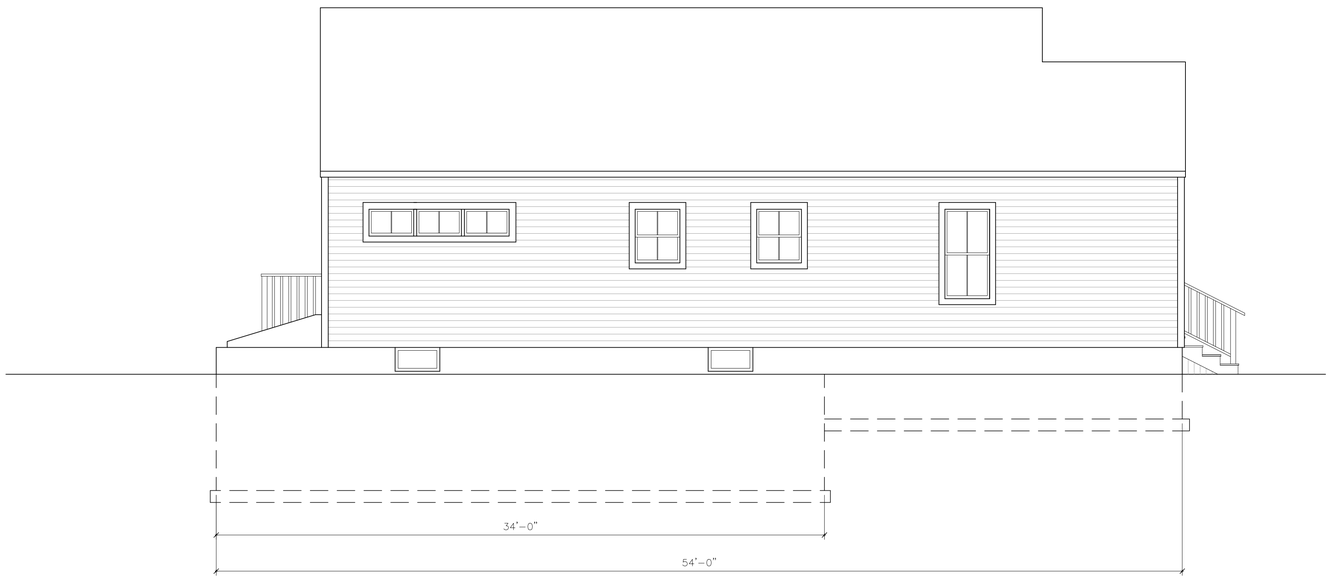
date
November 22, 2021

project
Kittery01

**A02**




BACK ELEVATION




LEFT SIDE ELEVATION

revisions

1 12-5-16 Kitchen Layout, Exterior Door Revisions

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architectural designer

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jimhiggins05@comcast.net

## Proposed Residential Unit

## ELEVATIONS

scale
1/4"=1'-0"

date
November 22, 2021

project
Kittery01

**A03**